

野火 EBF RK3588S LBC4

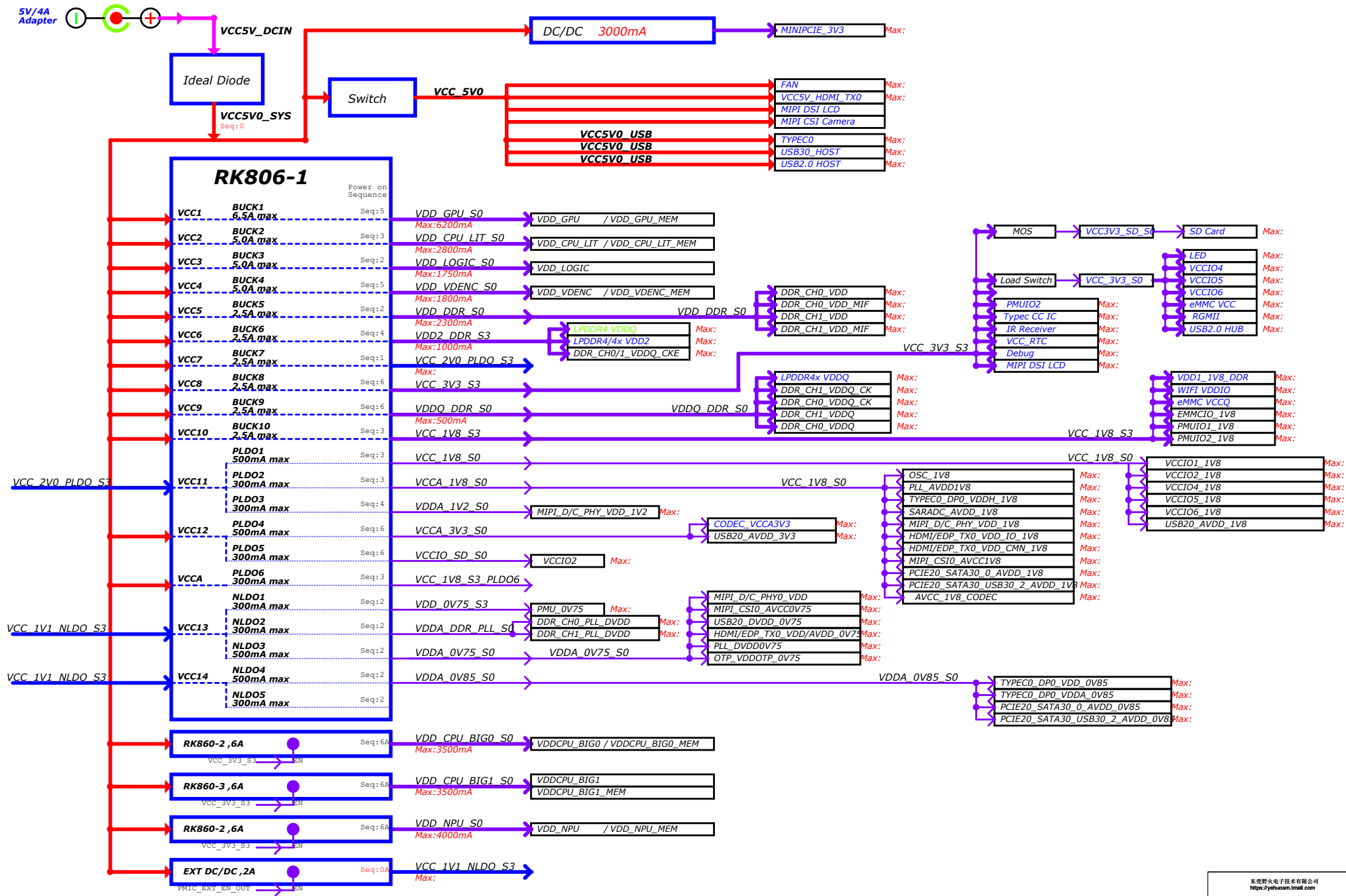
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历史版本

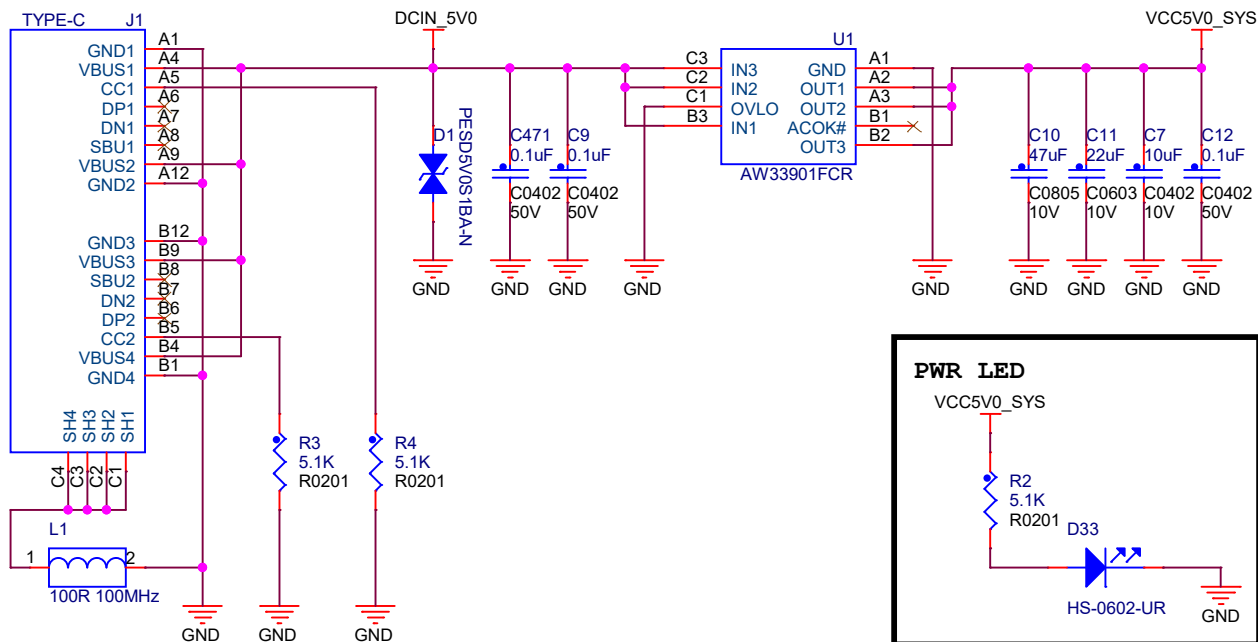
版本号	日期	设计	描述
V1.0	2023-01-25	llm	初始版本, 开发阶段
V1.1	2023-05-18	llm	修复初始版本的一些问题，增加SATA接口， typec添加OTG自动识别host/device功能
V1.2	2023-07-27	llm	1.MIPI CSI 添加2 Lanes 2.更新MINI PCIE、M.2 PCIE封装，添加独立的定位孔 3.把Z4、Z3、Z2、Z1位号改前缀为D的位号 4.把sim卡座位号U18改为J18 5.把mini pcie位号CON1改为J17
V1.3	2023-12-12	llm	1.更新board id，EBF410116V1版本设置的baord id为：0x0102 2.把DCIN 5V0接到40pin排针的5V供电，让40pin排针的5V支持输入/输出双向供电 3.mipi dis接口与40pin排针调换IO，排针引出CAN： mipi dsi0: CTP0_RST (CAN0_RX_M0) <---> GPIO1_A0 LCD0_RST (CAN0_TX_M0) <---> GPIO1_A1 mipi dsi1: CTP1_INT (CAN2_RX_M0) <---> GPIO4_A1 CTP1_RST (CAN2_TX_M0) <---> GPIO4_A2 4.CAM3_PWDN改接GPIO3_A6，CAM3_RSTn改接GPIO4_A0 5. mini pcie电源增加220uF钽电容，兼容5G模块供电
V1.4	2024-06-05	llm	1. 网口125MHz时钟串联电阻R99由22R改为33R 2. 网口晶振负载电容C380、C381由18pF改为22pF，并添加串并联电阻 3. 网口PHY与RJ45之间串接共模电感，用于改善emi、EFT问题 4. HDMI添加共模电感改善EMI问题，耳机接口添加ESD

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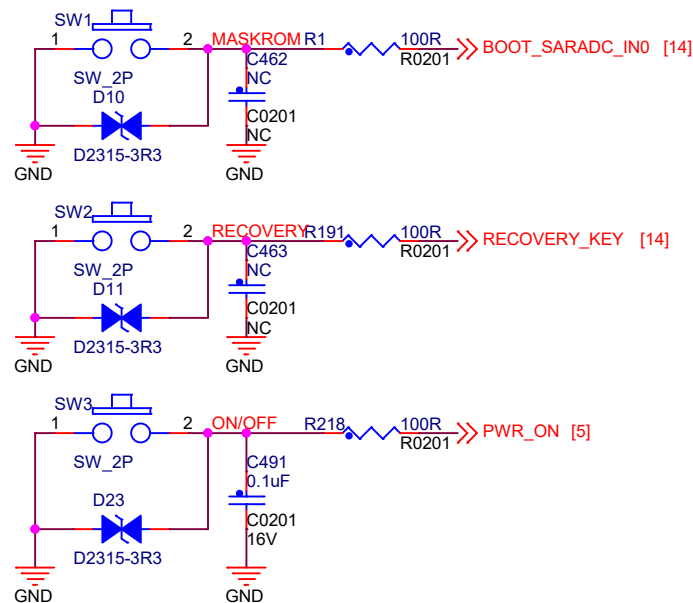
Power Tree



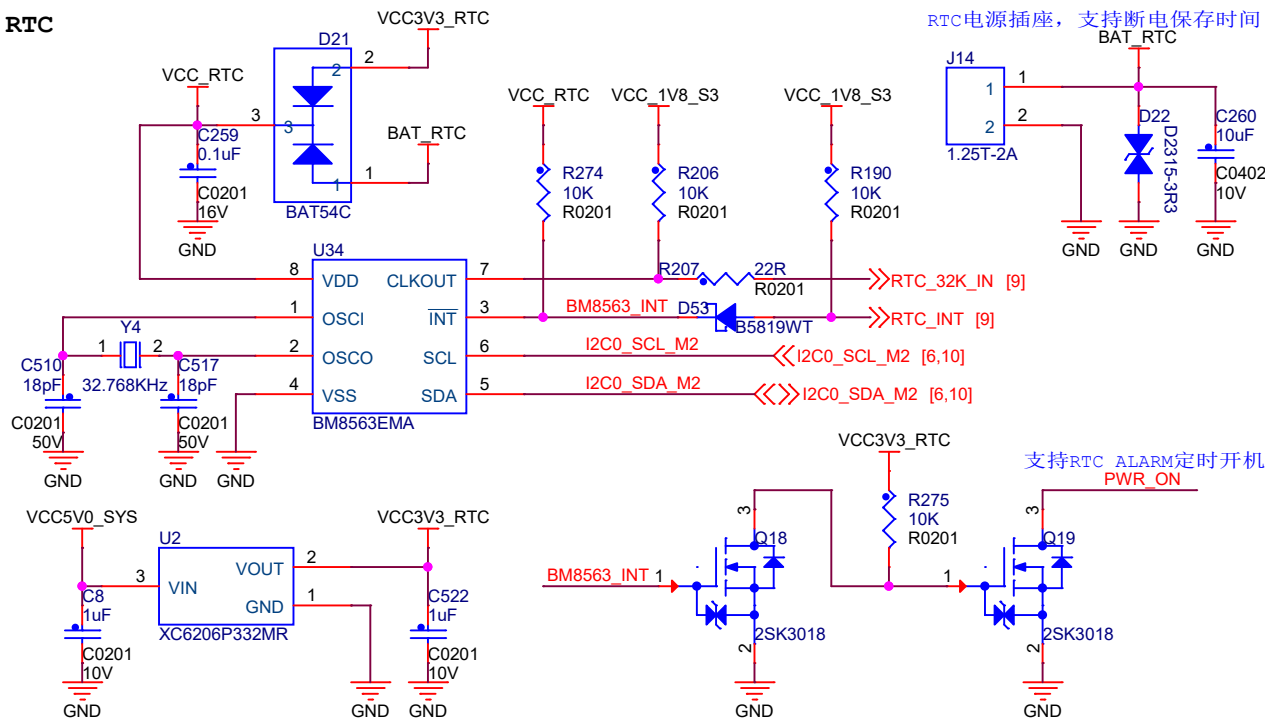
DC IN: 5V/4A



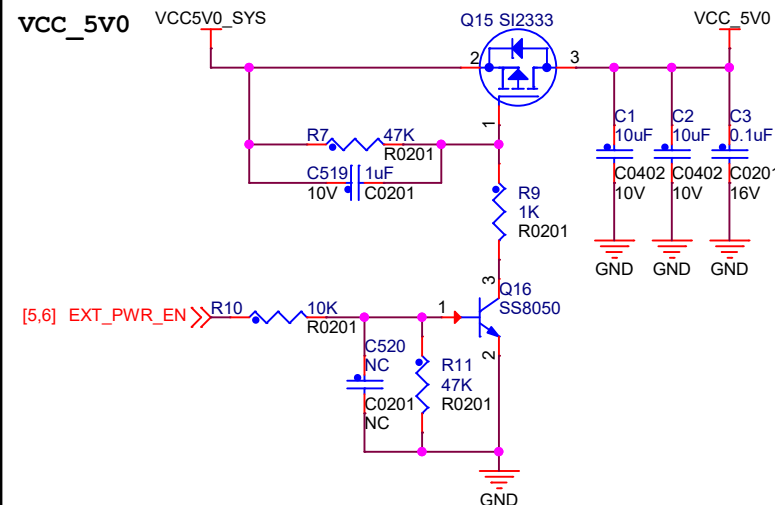
按键



RTC



VCC_5V0



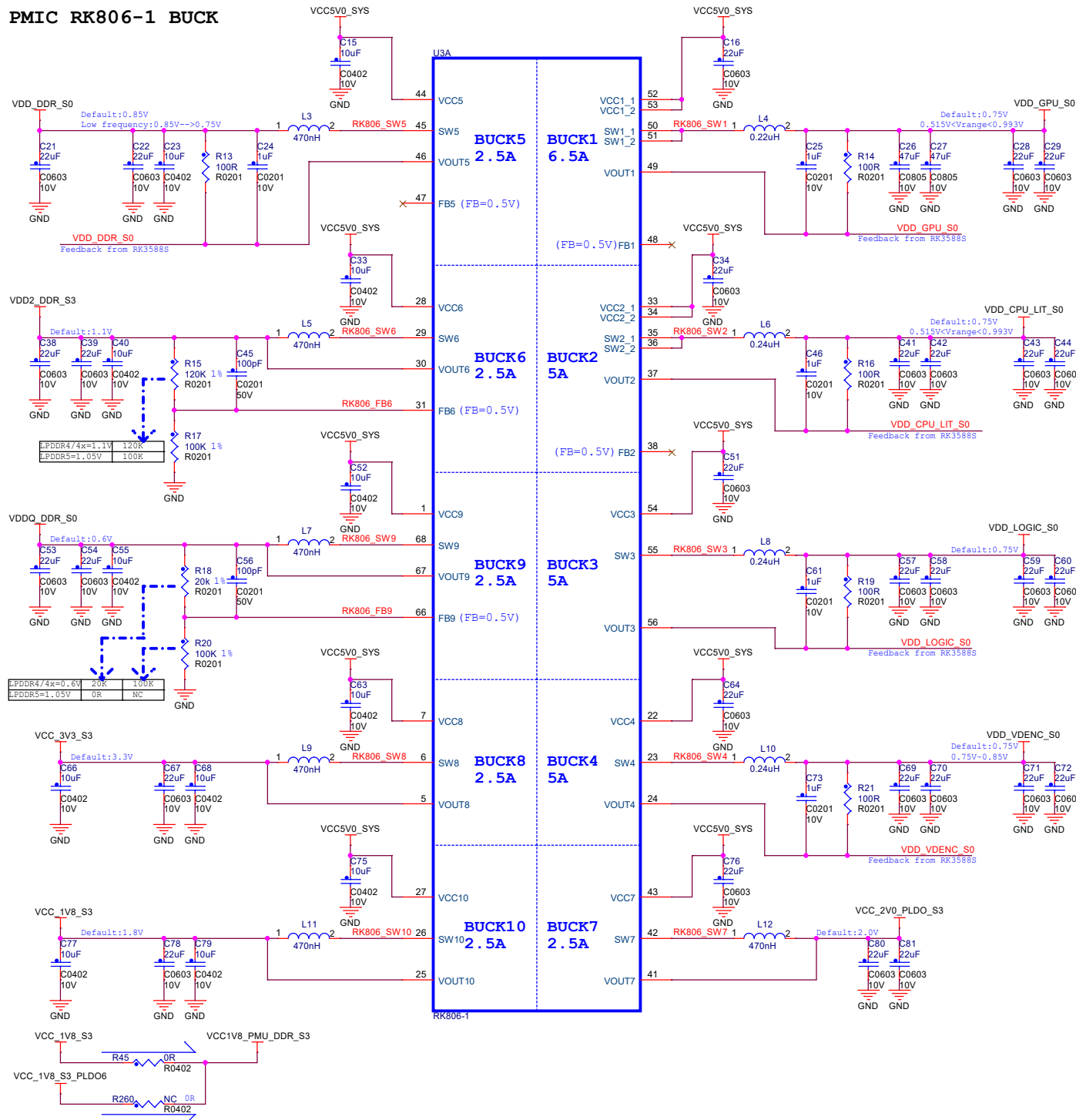
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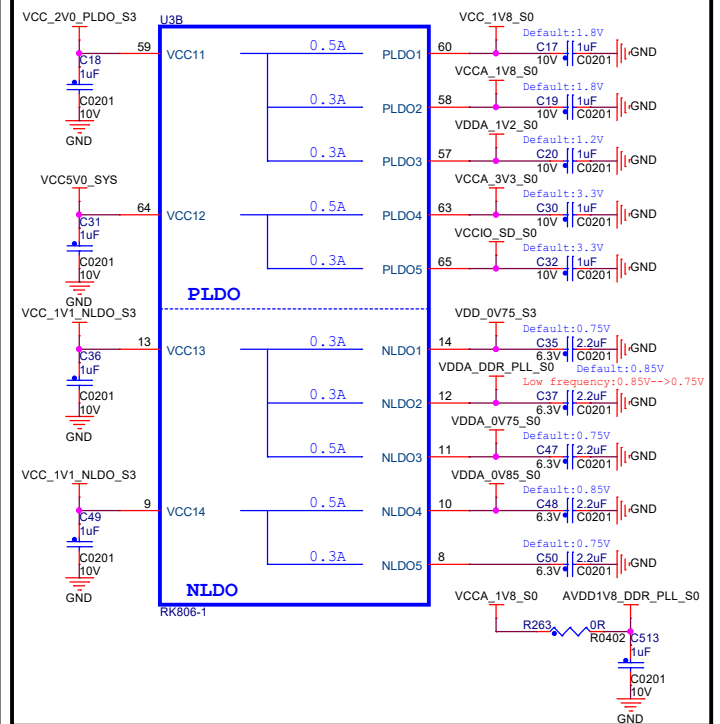
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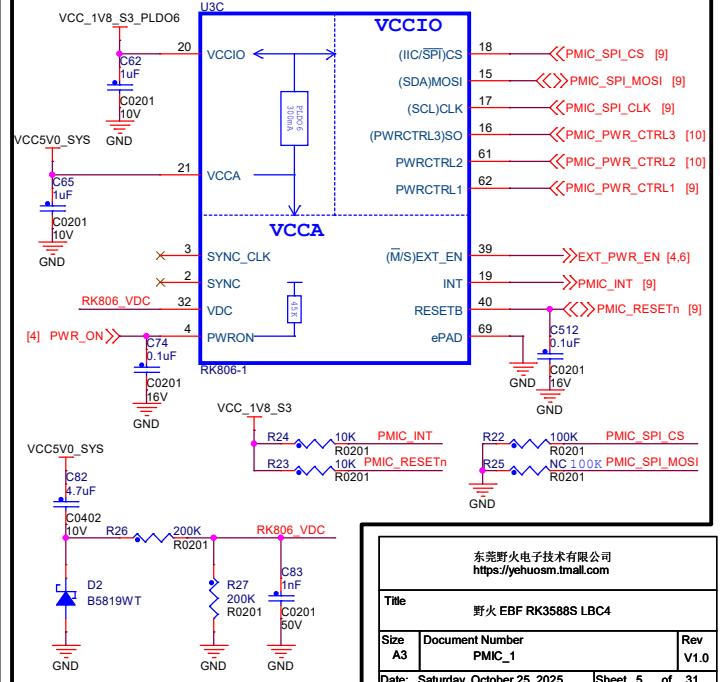
PMIC RK806-1 BUCK



