	I	Address Regi			Absolute	Data Register (32-bits)	Absolute	
Module Name	Mode (0 - 3)	Module ID (0 - 31)	Block ID (0 - 7)	Register ID (0 - 15)	Register Index	1 section = 4 Bytes 2 sections = 2 Bytes each 4 sections = 1 Byte each	Register Address	Register Count
	0	0	0	0	0	RESET SNS_WIDTH	0000 0004	1 1
	0	0	0	2	2	SNS_HEIGHT	0008	1
CONFIG	0	0	0	3	3	TARGET_CROP_WIDTH	000C	1
CONTIG	0	0	0	4	4	TARGET_CROP_HEIGHT	0010	1
	0	0	0	5 6	5	BITS BAYER	0014 0018	1 1
	0	0	0	7 15	7 15	Reserved	001C 003C	9
	0	0	1	0	16	TOP_EN*	0040	1
CONFIG	0	0	1	1 2	17 18	INT_STATUS INT_MASK	0044 0048	1 1
	0	0	1 7	3 15	19 127	Reserved	004C 01FC	109
DPC	0	1	0	0	128	DPC_THRESHOLD	0200	1
БГС	0	1	0 7	1 15	129 255	Reserved	0204 03FC	127
	0	2 2	0	0	256 257	BLC_R BLC_GR	0400 0404	1
	0	2	0	2	258	BLC_GB	0408	1
	0	2	0	3	259	BLC_B	040C	1
BLC	0	2	0	4 5	260 261	LINEAR_R LINEAR_GR	0410 0414	1 1
	0	2	0	6	262	LINEAR_GB	0418	1
	0	2	0	7	263	LINEAR_B	041C	1
	0	2	0 7	8 15	264 383	Reserved	0420 05FC	120
	0	3	0	0	384 385	center_illuminance skewness	0600 0604	1 1
	0	3	0	2	385	skewness ae_crop_left	0604	1
	0	3	0	3	387	ae_crop_right	060C	1
	0	3	0	4	388	ae_crop_top	0610	1
AE	0	3	0	5 6	389 390	ae_crop_bottom ae_response	0614 0618	1
	0	3	0	7	390	ae_response ae_result_skewness	061B	1
	0	3	0	8	392	ae_response_debug	0620	1
	0	3	0	9	393	ae_done	0624	1
	0	3 4	0 7	10 15	394 511 512	Reserved dgain_isManual	0628 07FC 0800	118
	0	4	0	1	512	dgain_ismanuai dgain_man_index	0804	1
	0	4	0	2	514	dgain_index_out	0808	1
	0	4	0	3 15	515 527	Reserved	080C 083C	13
	0	4	1	0	528 529	dgain_array_0 dgain_array_1	0840 0844	1 1
	0	4	1	2	530	dgain_array_2	0848	1
	0	4	1	3	531	dgain_array_3	084C	1
	0	4	1	4	532	dgain_array_4	0850	1
	0	4	1	5 6	533 534	dgain_array_5 dgain_array_6	0854 0858	1 1
	0	4	1	7	535	dgain_array_7	085C	1
	0	4	1	8	536	dgain_array_8	0860	1
	0	4	1	9	537	dgain_array_9	0864	1
	0	4	1	10 11	538 539	dgain_array_10 dgain_array_11	0868 086C	1 1
	0	4	1	12	540	dgain_array_12	0870	1
	0	4	1	13	541	dgain_array_13	0874	1
	0	4	1	14	542	dgain_array_14	0878	1
	0	4	1 2	15 0	543 544	dgain_array_15 dgain_array_16	087C 0880	1 1
	0	4	2	1	545	dgain_array_17	0884	1
	0	4	2	2	546	dgain_array_18	0888	1
	0	4	2 2	3	547 548	dgain_array_19 dgain_array_20	088C 0890	1 1
	0	4	2	5	549	dgain_array_21	0894	1
	0	4	2	6	550	dgain_array_22	0898	1
	0	4	2	7	551	dgain_array_23	089C	1
	0	4	2 2	8	552 553	dgain_array_24 dgain_array_25	08A0 08A4	1 1
	0	4	2	10	554	dgain_array_26	08A8	1
	0	4	2	11	555	dgain_array_27	08AC	1
	0	4	2 2	12 13	556 557	dgain_array_28 dgain_array_29	08B0 08B4	1 1
	0	4	2	13	558	dgain_array_29 dgain_array_30	08B4 08B8	1
	0	4	2	15	559	dgain_array_31	08BC	1
	0	4	3	0	560	dgain_array_32	08C0	1
	0	4	3	1 2	561 562	dgain_array_33 dgain_array_34	08C4 08C8	1 1
	0	4	3	3	563	dgain_array_35	08CC	1
	0	4	3	4	564	dgain_array_36	08D0	1
	0	4	3	5	565	dgain_array_37	08D4	1
	0	4	3	6 7	566 567	dgain_array_38 dgain_array_39	08D8 08DC	1 1
	0	4	3	8	568	dgain_array_40	08E0	1
	0	4	3	9	569	dgain_array_41	08E4	1
	0	4	3	10	570	dgain_array_42	08E8	1
	0	4	3	11 12	571 572	dgain_array_43 dgain_array_44	08EC 08F0	1
	0	4	3	13	573	dgain_array_45	08F4	1
	0	4	3	14	574	dgain_array_46	08F8	1
DCAIN	0	4	3	15	575 576	dgain_array_47	08FC	1
DGAIN	0	4	4	0	576 577	dgain_array_48 dgain_array_49	0900 0904	1
	0	4	4	2	578	dgain_array_50	0908	1
	0	4	4	3	579	dgain_array_51	090C	1
	0	4	4	4	580	dgain_array_52	0910	1
