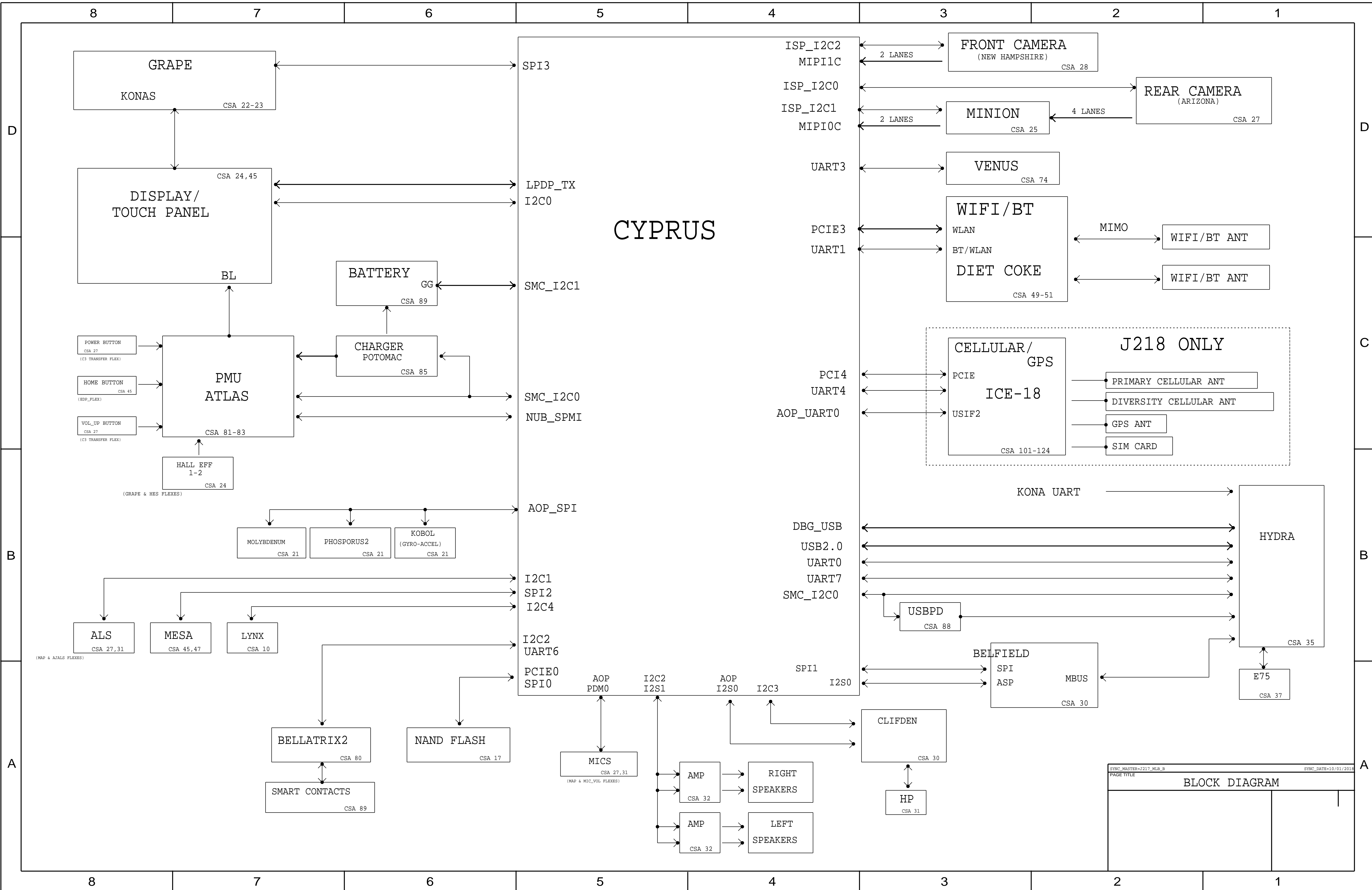


8		7		6		5		4		3		2		1		
1. ALL RESISTANCE VALUES ARE IN OHMS, 0.1 WATT +/- 5%. 2. ALL CAPACITANCE VALUES ARE IN MICROFARADS. 3. ALL CRYSTALS & OSCILLATOR VALUES ARE IN HERTZ.												REV	ECN	DESCRIPTION OF REVISION	CK APPD DATE	
												4	0014262075	ENGINEERING RELEASED	2018-10-01	
J217: MLB-A																
LAST_MODIFICATION=Mon Oct 1 11:34:53 2018																
D																
C																
B																
A																