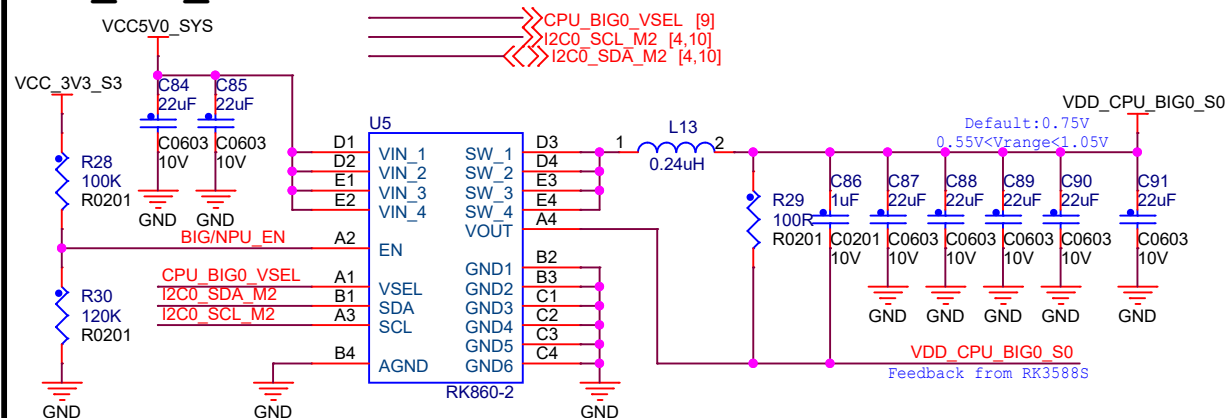
PMIC RK806-1 LDO



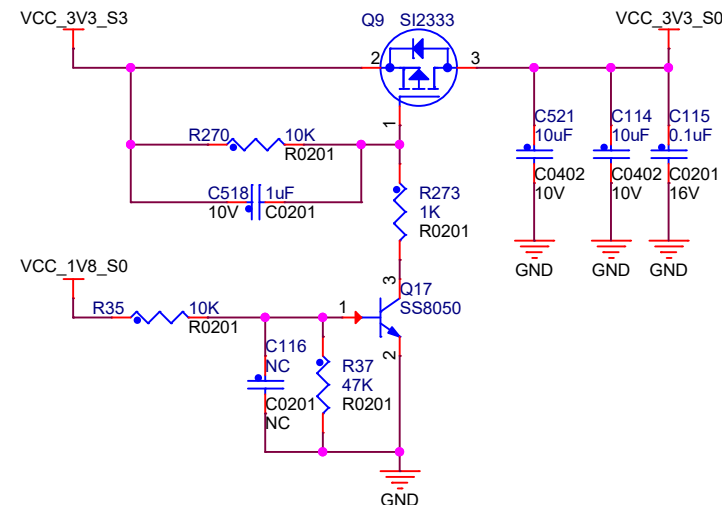
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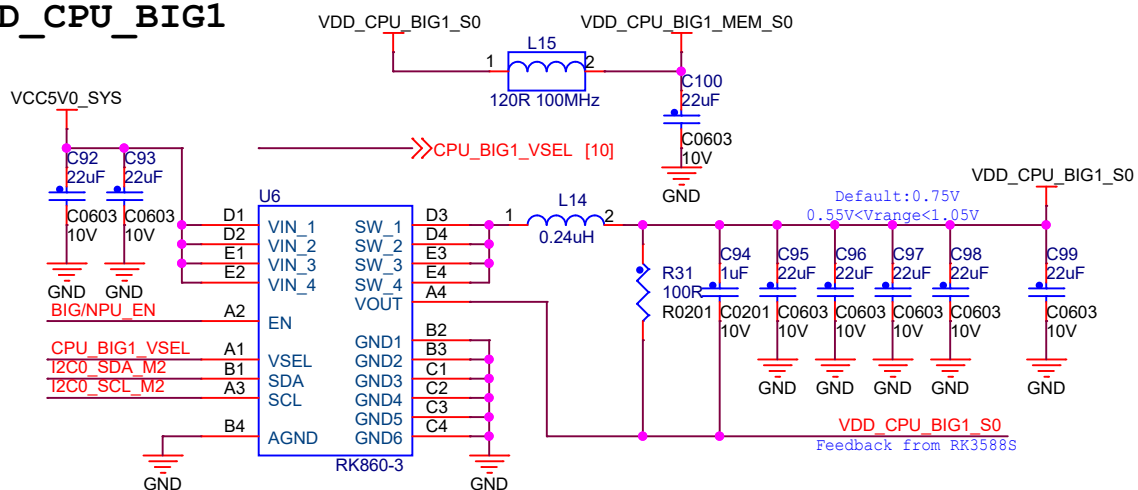
VDD_CPU_BIG0



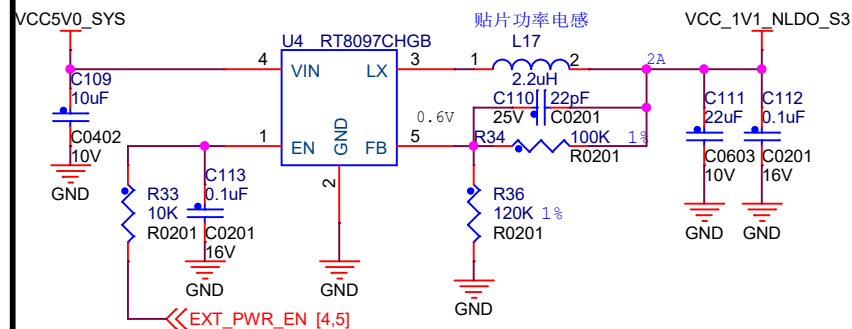
VCC_3V3_S0



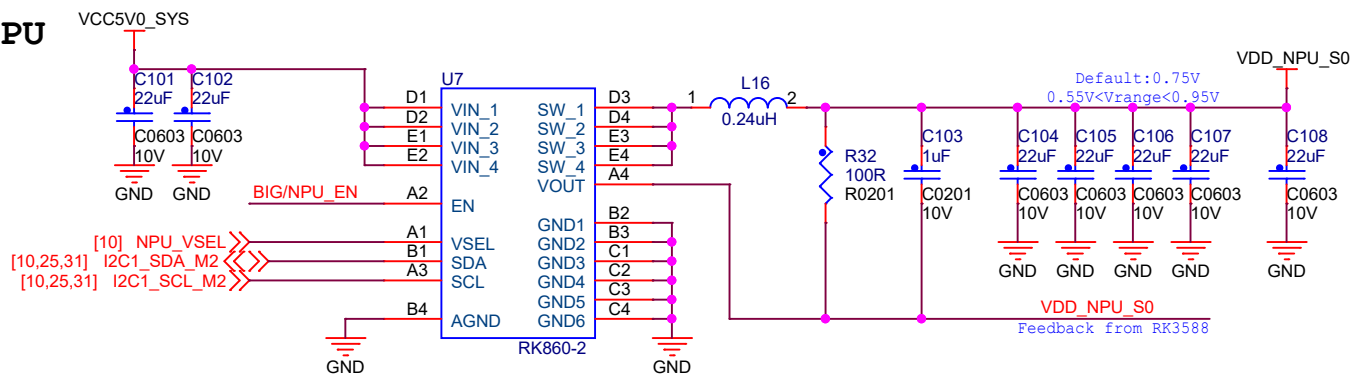
VDD_CPU_BIG1



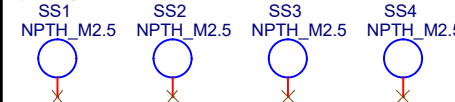
VCC_1V1_NLDO



VDD_NPU



定位孔



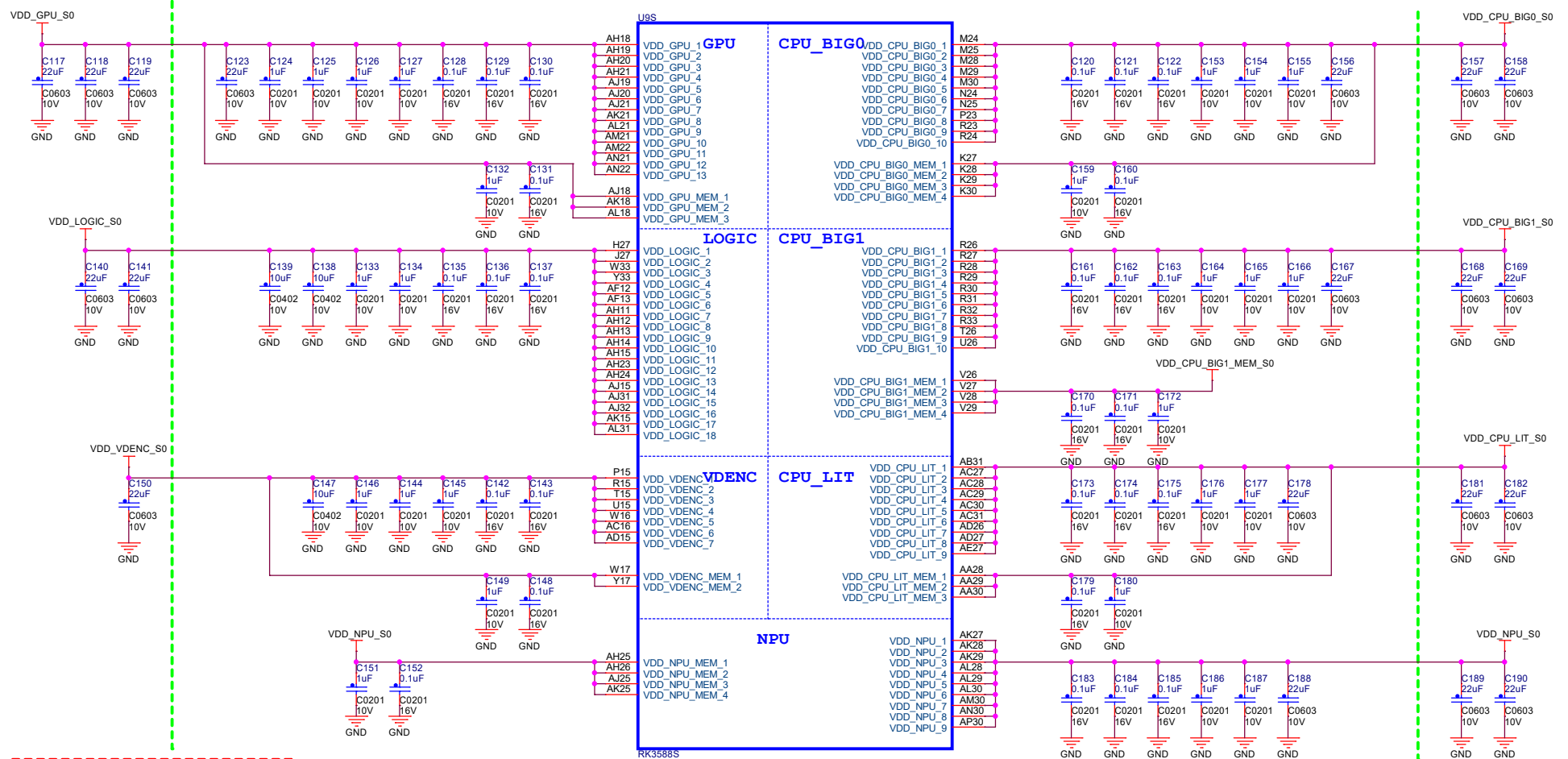
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RK3588S POWER



Note:
The Caps between green line and U9 should be placed under the U9 package. Other caps should be placed close to the U9 package

RK3588S GND

U8T		
A1	VSS_1	VSS_51
A2	VSS_2	D26
A42	VSS_3	D30
B3	VSS_4	D31
B5	VSS_5	D32
B8	VSS_6	VSS_55
B10	VSS_6	VSS_56
B11	VSS_7	VSS_57
B14	VSS_8	VSS_58
B17	VSS_9	VSS_59
B19	VSS_10	VSS_60
B21	VSS_11	VSS_61
B23	VSS_12	VSS_62
B26	VSS_13	VSS_63
B27	VSS_14	VSS_64
B29	VSS_15	VSS_65
B31	VSS_16	VSS_66
B34	VSS_17	VSS_67
B35	VSS_18	VSS_68
B36	VSS_19	VSS_69
B38	VSS_20	VSS_70
B40	VSS_21	VSS_71
B42	VSS_22	VSS_72
C1	VSS_23	VSS_73
C2	VSS_24	VSS_74
C6	VSS_25	VSS_75
C7	VSS_26	VSS_76
C9	VSS_27	VSS_77
C11	VSS_28	VSS_78
C12	VSS_29	VSS_79
C14	VSS_30	VSS_80
C15	VSS_31	VSS_81
C18	VSS_32	VSS_82
C19	VSS_33	VSS_83
C20	VSS_34	VSS_84
C22	VSS_35	VSS_85
C24	VSS_36	VSS_86
C26	VSS_37	VSS_87
C28	VSS_38	VSS_88
C30	VSS_39	VSS_89
C35	VSS_40	VSS_90
C37	VSS_41	VSS_91
C39	VSS_42	VSS_92
D3	VSS_43	VSS_93
D4	VSS_44	VSS_94
D7	VSS_45	VSS_95
D11	VSS_46	VSS_96
D14	VSS_47	VSS_97
D15	VSS_48	VSS_98
D18	VSS_49	VSS_99
D19	VSS_50	VSS_100

GND

GND

U8U		
G9	VSS_101	VSS_151
G10	VSS_102	VSS_152
G12	VSS_103	VSS_153
G20	VSS_104	VSS_154
G21	VSS_105	VSS_155
G22	VSS_106	VSS_156
G25	VSS_107	VSS_157
G26	VSS_108	VSS_158
G29	VSS_109	VSS_159
H3	VSS_110	VSS_160
H4	VSS_111	VSS_161
H5	VSS_112	VSS_162
H6	VSS_113	VSS_163
H11	VSS_114	VSS_164
H12	VSS_115	VSS_165
H22	VSS_116	VSS_166
H25	VSS_117	VSS_167
H29	VSS_118	VSS_168
J2	VSS_119	VSS_169
J6	VSS_120	VSS_170
J7	VSS_121	VSS_171
J8	VSS_122	VSS_172
J9	VSS_123	VSS_173
J10	VSS_124	VSS_174
J12	VSS_125	VSS_175
J14	VSS_126	VSS_176
J15	VSS_127	VSS_177
J16	VSS_128	VSS_178
J22	VSS_129	VSS_179
J24	VSS_130	VSS_180
J26	VSS_131	VSS_181
J29	VSS_132	VSS_182
J30	VSS_133	VSS_183
J31	VSS_134	VSS_184
K3	VSS_135	VSS_185
K6	VSS_136	VSS_186
K7	VSS_137	VSS_187
K10	VSS_138	VSS_188
K11	VSS_139	VSS_189
K12	VSS_140	VSS_190
K14	VSS_141	VSS_191
K17	VSS_142	VSS_192
K22	VSS_143	VSS_193
K23	VSS_144	VSS_194
K25	VSS_145	VSS_195
K26	VSS_146	VSS_196
K31	VSS_147	VSS_197
K32	VSS_148	VSS_198
K33	VSS_149	VSS_199
L2	VSS_150	VSS_200

GND

GND

U8V		
P19	VSS_201	VSS_251
P25	VSS_202	VSS_252
P26	VSS_203	VSS_253
P27	VSS_204	VSS_254
P28	VSS_205	VSS_255
P29	VSS_206	VSS_256
P30	VSS_207	VSS_257
P31	VSS_208	VSS_258
P32	VSS_209	VSS_259
P33	VSS_210	VSS_260
P34	VSS_211	VSS_261
R3	VSS_212	VSS_262
R4	VSS_213	VSS_263
R8	VSS_214	VSS_264
R16	VSS_215	VSS_265
R20	VSS_216	VSS_266
R21	VSS_217	VSS_267
R25	VSS_218	VSS_268
R35	VSS_219	VSS_269
T2	VSS_220	VSS_270
T3	VSS_221	VSS_271
T4	VSS_222	VSS_272
T7	VSS_223	VSS_273
T16	VSS_224	VSS_274
T17	VSS_225	VSS_275
T18	VSS_226	VSS_276
T20	VSS_227	VSS_277
T21	VSS_228	VSS_278
T24	VSS_229	VSS_279
T25	VSS_230	VSS_280
T35	VSS_231	VSS_281
T36	VSS_232	VSS_282
T37	VSS_233	VSS_283
T38	VSS_234	VSS_284
T39	VSS_235	VSS_285
T40	VSS_236	VSS_286
U6	VSS_237	VSS_287
U7	VSS_238	VSS_288
U8	VSS_239	VSS_289
U16	VSS_240	VSS_290
U17	VSS_241	VSS_291
U18	VSS_242	VSS_292
U20	VSS_243	VSS_293
U21	VSS_244	VSS_294
U22	VSS_245	VSS_295
U23	VSS_246	VSS_296
U24	VSS_247	VSS_297
U25	VSS_248	VSS_298
U39	VSS_249	VSS_299
U40	VSS_250	VSS_300

GND

GND

U8W		
AA10	VSS_301	VSS_351
AA11	VSS_302	VSS_352
AA12	VSS_303	VSS_353
AA19	VSS_304	VSS_354
AA22	VSS_305	VSS_355
AA23	VSS_306	VSS_356
AA31	VSS_307	VSS_357
AA37	VSS_308	VSS_358
AA38	VSS_309	VSS_359
AA39	VSS_310	VSS_360
AA40	VSS_311	VSS_361
AB2	VSS_312	VSS_362
AB6	VSS_313	VSS_363
AB9	VSS_314	VSS_364
AB10	VSS_315	VSS_365
AB11	VSS_316	VSS_366
AB12	VSS_317	VSS_367
AB19	VSS_318	VSS_368
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AB36	VSS_327	VSS_377
AB37	VSS_328	VSS_378
AB38	VSS_329	VSS_379
AB39	VSS_330	VSS_380
AB40	VSS_331	VSS_381
AC3	VSS_332	VSS_382
AC4	VSS_333	VSS_383
AC5	VSS_334	VSS_384
AC6	VSS_335	VSS_385
AC17	VSS_336	VSS_386
AC18	VSS_337	VSS_387
AC22	VSS_338	VSS_388
AC23	VSS_339	VSS_389
AC24	VSS_340	VSS_390
AC25	VSS_341	VSS_391
AC26	VSS_342	VSS_392
AC41	VSS_343	VSS_393
AD2	VSS_344	VSS_394
AD3	VSS_345	VSS_395
AD5	VSS_346	VSS_396
AD6	VSS_347	VSS_397
AD8	VSS_348	VSS_398
AD9	VSS_349	VSS_399
AD10	VSS_350	VSS_400