	0	4	4	5 6	581 582	dgain_array_53 dgain_array_54	0914 0918	1 1
	0	4	4	7	583	dgain_array_55	091C	1
	0	4	4	8	584	dgain_array_56	0920	1
						deale asset 57		1
	0	4	4	9	585	dgain_array_57	0924	
	0	4 4	4	10	586	dgain_array_58	0928	1 1
	0	4						1

		Address Regi			Absolute	Data Register (32-bits)	Absol	uto	$\overline{}$	
Module Name	Mode (0 - 3)	Module ID (0 - 31)	Block ID (0 - 7)	Register ID (0 - 15)	Register Index	1 section = 4 Bytes 2 sections = 2 Bytes each 4 sections = 1 Byte each	Regisi Addre	er	Register Count	
	ó	4	4	14	590	dgain_array_62	0938		1	
	0	4	4 5	15 0	591 592	dgain_array_63	0930		1	
	0	4	5	1	592	dgain_array_64 dgain_array_65	0940		1	
	0	4	5	2	594	dgain_array_66	0948		1	
	0	4	5	3	595	dgain_array_67	0940		1	
	0	4	5	4	596	dgain_array_68	0950)	1	
	0	4	5	5	597	dgain_array_69	0954		1	
	0	4	5	6	598	dgain_array_70	0958		1	
	0	4	5 5	7 8	599 600	dgain_array_71 dgain_array_72	0950		1	
	0	4	5	9	601	dgain_array_72	0964		1	
	0	4	5	10	602	dgain_array_74	0968		1	
	0	4	5	11	603	dgain_array_75	0960	;	1	
	0	4	5	12	604	dgain_array_76	0970		1	
	0	4	5	13	605	dgain_array_77	0974		1	
	0	4	5 5	14 15	606 607	dgain_array_78	0978		1	
	0	4	6	0	608	dgain_array_79 dgain_array_80	0980		1	
	0	4	6	1	609	dgain_array_81	0984		1	
	0	4	6	2	610	dgain_array_82	0988	3	1	
	0	4	6	3	611	dgain_array_83	0980		1	
	0	4	6	4	612	dgain_array_84	0990		1	
	0	4	6	5	613	dgain_array_85	0994		1	
	0	4	6	6 7	614 615	dgain_array_86	0998		1	
	0	4	6	8	616	dgain_array_87 dgain_array_88	0990 09A0		1	
	0	4	6	9	617	dgain_array_89	09A		1	
	0	4	6	10	618	dgain_array_90	09A	3	1	
	0	4	6	11	619	dgain_array_91	09A0		1	
	0	4	6	12	620	dgain_array_92	09B0		1	
	0	4	6	13	621	dgain_array_93	09B4		1	
	0	4	6	14	622	dgain_array_94	09B8		1	
	0	4	6 7	15 0	623 624	dgain_array_95 dgain_array_96	09B0		1	
	0	4	7	1	625	dgain_array_97	09C		1	
	0	4	7	2	626	dgain_array_98	09Ci		1	
	0	4	7	3	627	dgain_array_99	0900		1	
	0	4	7	4 15	628 639	Reserved	09D0	09FC	12	
LSC	0	5	0 7	0 15	640 767	Reserved	0A00	0BFC	128	
	0	6	0	0	768 769	AWB_UNDEREXPOSED_LIMIT AWB_OVEREXPOSED_LIMIT	000		1	
	0	6	0	2	770	AWB_FRAMES	000		1	
AWB	0	6	0	3	771	FINAL_RGAIN	000		1	
	0	6	0	4	772	FINAL_BGAIN	0C1)	1	
	0	6	0 7	7 15	775 895	Reserved	0C1C	0DFC	121	
	0	7	0	0	896	WB_RGAIN	0E00		1	
WB	0	7	0	1 2 15	897	WB_BGAIN	0E04		1	
CFA	0	7 8	0 7	2 15 0 15	898 1023 1024 1151	Reserved Reserved	0E08 1000	0FFC 11FC	126 128	
V. A	0	9	0	0	1152	ccm_rr	1200		1	
	0	9	0	1	1153	ccm_rg	1204	1	1	
	0	9	0	2	1154	ccm_rb	1208	3	1	
	0	9	0	3	1155	ccm_gr	1200		1	
ССМ	0	9	0	4	1156	ccm_gg	1210		1	
	0	9	0	5	1157 1158	ccm_gb ccm_br	1214		1	
	0	9	0	7	1159	ccm_bg	1210		1	
	0	9	0	8	1160	ccm_bb	1220)	1	
	0	9	0 7	9 15	1161 1279	Reserved	1224	13FC	119	
csc	0	10	0	0	1280	csc_conv_std	1400		1	
	0	10	0 7	1 15	1281 1407	Reserved	1404	15FC	127	
LDCI	0	11	0 7	0 15	1408 1535 1536	Reserved gf_kernel_0	1600	17FC	128	
	0	12	0	1	1537	gr_kerner_0 gf_kerner_1	1804		1	
	0	12	0	2	1538	gf_kernel_2	1808	3	1	
	0	12	0	3	1539	gf_kernel_3	1800		1	
	0	12	0	4	1540	gf_kernel_4	1810		1	
	0	12 12	0	5	1541	gf_kernel_5	1814		1	
	0	12	0	6 7	1542 1543	gf_kernel_6 gf_kernel_7	1818		1	
	0	12	0	8	1544	gf_kernel_8	1820		1	
	0	12	0	9	1545	gf_kernel_9	1824		1	
	0	12	0	10	1546	gf_kernel_10	1828	3	1	
	0	12	0	11	1547	gf_kernel_11	1820		1	
GF	0	12	0	12	1548	gf_kernel_12	1830		1	
	0	12 12	0	13	1549	gf_kernel_13	1834		1	
