General Description

The Realtek RTD2556VD monitor controller combines an analog RGB input interface, two DP1.2 digital input interfaces with HDCP1.4, and one HDMI1.4 digital input interfaces with HDCP1.4. The embedded MCU is based on an industrial standard 8051 core with external serial flash.
WeiXin&Phone:15818756102 web:www.rtddisplay.com
The RTD2556VD is suitable for multiple market segments and display applications, such as monitor, All

in One PC, and embedded applications.

WeiXin&Phone:15818756102

1. Features

General

- Supports input format up to 1920x1080 @ 75Hz, 1920x1200 @ 75Hz.
- Zoom scaling up and down
- Embedded one MCU with SPI flash controller.
- It contains 4 ADCs in key pad application WeiXin&Phone:15818756102
- Require only one crystal to generate all timing.
- Programmable internal low-voltage-reset (LVR)
- High resolution 6 channels PWM output, and wide range selectable PWM frequency.
- Supports 3 ports of high speed receivers including one port of DisplayPort1.1 receiver, and two port of HDMI1.4/DVI Combo receiver.

Crystal

■ Support 14.318MHz crystal type

Analog RGB Input Interface

- 1 Analog input supported
- Integrated 8-bit triple-channel 210MHz ADC/PLL
- Embedded programmable Schmitt trigger of HSYNC
- Support Sync-On-Green (SOG) and various kinds of composite sync modes

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On-chip high-performance hybrid PLLs

- High resolution true 64 phase ADC PLL
- YPbPr support up to HDTV 1080p resolution

DVI 1.0 Compliant Digital Input Interface with HDCP 1.1

- Single link on-chip TMDS receiver
- Long cable support to 1.65GHz web:www.rtddisplay.com
- Adaptive algorithm for TMDS capability
- Data enable only mode support
- High-Bandwidth Digital Content Protection
- Enhanced protection of HDCP secret key

HDMI 1.4a Compliant Digital Input Interface with **HDCP 1.4**

- HDMI Input with embedded high speed switch
- Single link on-chip TMDS receiver up to 340MHz.
- Support 6-bit, 8-bit, 10-bit, and 12-bit color depth transport
- Support long cable
- Adaptive algorithm for TMDS capability
- Data enable only mode support
- High-Bandwidth Digital Content Protection (HDCP 1.4)
- Enhanced protection of HDCP secret key
- Capable of 8-channel I2S/SPDIF output in HDMI application

- ATC Lab certification pass HDMI1.4a compliance test
- Support DVI 1.0
- Support AMD HDMI Freesync technology

DisplayPort 1.2 Digital Input Interface with HDCP 1.4

- Support 4 lanes digital input, each lanes speed up to 1.62Gbps and 2.7Gbps
- Support 6-bit, 8-bit, 10-bit, and 12-bit color depth transport
- High-Bandwidth Digital Content Protection (HDCP 1.4)

(HDCP 1.4) WeiXin&Phone:15818756102

web:www.rtddisplay.com
Color Processor

- Capable of 8-channel I2S/SPDIF output in DP application
- Support VESA Adaptive Sync technology

Embedded MCU

- Industrial standard 8051 core with external serial flash
- Low speed ADC for various application
- I2C Master or Slave hardware supported

Auto Detection / Auto Calibration

- Input format detection
- Compatibility with standard VESA mode and support user-defined mode
- Smart engine for Phase/Image position/Color calibration

Audio

Output: IIS , SPDIF

- Embedded Audio DAC
- Embedded headphone amp

Scaling

- Fully programmable zoom ratios
- Independent horizontal/vertical scaling
- Advanced zoom algorithm provides high image quality
- Sharpness/Smooth filter enhancement
- Support non-linear scaling from 4:3 to 16:9 or 16:9 to 4:3
- True 12-bit color processing engine
- Programmable 14-bit gamma support
- xvYCC supported
- Adobe/sRGB compliance
- Advanced dithering logic for the fewer panel color depth enhancement
- Dynamic overshoot-smear canceling engine
- Brightness and contrast control
- Peaking/Coring function for video sharpness
- Support UltraVivid III function to enhance image quality with minimal artificial effect on productivity applications

