

MSD3393LU Single Chip Digital TV Solution Compliant with ATSC Standard

Preliminary Data Sheet Version 0.1





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REVISION HISTORY

Revision No.	Description	Date
0.1	Ÿ Initial release	10/22/2012





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FEATURES

MSD3393LU is a highly integrated single chip solution for digital ATSC TV system. Key features include:

- 1. Digital and Analog TV Front-End Demodulator
- 2. Multi-Standard A/V Format Decoder
- 3. The MStarACE6^{UC} Video Processor
- 4. Home Theater Sound Processor
- 5. Embedded Memory for optimized BOM cost
- 6. Multiple HDMI 1.4 Compliant Ports with ARC Support
- 7. One MHL 2.0 Compliant Port

n High Performance Micro-processor.

- Ÿ High speed/performance 32-bit RISC CPU
- Ÿ One full duplex UARTs
- Y Supports USB and ISP programming
- Ÿ DMA Engine

n MPEG-2 Video Decoder

- Y ISO/IEC 13818-2 MPEG-2 video MP@HL
- Y Automatic frame rate conversion
- Ÿ Supports resolution up to HDTV (1080i, 720p) and SDTV

n MPEG-4 Video Decoder

- Y ISO/IEC 14496-2 MPEG-4 ASP video decoding
- Ÿ Supports resolutions up to HDTV (1080p@30fps)
- Ϋ́ Supports DivX¹ Home Theater & HD profiles^{Optional}
- Ÿ Supports VC-1, FLV video format decoding

n H.264 Decoder

- Ÿ ITU-T H.264, ISO/IEC 14496-10 (main and high profile up to level 4.1) video decoding
- Ÿ Supports resolutions for all DVB, ATSC, HDTV, DVD and VCD
- Ÿ Supports resolution up to 1080p@30fps
- Ÿ Supports CABAC and CAVLC stream types
- Processing of ES and PES streams, extraction and provision of time stamps
- Ÿ Supports Bitrate up to 40 Mbits (Blu-ray spec.)

n RealMedia Decoder^{Optional}

- Y Supports maximum resolution up to 1080p@30fps
- Y Supports RV8, RV9, RV10, and RA8-LBR decoders
- Y Supports file formats with RM and RMVB
- Ÿ Supports Picture Re-sampling
- Y Supports in-loop de-block for B-frame

n AVS Video Decoder Optional

- Ÿ Jizhun profile, level 6.0
- Y Max. resolutions up to 1920x1080@30fps
- Ÿ Supports bit rate up to 20Mbps

n Hardware JPEG

- Y Supports sequential mode, single scan
- Y Supports both color and grayscale pictures
- Y Following the file header scan the hardware decoder fully handles the decode process
- Ÿ Supports programmable Region of Interest (ROI)
- Ÿ Supported formats: 422/411/420/444/422T
- Ÿ Supported scaling down ratios: 1/2, 1/4, 1/8
- Ÿ Supports picture rotation

n NTSC/PAL/SECAM Video Decoder

- Ÿ Supports NTSC-M, NTSC-J, NTSC-4.43, PAL (B, D, G, H, M, N, I, Nc), and SECAM standards
- Ÿ Automatic standard detection
- Ÿ Motion adaptive 3D comb filter
- Ÿ Tk c configurable CVBS & Y/C S-video inputs
- Supports Closed Caption (analog CC 608/ analog CC 708/digital CC 608/digital CC 708),
 V-chip and SCTE

Optional Please contact MStar sales for the correct suffix.

¹ Trademark of DivX, Inc.



n Multi-Standard TV Sound Processor

- Ÿ SIF audio decoding
- Ÿ Supports BTSC/A2/EIA-J demodulation
- Y Supports FM/AM demodulation
- Ÿ Supports MTS Mode Mono/Stereo/SAP in BTSC/ FIA-J mode
- Ÿ Supports Mono/Stereo/Dual in A2 mode
- Ÿ Built-in audio sampling rate conversion (SRC)
- Y Audio processing for loudspeaker channel, including volume, balance, mute, tone, EQ, virtual stereo/surround and treble/bass controls
- Ÿ Advanced sound processing options available, for example: Dolby¹, SRS², BBE³, QSound⁴
- Ÿ Supports digital audio format decoding:
 - MPEG-1, MPEG-2 (Layer I/II), MP3, Dolby Digital (AC-3) Optional, AAC-LC, WMA
 - Dolby Digital Plus Optional

n Audio Interface

- Ÿ Three L/R audio line-inputs
- Ÿ Two L/R outputs for main speakers and additional line-outputs
- Ÿ HDMI audio channel processing
- Programmable delay for audio/video synchronization

n Analog RGB Compliant Input Ports

- Ÿ Two analog ports support up to 1080P
- Y Supports PC RGB input up to SXGA@75Hz
- Y Supports HDTV RGB/YPbPr/YCbCr
- Ÿ Supports Composite Sync and SOG Sync-on-Green
- Y Automatic color calibration
- Ÿ AV-link support

n Analogue RGB Auto-Configuration & Detection

- Y Auto input signal format and mode detection
- Ÿ Auto-tuning function including phasing, positioning, offset, gain, and jitter detection
- Ÿ Sync Detection for H/V Sync

n DVI/HDCP/HDMI Compliant Input Ports

- Ÿ Three HDMI/MHL/DVI Input ports
- Ÿ HDMI 1.3/1.4 Compliant
- Ÿ HDCP 1.2 Compliant
- Ÿ 225MHz @ 1080P 60Hz input with 12-bit Deep-color support
- Ÿ Supports CEC
- Ÿ Supports HDMI 4Kx2K input
- Ÿ Supports HDMI ARC
- Ÿ Single link DVI 1.0 compliant
- Ÿ Robust receiver with excellent long-cable support
- n HDMI/MHL Dual-Purpose Port
 - W MHL 2.0 Compliant
 - Ÿ MHL/HDMI Auto-detection
 - Y Supports MHL charging in normal/standby mode
- n MStar Advanced Color Engine (MStarACE-6^{UC})
 - Ÿ 10-bit Data Processing Path
 - Fully programmable multi-function scaling engine
 - Nonlinear video scaling supports various modes including Panorama
 - Supports dynamic scaling for RM, VC-1
 - Y Advanced video processing engine
 - MStar Ultra-Clear video deinterlacer with edge and artifact smoother
 - MStar Ultra-Clear Noise Reduction Engine
 - Edge-oriented deinterlacer with edge and artifact smoother
 - Automatic 3:2/2:2/M:N pull-down detection and recovery
 - 3D noise reduction for lousy air/cable input
 - Automatic de-blocking
 - MStar Cross-Color Compression Technology
 - Arbitrary frame rate conversion

Ÿ MStar Professional Picture Enhancement:

- Dynamic brilliant and fresh color
- Dynamic Blue Stretch
- Intensified contrast and details
- Dynamic Vivid Skin
- Dynamic sharpened Luma/Chroma edges
- Global and local dynamic depth of field perception
- Accurate and independent color control
- Supports sRGB and xvYCC color processing
- Supports HDMI 1.3 deep color format
- Ÿ Programmable 12-bit RGB gamma CLUT

¹ Trademark of Dolby Laboratories

Trademark of SRS Labs, Inc.

³ Registered trademark of BBE Sound, Inc.

⁴ Registered trademark of QSound Labs, Inc.

Optional Please see Ordering Guide for details.



n Output Interface

- Ÿ Single/dual link 8-bit LVDS output
- Ϋ́ Supports panel resolution up to Full-HD (1920x1080) @ 60Hz
- Ÿ Supports TH/TI format
- Ÿ Supports dithering options to 6/8-bit output
- Ÿ Spread spectrum output for EMI suppression
- Ÿ Supports 60Hz 3D passive panel (Line alternative mode)

n CVBS Video Outputs

Ÿ Supports CVBS bypass output

n 2D Graphics Engine

- Ÿ Hardware Graphics Engine for responsive interactive applications
- Ÿ Supports point draw, line draw, rectangle draw/fill, text draw and trapezoid draw
- Ÿ BitBlt, stretch BitBlt, trapezoid BitBlt, mirror BitBlt and rotate BitBlt
- Y Supports alpha and destination alpha compare
- Ÿ Raster Operation (ROP)

n Porter-Duff VIF Demodulator

- Y Compliant with NTSC M/N, PAL B, G/H, I, D/K, SECAM L/L' standards
- Ÿ Digital low IF architecture
- Ÿ Audio/Video dual-path processor
- Y Stepped-gain PGA with 25 dB tuning range and1 dB tuning resolution
- Y Maximum IF gain of 37 dB
- Ÿ Programmable TOP to accommodate different tuner gain and SAW filter insertion loss to optimize noise and linearity performance
- Ÿ Multi-standard processing with dual SAW or sawless
- Ÿ Supports silicon tuner low IF output architecture

n ATSC/QAM Demodulator

- Ÿ ATSC A/53 compliant 8VSB
- Ÿ ITU-T J.83 Annex B, SCTE DVS-031 compliant 64/256QAM receiver
- Ÿ Integrated 11-bit A/D converter (for optional external A/D converter support)
- Ÿ All digital demodulation
- Y Integrated deinterleaver RAM for all modes (No need of external memory for deinterleaver)
- Ÿ Supports 44MHz IF input
- Y Supports no SAW for any application

n Connectivity

- Ÿ Two USB 2.0 host ports
- Y USB architecture designed for efficient support of external storage devices in conjunction with off air broadcasting

n Miscellaneous

- Ÿ Bootable SPI interface with serial flash support
- Ÿ Lower power standby mode
- Ÿ 128-pin EPLQFP package
- Öperating Voltages: 1.15V (core), 1.8V and3.3V (I/O and analog)



GENERAL DESCRIPTION

MSD3393LU is a highly integrated TV SoC solution for ATSC digital television platform. Integrating latest advanced technologies from MStar Semiconductor, the world leading TV SoC provider in TV industry, MSD3393LU provides the most cost-efficient solution for multimedia TV application with creative and attractive features exclusively presented.

In order to achieve the lowest BOM cost in a multi-media TV platform, MSD3393LU integrates DTV, ATSC/QAM demodulator, TV/multi-media all-purpose AV decoder, VIF demodulator, and advanced Sound/Video processors into a single device. This not only reduces the overall BOM significantly, but also facilitates the design of originally-complicated TV systems for developers. In addition, the memory-embedded solution provided by MSD3393LU can reduce the excessive work of memory interface routing on board and the risk of memory performance degradation while powering cost-down in the total system.

The powerful multimedia A/V decoder inside MSD3393LU is hosted with a dedicated hardware video codec engine to secure fast and stable video streaming playback. Moreover, MSD3393LU is equipped with a DSP specifically designated for audio application, including digital audio format decoding and advanced sound effects, and a high performance RISC CPU to manipulate all possible routines and house-keeping activities. With extendable USB 2.0 interface, an MSD3393LU based system can turn into a high quality media-center in a simple manner.

MSD3393LU supports the latest MHL technology, which allows user to stream audio and full HD video from mobile devices to televisions. Power management and low-power design of MSD3393LU makes it possible to charge MHL devices even in standby mode. The MHL/HDMI dual-purpose port on MSD3393LU will enable charging if MHL devices are automatically detected.

For standard users, the MSD3393LU provides multi-standard analog TV support with adaptive 3D video decoding and VBI data extraction. The built-in audio decoder is capable of decoding FM, AM, A2, BTSC and EIA-J sound standards. MSD3393LU also supplies all the necessary A/V inputs and outputs to complete a receiver design including HDMI receivers and component video ADCs. All input selection multiplexers for video and audio are integrated, including full SCART support with CVBS output. The equipped MStar MStarACE-6 color engine is the latest masterpiece of MStar technologies, providing excellent video and picture quality in Full-HD and large-scale display system. MSD3393LU also supports an ultra low power standby mode to meet the latest energy legislative requirements without any additional hardware.



ELECTRICAL SPECIFICATIONS

Analog Interface Characteristics

Parameter	Min	Тур	Max	Unit
VIDEO ADC Resolution		10		Bits
DC ACCURACY				
Differential Nonlinearity		TBD		LSB
Integral Nonlinearity		TBD		LSB
VIDEO ANALOG INPUT				
Input Voltage Range				
Minimum		0.5	O'	V p-p
Maximum		TBD		V p-p
Input Bias Current			1	uA
SWITCHING PERFORMANCE		0/		
Maximum Conversion Rate	170			MSPS
Minimum Conversion Rate			12	MSPS
HSYNC Input Frequency	15		200	kHz
PLL Clock Rate	12		170	MHz
PLL Jitter		TBD		ps p-p
Sampling Phase Tempco		TBD	•	ps/°C
DIGITAL INPUTS				
Input Voltage, High (V _{IH})	2.5			V
Input Voltage, Low (V _{IL})			0.8	V
Input Current, High (I _{IH})			-1.0	uA
Input Current, Low (I _{IL})			1.0	uA
Input Capacitance		5		pF
DIGITAL OUTPUTS	10. 10			
Output Voltage, High (V _{OH})	VDDP-0.1			V
Output Voltage, Low (Vol)			0.1	V
VIDEO ANALOG OUTPUT				
CVBS Buffer Output	20			
Output Llich		0.3		V
Output High	*	1.3		V
ADC Input		2.8		Vnn
ADC Input DAC Output		2.8		V p-p
SIF Input Range		۷.0		V p-p
Minimum			0.1	V p-p
Maximum	1.0			V p-p
SAR ADC Input	0		3.3	V
FB ADC Input*	0		1.2	V

Specifications subject to change without notice.

Note: Input full scale is 1.2V, but input range is 0 ~ 3.3V.



Recommended Operating Conditions

Parameter	Symbol	Min	Тур	Max	Units
3.3V Supply Voltages	V_{VDD_33}	3.14		3.46	V
1.8V Supply Voltages	V _{VDD 18}	1.70		1.90	V
1.15V Supply Voltages	V _{VDD_115}	1.12	1.15	1.18	V
Ambient Operating Temperature	T _A	0		70	°C
Junction Temperature	TJ			125	°C

Absolute Maximum Ratings

Parameter	Symbol	Min	Max	Units
3.3V Supply Voltages	V_{VDD_33}		3.6	V
1.8V Supply Voltages	V _{VDD_18}		1.99	V
1.15V Supply Voltages	V _{VDD_115}		1.2	V
Input Voltage (5V tolerant inputs)	V _{IN5Vtol}		5.0	V
Input Voltage (non 5V tolerant inputs)	V _{IN}		V _{VDD_33}	V
Storage Temperature	T_{STG}	-40	150	°C

Note: Stresses above those listed in Absolute Maximum Ratings may cause permanent damage to the device. This is a stress rating only and does not imply functional operation of the device. Exposure to absolute maximum ratings for extended periods may affect device reliability.

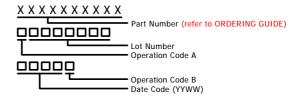
Security Level: Confidential A - 6 - 10/22/2012



ORDERING GUIDE

Part Number	Temperature Range	Package Description	Package Option
MSD3393LB	0°C to +70°C	EPLQFP	156-pin
MSD3393LB-XX	0°C to +70°C	EPLQFP	156-pin

MARKING INFORMATION



Note:

XX suffix represents advanced features. Please contact MStar sales for details.

The SRS TruSurround XTTM and SRS TruSurround HDTM technology rights incorporated in the MSD3393LB are owned by SRS Labs, a U.S. Corporation and licensed to MStar. Purchaser of MSD3393LB must sign a license for use of the chip and display of the SRS Labs trademarks. Any products incorporating the MSD3393LB must be sent to SRS Labs for review. SRS TruSurround XT and SRS TruSurround HD are protected under US and foreign patents issued and/or pending. SRS TruSurround XT, SRS TruSurround HD, SRS and (O) symbol are trademarks of SRS Labs, Inc. in the United States and selected foreign countries. Neither the purchase of the MSD3393LB, nor the corresponding sale of audio enhancement equipment conveys the right to sell commercialized recordings made with any SRS technology. SRS Labs requires all set makers to comply with all rules and regulations as outlined in the SRS Trademark Usage Manual separately provided.

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Electrostatic charges accumulate on both test equipment and human body and can discharge without detection. MSD3393LB comes with ESD protection circuitry; however, the device may be permanently damaged when subjected to high energy discharges. The device should be handled with proper ESD precautions to prevent malfunction and performance degradation.



REGISTER DESCRIPTION

MIU1 Register (Bank = 1006)

MIU1 Reg	gister (Bank = 1006)				
Index (Absolute)	Mnemonic	Bit	Description		
00h	REG100600	7:0	Default : 0x00	Access : R/W	
(100600h)	-	7:6	Reserved.	λ	
	AUTO_REF_OFF	5	Turn off auto refresh.		
	ODT	4	Turn on ODT (only for DDR2)	/DDR3).	
	RSTZ	3	DRAM reset.		
	CS	2	DRAM chip select.		
	CKE	1	Enable CKE.		
	INIT_MIU	0	Auto initial DRAM cycle.		
00h	REG100601	7:0	Default : 0x00	Access : RO, R/W	
(100601h)	R_INIT_DONE	7	Auto initial DRAM cycle done	flag.	
	R_SINGLE_CMD_DONE	6	Single command done flag.		
	SELF_REFRESH	5	Enter self refresh mode.		
<u>-</u>	- , 0	4	Reserved.		
	SINGLE_CMD[2:0]	3:1	Single command = {rasz, casz, wez}.		
	SINGLE_CMD_EN	0	Issue single command.		
01h	REG100602	7:0	Default : 0x00	Access : R/W	
(100602h)	CA_SIZE[1:0]	7:6	00: 8col.		
			01: 9col.		
(0, 11		10: 10col. 11: Reserved.		
	BA_SIZE[1:0]	5:4	00: 2ba.		
	DA_SIZE[1.0]	3.4	01: 4ba.		
	/// ~ (2		10: 8ba.		
			11: Reserved.		
	DRAM _BUS[1:0]	3:2	00: 16-bit.		
			01: 32-bit.		
			10: 64-bit. 11: Reserved.		
	DRAM _TYPE[1:0]	1:0	00: SDR.		
			01: DDR.		
			10: DDR2.		
			11: DDR3.	T	
01h	REG100603	7:0	Default : 0xF0	Access : R/W	



Index	Mnemonic	Bit	Description		
(Absolute)	WHIETHOTHC	Dit	Description		
	CKO_OENZ	7	Ck output enable.		
	ADR_OENZ	6	Address output enable.		
	DQ_OENZ	5	Data output enable.		
	CKE_OENZ	4	CKE output enable.	. \	
	DATA_SWAP[1:0]	3:2	01: [15:0]. 10: [31:16].		
	DATA_RATIO[1:0]	1:0	00: 1x. 01: 2x.	,	
			10: 4x. 11: 8x.		
02h	REG100604	7:0	Default: 0x09	Access : R/W	
(100604h)	I64_MODE	7	0: All 128 internal bus. 1: Support 64 internal bus (only 4x mode).		
	-	6:5	Reserved.		
	RD_TIMING[4:0]	4:0	Read back data delay timing.		
03h	REG100606	7:0	Default : 0x08	Access : R/W	
(100606h)	TREFPERIOD[7:0]	7:0	Refresh cycle period, unit = 1	16 mclk.	
03h	REG100607	7:0	Default : 0x04	Access : R/W	
(100607h)		7:6	Reserved.		
	ODT_ALWAYS_ON	5	ODT always on.		
	CKE_ALWAYS_ON	4	CKE always on.		
	-01	3	Reserved.		
>	TCKE[2:0]	2:0	DRAM TCKE timing.		
04h	REG100608	7:0	Default : 0x33	Access : R/W	
(100608h)	TRP[3:0]	7:4	DRAM TRP timing.		
	TRCD[3:0]	3:0	DRAM TRCD timing.	Т.	
04h	REG100609	7:0	Default : 0x08	Access : R/W	
(100609h)	-	7:5	Reserved.		
	TRAS[4:0]	4:0	DRAM TRAS timing.	T	
05h	REG10060A	7:0	Default : 0x12	Access : R/W	
(10060Ah)	TRTP[3:0]	7:4	DRAM TRTP timing.		
	TRRD[3:0]	3:0	DRAM TRRD timing.		
05h	REG10060B	7:0	Default : 0x0C	Access : R/W	
(10060Bh)	-	7:6	Reserved.		



MIU1 Reg	jister (Bank = 1006)			
Index (Absolute)	Mnemonic	Bit	Description	
	TRC[5:0]	5:0	DRAM TRC timing.	
06h	REG10060C	7:0	Default : 0x61	Access : R/W
(10060Ch)	TWR[3:0]	7:4	DRAM TWR timing: write reco	overy time.
	TWL[3:0]	3:0	DRAM TWL timing: write late	ncy.
06h	REG10060D	7:0	Default : 0x63	Access : R/W
(10060Dh)	TRTW[3:0]	7:4	Read to write delay.	
	TWTR[3:0]	3:0	DRAM TWTR timing: write to	read delay.
07h	REG10060E	7:0	Default : 0x0E	Access : R/W
(10060Eh)	TRFC[7:0]	7:0	DRAM TRFC timing.	
07h	REG10060F	7:0	Default : 0x10	Access : R/W
(10060Fh)	-	7	Reserved.	
	TCCD[2:0]	6:4	DRAM TCCD timing.	
	_	3:0	Reserved.	
08h	REG100610	7:0	Default : 0x00	Access : R/W
(100610h)	MR0[7:0]	7:0	Mode register 0.	
08h	REG100611	7:0	Default : 0x00	Access : R/W
(100611h)	MR0[15:8]	7:0	See description of '101210h'.	
09h	REG100612	7:0	Default : 0x00	Access : R/W
(100612h)	MR1[7:0]	7:0	Mode register 1.	
09h	REG100613	7:0	Default: 0x40	Access : R/W
(100613h)	MR1[15:8]	7:0	See description of '101212h'.	
0Ah	REG100614	7:0	Default : 0x00	Access : R/W
(100614h)	MR2[7:0]	7:0	Mode register 2.	
0Ah	REG100615	7:0	Default : 0x80	Access : R/W
(100615h)	MR2[15:8]	7:0	See description of '101214h'.	
0Bh	REG100616	7:0	Default : 0x00	Access : R/W
(100616h)	MR3[7:0]	7:0	Mode register 3.	
0Bh	REG100617	7:0	Default : 0xC0	Access : R/W
(100617h)	MR3[15:8]	7:0	See description of '101216h'.	



MIU0 Register (Bank = 1012)

MIU0 Reg	gister (Bank = 1012)				
Index (Absolute)	Mnemonic	Bit	Description		
00h	REG101200	7:0	Default : 0x00	Access : R/W	
(101200h)	-	7:6	Reserved.	•	
	AUTO_REF_OFF	5	Turn off auto refresh.		
	ODT	4	Turn on ODT (only for DDR2/DDR3).		
	RSTZ	3	DRAM reset.		
	cs	2	DRAM chip select.	•	
	CKE	1	Enable CKE.		
	INIT_MIU	0	Auto initial DRAM cycle.		
00h	REG101201	7:0	Default : 0x00	Access : RO, R/W	
(101201h)	R_INIT_DONE	7	Auto initial DRAM cycle done flag.		
	R_SINGLE_CMD_DONE	6	Single command done flag.		
	SELF_REFRESH	5	Enter self refresh mode.		
	- (0)	4	Reserved.		
Ş	SINGLE_CMD[2:0]	3:1	Single command = {rasz, casz, wez}.		
	SINGLE_CMD_EN	0	Issue single command.		
01h	REG101202	7:0	Default : 0x00	Access : R/W	
(101202h)	CA_SIZE[1:0]	7:6	00: 8col. 01: 9col. 10: 10col. 11: Reserved.		
\$	BA_SIZE[1:0]	5:4	00: 2ba.		
	17000		01: 4ba. 10: 8ba. 11: Reserved.		
	DRAM _BUS[1:0]	3:2	00: 16-bit. 01: 32-bit. 10: 64-bit. 11: Reserved.		
	DRAM _TYPE[1:0]	1:0	00: SDR. 01: DDR. 10: DDR2. 11: DDR3.		
01h	REG101203	7:0	Default : 0xF0	Access : R/W	
(101203h)	CKO_OENZ	7	Ck output enable.		



Index	Mnemonic	Bit	Description		
(Absolute)	Willemonic	DIT.	Description		
	ADR_OENZ	6	Address output enable.		
	DQ_OENZ	5	Data output enable.		
	CKE_OENZ	4	CKE output enable.		
	DATA_SWAP[1:0]	3:2	01: [15:0]. 10: [31:16].		
	DATA_RATIO[1:0]	1:0	00: 1x. 01: 2x. 10: 4x. 11: 8x.		
02h	REG101204	7:0	Default : 0x09 Access : R/W		
(101204h)	I64_MODE	7	0: All 128 internal bus. 1: Support 64 internal bus (only 4x mode).		
	-	6:5	Reserved.		
	RD_TIMING[4:0]	4:0	Read back data delay timing.		
03h	REG101206	7:0	Default : 0x08 Access : R/W		
(101206h)	TREFPERIOD[7:0]	7:0	Refresh cycle period, unit = 16 mclk.		
03h	REG101207	7:0	Default : 0x04 Access : R/W		
(101207h)		7:6	Reserved.		
, C	ODT_ALWAYS_ON	5	ODT always on.		
	CKE_ALWAYS_ON	4	CKE always on.		
	- (/ X	3	Reserved.		
	TCKE[2:0]	2:0	DRAM TCKE timing.		
04h	REG101208	7:0	Default: 0x33 Access: R/W		
(101208h)	TRP[3:0]	7:4	DRAM TRP timing.		
	TRCD[3:0]	3:0	DRAM TRCD timing.		
04h	REG101209	7:0	Default : 0x08 Access : R/W		
(101209h)	-	7:5	Reserved.		
	TRAS[4:0]	4:0	DRAM TRAS timing.		
05h	REG10120A	7:0	Default : 0x12 Access : R/W		
(10120Ah)	TRTP[3:0]	7:4	DRAM TRTP timing.		
	TRRD[3:0]	3:0	DRAM TRRD timing.		
)5h	REG10120B	7:0	Default : 0x0C Access : R/W		
(10120Bh)	-	7:6	Reserved.		
	TRC[5:0]	5:0	DRAM TRC timing.		



MIU0 Reg	gister (Bank = 1012)			
Index (Absolute)	Mnemonic	Bit	Description	
06h	REG10120C	7:0	Default : 0x61	Access : R/W
(10120Ch)	TWR[3:0]	7:4	DRAM TWR timing: write recovery time.	
	TWL[3:0]	3:0	DRAM TWL timing: write late	ncy.
06h	REG10120D	7:0	Default : 0x63	Access : R/W
(10120Dh)	TRTW[3:0]	7:4	Read to write delay.	
	TWTR[3:0]	3:0	DRAM TWTR timing: write to	read delay.
07h	REG10120E	7:0	Default : 0x0E	Access : R/W
(10120Eh)	TRFC[7:0]	7:0	DRAM TRFC timing.	
07h	REG10120F	7:0	Default : 0x10	Access : R/W
(10120Fh)	-	7	Reserved.	
	TCCD[2:0]	6:4	DRAM TCCD timing.	
	-	3:0	Reserved.	·
08h	REG101210	7:0	Default : 0x00	Access : R/W
(101210h)	MR0[7:0]	7:0	Mode register 0.	
08h	REG101211	7:0	Default : 0x00	Access : R/W
(101211h)	MR0[15:8]	7:0	See description of '101210h'.	
09h	REG101212	7:0	Default : 0x00	Access : R/W
(101212h)	MR1[7:0]	7:0	Mode register 1.	
09h	REG101213	7:0	Default: 0x40	Access : R/W
(101213h)	MR1[15:8]	7:0	See description of '101212h'.	
0Ah	REG101214	7:0	Default : 0x00	Access : R/W
(101214h)	MR2[7:0]	7:0	Mode register 2.	·
0Ah	REG101215	7:0	Default : 0x80	Access : R/W
(101215h)	MR2[15:8]	7:0	See description of '101214h'.	,
0Bh	REG101216	7:0	Default : 0x00	Access : R/W
(101216h)	MR3[7:0]	7:0	Mode register 3.	
0Bh	REG101217	7:0	Default : 0xC0	Access : R/W
(101217h)	MR3[15:8]	7:0	See description of '101216h'.	



SC0 IPMUX Register (Bank = 102E)

SCO IPML	SC0 IPMUX Register (Bank = 102E)						
Index (Absolute)	Mnemonic	Bit	Description				
01h	REG102E02	7:0	Default : 0x00	Access : R/W			
(102E02h)	IPMUX_SEL2[3:0] IPMUX_SEL1[3:0]	3:0	Input source select. 0: ADC A. 1: DVI_1. 2: VD. 3: MPEG2 VOP (DC0). 4: Reversed. 5: Ext VD. 6: ADC B. 7: Capture. 8: Mlink. D: MHL. Others: Debug mode. Input source select. 0: ADC A. 1: DVI_1. 2: VD. 3: MPEG2 VOP (DC0). 4: Reversed. 5: Ext VD. 6: ADC B. 7: Capture. 8: Mlink. D: MHL. Others: Debug mode.				
01h	REG102E03	7:0	Default : 0x00	Access : R/W			
(102E03h)		7:4	Reserved.				
	IPMUX_SEL0[3:0]	3:0	Input source select. 0: ADC A. 1: DVI_1. 2: VD. 3: MPEG2 VOP (DC0). 4: Reversed. 5: Ext VD. 6: ADC B. 7: Capture. 8: Mlink. Others: Debug mode.				
46h	-	7:0	Default : -	Access : -			



SCO IPMU	SC0 IPMUX Register (Bank = 102E)					
Index (Absolute)	Mnemonic	Bit	Description			
	-	1	Reserved.			





SC1 GOP_INT Register (Bank = 102F, Sub-Bank = 00)

SC1 GOP_	_INT Register (Bank = 10	2F, S	ub-Bank = 00)	
Index (Absolute)	Mnemonic	Bit	Description	
00h	REG102F00	7:0	Default : 0xFF	Access : R/W
(102F00h)	SC_RIU_BANK[7:0]	7:0	Bank selection for scaler.	
01h	REG102F02	7:0	Default : 0x00	Access : R/W
(102F02h)	-	7:3	Reserved.	
	DBL_VS	2	Double buffer load by Vsync.	
	DBL_M	1	Double buffer load by manu	al.
	DBC_EN	0	Double buffer enable.	
02h	REG102F04	7:0	Default: 0x00	Access : R/W
(102F04h)	SWRST1[7:0]	7:0	Reset control. SWRST1[7]: OSCCLK domain. SWRST1[6]: FCLK domain. SWRST1[5]: SWRST1[4]: IP, including F1 and F2. SWRST1[3]: OP, including OP1, VIP and VOP. SWRST1[2]: IP_F2. SWRST1[1]: IP_F1. SWRST1[0]: All engines.	
03h	REG102F06	7:0	Default : 0x00	Access : R/W
(102F06h)		7:2	Reserved.	
M.	PDMD[1:0]	1:0	PowerDown mode: 01: IDCLK. Others: IDCLK and ODCLK.	
04h	REG102F08	7:0	Default : 0x00	Access : R/W
(102F08h)	. 70 3	7:2	Reserved.	
	VSINT_EDGE	1	OP2 VS INT Edge. 1: Tailing. 0: Leading.	
	IPVSINT_EDGE	0	IP VS INT Edge. 1: Tailing. 0: Leading.	
04h	REG102F09	7:0	Default : 0x00	Access : R/W
(102F09h)	-	7:1	Reserved.	
	CHG_HMD	0	CHG_HMD: H Change Mode 0: Only in Leading/Tailing of 1: Every Line Gen INT Pulse	CHG Period.



SC1 GOP_	SC1 GOP_INT Register (Bank = 102F, Sub-Bank = 00)						
Index (Absolute)	Mnemonic	Bit	Description				
05h	REG102F0A	7:0	Default : 0x00	Access : R/W			
(102F0Ah)	IP_SYNC_TO_GOP_SEL[1:0]	7:6	Sync signal to GOP select. 01: IP channel 1. 10: IP channel 2.				
	GOP2IP_EN	5	GOP blending to IP enable.				
	-	4:0	Reserved.				
05h	REG102F0B	7:0	Default : 0x00	Access : R/W			
(102F0Bh)	-	7:6	Reserved.				
	GOP2IP_DATA_SEL[1:0]	5:4	Select GOP source for IP. 01: GOP 1. 10: GOP 2.				
- (10		3:0	Reserved.				
06h	REG102F0D	7:0	Default : 0x00	Access : R/W			
(102F0Dh)	COP_EN	7	Enable cop for VOP2.	•			
	GOP2_EN	6	Enable GOP_2 for VOP2.				
	GOP1_EN	5	Enable GOP_1 for VOP2.				
	- ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	4:0	Reserved.				
0Eh	REG102F1C	7:0	Default : 0x00	Access : R/W			
(102F1Ch)		7:5	Reserved.				
	TST_MUX_SEL[4:0]	4:0	Test mux selection.				
10h	REG102F20	7:0	Default: 0x00	Access : RO			
(102F20h)	IRQ_FINAL_STATUS_7_0[7:0]	7:0	The final status of interrupt D[7]: Vtt_CHG_INT_F1. D[6]: Vtt_LOSE_INT_F2. D[5]: VSINT. D[4]: TUNE_FAIL_P. D[3]: N/A. D[2]: N/A. D[1]: N/A. D[0]: N/A.	in SC_TOP.			
10h	REG102F21	7:0	Default : 0x00	Access : RO			
(102F21h)	IRQ_FINAL_STATUS_15_8[7:0]	7:0	The final status of interrupt D[7]: IPHCs_DET_INT_F1. D[6]: IPHCs_DET_INT_F2. D[5]: IPVS_SB_INT_F1. D[4]: IPVS_SB_INT_F2.	in SC_TOP.			



SC1 GOP_INT Register (Bank = 102F, Sub-Bank = 00)					
Index (Absolute)	Mnemonic	Bit	Description		
			D[3]: Jitter_INT_F1. D[2]: Jitter_INT_F2. D[1]: VS_LOSE_INT_F1. D[0]: VS_LOSE_INT_F2.		
11h	REG102F22	7:0	Default : 0x00	Access : RO	
(102F22h)	IRQ_FINAL_STATUS_23_16[7:0]	7:0	The final status of interrupt D[7]: DVI_CK_LOSE_INT_F1 D[6]: DVI_CK_LOSE_INT_F2 D[5]: HS_LOSE_INT_F1. D[4]: HS_LOSE_INT_F2. D[3]: Htt_CHG_INT_F1. D[2]: Htt_CHG_INT_F2. D[1]: IPHCs1_DET_INT_F1. D[0]: IPHCs1_DET_INT_F2.		
11h	REG102F23	7:0	Default : 0x00	Access : RO	
(102F23h)	IRQ_FINAL_STATUS_31_24[7:0]	7:0	The final status of interrupt D[7]: ATG_READY_INT_F1. D[6]: ATG_READY_INT_F2. D[5]: ATP_READY_INT_F1. D[4]: ATP_READY_INT_F2. D[3]: ATS_READY_INT_F1. D[2]: ATS_READY_INT_F2. D[1]: CSOG_INT_F1. D[0]: CSOG_INT_F1.		
12h	REG102F24	7:0	Default : 0x00	Access : R/W	
(102F24h)	IRQ_CLEAR_7_0[7:0]	7:0	Clear interrupt for. D[7]: Vtt_CHG_INT_F1. D[6]: Vtt_LOSE_INT_F2. D[5]: VSINT. D[4]: Tune_fail_p. D[3]: N/A. D[2]: N/A. D[1]: N/A. D[0]: N/A.		
12h	REG102F25	7:0	Default : 0x00	Access : R/W	
(102F25h)	IRQ_CLEAR_15_8[7:0]	7:0	Clear interrupt for. D[7]: IPHCs_DET_INT_F1. D[6]: IPHCs_DET_INT_F2.		



SC1 GOP_INT Register (Bank = 102F, Sub-Bank = 00)					
Index (Absolute)	Mnemonic	Bit	Description		
13h	REG102F26	7:0	D[5]: IPVS_SB_INT_F1. D[4]: IPVS_SB_INT_F2. D[3]: Jitter_INT_F1. D[2]: Jitter_INT_F2. D[1]: VS_LOSE_INT_F1. D[0]: VS_LOSE_INT_F2. Default: 0x00	Access : R/W	
(102F26h)	IRQ_CLEAR_23_16[7:0]	7:0	Clear interrupt for. D[7]: DVI_CK_LOSE_INT_F1 D[6]: DVI_CK_LOSE_INT_F2 D[5]: HS_LOSE_INT_F1. D[4]: HS_LOSE_INT_F2. D[3]: Htt_CHG_INT_F1. D[2]: Htt_CHG_INT_F2. D[1]: IPHCs1_DET_INT_F1. D[0]: IPHCs1_DET_INT_F2.		
13h (102F27h)	REG102F27 IRQ_CLEAR_31_24[7:0]	7:0	Default: 0x00 Clear interrupt for. D[7]: ATG_READY_INT_F1. D[6]: ATG_READY_INT_F2. D[5]: ATP_READY_INT_F1. D[4]: ATP_READY_INT_F2. D[3]: ATS_READY_INT_F1. D[2]: ATS_READY_INT_F1. D[1]: CSOG_INT_F1. D[0]: CSOG_INT_F1.	Access : R/W	
14h (102F28h)	REG102F28 IRQ_MASK_7_0[7:0]	7:0 7:0	Default : 0xFF Mask IRQ. D[7]: Vtt_CHG_INT_F1. D[6]: Vtt_LOSE_INT_F2. D[5]: VSINT. D[4]: Tune_fail_p. D[3]: N/A. D[2]: N/A. D[1]: N/A. D[0]: N/A.	Access : R/W	
14h (102F29h)	REG102F29 IRQ_MASK_15_8[7:0]	7:0 7:0	Default : 0xFF Mask IRQ.	Access : R/W	



D[7]: IPHCs_DET_INT_F1.	SC1 GOP_	SC1 GOP_INT Register (Bank = 102F, Sub-Bank = 00)					
D[6]: IPHCs_DET_INT_F2. D[6]: IPVS_SB_INT_F1. D[4]: IPVS_SB_INT_F1. D[4]: IPVS_SB_INT_F2. D[3]: Jitter_INT_F2. D[3]: Jitter_INT_F2. D[3]: Jitter_INT_F2. D[3]: Jitter_INT_F2. D[6]: VS_LOSE_INT_F2. D[6]: VS_LOSE_INT_F2. D[6]: VS_LOSE_INT_F2. D[6]: VS_LOSE_INT_F2. D[6]: DVI_CK_LOSE_INT_F2. D[6]: DVI_CK_LOSE_INT_F2. D[6]: DVI_CK_LOSE_INT_F2. D[6]: HS_LOSE_INT_F2. D[6]: HS_LOSE_INT_F2. D[6]: HLC_HG_INT_F2. D[6]: HLC_HG_INT_F2. D[6]: HLC_HG_INT_F2. D[6]: HLC_HG_INT_F2. D[6]: HLC_HG_INT_F2. D[6]: HLC_HG_INT_F2. D[6]: ATG_READY_INT_F1. D[6]: ATG_READY_INT_F1. D[6]: ATG_READY_INT_F1. D[6]: ATG_READY_INT_F1. D[6]: ATG_READY_INT_F1. D[6]: ATS_READY_INT_F2. D[6]: CSOG_INT_F2. D[6]: CSOG_INT_F2. D[6]: VSINT_F2.	Index (Absolute)	Mnemonic	Bit	Description			
				D[6]: IPHCs_DET_INT_F2. D[5]: IPVS_SB_INT_F1. D[4]: IPVS_SB_INT_F2. D[3]: Jitter_INT_F1. D[2]: Jitter_INT_F2. D[1]: VS_LOSE_INT_F1.			
D[7]: DVI_CK_LOSE_INT_F1.	15h	REG102F2A	7:0	Default : 0xFF	Access : R/W		
Tour Transport Transport	(102F2Ah)	IRQ_MASK_23_15[7:0]	7:0	D[7]: DVI_CK_LOSE_INT_F1 D[6]: DVI_CK_LOSE_INT_F2 D[5]: HS_LOSE_INT_F1. D[4]: HS_LOSE_INT_F2. D[3]: Htt_CHG_INT_F1. D[2]: Htt_CHG_INT_F2. D[1]: IPHCs1_DET_INT_F1.			
D[7]: ATG_READY_INT_F1. D[6]: ATP_READY_INT_F2. D[6]: ATP_READY_INT_F2. D[6]: ATP_READY_INT_F2. D[3]: ATS_READY_INT_F2. D[3]: ATS_READY_INT_F1. D[2]: ATS_READY_INT_F2. D[1]: CSOG_INT_F2. D[0]: CS	15h	REG102F2B	7:0	Default : 0xFF	Access : R/W		
(102F2Ch) IRQ_FORCE_7_0[7:0] 7:0 Force a fake interrupt. D[7]: Vtt_CHG_INT_F1. D[6]: Vtt_LOSE_INT_F2. D[5]: VSINT. D[4]: Tune_fail_p. D[3]: N/A. D[2]: N/A. D[1]: N/A.	(102F2Bh)	IRQ_MASK_31_24[7:0]	7:0	D[7]: ATG_READY_INT_F1. D[6]: ATG_READY_INT_F2. D[5]: ATP_READY_INT_F1. D[4]: ATP_READY_INT_F2. D[3]: ATS_READY_INT_F1. D[2]: ATS_READY_INT_F2. D[1]: CSOG_INT_F1.			
D[7]: Vtt_CHG_INT_F1. D[6]: Vtt_LOSE_INT_F2. D[5]: VSINT. D[4]: Tune_fail_p. D[3]: N/A. D[2]: N/A. D[1]: N/A.	16h	REG102F2C	7:0		Access : R/W		
	(102F2Ch)	IRQ_FORCE_7_0[7:0]	7:0	D[7]: Vtt_CHG_INT_F1. D[6]: Vtt_LOSE_INT_F2. D[5]: VSINT. D[4]: Tune_fail_p. D[3]: N/A. D[2]: N/A. D[1]: N/A.			
	16h	DEC103E3D	7.0		Access · D /\M		



SC1 GOP_	SC1 GOP_INT Register (Bank = 102F, Sub-Bank = 00)					
Index (Absolute)	Mnemonic	Bit	Description			
	IRQ_FORCE_15_8[7:0]	7:0	Force a fake interrupt. D[7]: IPHCs_DET_INT_F1. D[6]: IPHCs_DET_INT_F2. D[5]: IPVS_SB_INT_F1. D[4]: IPVS_SB_INT_F2. D[3]: Jitter_INT_F1. D[2]: Jitter_INT_F2. D[1]: VS_LOSE_INT_F1. D[0]: VS_LOSE_INT_F2.			
17h	REG102F2E	7:0	Default : 0x00	Access : R/W		
(102F2Eh)	IRQ_FORCE_23_16[7:0]	7:0	Force a fake interrupt. D[7]: DVI_CK_LOSE_INT_F1 D[6]: DVI_CK_LOSE_INT_F2 D[5]: HS_LOSE_INT_F1. D[4]: HS_LOSE_INT_F2. D[3]: Htt_CHG_INT_F1. D[2]: Htt_CHG_INT_F2. D[1]: IPHCs1_DET_INT_F1, D[0]: IPHCs1_DET_INT_F2.			
17h	REG102F2F	7:0	Default : 0x00	Access : R/W		
(102F2Fh)	IRQ_FORCE_31_24[7:0]	7:0	Force a fake interrupt. D[7]: ATG_READY_INT_F1. D[6]: ATG_READY_INT_F2. D[5]: ATP_READY_INT_F1. D[4]: ATP_READY_INT_F2. D[3]: ATS_READY_INT_F1. D[2]: ATS_READY_INT_F2. D[1]: CSOG_INT_F1. D[0]: CSOG_INT_F2.			
18h	REG102F30	7:0	Default : 0x00	Access : RO		
(102F30h)	IRQ_RAW_STATUS_7_0[7:0]	7:0	The raw status of interrupt s D[7]: Vtt_CHG_INT_F1. D[6]: Vtt_LOSE_INT_F2. D[5]: VSINT. D[4]: Tune_fail_p. D[3]: N/A. D[2]: N/A. D[1]: N/A. D[0]: N/A.	source.		



Index	Mnemonic	Bit	Description	
(Absolute) 18h	REG102F31	7:0	Default : 0x00	Access : RO
(102F31h)	IRQ_RAW_STATUS_15_8[7:0]	7:0	The raw status of interrupt status of intervals of in	I.
19h	REG102F32	7:0	Default: 0x00	Access : RO
(102F32h)	IRQ_RAW_STATUS_23_16[7:0]	7:0	The raw status of interrupt status of interrup	1. 2.
19h	REG102F33	7:0	Default : 0x00	Access : RO
(102 F 33h)	IRQ_RAW_STATUS_31_24[7:0]	7:0	The raw status of interrupt status of interrup	Source.
20h	REG102F40	7:0	Default : 0x00	Access : RO
(102F40h)	BIST_FAIL_0[7:0]	7:0	BIST fail status for LBI.	
20h (102F41h)	REG102F41	7:0	Default : 0x00	Access : RO
(10254111)	-	7:3	Reserved.	
	BIST_FAIL_0[10:8]	2:0	See description of '102F40h'	
21h	REG102F42	7:0	Default : 0x00	Access : RO



AIL_1[6:0] 2F44 AIL_2[7:0] 2F45 AIL_2[12:8] 2F46	6:0 7:0 7:0 7:0 7:5	BIST fail status for OP1. Default: 0x00 BIST fail status for VOP, VIP Default: 0x00	
AIL_2[7:0] 2F45 AIL_2[12:8]	7:0 7:0	BIST fail status for VOP, VIP).
2F45 AIL_2[12:8]	7:0	·	
AIL_2[12:8]		Default : 0x00	
	7:5		Access : RO
		Reserved.	
2F46	4:0	See description of '102F44h'	
LI TU	7:0	Default : 0x00	Access : RO
AIL_3[7:0]	7:0	BIST fail status for SCF.	
2F47	7:0	Default : 0x00	Access : RO
	7 :1	Reserved.	
AIL_3[8]	0	See description of '102F46h'	<u>:</u>
2F48	7:0	Default : 0x00	Access : RO
AIL_4[7:0]	7:0	BIST fail status for OD.	
2F49	7:0	Default : 0x00	Access : RO
	7:6	Reserved.)
AIL_4[13:8]	5:0	See description of '102F48h'	
2F66	7:0	Default : 0xE1	Access : R/W
SEL[3:0]	7:4	Vsync lose watch dog timer	flag select.
SEL[3:0]	3:0	Hsync lose watch dog timer	flag select.
2F67	7:0	Default: 0x00	Access : R/W
, 5	7:1	Reserved.	
N N	0	H/V sync lose watch dog timer count enable.	
	2F47 AIL_3[8] 2F48 AIL_4[7:0] 2F49 AIL_4[13:8] 2F66 SEL[3:0] SEL[3:0]	7:1 AIL_3[8] 0 2F48 7:0 AIL_4[7:0] 7:0 7:6 AIL_4[13:8] 5:0 2F66 7:0 SEL[3:0] 3:0 2F67 7:1	7:1 Reserved. AIL_3[8] 0 See description of '102F46h' 2F48 7:0 Default : 0x00 AIL_4[7:0] 7:0 BIST fail status for OD. 2F49 7:0 Default : 0x00 7:6 Reserved. AIL_4[13:8] 5:0 See description of '102F48h' 2F66 7:0 Default : 0xE1 SEL[3:0] 7:4 Vsync lose watch dog timer SEL[3:0] 3:0 Hsync lose watch dog timer 2F67 7:0 Default : 0x00 7:1 Reserved.



SC1 IP1_M Register (Bank = 102F, Sub-Bank = 01)

SC1 IP1_	M Register (Bank = 102F,	Sub-E	Bank = 01)		
Index (Absolute)	Mnemonic	Bit	Description		
02h	REG102F04	7:0	Default : 0x83	Access : R/W	
(102F04h)	NO_SIGNAL	7	Input source enable. #0: Enable. #1: Disable; output is free-run.		
AUTO_DETSRC[1:0] 6:5			Input Sync Type. #00: Auto detected. #01: Input is separated HSY #10: Input is Composite syr #11: Input is sync-on-green	nc.	
	COMP_SRC	4	CSYNC/SOG select (only useful when STYPE = 00). #0: CSYNC. #1: SOG.		
#0: Dis		Input CSC function. #0: Disable (RGB -> RGB, default). #1: Enable (RGB -> YCbCr).			
W.	SOURCE_SELECT[2:0]	2:0	Input Source Select. #000: Analog 1. #001: Analog 2. #010: Analog 3. #011: DVI. #100: Video. #101: Reserved. #111: HDMI.		
02h	REG102F05	7:0	Default : 0x00	Access : R/W	
(102F05h)	FVDO_DIVSEL	7	Force Input Clock Divide Fur #0: Disable (Auto selected by video, default). #1: Enable (use 0Dh[3:0] as	by h/W, used when input is	
	-	6:4	Reserved.		
	VDEXT_SYNMD	3	External VD Using Sync. #0: Sync is Generated from #1: Sync from External Sou		
	YCBCR_EN	2	Input Source is YPbPr Forma	at	
	VIDEO_SELECT[1:0]	1:0	Video Port Select. #00: External 8/10 bits vide #01: Internal video decoder	•	



SC1 IP1_	M Register (Bank = 102F,	Sub-E	Bank = 01)	
Index (Absolute)	Mnemonic	Bit	Description	
			#10: External 16/20 bits vid #11: Internal video decoder	•
03h	REG102F06	7:0	Default : 0x18	Access : R/W
(102F06h) DIRECT_DE 7 Digital Input Horizontal Sample #0: Use DE as sample range, o adjusted. #1: Use SPRHST and SPRHDC a and V position can be adjusted.		e, only V position can be OC as sample range, both H		
	DE_ONLY_ORI	6	DE Only. HSYNC and VSYNC are ignored. #0: Disable. #1: Enable.	
	VS_DLYMD	5	Input VSYNC Delay select. #0: Delay 1/4 input HSYNC. #1: No delay.	
	HS_REFEG	4	Input HSYNC reference edge select. #0: From HSYNC leading edge. #1: From HSYNC tailing edge.	
ر د	VS_REFEG	3	Input VSYNC reference edge #0: From VSYNC leading ed #1: From VSYNC tailing edg	ge.
M	EXTEND_EARLY_LN	2	Early Sample Line Select. #0: 8 lines. #1: 16 lines.	
>	VWRAP	10	Input image Vertical wrap. #0: Disable. #1: Enable.	
	HWRAP	0	Input image Horizontal wrap. #0: Disable. #1: Enable.	
03h	REG102F07	7:0	Default : 0x08	Access : R/W
(102F07h)	FRCV	7	7 Source Sync Enable. #1: Display will adaptively follow the Source. If Display Select this source. #0: Display Free Run. If Display Select this source.	
	AUTO_UNLOCK	6	Auto Lost Sync Detect Enable. When Mode Change,	



SCT IPI_	M Register (Bank = 102F,	Sub-E	Dalik = U1)	
Index (Absolute)	Mnemonic	Bit	Description	
			The Sync Process for this wi Set Source Sync Enable = 1 This is the. Backup solution for Coast.	•
	-	5:4	Reserved.	λ
	DATA10BIT	3	Set 10 bit input mode.	
	DATA8_ROUND	2	Use rounding for 8 bits input	t mode.
	VD16_C_AHEAD	1	Video 16 bit mode fine tune	Y/C order.
	-	0	Reserved.	
04h	REG102F08	7:0	Default: 0x01	Access : R/W
(102F08h)	SPRANGE_VST[7:0]	7:0	Image vertical sample start point, count by input HSYNC.	
04h	REG102F09	7:0	Default : 0x00	Access : R/W
(102F09h)	-	7:5	Reserved.	
	SPRANGE_VST[12:8]	4:0	See description of '102F08h'	
05h	REG102F0A	7:0	Default : 0x01	Access : R/W
(102F0Ah)	SPRANGE_HST[7:0]	7:0	Image horizontal sample sta HSYNC.	rt point, count by input
05h	REG102F0B	7:0	Default : 0x00	Access : R/W
(102F0Bh)	- 6	7:5	Reserved.	
	SPRANGE_HST[12:8]	4:0	See description of '102F0Ah'	<u>:</u>
06h	REG102F0C	7:0	Default : 0x10	Access : R/W
(102F0Ch)	SPRANGE_VDC[7:0]	7:0	Image vertical resolution (vector)	ertical display enable area
06h	REG102F0D	7:0	Default : 0x00	Access : R/W
(102F0Dh)	. \\ \\ \\ \\	7:5	Reserved.	
	SPRANGE_VDC[12:8]	4:0	See description of '102F0Ch'	•
07h	REG102F0E	7:0	Default : 0x10	Access : R/W
(102F0Eh)	SPRANGE_HDC[7:0]	7:0	Image horizontal resolution (count by line).	(vertical display enable area
07h	REG102F0F	7:0	Default : 0x00	Access : R/W
(102F0Fh)	-	7:5	Reserved.	
	SPRANGE_HDC[12:8]	4:0	See description of '102F0Eh'	
08h	REG102F10	7:0	Default : 0x20	Access : R/W



SC1 IP1_	IP1_M Register (Bank = 102F, Sub-Bank = 01)				
Index (Absolute)	Mnemonic	Bit	Description		
	FOSVDCNT_MD	7	Force Ext VD count adjustment Mode. #0: Disable. #1: Enable.		
	VDCNT[1:0]	6:5	VD count for adjusting order of UV, count from Hsync to first pixel UV order. #00: Normal. #01: 1. #10: 2. #11: 3.		
	VD_NOMASK	4	EAV/SAV Mask for Video. #0: Mask. #1: No mask.		
	IHSU	3	Input Hsync Usage. When ISEL = 000 or 001 or 010:(ADC). #0: Use Hsync to perform mode detection, HSOUT from ADC to sample pixel. #1: Use Hsync only. When ISEL = 011:(DVI). #0: Normal. #1: Enable DE Ahead/Delay adjust. When ISEL = 100:(VD). #0: Normal.		
19.	INTLAC_LOCKAVG	2	#1: Output Black at blanking Field time average (Interlace	<u> </u>	
S	VDO_YC_SWAP	1	Y/C Swap (only useful for 16/20-bit video inputs). #0: Normal. #1: Y/C swap.		
	VDO_ML_SWAP	0	MSB/LSB Swap. #0: Normal. #1: MSB/LSB swap.		
08h	REG102F11	7:0	Default : 0x00	Access : R/W	
(102F11h)	VDCLK_INV	7	External VD Port 0 Clock Inv	/erse.	
	-	6	Reserved.		
	YPBPR_HS_SEPMD	5	YPbPr HSYNC Select Mode to Mode Detector. #0 : Use Separate Hs for Coast Period. #1 : Use PLL Hsout for Coast Period.		
	-	4	Reserved.		
	VDCLK_DLY[3:0]	3:0	External VD Port 0 Clock delay.		



Index	Mnemonic	Bit	Description	
(Absolute)				
09h	REG102F12	7:0	Default : 0x00	Access : R/W
(102F12h)	CSC_DITHEN	7	CSC Dithering Enable when 02h[3]=1.	
	INTLAC_DET_EDGE	6	Interlace detect Reference Edge. #0: Leading edge. #1: Tailing edge.	
	FILED_ABSMD	5	Interlace detect using Middle Point Method. (03h[5]=0 is better).	
	INTLAC_AUTO	4	Interlace /Progressive Manual Switch mode. #0: Auto Switch VST(04), VDC (06). #1: Disable Auto Switch VST(04), VDC(06).	
	Y_LOCK[3:0]	3:0	Early Sample Line for Capture Port Frame informatio Switch. #0000 : 8 Line Ahead from SPRange_Vst. #0001 : 1 Line Ahead from SPRange_Vst.	
	COLLY	S	#0010: 2 Line Ahead from : #0011: 3 Line Ahead from :	SPRange_Vst. SPRange_Vst.
			#1111: 15 Line Ahead from	
09h (102F13h)	REG102F13	7:0	Default : 0x00	Access : R/W
· . C	DUMMY09_8_15[7:0]	7:0		T
0Ah (102F14h)	REG102F14	7:0	Default: 0x00	Access : R/W
	IP_INT_SEL[7:0]	7:0	No load (Reserved).	D 01/
0Ah (102F15h)	REG102F15	7:0	Default : 0x00	Access : R/W
	DUMMY0A_8_15[7:0]	7:0		T
0Bh (102F16h)	REG102F16 DUMMY0B_0_14[7:0]	7:0 7:0	Default: 0x00 Access: R/W [0]: Htt change mask on. [1]: Vtt change mask on. [2]: Vtt change INT mask on. [4]: No_signal function off. [5]: No_signal with auto freeze.	
0Bh (102F17h)	REG102F17	7:0	Default : 0x00	Access : R/W
	-	7	Reserved.	
	DUMMY0B_0_14[14:8]	6:0	See description of '102F16h'.	
0Ch	REG102F18	7:0	Default : 0x00	Access : R/W
(102F18h)	HDMI_444_REP	7	HDMI 444 format repetition.	
		1	† · · · · · · · · · · · · · · · · · · ·	



Index (Absolute)	Mnemonic	Bit	Description	
	DUMMY0C_2_5[3:0]	5:2		
	AUTO_INTLAC_INV	1	Auto Filed Switch Mode File	d Inverse.
	AUTO_INTLAC_MD	0	Auto Field Switch Mode for	Vtt = 2N+1 and 4N+1.
0Ch	REG102F19	7:0	Default : 0x00	Access : R/W
(102F19h)	CS_DET_CNT[7:0]	7:0	Composite Sync Separate D #0 : HW Auto Decide. #1 : SW Program.	ecision Count.
0Dh	REG102F1A	7:0	Default : 0x00	Access : R/W
(102F1Ah)	OVERSAP_EN	7	FIR Down Sample Enable, for FIR Double rate 2x -> 1x after FIR Purpose. #0: no down, 5 tap support. #1: down Enable, ratio / tap depend on OD[3:0].	
	OVERSAP_PHS[2:0]	6:4	FIR Down Sample Divider Phase.	
	OVERSAP_CNT[3:0]	3:0	FIR Down Sample Divider, for FIR Double rate 2x -> 1 after FIR Purpose. #0: no down, 5 tap. #1: 2 to 1 down, 11 tap. Others: Reserved. For ExtVD = CCIR656, set to 0 and OverSap_En = 1 wido 2X oversample.	
0Dh	REG102F1B	7:0	Default: 0x00	Access : R/W
(102F1Bh)	DUMMY0D_8_15[7:0]	7:0		•
0Eh	REG102F1C	7:0	Default : 0x00	Access : RO, R/W
(102F1Ch)	ATG_HIR	10	Max value flag for R channel (Read Only). #0: Normal. #1: Max value (255) value when ATG_Data_MD = 0. Output over max value (255) when ATG_Data_MD =	
	ATG_HIG	6	Max value flag for G channel (Read Only). #0: Normal. #1: Max value (255) value when. ATG_Data_MD = 0. Output over max value (255) when. ATG_Data_MD = 1.	
	ATG_HIB	5	Max value flag for B channel (Read Only). #0: Normal. #1: Max value (255) value when. ATG_Data_MD = 0.	



Index	Mnemonic	Bit	Description		
(Absolute)					
			Output over max value (255) when.		
		4	ATG_Data_MD = 1.		
	ATG_CALMD	ADC Calibration Enable.			
			#0: Disable. #1: Reserved.		
	ATG_DATA_MD	3	Auto Gain Result selection.		
	THO_DHIN_MD		#0: Output has max/min value.		
			#1: Output is overflow/underflow.		
	ATG_HISMD	2	Auto Gain Mode.		
			#0: Normal mode (result will be cleared every frame)		
	10		#1: History mode (result remains not cleared till		
			ATG_En = 0).		
	ATG_READY	1	Auto Gain Result Ready. #0: Result not ready.		
			#1: Result ready.		
	ATG_EN 0		Auto Gain Function Enable.		
	A Service of the serv		#0: Disable.		
			#1: Enable.		
0Eh	REG102F1D	7:0	Default: 0x00 Access: RO, R/W		
(102F1Dh)		7	Reserved.		
	AV_DET	6	AV Detect for Cb Cr.		
B.	, 7 x\'		#0 : CbCr Range is define by 03[2].		
	2		YCbCr_En.		
			#1 : Cb Cr Min is defined in 89 ATP_GTH, Cb Cr Max is defined in 8A ATP_TH.		
•		5:3	Reserved.		
	ATG_UPR	2	Min value flag for R channel.		
	X C	_	#0: Normal.		
			#1: Min value present when ATG_CalMD = 0,		
			ATG_Data_MD = 0.		
	V		Calibration result (needs to decrease offset) when AC = 1.		
	ATG_UPG	1			
	ATO_OFG	'	Min value flag for G channel. #0: Normal.		
			#1: Min value present when ATG_CalMD = 0,		
			ATG_Data_MD = 0.		
			Calibration result (needs to decrease offset) when AC		
	1		= 1.		



SC1 IP1_I	M Register (Bank = 102F,	Sub-E	Bank = 01)	
Index (Absolute)	Mnemonic	Bit	Description	
	ATG_UPB	0	Min value flag for B channel. #0: Normal. #1: Min value present when ATG_Data_MD = 0. Calibration result (needs to compare)	$ATG_CalMD = 0,$
0Fh	REG102F1E	7:0	Default : 0x00	Access : R/W
(102F1Eh)	AUTO_COAST	7	Auto Coast enable when mo #0: Disable. #1: Enable.	de change.
	OP2_COAST	6	. Coast Status (Read only). #0: Coast is inactive. #1: Coast is active (free run).	
ATPSEL[1:0]		5:4	Auto Phase Value Select (read from registers 0x8C~0x8F). #00: R/G/B total value. #01: Only R value. #10: Only G value. #11: Only B value.	
PIP_SW_DOUBLE 3 Double Sample for. #1. VD. #2. Ext VD 656 Format. #3. Ext 444 Format. The Purpose is to provide 2X Pixel				
	ATGSEL[2:0]	2:0	For FIR Down Sample, and give 11 TAP Filter. Select Auto Gain Report for Reg 7D. #000: Minimum R value. #001: Minimum G value. #010: Minimum R value. #011: Maximum R value. #100: Maximum B value. #101: Maximum B value. #11x: Reserved.	
0Fh	REG102F1F	7:0	Default : 0x00	Access : R/W



Index (Absolute)	Mnemonic	Bit	Description		
	DUMMY0F_8_15[7:0]	7:0			
10h	REG102F20	7:0	Default : 0x00	Access : RO, R/W	
(102F20h)	JIT_R	7	Jitter function Left / Right result for 86h and 87h. #0: Left result. #1: right result.		
	JIT_SWCLR_SB	6	Jitter Software clear. #0: Not clear. #1: Clear.		
	-	5	Reserved.		
W.	JITTER_HISMD	4	Jitter function Mode. #0: Update every frame. #1: Keep the history value.		
	JITTER	3	JITTER function Result. #0: No JITTER. #1: JITTER present.		
	ATS_HISMD	2	Auto position function Mode. #0: Update every frame. #1: Keep the history value.		
	ATS_READY	1	Auto position result Ready. #0: Result not ready. #1: Result ready.		
	ATS_EN	0	Auto position function Enable. #0: Disable. #1: Enable. Disable-to-enable needs at least 2 frame apart for real bit to settle.		
10h	REG102F21	7:0	Default : 0x00	Access : R/W	
(102F21h)	THOLD[3:0]	7:4	Auto position Valid Data Value. #0000: Valid if data >= 0000 0000. #0001: Valid if data >= 0001 0000. #0010: Valid if data >= 0010 0000. #1111: Valid if data >= 1111 0000.		
	-	3:1	Reserved.		
	ATS_PIXMD	0	Auto Position Force Pixel Mode. #0 : DE or Pixel decide by the Source. #1 : Force Pixel Mode.		



Index	Mnemonic	Bit	Description	
(Absolute)	Minemonic	ВП	Description	
11h (102F22h)	REG102F22	7:0	Default : 0x00	Access : RO
	ATGSEL_VALUE[7:0]	7:0	Auto Gain Value. (selected by register 0Fh[2:	0]).
11h	REG102F23	7:0	Default : 0x00	Access : RO
(102F23h)	-	7:2	Reserved.	
	ATGSEL_VALUE[9:8]	1:0	See description of '102F22h'.	
12h	REG102F24	7:0	Default : 0x00	Access : RO
(102F24h)	ATS_VSTDBUF[7:0]	7:0	Auto position detected resul	t Vertical Starting point.
12h	REG102F25	7:0	Default : 0x00	Access : RO
(102F25h)	-	7:5	Reserved.	
	ATS_VSTDBUF[12:8]	4:0	See description of '102F24h'.	
13h (102F26h)	REG102F26	7:0	Default : 0x00	Access : RO
	ATS_HSTDBUF[7:0]	7:0	Auto position detected resul	t Horizontal Starting point.
13h (102F27h)	REG102F27	7:0	Default : 0x00	Access : RO
	-	7:5	Reserved.	
	ATS_HSTDBUF[12:8]	4:0	See description of '102F26h'.	
14h	REG102F28	7:0	Default : 0x00	Access : RO
(102F28h)	ATS_VEDDBUF[7:0]	7:0	Auto position detected resul	t Vertical End point.
14h	REG102F29	7:0	Default : 0x00	Access : RO
(102F29h)	- ,) X	7:5	Reserved.	
	ATS_VEDDBUF[12:8]	4:0	See description of '102F28h'.	
15h	REG102F2A	7:0	Default : 0x00	Access : RO
(102F2Ah)	ATS_HEDDBUF[7:0]	7:0	Auto position detected result Horizontal End point.	
15h	REG102F2B	7:0	Default : 0x00	Access : RO
(102F2Bh)	. \\ \\ \\ \\	7:5	Reserved.	
	ATS_HEDDBUF[12:8]	4:0	See description of '102F2Ah	•
16h (102F2Ch)	REG102F2C	7:0	Default : 0x00	Access : RO
	REG_JLST[7:0]	7:0	Jitter function detected Left/Right most point state (previous frame) depend on Reg_10h[7] (default = 7ffh).	
16h	REG102F2D	7:0	Default : 0x00	Access : RO
(102F2Dh)			Reserved.	
(102F2Dh)		7:5	Reserved.	



SC1 IP1_	M Register (Bank = 102F,	Sub-E	Bank = 01)	
Index (Absolute)	Mnemonic	Bit	Description	
17h	REG102F2E	7:0	Default : 0x02	Access : R/W
(102F2Eh)	-	7:3	Reserved.	
	PIX_TH[2:0]	2:0	Auto Noise Level. #111: Noise level = 16.	
17h	REG102F2F	7:0	Default : 0x00	Access : R/W
(102F2Fh)	DUMMY17_8_15[7:0]	7:0	HTT change mask period.	
18h	REG102F30	7:0	Default : 0x01	Access : R/W
(102F30h)	ATP_GTH[7:0]	7:0	Auto Phase Gray scale Thres ATPN[31:24] = 0.	shold for ATP[23:16] when
18h	REG102F31	7:0	Default : 0x10	Access : R/W
(102F31h)	ATP_TH[7:0]	7:0	Auto Phase Text Threshold	for ATP[31:24] .
19h	REG102F32	7:0	Default : 0x00	Access : RO, R/W
(102F32h)	-	7	Reserved.	
	ATP_GRY	6	Auto Phase Gray scale detec	t (Read Only).
	ATP_TXT	5	Auto Phase Text detect (Rea	ad Only).
	ATP_READY ATP_EN	1 0	Auto Phase Nose Mask. #000: Mask 0 bit, default va #001: Mask 1 bit. #010: Mask 2 bit. #011: Mask 3 bit. #100: Mask 4 bit. #101: Mask 5 bit. #110: Mask 6 bit. #111: Mask 7 bit. Auto Phase Result ready. #0: Result not ready. #1: Result ready. Auto Phase function Enable. #0: Disable. #1: Enable.	
19h	REG102F33	7:0	Default : 0x00	Access : R/W
(102F33h)	DUMMY19_8_15[7:0]	7:0	VTT change mask period.	T
1Ah	REG102F34	7:0	Default : 0x00	Access : RO
(102F34h)	ATPV[7:0]	7:0	Auto Phase Value.	_
1Ah	REG102F35	7:0	Default : 0x00	Access : RO



SC1 IP1_M Register (Bank = 102F, Sub-Bank = 01)				
Index (Absolute)	Mnemonic	Bit	Description	
	ATPV[15:8]	7:0	See description of '102F34h'.	
1Bh	REG102F36	7:0	Default : 0x00	Access : RO
(102F36h)	ATPV[23:16]	7:0	See description of '102F34h'	
1Bh	REG102F37	7:0	Default : 0x00	Access : RO
(102F37h)	ATPV[31:24]	7:0	See description of '102F34h'	
1Ch	REG102F38	7:0	Default : 0x20	Access : RO, R/W
(102F38h)	DELAYLN_NUM[3:0]	7:4	Delay Line After Sample V S	tart for Input Trigger Point.
	LB_TUNE_READY	3	Input VSYNC Blanking Status	S.
			#0: In display.	
			#1: In blanking.	
		2	Reserved.	
	UNDERRUN	1	Under run status for FIFO.	
	OVERRUN	0	Over run status for FIFO.	1
1Ch	REG102F39	7:0	Default : 0x00	Access : R/W
(102F39h)	-	7:2	Reserved.	
	DELAYLN_NUM[5:4]	1:0	See description of '102F38h'	
1Dh	REG102F3A	7:0	Default : 0x05	Access : RO, R/W
(102F3Ah)	VS2HS_2SMALL	7	Vs to Hs timing too small.	
	DE_LOCKH_MD	6	DE Lock H Position Mode.	
M.	HSTOL[5:0]	5:0	HSYNC Tolerance for Mode (Change.
			#5: Default value.	Г
1Dh	REG102F3B	7:0	Default : 0x01	Access : R/W
(102F3Bh)	VDO_VEDGE	7	Interlace mode VSYNC refer	ence edge.
	RAW_VSMD	6	Bypass mode Raw VSYNC ou	itput from SYNC Separator.
	HTT_FILTERMD	5	Auto No signal Filter mode. #0: Disable. #1: Enable (update Htt after 4 sequential lines over tolerance).	
	AUTO_NO_SIGNAL	4	Auto No signal Enable. This Will Auto Set Current Ba Change.	ank 02[7] = 1 if Mode
	VS_TOL[3:0]	3:0	VSYNC Tolerance for Mode (#1: Default value.	Change.
1Eh	REG102F3C	7:0	Default : 0x00	Access : RO



Index	Mnemonic	Bit	Description
(Absolute)		7:5	Reserved.
	IPHCS_ACT	4	Analog HSYNC Pin Active.
	IPHS_SB_S	3	Input normalized HSYNC pin Monitor.
			Show input HSYNC pin directly. (Active Low).
	IPVS_SB_S	2	Input normalized VSYNC pin Monitor. Show input VSYNC pin directly. (Active Low).
	OPHS	1	Output normalized HSYNC pin Monitor. Show output HSYNC pin directly. (Active Low).
	OPVS	0	Output normalized VSYNC pin Monitor. Show output VSYNC pin directly. (Active Low).
(400505)	REG102F3D	7:0	Default : 0x00 Access : RO
	IPVS_ACT	7	Input On Line Source VSYNC Active. #0: Not active. #1: Active.
ر	IPHS_ACT	6	Input On Line Source HSYNC Active. #0: Not active. #1: Active.
H.	CS_DET	5	Composite Sync Detected status. #0: Input is not composite sync. #1: Input is detected as composite sync.
*	SOG_DET	4	Sync-On-Green Detected status. #0: Input is not SOG. #1: Input is detected as SOG.
	INTLAC_DET	3	Interlace / Non-interlace detecting result by this chip. #0: Non-interlace. #1: Interlace.
	FIELD_DET	2	Input odd/even field detecting result by this chip. #0: Even. #1: Odd.
	HSPOL	1	Input On Line Source HSYNC polarity detecting result be this chip. #0: Active low. #1: Active high.



SC1 IP1_	M Register (Bank = 102F,	Sub-E	Bank = 01)	
Index (Absolute)	Mnemonic	Bit	Description	
	VSPOL	0	Input On Line Source VSYNC this chip. #0: Active low. #1: Active high.	polarity detecting result by
1Fh	REG102F3E	7:0	Default : 0x00	Access : RO
(102F3Eh)	VTT_FOR_READ[7:0]	7:0	Input Vertical Total, count by	y HSYNC.
1Fh	REG102F3F	7:0	Default : 0x00	Access : RO, R/W
(102F3Fh)	VS_PW_VDOMD	7	VSYNC Raw Pulse Width for	Measurement.
	-	6	Reserved.	
	HSPW_SEL	5	Vsync Pulse Width Read Enable. The Report is shown in Current Bank 22.	
	VTT_FOR_READ[12:8]	4:0	See description of '102F3Eh'	
20h	REG102F40	7:0	Default : 0x00	Access : RO
(102F40h)	HTT_FOR_READ[7:0]	7:0	Input Horizontal Period, cou	nt by reference clock.
20h	REG102F41	7:0	Default : 0x00	Access : RO, R/W
(4005441)	LN4_DETMD	7	Input HSYNC period Detect I #0: 1 line. #1: 8 lines.	Mode.
No	HTT_REPORT_SEL	6	Report Sync Separator Htt. #0 : Htt Report by Mode De #1 : Htt Report by Sync Sep	
	HTT_FOR_READ[13:8]	5:0	See description of '102F40h'	
21h	REG102F42	7:0	Default : 0x00	Access : R/W
(102F42h)	FIELD_SWMD	7	Shift Line Method When Field #0: Old method. #1: New method.	d Switch.
	COAST_HS_SEPMD	6	HSYNC in coast for Data Cap #0: HSOUT (recommended) #1: Re-shaped HSYNC.	
	USR_VSPOL	5	User defined input VSYNC Pous USR_VSPOLMD =1. #0: Active low. #1: Active high.	plarity, active when
	USR_VSPOLMD	4	Input VSYNC polarity judgme #0: Use result of internal cir #1: Defined by user (Usr_Vs	cuit detection.



SC1 IP1_M Register (Bank = 102F, Sub-Bank = 01)					
Index (Absolute)	Mnemonic	Bit	Description		
	USR_HSPOL	3	User defined input HSYNC Polarity, active when USR_HSPOLMD =1. #0: Active low. #1: Active high.		
	USR_HSPOLMD	2	Input HSYNC polarity judgment. #0: Use result of internal circuit detection. #1: Defined by user (Usr_HsPol).		
	USR_INTLAC	1	User defined non-interlace/interlace, active when USR_INTLACMD = 1. #0: Non-interlace. #1: Interlace.		
	USR_INTLACMD	0	Interlace judgment. #0: Use result of internal circuit detection. #1: Defined by user (Usr_IntLac).		
21h	REG102F43	7:0	Default : 0x00 Access : R/W		
(102F43h)	MEMSYN_TO_VS[1:0]	7:6	Memory control Switch Method. #00 : Sample V End. #01 : Sample V Start. #10 : Sample V Start Ahead by Current Bank 09[3:0]. #11 : Sample V Start Ahead by Current Bank 09[3:0] x 2.		
M	DE_ONLY_HTT_CHGMD	5	DE Only mode Htt Change status mode. #0 : Mode Change Provide in data clock Domain. #1 : Mode Change Provide in data clock and Fix Clock Domain (recommended).		
	DE_ONLY_HTT_SRC	4	DE Only mode Htt Report Source. #0 : Form Input DE. #1 : From Re-generated DE.		
	ADC_VIDEO_FINV	3	Component Video Field Inversion When. ADC_Video = 1 for Data Align. #0: Normal. #1: Invert.		
	EXT_FIELDMD	2	Video External Field. #0: Use result of internal circuit detection. #1: Use external field.		
	FIELD_DETMD	1	Interlace Field detect method select. #0: Use the HSYNC numbers of a field to judge. #1: Use the relationship of VSYNC and HSYNC to judge.		



Index	Mnemonic	Bit	Description	
(Absolute)				
	FIELD_INV	0	Interlace Field Invert.	
			#0: Normal.	
22h	REG102F44	7:0	#1: Invert.	Access : RO
(102F44h)	HSPW[7:0]	7:0	Default: 0x00 HSYNC Pulse Width Report.	Access : RO
22h	REG102F45	7:0	Default : 0x00	Access : RO
(102F45h)	VSPW[7:0]	7:0		Access : RU
23h	REG102F47		VSYNC Pulse Width Report. Default: 0x00	Access - DO D /W
(102F47h)	VD_FREE	7:0		Access : RO, R/W
(10=1111)		6:0	Video in Free Run Mode (Re	ead Only).
	MIN_VTT[6:0]	0.0	When detected Vtt < MIN_V	/TT[6:0] x 16, into the video
	CAO	4	interlace freerun mode.	[0.0]
24h	REG102F48	7:0	Default : 0x00	Access : R/W
(102F48h)	VS_SEP_SEL	7	SYNC Separator VSYNC for Mode Detect.	
			#0 : RAW VSYNC (H / V Re	ationship is Keep for
			Interlace Detect).	
			#1 : HSYNC Align VSYNC (FInterlace Detect).	I / V Relationship is lose for
	VIDEO_D1L_H	6	Component Video Delay Lin	Δ
, C	VIDEO_DIE_II		(VIDEO_D1L_H + Video_D1	
			#00: Delay 1 Line for Anoth	
			#01: Delay 2 Line for Anoth	
	0 5		#10: Delay 3 Line for Anoth	
	ADO MIDEO	(0	#11: Delay 4 Line for Anoth	er Field.
	ADC_VIDEO	5	ADC Input Select. #0: PC Source.	
	11, 0,		#1: Component Video.	
	VIDEO_D1L_L	4	Component Video Delay Lin	e.
			(Video_D1L_H + VIDEO_D1	L_L) =
			#00: Delay 1 Line for Anoth	
			#01: Delay 2 Line for Anoth	
			#10: Delay 3 Line for Anoth #11: Delay 4 Line for Anoth	
	CS_CUT_MD	3	Composite SYNC cut mode.	
	55_5515		(Test Purpose).	
			#0: Disable.	
			#1: Enable.	



SC1 IP1_	M Register (Bank = 102F,	Sub-E	Bank = 01)	
Index (Absolute)	Mnemonic	Bit	Description	
	EXTVS_SEPINV	2	External VSYNC polarity (onl 1). #0: Normal. #1: Invert.	y used when Coast_SrcS is
	COAST_SRC	1	Coast VSYNC Select. #0: Internal Separated VSYN #1: External VSYNC.(Test Po	
	COAST_POL	0	Coast Polarity to PAD.	
24h	REG102F49	7:0	Default : 0x00	Access : R/W
(102F49h)	COAST_FBD[7:0]	7:0	Front tuning. #00: Coast start from 1 HSY #01: Coast start from 2 HSY value. #254: Coast start from 255	NC leading edge, default HSYNC leading edge.
	(0)		#255: Coast start from 256	HSYNC leading edge.
25h	REG102F4A	7:0	Default : 0x00	Access : R/W
(102F4Ah)	COAST_BBD[7:0]	7:0	End tuning. #00: Coast end at 1 HSYNC leading edge. #01: Coast end at 2 HSYNC leading edge, default v #254: Coast end at 255 HSYNC leading edge. #255: Coast end at 256 HSYNC leading edge.	
26h	REG102F4C	7:0	Default : 0x10	Access : R/W
(102F4Ch)	GR_DE_EN	1	DE or HSYNC post Glitch ren #0: Disable. #1: Enable.	noval function Enable.
	FILTER_NUM[2:0]	6:4	DE or HSYNC post Glitch ren Analog: #000: 0 XTAL clock. #001: 1 XTAL clock. #010: 2 XTAL clock. #111: 7 XTAL clock. DVI: #000: 0x8 input clock. #010: 2x8 input clock. #111: 7x8 input clock.	noval Range.



Index	Mnemonic	Bit	Description			
(Absolute)						
	GR_HS_VIDEO	3	Input HSYNC Filter.			
			When input source is analog	g:		
			#0: Filter off.			
			#1: Filter on.			
			When input source is DVI: #0: Normal.			
			#1: More tolerance for unst	able DE.		
	GR_EN	2	Input sync sample mode.	Input sync sample mode.		
		X	#0: Normal.			
			#1: Glitch-removal.			
	HVTT_LOSE_MD	1	Htt/Vtt Lost Mode for INT.			
			#0: By counter overflow.			
	Clor		#1: By counter overflow +	Active Detect IPVs_Act,		
			IPHs_Act (E1[7:6]).			
	IDOLK INN		(recommended).			
	IDCLK_INV	0	Capture Port Sample CLK Invert. #0: Normal.			
			#1: Invert.			
26h	REG102F4D	7:0	Default : 0x00	Access : R/W		
(102F4Dh)	DUMMY26_9_15[6:0]	7:1				
, C	IP1_RDY_MASK_EN	0	Mask IP1 output DE enable.			
27h	REG102F4E	7:0	Default: 0x00	Access : R/W		
(102F4Eh)	ATP_FILTERMD	7	ATP Filter for Text (4 frame	s).		
(#0: Disable.			
			#1: Enable.			
	DE_ONLY_IDHTT	6	DE only mode HTT count by	/ IDCLK.		
			#0: Disable.			
	OD 110 EV	_	#1: Enable.			
	GR_VS_EN	5	VSYNC glitch removal with I #0: Disable.	ine less than 2 (DE Only).		
			#1: Enable.			
	VS_PROTECT	4		(DE Only)		
	V3_FROIEGI	4	VSYNC Protect with V total #0: Disable.	(DL Offig).		
			#1: Enable.			
	-	3	Reserved.			
	DEGP	2	DE only mode Glitch Protect	t for position.		
			#0: Disable.	1		



SC1 IP1_I	M Register (Bank = 102F,	Sub-E	Bank = 01)	
Index (Absolute)	Mnemonic	Bit	Description	
			#1: Enable.	
	TEST_BUS_SEL[1:0]	1:0	Test bus select for debug.	
27h	REG102F4F	7:0	Default : 0x00	Access : R/W
(102F4Fh)	DUMMY27_9_15[6:0]	7:1		
	LOCK_FIELD_EN	0	Lock field flag toggle sequer	nce enable.
28h	REG102F50	7:0	Default : 0x00	Access : RO
(102F50h)	HTT_ID_FOR_READ[7:0]	7:0	HTT by idclk.	
28h	REG102F51	7:0	Default : 0x00	Access : RO
(102F51h)	-	7:5	Reserved.	
	HTT_ID_FOR_READ[12:8]	4:0	See description of '102F50h'.	
29h	REG102F52	7:0	Default : 0x00	Access : RO, R/W
(102F52h)	VS_SEP_SEL_1	7	New Interlace Detect Method by Big and Small line counts for a field.	
	VS_SEP_SEL_0	6	Hardware Auto Vsync Start I	ine Method Select.
#00: off. #01: Only t #10: all cas		nterlace detect mode. #00: off. #01: Only for line total number is even. #10: all case. #11: off.		
	EUP_AU_HDTV_DET	3	Europe/Australia 1080i HDT	V Detect.
19.	EUP_HDTV_DET	2	EUROPE 1080i HDTV Detect	
	EUP_AUTOFIELD	1	EUR/AUS 1080i HDTV Auto	Field Mode.
	EUP_HDTV	0	EUR/AUS 1080i HDTV Force	Field Mode.
29h	REG102F53	7:0	Default : 0x00	Access : RO, R/W
(102F53h)	LOCK2LOCK_REPORT[3:0]	7:4	Check Lock to Lock Line Cou Auto-Correct.	ınt for Interlace
	-	3:1	Reserved.	
	ATRANGE_EN	0	Auto Range Enable. #0 : Define Automatically. #1 : Define by Current Bank	: 2a-2b.
2Ah	REG102F54	7:0	Default : 0x01	Access : R/W
(102F54h)	ATRANGE_VST[7:0]	7:0	Auto Function (Position, Gair count by input HSYNC.	n Phase) vertical start point,
2Ah	REG102F55	7:0	Default : 0x00	Access : R/W



SC1 IP1_	M Register (Bank = 102F,	Sub-E	Bank = 01)	
Index (Absolute)	Mnemonic	Bit	Description	
	-	7:5	Reserved.	
	ATRANGE_VST[12:8]	4:0	See description of '102F54h'	
2Bh	REG102F56	7:0	Default : 0x01	Access : R/W
(102F56h)	ATRANGE_HST[7:0]	7:0	Auto Function (Position, Gail point, count by input dot clo	
2Bh	REG102F57	7:0	Default : 0x00	Access : R/W
(102F57h)	-	7:5	Reserved.	
	ATRANGE_HST[12:8]	4:0	See description of '102F56h'	
2Ch	REG102F58	7:0	Default : 0x10	Access : R/W
(102F58h)	ATRANGE_VDC[7:0]	7:0	Auto Function (Position, Gair count by input HSYNC.	n Phase) vertical resolution,
2Ch	REG102F59	7:0	Default : 0x00	Access : R/W
(102F59h)	-	7:5	Reserved.	
	ATRANGE_VDC[12:8]	4:0	See description of '102F58h'	
2Dh	REG102F5A	7:0	Default : 0x10	Access : R/W
(102F5Ah)	ATRANGE_HDC[7:0]	7:0	Auto Function (Position, Gain Phase) horizontal resolution, count by input dot clock.	
2Dh	REG102F5B	7:0	Default : 0x00	Access : R/W
(102F5Bh)		7 :5	Reserved.	
	ATRANGE_HDC[12:8]	4:0	See description of '102F5Ah'	
2Eh	REG102F5C	7:0	Default : 0x01	Access : R/W
(102F5Ch)		7:2	Reserved.	
	GOP_CLK_FREE		GOP clock gating enable. #0: Can gate the GOP clock #1: Don't gate the GOP cloc	
	IP2_CLK_GATE_EN	0	IP2 clock gating enable. #0: Don't gate the idclk. #1: Can gate the idclk.	
2Fh	REG102F5E	7:0	Default : 0x00	Access : R/W
(102F5Eh)	-	7:3	Reserved.	
	ATS_B_SKIP	2	Auto search ignore B data.	
	ATS_G_SKIP	1	Auto search ignore G data.	
	ATS_R_SKIP	0	Auto search ignore R data.	
2Fh	REG102F5F	7:0	Default : 0x00	Access : R/W



SC1 IP1_	M Register (Bank = 102F,	Sub-E	Bank = 01)	
Index (Absolute)	Mnemonic	Bit	Description	
	DE_BYPASS_MODE	7	Use input DE to replace SPR	Range_H as output DE.
	-	6:0	Reserved.	
30h	REG102F60	7:0	Default : 0x00	Access : R/W
(102F60h)	INSERT_NUM[7:0]	7:0	Vsync INSERT_NUMber_offs	set.
30h	REG102F61	7:0	Default : 0x00	Access : R/W
(102F61h)	INSERT_SEL	7	Vsync insert_number_offset	enable.
	-	6:3	Reserved.	
	INSERT_NUM[10:8]	2:0	See description of '102F60h	
31h	REG102F62	7:0	Default : 0x00	Access : R/W
(102F62h)	LOCK_NUM[7:0]	7:0	Vsync LOCK_NUMber_offset	i.
31h	REG102F63	7:0	Default : 0x00	Access : R/W
(102F63h)	LOCK_SEL	7	Vsync lock_number_offset enable.	
	-	6:3	Reserved.	
	LOCK_NUM[10:8]	2:0	See description of '102F62h	
32h	REG102F64	7:0	Default : 0x00	Access : R/W
(102F64h)	VLOCK_MD	7	Vlock mode.	
		6	Reserved.	
	VLOCK_VAL[5:0]	5:0	Vlock value.	
32h	REG102F65	7:0	Default: 0x00	Access : R/W
(102F65h)	MEMSYN_TO_VS_NEW[1:0]	7:6	Memory control Switch Meth	nod.
	0 5		#0x : reference 21[15:14].	
		(0)	#10 : Sample V end delay 1 #11 : Sample V end delay 3	
	, ,	5:0	Reserved.	ille.
33h	REG102F66	7:0	Default : 0x00	Access : R/W
(102F66h)	RGB_CLAMP_EN	7.0	RGB value clamp enable, fro	L.
	-	6:3	Reserved.	on ronon to ronoic.
	ATG_NEW_RANGE	2	Internal signal timing range	for Auto Gain
	ATG_NEW_CLR	1	Auto Gain reset.	.s. Auto Julii.
	ATG_NEW_MODE	0	Use internal signal to do Au	to Gain
33h	REG102F67	7:0	Default : 0x00	Access : RO, R/W
(102F67h)	OP2_COAST_STATUS	7.0	Auto OP free run status.	7.00033 . 100, 107 00
•				when H/V sync lose
	AUTO_COAST_HV_LOSE	6	Auto OP free run set enable	when H/V sync lose.