D

CKPLUS WAIVE TABLE

CKPLUS RULE EXCEPTIONS	REQUIRED
SCHEMATIC DEFINED CONSTRAINTS (YES/NO)	NO

B

A

ALTERNATES

PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
371S0730	371S00172			D82P0
155S00200	155S00400		FL2860	
155S00194	155S00400			FL2860
128S00067	128S00094			C81C0-2
128S00069	128S00094			C81C0-2
155S0755	155S00341			FL2700-2, FL4540, FL4710
131S00172	131S00164			Z20FF,16V,01005
131S00173	131S00164		Q2743,C2801,...	
376S00159	376S00311			Q8061
377S0116	377S00132			D23540
138S00116	138S00071			C810D-E,...
138S00117	138S00071			C810D-E,...
138S00143	138S00144			C81A0-4,...
138S00163	138S00144			C81A0-4,...
138S00138	138S00139		C133A-B,...	
138S00164	138S00139			C133A-B,...
138S00084	138S00060			C8563-69,...
152S01037	152S00887			L8101-03,...
132S00229	132S00010			C8555-57
152S00963	152S00885		L8190,A0	
372S0194	372S0187			Q3790,Q8990
376S00319	376S00104			Q2201
376S00182	376S00126			Q8580
155S0664	155S00018			FL2742,48,...
152S00964	152S00888		L8121,41	
152S01003	152S00888			L8121,41

NOMAN'S UPDATED LIST

131S00299	131S00118			
132S00232	132S00014			
138S00148	138S00149			
138S00150	138S00149			
138S00151	138S00149			
138S00049	138S0831			
138S00086	138S0884			
155S0660	155S0513			
197S00120	197S00118			
371S0685	371S00176			
376S1245	376S1102			

SOC

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
339S00544	1	POP,CYPRUS+3GB 18NM,B1,M,DEV,CSP1262	U0600	CRITICAL	
PART NUMBER		ALTERNATE FOR PART NUMBER	BOM REF ID#S	COMMENTS:	
339S00545		339S00544	U0600		HYNIX
339S00546		339S00544		U0600	SAMSUNG

NAND

BEST FLASH CONFIGURATIONS (64GB)

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
335S00286	1	NAND,3DV3,64GBT,848,256G,SD,SLGA110	U1700	CRITICAL	BEST
PART NUMBER		ALTERNATE FOR PART NUMBER	BOM REF ID#S	COMMENTS:	
335S00359		335S00286		U1700	TOSHIBA

ULTIMATE FLASH CONFIGURATIONS (128GB)

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
335S00357	1	NAND,3DV3,128GBT,848,256G,T,SLGA110	U1700	CRITICAL	ULTIMATE
PART NUMBER		ALTERNATE FOR PART NUMBER	BOM OPTION	COMMENTS:	
335S00246		335S00357	U1700	WD	

SUPREME FLASH CONFIGURATIONS (256GB)

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
335S00247	1	NAND,3DV3,256GBT,848,256G,SD,SLGA110	U1700	CRITICAL	SUPREME
PART NUMBER		ALTERNATE FOR PART NUMBER	BOM REF ID#S	COMMENTS:	
335S00358		335S00247	U1700	TOSHIBA	

EXTREME FLASH CONFIGURATIONS (512GB)

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
335S00339	1	NAND,3DV4,512GBT,848,512G,SD,SLGA110	U1700	CRITICAL	EXTREME
PART NUMBER		ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
335S00343		335S00339	U1700	HYNIX	

CCG2

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
341S01186	1	PROM ASSY,IC,CCG2,FW,CYRESS,V0.3,CSP20	U8809	CRITICAL	

KOBOL

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
338S00367	1	IC,KOBOL,BM1282AA,1GR16	U2150	CRITICAL	KOBOL