VividColorTM

- Independent color management (ICM)
- Dynamic contrast control (DCC)

- 2nd generation of Precise color mapping (PCM)
- Image Adaptive Power Saving (IAPS)
- Support ADC Noise Reduction

Output Interface

- Support 8-bit output through LVDS
- Support 2-port LVDS with the speed of each port up to 93MHz
- Support 8-bit / 10-bit output through eDP
- Supports 4-lane eDP (HBR) with the output format up to 1920x1200@ 75Hz.
- WeiXin&Phone:15818756102 web Fully programmable display timing generator
- Flexible data pair swapping for easier system design.
- Fixed Last Line output for perfect panel capability

Embedded OSD

- Embedded 30K SRAM dynamically stores OSD command and fonts
- Support multi-color RAM font, 1, 2 and 4-bit per pixel
- 64 color palette
- Maximum 26 window with alpha-blending /

- gradient / gradient target color / gradient reversed color/ dynamic fade-in/fade-out, bordering/ shadow
- Rotate 90,180,270 degree
- Independent row shadowing/bordering
- Programmable blinking effects for each character
- OSD-made internal pattern generator for factory mode
- Support $12x18 \sim 4x18$ proportional font
- Hardware decompression for OSD font
- Support OSD scrolling web:www.rtddisplay.com
 - Support 2 independent font based OSD

Frame Buffer Support

■ LiveShowTM Function, High-performance RTC (response time compensation).

Power Supply

 \blacksquare 3.3V / 1.1V power supply

2. System Applications

Display	System on	Motherboard,	Monitor

	Display	System	for All in	One PCs and	embedded	applications
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3. Block Diagram