SC1 IP1_	M Register (Bank = 102F,	Sub-E	Bank = 01)	
Index (Absolute)	Mnemonic	Bit	Description	
	AUTO_COAST_V_LOSE	5	Auto OP free run set enable	when V sync lose.
	AUTO_COAST_H_LOSE	4	Auto OP free run set enable	when H sync lose.
	NO_SIGNAL_STATUS	3	Auto no signal status.	
	AUTO_NOS_HV_LOSE	2	Auto no signal set enable when H/V sync at the same.	
	AUTO_NOS_V_LOSE	1	Auto no signal set enable wh	nen V sync lose.
	AUTO_NOS_H_LOSE	0	Auto no signal set enable wh	nen H sync lose.
34h	REG102F68	7:0	Default : 0x00	Access : R/W
(102F68h)	WDT_VSEL[3:0]	7:4	Vsync lose watch dog timer	V pulse select.
	WDT_HSEL[3:0]	3:0	Hsync lose watch dog timer	H pulse select.
34h	REG102F69	7:0	Default : 0x00	Access : R/W
(102F69h)	- (10)	7:2	Reserved.	
	HDMI_VMUTE_DET_EN	1_	HDMI V-mute detect enable.	
	WDT_EN	0	H/Vsync lose watch dog ena	ble.
35h	REG102F6A	7:0	Default : 0x00	Access : R/W
(102F6Ah)	MACROVISION_FILTER_RANGE[7:0]	7:0	When MACROVISION_FILTE Hsync period is less than MACROVISION_FILTER_RAN be recognized as Macrovisor out in the coast region.	IGE, this Hsync signal will
35h	REG102F6B	7:0	Default : 0x00	Access : RO, R/W
(102F6Bh)	SOG_VALID	7	Input composite/SOG signal #0: not valid. #1: valid.	
	CNT_NUMBER_SEL	6	Select how many lines of valid input composite/SOG signals to make sure the input signal is stable. #0: 60 lines. #1: 120 lines.	
	MACROVISION_FILTER_SEL[1:0]	5:4	When MACROVISION_FILTER_EN is enable and input Hsync period is less than MACROVISION_FILTER_RANGE, this Hsync signal will be recognized as Macrovison or glitch and be filtered out in the coast region.	
	MACROVISION_FILTER_RANGE[1 1:8]	3:0	See description of '102F6Ah'	
36h	REG102F6C	7:0	Default : 0x00	Access : R/W



Index (Absolute)	Mnemonic	Bit	Description	
	EN_OVERCNT	7	Coast over count enable.	
	OVERCNT[6:0]	6:0	Coast over count.	
36h	REG102F6D	7:0	Default : 0x00	Access : R/W
(102F6Dh)	SEL_NEW_CSOURCE	7	Separate sync pulse select.	<u>\</u>
	-	6:1	Reserved.	
	GENCSOG_RESET	0	Reset SOG separate control.	
37h	REG102F6E	7:0	Default : 0x00	Access : R/W
(102F6Eh)	-	7:6	Reserved.	
	INTLAC_DET_EN[5:0]	5:0	New interlace detect function	n enable.
38h	REG102F70	7:0	Default : 0x00	Access : RO
(102F70h)	- (10)	7:6	Reserved.	
	INTLAC_DET_ALL[5:0]	5:0	The result of interlace detect	tion.
39h	REG102F72	7:0	Default : 0x00	Access : R/W
(102F72h)	- / () \ \	7:6	Reserved.	
	FIELD_DET_EN[5:0]	5:0	New interlace detect function	n field select.
3Ah	REG102F74	7:0	Default : 0x00	Access : RO
(102F74h)		7:6	Reserved.	
	FIELD_DET_ALL[5:0]	5:0	The field status.	
3Bh	REG102F76	7:0	Default: 0x00	Access : RO
(102F76h)	SPR_V_LOCK_P_IP_CNT[7:0]	7:0	Vsync to Vsync pixel count.	
3Bh	REG102F77	7:0	Default : 0x00	Access : RO
(102F77h)	SPR_V_LOCK_P_IP_CNT[15:8]	7:0	See description of '102F76h'	
3Ch	REG102F78	7:0	Default : 0x00	Access : RO
(102F78h)	- 11, 0,	7:5	Reserved.	
	SPR_V_LOCK_P_IP_CNT[20:16]	4:0	See description of '102F76h'	
3Dh	REG102F7A	7:0	Default : 0x00	Access : R/W
(102F7Ah)	-	7:1	Reserved.	
	HTT_RPT_MD	0	H total report mode.	
3Fh	REG102F7E	7:0	Default : 0x00	Access : RO
(102F7Eh)	ATGSEL_VALUE_Q[7:0]	7:0	Auto Gain value latch by Vsy	nc pulse.
3Fh	REG102F7F	7:0	Default : 0x00	Access : RO
(102F7Fh)	-	7:2	Reserved.	
1021 7111,	ATGSEL_VALUE_Q[9:8]	1:0	See description of '102F7Eh'	



SC1 IP1_	M Register (Bank = 102F,	Sub-E	Bank = 01)	
Index (Absolute)	Mnemonic	Bit	Description	
48h	REG102F90	7:0	Default : 0x00 Access : R/W	
(102F90h)	-	7	Reserved.	
	FDET_CHECK_EN	6	H/V sync status check enable.	
	FDET_H_INV	5	H sync invert.	
	FDET_V_INV	4	V sync invert.	
	FDET_VTOTAL_PIX_CNT_EN	3	V total count by pixel clock enable.	
	FDET_SYNC_SRC_SEL[1:0]	2:1	H/V sync source select for mode detection.	
	FDET_EN	0	New mode interlaced detect enable.	
49h	REG102F92	7:0	Default: 0x00 Access: R/W	
(102F92h)	FDET_VWIDTH_TOR[7:0]	7:0	V sync pulse width tolerance.	
49h	REG102F93	7:0	Default : 0x00 Access : R/W	
(102F93h)	FDET_VTOTAL_TOR[7:0]	7:0	V total tolerance.	
4Ah	REG102F94	7:0	Default : 0x00 Access : RO	
(102F94h)	- / 0 ' 10	7:3	Reserved.	
	FDET_STATUS_INTLAC_DET2	2	Mode detect result 2.	
	FDET_STATUS_INTLAC_DET1	1	Mode detect result 1.	
	FDET_STATUS_INTLAC_DET0	0	Mode detect result 0.	
4Bh	REG102F96	7:0	Default: 0x00 Access: RO	
(102F96h)	FDET_STATUS_VWIDTH0[7:0]	7:0	V sync pulse width 0.	
4Bh	REG102F97	7:0	Default : 0x00 Access : RO	
(102F97h)	-01	7:6	Reserved.	
	FDET_STATUS_VWIDTH0[13:8]	5:0	See description of '102F96h'.	
4Ch	REG102F98	7:0	Default : 0x00 Access : RO	
(102F98h)	FDET_STATUS_VWIDTH1[7:0]	7:0	V sync pulse width 1.	
4Ch	REG102F99	7:0	Default : 0x00 Access : RO	
(102F99h)	-	7:6	Reserved.	
	FDET_STATUS_VWIDTH1[13:8]	5:0	See description of '102F98h'.	
4Dh	REG102F9A	7:0	Default : 0x00 Access : RO	
(102F9Ah)	FDET_STATUS_VTOTAL0[7:0]	7:0	V total report 0.	
4Dh	REG102F9B	7:0	Default : 0x00 Access : RO	
(102F9Bh)	FDET_STATUS_VTOTAL0[15:8]	7:0	See description of '102F9Ah'.	
4Eh	REG102F9C	7:0	Default : 0x00 Access : RO	
(102F9Ch)	FDET_STATUS_VTOTAL0[23:16]	7:0	See description of '102F9Ah'.	



SC1 IP1_	M Register (Bank = 102F,	Sub-E	Bank = 01)	
Index (Absolute)	Mnemonic	Bit	Description	
4Eh	REG102F9D	7:0	Default : 0x00	Access : RO
(102F9Dh)	-	7:1	Reserved.	
	FDET_STATUS_VTOTAL0[24]	0	See description of '102F9Ah'	
4Fh	REG102F9E	7:0	Default : 0x00	Access : RO
(102F9Eh)	FDET_STATUS_VTOTAL1[7:0]	7:0	V total report 1.	
4Fh	REG102F9F	7:0	Default : 0x00	Access : RO
(102F9Fh)	FDET_STATUS_VTOTAL1[15:8]	7:0	See description of '102F9Eh'.	
50h	REG102FA0	7:0	Default : 0x00	Access : RO
(102FA0h)	FDET_STATUS_VTOTAL1[23:16]	7:0	See description of '102F9Eh'.	
50h	REG102FA1	7:0	Default : 0x00	Access : RO
(102FA1h)	- 40	7:1	Reserved.	
	FDET_STATUS_VTOTAL1[24]	0	See description of '102F9Eh'.	
51h	REG102FA2	7:0	Default : 0x00	Access : RO
(102FA2h)	FDET_STATUS_VTOTAL2[7:0]	7:0	V total report 2.	
51h	REG102FA3	7:0	Default: 0x00	Access : RO
(102FA3h)	FDET_STATUS_VTOTAL2[15:8]	7:0	See description of '102FA2h'.	
52h	REG102FA4	7:0	Default : 0x00	Access : RO
(102FA4h)	FDET_STATUS_VTOTAL2[23:16]	7:0	See description of '102FA2h'	
52h	REG102FA5	7:0	Default: 0x00	Access : RO
(102FA5h)		7:1	Reserved.	
	FDET_STATUS_VTOTAL2[24]	0	See description of '102FA2h'	
53h	REG102FA6	7:0	Default : 0x00	Access : RO
(102FA6h)	FDET_STATUS_VTOTAL3[7:0]	7:0	V total report 3.	
53h	REG102FA7	7:0	Default : 0x00	Access : RO
(102FA7h)	FDET_STATUS_VTOTAL3[15:8]	7:0	See description of '102FA6h'	
54h	REG102FA8	7:0	Default : 0x00	Access : RO
(102FA8h)	FDET_STATUS_VTOTAL3[23:16]	7:0	See description of '102FA6h'	
54h	REG102FA9	7:0	Default : 0x00	Access : RO
(102FA9h)	-	7:1	Reserved.	
	FDET_STATUS_VTOTAL3[24]	0	See description of '102FA6h'	
71h	-	7:0	Default : -	Access : -
(102FE3h)	-	-	Reserved.	



SC1 IP2_M Register (Bank = 102F, Sub-Bank = 02)

SC1 IP2_I	M Register (Bank = 102F	, Sub	-Bank = 02)	
Index (Absolute)	Mnemonic	Bit	Description	
01h	REG102F02	7:0	Default : 0x00	Access : R/W
(102F02h)	VFAC_SHT	7	VSD factor shift enable.	
	VFAC_SHT_INV	6	VSD field inverse.	
	IP2_F422EN	5	Force IP 442 format enable.	
	IP2_F422	4	1: IP 422. 0: IP 444.	
	-	3	Reserved.	
	CSC_DITHEN	2	CSC dither function enable.	
	VSD_DITHEN	1	VSD dither function enable.	
	HSD_DITHEN	0	HSD dither function enable.	
01h	REG102F03	7:0	Default : 0x00	Access : R/W
(102F03h)	-	7:6	Reserved.	
	VOUT_PROC	5	VOUT_PROC.	
	HOUT_PROC	4	HOUT_PROC.	
<u></u>	DITH_10TO8_SEL	3	Use random noise or rounding for 10-bits to 8-bits.	
	DITH_10TO8_EN	2	Dither enable for 10-bits to 8-bits.	
, 6	DYNAMIC_SC_EN	1	Dynamic scaling enable.	
	- ()	0	Reserved.	
02h	REG102F04	7:0	Default : 0x00	Access : R/W
(102F04h)	HFAC_SET_IP[7:0]	7:0	HSD initial factor.	
02h	REG102F05	7:0	Default : 0x00	Access : R/W
(102F05h)	HFAC_SET_IP[15:8]	7:0	See description of '102F04h'	
03h	REG102F06	7:0	Default : 0x00	Access : R/W
(102F06h)	-	7:4	Reserved.	
	HFAC_SET_IP[19:16]	3:0	See description of '102F04h'	
04h	REG102F08	7:0	Default : 0x00	Access : R/W
(102F08h)	HFACIN[7:0]	7:0	HSD factor, format [3.20].	_
04h	REG102F09	7:0	Default : 0x00	Access : R/W
(102F09h)	HFACIN[15:8]	7:0	See description of '102F08h'	
05h	REG102F0A	7:0	Default : 0x00	Access : R/W
(102F0Ah)	-	7	Reserved.	
	HFACIN[22:16]	6:0	See description of '102F08h'	



Index (Absolute)	Mnemonic	Bit	Description		
05h	REG102F0B	7:0	Default : 0x00	Access : R/W	
(102F0Bh)	IP2HSDEN	7	H Scaling Down enable.		
	PREHSDMODE	6		0: Accumulator mode, fac = OUT/IN (format [0.20]). 1: 6TapY/4TapC filter mode, fac = IN/OUT (format	
	-	5:0	Reserved.		
06h	REG102F0C	7:0	Default : 0x00	Access : R/W	
(102F0Ch)	VFAC_INI_T[7:0]	7:0	VSD initial factor for top field	1.	
06h	REG102F0D	7:0	Default: 0x00	Access : R/W	
(102F0Dh)	VFAC_INI_T[15:8]	7:0	See description of '102F0Ch'		
07h	REG102F0E	7:0	Default : 0x00	Access : R/W	
(102F0Eh)	VFAC_INI_B[7:0]	7:0	VSD initial factor for bottom.		
07h	REG102F0F	7:0	Default : 0x00	Access : R/W	
(102F0Fh)	VFAC_INI_B[15:8]	7:0	See description of '102F0Eh'		
08h	REG102F10	7:0	Default : 0x00	Access : R/W	
(102F10h)	VFACIN[7:0]	7:0	VSD factor, format CB: [0.20], Bilinear [3.20].	
08h	REG102F11	7:0	Default : 0x00	Access : R/W	
(102F11h)	VFACIN[15:8]	7:0	See description of '102F10h'		
09h	REG102F12	7:0	Default : 0x00	Access : R/W	
(102F12h)	- (7	Reserved.		
	VFACIN[22:16]	6:0	See description of '102F10h'	·	
09h	REG102F13	7:0	Default : 0x00	Access : R/W	
(102F13h)	PRE_VDOWN	7	V Scaling Down enable.		
	PRE_VDOWN_MODE	6	V Scaling Down Mode. 0: CB. 1: Bilinear.		
	VSD_DUP_BLACK	5	Duplicate black line for last li	ine when VSD is enabled.	
	PREV_DOWN_3D	4	PREV_DOWN_3D.		
	-	3:0	Reserved.		
0Ah	REG102F14	7:0	Default : 0x08	Access : R/W	
(102F14h)	C_FILTER	7	444 to 422 filter mode.		
	CBCR_SWAP[1:0]	6:5	Cb/Cr swap for 444 to 422.		
	YDELAY_EN	4	Y delay enable.		



Index (Absolute)	Mnemonic	Bit	Description	
	DE_DLY_WITH_Y	3	DE_DLY_WITH_Y.	
	YCDELAY_STEP[2:0]	2:0	Y/C delay pipe step.	
0Ah	REG102F15	7:0	Default : 0x00	Access : R/W
(102F15h)	-	7:1	Reserved.	
	44TO42_DITH_EN	0	444 to 422 filter dith enable.	
0Bh	REG102F16	7:0	Default : 0x04	Access : R/W
(102F16h)	-	7:6	Reserved.	
	FILL_BLACK_NUM[5:0]	5:0	Fill black number.	
0Bh	REG102F17	7:0	Default : 0x00	Access : R/W
(102F17h)	FILL_BLACK_ACT	7	FILL_BLACK_ACT.	
	FILL_BLACK_CLR	6	Clear fill_black register manually.	
	-	5:0	Reserved.	
10h	REG102F20	7:0	Default : 0x00	Access : R/W
(102F20h)	- / 0	7:5	Reserved.	
<u> </u>	FORCE_OSD_HSK	4	Force ip2 to OSD in handshaking mode.	
	- < \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	3	Reserved.	
	IP2_VS_SEL	2	1: Use mvop_vs to generate 0: Use ip1_vs to generate vs	•
N	FORCE_PRE2LAST	G	1: Use vsd last valid as pre a 0: Use original pre align.	•
	MVOP_DIN_EN	0	1: Data is form mvop. 0: Form yc delay.	
11h	REG102F22	7:0	Default : 0xD0	Access : R/W
(102F22h)	H_TOTAL[7:0]	7:0	Patgen h total.	
11h	REG102F23	7:0	Default : 0x02	Access : R/W
(102F23h)	_	7:4	Reserved.	
	H_TOTAL[11:8]	3:0	See description of '102F22h'	
12h	REG102F24	7:0	Default : 0xE0	Access : R/W
(102F24h)	V_TOTAL[7:0]	7:0	Patgen v total.	
12h	REG102F25	7:0	Default : 0x01	Access : R/W
(102F25h)	-	7:4	Reserved.	
	V_TOTAL[11:8]	3:0	See description of '102F24h'	
13h	REG102F26	7:0	Default : 0x40	Access : R/W



Index	Mnemonic	Bit	Description	
(Absolute)				
	H_BLOCK[7:0]	7:0	Patgen h block.	
13h	REG102F27	7:0	Default : 0x00	Access : R/W
(102F27h)	-	7:2	Reserved.	
	H_BLOCK[9:8]	1:0	See description of '102F26h'	
14h	REG102F28	7:0	Default : 0x20	Access : R/W
(102F28h)	V_BLOCK[7:0]	7:0	Patgen v block.	
14h	REG102F29	7:0	Default : 0x00	Access : R/W
(102F29h)	-	7:2	Reserved.	
	V_BLOCK[9:8]	1:0	See description of '102F28h'	
16h	REG102F2C	7:0	Default : 0xF2	Access : R/W
(102F2Ch)	HSD_YT0_C0[7:0]	7:0	Up-sample 1st pix (oxxx) cod	efficient Y0.
	X		Format: S7 of 2's compleme	nt (-31 <= Y0 <= 31).
17h	REG102F2E	7:0	Default : 0x1F	Access : R/W
(102F2Eh)	HSD_YT0_C1[7:0]	7:0	Up-sample 1st pix (oxxx) coefficient Y1.	
			Format: S7 of 2's compleme	nt (-63 <= Y1 <= 63).
18h	REG102F30	7:0	Default : 0x5E	Access : R/W
(102F30h)	HSD_YT0_C2[7:0]	7:0	Up-sample 1st pix (oxxx) coefficient Y2.	
			Format: Fix 8 (0 <= Y2 <= 1	255). T
19h	REG102F32	7:0	Default: 0xF4	Access : R/W
(102F32h)	HSD_YT1_C0[7:0]	7:0	Up-sample 2nd pix (xoxx) co	
			Format: S7 of 2's compleme	nt (-31 <= Y0 <= 31). T
1Ah	REG102F34	7:0	Default : 0x0C	Access : R/W
(102F34h)	HSD_YT1_C1[7:0]	7:0	Up-sample 2nd pix (xoxx) co	
			Format: S7 of 2's compleme	T .
1Bh (102F36h)	REG102F36	7:0	Default : 0x5A	Access : R/W
(102F3011)	HSD_YT1_C2[7:0]	7:0	Up-sample 2nd pix (xoxx) co	
 1Ch	REG102F38	7:0	Format: Fix 8 (0 <= Y2 <=) Default: 0x37	Access : R/W
(102F38h)	HSD_YT1_C3[7:0]			1
		7:0	Up-sample 2nd pix (xoxx) co Format: Fix 8 (0 <= Y3 <= 1	
1Dh	REG102F3A	7:0	Default : 0xF5	Access : R/W
(102F3Ah)	HSD_YT1_C4[7:0]	7:0	Up-sample 2nd pix (xoxx) co	ı
			Format: S7 of 2's compleme	
1Eh	REG102F3C	7:0	Default : 0xFA	Access : R/W



SC1 IP2_	M Register (Bank = 102F	, Sub	-Bank = 02)	
Index (Absolute)	Mnemonic	Bit	Description	
	HSD_YT1_C5[7:0]	7:0	Up-sample 2nd pix (xoxx) co Format: S7 of 2's compleme	
1Fh	REG102F3E	7:0	Default : 0xF7	Access : R/W
(102F3Eh)	HSD_YT2_C0[7:0]	7:0	Up-sample 3rd pix (xxox) co Format: S7 of 2's compleme	
20h	REG102F40	7:0	Default : 0xFE	Access : R/W
(102F40h)	HSD_YT2_C1[7:0]	7:0	Up-sample 3rd pix (xxox) co Format: S7 of 2's compleme	
21h	REG102F42	7:0	Default : 0x4B	Access : R/W
(102F42h)	HSD_YT2_C2[7:0]	7:0	Up-sample 3rd pix (xxox) co Format: Fix 8 (0 <= Y2 <=	
22h	REG102F44	7:0	Default : 0x17	Access : R/W
(102F44h)	HSD_CT0_C1[7:0]	7:0	Up-sample 1st pix (oxxx) coe Format: S7 of 2's compleme	
23h	REG102F46	7:0	Default : 0x52	Access : R/W
(102F46h)	HSD_CT0_C2[7:0]	7:0	Up-sample 1st pix (oxxx) coefficient C2. Format: Fix 8 (0 <= $C2$ <= 255).	
24h	REG102F48	7:0	Default : 0x0B	Access : R/W
(102F48h)	HSD_CT1_C1[7:0]	7:0	Up-sample 2nd pix (xoxx) co Format: S7 of 2's compleme	
25h	REG102F4A	7:0	Default : 0x4B	Access : R/W
(102F4Ah)	HSD_CT1_C2[7:0]	7:0	Up-sample 2nd pix (xoxx) co Format: Fix 8 (0 <= C2 <=	
26h	REG102F4C	7:0	Default : 0x29	Access : R/W
(102F4Ch)	HSD_CT1_C3[7:0]	7:0	Up-sample 2nd pix (xoxx) co Format: Fix 8 (0 <= C3 <=	
27h	REG102F4E	7:0	Default : 0x01	Access : R/W
(102F4Eh)	HSD_CT1_C4[7:0]	7:0	Up-sample 2nd pix (xoxx) co Format: S7 of 2's compleme	
28h	REG102F50	7:0	Default : 0x04	Access : R/W
(102F50h)	HSD_CT2_C1[7:0]	7:0	Up-sample 3rd pix (xxox) co Format: S7 of 2's compleme	
29h	REG102F52	7:0	Default : 0x3C	Access : R/W
(102F52h)	HSD_CT2_C2[7:0]	7:0	Up-sample 3rd pix (xxox) co Format: Fix 8 (0 <= C2 <=	



	M Register (Bank = 102F	,	·	
Index (Absolute)	Mnemonic	Bit	Description	
2Ah	REG102F55	7:0	Default : 0x00	Access : R/W
(102F55h)	PRE_ALIGN_EN	7	Insert pixel number enable f	or mirror mode.
	-	6:0	Reserved.	
36h	REG102F6C	7:0	Default : 0x00	Access : R/W
(102F6Ch)	VSD_IN_NUM_USR[7:0]	7:0	IP2 VSD input line count nur	nber.
36h	REG102F6D	7:0	Default : 0x00	Access : R/W
(102F6Dh)	VIN_CTRL_EN	7	IP2 VSD input line count con	trol enable.
	VSD_IN_USR_EN	6	IP2 VSD input line count nur	nber setting enable.
	-	5	Reserved.	
	VSD_IN_NUM_USR[12:8]	4:0	See description of '102F6Ch'	
37h	REG102F6E	7:0	Default: 0x00	Access : R/W
(102F6Eh)	VSD_OUT_NUMBER[7:0]	7:0	IP2 VSD output line count no	ımber.
37h	REG102F6F	7:0	Default : 0x00	Access : R/W
(102F6Fh)	VOUT_CTRL_EN	7	IP2 VSD output line count co	ontrol enable.
-		6:5	Reserved.	
	VSD_OUT_NUMBER[12:8]	4:0	See description of '102F6Eh'	
38h	REG102F70	7:0	Default : 0x00	Access : R/W
(102F70h)	VSD_USR_VACT_VIDEO[7:0]	7:0	VSD user mode v_active reg	ion.
38h	REG102F71	7:0	Default: 0x00	Access : R/W
(102F71h)	VSD_USR_VACT_VIDEO_EN	7	VSD user mode v_active reg	ion enable.
	-01	6:5	Reserved.	
×	VSD_USR_VACT_VIDEO[12:8]	4:0	See description of '102F70h'	
39h	REG102F72	7:0	Default : 0x00	Access : RO
(102F72h)	VSD_VACT_VIDEO_READ[7:0]	7:0	VSD user mode v_active reg	ion.
39h	REG102F73	7:0	Default : 0x00	Access : RO
(102F73h)	-	7:5	Reserved.	
	VSD_VACT_VIDEO_READ[12:8]	4:0	See description of '102F72h'	
3Eh	REG102F7C	7:0	Default : 0x00	Access : RO
(102F7Ch)	READ_HSD_OUT_CNT[7:0]	7:0	HSD output pixel count.	
3Eh	REG102F7D	7:0	Default : 0x00	Access : RO
(102F7Dh)	-	7:5	Reserved.	
	READ_HSD_OUT_CNT[12:8]	4:0	See description of '102F7Ch'	
3Fh	REG102F7E	7:0	Default : 0x00	Access : RO



SC1 IP2_	M Register (Bank = 102F	-, Sub	-Bank = 02)	
Index (Absolute)	Mnemonic	Bit	Description	
	READ_VSD_OUT_CNT[7:0]	7:0	VSD output pixel count.	
3Fh	REG102F7F	7:0	Default : 0x00	Access : RO
(102F7Fh)	-	7:5	Reserved.	
	READ_VSD_OUT_CNT[12:8]	4:0	See description of '102F7Eh'	
40h	REG102F80	7:0	Default : 0x00	Access : R/W
(102F80h)	-	7:4	Reserved.	
	IP2_CSC_EN	3	IP2 CSC enable.	
	-	2	Reserved.	
	RGB2YCBCR_EQ_SEL[1:0]	1:0	CSC coefficient select.	
47h	REG102F8E	7:0	Default : 0x00	Access : R/W
(102F8Eh)	PREFLT_ALPHA_EN	7	IP2 Pre-Filter alpha blending	enable.
	-	6:5	Reserved.	
	PREFLT_ALPHA[4:0]	4:0	IP2 Pre-Filter alpha blending	for original and filter.
48h	REG102F90	7:0	Default : 0x0F	Access : R/W
(102F90h) ₋		7:4	Reserved.	
	PRE_Y_TAP0[3:0]	3:0	IP2 Pre-Filter coefficient 0 [s	.3] (T8).
48h	REG102F91	7:0	Default : 0x00	Access : R/W
(102F91h)	PRE_FILTER_EN	7	IP2 Pre-Filter enable.	
	FIR_DITH_EN	6	IP2 Pre-Filter dith enable.	
	- / / /	5:0	Reserved.	
49h	REG102F92	7:0	Default : 0x07	Access : R/W
(102F92h)		7	Reserved.	
	PRE_Y_TAP1[6:0]	6:0	IP2 Pre-Filter coefficient 1 [s	6] (T8).
4Ah	REG102F94	7:0	Default : 0x6A	Access : R/W
(102F94h)		7	Reserved.	
	PRE_Y_TAP2[6:0]	6:0	IP2 Pre-Filter coefficient 2 [s	6] (T8).
4Bh	REG102F96	7:0	Default : 0x2F	Access : R/W
(102F96h)	PRE_Y_TAP3[7:0]	7:0	IP2 Pre-Filter coefficient 3 [s	.7] (T8).
4Ch	REG102F98	7:0	Default : 0x00	Access : R/W
(102F98h)	PRE_Y_TAP4[7:0]	7:0	IP2 Pre-Filter coefficient 4 [s	.8] (T8).
4Ch	REG102F99	7:0	Default : 0x00	Access : R/W
(102F99h)	-	7:1	Reserved.	
	PRE_Y_TAP4[8]	0	See description of '102F98h'.	



SC1 IP2_	M Register (Bank = 102F	, Sub	-Bank = 02)	
Index (Absolute)	Mnemonic	Bit	Description	
4Dh	REG102F9A	7:0	Default : 0x6A	Access : R/W
(102F9Ah)	PRE_Y_TAP5[7:0]	7:0	IP2 Pre-Filter coefficient 5 [s	.9] (T8).
4Dh	REG102F9B	7:0	Default : 0x00	Access : R/W
(102F9Bh)	-	7:2	Reserved.	
	PRE_Y_TAP5[9:8]	1:0	See description of '102F9Ah'	
4Eh	REG102F9C	7:0	Default : 0x8C	Access : R/W
(102F9Ch)	PRE_Y_TAP6[7:0]	7:0	IP2 Pre-Filter coefficient 6 [C).10] (T8).
4Eh	REG102F9D	7:0	Default : 0x03	Access : R/W
(102F9Dh)	-	7:2	Reserved.	
	PRE_Y_TAP6[9:8]	1:0	See description of '102F9Ch'	:
50h	REG102FA0	7:0	Default: 0x00	Access : R/W
(102FA0h)	-	7:1	Reserved.	
	FLT_MODE	0	In advance mode 0:use 4 ph blending.	nase blending 1: use 8 phase
51h	REG102FA2	7:0	Default : 0xFA	Access : R/W
(102FA2h)	HSD_YT3_C0[7:0]	7:0	Up-sample 2nd pix (xoxx) co Format: S7 of 2's complement	
52h	REG102FA4	7:0	Default : 0x0D	Access : R/W
(102FA4h)	HSD_YT3_C1[7:0]	7:0	Up-sample 2nd pix (xoxx) co Format: S7 of 2's complement	
53h	REG102FA6	7:0	Default : 0x5C	Access : R/W
(102FA6h)	HSD_YT3_C2[7:0]	7:0	Up-sample 2nd pix (xoxx) co Format: Fix 8 (0 <= Y2 <= 3	
54h	REG102FA8	7:0	Default : 0x23	Access : R/W
(102FA8h)	HSD_YT3_C3[7:0]	7:0	Up-sample 2nd pix (xoxx) co Format: Fix 8 (0 <= Y3 <= 3	
55h	REG102FAA	7:0	Default : 0xF7	Access : R/W
(102FAAh)	HSD_YT3_C4[7:0]	7:0	Up-sample 2nd pix (xoxx) co Format: S7 of 2's complement	
56h	REG102FAC	7:0	Default : 0x03	Access : R/W
(102FACh)	HSD_YT3_C5[7:0]	7:0	Up-sample 2nd pix (xoxx) co Format: S7 of 2's complement	
57h	REG102FAE	7:0	Default : 0xFE	Access : R/W
(102FAEh)	HSD_YT4_C0[7:0]	7:0	Up-sample 2nd pix (xoxx) co	pefficient Y0.



Index (Absolute)	Mnemonic	Bit	Description
			Format: S7 of 2's complement (-31 <= Y0 <= 31).
58h	REG102FB0	7:0	Default : 0xFE Access : R/W
(102FB0h)	HSD_YT4_C1[7:0]	7:0	Up-sample 2nd pix (xoxx) coefficient Y1. Format: S7 of 2's complement (-63 <= Y1 <= 63).
59h	REG102FB2	7:0	Default : 0x52 Access : R/W
(102FB2h)	HSD_YT4_C2[7:0]	7:0	Up-sample 2nd pix (xoxx) coefficient Y2. Format: Fix 8 (0 <= Y2 <= 255).
5Ah	REG102FB4	7:0	Default : 0x3B Access : R/W
(102FB4h)	HSD_YT4_C3[7:0]	7:0	Up-sample 2nd pix (xoxx) coefficient Y3. Format: Fix 8 (0 <= Y3 <= 255).
5Bh	REG102FB6	7:0	Default: 0xF7 Access: R/W
(102FB6h)	HSD_YT4_C4[7:0]	7:0	Up-sample 2nd pix (xoxx) coefficient Y4. Format: S7 of 2's complement (-63 <= Y4 <= + 63).
5Ch	REG102FB8	7:0	Default : 0x00 Access : R/W
(102FB8h)	HSD_YT4_C5[7:0]	7:0	Up-sample 2nd pix (xoxx) coefficient Y5. Format: S7 of 2's complement (-31 < Y5 <= 31).
5Fh	REG102FBE	7:0	Default : 0x00 Access : R/W
(102FBEh)		7:5	Reserved.
, C	GOP_REQ_CNT[4:0]	4:0	In mvop handshake mode, gen GOP needs timing.
5Fh	REG102FBF	7:0	Default : 0x00 Access : R/W
(102FBFh)	IP2GOP_SRC_SEL	7	For GOPD src of ip2 0: IP2IN 1:IP2OUT.
	-01	6:0	Reserved.
60h	REG102FC0	7:0	Default : 0x00 Access : R/W
(102FC0h)	ADJ_HI_PRI[7:0]	7:0	Adjust memory priority.
60h	REG102FC1	7:0	Default : 0x00 Access : R/W
(102FC1h)	-	7:1	Reserved.
	PSEUDO_STOP	0	Enable pseudo blanking.
61h	REG102FC2	7:0	Default : 0x08 Access : R/W
(102FC2h)	LB_SPLIT_BLANK[7:0]	7:0	LB pseudo blank cycle.
61h	REG102FC3	7:0	Default : 0x18 Access : R/W
(102FC3h)	PRE_ADJ_SPLIT_BLANK[7:0]	7:0	Adjust pseudo blank cycle.
62h	REG102FC4	7:0	Default : 0x00 Access : R/W
(102FC4h)	-	7:5	Reserved.
	EXT_LR_EN	4	Enable external Ir signal.



Index	Mnemonic	Bit	Description		
(Absolute)					
	-	3:1	Reserved.		
	INIT_3D_STAT	0	Initialize 3d stat.		
62h	REG102FC5	7:0	Default : 0x00	Access : R/W	
(102FC5h)	-	7:6	Reserved.		
	WAIT_LEFT_FRM_INV	5	Reg_wait_right_frm.		
	WAIT_LEFT_FRM	4	WAIT_LEFT_FRM.		
	-	3:1	Reserved.		
	EXT_LR_INV	0	Inverse external Ir signal.		
63h	REG102FC6	7:0	Default : 0x00	Access : R/W	
(102FC6h)	-	7:5	Reserved.		
	INI_LR_IDX	4	0: L is the first frame 1: R is the first frame.		
	-	3	Reserved.		
	ADJ_FORCE_EN_	2	Adj bypass enable.		
	LR_CHG_MODE[1:0]	1:0	0: Line.		
			1: Block.		
/ Ol-	DE0100E07	7.0	2: Frame.	A	
63h (102FC7h)	REG102FC7	7:0	Default : 0x00	Access : R/W	
(10210711)	- IO.C1000 LVAM	7	Reserved.		
	MAX_LOOP[2:0]	6:4	3d mode setting.		
	- CDLIT HALF	3:1	Reserved.		
(Al-	SPLIT_HALF	0	Split 1 frame into 2 frames.	A	
64h (102FC8h)	REG102FC8	7:0	Default : 0x00	Access : R/W	
(1021 0011)		7:6	Reserved.		
	VACT_SPC_EN[1:0]	5:4	3d mode setting.		
	MASK ENIO.01		Reserved.		
/ / lb	MASK_EN[2:0]	2:0	3d mode setting.	Access - D //M	
64h (102FC9h)	REG102FC9 GEN_VS_ACT[3:0]	7:0	Default: 0x00 Enable gen pseudo vsync in	Access : R/W	
		7:4	<u> </u>		
65h	GEN_VS_EN[3:0]	3:0	Enable gen pseudo vsync in	I	
(102FCAh)	REG102FCA	7:0	Default : 0x00	Access : R/W	
	VACT_VIDEO[7:0]	7:0	V_active region.	<u> </u>	
65h	REG102FCB	7:0	Default : 0x00	Access : R/W	



Index (Absolute)	Mnemonic	Bit	Description	
(Absolute)	VACT_VIDEO[12:8]	4:0	See description of '102FCAh'	
66h	REG102FCC	7:0	Default : 0x00	Access : R/W
(102FCCh)	VACT_SPC_0[7:0]	7:0	V blanking between field1&fi	eld2 or field3&field4
66h	REG102FCD	7:0	Default : 0x00	Access : R/W
(102FCDh)	-	7:5	Reserved.	
	VACT_SPC_0[12:8]	4:0	See description of '102FCCh'	
67h	REG102FCE	7:0	Default : 0x00	Access : R/W
(102FCEh)	VACT_SPC_1[7:0]	7:0	V blanking between field2&fi	eld3.
67h	REG102FCF	7:0	Default : 0x00	Access : R/W
(102FCFh)	-	7:5	Reserved.	
	VACT_SPC_1[12:8]	4:0	See description of '102FCEh'.	
58h	REG102FD0	7:0	Default : 0xC0	Access : R/W
102FD0h)	LB_AUTO	7	LB_AUTO.	<u> </u>
	VSD_FAC_AUTO_RST_EN	6	VSD 3d auto factor reset mode enable.	
<i>J</i>	AUTO_VACT_VIDEO_RST	5	AUTO vact_video mode reset.	
	- (\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	4:0	Reserved.	
58h	REG102FD1	7:0	Default : 0x03	Access : R/W
102FD1h)		7:2	Reserved.	
1	FORCE_OUTACK	1	Enable dat_adj to src force re	eady.
14.	ADJ_AUTO	0	ADJ_AUTO.	
6Ah	REG102FD4	7:0	Default : 0x00	Access : RO
(102FD4h)	FIFO_DIFF[7:0]	7:0	Number of FIFO.	
6Ah	REG102FD5	7:0	Default : 0x00	Access : RO
(102FD5h)	- 111	7:1	Reserved.	
	FIFO_DIFF[8]	0	See description of '102FD4h'	
6Bh	REG102FD6	7:0	Default : 0x00	Access : R/W
(102FD6h)	-	7:3	Reserved.	
	LR_ALT_LINE	2	RSP line initialization.	
	LR_FST_PIX	1	RSP LR initialization.	
	PIX_SEP_EN	0	PIX_SEP_EN.	
6Ch	REG102FD8	7:0	Default : 0x00	Access : R/W
(102FD8h)	HALF_PIX[7:0]	7:0	IP2 3D separation half numb	er for user mode.
6Ch	REG102FD9	7:0	Default : 0x00	Access : R/W



Index (Absolute)	Mnemonic	Bit	Description	
	HALF_PIX_USR_EN	7	IP2 3D separation user mode	9 .
	-	6:3	Reserved.	
	HALF_PIX[10:8]	2:0	See description of '102FD8h'	
6Dh	REG102FDA	7:0	Default : 0x00	Access : R/W
(102FDAh)	RSP_PH0_COEF0[7:0]	7:0	RSP phase 0 coefficient 0.	
6Dh	REG102FDB	7:0	Default : 0x80	Access : R/W
(102FDBh)	RSP_PH0_COEF1[7:0]	7:0	RSP phase 0 coefficient 1.	
6Eh	REG102FDC	7:0	Default : 0x00	Access : R/W
(102FDCh)	RSP_PH1_COEF0[7:0]	7:0	RSP phase 1 coefficient 0.	
6Eh	REG102FDD	7:0	Default: 0x40	Access : R/W
(102FDDh)	RSP_PH1_COEF1[7:0]	7:0	RSP phase 1 coefficient 1.	
6Fh	REG102FDE	7:0	Default : 0xAA	Access : R/W
(102FDEh)	RSP_LINE7_PH	7	RSP line phase 7.	4
	RSP_LINE6_PH	6	RSP line phase 6.	
	RSP_LINE5_PH	5	RSP line phase 5.)
	RSP_LINE4_PH	4	RSP line phase 4.	
	RSP_LINE3_PH	3	RSP line phase 3.	
, C	RSP_LINE2_PH	2	RSP line phase 2.	
	RSP_LINE1_PH	1	RSP line phase 1.	
19	RSP_LINEO_PH	0	RSP line phase 0.	
Fh	REG102FDF	7:0	Default : 0x00	Access : R/W
(102FDFh)		7	Reserved.	
	RSP_FIELD_USR_EN	6	Re-sample local toggle field t	lag.
	RSP_FIELD_INV	5	Re-sample field polarity inver	rt.
	RSP_FIELD_EN	4	Re-sample field mode.	
	-	3:1	Reserved.	
	RESAMP_EN	0	RSP enable.	
7Eh	REG102FFC	7:0	Default : 0xFF	Access : R/W
(102FFCh)	DUMMY_CLR[7:0]	7:0	DUMMY_CLR.	
7Eh	REG102FFD	7:0	Default : 0x00	Access : R/W
(102FFDh)	DUMMY_CLR[15:8]	7:0	See description of '102FFCh'.	
7Fh	REG102FFE	7:0	Default : 0x00	Access : R/W
(102FFEh)	DUMMY_SET[7:0]	7:0	DUMMY_SET.	



SC1 IP2_	SC1 IP2_M Register (Bank = 102F, Sub-Bank = 02)				
Index (Absolute) Bit Description					
7Fh	REG102FFF	7:0	Default : 0x00	Access : R/W	
(102FFFh)	DUMMY_SET[15:8]	7:0	See description of '102FFEh'.		





SC1 PNR Register (Bank = 102F, Sub-Bank = 05)

SC1 PNR	Register (Bank = 102F, S	Sub-B	ank = 05)			
Index (Absolute)	Mnemonic	Bit	Description			
01h	REG102F02	7:0	Default : 0x00	Access : R/W		
(102F02h)	-	7:4	Reserved.			
	PNR_ENY_F1	3	Sub Window Post Noise Redu	uction for Y.		
	PNR_ENC_F1	2	Sub Window Post Noise Reduction for C.			
	RATIOYC_F1[1:0]	1:0	Sub Window Motion Ratio.			
02h	REG102F04	7:0	Default : 0x00	Access : R/W		
(102F04h)	-	7:3	Reserved.			
	PNR_BYPASS_F1	2	Sub Window PNR function by	ypass enable.		
	NR_EN_F1	1	Sub Window Post NR enable.			
	PCCS_EN_F1	0	Sub Window Post CCS enable.			
0Fh	REG102F1E	7:0	Default : 0x00	Access : R/W		
(102F1Eh)	-	7:4	Reserved.	4		
	FILM_DETECT_NXT_EN_F1	3	PNR pack next_y 5-bit to opm_itf for sub window.			
	DITHER_FRAME_RST_CNT[1:0]	2:1	Dither frame reset count.			
	DITHER_FRAME_RST_EN	0	Dither frame reset enable.			
11h	REG102F22	7:0	Default : 0x00	Access : R/W		
(102F22h)	FIELD_AVG_C_EN_F2	7	Main Window C average mod	de when dotline cycle.		
	FIELD_AVG_Y_EN_F2	6	Main Window Y average mod	de when dotline cycle.		
	PNR_RATIOC_F100_F2	5	Main Window C blending thro 16 when 15.	eshold automatically carry to		
>	PNR_RATIOY_F100_F2	4	Main Window Y blending threshold automatically carry to 16 when 15.			
	PNR_ENY_F2	3	Main Window Post Noise Rec	luction for Y.		
	PNR_ENC_F2	2	Main Window Post Noise Rec	luction for C.		
	RATIOYC_F2[1:0]	1:0	Main Window Motion Ratio.			
11h	REG102F23	7:0	Default : 0x00	Access : R/W		
(102F23h)	FIELD_AVG_C_MODE_SEL_F2	7	Main Window C average mod cycle.	de selection when dotline		
	FIELD_AVG_Y_MODE_SEL_F2	6	Main Window Y average mod cycle.	de selection when dotline		
	-	5:1	Reserved.			
	SEL_NEXT_FIELD_INV_F2	0	Main Window select next fiel	Main Window select next field inverter for noc_sel.		



Index (Absolute)	Mnemonic	Bit	Description	
12h	REG102F24	7:0	Default : 0x18	Access : R/W
(102F24h)	DHD_3F_EN_F2	7	Main Window DHD 3f mode	enable.
	PCCS_3F_EN_F2	6	Main Window PCCS 3f mode	enable.
	-	5	Reserved.	
	PCCS_DITHER_EN_F2	4	Main Window PCCS dither enable.	
	DHD_DITHER_EN_F2	3	Main Window DHD dither enable.	
	PNR_BYPASS_F2	2	Main Window PNR function bypass enable.	
	NR_EN_F2	1	Main Window Post NR enable.	
	PCCS_EN_F2	0	Main Window Post CCS enab	le.
12h	REG102F25	7:0	Default: 0x00	Access : R/W
(102F25h)	- (10)	7	Reserved.	
	PAL_EN_F2	6	Main Window PAL enable.	
	-	5:0	Reserved.	A
13h	REG102F26	7:0	Default : 0x00	Access : R/W
	POS_MOTIONC_TH1_F2[2:0]	7:5	Main Window user-defined C	motion threshold value.
	POS_MOTIONY_TH1_F2[2:0]	4:2	Main Window user-defined Y motion threshold value.	
	POS_MOTIONC_SEL_F2	1	Main Window user-defined C motion threshold enable.	
	POS_MOTIONY_SEL_F2	0	Main Window user-defined Y motion threshold enable.	
14h	REG102F28	7:0	Default: 0x00	Access : R/W
(102F28h)	- / / /	7	Reserved.	
	NR_Y_ROUND_F2	6	Main Window rounding wher	n NR blending for Y.
>	CMOT_MAX_SEL_F2	5	Main Window enable select r	max motion for c.
	YMOT_MAX_SEL_F2	4	Main Window enable select r	max motion for y.
	CMOT_DIV_MODE_F2[1:0]	3:2	Main Window c motion divide	e mode.
	YMOT_DIV_MODE_F2[1:0]	1:0	Main Window y motion divide	e mode.
1Fh	REG102F3E	7:0	Default : 0x00	Access : R/W
(102F3Eh)	-	7:4	Reserved.	
	FILM_DETECT_NXT_EN_F2	3	PNR pack next_y 5-bit to opi	m_itf for main window.
	-	2:0	Reserved.	
20h	REG102F40	7:0	Default : 0x02	Access : R/W
(102F40h)	-	7:6	Reserved.	
	DHD_HMR_INT_INV_F2	5	Main Window DHD Interleav	ed History MR invert.
	DHD_HMR_INT_EN_F2	4	Main Window DHD Interleav	ed History MR enable.



SC1 PNR	Register (Bank = 102F, S	Sub-B	ank = 05)	
Index (Absolute)	Mnemonic	Bit	Description	
	DHD_CMR_IIR_EN_F2	3	Main Window DHD CMR IIR	enable.
	DHD_YMR_IIR_EN_F2	2	Main Window DHD YMR IIR	enable.
	DHD_YMR02_EN_F2	1	Main Window DHD YMR02 e	nable.
	DHD_EN_F2	0	Main Window DHD enable.	
20h	REG102F41	7:0	Default : 0x02	Access : R/W
(102F41h)	-	7:6	Reserved.	
	DHD_HMR_INT_INV_F1	5	Sub Window DHD Interleaved History MR invert.	
	DHD_HMR_INT_EN_F1	4	Sub Window DHD Interleave	d History MR enable.
	DHD_CMR_IIR_EN_F1	3	Sub Window DHD CMR IIR e	nable.
	DHD_YMR_IIR_EN_F1	2	Sub Window DHD YMR IIR enable.	
	DHD_YMR02_EN_F1	1	Sub Window DHD YMR02 enable.	
	DHD_EN_F1	0	Sub Window DHD enable.	
21h	REG102F42	7:0	Default : 0x1C	Access : R/W
(102F42h)	- / () \	7:6	Reserved.	
	DHD_YMR02_TH[5:0]	5:0	DHD YMR02 threshold.	
	REG102F43	7:0	Default : 0x01	Access : R/W
(102F43h)		7:3	Reserved.	
	DHD_YMR02_GAIN[2:0]	2:0	DHD YMR02 gain.	
22h	REG102F44	7:0	Default: 0x18	Access : R/W
(102F44h)	- / / /	7:6	Reserved.	•
	DHD_YMR04_TH[5:0]	5:0	DHD YMR04 threshold.	
22h	REG102F45	7:0	Default : 0x01	Access : R/W
(102F45h)	, , ,	7:3	Reserved.	
	DHD_YMR04_GAIN[2:0]	2:0	DHD YMR04 gain.	
23h	REG102F46	7:0	Default : 0x40	Access : R/W
(102F46h)	DHD_CVAL_GAIN[7:0]	7:0	DHD C value gain.	
23h	REG102F47	7:0	Default : 0x02	Access : R/W
(102F47h)	-	7:4	Reserved.	
	DHD_DIFFPIX_GAIN[3:0]	3:0	DHD pixel diff gain.	
24h	REG102F48	7:0	Default : 0x18	Access : R/W
(102F48h)	-	7:6	Reserved.	
	DHD_CMR02_TH[5:0]	5:0	DHD C motion02 threshold.	
24h	REG102F49	7:0	Default : 0x01	Access : R/W



Index (Absolute)	Mnemonic	Bit	Description	
	-	7:3	Reserved.	
	DHD_CMR02_GAIN[2:0]	2:0	DHD C motion02 gain.	
25h	REG102F4A	7:0	Default : 0x10	Access : R/W
(102F4Ah)	-	7:6	Reserved.	
	DHD_CMR04_TH[5:0]	5:0	DHD C motion04 threshold.	
25h	REG102F4B	7:0	Default : 0x01	Access : R/W
(102F4Bh)	-	7:3	Reserved.	
	DHD_CMR04_GAIN[2:0]	2:0	DHD C motion04 gain.	
26h	REG102F4C	7:0	Default : 0x30	Access : R/W
(102F4Ch)	DHD_CEDGE_GAIN[7:0]	7:0	DHD C edge gain.	
26h	REG102F4D	7:0	Default : 0x40	Access : R/W
(102F4Dh)	DHD_YEDGE_GAIN[7:0]	7:0	DHD Y edge gain.	
28h	REG102F50	7:0	Default : 0x63	Access : R/W
(102F50h)	- / 0	7	Reserved.	
<u>-</u>	DHD_YMR_IIR_ALPHA[2:0]	6:4	DHD YMR IIR alpha.	
	-	3:2	Reserved.	
	DHD_YMR_IIR_STEP[1:0]	1:0	DHD YMR IIR step.	
28h	REG102F51	7:0	Default : 0x63	Access : R/W
(102F51h)	- 6	7	Reserved.	
19	DHD_CMR_IIR_ALPHA[2:0]	6:4	DHD CMR IIR alpha.	
	-01	3:2	Reserved.	
	DHD_CMR_IIR_STEP[1:0]	1:0	DHD CMR IIR step.	
29h	REG102F52	7:0	Default : 0x00	Access : R/W
(102F52h)	DHD_CEDGE_TH[7:0]	7:0	DHD C edge threshold.	,
29h	REG102F53	7:0	Default : 0x00	Access : R/W
(102F53h)	DHD_YEDGE_TH[7:0]	7:0	DHD Y edge threshold.	
2Bh	REG102F56	7:0	Default : 0x00	Access : R/W
(102F56h)	DHD_CVAL_TH[7:0]	7:0	DHD C value threshold.	
2Bh	REG102F57	7:0	Default : 0x0F	Access : R/W
(102F57h)	-	7:4	Reserved.	
	DHD_USER_W[3:0]	3:0	DHD user weight of final res	ult.
4Ch	REG102F98	7:0	Default : 0x08	Access : R/W
(102F98h)	-	7:5	Reserved.	



Index	D/m o m o m i o	Dis	Decemention	
Index (Absolute)	Mnemonic	Bit	Description	
	CCS_YMR04_GAIN[4:0]	4:0	CCS Y motion gain of diff of cur and ext.	
4Ch	REG102F99	7:0	Default : 0x11 Access : R/W	
(102F99h)	-	7:5	Reserved.	
	CCS_YMR04_TH[4:0]	4:0	CCS Y motion threshold of diff of cur and ext.	
4Dh	REG102F9A	7:0	Default : 0x06 Access : R/W	
(102F9Ah)	-	7:5	Reserved.	
	CCS_YMR02_24_GAIN[4:0]	4:0	CCS Y motion 02 24 gain.	
4Dh	REG102F9B	7:0	Default : 0x11 Access : R/W	
(102F9Bh)	-	7:5	Reserved.	
	CCS_YMR02_24_TH[4:0]	4:0	CCS Y motion 02 24 threshold.	
4Eh	REG102F9C	7:0	Default : 0x02 Access : R/W	
(102F9Ch)	-	7:4	Reserved.	
	CCS_CMR04_GAIN[3:0]	3:0	CCS C motion 04 gain.	
4Eh	REG102F9D	7:0	Default : 0x11 Access : R/W	
(102F9Dh) ₋	. 0	7:5	Reserved.	
	CCS_CMR04_TH[4:0]	4:0	CCS C motion 04 threshold.	
4Fh	REG102F9E	7:0	Default : 0x03 Access : R/W	
(102F9Eh)		7:4	Reserved.	
	CCS_CMR02_24_GAIN[3:0]	3:0	CCS C motion 02 24 gain.	
4Fh	REG102F9F	7:0	Default: 0x00 Access: R/W	
(102F9Fh)	-01 5	7:5	Reserved.	
X	CCS_CMR02_24_TH[4:0]	4:0	CCS C motion 02 24 threshold.	
50h	REG102FA0	7:0	Default : 0x05 Access : R/W	
(102FA0h)	- 11	7:5	Reserved.	
	CCS_CRCE_GAIN[4:0]	4:0	CCS C real edge gain.	
50h	REG102FA1	7:0	Default : 0x11 Access : R/W	
(102FA1h)	-	7:5	Reserved.	
	CCS_CRCE_TH[4:0]	4:0	CCS C real edge threshold.	
51h	REG102FA2	7:0	Default : 0x06 Access : R/W	
(102FA2h)	-	7:6	Reserved.	
	CCS_YEDGE_GAIN[5:0]	5:0	CCS Y edge gain.	
51h	REG102FA3	7:0	Default : 0x00 Access : R/W	
(102FA3h)	CCS_YEDGE_TH[7:0]	7:0	CCS Y edge threshold.	



SC1 PNR	Register (Bank = 102F,	Sub-B	ank = 05)	
Index (Absolute)	Mnemonic	Bit	Description	
52h	REG102FA4	7:0	Default : 0x05	Access : R/W
(102FA4h)	-	7:5	Reserved.	
	CCS_CSAT_GAIN[4:0]	4:0	CCS C saturation gain.	
52h	REG102FA5	7:0	Default : 0x11	Access : R/W
(102FA5h)	-	7:5	Reserved.	
	CCS_CSAT_TH[4:0]	4:0	CCS C saturation gain.	
53h	REG102FA6	7:0	Default : 0x0F	Access : R/W
(102FA6h)	-	7:4	Reserved.	
	CCS_USER_W[3:0]	3:0	CCS user weight of final result.	
78h ~ 78h	-	7:0	Default : -	Access : -
(102FF0h ~	·	-	Reserved.	
102FF1h)				



SC1 DNR Register (Bank = 102F, Sub-Bank = 06)

SC1 DNR	Register (Bank = 102F,	Sub-B	ank = 06)	
Index (Absolute)	Mnemonic	Bit	Description	
21h	REG102F42	7:0	Default : 0x00	Access : R/W
(102F42h)	-	7:2	Reserved.	
	F2_DNR_CORE_EN	1	F2 DNR CORE FUNCTION EN	
	F2_DNR_EN	0	F2 DNR ALL (PRESNR + MED+ CORE) FUNCTION EN.	
21h	REG102F43	7:0	Default : 0x00	Access : R/W
(102F43h)	-	7:2	Reserved.	
	F2_NR_TABLE_SEL_C	1	F2 DNR Table C Mapping Sel #0: non-linear. #1: linear.	ect.
F2_NR_TABLE_SEL_Y		0	F2 DNR Table Y Mapping Select. #0: non-linear. #1: linear.	
22h	REG102F44	7:0	Default : 0x00	Access : R/W
(102F44h)	. (0 (7:2	Reserved.	
	SNR_MD_MODE_EN	1	F2 SNR Motion Mode EN.	
	SNR_EN	0	F2 SNR FUNCTION EN.	
25h	REG102F4A	7:0	Default : 0x00	Access : R/W
(102F4Ah)		7:4	Reserved.	
Mi	F2_ROUND_MODE_C[1:0]	3:2	F2 DNR C blend rounding sel #00: add 0. #01: add dither. #10: add dither. #11: add dither.	ect.
	F2_ROUND_MODE_Y[1:0]	1:0	F2 DNR Y blend rounding select. #00: add 0. #01: add dither. #10: add dither. #11: add dither.	
26h	REG102F4C	7:0	Default : 0x00	Access : R/W
(102F4Ch)	-	7:4	Reserved.	
	F2_MAX_MOT_ENABLE_C	3	F2_MAX_MOT_ENABLE_C.	
	F2_MAX_MOT_ENABLE_Y	2	F2_MAX_MOT_ENABLE_Y.	
	F2_DNR_FILTER_EN_C	1	F2_DNR_FILTER_EN_C.	
	F2_DNR_FILTER_EN_Y	0	F2_DNR_FILTER_EN_Y.	



Index	Mnemonic	Bit	Description	
(Absolute)				ı
27h	REG102F4E	7:0	Default : 0x00	Access : R/W
(102F4Eh)	F2_DNR_FILTER_DIV0_C[2:0]	7:5	F2_DNR_FILTER_DIV0_C.	
	F2_DNR_FILTER_DIV0_Y[2:0]	4:2	F2_DNR_FILTER_DIV0_Y.	
	-	1:0	Reserved.	
27h	REG102F4F	7:0	Default : 0x00	Access : R/W
(102F4Fh)	F2_DNR_FILTER_MODE_C[1:0]	7:6	F2_DNR_FILTER_MODE_C.	
	F2_DNR_FILTER_MODE_Y[1:0]	5:4	F2_DNR_FILTER_MODE_Y.	
	F2_DNR_FILTER_DIV1_C[1:0]	3:2	F2_DNR_FILTER_DIV1_C.	
	F2_DNR_FILTER_DIV1_Y[1:0]	1:0	F2_DNR_FILTER_DIV1_Y.	
2Bh	REG102F56	7:0	Default : 0x04	Access : R/W
(102F56h)	- <u>(</u>	7:4	Reserved.	
	SNR_SHARP_LEVEL[3:0]	3:0	SNR sharpness level.	
40h	REG102F80	7:0	Default : 0xBD	Access : R/W
(102F80h)	DNR_TABLEY_0[7:0]	7:0	DNR TABLEY_0.	
40h	REG102F81	7:0	Default : 0x79	Access : R/W
(102F81h)	DNR_TABLEY_0[15:8]	7:0	See description of '102F80h'.	
41h	REG102F82	7:0	Default : 0x56	Access : R/W
(102F82h)	DNR_TABLEY_1[7:0]	7:0	DNR TABLEY_1.	
41h	REG102F83	7:0	Default: 0x34	Access : R/W
(102F83h)	DNR_TABLEY_1[15:8]	7:0	See description of '102F82h'.	
42h	REG102F84	7:0	Default : 0x12	Access : R/W
(102F84h)	DNR_TABLEY_2[7:0]	7:0	DNR TABLEY_2.	
42h	REG102F85	7:0	Default : 0x00	Access : R/W
(102F85h)	DNR_TABLEY_2[15:8]	7:0	See description of '102F84h'.	
43h	REG102F86	7:0	Default : 0x00	Access : R/W
(102F86h)	DNR_TABLEY_3[7:0]	7:0	DNR TABLEY_3.	
43h	REG102F87	7:0	Default : 0x00	Access : R/W
(102F87h)	DNR_TABLEY_3[15:8]	7:0	See description of '102F86h'.	
44h	REG102F88	7:0	Default : 0xBD	Access : R/W
(102F88h)	DNR_TABLEC_0[7:0]	7:0	DNR TABLEC_0.	
44h	REG102F89	7:0	Default : 0x79	Access : R/W
(102F89h)	DNR_TABLEC_0[15:8]	7:0	See description of '102F88h'.	•
45h	REG102F8A	7:0	Default : 0x56	Access : R/W



Index (Absolute)	Mnemonic	Bit	Description				
(, ibsolute)	DNR_TABLEC_1[7:0]	7:0	DNR TABLEC_1.				
45h	REG102F8B	7:0	Default : 0x34	Access : R/W			
(102F8Bh)	DNR_TABLEC_1[15:8]	7:0	See description of '102F8Ah'.				
46h	REG102F8C	7:0	Default : 0x12	Access : R/W			
(102F8Ch)	DNR_TABLEC_2[7:0]	7:0	DNR TABLEC_2.				
46h	REG102F8D	7:0	Default : 0x00	Access : R/W			
(102F8Dh)	DNR_TABLEC_2[15:8]	7:0	See description of '102F8Ch'				
47h	REG102F8E	7:0	Default : 0x00	Access : R/W			
(102F8Eh)	DNR_TABLEC_3[7:0]	7:0	DNR TABLEC_3.				
47h	REG102F8F	7:0	Default: 0x00	Access : R/W			
(102F8Fh)	DNR_TABLEC_3[15:8]	7:0	See description of '102F8Eh'.				
73h	REG102FE6	7:0	Default : 0x00	Access : R/W			
102FE6h)	_	7:1	Reserved.				
	F2_WIN_EN	0	F2 DNR/SNR active window	enable.			
74h	REG102FE8	7:0	Default : 0x00	Access : R/W			
(102FE8h)	F2_WIN_XSTART[7:0]	7:0	F2 DNR/SNR active window s	start X.			
74h	REG102FE9	7:0	Default : 0x00	Access : R/W			
102FE9h)		7:3	Reserved.				
	F2_WIN_XSTART[10:8]	2:0	See description of '102FE8h'.				
75h	REG102FEA	7:0	Default : 0x00	Access : R/W			
102FEAh)	F2_WIN_YSTART[7:0]	7:0	F2 DNR/SNR active window s	start Y.			
75h	REG102FEB	7:0	Default : 0x00	Access : R/W			
(102FEBh)		7:3	Reserved.				
	F2_WIN_YSTART[10:8]	2:0	See description of '102FEAh'				
76h	REG102FEC	7:0	Default : 0x68	Access : R/W			
(102FECh)	F2_WIN_XEND[7:0]	7:0	F2 DNR/SNR active window	end X.			
76h	REG102FED	7:0	Default : 0x01	Access : R/W			
(102FEDh)	-	7:3	Reserved.				
	F2_WIN_XEND[10:8]	2:0	See description of '102FECh'				
77h	REG102FEE	7:0	Default : 0xF0	Access : R/W			
(102FEEh)	F2_WIN_YEND[7:0]	7:0	F2 DNR/SNR active window	end Y.			
77h	REG102FEF	7:0	Default : 0x00	Access : R/W			
(102FEFh)	-	7:3	Reserved.				



SC1 DNR Register (Bank = 102F, Sub-Bank = 06)					
Index (Absolute)	Mnemonic	Description			
F2_WIN_YEND[10:8] 2:0 See description of '102FEEh'.					





SC1 FILM Register (Bank = 102F, Sub-Bank = 0A)

SC1 FILM	Register (Bank = 102F, Sub-Ban	k = 0	A)	
Index (Absolute)	Mnemonic	Bit	Description	
02h	-	7:0	Default : -	Access : -
(102F04h)	-	ı	Reserved.	
02h	REG102F05	7:0	Default : 0x02	Access : R/W
(102F05h)	-	7	Reserved.	
	DET_FIELD_SEL_LC	6	DET_FIELD_SEL_LC.	
	-	5	Reserved.	
	DIFF_TH[12:8]	4:0	Difference threshold.	
03h	REG102F06	7:0	Default : 0x08	Access : R/W
(102F06h)	32_CUR_ERROR_TH_F2[7:0]	7:0	32 current error thres	hold.
03h	REG102F07	7:0	Default : 0x08	Access : R/W
(102F07h)	32_PRE_ERROR_TH_F2[15:8]	7:0	32 previous error thre	shold.
04h	REG102F08	7:0	Default : 0x04	Access : R/W
(102F08h)	22_CUR_ERROR_TH_F2[7:0]	7:0	22 current error thres	hold.
04h	REG102F09	7:0	Default : 0x04	Access : R/W
(102F09h)	22_PRE_ERROR_TH_F2[15:8]	7:0	22 previous error threshold.	
06h	REG102F0C	7:0	Default : 0x10	Access : R/W
(102F0Ch)	32_TOTAL_ERROR_MAX_TH_F2[7:0]	7:0	32 total error max th.	
06h	REG102F0D	7:0	Default : 0x7F	Access : R/W
(102F0Dh)	32_TOTAL_ERROR_SUM_TH_F2[15:8]	7:0	32 total error sum th.	
07h	REG102F0E	7:0	Default : 0x08	Access : R/W
(102F0Eh)	22_TOTAL_ERROR_MAX_TH_F2[7:0]	7:0	22 total error max th.	
07h	REG102F0F	7:0	Default : 0x7F	Access : R/W
(102F0Fh)	22_TOTAL_ERROR_SUM_TH_F2[15:8]	7:0	22 total error sum th.	
09h	REG102F13	7:0	Default : 0x02	Access : R/W
(102F13h)	-	7:5	Reserved.	
	FIX_DIFF_TH[12:8]	4:0	Cur error sum th.	
0Ch	REG102F18	7:0	Default : 0xFF	Access : R/W
(102F18h)	POINT_UNMATCH_1_TH_F2[7:0]	7:0	F2 counter 1 threshold	d.
0Ch	REG102F19	7:0	Default : 0xFF	Access : R/W
(102F19h)	POINT_UNMATCH_1_TH_F2[15:8]	7:0	See description of '10.	2F18h'.
0Dh	REG102F1A	7:0	Default : 0xFF	Access : R/W
(102F1Ah)	POINT_UNMATCH_3_TH_F2[7:0]	7:0	F2 counter 3 threshold	d.



Index	Mnemonic	Bit	Description	
(Absolute)				
0Dh	REG102F1B	7:0	Default : 0xFF	Access : R/W
(102F1Bh)	POINT_UNMATCH_3_TH_F2[15:8]	7:0	See description of '102	2F1Ah'.
DEh	REG102F1C	7:0	Default : 0xFF	Access : R/W
(102F1Ch)	POINT_UNMATCH_FIX_TH_F2[7:0]	7:0	F2 counter fix thresho	ld.
DEh	REG102F1D	7:0	Default : 0xFF	Access : R/W
(102F1Dh)	POINT_UNMATCH_FIX_TH_F2[15:8]	7:0	See description of '102	2F1Ch'.
10h	REG102F21	7:0	Default : 0x30	Access : R/W
(102F21h)	FILM32_EN_F2	7	F2 32 film mode enab	le.
	FILM22_EN_F2	6	F2 22 film mode enab	le.
	. \&'	5:4	Reserved.	
	PRE32_F2	3	F2 pre32.	
	-	2:0	Reserved.	
(102F2Ah)	REG102F2A	7:0	Default : 0xEE	Access : R/W
	MOT_TH_PATCH_F2[7:4]	7:4	F2 patch motion threshold.	
	FM_MOT_PIXTH_F2[3:0]	3:0	F2 motion ratio thresh	old.
15h	REG102F2B	7:0	Default : 0x14	Access : R/W
(102F2Bh)	FM_MOT_CNTTH_F2[15:8]	7:0	F2 unmatch threshold.	
17h	REG102F2F	7:0	Default : 0xC0	Access : R/W
(102F2Fh)	FILM32_N1_EN_F2	7	F2 N1 film32 enable.	
	FILM22_N1_EN_F2	6	F2 N1 film22 enable.	
	-01	5:0	Reserved.	
18h	REG102F30	7:0	Default : 0x00	Access : RO
(102F30h)	MOTION_CNT_ALL_STATUS_F2[7:0]	7:0	F2 read status.	
18h	REG102F31	7:0	Default : 0x00	Access : RO
(102F31h)	MOTION_CNT_ALL_STATUS_F2[15:8]	7:0	See description of '102	2F30h'.
1Ah	REG102F34	7:0	Default : 0x00	Access : RO
(102F34h)	MOTION_CNT_ALL_PATCH_STATUS_F2[7: 0]	7:0	F2 patch read status.	
1Ah	REG102F35	7:0	Default : 0x00	Access : RO
(102F35h)	MOTION_CNT_ALL_PATCH_STATUS_F2[15:8]	7:0	See description of '102	2F34h'.
1Eh	REG102F3C	7:0	Default : 0x50	Access : R/W
(102F3Ch)	MULT_COEF_F2[7:4]	7:4	F2 multiplicand ratio.	



SC1 FILM	Register (Bank = 102F, Sub-Ban	k = 0	A)	
Index (Absolute)	Mnemonic	Bit	Description	
	-	3:1	Reserved.	
	RELATIVE_FM_EN_F2	0	F2 relative film mode	frame diff enable.
1Eh	REG102F3D	7:0	Default : 0x05	Access : R/W
(102F3Dh)	LOWER_BOUND_FM_32_F2[15:8]	7:0	F2 frame diff lower bo	ound.
1Fh	REG102F3E	7:0	Default : 0xFF	Access : R/W
(102F3Eh)	UPPER_BOUND_FM_32_F2[7:0]	7:0	F2 frame diff upper be	ound.
1Fh	REG102F3F	7:0	Default : 0x03	Access : R/W
(102F3Fh)	UPPER_BOUND_FM_32_F2[15:8]	7:0	See description of '102F3Eh'.	
20h	REG102F40	7:0	Default : 0x0F	Access : R/W
(102F40h)	CHECK_SEQ_F2[7:0]	7 :0	F2 lock threshold to e	nter 22.
23h	REG102F46	7:0	Default : 0x44	Access : R/W
(102F46h)	SPEEDUP_STEP_F2[7:4]	7:4	F2 speedup step.	
	SPEEDUP_SHIFT_F2[3:0]	3:0	F2 speedup shift value	e.
23h	REG102F47	7:0	Default : 0x80	Access : R/W
(102F47h)	SPEEDUP_EN_F2	7	F2 speedup enable.	
	- (\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	6:0	Reserved.	
55h ~ 57h		7:0	Default : -	Access : -
(102FAAh		-	Reserved.	
~ 102FAFh)	51	10	2	



SC1 SNR Register (Bank = 102F, Sub-Bank = 0C)

SC1 SNR	Register (Bank = 102F, Sub-Ban	k = 00	;)	
Index (Absolute)	Mnemonic	Bit	Description	
0Dh ~ 0Fh	-	7:0	Default : -	Access : -
(102F1Ah	-	-	Reserved.	
~ 102F1Fh)				
10h	REG102F20	7:0	Default : 0x66	Access : R/W
(102F20h)	DBK_TEST_EN	7	De-blocking test mod	e.
	DBK_EN_V_F1	6	Vertical de-blocking e	nable F1.
	DBK_EN_H_F1	5	Horizontal de-blocking	g enable F1.
	DBK_EN_F1	4	De-blocking enable F	1.
	-	3	Reserved.	
	DBK_EN_V_F2	2	Vertical de-blocking e	nable F2.
	DBK_EN_H_F2	1	Horizontal de-blocking enable F2.	
	DBK_EN_F2	0	De-blocking enable F	2.
10h	REG102F21	7:0	Default : 0x30	Access : R/W
(102F21h)	DBK_STD_LOW_THRD[7:0]	7:0	De-blocking active the	reshold.
11h	REG102F22	7:0	Default : 0x0F	Access : R/W
(102F22h)	DBK_ALPHA_STEP[2:0]	7:5	De-blocking alpha ste	p.
15	- / () : ()	4	Reserved.	
MI.	DBK_STRENGTH_GAIN_F2[3:0]	3:0	De-blocking strength	F2 (.xxxx).
11h	REG102F23	7:0	Default : 0x0F	Access : R/W
(102F23h)	$O' \leftarrow A$	7:6	Reserved.	
	DBK_MOTION_RATIO_EN_F1	5	De-blocking motion ra	atio enable F1.
	DBK_MOTION_RATIO_EN_F2	4	De-blocking motion ra	atio enable F2.
	DBK_STRENGTH_GAIN_F1[3:0]	3:0	De-blocking strength	F1 (.xxxx).
14h	REG102F28	7:0	Default : 0xEF	Access : R/W
(102F28h)	DBK_TABLE_01[7:0]	7:0	De-blocking LUT_01.	
14h	REG102F29	7:0	Default : 0xCD	Access : R/W
(102F29h)	DBK_TABLE_23[7:0]	7:0	De-blocking LUT_23.	
15h	REG102F2A	7:0	Default : 0xAB	Access : R/W
(102F2Ah)	DBK_TABLE_45[7:0]	7:0	De-blocking LUT_45.	
15h	REG102F2B	7:0	Default : 0x89	Access : R/W
(102F2Bh)	DBK_TABLE_67[7:0]	7:0	De-blocking LUT_67.	



JUI JINK	Register (Bank = 102F, Sub-Ban	K – UC	,,,
Index (Absolute)	Mnemonic	Bit	Description
16h	REG102F2C	7:0	Default : 0x67 Access : R/W
(102F2Ch)	DBK_TABLE_89[7:0]	7:0	De-blocking LUT_89.
16h	REG102F2D	7:0	Default : 0x45 Access : R/W
(102F2Dh)	DBK_TABLE_AB[7:0]	7:0	De-blocking LUT_AB.
17h	REG102F2E	7:0	Default : 0x23 Access : R/W
(102F2Eh)	DBK_TABLE_CD[7:0]	7:0	De-blocking LUT_CD.
17h	REG102F2F	7:0	Default : 0x01 Access : R/W
(102F2Fh)	DBK_TABLE_EF[7:0]	7:0	De-blocking LUT_EF.
18h	REG102F30	7:0	Default : 0x00 Access : R/W
(102F30h)	DBK_H_INIT_1_F2[7:0]	7:0	De-blocking H counter initial value[7:0] F2.
18h	REG102F31	7:0	Default : 0x00 Access : R/W
(102F31h)	DBK_H_INIT_2_F2[7:0]	7:0	De-blocking H counter initial value[15:8] F2.
19h (102F32h)	REG102F32	7:0	Default : 0x00 Access : R/W
	- / 0	7:4	Reserved.
	DBK_H_INIT_3_F2[3:0]	3:0	De-blocking H counter initial value[19:16] F2
19h	REG102F33	7:0	Default : 0x00 Access : R/W
(102F33h)		7:5	Reserved.
	DBK_H_INIT_4_F2[4:0]	4:0	De-blocking H counter initial value[24:20] F2
1Ah	REG102F34	7:0	Default : 0x00 Access : R/W
(102F34h)	DBK_V_INIT_1_F2[7:0]	7:0	De-blocking V counter initial value[7:0] F2.
1Ah	REG102F35	7:0	Default : 0x00 Access : R/W
(102F35h)	DBK_V_INIT_2_F2[7:0]	7:0	De-blocking V counter initial value[15:8] F2.
1Bh	REG102F36	7:0	Default : 0x00 Access : R/W
(102F36h)	- 141	7:4	Reserved.
	DBK_V_INIT_3_F2[3:0]	3:0	De-blocking V counter initial value[19:16] F2
1Bh	REG102F37	7:0	Default : 0x00 Access : R/W
(102F37h)	-	7:5	Reserved.
	DBK_V_INIT_4_F2[4:0]	4:0	De-blocking V counter initial value[24:20] F2
1Ch	REG102F38	7:0	Default : 0x00 Access : R/W
(102F38h)	DBK_H_RATIO_1_F2[7:0]	7:0	De-blocking H counter ratio[7:0] F2.
1Ch	REG102F39	7:0	Default : 0x00 Access : R/W
(102F39h)	DBK_H_RATIO_2_F2[7:0]	7:0	De-blocking H counter ratio[15:8] F2.
1Dh	REG102F3A	7:0	Default : 0x00 Access : R/W



Index	Mnemonic	Bit	Description	
(Absolute)				
	-	7:4	Reserved.	
	DBK_H_RATIO_3_F2[3:0]	3:0	De-blocking H counter ratio[19:16] F2.	
1Dh	REG102F3B	7:0	Default : 0x01 Access : R/W	
(102F3Bh)	-	7:5	Reserved.	
	DBK_H_RATIO_4_F2[4:0]	4:0	De-blocking H counter ratio[24:20] F2.	
1Eh	REG102F3C	7:0	Default : 0x00 Access : R/W	
(102F3Ch)	DBK_V_RATIO_1_F2[7:0]	7:0	De-blocking V counter ratio[7:0] F2.	
1Eh	REG102F3D	7:0	Default : 0x00 Access : R/W	
(102F3Dh)	DBK_V_RATIO_2_F2[7:0]	7:0	De-blocking V counter ratio[15:8] F2.	
1Fh	REG102F3E	7:0	Default : 0x00 Access : R/W	
(102F3Eh)	- 30	7:4	Reserved.	
	DBK_V_RATIO_3_F2[3:0]	3:0	De-blocking V counter ratio[19:16] F2.	
1Fh (102F3Fh)	REG102F3F	7:0	Default : 0x01 Access : R/W	
	- / 0' , ~	7:5	Reserved.	
	DBK_V_RATIO_4_F2[4:0]	4:0	De-blocking V counter ratio[24:20] F2.	
20h	REG102F40	7:0	Default : 0x00 Access : R/W	
(102F40h)	DBK_H_INIT_1_F1[7:0]	7:0	De-blocking H counter initial value[7:0] F1.	
20h	REG102F41	7:0	Default : 0x00 Access : R/W	
(102F41h)	DBK_H_INIT_2_F1[7:0]	7:0	De-blocking H counter initial value[15:8] F1	
21h	REG102F42	7:0	Default : 0x00 Access : R/W	
(102F42h)	-01 5	7:4	Reserved.	
<u> </u>	DBK_H_INIT_3_F1[3:0]	3:0	De-blocking H counter initial value[19:16] F	
21h	REG102F43	7:0	Default : 0x00 Access : R/W	
(102F43h)	- 11	7:5	Reserved.	
	DBK_H_INIT_4_F1[4:0]	4:0	De-blocking H counter initial value[24:20] F	
22h	REG102F44	7:0	Default : 0x00 Access : R/W	
(102F44h)	DBK_V_INIT_1_F1[7:0]	7:0	De-blocking V counter initial value[7:0] F1.	
22h	REG102F45	7:0	Default : 0x00 Access : R/W	
(102F45h)	DBK_V_INIT_2_F1[7:0]	7:0	De-blocking V counter initial value[15:8] F1	
23h	REG102F46	7:0	Default : 0x00 Access : R/W	
(102F46h)	-	7:4	Reserved.	
	DBK_V_INIT_3_F1[3:0]	3:0	De-blocking V counter initial value[19:16] F	
23h	REG102F47	7:0	Default : 0x00 Access : R/W	



Index (Absolute)	Mnemonic	Bit	Description
(Absolute)	_	7:5	Reserved.
	DBK_V_INIT_4_F1[4:0]	4:0	De-blocking V counter initial value[24:20] F1
24h	REG102F48	7:0	Default : 0x00 Access : R/W
(102F48h)	DBK_H_RATIO_1_F1[7:0]	7:0	De-blocking H counter ratio[7:0] F1.
24h	REG102F49	7:0	Default : 0x00 Access : R/W
(102F49h)	DBK_H_RATIO_2_F1[7:0]	7:0	De-blocking H counter ratio[15:8] F1.
 25h	REG102F4A	7:0	Default : 0x00 Access : R/W
(102F4Ah)	-	7:4	Reserved.
	DBK_H_RATIO_3_F1[3:0]	3:0	De-blocking H counter ratio[19:16] F1.
25h	REG102F4B	7:0	Default : 0x01 Access : R/W
(102F4Bh)	- (2)	7:5	Reserved.
	DBK_H_RATIO_4_F1[4:0]	4:0	De-blocking H counter ratio[24:20] F1.
26h	REG102F4C	7:0	Default : 0x00 Access : R/W
(102F4Ch)	DBK_V_RATIO_1_F1[7:0]	7:0	De-blocking V counter ratio[7:0] F1.
26h	REG102F4D	7:0	Default : 0x00 Access : R/W
(102F4Dh)	DBK_V_RATIO_2_F1[7:0]	7:0	De-blocking V counter ratio[15:8] F1.
27h	REG102F4E	7:0	Default : 0x00 Access : R/W
(102F4Eh)		7:4	Reserved.
	DBK_V_RATIO_3_F1[3:0]	3:0	De-blocking V counter ratio[19:16] F1.
27h	REG102F4F	7:0	Default : 0x01 Access : R/W
(102F4Fh)	-01	7:5	Reserved.
<u> </u>	DBK_V_RATIO_4_F1[4:0]	4:0	De-blocking V counter ratio[24:20] F1.
28h	REG102F50	7:0	Default : 0x08 Access : R/W
(102F50h)	- 111	7:5	Reserved.
	DBK_H_BLOCK_WIDTH_F2[4:0]	4:0	H block width F2.
28h	REG102F51	7:0	Default : 0x08 Access : R/W
(102F51h)	-	7:5	Reserved.
	DBK_V_BLOCK_WIDTH_F2[4:0]	4:0	V block width F2.
29h	REG102F52	7:0	Default : 0x06 Access : R/W
(102F52h)	-	7:5	Reserved.
	DBK_H_BOUNDARY_LEFT_F2[4:0]	4:0	H block left boundary F2.
29h	REG102F53	7:0	Default : 0x00 Access : R/W
(102F53h)	-	7:5	Reserved.