GND

GND

U9X		
AF34	VSS_401	VSS_451
AF37	VSS_402	VSS_452
AF38	VSS_403	VSS_453
AF39	VSS_404	VSS_454
AF40	VSS_405	VSS_455
AG3	VSS_406	VSS_456
AG3	VSS_407	VSS_457
AG4	VSS_408	VSS_458
AG5	VSS_409	VSS_459
AG6	VSS_410	VSS_460
AG7	VSS_411	VSS_461
AG8	VSS_412	VSS_462
AG15	VSS_413	VSS_463
AG16	VSS_414	VSS_464
AG17	VSS_415	VSS_465
AG18	VSS_416	VSS_466
AG19	VSS_417	VSS_467
AG20	VSS_418	VSS_468
AG21	VSS_419	VSS_469
AG22	VSS_420	VSS_470
AG23	VSS_421	VSS_471
AG24	VSS_422	VSS_472
AG25	VSS_423	VSS_473
AG28	VSS_424	VSS_474
AG29	VSS_425	VSS_475
AG31	VSS_426	VSS_476
AG32	VSS_427	VSS_477
AG33	VSS_428	VSS_478
AG34	VSS_429	VSS_479
AG35	VSS_430	VSS_480
AG40	VSS_431	VSS_481
AH2	VSS_432	VSS_482
AH3	VSS_433	VSS_483
AH4	VSS_434	VSS_484
AH5	VSS_435	VSS_485
AH7	VSS_436	VSS_486
AH8	VSS_437	VSS_487
AH9	VSS_438	VSS_488
AH10	VSS_439	VSS_489
AH16	VSS_440	VSS_490
AH17	VSS_441	VSS_491
AH28	VSS_442	VSS_492
AH29	VSS_443	VSS_493
AH36	VSS_444	VSS_494
AJ5	VSS_445	VSS_495
AJ7	VSS_446	VSS_496
AJ8	VSS_447	VSS_497
AJ9	VSS_448	VSS_498
AJ10	VSS_449	VSS_499
AJ11	VSS_450	VSS_500

GND

GND

U9Y		
AN40	VSS_501	AVSS_11
AP2	VSS_502	AVSS_12
AP5	VSS_503	AVSS_13
AP6	VSS_504	AVSS_14
AP25	VSS_505	AVSS_15
AP27	VSS_506	AVSS_16
AP33	VSS_507	AVSS_17
AP34	VSS_508	AVSS_18
AP35	VSS_509	AVSS_19
AP37	VSS_510	AVSS_20
AP38	VSS_511	AVSS_21
AP39	VSS_512	AVSS_22
AP40	VSS_513	AVSS_23
AR3	VSS_514	AVSS_24
AR4	VSS_515	AVSS_25
AR40	VSS_516	AVSS_26
AR41	VSS_517	AVSS_27
AT2	VSS_518	AVSS_28
AT5	VSS_519	AVSS_29
AT6	VSS_520	AVSS_30
AT36	VSS_521	AVSS_31
AU2	VSS_522	AVSS_32
AU3	VSS_523	AVSS_33
AU4	VSS_524	AVSS_34
AU35	VSS_525	AVSS_35
AU38	VSS_526	AVSS_36
AU39	VSS_527	AVSS_37
AU40	VSS_528	AVSS_38
AV5	VSS_529	AVSS_39
AV36	VSS_530	AVSS_40
AV41	VSS_531	AVSS_41
AW3	VSS_532	AVSS_42
AW4	VSS_533	AVSS_43
E41	AVSS_1	AVSS_44
E40	AVSS_2	AVSS_45
F40	AVSS_3	AVSS_46
G36	AVSS_4	AVSS_47
G41	AVSS_5	AVSS_48
H37	AVSS_6	AVSS_49
H40	AVSS_7	AVSS_50
J38	AVSS_8	AVSS_51
J39	AVSS_9	AVSS_52
J40	AVSS_10	AVSS_53

GND

GND

U8Z		
AT22	AVSS_54	AVSS_94
AT23	AVSS_55	AVSS_95
AT29	AVSS_56	AVSS_96
AU8	AVSS_57	AVSS_97
AU16	AVSS_58	AVSS_98
AU18	AVSS_59	AVSS_99
AU19	AVSS_60	AVSS_100
AU21	AVSS_61	AVSS_101
AU24	AVSS_62	AVSS_102
AU25	AVSS_63	AVSS_103
AU27	AVSS_64	AVSS_104
AU28	AVSS_65	AVSS_105
AU29	AVSS_66	AVSS_106
AU31	AVSS_67	AVSS_107
AV8	AVSS_68	AVSS_108
AV9	AVSS_69	AVSS_109
AV12	AVSS_70	AVSS_110
AV14	AVSS_71	AVSS_111
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AV16	AVSS_73	AVSS_113
AV21	AVSS_74	AVSS_114
AV25	AVSS_75	AVSS_115
AV29	AVSS_76	AVSS_116
AV32	AVSS_77	AVSS_117
AV33	AVSS_78	AVSS_118
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AW14	AVSS_82	AVSS_122
AW16	AVSS_83	AVSS_123
AW17	AVSS_84	AVSS_124
AW21	AVSS_85	AVSS_125
AW25	AVSS_86	AVSS_126
AW28	AVSS_87	AVSS_127
AW29	AVSS_88	AVSS_128
AW32	AVSS_89	AVSS_129
AW33	AVSS_90	
AW36	AVSS_91	
AW40	AVSS_92	
AY2	AVSS_93	

GND

GND

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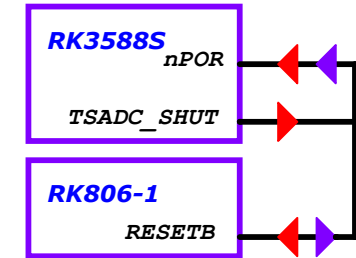
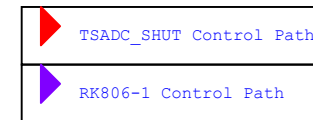
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RK3588S OSC/PLL/PMUIO1

Note:



Note:

The Caps between green line and U9 should be placed under the U9 package. Other caps should be placed close to the U9 package

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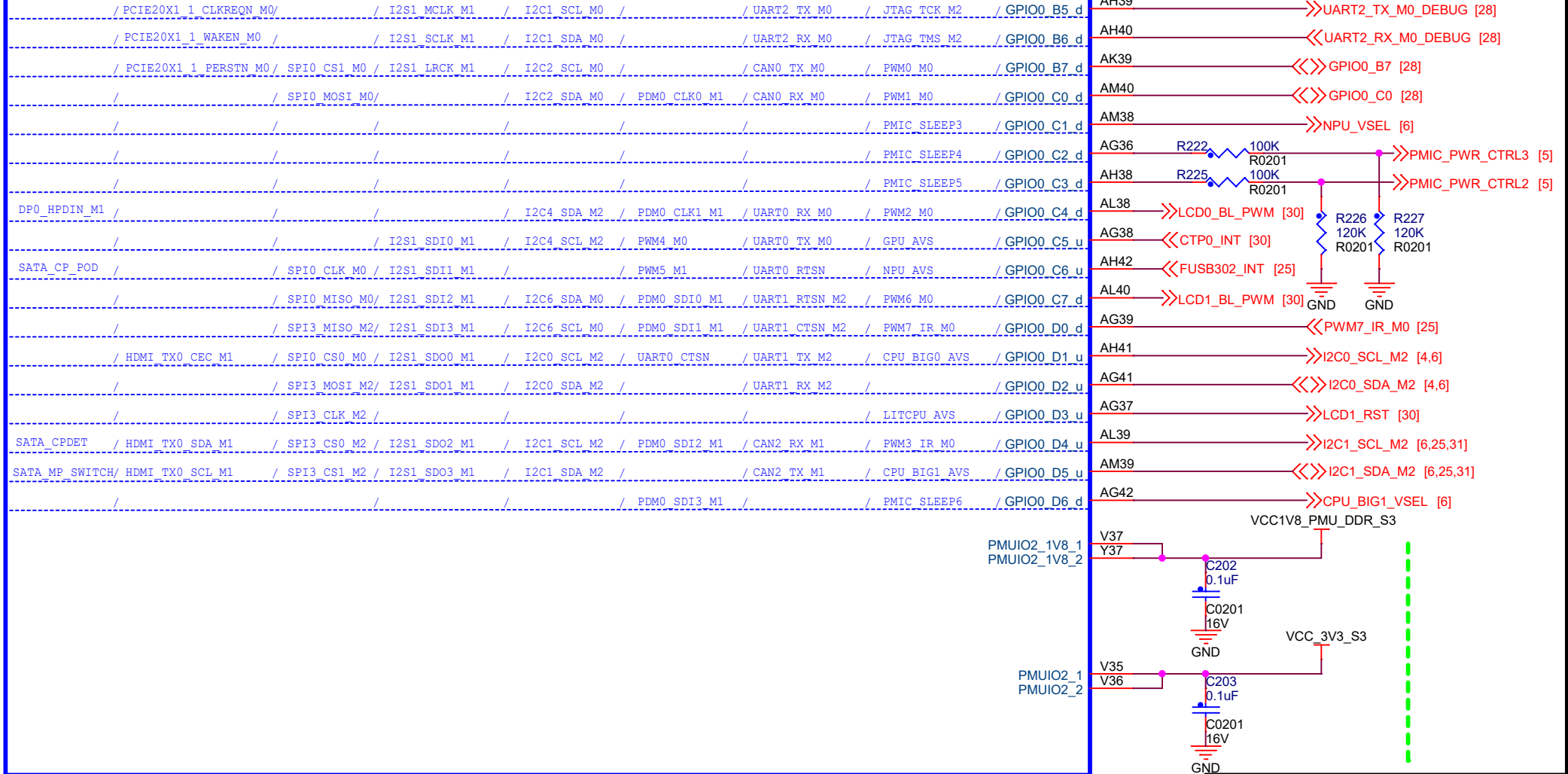
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RK3588S PMUIO2

U9F

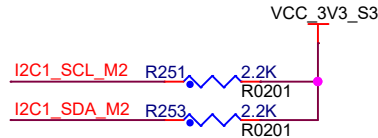
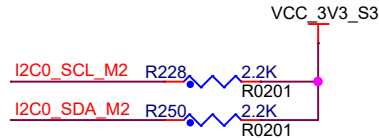
PMUIO2 Domain

Operating Voltage=1.8V/3.3V



RK3588S

Note:
The Caps between green line and U9 should be placed under the U9 package. Other caps should be placed close to the U9 package



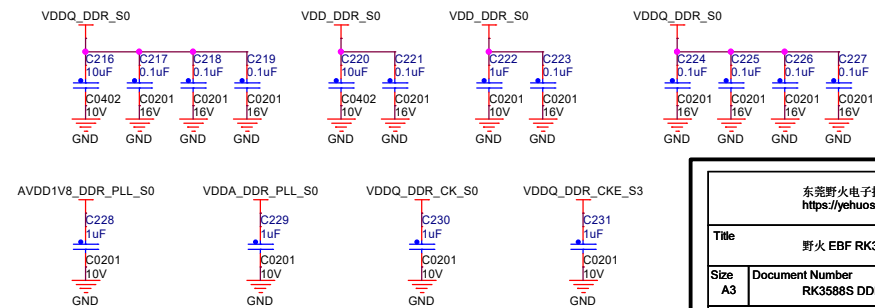
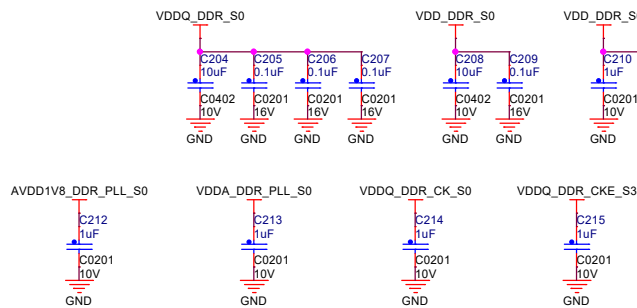
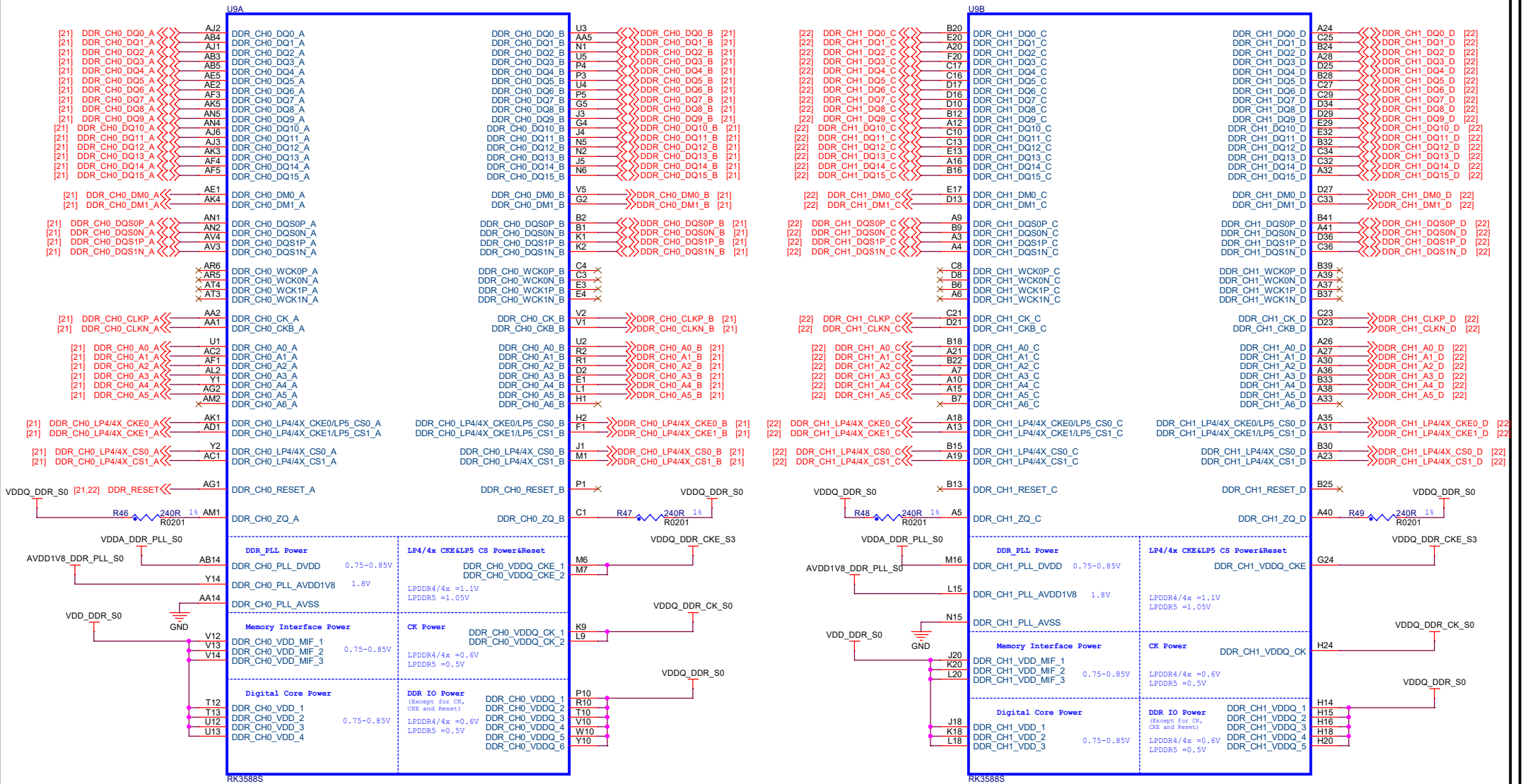
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Title
野火 EBF RK3588S LBC4

Size A4	Document Number RK3588S PMUIO2	Rev V1.0
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Date: Saturday, October 25, 2025	Sheet 10 of 31
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RK3588S DDR CONTROLLER



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Title		
野火 EBF RK3588S LBC4		
Size	Document Number	Rev
A3	RK3588S DDR CONTROLLER	V1.0
Date:	Saturday, October 25, 2025	Sheet 11 of 31

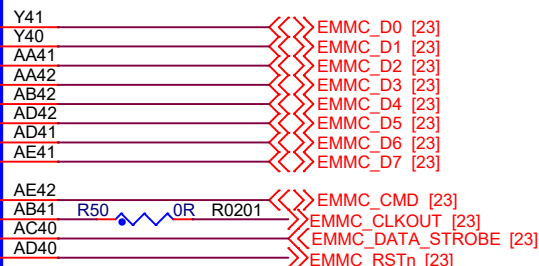
RK3588S EMMCIO

U9C

EMMCIO Domain

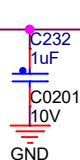
Operating Voltage=1.8V Only

FSPI D0 M0	/ EMMC D0	/ GPIO2 D0 u
FSPI D1 M0	/ EMMC D1	/ GPIO2 D1 u
FSPI D2 M0	/ EMMC D2	/ GPIO2 D2 u
FSPI D3 M0	/ EMMC D3	/ GPIO2 D3 u
UART5 RX M2	/ I2C1 SCL M3	/ EMMC D4
UART5 TX M2	/ I2C1 SDA M3	/ EMMC D5
FSPI CS0N M0	/ EMMC D6	/ GPIO2 D6 u
FSPI CS1N M0	/ EMMC D7	/ GPIO2 D7 u
FSPI CLK M0	/ EMMC CMD	/ GPIO2 A0 u
UART5 CTSN M1	/ I2C2 SDA M2	/ EMMC CLKOUT
UART5 RTSN M1	/ I2C2 SCL M2	/ EMMC DATA STROBE
UART5 RTSN M1	/ I2C2 SCL M2	/ EMMC RSTN



EMMCIO_1V8_1
EMMCIO_1V8_2

VCCIO_FLASH



RK3588S

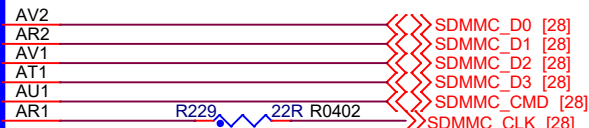
RK3588S VCCIO2

U9D

VCCIO2 Domain

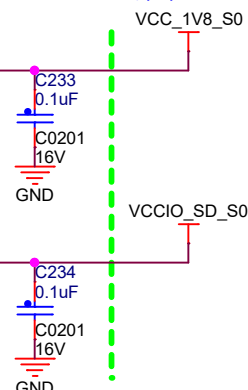
Operating Voltage=1.8V/3.3V

PWM8 M1	/ I2C3 SCL M4	/ PDM1 SDI3 M0	/ JTAG TCK M1	/ UART2 TX M1	/ SDMMC D0	/ GPIO4 D0 u
PWM9 M1	/ I2C3 SDA M4	/ PDM1 SDI2 M0	/ JTAG TMS M1	/ UART2 RX M1	/ SDMMC D1	/ GPIO4 D1 u
	/ I2C8 SCL M0	/ PDM1 SDI1 M0	/ JTAG TCK M0	/ UART5 CTSN M0	/ SDMMC D2	/ GPIO4 D2 u
PWM10 M1	/ I2C8 SDA M0	/ PDM1 SDI0 M0	/ JTAG TMS M0	/ UART5 RTSN M0	/ SDMMC D3	/ GPIO4 D3 u
PWM7 IR M1	/ CAN0 TX M1	/ PDM1 CLK1 M0	/ MCU JTAG TCK M0	/ UART5 RX M0	/ SDMMC CMD	/ GPIO4 D4 u
TEST CLKOUT M0	/ CAN0 RX M1	/ PDM1 CLK0 M0	/ MCU JTAG TMS M0	/ UART5 TX M0	/ SDMMC CLK	/ GPIO4 D5 d



VCCIO2_1V8

VCCIO2



RK3588S

Note:

