Prestigio

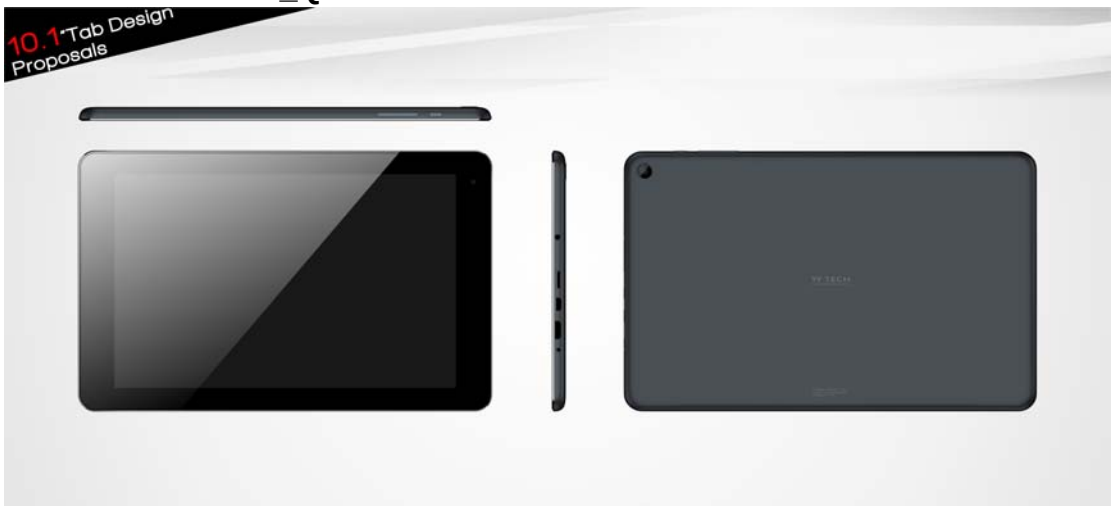
GEOVISION
PMP5101C_QUAD

TECHNICAL
SERVICE MANUAL

No. 62, South Fumin Road, Fumin Industrial
Park, Dalang Town, Dongguan City, China. 523773
Tel: +86-0769-8123 8821
Fax: +86-0769-8123 8999
Website: http://www.yftech.com

Product Specification

Model: PMP5101C_QUAD



Features:

1. CPU: RK3188 Quad Core
2. Screen:10.1" IPS
3. CTP: G+G 5 point multi touch
5. WIFI: IEEE 802.11b/g/n
6. Dual camera:0.3MP front camera and2MP
7. HDMI 1.4 TYPE-C
8. 3D G-Sensor
9. USB OTG
10. Battery: 7000mAh

Specification:

Hardware		
CPU		RockChip Quad Core 3188
Memory	**Flash**	8GB
	RAM	1GB DDR3
	TF CARD	Support 2/4/8/16/32GB TF Card
LCD	**Size (Diagonal)**	10.1 IPS
	Aspect Ratio	16:9
	Resolution	1280*800
Touch Panel		Capacitive touch panel(G+G, Support 5 points touch)

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Key		Power, Volume+/-	
Connector		TF card slot, 3.5 earphone jack, DC port, Micro USB port*1 , Mini HDMI port	
Camera		Front: 0.3million pixels Rear: 2 million pixels	
Audio	**Recording**	Via microphone	
	Earphone	3.5mm stereo earphone	
	Speaker	1W@8Ω x1	
USB		USB 2.0 OTG	
WIFI		Support IEEE 802.11b/g/n transport protocol	
G-Sensor		Support 3D accelerometer game	
Video Decoding		AVI（H.264, DIVX, DIVX, XVID,MP4, MOV,（H.264, MPEG, DIVX, XVID), DAT（VCD), VOB（DVD), MPEG, MPG, FLV（H.263，H.264),, TS, TP, 3GP, MPG etc	
Audio Decoding		MP3,WMA,RA,OGG,WAV,APE,FLAC,AC3, DTS etc	
Video Container		MKV, MP4, AVI, VOB, MPG, etc	
Picture Format		JPG, GIF, BMP, PNG	
HDMI		Support HDMI 1.4 protocol, TYPE-C	
Battery		7000mAh	
System Update		Via TF card and OTA	
Logo Update		Via TF card	
Certification & Regulation		CE, RoHS compliant	
Physic Characteristics al	**Dimension**		
Environment Conditions	**Temperature**	Operation	0~50°C
		Storage	-10~60°C
	Humidity	Operation	0~90%, Non-Condensed
		Storage	0~90%, Non-Condensed

Software

Operating System	Android 4.2

Package Contents

10.1” Unit * 1pcs
Micro USB cable * 1pcs

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AC/DC adapter * 1pcs
User’s manual * 1pcs
Gift box * 1pc (Size: TBD)

Item	Component P/N	Description	Specification	Un	Qty	Remark
0010	PTMP92022001	MP92V2.2_1G_8G_WIFI_BT_voltameter_battery holder_1021		EA	1.000	
0020	PTMK92KEY101	MK92_KEY_V1_01		EA	1.000	
0030	138M0211	LCM_10.1寸_1280*800_330cd/m2_W/O TP_45pin_tera	ZM10091C	EA	1.000	
0040	13630021	FPC_30PIN+45PIN_sapce 0.5mm_length 50mm_R23048A0		EA	1.000	
0050	16000248	screw_self-tapping_PWB2.0*2.5mm_carbon steel_black_0#slot _outer dimension7		EA	7.000	
0060	15910167	Screw rack_MK92-1021_PC+ABS_black		EA	1.000	
0070	13740104	LI_BAT_7000mAh_3.7V_143.5*123*3.8mm_internal 40	GB.S02.3670B8-0200	EA	1.000	
0080	13800228	TP_CAP_10.1寸_G+G_BOPENGFA_10Point touch-BF6713A1 W/O gum	RS10MD0350G2_V1.0	EA	1.000	
0080	13800229	TP_CAP_10.1寸_G+G_QIUTIANWEI_10 point touch FT5506 W/O gum	CTP101072	EA	1.000	
0090	137M0008	CHARG_5V/2.5A_2.5mmDC bent_cable length1.2m_ VDE-Oulutong	0225B5V2.5AG-A0(0903)	EA	1.000	
0110	13750015	PWRJ_5V/2A_UL PLUG_ul		EA	1.000	
0120	13830065	CAMERA_2million_63degree of Field of view_SP0718+SP2518-Tongju	K09K04-0MP92-J77A2	EA	1.000	
0130	13430072	SPK_8R_1W_30*10*4.1mm_single magnetic_L:280mm	S-A8-3010-L280-H4.1	EA	1.000	
0140	13430073	SPK_8R_1W_30*10*4.1mm_single magnetic_L:320mm	S-A8-3010-L320-H4.1	EA	1.000	
0150	15190007	case_MP92-1021_black-PC+ABS case+speaker grill		EA	1.000	
0160	157M0062	keys:_MK92-1021_Power Button+Volume key_vacuum plating_Blue Black		EA	1.000	
0170	16050151	bottom cap_MK921021_Sandblasting oxidation radium vulture_blue black AL5052		EA	1.000	
0180	16000230	screw_self-tapping_PB1.5*4mm_hardened carbon steel _black_Cross-recessed		EA	7.000	
0190	135M0034	ANT_ASSY_MK92-1021_WIFI outsourced finished ANT_40mm		EA	1.000	
0200	13680110	CAB_OTH_30AWG_keyboard plate cable_L:53mm_4PIN flat cable_MP92		EA	1.000	
0210	16000249	self-tapping screw_PWB1.2*3mm_carbon steel-black_0#slot_outer dimension3.7mm		EA	2.000	
0220	15000090	mirror_MK92-1021_PET_black		EA	1.000	
0230	18020057	High temperature insulation tape 0057_75*20mm		EA	1.000	
0240	18020030	3M Double-sided adhesive_40*25mm		EA	2.000	
0250	18010010	EMI auxiliary materials:_Conductive cloth_100*21mm		EA	1.000	
0260	18010021	EMI auxiliary materials:_Conductive foam 0021_15*10*0.8mm		EA	2.000	
0270	18010012	EMI auxiliary materials:_Conductive cloth 0012_35*35mm		EA	1.000	
0280	13440028	MIC_Φ4.0*1.5_-42dB±3dB_with Φ4.8mm		EA	1.000	
0290	18090063	horn gasket_30*2*0.5mm_single-sided gum		EA	2.000	
0300	18120012	Thermal conductive silica gel_20*20*0.7mm		EA	1.000	
0310	18000370	backward camera foam pads_external ¢ 10*internal ¢ 6*1.32mm_MU91-9731		EA	1.000	
0320	18010080	Conductive sponge_10*6*1.5mm		EA	2.000	
0330	18020176	Yellow high temperature insulation tape_98.5*71.5*0.05mm_MP92-1022		EA	1.000	
0340	16000235	screw_CM2.0*3.5_harden carbon steel_black_cross recess_ head diameter4.5mm		EA	1.000	
0350	17002321	20092_Waterproof stickers_4*4mm_Vulnerable to water damage		EA	1.000	
0360	17002253	20092_QC PASS sticker_Circular diameter 2.7mm_fragile		EA	1.000	
0370	18090073	rubber mat_10*4*2mm_rubber+9448A_MP91-1022/1021		EA	2.000	
0380	13750001	CHARG_5V/2A_BS PLUG_gauge plug		EA	1.000	
0390	18020179	LCD shading tape_165*4*0.5mm_POT_black-MP92-1022		EA	1.000	
	PTMP92022001	MP92V2.2_1G_8G_WIFI_BT_voltameter_battery holder_1021			0.000	

0010	MP92V22-TS-BASE12	MP92V22 connected by 12P		EA	1.000	
0020	MP92V22-LCD-1021	MP92V22 with screen of 1021		EA	1.000	
0030	MP92V22-FLASH-8G	MP92V22FLASH-8G		EA	1.000	
0040	MP92V22-DDR-1G	MP92V22DDR_1G		EA	1.000	
0050	MP92V22-CS-2013	MP92V22 with voltameter IC		EA	1.000	
0060	MP92V22-YBTYWIFI	MP92V22 with WIFI &BT function		EA	1.000	
0070	MP92V22-BATTERYHY	MP92V22 with Battery seat		EA	1.000	
0080	MP92V22-BASIC	MP92V22		EA	1.000	
	PTMK92KEY101	MK92_KEY_V1_01			0.000	
0010	13300003	SWH_TACT_TC-1312I_with two registration mast_260GF		EA	3.000	SW1 SW2 SW3
0010	13300006	SWH_TACT_T06P-035DBT03B		EA	3.000	SW1 SW2 SW3
0020	13000466	PCB_NORM_MK92_KEY_V1_2layers_16 panles_Immersion gold		EA	1.000	
	138M0211	LCM_10.1寸_1280*800_330cd/m2_W/O TP_45pin_ tera			0.000	
0010	13810011	LCD_FOB_10.1_1280*800_45pin_BOE		EA	1.000	
	15190007	case assembly:_MP92-1021_black-PC+ABS case+speaker grill			0.000	
0010	15100046	case:_MP92-1021_PC+ABS_black		EA	1.000	
	MP92V22-TS-BASE12	MP92V22 Touch screen conneted with 12P			0.000	
0010	13200079	CON_FPC_12PIN_space 0.5mm_flip, connect with bottom_horizonta l_height 1.5mm		EA	1.000	CON10
	MP92V22-LCD-1021	MP92V22 with screen of 1021			0.000	
0010	10000062	CAP_CER_47pF_50V_0402		EA	1.000	C220
0020	10100223	RES_NORM0223_2.49R_±1%_0603		EA	1.000	R153
	MP92V22-FLASH-8G	MP92V22FLASH-8G			0.000	
0010	MP92V22-FLASH-8GE1	MP92V22FLASH-8G-EMMC1		EA	1.000	
0010	MP92V22-FLASH-8GL1	MP92V22FLASH-8G-LGA1		EA	1.000	
0010	MP92V22-FLASH-8GT1	MP92V22FLASH-8G-TSOP1		EA	1.000	
	MP92V22-DDR-1G	MP92V22DDR_1G			0.000	
0010	12080013	DDR3_256MB_H5TQ2G83EFR-PBC_FBGA-78		EA	4.000	U11 U12 U13 U14
0010	12080017	DDR3_256MB_XAA256M8V80AG8RHF-SSWT_FBGA78		EA	4.000	U11 U12 U13 U14
	MP92V22-CS-2013	MP92V22 with voltameter IC			0.000	
0010	10000028	CAP_CER_1uF_6.3V_0402		EA	1.000	C25
0010	10009102	CAP_CER_1uF_6.3V_0402		EA	1.000	C25
0020	10000006	CAP_CER_10nF_50V_0402		EA	1.000	C26
0020	10000045	CAP_CER_10nF_25V_0402		EA	1.000	C26
0030	10100010	RES_NORM_1K_±5%_0402		EA	2.000	R35 R37
0040	10100205	RES_NORM0205_150R_±5%_0402		EA	1.000	R36
0050	10130001	RES_VAR0001_12V_3.5PF_0402		EA	2.000	R227 R228
0050	10130005	RES_VAR_70V_3pF_0402_SDV1005S140C030YPTF		EA	2.000	R227 R228
0060	12580078	IC_OTH_voltameter_CW2013CSAD_TDFN-8		EA	1.000	U5
	MP92V22-YBTYWIFI	MP92V22 with WIFI & BT function			0.000	
0010	10000063	CAP_CER_100pF_50V_0402		EA	1.000	C246
0020	10009004	CAP_CER_10pF_50V_0402		EA	1.000	C247
0030	10000076	CAP_CER_10uF_10V_0805		EA	1.000	C261

0030	10009050	CAP_CER_10uF_10V_0805		EA	1.000	C261
0040	196M0018	Communication module_WIFI+BT module_RL-UM02WB-8723VAU		EA	1.000	M1
	MP92V22-BATTERYHY	MP92V22 with battery holder			0.000	
0010	13180069	JAC_OTH_battery holder_A1254-5P positive plug wire		EA	1.000	CON15
0010	13180076	JAC_OTH_battery holder_1.25T-5		EA	1.000	CON15
	MP92V22-BASIC	MP92V22 Benchmark part			0.000	
0010	10100004	RES_NORM_0R_±5%_0402		EA	13.000	L1 R2 FB7 R38 R53 R71 R72 R116 R199 R210
0020	10100134	RES_NORM_4.7R_±1%_0402		EA	2.000	R122 R123
0030	10100083	RES_NORM_22R_±5%_0402		EA	11.000	R55 R60 R139 R140 R160 R161 R162 R167 R2
0040	10100108	RES_NORM_33R_±5%_0402		EA	3.000	R185 R189 R191
0050	10100126	RES_NORM_47R_±5%_0402		EA	2.000	R91 R93
0060	10100187	RES_NORM_100R_±5%_0402		EA	5.000	R40 R43 R44 R73 R85
0070	10100310	RES_NORM_200R_±1%_0402		EA	2.000	R56 R57
0080	10100297	RES_NORM_240R_±1%_0402		EA	5.000	R78 R79 R80 R81 R82
0090	10100253	RES_NORM0253_499R_±1%_0402		EA	2.000	R124 R125
0100	10100010	RES_NORM_1K_±5%_0402		EA	6.000	R9 R63 R92 R118 R119 R148
0110	10100065	RES_NORM_1.5K_±5%_0402		EA	6.000	R108 R109 R110 R111 R112 R113
0120	10100357	RES_NORM_1.65K_±1%_0402		EA	1.000	R176
0130	10100019	RES_NORM_2K_±1%_0402		EA	5.000	R86 R87 R88 R89 R149
0140	10100092	RES_NORM_2.2K_±1%_0402		EA	9.000	R7 R39 R74 R131 R164 R187 R188 R192 R193
0150	10100027	RES_NORM_3K_±1%_0402		EA	3.000	R29 R141 R156
0160	10100131	RES_NORM_4.7K_±5%_0402		EA	19.000	R58 R64 R67 R77 R102 R103 R104 R147 R151
0170	10100331	RES_NORM_4.99K_±1%_0402		EA	1.000	R41
0190	10100035	RES_NORM_10K_±5%_0402		EA	10.000	R18 R23 R46 R54 R66 R76 R155 R178 R195 R
0200	10100034	RES_NORM_10K_±1%_0402		EA	1.000	R159
0210	10100049	RES_NORM_15K_±5%_0402		EA	2.000	R68 R231
0220	10100073	RES_NORM_20K_±1%_0402		EA	1.000	R42
0230	10100077	RES_NORM_22K_±1%_0402		EA	6.000	R3 R10 R49 R152 R184 R226
0240	10100123	RES_NORM_47K_±5%_0402		EA	10.000	R6 R11 R48 R69 R70 R117 R146 R212 R219 R
0250	10100255	RES_NORM0255_49.9K_±1%_0402		EA	1.000	R168
0260	10100279	RES_NORM_56K_±1%_0402		EA	2.000	R25 R28
0270	10100155	RES_NORM_68K_±1%_0402		EA	5.000	R19 R24 R32 R129 R137
0280	10100182	RES_NORM_100K_±5%_0402		EA	2.000	R52 R132
0290	10100192	RES_NORM0192_120K_±1%_0402		EA	1.000	R33
0300	10100197	RES_NORM0197_130K_±1%_0402		EA	4.000	R127 R128 R135 R136
0310	10100201	RES_NORM0201_150K_±1%_0402		EA	1.000	R20
0320	10100208	RES_NORM0208_200K_±1%_0402		EA	1.000	R30
0330	10100231	RES_NORM0231_330K_±1%_0402		EA	1.000	R126
0340	10100013	RES_NORM_1M_±5%_0402		EA	6.000	R31 R59 R114 R130 R133 R134
0350	10100005	RES_NORM_0R_±5%_0603		EA	1.000	R175
0360	10100041	RES_NORM_10R_±5%_0603		EA	1.000	R177
0370	10100188	RES_NORM_100R_±5%_0603		EA	1.000	R21
0380	10100003	RES_NORM_0R_±5%_0805		EA	1.000	R34
0390	10100358	RES_NORM_50mR_±1%_0805		EA	2.000	R26 R27