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Index	Mnemonic	Bit	Description	
(Absolute)				
	DBK_H_BOUNDARY_RIGHT_F2[4:0]	4:0	H block right boundar	ry F2.
2Ah	REG102F54	7:0	Default : 0x06	Access : R/W
(102F54h)	-	7:5	Reserved.	
	DBK_V_BOUNDARY_UP_F2[4:0]	4:0	V block up boundary	F2.
2Ah	REG102F55	7:0	Default : 0x00	Access : R/W
(102F55h)	-	7:5	Reserved.	
	DBK_V_BOUNDARY_DOWN_F2[4:0]	4:0	V block down bounda	ry F2.
2Ch	REG102F58	7:0	Default : 0x08	Access : R/W
(102F58h)	-	7:5	Reserved.	
	DBK_H_BLOCK_WIDTH_F1[4:0]	4:0	H block width F1.	
2Ch (102F59h)	REG102F59	7:0	Default : 0x08	Access : R/W
	-	7:5	Reserved.	
	DBK_V_BLOCK_WIDTH_F1[4:0]	4:0	V block width F1.	
2Dh (102F5Ah)	REG102F5A	7:0	Default : 0x06	Access : R/W
	-	7:5	Reserved.	
	DBK_H_BOUNDARY_LEFT_F1[4:0]	4:0	H block left boundary	F1.
2Dh	REG102F5B	7:0	Default: 0x00	Access : R/W
(102F5Bh)		7:5	Reserved.	
	DBK_H_BOUNDARY_RIGHT_F1[4:0]	4:0	H block right boundar	ry F1.
2Eh	REG102F5C	7:0	Default : 0x06	Access : R/W
(102F5Ch)	-0 5	7:5	Reserved.	
<u> </u>	DBK_V_BOUNDARY_UP_F1[4:0]	4:0	V block up boundary	F1.
2Eh	REG102F5D	7:0	Default : 0x00	Access : R/W
(102F5Dh)	- 1()	7:5	Reserved.	
	DBK_V_BOUNDARY_DOWN_F1[4:0]	4:0	V block down bounda	ry F1.
30h	REG102F60	7:0	Default : 0x00	Access : R/W
(102F60h)	-	7:6	Reserved.	
	SNR_MOTION_RATIO_EN_F1	5	SNR motion ratio ena	ble F1.
	SNR_EN_F1	4	SNR enable F1.	
	-	3:2	Reserved.	
	SNR_MOTION_RATIO_EN_F2	1	SNR motion ratio ena	ble F2.
	SNR_EN_F2	0	SNR enable F2.	
30h	REG102F61	7:0	Default : 0x0A	Access : R/W



Index	Mnemonic	Bit	Description	
(Absolute)	SNR_STD_LOW_THRD[7:0]	7:0	SNR active threshold.	
31h	REG102F62	7:0	Default : 0x48	Access : R/W
(102F62h)	SNR_ALPHA_STEP[2:0]	7:5	SNR alpha step.	
	-	4	Reserved.	
	SNR_STRENGTH_GAIN_F2[3:0]	3:0	SNR strength F2.	
31h	REG102F63	7:0	Default : 0x08	Access : R/W
(102F63h)	-	7:4	Reserved.	
	SNR_STRENGTH_GAIN_F1[3:0]	3:0	SNR strength F1.	
34h	REG102F68	7:0	Default : 0xCF	Access : R/W
(102F68h)	SNR_TABLE_01[7:0]	7:0	SNR LUT_01.	
34h	REG102F69	7:0	Default : 0x69	Access : R/W
(102F69h)	SNR_TABLE_23[7:0]	7:0	SNR LUT_23.	
35h	REG102F6A	7:0	Default : 0x24	Access : R/W
(102F6Ah)	SNR_TABLE_45[7:0]	7:0	SNR LUT_45.	
35h	REG102F6B	7:0	Default : 0x01	Access : R/W
(102F6Bh)	SNR_TABLE_67[7:0]	7:0	SNR LUT_67.	
36h	REG102F6C	7:0	Default : 0x00	Access : R/W
(102F6Ch)	SNR_TABLE_89[7:0]	7:0	SNR LUT_89.	
36h	REG102F6D	7:0	Default : 0x00	Access : R/W
(102F6Dh)	SNR_TABLE_AB[7:0]	7:0	SNR LUT_AB.	
37h	REG102F6E	7:0	Default : 0x00	Access : R/W
(102F6Eh)	SNR_TABLE_CD[7:0]	7:0	SNR LUT_CD.	
37h	REG102F6F	7:0	Default : 0x00	Access : R/W
(102F6Fh)	SNR_TABLE_EF[7:0]	7:0	SNR LUT_EF.	
38h	REG102F70	7:0	Default : 0x66	Access : R/W
(102F70h)	DBK_CORING_STEP_F2[1:0]	7:6	De-blocking blockines	ss coring step F2.
	DBK_DEC_STEP_F2[1:0]	5:4	De-blocking decrease	step in new mode F2.
	-	3	Reserved.	
	DBK_BLOCKINESS_IIR_VER_EN_F2	2	De-blocking blockines	ss IIR vertical enable F2
	DBK_CORING_EN_F2	1	De-blocking blockines	ss coring enable F2.
	DBK_DEC_MODE_EN_F2	0	De-blocking new mod	de enable F2.
38h	REG102F71	7:0	Default : 0x66	Access : R/W
(102F71h)	DBK_CORING_STEP_F1[1:0]	7:6	De-blocking blockines	ss coring step F1.



SC1 SNR	Register (Bank = 102F, Sub-Ban	k = 0C	(*)	
Index (Absolute)	Mnemonic	Bit	Description	
	DBK_DEC_STEP_F1[1:0]	5:4	De-blocking decrease	step in new mode F1.
	-	3	Reserved.	
	DBK_BLOCKINESS_IIR_VER_EN_F1	2	De-blocking blockines	s IIR vertical enable F1.
	DBK_CORING_EN_F1	1	De-blocking blockines	s coring enable F1.
	DBK_DEC_MODE_EN_F1	0	De-blocking new mod	e enable F1.
39h	REG102F72	7:0	Default : 0x09	Access : R/W
(102F72h)	_	7:5	Reserved.	
	DBK_BKN_INTERVAL_LEFT_F2[4:0]	4:0	De-blocking blockines // location from 2 to 3	
39h	REG102F73	7:0	Default : 0x07	Access : R/W
(102F73h)	-	7:5	Reserved.	
	DBK_BKN_INTERVAL_RIGHT_F2[4:0]	4:0	De-blocking blockiness right interval F2. // location from 2 to 30.	
3Ah (102F74h)	REG102F74	7:0	Default : 0x47	Access : R/W
	- ()	7	Reserved.	
	DBK_BKN_IIR_ALPHA_VER_F2[2:0]	6:4	De-blocking blockiness interval iir alpha vertical strength F2.	
		3	Reserved.	
11	DBK_BKN_INTERVAL_IIR_ALPHA_F2[2:0]	2:0	De-blocking blockines strength F2.	s interval iir alpha
3Ah	REG102F75	7:0	Default : 0x05	Access : R/W
(102F75h)		7:3	Reserved.	
	DBK_BKN_INTERVAL_IIR_ALPHA_INI_F2[2:0]	2:0	De-blocking blockines boundary strength F2	s interval iir alpha initial
3Bh	REG102F76	7:0	Default : 0x09	Access : R/W
(102F76h)	-	7:5	Reserved.	
	DBK_BKN_INTERVAL_LEFT_F1[4:0]	4:0	De-blocking blockines // location from 2 to 3	
3Bh	REG102F77	7:0	Default : 0x07	Access : R/W
(102F77h)	-	7:5	Reserved.	
	DBK_BKN_INTERVAL_RIGHT_F1[4:0]	4:0	De-blocking blockines // location from 2 to 3	•
3Ch	REG102F78	7:0	Default : 0x47	Access : R/W
(102F78h)	-	7	Reserved.	



SC1 SNR	Register (Bank = 102F, Sub-Ban	k = 00	()	
Index (Absolute)	Mnemonic	Bit	Description	
	DBK_BKN_IIR_ALPHA_VER_F1[2:0]	6:4	De-blocking blockiness interval iir alpha vertical strength F1.	
	-	3	Reserved.	
	DBK_BKN_INTERVAL_IIR_ALPHA_F1[2:0]	2:0	De-blocking blockiness interval iir alpha strength F1.	
3Ch	REG102F79	7:0	Default : 0x05 Access : R/W	
(102F79h)	-	7:3	Reserved.	
	DBK_BKN_INTERVAL_IIR_ALPHA_INI_F1[2:0]	2:0	De-blocking blockiness interval iir alpha initial strength boundary F1.	
3Dh	REG102F7A	7:0	Default : 0x0A Access : R/W	
(102F7Ah)	DBK_CORING_THRD_F2[7:0]	7:0	De-blocking blockiness coring low threshold F2.	
3Eh	REG102F7C	7:0	Default : 0x0A Access : R/W	
(102F7Ch)	DBK_CORING_THRD_F1[7:0]	7:0	De-blocking blockiness coring low threshold F1.	
40h	REG102F80	7:0	Default : 0x67 Access : R/W	
(102F80h)	- X X (7	Reserved.	
	DBK_BLOCKINESS_INTERVAL_IIR_EN_F2	6	De-blocking blockiness interval iir enable F2.	
, C	DBK_BLOCKINESS_PIXEL_EN_F2	5	De-blocking blockiness pixel active enable F2	
	- 51	4	Reserved.	
	DBK_COARSE_STEP_F2[1:0]	3:2	De-blocking coarse detect step F2.	
	DBK_BK_PULSE_FILTER_EN_F2	1	De-blocking blockiness pulse filter enable F2.	
×	DBK_BLOCKINESS_EN_F2	0	De-blocking blockiness detect enable F2.	
40h	REG102F81	7:0	Default : 0x03 Access : R/W	
(102F81h)	DBK_COARSE_LOW_THRD_F2[7:0]	7:0	De-blocking coarse active threshold F2.	
41h	REG102F82	7:0	Default : 0x42 Access : R/W	
(102F82h)	-	7:3	Reserved.	
	DBK_SIDE_STEP_F2[1:0]	2:1	De-blocking side detect step F2.	
	-	0	Reserved.	
41h	REG102F83	7:0	Default : 0x00 Access : R/W	
(102F83h)	DBK_SIDE_LOW_THRD_F2[7:0]	7:0	De-blocking side active threshold F2.	
42h	REG102F84	7:0	Default : 0x12 Access : R/W	
(102F84h)	-	7:6	Reserved.	
	DBK_BLOCKINESS_STEP_F2[1:0]	5:4	De-blocking blockiness strength step F2.	



SC1 SNR	Register (Bank = 102F, Sub-Ban	k = 00	;)	
Index (Absolute)	Mnemonic	Bit	Description	
	-	3	Reserved.	
	DBK_BK_PULSE_FILTER_F2[2:0]	2:0	De-blocking blockines // 0 : [-1 -1 4 -1 -1]/2 // 1 : [-2 -2 4 -2 -2]/2 // 2 : [-2 0 4 0 -2]/2.	2. 2.
		\rightarrow	// 3 : [-1 0 4 0 -1]/2. // 4 : [-2 0 0 4 0 0 -2 // 5 : [-2 0 0 4 0 0 -2]/2.
42h	REG102F85	7:0	Default: 0x04	Access : R/W
(102F85h)	-	7:4	Reserved.	
	DBK_BK_REF_STEP_RIGHT_F2[1:0]	3:2	De-blocking blockines F2. // 0: no reference. // 1: one more right p // 2: two more right p	
	DBK_BK_REF_STEP_LEFT_F2[1:0]	1:0	De-blocking blockines // 0: no reference. // 1: one more left pi // 2: two more left pi	
43h	REG102F86	7:0	Default : 0x67	Access : R/W
(102F86h)	- //	7	Reserved.	•
MI.	DBK_BLOCKINESS_INTERVAL_IIR_EN_F1	6	De-blocking blockines	ss interval iir enable F1.
	DBK_BLOCKINESS_PIXEL_EN_F1	5	De-blocking blockines	ss pixel active enable F1.
C	0,11/2	4	Reserved.	
	DBK_COARSE_STEP_F1[1:0]	3:2	De-blocking coarse de	etect step F1.
	DBK_BK_PULSE_FILTER_EN_F1	1	De-blocking blockines	ss pulse filter enable F1.
	DBK_BLOCKINESS_EN_F1	0	De-blocking blockines	ss detect enable F1.
43h	REG102F87	7:0	Default : 0x03	Access : R/W
(102F87h)	DBK_COARSE_LOW_THRD_F1[7:0]	7:0	De-blocking coarse a	ctive threshold F1.
44h	REG102F88	7:0	Default : 0x42	Access : R/W
(102F88h)	-	7:3	Reserved.	
	DBK_SIDE_STEP_F1[1:0]	2:1	De-blocking side dete	ect step F1.
	-	0	Reserved.	
44h	REG102F89	7:0	Default : 0x00	Access : R/W
(102F89h)	DBK_SIDE_LOW_THRD_F1[7:0]	7:0	De-blocking side activ	ve threshold F1.



SC1 SNR	Register (Bank = 102F, Sub-Ban	k = 00)		
Index (Absolute)	Mnemonic	Bit	Description		
45h	REG102F8A	7:0	Default : 0x18	Access : R/W	
(102F8Ah)	-	7:5	Reserved.		
	DBK_ALPHA_MAX[4:0]	4:0	De-blocking alpha max	imum value.	
46h	REG102F8C	7:0	Default : 0x12	Access : R/W	
(102F8Ch)	-	7:6	Reserved.		
	DBK_BLOCKINESS_STEP_F1[1:0]	5:4	De-blocking blockiness	strength step F1.	
	-	3	Reserved.	<u> </u>	
	DBK_BK_PULSE_FILTER_F1[2:0]	2:0	De-blocking blockiness // 0 : [-1 -1 4 -1 -1]/2.		
		// 1 : [-2 -2 4 -2 -2]/2. // 2 : [-2 0 4 0 -2]/2. // 3 : [-1 0 4 0 -1]/2.			
			// 4 : [-2 0 0 4 0 0 -2]/2.		
			// 5 : [-2 0 0 4 0 0 -2].		
46h	REG102F8D	7:0	Default : 0x04	Access : R/W	
(102F8Dh)	-	7:4	Reserved.		
N.	DBK_BK_REF_STEP_RIGHT_F1[1:0]	3:2	De-blocking blockiness F1. // 0: no reference. // 1: one more right pix // 2: two more right pix	xel reference.	
	DBK_BK_REF_STEP_LEFT_F1[1:0]	1:0	De-blocking blockiness // 0: no reference. // 1: one more right pix // 2: two more right pix	xel reference.	
50h	REG102FA0	7:0	Default : 0x00	Access : R/W	
(102FA0h)	RESERVED_SNR_14	7	Reserved.		
	-	6	Reserved.		
	SNR_NM_MOTION_RATIO_EN_F1	5	Noise masking motion	ratio enable F1.	
	SNR_NM_FILTER_EN_F1	4	Noise masking enable I	F1.	
	-	3:2	Reserved.		
	SNR_NM_MOTION_RATIO_EN_F2	1	Noise masking motion	ratio enable F2.	
	SNR_NM_FILTER_EN_F2	0	Noise masking enable I	F2.	
50h	REG102FA1	7:0	, i	Access : R/W	
(102FA1h)	-	7:4	Reserved.		
	•		•		



Index (Absolute)	Mnemonic	Bit	Description	
	RESERVED_SNR_5[1:0]	3:2	Reserved.	
	-	1:0	Reserved.	
51h	REG102FA2	7:0	Default : 0x00	Access : R/W
(102FA2h)	-	7:5	Reserved.	
	SNR_MR_LPF_EN_F1	4	De-blocking and SNR r	•
	-	3:1	Reserved.	JAJ Masky.
	SNR_MR_LPF_EN_F2	0	De-blocking and SNR r	•
54h	REG102FA8	7:0	Default : 0x00	Access : R/W
(102FA8h)	RESERVED_SNR_9[1:0]	7:6	Reserved.	
	SNR_NM_GAIN_F2[5:0]	5:0	Noise masking gain F2.	
54h	REG102FA9	7:0	Default : 0x00	Access : R/W
(102FA9h)	RESERVED_SNR_10[1:0]	7:6	Reserved.	
	SNR_NM_GAIN_F1[5:0]	5:0	Noise masking gain F1.	
55h	REG102FAA	7:0	Default: 0xFF	Access : R/W
(102FAAh)	SNR_NM_MIN_THRD[3:0]	7:4	Noise masking min threshold bound.	
	SNR_NM_MAX_THRD[3:0]	3:0	Noise masking max th	reshold bound.
5Ch	REG102FB8	7:0	Default : 0x10	Access : R/W
(102FB8h)	SNR_MOTION_TABLE_01[7:0]	7:0	SNR motion ratio LUT_	_01.
5Ch	REG102FB9	7:0	Default : 0x32	Access : R/W
(102FB9h)	SNR_MOTION_TABLE_23[7:0]	7:0	SNR motion ratio LUT_	_23.
5Dh	REG102FBA	7:0	Default : 0x54	Access : R/W
(102FBAh)	SNR_MOTION_TABLE_45[7:0]	7:0	SNR motion ratio LUT_	_45.
5Dh	REG102FBB	7:0	Default : 0x76	Access : R/W
(102FBBh)	SNR_MOTION_TABLE_67[7:0]	7:0	SNR motion ratio LUT_	_67.
5Eh	REG102FBC	7:0	Default : 0x98	Access : R/W
(102FBCh)	SNR_MOTION_TABLE_89[7:0]	7:0	SNR motion ratio LUT_	_89.
5Eh	REG102FBD	7:0	Default : 0xBA	Access : R/W
(102FBDh)	SNR_MOTION_TABLE_AB[7:0]	7:0	SNR motion ratio LUT_	_AB.
5Fh	REG102FBE	7:0	Default : 0xDC	Access : R/W
(102FBEh)	SNR_MOTION_TABLE_CD[7:0]	7:0	SNR motion ratio LUT_	_CD.
5Fh	REG102FBF	7:0	Default : 0xFE	Access : R/W



Index	Mnemonic	Bit	Description	
(Absolute)				
	SNR_MOTION_TABLE_EF[7:0]	7:0	SNR motion ratio LUT_	EF.
62h	REG102FC4	7:0	Default : 0x35	Access : R/W
(102FC4h)	DBK_BKN_PRE_CORING_F2[3:0]	7:4	De-blocking blockiness pre coring F2.	
	DBK_BKN_POST_CORING_F2[3:0]	3:0	De-blocking blockiness	post coring F2
óAh	REG102FD4	7:0	Default : 0x35	Access : R/W
(102FD4h)	DBK_BKN_PRE_CORING_F1[3:0]	7:4	De-blocking blockiness	pre coring F1.
	DBK_BKN_POST_CORING_F1[3:0]	3:0	De-blocking blockiness	post coring F1
6Ch	REG102FD8	7:0	Default: 0x10	Access : R/W
(102FD8h)	SNR_NM_MOTION_TABLE_01[7:0]	7:0	Noise masking motion i	ratio LUT_01.
6Ch	REG102FD9	7:0	Default: 0x32	Access : R/W
(102FD9h)	SNR_NM_MOTION_TABLE_23[7:0]	7:0	Noise masking motion i	ratio LUT_23.
6Dh	REG102FDA	7:0	Default: 0x54	Access : R/W
(102FDAh)	SNR_NM_MOTION_TABLE_45[7:0]	7:0	Noise masking motion i	ratio LUT_45.
6Dh (102FDBh)	REG102FDB	7:0	Default : 0x76	Access : R/W
	SNR_NM_MOTION_TABLE_67[7:0]	7:0	Noise masking motion i	ratio LUT_67.
6Eh	REG102FDC	7:0	Default: 0x98	Access : R/W
(102FDCh)	SNR_NM_MOTION_TABLE_89[7:0]	7:0	Noise masking motion i	ratio LUT_89.
SEh C	REG102FDD	7:0	Default : 0xBA	Access : R/W
(102FDDh)	SNR_NM_MOTION_TABLE_AB[7:0]	7:0	Noise masking motion i	ratio LUT_AB.
6Fh	REG102FDE	7:0	Default : 0xDC	Access : R/W
(102FDEh)	SNR_NM_MOTION_TABLE_CD[7:0]	7:0	Noise masking motion i	ratio LUT_CD.
6Fh	REG102FDF	7:0	Default : 0xFE	Access : R/W
(102FDFh)	SNR_NM_MOTION_TABLE_EF[7:0]	7:0	Noise masking motion i	ratio LUT_EF.
78h	REG102FF0	7:0	Default : 0x10	Access : R/W
(102FF0h)	DBK_MOTION_TABLE_01[7:0]	7:0	De-blocking motion rati	io LUT_01.
78h	REG102FF1	7:0	Default : 0x32	Access : R/W
(102FF1h)	DBK_MOTION_TABLE_23[7:0]	7:0	De-blocking motion rati	io LUT_23.
'9h	REG102FF2	7:0	Default: 0x54	Access : R/W
(102FF2h)	DBK_MOTION_TABLE_45[7:0]	7:0	De-blocking motion rati	io LUT_45.
79h	REG102FF3	7:0	Default : 0x76	Access : R/W
(102FF3h)	DBK_MOTION_TABLE_67[7:0]	7:0	De-blocking motion rati	io LUT_67.
7Ah	REG102FF4	7:0	Default: 0x98	Access : R/W
(102FF4h)	DBK_MOTION_TABLE_89[7:0]	7:0	De-blocking motion rati	io LUT_89.



SC1 SNR	SC1 SNR Register (Bank = 102F, Sub-Bank = 0C)				
Index (Absolute)	Mnemonic	Bit	Description		
7Ah	REG102FF5	7:0	Default : 0xBA	Access : R/W	
(102FF5h)	DBK_MOTION_TABLE_AB[7:0]	7:0	De-blocking motion ratio LUT_AB.		
7Bh	REG102FF6	7:0	Default : 0xDC	Access : R/W	
(102FF6h)	DBK_MOTION_TABLE_CD[7:0]	7:0	De-blocking motion ratio LUT_CD.		
7Bh	REG102FF7	7:0	Default : 0xFE	Access : R/W	
(102FF7h)	DBK_MOTION_TABLE_EF[7:0]	7:0	De-blocking motion ra	atio LUT_EF.	
7Ch ~ 7Fh	_	7:0	Default : -	Access : -	
(102FF8h	-	-	Reserved.		
~ 102FFFh)			X		



SC1 S_VOP Register (Bank = 102F, Sub-Bank = 0F)

SC1 S_VC	SC1 S_VOP Register (Bank = 102F, Sub-Bank = 0F)				
Index (Absolute)	Mnemonic	Bit	Description		
01h	REG102F02	7:0	Default : 0x00 Access : R/W		
(102F02h)	SW_BORDER_EN	7	Sub window (F1) border enable.		
	-	6:0	Reserved.		
02h	REG102F04	7:0	Default : 0x00 Access : R/W		
(102F04h)	BDLO[3:0]	7:4	Sub window Border Outside height of Left side.		
	BDLI[3:0]	3:0	Sub window Border Inside height of Left side.		
02h	REG102F05	7:0	Default : 0x00 Access : R/W		
(102F05h)	BDLO_BO[3:0]	7:4	Main window border outside height of Left side.		
	BDLI_BO[3:0]	3:0	Main window inside height of left side.		
03h	REG102F06	7:0	Default : 0x00 Access : R/W		
(102F06h)	BDRO[3:0]	7:4	Sub window Border Outside height of Right side.		
	BDRI[3:0]	3:0	Sub window Border Inside height of Right side.		
03h	REG102F07	7:0	Default : 0x00 Access : R/W		
(102F07h)	BDRO_BO[3:0]	7:4	Main window Border Outside height of Right side.		
	BDRI_BO[3:0]	3:0	Main window Border Inside height of Right side.		
04h	REG102F08	7:0	Default : 0x00 Access : R/W		
(102F08h)	BDUO[3:0]	7:4	Sub window Border Outside width of Upper side.		
	BDUI[3:0]	3:0	Sub window Border Inside width of Upper side.		
04h	REG102F09	7:0	Default : 0x00 Access : R/W		
(102F09h)	BDUO_BO[3:0]	7:4	Main window Border Outside width of Upper side.		
	BDUI_BO[3:0]	3:0	Main window Border Inside width of Upper side.		
05h	REG102F0A	7:0	Default : 0x00 Access : R/W		
(102F0Ah)	BDDO[3:0]	7:4	Sub window Border Outside width of Down side.		
	BDDI[3:0]	3:0	Sub window Border Inside width of Down side.		
05h	REG102F0B	7:0	Default : 0x00 Access : R/W		
(102F0Bh)	BDDO_BO[3:0]	7:4	Main window Border Outside width of Down side.		
	BDDI_BO[3:0]	3:0	Main window Border Inside width of Down side.		
06h	REG102F0C	7:0	Default : 0x00 Access : R/W		
(102F0Ch)	-	7	Reserved.		
	4WINEN	6	4th Window Enable. 0: Disable. 1: Enable.		



Index (Absolute)	Mnemonic	Bit	Description	
	3WINEN	5	3rd Window Enable. 0: Disable. 1: Enable.	
	2WINEN	4	2nd Window Enable. 0: Disable. 1: Enable.	
	-	3:0	Reserved.	
07h	REG102F0E	7:0	Default : 0x00	Access : R/W
(102F0Eh)	S_HDEST[7:0]	7:0	Sub window Horizontal S	tart.
07h	REG102F0F	7:0	Default : 0x00	Access : R/W
(102F0Fh)	-	7:4	Reserved.	
	S_HDEST[11:8]	3:0 See description of		Eh'.
08h	REG102F10	7:0	Default : 0x00	Access : R/W
(102F10h)	S_HDEEND[7:0]	7:0	Sub window Horizontal End.	
08h	REG102F11	7:0	Default : 0x00	Access : R/W
(102F11h) <u> </u>	- 10 11	7:4	Reserved.	
	S_HDEEND[11:8]	3:0	See description of '102F10h'.	
09h	REG102F12	7:0	Default : 0x00	Access : R/W
(102F12h)	S_VDEST[7:0]	7:0	Sub window Vertical Star	
09h	REG102F13	7:0	Default : 0x00	Access : R/W
(102F13h)	- ()	7:4	Reserved.	
(S_VDEST[11:8]	3:0	See description of '102F1	2h'.
0Ah	REG102F14	7:0	Default : 0x00	Access : R/W
(102F14h)	S_VDEEND[7:0]	7:0	Sub window Vertical End	-
0Ah	REG102F15	7:0	Default : 0x00	Access : R/W
(102F15h)	-	7:4	Reserved.	
	S_VDEEND[11:8]	3:0	See description of '102F1	4h'.
0Bh	REG102F16	7:0	Default : 0x00	Access : R/W
(102F16h)	S_HDEST_2ND[7:0]	7:0	2nd Sub window Horizon	tal Start for MWE.
0Bh	REG102F17	7:0	Default : 0x00	Access : R/W
(102F17h)	-	7:4	Reserved.	
	S_HDEST_2ND[11:8]	3:0	See description of '102F1	6h'.
0Ch	REG102F18	7:0	Default : 0x00	Access : R/W
(102F18h)	S_HDEEND_2ND[7:0]	7:0	2nd Sub window Horizon	tal End for MWE.



Index	Mnemonic	Bit	Description		
(Absolute) 0Ch	REG102F19	7:0	Default : 0x00	Access : R/W	
102F19h)	-	7:4	Reserved.	17.00000 1 14, 11	
	S_HDEEND_2ND[11:8]	3:0	See description of '102F'	 18h'.	
Dh	REG102F1A	7:0	Default : 0x00	Access : R/W	
102F1Ah)	S_VDEST_2ND[7:0]	7:0	2nd Sub window Vertical		
Dh	REG102F1B	7:0	Default : 0x00	Access : R/W	
102F1Bh)	-	7:4	Reserved.		
	S_VDEST_2ND[11:8]	3:0	See description of '102F'	IAh'.	
Eh	REG102F1C	7:0	Default : 0x00	Access : R/W	
102F1Ch)	S_VDEEND_2ND[7:0]	7:0	2nd Sub window Vertical	End for MWE.	
Eh	REG102F1D	7:0	Default : 0x00	Access : R/W	
102F1Dh)	-	7:4	Reserved.		
	S_VDEEND_2ND[11:8]	3:0	See description of '102F	ICh'.	
Fh	REG102F1E	7:0	Default : 0x00	Access : R/W	
(102F1Eh)	S_HDEST_3RD[7:0]	7:0	3rd Sub window Horizon	tal Start for MW	
	REG102F1F	7:0	Default : 0x00	Access : R/W	
02F1Fh)		7:4	Reserved.		
	S_HDEST_3RD[11:8]	3:0	See description of '102F'	See description of '102F1Eh'.	
Oh	REG102F20	7:0	Default : 0x00	Access : R/W	
102F20h)	S_HDEEND_3RD[7:0]	7:0	3rd Sub window Horizon	tal End for MWE	
)h	REG102F21	7:0	Default : 0x00	Access : R/W	
102F21h)		7:4	Reserved.		
	S_HDEEND_3RD[11:8]	3:0	See description of '102F2	20h'.	
1h	REG102F22	7:0	Default : 0x00	Access : R/W	
102F22h)	S_VDEST_3RD[7:0]	7:0	3rd Sub window Vertical	Start for MWE.	
1h	REG102F23	7:0	Default : 0x00	Access : R/W	
102F23h)	-	7:4	Reserved.		
	S_VDEST_3RD[11:8]	3:0	See description of '102F2	22h'.	
2h	REG102F24	7:0	Default : 0x00	Access : R/W	
102F24h)	S_VDEEND_3RD[7:0]	7:0	3rd Sub window Vertical	End for MWE.	
2h	REG102F25	7:0	Default : 0x00	Access : R/W	
102F25h)	-	7:4	Reserved.		
	S_VDEEND_3RD[11:8]	3:0	See description of '102F2	24h'.	



Index (Absolute)	Mnemonic	Bit	Description	
13h	REG102F26	7:0	Default : 0x00	Access : R/W
(102F26h)	S_HDEST_4TH[7:0]	7:0	4th Sub window Horizor	ital Start for MWE.
13h	REG102F27	7:0	Default : 0x00	Access : R/W
(102F27h)	-	7:4	Reserved.	<u> </u>
	S_HDEST_4TH[11:8]	3:0	See description of '102F	26h'.
14h	REG102F28	7:0	Default : 0x00	Access : R/W
(102F28h)	S_HDEEND_4TH[7:0]	7:0	4th Sub window Horizon	ital End for MWE.
14h	REG102F29	7:0	Default : 0x00	Access : R/W
(102F29h)	-	7:4	Reserved.	
	S_HDEEND_4TH[11:8]	3:0	See description of '102F	28h'.
15h	REG102F2A	7:0	Default : 0x00	Access : R/W
(102F2Ah)	S_VDEST_4TH[7:0]	7:0	4th Sub window Vertical	Start for MWE.
15h	REG102F2B	7:0	Default : 0x00	Access : R/W
(102F2Bh)	- (0)	7:4	Reserved.	
5	S_VDEST_4TH[11:8]	3:0	See description of '102F	2Ah'.
16h	REG102F2C	7:0	Default : 0x00	Access : R/W
(102F2Ch)	S_VDEEND_4TH[7:0]	7:0	4th Sub window Vertical	End for MWE.
16h	REG102F2D	7:0	Default : 0x00	Access : R/W
(102F2Dh)		7:4	Reserved.	
19.	S_VDEEND_4TH[11:8]	3:0	See description of '102F	2Ch'.
17h	REG102F2E	7:0	Default : 0x00	Access : R/W
(102F2Eh)	SWBCOL[7:0]	7:0	Sub Window Border Col	or.
17h	REG102F2F	7:0	Default : 0x00	Access : R/W
(102F2Fh)	SWNS_COL[7:0]	7:0	Sub Window No Signal (Color.
18h	REG102F30	7:0	Default : 0x00	Access : R/W
(102F30h)	-	7:5	Reserved.	
	SGCR	4	Sub window Gamma. Correction Rounding fun 0: Disable. 1: Enable.	action.
	-	3:1	Reserved.	
	SGCB	0	Sub window Gamma Co 0: Bypass gamma correc 1: Enable gamma correc	ction function.



Index (Absolute)	Mnemonic	Bit	Description	
18h	REG102F31	7:0	Default : 0x00 Acc	cess : R/W
(102F31h)	-	7:1	Reserved.	
	BRC	0	Brightness function. 0: Off. 1: On.	•
1Bh	REG102F36	7:0	Default : 0x00 Acc	cess : R/W
(102F36h)	KST_HOFFS[7:0]	7:0	Keystone Horizontal position	Offset.
1Bh	REG102F37	7:0	Default : 0x00 Acc	cess : R/W
(102F37h)	KST_HOFFSSN	7	Keystone Horizontal position initial Offse 0: Positive value. 1: Negative value.	
	KST_HOFFS[14:8]	6:0	See description of '102F36h'.	
1Ch	REG102F38	7:0	Default : 0x00 Acc	cess : R/W
(102F38h)	KSTPD[7:0]	7:0	0 Keystone Horizontal position Delta per	
1Ch	REG102F39	7:0	Default : 0x00 Acc	cess : R/W
	KSTPD[15:8]	7:0	See description of '102F38h'.	
	REG102F3A	7:0	Default : 0x00 Acc	cess : R/W
(102F3Ah)	CM11[7:0]	7:0	Color Matrix Coefficient 11.	
1Dh	REG102F3B	7:0	Default : 0x00 Acc	cess : R/W
(102F3Bh)	_ 5	7:5	Reserved.	
	CM11[12:8]	4:0	See description of '102F3Ah'.	
1Eh	REG102F3C	7:0	Default : 0x00 Acc	cess : R/W
(102F3Ch)	CM12[7:0]	7:0	Color Matrix Coefficient 12.	
1Eh	REG102F3D	7:0	Default : 0x00 Acc	cess : R/W
(102F3Dh)	- // '	7:5	Reserved.	
	CM12[12:8]	4:0	See description of '102F3Ch'.	
1Fh	REG102F3E	7:0	Default : 0x00 Acc	cess : R/W
(102F3Eh)	CM13[7:0]	7:0	Color Matrix Coefficient 13.	
1Fh	REG102F3F	7:0	Default : 0x00 Acc	cess : R/W
(102F3Fh)	-	7:5	Reserved.	
	CM13[12:8]	4:0	See description of '102F3Eh'.	
20h	REG102F40	7:0	Default : 0x00 Acc	cess : R/W
(102F40h)	CM21[7:0]	7:0	Color Matrix Coefficient 21.	
20h	REG102F41	7:0	Default : 0x00 Acc	cess : R/W



SC1 S_VO	P Register (Bank = 102F, Sub	o-Ban	k = 0F)	
Index (Absolute)	Mnemonic	Bit	Description	
	-	7:5	Reserved.	
	CM21[12:8]	4:0	See description of '102F4	0h'.
21h	REG102F42	7:0	Default : 0x00	Access : R/W
(102F42h)	CM22[7:0]	7:0	Color Matrix Coefficient 2	2.
21h	REG102F43	7:0	Default : 0x00	Access : R/W
(102F43h)	-	7:5	Reserved.	
	CM22[12:8]	4:0	See description of '102F4	2h'.
22h	REG102F44	7:0	Default : 0x00	Access : R/W
(102F44h)	CM23[7:0]	7:0	Color Matrix Coefficient 2	3.
22h	REG102F45	7:0	Default : 0x00	Access : R/W
(102F45h)	-	7:5	Reserved.	
	CM23[12:8]	4:0	See description of '102F44h'.	
23h	REG102F46	7:0	Default : 0x00	Access : R/W
(102F46h)	CM31[7:0]	7:0	Color Matrix Coefficient 31.	
23h (102F47h)	REG102F47	7:0	Default : 0x00	Access : R/W
	- <	7:5	Reserved.	
	CM31[12:8]	4:0	See description of '102F46h'.	
24h	REG102F48	7:0	Default : 0x00	Access : R/W
(102F48h)	CM32[7:0]	7:0	Color Matrix Coefficient 3	2.
24h	REG102F49	7:0	Default : 0x00	Access : R/W
(102F49h)	0	7:5	Reserved.	
	CM32[12:8]	4:0	See description of '102F4	8h'.
25h	REG102F4A	7:0	Default : 0x00	Access : R/W
(102F4Ah)	CM33[7:0]	7:0	Color Matrix Coefficient 3	3.
25h	REG102F4B	7:0	Default : 0x00	Access : R/W
(102F4Bh)	-	7:5	Reserved.	
	CM33[12:8]	4:0	See description of '102F4	Ah'.
26h	REG102F4C	7:0	Default : 0x00	Access : R/W
(102F4Ch)	-	7:6	Reserved.	
	CMRND	5	Color Matrix Rounding co 0: Disable. 1: Enable.	ntrol.
	CMC	4	Color Matrix Control.	



SC1 S_VC	P Register (Bank = 102F, Sul	o-Ban	k = 0F)	
Index (Absolute)	Mnemonic	Bit	Description	
			0: Disable. 1: Enable.	
	-	3	Reserved.	
	RRAN	2	Red Range. 0: 0~255. 1: 128~127.	
	GRAN	17	Green Range. 0: 0~255. 1: 128~127.	
BRAN 0 Blue Range. 0: 0~255. 1: 128~127.		0: 0~255.		
26h	REG102F4D	7:0	Default : 0x00	Access : R/W
(102F4Dh)	SMEN	7	SVM Main window Enable.	
	SMTE	6	SVM Main window Tap Enable.	
	SMFT[1:0]	5:4	SVM Main window Filter Tap. 00: 2 taps. 01: 3 taps. 10: 4 taps. 11: 5 taps.	
	SSWEN	3	SVM Sub window Enable.	
M.	SSWETE	2	SVM Sub window Tap En	able.
\$	SSWFT[1:0]	1:0	SVM Sub window Filter Tap. 00: 2 taps. 01: 3 taps. 10: 4 taps. 11: 5 taps.	
27h	REG102F4E	7:0	Default : 0x00	Access : R/W
(102F4Eh)	OSDY	7	OSD color Space. 0: OSD color space. 1: OSD is YUV color space	e.
	SINV	6	SMV polarity Invert. 0: Normal. 1: Invert.	
	SVMBYS[1:0]	5:4	SVM Bypass Y Select. 0x: SMV data. 10: Original Y data.	



Index	Mnemonic	Bit	Description	
(Absolute)	Whethoric	Dit.	Description	
			11: Y with tap filter.	
	SCORING[3:0]	3:0	SVM Coring.	
27h	REG102F4F	7:0	Default : 0x00	Access : R/W
(102F4Fh)	SVMLMT[7:0]	7:0	SVM Limit.	
28h	REG102F50	7:0	Default : 0x00	Access : R/W
(102F50h)	-	7	Reserved.	
	SMSTP[2:0]	6:4	SVM Main window Step.	
	SMGAIN[3:0]	3:0	SVM Main window Gain.	
28h	REG102F51	7:0	Default: 0x00	Access : R/W
(102F51h)	-	7	Reserved.	
	SSWSTP[2:0]	6:4	SVM Sub window Step.	
	SWGAIN[3:0]	3:0	SVM Sub window Gain.	
29h	REG102F52	7:0	Default : 0x00	Access : R/W
(102F52h)	- / () ' \ \	7	Reserved.	
<u> </u>	SPAJ[1:0]	6:5	SVM Pipe Adjust.)
	SDLYAJ[4:0]	4:0	SVM Delay Adjust.	
29h	REG102F53	7:0	Default : 0x00	Access : RO, R/W
(102F53h)	SVM_SEP_DLY	7	SVM Separate Delay Ena	ble.
	OVERLAP_SEL[1:0]	6:5	Overlap Select.	
			00: Average.	
	0, 12		01: No Action. 10: Keep slow down resu	ılt
			11: Keep speed up result	
	SVM_SD_DLY[4:0]	4:0	SVM Slow down delay.	
2Ah	REG102F54	7:0	Default : 0x00	Access : R/W
(102F54h)		7	Reserved.	
	SBPMC	6	Scaler Bypass Mode Con	trol.
			0: Disable.	
			1: Enable.	
	IPFI	5	To Pad Field Invert enab	le.
	-	4:2	Reserved.	
	IOFI	1	Interlace Output Field In	vert.
	IOEN	0	Interlace Output Enable.	
2Bh	REG102F56	7:0	Default : 0x00	Access : R/W



Index (Absolute)	Mnemonic	Bit	Description	
	-	7:5	Reserved.	
	DISABLE_ALL_VOP2_FUNCTION	4	Disable all VOP2 function	1.
	-	3:0	Reserved.	
2Bh	REG102F57	7:0	Default : 0x00	Access : R/W
(102F57h)	IP_FINV	7	IP Field Inverse.	
	IP_ITLC	6	IP Interlace.	
	-	5:4	Reserved.	
	BES[1:0]	3:2	Border Extend for SVM.	
	OES[1:0]	1:0	OSD Extend for SVM.	
2Ch	REG102F59	7:0	Default : 0x00	Access : R/W
(102F59h)	OP1INTERLACE_OUT	7	OP1 output is interlace mode.	
	RESERVED[1:0]	6:5	RESERVED.	
	-	4:0	Reserved.	
30h	REG102F60	7:0	Default : 0x00	Access : R/W
(102F60h)	R_BRI_OFFSET[7:0]	7:0	Offset for R data.	
30h	REG102F61	7:0	Default : 0x00	Access : R/W
(102F61h)	BRI_EN	7	Brightness enable (after gamma).	
\ C	CON_EN	6	Contrast enable (after ga	amma).
M.	NOISE_ROUND_EN	5	Noise rounding enable for contrast brightness function.	
	- 3	4:3	Reserved.	
\$	R_BRI_OFFSET[10:8]	2:0	See description of '102F6	60h'.
31h	REG102F62	7:0	Default : 0x00	Access : R/W
(102F62h)	G_BRI_OFFSET[7:0]	7:0	Offset for G data.	
31h	REG102F63	7:0	Default : 0x00	Access : R/W
(102F63h)	-	7:3	Reserved.	
	G_BRI_OFFSET[10:8]	2:0	See description of '102F6	52h'.
32h	REG102F64	7:0	Default : 0x00	Access : R/W
(102F64h)	B_BRI_OFFSET[7:0]	7:0	Offset for B data.	
32h	REG102F65	7:0	Default : 0x00	Access : R/W
(102F65h)	-	7:3	Reserved.	
	B_BRI_OFFSET[10:8]	2:0	See description of '102F6	54h'.
33h	REG102F66	7:0	Default : 0x00	Access : R/W



Mnemonic	Bit	Description	
Whethorne	Dit.	Description	
R_CON_GAIN[7:0]	7:0	Contrast gain for R data.	
REG102F67	7:0	Default : 0x00	Access : R/W
-	7:4	Reserved.	
R_CON_GAIN[11:8]	3:0	See description of '102F6	56h'.
REG102F68	7:0	Default : 0x00	Access : R/W
G_CON_GAIN[7:0]	7:0	Contrast gain for G data.	
REG102F69	7:0	Default : 0x00	Access : R/W
-	7:4	Reserved.	
G_CON_GAIN[11:8]	3:0	See description of '102Fo	58h'.
REG102F6A	7:0	Default : 0x00	Access : R/W
B_CON_GAIN[7:0]	7:0	Contrast gain for B data.	
REG102F6B	7:0	Default : 0x00	Access : R/W
	7:4	Reserved.	
B_CON_GAIN[11:8]	3:0	See description of 102F	Ah'.
REG102F6C	7:0	Default : 0x00	Access : R/W
M_BRI_R[7:0]	7:0	Brightness offset (bri_fu	nction) for main window R
REG102F6D	7:0	Default : 0x00	Access : R/W
SS_MODE	7	Brightness offset (before	gamma) range control.
	•	0: From -1024 ~ 1023.	
		·	
			Access : R/W
			1
REG102F6F			Access : R/W
	7:3	Reserved.	
		0 1 11 614005	/ E
M_BRI_G[10:8]	2:0	See description of '102F6	
REG102F70	2:0 7:0	Default : 0x00	Access : R/W
REG102F70 M_BRI_B[7:0]	2:0 7:0 7:0	Default : 0x00 Brightness offset (bri_ful	Access : R/W nction) for main window E
REG102F70	2:0 7:0 7:0 7:0	Default : 0x00 Brightness offset (bri_full) Default : 0x00	
REG102F70 M_BRI_B[7:0]	2:0 7:0 7:0	Default : 0x00 Brightness offset (bri_ful	Access : R/W nction) for main window E Access : R/W
	REG102F67 - R_CON_GAIN[11:8] REG102F68 G_CON_GAIN[7:0] REG102F69 - G_CON_GAIN[11:8] REG102F6A B_CON_GAIN[7:0] REG102F6B - B_CON_GAIN[11:8] REG102F6C M_BRI_R[7:0] REG102F6D	R_CON_GAIN[7:0] 7:0 REG102F67 7:0 - 7:4 R_CON_GAIN[11:8] 3:0 REG102F68 7:0 G_CON_GAIN[7:0] 7:0 REG102F69 7:0 - 7:4 G_CON_GAIN[11:8] 3:0 REG102F6A 7:0 B_CON_GAIN[7:0] 7:0 REG102F6B 7:0 REG102F6B 7:0 REG102F6C 7:0 M_BRI_R[7:0] 7:0 REG102F6D 7:0 SS_MODE 7 - 6:3 M_BRI_R[10:8] 2:0 REG102F6E 7:0	R_CON_GAIN[7:0] 7:0 Contrast gain for R data. REG102F67 7:0 Default : 0x00 - 7:4 Reserved. R_CON_GAIN[11:8] 3:0 See description of '102F6 REG102F68 7:0 Default : 0x00 G_CON_GAIN[7:0] 7:0 Contrast gain for G data. REG102F69 7:0 Default : 0x00 - 7:4 Reserved. G_CON_GAIN[11:8] 3:0 See description of '102F6 REG102F6A 7:0 Default : 0x00 B_CON_GAIN[7:0] 7:0 Contrast gain for B data. REG102F6B 7:0 Default : 0x00 REG102F6B 7:0 Default : 0x00 M_BRI_R[7:0] 7:0 Brightness offset (bri_furman in From -102F6 REG102F6D 7:0 Default : 0x00 SS_MODE 7:0 Brightness offset (before 0: From -1024 ~ 1023. 1: From -512 ~ 511. - 6:3 Reserved. M_BRI_R[10:8] 2:0 See description of '102F6 REG102F6E 7:0 Default : 0x00 M_BRI_G[7:0] 7:0 Brightness offset (bri_furman in From -512 ~ 511.



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Index (Absolute)	Mnemonic	Bit	Description	
	S_BRI_R[7:0]	7:0	Brightness offset (bri_fur	nction) for sub window R.
39h	REG102F73	7:0	Default : 0x00	Access : R/W
(102F73h)	-	7:3	Reserved.	
	S_BRI_R[10:8]	2:0	See description of '102F7	72h'.
3Ah	REG102F74	7:0	Default : 0x00	Access : R/W
(102F74h)	S_BRI_G[7:0]	7:0	Brightness offset (bri_fur	nction) for sub window G
3Ah	REG102F75	7:0	Default : 0x00	Access : R/W
(102F75h)	-	7:3	Reserved.	
	S_BRI_G[10:8]	2:0	See description of '102F7	74h'.
3Bh	REG102F76	7:0	Default : 0x00	Access : R/W
(102F76h)	S_BRI_B[7:0]	7:0	Brightness offset (bri_fur	nction) for sub window B
3Bh	REG102F77	7:0	Default : 0x00	Access : R/W
(102F77h)	-	7:3	Reserved.	
	S_BRI_B[10:8]	2:0	See description of '102F7	<mark>7</mark> 6h'.
3Ch	REG102F78	7:0	Default : 0x00	Access : R/W
(102F78h)	GAMMA_MLOAD_CHECK_R_BASE0[7: 0]	7:0	Check value for auto mlo	oad base0 R channel.
3Ch	REG102F79	7:0	Default : 0x00	Access : RO, R/W
(102F79h)	GAMMA_MLOAD_CHECK_R_ERR_0	7	Base0 R channel check error.	
M.	- ,) X\	6:4	Reserved.	
` (GAMMA_MLOAD_CHECK_R_BASE0[11:8]	3:0	See description of '102F78h'.	
3Dh	REG102F7A	7:0	Default : 0x00	Access : R/W
(102F7Ah)	GAMMA_MLOAD_CHECK_R_BASE1[7: 0]	7:0	Check value for auto mlo	pad base1 R channel.
3Dh	REG102F7B	7:0	Default : 0x00	Access : RO, R/W
(102F7Bh)	GAMMA_MLOAD_CHECK_R_ERR_1	7	Base1 R channel check e	rror.
	-	6:4	Reserved.	
	GAMMA_MLOAD_CHECK_R_BASE1[11:8]	3:0	See description of '102F7	/Ah'.
3Eh	REG102F7C	7:0	Default : 0x00	Access : R/W
(102F7Ch)	GAMMA_MLOAD_CHECK_G_BASE0[7: 0]	7:0	Check value for auto mlo	oad base0 G channel.
3Eh	REG102F7D	7:0	Default : 0x00	Access : RO, R/W



Index	Mnemonic	Bit	Description	
(Absolute)			2000.1911011	
	GAMMA_MLOAD_CHECK_G_ERR_0	7	Base0 G channel check error.	
	-	6:4	Reserved.	
	GAMMA_MLOAD_CHECK_G_BASE0[11:8]	3:0	See description of '102F7Ch'.	
3Fh	REG102F7E	7:0	Default : 0x00 Access : R/W	
(102F7Eh)	GAMMA_MLOAD_CHECK_G_BASE1[7: 0]	7:0	Check value for auto mload base1 G channel.	
3Fh	REG102F7F	7:0	Default : 0x00 Access : RO, R/W	
(102F7Fh)	GAMMA_MLOAD_CHECK_G_ERR_1	7	Base1 G channel check error.	
		6:4	Reserved.	
	GAMMA_MLOAD_CHECK_G_BASE1[11:8]	3:0	See description of '102F7Eh'.	
40h	REG102F80	7:0	Default : 0x00 Access : R/W	
(102F80h)	GAMMA_MLOAD_CHECK_B_BASE0[7: 0]	7:0	Check value for auto mload base0 B channel.	
40h	REG102F81	7:0	Default : 0x00 Access : RO, R/W	
(102F81h)	GAMMA_MLOAD_CHECK_B_ERR_0	7	Base0 B channel check error.	
		6:4	Reserved.	
110	GAMMA_MLOAD_CHECK_B_BASE0[11:8]	3:0	See description of '102F80h'.	
41h	REG102F82	7:0	Default : 0x00 Access : R/W	
(102F82h)	GAMMA_MLOAD_CHECK_B_BASE1[7: 0]	7:0	Check value for auto mload base1 B channel.	
41h	REG102F83	7:0	Default : 0x00 Access : RO, R/W	
(102F83h)	GAMMA_MLOAD_CHECK_B_ERR_1	7	Base1 B channel check error.	
	- \' \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\	6:4	Reserved.	
	GAMMA_MLOAD_CHECK_B_BASE1[11:8]	3:0	See description of '102F82h'.	
46h	REG102F8C	7:0	Default : 0x00 Access : R/W	
(102F8Ch)	-	7:5	Reserved.	
	CAP_STAGE	4	Capture stage selection. 0: Before OSD. 1: After OSD.	
		3:0	Reserved.	



Index	Mnemonic	Bit	Description	
(Absolute)			·	
17h	REG102F8E	7:0	Default : 0x00	Access : R/W
(102F8Eh)	MAIN_R_CON_GAIN[7:0]	7:0	Main window R gain for p	ore-gamma CON_BRI.
17h	REG102F8F	7:0	Default : 0x00	Access : R/W
102F8Fh)	-	7:4	Reserved.	
	MAIN_R_CON_GAIN[11:8]	3:0	See description of '102F8	Eh'.
18h	REG102F90	7:0	Default : 0x00	Access : R/W
(102F90h)	MAIN_G_CON_GAIN[7:0]	7:0	Main window G gain for p	ore-gamma CON_BRI.
18h	REG102F91	7:0	Default : 0x00	Access : R/W
(102F91h)	-	7:4	Reserved.	
	MAIN_G_CON_GAIN[11:8]	3:0	See description of '102F90h'.	
19h	REG102F92	7:0	Default : 0x00	Access : R/W
(102F92h)	MAIN_B_CON_GAIN[7:0]	7:0	0 Main window B gain for pre-gamma Co	
19h	REG102F93	7:0	Default : 0x00	Access : R/W
(102F93h)	- (0)	7:4	Reserved.	
	MAIN_B_CON_GAIN[11:8]	3:0	See description of '102F9	2h'.
4Ah	REG102F94	7:0	Default : 0x00	Access : R/W
(102F94h)	SUB_R_CON_GAIN[7:0]	7:0	Sub window R gain for pr	re-gamma CON_BRI.
lAh C	REG102F95	7:0	Default : 0x00	Access : R/W
(102F95h)		7:4	Reserved.	
19.	SUB_R_CON_GAIN[11:8]	3:0	See description of '102F9	4h'.
1Bh	REG102F96	7:0	Default : 0x00	Access : R/W
(102F96h)	SUB_G_CON_GAIN[7:0]	7:0	Sub window G gain for p	re-gamma CON_BRI.
1Bh	REG102F97	7:0	Default : 0x00	Access : R/W
(102F97h)	- 11' 0'	7:4	Reserved.	
	SUB_G_CON_GAIN[11:8]	3:0	See description of '102F9	6h'.
4Ch	REG102F98	7:0	Default : 0x00	Access : R/W
(102F98h)	SUB_B_CON_GAIN[7:0]	7:0	Sub window B gain for pr	re-gamma CON_BRI.
lCh	REG102F99	7:0	Default : 0x00	Access : R/W
(102F99h)	-	7:4	Reserved.	
	SUB_B_CON_GAIN[11:8]	3:0	See description of '102F9	'8h'.
4Dh	REG102F9A	7:0	Default : 0x00	Access : R/W
(102F9Ah)	MAIN_R_BRI_OFFSET[7:0]	7:0	Main window R offset for	pre-gamma CON_BRI
4Dh	REG102F9B	7:0	Default : 0x00	Access : R/W



Index	Mnemonic	Bit	Description	
(Absolute)		7.0	D 1	
	-	7:3	Reserved.	
	MAIN_R_BRI_OFFSET[10:8]	2:0	See description of '102F9	
4Eh	REG102F9C	7:0	Default : 0x00	Access : R/W
(102F9Ch)	MAIN_G_BRI_OFFSET[7:0]	7:0	Main window G offset for	
4Eh	REG102F9D	7:0	Default : 0x00	Access : R/W
(102F9Dh)	-	7:3	Reserved.	
	MAIN_G_BRI_OFFSET[10:8]	2:0	See description of '102F9	Ch'.
4Fh	REG102F9E	7:0	Default : 0x00	Access : R/W
(102F9Eh)	MAIN_B_BRI_OFFSET[7:0]	7:0	Main window B offset for	pre-gamma CON_BRI.
4Fh	REG102F9F	7:0	Default : 0x00	Access : R/W
(102F9Fh)		7:3	Reserved.	
	MAIN_B_BRI_OFFSET[10:8]	2:0	See description of '102F9	Eh'.
50h	REG102FA0	7:0	Default : 0x00	Access : R/W
(102FA0h)	SUB_R_BRI_OFFSET[7:0]	7:0	Sub window R offset for	pre-gamma CON_BRI.
50h	REG102FA1	7:0	Default : 0x00	Access : R/W
(102FA1h)	-	7:3	Reserved.	
	SUB_R_BRI_OFFSET[10:8]	2:0	See description of '102FA0h'.	
51h	REG102FA2	7:0	Default : 0x00	Access : R/W
(102FA2h)	SUB_G_BRI_OFFSET[7:0]	7:0	Sub window G offset for	pre-gamma CON_BRI.
51h	REG102FA3	7:0	Default : 0x00	Access : R/W
(102FA3h)	-01	7:3	Reserved.	
>	SUB_G_BRI_OFFSET[10:8]	2:0	See description of '102FA	.2h'.
52h	REG102FA4	7:0	Default : 0x00	Access : R/W
(102FA4h)	SUB_B_BRI_OFFSET[7:0]	7:0	Sub window B offset for	pre-gamma CON_BRI.
52h	REG102FA5	7:0	Default : 0x00	Access : R/W
(102FA5h)	-	7:3	Reserved.	
	SUB_B_BRI_OFFSET[10:8]	2:0	See description of '102FA	۸4h'.
53h	REG102FA6	7:0	Default : 0x00	Access : R/W
(102FA6h)	-	7:3	Reserved.	•
	MAIN_NOISE_ROUND_EN	2	Main window noise round CON_BRI.	ling enable for pre-gamn
	MAIN_BRI_EN	1	Main window brightness CON_BRI.	enable for pre-gamma



SC1 S_VC	OP Register (Bank = 102F, Sub	o-Ban	k = 0F)	
Index (Absolute)	Mnemonic	Bit	Description	
	MAIN_CON_EN	0	Main window contrast enable for pre-gamma CON_BRI.	
53h	REG102FA7	7:0	Default : 0x00	Access : R/W
(102FA7h)	-	7:3	Reserved.	
	SUB_NOISE_ROUND_EN	2	Sub window noise roundi CON_BRI.	ng enable for pre-gamma
	SUB_BRI_EN	1	Sub window brightness e CON_BRI.	nable for pre-gamma
	SUB_CON_EN	0	Sub window contrast enable for pre-gamma CON_BRI.	
54h	REG102FA8	7:0	Default : 0x00	Access : R/W
(102FA8h)	FREEZ_VCNT_VALUE[7:0]	7:0	Output v-counter freeze	position.
54h	REG102FA9	7:0	Default : 0x00	Access : R/W
(102FA9h)	-	7:4	Reserved.	
	FREEZ_VCNT_VALUE[11:8]	3:0	See description of '102FA8h'.	
55h	REG102FAA	7:0	Default : 0x00	Access : R/W
(102FAAh)	LOCK_VCNT_VALUE[7:0]	7:0	V-counter generates output reference signal variable. This register is active when REG_NEW_LOCK_POINT is set high.	
55h	REG102FAB	7:0	Default : 0x00	Access : R/W
(102FABh)	- ,) X	7:4	Reserved.	
	LOCK_VCNT_VALUE[11:8]	3:0	See description of '102FA	Ah'.
56h	REG102FAC	7:0	Default : 0x00	Access : R/W
(102FACh)		7	Reserved.	
	PSEUDO_VS_EN	6	Enable pseudo vsync for	freeze region.
	OUTPUT_FIELD_SEL	5	Select field for output ref	erence signal.
	OTUPUT_FIELD_INV	4	Invert field for output ref	erence signal.
	SW_RESET_VCNT_FREEZ	3	Software clear v-counter	freeze status.
	IVS_SEL	2	Select insert_end point as PLL.	s input reference for frame
	NEW_LOCK_POINT	1	New output reference sig	nal for frame PLL enable.
	INPUT_FREEZ	0	V-counter freeze enable.	
56h	REG102FAD	7:0	Default : 0x00	Access : RO, R/W
(102FADh)	VCNT_FREEZ_REGION	7	In V-counter freeze statu	S.



Index	Mnemonic	Bit	Description	
(Absolute)			·	
	-	6:2	Reserved.	
	IVS_CNT[9:8]	1:0	Frame number for input reference generation.	
57h	REG102FAE	7:0	Default : 0x00 Access : R/W	
(102FAEh)	SUB_Y_SUB_16	7	Sub input Y signal sub 16 enable for CCIR656 format.	
	MAIN_Y_SUB_16	6	Main input Y signal sub 16 enable for CCIR656 format.	
	SUB_R_MIN_SIGN	5	Sub R min limit for BRI is negative value.	
	SUB_BRI_LIMIT_EN	4	Sub enable BRI input source limit.	
	MAIN_B_MIN_SIGN	3	Main B min limit for BRI is negative value.	
	MAIN_G_MIN_SIGN	2	Main G min limit for BRI is negative value.	
	MAIN_R_MIN_SIGN	1	Main R min limit for BRI is negative value.	
	MAIN_BRI_LIMIT_EN	0	Main enable BRI input source limit.	
57h	REG102FAF	7:0	Default : 0x00 Access : R/W	
(102FAFh) - 	- (9	7	Reserved.	
	PSEUDO_DE_SHIFT_ONLY	6	Random noise shift only during valid data period enable.	
	NOISE_DITH_EN	5	Noise dither enable.	
10	GAMMA_REPEAT_MAX	4	Repeat gamma table max value for interpolation.	
MI.	CAP_EN	3	Capture image to IP enable.	
	- (2:0	Reserved.	
58h	REG102FB0	7:0	Default : 0x00 Access : R/W	
(102FB0h)	MAIN_R_MIN_LIMIT[7:0]	7:0	Main R min limit value, s.12 format sign bit is bit-1 REG_MAIN_R_MIN_SIGN = 1: MAIN_R_MIN = -MAIN_R_MIN_LIMIT. REG_MAIN_R_MIN_SIGN = 0: MAIN_R_MIN = MAIN_R_MIN_LIMIT.	
58h	REG102FB1	7:0	Default : 0x00 Access : R/W	
(102FB1h)	-	7:5	Reserved.	
	MAIN_R_MIN_LIMIT[12:8]	4:0	See description of '102FB0h'.	
59h	REG102FB2	7:0	Default : 0x00 Access : R/W	
(102FB2h)	MAIN_R_MAX_LIMIT[7:0]	7:0	Main R max limit value, 12 format.	
59h	REG102FB3	7:0	Default : 0x00 Access : R/W	
(102FB3h)		7:4	Reserved.	



SC1 S_VC	OP Register (Bank = 102F, Sub	o-Ban	k = 0F)	
Index (Absolute)	Mnemonic	Bit	Description	
	MAIN_R_MAX_LIMIT[11:8]	3:0	See description of '102FB	32h'.
5Ah	REG102FB4	7:0	Default : 0x00	Access : R/W
(102FB4h)	MAIN_G_MIN_LIMIT[7:0]	7:0	Main G min limit value, s.12 format sign bit is bit- REG_MAIN_G_MIN_SIGN = 1: MAIN_G_MIN = -MAIN_G_MIN_LIMIT. REG_MAIN_G_MIN_SIGN = 0: MAIN_G_MIN = MAIN_G_MIN_LIMIT.	
5 A h	REG102FB5	7:0	Default : 0x00	Access : R/W
(102FB5h)	-	7:5	Reserved.	
	MAIN_G_MIN_LIMIT[12:8]	4:0	See description of '102FB	34h'.
5Bh	REG102FB6	7:0	Default : 0x00	Access : R/W
(102FB6h)	MAIN_G_MAX_LIMIT[7:0]	7:0	Main R max limit value 12	2 format.
5Bh	REG102FB7	7:0	Default : 0x00	Access : R/W
(102FB7h)	- 0	7:4	Reserved.	•
	MAIN_G_MAX_LIMIT[11:8]	3:0	See description of '102FB6h'.	
5Ch	REG102FB8	7:0	Default : 0x00	Access : R/W
(102FB8h)	MAIN_B_MIN_LIMIT[7:0]	7:0	Main B min limit value, s.12 format sign bit is l REG_MAIN_B_MIN_SIGN = 1: MAIN_R_MIN = -MAIN_B_MIN_LIMIT. REG_MAIN_B_MIN_SIGN = 0: MAIN_R_MIN = MAIN_B_MIN_LIMIT.	
5Ch	REG102FB9	7:0	Default : 0x00	Access : R/W
(102FB9h)		7:5	Reserved.	
	MAIN_B_MIN_LIMIT[12:8]	4:0	See description of '102FB	88h'.
5Dh	REG102FBA	7:0	Default : 0x00	Access : R/W
(102FBAh)	MAIN_B_MAX_LIMIT[7:0]	7:0	Main R max limit value 12	2 format.
5Dh	REG102FBB	7:0	Default : 0x00	Access : R/W
(102FBBh)	-	7:4	Reserved.	
	MAIN_B_MAX_LIMIT[11:8]	3:0	See description of '102FB	Ah'.
5Eh	REG102FBC	7:0	Default : 0x00	Access : R/W
(102FBCh)	SUB_R_MIN_LIMIT[7:0]	7:0	Main R min limit value, s.: REG_SUB_R_MIN_SIGN = -SUB_R_MIN_LIMIT. REG_SUB_R_MIN_SIGN = SUB_R_MIN_LIMIT.	



SC1 S_VO	P Register (Bank = 102F, Sub	o-Ban	k = 0F)	
Index (Absolute)	Mnemonic	Bit	Description	
5Eh	REG102FBD	7:0	Default : 0x00	Access : R/W
(102FBDh)	-	7:5	Reserved.	
	SUB_R_MIN_LIMIT[12:8]	4:0	See description of '102FB	Ch'.
5Fh	REG102FBE	7:0	Default : 0x00	Access : R/W
(102FBEh)	SUB_R_MAX_LIMIT[7:0]	7:0	Main R max limit value, 1	2 format.
5Fh	REG102FBF	7:0	Default : 0x00	Access : R/W
(102FBFh)	-	7:4	Reserved.	
	SUB_R_MAX_LIMIT[11:8]	3:0	See description of '102FB	Eh'.
60h	REG102FC0	7:0	Default : 0x00	Access : R/W
(102FC0h)	SUB_G_MIN_LIMIT[7:0]	7:0	Main G min limit value, s. REG_SUB_G_MIN_SIGN MAIN_G_MIN = -SUB_G_REG_SUB_G_MIN_SIGN MAIN_G_MIN = SUB_G_	_MIN_LIMIT. = 0:
60h	REG102FC1	7:0	Default : 0x00	Access : R/W
(102FC1h)		7:5	Reserved.)
	SUB_G_MIN_LIMIT[12:8]	4:0	See description of '102FC0h'.	
61h	REG102FC2	7:0	Default : 0x00	Access : R/W
(102FC2h)	SUB_G_MAX_LIMIT[7:0]	7:0	Main R max limit value 12	2 format.
61h	REG102FC3	7:0	Default : 0x00	Access : R/W
(102FC3h)	- () (7:4	Reserved.	
	SUB_G_MAX_LIMIT[11:8]	3:0	See description of '102FC	:2h'.
62h	REG102FC4	7:0	Default : 0x00	Access : R/W
(102FC4h)	SUB_B_MIN_LIMIT[7:0]	7:0	Main B min limit value, s.12 format sign bit is bit-1 REG_SUB_B_MIN_SIGN = 1: MAIN_R_MIN = -SUB_B_MIN_LIMIT. REG_SUB_B_MIN_SIGN = 0: MAIN_R_MIN = SUB_B_MIN_LIMIT.	
62h	REG102FC5	7:0	Default : 0x00	Access : R/W
(102FC5h)	-	7:5	Reserved.	
	SUB_B_MIN_LIMIT[12:8]	4:0	See description of '102FC	:4h'.
63h	REG102FC6	7:0	Default : 0x00	Access : R/W
(102FC6h)	SUB_B_MAX_LIMIT[7:0]	7:0	Main R max limit value 12	•
63h	REG102FC7	7:0	Default : 0x00	Access : R/W



SC1 S_VC	OP Register (Bank = 102F, Suk	o-Ban	k = 0F)	
Index (Absolute)	Mnemonic	Bit	Description	
	-	7:4	Reserved.	
	SUB_B_MAX_LIMIT[11:8]	3:0	See description of '102FC	6h'.
70h	REG102FE0	7:0	Default : 0x00	Access : R/W
(102FE0h)	-	7:6	Reserved.	
	FWC_SAT_FROM_YUV	5	Saturation Calculation fro	m YUV domain.
	FWC_SUB_EN	4		•
	FWC_DELTAX2X4[1:0]	3:2	0x0: No change. 0x1: R5_offset to R16_of B16_offset x2 (-256 to +: 0x2: R5_offset to R16_of B16_offset x4 (-512 to +:	254). fset, B5_offset to
	FWC_DITHER_EN	1		
	FWC_MAIN_EN	0	Main window Fresh White on/off.	Correction Function
70h	REG102FE1	7:0	Default : 0x00	Access : R/W
(102FE1h)	02FE1h) _ 7:4 Rese		Reserved.)
	FWC_STRENGTH[3:0]	3:0		
71h	REG102FE2	7:0	Default : 0x00	Access : R/W
(102FE2h)		7:6	Reserved.	
M.	FWC_SLOPE[5:0]	5:0	Fresh white strength decr gray color and non-gray of	• .
71h	REG102FE3	7:0	Default : 0x00	Access : R/W
(102FE3h)	FWC_CTH[7:0]	7:0	Fresh white Function Satu	uration threshold.
72h	REG102FE4	7:0	Default : 0x80	Access : R/W
(102FE4h)	FWC_DELTA_R[7:0]	7:0	R adjust offset.	
72h	REG102FE5	7:0	Default : 0x80	Access : R/W
(102FE5h)	FWC_DELTA_R[15:8]	7:0	See description of '102FE	4h'.
73h	REG102FE6	7:0	Default : 0x80	Access : R/W
(102FE6h)	FWC_DELTA_R[23:16]	7:0	See description of '102FE	4h'.
73h	REG102FE7	7:0	Default : 0x80	Access : R/W
(102FE7h)	FWC_DELTA_R[31:24]	7:0	See description of '102FE	4h'.
74h	REG102FE8	7:0	Default : 0x80	Access : R/W
(102FE8h)	FWC_DELTA_R[39:32]	7:0	See description of '102FE	4h'.
74h	REG102FE9	7:0	Default : 0x80	Access : R/W

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Index	Mnemonic	Bit	Description	
(Absolute)				
	FWC_DELTA_R[47:40]	7:0	See description of '102FE4h'	
75h	REG102FEA	7:0		ccess : R/W
	FWC_DELTA_R[55:48]	7:0	See description of '102FE4h'	
'5h	REG102FEB	7:0		ccess : R/W
102FEBh)	FWC_DELTA_R[63:56]	7:0	See description of '102FE4h'	. <u> </u>
6h	REG102FEC	7:0	Default : 0x80 A	ccess : R/W
102FECh)	FWC_DELTA_R[71:64]	7:0	See description of '102FE4h'	' <u>. </u>
6h	REG102FED	7:0	Default : 0x80 A	ccess : R/W
102FEDh)	FWC_DELTA_R[79:72]	7:0	See description of '102FE4h'	<u>'. </u>
7h	REG102FEE	7:0	Default : 0x80 A	ccess : R/W
102FEEh)	FWC_DELTA_R[87:80]	7:0	See description of '102FE4h'	'. <u> </u>
7h	REG102FEF	7:0	Default : 0x80 A	ccess : R/W
102FEFh)	FWC_DELTA_R[95:88]	7:0	See description of '102FE4h'	
Ah	REG102FF4	7:0	Default : 0x80	ccess : R/W
102FF4h)	FWC_DELTA_B[7:0]	7:0	B adjust offset.	
-	REG102FF5	7:0	Default : 0x80 Ad	ccess : R/W
102FF5h)	FWC_DELTA_B[15:8]	7:0	See description of '102FF4h'	
Bh	REG102FF6	7:0	Default : 0x80 Ad	ccess : R/W
102FF6h)	FWC_DELTA_B[23:16]	7:0	See description of '102FF4h'	
Bh	REG102FF7	7:0	Default : 0x80 Ad	ccess : R/W
102FF7h)	FWC_DELTA_B[31:24]	7:0	See description of '102FF4h'	
Ch	REG102FF8	7:0	Default : 0x80 Ac	ccess : R/W
102FF8h)	FWC_DELTA_B[39:32]	7:0	See description of '102FF4h'	
Ch	REG102FF9	7:0	Default : 0x80 Ac	ccess : R/W
102FF9h)	FWC_DELTA_B[47:40]	7:0	See description of '102FF4h'	
Dh	REG102FFA	7:0	Default : 0x80 Ac	ccess : R/W
102FFAh)	FWC_DELTA_B[55:48]	7:0	See description of '102FF4h'	
Dh	REG102FFB	7:0	Default : 0x80 Ad	ccess : R/W
102FFBh)	FWC_DELTA_B[63:56]	7:0	See description of '102FF4h'	
Eh	REG102FFC	7:0	Default : 0x80 Ac	ccess : R/W
102FFCh)	FWC_DELTA_B[71:64]	7:0	See description of '102FF4h'	
Eh	REG102FFD	7:0		ccess : R/W
102FFDh)	FWC_DELTA_B[79:72]	7:0	See description of '102FF4h'	!



SC1 S_VC	SC1 S_VOP Register (Bank = 102F, Sub-Bank = 0F)				
Index (Absolute)	Mnemonic	Bit	Description		
7Fh	REG102FFE	7:0	Default : 0x80	Access : R/W	
(102FFEh)	FWC_DELTA_B[87:80]	7:0	See description of '102FF	4h'.	
7Fh	REG102FFF	7:0	Default : 0x80	Access : R/W	
(102FFFh)	FWC_DELTA_B[95:88]	7:0	See description of '102FF	4h'.	

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SC1 VOP Register (Bank = 102F, Sub-Bank = 10)

SC1 VOP	Register (Bank = 102F, S	ub-Ba	ank = 10)		
Index (Absolute)	Mnemonic	Bit	Description		
01h	REG102F02	7:0	Default : 0x00	Access : R/W	
(102F02h)	HSEND0[7:0]	7:0	20h: Recommended value (p	power on default value is 0).	
01h	REG102F03	7:0	Default : 0x00	Access : R/W	
(102F03h) MAIN_NO_SIGNAL_SEL		7	Select main window mute so 1: From main window mute 0: From sub window mute s	source.	
	SUB_NO_SIGNAL_SEL	6	Select sub window mute sou 1: From sub window mute s 0: From main window mute	ource.	
	MAIN_NO_SIGNAL_EN	5	Enable main window mute by no signal or AV mute.		
	SUB_NO_SIGNAL_EN	4	Enable sub window mute by no signal or AV mute.		
	-	3:1	Reserved.		
	DB_MASK	0	Double buffer register mask The double buffer register is DB_LOAD.	signal. updated when DB_MASK and	
02h	REG102F04	7:0	Default : 0x00	Access : R/W	
(102F04h)	VSST[7:0]	7:0	Output VSYNC start (only useful when AOVS=1). 302h: Recommended value for XGA output (power default value is 3). 402h: Recommended value for SXGA output.		
02h	REG102F05	7:0	Default : 0x00	Access : R/W	
(102F05h)	.0,	7:5	Reserved.		
*	VSST_D11	4	Output VSYNC D[11]start (o 302h: Recommended value default value is 3). 402h: Recommended value	for XGA output (power on	
	VSRU	3	VSYNC Register Usage. 0: Registers 20h - 23h are u 1: Registers 20h and 21h ard VSYNC. Registers 22h and 23h are u total.	_	
	VSST[10:8]	2:0	See description of '102F04h'	T	
03h	REG102F06	7:0	Default : 0x00	Access : R/W	
(102F06h)	VSEND[7:0]	7:0	Output VSYNC END (only us	eful when AOVS=1).	



Index (Absolute)	Mnemonic	Bit	Description	
			304h: Recommended value default value is 6). 404h: Recommended value	
03h	REG102F07	7:0	Default : 0x00	Access : R/W
(102F07h)	-	7:4	Reserved.	
	VSEND[11:8]	3:0	See description of '102F06h	
04h	REG102F08	7:0	Default : 0x00	Access : R/W
(102F08h)	DEHST[7:0]	7:0	External VD Using Sync. 0: Sync is Generated from E 1: Sync from External Source	_
04h	REG102F09	7:0	Default : 0x00	Access : R/W
(102F09h)	- (1	7:5	Reserved.	
	DEHST[12:8]	4:0	See description of '102F08h	· · · · · · · · · · · · · · · · · · ·
05h	REG102F0A	7:0	Default : 0x00 Access : R/W	
(102F0Ah)	DEHEND[7:0]	7:0	Output DE Horizontal END. 447h: Recommended value default value is 0). 547h: Recommended value	
05h	REG102F0B	7:0	Default : 0x00	Access : R/W
(102F0Bh)	-	7:5	Reserved.	
N,	DEHEND[12:8]	4:0	See description of '102F0Ah	ı •
06h	REG102F0C	7:0	Default : 0x00	Access : R/W
(102F0Ch)	DEVST[7:0]	7:0	Output DE Vertical Start. 00: Default value.	
06h	REG102F0D	7:0	Default : 0x00	Access : R/W
(102F0Dh)	VSTSEL	7	Vertical Start Select. 0: DEVST[10:0] is Output D 1: DEVST[10:0] is Scaling In	
	-	6:4	Reserved.	
	DEVST[11:8]	3:0	See description of '102F0Ch	
07h	REG102F0E	7:0	Default : 0x00	Access : R/W
(102F0Eh)	DEVEND[7:0]	7:0	Output DE Vertical END. 2FFh: Recommended value for XGA output (power on default value is 6). 3FFh: Recommended value for SXGA output.	



Index (Absolute)	Mnemonic	Bit	Description	
07h	REG102F0F	7:0	Default : 0x00	Access : R/W
(102F0Fh)	-	7:4	Reserved.	
	DEVEND[11:8]	3:0	See description of '102F0Eh	
08h	REG102F10	7:0	Default : 0x00	Access : R/W
(102F10h)	SIHST[7:0]	7:0	Scaling Image window Horiz 48h: Recommended value (
08h	REG102F11	7:0	Default : 0x00	Access : R/W
(102F11h)	-	7:5	Reserved.	
	SIHST[12:8]	4:0	See description of '102F10h	
09h	REG102F12	7:0	Default : 0x00	Access : R/W
(102F12h)	SIHEND[7:0]	7:0	447h: Recommended value for XGA output (power default is 0).547h: Recommended value for SXGA output.	
09h	REG102F13	7:0	Default : 0x00	Access : R/W
(102F13h) ₋	- (7:5	Reserved.	
	SIHEND[12:8]	4:0	See description of '102F12h	' .
0Ah	REG102F14	7:0	Default : 0x00	Access : R/W
(102F14h)	SIVST[7:0]	7:0	Scaling Image window Verti	cal Start.
0Ah	REG102F15	7:0	Default: 0x00	Access : R/W
(102F15h)	- 5' ~('	7:4	Reserved.	
	SIVST[11:8]	3:0	See description of '102F14h	
OBh (REG102F16	7:0	Default : 0x00	Access : R/W
(102F16h)	SIVEND[7:0]	7:0	Scaling Image window Vertical END. 2FFh: Recommended value for XGA output (power default value is 6). 3FFh: Recommended value for SXGA output.	
0Bh	REG102F17	7:0	Default : 0x00	Access : R/W
(102F17h)	-	7:4	Reserved.	•
	SIVEND[11:8]	3:0	See description of '102F16h	·.
OCh OCh	REG102F18	7:0	Default : 0x00	Access : R/W
(102F18h)	HDTOT[7:0]	7:0	Output Horizontal Total. 53fh: Recommended value for XGA output (power on default value is 3). 697h: Recommended value for SXGA output.	



Index (Absolute)	Mnemonic	Bit	Description	
0Ch	REG102F19	7:0	Default : 0x00	Access : R/W
(102F19h)	-	7:5	Reserved.	•
	HDTOT[12:8]	4:0	See description of '102F18	Bh'.
0Dh	REG102F1A	7:0	Default : 0x00	Access : R/W
(102F1Ah)	VDTOT[7:0]	7:0	Output Vertical Total. 326h: Recommended valudefault value is 3). 42Ah: Recommended valu	ue for XGA output (power on ue for SXGA output.
0Dh	REG102F1B	7:0	Default : 0x00	Access : R/W
(102F1Bh)	-	7:4	Reserved.	
	VDTOT[11:8]	3:0	See description of '102F1Ah'.	
10h	REG102F20	7:0	Default : 0x00	Access : R/W
(102F20h)	HSEND[7:0]	7:0	20h: Recommended value (power on default va	
10h	REG102F21	7:0	Default : 0x4C	Access : R/W
(102F21h) AOVS		7	Auto Output VSYNC. 0: OVSYNC is defined automatically. 1: OVSYNC is defined manually (register 0x20 - 0x23)	
NC.	OUTM		Output Mode. 0: Mode 0. 1: Mode 1.	
M.	-	5:4	Reserved.	
\$	ЕНТТ	3	Even H Total. 0: Enable, Output H Total 1: Disable, Output H Total	•
	MOD2	2	Mode 2. 0: Disable. 1: Enable.	
	AHRT	1	Auto H total and Read sta 0: Disable. 1: Enable.	rt Tuning enable.
	CTRL	0	ATCTRL function enable. 0: Disable. 1: Enable.	
11h	REG102F22	7:0	Default : 0x00	Access : R/W
(102F22h)	FPLLMD0	7	Frame PLL Mode 0.	
	SL_TUNE_EN	6	Short line tune enable.	

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SC1 VOP I	Register (Bank = 102F, S	ub-Ba	ank = 10)	
Index (Absolute)	Mnemonic	Bit	Description	
	AUTO_H_TOTAL_UPDATE_EN	5	Enable update AUTO_H_TO	ΓAL value to H_TOTAL.
	-	4:2	Reserved.	
	SSC_SHIFT	1	0: Enable. 1: Disable.	
	CLKDIV2_POINT_SELECT	0	0: Original. 1: New.	
12h	REG102F24	7:0	Default : 0x20	Access : R/W
(102F24h)	LCK_TH[7:0]	7:0	Frame PLL Lock Threshold.	
12h	REG102F25	7:0	Default : 0x08	Access : R/W
(102F25h)	LCK_TH[15:8]	7:0	See description of '102F24h'	
13h	REG102F27	7:0	Default : 0x10	Access : R/W
(102F27h)	FTNS[3:0]	7:4	Tune Frame Number of Shor	t-line tune.
	-	3	Reserved.	
	PIP_REG_EN	2	PIP Register Enable.	
	- ()	1	Reserved.	
	NOISY_GEN	0	Noise Generator.	
14h	REG102F28	7:0	Default : 0x00	Access : R/W
(102F28h)	PFLL_LMT1[7:0]	7:0	Frame PLL Limit.	
14h	REG102F29	7:0	Default: 0x00	Access : R/W
(102F29h)	PFLL_LMT0[7:0]	7:0	Frame PLL Limit.	
15h	REG102F2A	7:0	Default : 0x00	Access : R/W
(102F2Ah)	PFLL_LMT[7:0]	7:0	Frame PLL Limit.	
16h	REG102F2D	7:0	Default : 0x00	Access : R/W
(102F2Dh)	- 10 01	7:1	Reserved.	
	BRC	0	Brightness function. 0: Off. 1: On.	
17h	REG102F2E	7:0	Default : 0x00	Access : RO
(102F2Eh)	INTLX_VS_OFFSET[7:0]	7:0	The interlace vsync offset.	
17h	REG102F2F	7:0	Default : 0x00	Access : RO
(102F2Fh)	-	7:6	Reserved.	
	INTLX_VS_EN	5	Interlace vsync enable.	
	INTLX_VS_OFFSET[12:8]	4:0	See description of '102F2Eh'	:
18h	REG102F30	7:0	Default : 0x00	Access : R/W



ndex (Absolute)	Mnemonic	Bit	Description	
	BY_STAGE_VIP[3:0]	7:4	Vip report point stage.	
	BY_STAGE_OP2[3:0]	3:0	Report point stage.	
18h	REG102F31	7:0	Default : 0x00	Access : R/W
(102F31h)	-	7:1	Reserved.	
	REP_RD_TRID	0	Report SW read trigger.	
19h	REG102F32	7:0	Default : 0x00	Access : R/W
(102F32h)	-	7	Reserved.	
	SWBLBK	6	Sub window Blue screen colo: Black color. 1: Blue color.	or.
	SWBLUE	5	Sub window Blue screen control. 0: Off. 1: On.	
	-	4:3	Reserved.	1
	MBD_EN	2	Main window Border Enable	
	MBLK	1	Main window Black screen c 0: Off. 1: On.	ontrol.
	NOSC_EN	0	No Signal Color Enable.	
1Ah	REG102F34	7:0	Default : 0x00	Access : R/W
(102F34h)	FCL_G[7:0]	7:0	Frame Color - Green.	
1Ah	REG102F35	7:0	Default : 0x00	Access : R/W
(102F35h)	FCL_B[7:0]	7:0	Frame Color - Blue.	
1Ch	REG102F38	7:0	Default : 0x00	Access : R/W
(102F38h)	RST_E_4_FRAME	7	Reset noise generator by fra	imes enable.
	NDMD	6	Noise Dithering Method.	
	DATP	5	Dither based on Auto Phase threshold. 0: Disable. 1: Enable.	
	DRT	4	Dither Rotate Type. 0: EOR. 1: Rotate.	
	DT3	3	Dither Type 2 control. 0: Disable dither type 2. 1: Enable dither type 2.	