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Title

野火 EBF RK3588S LBC4

Size
A4

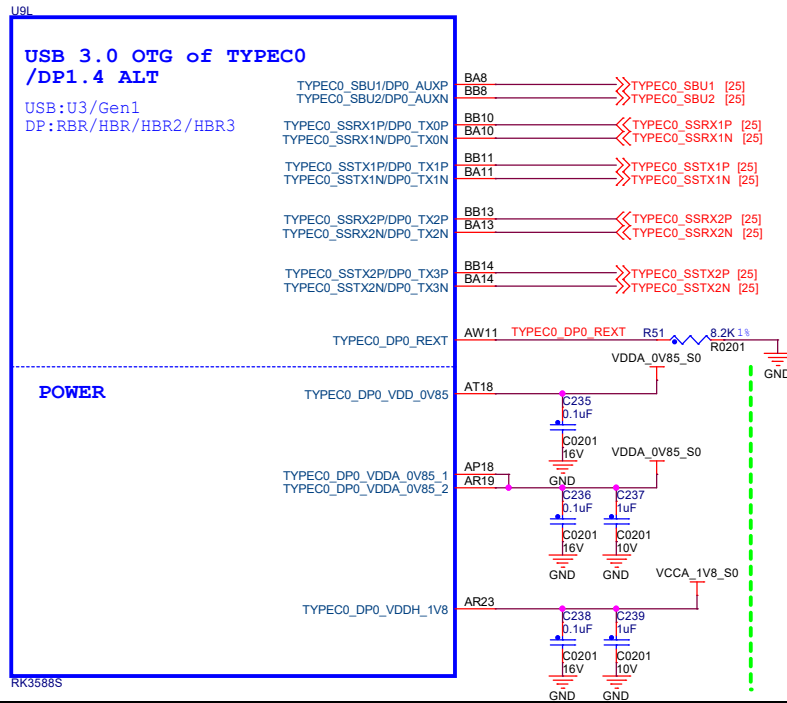
Document Number
RK3588S EMMCIO/VCCIO2

Rev
V1.0

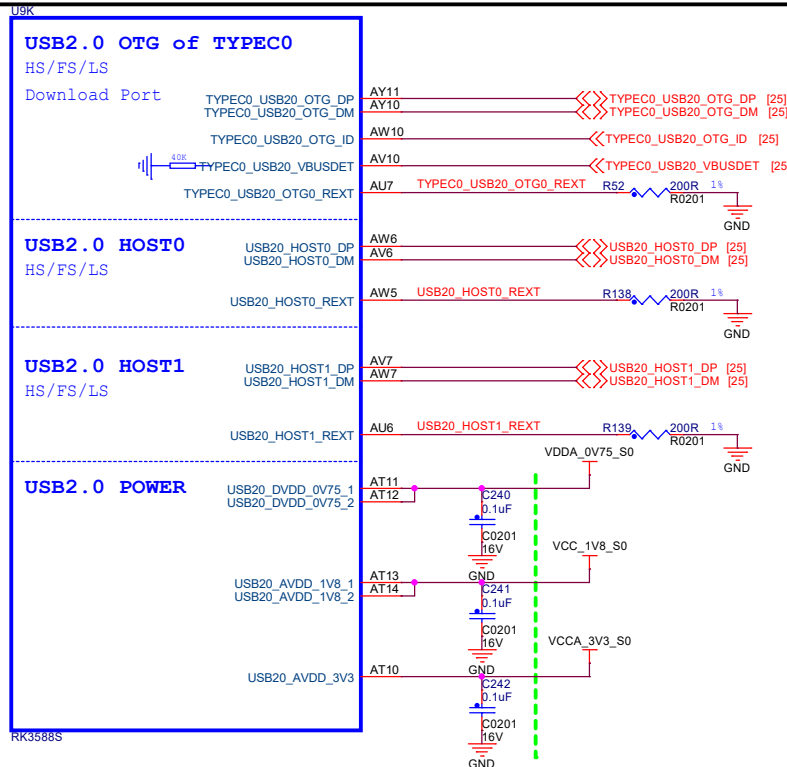
Date: Saturday, October 25, 2025

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RK3588S USB CONTROLLER



RK3588S

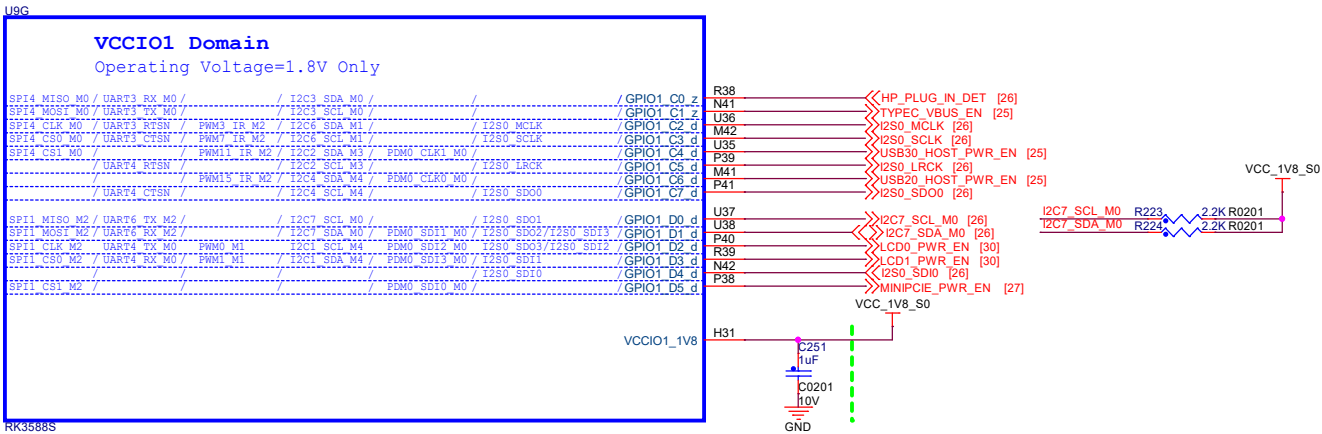


RK3588S

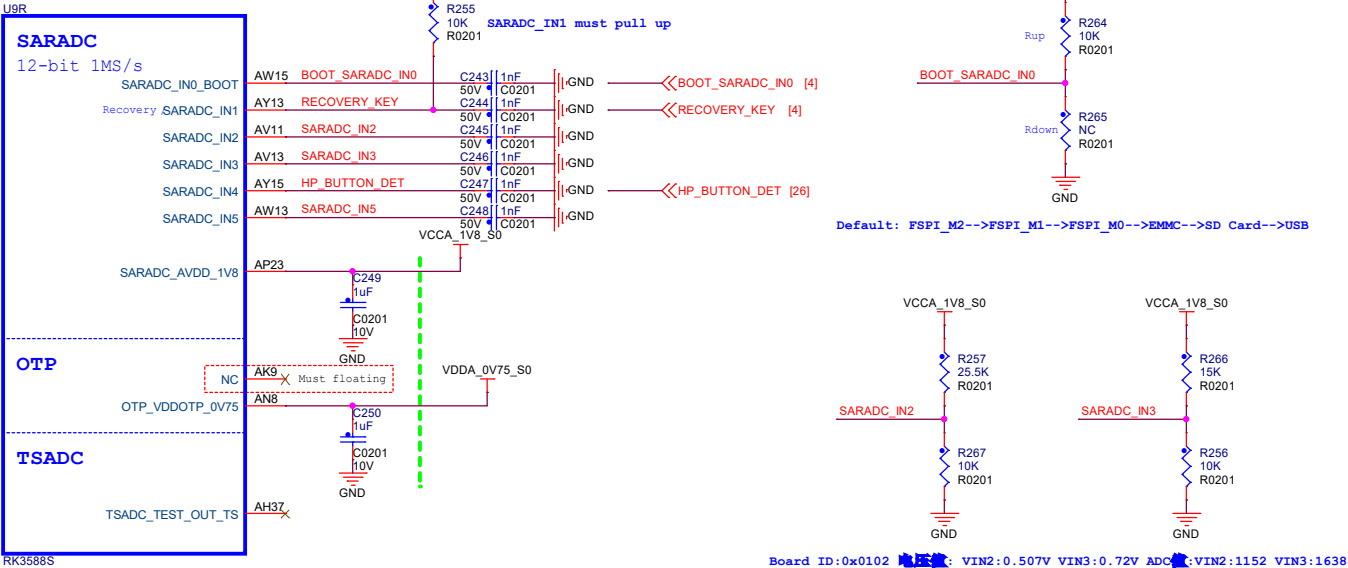
Note:
The Caps between green line and U9 should be placed under the U9 package. Other caps should be placed close to the U9 package

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Title 野火 EBF RK3588S LBC4		
Size A3	Document Number RK3588S USB CONTROLLER	Rev V1.0
Date: Saturday, October 25, 2025		Sheet 13 of 31

RK3588S VCCIO1

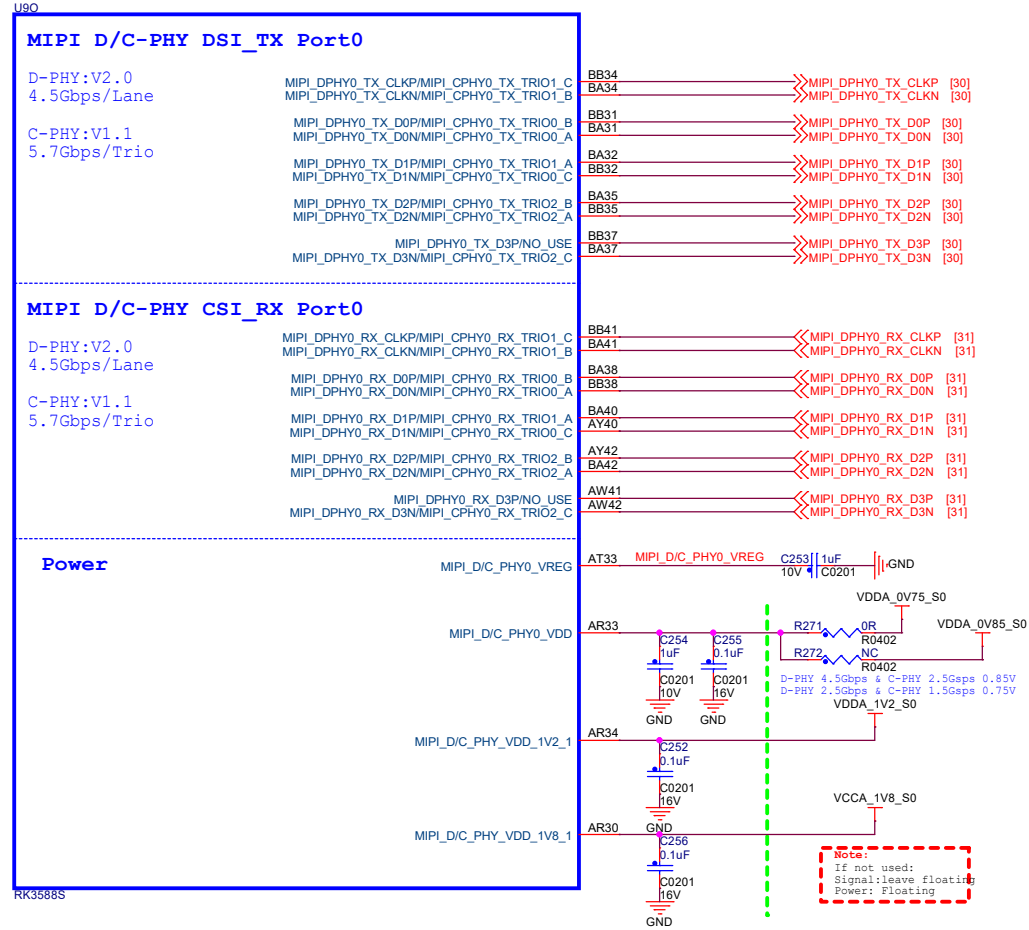


RK3588S SARADC



BOOT MODE CONFIG					
Item	Rup	Rdown	ADC	VOL	BOOT MODE
LEVEL1	DNP	100K	0	0V	USB (Maskrom mode)
LEVEL2	100K	20K	682	0.3V	SD Card-USB
LEVEL3	100K	51K	1365	0.6V	EMMC-USB
LEVEL4	100K	100K	2047	0.9V	FSPI M0-USB
LEVEL5	100K	200K	2730	1.2V	FSPI M1-USB
LEVEL6	100K	499K	3412	1.5V	FSPI M2-USB
LEVEL7	100K	DNP	4095	1.8V	FSPI M2-FSPI M1-FSPI M0-EMMC-SD Card-USB

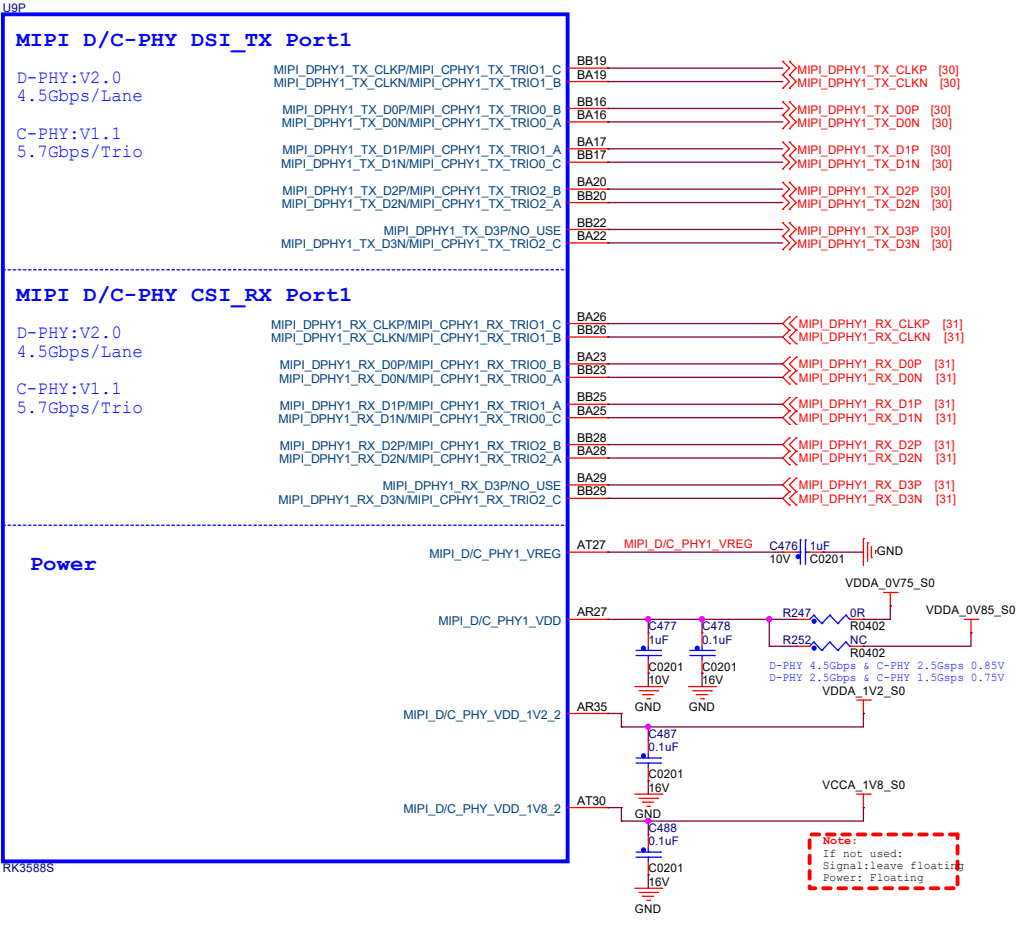
RK3588S MIPI_D/C PHY0



RK3588S

Note:
The Caps between green line and U9 should be placed under the U9 package. Other caps should be placed close to the U9 package

RK3588S MIPI_D/C PHY1



RK3588S

Note:
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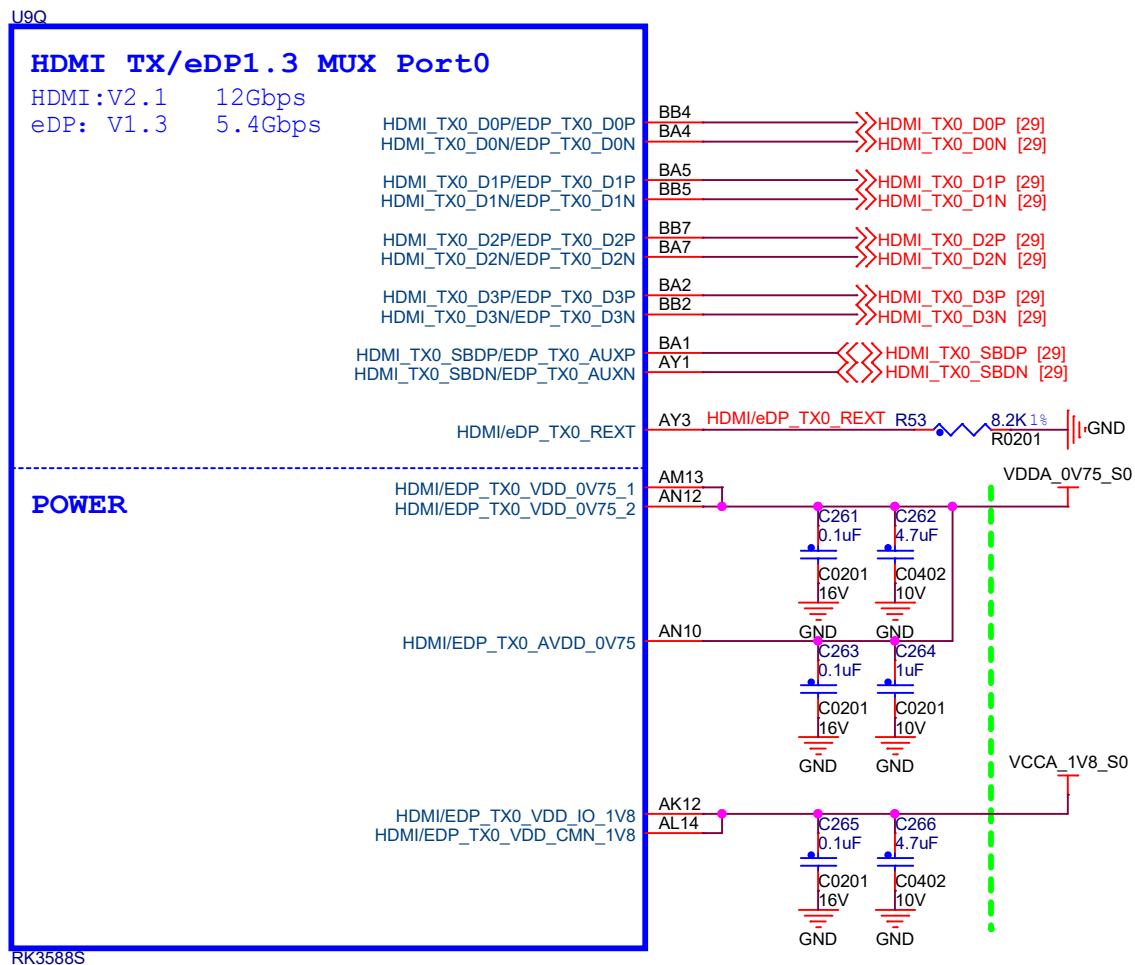
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Title 野火 EBF RK3588S LBC4