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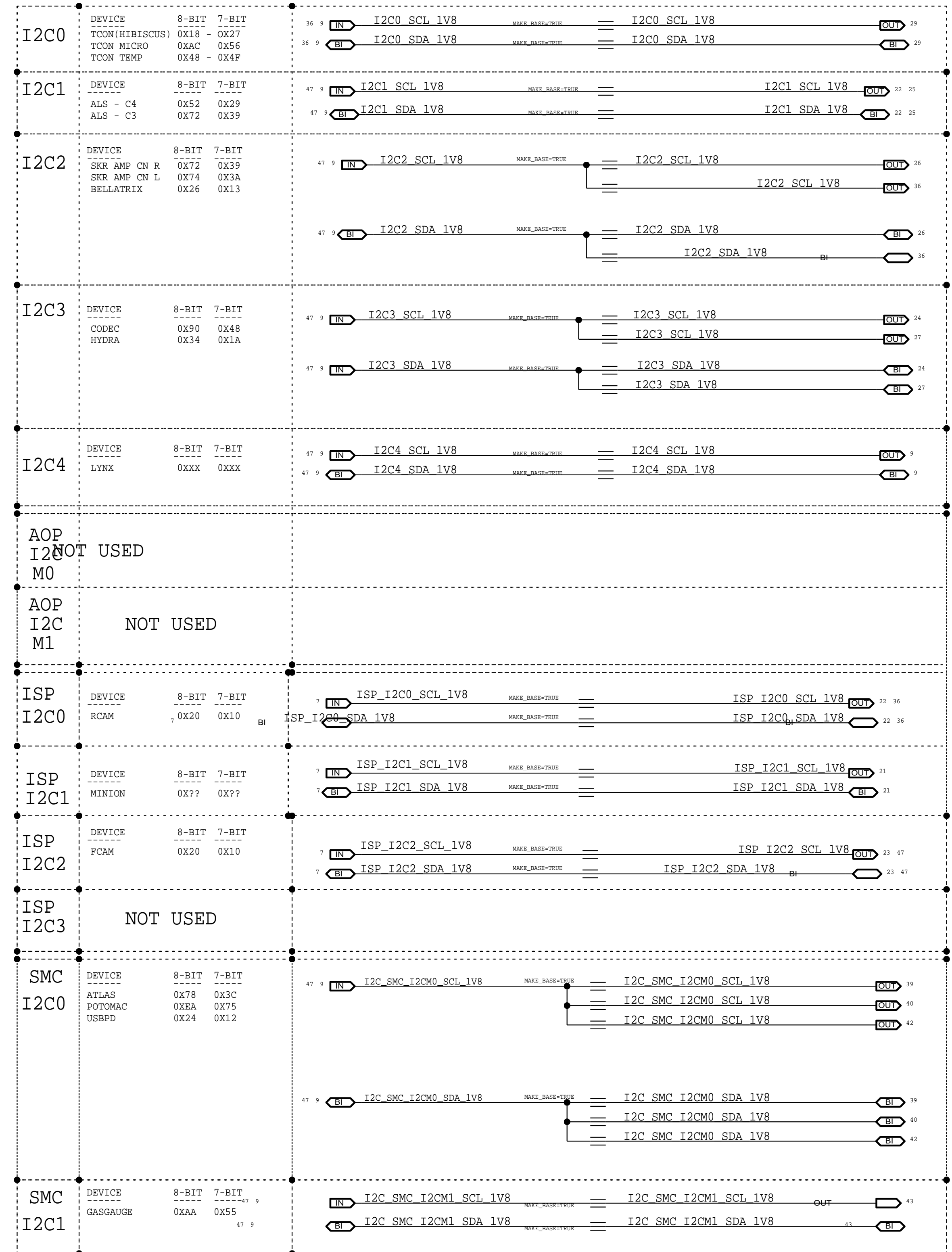
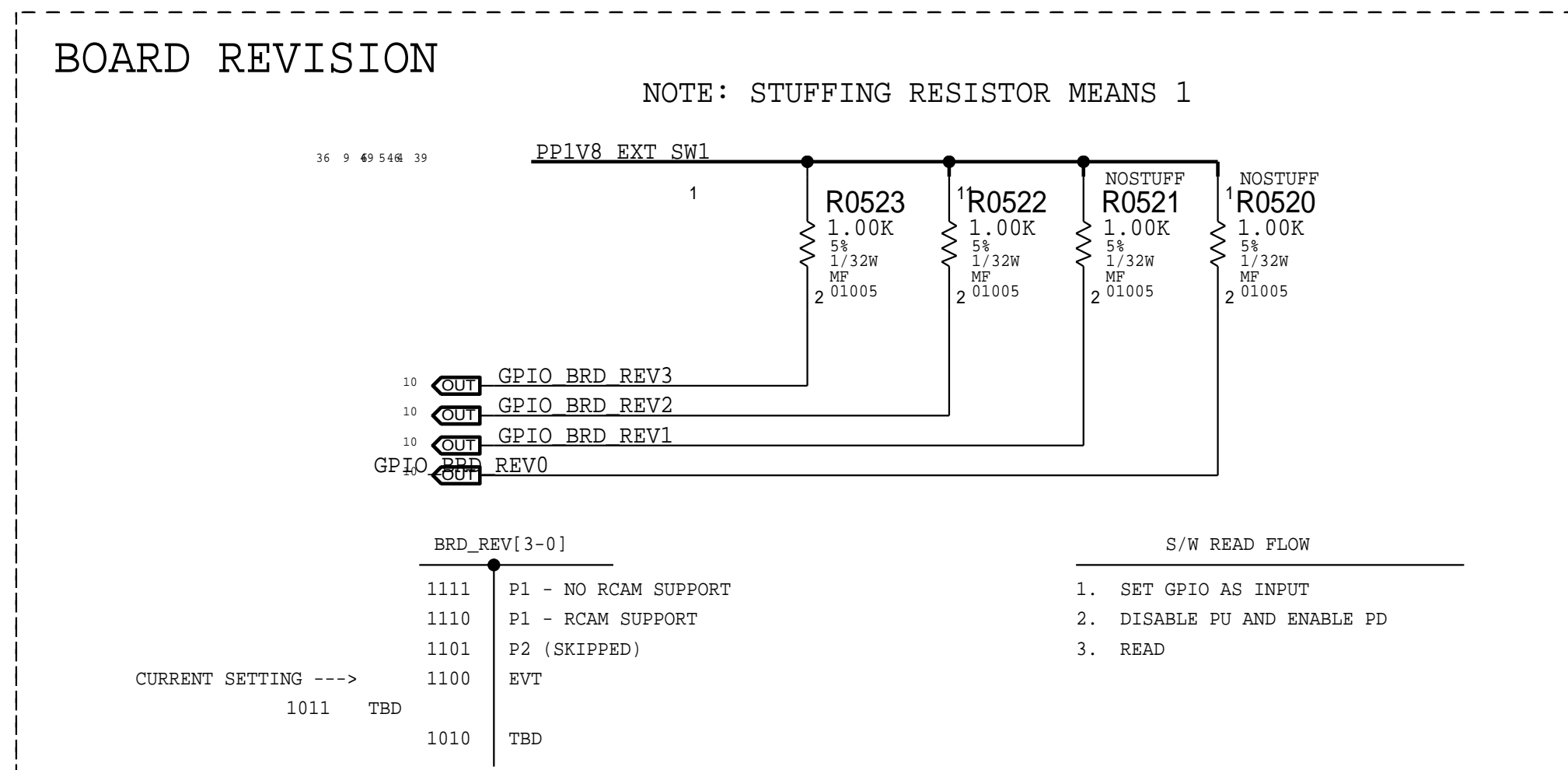