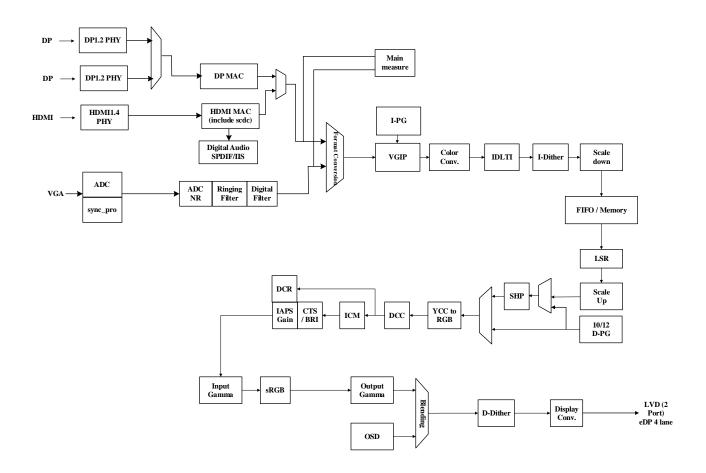


Figure 1. Block Diagram

4. Pin Assignments

LQFP156

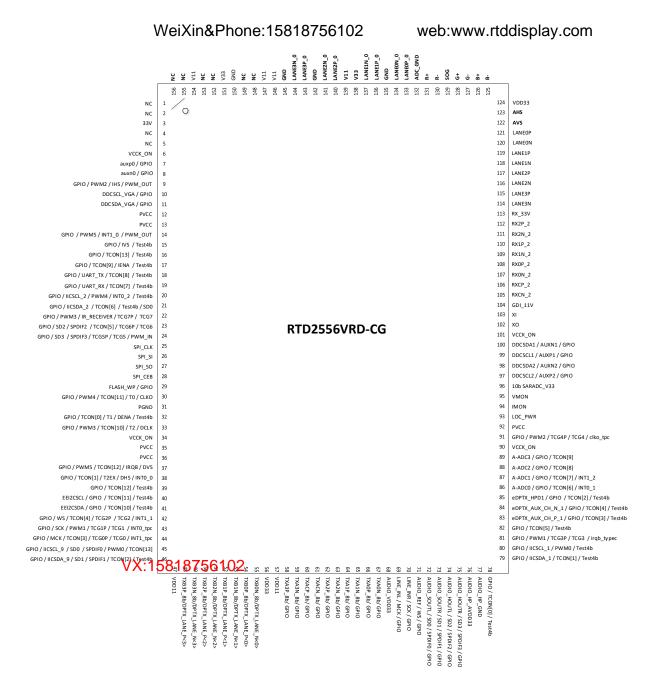


Figure 2. Pin Diagram of LQFP156

5. Pin Assignments Table

Table 1. Signals Pin Assignment of LQFP156

(I/O Legend: A = Analog, I = Input, O = Output, P = Power, G = Ground)

			output, P = Power, G = Gro	
Pin Name	I/O	Pin #	Description	Note
NC	-	1	NC	-
NC	-	2	NC	-
33V	AP	3	3.3V Power	(3.3V)
NC	-	4	NC	
NC	-	5	NC	
VCCK_ON	DP	6	Core Power	(1.1V)
auxp0 / GPIO	Ю	7	AUX-CH / MCU GPIO	5V Tolerance when power off
auxn0 / GPIO	Ю	8	AUX-CH / MCU GPIO	5V Tolerance when power off
GPIO / PWM2 / IHS / PWM_OUT	Ю	9	MCU GPIO / PWM / PWM OUT	5V Tolerance when power off
DDCSCL_VGA / GPIO	Ю	10	DDC VGA (Open drain I/O) / MCU GPIO	5V Tolerance when power off
DDCSDA_VGA / GPIO	Ю	11	I/O) / MCU GPIO	5V Tolerance when power off
PVCC	DP	12	Pad Power	(3.3V)
PVCC	DP	13	Pad Power	(3.3V)
GPIO / PWM5 / INT1_0 / PWM_OUT	Ю	14	MCU GPIO / PWM / MCU EXINT / PWM OUT	5V Tolerance when power off
GPIO / IVS / Test4b	Ю	15	MCU GPIO / Test4b	5V Tolerance when power off
GPIO / TCON[13] / Test4b	Ю	16	MCU GPIO / TCON / Test4b	5V Tolerance when power off
GPIO / TCON[9] / IENA / Test4b	Ю	17	MCU GPIO / TCON / Test4b	5V Tolerance when power off
GPIO / UART_TX / TCON[8] / Test4b	Ю	18	MCU GPIO / UART / TCON / Test4b	5V Tolerance when power off
GPIO / UART_RX / TCON[7] / Test4b	Ю	19	MCU GPIO / UART / TCON / Test4b	5V Tolerance when power off
GPIO / IICSCL_2 / PWM4 / INT0_2 / Test4b / HDMI_HPD_INT1	Ю	20	MCU GPIO / IIC BUS / PWM / MCU EXINT / Test4b / HDMI Hot-plug	5V Tolerance when power off
GPIO / IICSDA_2 / TCON[6] / Test4b / SD0	Ю	21	MCU GPIO / IIC BUS / TCON / Test4b / I2S	5V Tolerance when power off
GPIO / PWM3 / IR_RECEIVER / TCG7P / TCG7	Ю	22	MCU GPIO / PWM / IR Receiver / TypeC GPIO	5V Tolerance when power off