Size A3 Document Number RK3588S MIPI_D/C_PHY0/1 Rev V1.0

Date: Saturday, October 25, 2025 Sheet 15 of 31

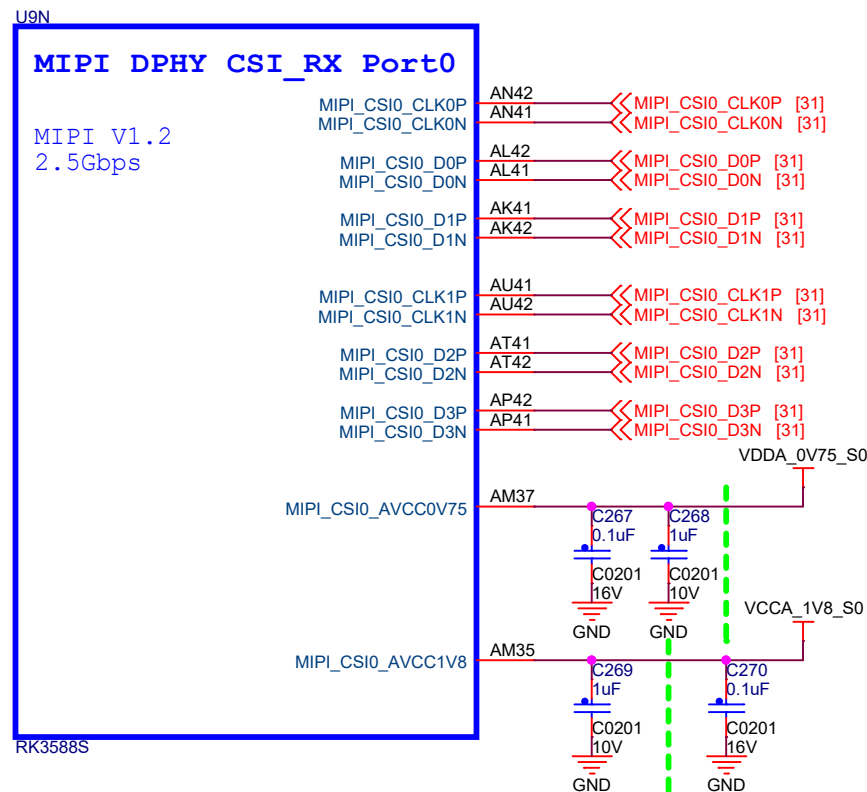
RK3588S HDMI2.1 TX/eDP1.3 TX



Note:

The Caps between green line and U9 should be placed under the U9 package. Other caps should be placed close to the U9 package

RK3588S MIPI_DPHY CSI0 RX



MIPI CSI RX Configuration

Option1	Sensor1 x4Lane	MIPI_CSI_RX_D0-3 MIPI_CSI_RX_CLK0
Option2	Sensor1 x2Lane + Sensor2 x2Lane	MIPI_CSI_RX_D0-1 MIPI_CSI_RX_CLK0
		MIPI_CSI_RX_D2-3 MIPI_CSI_RX_CLK1

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Title

野火 EBF RK3588S LBC4

Size
A4

Document Number
RK3588S MIPI CSI/HDMI2.1 TX

Rev
V1.0

Date: Saturday, October 25, 2025

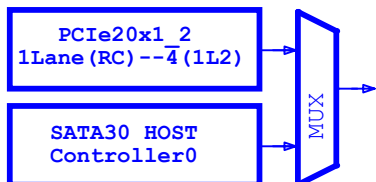
Sheet 16 of 31

RK3588S PCIe20/SATA30/USB30

U9M

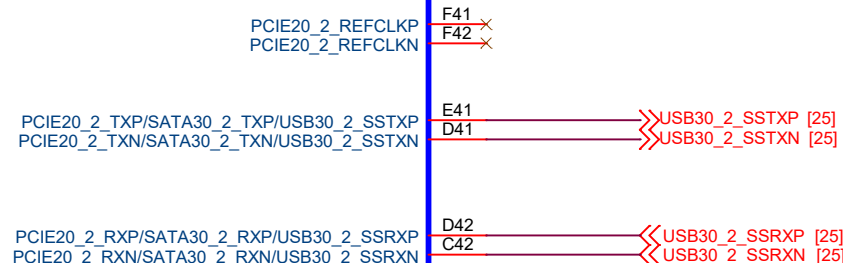
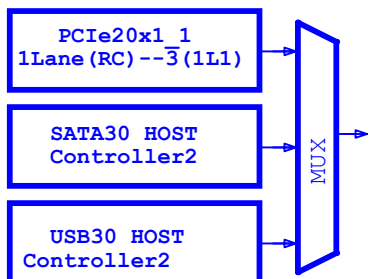
PCIe20/SATA30 Mux0

PCIe20:Gen1/Gen2
SATA30:Gen1/Gen2/Gen3

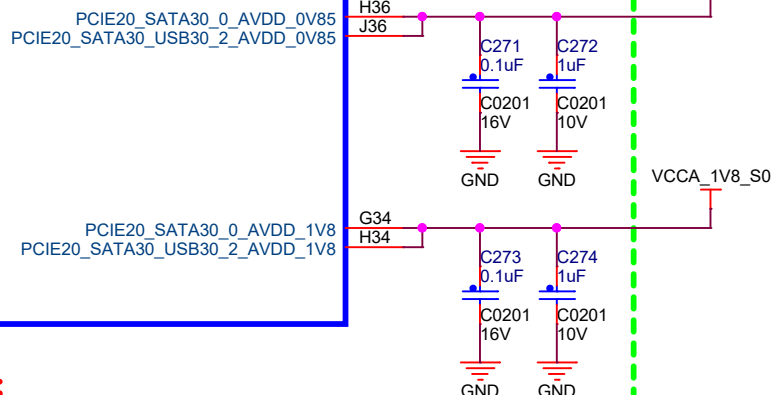


PCIe20/SATA30/USB30 HOST Mux2

PCIe20:Gen1/Gen2
SATA30:Gen1/Gen2/Gen3
USB 30:Gen1



Power



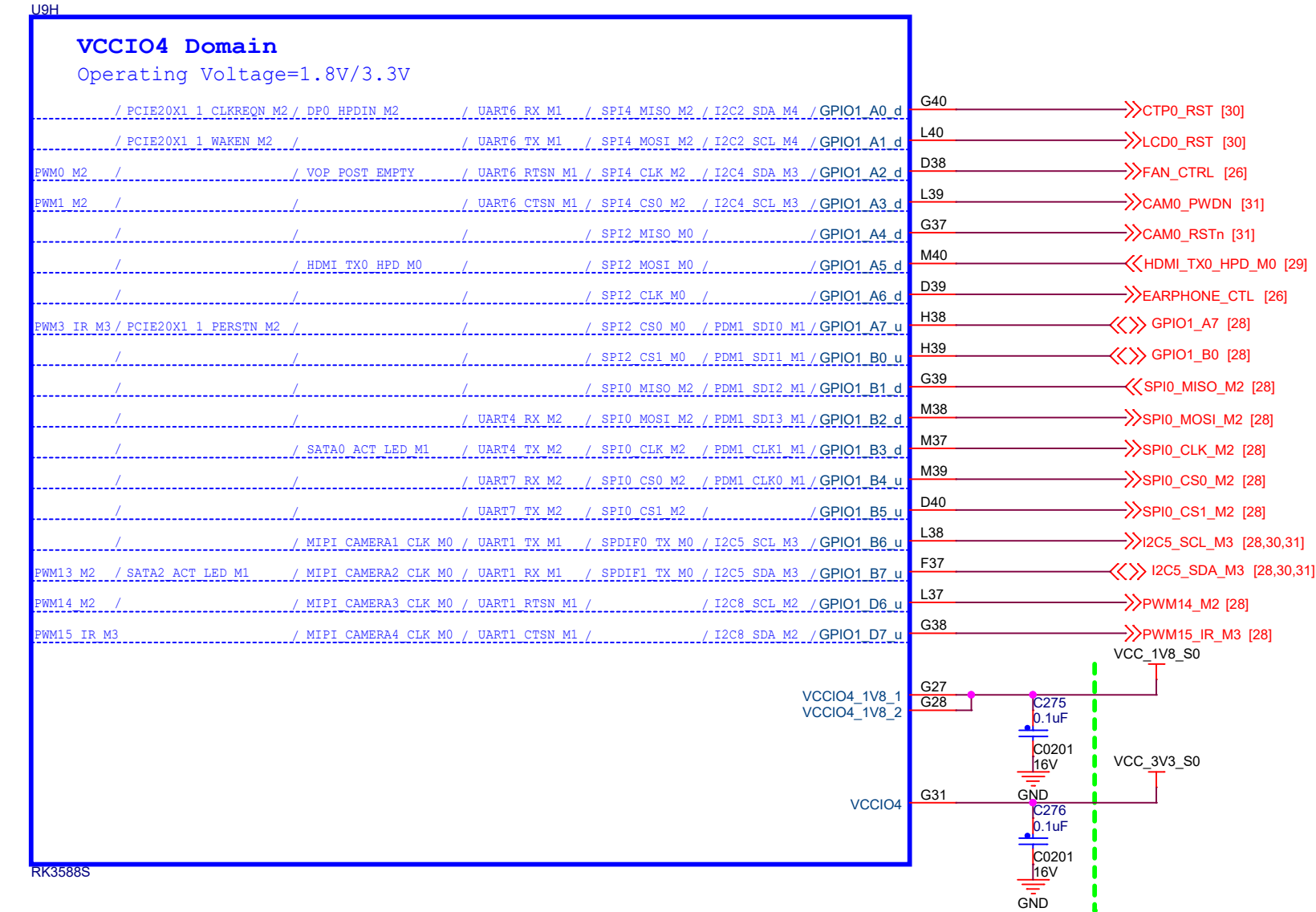
RK3588S

Note:
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Title 野火 EBF RK3588S LBC4		
Size A4	Document Number RK3588SPCIE20/SATA30/USB30	Rev V1.0
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RK3588S VCCIO4



Note:
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Title 野火 EBF RK3588S LBC4		
Size A4	Document Number RK3588S VCCIO4	Rev V1.0
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RK3588S VCCIO5

U9I

VCCIO5 Domain
Operating Voltage=1.8V/3.3V

/ PWM10 M0	/ SPI4 MISO M1	/ I2C6 SDA M4	/ GMAC1 TXD2	/ I2S3 MCLK	/ FSPI D0 M2	/ SDIO D0 M1	/ GPIO3 A0 u								
AUDDSM_LN	/ PWM11 IR M0	/ SPI4 MOSI M1	/ I2C6 SCL M4	/ GMAC1 TXD3	/ I2S3 SCLK	/ FSPI D1 M2	/ SDIO D1 M1	/ GPIO3 A1 u							
AUDDSM_LP	/ UART8 TX M1	/ SPI4 CLK M1	/	/ GMAC1 RXD2	/ I2S3 LRCK	/ FSPI D2 M2	/ SDIO D2 M1	/ GPIO3 A2 u							
AUDDSM_RN	/ UART8 RX M1	/ SPI4 CS0 M1	/	/ GMAC1 RXD3	/ I2S3 SDO	/ FSPI D3 M2	/ SDIO D3 M1	/ GPIO3 A3 u							
AUDDSM_RP	/ UART8 RTSN M1	/ SPI4 CS1 M1	/	/ GMAC1 TXCLK	/ I2S3 SDI	/	/ SDIO CMD M1	/ GPIO3 A4 d							
/	/ UART8 CTSN M1	/	/ I2C4 SDA M0	/ GMAC1 RXCLK	/ FSPI CLK M2	/ MIPI CAMERA0 CLK M1	/ SDIO CLK M1	/ GPIO3 A5 d							
/	/	/	/ I2C4 SCL M0	/ ETH1 REFCLK0 25M	/	/ MIPI CAMERA1 CLK M1	/	/ GPIO3 A6 d							
/	/	/	/	/ GMAC1 RXD0	/	/ MIPI CAMERA2 CLK M1	/ PWM8 M0	/ GPIO3 A7 u							
/	/	/	/	/ GMAC1 RXD1	/	/ MIPI CAMERA3 CLK M1	/ PWM9 M0	/ GPIO3 B0 u							
/	/	/	/	/ GMAC1 RXDV CRS	/	/ MIPI CAMERA4 CLK M1	/ PWM2 M1	/ GPIO3 B1 d							
/	/	/	/	/ GMAC1 TXER	/ I2S2 SDI M1	/	/ PWM3 IR M1	/ GPIO3 B2 d							
/	/	/	/	/ GMAC1 TXD0	/ I2S2 SDO M1	/	/	/ GPIO3 B3 u							
/	/	/	/	/ GMAC1 TXD1	/ I2S2 MCLK M1	/	/	/ GPIO3 B4 u							
/	/	/	/	/ CAN1 RX M0	/ GMAC1 TXEN	/ I2S2 SCLK M1	/	/ PWM12 M0	/ GPIO3 B5 u						
/	/	/	/	/ CAN1 TX M0	/ GMAC1 MCLKINOUT	/ I2S2 LRCK M1	/	/ PWM13 M0	/ GPIO3 B6 d						
/	/	/	/	/ SPI1 MOSI M1	/ I2C3 SCL M1	/ GMAC1 PTP REF CLK	/	/	/ GPIO3 B7 d						
/	/	/	/	/ SPI1 MISO M1	/ I2C3 SDA M1	/ GMAC1 PPSTRIG	/	/	/ GPIO3 C0 d						
/	/	/	/	/ SPI1 CLK M1	/	/ GMAC1 PPSCLK	/	/	/ GPIO3 C1 d						
/	/	/	/	/ SPI1 RTSN M1	/ SPI1 CS0 M1	/ I2C8 SCL M4	/ GMAC1 MDC	/	/ MIPI TE0	/ PWM14 M0	/ GPIO3 C2 d				
/	/	/	/	/ SPI1 CTSN M1	/ SPI1 CS1 M1	/ I2C8 SDA M4	/ GMAC1 MDIO	/	/ MIPI TE1	/ PWM15 IR M0	/ GPIO3 C3 d				
/	/	/	/	/ UART5 TX M1	/ SPI3 CS0 M3	/ CAN2 RX M0	/ CIF D8	/	/	/ FSPI CS0N M2	/	/ GPIO3 C4 u			
/	/	/	/	/ UART5 RX M1	/ SPI3 CS1 M3	/ CAN2 TX M0	/ CIF D9	/	/	/ FSPI CS1N M2	/	/ GPIO3 C5 u			
/	/	/	/	/	/ SPI3 MISO M3	/	/ CIF D10	/	/	/	/	/ GPIO3 C6 u			
/	/	/	/	/	/ SPI3 MOSI M3	/ I2C5 SCL M0	/ CIF D11	/	/	/ PCIE20X1_2 CLKREQN M0	/ HDMI TX0 SCL M2	/	/ GPIO3 C7 u		
/	/	/	/	/	/ UART4 RX M1	/ SPI3 CLK M3	/ I2C5 SDA M0	/ CIF D12	/	/	/ PCIE20X1_2 WAKEN M0	/ HDMI TX0 SDA M2	/ PWM8 M2	/ GPIO3 D0 u	
/	/	/	/	/	/ UART4 TX M1	/ SPI0 MISO M3	/	/ CIF D13	/	/	/ PCIE20X1_2 PERSTN M0	/	/ PWM9 M2	/ GPIO3 D1 d	
/	/	/	/	/	/ UART9 RTSN M2	/ SPI0 MOSI M3	/ I2C7 SCL M2	/ CIF D14	/	/	/	/	/	/ GPIO3 D2 d	
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/	/	/	/	/	/ UART9 RX M2	/ SPI0 CS0 M3	/	/ MCU JTAG TCK M1	/	/	/	/	/ HDMI TX0 HPD M1	/	/ GPIO3 D4 d
/	/	/	/	/	/ UART9 TX M2	/ SPI0 CS1 M3	/	/ MCU JTAG TMS M1	/	/	/	/	/	/ PWM11 IR M3	/ GPIO3 D5 d

RK3588S

RESERVED
VCCIO5_1V8

VCCIO5_1
VCCIO5_2



Note:
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Title 野火 EBF RK3588S LBC4		
Size A3	Document Number RK3588S VCCIO5	Rev V1.0
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RK3588S VCCIO6

U9J

VCCIO6 Domain
Operating Voltage=1.8V/3.3V

BT1120_D0	/	CIF_D0	/	/	I2S1_MCLK_M0	/	UART9_RTSN_M1	/	SPI0_MISO_M1	/	/	PCIE20X1_1_CLKREQN_M1	/	GPIO4_A0_d				
BT1120_D1	/	CIF_D1	/	/	I2S1_SCLK_M0	/	UART9_CTSN_M1	/	SPI0_MOSI_M1	/	/	PCIE20X1_1_WAKEN_M1	/	GPIO4_A1_d				
BT1120_D2	/	CIF_D2	/	/	I2S1_LRCK_M0	/	/	/	SPI0_CLK_M1	/	/	PCIE20X1_1_PERSTN_M1	/	GPIO4_A2_d				
BT1120_D3	/	CIF_D3	/	/	/	/	UART0_TX_M2	/	/	/	/	/	/	GPIO4_A3_d				
BT1120_D4	/	CIF_D4	/	/	/	/	UART0_RX_M2	/	SPI2_MISO_M1	/	I2C3_SCL_M2	/	/	GPIO4_A4_d				
BT1120_D5	/	CIF_D5	/	/	I2S1_SDI0_M0	/	UART3_TX_M2	/	SPI2_MOSI_M1	/	I2C3_SDA_M2	/	/	GPIO4_A5_d				
BT1120_D6	/	CIF_D6	/	/	I2S1_SDI1_M0	/	UART3_RX_M2	/	SPI2_CLK_M1	/	I2C5_SCL_M2	/	/	GPIO4_A6_d				
BT1120_D7	/	CIF_D7	/	/	I2S1_SDI2_M0	/	/	/	SPI2_CS0_M1	/	I2C5_SDA_M2	/	/	GPIO4_A7_d				
BT1120_CLKOUT	/	CIF_CLKIN	/	/	I2S1_SDI3_M0	/	UART8_TX_M0	/	SPI2_CS1_M1	/	I2C6_SDA_M3	/	/	GPIO4_B0_u				
SPDIF1_TX_M1	/	MIP1_CAMERA0_CLK_M0	/	SATA2_ACT_LED_M0	/	I2S1_SDO0_M0	/	UART8_RX_M0	/	SPI0_CS1_M1	/	I2C6_SCL_M3	/	GPIO4_B1_u				
CAN1_RX_M1	/	BT1120_D8	/	CIF_HREF	/	PWM14_M1	/	I2S1_SDO1_M0	/	UART8_RTSN_M0	/	SPI0_CS0_M1	/	I2C7_SCL_M3	/	PCIE20X1_1_BUTTON_RSTN	/	GPIO4_B2_u
CAN1_TX_M1	/	BT1120_D9	/	CIF_VSYNC	/	PWM15_IR_M1	/	I2S1_SDO2_M0	/	UART8_CTSN_M0	/	/	/	I2C7_SDA_M3	/	PCIE20X1_2_BUTTON_RSTN	/	GPIO4_B3_u
BT1120_D10	/	CIF_CLKOUT	/	PWM11_IR_M1	/	I2S1_SDO3_M0	/	UART9_TX_M1	/	/	/	DP0_HPDIN_M0	/	SPDIF0_TX_M1	/	/	/	GPIO4_B4_u
BT1120_D11	/	/	/	PWM12_M1	/	/	/	UART9_RX_M1	/	SPI3_MISO_M1	/	/	/	/	/	/	/	GPIO4_B5_d
BT1120_D12	/	/	/	PWM13_M1	/	/	/	/	/	SPI3_MOSI_M1	/	I2C5_SCL_M1	/	SATA0_ACT_LED_M0	/	/	/	GPIO4_B6_d
BT1120_D13	/	/	/	/	/	HDMI_TX0_SCL_M0	/	/	/	SPI3_CLK_M1	/	I2C5_SDA_M1	/	PCIE20X1_2_CLKREQN_M1	/	/	/	GPIO4_B7_u
BT1120_D14	/	/	/	/	/	HDMI_TX0_SDA_M0	/	/	/	SPI3_CS0_M1	/	I2C8_SCL_M3	/	PCIE20X1_2_WAKEN_M1	/	/	/	GPIO4_C0_u
BT1120_D15	/	SPDIF1_TX_M2	/	PWM6_M1	/	HDMI_TX0_CEC_M0	/	/	/	SPI3_CS1_M1	/	I2C8_SDA_M3	/	PCIE20X1_2_PERSTN_M1	/	/	/	GPIO4_C1_d

Note:
BT1120 Only Support Output

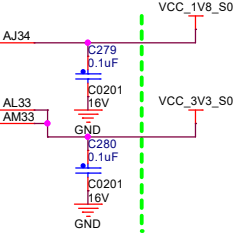
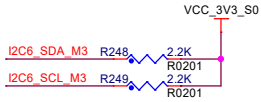
VCCIO6_1V8