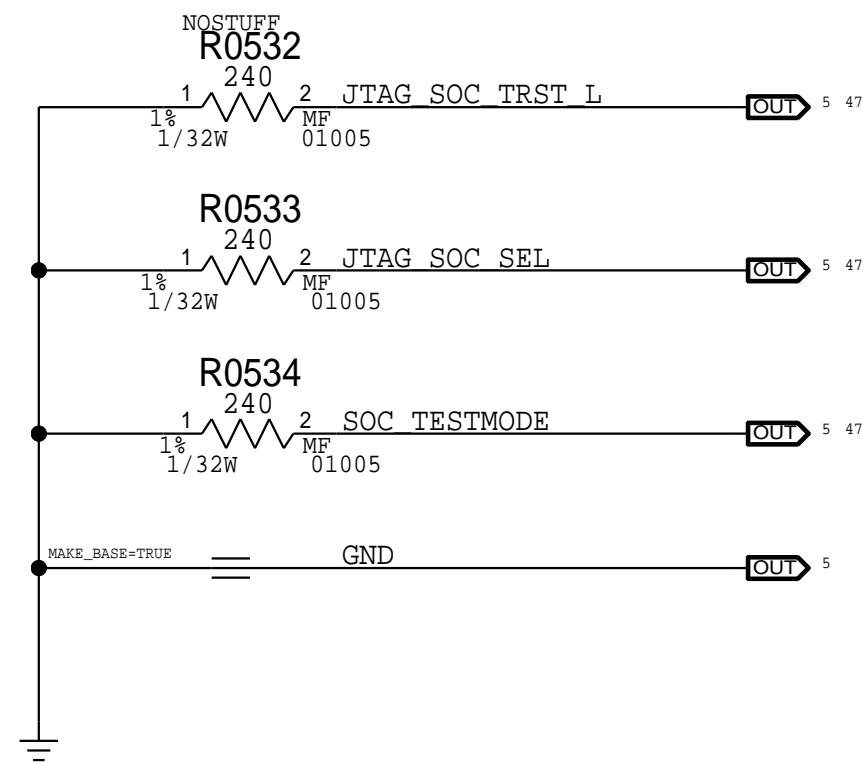
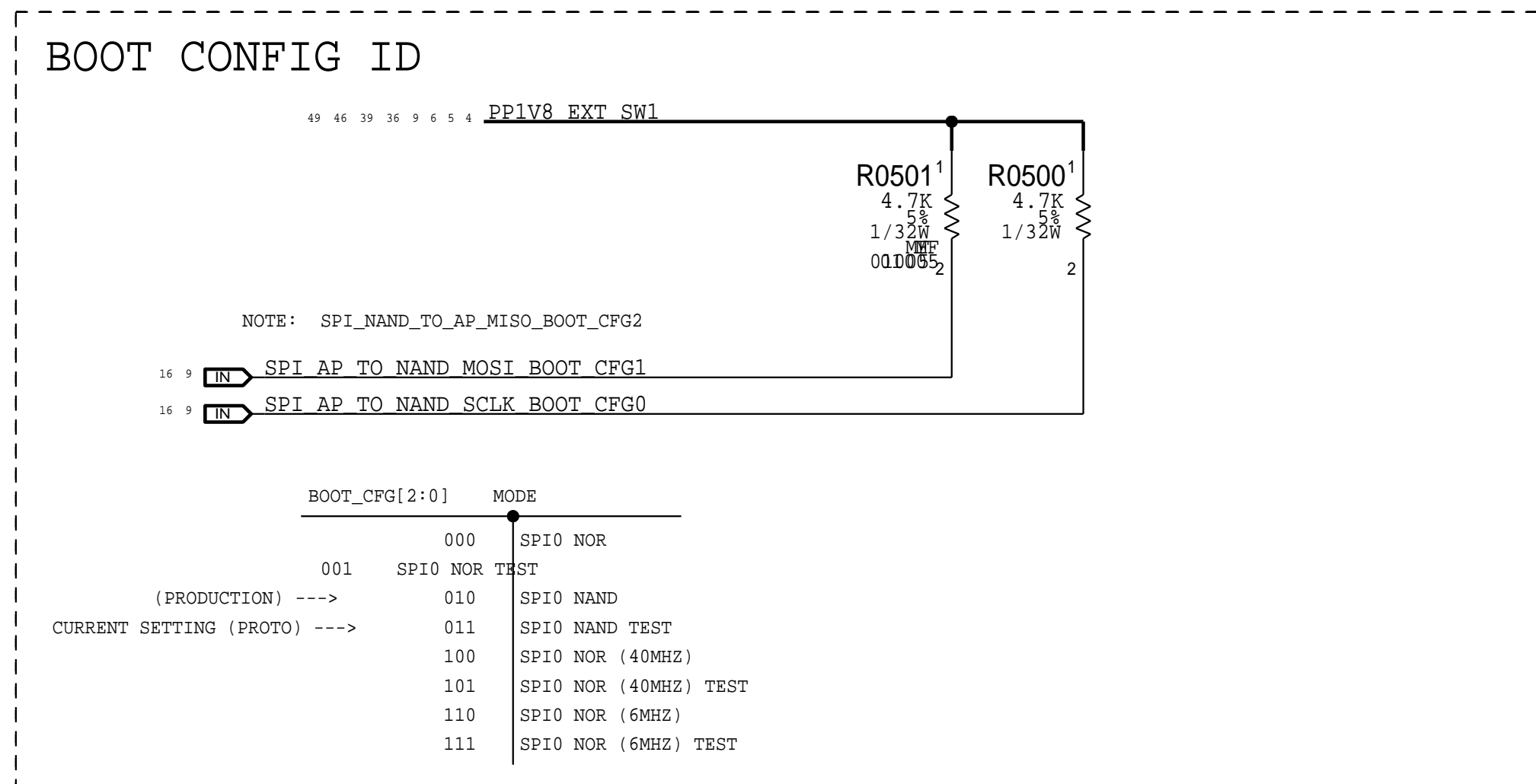
5