	0	12	0	14 15	1550 1551	gf_kernel_14	1838		1	
	0	12	1	0	1552	gf_kernel_15 gf_kernel_16	1840		1	
						gr_kernel_17	1844		1	
		12	1	1	1553				1	
	0		1 1	1 2	1553 1554	gf_kernel_18	1848	, ,		
	0 0 0	12 12 12	1	2 3	1554 1555		1848 1840	;	1	
	0 0 0	12 12 12 12	1 1 1	2 3 4	1554 1555 1556	gf_kernel_18 gf_kernel_19 gf_kernel_20	1848 1840 1850)	1	
	0 0 0 0	12 12 12 12 12	1 1 1 1	2 3 4 5	1554 1555 1556 1557	gf_kernel_18 gf_kernel_19 gf_kernel_20 gf_kernel_21	1848 1840 1850 1854)	1	
	0 0 0 0 0	12 12 12 12 12 12 12	1 1 1 1 1	2 3 4 5 6	1554 1555 1556 1557 1558	gf_kernel_18 gf_kernel_19 gf_kernel_20 gf_kernel_21 gf_kernel_22	1848 1840 1850 1854) 	1 1 1	
	0 0 0 0 0 0	12 12 12 12 12 12 12	1 1 1 1 1 1	2 3 4 5 6	1554 1555 1556 1557 1558 1559	gf_kernel_18 gf_kernel_19 gf_kernel_20 gf_kernel_21 gf_kernel_22 gf_kernel_23	1848 1840 1850 1854 1858	3	1 1 1	
	0 0 0 0 0 0	12 12 12 12 12 12 12 12 12	1 1 1 1 1 1 1	2 3 4 5 6 7	1554 1555 1556 1557 1558 1559	gf_kernel_18 gf_kernel_19 gf_kernel_20 gf_kernel_21 gf_kernel_22 gf_kernel_23 gf_kernel_24	1848 1840 1850 1854 1856 1850 1860	3	1 1 1	
	0 0 0 0 0 0	12 12 12 12 12 12 12	1 1 1 1 1 1	2 3 4 5 6	1554 1555 1556 1557 1558 1559	gf_kernel_18 gf_kernel_19 gf_kernel_20 gf_kernel_21 gf_kernel_22 gf_kernel_23 gf_kernel_24 sharpen_strength	1848 1840 1850 1854 1858) 	1 1 1 1	
	0 0 0 0 0 0 0	12 12 12 12 12 12 12 12 12 12	1 1 1 1 1 1 1 1	2 3 4 5 6 7 8	1554 1555 1556 1557 1558 1559 1560	gf_kernel_18 gf_kernel_19 gf_kernel_20 gf_kernel_21 gf_kernel_22 gf_kernel_23 gf_kernel_24	1848 1840 1850 1854 1850 1860 1860	3	1 1 1 1 1	
	0 0 0 0 0 0 0 0 0 0	12 12 12 12 12 12 12 12 12 13 13 13 13	1 1 1 1 1 1 1 0 0	2 3 4 5 6 7 8 0 1 2 3	1554 1555 1556 1557 1558 1560 1664 1665 1666 1667	gf_kernel_18 gf_kernel_29 gf_kernel_20 gf_kernel_21 gf_kernel_22 gf_kernel_23 gf_kernel_24 sharpen_strength luma_kernel_0 luma_kernel_1 luma_kernel_2	1846 1840 1850 1854 1856 1850 1860 1A00 1A00 1A00		1 1 1 1 1 1 1 1	
	0 0 0 0 0 0 0 0 0 0	12 12 12 12 12 12 12 12 12 12 13 13 13 13 13	1 1 1 1 1 1 1 1 0 0 0	2 3 4 5 6 7 8 0 1 1 2 3 4	1554 1555 1556 1557 1558 1559 1560 1664 1665 1666 1667 1668	gf_kernel_18 gf_kernel_20 gf_kernel_21 gf_kernel_22 gf_kernel_23 gf_kernel_23 gf_kernel_24 shappen_strength luma_kernel_0 luma_kernel_1 luma_kernel_2 luma_kernel_2	1846 1844 1856 1855 1856 1860 1A00 1A00 1A00 1A00		1 1 1 1 1 1 1 1 1 1	
	0 0 0 0 0 0 0 0 0 0 0	12 12 12 12 12 12 12 12 12 13 13 13 13 13 13	1 1 1 1 1 1 1 1 0 0 0 0	2 3 4 5 6 7 8 0 1 1 2 3 4 5	1554 1555 1556 1557 1559 1560 1664 1665 1666 1667 1668	gf_kernel_18 gf_kernel_19 gf_kernel_20 gf_kernel_21 gf_kernel_22 gf_kernel_23 gf_kernel_24 sharpen_strength luma_kernel_0 luma_kernel_0 luma_kernel_1 luma_kernel_3 luma_kernel_3 luma_kernel_3 luma_kernel_4	1846 1847 1857 1857 1858 1858 1860 1A00 1A00 1A00 1A00 1A00 1A00		1 1 1 1 1 1 1 1 1 1	
	0 0 0 0 0 0 0 0 0 0 0 0 0 0	12 12 12 12 12 12 12 12 12 13 13 13 13 13 13 13	1 1 1 1 1 1 1 0 0 0 0 0	2 3 4 5 6 7 8 0 1 1 2 3 4 5 6	1554 1556 1556 1557 1558 1559 1560 1664 1665 1666 1667 1668	gf_kernel_18 gf_kernel_20 gf_kernel_20 gf_kernel_21 gf_kernel_23 gf_kernel_23 gf_kernel_24 sharpen_strength luma_kernel_0 luma_kernel_1 luma_kernel_2 luma_kernel_4 luma_kernel_4 luma_kernel_4 luma_kernel_4 luma_kernel_4	1846 1850 1850 1850 1850 1860 1A00 1A00 1A10 1A10		1 1 1 1 1 1 1 1 1 1 1 1 1 1	