VCCIO6_1

VCCIO6_2

RK3588S

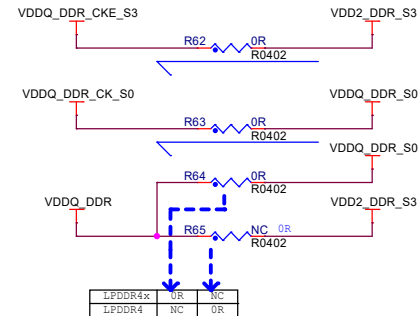
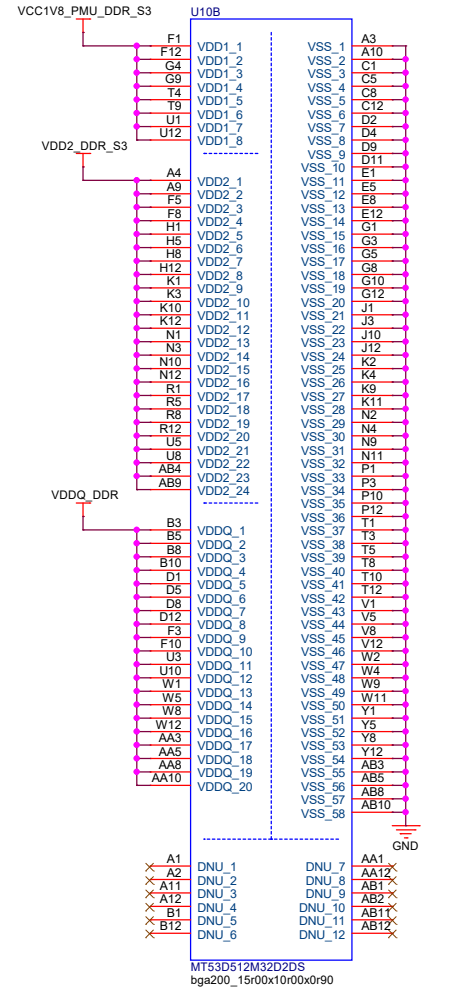
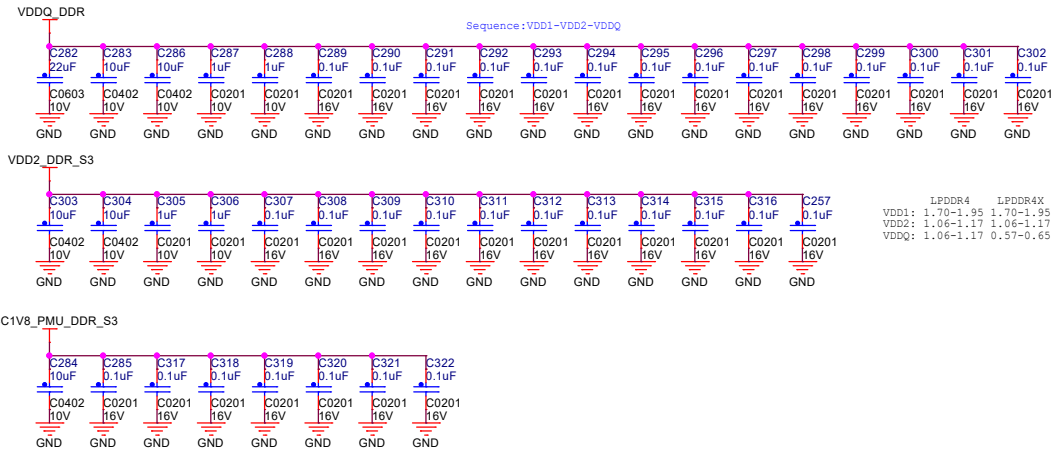
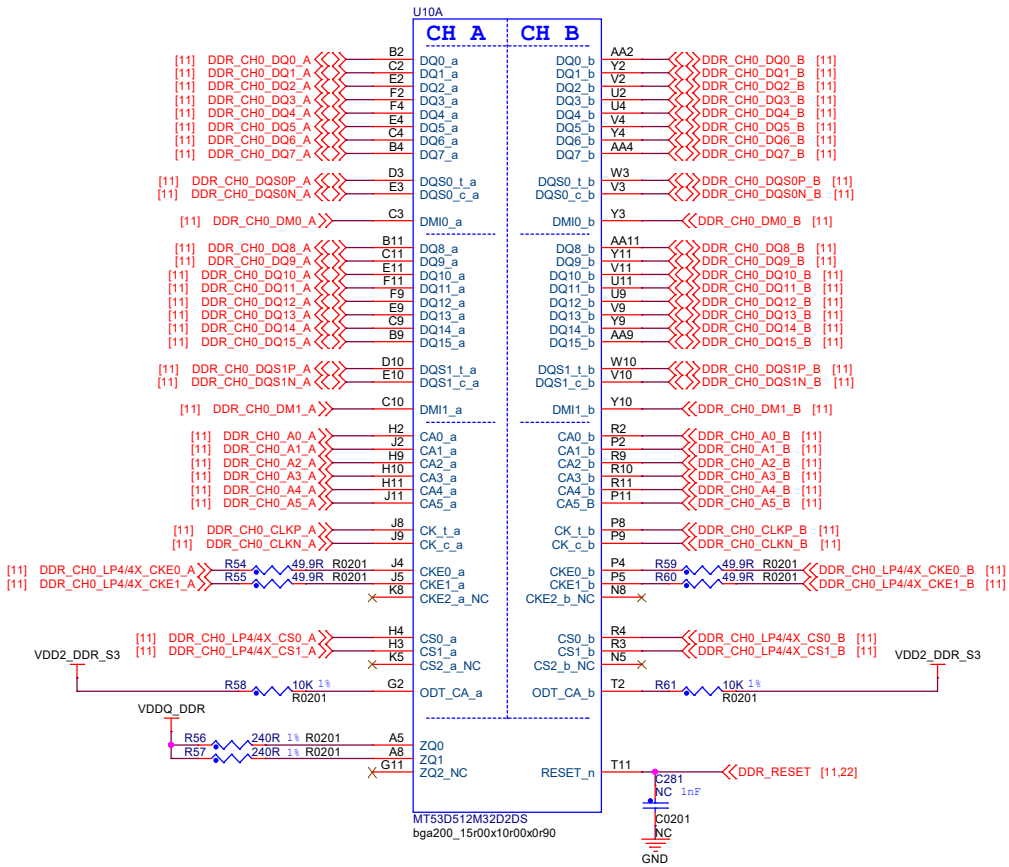
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AW18	<<<>>>	CTP1_INT [30]
AV26	<<<>>>	CTP1_RST [30]
AY19	<<<>>>	UART0_TX_M2 [28]
AW19	<<<>>>	UART0_RX_M2 [28]
AU15	<<<>>>	CAM1_PWDN [31]
AV18	<<<>>>	CAM1_RSTn [31]
AW26	<<<>>>	CAM2_PWDN [31]
AW27	<<<>>>	I2C6_SDA_M3 [28,30,31]
AU22	<<<>>>	I2C6_SCL_M3 [28,30,31]
AT15	<<<>>>	CAM2_RSTn [31]
AV23	<<<>>>	TYPECO_SBU1_DC [25]
AV27	<<<>>>	TYPECO_SBU2_DC [25]
AU23	<<<>>>	SYS_LED [26]
AW22	<<<>>>	HDMI0_TX_ON [29]
AV22	<<<>>>	HDMI_TX0_SCL_M0 [29]
AW23	<<<>>>	HDMI_TX0_SDA_M0 [29]
AY26	<<<>>>	HDMI_TX0_CEC_M0 [29]



Note:
The Caps between green line and U9 should be placed under the U9 package. Other caps should be placed close to the U9 package

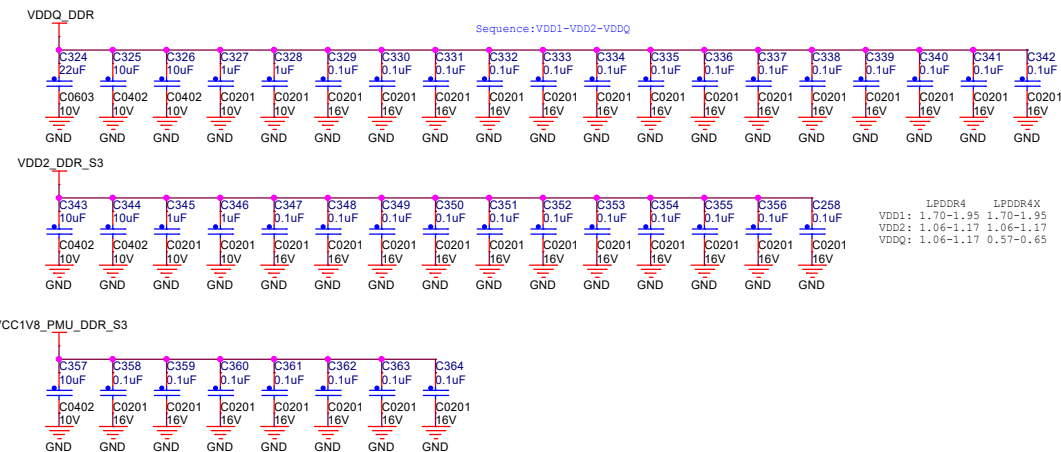
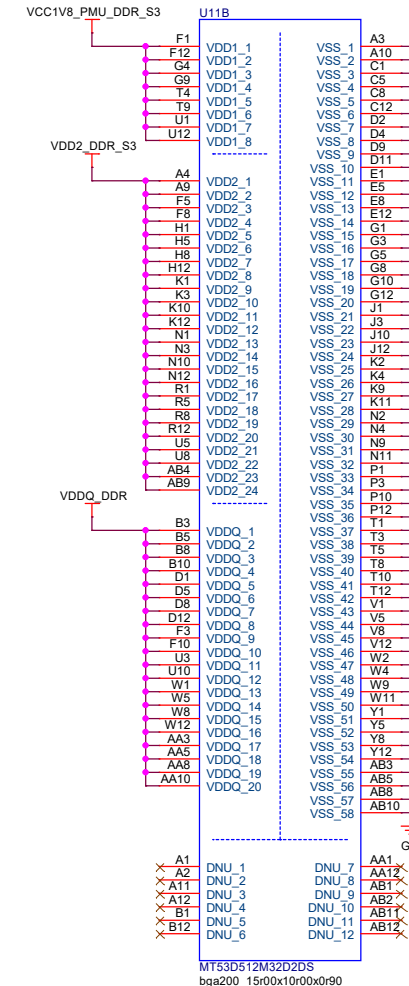
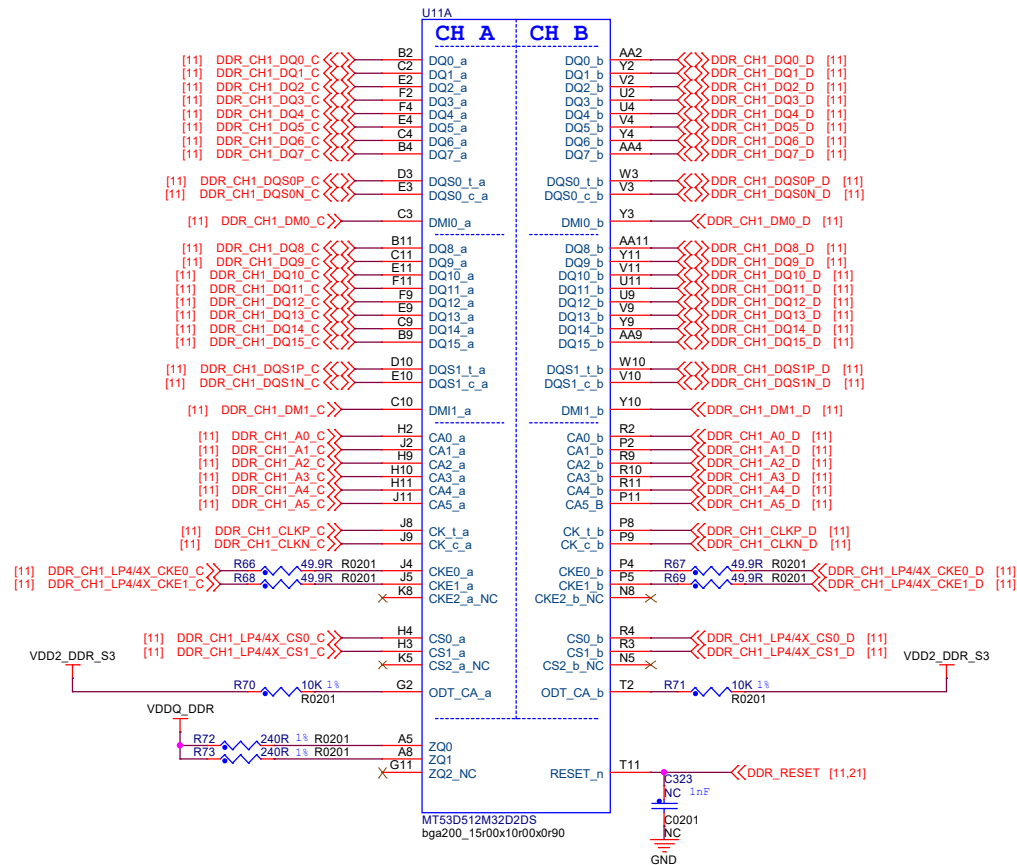
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LPDDR4/LPDDR4x_1

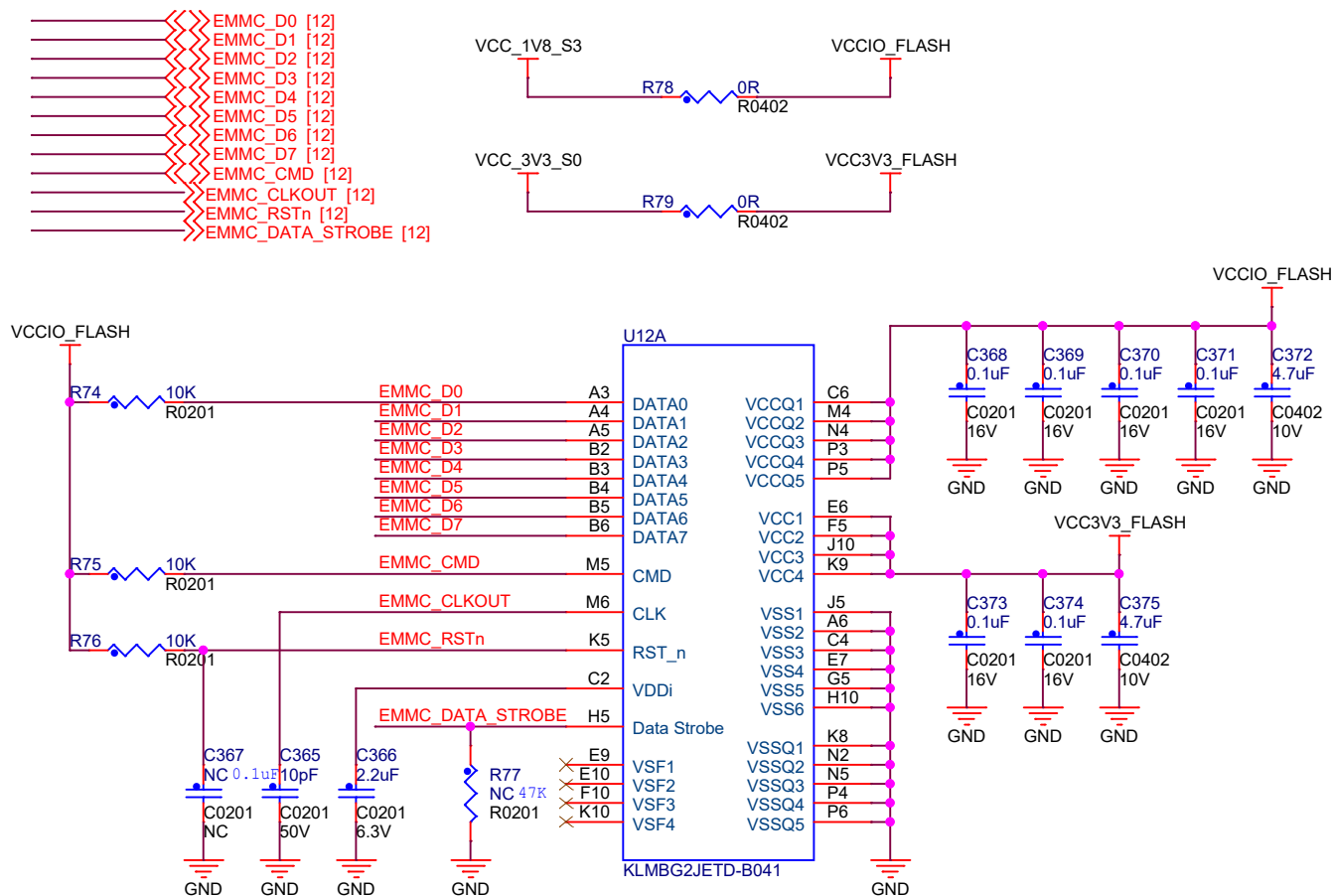
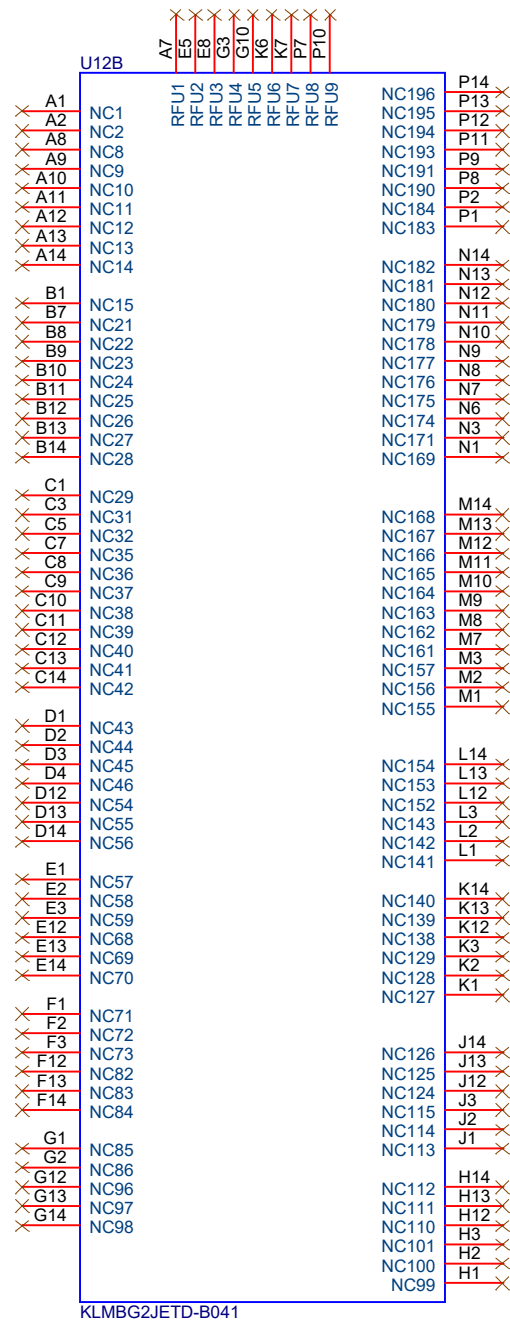


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Size A3	Document Number LPDDR4/LPDDR4x_1	Rev V1.0	
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LPDDR4/LPDDR4x_2