0400	10110008	RES_ARR_22R_±5%_8P4R-0402		EA	5.000	RA2 RA3 RA5 RA6 RA7
0410	10110013	RES_ARR_47R_±5%_8P4R-0402		EA	1.000	RA1
0420	10130001	RES_VAR0001_12V_3.5PF_0402		EA	21.000	R75 R90 R94 R95 R96 R97 R98 R99 R100 R11
0420	10130005	RES_VAR_70V_3pF_0402_SDV1005S140C030YPTF		EA	21.000	R75 R90 R94 R95 R96 R97 R98 R99 R100 R11
0430	10009004	CAP_CER_10pF_50V_0402		EA	1.000	C56
0440	10000078	CAP_CER_12pF_50V_0402		EA	1.000	C53
0440	10009011	CAP_CER_12pF_50V_0402		EA	1.000	C53
0450	10000060	CAP_CER_22pF_50V_0402		EA	2.000	C57 C258
0460	10000063	CAP_CER_100pF_50V_0402		EA	1.000	C169
0470	10000005	CAP_CER_1nF_50V_0402		EA	8.000	C1 C164 C167 C174 C177 C202 C216 C257
0480	10000079	CAP_CER_2.2nF_50V_0402		EA	1.000	C150
0480	10009130	CAP_CER_2.2nF_50V_0402		EA	1.000	C150
0490	10000006	CAP_CER_10nF_50V_0402		EA	6.000	C14 C59 C67 C181 C249
0490	10000045	CAP_CER_10nF_25V_0402		EA	6.000	C14 C59 C67 C181 C249
0500	10000019	CAP_CER_47nF_10V_0402		EA	5.000	C52 C161 C162 C173 C176
0510	10000008	CAP_CER_100nF_16V_0402		EA	94.000	C2 C5 C18 C21 C60 C61 C62 C63 C69 C70 C7
0520	10000031	CAP_CER_220nF_10V_0402		EA	1.000	C10
0530	10000028	CAP_CER_1uF_6.3V_0402		EA	29.000	C7 C9 C16 C51 C54 C58 C66 C68 C73 C74 C9
0530	10009102	CAP_CER_1uF_6.3V_0402		EA	29.000	C7 C9 C16 C51 C54 C58 C66 C68 C73 C74 C9
0540	10000067	CAP_CER_2.2uF_6.3V_0402		EA	10.000	C11 C12 C39 C42 C43 C44 C46 C47 C49 C50
0550	10000037	CAP_CER_4.7uF_6.3V_0603		EA	15.000	C22 C23 C24 C41 C45 C48 C64 C111 C129 C1
0550	10009109	CAP_CER_4.7uF_6.3V_0603		EA	15.000	C22 C23 C24 C41 C45 C48 C64 C111 C129 C1
0560	10000077	CAP_CER_10uF_6.3V_0603		EA	23.000	C13 C15 C27 C28 C30 C32 C33 C35 C38 C71
0560	10009087	CAP_CER_10uF_6.3V_0603		EA	23.000	C13 C15 C27 C28 C30 C32 C33 C35 C38 C71
0570	10000020	CAP_CER_470nF_50V_0805		EA	2.000	C191 C192
0580	10000039	CAP_CER_22uF_6.3V_0805		EA	9.000	C6 C20 C29 C31 C34 C36 C65 C139 C156
0580	10009107	CAP_CER_22uF_6.3V_0805 Height:1.25mm		EA	9.000	C6 C20 C29 C31 C34 C36 C65 C139 C156
0590	10000076	CAP_CER_10uF_10V_0805		EA	1.000	C19
0590	10009050	CAP_CER_10uF_10V_0805		EA	1.000	C19
0600	10020023	CAP_TAN_47uF_6.3V_A type		EA	1.000	C8
0600	10020028	CAP_TAN_47uF_6.3V_A type		EA	1.000	C8
0610	10020027	CAP_TAN_100UF_6.3V_Atype		EA	2.000	C158 C159
0620	11300001	CRYS0001_32.768KHZ_20PPM_12.5pF		EA	1.000	Y1
0630	11300051	CRYS_24MHz_±20ppm_18pF_3225		EA	1.000	Y2
0640	11110002	DIO_SB0002_BAT54C		EA	1.000	D1
0650	11120001	DIO_SW0001_LL4148/PMLL4148L		EA	1.000	D5
0660	11110007	DIO_SB_40V_1A_SOD-123		EA	2.000	D10 D11
0660	11110014	DIO_SB0014_SS1040		EA	2.000	D10 D11
0670	11120002	DIO_SW_30V_200mA_SOD-523_LRB520S-30T1G		EA	3.000	D2 D9 D13
0680	11150035	DIO_TVS_TVU1240R1A_2.5*1.0*0.5mm		EA	2.000	U24 U25
0680	11150040	DIO_TVS_ESDA6V8UD-10/TR_DFN10		EA	2.000	U24 U25
0690	11150009	DIO_TVS_6.2V_±15KV/10KV_1.2pF		EA	2.000	D7 D8
0700	11020001	TRI_NMOS0001_2N7002_SOT-23-3		EA	6.000	Q5 Q8 Q17 Q18 Q19 Q20
0710	11020011	TRI_NMOS_±6V_830mA_SOT-23		EA	3.000	Q3 Q12 Q13

0720	11030008	TRI_PMOS_MI2305_SOT-23		EA	4.000	Q4 Q9 Q11 Q16
0720	11030015	TRI_PMOS_±12V_-4.2A_SOT-23-3		EA	4.000	Q4 Q9 Q11 Q16
0730	11010002	TRI_PNP0002_MMBT3906		EA	1.000	Q14
0740	11000003	TRI_NPN0003_MMBT3904		EA	5.000	Q2 Q6 Q10 Q15 Q21
0740	11000007	TRI_NPN0007_S9014		EA	5.000	Q2 Q6 Q10 Q15 Q21
0750	10230015	IND_BEAD_600Ω_300mA_0.7Ω		EA	2.000	FB5 FB6
0760	10230008	IND_BEAD_120Ω_1A_0.1Ω		EA	4.000	FB1 FB2 FB3 FB4
0770	10220092	IND_PWR_2.2uH_1.48A_3*3*1.5mm		EA	2.000	PL2 PL4
0780	10220083	IND_PWR_2.2uH_2.3A_4*4*1.5mm		EA	3.000	PL1 PL3 PL5
0790	10220090	IND_PWR_10UH_1.4A_4*4*1.8mm		EA	1.000	PL6
0790	10220095	IND_PWR_10uH_1.3A_4*4*1.8mm		EA	1.000	PL6
0800	12300038	CPU_1.6GHz_RK3188-T_TFBGA-453		EA	1.000	U9
0810	12400019	IC_PMU_ACT8846QM460-T_TQFN66-48		EA	1.000	U6
0820	12580075	IC_OTH_reset IC_IMP809REUR-T_SOT23-3		EA	1.000	U7
0830	12430063	IC_DC-DC_SGM3732YTN6G/TR_TSOT23-6		EA	1.000	U22
0840	12410013	IC_CHA_0Z8556LN_QFN-28		EA	1.000	U3
0850	12410002	IC_CHA_LC6000CB5TR		EA	1.000	U4
0850	12410006	IC_CHA_WPM4054-5/TR		EA	1.000	U4
0860	12520034	IC_AMP_Mono Class-D Audio_MD4103D_DFN-8		EA	2.000	U20 U21
0870	12540044	IC_AV_RK610-G BGA144_BGA-144		EA	1.000	U19
0880	12490014	IC_OTH_LPW5208LB5F_SOT23-5		EA	1.000	U10
0880	12550040	IC_OTH_AP2151WG		EA	1.000	U10
0890	12580016	IC_OTH0016_PCF8563TS		EA	1.000	U8
0890	12580056	IC_OTH_clock IC_AT8563S_MSOP-8		EA	1.000	U8
0900	12420003	IC_LDO_VA7318XFR-A		EA	1.000	U31
0900	12420026	IC_LDO_BL9193-33BAPRN		EA	1.000	U31
0900	12420035	IC_LDO0035_RT9193-33GB		EA	1.000	U31
0900	12420058	IC_LDO_3.3V300mA_SOT235_SGM20193.3YN5GTR		EA	1.000	U31
0910	13100003	JAC_PWR_0.5A_50V_0.65mm		EA	1.000	CON1
0920	13120023	JAC_USB_MIRCO_B type_5pin_plug-in unit: crescent-shaped		EA	1.000	CON3
0930	13130002	JAC_CAD_TF		EA	1.000	CON4
0930	13130006	JAC_CAD_TF		EA	1.000	CON4
0930	13130034	JAC_CAD_TF_MR02-AP401-42_10PIN with registration mast		EA	1.000	CON4
0940	13110027	JAC_EAR_Inner hole diameter 3.6mm_pulg-in unit_KJ381ANH-1BBJ03A		EA	1.000	CON6
0950	13200096	CON_FPC_30PIN_space 0.5mm_plug in forward lift backward, connect upper with bottom_horizontal_height 1.5mm		EA	1.000	CON9
0960	13140011	JAC_HDMI_C type_1032119324311202		EA	1.000	CON12
0970	13200078	CON_FPC_24PIN_space 0.5mm_flip,connet bottom_horizontal_height 1.5mm		EA	1.000	CON13
0980	13000546	PCB_NORM_MK92_V2.2_6 layer_4 panel_OSP with gole immersion technic		EA	1.000	
0990	18090051	heat-transfer silicon_15*15*0.5mm		EA	1.000	
1000	16040454	shielding Case_CPU_MK92_59.3*55.1*1.8*0.2mm		EA	1.000	
1010	MP92V22-GSENSOR1	MP92V22GSENSOR configurated with MMA8452Q		EA	1.000	
1010	MP92V22-GSENSOR2	MP92V22GSENSOR configurated with BMA222		EA	1.000	

1020	10100002	RES_NORM_0R_±5%_1206		EA	1.000	D6
1030	10100069	RES_NORM_1.5M_±5%_0402		EA	1.000	R217
	MP92V22-FLASH-8GE1	MP92V22FLASH-8G-EMMC1			0.000	
0010	10000008	CAP_CER_100nF_16V_0402		EA	6.000	C105 C110 C115 C118 C123 C260
0020	10110002	RES_ARR_10K_±5%_8P4R-0402		EA	2.000	RA11 RA12
0030	10100035	RES_NORM_10K_±5%_0402		EA	2.000	R221 R222
0040	12050019	EMMC_8G_SM/UJ55U8GLX/T/SEA-B/FTTR_BGA153		EA	1.000	U16
	MP92V22-FLASH-8GL1	MP92V22FLASH-8G-LGA1			0.000	
0010	12040048	MLC_8GB_H27UCG8T2MYR-BC_LGA-52-gilded		EA	1.000	U15
0020	10000008	CAP_CER_100nF_16V_0402		EA	1.000	C122
	MP92V22-FLASH-8GT1	MP92V22FLASH-8G-TSOP1			0.000	
0010	12040071	MLC_8GB_H27UCG8T2BTR-BC_TSOP-48		EA	1.000	U17
0020	10000008	CAP_CER_100nF_16V_0402		EA	1.000	C122
	MP92V22-GSENSOR1	MP92V22GSENSOR configurated with MMA8452Q			0.000	
0010	10000008	CAP_CER_100nF_16V_0402		EA	3.000	C236 C237 C238
0020	10100035	RES_NORM_10K_±5%_0402		EA	2.000	R204 R205
0030	12580034	IC_OTH0034_MMA8452QR1		EA	1.000	U27
	MP92V22-GSENSOR2	MP92V22GSENSOR configurated with BMA222			0.000	
0010	10000008	CAP_CER_100nF_16V_0402		EA	2.000	C242 C243
0020	12580082	IC_OTH_Three axis acceleration sensor_BMA222EF_LGA-12		EA	1.000	U29
0020	33000013	SW_License_MID_FLASH Content erased software		EA	1.000	

Maintenance Manual for Tablet PMP5101C_QUAD

This manual describes common failures and troubleshooting from the angle of circuit principles. It is for your information. This manual introduces in general positions for circuit investigation. Please refer to maintenance schematic diagram for circuit details.

I. Booting Failure

The phenomena of booting failure include no display of LCD (and no backlight), no speaker sounds, no response of touch screen when touching, no response of power-on/ power-off key stroke and no response of reset. Reasons for these vary. Following the trouble shooting steps below for failures of different kinds.

1. Abnormal System Power Supply：

Firstly perform tests of short circuit to earth on the power test points on the board to eliminate cause of short circuit to earth. Connect the board to DC power or battery, Turn on the tablet and check the problem by the following steps.

Table 1 System Power Supply

Power Test Point	Normal Voltage Range	Reasons for Failures (Investigation Range)
DC 5V	5+/-0.5V	Plug with DC power, this point shall have 5+/-0.5V.
VSYS	3.5V-5V	This point is system main power, if abnormity, check if PMU well welded or if short circuit to earth..
VDD_ARM	1.2V+/-0.2V	This is CPU core power supply, if abnormity, check if PMU/PL6 well welded or if short circuit to earth.
VDD_LOG	1.2V+/-0.2V	This is CPU core power supply, if abnormity, check if PMU /PL4 well welded or if short circuit to earth.
VCC_DDR	1.5V+/-0.1V	This is power supply of CPU and memory, if abnormity, check circuit of PL3 part.
VCC_I0	3.1V +/-0.1V	This is I0 power supply, check circuit of PL5 part.

As PMP5101C used PMU, the abnormal in power maybe was due to the bad weld between the PMU and the components around.

2. Poor Welding or Abnormity of CPU, Memory and Flash：

After the above investigation, the system power supply should be normalized. The following circuits need to be checked.

。

a. Check if the CPU and peripheral components are well welded.

b. Check if Y1.Y2 crystal oscillates.

c. Check if RAM, Flash and peripheral components are well welded, if Flash card data lost

or if reprogram Flash.

3. No Display of LCD：

Confirm the current is normal and the equipment is started. But the LCD has no display when connected, do investigation by the following steps:

a. Firstly check if voltage of VCC_LCD is normal，the voltage should be 3.1V+/-0.1V, if the voltage is normal, it shows the system operated normal, the problem is in the LCD backlight. If abnormal, check the backlight IC and the components around and if short circuit to earth.

b. Connect the LCD, then check the backlight drive circuit, DC-DC voltage is normal.

c. If the system cannot be started after confirming that relevant components of the CPU, memory and Flash are well welded, please consider replacing Flash, CPU and memory.

II. Functional Fault Checking

1. Failure of Charging and Power Detection

Abnormal charging：For charging failure when DC is applied, check whether the welding of the components around PMU (U3 0Z8556LN) are welded well. Check if the battery is damaged, whether the surrounding circuit is ok.

The equipment does not work with battery power supply (but work with external power supply): Without external power supply, check if the voltage of VSXS is normal and if the circuit of PMU part is normal.

2. Abnormal Operation of USB and USB Peripheral

Detection failure of USB insertion：While connecting MID with PC via USB cable, USB insertion cannot be detected. It mainly due to the USB Connector and the Flash part.

The abnormal for USB Cable data transfer and USB external equipment: Check if the two cable of USB are short circuit to earth or short circuit between each cable.

OTG dysfunction：After plug the OTG cable , confirm if VCC_OTG has a voltage of around 5V when OTG cable inserted. Confirm if OTG-DET voltage is at a high level and confirm the TVS connects well.

.

3. Abnormal LCD Operation

Abnormal LCD backlight: Check if the circuit of U22 (SGM3732) is in normal.

Nonadjustable LCD backlight brightness: Check if the circuit of R144, R152, R155, R156 is normal.

Abnormal LCD color display：Check if the data transfer and LCD connect are weld well.

Touch screen abnormity:

Operating the touch screen adjusting procedure and check if it`s normal.

Check if display base is well welded. Check if the 12C is normal.

Replace the LCD screen.

Check if the touch screen connect weld well, if the screen connect and the CPU

connected well and if the CPU weld well.

4. Abnormal Operation of TF card

Detection failure of card insertion:

Check if the card support is damaged. And if they are weld well.

Check if the TF card connect PIN9 weld well or short circuit.

TF card read abnormal:

Check the TF card power VCC_SD is normal as 3.1V+/-0.1V，if abnormal, please check Q8 circuit.

Check if TF card peripheral components are well welded or if damaged.

5. Abnormal sounds

No sounds of earphone and speaker:

Check the related components.

Check if the earphone connect cord is damaged.