	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	12 12 12 12 12 12 12 12 12 12 13 13 13 13 13 13 13 13 13	1 1 1 1 1 1 1 1 0 0 0 0 0 0	2 3 4 5 6 7 8 0 1 1 2 3 4 5 6 7	1554 1555 1556 1557 1558 1559 1560 1664 1665 1666 1667 1668 1669	gf, kernel_18 gf, kernel_20 gf, kernel_20 gf, kernel_21 gf_ kernel_22 gf, kernel_23 gf_ kernel_23 gf_ kernel_24 shappen_strength luma_kernel_0 luma_kernel_1 luma_kernel_2 luma_kernel_3 luma_kernel_4 luma_kernel_4 luma_kernel_5 luma_kernel_5	1846 1850 1855 1856 1860 1A00 1A00 1A00 1A10 1A11 1A14		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
	0 0 0 0 0 0 0 0 0 0 0 0 0 0	12 12 12 12 12 12 12 12 12 13 13 13 13 13 13 13	1 1 1 1 1 1 1 0 0 0 0 0	2 3 4 5 6 7 8 0 1 1 2 3 4 5 6	1554 1556 1556 1557 1558 1559 1560 1664 1665 1666 1667 1668	gf_kernel_18 gf_kernel_20 gf_kernel_20 gf_kernel_21 gf_kernel_22 gf_kernel_23 gf_kernel_24 sharpen_strength luma_kernel_0 luma_kernel_1 luma_kernel_2 luma_kernel_3 luma_kernel_4 luma_kernel_5 luma_kernel_6 luma_kernel_6 luma_kernel_6 luma_kernel_6 luma_kernel_6 luma_kernel_6	1846 1850 1850 1850 1850 1860 1A00 1A00 1A10 1A10		1 1 1 1 1 1 1 1 1 1 1 1 1 1	
	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	12 12 12 12 12 12 12 12 12 12 13 13 13 13 13 13 13 13 13 13 13 13 13	1 1 1 1 1 1 1 0 0 0 0 0 0 0 0	2 3 4 5 6 7 8 0 1 1 2 3 4 5 6 7 7 8 6 7 7 8 7 8 9 9 1 1 7 9 7 8 9 7 8 9 9 9 9 9 9 9 9 9 9 9 8 9 9 9 9	1554 1556 1556 1557 1558 1559 1560 1664 1665 1666 1667 1668 1669 1671 1671	gf, kernel_18 gf, kernel_20 gf, kernel_20 gf, kernel_21 gf_ kernel_22 gf, kernel_23 gf_ kernel_23 gf_ kernel_24 shappen_strength luma_kernel_0 luma_kernel_1 luma_kernel_2 luma_kernel_3 luma_kernel_4 luma_kernel_4 luma_kernel_5 luma_kernel_5	1846 1856 1855 1856 1866 1860 1860 1860 1860 1860 1860 186		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	

		Address Regi		e Address: A	Absolute		Data Regis	ter (32-bits)		Absolute	
Module Name	Mode (0 - 3)	Module ID (0 - 31)	Block ID (0 - 7)	Register ID (0 - 15)	Register Index		2 sections =	= 4 Bytes 2 Bytes each 1 Byte each		Register Address	Registe
	ó	13	ó	12	1676		luma k	ernel_11		1A30	1
	0	13	0	13	1677			ernel_12		1A34	1
	0	13	0	14	1678			ernel_13		1A38	1
	0	13	0	15	1679			ernel_14		1A3C	1
	0	13	1	0	1680			ernel_15		1A40	1
	0	13	1	1	1681			ernel_16		1A44	1
	0	13	1	2	1682			ernel_17		1A48	1
	0	13	1	3	1683			ernel_18		1A4C	1
	0	13	1	4 5	1684 1685			ernel_19		1A50 1A54	1
		13	1					ernel_20			1
	0	13 13	1	6 7	1686 1687			ernel_21 ernel_22		1A58 1A5C	1
	0	13	1	8	1688			ernel_23		1A60	1
	0	13	1	9	1689			ernel 24		1A64	1
	0	13	1	10	1690			ernel 25		1A68	1
	0	13	1	11	1691			ernel_26		1A6C	1
	0	13	1	12	1692			ernel_27		1A70	1
	0	13	1	13	1693		luma_k	ernel_28		1A74	1
	0	13	1	14	1694		luma_ki	ernel_29		1A78	1
	0	13	1	15	1695		luma_k	ernel_30		1A7C	1
	0	13	2	0	1696			ernel_31		1A80	1
	0	13	2	1	1697			ernel_32		1A84	1
	0	13	2	2	1698		luma_k	ernel_33		1A88	1
	0	13	2	3	1699			ernel_34		1A8C	1
_	0	13	2	4	1700			ernel_35		1A90	1
=	0	13	2	5	1701			ernel_36		1A94	1
ā	0	13	2	6	1702	1		ernel_37		1A98	1
Q	0	13	2	7	1703			ernel_38		1A9C	1
_	0	13	2 2	8 9	1704 1705			ernel_39 ernel_40		1AA0 1AA4	1
a	0	13	2	10	1706			ernei_40 ernel_41		1AA4 1AA8	1
	0	13	2	11	1707			ernel_42		1AAC	1
Sharpen	0	13	2	12	1708			ernel_43		1AB0	1
(O)	0	13	2	13	1709			ernel 44		1AB4	1
	0	13	2	14	1710			ernel_45		1AB8	1