GPIO / SD2 / SPDIF2 / TCON[5] / TCG6P / TCG6	Ю	23	MCU GPIO / I2S / SPDIF / TCON / TypeC GPIO	5V Tolerance when power off
GPIO / SD3 / SPDIF3 / TCG5P / TCG5 / PWM_IN	Ю	24	MCU GPIO / I2S / SPDIF / TypeC GPIO / PWM IN	5V Tolerance when power off
SPI_CLK	Ю	25	SPI flash serial clock	3.3V Tolerance
SPI_SI	Ю	26	SPI flash serial Data Input	3.3V Tolerance
SPI_SO	Ю	27	SPI flash serial Data Output	3.3V Tolerance
SPI_CEB	Ю	28	SPI flash Chip Enable	3.3V Tolerance
FLASH_WP / GPIO	Ю	29	FLASH Write Protect / MCU GPIO	5V Tolerance when power off
GPIO / PWM4 / TCON[11] / T0 / CLKO	Ю	30	MCU GPIO / PWM / TCON / Timer / CLKO	5V Tolerance when power off
PGND	DG	31	Pad Ground	•
GPIO / TCON[0] / T1 / DENA / Test4b	0	32	MCU GPIO / TCON / Timer / Test4b	5V Tolerance when power off
GPIO / PWM3 / TCON[10] / T2 / DCLK	Ю	33	MCU GPIO / PWM /	5V Tolerance when power off
VCCK_ON	DP	34	Core Power	(1.1V)
PVCC	DP	35	Pad Power	(3.3V)
PVCC	DP	12	Pad Power	(3.3V)
GPIO / USB_SPI_CEB0 / PWM5 / TCON[12] / IRQB / DVS	Ю	37	MCU GPIO / USB SPI / PWM / TCON / IRQB	5V Tolerance when power off
GPIO / USB_SPI_CEB1 / TCON[1] / T2EX / DHS / INT0_0	Ю	38	MCU GPIO / USB SPI / TCON / Timer / MCU EXINT	5V Tolerance when power off
GPIO / TCON[12] / Test4b	0	39	MCU GPIO / TCON / Test4b	5V Tolerance when power off
EEI2CSCL / GPIO / TCON[11] / Test4b	Ю	40	EEPROM IIC BUS / MCU GPIO / TCON / Test4b	5V Tolerance when power off
EEI2CSDA / GPIO / TCON[10] / Test4b	Ю	41	EEPROM IIC BUS / MCU GPIO / TCON / Test4b	5V Tolerance when power off
GPIO / WS / TCON[4] / TCG2P / TCG2 / INT1_1	Ю	42	MCU GPIO / I2S / TCON / TypeC GPIO / MCU EXINT	5V Tolerance when power off
GPIO / SCK / PWM1 / TCG1P / TCG1 / INT0_tpc	Ю	43	MCU GPIO / I2S / PWM / TypeC GPIO / MCU EXINT	5V Tolerance when power off