Earphone with sounds and speaker no sounds:

Check if the earphone is ok, if the speaker weld well, if the speaker is abnormal.

Abnormal sounds of earphone and speaker:

Check the related components.

6. WIFI abnormity：

WIFI can not scan：

Check VCC_WIFI, it should be 3.3V +/- 0.1V, if abnormal, check if the the USB Data is ok.

Check if all of the WIFI components are well weld.

Can not detect signal：

Check if the components around RF are well welded.

7. Camera Abnormity

Turn on the camera application and then check if related current is normal, if voltage of CSI-AVDD is around2.8V. Check if voltage of CAM_DVDD. is around 1.8V.

Check if the camera weld well.

8. HDMI abnormal.

Check if the voltage of HDMI is right, the voltage of HDMI_VDD50 should be around 5V.

If the voltage of HPD_HDMI is high level after connect to TV.

The HDMI connect and the PIN base is too close, check if it`s short circuit.

9. Other Failures

A. Large operation current of the system：Check if the main board has heating

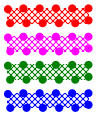
components. Test if the power test points of relevant heating components are short circuited to earth or with small resistance to earth. If yes, replace relevant components.

B. Booting Failure：

Firstly check if PMU related power is normal, if yes, then rewrite img file since the problem is maybe caused by img file loss. If the device can not boot after rewriting, probably there is something wrong with CPU or the memory.

CONTENT INDEXING

PCB POWER WIRE WIDTH INDICATE



above 80 miles
above 50 miles
above 30 miles
above 16 miles
No indicate
Under needs

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Title: INDEX		
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Version	Date	Author	Change Note	Note
V1.0	20121201	ZZW	First edictor	
V1.1	20121211	ZZW	1.page6:between arm_pwroff and PMU_PWREN add reverse circuit 2.page15:modify C270 value to 470nF 3.page 6:L2,L3 footprint change to 5x5,PMIC RSTO add pull up resistor	

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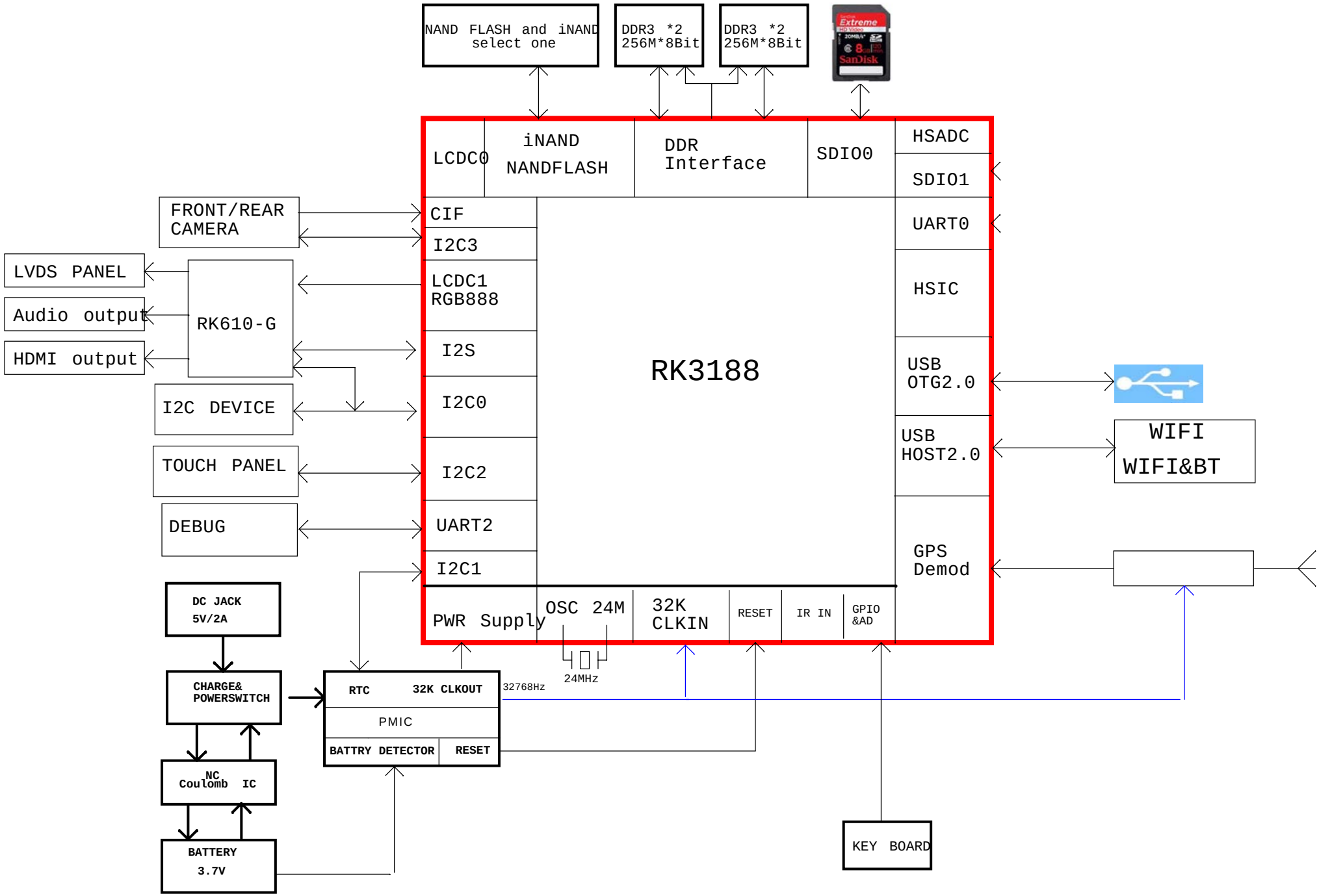
Title: Modify note

Size: A3 | Document Number: MK92_V2.2 | Rev: V1

Date: Tuesday, June 25, 2013 | Sheet 2 of 16



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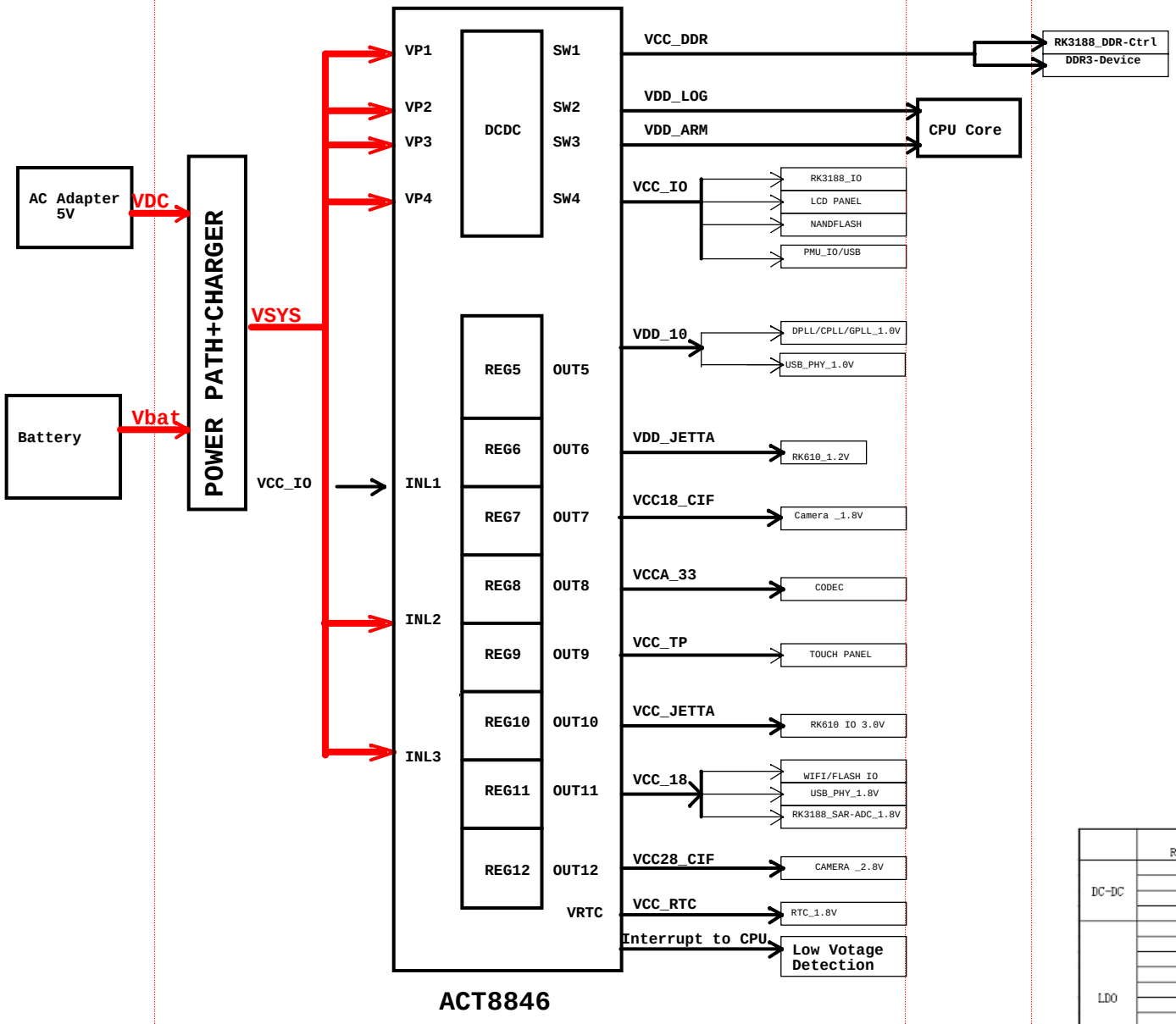
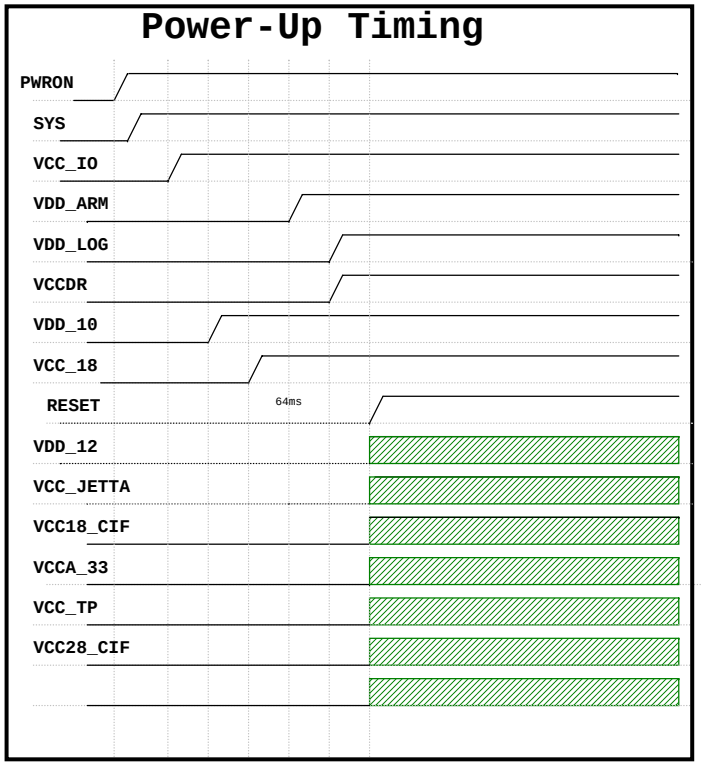
Title	Block Diagram	
Size A3	Document Number MK92_V2.2	Rev V1
Date: Tuesday, June 25, 2013	Sheet 3 of 16	





	ACT8846 REGULATOR	RK3188 POWER	MAX CURRENT	DEFAULT VOLTAGE	POWER UP ORDER	ON/OFF@SLEEP	备注
DC-DC	REG1	Vcc_DDR	1.5A	1.2V/ON	5		DDR
	REG2	Vdd_LOG	2.8A	1.0V/ON	5		LOGIC
	REG3	Vdd_ARM	2.8A	1.0V/ON	4	ARM OFF	ARM
	REG4	Vcc_IO	1.5A	3.0V/ON	1		I/O
LDO	REG5	Vdd_10	150mA	1.0V/ON	2		PLL, PMU
	REG6	VDD_12	150mA	1.2V/OFF			JETTA
	REG7	Vcc18_CIF	350mA	1.8V/OFF			CAMERA
	REG8	VccA_33	350mA	3.3V/OFF			CODEC
	REG9	Vcc_TOUCH	350mA	3.3V/OFF			TP
	REG10	VCC_JETTA	150mA	3.3V/OFF			JETTA
	REG11	Vcc_18	350mA	1.8V/ON	3		USB, ADC, FALSH IO/WIFI I/O
	REG12	Vcc28_CIF	350mA	2.8V/OFF			CAMERA
	REG13	VRTC	50mA	1.8V/ ALWAYS ON			

POWER DIAGRAM

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Title: System power diagram

Size: A3 | Document Number: MK92_V2.2 | Rev: V1

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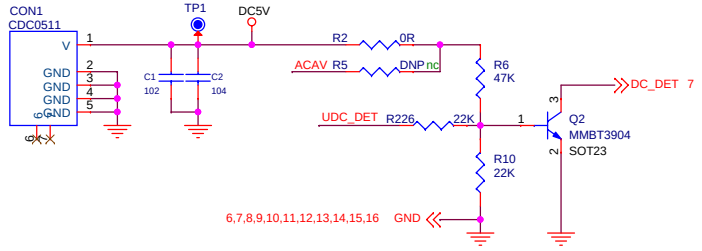
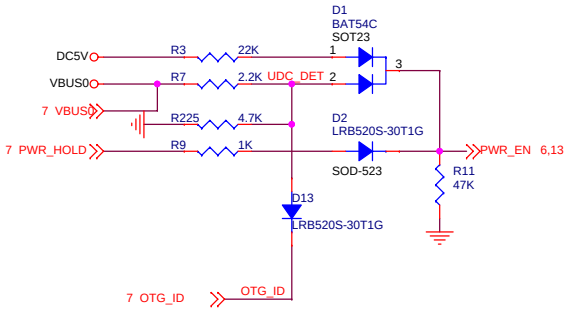
POWER INPUT

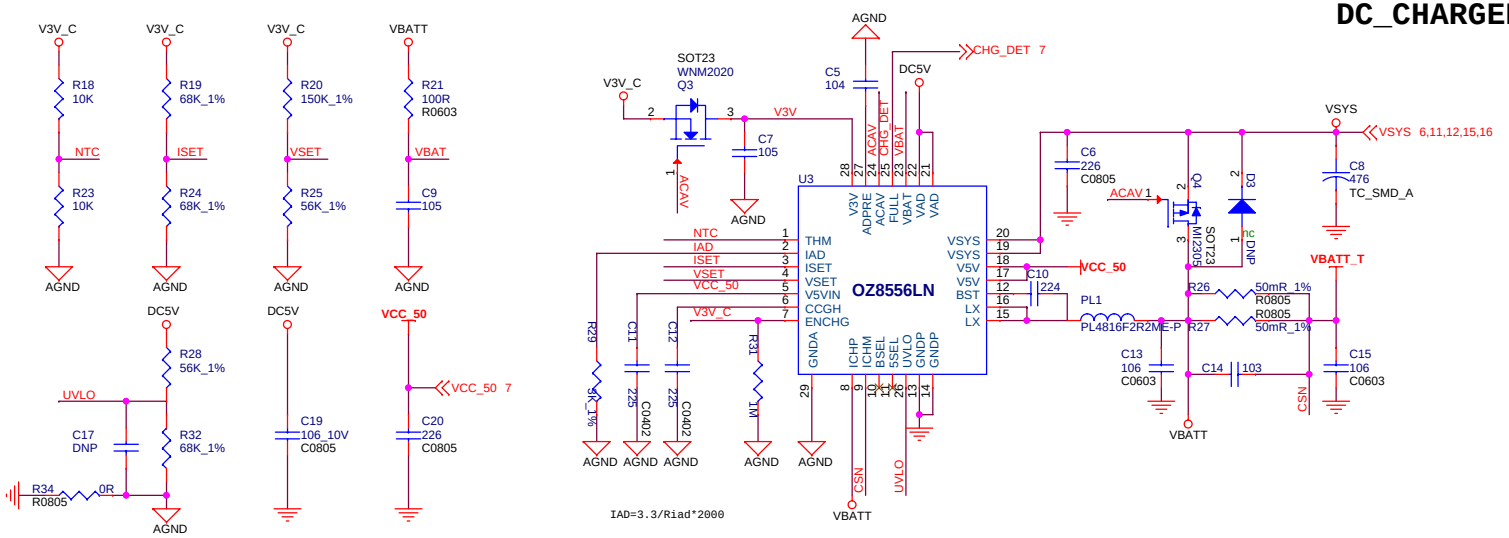


POWER CONTROL



ADC采样切换 开关

DC_CHARGER



$$I_{CHG} = \frac{V_{ISET}}{50 \times R_{CS}} (A) \quad (3)$$

The charging current also depends on the value of the sense resistor: R_{CS}. For a 25mΩ resistor and 2.5V V_{ISET}

adapter UVP threshold is set by the below formula:

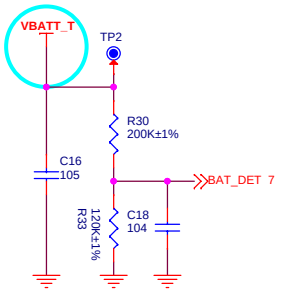
$$V_{AD\_UVP} = 2.415 \times (1 + \frac{R_7}{R_8}) (V) \quad (1)$$

For example R_7=R_8=100kΩ as in the application schematic, the adapter UVP threshold is 4.83V typical.