	0	13	2	15	1711		luma_ki	ernel_46		1ABC	1
	0	13	3	0	1712		luma_k	ernel_47		1AC0	1
	0	13	3	1	1713		luma_k	ernel_48		1AC4	- 1
	0	13	3	2	1714		luma_k	ernel_49		1AC8	- 1
	0	13	3	3	1715			ernel_50		1ACC	1
	0	13	3	4	1716			ernel_51		1AD0	1
	0	13	3	5	1717			ernel_52		1AD4	1
	0	13	3	6	1718			ernel_53		1AD8	1
	0	13	3	7	1719			ernel_54		1ADC	1
	0	13	3	8	1720			ernel_55		1AE0	1
	0	13	3	9	1721			ernel_56		1AE4	1
	0	13	3	10 11	1722 1723			ernel_57 ernel_58		1AE8 1AEC	1
	0	13	3	12	1723			ernel_59		1AF0	1
	0	13	3	13	1725			ernel_60		1AF4	1
	0	13	3	14	1726			ernel_61		1AF8	1
	0	13	3	15	1727			ernel_62		1AFC	1
	0	13	4	0	1728			ernel_63		1B00	1
	0	13	4	1	1729			ernel_64		1B04	1
	0	13	4	2	1730			ernel_65		1B08	1
	0	13	4	3	1731		luma_k	ernel_66		1B0C	1
	0	13	4	4	1732			ernel_67		1B10	1
	0	13	4	5	1733		luma_k	ernel_68		1B14	1
	0	13	4	6	1734			ernel_69		1B18	1
	0	13	4	7	1735		luma_k	ernel_70		1B1C	1
	0	13	4	8	1736			ernel_71		1B20	1
	0	13	4	9	1737			ernel_72		1B24	1
	0	13	4	10	1738			ernel_73		1B28	1
	0	13	4	11	1739			ernel_74		1B2C	1
	0	13	4	12	1740			ernel_75		1B30	1
	0	13	4	13	1741			ernel_76		1B34	1
	0	13	4	14	1742	1		ernel_77		1B38	1 1
	0	13	4	15	1743	1	· · · · -	ernel_78		1B3C	1
	0	13	5 5	0	1744 1745			ernel_79 ernel 80		1B40 1B44	1
Scale	0	14	0 7	0 15	1792 1919			ernei_80 erved		1C00 1DFC	128
YUV 444-422	0	15	0 7	0 15	1920 2047			erved		1E00 1FFC	128
	0	16	0 /	0 19	2048	bnr_space kernel r03	bnr_space_kernel_r02		bnr_space kernel r00	2000	1
	0	16	0	1	2049	bnr_space_kernel_r07		bnr_space_kernel_r05		2004	1
	0	16	0	2	2050	Res	Res	Res	bnr_space_kernel_r08	2008	1
	0	16	0	3	2051	Res	Res	Res	Res	200C	1
	0	16	0	4	2052	bnr_space_kernel_r13	bnr_space_kernel_r12	bnr_space_kernel_r11		2010	1
	0	16	0	5	2053	bnr_space_kernel_r17		bnr_space_kernel_r15	bnr_space_kernel_r14	2014	1
	0	16	0	6	2054	Res	Res	Res	bnr_space_kernel_r18	2018	1
	0	16	0	7	2055	Res	Res	Res	Res	201C	1
	0	16	0	8	2056	bnr_space_kernel_r23	bnr_space_kernel_r22	bnr_space_kernel_r21		2020	1
	0	16	0	9	2057	bnr_space_kernel_r27	bnr_space_kernel_r26			2024	1
	0	16	0	10	2058	Res	Res	Res	bnr_space_kernel_r28	2028	1
	0	16	0	11	2059	Res	Res	Res	Res	202C	1
	0	16	0	12	2060		bnr_space_kernel_r32			2030	1
	0	16	0	13	2061	bnr_space_kernel_r37	bnr_space_kernel_r36	bnr_space_kernel_r35	bnr_space_kernel_r34	2034	1
	0	16	0	14	2062	Res	Res	Res	bnr_space_kernel_r38	2038	1
	0	16	0	15	2063	Res	Res	Res	Res	203C	1
	0	16	1	0	2064					2040	1
	0	16	1	1	2065	bnr_space_kernel_r47	bnr_space_kernel_r46	bnr_space_kernel_r45		2044	1
	0	16	1	2	2066	Res	Res	Res	bnr_space_kernel_r48	2048	1
	0	16	1	3 4	2067	Res	Res	Res	Res	204C	1
	0	16			2068	bnr_space_kernel_r53				2050	1
	0	16 16	1	5	2069 2070	bnr_space_kernel_r57	bnr_space_kernel_r56	bnr_space_kernel_r55		2054 2058	1
	0	16	1	6 7	2070	Res Res	Res Res	Res Res	bnr_space_kernel_r58	2058 205C	1 1
		16	1	8	2071	-			Res	205C 2060	1
			1		2072	Jiii_space_kernei_f63	bnr_space_kernel_r62				1 1
	0		1	9	2073	bnr space kernel re7	bnr space kernel ree	hnr snace kernel res	hnr space kernel rea	2064	1 1
	0 0 0	16 16	1	9	2073 2074	bnr_space_kernel_r67 Res	bnr_space_kernel_r66 Res	bnr_space_kernel_r65 Res	bnr_space_kernel_r64 bnr_space_kernel_r68	2064 2068	1 1

Module		Address Regis			Abso			1 section	ter (32-bits) = 4 Bytes		Absolu		Regist	
Name	Mode (0 - 3)	Module ID (0 - 31)	Block ID (0 - 7)	Registe (0 - 1	r ID 5)	Regis Inde	ex		2 sections =	2 Bytes each 1 Byte each		Regist Addre	ss	Coun