Index (Absolute)	Mnemonic	Bit	Description		
	DT2	2	Dither Type 2. 0: Output data bits 1 and 0 a 1: Output data bits 2, 1 and value.	according to input pixel value. O according to input pixel	
	DT1	1	Dither Type 1. 0: Normal. 1: Output data bits 1 and 0 are always 00.		
	TDFNC	0	Tempo-Dither Frame Number 0: Tempo-dither every frame 1: Tempo-dither every 2 frame	9.	
1Ch	REG102F39	7:0	Default : 0x00	Access : R/W	
(102F39h)	-	7	Reserved.		
	SHORT_1LINE_DISABLE	6	1: Disable. 0: Enable.		
	-	5	Reserved.		
	EGWT	4	Encode Gamma Write.		
<u>-</u>	- (3:1	Reserved.		
	OUTFRR_EN0	0	Output Free-run Enable.		
1Dh	REG102F3B	7:0	Default : 0x07	Access : R/W	
(102F3Bh)	TUNE_FIELD_IP	7	Select insert point of one fie	ld for VOP_DISP inset signal.	
M,	- ,) × ()	6:0	Reserved.	r	
1Eh	REG102F3C	7:0	Default : 0x00	Access : R/W	
(102F3Ch)	LMT_ADD_NMB[7:0]	7:0	Limit adjust Number in ACC_	_FPLL mode.	
1Eh	REG102F3D	7:0	Default : 0x00	Access : R/W	
(102F3Dh)	FPLL_MD1	7	FPLL Mode 1.		
	FPLL_DIS	6	FPLL Stop.		
	-	5:3	Reserved.		
	ADD_LINE_SEL	2	Select Add Line into frame or pixel into line.		
	-	1:0	Reserved.	Γ	
21h	REG102F43	7:0	Default : 0x00	Access : R/W	
(102F43h)	-	7	Reserved.		
	DOT	6	Differential Output Type. 0: Normal LVDS/RSDS opera 1: Reduced-swing LVDS/Inci		
	WHTS	5	White Screen (including Main		



Index (Absolute)	Mnemonic	Bit	Description	
			0: Disable. 1: Enable.	
	BLSK	4	Black Screen (including Mair 0: Disable. 1: Enable.	n window and Sub window).
	REVERSE	3	REVERSE luminosity. 0: Off. 1: On.	
	-	2:0	Reserved.	
22h	REG102F45	7:0	Default : 0x00	Access : R/W
(102F45h)	FBLALL_SET	7	Frame buffer less all set.	
	٠	6:0	Reserved.	
23h	REG102F46	7:0	Default : 0x00	Access : R/W
(102F46h)	OSDCHBLEND	7	OSD Character Blending mode.	
	- (0)	6	Reserved.	
NBM		5	New Blending Level. 0: Original blending level (B transparency). 1: New blending level (BLEN transparency).	
	- 5	4	Reserved.	
14	GATP	3	Gamma Automatically On/On On Disable. 1: Enable.	ff based on Auto Phase value
	BLENDL[2:0]	2:0	OSD alpha blending Level. 000: 12.5% transparency. 001: 25.0% transparency. 010: 37.5% transparency. 011: 50.0%% transparency. 100: 62.5% transparency. 101: 75.0% transparency. 110: 87.5% transparency. 111: 100% transparency.	
23h	REG102F47	7:0	Default : 0x8F	Access : R/W
(102F47h)	OSD_PATH4_SEL	7	Select DWIN capture source. 1: For OSD output. 0: For others.	



Index (Absolute)	Mnemonic	Bit	Description	
	-	6:4	Reserved.	
	MAIN_NO_SIGNAL_SOURCE_EN	3	Main window no signal source	ce enable.
	SUB_NO_SIGNAL_SOURCE_EN	2	Sub window no signal source	e enable.
	MAIN_AV_MUTE_SOURCE_EN	1	Main window av mute source enable.	
	SUB_AV_MUTE_SOURCE_EN	0	Sub window av mute source	enable.
24h	REG102F48	7:0	Default : 0x00	Access : R/W
(102F48h)	MNS_COL[7:0]	7:0	Main Window No Signal Colo	or.
24h	REG102F49	7:0	Default : 0x00	Access : R/W
(102F49h)	MBCOL[7:0]	7:0	Main Window Border Color.	
25h	REG102F4A	7:0	Default: 0x00	Access : R/W
(102F4Ah)	FPLL_NEW_EN	7	Select FPLL output lock poin	t.
	-	6:0	Reserved.	
25h	REG102F4B	7:0	Default : 0x00	Access : R/W
(102F4Bh)	GATED_LVL[1:0]	7:6	ODCLK gated level.	
	FLOCK_DL_LN[2:0]	5:3	Delay line number in Flock mode.	
Ī	FLOCK_AH_LN[2:0]	2:0	Ahead line in Flock mode.	
26h	REG102F4C	7:0	Default : 0x00	Access : R/W
(102F4Ch)	CM11[7:0]	7:0	Color Matrix Coefficient 11.	
26h	REG102F4D	7:0	Default : 0x00	Access : R/W
(102F4Dh)	- <i>/</i> / / /	7:5	Reserved.	
	CM11[12:8]	4:0	See description of '102F4Ch'	•
27h	REG102F4E	7:0	Default : 0x00	Access : R/W
(102F4Eh)	CM12[7:0]	7:0	Color Matrix Coefficient 12.	
27h	REG102F4F	7:0	Default : 0x00	Access : R/W
(102F4Fh)	-	7:5	Reserved.	
	CM12[12:8]	4:0	See description of '102F4Eh'	•
28h	REG102F50	7:0	Default : 0x00	Access : R/W
(102F50h)	CM13[7:0]	7:0	Color Matrix Coefficient 13.	
28h	REG102F51	7:0	Default : 0x00	Access : R/W
(102F51h)	-	7:5	Reserved.	
	CM13[12:8]	4:0	See description of '102F50h'	
29h	REG102F52	7:0	Default : 0x00	Access : R/W
(102F52h)	CM21[7:0]	7:0	Color Matrix Coefficient 21.	



	Mnemonic	Bit	Description	
29h	REG102F53	7:0	Default : 0x00	Access : R/W
(102F53h)	-	7:5	Reserved.	
	CM21[12:8]	4:0	See description of '102F52h'	
2Ah	REG102F54	7:0	Default : 0x00	Access : R/W
(102F54h)	CM22[7:0]	7:0	Color Matrix Coefficient 22.	
2Ah	REG102F55	7:0	Default : 0x00	Access : R/W
(102F55h)	-	7:5	Reserved.	
	CM22[12:8]	4:0	See description of '102F54h'	<u>:</u>
2Bh	REG102F56	7:0	Default : 0x00	Access : R/W
(102F56h)	CM23[7:0]	7 :0	Color Matrix Coefficient 23.	
2Bh	REG102F57	7:0	Default : 0x00	Access : R/W
(Absolute) 29h (102F53h) 2Ah (102F54h) (2Ah (102F55h) (102F56h) (102F57h) 2Ch (102F58h)	-	7:5	Reserved.	
	CM23[12:8]	4:0	See description of '102F56h'	•
2Ch	REG102F58	7:0	Default : 0x00	Access : R/W
2Ch <u>F</u> (102F58h) (2Ch <u>F</u> (102F59h)	CM31[7:0]	7:0	Color Matrix Coefficient 31.	•)
2Ch	REG102F59	7:0	Default : 0x00	Access : R/W
(102F59h)		7:5	Reserved.	
· C	CM31[12:8]	4:0	See description of '102F58h'	
2Dh	REG102F5A	7:0	Default : 0x00	Access : R/W
(102F5Ah)	CM32[7:0]	7:0	Color Matrix Coefficient 32.	
2Dh	REG102F5B	7:0	Default : 0x00	Access : R/W
(102F5Bh)		7:5	Reserved.	
	CM32[12:8]	4:0	See description of '102F5Ah'	•
2Eh	REG102F5C	7:0	Default : 0x00	Access : R/W
(102F5Ch)	CM33[7:0]	7:0	Color Matrix Coefficient 33.	
2Eh	REG102F5D	7:0	Default : 0x00	Access : R/W
(102F5Dh)	-	7:5	Reserved.	
	CM33[12:8]	4:0	See description of '102F5Ch'	
 2Fh	REG102F5E	7:0	Default : 0x00	Access : R/W
(102F56h) 2Bh (102F57h) 2Ch (102F58h) 2Ch (102F59h) 2Dh (102F5Ah) 2Dh (102F5Bh) 2Eh (102F5Ch) 2Eh (102F5Dh)	-	7	Reserved.	
	FTPS	6	Front-TPSCR.	
			0: Disable.	
			1: Enable.	



SC1 VOP	Register (Bank = 102F, S	ub-Ba	ank = 10)	
Index (Absolute)	Mnemonic	Bit	Description	
	CMRND	5	Color Matrix Rounding contro 0: Disable. 1: Enable.	ol.
	СМС	4	Color Matrix Control. 0: Disable. 1: Enable.	
	-	3	Reserved.	
	RRAN	2	Red Range. 0: 0~255. 1: -128~127.	
	GRAN	1	Green Range. 0: 0~255.1: -128~127.	
	BRAN	0	Blue Range. 0: 0~255. 1: -128~127.	
2Fh	REG102F5F	7:0	Default : 0x00	Access : R/W
(102F5Fh)	SSFD	7	Sub window Shift Field. 0: Shift even field. 0: Shift odd field.	
M	SSLN[1:0]	6:5	Sub window Shift Line Numb 00: Shift 0 line between odd 01: Shift 1 line between odd 10: Shift 2 lines between odd 11: Shift 3 lines between odd	and even field. and even field. d and even field.
>	ILIM	4	Insert Line when Interlace M 0: Do not insert. 1: Insert.	lode.
	MSFD	3	Main window Shift Field. 0: Shift even field. 1: Shift odd field.	
	MSLN[2:0]	2:0	Main window Shift Line Num 000: Shift 0 line between od 001: Shift 1 lines between od 010: Shift 2 lines between od 011: Shift 3 lines between od 1xx: Shift 4 lines between od	d and even field. dd and even field. dd and even field. dd and even field.
30h	REG102F60	7:0	Default : 0x00	Access : RO



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Index (Absolute)	Mnemonic	Bit	Description	
	IFVP[7:0]	7:0	Insert Fraction Vertical Posit	ion.
30h	REG102F61	7:0	Default : 0x00	Access : RO
(102F61h)	IFVP[15:8]	7:0	See description of '102F60h'	
31h	REG102F62	7:0	Default : 0x00	Access : RO
(102F62h)	IFRACTW[7:0]	7:0	Insert Fraction Width. PD Down value.	
31h	REG102F63	7:0	Default : 0x00	Access : RO
(102F63h)	IFRACTW[15:8]	7:0	See description of '102F62h'	
32h	REG102F64	7:0	Default : 0x00	Access : RO
(102F64h)	OVSSTAT[7:0]	7:0	Output Vertical Total Status. Lock status. Equal to 1 when phase error	
32h	REG102F65	7:0	Default : 0x00	Access : RO
(102F65h)	-	7	Reserved.	1
<u>-</u>	OVERDESTAT	6	Output Vertical DE Status.	
	- , \	5:3	Reserved.	
	OVSSTAT[10:8]	2:0	See description of '102F64h'.	
33h	REG102F66	7:0	Default : 0x00	Access : R/W
(102F66h)	OHTSTAT0[7:0]	7:0	OHSTAT initial value.	
34h	REG102F68	7:0	Default : 0x00	Access : RO
(102F68h)	OHTSTAT1[7:0]	7:0	Output H Total Status.	
35h	REG102F6A	7:0	Default : 0x00	Access : R/W
(102F6Ah)		7:4	Reserved.	
	OHTSTAT2[3:0]	3:0	OHSTAT initial value.	
36h	REG102F6C	7:0	Default : 0x00	Access : RO
(102F6Ch)	-	7:4	Reserved.	
	OHTSTAT3[3:0]	3:0	OHSTAT initial value.	
37h	REG102F6E	7:0	Default : 0x00	Access : R/W
(102F6Eh)	FRACST0[7:0]	7:0	Fraction initial value.	
38h	REG102F70	7:0	Default : 0x00	Access : RO
(102F70h)	FRACST1[7:0]	7:0	Fraction Status.	
39h	REG102F72	7:0	Default : 0x00	Access : R/W
(102F72h)	_	7:3	Reserved.	



Index (Absolute)	Mnemonic	Bit	Description	
	FRACST2[2:0]	2:0	Fraction Status.	
3Ah	REG102F74	7:0	Default : 0x00	Access : RO
(102F74h)	-	7:3	Reserved.	
	FRACST3[2:0]	2:0	Fraction Status.	
3Bh	REG102F76	7:0	Default : 0x00	Access : R/W
(102F76h)	HTTMGN[7:0]	7:0	H Total Margin.	
3Bh	REG102F77	7:0	Default : 0x00	Access : R/W
(102F77h)	SSCMGN[7:0]	7:0	SSC Margin.	
3Ch	REG102F78	7:0	Default : 0x00	Access : R/W
(102F78h)	RSTVALUE0[7:0]	7:0	Read Start initial value.	
3Dh	REG102F7A	7:0	Default : 0x00	Access : RO
(102F7Ah)	RSTVALUE1[7:0]	7:0	Read Start Value.	
3Eh	REG102F7C	7:0	Default : 0x00	Access : R/W
(102F7Ch)	- / 0 \	7:5	Reserved.	
	RSTVALUE2[4:0]	4:0	Read Start initial value.	
BFh F	REG102F7E	7:0	Default : 0x00	Access : RO
(102F7Eh)		7:5	Reserved.	
	RSTVALUE3[4:0]	4:0	Read Start Value.	
40h	REG102F80	7:0	Default : 0x00	Access : R/W
(102F80h)	- / / /	7:6	Reserved.	
	FRONT_BACK	5	Set front back mode.	
		4:0	Reserved.	
41h	REG102F82	7:0	Default : 0x00	Access : R/W
(102F82h)	INP8	7	This bit with REG_INE_DRV3 for gamma mapping.	3 to enable G replace R and B
	ONE_DRV3	6	Gamma use G replace R and	B for gamma mapping.
	GABYP	5	By pass gamma function.	
	-	4:3	Reserved.	
	TUN_FPLL_DL_LN[2:0]	2:0	Delay line numbers of FPLL	mode.
41h	REG102F83	7:0	Default : 0x00	Access : R/W
(102F83h)	TSTDATA[7:0]	7:0	Reserved.	
42h	REG102F84	7:0	Default : 0x00	Access : R/W
(102F84h)	LFCOEF1[2:0]	7:5	Loop filter coefficient 1.	



SC1 VOP	Register (Bank = 102F, S	ub-Ba	ank = 10)	
Index (Absolute)	Mnemonic	Bit	Description	
	LFCOEF2[4:0]	4:0	Loop filter coefficient 2.	
43h	REG102F86	7:0	Default : 0x00	Access : R/W
(102F86h)	TFRACN[7:0]	7:0	Target Fraction Number. / Frame PLL limit RK[7:0].	
45h	REG102F8A	7:0	Default : 0x00	Access : RO, R/W
(102F8Ah)	-	7	Reserved.	
	PDP_MASK_EN	6	Reserved.	
	-	5	Reserved.	
	FX_PROT	4	Frame Change Protect.	
	-	3:0	Reserved.	
45h	REG102F8B	7:0	Default: 0x40	Access : R/W
(102F8Bh)	TSTMD_REG_EN	7	Test Mode Register Enable. 0: Disable. 1: Enable.	
	. (0 %	6	Reserved.	
·	SEE_DEBUG_SEL[2:0]	5:3	See Debug bus output byte enable, bit0=DI[7:0], bit1=DI[15:8], bit2=DI[23:16].	
>	(0)	2:0	Reserved.	
48h	REG102F91	7:0	Default: 0x00	Access : R/W
(102F91h)	TEST_CLK_MODE	7	0: Disable. 1: Enable.	
		6	Reserved.	
×	DDR_TEST	5	1: Select DDR 29est bus.	
	TEST_MD_D	4	1: Enable 24-bit test bus out	tput.
	TEST_MD[3:0]	3:0	Reserved.	
4Ah	REG102F94	7:0	Default : 0x00	Access : RO
(102F94h)	BOND_STS[7:0]	7:0	Reserved.	
4Bh	REG102F96	7:0	Default : 0x44	Access : R/W
(102F96h)	LP_SET0[7:0]	7:0	Output PLL Set.	
4Bh	REG102F97	7:0	Default : 0x55	Access : R/W
(102F97h)	LP_SET0[15:8]	7:0	See description of '102F96h'	
4Ch	REG102F98	7:0	Default : 0x00	Access : R/W
(102F98h)	LP_SET1[7:0]	7:0	Output PLL Set.	
50h	REG102FA0	7:0	Default : 0x00	Access : R/W



Index (Absolute)	Mnemonic	Bit	Description	
	OBN10	7	10-bit Bus enable.	
	DITHER_MINUS	6	1: Enable.	
	-	5	Reserved.	
	M_GRG	4	Main window Gamma Rounding.	
	-	3:1	Reserved.	
	GCFE	0	Gamma correction function enable. 0: Off. 1: On.	
52h	REG102FA4	7:0	Default : 0x00 Access : R/W	
(102FA4h)	OSD_HS_ST[7:0]	7:0	OSD new reference h start.	
52h	REG102FA5	7:0	Default : 0x00 Access : R/W	
(102FA5h)	OSD_NEW_REF	7	OSD new reference enable.	
	-	6:4	Reserved.	
	OSD_HS_ST[11:8]	3:0	See description of '102FA4h'.	
(4005475)	REG102FA6	7:0	Default: 0x00 Access: R/W	
(102FA6h)	OSD_HS_END[7:0]	7:0	OSD new reference h end.	
53h	REG102FA7	7:0	Default : 0x00 Access : R/W	
(102FA7h)		7:4	Reserved.	
1	OSD_HS_END[11:8]	3:0	See description of '102FA6h'.	
54h	REG102FA8	7:0	Default: 0x00 Access: R/W	
(102FA8h)	OSD_VFDE_ST[7:0]	7:0	OSD new reference v start.	
54h	REG102FA9	7:0	Default : 0x00 Access : R/W	
(102FA9h)		7:3	Reserved.	
	OSD_VFDE_ST[10:8]	2:0	See description of '102FA8h'.	
55 h	REG102FAA	7:0	Default : 0x00 Access : R/W	
(102FAAh)	OSD_VFDE_END[7:0]	7:0	OSD new reference v end.	
55h	REG102FAB	7:0	Default : 0x00 Access : R/W	
(102FABh)	-	7:3	Reserved.	
	OSD_VFDE_END[10:8]	2:0	See description of '102FAAh'.	
56h	REG102FAC	7:0	Default : 0x00 Access : R/W	
(102FACh)	LIM_HS	7	Limit Htotal by PWM counter enable.	
	NEW_FIELD_SEL	6	Select field created method. 0: Created by Vsync and Hsync. 1: Created by VFDE.	



			_	
Index (Absolute)	Mnemonic	Bit	Description	
	SEL_OSD_AL	5	Select OSD down count inde 0: VFDE end. 1: Vsync end.	eX.
	-	4:0	Reserved.	
57h	REG102FAE	7:0	Default : 0x00	Access : RO
(102FAEh)	REM[7:0]	7:0	Htotal REMainder value.	
5 7h	REG102FAF	7:0	Default : 0x00	Access : RO
(102FAFh)	-	7:4	Reserved.	
	REM[11:8]	3:0	See description of '102FAEh'	:
58h	REG102FB0	7:0	Default : 0x00	Access : R/W
(102FB0h)	PWM5DIV[7:0]	7:0	PWM5 CLK div factor.	
58h	REG102FB1	7:0	Default : 0x00	Access : R/W
(102FB1h)	-	7:1	Reserved.	
	PWM5DIV[8]	0	See description of '102FB0h'.	
59h	REG102FB2	7:0	Default : 0x00	Access : R/W
(102FB2h) _F	PWM5DUTY[7:0]	7:0	PWM5 period.	
5Ah	REG102FB4	7:0	Default : 0x00	Access : R/W
(102FB4h)	TRACE_PHASE_HTOTAL[7:0]	7:0	New Htotal for fast phase of REG_TRACE_PHASE_EN is s	fset reduce, only active when et to 1.
5 A h	REG102FB5	7:0	Default : 0x00	Access : R/W
(102FB5h)	- (' ' '	7:5	Reserved.	
(TRACE_PHASE_EN	4	Enable modify Htotal for fas	t phase offset reduce.
	TRACE_PHASE_HTOTAL[11:8]	3:0	See description of '102FB4h'	•
64h	REG102FC8	7:0	Default : 0x07	Access : R/W
(102FC8h)	BIUCLK_DIV[7:0]	7:0	Calculate VDE ratio BIUCLK	divider.
64h	REG102FC9	7:0	Default : 0x00	Access : R/W
(102FC9h)	-	7:1	Reserved.	
	RPT_VRATIO_EN	0	Report VDE Vtotal ratio enal	ole.
65h	REG102FCA	7:0	Default : 0x00	Access : R/W
(102FCAh)	PIP_OP2_0_REG[7:0]	7:0		
65h	REG102FCB	7:0	Default : 0x00	Access : R/W
(102FCBh)	PIP_OP2_1_REG[7:0]	7:0		
66h	REG102FCC	7:0	Default : 0x00	Access : R/W



Index (Absolute)	Mnemonic	Bit	Description	
,	PIP_OP2_2_REG[7:0]	7:0		
66h	REG102FCD	7:0	Default : 0x00 Ac	ccess : R/W
(102FCDh)	PIP_OP2_3_REG[7:0]	7:0		
67h	REG102FCE	7:0	Default : 0x00 Ac	cess : R/W
(102FCEh)	PIP_OP2_4_REG[7:0]	7:0		
67h	REG102FCF	7:0	Default : 0x00 Ac	ccess : R/W
(102FCFh)	PIP_OP2_5_REG[7:0]	7:0	\(\frac{1}{2}\)	
68h	REG102FD0	7:0	Default : 0x00 Ac	ccess : RO
(102FD0h)	VDE_PRD_VALUE[7:0]	7:0	Input VDE PRD value.	
68h	REG102FD1	7:0	Default : 0x00 Ac	ccess : RO
(102FD1h)	VDE_PRD_VALUE[15:8]	7:0	See description of '102FD0h'.	
69h	REG102FD2	7:0	Default : 0x00 Ac	ccess : RO
(102FD2h)	VTT_PRD_VALUE[7:0]	7:0	Input Vtt PRD value.	
69h	REG102FD3	7:0	Default : 0x00	cess : RO
	VTT_PRD_VALUE[15:8]	7:0	See description of '102FD2h'.	
SAh <u>F</u>	REG102FD4	7:0	Default : 0x00 Ac	ccess : R/W
(102FD4h)	HIFRC_SROT	7	Enable HIFRC spatial rotation.	
	RAN[1:0]	6:5	Enable HIFRC RANdom noise la	tch for rotation.
	F2_EN	4	Enable noise repeats 2 frames.	
19.	NEW_DITH_M	3	New dither method select.	
	-01	2	Reserved.	
×	PSEUDO_EN_T	1	Enable dither pattern rotation lin	ne by line.
	PSEUDO_EN_S	0	Enable dither pattern rotation fr	rame by frame.
6Ah	REG102FD5	7:0	Default : 0x00 Ac	ccess : R/W
(102FD5h)		7	Reserved.	
	OSD_HDE_SEL	6	Select OSD_HDE with VFDE sign	nal.
			0: OSD_HDE = HFDE.	
			1: OSD_HDE = HFDE & VFDE.	
	PSE_RST_NUM[1:0]	5:4	Frame period for dither pseudo	
	H_RAN_EN	3	H direction using random noise	enable for HIFRC.
	NEW_ACBD	2	Swap HIFRC probability sequence	
	OLD_HIFRC	1	Select old HIFRC dither method	
	RAN_DIR_EN	0	Enable noise as rotate direction.	



Index	Mnemonic	Bit	Description	
(Absolute)			,	
6Ch	REG102FD8	7:0	Default : 0x00	Access : R/W
(102FD8h)	LUT_RAM_ADDRESS[7:0]	7:0	LUT table r/w address.	
6Dh	REG102FDA	7:0	Default : 0x00	Access : R/W
(102FDAh)	LUT_W_FLAG2	7	LUT table blue write comma	nd.
	LUT_W_FLAG1	6	LUT table green write comm	and.
	LUT_W_FLAG0	5	LUT table red write comman	d.
	-	4	Reserved.	
	LUT_BW_CH_SEL[1:0]	3:2	Lut table burst write channe	I selection:
			2'b00: Select R channel.	
	\(2'b01: Select G channel. 2'b10: Select B channel.	
			2'b11: Select All R/G/B chan	nel.
	-	1	Reserved.	
	LUT_BW_MAIN_EN	0	Lut table burst write enable.	•
6Dh	REG102FDB	7:0	Default : 0x00	Access : R/W
	LUT_R_FLAG2	7	LUT table blue read commar	nd.
	LUT_R_FLAG1	6	LUT table green read command.	
>	LUT_R_FLAG0	5	LUT table red read command.	
16		4:1	Reserved.	
	LUT_BW_FLAG	0	Lut table burst write status v	when burst write enable.
6Eh	REG102FDC	7:0	Default : 0x00	Access : R/W
(102FDCh)	WR_R[7:0]	7:0	Data write to R LUT SRAM.	
6Eh	REG102FDD	7:0	Default : 0x00	Access : R/W
(102FDDh)	. (7:4	Reserved.	
	WR_R[11:8]	3:0	See description of '102FDCh	
6Fh	REG102FDE	7:0	Default : 0x00	Access : R/W
(102FDEh)	WR_G[7:0]	7:0	Data write to G LUT SRAM.	
6Fh	REG102FDF	7:0	Default : 0x00	Access : R/W
(102FDFh)	-	7:4	Reserved.	
	WR_G[11:8]	3:0	See description of '102FDEh'	
70h	REG102FE0	7:0	Default : 0x00	Access : R/W
(102FE0h)	WR_B[7:0]	7:0	Data write to B LUT SRAM.	
70h	REG102FE1	7:0	Default : 0x00	Access : R/W
(102FE1h)	<u></u>	7:4	Reserved.	



SC1 VOP	Register (Bank = 102F, S	ub-Ba	ank = 10)	
Index (Absolute)	Mnemonic	Bit	Description	
	WR_B[11:8]	3:0	See description of '102FE0h'	
71h	REG102FE2	7:0	Default : 0x00	Access : RO
(102FE2h)	RD_R[7:0]	7:0	Data read from R LUT SRAM	l.
71h	REG102FE3	7:0	Default : 0x00	Access : RO
(102FE3h)	-	7:4	Reserved.	
	RD_R[11:8]	3:0	See description of '102FE2h'	
72h	REG102FE4	7:0	Default : 0x00	Access : RO
(102FE4h)	RD_G[7:0]	7:0	Data read from G LUT SRAM	l.
72h	REG102FE5	7:0	Default : 0x00	Access : RO
(102FE5h)	-	7:4	Reserved.	
	RD_G[11:8]	3:0	See description of '102FE4h'	
73h	REG102FE6	7:0	Default : 0x00	Access : RO
(102FE6h)	RD_B[7:0]	7:0	Data read from B LUT SRAM	•
73h	REG102FE7	7:0	Default : 0x00	Access : RO
(102FE7h)		7:4	Reserved.	
F	RD_B[11:8]	3:0	See description of '102FE6h'	
74h	REG102FE8	7:0	Default : 0x00	Access : RO, R/W
(102FE8h)		7:4	Reserved.	
	CLR_MLOAD_TOO_SLOW	3	Clear auto mload gamma too	o slow flag.
19	MLOAD_TOO_SLOW	2	Auto mload gamma too slow	r flag.
	AUTO_MLOAD_SWITCH	1	Enable auto mload gamma s	witch gamma table by frame.
×	AUTO_MLOAD_GAMMA	0	Enable auto mload gamma f	unction.
75h	REG102FEA	7:0	Default : 0x00	Access : R/W
(102FEAh)	MLOAD_GAMMA_BASE0[7:0]	7:0	Gamma table base address ().
75h	REG102FEB	7:0	Default : 0x00	Access : R/W
(102FEBh)	MLOAD_GAMMA_BASE0[15:8]	7:0	See description of '102FEAh'	
76h	REG102FEC	7:0	Default : 0x00	Access : R/W
(102FECh)	MLOAD_GAMMA_BASE0[23:16]	7:0	See description of '102FEAh'	
77h	REG102FEE	7:0	Default : 0x00	Access : R/W
(102FEEh)	MLOAD_GAMMA_BASE1[7:0]	7:0	Gamma table base address	1.
77h	REG102FEF	7:0	Default : 0x00	Access : R/W
(102FEFh)	MLOAD_GAMMA_BASE1[15:8]	7:0	See description of '102FEEh'	
78h	REG102FF0	7:0	Default : 0x00	Access : R/W



Index (Absolute)	Mnemonic	Bit	Description	
	MLOAD_GAMMA_BASE1[23:16]	7:0	See description of '102FEEh'	
79h	REG102FF2	7:0	Default : 0x00	Access : R/W
(102FF2h)	MLOAD_CNT[7:0]	7:0	Load gamma table from DRA	\M number.
7Ah	REG102FF4	7:0	Default : 0x00	Access : R/W
(102FF4h)	R_MAX_BASE0[7:0]	7:0	Max value for R channel gan	nma table 0.
7Ah	REG102FF5	7:0	Default : 0x00	Access : R/W
(102FF5h)	-	7:4	Reserved.	
	R_MAX_BASE0[11:8]	3:0	See description of '102FF4h'	
7Bh	REG102FF6	7:0	Default: 0x00	Access : R/W
(102FF6h)	R_MAX_BASE1[7:0]	7:0	Max value for R channel gan	nma table 1.
7Bh	REG102FF7	7:0	Default : 0x00	Access : R/W
(102FF7h)	-	7:4	Reserved.	
	R_MAX_BASE1[11:8]	3:0	See description of '102FF6h'	•
7Ch	REG102FF8	7:0	Default : 0x00	Access : R/W
(102FF8h)	G_MAX_BASE0[7:0]	7:0	Max value for G channel gan	nma table 0.
'Ch I	REG102FF9	7:0	Default : 0x00	Access : R/W
(102FF9h)		7:4	Reserved.	
	G_MAX_BASE0[11:8]	3:0	See description of '102FF8h'	
7Dh	REG102FFA	7:0	Default : 0x00	Access : R/W
(102FFAh)	G_MAX_BASE1[7:0]	7:0	Max value for G channel gan	nma table 1.
7Dh	REG102FFB	7:0	Default : 0x00	Access : R/W
(102FFBh)		7:4	Reserved.	
	G_MAX_BASE1[11:8]	3:0	See description of '102FFAh'	
7Eh	REG102FFC	7:0	Default : 0x00	Access : R/W
(102FFCh)	B_MAX_BASE0[7:0]	7:0	Max value for B channel gan	nma table 0.
7Eh	REG102FFD	7:0	Default : 0x00	Access : R/W
(102FFDh)	-	7:4	Reserved.	
	B_MAX_BASE0[11:8]	3:0	See description of '102FFCh'	
7Fh	REG102FFE	7:0	Default : 0x00	Access : R/W
(102FFEh)	B_MAX_BASE1[7:0]	7:0	Max value for B channel gan	nma table 1.
7Fh	REG102FFF	7:0	Default : 0x00	Access : R/W
(102FFFh)	-	7:4	Reserved.	
	B_MAX_BASE1[11:8]	3:0	See description of '102FFEh'	







SC1 SCMI Register (Bank = 102F, Sub-Bank = 12)

SC1 SCMI	Register (Bank = 102F, S	ub-B	ank = 12)	
Index (Absolute)	Mnemonic	Bit	Description	
01h	REG102F02	7:0	Default : 0x00 Access : R/W	
(102F02h)	FBL_ONLY	7	F2 frame buffer less mode enable.	
	-	6	Reserved.	
	RGB_YUV444_10BIT_F2	5	F2 RGB/YUV 444 10-bits format.	
	RGB_YUV444_8BIT_F2	4	F2 RGB/YUV 444 8-bits format.	
	MEM_MODE6_TO_7_F2	3	F2 memory data config from mode 6 change to mode	de 7.
	MEM_MODE5_TO_7_F2	2	F2 memory data config from mode 5 change to mod	de 7.
	MEM_MODE5_TO_6_F2	1	F2 memory data config from mode 5 change to mode 6	
	MEM_MODE5_TO_4_F2	0	F2 memory data config from mode 5 change to mode	de 4.
01h	REG102F03	7:0	Default : 0x00 Access : R/W	
(102F03h)	OPM_F1_EN	7	Enable OPM F1 register.	
	MOTION_TH1_F2[2:0]	6:4	F2 Motion Threshold for normal case.	
	STILL_MODE_F2	3	F2 image freeze enable.	
	DE_INTL_MD_F2[2:0]	2:0	F2 IP memory data format.	
(1005046)	REG102F04	7:0	Default : 0x00 Access : R/W	
	OPM_MEM_CONFIG_F2[3:0]	7:4	F2 OP memory data format.	
, C	IPM_MEM_CONFIG_F2[3:0]	3:0	F2 IP memory data format.	
02h	REG102F05	7:0	Default : 0x00 Access : R/W	
(102F05h)	CAPTURE_START_F2	7	F2 image capture start.	
	IPM_READ_OFF_F2	6	F2 force IP read request disable.	
×	MADI_FORCE_OFF_F2	5	F2 force MADi off.	
	MADI_FORCE_ON_F2	4	F2 force MADi on.	
	FBL_25D	3	F2 frame buffer less de-interlace mode.	
	-	2	Reserved.	
	OPM_CONFIG_DEFINE_F2	1	F2 OP enable define memory data format.	
	IPM_CONFIG_DEFINE_F2	0	F2 IP enable define memory data format.	
03h	REG102F06	7:0	Default : 0x00 Access : R/W	
(102F06h)	IPM_REQ_RST_F2	7	F2 reset IP to MIU request signal.	
	OPM_LINEAR_BASE_SEL_F2	6	F2 linear mode base address selection.	
	OPM_LINEAR_EN_F2	5	F2 OP linear address enable.	
	IPM_LINEAR_EN_F2	4	F2 IP linear address enable.	
	OPM_4READ_EN_F2	3	F2 OP read 4 fields enable.	



SC1 SCMI	Register (Bank = 102F, S	ub-B	ank = 12)	
Index (Absolute)	Mnemonic	Bit	Description	
	OPM_3READ_EN_F2	2	F2 OP read 3 fields enable.	
	OPM_2READ_EN_F2	1	F2 OP read 2 fields enable.	
	OPM_1READ_EN_F2	0	F2 OP read 1 field enable.	
03h	REG102F07	7:0	Default : 0x08 Access : R/W	
(102F07h)	FRC_AUTO	7	Insert/Lock Vsync signal FRC auto select.	
	LOCK_F1	6	Insert/Lock Vsync signal lock with F1.	
	IPM_V_MIRROR_F2	5	F2 IP Vertical mirror enable.	
	IPM_H_MIRROR_F2	4	F2 IP Horizontal mirror enable.	
	FILM_HIGH_PRI_F2	3	F2 OP dot line select high priority when film mode active	
FILM_NOC_INVERT_F2 2 F2 OP film dot line		F2 OP film dot line data select.		
	DOT_LN_PON_SEL_F2	1	F2 OP MADi dot line data select.	
	YC_SWAP_EN_F2	0	F2 OP Y/C data swap enable.	
04h	REG102F08	7:0	Default : 0x00 Access : R/W	
(102F08h)	3FRAME_MODE_F2	7	F2 3 frames buffer for progressive mode.	
	- /	6:4	Reserved.	
	Y8_M4_ONLY_MODE_F2	3	F2 FB store Y8/M4 only mode.	
	Y8_ONLY_MODE_F2	2	F2 FB store Y-8bits only.	
, C	BOB_YMR_10_EN_F2	1	F2 10-bits Bob mode with Y motion.	
	BOB_YMR_8_EN_F2	0	F2 8-bits Bob mode with Y motion.	
04h	REG102F09	7:0	Default: 0x00 Access: R/W	
(102F09h)	-01 5	7	Reserved.	
×	BYPASS_DUAL_CH	6	Enable dual channel bypass.	
	IPM_444_READ_EN_F2	5	F2 IP 444 format read from memory enable.	
	IP_BYPASS_INTERLACE_FILM_F2	4	Film-supported bypass interlace mode.	
	IP_BYPASS_ALL_F2	3	F2 IP bypass to OPM, OPM read request off.	
	IP_BYPASS_INTERLACE_F2	2	F2 IP bypass to OPM, OPM interlace read from MIU/IP.	
	IPM_Y_ONLY_W_F2	1	F2 IP write Y only.	
	IPM_Y_ONLY_R_F2	0	F2 IP read Y only.	
05h	REG102F0A	7:0	Default : 0x00 Access : R/W	
(102F0Ah)	W_BANK_RST_F2	7	F2 memysnc write bank reset.	
	IPM_WREQ_HPRI_SEL_F2	6	F2 IPM wreq high priority selection:	
			1'b0: IPM local priority.	
			1'b1: ip2_adj priority.	



SC1 SCMI	Register (Bank = 102F, S	ub-B	ank = 12)		
Index (Absolute)	Mnemonic	Bit	Description		
	FRC_FREEMD_F2	5	F2 Force output odd/even to input.	oggle when 2DDi for interlace	
	MIU_SELECT_F2	4	F2 access MIU0 or MIU1 select.		
	FRC_WITH_LCNT_F2	3	F2 frame rate convert deper count.	ndence with IP write line	
	W_LCNT_STATUS_SEL_F2[2:0]	2:0	F2 IP write line count status	select.	
05h	REG102F0B	7:0	Default : 0x00	Access : R/W	
(102F0Bh)	DUMMY05_9_15[6:0]	7:1			
	BK_FIELD_SEL_F2	0	F2 memysnc fd selection.		
06h	REG102F0D	7:0	Default: 0x00	Access : R/W	
(102F0Dh)	RW_BANK_MAP_MSB_F2	7	F2 MSB bit of read/write ba	nk mapping mode.	
	OPM_RBANK_SEL_MSB_F2	6	F2 OP force read bank selec	F2 OP force read bank select MSB.	
	-	5:0	Reserved.		
07h	REG102F0E	7:0	Default : 0x88	Access : R/W	
(102F0Eh)	W_VP_CNT_CLR_F2	7	F2 IP write mask field count clear.		
_	W_MASK_MODE_F2[2:0]	6:4	F2 IP write mask number by field.		
	IPM_STATUS_CLR_F2	3	F2 IP status clear enable.		
	IPM_RREQ_FORCE_F2	2	F2 IP read request force en	able.	
10	IPM_RREQ_OFF_F2	1	F2 IP read request disable.		
N	IPM_WREQ_OFF_F2	0	F2 IP write request disable.		
07h	REG102F0F	7:0	Default : 0x40	Access : R/W	
(102F0Fh)	RW_BANK_MAP_F2[2:0]	7:5	F2 read/write bank mapping	g mode.	
•	BK_FIELD_INV_F2	4	F2 read/write bank inverse.		
	OPM_RBANK_FORCE_F2	3	F2 OP force read bank enab	le.	
	OPM_RBANK_SEL_F2[2:0]	2:0	F2 OP force read bank selec	t.	
08h	REG102F10	7:0	Default : 0x00	Access : R/W	
(102F10h)	IPM_BASE_ADDR0_F2[7:0]	7:0	F2 IP frame buffer base add	lress 0.	
08h	REG102F11	7:0	Default : 0x00	Access : R/W	
(102F11h)	IPM_BASE_ADDR0_F2[15:8]	7:0	See description of '102F10h		
09h	REG102F12	7:0	Default : 0x00	Access : R/W	
(102F12h)	IPM_BASE_ADDR0_F2[23:16]	7:0	See description of '102F10h	·	
09h	REG102F13	7:0	Default : 0x00	Access : R/W	
(102F13h)	-	7:1	Reserved.		



SC I SCIVII	Register (Bank = $102F$, S	ub-B	ank = 12)	
Index (Absolute)	Mnemonic	Bit	Description	
1	IPM_BASE_ADDR0_F2[24]	0	See description of '102F10h'	ı
0Ah	REG102F14	7:0	Default : 0x00	Access : R/W
(102F14h)	IPM_RING_PITCH_F2[7:0]	7:0	F2 IP frame buffer ring mod	le pitch.
0Ah	REG102F15	7:0	Default : 0x00	Access : R/W
(102F15h)	IPM_RING_PITCH_F2[15:8]	7:0	See description of '102F14h'	
0Bh	REG102F16	7:0	Default : 0x00	Access : R/W
(102F16h)	IPM_RING_PITCH_F2[23:16]	7:0	See description of '102F14h'	ı
0Bh	REG102F17	7:0	Default : 0x00	Access : R/W
(102F17h)	IPM_RING_EN_F2	7	F2 IP frame buffer ring mod	le enable.
	IPM_RING_INIT_F2	6	F2 IP frame buffer ring mod	le enable.
		5:1	Reserved.	
	IPM_RING_PITCH_F2[24]	0	See description of '102F14h'	
0Ch	REG102F18	7:0	Default : 0x00	Access : R/W
(102F18h)	IPM_RING_RBK_VCNT_F2[7:0]	7:0	F2 IP frame buffer ring mod	le rbank update point.
0Ch	REG102F19	7:0	Default : 0x00	Access : R/W
(102F19h)		7:5	Reserved.	
	IPM_RING_RBK_VCNT_F2[12:8]	4:0	See description of '102F18h'.	
0Dh	REG102F1B	7:0	Default : 0x00	Access : R/W
(102F1Bh)	- 6 1	7:4	Reserved.	
	IPM_RING_OPM_BASE_USR_EN	3	F2 IP frame buffer ring OPN	1 user mode.
		2	Reserved.	
X	IPM_RING_OPM_BASE_USR[1:0]	1:0	F2 IP frame buffer ring OPN	1 user mode base selection.
0Eh	REG102F1C	7:0	Default : 0x00	Access : R/W
(102F1Ch)	IPM_OFFSET_F2[7:0]	7:0	F2 IP frame buffer line offse	et (pixel unit).
0Eh	REG102F1D	7:0	Default : 0x00	Access : R/W
(102F1Dh)	-	7:5	Reserved.	
1	IPM_OFFSET_F2[12:8]	4:0	See description of '102F1Ch	ı
0Fh	REG102F1E	7:0	Default : 0x00	Access : R/W
(102F1Eh)	IPM_FETCH_NUM_F2[7:0]	7:0	F2 IP fetch pixel number of	one line.
0Fh	REG102F1F	7:0	Default : 0x00	Access : R/W
(102F1Fh)	-	7:5	Reserved.	
	IPM_FETCH_NUM_F2[12:8]	4:0	See description of '102F1Eh	
10h	REG102F20	7:0	Default : 0x00	Access : R/W



Indov	Macmonic	Dit	Description	
Index (Absolute)	Mnemonic	Bit	Description	
,	OPM_BASE_ADDR0_F2[7:0]	7:0	F2 OP frame buffer base add	dress 0.
10h	REG102F21	7:0	Default : 0x00	Access : R/W
(102F21h)	OPM_BASE_ADDR0_F2[15:8]	7:0	See description of '102F20h'	
11h	REG102F22	7:0	Default : 0x00	Access : R/W
(102F22h)	OPM_BASE_ADDR0_F2[23:16]	7:0	See description of '102F20h'.	
11h	REG102F23	7:0	Default : 0x00	Access : R/W
(102F23h)	-	7:1	Reserved.	
	OPM_BASE_ADDR0_F2[24]	0	See description of '102F20h'.	
12h	REG102F24	7:0	Default : 0x00	Access : R/W
(102F24h)	OPM_BASE_ADDR1_F2[7:0]	7:0	F2 OP frame buffer base add	dress 1.
12h	REG102F25	7:0	Default : 0x00	Access : R/W
(102F25h)	OPM_BASE_ADDR1_F2[15:8]	7:0	See description of '102F24h'.	
13h	REG102F26	7:0	Default : 0x00	Access : R/W
(102F26h)	OPM_BASE_ADDR1_F2[23:16]	7:0	See description of '102F24h'	
(102F27h)	REG102F27	7:0	Default : 0x00	Access : R/W
	- (7:1	Reserved.	
	OPM_BASE_ADDR1_F2[24]	0	See description of '102F24h'.	
16h	REG102F2C	7:0	Default: 0x00	Access : R/W
(102F2Ch)	OPM_OFFSET_F2[7:0]	7:0	F2 OP frame buffer line offse	et (pixel unit).
16h	REG102F2D	7:0	Default : 0x00	Access : R/W
(102F2Dh)	-01	7:5	Reserved.	
×	OPM_OFFSET_F2[12:8]	4:0	See description of '102F2Ch'	
17h	REG102F2E	7:0	Default : 0x00	Access : R/W
(102F2Eh)	OPM_FETCH_NUM_F2[7:0]	7:0	F2 OP fetch pixel number of	one line.
17h	REG102F2F	7:0	Default : 0x00	Access : R/W
(102F2Fh)	-	7:4	Reserved.	
	OPM_FETCH_NUM_F2[11:8]	3:0	See description of '102F2Eh'	
18h	REG102F30	7:0	Default : 0x00	Access : R/W
(102F30h)	IPM_VCNT_LIMIT_NUM_F2[7:0]	7:0	F2 IP line count limit number	r for frame buffer write.
18h	REG102F31	7:0	Default : 0x00	Access : R/W
(102F31h)	IPM_VCNT_LIMIT_EN_F2	7	F2 IP line count limit enable.	
	-	6:5	Reserved.	
	IPM_VCNT_LIMIT_NUM_F2[12:8]	4:0	See description of '102F30h'.	



Index (Absolute)	Mnemonic	Bit	Description	
19h	REG102F32	7:0	Default : 0x04	Access : R/W
(102F32h)	-	7:6	Reserved.	
	FORCE_MUTE_IPW_ENABLE_F2	5	Force IPM enable at av-mut	e case.
	FIELD_NUM_F2[4:0]	4:0	F2 field number.	
9h	REG102F33	7:0	Default : 0x10	Access : R/W
102F33h)	OPM_FIELD_NUM_DEFINE_F2	7	Enable OPM F2 field numbe	r define.
	OPM_FIELD_NUM_F2[4:0]	6:2	OPM F2 field number.	
	OPM_8READ_EN_F2	1	F2 OPM 8read mode enable	
	OPM_6READ_EN_F2	0	F2 OPM 6read mode enable	<u>:</u>
Ah	REG102F34	7:0	Default : 0x00	Access : R/W
102F34h)	IPM_W_LIMIT_ADR_F2[7:0]	7:0	F2 IP write limit address.	
l Ah	REG102F35	7:0	Default : 0x00	Access : R/W
102F35h)	IPM_W_LIMIT_ADR_F2[15:8]	7:0	See description of '102F34h'.	
Bh	REG102F36	7:0	Default : 0x00	Access : R/W
102F36h)	IPM_W_LIMIT_ADR_F2[23:16]	7:0	See description of '102F34h'.	
Bh	REG102F37	7:0	Default : 0x00	Access : R/W
102F37h)	IPM_W_LIMIT_EN_F2	7	F2 IP write limit enable.	
, C	IPM_W_LIMIT_MIN_F2	6	F2 IP write limit flag 0: max	imum 1: minimum.
	- 61	5:1	Reserved.	
	IPM_W_LIMIT_ADR_F2[24]	0	See description of '102F34h	
Ch	REG102F38	7:0	Default : 0x00	Access : R/W
102F38h)	SW_HMIR_OFFSET_F2[7:0]	7:0	F2 IP H mirror line offset.	T
lCh	REG102F39	7:0	Default : 0x00	Access : R/W
(102F39h)	SW_HMIR_OFFSET_EN_F2	7	F2 IP H mirror line offset so	ftware setting enable.
	SW_HMIR_OFFSET_F2[14:8]	6:0	See description of '102F38h	· ·
20h	REG102F40	7:0	Default : 0x10	Access : R/W
(102F40h)	IPM_RREQ_THRD_F2[7:0]	7:0	F2 IP FIFO threshold for rea	d request.
20h	REG102F41	7:0	Default : 0x10	Access : R/W
(102F41h)	IPM_RREQ_HPRI_F2[7:0]	7:0	F2 IP high priority threshold	for read request.
21h	REG102F42	7:0	Default : 0x10	Access : R/W
(102F42h)	IPM_WREQ_THRD_F2[7:0]	7:0	F2 IP FIFO threshold for wri	te request.
21h	REG102F43	7:0	Default : 0x10	Access : R/W
102F43h)	IPM_WREQ_HPRI_F2[7:0]	7:0	F2 IP high priority threshold	for write request.



SC1 SCMI	Register (Bank = 102F, S	ub-B	ank = 12)	
Index (Absolute)	Mnemonic	Bit	Description	
22h	REG102F44	7:0	Default : 0x10	Access : R/W
(102F44h)	IPM_RREQ_MAX_F2[7:0]	7:0	F2 IP read request max nun	nber.
22h	REG102F45	7:0	Default : 0x10	Access : R/W
(102F45h)	IPM_WREQ_MAX_F2[7:0]	7:0	F2 IP write request max nur	mber.
23h	REG102F46	7:0	Default : 0x10	Access : R/W
(102F46h)	OPM_RREQ_THRD[7:0]	7:0	OP FIFO threshold for read	request.
23h	REG102F47	7:0	Default : 0x10	Access : R/W
(102F47h)	OPM_RREQ_HPRI[7:0]	7:0	OP high priority threshold for	or read request.
24h	REG102F48	7:0	Default : 0x20	Access : R/W
(102F48h)	OPM_RREQ_MAX[7:0]	7:0	OP read request max number	er.
24h	REG102F49	7:0	Default : 0x00	Access : R/W
(102F49h)	OPM_LBUF_LEN_EN	7	OP define line buffer length enable.	
	OPM_LBUF_LENGTH[6:0]	6:0	OP line buffer length for me	mory data read.
25h	REG102F4A	7:0	Default : 0x28	Access : R/W
(102F4Ah)	IPM_RFIFO_DEPTH_F2[7:0]	7:0	F2 IP line buffer length for r	nemory data read.
25h	REG102F4B	7:0	Default : 0x28	Access : R/W
(102F4Bh)	IPM_WFIFO_DEPTH_F2[7:0]	7:0	F2 IP line buffer length for r	memory data write.
26h	REG102F4C	7:0	Default : 0x00	Access : R/W
(102F4Ch)	OPM_FLOW_CTRL_CNT[7:0]	7:0	OP request flow control cou	nt.
26h	REG102F4D	7:0	Default : 0x00	Access : R/W
(102F4Dh)	OPW_FLOW_CTRL_CNT[7:0]	7:0	OPW request flow control co	ount.
27h	REG102F4E	7:0	Default : 0x88	Access : R/W
(102F4Eh)	OPW_VP_CNT_CLR	7	OPW write mask field count	clear.
	OPW_MASK_MODE[2:0]	6:4	OPW write mask number by	field.
	OPW_STATUS_CLR	3	OPW status clear enable.	
	OPW_REQ_RST	2	OPW write request reset.	
	-	1	Reserved.	
	OPW_WREQ_OFF_F2	0	OPW write request disable.	
27h	REG102F4F	7:0	Default : 0x00	Access : R/W
(102F4Fh)	-	7	Reserved.	
	OPW_WBE_MASK_DUP_EN	6	OPW mask write byte enable	e for dup-frame.
	-	5:4	Reserved.	
	OPW_DUP_INIT_INV	3	OPW duplicate frame offset	init invert.



Index	Mnemonic	Bit	Description	
(Absolute)	OPW_DUP_FRAME_LN_INV	2	OPW duplicate frame line m	ask invert.
	OPW_DUP_FRAME_INV	1	OPW duplicate frame comm	
	OPW_DUP_FRAME_MD	0	OPW duplicate frame mode	
2Ah	REG102F54	7:0	Default : 0x10	Access : R/W
(102F54h)	OPW_WREQ_THRD[7:0]	7:0	OPW FIFO threshold for rea	
2Ah	REG102F55	7:0	Default : 0x10	Access : R/W
(102F55h)	OPW_WREQ_HPRI[7:0]	7:0	OPW high priority threshold	for read request.
2Bh	REG102F56	7:0	Default : 0x20	Access : R/W
(102F56h)	OPW_WREQ_MAX[7:0]	7:0	OPW read request max num	nber.
2Bh	REG102F57	7:0	Default : 0x22	Access : R/W
(102F57h)	OPW_WFIFO_DEPTH[7:0]	7:0	OPW line buffer length for r	nemory data write.
2Ch	REG102F58	7:0	Default : 0x12	Access : R/W
(102F58h)	-	7:5	Reserved.	
	OPM_PRE_DELTA_0_F2[4:0]	4:0	F2 OP previous data rbank difference between current data rbank at real line case.	
2Ch	REG102F59	7:0	Default : 0x02	Access : R/W
(102F59h)	-0	7:5	Reserved.	
ر	OPM_PRE_DELTA_1_F2[4:0]	4:0	F2 OP previous data rbank difference between current data rbank at dot line and NOC0 case.	
2Dh	REG102F5A	7:0	Default : 0x12	Access : R/W
(102F5Ah)	- ~ (~ ~ ~	7:5	Reserved.	
\$	OPM_PRE_DELTA_2_F2[4:0]	4:0	F2 OP previous data rbank of data rbank at dot line and N	
2Eh	REG102F5C	7:0	Default : 0x14	Access : R/W
(102F5Ch)	- // "(),	7:5	Reserved.	
	OPM_EXT_DELTA_0_F2[4:0]	4:0	F2 OP extend data rbank did data rbank at real line case.	
2Eh	REG102F5D	7:0	Default : 0x12	Access : R/W
(102F5Dh)	-	7:5	Reserved.	
	OPM_EXT_DELTA_1_F2[4:0]	4:0	F2 OP extend data rbank difference between current data rbank at dot line and NOC0 case.	
2Fh	REG102F5E	7:0	Default : 0x14	Access : R/W
(102F5Eh)	-	7:5	Reserved.	1
	OPM_EXT_DELTA_2_F2[4:0]	4:0	F2 OP extend data rbank difference between current	



Index	Mnemonic	Bit	Description		
(Absolute)					
			data rbank at dot line and N	IOC1 case.	
30h	REG102F60	7:0	Default : 0x00	Access : R/W	
(102F60h)	-	7:2	Reserved.		
	IPM_3D_SBS_FORCE_EN_F2	1	F2 IPM 3D side by side input enable.		
	IPM_3D_EN_F2	0	F2 IPM 3D input enable.		
30h	REG102F61	7:0	Default : 0x00	Access : R/W	
(102F61h)	-	7:3	Reserved.		
	OPM_DUP_FRAME_LN_INV	2	OPM duplicate frame line m	ask invert.	
	OPM_DUP_FRAME_MD	1	OPM duplicate frame mode.		
	-	0	Reserved.		
34h	REG102F68	7:0	Default : 0x00	Access : R/W	
(102F68h)	DUMMY34_7_7	7	HDMI 3D OPM side by side read using PIP.		
	-	6:0	Reserved.		
34h	REG102F69	7:0	Default : 0x00 Access : R/W		
	OPM_LA_DELTA_1[3:0]	7:4	Delta for 3d LA at dot line.		
	OPM_LA_DELTA_0[3:0]	3:0	Delta for 3d LA at real line.		
40h	REG102F80	7:0	Default : 0x08	Access : R/W	
(102F80h)	DUMMY40_4_15[3:0]	7:4			
	UPDATE_MEM_CONFIG_EN	3	Update memory format ena	ble.	
19.	- / / /	2	Reserved.		
	IPM_REG_DBF_EN_F2	1	F2 Register latch with input	V sync enable.	
	OPM_REG_DBF_EN	0	Register latch with output V	sync enable.	
40h	REG102F81	7:0	Default : 0x00	Access : R/W	
(102F81h)	DUMMY40_4_15[11:4]	7:0	See description of '102F80h	ı	
42h	REG102F85	7:0	Default : 0x00	Access : R/W	
(102F85h)	-	7:6	Reserved.		
	MADI_FORCE_OFF_F1	5	F1 force MADi off.		
	MADI_FORCE_ON_F1	4	F1 force MADi on.		
	-	3:0	Reserved.		
43h	REG102F86	7:0	Default : 0x00	Access : R/W	
(102F86h)	-	7:5	Reserved.		
	IPM_LINEAR_EN_F1	4	F1 IP linear address enable.		
	OPM_4READ_EN_F1	3	F1 OP read 4 fields enable.		



	Register (Bank = 102F, S			
Index (Absolute)	Mnemonic	Bit	Description	
	OPM_3READ_EN_F1	2	F1 OP read 3 fields enable.	
	OPM_2READ_EN_F1	1	F1 OP read 2 fields enable.	
	OPM_1READ_EN_F1	0	F1 OP read 1 field enable.	T .
43h	REG102F87	7:0	Default : 0x08	Access : R/W
(102F87h)	-	7:4	Reserved.	X ·
	FILM_HIGH_PRI_F1	3	F1 OP dot line select high pr	iority when film mode active.
	FILM_NOC_INVERT_F1	2	F1 OP film dot line data sele	ect.
	DOT_LN_PON_SEL_F1	1	F1 OP MADi dot line data se	elect.
	-	0	Reserved.	
44h	REG102F88	7:0	Default : 0x00	Access : R/W
(102F88h)	- 40	7:4	Reserved.	
	DUMMY44_2_3[1:0]	3:2		
	-	1:0	Reserved.	•
45h	REG102F8A	7:0	Default : 0x00	Access : R/W
	W_BANK_RST_F1	7	F1 memysnc write bank reset.	
	IPM_WREQ_HPRI_SEL_F1	6	F1 IPM wreq high priority selection: 1'b0: IPM local priority. 1'b1: ip2_adj priority.	
16	_	5:0	Reserved.	
45h	REG102F8B	7:0	Default : 0x00	Access : R/W
(102F8Bh)	DUMMY45_9_15[6:0]	7:1		
	BK_FIELD_SEL_F1	0	F2 memysnc fd selection.	
46h	REG102F8C	7:0	Default : 0x00	Access : R/W
(102F8Ch)	DUMMY46_0_7[7:0]	7:0		
4Ah	REG102F94	7:0	Default : 0x00	Access : R/W
(102F94h)	IPM_RING_PITCH_F1[7:0]	7:0	F1 IP frame buffer ring mod	le pitch.
4Ah	REG102F95	7:0	Default : 0x00	Access : R/W
(102F95h)	IPM_RING_PITCH_F1[15:8]	7:0	See description of '102F94h	'.
4Bh	REG102F96	7:0	Default : 0x00	Access : R/W
(102F96h)	IPM_RING_PITCH_F1[23:16]	7:0	See description of '102F94h	'.
4Bh	REG102F97	7:0	Default : 0x00	Access : R/W
(102F97h)	IPM_RING_EN_F1	7	F1 IP frame buffer ring mod	le enable.
	IPM_RING_INIT_F1	6	F1 IP frame buffer ring mod	



SC1 SCMI	Register (Bank = 102F, S	ub-B	ank = 12)	
Index (Absolute)	Mnemonic	Bit	Description	
	-	5:1	Reserved.	
	IPM_RING_PITCH_F1[24]	0	See description of '102F94h	ı
4Ch	REG102F98	7:0	Default : 0x00	Access : R/W
(102F98h)	IPM_RING_RBK_VCNT_F1[7:0]	7:0	F1 IP frame buffer ring mod	le rbank update point.
4Ch	REG102F99	7:0	Default : 0x00	Access : R/W
(102F99h)	-	7:5	Reserved.	
	IPM_RING_RBK_VCNT_F1[12:8]	4:0	See description of '102F98h	ı
50h	REG102FA0	7:0	Default : 0x00	Access : R/W
(102FA0h)	OPM_BASE_ADDR0_F1[7:0]	7:0	F1 OP frame buffer base ad	dress 0.
50h	REG102FA1	7:0	Default : 0x00	Access : R/W
(102FA1h)	OPM_BASE_ADDR0_F1[15:8]	7:0	See description of '102FA0h	I •
51h	REG102FA2	7:0	Default : 0x00	Access : R/W
(102FA2h)	OPM_BASE_ADDR0_F1[23:16]	7:0	See description of '102FA0h	ı •
51h	REG102FA3	7:0	Default : 0x00	Access : R/W
(102FA3h)		7:1	Reserved.	
	OPM_BASE_ADDR0_F1[24]	0	See description of '102FA0h'.	
52h	REG102FA4	7:0	Default : 0x00	Access : R/W
(102FA4h)	OPM_BASE_ADDR1_F1[7:0]	7:0	F1 OP frame buffer base ad	dress 1.
52h	REG102FA5	7:0	Default : 0x00	Access : R/W
(102FA5h)	OPM_BASE_ADDR1_F1[15:8]	7:0	See description of '102FA4h	
53h	REG102FA6	7:0	Default : 0x00	Access : R/W
(102FA6h)	OPM_BASE_ADDR1_F1[23:16]	7:0	See description of '102FA4h	
53h	REG102FA7	7:0	Default : 0x00	Access : R/W
(102FA7h)	- \\\	7:1	Reserved.	
	OPM_BASE_ADDR1_F1[24]	0	See description of '102FA4h	
54h	REG102FA8	7:0	Default : 0x00	Access : R/W
(102FA8h)	OPM_MWE_OFFSET_F1[7:0]	7:0	F1 OP demo mode pixel offs	set (pixel unit).
54h	REG102FA9	7:0	Default : 0x00	Access : R/W
(102FA9h)	-	7:4	Reserved.	
	OPM_MWE_OFFSET_F1[11:8]	3:0	See description of '102FA8h	
56h	REG102FAC	7:0	Default : 0x00	Access : R/W
-			F1 OP frame buffer line offset (pixel unit).	
(102FACh)	OPM_OFFSET_F1[7:0]	7:0	F1 OP frame buffer line offs	et (pixel unit).

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Index	Mnemonic	Bit	Description	
(Absolute)				
	-	7:5	Reserved.	
	OPM_OFFSET_F1[12:8]	4:0	See description of '102FACh	
57h	REG102FAE	7:0	Default : 0x00	Access : R/W
(102FAEh)	OPM_FETCH_NUM_F1[7:0]	7:0	F1 OP fetch pixel number of	f one line.
57h	REG102FAF	7:0	Default : 0x00	Access : R/W
(102FAFh)	-	7:4	Reserved.	
	OPM_FETCH_NUM_F1[11:8]	3:0	See description of '102FAEh	'.
59h	REG102FB3	7:0	Default : 0x10	Access : R/W
(102FB3h)	-	7:2	Reserved.	
	OPM_8READ_EN_F1	1	F1 OPM 8read mode enable.	
	OPM_6READ_EN_F1	0	F1 OPM 6read mode enable	·.
5Eh	REG102FBC	7:0	Default : 0x00	Access : R/W
(102FBCh)	OPW_W_LIMIT_ADR[7:0]	7:0	OPW write limit address.	
5Eh	REG102FBD	7:0	Default : 0x00	Access : R/W
(102FBDh)	OPW_W_LIMIT_ADR[15:8]	7:0	See description of '102FBCh'.	
5Fh	REG102FBE	7:0	Default : 0x00	Access : R/W
(102FBEh)	OPW_W_LIMIT_ADR[23:16]	7:0	See description of '102FBCh'.	
5Fh	REG102FBF	7:0	Default : 0x00	Access : R/W
(102FBFh)	OPW_W_LIMIT_EN	7	OPW write limit enable.	
19.	OPW_W_LIMIT_MIN	6	OPW write limit flag 0: max	imum 1: minimum.
	-01	5:1	Reserved.	
×	OPW_W_LIMIT_ADR[24]	0	See description of '102FBCh	ı'.
66h	REG102FCD	7:0	Default : 0x00	Access : R/W
(102FCDh)	DUMMY66_13_15[2:0]	7:5		
		4:0	Reserved.	
67h	REG102FCE	7:0	Default : 0x01	Access : R/W
(102FCEh)	DUMMY67_4_15[3:0]	7:4		
	-	3:2	Reserved.	
	OPW_WREQ_OFF_ALL	1	All OPW write request disab	le.
	OPW_WREQ_OFF_F1	0	F1 OPW write request disab	
67h	REG102FCF	7:0	Default : 0x00	Access : R/W
(102FCFh)	DUMMY67_4_15[11:4]	7:0	See description of '102FCEh	L
6Ch	REG102FD8	7:0	Default : 0x12	Access : R/W



Index (Absolute)	Mnemonic	Bit	Description				
	-	7:5	Reserved.				
	OPM_PRE_DELTA_0_F1[4:0]	4:0	F1 OP previous data rbank difference between current data rbank at real line case.				
6Ch	REG102FD9	7:0	Default : 0x02 Access : R/W				
(102FD9h)	-	7:5	Reserved.				
	OPM_PRE_DELTA_1_F1[4:0]	4:0	F1 OP previous data rbank difference between curren data rbank at dot line and NOC0 case.				
6Dh	REG102FDA	7:0	Default : 0x12 Access : R/W				
(102FDAh)	-	7:5	Reserved.				
	OPM_PRE_DELTA_2_F1[4:0]	4:0	F1 OP previous data rbank difference between currendata rbank at dot line and NOC1 case.				
6Eh	REG102FDC	7:0	Default : 0x14 Access : R/W				
(102FDCh) _	-	7:5	Reserved.				
	OPM_EXT_DELTA_0_F1[4:0]	4:0	F1 OP extend data rbank difference between current data rbank at real line case.				
6Eh	REG102FDD	7:0	Default: 0x12 Access: R/W				
(102FDDh)	- ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	7:5	Reserved.				
3	OPM_EXT_DELTA_1_F1[4:0]	4:0	F1 OP extend data rbank difference between data rbank at dot line and NOC0 case.	current			
6Fh	REG102FDE	7:0	Default : 0x14 Access : R/W				
(102FDEh)	- / / /	7:5	Reserved.				
Ş	OPM_EXT_DELTA_2_F1[4:0]	4:0	F1 OP extend data rbank difference between data rbank at dot line and NOC1 case.	current			
	, 120 Kei						



SC1 ACE Register (Bank = 102F, Sub-Bank = 18)

SC1 ACE	Register (Bank = 102F, Sub-B	ank	= 18)		
Index (Absolute)	Mnemonic	Bit	Description		
10h	REG102F20	7:0	Default : 0x00	Access : R/W	
(102F20h)	MAIN_FCC_8T_EN	7	Main window FCC region 8	B enable.	
	MAIN_FCC_7T_EN	6	Main window FCC region 7 enable.		
	MAIN_FCC_6T_EN	5	Main window FCC region 6	enable.	
	MAIN_FCC_5T_EN	4	Main window FCC region 5	enable.	
	MAIN_FCC_4T_EN	3	Main window FCC region 4	l enable.	
	MAIN_FCC_3T_EN	2	Main window FCC region 3	B enable.	
	MAIN_FCC_2T_EN	1	Main window FCC region 2	? enable.	
	MAIN_FCC_1T_EN	0	Main window FCC region 1 enable.		
10h	REG102F21	7:0	Default : 0x00	Access : R/W	
(102F21h)	-	7	Reserved.		
	FCC_DITHER_EN	6	FCC dither bit enable.		
		5:2	Reserved.		
	MAIN_FCC_9T_FIRST_EN	1	Main window FCC window 9 priority one enable.		
	MAIN_FCC_9T_EN	0	Main window FCC window 9 enable.		
11h	REG102F22	7:0	Default : 0x00	Access : R/W	
(102F22h)	SUB_FCC_8T_EN	7	Sub window FCC region 8	enable.	
	SUB_FCC_7T_EN	6	Sub window FCC region 7	enable.	
	SUB_FCC_6T_EN	5	Sub window FCC region 6	enable.	
	SUB_FCC_5T_EN	4	Sub window FCC region 5	enable.	
×	SUB_FCC_4T_EN	3	Sub window FCC region 4	enable.	
	SUB_FCC_3T_EN	2	Sub window FCC region 3	enable.	
	SUB_FCC_2T_EN	1	Sub window FCC region 2	enable.	
	SUB_FCC_1T_EN	0	Sub window FCC region 1	enable.	
11h	REG102F23	7:0	Default : 0x00	Access : R/W	
(102F23h)	-	7:2	Reserved.		
	SUB_FCC_9T_FIRST_EN	1	Sub window FCC window	9 priority one enable.	
	SUB_FCC_9T_EN	0	Sub window FCC region 9	enable.	
12h	REG102F24	7:0	Default : 0x00	Access : R/W	
(102F24h)	-	7:6	Reserved.		
	SUB_FCC_BDRY_DIST[1:0]	5:4	Sub window FCC boundary #0: disable.	y limit distance.	



Index (Absolute)	Mnemonic	Bit	Description				
			#1: x4. #2: x2. #3: x1.				
	-	3:2	Reserved.				
	MAIN_FCC_BDRY_DIST[1:0]	1:0	Main window FCC bounda #0: disable. #1: x4. #2: x2. #3: x1.	ry limit distance.			
18h	REG102F30	7:0	Default : 0x00	Access : R/W			
(102F30h)	FCC_CB_T1[7:0]	7:0	FCC region 1 cb target.				
18h	REG102F31	7:0	Default : 0x00	Access : R/W			
(102F31h)	FCC_CR_T1[7:0]	7:0	FCC region 1 cr target.	<u> </u>			
19h	REG102F32	7:0	Default : 0x00	Access : R/W			
(102F32h)	FCC_CB_T2[7:0]	7:0	FCC region 2 cb target.				
(4005001-)	REG102F33	7:0	Default : 0x00	Access : R/W			
(102F33h)	FCC_CR_T2[7:0]	7:0	FCC region 2 cr target.	.			
1Ah	REG102F34	7:0	Default : 0x00	Access : R/W			
(102F34h)	FCC_CB_T3[7:0]	7:0	FCC region 3 cb target.	.			
1Ah	REG102F35	7:0	Default : 0x00	Access : R/W			
(102F35h)	FCC_CR_T3[7:0]	7:0	FCC region 3 cr target.				
1Bh	REG102F36	7:0	Default : 0x00	Access : R/W			
(102F36h)	FCC_CB_T4[7:0]	7:0	FCC region 4 cb target.				
1Bh	REG102F37	7:0	Default : 0x00	Access : R/W			
(102F37h)	FCC_CR_T4[7:0]	7:0	FCC region 4 cr target.	-			
1Ch	REG102F38	7:0	Default : 0x00	Access : R/W			
(102F38h)	FCC_CB_T5[7:0]	7:0	FCC region 5 cb target.	-			
1Ch	REG102F39	7:0	Default : 0x00	Access : R/W			
(102F39h)	FCC_CR_T5[7:0]	7:0	FCC region 5 cr target.				
1Dh	REG102F3A	7:0	Default : 0x00	Access : R/W			
(102F3Ah)	FCC_CB_T6[7:0]	7:0	FCC region 6 cb target.				
1Dh	REG102F3B	7:0	Default : 0x00	Access : R/W			
(102F3Bh)	FCC_CR_T6[7:0]	7:0	FCC region 6 cr target.				
1Eh	REG102F3C	7:0	Default : 0x00	Access : R/W			



	Register (Bank = 102F, Sub-B			
Index (Absolute)	Mnemonic	Bit	Description	
	FCC_CB_T7[7:0]	7:0	FCC region 7 cb target.	T
1Eh	REG102F3D	7:0	Default : 0x00	Access : R/W
(102F3Dh)	FCC_CR_T7[7:0]	7:0	FCC region 7 cr target.	T
1Fh	REG102F3E	7:0	Default : 0x00	Access : R/W
(102F3Eh)	FCC_CB_T8[7:0]	7:0	FCC region 8 cb target.	
1Fh	REG102F3F	7:0	Default : 0x00	Access : R/W
(102F3Fh)	FCC_CR_T8[7:0]	7:0	FCC region 8 cr target.	
20h	REG102F40	7:0	Default : 0xFF	Access : R/W
(102F40h)	FCC_K_2T[3:0]	7:4	FCC region 2 strength.	
	FCC_K_1T[3:0]	3:0	FCC region 1 strength.	
20h	REG102F41	7:0 Default : 0xFF		Access : R/W
(102F41h)	FCC_K_4T[3:0]	7:4	FCC region 4 strength.	
	FCC_K_3T[3:0]	3:0	FCC region 3 strength.	
21h	REG102F42	7:0	Default : 0xFF	Access : R/W
	FCC_K_6T[3:0]	7:4	FCC region 6 strength.)
	FCC_K_5T[3:0]	3:0	FCC region 5 strength.	
21h	REG102F43	7:0	Default : 0xFF	Access : R/W
(102F43h)	FCC_K_8T[3:0]	7:4	FCC region 8 strength.	
	FCC_K_7T[3:0]	3:0	FCC region 7 strength.	
22 h	REG102F44	7:0	Default : 0x0F	Access : R/W
(102F44h)	-0	7:4	Reserved.	
×	FCC_K_9T[3:0]	3:0	FCC region 9 strength.	
24h	REG102F48	7:0	Default : 0x00	Access : R/W
(102F48h)	FCC_WIN1_CB_UP[1:0]	7:6	FCC region 1 target cb up	distance.
	FCC_WIN1_CB_DOWN[1:0]	5:4	FCC region 1 target cb do	wn distance.
	FCC_WIN1_CR_UP[1:0]	3:2	FCC region 1 target cr up	distance.
	FCC_WIN1_CR_DOWN[1:0]	1:0	FCC region 1 target cr dov	vn distance.
24h	REG102F49	7:0	Default : 0x00	Access : R/W
(102F49h)	FCC_WIN2_CB_UP[1:0]	7:6	FCC region 2 target cb up	distance.
	FCC_WIN2_CB_DOWN[1:0]	5:4	FCC region 2 target cb do	wn distance.
	FCC_WIN2_CR_UP[1:0]	3:2	FCC region 2 target cr up	distance.
	FCC_WIN2_CR_DOWN[1:0]	1:0	FCC region 2 target cr dov	vn distance.
25 h	REG102F4A	7:0	Default : 0x00	Access : R/W



Index	Mnemonic	Bit	Description		
(Absolute)					
	FCC_WIN3_CB_UP[1:0]	7:6	FCC region 3 target cb up	distance.	
	FCC_WIN3_CB_DOWN[1:0]	5:4	FCC region 3 target cb dov	wn distance.	
	FCC_WIN3_CR_UP[1:0]	3:2	FCC region 3 target cr up distance.		
	FCC_WIN3_CR_DOWN[1:0]	1:0	FCC region 3 target cr dov	vn distance.	
25h	REG102F4B	7:0	Default : 0x00	Access : R/W	
(102F4Bh)	FCC_WIN4_CB_UP[1:0]	7:6	FCC region 4 target cb up	distance.	
	FCC_WIN4_CB_DOWN[1:0]	5:4	FCC region 4 target cb dov	wn distance.	
	FCC_WIN4_CR_UP[1:0]	3:2	FCC region 4 target cr up	distance.	
	FCC_WIN4_CR_DOWN[1:0]	1:0	FCC region 4 target cr dov	vn distance.	
26h	REG102F4C	7:0	Default : 0x00	Access : R/W	
(102F4Ch)	FCC_WIN5_CB_UP[1:0]	7:6	FCC region 5 target cb up distance.		
	FCC_WIN5_CB_DOWN[1:0]	5:4	FCC region 5 target cb dov	wn distance.	
	FCC_WIN5_CR_UP[1:0]	3:2	FCC region 5 target cr up	distance.	
	FCC_WIN5_CR_DOWN[1:0]	1:0	FCC region 5 target cr dov	vn distance.	
(4005406)	REG102F4D	7:0	Default : 0x00	Access : R/W	
	FCC_WIN6_CB_UP[1:0]	7:6	FCC region 6 target cb up distance.		
	FCC_WIN6_CB_DOWN[1:0]	5:4	FCC region 6 target cb dov	wn distance.	
, (FCC_WIN6_CR_UP[1:0]	3:2	FCC region 6 target cr up distance.		
	FCC_WIN6_CR_DOWN[1:0]	1:0	FCC region 6 target cr dov	vn distance.	
27h	REG102F4E	7:0	Default : 0x00	Access : R/W	
(102F4Eh)	FCC_WIN7_CB_UP[1:0]	7:6	FCC region 7 target cb up	distance.	
×	FCC_WIN7_CB_DOWN[1:0]	5:4	FCC region 7 target cb dov	wn distance.	
	FCC_WIN7_CR_UP[1:0]	3:2	FCC region 7 target cr up	distance.	
	FCC_WIN7_CR_DOWN[1:0]	1:0	FCC region 7 target cr dov	vn distance.	
27h	REG102F4F	7:0	Default : 0x00	Access : R/W	
(102F4Fh)	FCC_WIN8_CB_UP[1:0]	7:6	FCC region 8 target cb up	distance.	
	FCC_WIN8_CB_DOWN[1:0]	5:4	FCC region 8 target cb dov	wn distance.	
	FCC_WIN8_CR_UP[1:0]	3:2	FCC region 8 target cr up	distance.	
	FCC_WIN8_CR_DOWN[1:0]	1:0	FCC region 8 target cr dov	vn distance.	
28h	REG102F50	7:0	Default : 0x00	Access : R/W	
(102F50h)	-	7:6	Reserved.		
	FCC_WIN9_CB[2:0]	5:3	FCC region 9 target cb dis	tance.	
	FCC_WIN9_CR[2:0]	2:0	FCC region 9 target cr dist	ance.	



SC1 ACE F	Register (Bank = 102F, Sub-B	ank	= 18)		
Index (Absolute)	Mnemonic	Bit	Description		
3Ch	REG102F78	7:0	Default : 0xFF	Access : R/W	
(102F78h)	WPL_WHITE_PEAK_LIMIT_THRD[7:0]	7:0	White peak limit threshold		
50h	REG102FA0	7:0	Default : 0x00	Access : R/W	
(102FA0h)	MAIN_Y_HIGH_PASS_EN	7	Main window Y H_coring as high pass filter.		
	MAIN_Y_TABLE_STEP[2:0]	6:4	Main window Y H_coring L	.UT step.	
	MAIN_PC_MODE	3	Main window PC mode.		
	-	2	Reserved.		
	MAIN_Y_BAND2_H_CORING_EN	1	Main window Y band2 H_c	coring enable.	
	MAIN_Y_BAND1_H_CORING_EN	0	Main window Y band1 H_c	coring enable.	
50h	REG102FA1	7:0	Default : 0x00	Access : R/W	
(102FA1h)	MAIN_C_HIGH_PASS_EN	7	Main window C H_coring a	ns high pass filter.	
	MAIN_C_TABLE_STEP[2:0]	6:4	Main window C H_coring LUT step.		
	MAIN_WHITE_PEAK_LIMIT_EN	3	Main window white peak limit enable.		
	- 10, 20	2	Reserved.		
	MAIN_C_BAND2_H_CORING_EN	1	Main window C band2 H_coring enable.		
	MAIN_C_BAND1_H_CORING_EN	0	Main window C band1 H_coring enable.		
51h	REG102FA2	7:0	Default : 0x00	Access : R/W	
(102FA2h)	MAIN_Y_GAIN_TABLE1[7:0]	7:0	Main window Y gain table	1.	
51h	REG102FA3	7:0	Default : 0x00	Access : R/W	
(102FA3h)	MAIN_Y_GAIN_TABLE2[7:0]	7:0	Main window Y gain table	2.	
52h	REG102FA4	7:0	Default : 0x00	Access : R/W	
(102FA4h)	MAIN_Y_GAIN_TABLE3[7:0]	7:0	Main window Y gain table	3.	
52h	REG102FA5	7:0	Default : 0x00	Access : R/W	
(102FA5h)	MAIN_Y_GAIN_TABLE4[7:0]	7:0	Main window Y gain table	4.	
53h	REG102FA6	7:0	Default : 0x00	Access : R/W	
(102FA6h)	MAIN_C_GAIN_TABLE1[7:0]	7:0	Main window C gain table	1.	
53h	REG102FA7	7:0	Default : 0x00	Access : R/W	
(102FA7h)	MAIN_C_GAIN_TABLE2[7:0]	7:0	Main window C gain table	2.	
54h	REG102FA8	7:0	Default : 0x00	Access : R/W	
(102FA8h)	MAIN_C_GAIN_TABLE3[7:0]	7:0	Main window C gain table	3.	
54h	REG102FA9	7:0	Default : 0x00	Access : R/W	
(102FA9h)	MAIN_C_GAIN_TABLE4[7:0]	7:0	Main window C gain table	4.	
55h	REG102FAA	7:0	Default : 0x00	Access : R/W	



SC1 ACE	Register (Bank = 102F, Sub-B	ank	= 18)		
Index (Absolute)	Mnemonic	Bit	Description		
	MAIN_Y_NOISE_MASKING_EN	7	Main window horizontal Y NMR e	nable.	
	MAIN_Y_COLOR_NOISE_MASKING_EN	6	Main window horizontal Y NMR co	olor adaptive enable.	
	MAIN_Y_NOISE_MASK_GAIN[5:0]	5:0	Main window horizontal Y NMR g	ain (xxxx.xx).	
56h	REG102FAC	7:0	Default : 0xFF Acces	ss : R/W	
(102FACh)	MAIN_Y_NM_MIN_THRD[3:0]	7:4	Main window Y mosquito noise rethreshold.	emove min value	
	MAIN_Y_NM_MAX_THRD[3:0]	3:0	Main window Y mosquito noise rethreshold.	emove max value	
58h	REG102FB0	7:0	Default: 0x00 Acces	ss : R/W	
(102FB0h)	SUB_Y_HIGH_PASS_EN	7	Sub window Y H_coring as high p	oass filter.	
	SUB_Y_TABLE_STEP[2:0]	6:4	Sub window Y H_coring LUT step).	
	SUB_PC_MODE	3	Sub window PC mode.		
	-	2	Reserved.		
	SUB_Y_BAND2_H_CORING_EN	1	Sub window Y band2 H_coring enable.		
	SUB_Y_BAND1_H_CORING_EN	0	Sub window Y band1 H_coring enable.		
58h	REG102FB1	7:0	Default : 0x00 Access : R/W		
(102FB1h)	SUB_C_HIGH_PASS_EN	7	Sub window C H_coring as high p	oass filter.	
	SUB_C_TABLE_STEP[2:0]	6:4	Sub window C H_coring LUT step.		
1	SUB_WHITE_PEAK_LIMIT_EN	3	Sub window white peak limit ena	ble.	
W.	- ,) <u> </u>	2	Reserved.		
	SUB_C_BAND2_H_CORING_EN	1	Sub window C band2 H_coring en	nable.	
	SUB_C_BAND1_H_CORING_EN	0	Sub window C band1 H_coring en	nable.	
5Dh	REG102FBA	7:0	Default : 0x00 Acces	ss : R/W	
(102FBAh)	SUB_Y_NOISE_MASKING_EN	7	Sub window horizontal Y noise-m	asking enable.	
	SUB_Y_COLOR_NOISE_MASKING_EN	6	Sub window horizontal Y noise-madaptive enable.	asking color	
	-	5:0	Reserved.		
60h	REG102FC0	7:0	Default : 0x00 Acces	ss : R/W	
(102FC0h)	-	7:3	Reserved.		
	PSEUDO_VCLR_NO[1:0]	2:1	Pseudo return to initial value frame numbers. #2'b00: 1 frame initial. #2'b01: 2 frame initial. #2'b10: 4 frame initial.		