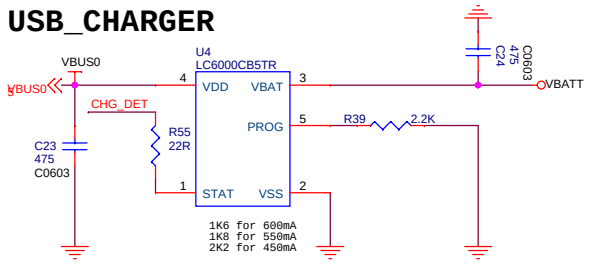
$V_{CHG} = 3.6 + (3.3V - VSET)/4$

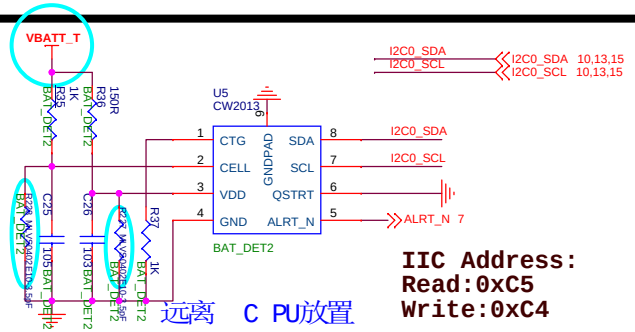
Charging voltage range is from 4.425V to 3.6V.

BATTERY	1Li-Ion cells or equivalent
V_{VSET} = 0V	4.425V
V_{VSET} = 0.9V	4.206V
V_{VSET} = 3.3V	3.6V

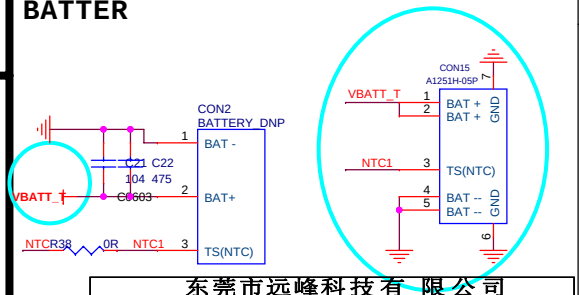


USB_CHARGER





BATTER



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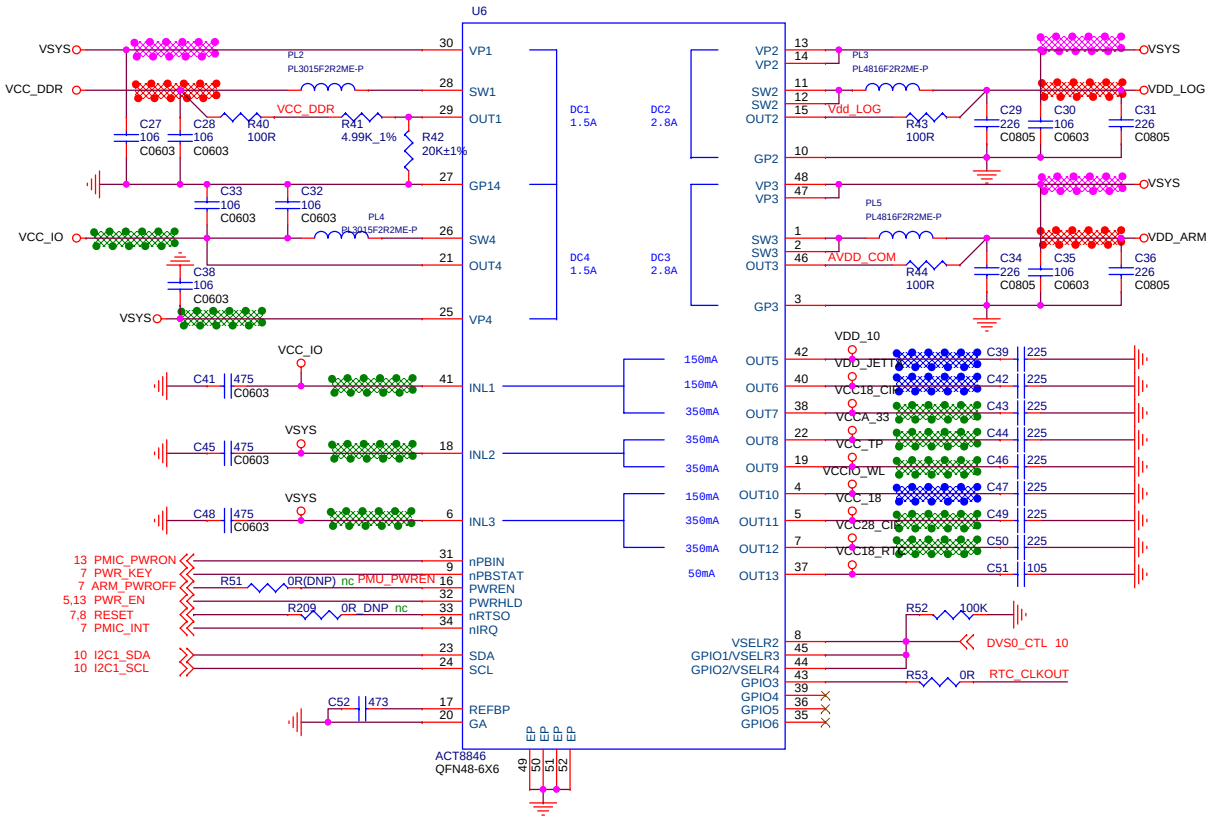
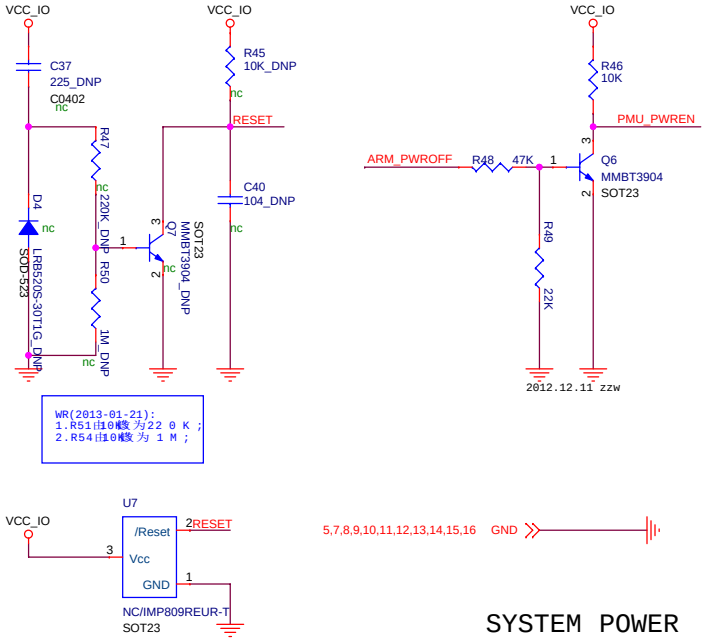
Title	Charge&BOOST		
Size A3	Document Number MK92_V2.2		Rev V1
Date: Tuesday, June 25, 2013	Sheet 5 of 16		



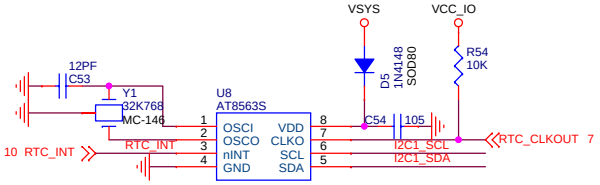
	ACT8846 REGULATOR	RK3188 POWER	MAX CURRENT	DEFAULT VOLTAGE	POWER UP ORDER	ON/OFF@SLEEP	备注
DC-DC	REG1	Vcc_DDR	1.5A	1.2V/ON	5		DDR
	REG2	Vdd_LOG	2.8A	1.0V/ON	5		LOGIC
	REG3	Vdd_ARM	2.8A	1.0V/ON	4	ARM OFF	ARM
	REG4	Vcc_IO	1.5A	3.0V/ON	1		I/O
LDO	REG5	Vdd_10	150mA	1.0V/ON	2		PLL, PMU
	REG6	VDD_12	150mA	1.2V/OFF			JETTA
	REG7	Vcc18_CIF	350mA	1.8V/OFF			CAMERA
	REG8	VccA_33	350mA	3.3V/OFF			CODEC
	REG9	Vcc_TOUCH	350mA	3.3V/OFF			TP
	REG10	VCC_JETTA	150mA	3.3V/OFF			JETTA
	REG11	Vcc_18	350mA	1.8V/ON	3		USB, ADC, FALSH IO/WIFI I/O
	REG12	Vcc28_CIF	350mA	2.8V/OFF			CAMERA
	REG13	VRTC	50mA	1.8V/ ALWAYS ON			

PCB POWER WIRE WIDTH INDICATE

above 80 miles
above 50 miles
above 30 miles
above 12 miles
No indicate — Under needs



SYSTEM POWER



I2C Address:
Read:0A3H
Write:0A2H

10 AVDD_COM
7,13 VCC_18
13 VCC_TP
15 VCC18_CIF
7,9,10,11,12,13,14,15,16 VCC_IO
12,14 VDD_JETTA
7 VDD_10
11,14 VCCA_33
16 VCCIO_WL
15 VCC28_CIF
10 VDD_ARM
8 VCC_DDR
10 VDD_LOG
5,11,12,15,16 VSYS

AVDD_COM
VCC_18
VCC_TP
VCC18_CIF
VCC_IO
VDD_JETTA
VDD_10
VCCA_33
VCCIO_WL
VCC28_CIF
VDD_ARM
VCC_DDR
VDD_LOG
VSYS

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Title	PMU		
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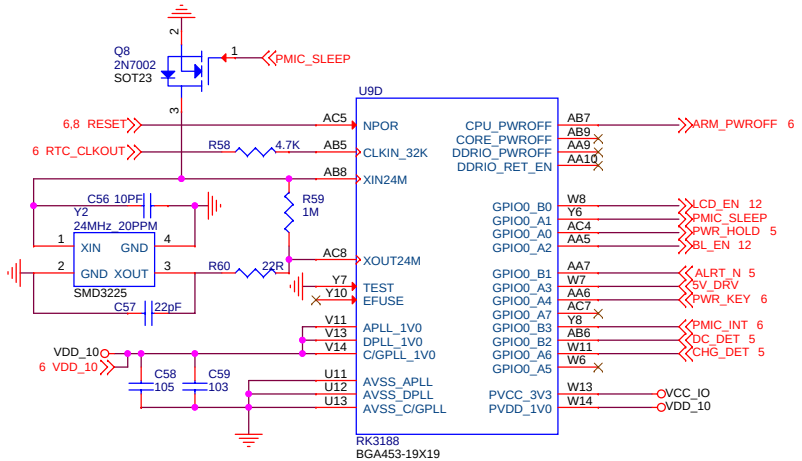
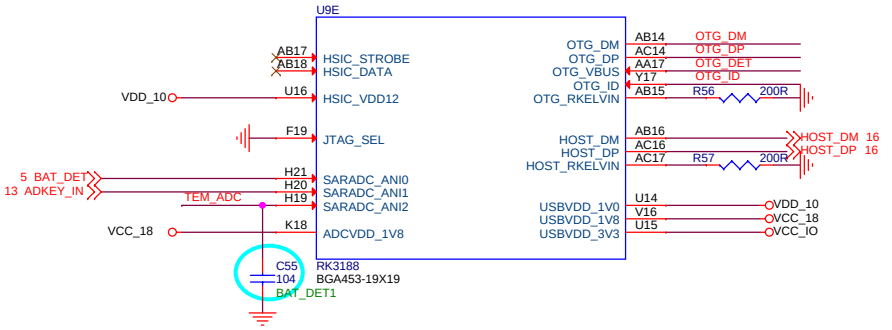
Note:
Adjusted the load capacitance
according to the crystal specification.

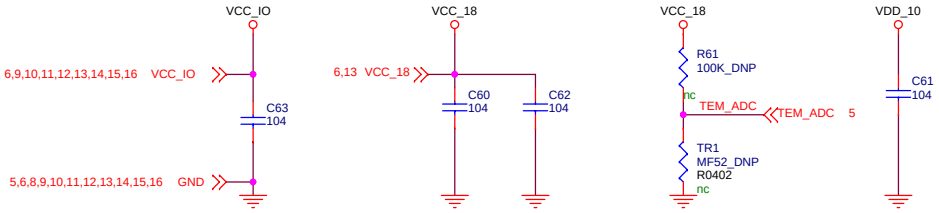
Note:
Reduce the power consumption in deep sleeping.
Place it near to crystal.