	ó	16	1	12		207	'6	bnr_space_kernel_r73	bnr_space_kernel_r72	bnr_space_kernel_r71	bnr_space_kernel_r70	2070)	1
	0	16	1	13		207		bnr_space_kernel_r77		bnr_space_kernel_r75		2074		1
	0	16 16	1	14		207		Res	Res	Res	bnr_space_kernel_r78	2078 2070		1
	0	16	1 2	15		207		Res bnr space kernel r83	Res bnr_space_kernel_r82	Res bnr space kernel r81	Res bnr space kernel r80	2070		1
	0	16	2	1		208		bnr_space_kernel_r87		bnr_space_kernel_r85		2084		1
	0	16	2	2		208		Res	Res	Res	bnr_space_kernel_r88	2088		1
	0	16	2	3		208		Res	Res	Res	Res	2080	;	1
	0	16	2	4	15	2084	2095			erved		2090	20BC	12
	0	16	3	0	15	2096	2111	h h1 -00		erved	h -00	20C0	20FC	16
	0	16 16	4	0		211			bnr_space_kernel_g02 bnr_space_kernel_g06			2100		1
	0	16	4	2		211		Res	Res	Res	bnr_space_kernel_g08	2108		1
	0	16	4	3		211		Res	Res	Res	Res	2100		1
	0	16	4	4		211	16	bnr_space_kernel_g13	bnr_space_kernel_g12	bnr_space_kernel_g11	bnr_space_kernel_g10	2110		1
	0	16	4	5		211			bnr_space_kernel_g16	bnr_space_kernel_g15		2114		1
	0	16	4	6		211		Res	Res	Res	bnr_space_kernel_g18	2118		1
	0	16	4	7		211		Res	Res	Res	Res	2110		1
	0	16 16	4	8 9		212		bnr_space_kernel_g23 bnr_space_kernel_g27	bnr_space_kernel_g22 bnr_space_kernel_g26			2120 2124		1 1
	0	16	4	10		212		Res	Res	Res	bnr_space_kernel_g28	2128		1
	0	16	4	11		212		Res	Res	Res	Res	2120		1
	0	16	4	12		212	24	bnr_space_kernel_g33	bnr_space_kernel_g32	bnr_space_kernel_g31	bnr_space_kernel_g30	2130)	1
	0	16	4	13		212		bnr_space_kernel_g37	bnr_space_kernel_g36	bnr_space_kernel_g35	bnr_space_kernel_g34	2134		1
	0	16	4	14		212		Res	Res	Res	bnr_space_kernel_g38	2138		1
	0	16	4	15		212		Res	Res bnr_space_kernel_g42	Res	Res	2130		1
	0	16 16	5	1		212			bnr_space_kernel_g42 bnr space kernel g46			2140 2144		1
	0	16	5	2		212		Res	Res	Res	bnr_space_kernel_g48	2144		1
	0	16	5	3		213		Res	Res	Res	Res	2140		1
	0	16	5	4		213			bnr_space_kernel_g52			2150)	1
	0	16	5	5		213			bnr_space_kernel_g56			2154		1
	0	16	5	6		213		Res	Res	Res	bnr_space_kernel_g58	2158		1
	0	16	5	7 8		213		Res	Res	Res	Res	2150		1
	0	16 16	5	8 9		213			bnr_space_kernel_g62 bnr_space_kernel_g66			2160 2164		1
\sim	0	16	5	10		213		Res	Res	Res	bnr_space_kernel_g68	2168		1
ш	0	16	5	11		213	39	Res	Res	Res	Res	2160	:	1
7	0	16	5	12		214	10	bnr_space_kernel_g73	bnr_space_kernel_g72	bnr_space_kernel_g71	bnr_space_kernel_g70	2170)	1
_	0	16	5	13		214		bnr_space_kernel_g77	bnr_space_kernel_g76	bnr_space_kernel_g75	bnr_space_kernel_g74	2174		1
\mathbf{m}	0	16	5	14		214		Res	Res	Res	bnr_space_kernel_g78	2178		1
ш	0	16 16	5	15		214		Res	Res	Res	Res	217C		1
)	0	16	6	1		214			bnr_space_kernel_g82 bnr_space_kernel_g86			2184		1
	0	16	6	2		214		Res	Res	Res	bnr_space_kernel_g88	2188		1
7	0	16	6	3		214	17	Res	Res	Res	Res	2180		1
_	0	16	6	4	15	2148	2159		Res	erved		2190	21BC	12
\cap	0	16	7	0	15	2160	2175		Res	erved		21C0	21FC	16
\simeq	0	17	0	0		217			bnr_space_kernel_b02			2200		1
_	0	17	0	1		217			bnr_space_kernel_b06			2204		1
	0	17 17	0	2 3		217 217		Res	Res Res	Res Res	bnr_space_kernel_b08	2208		1
1	0	17	0	4		218		bnr space kernel b13	bnr_space_kernel_b12		hnr snace kernel h10	2210		1
	0	17	0	5		218			bnr_space_kernel_b16			2214		1
	0	17	0	6		218	32	Res	Res	Res	bnr_space_kernel_b18	2218	3	1
_	0	17	0	7		218		Res	Res	Res	Res	2210	:	1