Index (Absolute)	Mnemonic	Bit	Description		
	PSEUDO_VCLR_EN	0	Pseudo return to initial val	ue by vclear enable.	
6Eh	REG102FDC	7:0	Default : 0x00	Access : R/W	
(102FDCh)	-	7:5	Reserved.		
	SUB_R2Y_EN	4	Sub window RGB to YCbC	r enable.	
	-	3:2	Reserved.		
	R2Y_DITHER_EN	1	RGB to YCbCr dither enab	le.	
	MAIN_R2Y_EN	0	Main window RGB to YCb0	Cr enable.	
6Fh	REG102FDE	7:0	Default : 0x00	Access : R/W	
(102FDEh)	-	7	Reserved.		
	SUB_R2Y_EQ_SEL[2:0] - MAIN_R2Y_EQ_SEL[2:0]	3 2:0	Sub window RGB to YCbCi 3'b000: SDTV with R' G' B 3'b001: SDTV with R' G' B 3'b010: HDTV with R' G' B 3'b011: HDTV with R' G' B 3'b100: 709 to 601. Reserved. Main window RGB to YCbC 3'b000: SDTV with R' G' B	' 16-235 range. ' 0-255 range. ' 16-235 range. ' 0-255 range. Cr equation selection. ' 16-235 range.	
No	Shewila		3'b001: SDTV with R' G' B 3'b010: HDTV with R' G' B 3'b011: HDTV with R' G' B 3'b100: 709 to 601.	d' 16-235 range.	
74h	-0'	7:0	Default : -	Access : -	
(102FE9h)		V-	Reserved.		
	Modern				



SC1 PEAKING Register (Bank = 102F, Sub-Bank = 19)

	ING Register (Bank = 102F, Sub-		<u> </u>	
Index	Mnemonic Carrie 1921 / Gall	Bit	Description	
(Absolute)	WITETHOTHC	DIL	Description	
10h	REG102F20	7:0	Default : 0x00	Access : R/W
(102F20h)	VPS_SRAM_ACT	7	2D peaking line-buffer	SRAM active.
	MAIN_Y_LPF_COEF[2:0]	6:4	Main window horizonta coefficient.	I Y low pass filter
	SUB_IS_MWE_EN	3	Sub window is MWE.	
	_	2:1	Reserved.	
	MAIN_POST_PEAKING_EN	0	Main window 2D peaki	ng enable.
10h	REG102F21	7:0	Default : 0x00	Access : R/W
(102F21h)	MAIN_BAND8_PEAKING_EN	7	Main window band8 pe	aking enable.
	MAIN_BAND7_PEAKING_EN	6	Main window band7 pe	aking enable.
	MAIN_BAND6_PEAKING_EN	5	Main window band6 pe	aking enable.
	MAIN_BAND5_PEAKING_EN	4	Main window band5 peaking enable.	
	MAIN_BAND4_PEAKING_EN	3	Main window band4 peaking enable.	
	MAIN_BAND3_PEAKING_EN	2	Main window band3 peaking enable.	
	MAIN_BAND2_PEAKING_EN	1	Main window band2 peaking enable.	
	MAIN_BAND1_PEAKING_EN	0	Main window band1 pe	aking enable.
11h	REG102F22	7:0	Default : 0x00	Access : R/W
(102F22h)	MAIN_BAND4_COEF_STEP[1:0]	7:6	Main window band4 co	efficient step.
	MAIN_BAND3_COEF_STEP[1:0]	5:4	Main window band3 co	efficient step.
	MAIN_BAND2_COEF_STEP[1:0]	3:2	Main window band2 co	efficient step.
×	MAIN_BAND1_COEF_STEP[1:0]	1:0	Main window band1 co	efficient step.
11h	REG102F23	7:0	Default : 0x00	Access : R/W
(102F23h)	MAIN_BAND8_COEF_STEP[1:0]	7:6	Main window band8 co	efficient step.
	MAIN_BAND7_COEF_STEP[1:0]	5:4	Main window band7 co	efficient step.
	MAIN_BAND6_COEF_STEP[1:0]	3:2	Main window band6 co	efficient step.
	MAIN_BAND5_COEF_STEP[1:0]	1:0	Main window band5 co	efficient step.
12h	REG102F24	7:0	Default : 0x00	Access : R/W
(102F24h)	MAIN_V_NOISE_MASKING_EN	7	Main window vertical Y	noise-masking enable.
	MAIN_V_COLOR_NOISE_MASKING_EN	6	Main window vertical Y adaptive enable.	noise-masking color
	MAIN_V_NOISE_MASK_GAIN[5:0]	5:0	Main window vertical Y	noise-masking gain.
12h	REG102F25	7:0	Default : 0x00	Access : R/W



SC1 PEAK	ING Register (Bank = 102F, Sub-	-Bank	(= 19)	
Index (Absolute)	Mnemonic	Bit	Description	
	-	7	Reserved.	
	MAIN_V_LPF_COEF_2[2:0]	6:4	Main window vertical c coefficient.	entral pixel Y LPF
	-	3	Reserved.	
	MAIN_V_LPF_COEF_1[2:0]	2:0	Main window vertical u coefficient.	p-down pixel Y LPF
13h	REG102F26	7:0	Default : 0x00	Access : R/W
(102F26h)	MAIN_CORING_THRD_2[3:0]	7:4	Main window coring th	reshold 2.
	MAIN_CORING_THRD_1[3:0]	3:0	Main window coring th	reshold 1.
13h	REG102F27	7:0	Default : 0x10	Access : R/W
(102F27h)	-	7:6	Reserved.	
	MAIN_OSD_SHARPNESS_CTRL[5:0]	5:0	Main window user shar	pness adjust.
14h	REG102F28	7:0	Default : 0x00	Access : R/W
(102F28h)	-	7	Reserved.	
	SUB_Y_LPF_COEF[2:0]	6:4	Sub window horizontal Y LPF coefficient.	
	MAIN_SUB_EXCHANGE_EN	3	Main/Sub window swap enable.	
	- 1	2:1	Reserved.	
	SUB_POST_PEAKING_EN	0	Sub window 2D peaking enable.	
14h	REG102F29	7:0	Default : 0x00	Access : R/W
(102F29h)	SUB_BAND8_PEAKING_EN	7	Sub window band8 pea	aking enable.
	SUB_BAND7_PEAKING_EN	6	Sub window band7 pea	aking enable.
S	SUB_BAND6_PEAKING_EN	5	Sub window band6 pea	aking enable.
	SUB_BAND5_PEAKING_EN	4	Sub window band5 pea	aking enable.
	SUB_BAND4_PEAKING_EN	3	Sub window band4 pea	aking enable.
	SUB_BAND3_PEAKING_EN	2	Sub window band3 pea	aking enable.
	SUB_BAND2_PEAKING_EN	1	Sub window band2 pea	aking enable.
	SUB_BAND1_PEAKING_EN	0	Sub window band1 pea	aking enable.
15h	REG102F2A	7:0	Default : 0x00	Access : R/W
(102F2Ah)	SUB_BAND4_COEF_STEP[1:0]	7:6	Sub window band4 coe	efficient step.
	SUB_BAND3_COEF_STEP[1:0]	5:4	Sub window band3 coe	efficient step.
	SUB_BAND2_COEF_STEP[1:0]	3:2	Sub window band2 coe	efficient step.
	SUB_BAND1_COEF_STEP[1:0]	1:0	Sub window band1 coefficient step.	
15h	REG102F2B	7:0	Default : 0x00	Access : R/W



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Index (Absolute)	Mnemonic	Bit	Description	
	SUB_BAND8_COEF_STEP[1:0]	7:6	Sub window band8 coe	efficient step.
	SUB_BAND7_COEF_STEP[1:0]	5:4	Sub window band7 coe	efficient step.
	SUB_BAND6_COEF_STEP[1:0]	3:2	Sub window band6 coe	efficient step.
	SUB_BAND5_COEF_STEP[1:0]	1:0	Sub window band5 coe	efficient step.
16h	REG102F2C	7:0	Default : 0x00	Access : R/W
(102F2Ch)	SUB_V_NOISE_MASKING_EN	7	Sub window vertical Y	noise-masking enable.
	SUB_V_COLOR_NOISE_MASKING_EN	6	Sub window vertical Y adaptive enable.	noise-masking color
	SUB_V_NOISE_MASK_GAIN[5:0]	5:0	Sub window vertical Y	noise-masking gain.
16h	REG102F2D	7:0	Default : 0x00	Access : R/W
(102F2Dh)	- /	7	Reserved.	
	SUB_V_LPF_COEF_2[2:0]	6:4	Sub window vertical central pixel Y LPF coefficient.	
	- (0)	3	Reserved.	
	SUB_V_LPF_COEF_1[2:0]	2:0	Sub window vertical up-down pixel Y LPF coefficient.	
17h	REG102F2E	7:0	Default : 0x00	Access : R/W
(102F2Eh)	SUB_CORING_THRD_2[3:0]	7:4	Sub window coring thr	eshold 2.
16	SUB_CORING_THRD_1[3:0]	3:0	Sub window coring thr	eshold 1.
17h	REG102F2F	7:0	Default : 0x10	Access : R/W
(102F2Fh)	- (7:6	Reserved.	
(SUB_OSD_SHARPNESS_CTRL[5:0]	5:0	Sub window user sharp	oness adjust.
18h	REG102F30	7:0	Default : 0x00	Access : R/W
(102F30h)		7:6	Reserved.	
	MAIN_BAND1_COEF[5:0]	5:0	Main window band1 co	efficient.
18h	REG102F31	7:0	Default : 0x00	Access : R/W
(102F31h)	-	7:6	Reserved.	
	MAIN_BAND2_COEF[5:0]	5:0	Main window band2 co	pefficient.
19h	REG102F32	7:0	Default : 0x00	Access : R/W
(102F32h)	-	7:6	Reserved.	
	MAIN_BAND3_COEF[5:0]	5:0	Main window band3 co	pefficient.
19h	REG102F33	7:0	Default : 0x00	Access : R/W
(102F33h)	_	7:6	Reserved.	



Index	Mnemonic	Bit	Description	
(Absolute)	Wilemonic	Dit	Description	
	MAIN_BAND4_COEF[5:0]	5:0	Main window band4 co	efficient.
1Ah	REG102F34	7:0	Default : 0x00	Access : R/W
(102F34h)	-	7:6	Reserved.	
	MAIN_BAND5_COEF[5:0]	5:0	Main window band5 co	efficient.
1Ah	REG102F35	7:0	Default : 0x00	Access : R/W
(102F35h)	-	7:6	Reserved.	
	MAIN_BAND6_COEF[5:0]	5:0	Main window band6 co	efficient.
1Bh	REG102F36	7:0	Default : 0x00	Access : R/W
(102F36h)	-	7:6	Reserved.	
	MAIN_BAND7_COEF[5:0]	5:0	Main window band7 co	efficient.
1Bh	REG102F37	7:0	Default : 0x00	Access : R/W
(102F37h)	-	7:6	Reserved.	
	MAIN_BAND8_COEF[5:0]	5:0	Main window band8 co	efficient.
1Ch	REG102F38	7:0	Default : 0x00	Access : R/W
(102F38h)	- ()	7	Reserved.	
<u></u>	MAIN_PEAKING_TERM2_SELECT[2:0]	6:4	Main window peaking term2 select.	
		3	Reserved.	
, C	MAIN_PEAKING_TERM1_SELECT[2:0]	2:0	Main window peaking t	erm1 select.
1Ch	REG102F39	7:0	Default : 0x00	Access : R/W
(102F39h)	- x / X \	7	Reserved.	
	MAIN_PEAKING_TERM4_SELECT[2:0]	6:4	Main window peaking t	erm4 select.
		3	Reserved.	
	MAIN_PEAKING_TERM3_SELECT[2:0]	2:0	Main window peaking t	erm3 select.
1Dh	REG102F3A	7:0	Default : 0x00	Access : R/W
(102F3Ah)		7	Reserved.	
	MAIN_PEAKING_TERM6_SELECT[2:0]	6:4	Main window peaking t	erm6 select.
	-	3	Reserved.	
	MAIN_PEAKING_TERM5_SELECT[2:0]	2:0	Main window peaking t	erm5 select.
1Dh	REG102F3B	7:0	Default : 0x00	Access : R/W
(102F3Bh)	-	7	Reserved.	
	MAIN_PEAKING_TERM8_SELECT[2:0]	6:4	Main window peaking t	erm8 select.
	-	3	Reserved.	
	MAIN_PEAKING_TERM7_SELECT[2:0]	2:0	Main window peaking t	erm7 select.



SC1 PEAK	ING Register (Bank = 102F, Sub-	-Bank	(= 19)	
Index (Absolute)	Mnemonic	Bit	Description	
1Eh	REG102F3C	7:0	Default : 0x00	Access : R/W
(102F3Ch)	-	7	Reserved.	
	MAIN_PEAKING_TERM10_SELECT[2:0]	6:4	Main window peaking term10 select.	
	-	3	Reserved.	
	MAIN_PEAKING_TERM9_SELECT[2:0]	2:0	Main window peaking	term9 select.
1Eh	REG102F3D	7:0	Default : 0x00	Access : R/W
(102F3Dh)	-	7	Reserved.	
	MAIN_PEAKING_TERM12_SELECT[2:0]	6:4	Main window peaking	term12 select.
	-	3	Reserved.	
	MAIN_PEAKING_TERM11_SELECT[2:0]	2:0	Main window peaking	term11 select.
1Fh	REG102F3E	7:0	Default : 0x00	Access : R/W
(102F3Eh)	-	7	Reserved.	
	MAIN_PEAKING_TERM14_SELECT[2:0]	6:4	Main window peaking term14 select.	
		3	Reserved.	
	MAIN_PEAKING_TERM13_SELECT[2:0]	2:0	Main window peaking term13 select.	
1Fh	REG102F3F	7:0	Default : 0x00	Access : R/W
(102F3Fh)		7	Reserved.	
, C	MAIN_PEAKING_TERM16_SELECT[2:0]	6:4	Main window peaking term16 select.	
		3	Reserved.	
19.	MAIN_PEAKING_TERM15_SELECT[2:0]	2:0	Main window peaking	term15 select.
20h	REG102F40	7:0	Default : 0xFF	Access : R/W
(102F40h)	BAND1_OVERSHOOT_LIMIT[7:0]	7:0	Main window band1 ov	vershoot limit.
20h	REG102F41	7:0	Default : 0xFF	Access : R/W
(102F41h)	BAND2_OVERSHOOT_LIMIT[7:0]	7:0	Main window band2 ov	vershoot limit.
21h	REG102F42	7:0	Default : 0xFF	Access : R/W
(102F42h)	BAND3_OVERSHOOT_LIMIT[7:0]	7:0	Main window band3 ov	vershoot limit.
21h	REG102F43	7:0	Default : 0xFF	Access : R/W
(102F43h)	BAND4_OVERSHOOT_LIMIT[7:0]	7:0	Main window band4 ov	vershoot limit.
22h	REG102F44	7:0	Default : 0xFF	Access : R/W
(102F44h)	BAND5_OVERSHOOT_LIMIT[7:0]	7:0	Main window band5 ov	vershoot limit.
22h	REG102F45	7:0	Default : 0xFF	Access : R/W
(102F45h)	BAND6_OVERSHOOT_LIMIT[7:0]	7:0	Main window band6 ov	
23h	REG102F46	7:0	Default : 0xFF	Access : R/W



Index	Mnemonic	Bit	Description	
(Absolute)			·	
	BAND7_OVERSHOOT_LIMIT[7:0]	7:0	Main window band7 overshoo	t limit.
23h	REG102F47	7:0	Default : 0xFF Acces	ss : R/W
(102F47h)	BAND8_OVERSHOOT_LIMIT[7:0]	7:0	Main window band8 overshoo	t limit.
24h	REG102F48	7:0	Default : 0xFF Acces	ss : R/W
(102F48h)	BAND1_UNDERSHOOT_LIMIT[7:0]	7:0	Main window band1 undersho	oot limit.
24h	REG102F49	7:0	Default : 0xFF Acces	ss : R/W
(102F49h)	BAND2_UNDERSHOOT_LIMIT[7:0]	7:0	Main window band2 undersho	oot limit.
25h	REG102F4A	7:0	Default : 0xFF Acces	ss : R/W
(102F4Ah)	BAND3_UNDERSHOOT_LIMIT[7:0]	7:0	Main window band3 undersho	oot limit.
25h	REG102F4B	7:0	Default : 0xFF Acces	ss : R/W
(102F4Bh)	BAND4_UNDERSHOOT_LIMIT[7:0]	7:0	Main window band4 undersho	oot limit.
26h	REG102F4C	7:0	Default : 0xFF Acces	ss : R/W
(102F4Ch)	BAND5_UNDERSHOOT_LIMIT[7:0]	7:0	Main window band5 undersho	oot limit.
26h	REG102F4D	7:0	Default : 0xFF Acces	ss : R/W
(102F4Dh)	BAND6_UNDERSHOOT_LIMIT[7:0]	7:0	Main window band6 undersho	oot limit.
27h	REG102F4E	7:0	Default : 0xFF Acces	ss : R/W
(102F4Eh)	BAND7_UNDERSHOOT_LIMIT[7:0]	7:0	Main window band7 undersho	oot limit.
27h	REG102F4F	7:0	Default : 0xFF Acces	ss : R/W
(102F4Fh)	BAND8_UNDERSHOOT_LIMIT[7:0]	7:0	Main window band8 undersho	oot limit.
28h	REG102F50	7:0	Default : 0x00 Acces	ss : R/W
(102F50h)	-01	7:6	Reserved.	
>	SUB_BAND1_COEF[5:0]	5:0	Sub window band1 coefficien	t.
28h	REG102F51	7:0	Default : 0x00 Acces	ss : R/W
(102F51h)	- 111	7:6	Reserved.	
	SUB_BAND2_COEF[5:0]	5:0	Sub window band2 coefficien	t.
29h	REG102F52	7:0	Default : 0x00 Acces	ss : R/W
(102F52h)	-	7:6	Reserved.	_
	SUB_BAND3_COEF[5:0]	5:0	Sub window band3 coefficien	t.
29h	REG102F53	7:0	Default : 0x00 Acces	ss : R/W
(102F53h)	-	7:6	Reserved.	
	SUB_BAND4_COEF[5:0]	5:0	Sub window band4 coefficien	t.
2Ah	REG102F54	7:0	Default : 0x00 Acces	ss : R/W
(102F54h)	-	7:6	Reserved.	



Index	Mnemonic	Bit	Description	
(Absolute)	Whethoric	Dit	Description	
	SUB_BAND5_COEF[5:0]	5:0	Sub window band5 coe	fficient.
2Ah	REG102F55	7:0	Default : 0x00	Access : R/W
(102F55h)	-	7:6	Reserved.	
	SUB_BAND6_COEF[5:0]	5:0	Sub window band6 coe	fficient.
2Bh	REG102F56	7:0	Default : 0x00	Access : R/W
(102F56h)	-	7:6	Reserved.	
	SUB_BAND7_COEF[5:0]	5:0	Sub window band7 coe	fficient.
2Bh	REG102F57	7:0	Default : 0x00	Access : R/W
(102F57h)	-	7:6	Reserved.	
	SUB_BAND8_COEF[5:0]	5:0	Sub window band8 coe	efficient.
2Ch	REG102F58	7:0	Default : 0x00	Access : R/W
(102F58h)	-	7	Reserved.	
	SUB_PEAKING_TERM2_SELECT[2:0]	6:4	Sub window peaking term2 select.	
		3	Reserved.	
	SUB_PEAKING_TERM1_SELECT[2:0]	2:0	Sub window peaking term1 select.	
2Ch	REG102F59	7:0	Default : 0x00	Access : R/W
(102F59h)		7	Reserved.	
, C	SUB_PEAKING_TERM4_SELECT[2:0]	6:4	Sub window peaking te	erm4 select.
		3	Reserved.	
19	SUB_PEAKING_TERM3_SELECT[2:0]	2:0	Sub window peaking te	erm3 select.
2Dh	REG102F5A	7:0	Default : 0x00	Access : R/W
(102F5Ah)		7	Reserved.	
	SUB_PEAKING_TERM6_SELECT[2:0]	6:4	Sub window peaking te	erm6 select.
	- 11	3	Reserved.	
	SUB_PEAKING_TERM5_SELECT[2:0]	2:0	Sub window peaking te	erm5 select.
2Dh	REG102F5B	7:0	Default : 0x00	Access : R/W
(102F5Bh)	-	7	Reserved.	
	SUB_PEAKING_TERM8_SELECT[2:0]	6:4	Sub window peaking te	erm8 select.
	-	3	Reserved.	
	SUB_PEAKING_TERM7_SELECT[2:0]	2:0	Sub window peaking te	erm7 select.
2Eh	REG102F5C	7:0	Default : 0x00	Access : R/W
(102F5Ch)	-	7	Reserved.	
	SUB_PEAKING_TERM10_SELECT[2:0]	6:4	Sub window peaking te	rm10 coloat



Index	Mnemonic	Bit	Description	
(Absolute)		2	Decembed	
	CUR DEAKING TERMO CELECTIC OF	3	Reserved.	0
	SUB_PEAKING_TERM9_SELECT[2:0]	2:0	Sub window peaking to	
2Eh (102F5Dh)	REG102F5D	7:0	Default : 0x00	Access : R/W
(1021 3011)	-	7	Reserved.	
	SUB_PEAKING_TERM12_SELECT[2:0]	6:4	Sub window peaking to	erm12 select.
	-	3	Reserved.	
	SUB_PEAKING_TERM11_SELECT[2:0]	2:0	Sub window peaking to	
2Fh	REG102F5E	7:0	Default : 0x00	Access : R/W
(102F5Eh)	-	7	Reserved.	
	SUB_PEAKING_TERM14_SELECT[2:0]	6:4	Sub window peaking term14 select.	
	<u>-</u> د د د د د د د د د د د د د د د د د د د	3	Reserved.	
	SUB_PEAKING_TERM13_SELECT[2:0]	2:0	Sub window peaking to	erm13 select.
2Fh	REG102F5F	7:0	Default : 0x00	Access : R/W
(102F5Fh)	- 10	7	Reserved.	
<u> </u>	SUB_PEAKING_TERM16_SELECT[2:0]	6:4	Sub window peaking to	erm16 select.
	- (3	Reserved.	
	SUB_PEAKING_TERM15_SELECT[2:0]	2:0	Sub window peaking to	erm15 select.
30h	REG102F60	7:0	Default : 0x00	Access : R/W
(102F60h)	MAIN_COLOR_PEAKING_EN	7	Main window color ada	ptive peaking enable.
	MAIN_COLOR_FACTOR_LPF_EN	6	Main window color fac	tor LPF enable.
	0 5	5:4	Reserved.	
	SUB_COLOR_PEAKING_EN	3	Sub window color adap	otive peaking enable.
		2:0	Reserved.	
30h	REG102F61	7:0	Default : 0x33	Access : R/W
(102F61h)	MAIN_COLOR_CORING_EN	7	Main window color ada	ptive coring enable.
	-	6	Reserved.	
	MAIN_CORING_THRD_STEP[1:0]	5:4	Main window coring st	 ер.
	SUB_COLOR_CORING_EN	3	Sub window color ada	otive coring enable.
	-	2	Reserved.	-
	SUB_CORING_THRD_STEP[1:0]	1:0	Sub window coring ste	p.
33h	REG102F66	7:0	Default : 0x00	Access : R/W
(102F66h)	MAIN_BAND2_CORING_THRD[3:0]	7:4	Main window band2 co	
	MAIN_BAND1_CORING_THRD[3:0]	3:0	Main window band1 co	



Index	Mnemonic	Bit	Description	
(Absolute)				
33h	REG102F67	7:0	Default : 0x00	Access : R/W
(102F67h)	MAIN_BAND4_CORING_THRD[3:0]	7:4	Main window band4 co	oring threshold.
	MAIN_BAND3_CORING_THRD[3:0]	3:0	Main window band3 coring threshold.	
34h	REG102F68	7:0	Default : 0x00	Access : R/W
(102F68h)	MAIN_BAND6_CORING_THRD[3:0]	7:4	Main window band6 co	oring threshold.
	MAIN_BAND5_CORING_THRD[3:0]	3:0	Main window band5 co	oring threshold.
34h	REG102F69	7:0	Default : 0x00	Access : R/W
(102F69h)	MAIN_BAND8_CORING_THRD[3:0]	7:4	Main window band8 co	oring threshold.
	MAIN_BAND7_CORING_THRD[3:0]	3:0	Main window band7 co	oring threshold.
35h	REG102F6A	7:0	Default : 0x00	Access : R/W
(102F6Ah)	SUB_BAND2_CORING_THRD[3:0]	7:4	Sub window band2 coring threshold.	
	SUB_BAND1_CORING_THRD[3:0]	3:0	Sub window band1 coring threshold.	
35h	REG102F6B	7:0	Default : 0x00	Access : R/W
	SUB_BAND4_CORING_THRD[3:0]	7:4	Sub window band4 coring threshold.	
	SUB_BAND3_CORING_THRD[3:0]	3:0	Sub window band3 coring threshold.	
36h	REG102F6C	7:0	Default : 0x00	Access : R/W
(102F6Ch)	SUB_BAND6_CORING_THRD[3:0]	7:4	Sub window band6 coring threshold.	
	SUB_BAND5_CORING_THRD[3:0]	3:0	Sub window band5 cor	ring threshold.
36h	REG102F6D	7:0	Default : 0x00	Access : R/W
(102F6Dh)	SUB_BAND8_CORING_THRD[3:0]	7:4	Sub window band8 cor	ring threshold.
•	SUB_BAND7_CORING_THRD[3:0]	3:0	Sub window band7 cor	ing threshold.
37h	REG102F6E	7:0	Default : 0x00	Access : R/W
(102F6Eh)		7:6	Reserved.	
	MAIN_CORING_THRD_SEC[5:0]	5:0	Main window color cor	ing limit.
37h	REG102F6F	7:0	Default : 0x00	Access : R/W
(102F6Fh)	-	7:6	Reserved.	
	SUB_CORING_THRD_SEC[5:0]	5:0	Sub window color corir	ng limit.
39h	REG102F72	7:0	Default : 0xFF	Access : R/W
(102F72h)	MAIN_Y_V_NM_MIN_THRD[3:0]	7:4	Main window vertical Y min value threshold.	' mosquito noise remove
	MAIN_Y_V_NM_MAX_THRD[3:0]	3:0	Main window vertical Y max value threshold.	' mosquito noise remove
3Ah	REG102F74	7:0	Default : 0xFF	Access : R/W



SC1 PEAK	(ING Register (Bank = 102F, Sub	-Bank	(= 19)		
Index (Absolute)	Mnemonic	Bit	Description		
	SUB_Y_V_NM_MIN_THRD[3:0]	7:4	Sub window vertical Y mosquito noise remove min value threshold.		
	SUB_Y_V_NM_MAX_THRD[3:0]	3:0	Sub window vertical Y mosquito noise remove max value threshold.		
3Bh	REG102F76	7:0	Default : 0x00 Access : R/W		
(102F76h)	-	7	Reserved.		
	SUB_CR_DELAY_NUM	6	Sub window cr delay number. #0: no delay. #1: delay 1T.		
	-	5	Reserved.		
	MAIN_CR_DELAY_NUM	4	Main window cr delay number.		
			#0: no delay.		
			#1: delay 1T.		
	-	3:2	Reserved.		
	SUB_YC_DELAY_EN	1	Sub window yc delay enable.		
	MAIN_YC_DELAY_EN	0	Main window yc delay enable.		
3Bh	REG102F77	7:0	Default: 0x00 Access: R/W		
(102F77h)		7	Reserved.		
	SUB_CB_DELAY_NUM	6	Sub window cb delay number.		
		10	#0: no delay.		
10.			#1: delay 1T.		
	- 3	5	Reserved.		
S	SUB_Y_DELAY_NUM	4	Sub window y delay number.		
			#0: no delay.		
			#1: delay 1T.		
	MAIN CD DELAY NUM	3	Reserved.		
	MAIN_CB_DELAY_NUM	2	Main window cb delay number. #0: no delay.		
			#1: delay 1T.		
	-	1	Reserved.		
	MAIN_Y_DELAY_NUM	0	Main window y delay number.		
			#0: no delay.		
			#1: delay 1T.		
50h	REG102FA0	7:0	Default : 0x00 Access : R/W		
(102FA0h)	-	7:5	Reserved.		



Index	Mnemonic	Bit	Description	
(Absolute)			·	
	SUB_COLOR_PK_WIN1_EN	4	Sub window color ada	ptive win1 enable.
	-	3:1	Reserved.	
	MAIN_COLOR_PK_WIN1_EN	0	Main window color ada	aptive win1 enable.
50h	REG102FA1	7:0	Default : 0x00	Access : R/W
(102FA1h)	-	7:2	Reserved.	
	COLOR_PK_WIN1_TRANSITION_STEP[1:0]	1:0	Color adaptive win1 tra	ansition step.
51 h	REG102FA2	7:0	Default : 0x00	Access : R/W
(102FA2h)	-	7:4	Reserved.	
	COLOR_PK_WIN1_ENTRY_VALUE[3:0]	3:0	Color adaptive win1 st	rength.
52h	REG102FA4	7:0	Default : 0x00	Access : R/W
(102FA4h)	- 30	7:4	Reserved.	
	COLOR_PK_TEST_EN[3:0]	3:0	Color adaptive test mo	de enable.
58h	REG102FB0	7:0	Default : 0x00	Access : R/W
(102FB0h)	COLOR_PK_WIN1_CB_UP[7:0]	7:0	Color adaptive win1 cb up.	
58h (102FB1h)	REG102FB1	7:0	Default : 0x00	Access : R/W
	COLOR_PK_WIN1_CR_UP[7:0]	7:0	Color adaptive win1 cr	up.
59h	REG102FB2	7:0	Default : 0x00	Access : R/W
(102FB2h)	COLOR_PK_WIN1_CB_DOWN[7:0]	7:0	Color adaptive win1 cb	down.
59h	REG102FB3	7:0	Default : 0x00	Access : R/W
(102FB3h)	COLOR_PK_WIN1_CR_DOWN[7:0]	7:0	Color adaptive win1 cr	down.
60h	REG102FC0	7:0	Default : 0x00	Access : R/W
(102FC0h)		7:6	Reserved.	
	MAIN_GAUSS_LUT_STEP[1:0]	5:4	Main window Gaussiar	SNR LUT step.
	- 111	3:1	Reserved.	
	MAIN_GAUSS_NR_EN	0	Main window Gaussiar	SNR enable.
60h	REG102FC1	7:0	Default : 0x00	Access : R/W
(102FC1h)	-	7:5	Reserved.	
	MAIN_GAUSS_THRD[4:0]	4:0	Main window Gaussiar	SNR threshold.
51h	REG102FC2	7:0	Default : 0x00	Access : R/W
(102FC2h)	-	7:6	Reserved.	
	SUB_GAUSS_LUT_STEP[1:0]	5:4	Sub window Gaussian	SNR LUT step.
	-	3:1	Reserved.	
	SUB_GAUSS_NR_EN	0	Sub window green Gar	ussian SNR bypass



Index (Absolute)	Mnemonic	Bit	Description	
			enable.	
61h	REG102FC3	7:0	Default : 0x00	Access : R/W
(102FC3h)	-	7:5	Reserved.	
	SUB_GAUSS_THRD[4:0]	4:0	Sub window Gaussian	SNR threshold.
64h	REG102FC8	7:0	Default : 0x00	Access : R/W
(102FC8h)	SNR_LUT_0[7:0]	7:0	Gaussian SNR Table 0.	
64h	REG102FC9	7:0	Default : 0x00	Access : R/W
(102FC9h)	SNR_LUT_1[7:0]	7:0	Gaussian SNR Table 1.	
65h	REG102FCA	7:0	Default : 0x00	Access : R/W
(102FCAh)	SNR_LUT_2[7:0]	7:0	Gaussian SNR Table 2.	
65h	REG102FCB	7:0	Default : 0x00	Access : R/W
(102FCBh)	SNR_LUT_3[7:0]	7:0	Gaussian SNR Table 3.	
66h	REG102FCC	7:0	Default : 0x00	Access : R/W
(102FCCh)	SNR_LUT_4[7:0]	7:0	Gaussian SNR Table 4.	
66h	REG102FCD	7:0	Default : 0x00	Access : R/W
(102FCDh)	SNR_LUT_5[7:0]	7:0	Gaussian SNR Table 5.	
67h	REG102FCE	7:0	Default : 0x00	Access : R/W
(102FCEh)	SNR_LUT_6[7:0]	7:0	Gaussian SNR Table 6.	
67h	REG102FCF	7:0	Default : 0x00	Access : R/W
(102FCFh)	SNR_LUT_7[7:0]	7:0	Gaussian SNR Table 7.	



SC1 DLC Register (Bank = 102F, Sub-Bank = 1A)

SC1 DLC R	Register (Bank = 102F, Sub-	Bank	(= 1A)		
Index (Absolute)	Mnemonic	Bit	Description		
01h ~ 01h	-	7:0	Default : -	Access : -	
(102F02h ~ 102F03h)	-	-	Reserved.		
02h	REG102F04	7:0	Default : 0x00	Access : R/W	
(102F04h)	MAIN_PRE_Y_GAIN_LSB[3:0]	7:4	Main window pre Y gain LS Pre_y_gain_new(1.10) = {pre_y_gain,pre_y_gain_ls		
	MAIN_Y_GAIN_LSB[3:0]	3:0	Main window Y gain LSB. Y_gain_new(1.10) = {y_ga	ain,y_gain_lsb}.	
02h	REG102F05	7:0	Default : 0x00	Access : R/W	
(102F05h)	SUB_PRE_Y_GAIN_LSB[3:0]	7:4	Sub window pre Y gain LSB. Pre_y_gain_new(1.10) = {pre_y_gain,pre_y_gain_lsb}.		
	SUB_Y_GAIN_LSB[3:0]	3:0	Sub window Y gain LSB. Y_gain_new(1.10) = {y_gain_new(1.10)}	ain,y_gain_lsb}.	
08h	REG102F11	7:0	Default : 0x00	Access : R/W	
(102F11h)	UVC_DITHER_EN	7	UV compensate dither ena	ble.	
X		6	Reserved.		
Ms	SUB_UVC_LOCATE	5	Sub window UV compensate reference location. //0: after ble/wle. //1: after curve fit.		
	SUB_UVC_EN	4	Sub window UV compensa	te enable.	
X		3:2	Reserved.		
	MAIN_UVC_LOCATE	1	Main window UV compensation //0: after ble/wle. //1: after curve fit0.	ate reference location.	
	MAIN_UVC_EN	0	Main window UV compensa	ate enable.	
0Bh	REG102F16	7:0	Default : 0x00	Access : RO	
(102F16h)	MAIN_MAX_PIXEL[7:0]	7:0	Main window maximum pix	œl.	
0Bh	REG102F17	7:0	Default : 0x00	Access : RO	
(102F17h)	MAIN_MIN_PIXEL[7:0]	7:0	Main window minimum pix	el.	
0Ch	REG102F18	7:0	Default : 0x00	Access : RO	
(102F18h)	SUB_MAX_PIXEL[7:0]	7:0	Sub window maximum pixe	el.	
0Ch	REG102F19	7:0	Default : 0x00	Access : RO	



Index	Mnemonic	Bit	Description	
(Absolute)				
	SUB_MIN_PIXEL[7:0]	7:0	Sub window minimum pixe	el.
0Eh	REG102F1C	7:0	Default : 0x00	Access : R/W
(102F1Ch)	-	7:2	Reserved.	
	MAIN_BRI_ADJUST_LSB[1:0]	1:0	Main window Y adjust low	bit.
0Eh	REG102F1D	7:0	Default : 0x00	Access : R/W
(102F1Dh)	-	7:2	Reserved.	
	SUB_BRI_ADJUST_LSB[1:0]	1:0	Sub window Y adjust low b	oit.
0Fh	REG102F1E	7:0	Default : 0x00	Access : R/W
(102F1Eh)	MAIN_BRI_ADJUST[7:0]	7:0	Main window Y adjust.	
0Fh	REG102F1F	7:0	Default : 0x00	Access : R/W
(102F1Fh)	SUB_BRI_ADJUST[7:0]	7:0	Sub window Y adjust.	
10h	REG102F20	7:0	Default : 0x00	Access : R/W
(102F20h)	-	7	Reserved.	
	MAIN_BLACK_START[6:0]	6:0	Main window black start.	
(4005045)	REG102F21	7:0	Default : 0x80	Access : R/W
	MAIN_BLACK_SLOP[7:0]	7:0	Main window black slope.	
11h	REG102F22	7:0	Default : 0x00	Access : R/W
(102F22h)		7	Reserved.	
	MAIN_WHITE_START[6:0]	6:0	Main window white start.	
11h	REG102F23	7:0	Default : 0x80	Access : R/W
(102F23h)	MAIN_WHITE_SLOP[7:0]	7:0	Main window white slope.	
12h	REG102F24	7:0	Default : 0x00	Access : R/W
(102F24h)	·	7	Reserved.	
	SUB_BLACK_START[6:0]	6:0	Sub window black start.	
12h	REG102F25	7:0	Default : 0x80	Access : R/W
(102F25h)	SUB_BLACK_SLOP[7:0]	7:0	Sub window black slope.	
13h	REG102F26	7:0	Default : 0x00	Access : R/W
(102F26h)	-	7	Reserved.	
	SUB_WHITE_START[6:0]	6:0	Sub window white start.	
13h	REG102F27	7:0	Default : 0x80	Access : R/W
(102F27h)	SUB_WHITE_SLOP[7:0]	7:0	Sub window white slope.	
14h	REG102F28	7:0	Default : 0x40	Access : R/W
(102F28h)	-	7	Reserved.	



Index	Mnemonic	Bit	Description	
(Absolute)	MAIN_Y_GAIN[6:0]	6:0	Main window Y gain (x.xxx	(XXX).
 14h	REG102F29	7:0	Default : 0x40	Access : R/W
(102F29h)	MAIN_C_GAIN[7:0]	7:0	Main window C gain.	7100033 . 117 VV
 15h	REG102F2A	7:0	Default : 0x40	Access : R/W
(102F2Ah)	-	7	Reserved.	
	SUB_Y_GAIN[6:0]	6:0	Sub window Y gain (x.xxx)	(XX).
15h	REG102F2B	7:0	Default : 0x40	Access : R/W
(102F2Bh)	SUB_C_GAIN[7:0]	7:0	Sub window C gain.	
16h	REG102F2C	7:0	Default: 0x40	Access : R/W
(102F2Ch)	. \(\(\) \(\)	7	Reserved.	
	MAIN_PRE_Y_GAIN[6:0]	6:0	Main window pre- Y gain (x.xxxxxx).
16h	REG102F2D	7:0	Default : 0x40	Access : R/W
(102F2Dh)	-	7	Reserved.	
	SUB_PRE_Y_GAIN[6:0]	6:0	Sub window pre- Y gain (x	.xxxxxx).
17h (102F2Eh)	REG102F2E	7:0	Default: 0x00	Access : R/W
	- <	7:2	Reserved.	
	MAIN_POST_BRI_ADJUST_LSB[1:0]	1:0	Main window post Y adjust	t low bit (2's complement
17h	REG102F2F	7:0	Default: 0x00	Access : R/W
(102F2Fh)	- 6	7:2	Reserved.	
19	SUB_POST_BRI_ADJUST_LSB[1:0]	1:0	Sub window post Y adjust	low bit (2's complement)
18h	REG102F30	7:0	Default : 0x00	Access : R/W
(102F30h)	MAIN_POST_BRI_ADJUST[7:0]	7:0	Main window post Y adjust	t.
18h	REG102F31	7:0	Default : 0x00	Access : R/W
(102F31h)	SUB_POST_BRI_ADJUST[7:0]	7:0	Sub window post Y adjust.	
30h	REG102F60	7:0	Default : 0x08	Access : R/W
(102F60h)	MAIN_CURVE_FIT_TABLE_0[7:0]	7:0	Main window curve table 0).
30h	REG102F61	7:0	Default : 0x18	Access : R/W
(102F61h)	MAIN_CURVE_FIT_TABLE_1[7:0]	7:0	Main window curve table 1	
31h	REG102F62	7:0	Default : 0x28	Access : R/W
(102F62h)	MAIN_CURVE_FIT_TABLE_2[7:0]	7:0	Main window curve table 2	2.
31h	REG102F63	7:0	Default : 0x38	Access : R/W
(102F63h)	MAIN_CURVE_FIT_TABLE_3[7:0]	7:0	Main window curve table 3	3.
32h	REG102F64	7:0	Default : 0x48	Access : R/W



SC1 DLC R	Register (Bank = 102F, Sub-	Bank	c = 1A)
Index (Absolute)	Mnemonic	Bit	Description
	MAIN_CURVE_FIT_TABLE_4[7:0]	7:0	Main window curve table 4.
32h	REG102F65	7:0	Default : 0x58 Access : R/W
(102F65h)	MAIN_CURVE_FIT_TABLE_5[7:0]	7:0	Main window curve table 5.
33h	REG102F66	7:0	Default : 0x68 Access : R/W
(102F66h)	MAIN_CURVE_FIT_TABLE_6[7:0]	7:0	Main window curve table 6.
33h	REG102F67	7:0	Default : 0x78 Access : R/W
(102F67h)	MAIN_CURVE_FIT_TABLE_7[7:0]	7:0	Main window curve table 7.
34h	REG102F68	7:0	Default : 0x88 Access : R/W
(102F68h)	MAIN_CURVE_FIT_TABLE_8[7:0]	7:0	Main window curve table 8.
34h	REG102F69	7:0	Default: 0x98 Access: R/W
(102F69h)	MAIN_CURVE_FIT_TABLE_9[7:0]	7:0	Main window curve table 9.
35h	REG102F6A	7:0	Default : 0xA8 Access : R/W
(102F6Ah)	MAIN_CURVE_FIT_TABLE_10[7:0]	7:0	Main window curve table 10.
35h	REG102F6B	7:0	Default : 0x00 Access : R/W
(102F6Bh)	MAIN_CURVE_FIT_TABLE_11[7:0]	7:0	Main window curve table 11.
36h	REG102F6C	7 :0	Default : 0xC8 Access : R/W
(102F6Ch)	MAIN_CURVE_FIT_TABLE_12[7:0]	7:0	Main window curve table 12.
36h	REG102F6D	7:0	Default : 0xD8 Access : R/W
(102F6Dh)	MAIN_CURVE_FIT_TABLE_13[7:0]	7:0	Main window curve table 13.
37h	REG102F6E	7:0	Default : 0xE8 Access : R/W
(102F6Eh)	MAIN_CURVE_FIT_TABLE_14[7:0]	7:0	Main window curve table 14.
37h	REG102F6F	7:0	Default : 0xF8
(102F6Fh)	MAIN_CURVE_FIT_TABLE_15[7:0]	7:0	Main window curve table 15.
40h	REG102F80	7:0	Default : 0x00 Access : RO
(102F80h)	TOTAL_32_0[7:0]	7:0	Histogram report section 32_0.
40h	REG102F81	7:0	Default : 0x00 Access : RO
(102F81h)	TOTAL_32_0[15:8]	7:0	See description of '102F80h'.
41h	REG102F82	7:0	Default : 0x00 Access : RO
(102F82h)	TOTAL_32_1[7:0]	7:0	Histogram report section 32_1.
41h	REG102F83	7:0	Default : 0x00 Access : RO
(102F83h)	TOTAL_32_1[15:8]	7:0	See description of '102F82h'.
42h	REG102F84	7:0	Default : 0x00 Access : RO
(102F84h)	TOTAL_32_2[7:0]	7:0	Histogram report section 32_2.



	egister (Bank = 102F, Sub-			
Index (Absolute)	Mnemonic	Bit	Description	
42h	REG102F85	7:0	Default : 0x00	Access : RO
(102F85h)	TOTAL_32_2[15:8]	7:0	See description of '102F84	n'.
43h	REG102F86	7:0	Default : 0x00	Access : RO
(102F86h)	TOTAL_32_3[7:0]	7:0	Histogram report section 3	2_3.
43h	REG102F87	7:0	Default : 0x00	Access : RO
(102F87h)	TOTAL_32_3[15:8]	7:0	See description of '102F86	n'.
44h	REG102F88	7:0	Default : 0x00	Access : RO
(102F88h)	TOTAL_32_4[7:0]	7:0	Histogram report section 3	2_4.
44h	REG102F89	7:0	Default: 0x00	Access : RO
(102F89h)	TOTAL_32_4[15:8]	7:0	See description of '102F88	h'.
45h	REG102F8A	7:0	Default : 0x00	Access : RO
(102F8Ah)	TOTAL_32_5[7:0]	7:0	Histogram report section 3	2_5.
45h	REG102F8B	7:0	Default : 0x00	Access : RO
(102F8Bh)	TOTAL_32_5[15:8]	7:0	See description of '102F8A	h'.
(100F0Ch)	REG102F8C	7:0	Default : 0x00	Access : RO
	TOTAL_32_6[7:0]	7:0	Histogram report section 3	2_6.
46h	REG102F8D	7:0	Default : 0x00	Access : RO
(102F8Dh)	TOTAL_32_6[15:8]	7:0	See description of '102F8C	h'.
47h	REG102F8E	7:0	Default : 0x00	Access : RO
(102F8Eh)	TOTAL_32_7[7:0]	7:0	Histogram report section 3	2_7.
47h	REG102F8F	7:0	Default : 0x00	Access : RO
(102F8Fh)	TOTAL_32_7[15:8]	7:0	See description of '102F8E	h'.
48h	REG102F90	7:0	Default : 0x00	Access : RO
(102F90h)	TOTAL_32_8[7:0]	7:0	Histogram report section 3	2_8.
48h	REG102F91	7:0	Default : 0x00	Access : RO
(102F91h)	TOTAL_32_8[15:8]	7:0	See description of '102F90l	h'.
49h	REG102F92	7:0	Default : 0x00	Access : RO
(102F92h)	TOTAL_32_9[7:0]	7:0	Histogram report section 3	2_9.
49h	REG102F93	7:0	Default : 0x00	Access : RO
(102F93h)	TOTAL_32_9[15:8]	7:0	See description of '102F92	h'.
4Ah	REG102F94	7:0	Default : 0x00	Access : RO
(102F94h)	TOTAL_32_10[7:0]	7:0	Histogram report section 3	
4Ah	REG102F95	7:0	Default : 0x00	Access : RO



Index	Mnemonic	Bit	Description
(Absolute)	Whetheric		Description
	TOTAL_32_10[15:8]	7:0	See description of '102F94h'.
4Bh	REG102F96	7:0	Default : 0x00 Access : RO
(102F96h)	TOTAL_32_11[7:0]	7:0	Histogram report section 32_11.
4Bh	REG102F97	7:0	Default : 0x00 Access : RO
(102F97h)	TOTAL_32_11[15:8]	7:0	See description of '102F96h'.
4Ch	REG102F98	7:0	Default : 0x00 Access : RO
(102F98h)	TOTAL_32_12[7:0]	7:0	Histogram report section 32_12.
4Ch	REG102F99	7:0	Default : 0x00 Access : RO
(102F99h)	TOTAL_32_12[15:8]	7:0	See description of '102F98h'.
4Dh	REG102F9A	7:0	Default: 0x00 Access: RO
(102F9Ah)	TOTAL_32_13[7:0]	7:0	Histogram report section 32_13.
4Dh	REG102F9B	7:0	Default : 0x00 Access : RO
(102F9Bh)	TOTAL_32_13[15:8]	7:0	See description of '102F9Ah'.
4Eh	REG102F9C	7:0	Default : 0x00 Access : RO
(102F9Ch)	TOTAL_32_14[7:0]	7:0	Histogram report section 32_14.
	REG102F9D	7:0	Default : 0x00 Access : RO
(102F9Dh)	TOTAL_32_14[15:8]	7:0	See description of '102F9Ch'.
4Fh	REG102F9E	7:0	Default : 0x00 Access : RO
(102F9Eh)	TOTAL_32_15[7:0]	7:0	Histogram report section 32_15.
4Fh	REG102F9F	7:0	Default : 0x00 Access : RO
(102F9Fh)	TOTAL_32_15[15:8]	7:0	See description of '102F9Eh'.
50h	REG102FA0	7:0	Default : 0x00 Access : RO
(102FA0h)	TOTAL_32_16[7:0]	7:0	Histogram report section 32_16.
50h	REG102FA1	7:0	Default : 0x00 Access : RO
(102FA1h)	TOTAL_32_16[15:8]	7:0	See description of '102FA0h'.
51h	REG102FA2	7:0	Default : 0x00 Access : RO
(102FA2h)	TOTAL_32_17[7:0]	7:0	Histogram report section 32_17.
51h	REG102FA3	7:0	Default : 0x00 Access : RO
(102FA3h)	TOTAL_32_17[15:8]	7:0	See description of '102FA2h'.
52h	REG102FA4	7:0	Default : 0x00 Access : RO
(102FA4h)	TOTAL_32_18[7:0]	7:0	Histogram report section 32_18.
52h	REG102FA5	7:0	Default : 0x00 Access : RO
(102FA5h)	TOTAL_32_18[15:8]	7:0	See description of '102FA4h'.



SC1 DLC R	egister (Bank = 102F, Sub-	Bank	(= 1A)	
Index (Absolute)	Mnemonic	Bit	Description	
53h	REG102FA6	7:0	Default : 0x00	Access : RO
(102FA6h)	TOTAL_32_19[7:0]	7:0	Histogram report section 3	2_19.
53h	REG102FA7	7:0	Default : 0x00	Access : RO
(102FA7h)	TOTAL_32_19[15:8]	7:0	See description of '102FA6	h'.
54h	REG102FA8	7:0	Default : 0x00	Access : RO
(102FA8h)	TOTAL_32_20[7:0]	7:0	Histogram report section 3	2 _20.
54h	REG102FA9	7:0	Default : 0x00	Access : RO
(102FA9h)	TOTAL_32_20[15:8]	7:0	See description of '102FA8	h'.
55h	REG102FAA	7:0	Default: 0x00	Access : RO
(102FAAh)	TOTAL_32_21[7:0]	7:0	Histogram report section 3	2_21.
55h	REG102FAB	7:0	Default : 0x00	Access : RO
(102FABh)	TOTAL_32_21[15:8]	7:0	See description of '102FAA	h'.
56h	REG102FAC	7:0	Default : 0x00	Access : RO
(102FACh)	TOTAL_32_22[7:0]	7:0	Histogram report section 3	2_22.
(1025456)	REG102FAD	7:0	Default : 0x00	Access : RO
	TOTAL_32_22[15:8]	7:0	See description of '102FAC	h'.
57h	REG102FAE	7:0	Default : 0x00	Access : RO
(102FAEh)	TOTAL_32_23[7:0]	7:0	Histogram report section 3	2_23.
57h	REG102FAF	7:0	Default : 0x00	Access : RO
(102FAFh)	TOTAL_32_23[15:8]	7:0	See description of '102FAE	h'.
58h	REG102FB0	7:0	Default : 0x00	Access : RO
(102FB0h)	TOTAL_32_24[7:0]	7:0	Histogram report section 3	2_24.
58h	REG102FB1	7:0	Default : 0x00	Access : RO
(102FB1h)	TOTAL_32_24[15:8]	7:0	See description of '102FB0	h'.
59h	REG102FB2	7:0	Default : 0x00	Access : RO
(102FB2h)	TOTAL_32_25[7:0]	7:0	Histogram report section 3	2_25.
59h	REG102FB3	7:0	Default : 0x00	Access : RO
(102FB3h)	TOTAL_32_25[15:8]	7:0	See description of '102FB2	h'.
5Ah	REG102FB4	7:0	Default : 0x00	Access : RO
(102FB4h)	TOTAL_32_26[7:0]	7:0	Histogram report section 3	2_26.
5Ah	REG102FB5	7:0	Default : 0x00	Access : RO
(102FB5h)	TOTAL_32_26[15:8]	7:0	See description of '102FB4	h'.
5Bh	REG102FB6	7:0	Default : 0x00	Access : RO



SC1 DLC R	egister (Bank = 102F, Sub-	Bank	(= 1A)	
Index (Absolute)	Mnemonic	Bit	Description	
	TOTAL_32_27[7:0]	7:0	Histogram report section 3	2_27.
5Bh	REG102FB7	7:0	Default : 0x00	Access : RO
(102FB7h)	TOTAL_32_27[15:8]	7:0	See description of '102FB6	h'.
5Ch	REG102FB8	7:0	Default : 0x00	Access : RO
(102FB8h)	TOTAL_32_28[7:0]	7:0	7:0 Histogram report section 32_28.	
5Ch	REG102FB9	7:0	Default : 0x00	Access : RO
(102FB9h)	TOTAL_32_28[15:8]	7:0	See description of '102FB8	h'.
5Dh	REG102FBA	7:0	Default: 0x00	Access : RO
(102FBAh)	TOTAL_32_29[7:0]	7:0	Histogram report section 3	2_29.
5Dh	REG102FBB	7:0	Default : 0x00	Access : RO
(102FBBh)	TOTAL_32_29[15:8]	7:0	See description of '102FBAh'.	
5Eh	REG102FBC	7:0	Default : 0x00	Access : RO
(102FBCh)	TOTAL_32_30[7:0]	7:0	Histogram report section 32_30.	
5Eh	REG102FBD	7:0	Default : 0x00	Access : RO
(102FBDh) TOTAL_32_30[15:8] 7:0 See		See description of '102FBC	h'.	
-	REG102FBE	7 :0	Default : 0x00	Access : RO
(102FBEh)	TOTAL_32_31[7:0]	7:0	Histogram report section 32_31.	
5Fh	REG102FBF	7:0	Default: 0x00	Access : RO
(102FBFh)	TOTAL_32_31[15:8]	7:0	See description of '102FBE	h'.
64h	REG102FC8	7:0	Default : 0x60	Access : R/W
(102FC8h)	MAIN_UVC_GAIN_HIGH_LIMIT[7:0]	7:0	Main window UV compense 4.8).	ate gain up limit (format is
64h	REG102FC9	7:0	Default : 0x01	Access : R/W
(102FC9h)	- 1	7:4	Reserved.	
	MAIN_UVC_GAIN_HIGH_LIMIT[11: 8]	3:0	See description of '102FC8	h'.
65h	REG102FCA	7:0	Default : 0xC0	Access : R/W
(102FCAh)	MAIN_UVC_GAIN_LOW_LIMIT[7:0]	7:0	Main window UV compensatis 4.8).	ate gain down limit (format
65h	REG102FCB	7:0	Default : 0x00	Access : R/W
(102FCBh)	-	7:4	Reserved.	
	MAIN_UVC_GAIN_LOW_LIMIT[11:8	3:0	See description of '102FCA	h'.
76h	REG102FEC	7:0	Default : 0x08	Access : R/W



SC1 DLC R	SC1 DLC Register (Bank = 102F, Sub-Bank = 1A)					
Index (Absolute)	Mnemonic	Bit	Description			
	MAIN_CURVE_FIT_TABLE_N0[7:0]	7:0	Main window curve table left point.			
76h	REG102FED	7:0	Default : 0x01	Access : R/W		
(102FEDh)	-	7:1	Reserved.			
	MAIN_CURVE_FIT_TABLE_N0[8]	0	See description of '102FECh'.			
77h	REG102FEE	7:0	Default : 0x08	Access : R/W		
(102FEEh)	MAIN_CURVE_FIT_TABLE_16[7:0]	7:0	Main window curve table 1	6.		
77h	REG102FEF	7:0	Default : 0x01	Access : R/W		
(102FEFh)	-	7:1	Reserved.			
	MAIN_CURVE_FIT_TABLE_16[8]	0	See description of '102FEE	h'.		



SC1 DLC2 Register (Bank = 102F, Sub-Bank = 1B)

SC1 DLC2	Register (Bank = 102F,	Sub-l	Bank = 1B)		
Index (Absolute)	Mnemonic	Bit	Description		
30h	REG102F60	7:0	Default : 0x00	Access : R/W	
(102F60h)	-	7:2	Reserved.		
	SUB_FCC_FR_EN	1	Sub window FCC region 1 en	able for full range.	
	MAIN_FCC_FR_EN	0	Main window FCC region 1 e	nable for full range.	
31h	REG102F62	7:0	Default : 0x00	Access : R/W	
(102F62h)	FCC_FR_CR_T2_LSB[1:0]	7:6	FCC region 2 cr target for ful Reg_fcc_fr_cb_t1 = {reg_fcc reg_fcc_fr_cb_t1_lsb}.	•	
FCC_FR_CB_T2_LSB[1:0] 5:4		FCC region 2 cb target for fu Reg_fcc_fr_cb_t1 = {reg_fcc reg_fcc_fr_cb_t1_lsb}.	•		
	FCC_FR_CR_T1_LSB[1:0]	3:2	FCC region 1 cr target for full range, LSB. Reg_fcc_fr_cb_t1 = {reg_fcc_cb_t1, reg_fcc_fr_cb_t1_lsb}.		
	FCC_FR_CB_T1_LSB[1:0]	1:0	FCC region 1 cb target for full range, LSB. Reg_fcc_fr_cb_t1 = {reg_fcc_cb_t1, FCC_FR_CB_T1_LSB}.		
31h	REG102F63	7:0	Default : 0x00	Access : R/W	
(102F63h)	FCC_FR_CR_T4_LSB[1:0]	7:6	FCC region 4 cr target for ful Reg_fcc_fr_cb_t1 = {reg_fcc reg_fcc_fr_cb_t1_lsb}.	•	
\$	FCC_FR_CB_T4_LSB[1:0]	5:4	FCC region 4 cb target for full range, LSB. Reg_fcc_fr_cb_t1 = {reg_fcc_cb_t1, reg_fcc_fr_cb_t1_lsb}.		
	FCC_FR_CR_T3_LSB[1:0]	3:2	FCC region 3 cr target for ful Reg_fcc_fr_cb_t1 = {reg_fcc reg_fcc_fr_cb_t1_lsb}.	•	
	FCC_FR_CB_T3_LSB[1:0]	1:0	FCC region 3 cb target for full range, LSB. Reg_fcc_fr_cb_t1 = {reg_fcc_cb_t1, reg_fcc_fr_cb_t1_lsb}.		
32h	REG102F64	7:0	Default : 0x00	Access : R/W	
(102F64h)	FCC_FR_CR_T6_LSB[1:0]	7:6	FCC region 6 cr target for ful Reg_fcc_fr_cb_t1 = {reg_fcc reg_fcc_fr_cb_t1_lsb}.	•	
	FCC_FR_CB_T6_LSB[1:0]	5:4	FCC region 6 cb target for full range, LSB.		



Index (Absolute)	Mnemonic	Bit	Description		
			Reg_fcc_fr_cb_t1 = {reg_fcc reg_fcc_fr_cb_t1_lsb}.	:_cb_t1,	
	FCC_FR_CR_T5_LSB[1:0]	3:2	FCC region 5 cr target for ful Reg_fcc_fr_cb_t1 = {reg_fcc reg_fcc_fr_cb_t1_lsb}.	•	
	FCC_FR_CB_T5_LSB[1:0]	1:0	FCC region 5 cb target for full range, LSB. Reg_fcc_fr_cb_t1 = {reg_fcc_cb_t1, reg_fcc_fr_cb_t1_lsb}.		
32h	REG102F65	7:0	Default : 0x00	Access : R/W	
(102F65h)	FCC_FR_CR_T8_LSB[1:0]	7:6	7:6 FCC region 8 cr target for full range, LSB. Reg_fcc_fr_cb_t1 = {reg_fcc_cb_t1, reg_fcc_fr_cb_t1_lsb}.		
	FCC_FR_CB_T8_LSB[1:0]	5:4	FCC region 8 cb target for full range, LSB. Reg_fcc_fr_cb_t1 = {reg_fcc_cb_t1, reg_fcc_fr_cb_t1_lsb}.		
	FCC_FR_CR_T7_LSB[1:0]	3:2	FCC region 7 cr target for full range, LSB. Reg_fcc_fr_cb_t1 = {reg_fcc_cb_t1, reg_fcc_fr_cb_t1_lsb}.		
, ,	FCC_FR_CB_T7_LSB[1:0]	1:0	FCC region 7 cb target for fu Reg_fcc_fr_cb_t1 = {reg_fcc reg_fcc_fr_cb_t1_lsb}.	•	
33h	REG102F66	7:0	Default : 0x00	Access : R/W	
(102F66h)	FCC_FR_CB_T9[7:0]	7:0	FCC region 9 cb target for fu	II range.	
33h	REG102F67	7:0	Default : 0x00	Access : R/W	
(102F67h)		7:2	Reserved.		
	FCC_FR_CB_T9[9:8]	1:0	See description of '102F66h'.		
34h	REG102F68	7:0	Default : 0x00	Access : R/W	
(102F68h)	FCC_FR_CR_T9[7:0]	7:0	FCC region 9 cr target for ful	l range.	
34h	REG102F69	7:0	Default : 0x00	Access : R/W	
(102F69h)	-	7:2	Reserved.		
	FCC_FR_CR_T9[9:8]	1:0	See description of '102F68h'.		
35h	REG102F6A	7:0	Default : 0x00	Access : R/W	
(102F6Ah)	FCC_FR_WIN1_CR_DOWN[7:0]	7:0	FCC region 1 target cr down	distance for full range,	
35h	REG102F6B	7:0	Default : 0x00	Access : R/W	
(102F6Bh)	_	7:2	Reserved.		



SC1 DLC2	Register (Bank = 102F,	Sub-E	Bank = 1B)		
Index (Absolute)	Mnemonic	Bit	Description		
	FCC_FR_WIN1_CR_DOWN[9:8]	1:0	See description of '102F6Ah'.		
36h	REG102F6C	7:0	Default : 0x00	Access : R/W	
(102F6Ch)	FCC_FR_WIN1_CR_UP[7:0]	7:0	FCC region 1 target cr up dis	tance for full range.	
36h	REG102F6D	7:0	Default : 0x00	Access : R/W	
(102F6Dh)	-	7:2	Reserved.		
	FCC_FR_WIN1_CR_UP[9:8]	1:0	See description of '102F6Ch'.		
37h	REG102F6E	7:0	Default : 0x00	Access : R/W	
(102F6Eh)	FCC_FR_WIN1_CB_DOWN[7:0]	7:0	FCC region 1 target cb down	distance for full range.	
37h	REG102F6F	7:0	Default : 0x00	Access : R/W	
(102F6Fh)	-	7:2	Reserved.		
	FCC_FR_WIN1_CB_DOWN[9:8]	1:0	See description of '102F6Eh'.		
38h	REG102F70	7:0	Default : 0x00	Access : R/W	
(102F70h)	FCC_FR_WIN1_CB_UP[7:0]	7:0	FCC region 1 target cb up distance for full range		
38h	REG102F71	7:0	Default : 0x00	Access : R/W	
(102F71h) [. (7:2	Reserved.		
	FCC_FR_WIN1_CB_UP[9:8]	1:0	See description of '102F70h'.		
39h	REG102F72	7:0	Default : 0x00	Access : R/W	
(102F72h)	FCC_FR_WIN2_CR_DOWN[7:0]	7:0	FCC region 2 target cr down	distance for full range.	
39h	REG102F73	7:0	Default: 0x00	Access : R/W	
(102F73h)	- x / X \	7:2	Reserved.		
	FCC_FR_WIN2_CR_DOWN[9:8]	1:0	See description of '102F72h'.		
3Ah	REG102F74	7:0	Default : 0x00	Access : R/W	
(102F74h)	FCC_FR_WIN2_CR_UP[7:0]	7:0	FCC region 2 target cr up dis	tance for full range.	
3Ah	REG102F75	7:0	Default : 0x00	Access : R/W	
(102F75h)	. X	7:2	Reserved.		
	FCC_FR_WIN2_CR_UP[9:8]	1:0	See description of '102F74h'.		
3Bh	REG102F76	7:0	Default : 0x00	Access : R/W	
(102F76h)	FCC_FR_WIN2_CB_DOWN[7:0]	7:0	FCC region 2 target cb down	distance for full range.	
3Bh	REG102F77	7:0	Default : 0x00	Access : R/W	
(102F77h)	-	7:2	Reserved.	•	
	FCC_FR_WIN2_CB_DOWN[9:8]	1:0	See description of '102F76h'.		
3Ch	REG102F78	7:0	Default : 0x00	Access : R/W	
				ı .	



Index	Mnemonic	Bit	Description	
(Absolute)				
3Ch	REG102F79	7:0	Default : 0x00	Access : R/W
(102F79h)	-	7:2	Reserved.	
	FCC_FR_WIN2_CB_UP[9:8]	1:0	See description of '102F78h'.	
3Dh	REG102F7A	7:0	Default : 0x00	Access : R/W
(102F7Ah)	FCC_FR_WIN3_CR_DOWN[7:0]	7:0	FCC region 3 target cr down	distance for full range.
3Dh	REG102F7B	7:0	Default : 0x00	Access : R/W
(102F7Bh)	-	7:2	Reserved.	
	FCC_FR_WIN3_CR_DOWN[9:8]	1:0	See description of '102F7Ah'	
3Eh	REG102F7C	7:0	Default : 0x00	Access : R/W
(102F7Ch)	FCC_FR_WIN3_CR_UP[7:0]	7:0	FCC region 3 target cr up dis	tance for full range.
3Eh	REG102F7D	7:0	Default : 0x00	Access : R/W
(102F7Dh)		7:2	Reserved.	
	FCC_FR_WIN3_CR_UP[9:8]	1:0	See description of '102F7Ch'	
3Fh	REG102F7E	7:0	Default : 0x00	Access : R/W
	FCC_FR_WIN3_CB_DOWN[7:0]	7:0	FCC region 3 target cb down	distance for full range.
	REG102F7F	7:0	Default : 0x00	Access : R/W
(102F7Fh)		7:2	Reserved.	
	FCC_FR_WIN3_CB_DOWN[9:8]	1:0	See description of '102F7Eh'.	
40h	REG102F80	7:0	Default: 0x00	Access : R/W
(102F80h)	FCC_FR_WIN3_CB_UP[7:0]	7:0	FCC region 3 target cb up dis	stance for full range.
40h	REG102F81	7:0	Default : 0x00	Access : R/W
(102F81h)		7:2	Reserved.	
	FCC_FR_WIN3_CB_UP[9:8]	1:0	See description of '102F80h'.	
41h	REG102F82	7:0	Default : 0x00	Access : R/W
(102F82h)	FCC_FR_WIN4_CR_DOWN[7:0]	7:0	FCC region 4 target cr down	distance for full range.
41h	REG102F83	7:0	Default : 0x00	Access : R/W
(102F83h)	-	7:2	Reserved.	
	FCC_FR_WIN4_CR_DOWN[9:8]	1:0	See description of '102F82h'.	
42h	REG102F84	7:0	Default : 0x00	Access : R/W
(102F84h)	FCC_FR_WIN4_CR_UP[7:0]	7:0	FCC region 4 target cr up dis	tance for full range.
42h	REG102F85	7:0	Default : 0x00	Access : R/W
(102F85h)	_	7:2	Reserved.	
		—		



SC1 DLC2	Register (Bank = 102F,	Sub-E	Bank = 1B)	
Index (Absolute)	Mnemonic	Bit	Description	
43h	REG102F86	7:0	Default : 0x00	Access : R/W
(102F86h)	FCC_FR_WIN4_CB_DOWN[7:0]	7:0	FCC region 4 target cb down	distance for full range.
43h	REG102F87	7:0	Default : 0x00	Access : R/W
(102F87h)	-	7:2	Reserved.	
	FCC_FR_WIN4_CB_DOWN[9:8]	1:0	See description of '102F86h'.	
44h	REG102F88	7:0	Default : 0x00	Access : R/W
(102F88h)	FCC_FR_WIN4_CB_UP[7:0]	7:0	FCC region 4 target cb up dis	stance for full range.
44h	REG102F89	7:0	Default : 0x00	Access : R/W
(102F89h)	-	7:2	Reserved.	
	FCC_FR_WIN4_CB_UP[9:8]	1:0	See description of '102F88h'.	
45h	REG102F8A	7:0	Default : 0x00	Access : R/W
(102F8Ah)	FCC_FR_WIN5_CR_DOWN[7:0]	7:0	FCC region 5 target cr down distance for full range.	
45h	REG102F8B	7:0	Default : 0x00	Access : R/W
(102F8Bh)	- / 0 '	7:2	Reserved.	
	FCC_FR_WIN5_CR_DOWN[9:8]	1:0	See description of '102F8Ah'.	
	REG102F8C	7:0	Default : 0x00	Access : R/W
(102F8Ch)	FCC_FR_WIN5_CR_UP[7:0]	7:0	FCC region 5 target cr up dis	tance for full range.
46h	REG102F8D	7:0	Default : 0x00	Access : R/W
(102F8Dh)		7:2	Reserved.	
19.	FCC_FR_WIN5_CR_UP[9:8]	1:0	See description of '102F8Ch'	
47h	REG102F8E	7:0	Default : 0x00	Access : R/W
(102F8Eh)	FCC_FR_WIN5_CB_DOWN[7:0]	7:0	FCC region 5 target cb down	distance for full range.
47h	REG102F8F	7:0	Default : 0x00	Access : R/W
(102F8Fh)	- 11	7:2	Reserved.	
	FCC_FR_WIN5_CB_DOWN[9:8]	1:0	See description of '102F8Eh'	
48h	REG102F90	7:0	Default : 0x00	Access : R/W
(102F90h)	FCC_FR_WIN5_CB_UP[7:0]	7:0	FCC region 5 target cb up dis	stance for full range.
48h	REG102F91	7:0	Default : 0x00	Access : R/W
(102F91h)	-	7:2	Reserved.	
	FCC_FR_WIN5_CB_UP[9:8]	1:0	See description of '102F90h'.	
49h	REG102F92	7:0	Default : 0x00	Access : R/W
(102F92h)	FCC_FR_WIN6_CR_DOWN[7:0]	7:0	FCC region 6 target cr down	distance for full range.
49h	REG102F93	7:0	Default : 0x00	Access : R/W



Index (Absolute)	Mnemonic	Bit	Description	
(Absolute)	-	7:2	Reserved.	
	FCC_FR_WIN6_CR_DOWN[9:8]	1:0	See description of '102F92h'.	
50h	REG102FA0	7:0	Default : 0x00	Access : R/W
(102FA0h)	FCC_FR_WIN6_CR_UP[7:0]	7:0	FCC region 6 target cr up dis	
50h	REG102FA1	7:0	Default : 0x00	Access : R/W
(102FA1h)	-	7:2	Reserved.	
	FCC_FR_WIN6_CR_UP[9:8]	1:0	See description of '102FA0h'	
51h	REG102FA2	7:0	Default : 0x00	Access : R/W
(102FA2h)	FCC_FR_WIN6_CB_DOWN[7:0]	7:0	FCC region 6 target cb down	distance for full range.
51h	REG102FA3	7:0	Default : 0x00	Access : R/W
(102FA3h)	- ~ 0	7:2	Reserved.	
	FCC_FR_WIN6_CB_DOWN[9:8]	1:0	See description of '102FA2h'	
52h	REG102FA4	7:0	Default : 0x00	Access : R/W
(102FA4h)	FCC_FR_WIN6_CB_UP[7:0]	7:0	FCC region 6target cb up dis	tance for full range.
52h (102FA5h)	REG102FA5	7:0	Default : 0x00	Access : R/W
	- \(\sigma \sqrt{V}\)	7:2	Reserved.	
	FCC_FR_WIN6_CB_UP[9:8]	1:0	See description of '102FA4h'	
53h	REG102FA6	7:0	Default : 0x00	Access : R/W
(102FA6h)	FCC_FR_WIN7_CR_DOWN[7:0]	7:0	FCC region 7 target cr down	distance for full range.
53h	REG102FA7	7:0	Default: 0x00	Access : R/W
(102FA7h)	-01	7:2	Reserved.	
<u> </u>	FCC_FR_WIN7_CR_DOWN[9:8]	1:0	See description of '102FA6h'	·
54h	REG102FA8	7:0	Default : 0x00	Access : R/W
(102FA8h)	FCC_FR_WIN7_CR_UP[7:0]	7:0	FCC region 7 target cr up dis	tance for full range.
54h	REG102FA9	7:0	Default : 0x00	Access : R/W
(102FA9h)	-	7:2	Reserved.	
	FCC_FR_WIN7_CR_UP[9:8]	1:0	See description of '102FA8h'	•
55h	REG102FAA	7:0	Default : 0x00	Access : R/W
(102FAAh)	FCC_FR_WIN7_CB_DOWN[7:0]	7:0	FCC region 7 target cb down	distance for full range.
55h	REG102FAB	7:0	Default : 0x00	Access : R/W
(102FABh)	-	7:2	Reserved.	
	FCC_FR_WIN7_CB_DOWN[9:8]	1:0	See description of '102FAAh'	
56h	REG102FAC	7:0	Default : 0x00	Access : R/W

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SC1 DLC2	Register (Bank = 102F,	Sub-l	3ank = 1B)	
Index (Absolute)	Mnemonic	Bit	Description	
	FCC_FR_WIN7_CB_UP[7:0]	7:0	FCC region 7 target cb up dis	stance for full range.
56h	REG102FAD	7:0	Default : 0x00	Access : R/W
(102FADh)	-	7:2	Reserved.	
	FCC_FR_WIN7_CB_UP[9:8]	1:0	See description of '102FACh'	
57h	REG102FAE	7:0	Default : 0x00	Access : R/W
(102FAEh)	FCC_FR_WIN8_CR_DOWN[7:0]	7:0	FCC region 8 target cr down	distance for full range.
57h	REG102FAF	7:0	Default : 0x00	Access : R/W
(102FAFh)	-	7:2	Reserved.	
	FCC_FR_WIN8_CR_DOWN[9:8]	1:0	See description of '102FAEh'	
58h	REG102FB0	7:0	Default : 0x00	Access : R/W
(102FB0h)	FCC_FR_WIN8_CR_UP[7:0]	7:0	FCC region 8 target cr up dis	tance for full range.
58h	REG102FB1	7:0	Default : 0x00	Access : R/W
(102FB1h)	-	7:2	Reserved.	A
	FCC_FR_WIN8_CR_UP[9:8]	1:0	See description of '102FB0h'	
-	REG102FB2	7:0	Default : 0x00	Access : R/W
(102FB2h)	FCC_FR_WIN8_CB_DOWN[7:0]	7:0	FCC region 8 target cb down	distance for full range.
59h	REG102FB3	7:0	Default : 0x00	Access : R/W
(102FB3h)		7:2	Reserved.	
	FCC_FR_WIN8_CB_DOWN[9:8]	1:0	See description of '102FB2h'.	
5Ah	REG102FB4	7:0	Default : 0x00	Access : R/W
(102FB4h)	FCC_FR_WIN8_CB_UP[7:0]	7:0	FCC region 8 target cb up dis	stance for full range.
5Ah	REG102FB5	7:0	Default : 0x00	Access : R/W
(102FB5h)	. , , , ,	7:2	Reserved.	
	FCC_FR_WIN8_CB_UP[9:8]	1:0	See description of '102FB4h'.	
5Bh	REG102FB6	7:0	Default : 0x00	Access : R/W
(102FB6h)	FCC_FR_WIN9_CR_DOWN[7:0]	7:0	FCC region 9 target cr down	distance for full range.
5Bh	REG102FB7	7:0	Default : 0x00	Access : R/W
(102FB7h)	-	7:2	Reserved.	
	FCC_FR_WIN9_CR_DOWN[9:8]	1:0	See description of '102FB6h'.	
5Ch	REG102FB8	7:0	Default : 0x00	Access : R/W
(102FB8h)	FCC_FR_WIN9_CR_UP[7:0]	7:0	FCC region 9 target cr up dis	tance for full range.
5Ch	REG102FB9	7:0	Default : 0x00	Access : R/W
(102FB9h)	-	7:2	Reserved.	



SC1 DLC2	Register (Bank = 102F,	Sub-l	Bank = 1B)	
Index (Absolute)	Mnemonic	Bit	Description	
	FCC_FR_WIN9_CR_UP[9:8]	1:0	See description of '102FB8h'.	
5Dh	REG102FBA	7:0	Default : 0x00	Access : R/W
(102FBAh)	FCC_FR_WIN9_CB_DOWN[7:0]	7:0	FCC region 9 target cb down distance for full range.	
5Dh (102FBBh)	REG102FBB	7:0	Default : 0x00	Access : R/W
	-	7:2	Reserved.	
	FCC_FR_WIN9_CB_DOWN[9:8]	1:0	See description of '102FBAh'	
5Eh	REG102FBC	7:0	Default : 0x00	Access : R/W
(102FBCh)	FCC_FR_WIN9_CB_UP[7:0]	7:0	FCC region 9 target cb up dis	stance for full range.
5Eh	REG102FBD	7:0	Default: 0x00	Access : R/W
(102FBDh)	-	7:2	Reserved.	
	FCC_FR_WIN9_CB_UP[9:8]	1:0	See description of '102FBCh'	



SC1 ACE3 Register (Bank = 102F, Sub-Bank = 1C)

SC1 ACE3	Register (Bank = 102F, Suk	-Bar	nk = 1C)	
Index (Absolute)	Mnemonic	Bit	Description	
10h	REG102F20	7:0	Default : 0x00	Access : R/W
(102F20h)	MAIN_IBC_EN	7	Main window IBC enable.	
	SUB_IBC_EN	6	Sub window IBC enable.	
	-	5:0	Reserved.	
11h	REG102F22	7:0	Default : 0x20	Access : R/W
(102F22h)	-	7:6	Reserved.	
	MAIN_YCOLOR0_ADJ[5:0]	5:0	Main window IBC Y adjustr	ment of color0.
11h	REG102F23	7:0	Default : 0x20	Access : R/W
(102F23h)	- \	7:6	Reserved.	
	MAIN_YCOLOR1_ADJ[5:0]	5:0	Main window IBC Y adjustment of color1.	
12h	REG102F24	7:0	Default : 0x20	Access : R/W
(102F24h)		7:6	Reserved.	
	MAIN_YCOLOR2_ADJ[5:0]	5:0	Main window IBC Y adjustment of color2.	
(102F25h)	REG102F25	7:0	Default : 0x20	Access : R/W
		7:6	Reserved.	
	MAIN_YCOLOR3_ADJ[5:0]	5:0	Main window IBC Y adjustment of color3.	
13h	REG102F26	7:0	Default : 0x20	Access : R/W
(102F26h)		7:6	Reserved.	
	MAIN_YCOLOR4_ADJ[5:0]	5:0	Main window IBC Y adjustr	ment of color4.
13h	REG102F27	7:0	Default : 0x20	Access : R/W
(102F27h)		7:6	Reserved.	
	MAIN_YCOLOR5_ADJ[5:0]	5:0	Main window IBC Y adjustr	ment of color5.
14h	REG102F28	7:0	Default : 0x20	Access : R/W
(102F28h)		7:6	Reserved.	
	MAIN_YCOLOR6_ADJ[5:0]	5:0	Main window IBC Y adjustr	ment of color6.
14h	REG102F29	7:0	Default : 0x20	Access : R/W
(102F29h)	-	7:6	Reserved.	
	MAIN_YCOLOR7_ADJ[5:0]	5:0	Main window IBC Y adjustr	ment of color7.
15h	REG102F2A	7:0	Default : 0x20	Access : R/W
(102F2Ah)	-	7:6	Reserved.	
	MAIN_YCOLOR8_ADJ[5:0]	5:0	Main window IBC Y adjustr	ment of color8.
15h	REG102F2B	7:0	Default : 0x20	Access : R/W



Index (Absolute)	Mnemonic	Bit	Description	
(Albaolato)	-	7:6	Reserved.	
	MAIN_YCOLOR9_ADJ[5:0]	5:0	Main window IBC Y adjustment of color9.	
16h	REG102F2C	7:0	Default : 0x20 Access : R/W	
(102F2Ch)	-	7:6	Reserved.	
	MAIN_YCOLOR10_ADJ[5:0]	5:0	Main window IBC Y adjustment of color10.	
16h	REG102F2D	7:0	Default : 0x20 Access : R/W	
(102F2Dh)	-	7:6	Reserved.	
	MAIN_YCOLOR11_ADJ[5:0]	5:0	Main window IBC Y adjustment of color11.	
17h	REG102F2E	7:0	Default : 0x20 Access : R/W	
(102F2Eh)	- \(\(\sum_{\color} \)	7:6	Reserved.	
	MAIN_YCOLOR12_ADJ[5:0]	5:0	Main window IBC Y adjustment of color12.	
17h	REG102F2F	7:0	Default : 0x20 Access : R/W	
(102F2Fh)	-	7:6	Reserved.	
	MAIN_YCOLOR13_ADJ[5:0]	5:0	Main window IBC Y adjustment of color13.	
18h [(102F30h) _	REG102F30	7:0	Default : 0x20 Access : R/W	
	- \(\sigma\)	7:6	Reserved.	
	MAIN_YCOLOR14_ADJ[5:0]	5:0	Main window IBC Y adjustment of color14.	
18h	REG102F31	7:0	Default : 0x20 Access : R/W	
(102F31h)		7:6	Reserved.	
	MAIN_YCOLOR15_ADJ[5:0]	5:0	Main window IBC Y adjustment of color15.	
24h	REG102F48	7:0	Default : 0x00 Access : R/W	
(102F48h)	MAIN_IHC_EN	7	Main window IHC enable.	
	SUB_IHC_EN	6	Sub window IHC enable.	
	- 111	5:0	Reserved.	
25h	REG102F4A	7:0	Default : 0x00 Access : R/W	
(102F4Ah)	-	7	Reserved.	
	MAIN_HUE_USER_COLOR0[6:0]	6:0	Main window IHC hue adjustment of color0.	
25h	REG102F4B	7:0	Default : 0x00 Access : R/W	
(102F4Bh)	-	7	Reserved.	
	MAIN_HUE_USER_COLOR1[6:0]	6:0	Main window IHC hue adjustment of color1.	
26h	REG102F4C	7:0	Default : 0x00 Access : R/W	
(102F4Ch)	-	7	Reserved.	
	MAIN_HUE_USER_COLOR2[6:0]	6:0	Main window IHC hue adjustment of color2.	



Index	Mnemonic	Bit	Description	
(Absolute)				
26h	REG102F4D	7:0	Default : 0x00	Access : R/W
(102F4Dh)	-	7	Reserved.	
	MAIN_HUE_USER_COLOR3[6:0]	6:0	Main window IHC hue adju	stment of color3.
27h	REG102F4E	7:0	Default : 0x00	Access : R/W
(102F4Eh)	-	7	Reserved.	
	MAIN_HUE_USER_COLOR4[6:0]	6:0	Main window IHC hue adju	stment of color4.
27h	REG102F4F	7:0	Default : 0x00	Access : R/W
(102F4Fh)	-	7	Reserved.	
	MAIN_HUE_USER_COLOR5[6:0]	6:0	Main window IHC hue adju	stment of color5.
28h	REG102F50	7:0	Default: 0x00	Access : R/W
(102F50h)	- (30)	7	Reserved.	
	MAIN_HUE_USER_COLOR6[6:0]	6:0	Main window IHC hue adju	stment of color6.
28h	REG102F51	7:0	Default : 0x00	Access : R/W
(102F51h)	- / 0	7	Reserved.	
	MAIN_HUE_USER_COLOR7[6:0]	6:0	Main window IHC hue adju	stment of color7.
	REG102F52	7:0	Default : 0x00	Access : R/W
(102F52h)		7	Reserved.	
	MAIN_HUE_USER_COLOR8[6:0]	6:0	Main window IHC hue adjustment of color8.	
29h	REG102F53	7:0	Default: 0x00	Access : R/W
(102F53h)	- x / X >	7	Reserved.	
	MAIN_HUE_USER_COLOR9[6:0]	6:0	Main window IHC hue adju	stment of color9.
2Ah	REG102F54	7:0	Default : 0x00	Access : R/W
(102F54h)	. , , , , , , , ,	7	Reserved.	
	MAIN_HUE_USER_COLOR10[6:0]	6:0	Main window IHC hue adju	stment of color10.
2Ah	REG102F55	7:0	Default : 0x00	Access : R/W
(102F55h)	-	7	Reserved.	
	MAIN_HUE_USER_COLOR11[6:0]	6:0	Main window IHC hue adju	stment of color11.
2Bh	REG102F56	7:0	Default : 0x00	Access : R/W
(102F56h)	-	7	Reserved.	
	MAIN_HUE_USER_COLOR12[6:0]	6:0	Main window IHC hue adju	stment of color12.
2Bh	REG102F57	7:0	Default : 0x00	Access : R/W
(102F57h)	-	7	Reserved.	
	MAIN_HUE_USER_COLOR13[6:0]	6:0	Main window IHC hue adju	stment of color13.