RK3188_D

USB_DET

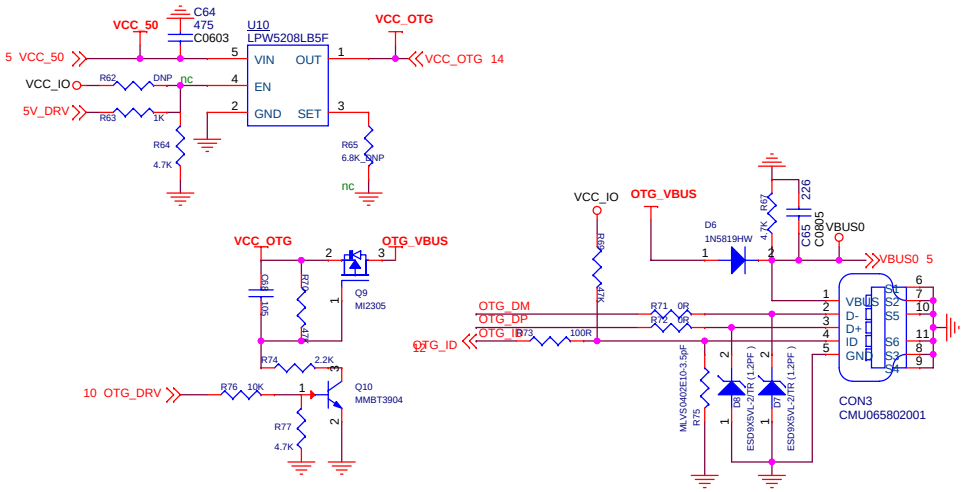


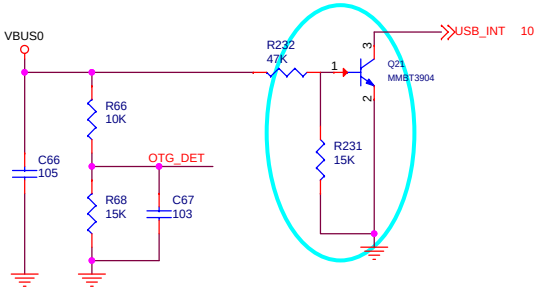


温 度 检 测
靠近 C PU放置

RK3188_E

USB HOST POWER





东莞市远峰科技有限公司		
Title: USB OTG/VIB		
Size: A3	Document Number: MK92_V2.2	Rev: V1
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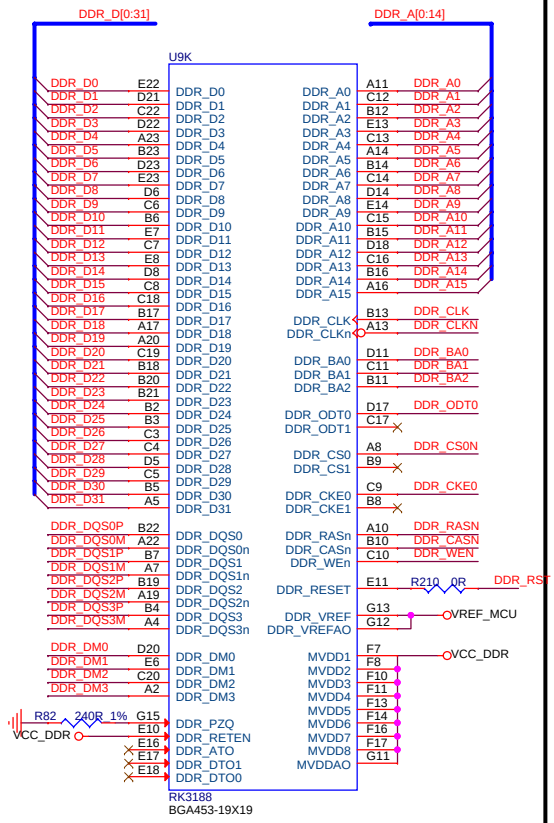
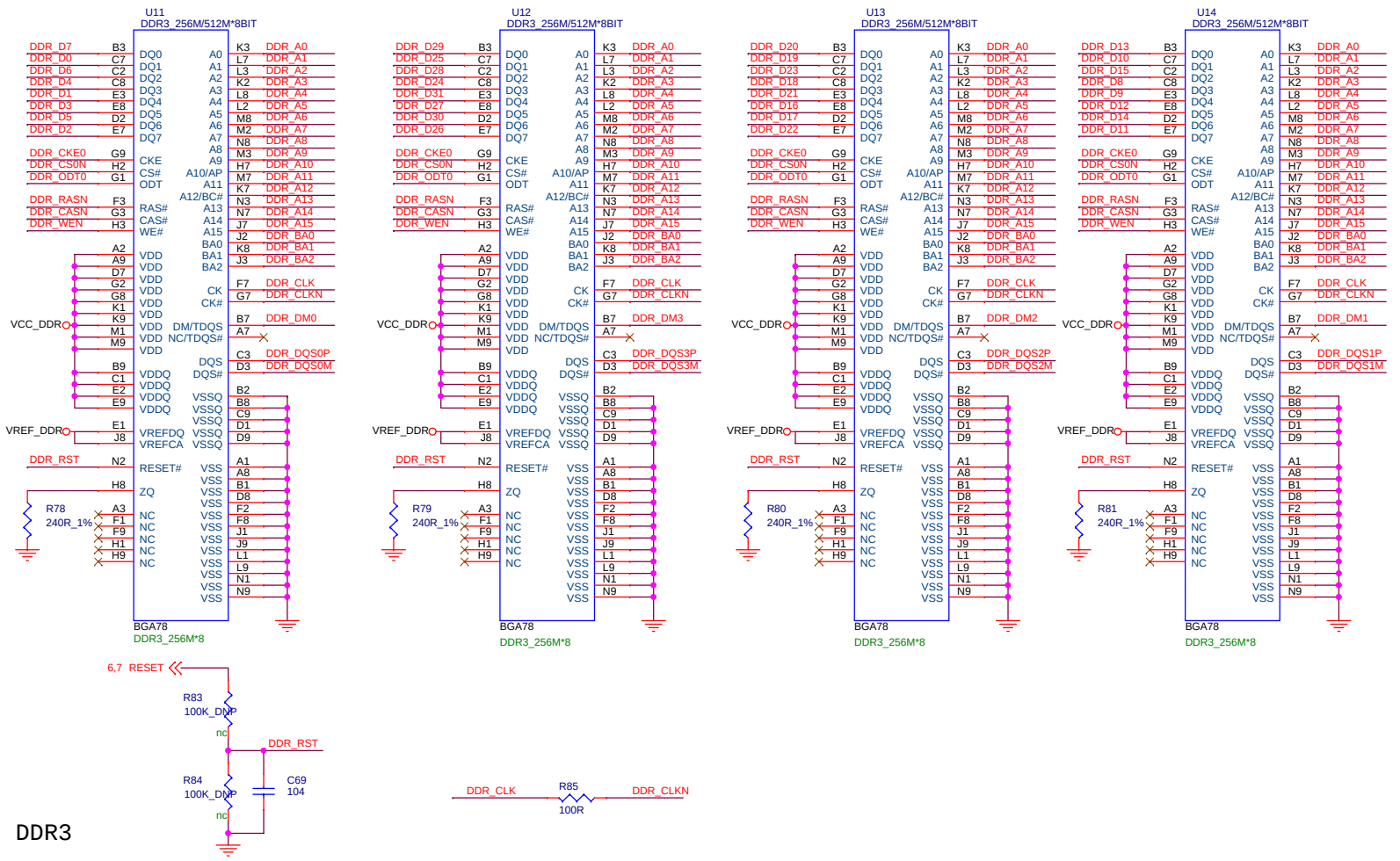
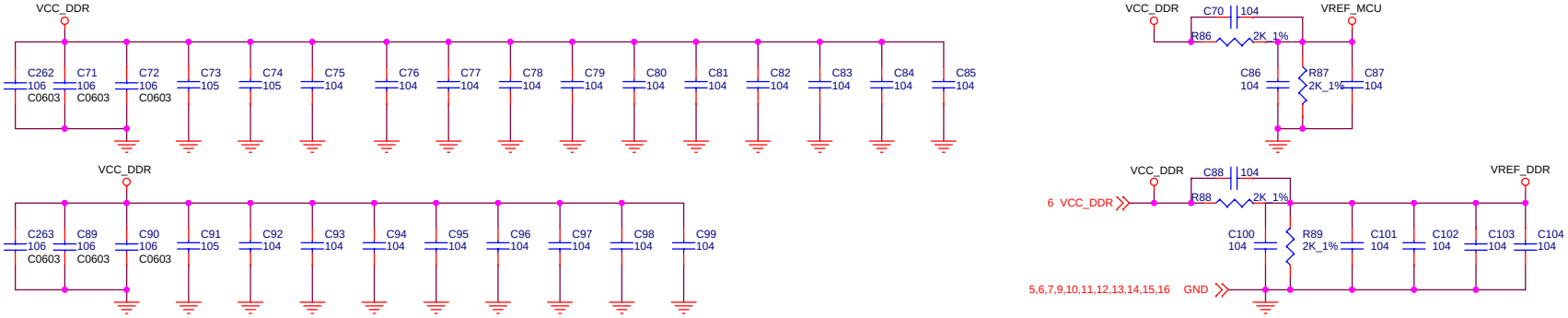


RK3188_K



DDR3



DDR FILTER

东莞市远峰科技 有限公司		
Title: DDR3*4		
Size: A3	Document Number: MK92_V2.2	Rev: V1
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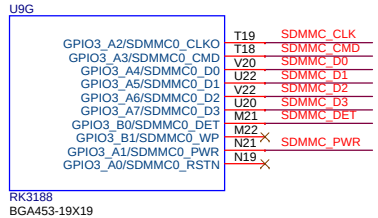
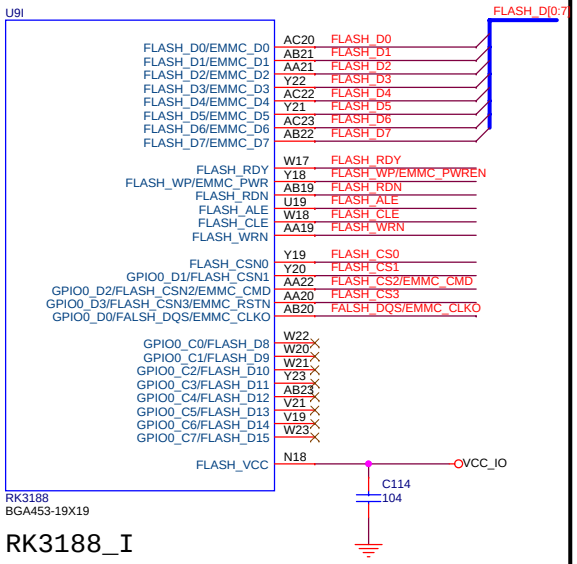
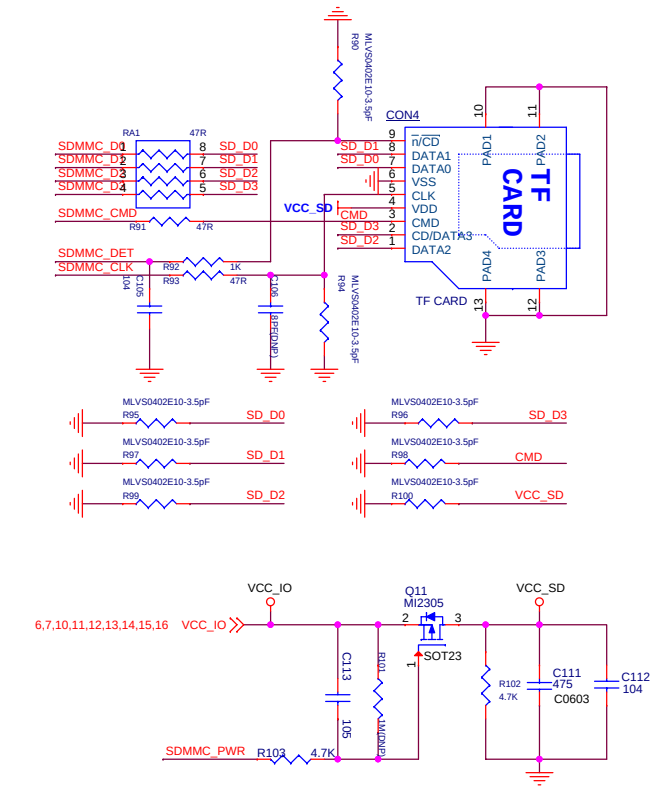


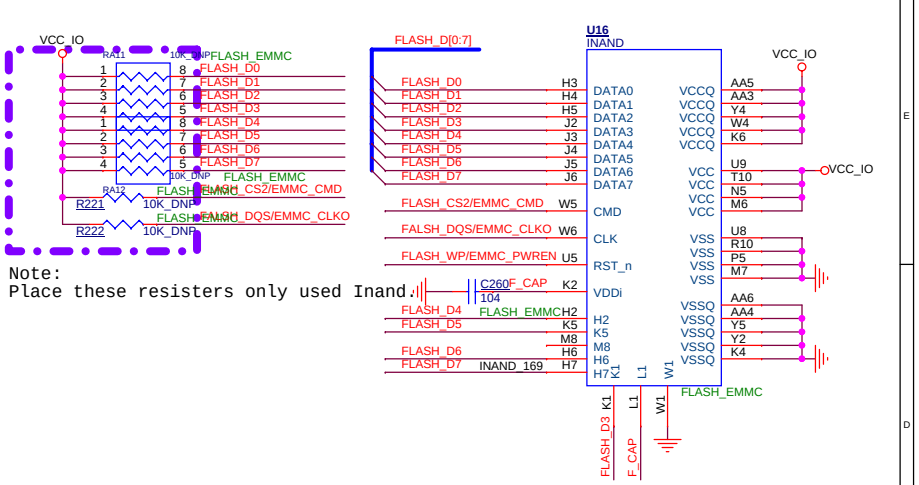
RK3188_G



RK3188_I



TF_CARD



Note:
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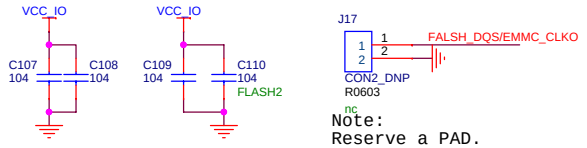
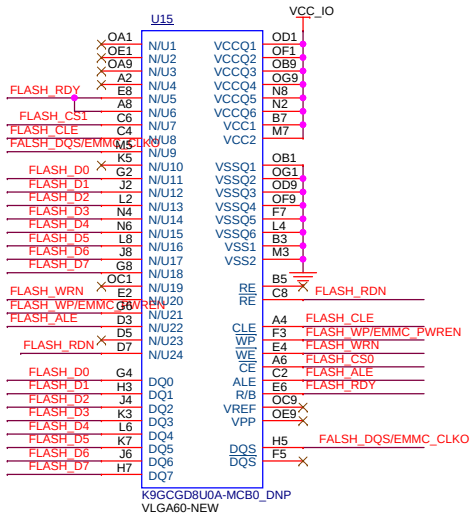


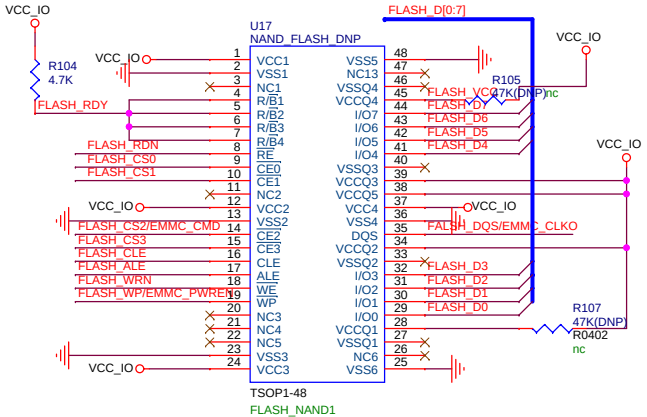
Note:
Reserve a PAD.

INAND(OPTION3)

LGA NANDFLASH 2

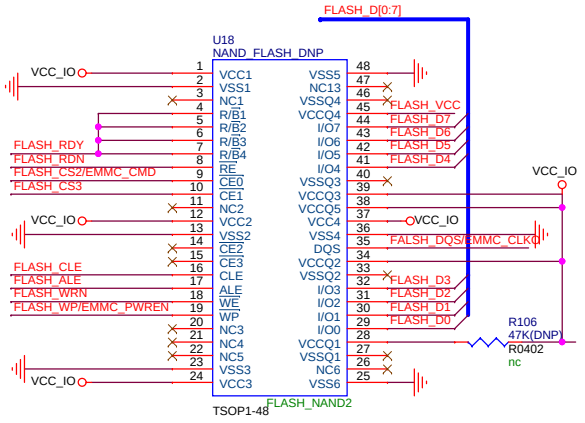


LGA FLASH(OPTION1)

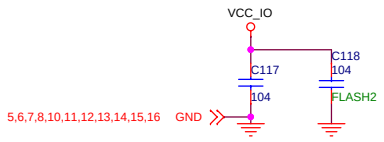


Note:
Reserve a PAD.

TSSOP FLASH(OPTION1)



TSSOP FLASH(OPTION2)



东莞市远峰科技有限公司		
Title: Flash/TF card		
Size: A3	Document Number: MK92_V2.2	Rev: V1
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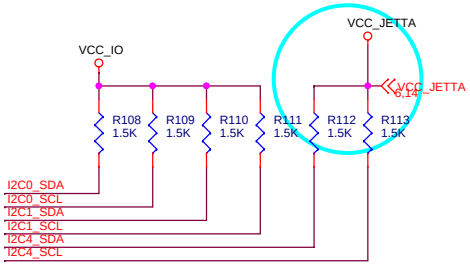
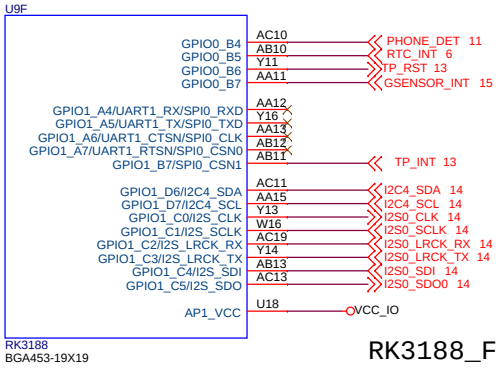
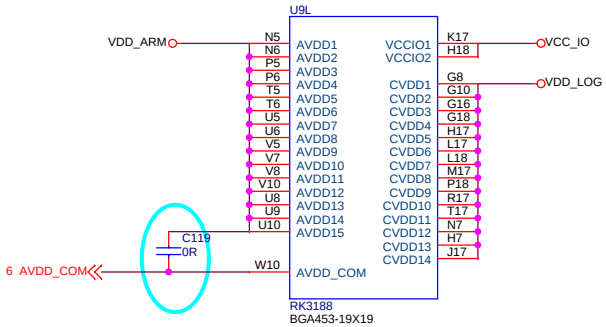


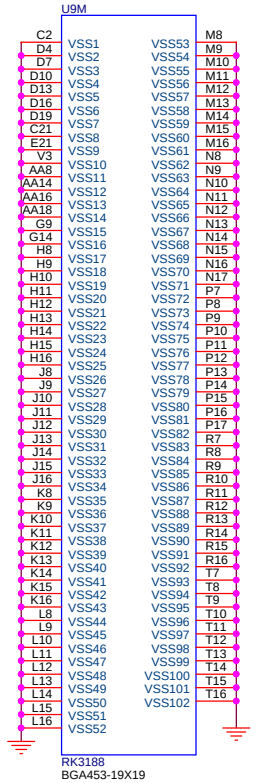


RK3188_F



RK3188_L

Note:
Place these filter capacitors under CPU.