	10	l	MOULODIO / IOO /	E) / T. I
GPIO / MCK / TCON[3] /	Ю		MCU GPIO / I2S /	5V Tolerance
TCG0P / TCG0 / INT1_tpc		44	TCON / TypeC GPIO /	when power off
			MCU EXINT	
GPIO / IICSCL_9 / SD0 /	Ю		MCU GPIO / TypeC IIC	5V Tolerance
SPDIF0 / PWM0 /		45	/ I2S / SPDIF / PWM /	when power off
TCON[13]			TCON	
GPIO / IICSDA_9 / SD1 /	Ю		MCU GPIO / TypeC IIC	5V Tolerance
SPDIF1 / TCON[2] / Test4b		46	/ I2S / SPDIF / TCON /	when power off
Si Bii 17 (CON[2]7 (estab			Test4b	
VDD11	AP	47	1.1V Power	(1.1V)
TXB3P_8b /	40	40	LVDC (cDDTV	3.3V Tolerance
DPTX_LANE_P<3>	AO	48	LVDS /eDPTX	
TXB3N_8b /	AO	40	LVDS /eDPTX	3.3V Tolerance
DPTX LANE N<3>		49		
TXB2P 8b /	AO	50	LVDS /eDPTX	3.3V Tolerance
DPTX_LANE_P<2>		50		
TXB2N 8b /	AO	-4	LVDS /eDPTX	3.3V Tolerance
DPTX_LANE_N<2>		51		
TXB1P_8b /	AO	50	LVDS /eDPTX	3.3V Tolerance
DPTX_LANE_P<1>		52		
TXB1N_8b /	AO	5 0	LVDS /eDPTX	3.3V Tolerance
DPTX_LANE_N<1>		53		
TXB0P_8b /	AO	E 4	LVDS /eDPTX	3.3V Tolerance
DPTX_LANE_P<0>		54		
TXB0N_8b /	AO	55	LVDS /eDPTX	3.3V Tolerance
DPTX_LANE_N<0>		33		
VDD33	AP	56	3.3V Power	(3.3V)
VDD11	AP	57	1.1V Power	(1.1V)
TXA3P_8b/ GPIO	AIO	58	LVDS / MCU GPIO	3.3V Tolerance
TXA3N_8b/ GPIO	AIO	59	LVDS / MCU GPIO	3.3V Tolerance
TXACP_8b/ GPIO	AIO	60	LVDS / MCU GPIO	3.3V Tolerance
TXACN_8b/ GPIO	AIO	61	LVDS / MCU GPIO	3.3V Tolerance
TXA2P_8b/ GPIO	AIO	62	LVDS / MCU GPIO	3.3V Tolerance
TXA2N_8b/ GPIO	AIO	63	LVDS / MCU GPIO	3.3V Tolerance
TXA1P_8b/ GPIO	AIO	64	LVDS / MCU GPIO	3.3V Tolerance
TXA1N_8b/ GPIO	AIO	65	LVDS / MCU GPIO	3.3V Tolerance
TXA0P_8b/ GPIO	AIO	66	LVDS / MCU GPIO	3.3V Tolerance
TXA0N_8b/ GPIO	AIO	67	LVDS / MCU GPIO	3.3V Tolerance
AUDIO_VDD33	AP	68	Audio DAC 3.3V Power	(3.3V)
LINE_INL / MCK / GPIO	AIO	69	LINE_INL / I2S / MCU	3.3V Tolerance
LINE_INE / WOR / GFIO	AIO	03	GPIO	
LINE_INR / SCK / GPIO	AIO	70	LINE_INR / I2S / MCU	3.3V Tolerance