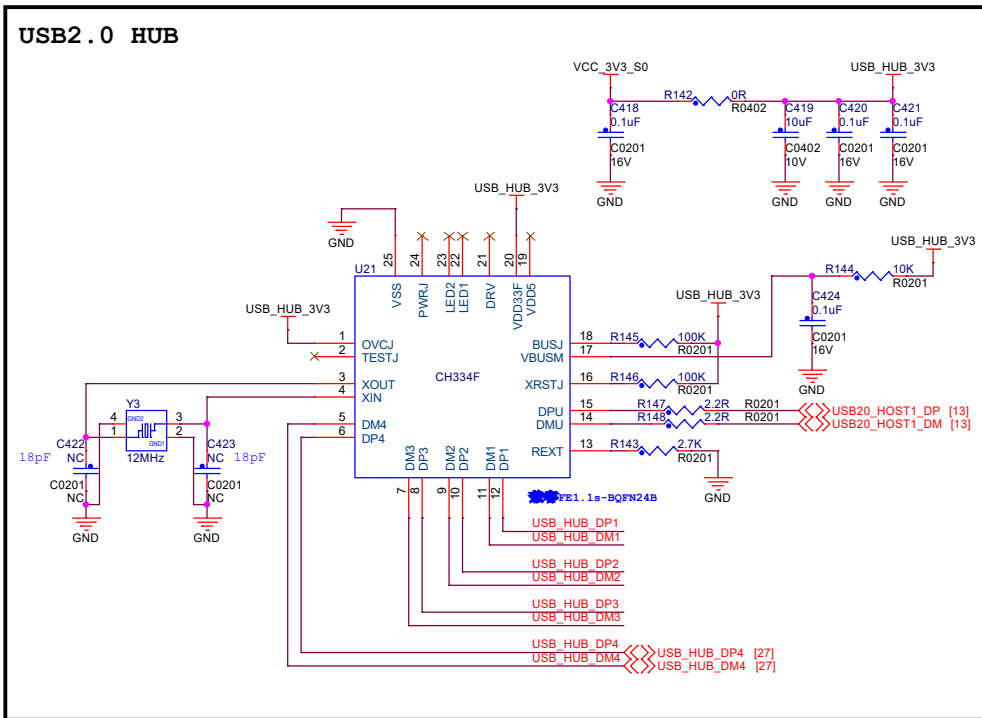
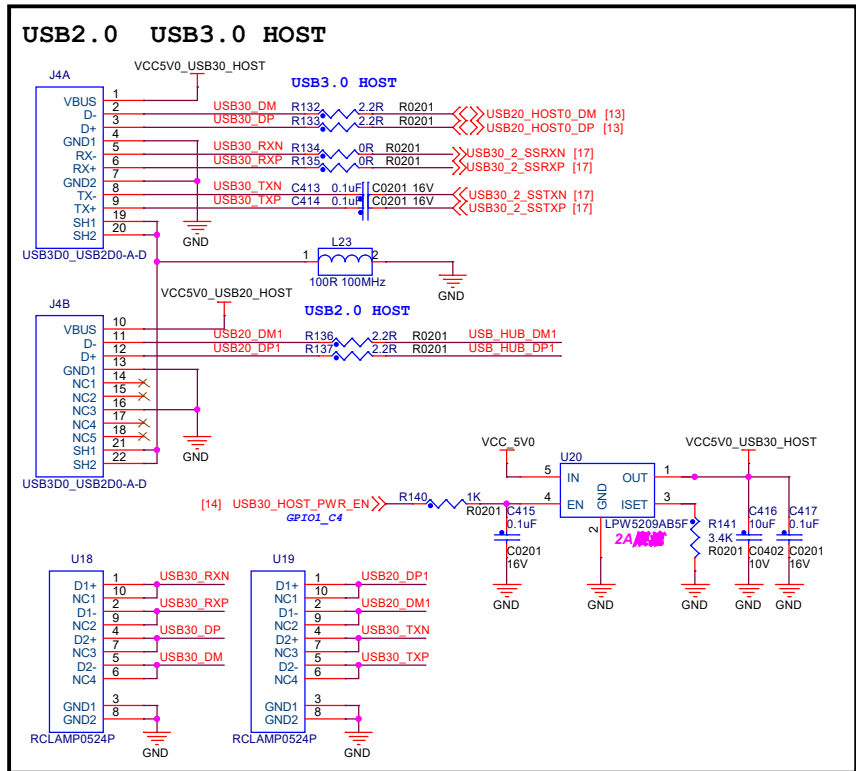
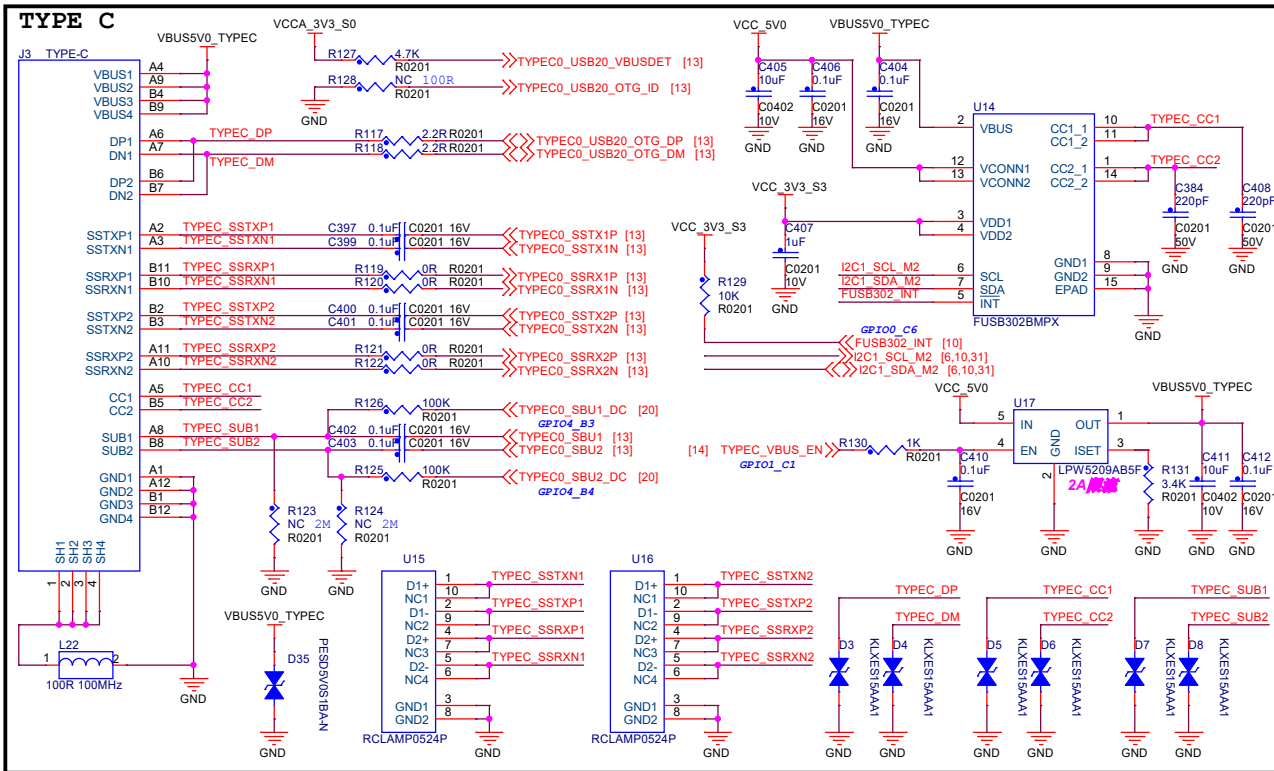


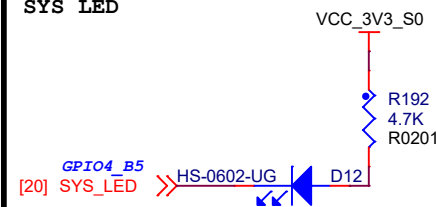
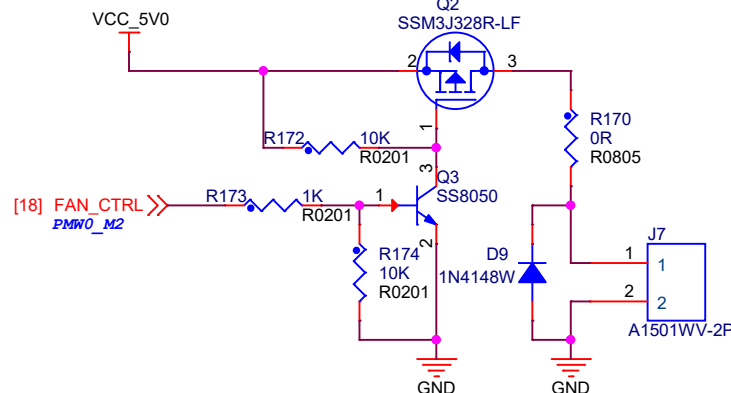
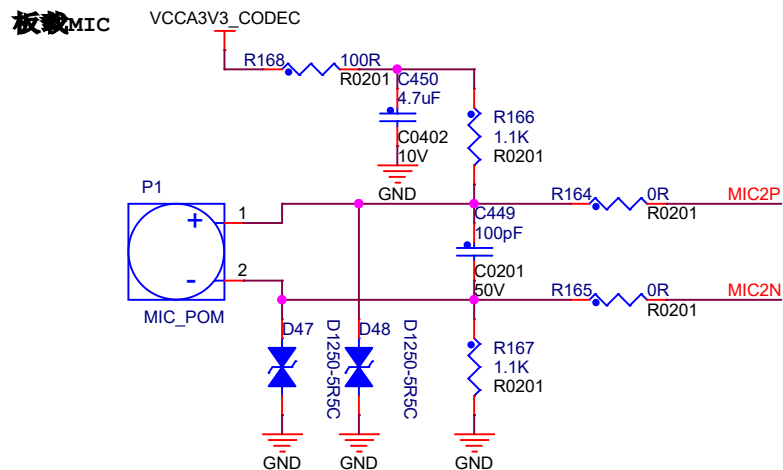
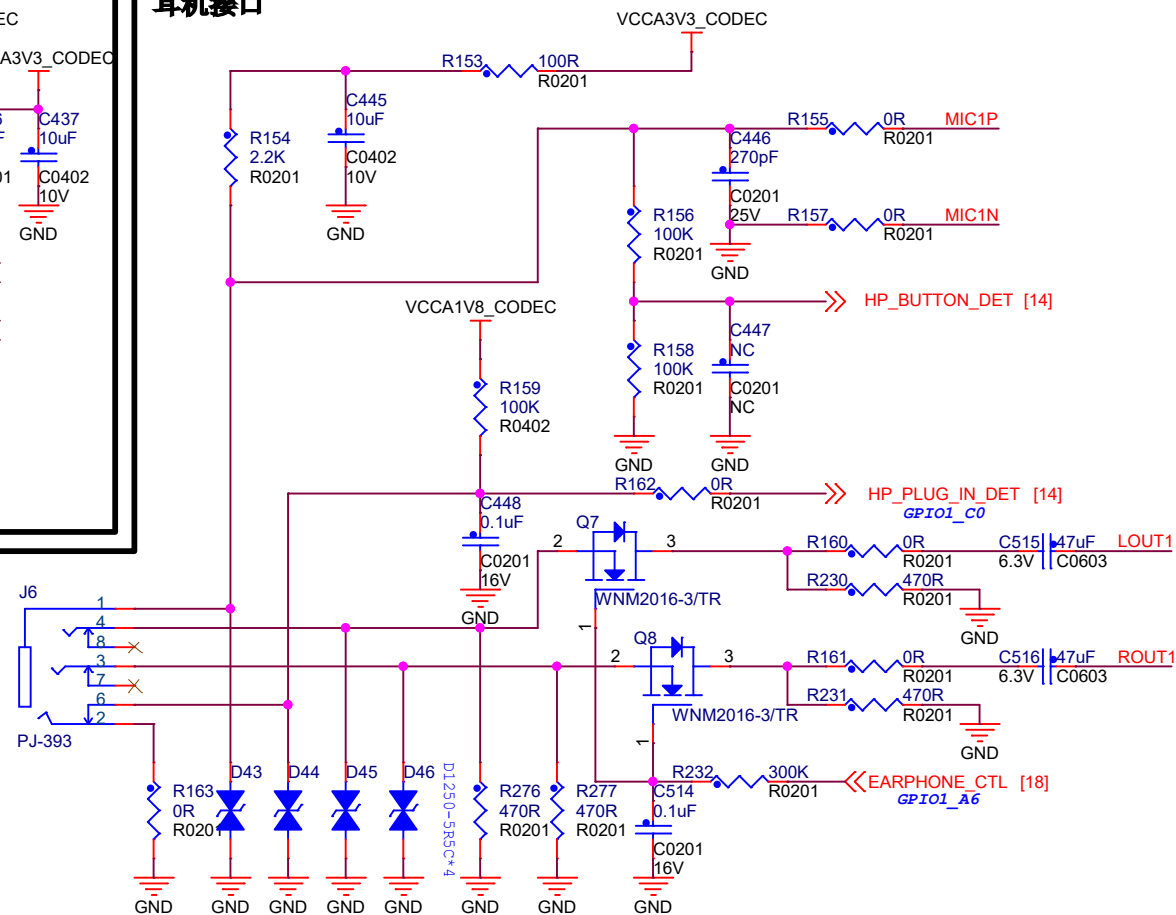
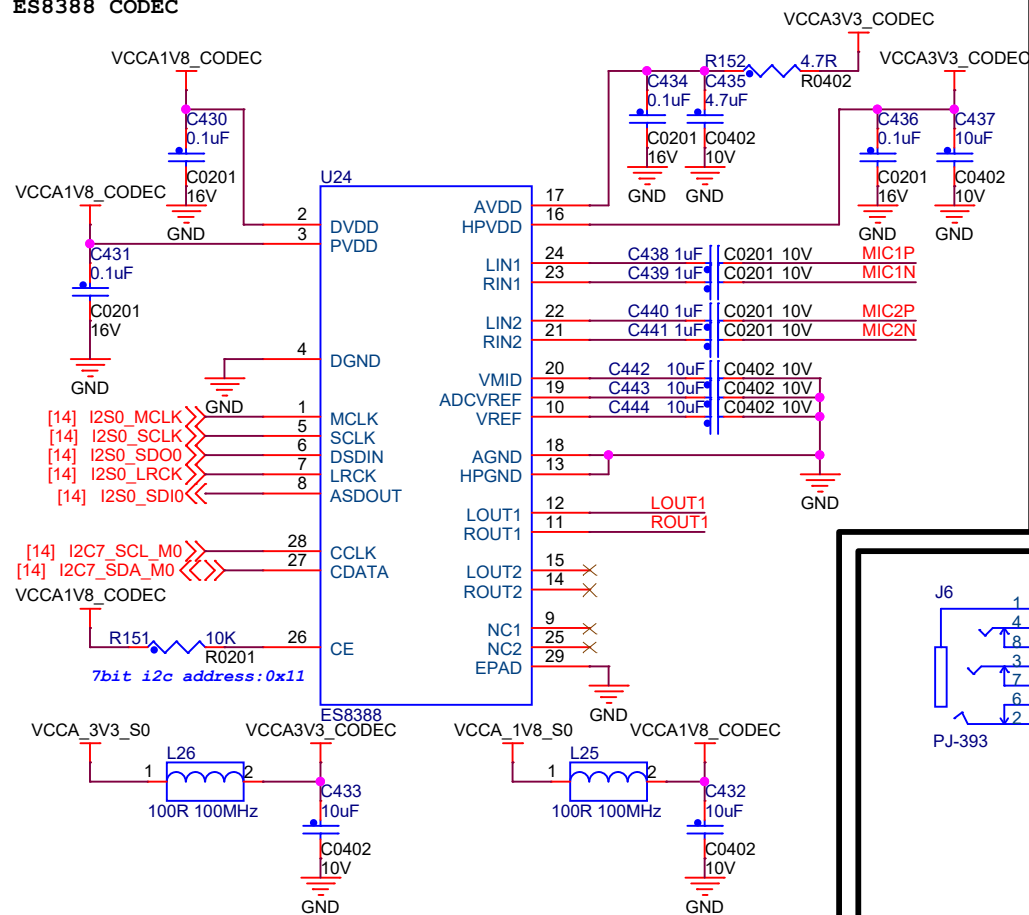
EMMC FLASH



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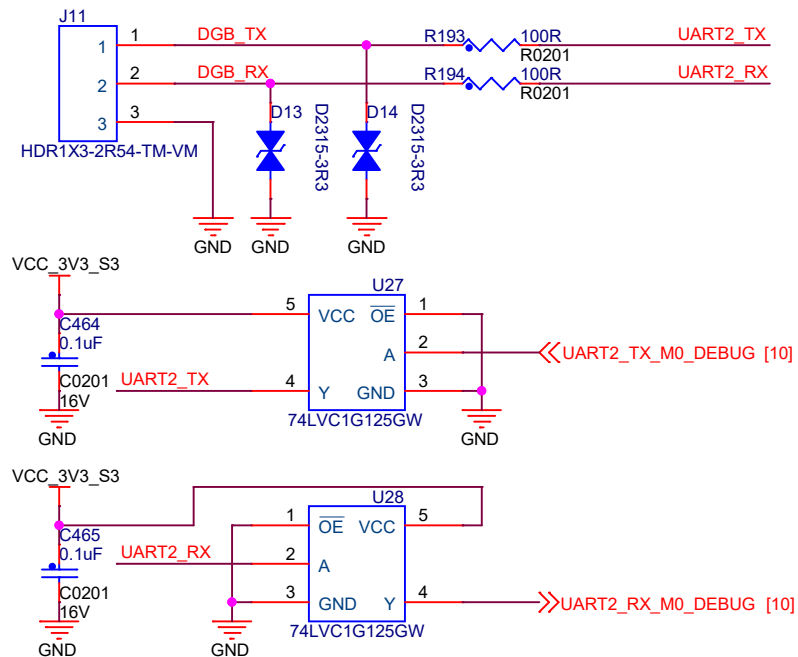
Title		
野火 EBF RK3588S LBC4		
Size	Document Number	Rev
A4	EMMC FLASH	V1.0
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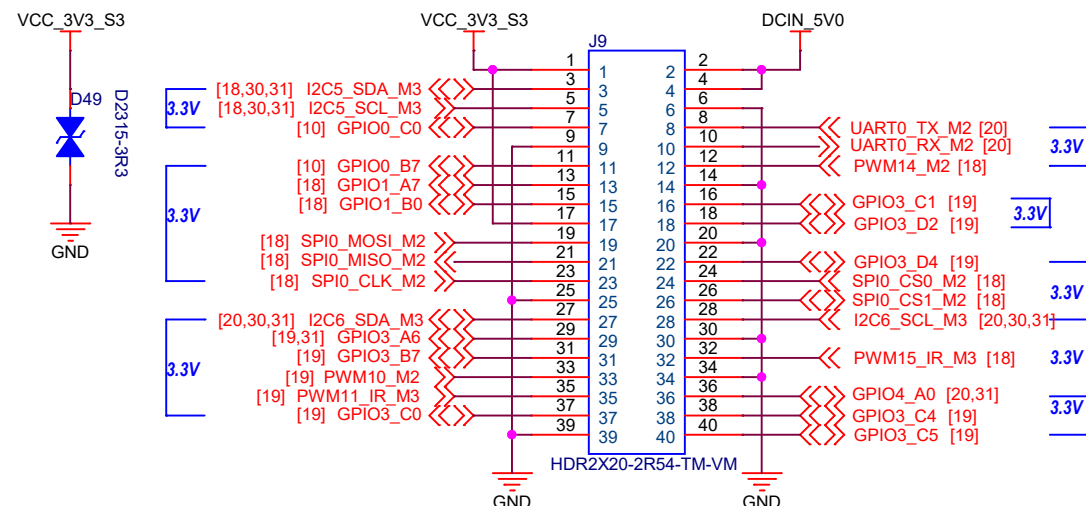