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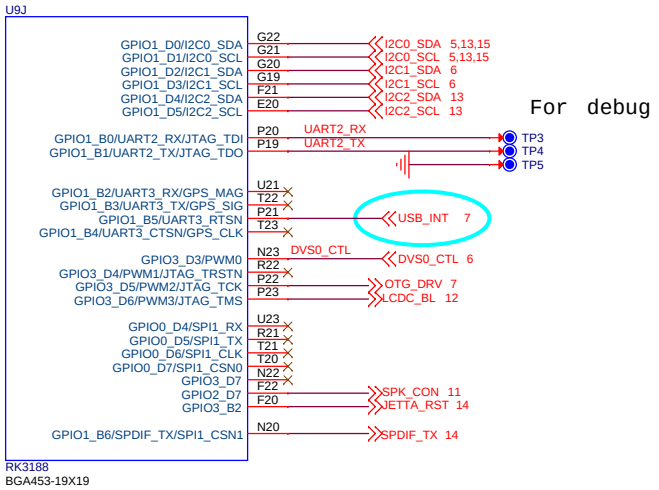
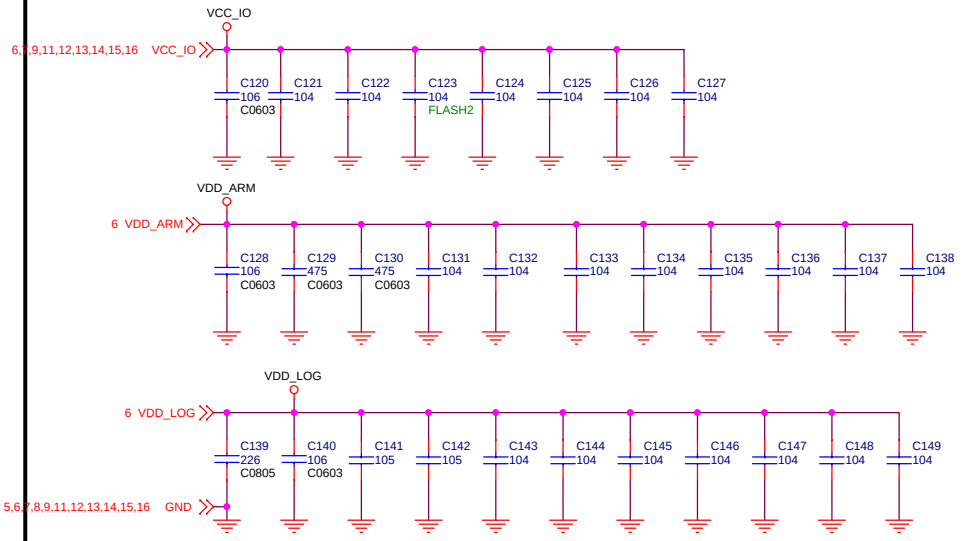


RK3188_J



RK3188 CORE POWER FILTER

东莞市远峰科技有限公司		
Title: GPIO		
Size: A3	Document Number: MK92_V2.2	Rev: V1
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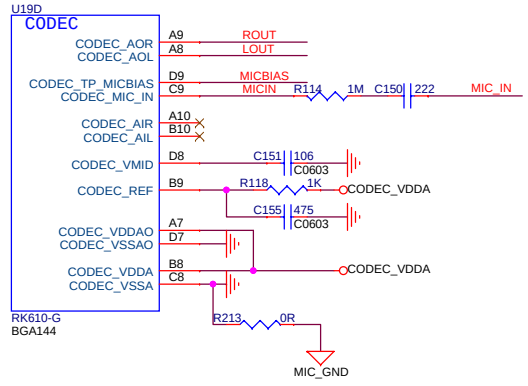
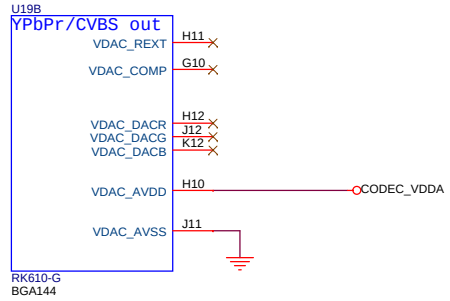
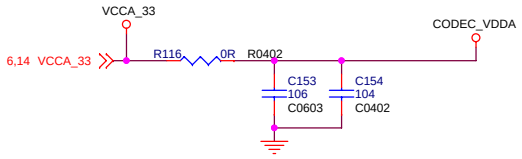
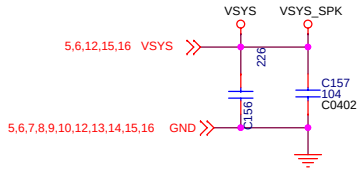
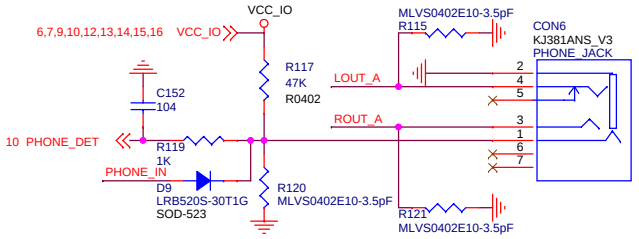
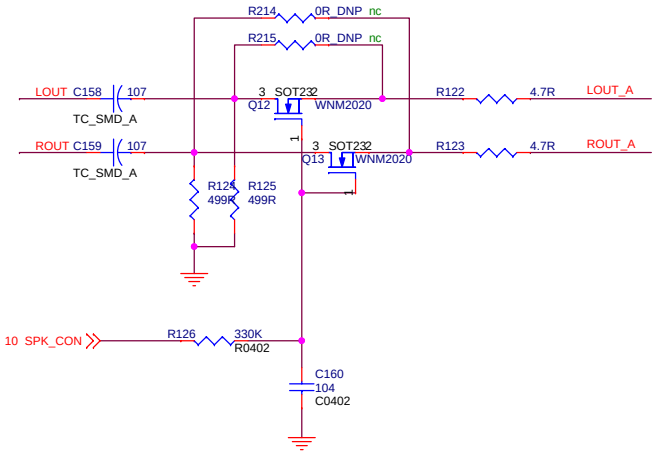


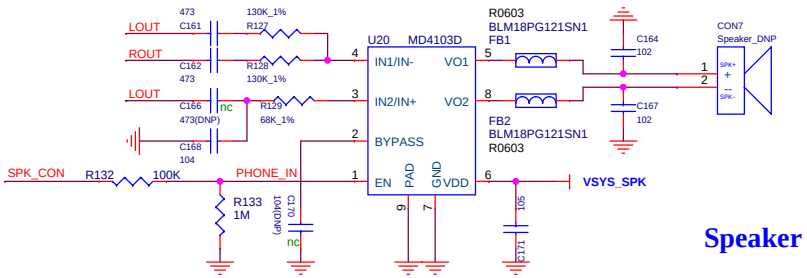


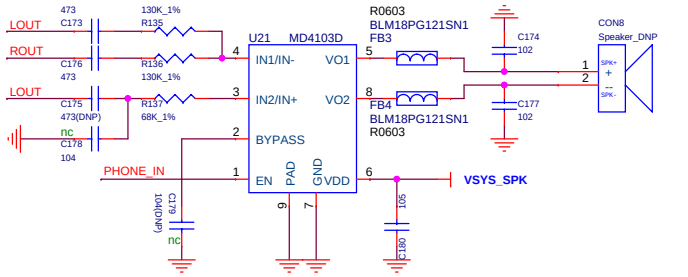




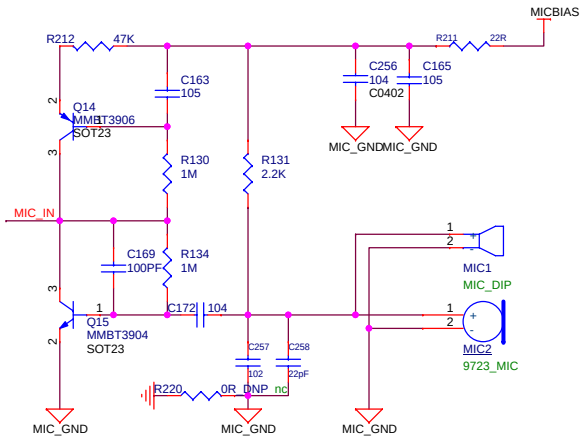








Speaker



MIC

东莞市远峰科技有限公司

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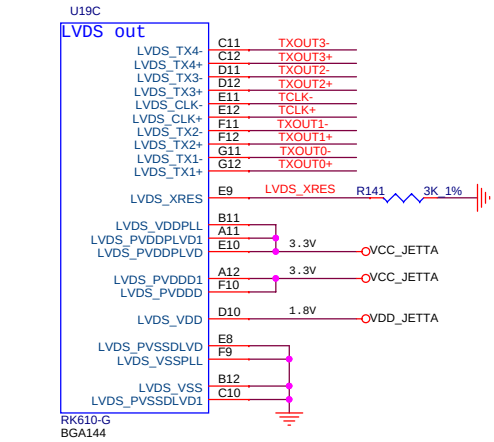
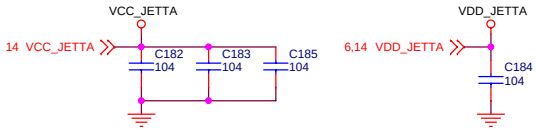
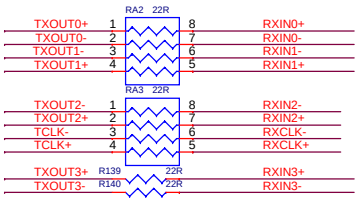
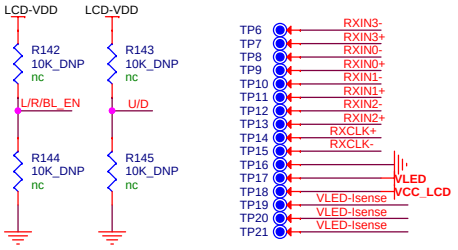
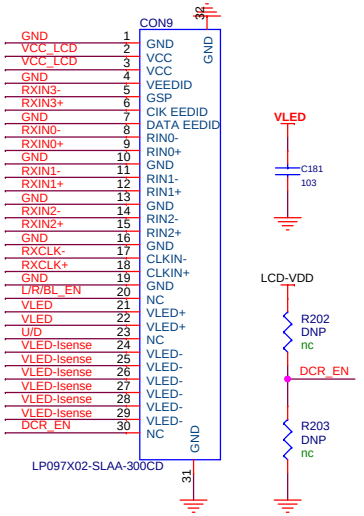
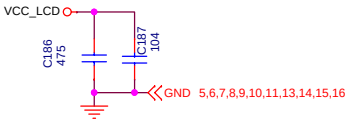


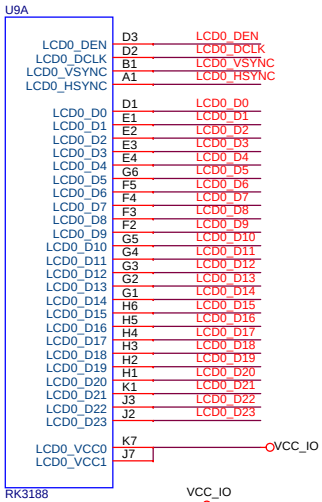


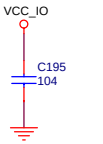


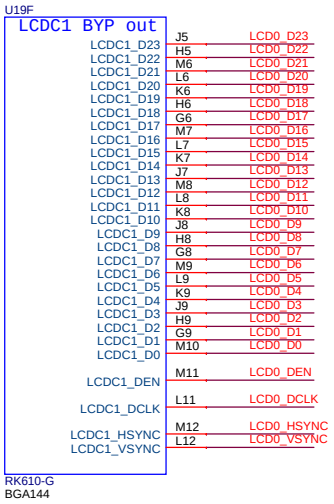




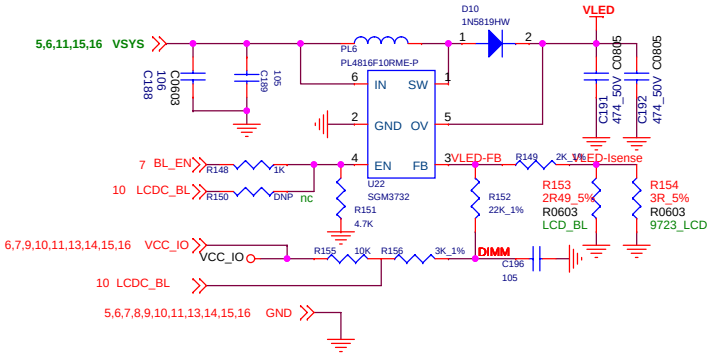


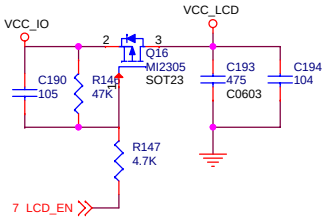






LCD PANEL POWER





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Title: LCD panel		
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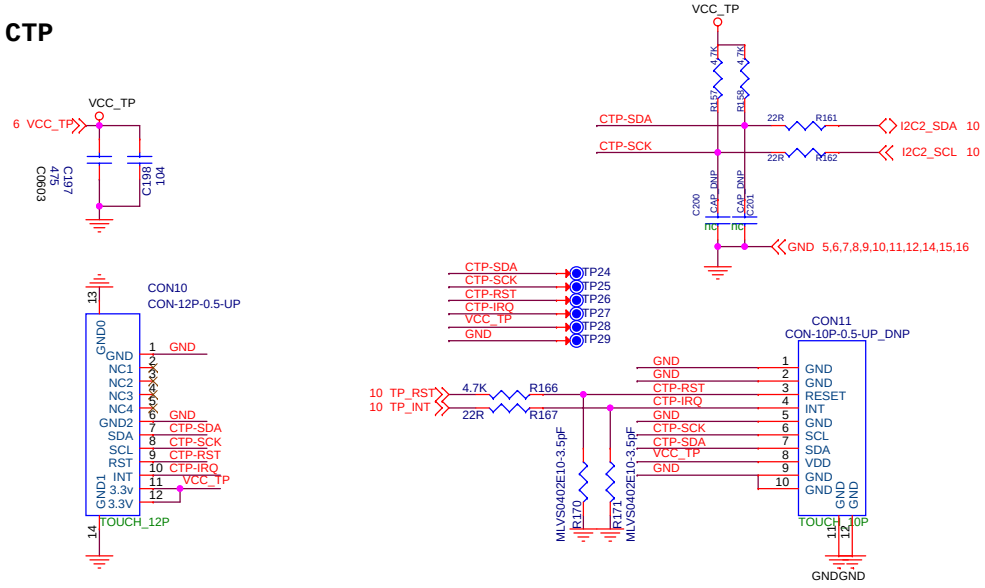
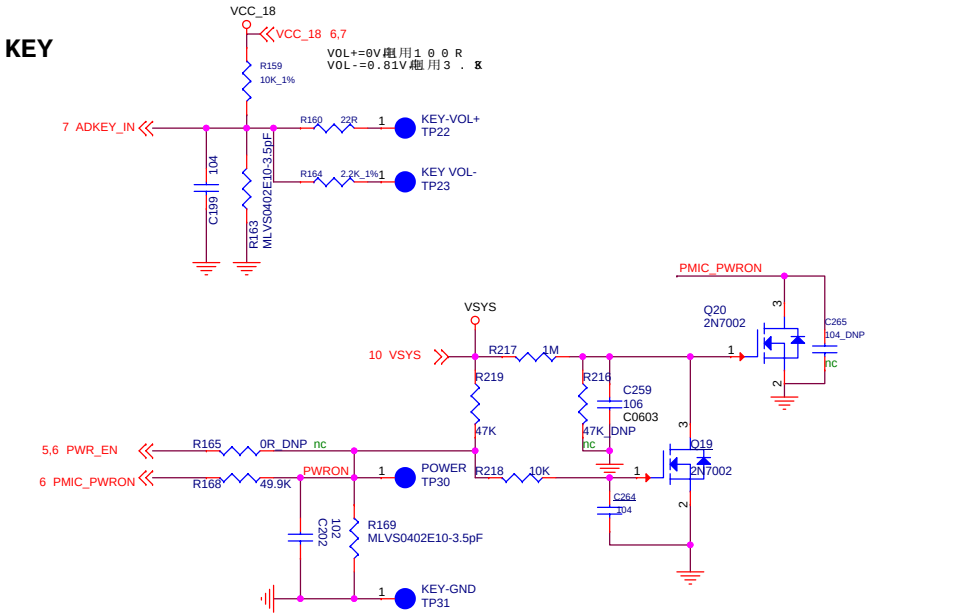
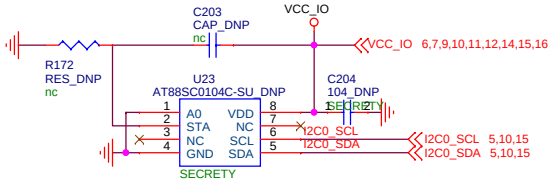
CTP