			GPIO	
AUDIO_REF / WS / GPIO	AIO	71	AUDIO_REF / I2S / MCU GPIO	3.3V Tolerance
AUDIO_SOUTL / SD0 / SPDIF0 / GPIO	AIO	72	AUDIO_SOUTL / I2S / SPDIF / MCU GPIO	3.3V Tolerance
AUDIO_SOUTR / SD1 / SPDIF1 / GPIO	AIO	73	AUDIO_SOUTR / I2S / SPDIF / MCU GPIO	3.3V Tolerance
AUDIO_HOUTL / SD2 / SPDIF2 / GPIO	AIO	74	AUDIO_HOUTL / I2S / SPDIF / MCU GPIO	3.3V Tolerance
AUDIO_HOUTR / SD3 / SPDIF3 / GPIO	AIO	75	AUDIO_HOUTL / I2S / SPDIF / MCU GPIO	3.3V Tolerance
AUDIO_HP_AVDD33	AP	76	AUDIO HP 3.3V Power	(3.3V)
AUDIO_HP_GND	AG	77	AUDIO HP Ground	
GPIO / TCON[0] / Test4b	Ю	78	MCU GPIO / TCON / Test4b	5V Tolerance when power off
GPIO / IICSDA_1 / TCON[1] / Test4b	Ю	79	MCU GPIO / IIC BUS / TCON / Test4b	5V Tolerance when power off
GPIO / IICSCL_1 / PWM0 / Test4b	Ю	80	MCU GPIO / IIC BUS / PWM / Test4b	5V Tolerance when power off
GPIO / PWM1 / TCG3P / TCG3 / irqb_typec	Ю	81	MCU GPIO / PWM / TypeC GPIO	5V Tolerance when power off
GPIO / TCON[5] / Test4b / HDMI_HPD_INT2	Ю	82	MCU GPIO / TCON / Test4b / HDMI Hot-plug	5V Tolerance when power off
eDPTX_AUX_CH_P_1 / GPIO / TCON[3] / Test4b	Ю	83	eDPTX AUX / MCU GPIO / TCON / Test4b	5V Tolerance when power off
eDPTX_AUX_CH_N_1 / GPIO / TCON[4] / Test4b	Ю	84	eDPTX AUX / MCU GPIO / TCON / Test4b	5V Tolerance when power off
eDPTX_HPD1 / GPIO / TCON[2] / Test4b	Ю	85	eDPTX HPD / MCU GPIO / TCON / Test4b	5V Tolerance when power off
A-ADC0 / GPIO / TCON[6] / INT0_1	AIO	86	5bits MCU ADC Input / MCU GPIO / TCON / MCU EXINT	3.3 V tolerance when using ADC Input; 5V Tolerance power on when using GPIO
A-ADC1 / GPIO / TCON[7] / INT1_2	AIO	87	5bits MCU ADC Input / MCU GPIO / TCON / MCU EXINT	3.3 V tolerance when using ADC Input; 5V Tolerance power on when using GPIO
A-ADC2 / GPIO / TCON[8]	AIO	88	5bits MCU ADC Input / MCU GPIO / TCON	3.3 V tolerance when using

T	1			ADC Input: 5\/
				ADC Input; 5V Tolerance
				power on when
				using GPIO
				3.3 V tolerance
				when using
			5bits MCU ADC Input /	ADC Input; 5V
A-ADC3 / GPIO / TCON[9]	AIO	89	MCU GPIO / TCON	Tolerance
				power on when
				using GPIO
VCCK_ON	DP	90	Core Power	(1.1V)
GPIO / PWM2 / TCG4P /	10	04	MCU GPIO / PWM /	5V Tolerance
TCG4 / clko_tpc	Ю	91	TypeC GPIO	when power off
PVCC	DP	92	Pad Power	(3.3V)
LOC_PWR	Al	93	10bits ADC Input	5V Tolerance
LOC_F WK	Ai	93	Tobits ADC Input	when power off
IMON	AI	94	10bits ADC Input	5V Tolerance
IIVIOIV	Λ'	34	TODIS ADO INPUL	when power off
VMON	AI	95	10bits ADC Input	5V Tolerance
· · · · · · · · · · · · · · · · · · ·	/ "		·	when power off
10b SARADC V33	AP	96	10bits ADC 3.3V	(3.3V)
			Power	` ′
	10	97	DDC Channel (Open	5V Tolerance
DDCSCL2 / AUXP2 / GPIO	Ю		drain I/O) / AUX-CH / MCU GPIO	when power off
			DDC Channel (Open	5V Tolerance
DDCSDA2 / AUXN2 / GPIO	10	98	drain I/O) / AUX-CH /	when power off
DDCSDAZ / AOXINZ / GI IO			MCU GPIO	when power on
	10		DDC Channel (Open	5V Tolerance
DDCSCL1 / AUXP1 / GPIO		99	drain I/O) / AUX-CH /	when power off
			MCU GPIO	
	Ю		DDC Channel (Open	5V Tolerance
DDCSDA1 / AUXN1 / GPIO		100	drain I/O) / AUX-CH /	when power off
			MCU GPIO	
VCCK_ON	DP	101	Core Power	(1.1V)
XO	AO	102	Crystal Output	3.3V Tolerance
XI	Al	103	Crystal Input	3.3V Tolerance
GDI_11V	AP	104	GDI 1.1V Power	(1.1V)
RXCN_2	Al	105	TMDS Input	
RXCP_2	Al	106	TMDS Input	
RX0N_2	Al	107	TMDS Input	
RX0P_2	Al	108	TMDS Input	
RX1N_2	Al	109	TMDS Input	
RX1P_2	Al	110	TMDS Input	