	0	17	0	8		218			bnr_space_kernel_b22			2220		1
_	0	17	0	9		218			bnr_space_kernel_b26			2224		1
	0	17 17	0	10		218		Res Res	Res Res	Res Res	bnr_space_kernel_b28	2228		1
	0	17	0	12		218			bnr_space_kernel_b32		hnr snace kernel h30	2230		1
REDUCTION (BNR)	0	17	0	13		218			bnr_space_kernel_b36			2234		1
	0	17	0	14		219		Res	Res	Res	bnr_space_kernel_b38	2238	3	1
111	0	17	0	15		219		Res	Res	Res	Res	2230		1
Ш	0	17	1	0		219			bnr_space_kernel_b42			2240		1
$\overline{\mathbf{c}}$	0	17	1	1		219			bnr_space_kernel_b46			2244		1
•	0	17 17	1	3		219		Res Res	Res Res	Res Res	bnr_space_kernel_b48 Res	2248 2240		1
7	0	17	1	4		219		1	bnr_space_kernel_b52			2250		1
	0	17	1	5		219			bnr_space_kernel_b56			2254		1
	0	17	1	6		219		Res	Res	Res	bnr_space_kernel_b58	2258		1
7	0	17	1	7		219		Res	Res	Res	Res	2250		1
BAYER NOI	0	17	1	8		220			bnr_space_kernel_b62			2260		1
-4	0	17 17	1	9		220		bnr_space_kernel_b67 Res	bnr_space_kernel_b66 Res	bnr_space_kernel_b65 Res	bnr_space_kernel_b64 bnr_space_kernel_b68	2264 2268		1
	0	17	1	11		220		Res	Res	Res	Res	2260		1
TT	0	17	1	12		220			bnr_space_kernel_b72			2270		1
ш	0	17	1	13		220			bnr_space_kernel_b76			2274		1
	0	17	1	14		220		Res	Res	Res	bnr_space_kernel_b78	2278		1
	0	17	1	15		220		Res	Res	Res	Res	2270		1
1	0	17	2	0		220			bnr_space_kernel_b82			2280		1
1	0	17 17	2 2	1 2		220		bnr_space_kernel_b87 Res	bnr_space_kernel_b86	bnr_space_kernel_b85 Res		2284 2288		1 1
m	0	17 17	2	3		221		Res Res	Res Res	Res	bnr_space_kernel_b88 Res	2288		1 1
	0	17	2	4	15	2212	2223	1700		erved	1103	2290	22BC	12
	0	17	3 7	0	15	2224	2303			erved		22C0	23FC	80
	0	18	0	0		230				curve_x_r_0		2400)	1
	0	18	0	1		230)5		bnr_color_	curve_x_r_1		2404		1
	0	18	0	2		230				curve_x_r_2		2408		1
	0	18	0	3		230				curve_x_r_3		2400		1
	0	18	0	4		230				curve_x_r_4		2410		
	0	18 18	0	5		230				curve_x_r_5		2414 2418		
	0	18	0	7		231				curve_x_r_6		2418		
	0	18	0	8		231				curve_x_r_7 curve_x_r_8		2410		1
	0	18	0	9	15	2313	2319			erved		2424	243C	7
	0	18	1	0		2313				curve_y_r_0		2440		1
	0	18	1	1		232				curve_y_r_1		2444		1
	0	18	1	2		232	22			curve_y_r_2		2448	3	1
	0	18		3		232	10			curve_y_r_3		2440		

Module		Address Reg	ister (16-bits)		Absolute		1 section	ster (32-bits) n = 4 Bytes		Absolu	ute	Register
Name	Mode (0 - 3)	Module ID (0 - 31)	Block ID (0 - 7)	Register ID (0 - 15)	Register Index		2 sections = 4 sections =	2 Bytes each = 1 Byte each		Regist Addre	ss	Count
	ó	18	1	4	2324		bnr_color_	curve_y_r_4	•	2450)	1
	0	18	1	5	2325			curve_y_r_5		2454	1	1
	0	18	1	6	2326		bnr_color_	curve_y_r_6		2458		1
	0	18	1	7	2327		bnr_color_	curve_y_r_7		2450		1
	0	18	1	8	2328		bnr_color_	curve_y_r_8		2460)	1
	0	18	1	9 15	2329 2335		Res	erved		2464	247C	7
	0	18	2	0	2336		bnr_color_	curve_x_g_0		2480		1
	0	18	2	1	2337		bnr_color_	curve_x_g_1		2484		1
	0	18	2	2	2338			curve_x_g_2		2488		1
	0	18	2	3	2339			curve_x_g_3		2480		1
	0	18	2	4	2340			curve_x_g_4		2490		1
	0	18	2	5	2341			curve_x_g_5		2494		1
	0	18	2	6	2342 2343			curve_x_g_6		2498 2490		1
	0	18	2 2	7 8	2343			curve_x_g_7		2490 24A0		1
		18	2	9 15	2344 2351			curve_x_g_8		24A4	24BC	1
	0	18	3	0	2345 2351			erved curve_y_g_0		24A4 24C0		7
	0	18	3	1	2352			curve_y_g_0 curve_y_g_1		24C4		1
	0	18	3	2	2353			curve_y_g_1		2408		1
	0	18	3	3	2355			curve_y_g_2 curve_y_g_3		2400		1
	0	18	3	4	2356			curve_y_g_3		24D0		1