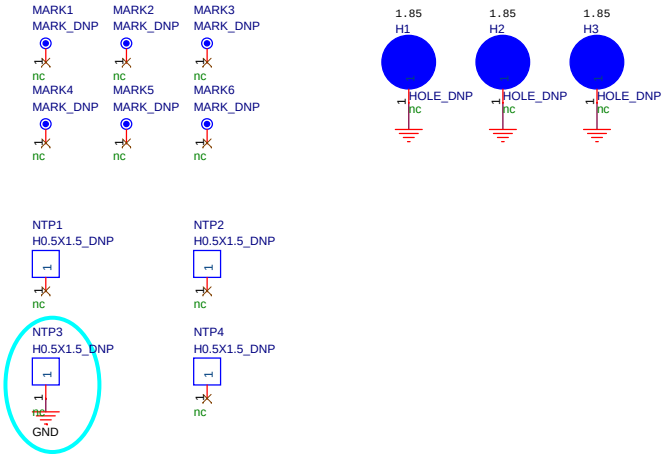


KEY





加密 I C



东莞市远峰科技有限公司		
Title: TP&Key&Add		
Size: A3	Document Number: MK92_V2.2	Rev: V1
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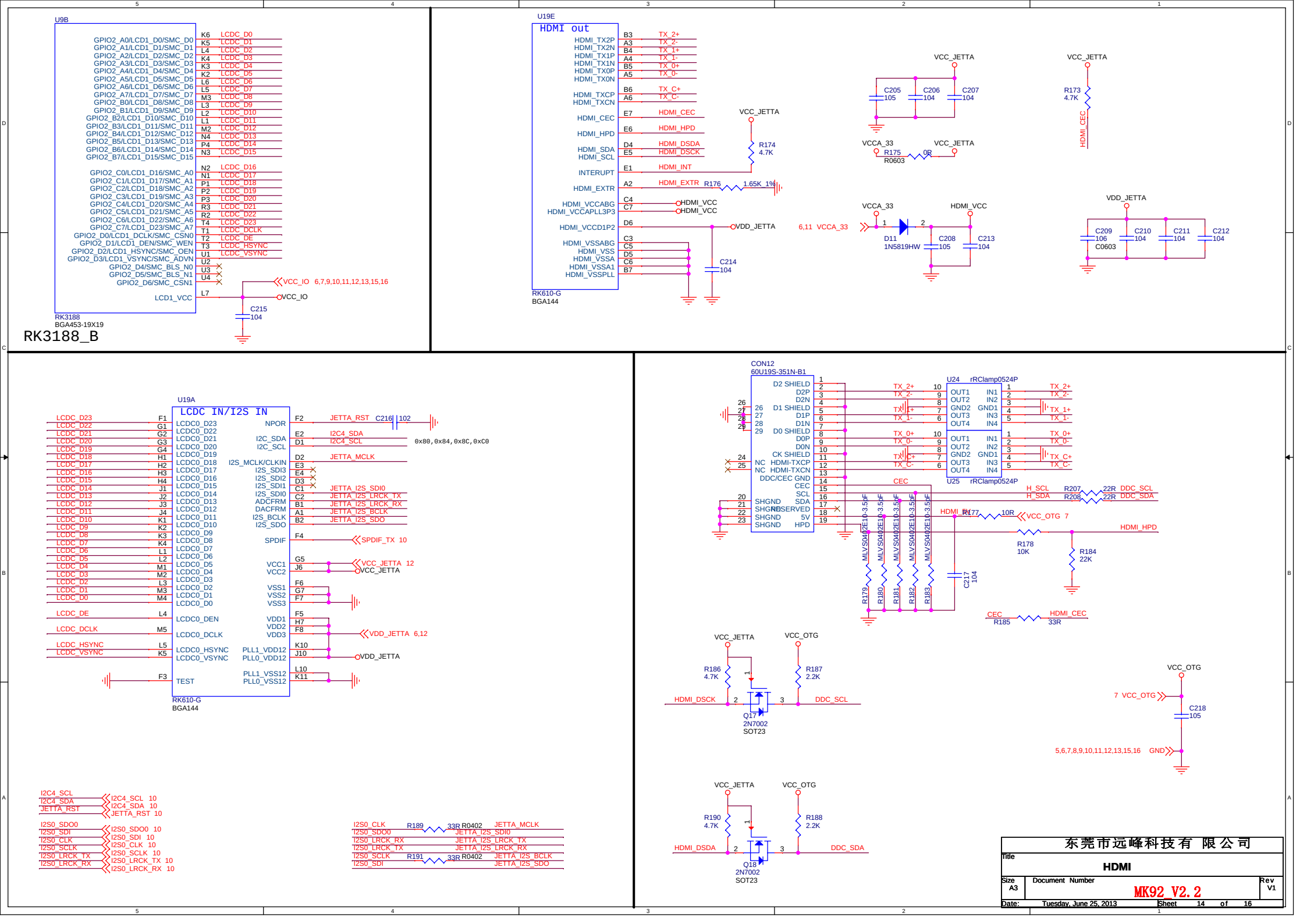
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BGA453-19X19
RK3188_B
U19E
HDMI out
RK610-G
BGA144
U19A
LCDC IN/I2S IN
RK610-G
BGA144
CON12
60U19S-351N-B1
U24 rRClamp0524P
U25 rRClamp0524P
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Title
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Size A3
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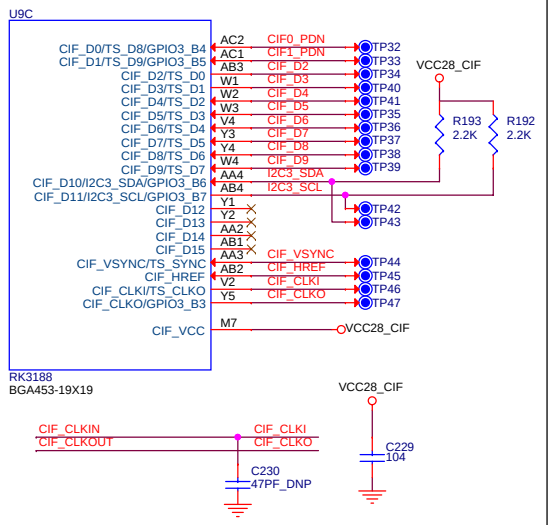
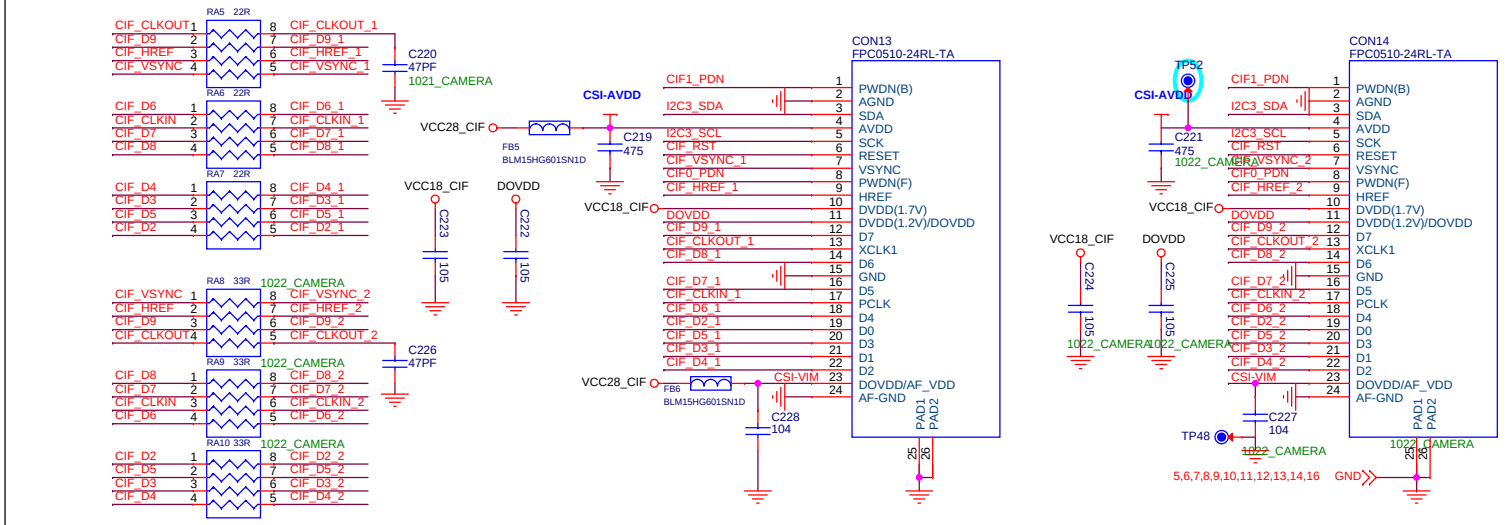
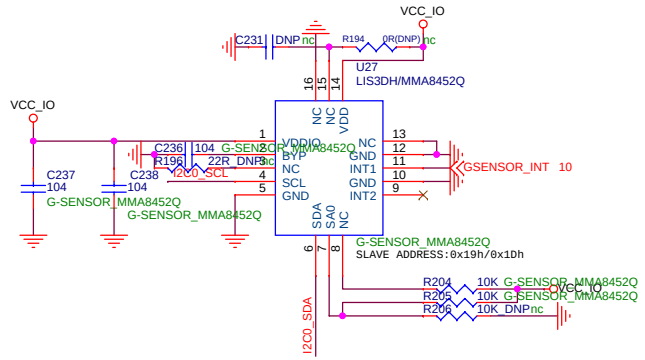
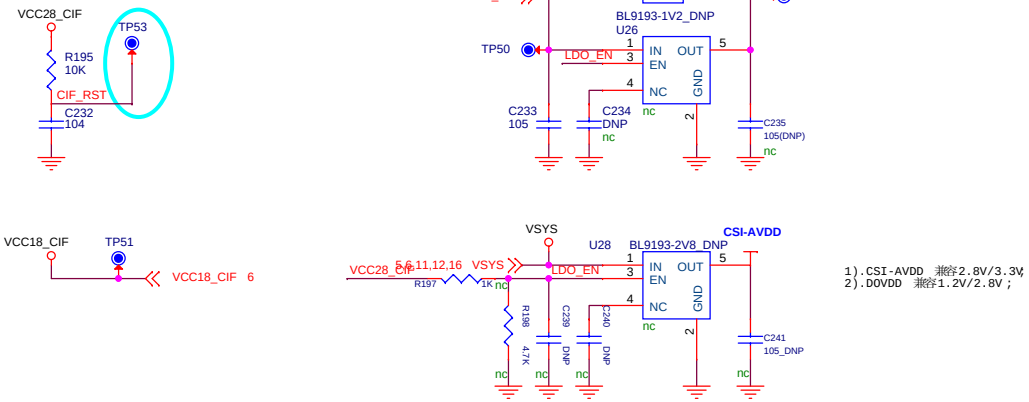


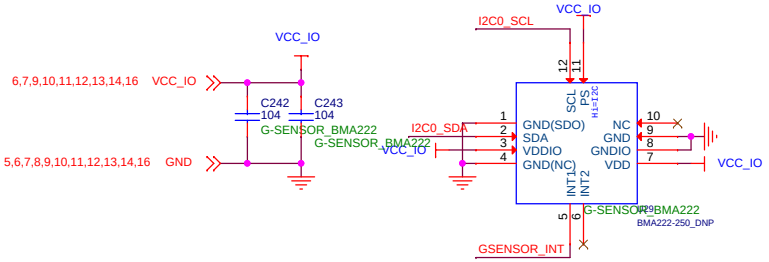
RK3188_C

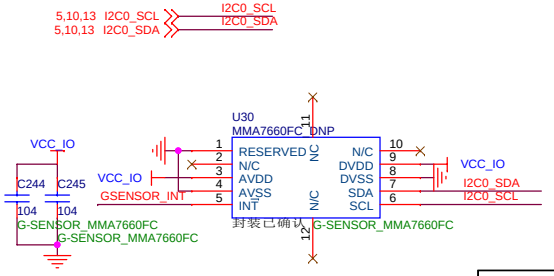


F/R CAMERA









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Size: A3	Document Number: MK92_V2.2	Rev: V1
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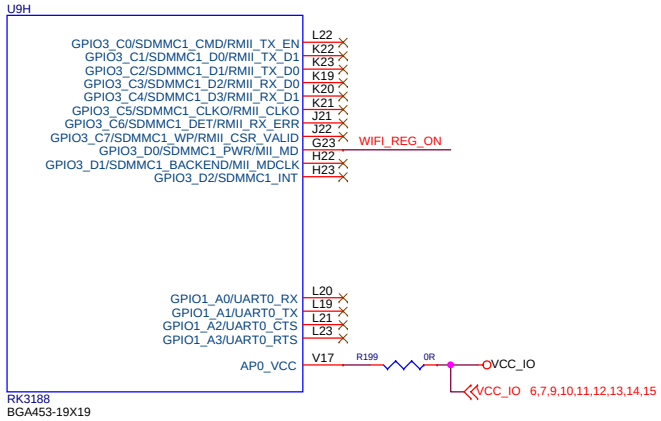
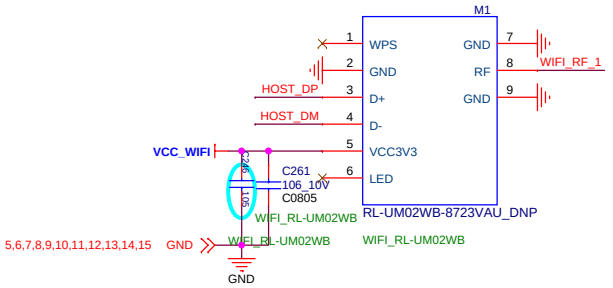
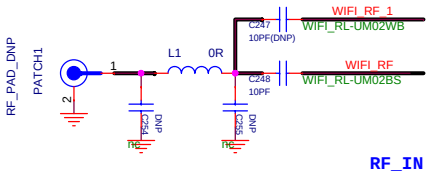
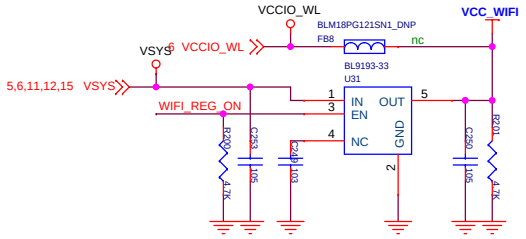


RK3188_H



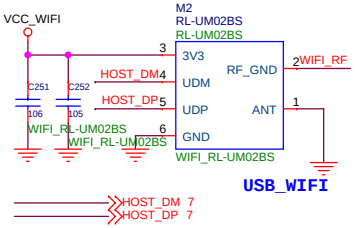


RF_IN



USB_WIFI_POWER

电源 使能 I/O 还需要确认



USB_WIFI

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Title: WIFI		
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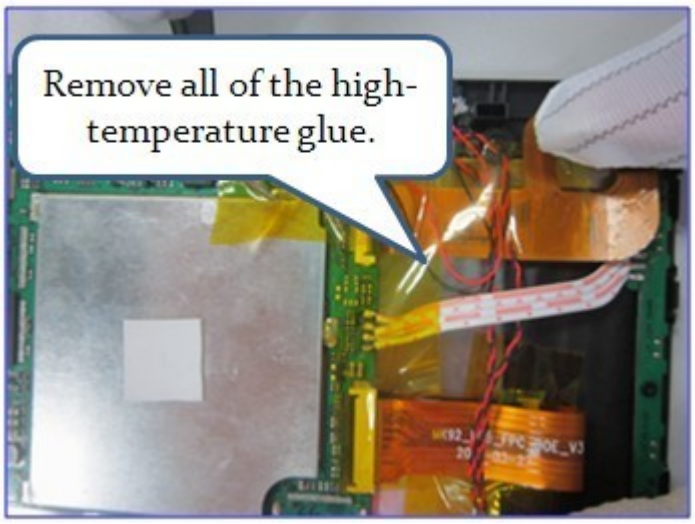
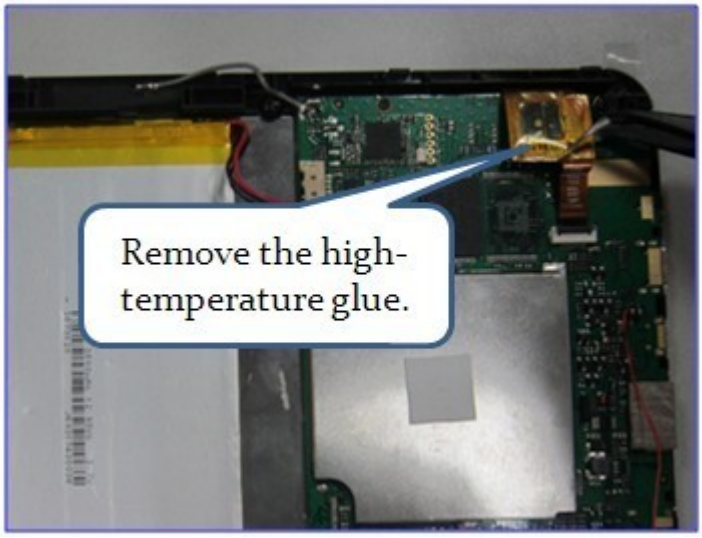
PMP5101C_QUAD disassembly SOP

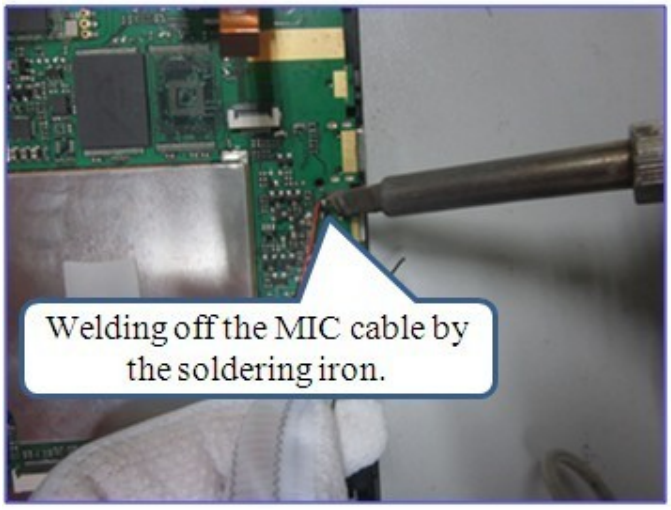
1.Take apart the back cover from the Top cover by your tool.