Index	Managaria	Dit	Decementian	
Index (Absolute)	Mnemonic	Bit	Description	
2Ch	REG102F58	7:0	Default : 0x00	Access : R/W
(102F58h)	-	7	Reserved.	
	MAIN_HUE_USER_COLOR14[6:0]	6:0	Main window IHC hue adju	stment of color14.
2Ch	REG102F59	7:0	Default : 0x00	Access : R/W
(102F59h)	-	7	Reserved.	
	MAIN_HUE_USER_COLOR15[6:0]	6:0	Main window IHC hue adju	stment of color15.
36h	REG102F6C	7:0	Default : 0x00	Access : R/W
(102F6Ch)	MAIN_IHC_ICC_Y_0[7:0]	7:0	Main window IHC, ICC ada	ptive Y in section 0.
36h	REG102F6D	7:0	Default : 0x00	Access : R/W
(102F6Dh)	MAIN_IHC_ICC_Y_1[7:0]	7:0	Main window IHC, ICC ada	ptive Y in section 1.
37h	REG102F6E	7:0	Default : 0x00	Access : R/W
(102F6Eh)	MAIN_IHC_ICC_Y_2[7:0]	7:0	Main window IHC, ICC adaptive Y in section 2.	
37h	REG102F6F	7:0	Default : 0x00	Access : R/W
(102F6Fh)	MAIN_IHC_ICC_Y_3[7:0]	7:0	Main window IHC, ICC ada	ptive Y in section 3.
38h [1 (102F70h) _	REG102F70	7:0	Default : 0x00	Access : R/W
	- <	7	Reserved.	
	MAIN_HUE_USER_COLOR0_0[6:0]	6:0	Main window IHC hue adjustment of color0 in section	
38h	REG102F71	7:0	Default : 0x00	Access : R/W
(102F71h)		7.0	Reserved.	ACCC33 . 107 W
	MAIN_HUE_USER_COLOR1_0[6:0]		Main window IHC hue adju	stment of color1 in section
(INAM_NOL_USEK_COLOK1_U[0.0]	0.0	0.	Strictle of color i in section
39h	REG102F72	7:0	Default : 0x00	Access : R/W
(102F72h)	- 10	7	Reserved.	
	MAIN_HUE_USER_COLOR2_0[6:0]	6:0	Main window IHC hue adju	stment of color2 in section
39h	REG102F73	7:0	Default : 0x00	Access : R/W
(102F73h)	-	7	Reserved.	
	MAIN_HUE_USER_COLOR3_0[6:0]	6:0	Main window IHC hue adju	stment of color3 in section
3Ah	REG102F74	7:0	Default : 0x00	Access : R/W
(102F74h)	-	7	Reserved.	ı
	MAIN_HUE_USER_COLOR4_0[6:0]	6:0	Main window IHC hue adju	stment of color4 in section



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Index (Absolute)	Mnemonic	Bit	Description	
3Ah	REG102F75	7:0	Default : 0x00	Access : R/W
(102F75h)	-	7	Reserved.	
	MAIN_HUE_USER_COLOR5_0[6:0]	6:0	Main window IHC hue adju 0.	ustment of color5 in section
3Bh	REG102F76	7:0	Default : 0x00	Access : R/W
(102F76h)	-	7	Reserved.	
	MAIN_HUE_USER_COLOR6_0[6:0]	6:0	Main window IHC hue adju 0.	ustment of color6 in section
3Bh	REG102F77	7:0	Default : 0x00	Access : R/W
(102F77h)	-	7	Reserved.	
	MAIN_HUE_USER_COLOR7_0[6:0]	6:0	Main window IHC hue adjustment of color7 in sect	
3Ch	REG102F78	7:0	Default : 0x00	Access : R/W
(102F78h)	-	7	Reserved.	
	MAIN_HUE_USER_COLOR8_0[6:0]	6:0	Main window IHC hue adjustment of color8 in section.	
3Ch	REG102F79	7:0	Default : 0x00	Access : R/W
(102F79h)		7	Reserved.	
1	MAIN_HUE_USER_COLOR9_0[6:0]	6:0	Main window IHC hue adjustment of color9 in section.	
3Dh	REG102F7A	7:0	Default : 0x00	Access : R/W
(102F7Ah)	0	7	Reserved.	
>	MAIN_HUE_USER_COLOR10_0[6:0]	6:0	Main window IHC hue adju 0.	stment of color10 in section
3Dh	REG102F7B	7:0	Default : 0x00	Access : R/W
(102F7Bh)	. X	7	Reserved.	
	MAIN_HUE_USER_COLOR11_0[6:0]	6:0	Main window IHC hue adju 0.	stment of color11 in section
3Eh	REG102F7C	7:0	Default : 0x00	Access : R/W
(102F7Ch)	-	7	Reserved.	
	MAIN_HUE_USER_COLOR12_0[6:0]	6:0	Main window IHC hue adju 0.	stment of color12 in section
3Eh	REG102F7D	7:0	Default : 0x00	Access : R/W
(102F7Dh)		7	Reserved.	-



SC1 ACE3	Register (Bank = 102F, Sub	o-Bar	nk = 1C)	
Index (Absolute)	Mnemonic	Bit	Description	
	MAIN_HUE_USER_COLOR13_0[6:0]	6:0	Main window IHC hue adjust 0.	stment of color13 in section
3Fh	REG102F7E	7:0	Default : 0x00	Access : R/W
(102F7Eh)	-	7	Reserved.	
	MAIN_HUE_USER_COLOR14_0[6:0]	6:0	Main window IHC hue adjust 0.	stment of color14 in section
3Fh	REG102F7F	7:0	Default : 0x00	Access : R/W
(102F7Fh)	-	7	Reserved.	
	MAIN_HUE_USER_COLOR15_0[6:0]	6:0	Main window IHC hue adjustment of color15 in sect 0.	
40h	REG102F80	7:0	Default: 0x00	Access : R/W
(102F80h)		7	Reserved.	
	MAIN_HUE_USER_COLOR0_1[6:0]	6:0	Main window IHC hue adju	stment of color0 in section
40h	REG102F81	7:0	Default: 0x00	Access : R/W
(102F81h) ₋	- 10 11	7	Reserved.	
	MAIN_HUE_USER_COLOR1_1[6:0]	6:0	Main window IHC hue adjustment of color1 in sectio 1.	
41h	REG102F82	7:0	Default: 0x00	Access : R/W
(102F82h)		7	Reserved.	
H	MAIN_HUE_USER_COLOR2_1[6:0]	6:0	Main window IHC hue adju 1.	stment of color2 in section
41h	REG102F83	7:0	Default : 0x00	Access : R/W
(102F83h)		7	Reserved.	
	MAIN_HUE_USER_COLOR3_1[6:0]	6:0	Main window IHC hue adju	stment of color3 in section
42h	REG102F84	7:0	Default : 0x00	Access : R/W
(102F84h)	-	7	Reserved.	
	MAIN_HUE_USER_COLOR4_1[6:0]	6:0	Main window IHC hue adju	stment of color4 in section
42h	REG102F85	7:0	Default : 0x00	Access : R/W
(102F85h)	-	7	Reserved.	
	MAIN_HUE_USER_COLOR5_1[6:0]	6:0	Main window IHC hue adju	stment of color5 in section
			I	



Index (Absolute)	Mnemonic	Bit	Description	
43h	REG102F86	7:0	Default : 0x00	Access : R/W
(102F86h)	-	7	Reserved.	
	MAIN_HUE_USER_COLOR6_1[6:0]	6:0	Main window IHC hue adju 1.	istment of color6 in section
43h	REG102F87	7:0	Default : 0x00	Access : R/W
(102F87h)	-	7	Reserved.	
	MAIN_HUE_USER_COLOR7_1[6:0]	6:0	Main window IHC hue adju 1.	stment of color7 in section
44h	REG102F88	7:0	Default: 0x00	Access : R/W
(102F88h)		7	Reserved.	
	MAIN_HUE_USER_COLOR8_1[6:0]	6:0	Main window IHC hue adjustment of color8 in secti 1.	
44h	REG102F89	7:0	Default : 0x00	Access : R/W
(102F89h)	- 0	7	Reserved.	
	MAIN_HUE_USER_COLOR9_1[6:0]	6:0	Main window IHC hue adjustment of color9 in sect 1.	
45h	REG102F8A	7:0	Default : 0x00	Access : R/W
(102F8Ah)		7	Reserved.	
1	MAIN_HUE_USER_COLOR10_1[6:0]	6:0	Main window IHC hue adju	stment of color10 in section
45h	REG102F8B	7:0	Default : 0x00	Access : R/W
(102F8Bh)	-01	7	Reserved.	
>	MAIN_HUE_USER_COLOR11_1[6:0]	6:0	Main window IHC hue adju 1.	stment of color11 in section
46h	REG102F8C	7:0	Default : 0x00	Access : R/W
(102F8Ch)	. \ \ \ \ \ \	7	Reserved.	
	MAIN_HUE_USER_COLOR12_1[6:0]	6:0	Main window IHC hue adju 1.	stment of color12 in section
46h	REG102F8D	7:0	Default : 0x00	Access : R/W
(102F8Dh)	-	7	Reserved.	
	MAIN_HUE_USER_COLOR13_1[6:0]	6:0	Main window IHC hue adju 1.	stment of color13 in section
47h	REG102F8E	7:0	Default : 0x00	Access : R/W
(102F8Eh)			Reserved.	



Index	Mnemonic	Bit	Description	
(Absolute)			2 3301 \$11011	
	MAIN_HUE_USER_COLOR14_1[6:0]	6:0	Main window IHC hue adjus	stment of color14 in section
			1.	
47h	REG102F8F	7:0	Default : 0x00	Access : R/W
(102F8Fh)	-	7	Reserved.	
	MAIN_HUE_USER_COLOR15_1[6:0]	6:0	Main window IHC hue adjust 1.	stment of color15 in section
48h	REG102F90	7:0	Default : 0x00	Access : R/W
(102F90h)	-	7	Reserved.	
	MAIN_HUE_USER_COLOR0_2[6:0]	6:0	Main window IHC hue adjustment of color0 in sect 2.	
48h	REG102F91	7:0	Default : 0x00	Access : R/W
(102F91h)		7	Reserved.	
	MAIN_HUE_USER_COLOR1_2[6:0]	6:0	Main window IHC hue adjustment of color1 in 2.	
49h (102F92h)	REG102F92	7:0	Default: 0x00	Access : R/W
		7	Reserved.	
	MAIN_HUE_USER_COLOR2_2[6:0]	6:0	Main window IHC hue adjustment of color2 in section 2.	
49h	REG102F93	7:0	Default: 0x00	Access : R/W
(102F93h)	- 6	7	Reserved.	
	MAIN_HUE_USER_COLOR3_2[6:0]	6:0	Main window IHC hue adju 2.	stment of color3 in section
4Ah	REG102F94	7:0	Default : 0x00	Access : R/W
(102F94h)		7	Reserved.	
	MAIN_HUE_USER_COLOR4_2[6:0]	6:0	Main window IHC hue adju 2.	stment of color4 in section
4Ah	REG102F95	7:0	Default : 0x00	Access : R/W
(102F95h)	-	7	Reserved.	
	MAIN_HUE_USER_COLOR5_2[6:0]	6:0	Main window IHC hue adju 2.	stment of color5 in section
4Bh	REG102F96	7:0	Default : 0x00	Access : R/W
(102F96h)	-	7	Reserved.	
(102F9611)		1		stment of color6 in section



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Index (Absolute)	Mnemonic	Bit	Description	
4Bh	REG102F97	7:0	Default : 0x00	Access : R/W
(102F97h)	-	7	Reserved.	
	MAIN_HUE_USER_COLOR7_2[6:0]	6:0	Main window IHC hue adju 2.	ustment of color7 in section
4Ch	REG102F98	7:0	Default : 0x00	Access : R/W
(102F98h)	-	7	Reserved.	
	MAIN_HUE_USER_COLOR8_2[6:0]	6:0	Main window IHC hue adju 2.	ustment of color8 in section
4Ch	REG102F99	7:0	Default: 0x00	Access : R/W
(102F99h)	-	7	Reserved.	
	MAIN_HUE_USER_COLOR9_2[6:0]	6:0	Main window IHC hue adjustment of color9 in section 2.	
4Dh	REG102F9A	7:0	Default : 0x00	Access : R/W
(102F9Ah)	- 0	7	Reserved.	
	MAIN_HUE_USER_COLOR10_2[6:0]	6:0	Main window IHC hue adjustment of color10 in sect 2.	
4Dh	REG102F9B	7:0	Default : 0x00	Access : R/W
(102F9Bh)	$\epsilon'O$	7	Reserved.	
110	MAIN_HUE_USER_COLOR11_2[6:0]	6:0	Main window IHC hue adjustment of color11 in secti	
4Eh	REG102F9C	7:0	Default : 0x00	Access : R/W
(102F9Ch)	-01	7	Reserved.	
	MAIN_HUE_USER_COLOR12_2[6:0]	6:0	Main window IHC hue adju 2.	stment of color12 in section
4Eh	REG102F9D	7:0	Default : 0x00	Access : R/W
(102F9Dh)		7	Reserved.	
	MAIN_HUE_USER_COLOR13_2[6:0]	6:0	Main window IHC hue adjustment of color13 in secti 2.	
4Fh	REG102F9E	7:0	Default : 0x00	Access : R/W
(102F9Eh)	-	7	Reserved.	
	MAIN_HUE_USER_COLOR14_2[6:0]	6:0	Main window IHC hue adju 2.	stment of color14 in section
4Fh	REG102F9F	7:0	Default : 0x00	Access : R/W
(102F9Fh)		7	Reserved.	



SC1 ACE3	Register (Bank = 102F, Sub	o-Bar	nk = 1C)	
Index (Absolute)	Mnemonic	Bit	Description	
	MAIN_HUE_USER_COLOR15_2[6:0]	6:0	Main window IHC hue adjustment of color15 in sect 2.	ion
68h	REG102FD0	7:0	Default : 0x00 Access : R/W	
(102FD0h)	MAIN_IHC_Y_MODE_EN	7	Main window IHC adaptive Y mode enable.	
	SUB_IHC_Y_MODE_EN	6	Sub window IHC adaptive Y mode enable.	
	-	5:2	Reserved.	
	MAIN_IHC_Y_MODE_DIFF_COLOR_ EN	1	Main window IHC adaptive Y mode in different colo enable.	or
	SUB_IHC_Y_MODE_DIFF_COLOR_E N	0	Sub window IHC adaptive Y mode in different cold enable.	
78h	REG102FF0	7:0	Default: 0x00 Access: R/W	
(102FF0h)		7:1	Reserved.	
	ICC_SRAM_IO_EN	0	ICC SRAM IO enable.	
79h	REG102FF2	7:0	Default : 0x00 Access : R/W	
(102FF2h)	ICC_IOADDR[7:0]	7:0	ICC io address.	
79h	REG102FF3	7:0	Default: 0x00 Access: R/W, WO	
(102FF3h)	ICC_IORE	7	ICC io read enable.	
		6:2	Reserved.	
10	ICC_IOADDR[9:8]	1:0	See description of '102FF2h'.	
7Ah	REG102FF4	7:0	Default : 0x00 Access : R/W	
(102FF4h)	ICC_IOWDATA[7:0]	7:0	ICC io write data.	
7Ah	REG102FF5	7:0	Default : 0x00 Access : R/W	
(102FF5h)	ICC_IOWE	7	ICC io write enable.	
	-	6:1	Reserved.	
	ICC_IOWDATA[8]	0	See description of '102FF4h'.	
7Bh	REG102FF6	7:0	Default : 0x00 Access : RO	
(102FF6h)	ICC_IORDATA[7:0]	7:0	ICC io read data.	
7Bh	REG102FF7	7:0	Default : 0x00 Access : RO	
(102FF7h)	-	7:1	Reserved.	
	ICC_IORDATA[8]	0	See description of '102FF6h'.	
7Ch	REG102FF8	7:0	Default : 0x00 Access : R/W	
(102FF8h)	-	7:3	Reserved.	
	IHC_SRAM_IO_SELECT[1:0]	2:1	IHC SRAM IO select.	



SC1 ACE3	Register (Bank = 102F, Sul	o-Bar	nk = 1C)	
Index (Absolute)	Mnemonic	Bit	Description	
	IHC_SRAM_IO_EN	0	IHC SRAM IO enable.	
7Dh	REG102FFA	7:0	Default : 0x00	Access : R/W
(102FFAh)	IHC_IOADDR[7:0]	7:0	IHC io address.	
7Dh	REG102FFB	7:0	Default : 0x00	Access : R/W, WO
(102FFBh)	IHC_IORE	7	IHC io read enable.	
	-	6:1	Reserved.	
	IHC_IOADDR[8]	0	See description of '102FFA	h'.
7Eh	REG102FFC	7:0	Default: 0x00	Access : R/W
(102FFCh)	IHC_IOWDATA[7:0]	7:0	IHC io write data.	
7Eh	REG102FFD	7:0	Default : 0x00	Access : R/W
(102FFDh)	IHC_IOWE	7	IHC io write enable.	
	-	6:2	Reserved.	
	IHC_IOWDATA[9:8]	1:0	See description of '102FFC	h'.
7Fh	REG102FFE	7:0	Default : 0x00	Access : RO
(102FFEh)	IHC_IORDATA[7:0]	7:0	IHC io read data.)
7Fh	REG102FFF	7:0	Default : 0x00	Access : RO
(102FFFh)		7:2	Reserved.	
	IHC_IORDATA[9:8]	1:0	See description of '102FFEI	n'.



SC1 DYN_SCL Register (Bank = 102F, Sub-Bank = 1F)

SC1 DYN_SCL Register (Bank = 102F, Sub-Bank = 1F)				
Index (Absolute)	Mnemonic	Bit	Description	
01h	REG102F02	7:0	Default : 0x00 Access : R/W	
(102F02h)	MLOAD_IDX_DEPTH[7:0]	7:0	The number of menuload data (0: disable menuload).	
01h	REG102F03	7:0	Default : 0x00 Access : R/W	
(102F03h)	MLOAD_IDX_DEPTH[15:8]	7:0	See description of '102F02h'.	
02h	REG102F04	7:0	Default : 0x00 Access : R/W	
(102F04h)	MLOAD_REQ_LEN[7:0]	7:0	Length of menuload DMA's request (0: disable menuload).	
02h	REG102F05	7:0	Default : 0x00 Access : R/W	
(102F05h)	MLOAD_EN	7	Menuload enable.	
	-	6:3	Reserved.	
	MLOAD_REQ_LEN[10:8]	2:0	See description of '102F04h'.	
03h	REG102F06	7:0	Default : 0x00 Access : R/W	
(102F06h)	MLOAD_BASE_ADR[7:0]	7:0	Base address of allocated memory for menuload.	
03h	REG102F07	7:0	Default : 0x00 Access : R/W	
(102F07h)	MLOAD_BASE_ADR[15:8]	7:0	See description of '102F06h'.	
04h	REG102F08	7:0	Default : 0x00 Access : R/W	
(102F08h)	MLOAD_BASE_ADR[23:16]	7:0	See description of '102F06h'.	
04h	REG102F09	7:0	Default : 0x00 Access : R/W	
(102F09h)	. 6	7:1	Reserved.	
	MLOAD_BASE_ADR[24]	0	See description of '102F06h'.	
0Ch	REG102F18	7:0	Default : 0x01 Access : R/W	
(102F18h)	MLOAD_TRIG_DLY[7:0]	7:0	Generate MLAOD_TRIG_P from delayed line of Vsync.	
0Ch	REG102F19	7:0	Default : 0xC0 Access : R/W	
(102F19h)	SEL_MLOAD[1:0]	7:6	Select the source to trigger menuload. 0: Falling edge of VFDE. 1: Rising edge of VSync. 2: Falling edge of Vsync. 3: Delay line set by REG_MLOAD_TRIG_DLY.	
	-	5:4	Reserved.	
	MLOAD_TRIG_DLY[11:8]	3:0	See description of '102F18h'.	
10h	REG102F21	7:0	Default : 0x00 Access : R/W	
(102F21h)	-	7:5	Reserved.	
	DS_RIU_WE	4	Enable write register through RIU.	



SC1 DYN	_SCL Register (Bank =	102F,	Sub-Bank = 1F)	
Index (Absolute)	Mnemonic	Bit	Description	
	-	3:0	Reserved.	
17h	REG102F2E	7:0	Default : 0x03	Access : R/W, WO
(102F2Eh)	-	7	Reserved.	
	DS_ACTIVE_CNT_CLR	6	Ds_activating xarb cnt clear pulse. Ds_activating_ips clear pulse.	
	DS_IPS_ACTIVE_CLR	5		
	DS_IPM_ACTIVE_CLR	4	Ds_activating_ipm clear pulse	2.
	DS_ACTIVE_SW_CLR_EN	3	Set ds_activating cleared by S	SW.
	-	2	Reserved.	
	DS_RIU_BE[1:0]	1:0	Byte enable for DS RIU interf	ace.
1Dh	REG102F3A	7:0	Default : 0x00	Access : R/W
(102F3Ah)	-	7:2	Reserved.	
	SEL_OPM_LOCK[1:0]	1:0	Select init reference signal to	lock the memory read bank.
			O: From initial state machine. 1: Falling edge of Vsync.	
	/ O` .	L		
			2: From TRAIN_TRIG_P. 3: From DS_LOAD_P (for dyn	amic scaling enabled).



SC1 OP1_TOP Register (Bank = 102F, Sub-Bank = 20)

SC1 OP1_	TOP Register (Bank =	102F,	Sub-Bank = 20)	
Index (Absolute)	Mnemonic	Bit	Description	
10h	REG102F20	7:0	Default : 0x01	Access : R/W
(102F20h)	PIP_DISABLE	7	Disable PIP Function.	
	-	6	Reserved.	
	SC2LB_EN	5	Enable HD side by side line buffer mode.	
	-	4:3	Reserved.	
	MWE_EN	2	Enable MWE function.	•
	SW_SUB_EN	1	Enable sub window shown or	n the screen.
	MAIN_EN	0	Enable main window shown of	on the screen.
10h	REG102F21	7:0	Default: 0x20	Access : R/W
(102F21h)	-	7	Reserved.	
	FBL_HANDSHAKE_EN	6	Enable the handshake with DNR in FBL mode.	
	FBL_MASK_OVERLAP	5	Do not write overlapped portion of FBL channel to line buffer.	
	FBL_SEL	4	Select FBL source. #b0: Source F2 is FBL. #b1: Source F1 is FBL.	
	VBLANK_SUB	3	Fill the sub windows line buffer in vertical blanking.	
16	VBLANK_MAIN	2	Fill the main window's line buffer in vertical blanking.	
MI.	F2_IS_SUB	1	Set main window display on t	the foreground.
	MAIN_IS_TOP	0	Set second channel display in	n sub-window.
11h	REG102F22	7:0	Default : 0x70	Access : R/W
(102F22h)		7	Reserved.	
	EXTRA_POS[2:0]	6:4	Enable extra request at speci [0] Enable at bottom B sessio [1] Enable at bottom A sessio [2] Enable at top session.	on.
	EXTRA_TH_LN[3:0]	3:0	Enable extra request for over less than this threshold.	lapping when the jumping line
11h	REG102F23	7:0	Default : 0x07	Access : R/W
(102F23h)	EXTRA_EN	7	Enable extra request engine.	
	VBLANK_OVL	6	Doing the extra request in ve	ertical blanking.
	EXTRA_Y_HALF	5	Reduce the extra_y to half.	
	-	4:3	Reserved.	



Index (Absolute)	Mnemonic	Bit	Description		
	BO_LENGTH[2:0]	2:0	Select the length of extra req	uest.	
			#h0: 16 pixel.		
			#h1: 32 pixel.		
			#h2: 64 pixel.		
			#h3: 128 pixel. #h4: (overlap length) / 8.		
			#h5: (overlap length) / 4.		
			#h6: (overlap length) / 2.		
		•	#h7: (overlap length).		
12h	REG102F24	7:0	Default : 0x00	Access : R/W	
(102F24h)	SCLB_BASE_F2[7:0]	7:0	The starting address of f2 sto	ored at line buffer.	
12h	REG102F25	7:0	Default : 0x00	Access : R/W	
(102F25h)	-	7:4	Reserved.		
	SCLB_BASE_F2[11:8]	3:0	See description of '102F24h'.		
13h	REG102F26	7:0	Default : 0x00	Access : R/W	
(102F26h)	SCLB_BASE_F1[7:0]	7:0	The starting address of f1 stored at line buffer.		
F	REG102F27	7:0	Default : 0x04	Access : R/W	
(102F27h)	-0	7:4	Reserved.		
	SCLB_BASE_F1[11:8]	3:0	See description of '102F26h'.		
14h	REG102F28	7:0	Default : 0x08	Access : R/W	
(102F28h)	HEXT_BA_RIGHT[7:0]	7:0	Extend the pixel of bottom A	of bottom A session at the right side.	
14h	REG102F29	7:0	Default : 0x08	Access : R/W	
(102F29h)	HEXT_BB_LEFT[7:0]	7:0	Extend the pixel of bottom B	session at the left side.	
15h	REG102F2A	7:0	Default : 0xFF	Access : R/W	
(102F2Ah)	VLEN_F2[7:0]	7:0	Set the maximum request line	es for second channel.	
15h	REG102F2B	7:0	Default : 0x0F	Access : R/W	
(102F2Bh)	_	7:4	Reserved.		
	VLEN_F2[11:8]	3:0	See description of '102F2Ah'.		
16h	REG102F2C	7:0	Default : 0xFF	Access : R/W	
(102F2Ch)	VLEN_F1[7:0]	7:0	Set the maximum request line	es for first channel.	
16h	REG102F2D	7:0	Default : 0x0F	Access : R/W	
(102F2Dh)	-	7:4	Reserved.		
	VLEN_F1[11:8]	3:0	See description of '102F2Ch'.		
17h	REG102F2E	7:0	Default : 0x00	Access : R/W	



SC1 OP1_	TOP Register (Bank =	102F,	Sub-Bank = 20)	
Index (Absolute)	Mnemonic	Bit	Description	
	EXT_SUB_BORDER[3:0]	7:4	Extend the specified line in suborder.	ub window to insert additional
	EXT_MAIN_BORDER[3:0]	3:0	Extend the specified line in ma	ain window to insert additional
17h	REG102F2F	7:0	Default : 0x02	Access : R/W
(102F2Fh) EXTRA_ADV_LINE[3:0] 7:4 Advance the specified lines of extra complement).		f extra end line (2's		
	EXTRA_FETCH_LINE[3:0]	3:0	Indicate how many lines will Minimum is 1.	be fetched by extra request.
18h	REG102F30	7:0	Default : 0x00	Access : R/W
(102F30h)	-	7:2	7:2 Reserved.	
	FORCE_F2_EN	1	Force F1 use F2's register setting.	
	ATP_EN	0	Manual tune parameter.	
19h	REG102F32	7:0	Default : 0x38 Access : R/W	
(102F32h)	- (0)	7	Reserved.	
	SEL_DLY_INIT	6	Select init reference signal to clear delayed line counter. #0: vsync of SC_TOP. #1: delay one line of vfde.	
M	SEL_DISP[1:0]	5:4		
	SEL_ATP[1:0] 3:2 Select the source to trigger auto tune full #h0: Falling edge of vsync. #h1: Nearly raising edge of vsync. #h2: delay line set by reg_atp_trig_dly. #h3: Manual trig by set reg_atp_en.		/sync. p_trig_dly.	
	SEL_SYNC[1:0]	1:0	Select the trig point for sync to initial engine. #h0: Falling edge of vfde. #h1: Raising edge of vsync. #h2: Reserved. #h3: Reserved.	
1Ah	REG102F34	7:0	Default : 0x03	Access : R/W
(102F34h)	ATP_TRIG_DLY[7:0]	7:0	Generate train_trig_p from delayed line of vsync.	
1Ah	REG102F35	7:0	Default : 0x00	Access : R/W



Index	Mnemonic	Bit	Description		
(Absolute)			·		
	-	7:4	Reserved.		
	ATP_TRIG_DLY[11:8]	3:0	See description of '102F34h'.		
1Bh	REG102F36	7:0	Default : 0x05 Access : R/W		
(102F36h)	DISP_TRIG_DLY[7:0]	7:0	Generate disp_trig_p from delayed line of vsync.		
1Bh	REG102F37	7:0	Default : 0x00 Access : R/W		
(102F37h)	-	7:4	Reserved.		
	DISP_TRIG_DLY[11:8]	3:0	See description of '102F36h'.		
1Ch	REG102F38	7:0	Default : 0x00 Access : R/W		
(102F38h)	HOFFSET_MAIN[7:0]	7:0	Offset main display window in right direction.		
1Ch	REG102F39	7:0	Default : 0x00 Access : R/W		
(102F39h)	HOFFSET_SUB[7:0]	OFFSET_SUB[7:0] 7:0 Offset sub display window in right di			
1Dh	REG102F3A	7:0	Default : 0x00 Access : R/W		
(102F3Ah)	HOVERSCAN_F2[7:0]	7:0	Offset line buffer position of F2 in right direction.		
1Dh	REG102F3B	7:0	Default : 0x00 Access : R/W		
(102F3Bh)	HOVERSCAN_F1[7:0]	7:0	Offset line buffer position of F1 in right direction.		
1Eh	REG102F3C	7:0	Default : 0x10 Access : R/W		
(102F3Ch)	MIN_OVERLAP_TH[7:0]	7:0	Threshold of overlapped length.		
, C	S. Mo.		Extra_eq will be disabled when overlapped length less the		
	250400500		this threshold.		
1Eh	REG102F3D	7:0	Default: 0x00 Access: R/W		
	MIN_OVERLAP_CNT[7:0]	7:0	Stop count between two extra requests.		
1Fh	REG102F3E	7:0	Default : 0xC2 Access : R/W		
(102F3Eh)	SCLB_HALIGN[1:0]	7:6	Align the train result to specified pixel.		
			#h0: 2 pixel. #h1: 4 pixel.		
	V. XC		#h2: 8 pixel.		
			#h3: 16 pixel.		
	DISP_START_MODE	5	Select the display line buffer start mode.		
			#0: start at advance 1 display line.		
			#1: start at falling edge of vsync_init.		
	DISP_LB_MODE	4	Select the trig mode.		
			#0: Line base.		
	DISD WSTOD MODELLO	2.2	#1: Fill line buffer.		
	DISP_WSTOP_MODE[1:0]	3:2	Stop the write of display before full to avoid overflow. #h0: before 8 pixel.		



SC1 OP1_	_TOP Register (Bank =	102F,	Sub-Bank = 20)		
Index (Absolute)	Mnemonic	Bit	Description		
			#h1: before 16 pixel. #h2: before 32 pixel. #h3: before 64 pixel.		
	DISP_RLN_MODE[1:0]	1:0	Select the under_run value of display level. #h0: update by hsync (not optimum performance). #h1: update when session done (may error). #h2: update when line done (reg_disp_trig_mode = 1'b0 #h3: Reserved.		
1Fh	REG102F3F	7:0	Default : 0x00	Access : R/W	
(102F3Fh)	-	7:4	Reserved.		
	DISP_UNDER_MODE	3	Select the under_run value of display level. #0: 16'h0000. #1: 16'hffff.		
	DISP_PAT_EN	2	Enable internal pattern of op1_disp.		
	DISP_LB_WEZ	1	Disable wen of display line buffer.		
	DISP_TRIG_MODE	0	Select the trig mode. #0: Trigged by self_counter.		
_			#1: Trigged by op2.	<u> </u>	
20h (102F40h)	REG102F40	7:0	Default : 0xFF	Access : R/W	
	DISP_LB_FULL_LVL[7:0]	7:0	Set the maximum depth of di	T [']	
20h	REG102F41	7:0	Default: 0x07	Access : R/W	
(102F41h)	DISP_LB_FULL_LVL[15:8]	7:0	See description of '102F40h'.	<u> </u>	
30h	REG102F60	7:0	Default : 0x00	Access : R/W	
(102F60h)		7:3	Reserved.		
	FLAG_BB_ADR_INI	2	Status of cnt_bb_adr_ini, write 1 to switch back to hardware. #h0: Calculated by hardware. #h1: Written by software.		
	FLAG_BO_END_LN	1	Status of line_base_bot, write 1 to switch back to hardware #h0: Calculated by hardware. #h1: Written by software.		
	-	0	Reserved.		
31h	REG102F62	7:0	Default : 0x00	Access : R/W	
(102F62h)	SW_BO_END_LN[7:0]	7:0	Software mode to set the line	e_base_bot for extra request.	
31h	REG102F63	7:0	Default : 0x00	Access : R/W	
(102F63h)	-	7:4	Reserved.		



Index	Mnemonic	Bit	Description		
(Absolute)	CIM DO END INITAL O	2.0	C		
	SW_BO_END_LN[11:8]	3:0	See description of '102F62h'.		
32h (102F64h)	REG102F64	7:0	Default : 0x00	Access : R/W	
	SW_BB_ADR_INI[7:0]	7:0	Software mode to set the cnt_bb_adr_ini.		
32h (102F65h)	REG102F65	7:0	Default : 0x00	Access : R/W	
(102F0311)	-	7:4	Reserved.		
	SW_BB_ADR_INI[11:8]	3:0	See description of '102F64h'.		
40h	REG102F80	7:0	Default : 0x00	Access : RO	
(102F80h)	-	7:1	Reserved.	_	
	DISPLAY_UNDERRUN	0		Indicate that the display line buffer is underrun in previous	
441	DE0400500	7.0	frame.		
41h (102F82h)	REG102F82	7:0	Default : 0x00	Access : RO	
	DISPLAY_FIRST_LN[7:0]	7:0	Indicate the display line cnt of	1	
41h (102F83h)	REG102F83	7:0	Default : 0x00	Access : RO	
(10260311)	- (0)	7:4	Reserved.		
	DISPLAY_FIRST_LN[11:8]	3:0	See description of '102F82h'.		
42h	REG102F84	7:0	Default : 0x00 Access : RO		
(102F84h)	MIN_DISP_LINE[7:0]	7:0	Indicate the display line cnt of minimum display level occurred.		
42h	REG102F85	7:0	Default : 0x00	Access : RO	
(102F85h)	- ,) , , (7:4	Reserved.		
	MIN_DISP_LINE[11:8]	3:0	See description of '102F84h'.		
43h	REG102F86	7:0	Default : 0x00	Access : RO	
(102F86h)	MIN_DISP_CNT[7:0]	7:0	Indicate the minimum display	level.	
43h	REG102F87	7:0	Default : 0x00	Access : RO	
(102F87h)	MIN_DISP_CNT[15:8]	7:0	See description of '102F86h'.		
44h	REG102F88	7:0	Default : 0x00	Access : RO	
(102F88h)	MAX_DISP_CNT[7:0]	7:0	Indicate the maximum displa	y level.	
44h	REG102F89	7:0	Default : 0x00	Access : RO	
(102F89h)	MAX_DISP_CNT[15:8]	7:0	See description of '102F88h'.	1	
50h	REG102FA0	7:0	Default : 0x00	Access : RO	
(102FA0h)	SCLB_TF_ADR_INI[7:0]	7:0	Read SCLB_TF_ADR_INI.	I	
50h	REG102FA1	7:0	Default : 0x00	Access : RO	
(102FA1h)		7:4	Reserved.		



SC1 OP1_	TOP Register (Bank =	102F,	Sub-Bank = 20)	
Index (Absolute)	Mnemonic	Bit	Description	
	SCLB_TF_ADR_INI[11:8]	3:0	See description of '102FA0h'.	
51h	REG102FA2	7:0	Default : 0x00	Access : RO
(102FA2h)	SCLB_BA_ADR_INI[7:0]	7:0	Read SCLB_BA_ADR_INI.	
51h	REG102FA3	7:0	Default : 0x00	Access : RO
(102FA3h)	-	7:4	Reserved.	
	SCLB_BA_ADR_INI[11:8]	3:0	See description of '102FA2h'.	
52h	REG102FA4	7:0	Default : 0x00	Access : RO
(102FA4h)	SCLB_BB_ADR_INI[7:0]	7:0	Read SCLB_BB_ADR_INI.	
52h	REG102FA5	7:0	Default : 0x00	Access : RO
(102FA5h)	-	7:4	Reserved.	
	SCLB_BB_ADR_INI[11:8]	3:0	See description of '102FA4h'.	
53h	REG102FA6	7:0	Default : 0x00	Access : RO
(102FA6h)	SCLB_BO_ADR_INI[7:0]	7:0	Read SCLB_BO_ADR_INI.	A
53h	REG102FA7	7:0	Default : 0x00	Access : RO
(102FA7h)	- /	7:4	Reserved.	
	SCLB_BO_ADR_INI[11:8]	3:0	See description of '102FA6h'.	
54h	REG102FA8	7:0	Default : 0x00	Access : RO
(102FA8h)	SCLB_TF_LEN[7:0]	7:0	Read SCLB_TF_LEN.	
54h	REG102FA9	7:0	Default: 0x00	Access : RO
(102FA9h)	- / /	7:4	Reserved.	
	SCLB_TF_LEN[11:8]	3:0	See description of '102FA8h'.	
55h	REG102FAA	7:0	Default : 0x00	Access : RO
(102FAAh)	SCLB_BF_LEN[7:0]	7:0	Read SCLB_BF_LEN.	
55h	REG102FAB	7:0	Default : 0x00	Access : RO
(102FABh)	-	7:4	Reserved.	
	SCLB_BF_LEN[11:8]	3:0	See description of '102FAAh'.	
56h	REG102FAC	7:0	Default : 0x00	Access : RO
(102FACh)	SCLB_BA_LEN[7:0]	7:0	Read SCLB_BA_LEN.	
56h	REG102FAD	7:0	Default : 0x00	Access : RO
(102FADh)	-	7:4	Reserved.	
	SCLB_BA_LEN[11:8]	3:0	See description of '102FACh'.	
57h	REG102FAE	7:0	Default : 0x00	Access : RO
(102FAEh)	SCLB_BB_LEN[7:0]	7:0	Read SCLB_BB_LEN.	



Index (Absolute)	Mnemonic	Bit	Description	
57h	REG102FAF	7:0	Default : 0x00 Access : RO	
(102FAFh)	-	7:4	Reserved.	
	SCLB_BB_LEN[11:8]	3:0	See description of '102FAEh'.	
58h	REG102FB0	7:0	Default : 0x00 Access : RO	
(102FB0h)	FETCH_NUM_F1A[7:0]	7:0	Read FETCH_NUM_F1A.	
58h (102FB1h)	REG102FB1	7:0	Default : 0x00 Access : RO	
	-	7:4	Reserved.	
	FETCH_NUM_F1A[11:8]	3:0	See description of '102FB0h'.	
59h	REG102FB2	7:0	Default : 0x00 Access : RO	
(102FB2h)	FETCH_NUM_F1B[7:0]	7:0	Read FETCH_NUM_F1B.	
59h	REG102FB3	7:0	Default : 0x00 Access : RO	
(102FB3h)	-	7:4	Reserved.	
	FETCH_NUM_F1B[11:8]	3:0	See description of '102FB2h'.	
5 A h	REG102FB4	7:0	Default : 0x00 Access : RO	
(102FB4h)	FETCH_NUM_F2A[7:0]	7:0	Read FETCH_NUM_F2A.	
5Ah	REG102FB5	7:0	Default : 0x00 Access : RO	
(102FB5h)		7:4	Reserved.	
	FETCH_NUM_F2A[11:8]	3:0	See description of '102FB4h'.	
5Bh	REG102FB6	7:0	Default : 0x00 Access : RO	
(102FB6h)	FETCH_NUM_F2B[7:0]	7:0	Read FETCH_NUM_F2B.	
5Bh 💮	REG102FB7	7:0	Default : 0x00 Access : RO	
(102FB7h <mark>)</mark>		7:4	Reserved.	
	FETCH_NUM_F2B[11:8]	3:0	See description of '102FB6h'.	
5Ch	REG102FB8	7:0	Default : 0x00 Access : RO	
(102FB8h)	FETCH_OFFSET_B[7:0]	7:0	Read FETCH_OFFSET_B.	
5Ch	REG102FB9	7:0	Default : 0x00 Access : RO	
(102FB9h)	-	7:4	Reserved.	
	FETCH_OFFSET_B[11:8]	3:0	See description of '102FB8h'.	
5Dh	REG102FBA	7:0	Default : 0x00 Access : RO	
(102FBAh)	BO_LENGTH_RD[7:0]	7:0	Read bo_length.	
5Dh	REG102FBB	7:0	Default : 0x00 Access : RO	
(102FBBh)	-	7:4	Reserved.	
	BO_LENGTH_RD[11:8]	3:0	See description of '102FBAh'.	



SC1 OP1_	_TOP Register (Bank =	102F,	Sub-Bank = 20)	
Index (Absolute)	Mnemonic	Bit	Description	
5Eh	REG102FBC	7:0	Default : 0x00	Access : RO
(102FBCh)	BO_START_LN[7:0]	7:0	Read BO_START_LN.	
5Eh	REG102FBD	7:0	Default : 0x00	Access : RO
(102FBDh)	-	7:4	Reserved.	
	BO_START_LN[11:8]	3:0	See description of '102FBCh'.	
5Fh	REG102FBE	7:0	Default : 0x00	Access : RO
(102FBEh)	BO_END_LN[7:0]	7:0	Read BO_END_LN.	
5Fh	REG102FBF	7:0	Default : 0x00	Access : RO
(102FBFh)	-	7:4	Reserved.	
	BO_END_LN[11:8]	3:0	See description of '102FBEh'.	
60h	REG102FC0	7:0	Default : 0x00	Access : RO
(102FC0h)	DISP_TF_ADR_INI[7:0]	7:0	Read DISP_TF_ADR_INI.	
60h	REG102FC1	7:0	Default : 0x00	Access : RO
(102FC1h)	- / O · .	7:4	Reserved.	
	DISP_TF_ADR_INI[11:8]	3:0	See description of '102FC0h'.	
61h	REG102FC2	7:0	Default : 0x00	Access : RO
(102FC2h)	DISP_BA_ADR_INI[7:0]	7:0	Read DISP_BA_ADR_INI.	
61h	REG102FC3	7:0	Default : 0x00	Access : RO
(102FC3h)		7:4	Reserved.	
19.	DISP_BA_ADR_INI[11:8]	3:0	See description of '102FC2h'.	
62h	REG102FC4	7:0	Default : 0x00	Access : RO
(102FC4h)	DISP_BB_ADR_INI[7:0]	7:0	Read DISP_BB_ADR_INI.	
62h	REG102FC5	7:0	Default : 0x00	Access : RO
(102FC5h)	- ///	7:4	Reserved.	
	DISP_BB_ADR_INI[11:8]	3:0	See description of '102FC4h'.	
63h	REG102FC6	7:0	Default : 0x00	Access : RO
(102FC6h)	DISP_TF_LEN[7:0]	7:0	Read DISP_TF_LEN.	•
63h	REG102FC7	7:0	Default : 0x00	Access : RO
(102FC7h)	-	7:4	Reserved.	
	DISP_TF_LEN[11:8]	3:0	See description of '102FC6h'.	
64h	REG102FC8	7:0	Default : 0x00	Access : RO
(102FC8h)	DISP_BF_LEN[7:0]	7:0	Read DISP_BF_LEN.	
64h	REG102FC9	7:0	Default : 0x00	Access : RO



SC1 OP1_	TOP Register (Bank =	102F,	Sub-Bank = 20)	
Index (Absolute)	Mnemonic	Bit	Description	
	-	7:4	Reserved.	
	DISP_BF_LEN[11:8]	3:0	See description of '102FC8h'.	
65h	REG102FCA	7:0	Default : 0x00	Access : RO
(102FCAh)	DISP_BA_LEN[7:0]	7:0	Read DISP_BA_LEN.	
65h	REG102FCB	7:0	Default : 0x00	Access : RO
(102FCBh)	-	7:4	Reserved.	
	DISP_BA_LEN[11:8]	3:0	See description of '102FCAh'.	
66h	REG102FCC	7:0	Default : 0x00	Access : RO
(102FCCh)	DISP_BB_LEN[7:0]	7:0	Read DISP_BB_LEN.	
66h	REG102FCD	7:0	Default : 0x00	Access : RO
(102FCDh)	-	7:4	Reserved.	
	DISP_BB_LEN[11:8]	3:0	See description of '102FCCh'.	
67h	REG102FCE	7:0	Default : 0x00	Access : RO
(102FCEh)	HSPR_BB_ADR_INI[7:0]	7:0	Read HSPR_BB_ADR_INI.	
67h	REG102FCF	7:0	Default : 0x00	Access : RO
(102FCFh)		7:4	Reserved.	
	HSPR_BB_ADR_INI[11:8]	3:0	See description of '102FCEh'.	



SC1 ELA Register (Bank = 102F, Sub-Bank = 21)

SC1 ELA I	SC1 ELA Register (Bank = 102F, Sub-Bank = 21)				
Index (Absolute)	Mnemonic	Bit	Description		
01h ~ 02h	-	7:0	Default : -	Access : -	
(102F02h ~ 102F04h)	-	-	Reserved.		
10h	REG102F20	7:0	Default : 0x02	Access : R/W	
(102F20h)	-	7:1	Reserved.)	
	EODI_EN_F2	0	F2 window EODi enable. #1: Enable. #0: Disable.		
40h	REG102F80	7:0	Default: 0x00	Access : R/W	
(102F80h)	-	7:1	Reserved.		
	EODI_EN_F1	0	F1 window EODi enable. #1: Enable. #0: Disable.		
7Fh ~ 7Fh	-	7:0	Default : -	Access : -	
(102FFEh ~ 102FFFh)	31	-	Reserved.		



SC1 TDDI Register (Bank = 102F, Sub-Bank = 22)

SC1 TDDI	Register (Bank = 102F, S	ub-Ba	ank = 22)		
Index (Absolute)	Mnemonic	Bit	Description		
01h	REG102F02	7:0	Default : 0x04	Access : R/W	
(102F02h)	RATIO_DIV_YCSEP_F2	7	Main window ratio divide Y/	C separate.	
	-	6:3	Reserved.		
	RATIO_DIV_MD_C_F2[2:0]	2:0	Main window ratio divide mo	ode when Y/C separate.	
01h	REG102F03	7:0	Default : 0x14	Access : R/W	
(102F03h)	•	7:6	Reserved.		
	RATIO_DIV_MD_F2[2:0]	5:3	Main window ratio divide me	ode.	
	RATIO_MD_F2[2:0]	2:0	Main window ratio filter mod	de.	
02h	REG102F04	7:0	Default : 0x80	Access : R/W	
(102F04h)	RATIO_C_INDEP_F2	7	Main window C ratio indepe	ndent mode.	
			#0: disable C ratio filter.		
			#1: enable C ratio filter.		
	RSV_02_2_F2[2:0]	6:4	Reserved.		
	RATIO_C_MIN_F2[3:0]	3:0	Main window C minimum ra	·	
02h	REG102F05	7:0	Default : 0x02	Access : R/W	
(102F05h)	RSV_02_0_F2[2:0]	7:5	Reserved.		
		4	Reserved.		
	RSV_02_1_F2[1:0]	3:2	Reserved.		
	RATIO_C_YMAX_SEL_F2	1	Main window C ratio takes \		
	0 5		#0: Select Y ratio before SS #1: Select Y ratio after SST		
	RATIO_C_YMAX_DIS_F2	0	Main window C ratio takes		
	, , ,		#0: Enable.		
	1111		#1: Disable.		
03h	REG102F06	7:0	Default : 0x00	Access : R/W	
(102F06h)	FILM_EODIW_EN_F2	7	Main window EODi weight c mode.	ompensation enable in film	
	-	6:0	Reserved.		
08h	REG102F10	7:0	Default : 0x00	Access : R/W	
(102F10h)	-	7:6	Reserved.		
	PRE_MOT_OFFSET_F2[5:0]	5:0	Main Window pre-memory r calculation.	motion offset for motion	
08h	REG102F11	7:0	Default : 0x08	Access : R/W	



SC1 TDDI	Register (Bank = 102F, S	ub-B	ank = 22)	
Index (Absolute)	Mnemonic	Bit	Description	
	-	7:4	Reserved.	
	PRE_MOT_GAIN_F2[3:0]	3:0	Main Window pre-memory r calculation.	motion gain for motion
09h	REG102F12	7:0	Default : 0x00	Access : R/W
(102F12h)	-	7:6	Reserved.	
	POST_MOT_OFFSET_F2[5:0]	5:0	Main Window post-memory calculation.	motion offset for motion
09h	REG102F13	7:0	Default : 0x88	Access : R/W
(102F13h)	POST_MOT_CGAIN_F2[3:0]	7:4	Main Window post-memory calculation.	motion gain for Y motion
	POST_MOT_YGAIN_F2[3:0]	3:0	Main Window post-memory motion gain for C motion calculation.	
0Ah	REG102F14	7:0	Default : 0x86	Access : R/W
(102F14h) - -	POST_MOT_YMAX_EN_F2	7	Main Window pre-/post-memory Y motion maximum enable.	
	- / / / /	6:3	Reserved.	
	HIS_WT_F2[2:0]	2:0	Main Window history weigh	ting.
0Ch	REG102F18	7:0	Default : 0x07	Access : R/W
(102F18h)	RSV_STAT_0_F2[1:0]	7:6	Reserved.	
	STAT_INC_MODE_F2	5	Main window ratio statistics	: ratio incremental mode.
	STAT_SEL_C_F2	4	Main window ratio statistics	: ratio selection.
	STAT_CORE_F2[3:0]	3:0	Main window ratio statistics	: coring threshold.
0Dh	REG102F1A	7:0	Default : 0x00	Access : RO
(102F1Ah)	MOTION_STATUS_F2[7:0]	7:0	Main window ratio statistics	: motion status.
0Dh	REG102F1B	7:0	Default : 0x00	Access : RO
(102F1Bh)	MOTION_STATUS_F2[15:8]	7:0	See description of '102F1Ah	' .
0Eh	REG102F1C	7:0	Default : 0x00	Access : RO
(102F1Ch)	MOTION_STATUS_F2[23:16]	7:0	See description of '102F1Ah	' .
	REG102F20	7:0	Default : 0x4A	Access : R/W
10h			Main window adaptive DFK enable.	
10h (102F20h)	ADAPT_MED_EN_F2	7	Main window adaptive DFK	enable.
	ADAPT_MED_EN_F2 WEGT_MED_EN_F2	7 6	Main window adaptive DFK Main window weighted DFK	
	WEGT_MED_EN_F2	6	Main window weighted DFK	enable.



SC1 TDDI	Register (Bank = 102F, S	ub-Ba	ank = 22)	
Index (Absolute)	Mnemonic	Bit	Description	
11h	REG102F22	7:0	Default : 0x08	Access : R/W
(102F22h)	-	7:5	Reserved.	
	MED_LF_BEGIN_F2[4:0]	4:0	Main window weighted DFK	low-frequency begin.
11h	REG102F23	7:0	Default : 0x04	Access : R/W
(102F23h)	-	7:4	Reserved.	
	MED_LF_SLOPE_F2[3:0]	3:0	Main window weighted DFK adjustment.	low-frequency slope
12h	REG102F24	7:0	Default : 0x14	Access : R/W
(102F24h)	-	7:5	Reserved.	
	MED_HF_BEGIN_F2[4:0]	4:0	Main window weighted DFK	high-frequency begin.
12h	REG102F25	7:0	Default : 0x04	Access : R/W
(102F25h)	-	7:4 Reserved.		
	MED_HF_SLOPE_F2[3:0]	3:0	Main window weighted DFK adjustment.	high-frequency slope
13h	REG102F26	7:0	Default : 0x30	Access : R/W
13h (102F26h)		7:6		
	MED_MOT_TH_F2[5:0]	5:0	Main window adaptive DFK	motion threshold.
18h	REG102F30	7:0	Default : 0x13	Access : R/W
(102F30h)	SST_EN_F2	7	Main window SST enable.	
1911.	. ,) ' ()	6	Reserved.	
	RSV_SST_0_F2	5	Reserved.	
	SST_MOTION_LPF_EN_F2	4	Main window SST low-pass	on motion enable.
	SST_MOTION_TH_F2[3:0]	3:0	Main window SST motion th	reshold.
18h	REG102F31	7:0	Default : 0x27	Access : R/W
(102F31h)	RSV_SST_1_F2[1:0]	7:6	Reserved.	
	SST_ERODE_MODE_F2[1:0]	5:4	Main window SST motion ar	ea erosion mode.
	RSV_SST_2_F2	3	Reserved.	
	SST_DILATE_MODE_F2[2:0]	2:0	Main window SST motion ar	ea dilation mode.
19h	REG102F32	7:0	Default : 0xDF	Access : R/W
(102F32h)	SST_POSTLPF_EN_F2	7	Main window SST post-LPF	enable.
	SST_POSTLPF_MAX_F2	6	Main window SST post-LPF	maximum function enable.
	SST_DYNAMIC_CORE_TH_F2[5:0]	5:0	Main window SST dynamic	motion coring threshold.
19h	REG102F33	7:0	Default : 0x85	Access : R/W



SC1 TDDI	Register (Bank = 102F, S	ub-Ba	ank = 22)	
Index (Absolute)	Mnemonic	Bit	Description	
	SST_DYNAMIC_SGAIN_F2[3:0]	7:4	Main window SST dynamic gain.	motion spatial difference
	SST_DYNAMIC_TGAIN_F2[3:0]	3:0	Main window SST dynamic gain.	motion temporal difference
1Ah	REG102F34	7:0	Default : 0x00	Access : R/W
(102F34h)	RSV_SST_3_F2[1:0]	7:6	Reserved.	
	SST_STATIC_CORE_TH_F2[5:0]	5:0	Main window SST static motion coring threshold.	
1Ah	REG102F35	7:0	Default : 0x22	Access : R/W
(102F35h)	SST_STATIC_SGAIN_F2[3:0]	7:4	Main window SST static motion spatial difference gain.	
	SST_STATIC_TGAIN_F2[3:0]	3:0	Main window SST static mot	ion temporal difference gain.
40h	REG102F80	7:0	Default : 0x00	Access : R/W
(102F80h)	ADAPT_MED_EN_F1	7	Sub window adaptive DFK e	enable.
	-	6:0	Reserved.	
48h	REG102F90	7:0	Default : 0x00	Access : R/W
(102F90h)	SST_EN_F1	7	Sub window SST enable.	
	- 3	6:0	Reserved.	
73h	REG102FE6	7:0	Default : 0x00	Access : RO
(102FE6h)		7:2	Reserved.	
1	FBASE_LVL_STATUS[1:0]	1:0	Frame-based level status.	
7Ch ~ 7Fh	- , 7 · v()	7:0	Default : -	Access : -
(102FF8h	-1 .5	-	Reserved.	
~ 102FFFh)	(O' XV)	0		



SC1 HVSP Register (Bank = 102F, Sub-Bank = 23)

SC1 HVSF	Register (Bank = 102F,	Sub-E	Bank = 23)	
Index (Absolute)	Mnemonic	Bit	Description	
01h	REG102F02	7:0	Default : 0x00	Access : R/W
(102F02h)	INI_FACTOR_HO_F2[7:0]	7:0	Main window horizontal initia	al factor.
01h	REG102F03	7:0	Default : 0x00	Access : R/W
(102F03h)	INI_FACTOR_HO_F2[15:8]	7:0	See description of '102F02h'	
02h	REG102F04	7:0	Default : 0x00	Access : R/W
(102F04h)	-	7:4	Reserved.	
	INI_FACTOR_HO_F2[19:16]	3:0	See description of '102F02h'	
03h	REG102F06	7:0	Default : 0x00	Access : R/W
(102F06h)	INI_FACTOR1_VE_F2[7:0]	7:0	Main window vertical initial f	actor 1.
03h	REG102F07	7:0	Default : 0x00	Access : R/W
(102F07h)	INI_FACTOR1_VE_F2[15:8]	7:0	See description of '102F06h'	
04h	REG102F08	7:0	Default : 0x00	Access : R/W
(102F08h)	INI_FACTOR1_VE_F2[23:16]	7:0	See description of '102F06h'.	
(400=01)	REG102F0A	7:0	Default : 0x00	Access : R/W
	INI_FACTOR2_VE_F2[7:0]	7:0	Main window vertical initial factor 2.	
05h	REG102F0B	7:0	Default : 0x00	Access : R/W
(102F0Bh)	INI_FACTOR2_VE_F2[15:8]	7:0	See description of '102F0Ah'	
06h	REG102F0C	7:0	Default: 0x00	Access : R/W
(102F0Ch)	INI_FACTOR2_VE_F2[23:16]	7:0	See description of '102F0Ah'	
07h	REG102F0E	7:0	Default : 0x00	Access : R/W
(102F0Eh)	SCALE_FACTOR_HO_F2[7:0]	7:0	Main window horizontal scali	ing factor.
07h	REG102F0F	7:0	Default : 0x00	Access : R/W
(102F0Fh)	SCALE_FACTOR_HO_F2[15:8]	7:0	See description of '102F0Eh'	
08h	REG102F10	7:0	Default : 0x00	Access : R/W
(102F10h)	SCALE_FACTOR_HO_F2[23:16]	7:0	See description of '102F0Eh'	
08h	REG102F11	7:0	Default : 0x00	Access : R/W
(102F11h)	-	7:1	Reserved.	
	SCALE_HO_EN_F2	0	Main window horizontal scali	ing enable.
09h	REG102F12	7:0	Default : 0x00	Access : R/W
(102F12h)	SCALE_FACTOR_VE_F2[7:0]	7:0	Main window vertical scaling	factor.
09h	REG102F13	7:0	Default : 0x00	Access : R/W
(102F13h)	SCALE_FACTOR_VE_F2[15:8]	7:0	See description of '102F12h'	



Indos	Macanania	D:+	Description	
Index (Absolute)	Mnemonic	Bit	Description	
0Ah	REG102F14	7:0	Default : 0x00	Access : R/W
(102F14h)	SCALE_FACTOR_VE_F2[23:16]	7:0	See description of '102F12h'	
0Ah	REG102F15	7:0	Default : 0x80	Access : R/W
(102F15h)	VFAC_DEC1_MD_F2	7	Main window vertical factor	dec1 mode.
	-	6:1	Reserved.	X
	SCALE_VE_EN_F2	0	Main window vertical scaling	enable.
0Bh	REG102F16	7:0	Default : 0x00	Access : R/W
(102F16h)	Y_RAM_SEL_HO_F2	7	Main window horizontal Y sc 0: SRAM 0. 1: SRAM 1.	aling filter SRAM selection.
enable. C_RAM_SEL_HO_F2 5 Main window horizon 0: SRAM 0. 1: SRAM 1.		6	Main window horizontal Y scaling filter SRAM usage enable.	
		5		
			ntal C scaling filter SRAM usage	
M	MODE_C_HO_F2[2:0]	3:1		
<u>, </u>	MODE_Y_HO_F2	0	Main window horizontal Y sc 0: Bypass. 1: Bilinear.	aling filter mode.
0Bh	REG102F17	7:0	Default : 0x00	Access : R/W
(102F17h)	Y_RAM_SEL_VE_F2	7	7 Main window vertical Y scaling filter SRAM selec 0: SRAM 0. 1: SRAM 1.	
	Y_RAM_EN_VE_F2	6	Main window vertical Y scali	ng filter SRAM usage enable.
	C_RAM_SEL_VE_F2	5	Main window vertical C scali 0: SRAM 0. 1: SRAM 1.	ng filter SRAM selection.
	C_RAM_EN_VE_F2	4	Main window vertical C scali	ng filter SRAM usage enable.
	MODE_C_VE_F2[2:0]	3:1	Main window vertical C scali	na filter mode.



Index (Absolute)	Mnemonic	Bit	Description	
(ibooidio)			0: Bypass. 1: Bilinear. 2: ROM Table 0. 3: ROM Table 1. 4: ROM Table 2.	
	MODE_Y_VE_F2	0	Main window vertical Y scaling filter mode. 0: Bypass. 1: Bilinear.	
0Ch	REG102F18	7:0	Default : 0xC0 Access : R/W	
(102F18h)	FORMAT_422_F2	7	Main window data format is 422.	
	422_INTP_F2	6	Main window 422 Cb Cr interpolation enable.	
	CR_LOAD_INI_F2	5	Main Cr_load initial value.	
	-	4:2	Reserved.	
	VSP_DITH_EN_F2	1	Main window dithering enable for vertical scaling process	
	HSP_DITH_EN_F2	Main window dithering enable for horizontal process.		
0Ch	REG102F19	7:0	Default: 0x00 Access: R/W	
(102F19h)		7:4	Reserved.	
	VSP_CORING_EN_Y_F2	3	Main window vertical Y coring enable.	
1	VSP_CORING_EN_C_F2	2	Main window vertical C coring enable.	
M.	HSP_CORING_EN_Y_F2	1	Main window horizontal Y coring enable.	
	HSP_CORING_EN_C_F2	0	Main window horizontal C coring enable.	
0Dh	REG102F1A	7:0	Default : 0x00 Access : R/W	
(102F1Ah)	HSP_CORING_TH_C_F2[7:0]	7:0	Main window horizontal C coring threshold.	
0Dh	REG102F1B	7:0	Default : 0x00 Access : R/W	
(102F1Bh)	HSP_CORING_TH_Y_F2[7:0]	7:0	Main window horizontal Y coring threshold.	
0Eh	REG102F1C	7:0	Default : 0x00 Access : R/W	
(102F1Ch)	VSP_CORING_TH_C_F2[7:0]	7:0	Main window vertical C coring threshold.	
0Eh	REG102F1D	7:0	Default : 0x00 Access : R/W	
(102F1Dh)	VSP_CORING_TH_Y_F2[7:0]	7:0	Main window vertical Y coring threshold.	
0Fh	REG102F1E	7:0	Default : 0x38 Access : R/W	
(102F1Eh)	HSP_DE_RING_G_ON_F2	7	Main window horizontal Y de-ringing enable.	
	HSP_DE_RING_TH1_F2[2:0]	6:4	Main window horizontal de-ringing threshold1.	



	P Register (Bank = 102F,	Sub-t	Dalik = 23)	
Index (Absolute)	Mnemonic	Bit	Description	
0Fh	REG102F1F	7:0	Default : 0x58	Access : R/W
(102F1Fh)	HSP_DE_RING_RB_ON_F2	7	Main window horizontal C de	e-ringing enable.
	HSP_DE_RING_TH3_F2[2:0]	6:4	Main window horizontal de-r	inging threshold3.
	HSP_DE_RING_TH2_F2[3:0]	3:0	Main window horizontal de-r	inging threshold2.
10h	REG102F20	7:0	Default : 0x00	Access : R/W
(102F20h)	HSP_OFFSET_F2[7:0]	7:0	Main window horizontal de-r	inging offset.
10h	REG102F21	7:0	Default : 0x00	Access : R/W
(102F21h)	HSP_OFFSET2_F2[7:0]	7:0	Main window horizontal de-r	inging offset2.
11h	REG102F22	7:0	Default : 0x38	Access : R/W
(102F22h)	VSP_DE_RING_G_ON_F2	7	Main window vertical Y de-ri	nging enable.
	VSP_DE_RING_TH1_F2[2:0]	6:4	Main window vertical de-ringing threshold1.	
	VSP_DE_RING_TH0_F2[3:0]	3:0	Main window vertical de-ringing threshold0.	
(102F23h)	REG102F23	7:0	Default : 0x58	Access : R/W
	VSP_DE_RING_RB_ON_F2	7	Main window vertical C de-ringing enable.	
	VSP_DE_RING_TH3_F2[2:0]	6:4	Main window vertical de-ringing threshold3.	
	VSP_DE_RING_TH2_F2[3:0]	3:0	Main window vertical de-ringing threshold2.	
12h	REG102F24	7:0	Default : 0x00	Access : R/W
(102F24h)	VSP_OFFSET_F2[7:0]	7:0	Main window vertical de-ring	ging offset.
12h	REG102F25	7:0	Default: 0x00	Access : R/W
(102F25h)	VSP_OFFSET2_F2[7:0]	7:0	Main window vertical de-ring	ging offset2.
13h	REG102F26	7:0	Default : 0x00	Access : R/W
(102F26h)	V_NL_EN_F2	7	Main window vertical nonline	ear scaling enable.
	H_NL_EN_F2	6	Main window horizontal non	linear scaling enable.
	- \\\\\	5:4	Reserved.	
	PREV_BOUND_MD_F2	3	Main window pre-V down sc	aling boundary mode.
	OP_FIELD_SEL_F2	2	Main window field source se	lection.
			0: From output timing.	
			1: From input timing.	
	FIELD_POL_F2	1	Main window field polarity s	
	2_INIFAC_MD_F2	0	Main window two initial factor	
13h	REG102F27	7:0	Default : 0x00	Access : R/W
(102F27h)	VSP_3TAP_EN_F2	7	Main window vertical 3tap so	caling enable.
	V_NL_W2_LSB_F2	6	Main window vertical nonline	ear scaling width2 LSB.



Index (Absolute)	Mnemonic	Bit	Description		
	V_NL_W1_LSB_F2	5	Main window vertical nonlinear	scaling width1 LSB.	
	V_NL_W0_LSB_F2	4	Main window vertical nonlinear	scaling width0 LSB.	
	-	3	Reserved.		
	H_NL_W2_LSB_F2	2	Main window horizontal nonline	Main window horizontal nonlinear scaling width 2 LSB.	
	H_NL_W1_LSB_F2		Main window horizontal nonline	ar scaling width1 LSB.	
	H_NL_W0_LSB_F2	0	Main window horizontal nonline	ar scaling width0 LSB.	
14h	REG102F28	7:0	Default : 0x00 Ac	ccess : R/W	
(102F28h)	H_NL_W0_F2[7:0]	7:0	Main window horizontal nonline	ar scaling width0.	
14h	REG102F29	7:0	Default : 0x00 Ac	ccess : R/W	
(102F29h)	H_NL_W1_F2[7:0]	7:0	Main window horizontal nonline	ar scaling width1.	
15h	REG102F2A	7:0	Default : 0x00 Ac	ccess : R/W	
(102F2Ah)	H_NL_W2_F2[7:0]	7:0	Main window horizontal nonlinear scaling width2.		
15h	REG102F2B	7:0	Default : 0x00 Ac	ccess : R/W	
ŀ	H_NL_S_INI_F2	7	Main window horizontal nonline	ar scaling initial sign.	
	H_NL_D_INI_F2[6:0]	6:0	Main window horizontal nonline	ar scaling initial value.	
	REG102F2C	7:0	Default : 0x00 Ac	ccess : R/W	
(102F2Ch)	H_NL_D0_F2[7:0]	7:0	Main window horizontal nonline	ar scaling delta 0.	
16h	REG102F2D	7:0	Default : 0x00 Ac	ccess : R/W	
(102F2Dh)	H_NL_D1_F2[7:0]	7:0	Main window horizontal nonline	ar scaling delta 1.	
17h	REG102F2E	7:0	Default : 0x00 Ac	ccess : R/W	
(102F2Eh)	V_NL_W0_F2[7:0]	7:0	Main window vertical nonlinear	scaling width0.	
17h	REG102F2F	7:0	Default : 0x00 Ac	ccess : R/W	
(102F2Fh)	V_NL_W1_F2[7:0]	7:0	Main window vertical nonlinear	scaling width1.	
18h	REG102F30	7:0	Default : 0x00 Ac	ccess : R/W	
(102F30h)	V_NL_W2_F2[7:0]	7:0	Main window vertical nonlinear	scaling width2.	
18h	REG102F31	7:0	Default : 0x00 Ac	ccess : R/W	
(102F31h)	V_NL_S_INI_F2	7	Main window vertical nonlinear	scaling initial sign.	
	V_NL_D_INI_F2[6:0]	6:0	Main window vertical nonlinear	scaling initial value.	
19h	REG102F32	7:0	Default : 0x00 Ac	ccess : R/W	
(102F32h)	V_NL_D0_F2[7:0]	7:0	Main window vertical nonlinear	scaling delta 0.	
19h	REG102F33	7:0	Default : 0x00 Ac	ccess : R/W	
(102F33h)	V_NL_D1_F2[7:0]	7:0	Main window vertical nonlinear	scaling delta 1.	
1Ch	REG102F38	7:0	Default : 0x00 Ac	ccess : R/W	



Index (Absolute)	Mnemonic	Bit	Description	
(Hibsolute)	DY_FACTOR_HO[7:0]	7:0	Dynamic horizontal scaling f	actor.
1Ch	REG102F39	7:0	Default : 0x00	Access : R/W
(102F39h) DY_FACTOR_HO[15:8]		7:0	See description of '102F38h'	
1Dh	REG102F3A	7:0	Default : 0x10	Access : R/W
(102F3Ah)	DY_FACTOR_HO[23:16]	7:0	See description of '102F38h'	
1Eh	REG102F3C	7:0	Default : 0x00	Access : R/W
(102F3Ch)	DY_FACTOR_VE[7:0]	7:0	Dynamic vertical scaling fact	or.
1Eh	REG102F3D	7:0	Default : 0x00	Access : R/W
(102F3Dh)	DY_FACTOR_VE[15:8]	7:0	See description of '102F3Ch'	
1Fh	REG102F3E	7:0	Default : 0x10	Access : R/W
(102F3Eh)	DY_FACTOR_VE[23:16]	7:0	See description of '102F3Ch'	
1Fh	REG102F3F	7:0	Default : 0x00	Access : R/W
(102F3Fh) _[_ -	DY_SELECT	S	Dynamic scaling factor usage. 0: For main window. 1: For sub window.	
	- 1	6:0	Reserved.	
28h	REG102F51	7:0	Default : 0x00	Access : R/W
(102F51h)		7:1	Reserved.	
10	SCALE_HO_EN_F1	0	Sub window horizontal scaling	ng enable.
2Ah	REG102F55	7:0	Default : 0x00	Access : R/W
(102F55h)	- 2	7:1	Reserved.	
(SCALE_VE_EN_F1	0	Sub window vertical scaling	enable.
2Bh	REG102F56	7:0	Default : 0x00	Access : R/W
(102F56h)	Y_RAM_SEL_HO_F1	7	Sub window horizontal Y sca 0: SRAM 0. 1: SRAM 1.	aling filter SRAM selection.
	Y_RAM_EN_HO_F1	6	Sub window horizontal Y scaenable.	aling filter SRAM usage
	C_RAM_SEL_HO_F1	5	Sub window horizontal C sca 0: SRAM 0. 1: SRAM 1.	aling filter SRAM selection.
	C_RAM_EN_HO_F1	4	Sub window horizontal C scaenable.	aling filter SRAM usage
	MODE_C_HO_F1[2:0]	3:1	Sub window horizontal C sca	ling filter mode



SC1 HVSF	Register (Bank = 102F,	Sub-E	Bank = 23)	
Index (Absolute)	Mnemonic	Bit	Description	
			 Bypass. Bilinear. ROM Table 0. ROM Table 1. ROM Table 2. 	
	MODE_Y_HO_F1	0	Sub window horizontal Y sca 0: Bypass. 1: Bilinear.	lling filter mode.
2Bh	REG102F57	7:0	Default : 0x00	Access : R/W
(102F57h)	Y_RAM_SEL_VE_F1	7	Sub window vertical Y scalin 0: SRAM 0. 1: SRAM 1.	g filter SRAM selection.
	Y_RAM_EN_VE_F1	6	Sub window vertical Y scaling filter SRAM usage enable.	
C_RAM_SEL_VE_F1		5	Sub window vertical C scaling filter SRAM selection. 0: SRAM 0. 1: SRAM 1.	
C	C_RAM_EN_VE_F1	4	Sub window vertical C scalin	g filter SRAM usage enable.
		3:1	Sub window vertical C scalin 0: Bypass. 1: Bilinear. 2: ROM Table 0. 3: ROM Table 1. 4: ROM Table 2.	g filter mode.
\$	MODE_Y_VE_F1	0	Sub window vertical Y scalin 0: Bypass. 1: Bilinear.	g filter mode.
2Ch	REG102F58	7:0	Default : 0x80	Access : R/W
(102F58h)	FORMAT_422_F1	7	Sub window data format is 4	122.
	-	6:2	Reserved.	
	VSP_DITH_EN_F1	1	Sub window dithering enable	e for vertical scaling process.
	HSP_DITH_EN_F1	0	Sub window dithering enable process.	e for horizontal scaling
2Ch	REG102F59	7:0	Default : 0x00	Access : R/W
(102F59h)	-	7:4	Reserved.	
	VSP_CORING_EN_Y_F1	3	Sub window vertical Y coring	g enable.
	VSP_CORING_EN_C_F1	2	Sub window vertical C coring	g enable.



Index (Absolute)	Mnemonic	Bit	Description			
	HSP_CORING_EN_Y_F1	1	Sub window horizontal Y cor	ring enable.		
	HSP_CORING_EN_C_F1	0	Sub window horizontal C cor	ing enable.		
41h	REG102F82	7:0	Default : 0x00	Access : R/W		
(102F82h)	-	7:2	Reserved.			
	CRAM_RW_EN	1	C SRAM read/write enable.			
	YRAM_RW_EN	0	Y SRAM read/write enable.			
41h	REG102F83	7:0	Default : 0x00	Access : R/W		
(102F83h) ₋ 7:2 Res		Reserved.				
	RAM_R_PULSE	1	SRAM read data pulse.			
	RAM_W_PULSE	0	SRAM write data pulse.			
42h	REG102F84	7:0	Default: 0x00	Access : R/W		
(102F84h)	RAM_ADDR[7:0]	7:0	SRAM read/write address.			
			0: Address 0~127.			
	70		1: Address 128~255.			
43h	REG102F86	7:0	Default : 0x00	Access : R/W		
(102F86h)	RAM_WDATA[7:0]	7:0	SRAM write data.	T		
43h	REG102F87	7:0	Default : 0x00	Access : R/W		
(102F87h)	RAM_WDATA[15:8]	7:0	See description of '102F86h'	T		
44h	REG102F88	7:0	Default : 0x00	Access : R/W		
(102F88h)	RAM_WDATA[23:16]	7:0	See description of '102F86h'	T		
44h	REG102F89	7:0	Default : 0x00	Access : R/W		
(102F89h)	RAM_WDATA[31:24]	7:0	See description of '102F86h'	T		
45h	REG102F8A	7:0	Default : 0x00	Access : R/W		
(102F8Ah)	RAM_WDATA[39:32]	7:0	See description of '102F86h'	T		
46h	REG102F8C	7:0	Default : 0x00	Access : RO		
(102F8Ch)	RAM_RDATA[7:0]	7:0	SRAM read data.	Т.		
46h	REG102F8D	7:0	Default : 0x00	Access : RO		
(102F8Dh)	RAM_RDATA[15:8]	7:0	See description of '102F8Ch'			
47h	REG102F8E	7:0	Default : 0x00	Access : RO		
(102F8Eh)	RAM_RDATA[23:16]	7:0	See description of '102F8Ch'	:		
47h	REG102F8F	7:0	Default : 0x00	Access : RO		
(102F8Fh)	RAM_RDATA[31:24]	7:0	See description of '102F8Ch'.			
48h	REG102F90	7:0	Default : 0x00	Access : RO		



Index (Absolute)	Mnemonic	Bit	Description		
	RAM_RDATA[39:32]	7:0	See description of '102F8Ch	<u>'</u> .	
51h	REG102FA2	7:0	Default : 0x41	Access : R/W	
(102FA2h)	SIMPLE_INTP	7	Simple interpolation for 422	to 444 conversion.	
	FACTOR_MANUAL	6	Vertical factor manual mode	2.	
	VDOWN_SEL	5	Vertical scaling down selection. 0: Bottom. 1: Top.		
	HDOWN_SEL	4	Horizontal scaling down selection. 0: Bottom. 1: Top.		
	-	3	Reserved.		
	PSEUDO_VCLR_NO[1:0]	2:1	Dither pseudo code Vsync clear number.		
	PSEUDO_VCLR_EN	0	Dither pseudo code Vsync c	lear enable.	
52h	REG102FA5	7:0	Default : 0x00 Access : R/W		
(102FA5h)	FBL_R_TRIG_SEL	7	FBL read trigger selection. 0: Command finish. 1: DE end.		
		6:0	Reserved.		
53h	REG102FA7	7:0	Default : 0x08	Access : R/W	
(102FA7h)	3DLR_SIDE2LINE_EN	7	3D LR side-by-side to line-to	o-line enable.	
B.	- , , , X	6:0	Reserved.		
60h	REG102FC0	7:0	Default : 0x40	Access : R/W	
(102FC0h)	CTI_STEP_F2[2:0]	7:5	Main window CTI step.		
		4:3	Reserved.		
	CTI_LPF_COEF_F2[2:0]	2:0	Main window CTI LPF coeffi	cients.	
61h	REG102FC3	7:0	Default : 0x00	Access : R/W	
(102FC3h)	CTI_EN_F2	7	Main window CTI enable.		
	-	6:0	Reserved.		
62h	REG102FC4	7:0	Default : 0x00	Access : R/W	
(102FC4h)	-	7:4	Reserved.		
	CTI_MUTUAL_THD_F2[3:0]	3:0	Main window CTI mutual th	reshold.	
62h	REG102FC5	7:0	Default : 0x03	Access : R/W	
(102FC5h)	-	7:3	Reserved.		
	CTI_MUTUAL_STEP_F2[2:0]	2:0	Main window CTI mutual st	<u>—</u> е р .	



SC1 HVSF	Register (Bank = 102F,	Sub-E	Bank = 23)		
Index (Absolute)	Mnemonic	Bit	Description		
63h	REG102FC6	7:0	Default : 0x03	Access : R/W	
(102FC6h)	-	7:2	Reserved.		
	CTI_PATCH_MODE_F2[1:0]	1:0	Main window CTI patch mod 0: None. 1: Trans. 2: Clfp/wts. 3: Both.	le.	
64h	REG102FC8	7:0	Default : 0x00	Access : R/W	
(102FC8h)	-	7:5 Reserved.			
	CTI_TRANS_OFFSET_F2[4:0]	4:0	Main window CTI mutual lev	el patch threshold.	
64h	REG102FC9	7:0	Default : 0x28	Access : R/W	
(102FC9h)		7:6	Reserved.		
	CTI_TRANS_SLOPE_F2[5:0]	5:0	Main window CTI mutual trans level slope gain.		
65h	REG102FCA	7:0	Default : 0x10	Access : R/W	
(102FCAh)	. (0 0	7:5	Reserved.		
	CTI_CLFP_OFFSET_F2[4:0]	4:0	Main window CTI mutual C low freq threshold.		
65h	REG102FCB	7:0	Default : 0x14	Access : R/W	
(102FCBh)		7:6	Reserved.		
, C	CTI_CLFP_SLOPE_F2[5:0]	5:0	Main window CTI mutual C I	ow freq slope gain.	
66h	REG102FCC	7:0	Default : 0x00	Access : R/W	
(102FCCh)	- (/ / /)	7:2	Reserved.		
	CTI_CLFP_STEP_F2[1:0]	1:0	Main window CTI mutual C I	ow freq step.	
70h	REG102FE0	7:0	Default : 0x00	Access : R/W	
(102FE0h)	. \(\)	7:3	Reserved.		
	CTI_LPF_COEF_F1[2:0]	2:0	Sub window CTI LPF coeffici	ents.	
71h	REG102FE3	7:0	Default : 0x00	Access : R/W	
(102FE3h)	CTI_EN_F1	7	Sub window CTI enable.		
	-	6:0	Reserved.		
77h	REG102FEF	7:0	Default : 0x00	Access : R/W	
(102FEFh)	-	7:1	Reserved.		
	EXTRA_FACTOR_EN	0	Extra horizontal initial factor	enable.	
78h	REG102FF0	7:0	Default : 0x00	Access : R/W	
(102FF0h)	EXTRA_INI_FACTOR_HO_1[7:0]	7:0	Extra horizontal initial factor	1.	
78h	REG102FF1	7:0	Default : 0x00	Access : R/W	



SC1 HVSP Register (Bank = 102F, Sub-Bank = 23)					
Index (Absolute)	Mnemonic	Bit	Description		
	EXTRA_INI_FACTOR_HO_2[7:0]	7:0	Extra horizontal initial factor 2.		
79h	REG102FF2	7:0	Default : 0x00	Access : R/W	
(102FF2h)	EXTRA_INI_FACTOR_HO_3[7:0]	7:0	Extra horizontal initial factor 3.		
79h	REG102FF3	7:0	Default : 0x00	Access : R/W	
(102FF3h)	EXTRA_INI_FACTOR_HO_4[7:0]	7:0	Extra horizontal initial factor	4.	





SC1 PAFRC Register (Bank = 102F, Sub-Bank = 24)

SC1 PAFR	RC Register (Bank = 102	2F, Sul	b-Bank = 24)				
Index (Absolute)	Mnemonic	Bit	Description				
3Fh	REG102F7E	7:0	Default : 0x0A	Access : R/W			
(102F7Eh)	-	7:6	Reserved.				
	POL_TYPE	5	Pol type setting.				
	PAFRC_TAIL_CUT	4	Pafrc tail cut function. 0: Lsb use ori lsb. 1: Lsb use Otailcut enable.				
	NOISE_DITH_DISABLE	3	PAFRC mixed with noise dither disable. 0: Enable. 1: Disable.				
	DITH_BITS	2	Dithering bits. 0: 2-bits. 1: 4-bits.				
	TCON_OFF_EN		Tcon frc_gamma function off signal enable. 1: Gamma/dither function turn off by tcon frc_gamma_offTCON FRC_GAMMA function off signal enable.				
	FRC_ON	0	PAFRC enable.				
40h	REG102F80	7:0	Default : 0x23	Access : R/W			
(102F80h)	BOX_ROTATE_EN	7	Box A/B/C/D relation rotation	enable.			
Mi	TOP_BOX_UNIT_FLAG[1:0]	6:5	Top box A/B/C/D swap flag. 00: Per 2x2 box. 01: Per 4x4 box. 1x: Per 8x8 box.				
	TOP_BOX_FREEZE	4	Top box freeze.				
	TOP_BOX_SHRINK	3	Top box shrink to 2x2 from 4	x4.			
	FR_C2_BIT	2	Top box frame rotation step to 0: Bit[0]. 1: Bit[1].	oit location for codexx10.			
	C2X2_ROT_B_DIR_S	1	C 2x2 block rotation direction. 0: Counterwise. 1: Backcounterwise, 2nd.				
	D2X2_ROT_B_DIR_S	0	D 2x2 block rotation direction. 0: Counterwise.				
			1: Backcounterwise, 2nd.				



SC1 PAFR	C Register (Bank = 102	2F, Su	b-Bank = 24)				
Index (Absolute)	Mnemonic	Bit	Description				
	-	7	Reserved.				
	G_V_SWAP	6	Green channel vertical swap,	avoid polarity not consistent.			
	G_H_SWAP	5	Green channel horizontal swa	p, avoid polarity not			
	B_D_SWAP	4	Blue channel diagonal swap.				
	BOX_FR_SW	3	FRAME_CNT bit [1:0] swap for box rotate.				
	BOX4X4_FR_SW	2	FRAME_CNT bit [1:0] swap for	or box4x4 rotate.			
	BOX8X8_ROT_UNIT	1	0: Rotate step under per A, B 1: Rotate step between A/B/0				
	BOX_FREEZE	0	Box local rotation freeze.				
41h	REG102F82	7:0	Default : 0xF3	Access : R/W			
(102F82h)	C2X2_ROT_G_DIR	7	C 2x2 block rotation direction O: Counterwise. 1: Backcounterwise.				
	D2X2_ROT_G_DIR	6	D 2x2 block rotation direction. 0: Counterwise. 1: Backcounterwise.				
, ,	C2X2_ROT_G_DIR_S	5	C 2x2 block rotation direction 0: Counterwise. 1: Backcounterwise, 2nd.				
M	D2X2_ROT_G_DIR_S	4	D 2x2 block rotation direction 0: Counterwise. 1: Backcounterwise, 2nd.	l.			
	A2X2_ROT_B_DIR	3	A 2x2 block rotation direction 0: Counterwise. 1: Backcounterwise.				
	B2X2_ROT_B_DIR	2	B 2x2 block rotation direction. 0: Counterwise. 1: Backcounterwise.				
	C2X2_ROT_B_DIR	1	C 2x2 block rotation direction. 0: Counterwise. 1: Backcounterwise.				
	D2X2_ROT_B_DIR	0	D 2x2 block rotation direction 0: Counterwise. 1: Backcounterwise.	1.			
41h	REG102F83	7:0	Default : 0x3C	Access : R/W			



SC1 PAFR	C Register (Bank = 102	F, Su	b-Bank = 24)				
Index (Absolute)	Mnemonic	Bit	Description				
	A2X2_ROT_R_DIR	7	A 2x2 block rotation direction.0: Counterwise.1: Backcounterwise.				
B2X2_ROT_R_DIR 6 B 2x2 block rotation 0: Counterwise. 1: Backcounterwise							
	C2X2_ROT_R_DIR	5	C 2x2 block rotation direction. 0: Counterwise. 1: Backcounterwise.				
	D2X2_ROT_R_DIR	4	D 2x2 block rotation direction. 0: Counterwise. 1: Backcounterwise.				
	C2X2_ROT_R_DIR_S	3	C 2x2 block rotation direction. 0: Counterwise. 1: Backcounterwise, 2nd. D 2x2 block rotation direction. 0: Counterwise. 1: Backcounterwise, 2nd.				
	D2X2_ROT_R_DIR_S	2					
, 2	A2X2_ROT_G_DIR	1	A 2x2 block rotation direction 0: Counterwise. 1: Backcounterwise.				
M	B2X2_ROT_G_DIR	0	B 2x2 block rotation direction0: Counterwise.1: Backcounterwise.				
42h	REG102F84	7:0	Default : 0xC9	Access : R/W			
(102F84h)	TOP_BOX_FR_SEQ2[7:0]	7:0	Top box frame 2nd 4 frame r	otation step.			
42h	REG102F85	7:0	Default : 0x9C	Access : R/W			
(102F85h)	TOP_BOX_FR_SEQ1[7:0]	7:0	Top box frame 1st 4 frame ro	tation step.			
43h	REG102F86	7:0	Default : 0xC9	Access : R/W			
(102F86h)	TOP_BOX_FR_SEQ4[7:0]	7:0	Top box frame 4th 4 frame rotation step.				
43h	REG102F87	7:0	Default : 0x9C	Access : R/W			
(102F87h)	TOP_BOX_FR_SEQ3[7:0]	7:0	Top box frame 3rd 4 frame ro	otation step.			
44h	REG102F88	7:0	Default : 0xAA	Access : R/W			
(102F88h)	TOP_BOX_FR_C2_SEQ34[7:0]	7:0	Top box frame 3rd/4th 4 fran	ne rotation step for codexx10.			
44h	REG102F89	7:0	Default : 0xAA	Access : R/W			
(102F89h)	TOP_BOX_FR_C2_SEQ12[7:0]	7:0	Top box frame 1st/2nd 4 fram	ne rotation step for codexx10.			



	RC Register (Bank = 10)						
Index (Absolute)	Mnemonic	Bit	Description				
45h	REG102F8A	7:0	Default : 0x50	Access : R/W			
(102F8Ah)	BOX_A_ROT_DIR	7	Location A frame counter direction. 0: Counterwise. 1: Back.				
	BOX_B_ROT_DIR	6	Location B frame counter direction. 0: Counterwise. 1: Back.				
	BOX_C_ROT_DIR	5	Location C frame counter direction. 0: Counterwise. 1: Back.				
	BOX_D_ROT_DIR	4	Location D frame counter direction. 0: Counterwise. 1: Back.				
	-	3:0	Reserved.				
(102F8Bh) _E	REG102F8B	7:0	Default : 0x22 Access : R/W				
	BOX8X8_ROT_00[1:0]	7:6	Box8x8 entity 00 rotation step by reference.				
	BOX8X8_ROT_01[1:0]	5:4	Box8x8 entity 01 rotation step by reference.				
	BOX8X8_ROT_11[1:0]	3:2	Box8x8 entity 11 rotation step by reference.				
	BOX8X8_ROT_10[1:0]	1:0	Box8x8 entity 10 rotation ste	p by reference.			
46h	REG102F8C	7:0	Default : 0xD8	Access : R/W			
(102F8Ch)	B_LU_00[1:0]	7:6	B 2x2 block left up entity.				
	B_RU_01[1:0]	5:4	B 2x2 block right up entity.				
(B_RD_11[1:0]	3:2	B 2x2 block right down entity	<i></i>			
	B_LD_10[1:0]	1:0	B 2x2 block left down entity.				
46h	REG102F8D	7:0	Default : 0xD8	Access : R/W			
(102F8Dh)	A_LU_00[1:0]	7:6	A 2x2 block left up entity.				
	A_RU_01[1:0]	5:4	A 2x2 block right up entity.				
	A_RD_11[1:0]	3:2	A 2x2 block right down entity	<i></i>			
	A_LD_10[1:0]	1:0	A 2x2 block left down entity.				
47h	REG102F8E	7:0	Default : 0x72	Access : R/W			
(102F8Eh)	D_LU_00[1:0]	7:6	D 2x2 block left up entity.				
	D_RU_01[1:0]	5:4	D 2x2 block right up entity.				
	D_RD_11[1:0]	3:2	D 2x2 block right down entity	y			
	D_LD_10[1:0]	1:0	D 2x2 block left down entity.				