RX2N 2	Al	111	TMDS Input	
RX2P_2	Al	112	TMDS Input	
RX_33V	AP	113	GDI 3.3V Power	(3.3V)
LANE3N	Al	114	DP Differential Signal input	,
LANE3P	Al	115	DP Differential Signal input	
LANE2N	Al	116	DP Differential Signal input	
LANE2P	Al	117	DP Differential Signal input	
LANE1N	Al	118	DP Differential Signal input	
LANE1P	Al	119	DP Differential Signal input	
LANEON	Al	120	input	
LANE0P	Al	121	input	
AVS	Al	122	ADC Vertical Sync Input	5V Tolerance when power off
AHS	Al	123	ADC Horizontal Sync Input	5V Tolerance when power off
ADC_VDD33	AP	124	ADC 3.3V Power	(3.3V)
B-	Al	125	Negative Blue analog input (Pb-)	3.3V Tolerance
B+	Al	126	Positive Blue analog input (Pb+)	3.3V Tolerance
G-	Al	127	Negative Green analog input (Y-)	3.3V Tolerance
G+	Al	128	Positive Green analog input (Y+)	3.3V Tolerance
SOG	Al	129	Sync-On-Green	3.3V Tolerance
R-	Al	130	Negative RED analog input (Pr-)	3.3V Tolerance
R+	Al	131	Positive RED analog input (Pr+)	3.3V Tolerance
ADC_GND	AG	132	ADC Ground	
LANE0P_0	Al	133	DP Differential Signal	-
LANEON_0	Al	134	DP Differential Signal	-
DP_GND	AG	135	Ground	
LANE1P_0	AIO	136	DP Differential Signal	-
LANE1N_0	AIO	137	DP Differential Signal	-

RX_33V	AP	138	3.3V Power	(3.3V)
GDI_11V	AP	139	1.1V Power	(1.1V)
LANE2P_0	Al	140	DP Differential Signal	-
LANE2N_0	Al	141	DP Differential Signal	-
DP_GND	AG	142	Ground	
LANE3P_0	AIO	143	DP Differential Signal	-
LANE3N_0	AIO	144	DP Differential Signal	-
DP_GND	AG	145	Ground	
V11	AP	146	1.1V Power	(1.1V)
V11	AP	147	1.1V Power	(1.1V)
NC	-	148	NC	-
NC	-	149	NC	-
GND	AG	150	Ground	
V33	AP	151	3.3V Power	(3.3V)
NC	-	152	NC	-
NC	-	153	NC	-
V11	AP	154	1.1V Power	(1.1V)
NC	-	155	NC	-
NC	-	156	NC	-

6. Electrical Specifications

Electrical Specifications **LQFP156 DC Characteristics**

6.1. Recommended Operating Conditions

Table 2. Recommended Operating Conditions of LQFP156

PARAMETER	SYMBOL	MIN	TYP	MAX	UNITS
Voltage on Input (5V tolerance)	Vin	-1		5	V
Supply Voltage	5V	4.75	5	5.25	V
	PVCC	3.14	3.30	3.47	V
	VCCK_ON	1.05	1.1	1.16	V
	VCCK_OFF	1.05	1.1	1.16	V
Electrostatic Discharge	V _{ESD}			±2.5	kV
Latch-Up	ILA			±100	mΑ
Ambient Operating Temperature	T _A	0		70	∘C
Storage Temperature (plastic)	T _{STG}	-55		125	∘C
Thermal Resistance (Junction to Air)	θЈА				°C/W
Thermal Resistance (Junction to Case)	θјс				°C/W
Junction Acceptable Temperature	Tj			125	∘C