2. Remove all of the high-temperature glue.

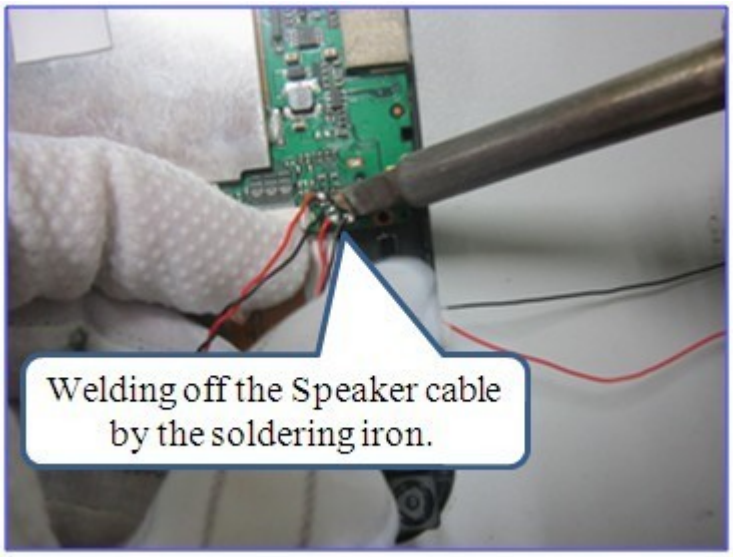




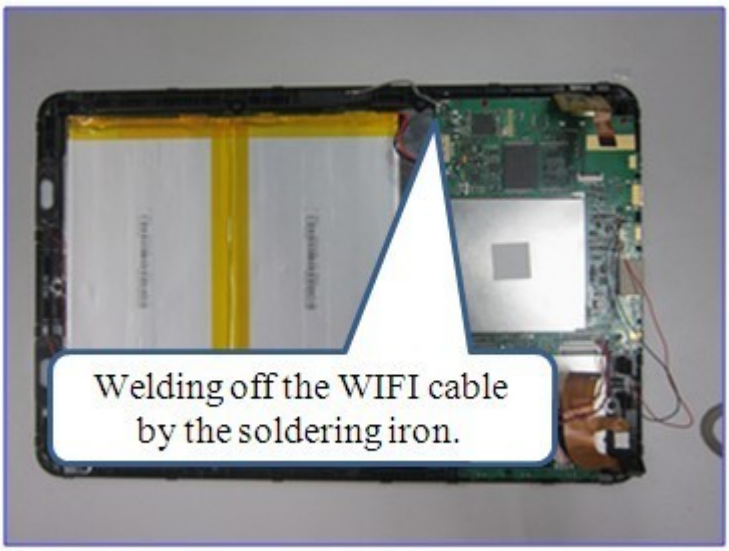
3. Welding off the MIC cable by the soldering iron.



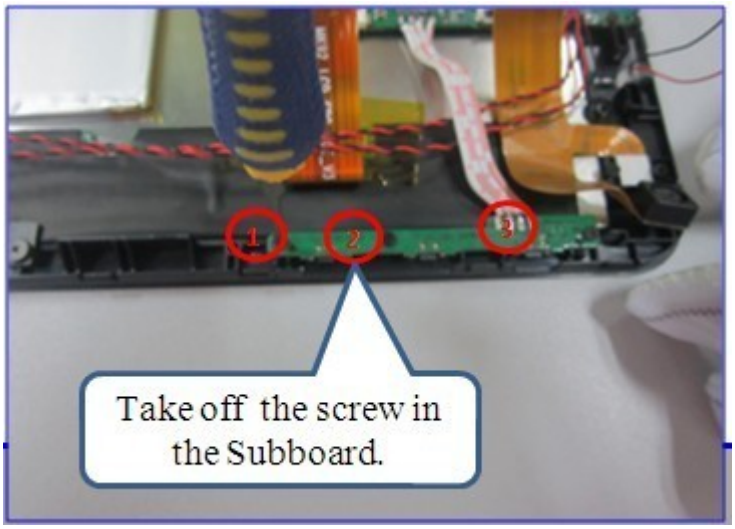
4. Welding off the Speaker cable by the soldering iron.

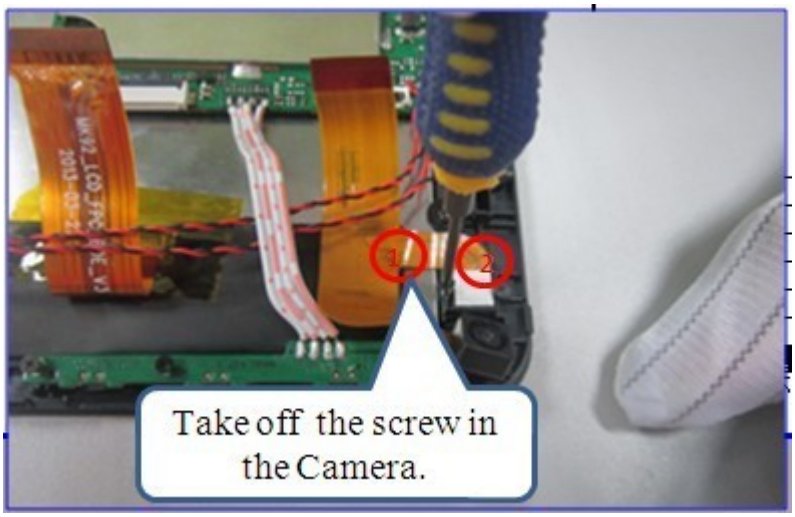


5. Welding off the WIFI cable by the soldering iron.

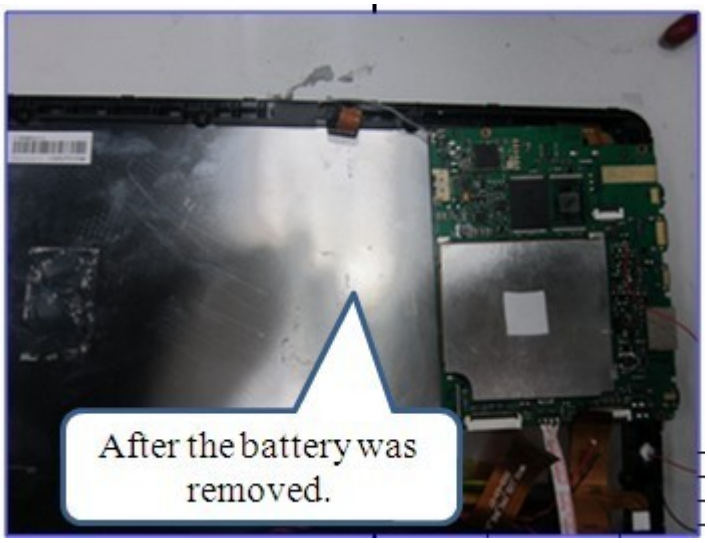


6. Take off all of the screw in the PCBA.



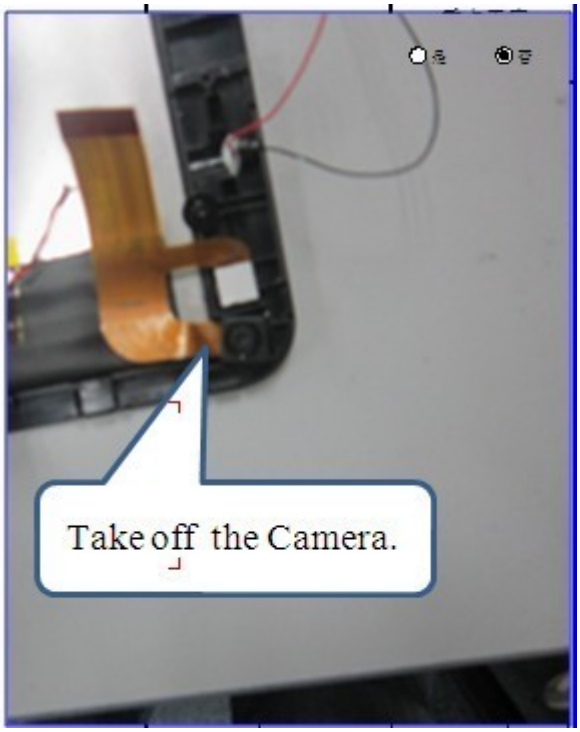


7. Take off the Battery from the front case.



8. Take off the PCBA.

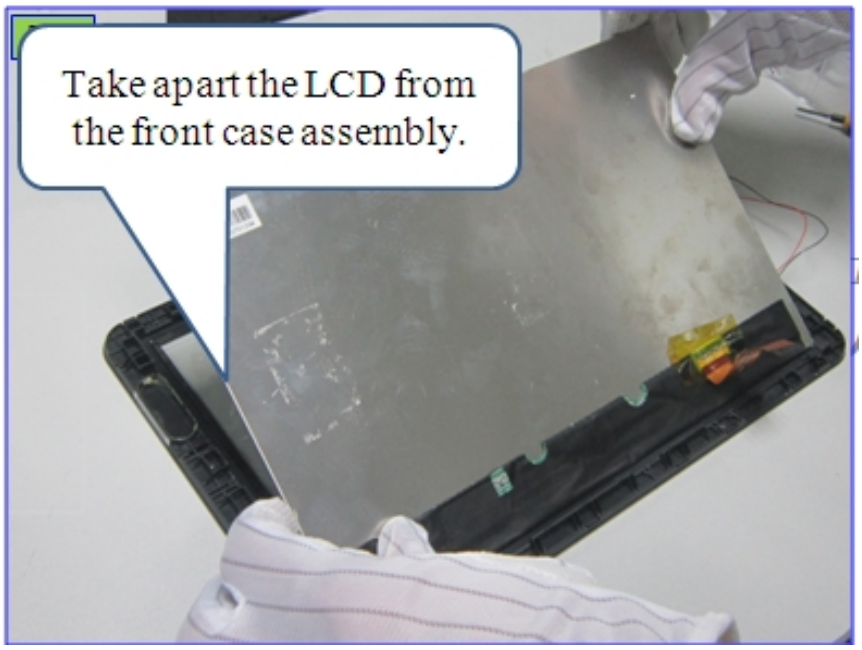
9. Take off the Camera.



10. Take off the Speaker.

11. Take off all of the screw in the front case .

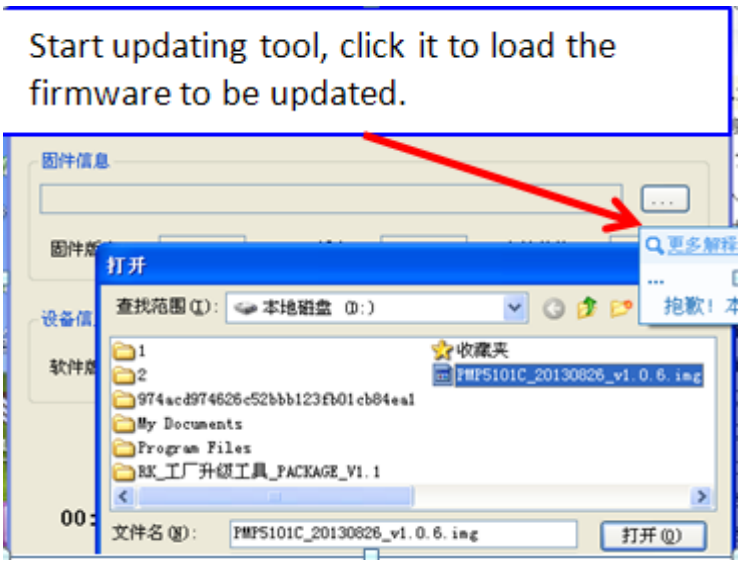
12. Take apart the LCD from the front case assembly.



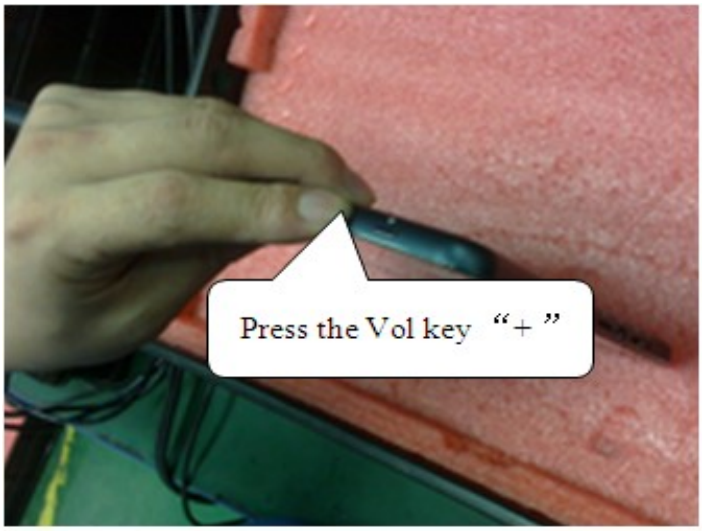
SOP For Updating

(1). Updating by Computer

1. Start update tool, click it to load the firmware to be updated (Though windows for update tools are different, ways to load firmware keep the same.)

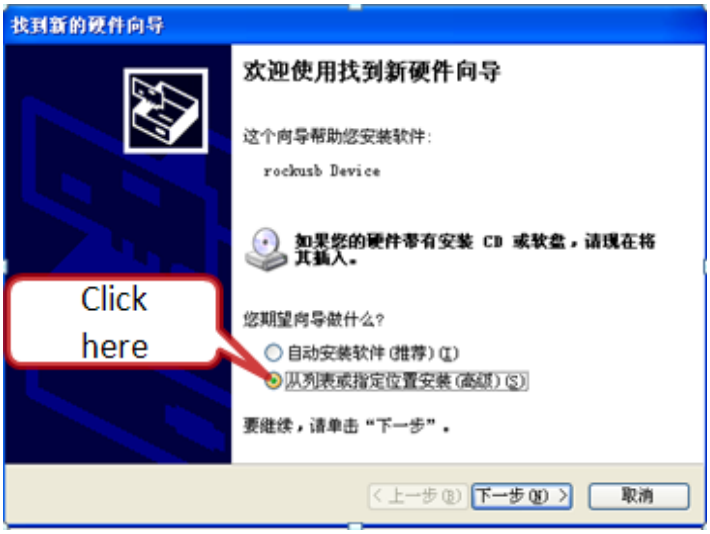


2. Turn off the MID to be updated, hold the update guide key “+” firm.



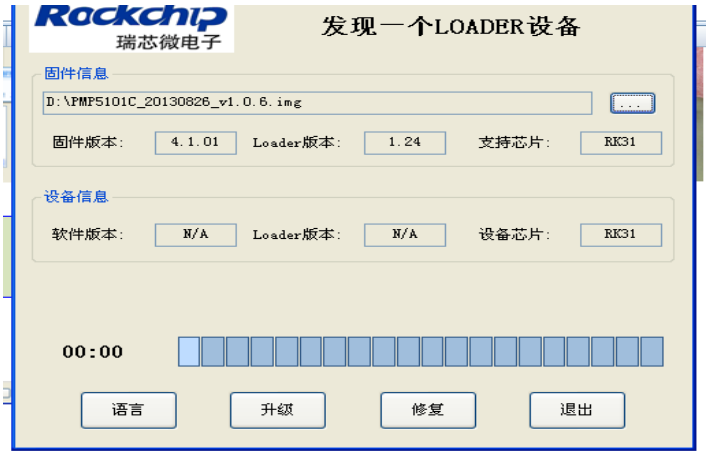
3. Connect the MID with computer via USB Cable.

4. If drivers are not installed before, system will remind to install USB device driver. Choose “stall from list or pointed position ”, then driver will be imported.



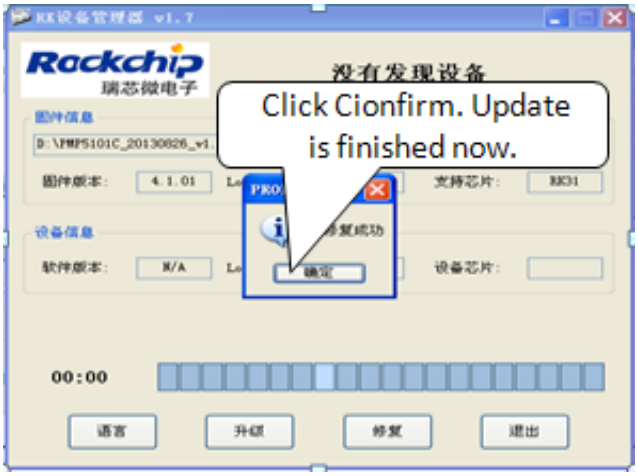
5. Update tool folders are equipped with drive of all operation systems. Choose Install according to the computer system. Path of drive is: RK unified tool_PACKAGE_V1.7\Driver .

6. After installation, update tool will detect device equipment. If detected, click Update or Restore according to actual need to begin the burning record.



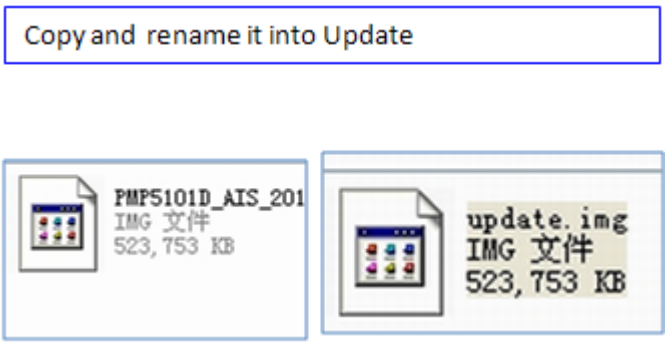
7. During the process of Update or Restore, tool will remind to download firmware.

8. When tool shows success, click Confirm. Pull out USB cable. And update is finished. (Remark: Click Update and it will it will record new version of software. And click Restore, it will erase Flash then update.)



(2).Updating by TF Card

1. Copy update file to TF card directory, rename it into Update and keep the extension name the same. (Remark: Old version only supports the update of ZIP file format card. For software package with img format, products will not be identified after inserting card.)



2. Start your PAD and insert the SD Card to the Tablet.

3. After detecting new software, a window will pop up to ask if Update needed. Then click Confirm to begin update.

4. When finished, Take out the SD Card. So the process of update is finished.