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Debug接口

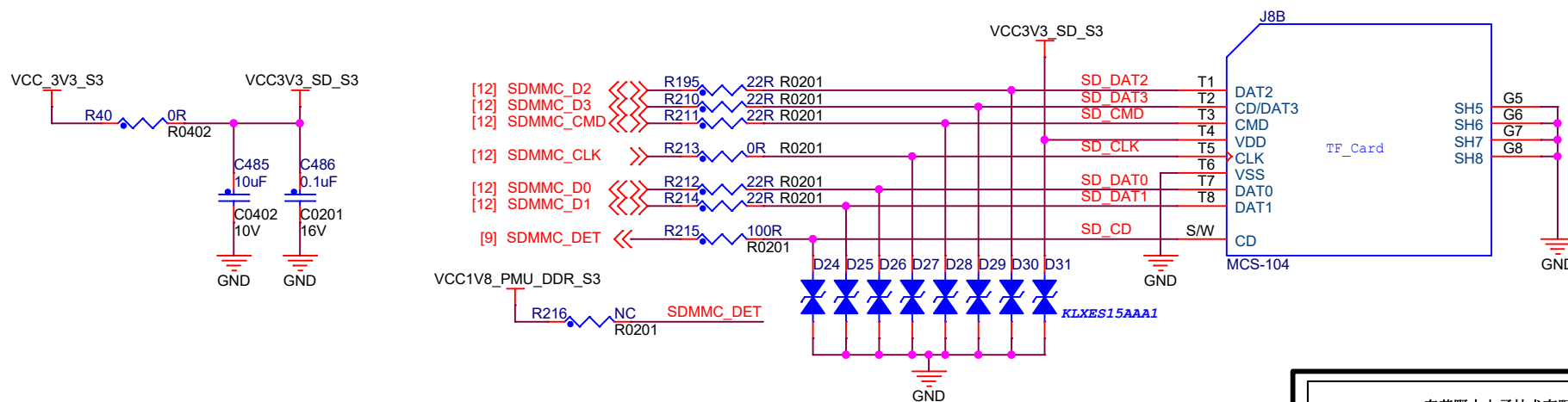


IO 引出



注：所有引出的GPIO只兼容3.3V

SD Card



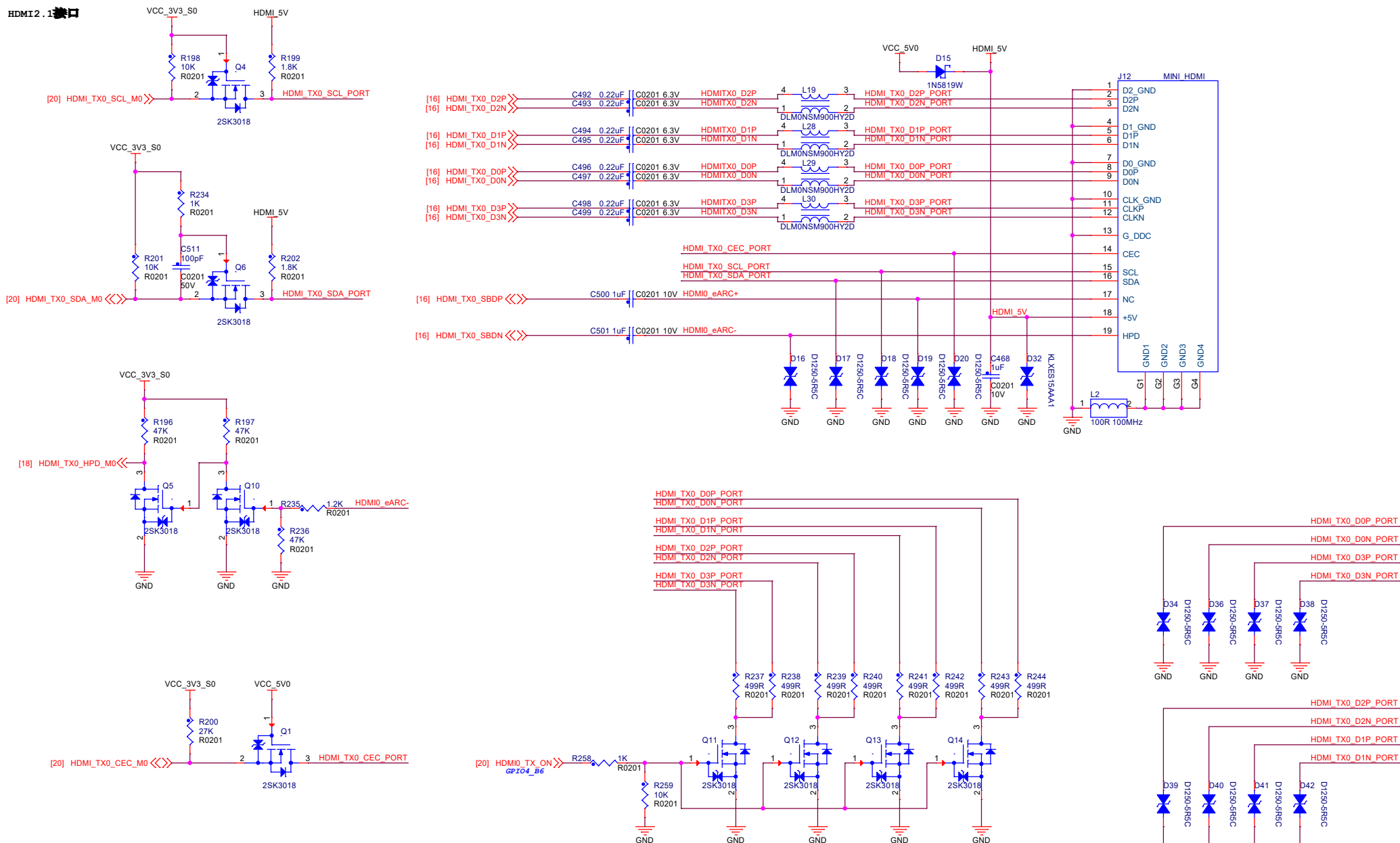
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Size A4	Document Number SD Card/DEBUG/IO引出	Rev V1.0
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HDMI2.1接口



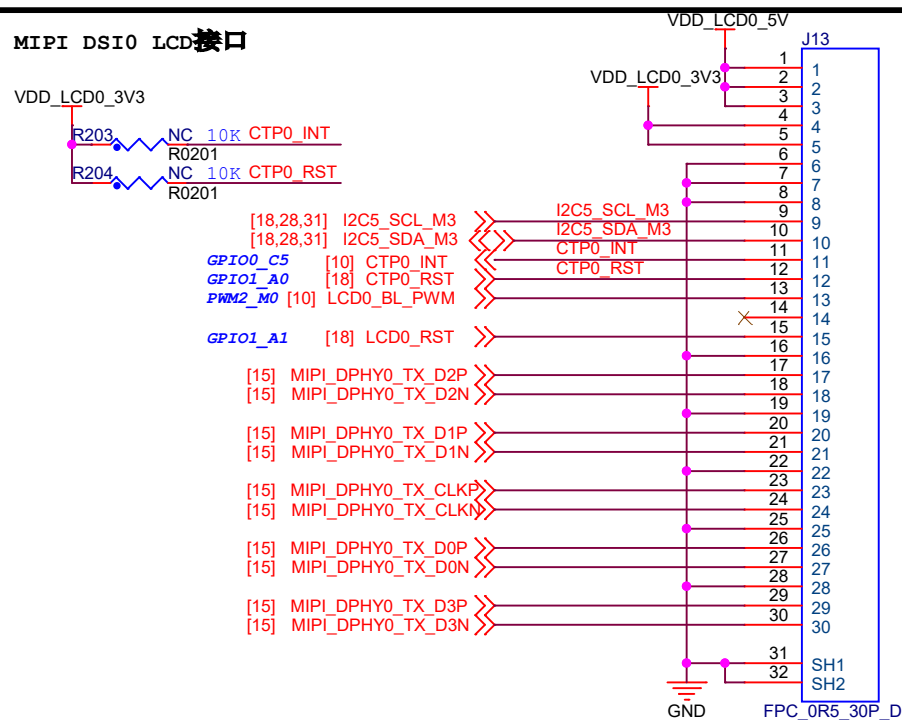
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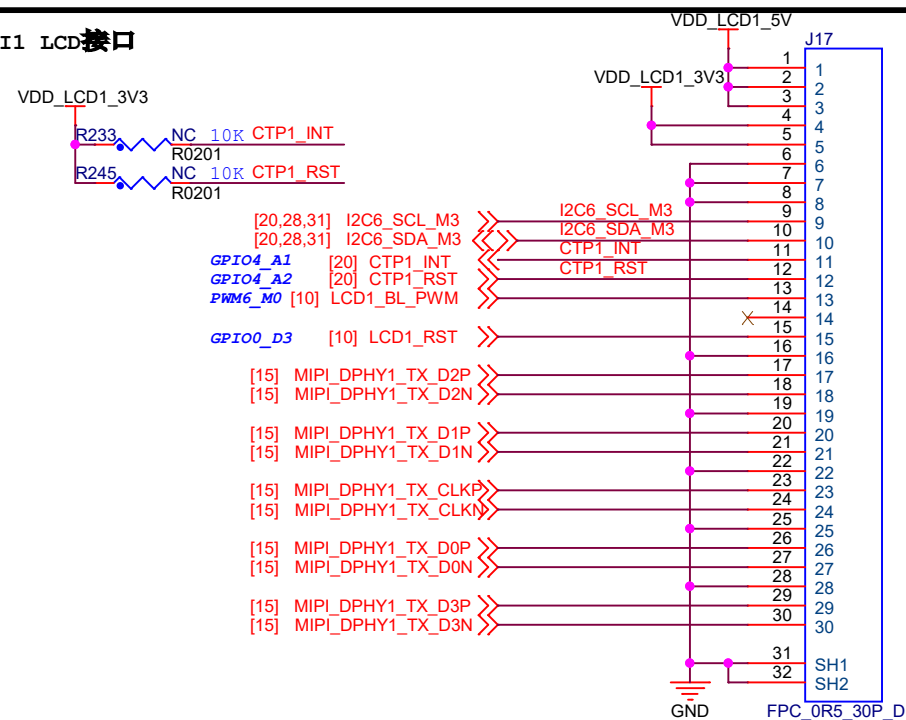
Size	Document Number	Rev
A3	HDMI2.1接口	V1.0

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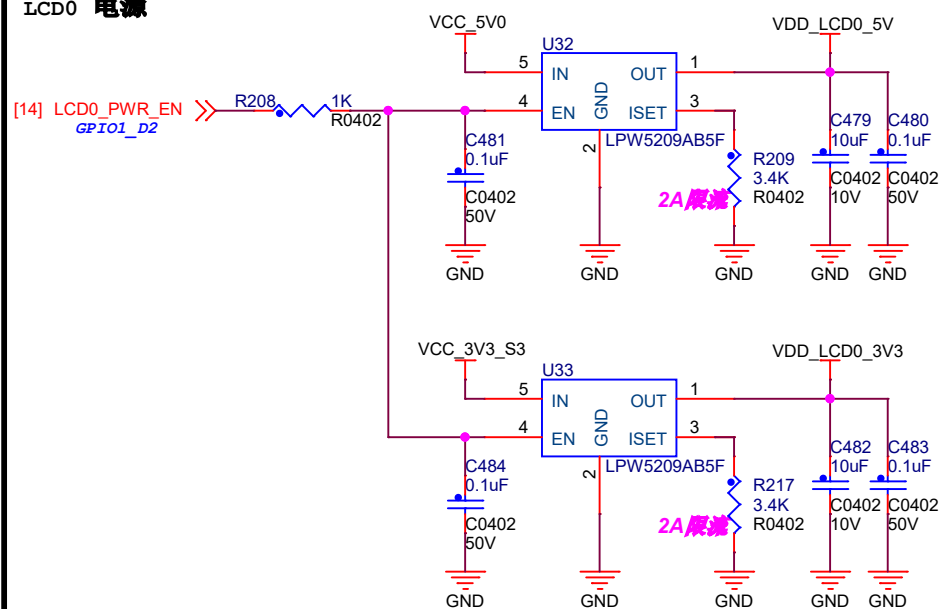
MIPI DSI0 LCD接口



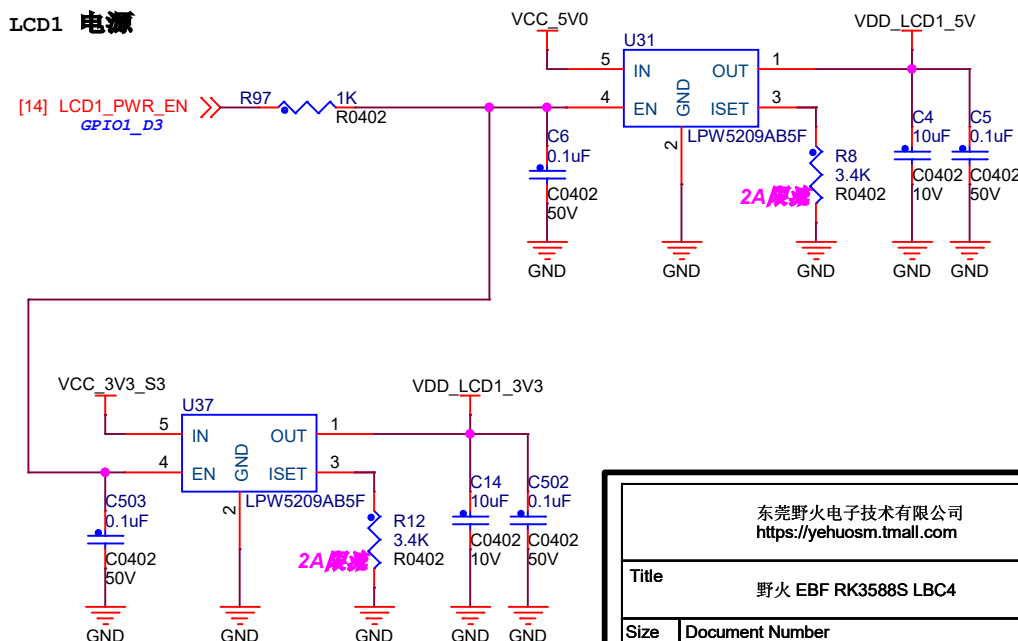
MIPI DSI1 LCD接口



LCD0 电源



LCD1 电源



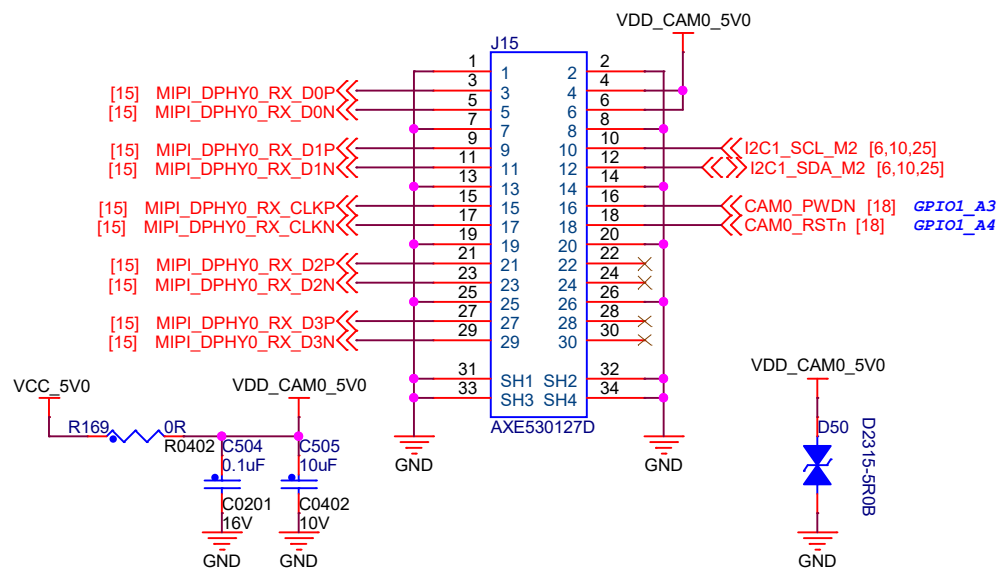
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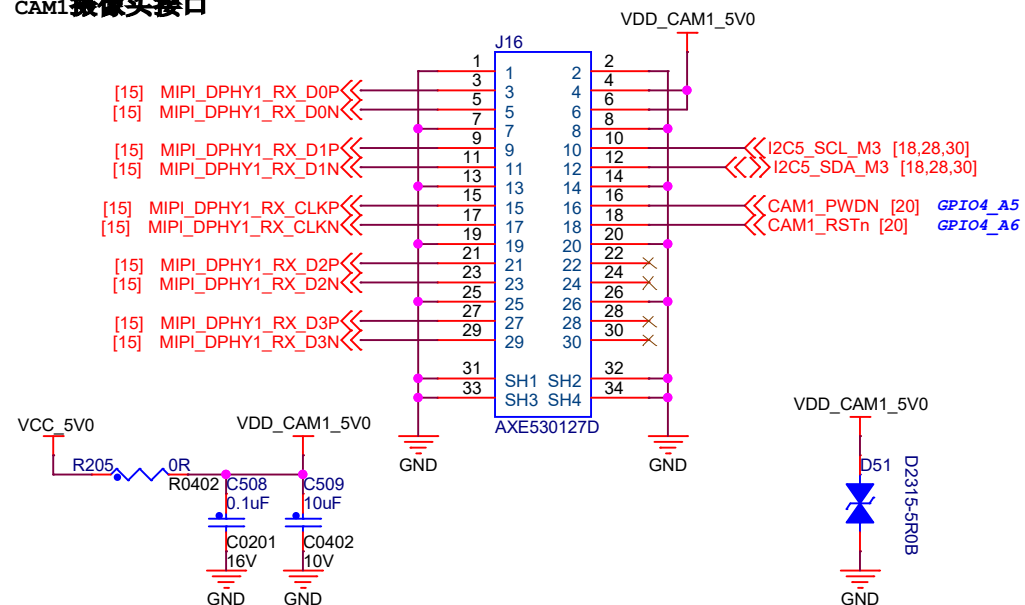
Size A4 Document Number MIPI DSI/MIPI CSI接口 Rev V1.0

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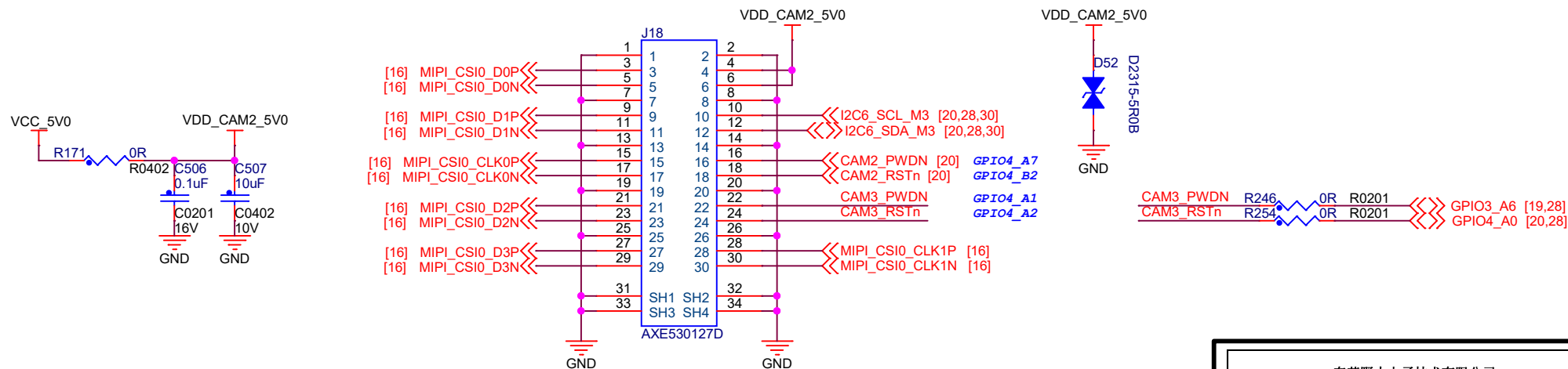
CAM0摄像头接口



CAM1摄像头接口



CAM2摄像头接口



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