	0	18	3	5	2357			curve_y_g_4 curve_y_g_5		24D4		1
	0	18	3	6	2358			curve_y_g_6		24D8		1
	0	18	3	7	2359			curve_y_g_7		24D0		1
	0	18	3	8	2360			curve_y_g_8		24E0		1
	0	18	3	9 15	2361 2367			erved		24E4	24FC	7
	0	18	4	0	2368			curve_x_b_0		2500		1
	0	18	4	1	2369			curve_x_b_1		2504		1
	0	18	4	2	2370			curve_x_b_2		2508	3	1
	0	18	4	3	2371			curve_x_b_3		2500		1
	0	18	4	4	2372		bnr_color_	curve_x_b_4		2510)	1
	0	18	4	5	2373		bnr_color_	curve_x_b_5		2514	ļ	1
	0	18	4	6	2374		bnr_color_	curve_x_b_6		2518	3	1
	0	18	4	7	2375		bnr_color_	curve_x_b_7		2510	;	1
	0	18	4	8	2376		bnr_color_	curve_x_b_8		2520)	1
	0	18	4	9 15	2377 2383			erved		2524	253C	7
	0	18	5	0	2384			curve_y_b_0		2540		1
	0	18	5	1	2385			curve_y_b_1		2544		1
	0	18	5	2	2386			curve_y_b_2		2548		1
	0	18	5	3	2387			curve_y_b_3		2540		1
	0	18	5	4	2388			curve_y_b_4		2550		1
	0	18	5	5	2389			curve_y_b_5		2554		1
	0	18	5	6	2390			curve_y_b_6		2558		1
	0	18	5	7	2391 2392			curve_y_b_7		2550		1
	0	18	5	8				curve_y_b_8				7
	0	18	5	9 15	2393 2399			erved		2564	257C	
Reserved	0	18 19 20 23	6 7	0 15	2400 2559 2560 3071			erved erved		2580 2800	27FC 2FFC	160 512
Reserved	0	20 23	0 /	0 15	3072	nr2d diff 2			neOd diff O	3000		1
	0	24	0	1	3072	nr2d_diff_3 nr2d_diff_7	nr2d_diff_2 nr2d_diff_6	nr2d_diff_1 nr2d_diff_5	nr2d_diff_0 nr2d_diff_4	3000		1
	0	24	0	2	3073	nr2d_diff_11	nr2d_diff_10	nr2d_diff_9	nr2d_diff_8	3004		1
	0	24	0	3	3074	nr2d_diff_15	nr2d_diff_14	nr2d_diff_13	nr2d_diff_12	3000		1
	0	24	0	4	3075	nr2d_diff_19	nr2d_diff_18	nr2d_diff_17	nr2d_diff_16	3010		1
~	0	24	0	5	3077	nr2d_diff_23	nr2d_diff_22	nr2d_diff_21	nr2d_diff_20	3014		1
2DNR	0	24	0	6	3078	nr2d diff 27	nr2d diff 26	nr2d diff 25	nr2d diff 24	3018		1
	0	24	0	7	3079	nr2d_diff_31	nr2d_diff_30	nr2d_diff_29	nr2d_diff_28	3010		1
	0	24	0 3	8 15	3080 3135			erved		3020	30FC	56
	0	24	4	0	3136	nr2d weight 3	nr2d weight 2	nr2d weight 1	nr2d weight 0	3100		1
\cap	0	24	4	1	3137	nr2d weight 7	nr2d weight 6	nr2d weight 5	nr2d weight 4	3104		1
	0	24	4	2	3138	nr2d_weight_11	nr2d_weight_10	nr2d_weight_9	nr2d_weight_8	3108		1
2	0	24	4	3	3139	nr2d_weight_15	nr2d_weight_14	nr2d_weight_13	nr2d_weight_12	3100		1
• •	0	24	4	4	3140	nr2d weight 19	nr2d weight 18	nr2d weight 17	nr2d weight 16	3110		1
	0	24	4	5	3141	nr2d_weight_23	nr2d_weight_22	nr2d_weight_21	nr2d_weight_20	3114		1
	0	24	4	6	3142	nr2d_weight_27	nr2d_weight_26	nr2d_weight_25	nr2d_weight_24	3118		1
	0	24	4	7	3143	nr2d_weight_31	nr2d_weight_30	nr2d_weight_29	nr2d_weight_28	3110		1
	0	24	4 7	8 15	3144 3199			erved		3120	31FC	56
	0	25 31	0 7	0 15	3200 4095			erved		3200	3FFC	896
Reserved	0											
Reserved AMMA LUT DECF LUTS	1	0 31	0 7	0 15	4096 8191 8192 16383			MA LUT F LUTs		4000 8000	7FFC FFFC	4096 8192

										TOP_EN*							
17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
CROP_EN	AWB_EN	AE_EN	SHARP_EN	2DNR_EN	LDCI_EN	CSC_EN	GAMMA_EN	CCM_EN	DEMOSIC_EN	WB_EN	BNR_EN	LSC_EN	DGAIN_EN	OECF_EN	LINEAR_EN	BLC_EN	DPC_EN
18																	
GF_EN																	
OL.																	

Module		Address Re	egister (16-bits)		Absolute	Data Register (32-bits) 1 section = 4 Bytes		Absolute	Regis
Name	Mode (0 - 3)	Module ID (0 - 31)	Block ID (0 - 7)	Register ID (0 - 15)	Absolute Register Index	Data Register (32-bits) 1 section = 4 Bytes 2 sections = 2 Bytes each 4 sections = 1 Byte each		Absolute Register Address	