6.2. Absolute Maximum Ratings

Table 3. Absolute Maximum Ratings of LQFP156

PARAMETER	SYMBOL	MIN	TYP	MAX	UNITS
Supply Voltage	VCONN_IN			5.5	V
	PVCC			3.6	V
	VCCK_ON			1.21	V
	VCCK_OFF			1.21	V
Storage Temperature (plastic)	T _{STG}			150	∘C
Junction Acceptable Temperature	T_j			150	∘C

Note: Operation under the absolute maximum ratings does not imply well-functioning. Long-term stress to the absolute maximum ratings would probably affect the device reliability or further cause permanent damage.

6.3. Reset Period

Table 4. Reset Period of LQFP156

PARAMETER	SYMBOL	MIN	TYP	MAX	UNITS
Reset Pulse Period	Trst-en ¹	1120			ns
Power-on-Reset Period	Tpor-rst ²	145	146.5	148	ms

^{1. 16 *} Xtal_cycle(1/14.3Mhz)

^{2. 65536*16*2*}Xtal cycle(1/14.3Mhz)

7. Mechanical Specifications

Thermal Enhanced Low Profile Plastic Quad Flat Package 156 Leads WeiXin&Phone:15818756102 web:www.rtddisplay.com 14x20mm² Outline

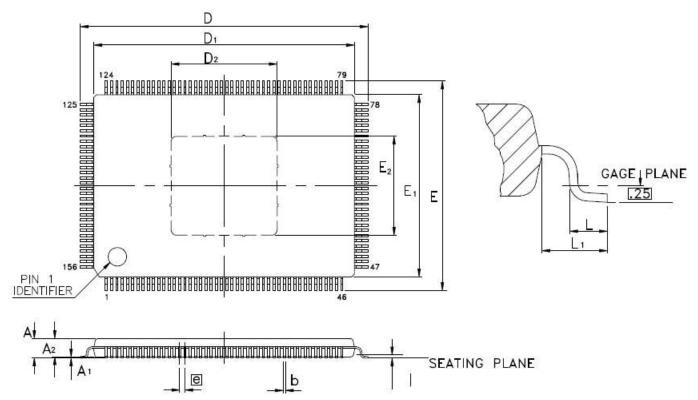


Figure 3. Mechanical Specification of LQFP156 Leads

Table 5. Mechanical Specification of LQFP156 Leads

Symbol	Dimension in mm			Dimension in inch			
	Min	Nom	Max	Min	Nom	Max	
A	_	_	1.60	_	_	0.063	
A_1	0.05	_	0.15	0.002	_	0.006	
A_2	1.35	1.40	1.45	0.053	0.055	0.057	
b	0.13	0.18	0.23	0.005	0.007	0.009	
D	21.90	22.00	22.10	0.862	0.866	0.870	
E	15.90	16.00	16.10	0.626	0.630	0.634	
D_1	19.90	20.00	20.10	0.783	0.787	0.791	
E_1	13.90	14.00	14.10	0.547	0.551	0.555	
\mathbf{D}_2	7.85	8.10	8.35	0.309	0.319	0.329	
E_2	7.30	7.55	7.80	0.287	0.297	0.307	
e	0.40 BSC			0.016 BSC			
L	0.45	0.60	0.75	0.018	0.024	0.030	
L1		1.00 REF		0.039 REF			

Notes:

1. CONTROLLING DIMENSION: MILLIMETER(mm).

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2. REFERENCE DOCUMENTL: JEDEC MS-26.

8. Ordering Information

Table 6. Ordering Information

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Part No.	Max. Resolution	Input : VGA	Input : HDMI1.4/ DVI		Output : LVDS/eDP	FRC	OD	PKG
RTD2556VD-CG	1920x1200 @75Hz	•	1 Ports	2 Ports	•	N/A	N/A	LQFP156

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