Index	Mnemonic	Bit	Description			
(Absolute) 47h	REG102F8F	7:0	Default : 0x72	Access : R/W		
(102F8Fh)	C_LU_00[1:0]	7:6	C 2x2 block left up entity.	1,100,000,000		
	C_RU_01[1:0]	5:4	C 2x2 block right up entity.			
	C_RD_11[1:0]	3:2	C 2x2 block right down entity	1.		
	C_LD_10[1:0]	1:0	C 2x2 block left down entity.			
48h	REG102F90	7:0	Default : 0x8D	Access : R/W		
(102F90h)	D_LU_00_S[1:0]	7:6	D 2x2 block left up entity, 2n	d.		
	D_RU_01_S[1:0]	5:4	D 2x2 block right up entity, 2	nd.		
	D_RD_11_S[1:0]	3:2	D 2x2 block right down entity	, 2nd.		
	D_LD_10_S[1:0]	1:0	D 2x2 block left down entity,	2nd.		
48h REG102F91 7:0 Default : 0x8D Ac			Access : R/W			
(102F91h)	C_LU_00_S[1:0]	7:6	C 2x2 block left up entity, 2nd.			
	C_RU_01_S[1:0]	5:4	C 2x2 block right up entity, 2nd.			
	C_RD_11_\$[1:0]	3:2	C 2x2 block right down entity, 2nd.			
	C_LD_10_S[1:0]	1:0	C 2x2 block left down entity, 2nd.			
49h	REG102F92	7:0	Default : 0x27	Access : R/W		
(102F92h)	BOX_B_LU_00[1:0]	7:6	Location B block A LSB 2 bits	plus value.		
, C	BOX_B_RU_01[1:0]	5:4	Location B block B LSB 2 bits	plus value.		
	BOX_B_RD_11[1:0]	3:2	Location B block C LSB 2 bits	plus value.		
19.	BOX_B_LD_10[1:0]	1:0	Location B block D LSB 2 bits	plus value.		
19h	REG102F93	7:0	Default : 0xD8	Access : R/W		
(102F93h)	BOX_A_LU_00[1:0]	7:6	Location A block A LSB 2 bits	plus value.		
	BOX_A_RU_01[1:0]	5:4	Location A block B LSB 2 bits	plus value.		
	BOX_A_RD_11[1:0]	3:2	Location A block C LSB 2 bits	plus value.		
	BOX_A_LD_10[1:0]	1:0	Location A block D LSB 2 bits	plus value.		
4Ah	REG102F94	7:0	Default : 0x72	Access : R/W		
(102F94h)	BOX_D_LU_00[1:0]	7:6	Location D block A LSB 2 bits	plus value.		
	BOX_D_RU_01[1:0]	5:4	Location D block B LSB 2 bits	plus value.		
	BOX_D_RD_11[1:0]	3:2	Location D block C LSB 2 bits	plus value.		
	BOX_D_LD_10[1:0]	1:0	Location D block D LSB 2 bits	plus value.		
lAh	REG102F95	7:0	Default : 0x8D	Access : R/W		
(102F95h)	BOX_C_LU_00[1:0]	7:6	Location C block A LSB 2 bits	plus value.		
	BOX_C_RU_01[1:0]	5:4	Location C block B LSB 2 bits	nlus value		



SC1 PAFRC Register (Bank = 102F, Sub-Bank = 24)					
Index (Absolute)	Mnemonic	Bit	Description		
	BOX_C_RD_11[1:0]	3:2	Location C block C LSB 2 bits plus value.		
	BOX_C_LD_10[1:0]	1:0	Location C block D LSB 2 bits plus value.		





SC1 XV_YCC Register (Bank = 102F, Sub-Bank = 25)

SC1 XV_Y	CC Register (Bank = 102F, Sub-	Bank	= 25)	
Index (Absolute)	Mnemonic	Bit	Description	
01h	REG102F02	7:0	Default : 0x00	Access : R/W
(102F02h)	-	7	Reserved.	
	POST_MAIN_NOISE_ROUND_EN	6	Main window post noise rounding enable.	
	POST_MAIN_CON_EN	5	Main window post con	trast enable.
	POST_MAIN_BRI_EN	4	Main window post brig	htness enable.
	-	3:0	Reserved.	
11h	REG102F22	7:0	Default : 0x00	Access : R/W
(102F22h)	-	7	Reserved.	
	POST_SUB_NOISE_ROUND_EN	6	Sub window post noise	e rounding enable.
	POST_SUB_CON_EN	5	Sub window post cont	rast enable.
	POST_SUB_BRI_EN	4	Sub window post brightness enable.	
	-	3:0	Reserved.	
21h	REG102F42	7:0	Default : 0x00	Access : R/W
(102F42h)	POST_MAIN_R_BRI_OFFSET[7:0]	7:0	Main window post r channel offset.	
21h	REG102F43	7:0	Default : 0x00	Access : R/W
(102F43h)	-0	7:3	Reserved.	
, 6	POST_MAIN_R_BRI_OFFSET[10:8]	2:0	See description of '102	2F42h'.
22h	REG102F44	7:0	Default : 0x00	Access : R/W
(102F44h)	POST_MAIN_G_BRI_OFFSET[7:0]	7:0	Main window post g cl	nannel offset.
22h	REG102F45	7:0	Default : 0x00	Access : R/W
(102F45h)		7:3	Reserved.	
	POST_MAIN_G_BRI_OFFSET[10:8]	2:0	See description of '102	2F44h'.
23h	REG102F46	7:0	Default : 0x00	Access : R/W
(102F46h)	POST_MAIN_B_BRI_OFFSET[7:0]	7:0	Main window post b cl	nannel offset.
23h	REG102F47	7:0	Default : 0x00	Access : R/W
(102F47h)	-	7:3	Reserved.	
	POST_MAIN_B_BRI_OFFSET[10:8]	2:0	See description of '102	2F46h'.
24h	REG102F48	7:0	Default : 0x00	Access : R/W
(102F48h)	POST_MAIN_R_CON_GAIN[7:0]	7:0	Main window post r ch	nannel gain.
24h	REG102F49	7:0	Default : 0x00	Access : R/W
(102F49h)	-	7:4	Reserved.	
	POST_MAIN_R_CON_GAIN[11:8]	3:0	See description of '102	∑F48h'.



SC1 XV_Y	CC Register (Bank = 102F, Sub-	Bank	= 25)	
Index (Absolute)	Mnemonic	Bit	Description	
25h	REG102F4A	7:0	Default : 0x00	Access : R/W
(102F4Ah)	POST_MAIN_G_CON_GAIN[7:0]	7:0	Main window post g ch	nannel gain.
25h	REG102F4B	7:0	Default : 0x00	Access : R/W
(102F4Bh)	-	7:4	Reserved.	
	POST_MAIN_G_CON_GAIN[11:8]	3:0	See description of '102	2F4Ah'.
26h	REG102F4C	7:0	Default : 0x00	Access : R/W
(102F4Ch)	POST_MAIN_B_CON_GAIN[7:0]	7:0	Main window post b ch	nannel gain.
26h	REG102F4D	7:0	Default : 0x00	Access : R/W
(102F4Dh)	-	7:4	Reserved.	
	POST_MAIN_B_CON_GAIN[11:8]	3:0	See description of '102F4Ch'.	
27h	REG102F4E	7:0	Default : 0x00	Access : R/W
(102F4Eh)	POST_SUB_R_BRI_OFFSET[7:0]	7:0	Sub window post r channel offset.	
27h	REG102F4F	7:0	Default : 0x00	Access : R/W
(102F4Fh)	- 10,10	7:3	Reserved.	
	POST_SUB_R_BRI_OFFSET[10:8]	2:0	See description of '102F4Eh'.	
28h	REG102F50	7:0	Default: 0x00	Access : R/W
(102F50h)	POST_SUB_G_BRI_OFFSET[7:0]	7:0	Sub window post g cha	annel offset.
28h	REG102F51	7:0	Default : 0x00	Access : R/W
(102F51h)	- 6	7:3	Reserved.	
	POST_SUB_G_BRI_OFFSET[10:8]	2:0	See description of '102	2F50h'.
29h	REG102F52	7:0	Default : 0x00	Access : R/W
(102F52h)	POST_SUB_B_BRI_OFFSET[7:0]	7:0	Sub window post b cha	annel offset.
29h	REG102F53	7:0	Default : 0x00	Access : R/W
(102F53h)	- //\	7:3	Reserved.	
	POST_SUB_B_BRI_OFFSET[10:8]	2:0	See description of '102	2F52h'.
2Ah	REG102F54	7:0	Default : 0x00	Access : R/W
(102F54h)	POST_SUB_R_CON_GAIN[7:0]	7:0	Sub window post r cha	annel gain.
2Ah	REG102F55	7:0	Default : 0x00	Access : R/W
(102F55h)	-	7:4	Reserved.	
	POST_SUB_R_CON_GAIN[11:8]	3:0	See description of '102	ΣF54h'.
2Bh	REG102F56	7:0	Default : 0x00	Access : R/W
(102F56h)	POST_SUB_G_CON_GAIN[7:0]	7:0	Sub window post g cha	annel gain.



Index	Mnemonic	Bit	Description
(Absolute)			
	-	7:4	Reserved.
	POST_SUB_G_CON_GAIN[11:8]	3:0	See description of '102F56h'.
2Ch	REG102F58	7:0	Default : 0x00 Access : R/W
(102F58h)	POST_SUB_B_CON_GAIN[7:0]	7:0	Sub window post b channel gain.
2Ch	REG102F59	7:0	Default : 0x00 Access : R/W
(102F59h)	-	7:4	Reserved.
	POST_SUB_B_CON_GAIN[11:8]	3:0	See description of '102F58h'.
30h	REG102F60	7:0	Default : 0x00 Access : R/W
(102F60h)	-	7:6	Reserved.
	PG_OSD_SEL	5	OSD mux with pattern gen output.
			1: Select OSD output.
		4.0	0: Select pattern gen output.
•		4:0	Reserved.
4Eh (102F9Ch)	REG102F9C	7:0	Default : 0x00 Access : RO
(1025 7011)	-	7:6	Reserved.
	BIST_FAIL_XV_YCC_FIX_GAMMA_SRAM [5:0]	5:0	Xvycc fix gamma SRAM BIST fail report.
4Eh	REG102F9D	7:0	Default : 0x00 Access : RO
(102F9Dh)	XO.	7:3	Reserved.
Mi	BIST_FAIL_XV_YCC_DE_GAMMA_SRAM[2:0]	2:0	Xvycc de gamma SRAM BIST fail report.
6Ah	REG102FD5	7:0	Default : 0x00 Access : R/W
(102FD5h)		7:1	Reserved.
	BT601_YC422_OP_CH_SEL	0	
78h	REG102FF0	7:0	Default : 0x00 Access : R/W
(102FF0h)	XVYCC_GAT_BW_EN	7	Xvycc programmable gamma table burst write enable.
	XVYCC_GATCS[1:0]	6:5	Xvycc programmable gamma table channel
			select: 00: Select R Channel.
			01: Select G Channel.
			10: Select B Channel.
			11: Select All Channel when write; reserved f
			read.
	XVYCC_GAT_RD_EN	4	Xvycc programmable gamma table read



SC1 XV_Y	CC Register (Bank = 102F, Sub	-Bank	= 25)
Index (Absolute)	Mnemonic	Bit	Description
			enable: will hardware clear to 0 after read back
	XVYCC_GAT_WR_EN	3	Xvycc programmable gamma table write enable: will hardware clear to 0 after write.
	-	2:0	Reserved.
78h	REG102FF1	7:0	Default: 0x00 Access: RO, R/W
(102FF1h)	-	7:3	Reserved.
	XVYCC_GAT_MAX_EN	2	Xvycc programmable gamma table max data enable.
	XVYCC_GAT_BW_FLAG	1	Xvycc programmable gamma table burst write status when burst write enable.
	-	0	Reserved.
79h	REG102FF2	7:0	Default : 0x00 Access : R/W
(102FF2h)	XVYCC_GAT_ADR[7:0]	7:0	Xvycc programmable gamma table address port.
7Ah	REG102FF4	7:0	Default : 0x00 Access : R/W
(102FF4h)	XVYCC_GAT_DATA[7:0]	7:0	Xvycc programmable gamma table write data port.
7Ah	REG102FF5	7:0	Default : 0x00 Access : R/W
(102FF5h)		7:4	Reserved.
	XVYCC_GAT_DATA[11:8]	3:0	See description of '102FF4h'.
7Bh	REG102FF6	7:0	Default : 0x00 Access : R/W
(102FF6h)	XVYCC_GAT_MAX_DATA[7:0]	7:0	Xvycc programmable gamma table max data.
7Bh	REG102FF7	7:0	Default : 0x00 Access : R/W
(102FF7h)	· \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	7:4	Reserved.
	XVYCC_GAT_MAX_DATA[11:8]	3:0	See description of '102FF6h'.
7Dh	REG102FFA	7:0	Default : 0x00 Access : RO
(102FFAh)	XVYCC_GAT_RD_DATA[7:0]	7:0	Xvycc programmable gamma table read data port.
7Dh	REG102FFB	7:0	Default : 0x00 Access : RO
(102FFBh)	-	7:4	Reserved.
	XVYCC_GAT_RD_DATA[11:8]	3:0	See description of '102FFAh'.



SC1 DMS Register (Bank = 102F, Sub-Bank = 26)

SC1 DMS	Register (Bank = 102F, S	ub-B	ank = 26)		
Index (Absolute)	Mnemonic	Bit	Description		
10h	REG102F20	7:0	Default : 0x00	Access : R/W	
(102F20h)	-	7:2	Reserved.		
	DMS_ALPHA_LPF_EN_F2	1	Alpha low pass filter enable	F2.	
	DMS_EN_F2	0	Mosquito noise reduction enable F2.		
10h	REG102F21	7:0	Default : 0x00	Access : R/W	
(102F21h)	-	7:5	Reserved.		
	DMS_STRENGTH_F2[4:0]	4:0	Mosquito noise reduction str	ength F2.	
11h	REG102F22	7:0	Default : 0x00	Access : R/W	
(102F22h)	STD_LOW_THRD_HOR_F2[7:0]	7:0	Horizontal std low threshold	F2.	
12h	REG102F24	7:0	Default : 0x00	Access : R/W	
(102F24h)	STD_LOW_THRD_CEN_F2[7:0]	7:0	Center std low threshold F2.		
14h	REG102F28	7:0	Default : 0x00	Access : R/W	
(102F28h)	- (O' \	7:2	Reserved.		
	DMS_ALPHA_LPF_EN_F1	1	Alpha low pass filter enable F1.		
	DMS_EN_F1	0	Mosquito noise reduction en	able F1.	
14h	REG102F29	7:0	Default : 0x00	Access : R/W	
(102F29h)		7:5	Reserved.		
	DMS_STRENGTH_F1[4:0]	4:0	Mosquito noise reduction str	ength F1.	
15h	REG102F2A	7:0	Default : 0x00	Access : R/W	
(102F2Ah)	STD_LOW_THRD_HOR_F1[7:0]	7:0	Horizontal std low threshold	F1.	
15h	REG102F2B	7:0	Default : 0x03	Access : R/W	
(102F2Bh)	-	7:2	Reserved.		
	LUT_STEP_HOR_F1[1:0]	1:0	Horizontal look-up-table step) F1.	
16h	REG102F2C	7:0	Default : 0x00	Access : R/W	
(102F2Ch)	STD_LOW_THRD_CEN_F1[7:0]	7:0	Horizontal Center std low the	reshold F1.	
16h	REG102F2D	7:0	Default : 0x03	Access : R/W	
(102F2Dh)	-	7:3	Reserved.		
	LUT_STEP_CEN_F1[2:0]	2:0	Horizontal Center look-up-ta	ble step F1.	
50h	REG102FA0	7:0	Default : 0x44	Access : R/W	
(102FA0h)	-	7:6	Reserved.		
	V_C_LPF_EN_F1	5	Vertical C Low Pass Filter En	able F1.	
	SPIKE_NR_EN_F1	4	Spike NR Enable F1.		



SC1 DMS	Register (Bank = 102F, S	ub-B	ank = 26)		
Index (Absolute)	Mnemonic	Bit	Description		
	SPIKE_NR_MR_EN	3	Spike NR motion ratio enabl	e.	
	-	2	Reserved.		
	V_C_LPF_EN_F2	1	Vertical C Low Pass Filter En	able F2.	
	SPIKE_NR_EN_F2	0	Spike NR Enable F2.		
50h	REG102FA1	7:0	Default : 0x00	Access : R/W	
(102FA1h)	-	7:4	Reserved.		
	SPIKE_NR_COEF[3:0]	3:0	Spike NR Coefficient.		
51h	REG102FA3	7:0	Default : 0x00	Access : R/W	
(102FA3h)	-	7:5	Reserved.		
	P_THRD_1[4:0]	4:0	Spike NR P threshold 1.		
52h	REG102FA4	7:0	Default : 0x00	Access : R/W	
(102FA4h)	P_THRD_2[7:0]	7:0	Spike NR P threshold 2.		
52h	REG102FA5	7:0	Default : 0x00	Access : R/W	
(102FA5h)	P_THRD_3[7:0]	7:0	Spike NR P threshold 3.		
53h	REG102FA6	7:0	Default : 0x00	Access : R/W	
(102FA6h)	- (7	Reserved.		
	D_31_STEP[2:0]	6:4	Spike NR D31 Step.		
, C		3	Reserved.		
	D_11_21_STEP[2:0]	2:0	Spike NR D11_21 Step.		
53h	REG102FA7	7:0	Default : 0x00	Access : R/W	
(102FA7h)	-01	7:3	Reserved.		
	YP_22_STEP[2:0]	2:0	Spike NR YP22 Step.		
54h	REG102FA8	7:0	Default : 0x00	Access : R/W	
(102FA8h)	- \\\\	7:5	Reserved.		
	SPK_MR_LPF_EN_F1	4	Spike NR motion ratio low parask).	ass filter enable F1 (lpf is 3x3	
	-	3:1	Reserved.		
	SPK_MR_LPF_EN_F2	0	Spike NR motion ratio low pass filter enable F2 (lpf is 3 mask).		
55h	REG102FAA	7:0	Default : 0x10	Access : R/W	
(102FAAh)	SPIKE_NR_MOTION_LUT_0[7:0]	7:0	Spike NR motion ratio look-u	up-table 0.	
55h	REG102FAB	7:0	Default : 0x32	Access : R/W	
(102FABh)	SPIKE_NR_MOTION_LUT_1[7:0]	7:0	Spike NR motion ratio look-u	up-table 1.	



SC1 DMS	Register (Bank = 102F, S	ub-B	ank = 26)		
Index (Absolute)	Mnemonic	Bit	Description		
56h	REG102FAC	7:0	Default : 0x54	Access : R/W	
(102FACh)	SPIKE_NR_MOTION_LUT_2[7:0]	7:0	Spike NR motion ratio look-u	ıp-table 2.	
56h	REG102FAD	7:0	Default : 0x76	Access : R/W	
(102FADh)	SPIKE_NR_MOTION_LUT_3[7:0]	7:0	Spike NR motion ratio look-up-table 3.		
57h	REG102FAE	7:0	Default : 0x98	Access : R/W	
(102FAEh)	SPIKE_NR_MOTION_LUT_4[7:0]	7:0	Spike NR motion ratio look-u	up-table 4.	
57h	REG102FAF	7:0	Default : 0xBA	Access : R/W	
(102FAFh)	SPIKE_NR_MOTION_LUT_5[7:0]	7:0	Spike NR motion ratio look-u	ıp-table 5.	
58h	REG102FB0	7:0	Default : 0xDC	Access : R/W	
(102FB0h)	SPIKE_NR_MOTION_LUT_6[7:0]	7:0	Spike NR motion ratio look-up-table 6.		
58h	REG102FB1	7:0	Default : 0xFE	Access : R/W	
(102FB1h)	SPIKE_NR_MOTION_LUT_7[7:0]	7:0	Spike NR motion ratio look-u	up-table 7.	



SC1 ACE2 Register (Bank = 102F, Sub-Bank = 27)

SC1 ACE2	Register (Bank = 102F, Sub-	Banl	k = 27)	
Index (Absolute)	Mnemonic	Bit	Description	
04h	REG102F08	7:0	Default : 0x00	Access : R/W
(102F08h)	-	7:6	Reserved.	
	SUB_CURVE_FIT_CF_LPF_EN	5	Sub window color factor lo luma curve [1 2 1].	ow pass filter enable for
	SUB_COLOR_CURVE_FIT_EN	4	Sub window color adaptive	e enable for luma curve.
	-	3:2	Reserved.	
	MAIN_CURVE_FIT_CF_LPF_EN	1	Main window color factor I luma curve [1 2 1].	ow pass filter enable for
	MAIN_COLOR_CURVE_FIT_EN	0	Main window color adaptive	ve enable for luma curve.
05h	REG102F0A	7:0	Default : 0x00	Access : R/W
(102F0Ah)	MAIN_COLOR_GO_SELECT_CF[7:0]	7:0	Main window color selection for luma curve of Col Group 0.	
05h	REG102F0B	7:0	Default : 0x00	Access : R/W
(102F0Bh)	MAIN_COLOR_G0_SELECT_CF[15:8]	7:0	See description of '102F0Ah'.	
06h	REG102F0C	7:0	Default : 0x00	Access : R/W
(102F0Ch)	MAIN_COLOR_G1_SELECT_CF[7:0]	7:0	Main window color selection for luma curve of Co Group 1.	
06h	REG102F0D	7:0	Default: 0x00	Access : R/W
(102F0Dh)	MAIN_COLOR_G1_SELECT_CF[15:8]	7:0	See description of '102F00	ch'.
07h	REG102F0E	7:0	Default : 0x00	Access : R/W
(102F0Eh)	MAIN_COLOR_G2_SELECT_CF[7:0]	7:0	Main window color selection Group 2.	on for luma curve of Color
07h	REG102F0F	7:0	Default : 0x00	Access : R/W
(102F0Fh)	MAIN_COLOR_G2_SELECT_CF[15:8]	7:0	See description of '102F0E	h'.
08h	REG102F10	7:0	Default : 0x00	Access : R/W
(102F10h)	MAIN_COLOR_G3_SELECT_CF[7:0]	7:0	Main window color selection for luma curve of Colo Group 3.	
08h	REG102F11	7:0	Default : 0x00	Access : R/W
(102F11h)	MAIN_COLOR_G3_SELECT_CF[15:8]	7:0	See description of '102F10	h'.
0Dh	REG102F1A	7:0	Default : 0x88	Access : R/W
(102F1Ah)	MAIN_COLOR_G1_STRENGTH_CF[3:0]	7:4	Main window color adaptiv	ve for luma curve of Color
	MAIN_COLOR_GO_STRENGTH_CF[3:0]	3:0	Main window color adaptiv	ve for luma curve of Color



Index (Absolute)	Mnemonic	Bit	Description	
			Group 0.	
0Dh	REG102F1B	7:0	Default : 0x88	Access : R/W
(102F1Bh)	MAIN_COLOR_G3_STRENGTH_CF[3:0]	7:4	Main window color adaptive for luma curve of Colo Group 3.	
	MAIN_COLOR_G2_STRENGTH_CF[3:0]	3:0	Main window color adaptiv Group 2.	e for luma curve of Color
10h	REG102F20	7:0	Default : 0x00	Access : R/W
(102F20h)	MAIN_COLOR_GO_SELECT_PK[7:0]	7:0	Main window color selection Group 0.	on for peaking of Color
10h	REG102F21	7:0	Default : 0x00	Access : R/W
(102F21h)	MAIN_COLOR_G0_SELECT_PK[15:8]	7:0	See description of '102F20h'.	
11h	REG102F22	7:0	Default : 0x00	Access : R/W
(102F22h)	MAIN_COLOR_G1_SELECT_PK[7:0]	7:0	Main window color selection for peaking of Colo Group 1.	
11h	REG102F23	7:0	Default : 0x00	Access : R/W
(102F23h)	MAIN_COLOR_G1_SELECT_PK[15:8]	7:0	See description of '102F22h'.	
12h	REG102F24	7:0	Default : 0x00	Access : R/W
(102F24h)	MAIN_COLOR_G2_SELECT_PK[7:0]	7:0	Main window color selection Group 2.	on for peaking of Color
12h	REG102F25	7:0	Default : 0x00	Access : R/W
(102F25h)	MAIN_COLOR_G2_SELECT_PK[15:8]	7:0	See description of '102F24	h'.
13h	REG102F26	7:0	Default : 0x00	Access : R/W
(102F26h)	MAIN_COLOR_G3_SELECT_PK[7:0]	7:0	Main window color selection Group 3.	on for peaking of Color
13h	REG102F27	7:0	Default : 0x00	Access : R/W
(102F27h)	MAIN_COLOR_G3_SELECT_PK[15:8]	7:0	See description of '102F26	h'.
18h	REG102F30	7:0	Default : 0x88	Access : R/W
(102F30h)	MAIN_COLOR_G1_STRENGTH_PK[3:0]	7:4	Main window color adaptiv Group 1.	ve for peaking of Color
	MAIN_COLOR_GO_STRENGTH_PK[3:0]	3:0	Main window color adaptiv Group 0.	ve for peaking of Color
18h	REG102F31	7:0	Default : 0x88	Access : R/W
(102F31h)	MAIN_COLOR_G3_STRENGTH_PK[3:0]	7:4	Main window color adaptiv Group 3.	ve for peaking of Color



Index (Absolute)	Mnemonic	Bit	Description	
	MAIN_COLOR_G2_STRENGTH_PK[3:0]	3:0	Main window color adaptive for peaking of Color Group 2.	
20h	REG102F40	7:0	Default : 0x00 Access : R/W	
(102F40h)	-	7:5	Reserved.	
	SUB_CTI_EN	4	Sub window CTI enable.	
	-	3:1	Reserved.	
	MAIN_CTI_EN	0	Main window CTI enable.	
21h	REG102F42	7:0	Default : 0x00 Access : R/W	
(102F42h)	-	7:6	Reserved.	
	MAIN_CTI_STEP[1:0]	5:4	Main window CTI step.	
	-	3:0	Reserved.	
21h	REG102F43	7:0	Default : 0x00 Access : R/W	
(102F43h)	-	7:4	Reserved.	
	MAIN_CTI_CORING_THRD[3:0]	3:0	Main window CTI coring threshold.	
22h I (102F44h)	REG102F44	7:0	Default : 0x00 Access : R/W	
	- 4	7:6	Reserved.	
	MAIN_CTI_BAND_COEF[5:0]	5:0	Main window CTI band pass filter coefficient.	
23h	REG102F46	7:0	Default: 0x00 Access : R/W	
(102F46h)	2	7:6	Reserved.	
B.	SUB_CTI_STEP[1:0]	5:4	Sub window CTI step.	
	- 2	3:0	Reserved.	
23h	REG102F47	7:0	Default : 0x00 Access : R/W	
(102F47h)		7:4	Reserved.	
	SUB_CTI_CORING_THRD[3:0]	3:0	Sub window CTI coring threshold.	
24h	REG102F48	7:0	Default : 0x00 Access : R/W	
(102F48h)	-	7:6	Reserved.	
	SUB_CTI_BAND_COEF[5:0]	5:0	Sub window CTI band pass filter coefficient.	
25h	REG102F4A	7:0	Default : 0x00 Access : R/W	
(102F4Ah)	-	7:4	Reserved.	
	MAIN_CTI_GRAY_THRD[3:0]	3:0	Main window CTI grap patch threshold.	
26h	REG102F4C	7:0	Default : 0x00 Access : R/W	
(102F4Ch)	-	7:4	Reserved.	
	SUB_CTI_GRAY_THRD[3:0]	3:0	Sub window CTI grap patch threshold.	



Index (Absolute)	Mnemonic	Bit	Description	
28h	REG102F50	7:0	Default : 0x00	Access : R/W
(102F50h)	MAIN_IHC_ICC_COLOR0_Y_0[7:0]	7:0	Main window IHC, ICC adacolor0.	aptive Y in section 0 for
28h	REG102F51	7:0	Default : 0x00	Access : R/W
(102F51h)	MAIN_IHC_ICC_COLOR0_Y_1[7:0]	7:0	Main window IHC, ICC add color0.	aptive Y in section 1 for
29h	REG102F52	7:0	Default : 0x00	Access : R/W
(102F52h)	MAIN_IHC_ICC_COLOR0_Y_2[7:0]	7:0	Main window IHC, ICC add color0.	aptive Y in section 2 for
29h	REG102F53	7:0	Default : 0x00	Access : R/W
(102F53h)	MAIN_IHC_ICC_COLOR0_Y_3[7:0]	7:0	Main window IHC, ICC adaptive Y in section 3 color0.	
2Ah	REG102F54	7:0	Default : 0x00	Access : R/W
(102F54h)	MAIN_IHC_ICC_COLOR1_Y_0[7:0]	7:0	Main window IHC, ICC adaptive Y in section 0 for color1.	
-	REG102F55	7:0	Default : 0x00	Access : R/W
(102F55h)	MAIN_IHC_ICC_COLOR1_Y_1[7:0]	7:0	Main window IHC, ICC additional color1.	aptive Y in section 1 for
2Bh	REG102F56	7:0	Default: 0x00	Access : R/W
(102F56h)	MAIN_IHC_ICC_COLOR1_Y_2[7:0]	7:0	Main window IHC, ICC addictions of the color	aptive Y in section 2 for
2Bh	REG102F57	7:0	Default : 0x00	Access : R/W
(102F57h)	MAIN_IHC_ICC_COLOR1_Y_3[7:0]	7:0	Main window IHC, ICC ada	aptive Y in section 3 for
2Ch	REG102F58	7:0	Default : 0x00	Access : R/W
(102F58h)	MAIN_IHC_ICC_COLOR2_Y_0[7:0]	7:0	Main window IHC, ICC adactors.	aptive Y in section 0 for
2Ch	REG102F59	7:0	Default : 0x00	Access : R/W
(102F59h)	MAIN_IHC_ICC_COLOR2_Y_1[7:0]	7:0	Main window IHC, ICC adactors.	aptive Y in section 1 for
2Dh	REG102F5A	7:0	Default : 0x00	Access : R/W
(102F5Ah)	MAIN_IHC_ICC_COLOR2_Y_2[7:0]	7:0	Main window IHC, ICC adactors.	aptive Y in section 2 for
2Dh	REG102F5B	7:0	Default : 0x00	Access : R/W
(102F5Bh)	MAIN_IHC_ICC_COLOR2_Y_3[7:0]	7:0	Main window IHC, ICC add	aptive Y in section 3 for



Index (Absolute)	Mnemonic	Bit	Description		
()			color2.		
2Eh	REG102F5C	7:0	Default : 0x00	Access : R/W	
(102F5Ch)	MAIN_IHC_ICC_COLOR3_Y_0[7:0]	7:0	Main window IHC, ICC ada color3.	aptive Y in section 0 for	
2Eh	REG102F5D	7:0	Default : 0x00	Access : R/W	
(102F5Dh)	MAIN_IHC_ICC_COLOR3_Y_1[7:0]	7:0	Main window IHC, ICC addicolor3.	aptive Y in section 1 for	
2Fh	REG102F5E	7:0	Default : 0x00	Access : R/W	
(102F5Eh)	MAIN_IHC_ICC_COLOR3_Y_2[7:0]	7:0	Main window IHC, ICC add color3.	aptive Y in section 2 for	
2Fh	REG102F5F	7:0	Default : 0x00	Access : R/W	
(102F5Fh)	MAIN_IHC_ICC_COLOR3_Y_3[7:0]	7:0	Main window IHC, ICC adaptive Y in section 3 f color3.		
30h	REG102F60	7:0	Default : 0x00	Access : R/W	
(102F60h)	MAIN_IHC_ICC_COLOR4_Y_0[7:0]	7:0	Main window IHC, ICC add	aptive Y in section 0 for	
30h	REG102F61	7:0	Default : 0x00	Access : R/W	
(102F61h)	MAIN_IHC_ICC_COLOR4_Y_1[7:0]	7:0	Main window IHC, ICC add	aptive Y in section 1 for	
31h	REG102F62	7:0	Default : 0x00	Access : R/W	
(102F62h)	MAIN_IHC_ICC_COLOR4_Y_2[7:0]	7:0	Main window IHC, ICC adaptive Y in section 2 fo color4.		
31h	REG102F63	7:0	Default : 0x00	Access : R/W	
(102F63h)	MAIN_IHC_ICC_COLOR4_Y_3[7:0]	7:0	Main window IHC, ICC adactors.	aptive Y in section 3 for	
32h	REG102F64	7:0	Default : 0x00	Access : R/W	
(102F64h)	MAIN_IHC_ICC_COLOR5_Y_0[7:0]	7:0	Main window IHC, ICC adactors.	aptive Y in section 0 for	
32h	REG102F65	7:0	Default : 0x00	Access : R/W	
(102F65h)	MAIN_IHC_ICC_COLOR5_Y_1[7:0]	7:0	Main window IHC, ICC adactors.	aptive Y in section 1 for	
33h	REG102F66	7:0	Default : 0x00	Access : R/W	
(102F66h)	MAIN_IHC_ICC_COLOR5_Y_2[7:0]	7:0	Main window IHC, ICC add	aptive Y in section 2 for	
33h	REG102F67	7:0	Default : 0x00	Access : R/W	



Index	Mnemonic	Bit	Description	
(Absolute)				
	MAIN_IHC_ICC_COLOR5_Y_3[7:0]	7:0	Main window IHC, ICC ada	ptive Y in section 3 for
			color5.	
34h	REG102F68	7:0	Default : 0x00	Access : R/W
(102F68h)	MAIN_IHC_ICC_COLOR6_Y_0[7:0]	7:0	Main window IHC, ICC ada color6.	ptive Y in section 0 for
34h	REG102F69	7:0	Default : 0x00	Access : R/W
(102F69h)	MAIN_IHC_ICC_COLOR6_Y_1[7:0]	7:0	Main window IHC, ICC ada color6.	ptive Y in section 1 for
35h	REG102F6A	7:0	Default: 0x00	Access : R/W
(102F6Ah)	MAIN_IHC_ICC_COLOR6_Y_2[7:0]	7:0	Main window IHC, ICC adaptive Y in section a color6.	
35h	REG102F6B	7:0	Default : 0x00	Access : R/W
(102F6Bh)	MAIN_IHC_ICC_COLOR6_Y_3[7:0]	7:0	Main window IHC, ICC adaptive Y in section color6.	
36h	REG102F6C	7:0	Default : 0x00	Access : R/W
(102F6Ch)	MAIN_IHC_ICC_COLOR7_Y_0[7:0]	7:0 Main window IHC, ICC adaptive Y in color7.		ptive Y in section 0 for
36h	REG102F6D	7:0	Default : 0x00	Access : R/W
(102F6Dh)	MAIN_IHC_ICC_COLOR7_Y_1[7:0]	7:0	Main window IHC, ICC ada color7.	ptive Y in section 1 for
37h	REG102F6E	7:0	Default : 0x00	Access : R/W
(102F6Eh)	MAIN_IHC_ICC_COLOR7_Y_2[7:0]	7:0	Main window IHC, ICC ada color7.	ptive Y in section 2 for
37h	REG102F6F	7:0	Default : 0x00	Access : R/W
(102F6Fh)	MAIN_IHC_ICC_COLOR7_Y_3[7:0]	7:0	Main window IHC, ICC ada color7.	ptive Y in section 3 for
38h	REG102F70	7:0	Default : 0x00	Access : R/W
(102F70h)	MAIN_IHC_ICC_COLOR8_Y_0[7:0]	7:0		
38h	REG102F71	7:0	Default : 0x00	Access : R/W
(102F71h)	MAIN_IHC_ICC_COLOR8_Y_1[7:0]	7:0	Main window IHC, ICC ada color8.	ptive Y in section 1 for
39h	REG102F72	7:0	Default : 0x00	Access : R/W
(102F72h)	MAIN_IHC_ICC_COLOR8_Y_2[7:0]	7:0	Main window IHC, ICC ada color8.	ptive Y in section 2 for



Index (Absolute)	Mnemonic	Bit	Description	
39h	REG102F73	7:0	Default : 0x00	Access : R/W
(102F73h)	MAIN_IHC_ICC_COLOR8_Y_3[7:0]	7:0	Main window IHC, ICC add	aptive Y in section 3 for
3Ah	REG102F74	7:0	Default : 0x00	Access : R/W
(102F74h)	MAIN_IHC_ICC_COLOR9_Y_0[7:0]	7:0	Main window IHC, ICC adactors.	aptive Y in section 0 for
3Ah	REG102F75	7:0	Default : 0x00	Access : R/W
(102F75h)	MAIN_IHC_ICC_COLOR9_Y_1[7:0]	7:0	Main window IHC, ICC additions color9.	aptive Y in section 1 for
3Bh	REG102F76	7:0	Default : 0x00	Access : R/W
(102F76h)	MAIN_IHC_ICC_COLOR9_Y_2[7:0]	7:0	Main window IHC, ICC adaptive Y in section 2 color9.	
3Bh	REG102F77	7:0	Default : 0x00	Access : R/W
(102F77h)	MAIN_IHC_ICC_COLOR9_Y_3[7:0]	7:0	Main window IHC, ICC adaptive Y in section 3 color9.	
-	REG102F78	7:0	Default : 0x00	Access : R/W
(102F78h)	MAIN_IHC_ICC_COLOR10_Y_0[7:0]	7:0	Main window IHC, ICC additional color 10.	aptive Y in section 0 for
3Ch	REG102F79	7:0	Default: 0x00	Access : R/W
(102F79h)	MAIN_IHC_ICC_COLOR10_Y_1[7:0]	7:0	Main window IHC, ICC addiction 10.	aptive Y in section 1 for
3Dh	REG102F7A	7:0	Default : 0x00	Access : R/W
(102F7Ah)	MAIN_IHC_ICC_COLOR10_Y_2[7:0]	7:0	Main window IHC, ICC ada color10.	aptive Y in section 2 for
3Dh	REG102F7B	7:0	Default : 0x00	Access : R/W
(102F7Bh)	MAIN_IHC_ICC_COLOR10_Y_3[7:0]	7:0	Main window IHC, ICC ada color10.	aptive Y in section 3 for
3Eh	REG102F7C	7:0	Default : 0x00	Access : R/W
(102F7Ch)	MAIN_IHC_ICC_COLOR11_Y_0[7:0]	7:0	Main window IHC, ICC ada color11.	aptive Y in section 0 for
3Eh	REG102F7D	7:0	Default : 0x00	Access : R/W
(102F7Dh)	MAIN_IHC_ICC_COLOR11_Y_1[7:0]	7:0	Main window IHC, ICC adactors	aptive Y in section 1 for
3Fh	REG102F7E	7:0	Default : 0x00	Access : R/W
(102F7Eh)	MAIN_IHC_ICC_COLOR11_Y_2[7:0]	7:0	Main window IHC, ICC add	aptive Y in section 2 for



Index (Absolute)	Mnemonic	Bit	Description	
			color11.	
3Fh	REG102F7F	7:0	Default : 0x00	Access : R/W
(102F7Fh)	MAIN_IHC_ICC_COLOR11_Y_3[7:0]	7:0	Main window IHC, ICC addicolor11.	aptive Y in section 3 for
50h	REG102FA0	7:0	Default : 0x00	Access : R/W
(102FA0h)	MAIN_IHC_ICC_COLOR12_Y_0[7:0]	7:0	Main window IHC, ICC adactors	aptive Y in section 0 for
50h	REG102FA1	7:0	Default : 0x00	Access : R/W
(102FA1h)	MAIN_IHC_ICC_COLOR12_Y_1[7:0]	7:0	Main window IHC, ICC addicolor12.	aptive Y in section 1 for
51h	REG102FA2	7:0	Default : 0x00	Access : R/W
(102FA2h)	MAIN_IHC_ICC_COLOR12_Y_2[7:0]	7:0	Main window IHC, ICC adaptive Y in section 2 fo color12.	
51h	REG102FA3	7:0	Default : 0x00	Access : R/W
(102FA3h)	MAIN_IHC_ICC_COLOR12_Y_3[7:0]	7:0	Main window IHC, ICC adaptive Y in section 3 for color12.	
52h	REG102FA4	7:0	Default : 0x00	Access : R/W
(102FA4h)	MAIN_IHC_ICC_COLOR13_Y_0[7:0]	7:0	Main window IHC, ICC addicolor13.	aptive Y in section 0 for
52h	REG102FA5	7:0	Default : 0x00	Access : R/W
(102FA5h)	MAIN_IHC_ICC_COLOR13_Y_1[7:0]	7:0	Main window IHC, ICC addicolor13.	aptive Y in section 1 for
53h	REG102FA6	7:0	Default : 0x00	Access : R/W
(102FA6h)	MAIN_IHC_ICC_COLOR13_Y_2[7:0]	7:0	Main window IHC, ICC adscolor13.	aptive Y in section 2 for
53h	REG102FA7	7:0	Default : 0x00	Access : R/W
(102FA7h)	MAIN_IHC_ICC_COLOR13_Y_3[7:0]	7:0	Main window IHC, ICC adactors and color 13.	aptive Y in section 3 for
54h	REG102FA8	7:0	Default : 0x00	Access : R/W
(102FA8h)	MAIN_IHC_ICC_COLOR14_Y_0[7:0]	7:0	Main window IHC, ICC adactors and color 14.	aptive Y in section 0 for
54h	REG102FA9	7:0	Default : 0x00	Access : R/W
(102FA9h)	MAIN_IHC_ICC_COLOR14_Y_1[7:0]	7:0	Main window IHC, ICC ada color14.	aptive Y in section 1 for
55h	REG102FAA	7:0	Default : 0x00	Access : R/W



SC1 ACE2 Register (Bank = 102F, Sub-Bank = 27)					
Index (Absolute)	Mnemonic	Bit	Description		
	MAIN_IHC_ICC_COLOR14_Y_2[7:0]	7:0	Main window IHC, ICC ada color14.	aptive Y in section 2 for	
55h	REG102FAB	7:0	Default : 0x00	Access : R/W	
(102FABh)	MAIN_IHC_ICC_COLOR14_Y_3[7:0]	7:0	Main window IHC, ICC ada color14.	aptive Y in section 3 for	
56h	REG102FAC	7:0	Default : 0x00	Access : R/W	
(102FACh)	MAIN_IHC_ICC_COLOR15_Y_0[7:0]	7:0	Main window IHC, ICC ada color15.	aptive Y in section 0 for	
56h	REG102FAD	7:0	Default: 0x00	Access : R/W	
(102FADh)	MAIN_IHC_ICC_COLOR15_Y_1[7:0]	7:0	Main window IHC, ICC adaptive Y in section 1 fo color15.		
57h	REG102FAE	7:0	Default : 0x00	Access : R/W	
(102FAEh)	MAIN_IHC_ICC_COLOR15_Y_2[7:0]	7:0	Main window IHC, ICC adaptive Y in section 2 for color15.		
57h	REG102FAF	7:0	Default : 0x00	Access : R/W	
(102FAFh)	MAIN_IHC_ICC_COLOR15_Y_3[7:0]	7:0	Main window IHC, ICC ada color15.	aptive Y in section 3 for	
70h	REG102FE0	7:0	Default : 0x00	Access : R/W	
(102FE0h)		7:1	Reserved.		
	VIP_FUN_BYPASS_EN	0	Vip all function bypass ena	able.	
7Dh ~ 7Dh	- ,) X	7:0	Default : -	Access : -	
(102FFAh ~ 102FFBh)	0/ 1/15		Reserved.		
	Intern				



SC1 MCNR Register (Bank = 102F, Sub-Bank = 2A)

SC1 MCNI	R Register (Bank = 102F,	Sub-l	Bank = 2A)	
Index (Absolute)	Mnemonic	Bit	Description	
02h ~ 02h	-	7:0	Default : -	Access : -
(102F04h	-	-	Reserved.	•
~ 102F05h)				λ
07h	REG102F0E	7:0	Default : 0x00	Access : R/W
(102F0Eh)	MED_AUTO	7	Median auto.	
	MED_EN	6	Median enable.	
	SNR_EN_F2	5	SNR enable.	
	PATCH_W4_EN	4	Patch w4 enable.	
	PATCH_W3_EN	3	Patch w3 enable.	
	PATCH_W2_EN	2	Patch w2 enable.	
	MCDI_FILM_EN	1	Film act use MCDi data.	
	MCNR_EN_F2	0	Mcnr enable.	
07h	REG102F0F	7:0	Default : 0x00	Access : R/W
	NR_EN_F2	7	Nr enable.	* *
	PDNR_EN_F2	6	Pdnr enable.	
	RANDOM_MOTION_CHECK_DIFF	5	Random motion check diff e	nable.
16	RANDOM_MOTION_EN	4	Random motion enable.	
M.	DITHER_EN	3	Dither enable.	
	KEEP_DETAIL_EN	2	Keep detail enable.	
	FAVOR_MV0_EN	1	Favor mv0 enable.	
	C_PDNR_EN_F2	0	Pdnr c enable.	
08h	REG102F10	7:0	Default : 0xEE	Access : R/W
(102F10h)	NR_LUT_2[7:4]	7:4	Nr look up table 2.	
	NR_LUT_3[3:0]	3:0	Nr look up table 3.	
08h	REG102F11	7:0	Default : 0xFF	Access : R/W
(102F11h)	NR_LUT_0[15:12]	7:4	Nr look up table 0.	
	NR_LUT_1[11:8]	3:0	Nr look up table 1.	
09h	REG102F12	7:0	Default : 0xCC	Access : R/W
(102F12h)	NR_LUT_6[7:4]	7:4	Nr look up table 6.	
	NR_LUT_7[3:0]	3:0	Nr look up table 7.	
09h	REG102F13	7:0	Default : 0xDD	Access : R/W



Index (Absolute)	Mnemonic	Bit	Description	
	NR_LUT_4[15:12]	7:4	Nr look up table 4.	
	NR_LUT_5[11:8]	3:0	Nr look up table 5.	
0Ah	REG102F14	7:0	Default : 0xAA	Access : R/W
(102F14h)	NR_LUT_10[7:4]	7:4	Nr look up table 10.	
	NR_LUT_11[3:0]	3:0	Nr look up table 11.	
0Ah	REG102F15	7:0	Default : 0xBB	Access : R/W
(102F15h)	NR_LUT_8[15:12]	7:4	Nr look up table 8.	
	NR_LUT_9[11:8]	3:0	Nr look up table 9.	
0Bh	REG102F16	7:0	Default: 0x88	Access : R/W
(102F16h)	NR_LUT_14[7:4]	7:4	Nr look up table 14.	
	NR_LUT_15[3:0]	3:0	Nr look up table 15.	
0Bh	REG102F17	7:0	Default : 0x99	Access : R/W
(102F17h)	NR_LUT_12[15:12]	7:4	Nr look up table 12.	A
	NR_LUT_13[11:8]	3:0	Nr look up table 13.	
0Ch	REG102F18	7:0	Default : 0x66	Access : R/W
(4005406)	NR_LUT_18[7:4]	7:4	Nr look up table 18.	
	NR_LUT_19[3:0]	3:0	Nr look up table 19.	
och C	REG102F19	7:0	Default : 0x77	Access : R/W
(102F19h)	NR_LUT_16[15:12]	7:4	Nr look up table 16.	
19	NR_LUT_17[11:8]	3:0	Nr look up table 17.	
0Dh	REG102F1A	7:0	Default : 0x44	Access : R/W
(102F1Ah)	NR_LUT_22[7:4]	7:4	Nr look up table 22.	
	NR_LUT_23[3:0]	3:0	Nr look up table 23.	
0Dh	REG102F1B	7:0	Default : 0x55	Access : R/W
(102F1Bh)	NR_LUT_20[15:12]	7:4	Nr look up table 20.	
	NR_LUT_21[11:8]	3:0	Nr look up table 21.	
0Eh	REG102F1C	7:0	Default : 0x22	Access : R/W
(102F1Ch)	NR_LUT_26[7:4]	7:4	Nr look up table 26.	
	NR_LUT_27[3:0]	3:0	Nr look up table 27.	
0Eh	REG102F1D	7:0	Default : 0x33	Access : R/W
(102F1Dh)	NR_LUT_24[15:12]	7:4	Nr look up table 24.	
	NR_LUT_25[11:8]	3:0	Nr look up table 25.	
0Fh	REG102F1E	7:0	Default : 0x00	Access : R/W



Index (Absolute)	Mnemonic	Bit	Description	
(riboorato)	NR_LUT_30[7:4]	7:4	Nr look up table 30.	
	NR_LUT_31[3:0]	3:0	Nr look up table 31.	
0Fh	REG102F1F	7:0	Default : 0x11	Access : R/W
(102F1Fh)	NR_LUT_28[15:12]	7:4	Nr look up table 28.	
	NR_LUT_29[11:8]	3:0	Nr look up table 29.	
20h	REG102F40	7:0	Default : 0x88	Access : R/W
(102F40h)	PDNR_LOW_LUT_2[7:4]	7:4	Pdnr low look up table 2.	
	PDNR_LOW_LUT_3[3:0]	3:0	Pdnr low look up table 3.	
20h	REG102F41	7:0	Default: 0x88	Access : R/W
(102F41h)	PDNR_LOW_LUT_0[15:12]	7:4	Pdnr low look up table 0.	
	PDNR_LOW_LUT_1[11:8]	3:0	Pdnr low look up table 1.	
21h	REG102F42	7:0	Default : 0x00	Access : R/W
(102F42h)	PDNR_LOW_LUT_6[7:4]	7:4	Pdnr low look up table 6.	•
	PDNR_LOW_LUT_7[3:0]	3:0	Pdnr low look up table 7.	
21h	REG102F43	7:0	Default : 0x51	Access : R/W
(102F43h)	PDNR_LOW_LUT_4[15:12]	7:4	Pdnr low look up table 4.	
	PDNR_LOW_LUT_5[11:8]	3:0	Pdnr low look up table 5.	
22h	REG102F44	7:0	Default : 0x00	Access : R/W
(102F44h)	PDNR_LOW_LUT_10[7:4]	7:4	Pdnr low look up table 10.	
19.	PDNR_LOW_LUT_11[3:0]	3:0	Pdnr low look up table 11.	
22h	REG102F45	7:0	Default : 0x00	Access : R/W
(102F45h)	PDNR_LOW_LUT_8[15:12]	7:4	Pdnr low look up table 8.	
	PDNR_LOW_LUT_9[11:8]	3:0	Pdnr low look up table 9.	
23h	REG102F46	7:0	Default : 0x00	Access : R/W
(102F46h)	PDNR_LOW_LUT_14[7:4]	7:4	Pdnr low look up table 14.	
	PDNR_LOW_LUT_15[3:0]	3:0	Pdnr low look up table 15.	
23h	REG102F47	7:0	Default : 0x00	Access : R/W
(102F47h)	PDNR_LOW_LUT_12[15:12]	7:4	Pdnr low look up table 12.	
	PDNR_LOW_LUT_13[11:8]	3:0	Pdnr low look up table 13.	
24h	REG102F48	7:0	Default : 0xDC	Access : R/W
(102F48h)	PDNR_HIGH_LUT_2[7:4]	7:4	Pdnr high look up table 2.	
	PDNR_HIGH_LUT_3[3:0]	3:0	Pdnr high look up table 3.	
24h	REG102F49	7:0	Default : 0xFE	Access : R/W



SC1 MCNI	R Register (Bank = 102F,	Sub-	Bank = 2A)	
Index (Absolute)	Mnemonic	Bit	Description	
	PDNR_HIGH_LUT_0[15:12]	7:4	Pdnr high look up table 0.	
	PDNR_HIGH_LUT_1[11:8]	3:0	Pdnr high look up table 1.	
25h	REG102F4A	7:0	Default : 0x98	Access : R/W
(102F4Ah)	PDNR_HIGH_LUT_6[7:4]	7:4	Pdnr high look up table 6.	
	PDNR_HIGH_LUT_7[3:0]	3:0	Pdnr high look up table 7.	
25h	REG102F4B	7:0	Default : 0xBA	Access : R/W
(102F4Bh)	PDNR_HIGH_LUT_4[15:12]	7:4	Pdnr high look up table 4.	
	PDNR_HIGH_LUT_5[11:8]	3:0	Pdnr high look up table 5.	
26h	REG102F4C	7:0	Default : 0x54	Access : R/W
(102F4Ch)	PDNR_HIGH_LUT_10[7:4]	7:4	Pdnr high look up table 10.	
	PDNR_HIGH_LUT_11[3:0]	3:0	Pdnr high look up table 11.	
26h	REG102F4D	7:0	Default : 0x76	Access : R/W
(102F4Dh)	PDNR_HIGH_LUT_8[15:12]	7:4	Pdnr high look up table 8.	
	PDNR_HIGH_LUT_9[11:8]	3:0	Pdnr high look up table 9.	
(400E4Ek)	REG102F4E	7:0	Default : 0x10	Access : R/W
	PDNR_HIGH_LUT_14[7:4]	7:4	Pdnr high look up table 14.	
	PDNR_HIGH_LUT_15[3:0]	3:0	Pdnr high look up table 15.	
27h	REG102F4F	7:0	Default : 0x32	Access : R/W
(102F4Fh)	PDNR_HIGH_LUT_12[15:12]	7:4	Pdnr high look up table 12.	
	PDNR_HIGH_LUT_13[11:8]	3:0	Pdnr high look up table 13.	
30h	REG102F60	7:0	Default : 0x88	Access : R/W
(102F60h)	PDNR_C_LUT_2[7:4]	7:4	Pdnr c look up table 2.	
	PDNR_C_LUT_3[3:0]	3:0	Pdnr c look up table 3.	
30h	REG102F61	7:0	Default : 0x88	Access : R/W
(102F61h)	PDNR_C_LUT_0[15:12]	7:4	Pdnr c look up table 0.	
	PDNR_C_LUT_1[11:8]	3:0	Pdnr c look up table 1.	
31h	REG102F62	7:0	Default : 0x00	Access : R/W
(102F62h)	PDNR_C_LUT_6[7:4]	7:4	Pdnr c look up table 6.	
	PDNR_C_LUT_7[3:0]	3:0	Pdnr c look up table 7.	
31h	REG102F63	7:0	Default : 0x51	Access : R/W
(102F63h)	PDNR_C_LUT_4[15:12]	7:4	Pdnr c look up table 4.	
	PDNR_C_LUT_5[11:8]	3:0	Pdnr c look up table 5.	
32h	REG102F64	7:0	Default : 0x00	Access : R/W



SC1 MCN	R Register (Bank = 102F,	Sub-l	Bank = 2A)	
Index (Absolute)	Mnemonic	Bit	Description	
	PDNR_C_LUT_10[7:4]	7:4	Pdnr c look up table 10.	
	PDNR_C_LUT_11[3:0]	3:0	Pdnr c look up table 11.	
32h	REG102F65	7:0	Default : 0x00	Access : R/W
(102F65h)	PDNR_C_LUT_8[15:12]	7:4	Pdnr c look up table 8.	
	PDNR_C_LUT_9[11:8]	3:0	Pdnr c look up table 9.	
33h	REG102F66	7:0	Default : 0x00	Access : R/W
(102F66h)	PDNR_C_LUT_14[7:4]	7:4	Pdnr c look up table 14.	
	PDNR_C_LUT_15[3:0]	3:0	Pdnr c look up table 15.	
33h	REG102F67	7:0	Default : 0x00	Access : R/W
(102F67h)	PDNR_C_LUT_12[15:12]	7:4	Pdnr c look up table 12.	
	PDNR_C_LUT_13[11:8]	3:0	Pdnr c look up table 13.	
77h ~ 7Fh	-	7:0	Default : -	Access : -
(102FEEh ~ 102FFFh)		(2)	Reserved.	1



SC1 PEAKING2 Register (Bank = 102F, Sub-Bank = 2B)

SC1 PEAK	ING2 Register (Bank = 102I	F, Suk	o-Bank = 2B)		
Index (Absolute)	Mnemonic	Bit	Description		
38h	REG102F70	7:0	Default : 0x00	Access : R/W	
(102F70h)	-	7:4	Reserved.		
	MAIN_SA_USER_COLOR0_0[3:0]	3:0	Main window ICC saturation section 0.	on adjustment of color0 in	
38h	REG102F71	7:0	Default : 0x00	Access : R/W	
(102F71h)	-	7:4	Reserved.		
	MAIN_SA_USER_COLOR1_0[3:0]	3:0	Main window ICC saturation section 0.	on adjustment of color1 in	
39h	REG102F72	7:0	Default : 0x00	Access : R/W	
(102F72h)	-	7:4	Reserved.		
	MAIN_SA_USER_COLOR2_0[3:0]	3:0	Main window ICC saturation adjustment of section 0.		
39h	REG102F73	7:0	Default : 0x00	Access : R/W	
(102F73h)	-	7:4	Reserved.		
	MAIN_SA_USER_COLOR3_0[3:0]	3:0	Main window ICC saturation adjustment of color3 i section 0.		
3Ah	REG102F74	7:0	Default : 0x00	Access : R/W	
(102F74h)		7:4	Reserved.		
7	MAIN_SA_USER_COLOR4_0[3:0]	3:0	Main window ICC saturation section 0.	on adjustment of color4 in	
3Ah	REG102F75	7:0	Default : 0x00	Access : R/W	
(102F75h)		7:4	Reserved.		
	MAIN_SA_USER_COLOR5_0[3:0]	3:0	Main window ICC saturation section 0.	on adjustment of color5 in	
3Bh	REG102F76	7:0	Default : 0x00	Access : R/W	
(102F76h)	-	7:4	Reserved.		
	MAIN_SA_USER_COLOR6_0[3:0]	3:0	Main window ICC saturation section 0.	on adjustment of color6 in	
3Bh	REG102F77	7:0	Default : 0x08	Access : R/W	
(102F77h)	-	7:4	Reserved.		
	MAIN_SA_USER_COLOR7_0[3:0]	3:0	Main window ICC saturation section 0.	on adjustment of color7 in	
3Ch	REG102F78	7:0	Default : 0x00	Access : R/W	



Index (Absolute)	Mnemonic	Bit	Description	
(Absolute)	-	7:4	Reserved.	
	MAIN_SA_USER_COLOR8_0[3:0]	3:0	Main window ICC saturation section 0.	on adjustment of color8 in
3Ch	REG102F79	7:0	Default : 0x00	Access : R/W
(102F79h)	-	7:4	Reserved.	
	MAIN_SA_USER_COLOR9_0[3:0]	3:0	Main window ICC saturation section 0.	on adjustment of color9 in
3Dh	REG102F7A	7:0	Default : 0x00	Access : R/W
(102F7Ah)	-	7:4	Reserved.	
	MAIN_SA_USER_COLOR10_0[3:0]	3:0	Main window ICC saturation adjustment of color10 section 0.	
3Dh	REG102F7B	7:0	Default : 0x00	Access : R/W
(102F7Bh)	-	7:4	Reserved.	
	MAIN_SA_USER_COLOR11_0[3:0]	3:0	Main window ICC saturation adjustment of color11 in section 0.	
3Eh	REG102F7C	7:0	Default : 0x00	Access : R/W
(102F7Ch)	-~	7:4	Reserved.	
	MAIN_SA_USER_COLOR12_0[3:0]	3:0	Main window ICC saturation section 0.	on adjustment of color12 in
3Eh	REG102F7D	7:0	Default : 0x00	Access : R/W
(102F7Dh)	- 4	7:4	Reserved.	
5	MAIN_SA_USER_COLOR13_0[3:0]	3:0	Main window ICC saturation section 0.	on adjustment of color13 in
3Fh	REG102F7E	7:0	Default : 0x00	Access : R/W
(102F7Eh)	- (1)	7:4	Reserved.	
	MAIN_SA_USER_COLOR14_0[3:0]	3:0	Main window ICC saturation section 0.	on adjustment of color14 in
3Fh	REG102F7F	7:0	Default : 0x08	Access : R/W
(102F7Fh)	-	7:4	Reserved.	
	MAIN_SA_USER_COLOR15_0[3:0]	3:0	Main window ICC saturation section 0.	on adjustment of color15 in
40h	REG102F80	7:0	Default : 0x00	Access : R/W
(102F80h)	-	7:4	Reserved.	
		3:0	Main window ICC saturation	



Index	Mnemonic	Bit	Description		
(Absolute)					
			section 1.		
40h	REG102F81	7:0	Default : 0x00	Access : R/W	
(102F81h)	-	7:4	Reserved.		
	MAIN_SA_USER_COLOR1_1[3:0]	3:0	Main window ICC saturation section 1.	on adjustment of color1 in	
41h	REG102F82	7:0	Default : 0x00	Access : R/W	
(102F82h)	-	7:4	Reserved.		
	MAIN_SA_USER_COLOR2_1[3:0]	3:0	Main window ICC saturation adjustment of color2 in section 1.		
41h	REG102F83	7:0	Default: 0x00	Access : R/W	
(102F83h)	-	7:4	Reserved.		
	MAIN_SA_USER_COLOR3_1[3:0]	3:0	Main window ICC saturation adjustment of color section 1.		
42h	REG102F84	7:0	Default : 0x00	Access : R/W	
(102F84h)	. (0 %	7:4	Reserved.		
	MAIN_SA_USER_COLOR4_1[3:0]	3:0	Main window ICC saturation adjustment of color4 i section 1.		
42h	REG102F85	7:0	Default : 0x00	Access : R/W	
(102F85h)		7:4	Reserved.		
N	MAIN_SA_USER_COLOR5_1[3:0]	3:0	Main window ICC saturation section 1.	on adjustment of color5 in	
43h	REG102F86	7:0	Default : 0x00	Access : R/W	
(102F86h)		7:4	Reserved.		
	MAIN_SA_USER_COLOR6_1[3:0]	3:0	Main window ICC saturation section 1.	on adjustment of color6 in	
43h	REG102F87	7:0	Default : 0x08	Access : R/W	
(102F87h)	-	7:4	Reserved.		
	MAIN_SA_USER_COLOR7_1[3:0]	3:0	Main window ICC saturation section 1.	on adjustment of color7 in	
44h	REG102F88	7:0	Default : 0x00	Access : R/W	
(102F88h)	-	7:4	Reserved.		
	MAIN_SA_USER_COLOR8_1[3:0]	3:0	Main window ICC saturation section 1.	on adjustment of color8 in	
44h	REG102F89	7:0	Default : 0x00	Access : R/W	



		•	o-Bank = 2B)	
Index (Absolute)	Mnemonic	Bit	Description	
	-	7:4	Reserved.	
	MAIN_SA_USER_COLOR9_1[3:0]	3:0	Main window ICC saturation section 1.	on adjustment of color9 in
45h	REG102F8A	7:0	Default : 0x00	Access : R/W
(102F8Ah)	-	7:4	Reserved.	
	MAIN_SA_USER_COLOR10_1[3:0]	3:0	Main window ICC saturation section 1.	on adjustment of color10 in
45h	REG102F8B	7:0	Default : 0x00	Access : R/W
(102F8Bh)	-	7:4	Reserved.	
	MAIN_SA_USER_COLOR11_1[3:0]	3:0	Main window ICC saturation adjustment of color11 section 1.	
46h	REG102F8C	7:0	Default : 0x00	Access : R/W
(102F8Ch)	-	7:4	Reserved.	
	MAIN_SA_USER_COLOR12_1[3:0]	3:0	Main window ICC saturation adjustment of color12 in section 1.	
46h	REG102F8D	7:0	Default : 0x00	Access : R/W
(102F8Dh)	-~	7:4	Reserved.	
	MAIN_SA_USER_COLOR13_1[3:0]	3:0	Main window ICC saturation section 1.	on adjustment of color13 in
47h	REG102F8E	7:0	Default : 0x00	Access : R/W
(102F8Eh)	- <i>x</i> / <i>x</i> /	7:4	Reserved.	
S	MAIN_SA_USER_COLOR14_1[3:0]	3:0	Main window ICC saturation section 1.	on adjustment of color14 in
47h	REG102F8F	7:0	Default : 0x08	Access : R/W
(102F8Fh)	- 11	7:4	Reserved.	
	MAIN_SA_USER_COLOR15_1[3:0]	3:0	Main window ICC saturation section 1.	on adjustment of color15 in
48h	REG102F90	7:0	Default : 0x00	Access : R/W
(102F90h)	-	7:4	Reserved.	
	MAIN_SA_USER_COLOR0_2[3:0]	3:0	Main window ICC saturation adjustment of color0 section 2.	
48h	REG102F91	7:0	Default : 0x00	Access : R/W
(102F91h)		7.4	Decembed	
(102F91h)	-	7:4	Reserved.	



Index (Absolute)	Mnemonic	Bit	Description		
(Absolute)			section 2.		
49h	REG102F92	7:0	Default : 0x00	Access : R/W	
(102F92h)	-	7:4	Reserved.		
	MAIN_SA_USER_COLOR2_2[3:0]	3:0	Main window ICC saturation section 2.	on adjustment of color2 in	
49h	REG102F93	7:0	Default : 0x00	Access : R/W	
(102F93h)	-	7:4	Reserved.		
	MAIN_SA_USER_COLOR3_2[3:0]	3:0	Main window ICC saturation section 2.	on adjustment of color3 in	
4Ah	REG102F94	7:0	Default: 0x00	Access : R/W	
(102F94h)	-	7:4	Reserved.		
	MAIN_SA_USER_COLOR4_2[3:0]	3:0	Main window ICC saturation adjustment of color section 2.		
4Ah	REG102F95	7:0	Default : 0x00	Access : R/W	
(102F95h)	. (0 /	7:4	Reserved.		
-	MAIN_SA_USER_COLOR5_2[3:0]	3:0	Main window ICC saturation adjustment of color5 in section 2.		
4Bh	REG102F96	7:0	Default : 0x00	Access : R/W	
(102F96h)		7:4	Reserved.		
N.	MAIN_SA_USER_COLOR6_2[3:0]	3:0	Main window ICC saturation section 2.	on adjustment of color6 in	
4Bh	REG102F97	7:0	Default : 0x08	Access : R/W	
(102F97h)		7:4	Reserved.		
	MAIN_SA_USER_COLOR7_2[3:0]	3:0	Main window ICC saturation section 2.	on adjustment of color7 in	
4Ch	REG102F98	7:0	Default : 0x00	Access : R/W	
(102F98h)	-	7:4	Reserved.		
	MAIN_SA_USER_COLOR8_2[3:0]	3:0	Main window ICC saturation section 2.	on adjustment of color8 in	
4Ch	REG102F99	7:0	Default : 0x00	Access : R/W	
(102F99h)	-	7:4	Reserved.		
	MAIN_SA_USER_COLOR9_2[3:0]	3:0	Main window ICC saturation section 2.	on adjustment of color9 in	
4Dh	REG102F9A	7:0	Default : 0x00	Access : R/W	



SC1 PEAK	(ING2 Register (Bank = 102I	F, Sub	o-Bank = 2B)		
Index (Absolute)	Mnemonic	Bit	Description		
	-	7:4	Reserved.		
	MAIN_SA_USER_COLOR10_2[3:0]	3:0	Main window ICC saturation section 2.	on adjustment of color10 in	
4Dh	REG102F9B	7:0	Default : 0x00	Access : R/W	
(102F9Bh)	-	7:4	Reserved.		
	MAIN_SA_USER_COLOR11_2[3:0]	3:0	Main window ICC saturation section 2.	n adjustment of color11 in	
4Eh	REG102F9C	7:0	Default : 0x00	Access : R/W	
(102F9Ch)	-	7:4	Reserved.		
	MAIN_SA_USER_COLOR12_2[3:0]	3:0	Main window ICC saturation section 2.	on adjustment of color12 in	
4Eh	REG102F9D	7:0	Default : 0x00	Access : R/W	
(102F9Dh)	-	7:4 Reserved.			
	MAIN_SA_USER_COLOR13_2[3:0]	3:0	Main window ICC saturation section 2.	on adjustment of color13 in	
4Fh	REG102F9E	7:0	Default : 0x00	Access : R/W	
(102F9Eh)	- ~ \	7:4	Reserved.		
, ,	MAIN_SA_USER_COLOR14_2[3:0]	3:0	Main window ICC saturation section 2.	on adjustment of color14 in	
4Fh	REG102F9F	7:0	Default : 0x08	Access : R/W	
(102F9Fh)	- <i>s</i> / <i>X</i> /	7:4	Reserved.		
\$	MAIN_SA_USER_COLOR15_2[3:0]	3:0	Main window ICC saturation section 2.	on adjustment of color15 in	
50h	REG102FA0	7:0	Default : 0x00	Access : R/W	
(102FA0h)	MAIN_ICC_Y_MODE_EN	7	Main window ICC adaptive	Y mode enable.	
	SUB_ICC_Y_MODE_EN	6	Sub window ICC adaptive	Y mode enable.	
	-	5:2	Reserved.		
	MAIN_ICC_Y_MODE_DIFF_COLOR_ EN	1	Main window ICC adaptive enable.	Y mode in different color	
	SUB_ICC_Y_MODE_DIFF_COLOR_E N	0	Sub window ICC adaptive enable.	Y mode in different color	
51h	REG102FA2	7:0	Default : 0x00	Access : R/W	
(102FA2h)	MAIN_SIGN_SA_USER_0[7:0]	7:0	Main window ICC decrease	e saturation in section 0,	
51h	REG102FA3	7:0	Default : 0x00	Access : R/W	



Index	Mnemonic	Bit	Description		
(Absolute)					
	MAIN_SIGN_SA_USER_0[15:8]	7:0	See description of '102FA2	2h'.	
53h	REG102FA6	7:0	Default : 0x00	Access : R/W	
(102FA6h)	MAIN_SIGN_SA_USER_1[7:0]	7:0	Main window ICC decreas	e saturation in section 1,	
53h	REG102FA7	7:0	Default : 0x00	Access : R/W	
(102FA7h)	MAIN_SIGN_SA_USER_1[15:8]	7:0	See description of '102FA6	bh'.	
55 h	REG102FAA	7:0	Default : 0x00	Access : R/W	
(102FAAh)	MAIN_SIGN_SA_USER_2[7:0]	7:0	Main window ICC decrease	e saturation in section 2,	
55 h	REG102FAB	7:0	Default : 0x00	Access : R/W	
(102FABh)	MAIN_SIGN_SA_USER_2[15:8]	7:0	See description of '102FA/	\h'.	
58h	REG102FB0	7:0	Default : 0x00	Access : R/W	
(102FB0h)	IHC_COLOR_TEST[7:0]	7:0	IHC color test mode,		
			16 colors [15:0].	1	
58h	REG102FB1	7:0	Default : 0x00	Access : R/W	
(102FB1h)	IHC_COLOR_TEST[15:8]	7:0	See description of '102FB0)h'.	
(400EB01-)	REG102FB2	7:0	Default : 0x00	Access : R/W	
	ICC_COLOR_TEST[7:0]	7:0	ICC color test mode,		
FOL	DEGLOSEDS	7.0	16 colors [15:0].	A	
59h (102 <mark>FB3</mark> h)	REG102FB3	7:0	Default : 0x00	Access : R/W	
	100_00201(10.0)	7:0	See description of '102FB2		
60h (102FC0h)	REG102FC0	7:0	Default : 0x00	Access : R/W	
(1021 0011)	MAIN_CBCR_TO_UV	7	Main window cbcr to uv e	nable.	
	MAIN_ICC_EN	6	Main window ICC enable.		
	CUID ODOR TO LIV	5:4	Reserved.		
	SUB_CBCR_TO_UV	3	Sub window cbcr to uv en	adie.	
	SUB_ICC_EN	2	Sub window ICC enable.		
	ICC_LOW_RESERVE1	1	Reserved.		
 61h	PEC103EC3	7.0	Reserved.	Access - D ///	
61n (102FC2h)	REG102FC2	7:0	Default : 0x00	Access : R/W	
()	MAIN CA LISED COLODO[2:0]	7:4	Reserved.	on adjustment of sales 0	
/ 1 h	MAIN_SA_USER_COLOR0[3:0]	3:0	Main window ICC saturation		
61h	REG102FC3	7:0	Default : 0x00	Access : R/W	
(102FC3h)		7:4	Reserved.		

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Index (Absolute)	Mnemonic	Bit	Description	
62h	REG102FC4	7:0	Default : 0x00	Access : R/W
(102FC4h)	-	7:4	Reserved.	
	MAIN_SA_USER_COLOR2[3:0]	3:0	Main window ICC saturation	on adjustment of color 2.
62h	REG102FC5	7:0	Default : 0x00	Access : R/W
(102FC5h)	-	7:4	Reserved.	
	MAIN_SA_USER_COLOR3[3:0]	3:0	Main window ICC saturation	on adjustment of color 3.
63h	REG102FC6	7:0	Default : 0x00	Access : R/W
(102FC6h)	-	7:4	Reserved.	
	MAIN_SA_USER_COLOR4[3:0]	3:0	Main window ICC saturation	on adjustment of color 4.
63h	REG102FC7	7:0	Default : 0x00	Access : R/W
(102FC7h)	-	7:4	Reserved.	
	MAIN_SA_USER_COLOR5[3:0]	3:0	Main window ICC saturation	on adjustment of color 5.
64h	REG102FC8	7:0	Default : 0x00	Access : R/W
(102FC8h)	- 10, 14	7:4	Reserved.	
	MAIN_SA_USER_COLOR6[3:0]	3:0	Main window ICC saturation	on adjustment of color 6.
64h	REG102FC9	7:0	Default : 0x00	Access : R/W
(102FC9h)		7:4	Reserved.	
	MAIN_SA_USER_COLOR7[3:0]	3:0	Main window ICC saturation	on adjustment of color 7.
65h	REG102FCA	7:0	Default: 0x00	Access : R/W
(102FCAh)	- / / / /	7:4	Reserved.	
	MAIN_SA_USER_COLOR8[3:0]	3:0	Main window ICC saturation	on adjustment of color 8.
65h	REG102FCB	7:0	Default : 0x00	Access : R/W
(102FCBh)	· \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	7:4	Reserved.	
	MAIN_SA_USER_COLOR9[3:0]	3:0	Main window ICC saturation	on adjustment of color 9.
66h	REG102FCC	7:0	Default : 0x00	Access : R/W
(102FCCh)	-	7:4	Reserved.	
	MAIN_SA_USER_COLOR10[3:0]	3:0	Main window ICC saturation	on adjustment of color 10
66h	REG102FCD	7:0	Default : 0x00	Access : R/W
(102FCDh)	-	7:4	Reserved.	
	MAIN_SA_USER_COLOR11[3:0]	3:0	Main window ICC saturation	on adjustment of color 11
67h	REG102FCE	7:0	Default : 0x00	Access : R/W
(102FCEh)	-	7:4	Reserved.	
	MAIN_SA_USER_COLOR12[3:0]	3:0	Main window ICC saturation	on adjustment of color 12



SC1 PEAKING2 Register (Bank = 102F, Sub-Bank = 2B)					
Index (Absolute)	Mnemonic	Bit	Description		
67h	REG102FCF	7:0	Default : 0x00	Access : R/W	
(102FCFh)	-	7:4	Reserved.		
	MAIN_SA_USER_COLOR13[3:0]	3:0	Main window ICC saturation	on adjustment of color 13.	
68h	REG102FD0	7:0	Default : 0x00	Access : R/W	
(102FD0h)	-	7:4	Reserved.		
	MAIN_SA_USER_COLOR14[3:0]	3:0	Main window ICC saturation	n adjustment of color 14.	
68h	REG102FD1	7:0	Default : 0x00	Access : R/W	
(102FD1h)	-	7:4	Reserved.		
	MAIN_SA_USER_COLOR15[3:0]	3:0	Main window ICC saturation adjustment of color 1		
69h	REG102FD2	7:0	Default : 0x00	Access : R/W	
(102FD2h)	MAIN_SIGN_SA_USER[7:0]	7:0	Main window ICC decrease saturation,		
69h	REG102FD3	7:0	Default : 0x00	Access : R/W	
(102FD3h)	MAIN_SIGN_SA_USER[15:8]	7:0	See description of '102FD2	2h'.	
6Bh	REG102FD6	7:0	Default : 0x00	Access : R/W	
(102FD6h)	- 0	7:5	Reserved.)	
	COMMON_MINUS_GAIN[4:0]	4:0	ICC decrease saturation common gain, .XXXXX.		
6Bh	REG102FD7	7:0	Default: 0x00	Access : R/W	
(102FD7h)		7	Reserved.		
7	SA_MIN[6:0]	6:0	ICC decrease saturation minimum threshold, .XXXXXXX.		
6Eh ~ 6Eh		7:0	Default : -	Access : -	
(102FDCh ~ 102FDDh)			Reserved.		



SC1 VOP2_RP Register (Bank = 102F, Sub-Bank = 2D)

SC1 VOP2_RP Register (Bank = 102F, Sub-Bank = 2D)					
Index (Absolute)	Mnemonic	Bit	Description		
01h ~ 02h	-	7:0	Default : -	Access : -	
(102F02h	-	-	Reserved.		
~ 102F04h)					
60h	REG102FC0	7:0	Default : 0x00 Access : R/W		
(102FC0h)	XVYCC_DGT_BW_EN	7	Xvycc programmable degamma table burst write ena		
	XVYCC_DGTCS[1:0]	6:5	Xvycc programmable degamma table channel select: 00: Select R Channel. 01: Select G Channel. 10: Select B Channel. 11: Select All Channel when write; reserved for read.		
	XVYCC_DGT_RD_EN	4	hardware clear to 0 after read back.		
	XVYCC_DGT_WR_EN	3			
	- , \	2:0	Reserved.		
60h	REG102FC1	7:0	Default : 0x00	Access : RO	
(102FC1h)		7:2	Reserved.		
No	XVYCC_DGT_BW_FLAG	1	Xvycc programmable degan when burst write enable.	nma table burst write status	
	- (/ , ()	0	Reserved.		
61h	REG102FC2	7:0	Default : 0x00	Access : R/W	
(102FC2h)	XVYCC_DGT_ADR[7:0]	7:0	Xvycc programmable degan	nma table address port.	
61h	REG102FC3	7:0	Default : 0x00	Access : R/W	
(102FC3h)	- \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	7:2	Reserved.		
	XVYCC_DGT_ADR[9:8]	1:0	See description of '102FC2h		
62h	REG102FC4	7:0	Default : 0x00	Access : R/W	
(102FC4h)	XVYCC_DGT_DATA[7:0]	7:0	Xvycc programmable degamma table write data port[15:0].		
62h	REG102FC5	7:0	Default : 0x00	Access : R/W	
(102FC5h)	XVYCC_DGT_DATA[15:8]	7:0	See description of '102FC4h		
63h	REG102FC6	7:0	Default : 0x00	Access : R/W	
(102FC6h)	XVYCC_DGT_DATA_EX1[7:0]	7:0	Xvycc programmable degan port[24:16].	nma table write data	



SC1 VOP2	P_RP Register (Bank = 102	2F, Su	ub-Bank = 2D)		
Index (Absolute)	Mnemonic	Bit	Description		
63h	REG102FC7	7:0	Default : 0x00	Access : R/W	
(102FC7h)	-	7:1	Reserved.		
	XVYCC_DGT_DATA_EX1[8]	0	See description of '102FC6h		
64h	REG102FC8	7:0	Default : 0x00	Access : RO	
(102FC8h)	XVYCC_DGT_RD_DATA[7:0]	7:0	Xvycc programmable degam port[15:0].	nma table read data	
64h	REG102FC9	7:0	Default : 0x00	Access : RO	
(102FC9h)	XVYCC_DGT_RD_DATA[15:8]	7:0	See description of '102FC8h		
65h	REG102FCA	7:0	Default : 0x00	Access : RO	
(102FCAh)	XVYCC_DGT_RD_DATA_EX1[7:0]	7:0	Xvycc programmable degam port[24:16].	nma table read data	
65h	REG102FCB	7:0	Default : 0x00	Access : RO	
(102FCBh)	-	7:1	Reserved.		
	XVYCC_DGT_RD_DATA_EX1[8]	0	See description of '102FCAh'.		
	REG102FCC	7:0	Default : 0x00	Access : R/W	
(102FCCh)	XVYCC_DGT_SP1_ADR_R[7:0]	7:0	Xvycc programmable degamma table R channel offset value separate point1.		
66h	REG102FCD	7:0	Default : 0x00	Access : R/W	
(102FCDh)		7:2	Reserved.		
	XVYCC_DGT_SP1_ADR_R[9:8]	1:0	See description of '102FCCh	'.	
67h	REG102FCE	7:0	Default : 0x00	Access : R/W	
(102FCEh)	XVYCC_DGT_SP2_ADR_R[7:0]	7:0	Xvycc programmable degam value separate point2.	nma table R channel offset	
67h	REG102FCF	7:0	Default : 0x00	Access : R/W	
(102FCFh)	- \\\`(?)\	7:2	Reserved.		
	XVYCC_DGT_SP2_ADR_R[9:8]	1:0	See description of '102FCEh		
68h	REG102FD0	7:0	Default : 0x00	Access : R/W	
(102FD0h)	XVYCC_DGT_SP3_ADR_R[7:0]	7:0	Xvycc programmable degam value separate point3.	nma table R channel offset	
68h	REG102FD1	7:0	Default : 0x00	Access : R/W	
(102FD1h)	-	7:2	Reserved.		
	XVYCC_DGT_SP3_ADR_R[9:8]	1:0	See description of '102FD0h	<u> </u>	
69h	REG102FD2	7:0	Default : 0x00	Access : R/W	
(102FD2h)	XVYCC_DGT_SP1_ADR_G[7:0]	7:0	Xvycc programmable degam	nma table G channel offset	



Index	Mnemonic	Bit	Description	
(Absolute)			value congrate point1	
 69h	DEC102ED2	7.0	value separate point1.	A
69n (102FD3h)	REG102FD3	7:0	Default : 0x00 Access : R/W	
(102.201.)	VANCE DET CD1 ADD C[0.0]	7:2	Reserved.	1
/ A l-	XVYCC_DGT_SP1_ADR_G[9:8]	1:0	See description of '102FD2h	
6Ah (102FD4h)	REG102FD4	7:0	Default : 0x00	Access : R/W
(1021 0411)	XVYCC_DGT_SP2_ADR_G[7:0]	7:0	Xvycc programmable degam value separate point2.	nma table G channel offset
6Ah	REG102FD5	7:0	Default : 0x00	Access : R/W
(102FD5h)	-	7:2	Reserved.	
	XVYCC_DGT_SP2_ADR_G[9:8]	XVYCC_DGT_SP2_ADR_G[9:8] 1:0 See description		ı
6Bh	REG102FD6	7:0	Default : 0x00	Access : R/W
(102FD6h)	XVYCC_DGT_SP3_ADR_G[7:0]	7:0	Xvycc programmable degamma table G channel o value separate point3.	
6Bh	REG102FD7	7:0	Default : 0x00	Access : R/W
(102FD7h)	. ()	7:2	Reserved.	
	XVYCC_DGT_SP3_ADR_G[9:8]	1:0	See description of '102FD6h	
6Ch	REG102FD8	7:0	Default : 0x00	Access : R/W
(102FD8h)	XVYCC_DGT_SP1_ADR_B[7:0]	7:0	Xvycc programmable degam value separate point1.	nma table B channel offset
6Ch	REG102FD9	7:0	Default : 0x00	Access : R/W
(102FD9h)		7:2	Reserved.	
(XVYCC_DGT_SP1_ADR_B[9:8]	1:0	See description of '102FD8h	ı
6Dh	REG102FDA	7:0	Default : 0x00	Access : R/W
(102FDAh)	XVYCC_DGT_SP2_ADR_B[7:0]	7:0	Xvycc programmable degam value separate point2.	nma table B channel offset
6Dh	REG102FDB	7:0	Default : 0x00	Access : R/W
(102FDBh)	-	7:2	Reserved.	
	XVYCC_DGT_SP2_ADR_B[9:8]	1:0	See description of '102FDAh	'.
6Eh	REG102FDC	7:0	Default : 0x00	Access : R/W
(102FDCh)	XVYCC_DGT_SP3_ADR_B[7:0]	7:0	Xvycc programmable degam value separate point3.	nma table B channel offset
6Eh	REG102FDD	7:0	Default : 0x00	Access : R/W
(102FDDh)	-	7:2	Reserved.	1
	XVYCC_DGT_SP3_ADR_B[9:8]	1:0	See description of '102FDCh	<u>'</u> .



SC1 VOP2	SC1 VOP2_RP Register (Bank = 102F, Sub-Bank = 2D)						
Index (Absolute)	Mnemonic	Bit	Description				
6Fh	REG102FDE	7:0	Default : 0x00 Access : R/W				
(102FDEh)	XVYCC_DGT_OFFSET3_R[1:0]	7:6	Xvycc programmable degam value for segment3.	nma table R channel offset			
	XVYCC_DGT_OFFSET2_R[1:0]	5:4	Xvycc programmable degam value for segment2.	nma table R channel offset			
XVYCC_DGT_OFFSET1_R[1:0] 3:2 Xvycc programmable degamma value for segment1.				nma table R channel offset			
	XVYCC_DGT_OFFSETO_R[1:0]	1:0	Xvycc programmable degamma table R channel offset value for segment0.				
70h	REG102FE0	7:0	Default : 0x00	Access : R/W			
(102FE0h)	XVYCC_DGT_OFFSET3_G[1:0]	7:6	Xvycc programmable degamma table G channel offset value for segment3.				
	XVYCC_DGT_OFFSET2_G[1:0]	5:4	Xvycc programmable degamma table G channel offset value for segment2.				
	XVYCC_DGT_OFFSET1_G[1:0]	3:2	Xvycc programmable degamma table G channel offset value for segment1.				
	XVYCC_DGT_OFFSET0_G[1:0]	1:0	Xvycc programmable degamma table G channel offset value for segment0.				
71h	REG102FE2	7:0	Default : 0x00	Access : R/W			
(102FE2h)	XVYCC_DGT_OFFSET3_B[1:0]	7:6	Xvycc programmable degam value for segment3.	nma table B channel offset			
	XVYCC_DGT_OFFSET2_B[1:0]	5:4	Xvycc programmable degam value for segment2.	nma table B channel offset			
X	XVYCC_DGT_OFFSET1_B[1:0]	3:2	Xvycc programmable degam value for segment1.	nma table B channel offset			
	XVYCC_DGT_OFFSET0_B[1:0]	1:0	Xvycc programmable degam value for segment0.	nma table B channel offset			



SC3 LPLL Register (Bank = 1031)

SC3 LPLL	SC3 LPLL Register (Bank = 1031)					
Index (Absolute)	Mnemonic	Bit	Description			
01h	REG103102	7:0	Default : 0x03	Access : R/W		
(103102h)	-	7:2	Reserved.			
	LPLL1_LOOP_DIV_FIRST[1:0]	1:0	Loop divider ratio control 00: /1; 01: /2; 10: /4; 11: /8.			
01h	REG103103	7:0	Default : 0x02	Access : R/W		
(103103h)	LPLL1_LOOP_DIV_SECOND[7:0]	7:0	Loop divider ratio control Default ratio=8; 0: Divide 1; 1: Divide 1; 2: Divide 2; 3: Divide 3; 4: Divide 4	: divide ratio=(1/N);		
02h	REG103104	7:0	Default : 0x02	Access : R/W		
(103104h)	- ~	7:2	Reserved.			
	LPLL1_OUTPUT_DIV_FIRST[1:0]	1:0	Output divider.			
02h	REG103105	7:0	Default: 0x07	Access : R/W		
(103105h)	LPLL1_OUTPUT_DIV_SECOND[7:0]	7:0	Output divider.			
03h	REG103106	7:0	Default : 0x33	Access : R/W		
(103106h)	LPLL1_SKEW_DIVIDER_DIV2_SEL	7				
×	LPLL1_2CHIP_SYN_EN	6				
	LPLL1_PD	5	Power down control to PL	L (active high).		
	LPLL1_IBIAS_ICTRL[2:0]	4:2				
	LPLL1_ICP_ICTRL[1:0]	1:0	Lpll current control.			
03h	REG103107	7:0	Default : 0x10	Access : RO, R/W		
(103107h)	LPLL1_HIGH_FLAG	7				
	LPLL1_LOCK	6				
	-	5	Reserved.			
	LPLL1_SCALAR_DIV_SEL[2:0]	4:2				
	LPLL1_EN_SKEW_DIVIDER	1				
	LPLL1_ENFRUN	0				
04h	REG103108	7:0	Default : 0x00	Access : R/W		



Index	Mnemonic	Bit	Description	
(Absolute)	Wilemonic	ы	Description	
	-	7:5	Reserved.	
	LPLL1_SKEW_CLKP_PHASE_SEL[4:0]	4:0		
04h	REG103109	7:0	Default : 0x00	Access : R/W
(103109h)	-	7:5	Reserved.	<u> </u>
	LPLL1_SKEW_CLKM_PHASE_SEL[4:0]	4:0		
05h	REG10310A	7:0	Default : 0x22	Access : R/W
(10310Ah)	PRD_LOCK_THRESH[3:0]	7:4	Prd lock threshold.	•
	PRD_STABLE_THRESH[3:0]	3:0	Clock stable threshold.	
05h	REG10310B	7:0	Default : 0x02	Access : R/W
(10310Bh)	PHASE_LOCK_THRESH[7:0]	7:0	Phase lock threshold.	
06h	REG10310C	7:0	Default : 0x00	Access : R/W
(10310Ch)	LIMIT_D5D6D7[7:0]	7:0	Limit for clock freq correction modification	
06h	REG10310D	7:0	Default : 0x00	Access : R/W
(10310Dh)	LIMIT_D5D6D7[15:8]	7:0	See description of '10310	Ch'.
07h	REG10310E	7:0	Default : 0x00	Access : R/W
(10310Eh)	LIMIT_D5D6D7[23:16]	7:0	See description of '10310Ch'.	
08h	REG103110	7:0	Default : 0x00	Access : R/W
(103110h)	LIMIT_D5D6D7_RK[7:0]	7:0	Limit for phase correction	n modification.
08h	REG103111	7:0	Default : 0x00	Access : R/W
(103111h)	LIMIT_D5D6D7_RK[15:8]	7:0	See description of '10311	I0h'.
09h	REG103112	7:0	Default : 0x00	Access : R/W
(103112h)	LIMIT_D5D6D7_RK[23:16]	7:0	See description of '10311	I0h'.
0Ah	REG103114	7:0	Default : 0x00	Access : R/W
(103114h)	LIMIT_LPLL_OFFSET[7:0]	7:0	Limit for IpII phase offset	·
0Ah	REG103115	7:0	Default : 0x00	Access : R/W
(103115h)	LIMIT_LPLL_OFFSET[15:8]	7:0	See description of '10311	l_4h'.
0Bh	REG103116	7:0	Default : 0x10	Access : R/W
(103116h)	P_GAIN_PRD[3:0]	7:4	P_gain for prd_lock, gair i_gain_prd.	setting is same as
	I_GAIN_PRD[3:0]	3:0	I_gain for prd lock. 0: >> 5. 1: >> 4. 2: >> 3. 3: >> 2.	



Index	Mnemonic	Bit	Description		
(Absolute)	INITIETHOLIC	Dit	Description		
			4: >> 1.		
			5: Same.		
			6: << 1.		
			7: << 2.		
			8: << 3.		
			9: << 4. 10: << 5.		
			11: << 6.		
			12: << 7.		
			13: << 8.		
			14: << 9.		
			15: << 10.	<u> </u>	
0Bh (103117h)	REG103117	7:0	Default : 0x10	Access : R/W	
(10311711)	P_GAIN_PHASE[3:0]	7:4	P_gain for phase lock, gain setting is same as		
	L CAIN DUACETO OI	2.0	i_gain_prd.		
	I_GAIN_PHASE[3:0]	3:0	I_gain for phase lock, game setting is same as i_gain_prd.		
0Ch	REG103118	7:0	Default : 0x00	Access : R/W	
(103118h)	P_GAIN_PHASE_ZERO	7.0	Disable p_gain for lock p		
	I_GAIN_PHASE_ZERO	6	Disable i_gain for lock phase.		
16	P_GAIN_PRD_ZERO	5	Disable p_gain for lock prd.		
MI.	I_GAIN_PRD_ZERO	4	Disable i_gain for lock pr	d.	
	FRAME_LPLL_EN	3	Frame Ipll enable.		
<u> </u>	·O'\	2	Reserved.		
	FPLL_MODE[1:0]	1:0	FPLL Mode.		
			00: Lock phase mode.		
	11, 00,		01: Full mode.		
			10: Lock_prd_phase_mod		
nch.	REG103119	7:0	11: Reduce_phase_mode	Access : R/W	
0Ch	OVS_FRAME_DIV[3:0]	7:4	Output fame div for fram		
	1012_1 KMINIT_D11[2:0]	7.4			
(103119h)	IVS EDAME DIVIS:01	3.∪	I Inhlit tramo divitor trama		
(103119h)	IVS_FRAME_DIV[3:0]	3:0	Input frame div for frame	1	
(103119h) 0Dh	IVS_FRAME_DIV[3:0] REG10311A	7:0	Default : 0x00	Access : R/W	
(103119h)			•	1	



SC3 LPLL Register (Bank = 1031)					
Index (Absolute)	Mnemonic	Bit	Description		
			Force phase close done.		
	FORCE_PHASE_REDUCE_DONE	2	S.W.		
			Force phase reduce done.		
	FORCE_PRD_LOCK_DONE	1	S.W. Force prd lock done.		
	FORCE_PRD_STABLE	0	S.W. Force prd stable check of	ζ.	
0Dh	REG10311B	7:0	Default : 0x03	Access : R/W	
(10311Bh)	-	7:4	Reserved.		
	SSC_EN	3	SSC mode enable.		
	_	2	Reserved.		
	NON_STABLE_EN	1	Frame pll disable when non_stable flag high.		
	NO_SIGNAL_EN	0	Frame pll disable when n	o_signal flag high.	
0Eh	REG10311C	7:0	Default : 0x00	Access : R/W	
(10311Ch)		7:2	Reserved.		
	EXT_OVS_FRAME_DIV	1	Output frame div for frame sync, high bit (bit4).		
	EXT_IVS_FRAME_DIV	0	Input frame div for frame sync, high bit (bit4).		
0Fh	REG10311E	7:0	Default: 0x44	Access : R/W	
(10311Eh)	PLL_SET[7:0]	7:0	PLL initial setting value.		
0Fh	REG10311F	7:0	Default : 0x55	Access : R/W	
(10311Fh)	PLL_SET[15:8]	7:0	See description of '10311	Eh'.	
10h	REG103120	7:0	Default : 0x24	Access : R/W	
(103120h)	PLL_SET[23:16]	7:0	See description of '10311	Eh'.	
11h	REG103122	7:0	Default : 0x00	Access : RO	
(103122h)	PHASE_DIF[7:0]	7:0	Phase dif value.		
11h	REG103123	7:0	Default : 0x00	Access : RO	
(103123h)	PHASE_DIF[15:8]	7:0	See description of '10312	22h'.	
12h	REG103124	7:0	Default : 0x00	Access : RO	
(103124h)	-	7:1	Reserved.		
	PHASE_UP	0	Ovs leading or lagging related to ivs. 0: Leading. 1: Lagging.		
13h	REG103126	7:0	Default : 0x00	Access : RO	
(103126h)	PRD_DIF[7:0]	7:0	Reference signal prd diffe	erence value.	



SC3 LPLL	Register (Bank = 1031)				
Index (Absolute)	Mnemonic	Bit	Description		
13h	REG103127	7:0	Default : 0x00	Access : RO	
(103127h)	PRD_DIF[15:8]	7:0	See description of '10312	26h'.	
14h	REG103128	7:0	Default : 0x00	Access : RO	
(103128h)	-	7:1	Reserved.		
	PRD_UP	0	Ovs prd related to ivs prd.		
			0: Faster. 1: Slower.		
15h	REG10312A	7:0	Default : 0x00	Access : R/W	
(10312Ah)	-	7:2	Reserved.		
	LPLL1_INPUT_DIV_FIRST[1:0]	1:0	Input divider ratio contro	ol:	
			00: /1;		
			01: /2;		
			10: /4;		
4 = 1	DE010010D	7.0	11: /8.	D 144	
15h (10312Bh)	REG10312B	7:0	Default : 0x00	Access : R/W	
(1031261)	LPLL1_INPUT_DIV_SECOND[7:0]	7:0	Input divider ratio control: divide ratio=(1/N);		
			0: Divide 1; 1: Divide 1;		
•			2: Divide 2;		
			3: Divide 3;		
			4: Divide 4		
17h	REG10312E	7:0	Default : 0x20	Access : R/W	
(10312Eh)	LPLL_STEP[7:0]	7:0	Output PLL spread spect	rum step.	
17h	REG10312F	7:0	Default : 0x00	Access : R/W	
(10312Fh)		7:2	Reserved.		
	LPLL_STEP[9:8]	1:0	See description of '10312	2Eh'.	
18h	REG103130	7:0	Default : 0x00	Access : R/W	
(103130h)	LPLL_SPAN[7:0]	7:0	Output PLL spread spect	rum span.	
18h	REG103131	7:0	Default : 0x00	Access : R/W	
(103131h)	-	7:6	Reserved.		
	LPLL_SPAN[13:8]	5:0	See description of '10313	30h'.	
19h	REG103132	7:0	Default : 0x00	Access : R/W	
(103132h)	IDCLK_DIV[7:0]	7:0	Input clock divider for pr	d sync.	
19h	REG103133	7:0	Default : 0x00	Access : R/W	
(103133h)	IDCLK_DIV[15:8]	7:0	See description of '10313	32h'.	



Index	Mnemonic	Bit	Description		
(Absolute)				T	
1Ah (1021245)	REG103134	7:0	Default : 0x00	Access : R/W	
(103134h)	IDOLK_DIV[23:10]	7:0	See description of '1031:		
Bh	REG103136	7:0	Default : 0x00	Access : R/W	
103136h)	ODOLK_D1V[7:0]	7:0	Output dlock divider for		
Bh	REG103137	7:0	Default : 0x00	Access : R/W	
103137h)	ODCLK_DIV[15:8]	7:0	See description of '1031:	36h'.	
Ch	REG103138	7:0	Default : 0x00	Access : R/W	
103138h)	ODCLK_DIV[23:16]	7:0	See description of '1031:	36h'.	
Fh	REG10313E	7:0	Default : 0x80	Access : R/W	
10313Eh)	PHASE_CLOSE_THRESH[7:0]	7:0	Phase close done thresh	old.	
Fh	REG10313F	7:0	Default : 0x30	Access : R/W	
10313Fh)	REDUCE_DONE_THRESH[3:0]	7:4	Phase reduce done threshold.		
	PHASE_CLOSE_THRESH[11:8]	3:0	See description of '10313Eh'.		
0h	REG103140	7:0	Default : 0x52	Access : R/W	
103140h)		7	Reserved.		
	HIS_CNT_HIGH_THRESH[2:0]	6:4	History counter high three	r high threshold.	
		3	Reserved.		
<u> </u>	HIS_CNT_LOW_THRESH[2:0]	2:0	History counter low three	shold.	
1h	REG103142	7:0	Default : 0x00	Access : RO	
103142h)	IVS_PRD_VALUE[7:0]	7:0	lvs prd value.		
1h	REG103143	7:0	Default : 0x00	Access : RO	
103143h)	IVS_PRD_VALUE[15:8]	7:0	See description of '1031	42h'.	
2h	REG103144	7:0	Default : 0x00	Access : RO	
03144h)	IVS_PRD_VALUE[23:16]	7:0	See description of '1031	42h'.	
3h	REG103146	7:0	Default : 0x00	Access : RO	
103146h)	OVS_PRD_VALUE[7:0]	7:0	Ovs prd value.		
3h	REG103147	7:0	Default : 0x00	Access : RO	
103147h)	OVS_PRD_VALUE[15:8]	7:0	See description of '1031	46h'.	
4h	REG103148	7:0	Default : 0x00	Access : RO	
103148h)	OVS_PRD_VALUE[23:16]	7:0	See description of '1031	46h'.	
6h	REG10314C	7:0	Default : 0x00	Access : RO	
10314Ch)	FIX_V_TOTAL[7:0]	7:0	Reduce phase modify v_	total value.	
6h	REG10314D	7:0	Default : 0x00	Access : RO	



Index (Absolute)	Mnemonic	Bit	Description	
(Albaolate)	-	7:4	Reserved.	
	FIX_V_TOTAL[11:8]	3:0	See description of '10314	Ch'.
28h	REG103150	7:0	Default : 0x00	Access : RO
(103150h)	PLL_SET_USING[7:0]	7:0	PII_set value for using.	
28h	REG103151	7:0	Default : 0x00	Access : RO
(103151h)	PLL_SET_USING[15:8]	7:0	See description of '10315	0h'.
29h	REG103152	7:0	Default : 0x00	Access : RO
(103152h)	PLL_SET_USING[23:16]	7:0	See description of '10315	0h'.
2Ah	REG103154	7:0	Default : 0x00	Access : RO
(103154h)	PHASE_REDUCE_DONE	7	Phase reduce done flag.	
	PRD_LOCK_DONE	6	Prd lock done flag.	
	IVS_PRD_STABLE	5	Idclk stable flag.	
	OVS_PRD_STABLE	4	Odclk stable flag.	
	- (0)	3	Reserved.	
	CS_STATE[2:0]	2:0	Frame pll FSM state.)
			3'h0 : free run.	
			3'h1 : lock_freq.	
			3'h2 : reduce_phase. 3'h3 : wait phase_close.	
		4	3'h4 : lock_phase.	
M.	X		Others: Reserved.	
2Ah	REG103155	7:0	Default : 0x00	Access : RO
(103155h)		7:1	Reserved.	
	PHASE_LOCK_DONE	0	Phase lock done flag.	
30h	REG103160	7:0	Default : 0x00	Access : R/W
(103160h)	- X	7:2	Reserved.	
	LPLL2_INPUT_DIV_FIRST[1:0]	1:0	Input divider ratio contro	l:
			00: /1;	
			01: /2;	
			10: /4; 11: /8.	
30h	REG103161	7:0	Default : 0x00	Access : R/W
30n (103161h)		7:0	Input divider ratio contro	l
7	LI LLZ_INFOT_DIV_SECOND[7.0]	7.0	0: Divide 1;	i. divide ratio=(1/14),
			1: Divide 1;	



	Register (Bank = 1031)			
Index (Absolute)	Mnemonic	Bit	Description	
			2: Divide 2; 3: Divide 3; 4: Divide 4	
31h	REG103162	7:0	Default : 0x00	Access : R/W
(103162h)	-	7:2	Reserved.	
	LPLL2_LOOP_DIV_FIRST[1:0]	1:0	Loop divider ratio control 00; /1; 01: /2; 10: /4;	
31h	REG103163	7:0	11: /8. Default : 0x00	Access : R/W
(103163h)	LPLL2_LOOP_DIV_SECOND[7:0]	7:0	Loop divider ratio control Default ratio=8; 0: Divide 1; 1: Divide 1; 2: Divide 2; 3: Divide 3; 4: Divide 4	<u> </u>
32h	REG103164	7:0	Default : 0x00	Access : R/W
(103164h)		7:2	Reserved.	
10	LPLL2_OUTPUT_DIV_FIRST[1:0]	1:0	Output divider.	
32h	REG103165	7:0	Default : 0x00	Access : R/W
(103165h)	LPLL2_OUTPUT_DIV_SECOND[7:0]	7:0	Output divider.	
33h	REG103166	7:0	Default : 0x20	Access : R/W
(103166h)	LPLL2_SKEW_DIVIDER_DIV2_SEL	7		
	LPLL2_2CHIP_SYN_EN	6		
	LPLL2_PD	5	Power down control to Pl	LL (active high).
	LPLL2_IBIAS_ICTRL[2:0]	4:2		
	LPLL2_ICP_ICTRL[1:0]	1:0	Lpll current control.	
33h	REG103167	7:0	Default : 0x00	Access : RO, R/W
(103167h)	LPLL2_HIGH_FLAG	7		
	LPLL2_LOCK	6		
	-	5	Reserved.	
	LPLL2_SCALAR_DIV_SEL[2:0]	4:2		
	LPLL2_EN_SKEW_DIVIDER	1		



Index	Mnemonic	Bit	Description	
(Absolute)			·	
	LPLL2_ENFRUN	0		
34h	REG103168	7:0	Default : 0x00	Access : R/W
(103168h)	-	7:6	Reserved.	
	LPLL2_SKEW_CLKP_PHASE_SEL[5:0]	5:0		
34h	REG103169	7:0	Default : 0x00	Access : R/W
(103169h)	-	7:6	Reserved.	>
	LPLL2_SKEW_CLKM_PHASE_SEL[5:0]	5:0	>'	_
35h	REG10316A	7:0	Default : 0x10	Access : R/W
(10316Ah)	-	7:6	Reserved.	
	LPLL_2NDPLL_CLK_SEL	5	•	
	LPLL_POSTDIV_RESET	4		
	-	3	Reserved.	
	LPLL_2CHIP_REFIN_SEL	2		
	LPLL_2CHIP_FBIN_SEL	1		
	LPLL_2CHIP_CLKOUT_SEL	0)
35h	REG10316B	7:0	Default : 0x1F	Access : R/W
(10316Bh)	LPLL_RESERVED_DIV_I[3:0]	7:4	Reserved div sel.	
	LPLL_RESERVED_PD[3:0]	3:0	Reserved power down co	entrol (active high).
36h	REG10316C	7:0	Default : 0x00	Access : R/W
(10316Ch)	LPLL1_TEST[7:0]	7:0	LPLL1_TEST.	
36h	REG10316D	7:0	Default : 0x00	Access : R/W
(10316Dh <mark>)</mark>	LPLL1_TEST[15:8]	7:0	See description of '10316	Ch'.
37h	REG10316E	7:0	Default : 0x00	Access : R/W
(10316Eh)	LPLL1_TEST[23:16]	7:0	See description of '10316	Ch'.
37h	REG10316F	7:0	Default : 0x00	Access : R/W
(10316Fh)	LPLL1_TEST[31:24]	7:0	See description of '10316	Ch'.
38h	REG103170	7:0	Default : 0x00	Access : R/W
(103170h)	-	7:2	Reserved.	
	LPLL_SCALAR_FB_DIV2_EN	1		
	LPLL_NCO_RETIME_SEL	0	Retime NCO clock, 1'b0:	enable, 1'b1:disable.
39h	REG103172	7:0	Default : 0x00	Access : R/W
(103172h)	LPLL2_TEST[7:0]	7:0	LPLL2_TEST.	
39h	REG103173	7:0	Default : 0x00	Access : R/W



Index (Absolute)	Mnemonic	Bit	Description	
	LPLL2_TEST[15:8]	7:0	See description of '10317	⁷ 2h'.
3Ah	REG103174	7:0	Default : 0x0C	Access : R/W
(103174h)	LPLL_RESERVED_DIV_J[3:0]	7:4	Reserved div sel.	
	OEN_FBIN	3		
	OEN_REFIN	2		
	LPLL1_RX_CLKFB_SEL	1		
	LPLL1_CLKIN_SEL	0	>	
3Ah	REG103175	7:0	Default : 0x00	Access : R/W
(103175h)	LPLL_RESERVED_DIV_M[3:0]	7:4	Reserved div sel.	
	LPLL_RESERVED_DIV_N[3:0]	3:0	Reserved div sel.	
40h	REG103180	7:0	Default : 0x00	Access : R/W
(103180h)	LPLL_EXT_SYN_CLK_SEL	7		
	-	6:2	Reserved.	
	LPLL_EXT_INPUT_DIV_FIRST[1:0]	1:0		
40h	REG103181	7:0	Default : 0x00	Access : R/W
(103181h)	LPLL_EXT_INPUT_DIV_SECOND[7:0]	7:0		•
41h	REG103182	7:0	Default : 0x02	Access : R/W
(103182h)		7:2	Reserved.	•
	LPLL_EXT_LOOP_DIV_FIRST[1:0]	1:0	5	
41h	REG103183	7:0	Default : 0x03	Access : R/W
(103183h)	LPLL_EXT_LOOP_DIV_SECOND[7:0]	7:0		•
42h	REG103184	7:0	Default : 0x02	Access : R/W
(103184h)	. 20 .47	7:2	Reserved.	
	LPLL_EXT_OUTPUT_DIV_FIRST[1:0]	1:0	Output divider.	
43h	REG103186	7:0	Default : 0x2A	Access : R/W
(103186h)	-	7	Reserved.	•
	LPLL_EXT_NCO_RETIME_SEL	6	1: Disable retime.	
	LPLL_EXT_PD	5	Power down control to P	LL (active high).
	LPLL_EXT_IBIAS_ICTRL[2:0]	4:2		
	LPLL_EXT_ICP_ICTRL[1:0]	1:0	Lpll current control.	
43h	REG103187	7:0	Default : 0x00	Access : RO, R/W
(103187h)	LPLL_EXT_HIGH_FLAG	7		
	LPLL_EXT_LOCK	6		



Index (Absolute)	Mnemonic	Bit	Description	
	-	5:1	Reserved.	
	LPLL_EXT_SSC_EN	0	SSC mode enable (extra)	
44h	REG103188	7:0	Default : 0x00	Access : R/W
(103188h)	-	7:4	Reserved.	
	LPLL_EXT_PHSEL[3:0]	3:0		
44h	REG103189	7:0	Default : 0x00	Access : R/W
(103189h)	-	7:5	Reserved.	
	LPLL_EXT_COARSE_PHSEL[4:0]	4:0		
45h	REG10318A	7:0	Default : 0x00	Access : R/W
(10318Ah)	- \	7:2	Reserved.	
	LPLL_EXT_SCALAR_DIV_FIRST[1:0]	1:0		
45h	REG10318B	7:0	Default : 0x00	Access : R/W
(10318Bh)	-	7:4	Reserved.	
	LPLL_EXT_SCALAR_DIV_SECOND[3:0]	3:0	. 1	
(10318Dh)	REG10318D	7:0	Default : 0x00	Access : R/W
	- <	7:3	Reserved.	
	LPLL_EXT_SKEW_DIV[2:0]	2:0		
48h	REG103190	7:0	Default : 0x44	Access : R/W
(103190h)	LPLL_EXT_SET[7:0]	7:0	Ext PLLSET.	
48h	REG103191	7:0	Default : 0x55	Access : R/W
(103191h)	LPLL_EXT_SET[15:8]	7:0	See description of '10319	90h'.
49h	REG103192	7:0	Default : 0x24	Access : R/W
(103192h)	LPLL_EXT_SET[23:16]	7:0	See description of '10319	90h'.
4Ah	REG103194	7:0	Default : 0x00	Access : R/W
(103194h)	LPLL_EXT_TEST[7:0]	7:0	LPLL_EXT_TEST.	
4Ah	REG103195	7:0	Default : 0x00	Access : R/W
(103195h)	LPLL_EXT_TEST[15:8]	7:0	See description of '10319	94h'.
4Bh	REG103196	7:0	Default : 0x00	Access : R/W
(103196h)	LPLL_EXT_TEST[23:16]	7:0	See description of '10319	94h'.
4Eh	REG10319C	7:0	Default : 0x20	Access : R/W
(10319Ch)	LPLL_EXT_STEP[7:0]	7:0	Output PLL spread specti	rum step (extra).
4Eh	REG10319D	7:0	Default : 0x00	Access : R/W
(10319Dh)	_	7:2	Reserved.	•



Description		
AFh		
(10319Eh) LPLL_EXT_SPAN[7:0] 7:0 Output PLL spread spectrum span (example) 4Fh REG10319F 7:0 Default : 0x00 Access : R (10319Fh) - 7:6 Reserved. LPLL_EXT_SPAN[13:8] 5:0 See description of '10319Eh'. 60h REG1031C0 7:0 Default : 0x00 Access : R (1031C0h) - 7:3 Reserved. (1031C1] 7:0 Default : 0x00 Access : R (1031C1h) LPLL_EN_VBYONE 7 Enable lpll1 v-by-one mode. (1031C1h) - 6:0 Reserved. (1031E0h) FSYNC_RESET_THRESH[7:0] 7:0 Default : 0x80 Access : R (1031E1h) FSYNC_RESET_THRESH[7:0] 7:0 Fsync phase offset threshold. 70h REG1031E1 7:0 Default : 0x00 Access : R (1031E1h) EN_CLK_DIV 7 Enable lock freq mode. - 6:4 Reserved. EN_PLL_FSYNC_RESET 3 Enable fsync reset signal generate. - <t< td=""><td></td></t<>		
### REG10319F	:/W	
T:6 Reserved.	ctra).	
LPLL_EXT_SPAN[13:8] 5:0 See description of '10319Eh'.	:/W	
REG1031C0 7:0 Default : 0x00 Access : R		
To To To To To To To To		
LPLL1_VBYONE_DIV[2:0] 2:0 Lpll1 v-by-one divider. 60h REG1031C1 7:0 Default : 0x00 Access : R (1031C1h) LPLL1_EN_VBYONE 7 Enable lpll1 v-by-one mode. - 6:0 Reserved. 70h REG1031E0 7:0 Default : 0x80 Access : R (1031E0h) FSYNC_RESET_THRESH[7:0] 7:0 Fsync phase offset threshold. 70h REG1031E1 7:0 Default : 0x00 Access : R (1031E1h) EN_CLK_DIV 7 Enable lock freq mode. - 6:4 Reserved. EN_PLL_FSYNC_RESET 3 Enable fsync reset signal generate. - 2 Reserved. CLR_FSYNC_RESET_2T_FLAG 1 Clear fsync reset multi-time flag. FSYNC_RESET_2T_FLAG 0 Fsync reset multi-time flag.	:/W	
REG1031C1 7:0 Default : 0x00 Access : R		
(1031C1h) LPLL1_EN_VBYONE 7 Enable lpll1 v-by-one mode. - 6:0 Reserved. 70h REG1031E0 7:0 Default : 0x80 Access : R (1031E0h) FSYNC_RESET_THRESH[7:0] 7:0 Fsync phase offset threshold. 70h REG1031E1 7:0 Default : 0x00 Access : R (1031E1h) EN_CLK_DIV 7 Enable lock freq mode. - 6:4 Reserved. EN_PLL_FSYNC_RESET 3 Enable fsync reset signal generate. - 2 Reserved. CLR_FSYNC_RESET_2T_FLAG 1 Clear fsync reset multi-time flag. FSYNC_RESET_2T_FLAG 0 Fsync reset multi-times flag.		
- 6:0 Reserved. 70h REG1031E0 7:0 Default: 0x80 Access: R (1031E0h) FSYNC_RESET_THRESH[7:0] 7:0 Fsync phase offset threshold. 70h REG1031E1 7:0 Default: 0x00 Access: R (1031E1h) EN_CLK_DIV 7 Enable lock freq mode. - 6:4 Reserved. EN_PLL_FSYNC_RESET 3 Enable fsync reset signal generate. - 2 Reserved. CLR_FSYNC_RESET_2T_FLAG 1 Clear fsync reset multi-time flag. FSYNC_RESET_2T_FLAG 0 Fsync reset multi-times flag.	:/W	
- 6:0 Reserved. 70h REG1031E0 7:0 Default: 0x80 Access: R (1031E0h) FSYNC_RESET_THRESH[7:0] 7:0 Fsync phase offset threshold. 70h REG1031E1 7:0 Default: 0x00 Access: R (1031E1h) EN_CLK_DIV 7 Enable lock freq mode. - 6:4 Reserved. EN_PLL_FSYNC_RESET 3 Enable fsync reset signal generate. - 2 Reserved. CLR_FSYNC_RESET_2T_FLAG 1 Clear fsync reset multi-time flag. FSYNC_RESET_2T_FLAG 0 Fsync reset multi-times flag.		
(1031E0h) FSYNC_RESET_THRESH[7:0] 7:0 Fsync phase offset threshold. 70h REG1031E1 7:0 Default: 0x00 Access: R (1031E1h) EN_CLK_DIV 7 Enable lock freq mode. - 6:4 Reserved. EN_PLL_FSYNC_RESET 3 Enable fsync reset signal generate. - 2 Reserved. CLR_FSYNC_RESET_2T_FLAG 1 Clear fsync reset multi-time flag. FSYNC_RESET_2T_FLAG 0 Fsync reset multi-times flag.		
7:0 Default : 0x00 Access : R (1031E1h) FN_CLK_DIV 7 Enable lock freq mode. - 6:4 Reserved. EN_PLL_FSYNC_RESET 3 Enable fsync reset signal generate. - 2 Reserved. CLR_FSYNC_RESET_2T_FLAG 1 Clear fsync reset multi-time flag. FSYNC_RESET_2T_FLAG 0 Fsync reset multi-times flag.	:/W	
(1031E1h) EN_CLK_DIV Reserved. EN_PLL_FSYNC_RESET Senable fsync reset signal generate. Reserved. CLR_FSYNC_RESET_2T_FLAG FSYNC_RESET_2T_FLAG FSYNC_R		
- 6:4 Reserved. EN_PLL_FSYNC_RESET 3 Enable fsync reset signal generate. - 2 Reserved. CLR_FSYNC_RESET_2T_FLAG 1 Clear fsync reset multi-time flag. FSYNC_RESET_2T_FLAG 0 Fsync reset multi-times flag.	O, R/W	
EN_PLL_FSYNC_RESET - 2 Reserved. CLR_FSYNC_RESET_2T_FLAG FSYNC_RESET_2T_FLAG 0 Fsync reset multi-times flag.		
- 2 Reserved. CLR_FSYNC_RESET_2T_FLAG 1 Clear fsync reset multi-time flag. FSYNC_RESET_2T_FLAG 0 Fsync reset multi-times flag.	Reserved.	
CLR_FSYNC_RESET_2T_FLAG Clear fsync reset multi-time flag. FSYNC_RESET_2T_FLAG 0 Fsync reset multi-times flag.		
FSYNC_RESET_2T_FLAG 0 Fsync reset multi-times flag.		
72h REG1031E4 7:0 Default : 0x00 Access : R		
7.00000111	0	
(1031E4h) IDCLK_DIV_PRD[7:0] 7:0 Input clock divider period in mclk.		
72h REG1031E5 7:0 Default : 0x00 Access : R	O	
(1031E5h) IDCLK_DIV_PRD[15:8] 7:0 See description of '1031E4h'.		
73h REG1031E6 7:0 Default : 0x00 Access : R	O	
(1031E6h) IDCLK_DIV_PRD[23:16] 7:0 See description of '1031E4h'.		
74h REG1031E8 7:0 Default : 0x00 Access : R	:O	
(1031E8h) ODCLK_DIV_PRD[7:0] 7:0 Output clock divider period in mclk.		
74h REG1031E9 7:0 Default : 0x00 Access : R	:O	
(1031E9h) ODCLK_DIV_PRD[15:8] 7:0 See description of '1031E8h'.		
75h REG1031EA 7:0 Default : 0x00 Access : R	_ _	
(1031EAh) ODCLK_DIV_PRD[23:16] 7:0 See description of '1031E8h'.	0	



SC3 LPLL	Register (Bank = 1031)			
Index (Absolute)	Mnemonic	Bit	Description	
7Fh	REG1031FE	7:0	Default : 0x00	Access : R/W
(1031FEh)	-	7:2	Reserved.	
	SW_TRIG_DB_LOAD	1	Trig to load double buffer	r register.
	DB_EN	0	Enable Ipll register double	9.
7Fh	REG1031FF	7:0	Default : 0x00	Access : R/W
(1031FFh)	-	7:1	Reserved.)
	TGEN_SRC_SEL	0	Tgen source selection.	

Security Level: Confidential A - 270 -



SC4 MOD Register (Bank = 1032, Sub-Bank = 0)

SC4 MOD	Register (Bank = 1032,	Sub-B	Sank = 0)		
Index (Absolute)	Mnemonic	Bit	Description		
01h ~ 07h	-	7:0	Default : -	Access : -	
(103203h	-	-	Reserved.		
10320Fh)					
0Dh	REG10321A	7:0	Default : 0x00	Access : R/W	
(10321Ah)	-	7:1	Reserved.		
	FRC_DVI340_SW_RST	0	Software reset of dvi340 dor	nain.	
0Dh	REG10321B	7:0	Default : 0x08	Access : R/W	
(10321Bh)	HDMI_BYPASS	7	Enable HDMI bypass mode.		
	HDMI_VS_INV	6	HDMI vsync invert.		
	HDMI_HS_INV	5	HDMI hsync invert.		
	HDMI_DE_INV	4	HDMI de invert.		
	HDMI_HW_FULL_CLR_EN	3	HDMI FIFO full clear enable.		
	-	2:0	Reserved.		
0Eh	REG10321C	7:0	Default : 0xFF	Access : R/W	
(10321Ch)	HALFLINE[7:0]	7:0	Set HDE/2-1 for LR output.		
0Eh	REG10321D	7:0	Default : 0x0F	Access : R/W	
(10321Dh)	MFT_LB_EN	7	Enable mft LB for LR output.		
M.	DE2TO1_ENABLE	6	De2to1 for 3D PDP mode.		
	-2	5:4	Reserved.		
	HALFLINE[11:8]	3:0	See description of '10321Ch'		
0Fh	REG10321E	7:0	Default : 0xFF	Access : R/W	
(10321Eh)	HALFLINE2[7:0]	7:0	Set HDE/2-1 for LR output.		
0Fh	REG10321F	7:0	Default : 0x0F	Access : R/W	
(10321Fh)	-	7:4	Reserved.		
	HALFLINE2[11:8]	3:0	See description of '10321Eh'		
10h	REG103220	7:0	Default : 0xFF	Access : R/W	
(103220h)	V_BLK_ST1_VPOS[7:0]	7:0	Bt656 v blanking 1st start v	position.	
10h	REG103221	7:0	Default : 0x0F	Access : R/W	
(103221h)	-	7:4	Reserved.		
	V_BLK_ST1_VPOS[11:8]	3:0	See description of '103220h'		
11h	REG103222	7:0	Default : 0xFF	Access : R/W	



Index (Absolute)	Mnemonic	Bit	Description			
	V_BLK_ST1_HPOS[7:0]	7:0	Bt656 v blanking 1st start h	position.		
11h	REG103223	7:0	Default : 0x0F	Access : R/W		
(103223h)	-	7:4	Reserved.			
	V_BLK_ST1_HPOS[11:8]	3:0	See description of '103222h'	See description of '103222h'.		
12h	REG103224	7:0	Default : 0xFF	Access : R/W		
(103224h)	V_BLK_END1_VPOS[7:0]	7:0	Bt656 v blanking 1st end v position.			
12h	REG103225	7:0	Default : 0x0F	Access : R/W		
(103225h)	-	7:4	Reserved.			
	V_BLK_END1_VPOS[11:8]	3:0	See description of '103224h'.			
13h	REG103226	7:0	Default : 0xFF	Access : R/W		
(103226h)	V_BLK_END1_HPOS[7:0]	7:0	Bt656 v blanking 1st end h p	oosition.		
13h	REG103227	7:0	Default : 0x0F	Access : R/W		
(103227h)	-	7:4	Reserved.			
	V_BLK_END1_HPOS[11:8]	3:0	See description of '103226h'			
14h	REG103228	7:0	Default : 0xFF	Access : R/W		
(103228h)	V_BLK_ST2_VPOS[7:0]	7:0	Bt656 v blanking 2nd start v position.			
14h	REG103229	7:0	Default : 0x0F	Access : R/W		
(103229h)		7:4	Reserved.			
	V_BLK_ST2_VPOS[11:8]	3:0	See description of '103228h'			
15h	REG10322A	7:0	Default : 0xFF	Access : R/W		
(10322Ah)	V_BLK_ST2_HPOS[7:0]	7:0	Bt656 v blanking 2nd start h	position.		
15h	REG10322B	7:0	Default : 0x0F	Access : R/W		
(10322Bh)	. , , , , ,	7:4	Reserved.			
	V_BLK_ST2_HPOS[11:8]	3:0	See description of '10322Ah'	•		
16h	REG10322C	7:0	Default : 0xFF	Access : R/W		
(10322Ch)	V_BLK_END2_VPOS[7:0]	7:0	Bt656 v blanking 2nd end v	position.		
16h	REG10322D	7:0	Default : 0x0F	Access : R/W		
(10322Dh)	-	7:4	Reserved.			
	V_BLK_END2_VPOS[11:8]	3:0	See description of '10322Ch'			
17h	REG10322E	7:0	Default : 0xFF	Access : R/W		
(10322Eh)	V_BLK_END2_HPOS[7:0]	7:0	Bt656 v blanking 2nd end h	position.		
17h	REG10322F	7:0	Default : 0x0F	Access : R/W		
(10322Fh)	_	7:4	Reserved.			



Index	Mnemonic	Bit	Description		
(Absolute)					
	V_BLK_END2_HPOS[11:8]	3:0	See description of '10322Eh'.		
18h	REG103230	7:0	Default : 0xFF	Access : R/W	
(103230h)	FLD_ST1_VPOS[7:0]	7:0	Bt656 field1 start v position.		
18h	REG103231	7:0	Default : 0x0F	Access : R/W	
(103231h)	-	7:4	Reserved.	X '	
	FLD_ST1_VPOS[11:8]	3:0	See description of '103230h'.		
19h	REG103232	7:0	Default : 0xFF	Access : R/W	
(103232h)	FLD_ST1_HPOS[7:0]	7:0	Bt656 field1 start h position.		
19h	REG103233	7:0	Default : 0x0F	Access : R/W	
(103233h)	-	7:4	Reserved.		
	FLD_ST1_HPOS[11:8]	3:0	See description of '103232h'.		
1Ah	REG103234	7:0	Default : 0xFF	Access : R/W	
(103234h)	FLD_ST2_VPOS[7:0]	7:0	Bt656 field2 start v position.	A	
1Ah	REG103235	7:0	Default : 0x0F	Access : R/W	
(103235h)	- \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	7:4	Reserved.	,)	
	FLD_ST2_VPOS[11:8]	3:0	See description of '103234h'.		
1Bh	REG103236	7:0	Default : 0xFF	Access : R/W	
(103236h)	FLD_ST2_HPOS[7:0]	7:0	Bt656 field2 start h position.		
1Bh	REG103237	7:0	Default : 0x0F	Access : R/W	
(103237h)	- / / /	7:4	Reserved.		
	FLD_ST2_HPOS[11:8]	3:0	See description of '103236h'.		
1Ch	REG103238	7:0	Default : 0x00	Access : R/W	
(103238h)	MASK_Y_BLK_VA[7:0]	7:0	Bt656 mask y blk value.		
1Ch	REG103239	7:0	Default : 0x08	Access : R/W	
(103239h)	BT656_EN	7	Bt656 enable.		
	BT656_8BIT	6	Bt656 8bit mode.		
	DDR_HL_SWAP	5	Bt656 DDR high low swap.		
	CRCB_SWAP	4	Swap crcb position in 422.		
	444_BYPASS	3	Enable 444 to 422 conversion	1.	
	MASK_Y_BLK_EN	2	Bt656 mask y blk enable.		
	MASK_Y_BLK_VA[9:8]	1:0	See description of '103238h'.		
1Dh	REG10323A	7:0	Default : 0x00	Access : R/W	
(10323Ah)	MASK_C_BLK_VA[7:0]	7:0	Bt656 mask c blk value.		



Index (Absolute)	Mnemonic	Bit	Description	
1Dh	REG10323B	7:0	Default : 0x00	Access : R/W
(10323Bh)	-	7:3	Reserved.	
	MASK_C_BLK_EN	2	Bt656 mask c blk enable.	
	MASK_C_BLK_VA[9:8]	1:0	See description of '10323Ah'	
1Eh	REG10323C	7:0	Default : 0x00	Access : R/W
(10323Ch)	TCON_OUT_MUX[7:0]	7:0	Enable TCON gpo output mu	ix.
1Eh	REG10323D	7:0	Default : 0x00	Access : R/W
(10323Dh)	-	7:6	Reserved.	
	TCON_OUT_MUX[13:8]	5:0	See description of '10323Ch'	
20h	REG103240	7:0	Default : 0x11	Access : R/W
(103240h)	CKG_DOT_MINI_PRE_OSD[3:0]	7:4	Clock gen register of clk_dot Bit[0]: gating. Bit[1]: invert. Bit[3:2] = 00:normal, 01:OS	·
	CKG_DOT_MINI_OSD[3:0]	3:0	Clock gen register of clk_dot_mini_OSD. Bit[0]: gating. Bit[1]: invert. Bit[3:2] = 00:normal, 01:OSD.	
20h	REG103241	7:0	Default : 0x11	Access : R/W
(103241h)	CKG_DOT_MINI_PRE[3:0]	7:4	Clock gen register of clk_dot Bit[0]: gating. Bit[1]: invert. Bit[3:2] = 00, enable.	_mini_pre.
×	CKG_DOT_MINI[3:0]	3:0	Clock gen register of clk_dot Bit[0]: gating. Bit[1]: invert. Bit[3:2] = 00, enable.	_mini.
23h	REG103246	7:0	Default : 0x00	Access : R/W
(103246h)	GCR_PE_ADJ_CH2[1:0]	7:6	Differential output data/clock ch2.	c pre-emphasis level adjust of
	GCR_PE_ADJ_CH1[2:0]	5:3	Differential output data/clock ch1.	k pre-emphasis level adjust o
	GCR_PE_ADJ_CH0[2:0]	2:0	Differential output data/clock ch0. Pre-emphasis level adj. 3'b000: 0mV +/- 15%.	c pre-emphasis level adjust o



Index (Absolute)	Mnemonic	Bit	Description	
(Absolute)			3'b001: 20mV +/- 15 %.	
			3'b010: 40mV +/- 15%.	
			 3'b111: 140mV +/- 15%.	
			Pre-emphasis Voltage Formu	ıla:
			Vpem = 20* ADJ[2:0] mV +	/- 15%. I
23h	REG103247	7:0	Default : 0x00	Access : R/W
(103247h)	-	7	Reserved.	
	GCR_PE_ADJ_CH4[2:0]	6:4	Differential output data/clocl ch4.	c pre-emphasis level adjust of
	GCR_PE_ADJ_CH3[2:0]	3:1	Differential output data/clock ch3.	c pre-emphasis level adjust of
	GCR_PE_ADJ_CH2[2]	0	See description of '103246h'	<u>.</u>
24h	REG103248	7:0	Default : 0x00	Access : R/W
(103248h)	GCR_PE_ADJ_CH7[1:0]	7:6	Differential output data/clock pre-emphasis level adjust ch7.	
C	GCR_PE_ADJ_CH6[2:0]	5:3	Differential output data/clock pre-emphasis level adjust ch6.	
, ,	GCR_PE_ADJ_CH5[2:0]	2:0	Differential output data/clocl ch5.	k pre-emphasis level adjust of
24h	REG103249	7:0	Default : 0x00	Access : R/W
(103249h)	- 3 / X	7	Reserved.	
\$	GCR_PE_ADJ_CH9[2:0]	6:4	Differential output data/clock	k pre-emphasis level adjust of
	GCR_PE_ADJ_CH8[2:0]	3:1	Differential output data/clock	c pre-emphasis level adjust of
	GCR_PE_ADJ_CH7[2]	0	See description of '103248h'	
25h	REG10324A	7:0	Default : 0x00	Access : R/W
(10324Ah)	GCR_PE_ADJ_CH12[1:0]	7:6	Differential output data/clocl ch12.	k pre-emphasis level adjust of
	GCR_PE_ADJ_CH11[2:0]	5:3	Differential output data/clock	k pre-emphasis level adjust of
	GCR_PE_ADJ_CH10[2:0]	2:0	Differential output data/clock	c pre-emphasis level adjust of
25h	REG10324B	7:0	Default : 0x00	Access : R/W
(10324Bh)	-	7:4	Reserved.	



Index (Absolute)	Mnemonic	Bit	Description	
	GCR_PE_ADJ_CH13[2:0]	3:1	Differential output data/clock	c pre-emphasis level adjust of
	GCR_PE_ADJ_CH12[2]	0	See description of '10324Ah'	•
29h	REG103252	7:0	Default : 0x50	Access : R/W
(103252h)	GCR_ICON_CH0[3:0]	7:4	Control swing of ch0. Control swing of each pair. 6'h0: 40mV +/- 15%. 6'h1: 50mV +/- 15%. 6'h2: 60mV +/- 15%.	
	\((6'h3f: 670mV +/- 15%.	
			Output Swing Formula:	NIE 01 W / 450/
		2.0	Vout_swing= 40 + 10 * ICO	N[5:0] mV +/- 15%.
 29h	PEC1022E2	3:0	Reserved.	A 2 2 2 2 2 1 N/M
(103253h)	REG103253	7:0 7:2	Default : 0x55	Access : R/W
(100_00)	GCR_ICON_CH1[5:0]	1:0	Control swing of ch1.	
2Ah	GCR_ICON_CH0[5:4] REG103254		See description of '103252h' Default: 0x55	
(103254h)		7:0		Access : R/W
	GCR_ICON_CH3[1:0]	7:6 5:0	Control swing of ch3. Control swing of ch2.	
2Ah	GCR_ICON_CH2[5:0] REG103255	7:0	Default : 0x55	Access : R/W
(103255h)	GCR_ICON_CH4[3:0]	7:4	Control swing of ch4.	Access . R/ W
	GCR_ICON_CH3[5:2]	3:0	See description of '103254h'	
2Bh	REG103256	7:0	Default : 0x55	Access : R/W
(103256h)	GCR_ICON_CH5[5:0]	7:2	Control swing of ch5.	Access . It/ W
	GCR_ICON_CH4[5:4]	1:0	See description of '103255h'	
2Bh	REG103257	7:0	Default : 0x55	Access : R/W
(103257h)	GCR_ICON_CH7[1:0]	7:6	Control swing of ch7.	Mocess . IV W
	GCR_ICON_CH6[5:0]	5:0	Control swing of ch6.	
2Ch	REG103258	7:0	Default : 0x55	Access : R/W
(103258h)	GCR_ICON_CH8[3:0]	7:4	Control swing of ch8.	1
	GCR_ICON_CH7[5:2]	3:0	See description of '103257h'	
2Ch	REG103259	7:0	Default : 0x55	Access : R/W
(103259h)	GCR_ICON_CH9[5:0]	7:2	Control swing of ch9.	1



Index (Absolute)	Mnemonic	Bit	Description	
	GCR_ICON_CH8[5:4]	1:0	See description of '103258h'	
2Dh	REG10325A	7:0	Default : 0x55	Access : R/W
(10325Ah)	GCR_ICON_CH11[1:0]	7:6	Control swing of ch11.	
	GCR_ICON_CH10[5:0]	5:0	Control swing of ch10.	
2Dh	REG10325B	7:0	Default : 0x55	Access : R/W
(10325Bh)	GCR_ICON_CH12[3:0]	7:4	Control swing of ch12.	
	GCR_ICON_CH11[5:2]	3:0	See description of '10325Ah'.	
2Eh	REG10325C	7:0	Default : 0x55	Access : R/W
(10325Ch)	GCR_ICON_CH13[5:0]	7:2	Control swing of ch13.	
	GCR_ICON_CH12[5:4]	1:0	See description of '10325Bh'	•
32h	REG103264	7:0	Default : 0x00	Access : R/W
(103264h)	-	7:2	Reserved.	
	MINI_CLK_GATE_EN	1	Gate mini FIFO clk enable.	
	MOD_CLK_GATE_EN	0	Gate mod clk enable.	
32h	REG103265	7:0	Default : 0x00	Access : R/W
(103265h)	DIGI_SERI_TEST_EN	7	Test enable of digi seri.	
		6:0	Reserved.	
33h	REG103266	7:0	Default : 0x00	Access : R/W
(103266h)	SWUPLIMIT[0]	7	Mod_seri_top software up lin	mit.
19.	SWLOWLIMIT[2:0]	6:4	Mod_seri_top software low I	imit.
	SWCHECK_POINT[3:0]	3:0	Mod_seri_top software chec	k point.
33h	REG103267	7:0	Default : 0x80	Access : R/W
(103267h)	CHECKENABLE	7	Mod_seri_top CHECKENABLE	Ī.
	DATA_FORMAT	6	{DATA_FORMAT3,DATA_FO	RMAT2,reg_data format}.
			000: LVDS.	
			001: MiniLVDS.	
			010: New LVDS format. 100: Reserved.	
			101: Reserved.	
			110: Reserved.	
	SWRST_POINT[2:0]	5:3	Mod_seri_top software reset	point.
	SWMODE_EN	2	Mod_seri_top software mode	•
	SWUPLIMIT[2:1]	1:0	See description of '103266h'	
34h	REG103268	7:0	Default : 0x00	Access : R/W



Index (Absolute)	Mnemonic	Bit	Description	
	SWLOWLIMIT_BIT4_3[1:0]	7:6	Mod_seri_top software low	limit.
	SWCHECK_POINT_BIT4_3[1:0]	5:4	Mod_seri_top software chec	ck point.
	-	3:0	Reserved.	
34h	REG103269	7:0	Default : 0x00	Access : R/W
(103269h)	DATAX_SEL[1:0]	7:6	Digital serializer source mux 00: LVDS. 01: MiniLVDS. 1x: Reserved.	
	DATA_FORMAT3	5	{DATA_FORMAT3,reg_data_000: LVDS. 001: MiniLVDS. 010: New LVDS format. 100: Reserved. 101: Reserved. 110: Reserved.	_format2,reg_data format}.
NC3	DATA_FORMAT2	4	{reg_data_format3,DATA_FORMAT2,reg_data format}. 000: LVDS. 001: MiniLVDS. 010: New LVDS format. 100: Reserved. 101: Reserved. 110: Reserved.	
19	SWRST_POINT_BIT4_3[1:0]	3:2	Mod_seri_top software rese	t point.
	SWUPLIMIT_BIT4_3[1:0]	1:0	Mod_seri_top software up li	mit.
37h	REG10326E	7:0	Default : 0x00	Access : R/W
(10326Eh)	· \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	7	Reserved.	
	GCR_PVDD_2P5	6	MOD PVDD power. 0: 3.3V. 1: 2.5V.	
	GCR_VCM_0P9	5	Differential output common 0: 1.25V. 1: 0.94V.	mode voltage adjust.
	-	4:0	Reserved.	
3Eh	REG10327C	7:0	Default : 0x00	Access : R/W
(10327Ch)	MINICLK_SEL[7:0]	7:0	Select pair number as miniL	VDS clk.
3Eh	REG10327D	7:0	Default : 0x40	Access : R/W



SC4 MOD	Register (Bank = 1032,	Sub-B	Sank = 0)	
Index (Absolute)	Mnemonic	Bit	Description	
	MINICLK_PHASE[1:0]	7:6	MiniLVDS clock phase sel. 01 or 10.	
	MINICLK_SEL[13:8]	5:0	See description of '10327Ch'	:
40h	REG103280	7:0	Default : 0x08	Access : R/W
(103280h)	LVDS_OSD_A	7	LVDS OSD enable for Chann	el A.
	CH_SWAP	6	For pair swapping with reg_	pdp_10bit.
	CH_POLARITY	5	Channel polarity p/n swap for	or LVDS pair.
	LVDS_PLASMA_A	4	LVDS_PLASMA for Channel A	A .
	PDP_10BIT	3	PDP_10BIT for pair swap wi	th reg_ch_swap.
	LVDS_TI	2	LVDS_TI. 0: JEIDA mode. 1: VESA mode with reg_ti_b	itmode.
	-	1:0	Reserved.	
40h	REG103281	7:0	Default : 0x00	Access : R/W
(103281h)	ECLKDLYSEL[3:0]	7:4	De delay for TTL output.	
	CLKDLYSEL[3:0]	3:0 Clock delay for TTL output.		
41h	REG103283	7:0	Default : 0x00	Access : R/W
(103283h)	PDP_MASK_EN_A	7	PDP_MASK_EN DE channel A	٩.
16	PDP_MASK_SET_A	6	PDP_MASK_SET DE channel	A.
MI.	PDP_CH3_EN_A	5	PDP_CH3_EN channel A.	
	PDP_CH3_SET_A	4	PDP_CH3_SET channel A.	
	PDP_CH4_EN_A	3	PDP_CH4_EN channel A.	
	PDP_CH4_SET_A	2	PDP_CH4_SET for channel A	١.
	SKEW[1:0]	1:0	ODD Red TTL data SKEW.	
42h	REG103284	7:0	Default : 0x00	Access : R/W
(103284h)	-	7:6	Reserved.	
	PDP_10BIT_MOR[1:0]	5:4	More pair swap mode.	
	EN_OSD_LVDS	3	Enable OSD LVDS path.	
	EN_VS_ON_OSD	2	Vsync on OSD enable.	
	PAIR_SWAP_MOR[1:0]	1:0	More pair swap mode.	
42h	REG103285	7:0	Default : 0x10	Access : R/W
(103285h)	OSD_DE_INV	7	Invert OSD DE.	
	OSD_ON_DE_B	6	PDP OSD de on DE channel	B.



Index	Mnemonic	Bit	Description	
(Absolute)	OSD ON DE A	5	PDP OSD de on DE channel	Λ
	OSD_ON_DE_A			А.
	SW_RST	4	Software reset. LVDS OSD enable for Chann	al D
	LVDS_OSD_B	3		
	LVDS_PLASMA_B	2	LVDS_PLASMA for Channel E	3.
	EN_MORE_PAIR_SWAP	0	Reserved. Enable more pair swap.	
43h	REG103286	7:0	Default : 0xC6	Access : R/W
(103286h)	LVDS_CLOCK_PHASE[6:0]	7:1	Clock phase could be set by	
	CLK_PAIR_SWAP	0	More LVDS clock pair swap.	
43h	REG103287	7:0	Default : 0x00	Access : R/W
(103287h)	PDP_MASK_EN_B	7	PDP_MASK_EN DE channel I	3.
	PDP_MASK_SET_B	6	PDP_MASK_SET DE channel B.	
	PDP_CH3_EN_B	5	PDP_CH3_EN channel B.	
	PDP_CH3_SET_B	4	PDP_CH3_SET channel B.	
	PDP_CH4_EN_B	3	PDP_CH4_EN channel B.	
	PDP_CH4_SET_B	2	PDP_CH4_SET for channel B.	
		1:0	Reserved.	
44h	REG103288	7:0	Default : 0x00	Access : R/W
(103288h)	SKEW_OTHER[7:0]	7:0	TTL skew for others.	
			[1:0]: ODD Green.	
· ·	0) 5		[3:2]: ODD Blue. [5:4]: EVEN Red.	
		~(([7:6]: EVEN Green.	
			[9:8]: EVEN Blue.	
44h	REG103289	7:0	Default : 0x00	Access : R/W
(103289h)	-	7:4	Reserved.	
	LCK_PHASE_SEL	3	Phase select of TTL clkx2, 1	:phase ahead 90 degree.
	-	2	Reserved.	
	SKEW_OTHER[9:8]	1:0	See description of '103288h'	
45h	REG10328A	7:0	Default : 0x3F	Access : R/W
(10328Ah)	-	7:6	Reserved.	
	LVDS_LA_OEZ	5	LVDS_LA_OEZ.	
	LVDS_LB_OEZ	4	LVDS_LB_OEZ.	
	CK_OEZ	3	TTL-CK_OEZ.	



Index (Absolute)	Mnemonic	Bit	Description	
	DE_OEZ	2	TTL-DE_OEZ.	
	HS_OEZ	1	TTL-HS_OEZ.	
	VS_OEZ	0	TTL-VS_OEZ.	
46h	REG10328C	7:0	Default : 0x00	Access : R/W
(10328Ch)	EXT_DATA_EN[7:0]	7:0	External test bus enable mo	de for pair0~13.
46h	REG10328D	7:0	Default : 0x00	Access : R/W
(10328Dh)	EXT_DATA_EN[15:8]	7:0	See description of '10328Ch'	
47h	REG10328E	7:0	Default : 0x00	Access : R/W
(10328Eh)	EXT_DATA_EN[23:16]	7:0	See description of '10328Ch'	
47h	REG10328F	7:0	Default : 0x00	Access : R/W
(10328Fh)	- 0	7:4	Reserved.	
	EXT_DATA_EN[27:24]	3:0	See description of '10328Ch'.	
48h	REG103290	7:0	Default : 0x00	Access : R/W
(103290h)	- (0)	7:3	Reserved.	
	INV_CHECKBOARD_LINE_CNT	2	Invert line select for L/R pixel in chalkboard mode.	
	EN_3D_CHECKBOARD	1	Enable checkboard mode.	
	LR_INTERLEAVE_LVDS_EN	0	Enable LR output.	
49h	REG103292	7:0	Default : 0x00	Access : R/W
(103 <mark>2</mark> 92h)	MLX_METHOD[1:0]	7:6	Output format selection for 10: 8-bit. 01: 6-bit. Other: 10-bit.	TTL output.
	ERGX	5	Even channel red and green	swap.
	EGBX	4	Even channel green and blue	e swap.
	ORGX	3	Odd channel red and green	swap.
	OGBX	2	Odd channel green and blue	swap.
	-	1:0	Reserved.	
49h	REG103293	7:0	Default : 0x00	Access : R/W
(103293h)	GATE_DE	7	Output de gating.	
	EMLX	6	Even LSB and MSB swapping].
	ERBX	5	Even channel red and blue s	wap.
	OMLX	4	Odd LSB and MSB swapping	
	ORBX	3	Odd channel red and blue sv	vap.



Index (Absolute)	Mnemonic	Bit	Description	
	-	2	Reserved.	
	WDG	1	Blanking time data become	all 1.
	REVL	0	Reverse output pix.	
4Ah	REG103294	7:0	Default : 0x00	Access : R/W
(103294h)	-	7	Reserved.	
	TTL_LVDS	6	TTL dual clock output.	
	-	5	Reserved.	
	CLK_INVERT	4	Output clock invert.	
	VS_INVERT	3	Output Vsync invert.	
	DE_INVERT	2	Output DE invert.	
	DUALMODE	1	Dual LVDS channel selection.	
	ABSWITCH	0	Odd -even LVDS channel switch.	
4Ah	REG103295	7:0	Default : 0x00	Access : R/W
(103295h)	AUTOVS_EARLY	7	Auto Vsync early DE.	
<u>-</u>	- U 1	6:5	Reserved.	
	HS_INVERT	4	Hsync invert.	
	HS_REMO	3	GPO or original Hsync selection.	
, C	<u></u>	2:1	Reserved.	
	PUA	0	VSYNC and CLOCK for TTL of	gating.
4Bh	REG103296	7:0	Default : 0x00	Access : R/W
(103296h)	-01	7:3	Reserved.	
	MASK_TTL_DUAL	2	Mask dual channel de outpu	t.
	TI_BITMODE[1:0]	1:0	TI bitmode.	
			0x: 10-bit.	
			10: 8-bit. 11: 6-bit.	
4Ch	REG103298	7:0	Default : 0x00	Access : R/W
(103298h)	-	7:4	Reserved.	7.00000 . 107 17
ŕ	CRC_EN	3	CRC testing enable.	
	CHANNEL_SEL[2:0]	2:0	CRC testing enable. CRC testing channel selection.	
4Dh	REG10329A	7:0	Default : 0x00	Access : R/W
(10329Ah)	GPO_SEL[7:0]	7:0	General purpose output for	
4Dh	REG10329B	7:0	Default : 0x00	Access : R/W



Index	Mnemonic	Bit	Description	
(Absolute)				
	GPO_SEL[15:8]	7:0	See description of '10329Ah'	
4Eh	REG10329C	7:0	Default : 0x00	Access : R/W
(10329Ch)	GPO_SEL[23:16]	7:0	See description of '10329Ah'	
4Eh	REG10329D	7:0	Default : 0x00	Access : R/W
(10329Dh)	-	7:4	Reserved.	X
	GPO_SEL[27:24]	3:0	See description of '10329Ah'	
4Fh	REG10329E	7:0	Default : 0x00	Access : R/W
(10329Eh)	GPO_DATAIN[7:0]	7:0	General purpose datain for p	pair0~13.
4Fh	REG10329F	7:0	Default : 0x00	Access : R/W
(10329Fh)	GPO_DATAIN[15:8]	7:0	See description of '10329Eh'	
50h	REG1032A0	7:0	Default : 0x00	Access : R/W
(1032A0h)	GPO_DATAIN[23:16]	7:0	See description of '10329Eh'	
50h	REG1032A1	7:0	Default : 0x00	Access : R/W
(1032A1h)	- / () \	7:4	Reserved.	
	GPO_DATAIN[27:24]	3:0	See description of '10329Eh'	
h-	REG1032A2	7:0	Default : 0x00	Access : R/W
(1032A2h)	GPO_OEZ[7:0]	7:0	General purpose pad direction	on for pair0~13.
, C			0: Output.	
		\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	1: Input.	I
51h (1032A3h)	REG1032A3	7:0	Default : 0x00	Access : R/W
	GPO_OEZ[15:8]	7:0	See description of '1032A2h'	
52h (1032A4h)	REG1032A4	7:0	Default : 0x00	Access : R/W
	GPO_OEZ[23:16]	7:0	See description of '1032A2h'	
52h (1032A5h)	REG1032A5	7:0	Default : 0x00	Access : R/W
(103ZASII)	- 1	7:4	Reserved.	
	GPO_OEZ[27:24]	3:0	See description of '1032A2h'	
53h (1032A7h)	REG1032A7	7:0	Default : 0x00	Access : R/W
(1032A/II)	VBI_EN	7	VBI information on LVDS en	able.
	-	6:0	Reserved.	Ī
54h	REG1032A8	7:0	Default : 0x00	Access : RO
(1032A8h)	CRC_OUT[7:0]	7:0	CRC testing result.	Т
54h	REG1032A9	7:0	Default : 0x00	Access : RO
(1032A9h)	CRC_OUT[15:8]	7:0	See description of '1032A8h'	



Index (Absolute)	Mnemonic	Bit	Description	
55h	REG1032AA	7:0	Default : 0x00	Access : RO
(1032AAh)	MOD_GPI[7:0]	7:0	General purpose input for pa	air0~13.
55h	REG1032AB	7:0	Default : 0x00	Access : RO
(1032ABh)	MOD_GPI[15:8]	7:0	See description of '1032AAh	
56h	REG1032AC	7:0	Default : 0x00	Access : RO
(1032ACh)	MOD_GPI[23:16]	7:0	See description of '1032AAh	
56h	REG1032AD	7:0	Default : 0x00	Access : RO
(1032ADh)	-	7:4	Reserved.	
	MOD_GPI[27:24]	3:0	See description of '1032AAh	
5 A h	REG1032B5	7:0	Default : 0x00	Access : R/W
(1032B5h)	3D_CH3_EN_A	7	Enable 3d flag on LVDS char	nnel A pair 3.
	3D_CH4_EN_A	6	Enable 3d flag on LVDS channel A pair 4.	
	3D_CH3_EN_B	5	Enable 3d flag on LVDS char	nnel B pair 3.
	3D_CH4_EN_B	4	Enable 3d flag on LVDS char	nnel B pair 4.
	- 0 1	3:0	Reserved.)
6Dh	REG1032DA	7:0	Default : 0x00	Access : R/W
(1032DAh)	GCR_OUTCONF_CH3[1:0]	7:6	Output mode configuration f	for channel 3.
, C	GCR_OUTCONF_CH2[1:0]	5:4	Output mode configuration for channel 2.	
	GCR_OUTCONF_CH1[1:0]	3:2	Output mode configuration f	for channel 1.
	GCR_OUTCONF_CH0[1:0]	1:0	Output mode configuration f	for channel 0.
	0, 12		2'b00: TTL mode/Standby m	
×		~(2'b01: LVDS data output mo 2'b10: skew clock output mo	
	, , , (,		2'b11: Test clock output mo	
6Dh	REG1032DB	7:0	Default : 0x00	Access : R/W
(1032DBh)	GCR_OUTCONF_CH7[1:0]	7:6	Output mode configuration f	for channel 7.
	GCR_OUTCONF_CH6[1:0]	5:4	Output mode configuration t	for channel 6.
	GCR_OUTCONF_CH5[1:0]	3:2	Output mode configuration f	for channel 5.
	GCR_OUTCONF_CH4[1:0]	1:0	Output mode configuration f	or channel 4.
6Eh	REG1032DC	7:0	Default : 0x00	Access : R/W
(1032DCh)	GCR_OUTCONF_CH11[1:0]	7:6	Output mode configuration f	for channel 11.
	GCR_OUTCONF_CH10[1:0]	5:4	Output mode configuration t	for channel 10.
	GCR_OUTCONF_CH9[1:0]	3:2	Output mode configuration t	for channel 9.
	GCR_OUTCONF_CH8[1:0]	1:0	Output mode configuration f	for channel 8



Index (Absolute)	Mnemonic	Bit	Description	
6Eh	REG1032DD	7:0	Default : 0x00	Access : R/W
(1032DDh)	-	7:4	Reserved.	
	GCR_OUTCONF_CH13[1:0]	3:2	Output mode configuration f	for channel 13.
	GCR_OUTCONF_CH12[1:0]	1:0	Output mode configuration for channel 12.	
71h	REG1032E2	7:0	Default : 0x00	Access : R/W
(1032E2h)	GCR_PE_EN_CH[7:0]	7:0	Differential output pre-emph [13:0].	asis enable for channel
71h	REG1032E3	7:0	Default : 0x00	Access : R/W
(1032E3h)	-	7:6	Reserved.	
	GCR_PE_EN_CH[13:8]	5:0	See description of '1032E2h'	
73h	REG1032E6	7:0	Default : 0x00	Access : R/W
(1032E6h)	GCR_DS_POL_CH[7:0]	7:0	Differential output polarity swap for channel [13:	
73h	REG1032E7	7:0	Default : 0x00	Access : R/W
(1032E7h)	- / ()	7:6	Reserved.	
	GCR_DS_POL_CH[13:8]	5:0	See description of '1032E6h'.	
75h	REG1032EA	7:0	Default : 0x00	Access : R/W
(1032EAh)	GCR_EN_RINT_CH[7:0]	7:0	Internal resistor enable.	
75h	REG1032EB	7:0	Default : 0x00	Access : R/W
(1032EBh)	-	7:6	Reserved.	
M.	GCR_EN_RINT_CH[13:8]	5:0	See description of '1032EAh'	•
77h	REG1032EE	7:0	Default : 0x00	Access : R/W
(1032EEh)		7:5	Reserved.	
	EN_CK_PD	4	Part C differential clock enab	ole.
	1100	•	This pin is used for CH14~C	H21.
	EN_CK_PC	3	Part C differential clock enak	
	EN OV DD		This pin is used for CH8~CH	
	EN_CK_PB	2	Part B differential clock enable. This pin is used for CH2~CH	
	EN_CK_PA	1	Part A differential clock enab	
	LIV_OK_I A	'	This pin is used for CH0~CH	
	GCR_CKEN	0	Part A,B,C differential clock	
			This pin is used for CH0~CH	
77h	REG1032EF	7:0	Default : 0x00	Access : R/W
(1032EFh)	EN_SKEWCLK_PATH2	7	Enable skew clock of path2.	



SC4 MOD	SC4 MOD Register (Bank = 1032, Sub-Bank = 0)				
Index (Absolute)	Mnemonic	Bit	Description		
	GCR_CKEN_PATH2	6	Enable clock of path2.		
	-	5:2	Reserved.		
	EN_SKEWCLK_PA	1	Part A skew clock enable. This pin is used for CH.		
	EN_SKEWCLK_PB	0	Part B skew clock enable. This pin is used for CH.		
78h	REG1032F0	7:0	Default: 0x01	Access : R/W	
(1032F0h)	-	7:1	Reserved.		
	PD_IB_MOD	0	Power down mod bias current source.		
78h	REG1032F1	7:0	Default: 0x00	Access : R/W	
(1032F1h)	-	7:2	Reserved.		
	GCR_REG_REF_SEL	1	Internal regulator reference. 0: AVDD_MOD. 1: DVDD.		
	GCR_EN_REG	0	Enable internal regulator.		
7Dh	REG1032FA	7:0	Default : 0x00	Access : R/W	
(1032FAh)	GCR_CAL_EN	7	Enable calibration function.		
>	2'0	6:4	Reserved.		
1	GCR_CAL_SRC[1:0]	3:2	Select calibration source pair. 0: CH2, 1: CH6, 2: CH8, 3: CH12.		
	GCR_CAL_LEVEL[1:0]	1:0	Select calibration target voltage. 00: 250mV, 01:350mV, 10: 300mV, 11: 200mV.		
7Dh	REG1032FB	7:0	Default : 0x00	Access : RO	
(1032FBh)	,	7:1	Reserved.		
	C_CAL_OUT	0	Calibration result output. 1: Higher than target. 0: Lower than target.		



PM_SLEEP Register (Bank = 0E)

PM_SLEE	PM_SLEEP Register (Bank = 0E)			
Index (Absolute)	Mnemonic	Bit	Description	
08h	REG0E10	7:0	Default : 0xFF	Access : R/W
(0E10h)	WK_IRQ_MASK[7:0]	7:0	IRQ mask for level wake [0]: CEC. [1]: SAR. [2]: Reserved. [3]: Sync detection. [4]: RTCO. [5]: Reserved. [6]: AV link. [7]: RTC1.	e-up source.
08h	REG0E11	7:0	Default : 0x00	Access : R/W
(OE11h)	WK_IRQ_FORCE[7:0]	7:0	IRQ force for level wake [0]: CEC. [1]: SAR. [2]: Reserved. [3]: Sync detection. [4]: RTCO. [5]: Reserved. [6]: AV link. [7]: RTC1.	-up source.
09h	REG0E12	7:0	Default : 0x00	Access : R/W
(0E12h)	WK_IRQ_POL[7:0]	7:0	IRQ polarity for level wa [0]: CEC. [1]: SAR. [2]: Reserved. [3]: Sync detection. [4]: RTCO. [5]: Reserved. [6]: AV link. [7]: RTC1.	ke-up source.
09h	REG0E13	7:0	Default : 0x00	Access : R/W
(0E13h)	DEEP_SLEEP WAKEUP_RST_51_EN	6	1: Deep sleep (using internal crystal). 0: Sleep (using external crystal). 1: Wake up 8051 from address 0x0.	
	WAKEUP_RST_CHIP_TOP_EN	5	0: Wake up 8051 from la Reset CHIP_TOP w/s 51 when waking up.	ast address. 2 cycles of CLK_PM_SLEEP



PM_SLEEP Register (Bank = 0E)			
Index (Absolute)	Mnemonic	Bit	Description
	HK51_UART0_EN	4	Select UART source via PAD_DDCA. 1: HK MCU51 UARTO. 0: DIG_MUX (REG_UART_SEL0).
	UART_RX_ENABLE	3	1: Enable UART RX via PAD_DDCA for DIG_MUX (REG_UART_SEL0).
	-	2:0	Reserved.
0Eh	REG0E1C	7:0	Default : 0x00 Access : RO
(0E1Ch)	WK_IRQ_FINAL_STATUS[7:0]	7:0	IRQ final status for level wake-up source. [0]: CEC. [1]: SAR. [2]: Reserved. [3]: Sync detection. [4]: RTCO. [5]: Reserved. [6]: AV link. [7]: RTC1.
0Eh	REG0E1D	7:0	Default : 0x00 Access : RO
(0E1Dh)	WK_IRO_RAW_STATUS[7:0]	7:0	IRQ raw status for level wake-up source. [0]: CEC. [1]: SAR. [2]: Reserved. [3]: Sync detection. [4]: RTCO. [5]: Reserved. [6]: AV link. [7]: RTC1.
12h	REG0E24	7:0	Default : 0x00 Access : R/W
(0E24h)	GPIO_PM_LOCK[7:0]	7:0	The password to control the GPIO that is used for controlling external LDO (16'hbabe). The password to enter sleep mode (16'hbabe).
12h	REG0E25	7:0	Default : 0x00 Access : R/W
(0E25h)	GPIO_PM_LOCK[15:8]	7:0	See description of '0E24h'.
13h	REG0E26	7:0	Default : 0x00 Access : R/W
(0E26h)	GPIO_PM_LOCK2[7:0]	7:0	The password to control isolation & reset die-domain (16'hbabe).
13h	REG0E27	7:0	Default : 0x00 Access : R/W
(0E27h)	GPIO_PM_LOCK2[15:8]	7:0	See description of '0E26h'.



PM_SLEE	P Register (Bank = 0E)			
Index (Absolute)	Mnemonic	Bit	Description	
1Ch	REG0E38	7:0	Default : 0x00	Access : R/W
(0E38h)	AV_LNK_IS_GPIO	7	'd0: Normal use. 'd1: PAD_AV_LNK is use	ed as GPIO.
	CEC_IS_GPIO	6	'd0: Normal use. 'd1: PAD_CEC is used as	GPIO.
	-	5	Reserved.	
	IR_IS_GPIO	4	'd0: Normal use. 'd1: PAD_IRIN is used a	s GPIO.
	-	3:0	Reserved.	
20h	REG0E40	7:0	Default : 0x00	Access : R/W
(0E40h)	SW_MCU_CLK	7	Switch CLK MCU by glitch-free clock switch (between CLK_MCU_P and CLK_EXT_XTALI_BUF)	
	-	6	Reserved.	
	CKG_MCU[5:0]	5:0	Clock selection for CLK I [0]: Gate. [1]: Invert. [5:2]: See the following 'd0: 170 MHz. 'd1: 160MHz. 'd2: 144MHz. 'd3: 123MHz. 'd4: 108MHz. 'd4: 108MHz. 'd6: MEMPLL_CLK_BUF. 'd6: MEMPLL_CLK_BUF. 'd7: CLK_INT_XTALI_BL 'd9: 24MHz. 'd10: CLK_INT_XTALI_BL 'd11: CLK_EXT_XTALI_E 'd12: CLK_EXT_XTALI_E 'd12: CLK_EXT_XTALI_E 'd14: 216MHz. 'd15: 192MHz.	/2. JF. JF /8. BUF divided to 1MHz. BUF /16. BUF /2.
21h	REG0E42	7:0	Default : 0x00	Access : R/W
(0E42h)	CKG_IR[2:0]	7:5	Clock selection for CLK_ [0]: Gate. [1]: Invert. [4:2]: See the following	IR.



PM_SLEE	P Register (Bank = 0E)			
Index (Absolute)	Mnemonic	Bit	Description	
			'd0: CLK_EXT_XTALI_BU 'd1: CLK_INT_XTALI_BU 'd2: CLK_EXT_XTALI_BU 'd3: CLK_EXT_XTALI_BU 'd4: CLK_INT_XTALI_BU 'd5: CLK_EXT_XTALI_BU 'd6: CLK_EXT_XTALI_BU	F. IF /8. IF divided to 1MHz. F /4. IF /16. IF /2.
	CKG_DDC[4:0]	4:0	'd7: CLK_EXT_XTALI_BUF /4. Clock selection for CLK_DDC. [0]: Gate. [1]: Invert. [4:2]: See the following: 'd0: CLK_EXT_XTALI_BUF. 'd1: CLK_INT_XTALI_BUF. 'd2: CLK_EXT_XTALI_BUF /8. 'd3: CLK_EXT_XTALI_BUF divided to 1MHz. 'd4: CLK_INT_XTALI_BUF /4. 'd5: CLK_EXT_XTALI_BUF /16. 'd6: CLK_EXT_XTALI_BUF /2.	
21h	REG0E43	7:0	'd7: CLK_EXT_XTALI_BL Default : 0x00	Access : R/W
(0E43h)		7:2	Reserved.	
22h	CKG_IR[4:3] REG0E44	1:0 7:0	See description of '0E42' Default: 0x00	
22h (0E44h)	CKG_SAR[2:0]	7:5	Clock selection for CLK_SAR. [0]: Gate. [1]: Invert. [4:2]: See the following: 'd0: CLK_EXT_XTALI_BUF. 'd1: CLK_INT_XTALI_BUF. 'd2: CLK_EXT_XTALI_BUF /8. 'd3: CLK_EXT_XTALI_BUF divided to 1MHz. 'd4: CLK_INT_XTALI_BUF /4. 'd5: CLK_EXT_XTALI_BUF /16. 'd6: CLK_EXT_XTALI_BUF /2. 'd7: CLK_EXT_XTALI_BUF /4.	
	CKG_RTC[4:0]	4:0	Clock selection for CLK_I [0]: Gate. [1]: Invert.	RTC.



PM_SLEE	P Register (Bank = 0E)			
Index (Absolute)	Mnemonic	Bit	Description	
			[4:2]: See the following: 'd0: CLK_EXT_XTALI_BL 'd1: CLK_INT_XTALI_BL 'd2: CLK_EXT_XTALI_BL 'd3: CLK_EXT_XTALI_BL 'd4: CLK_INT_XTALI_BL 'd5: CLK_EXT_XTALI_BL 'd6: CLK_EXT_XTALI_BL 'd7: CLK_EXT_XTALI_BL	JF. JF /8. JF divided to 1MHz. JF /4. JF /16. JF /2.
22h	REG0E45	7:0	Default : 0x00	Access : R/W
(OE45h)	CKG_PM_SLEEP[4:0]	7 6:2 1:0	Reserved. Clock selection for CLK_I inversed or gated). [4:2]: See the following: 'd0: CLK_EXT_XTALI_BL 'd1: CLK_INT_XTALI_BL 'd2: CLK_EXT_XTALI_BL 'd3: CLK_EXT_XTALI_BL 'd4: CLK_INT_XTALI_BL 'd6: CLK_EXT_XTALI_BL 'd6: CLK_EXT_XTALI_BL 'd7: CLK_EXT_XTALI_BL See description of '0E44	JF. JF /8. JF divided to 1MHz. JF /4. JF /16. JF /2.
23h	REG0E46	7:0	Default : 0x00	Access : R/W
(0E46h)	CKG_CEC[3:0]	7:4 3:0	Reserved. Clock selection for CLK_ [0]: Gate. [1]: Invert. [3:2]: See the following: 'd0: CLK_EXT_XTALI_BL 'd1: CLK_INT_XTALI_BL 'd2: CLK_INT_XTALI_BL 'd3: 0.	: JF divided to 1MHz. JF /4.
27h	REG0E4E	7:0	Default : 0x0F	Access : R/W
(OE4Eh)	HOTPLUG_OUT[3:0]	7:4	Hot plug out. [0]: Hot plug A. [1]: Hot plug B. [2]: Hot plug C.	



PM_SLEEP Register (Bank = 0E)				
Index (Absolute)	Mnemonic	Bit	Description	
			[3]: Hot plug D.	
	HOTPLUG_OEN[3:0]	3:0	Hot plug OEN. [0]: Hot plug A. [1]: Hot plug B. [2]: Hot plug C.	\
			[3]: Hot plug D.	
27h	REG0E4F	7:0	Default : 0x00	Access : RO
(0E4Fh)	-	7:4	Reserved.	
	HOTPLUG_IN[3:0]	3:0	Hot plug in. [0]: Hot plug A. [1]: Hot plug B. [2]: Hot plug C. [3]: Hot plug D.	
30h	REG0E60	7:0	Default : 0x20	Access : R/W
(0E60h)	-	7:6	Reserved.	
_	EXT_XTALI_SEL[1:0]	5:4	External crystal settings	(driving strength).
	- (3	Reserved.	•
	INT_XTALI_DEGLITCH[2:0]	2:0	Test bits for internal crys	stal clock.
30h	REG0E61	7:0	Default : 0x18	Access : R/W
(0E61h)		7	Reserved.	
171	EXT_XTALI_AMP_GAIN[1:0]	6:5	External crystal amplitud	le gain.
	EXT_XTALI_FRSEL	4	External crystal frequence	cy selection.
	INT_XTALI_FREQ_TUNE[3:0]	3:0	Frequency tune for inter	nal clock.
31h	REG0E63	7:0	Default : 0x00	Access : R/W
(0E63h)	RTC1_SW_RST	7	Software reset (active hi	gh) for RTC1.
	RTC0_SW_RST	6	Software reset (active hi	gh) for RTC0.
	-	5	Reserved.	
	CEC_SW_RST	4	Software reset (active hi	gh) for CEC.
	AV_LNK_SW_RST	3	Software reset (active hi	gh) for AV_LNK_TOP.
	SAR_SW_RST	2	Software reset (active hi	gh) for SAR_TOP.
	-	1:0	Reserved.	
32h	REG0E64	7:0	Default : 0x00	Access : R/W
(0E64h)	XTAL_OFF_KEY[7:0]	7:0	Key to turn off external	crystal (32'h9f8e9f8e).
32h	REG0E65	7:0	Default : 0x00	Access : R/W



PM_SLEE	P Register (Bank = 0E)			
Index (Absolute)	Mnemonic	Bit	Description	
	XTAL_OFF_KEY[15:8]	7:0	See description of '0E64	h'.
33h	REG0E66	7:0	Default : 0x00	Access : R/W
(0E66h)	XTAL_OFF_KEY[23:16]	7:0	See description of '0E64h'.	
33h	REG0E67	7:0	Default : 0x00	Access : R/W
(0E67h)	XTAL_OFF_KEY[31:24]	7:0	See description of '0E64h'.	
35h	REG0E6B	7:0	Default : 0x00	Access : R/W
(0E6Bh)	TESTBUS_SW[1:0]	7:6	Testbus switch.	
	ISO_CONTROL[1:0]	5:4	 [0]: Isolation control selection. 0: By PM_ATOP. 1: By software. [1]: Isolation control. 0: Not isolate. 1: Isolate. 	
	UART_IS_GPIO[3:0]	3:0	[0]: Switch GPIO_PM[5] to HK51's UART_RX1 and GPIO_PM[8] to HK51's UART_TX1. [1]: Switch GPIO_PM[5] to HK51's UART_RX1 and GPIO_PM[1] to HK51's UART_TX1. [3:2]: Reserved.	
50h	REGOEAO	7:0	Default : 0x00	Access : R/W
(0EA0h)	RIU_CKSUM_PROT_OFF[7:0]	7:0	Key to off RIU_CKSUM_	PROT (h51685168).
50h	REGOEA1	7:0	Default : 0x00	Access : R/W
(0EA1h)	RIU_CKSUM_PROT_OFF[15:8]	7:0	See description of '0EA0	h'.
51h (REG0EA2	7:0	Default : 0x00	Access : R/W
(0EA2h)	RIU_CKSUM_PROT_OFF[23:16]	7:0	See description of '0EA0	h'.
51h	REG0EA3	7:0	Default : 0x00	Access : R/W
(OEA3h)	RIU_CKSUM_PROT_OFF[31:24]	7:0	See description of '0EA0	h'.
60h	REG0EC0	7:0	Default : 0x00	Access : RO
(0EC0h)	-	7:2	Reserved.	
	BOND_STAT[1:0]	1:0	Bonding status. [0]: Clock selection. [1]: Security.	
61h	REG0EC2	7:0	Default : 0x00	Access : RO
(0EC2h)	-	7:4	Reserved.	
	CHIP_TOP_POWERGOOD_DEGLITCH	3	DVDD_CORE_PWRGD after de-glitch and ISO_CONTROL.	



PM_SLEEP Register (Bank = 0E)				
Index (Absolute)	Mnemonic	Bit	Description	
	CHIP_TOP_POWERGOOD[2:0]	2:0	CHIP_TOP'S powergood from PM_ATOP. [0]: NODIE_PWRGD. [1]: DVDD_CORE_PWRGD. [2]: VD33_SHUTDN_PWRGD.	



REGISTER TABLE REVISION HISTORY

Date	Bank	Register
09/03/2012		Created first version.