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1



SYNC_MASTER=2217_MIS_B		SYNC_DATE=10/01/2018
PAGE TITLE		
SOC: MISC & ALIASES		

D



A

C

B

A

SOC - PCIE

VDD12_PCIE:1.14V - 1.26V @ 60mA MAX
VDD12_PCIE_REFBUF:1.08V - 1.26V @ 20mA MAX

VDD_FIXED_PCIE:0.769V - 0.85V @ 60mA MAX
VDD_FIXED_PCIE_REFBUF:0.769V - 0.85V @ 50mA MAX
PPVDD_S1_FIXED

D

D

B

B

A

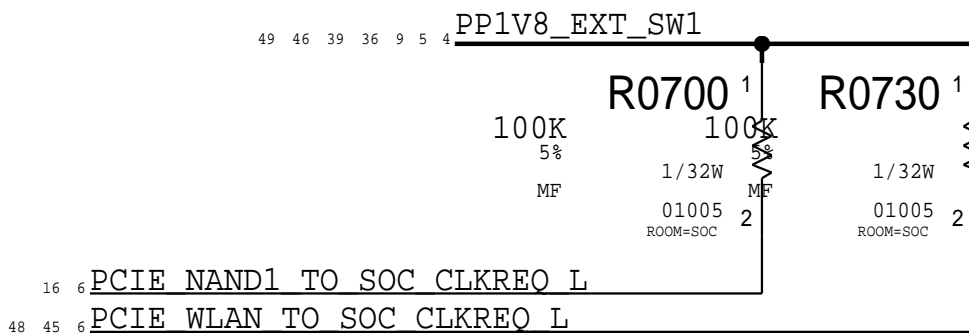
A

PCIE LINK 0

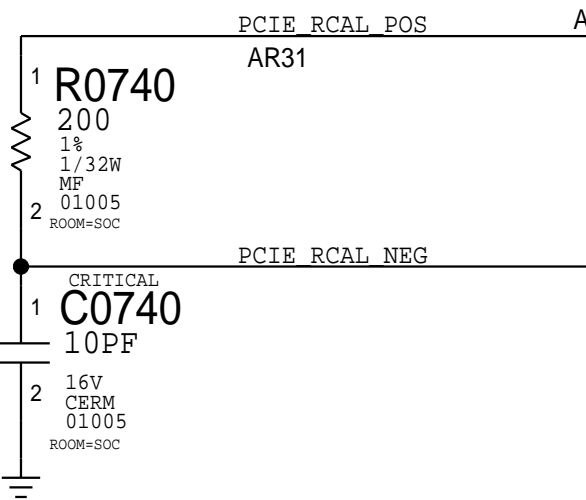
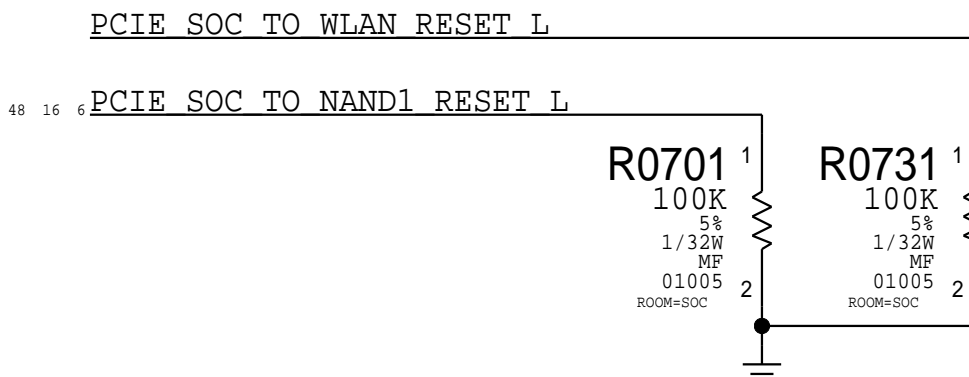
PCIE LINK 3

PCIE LINK 4

PCie BB CLKREQ PU on BB domain
PCie Clock Request Pull-Ups



PCie Reset Pull-Downs

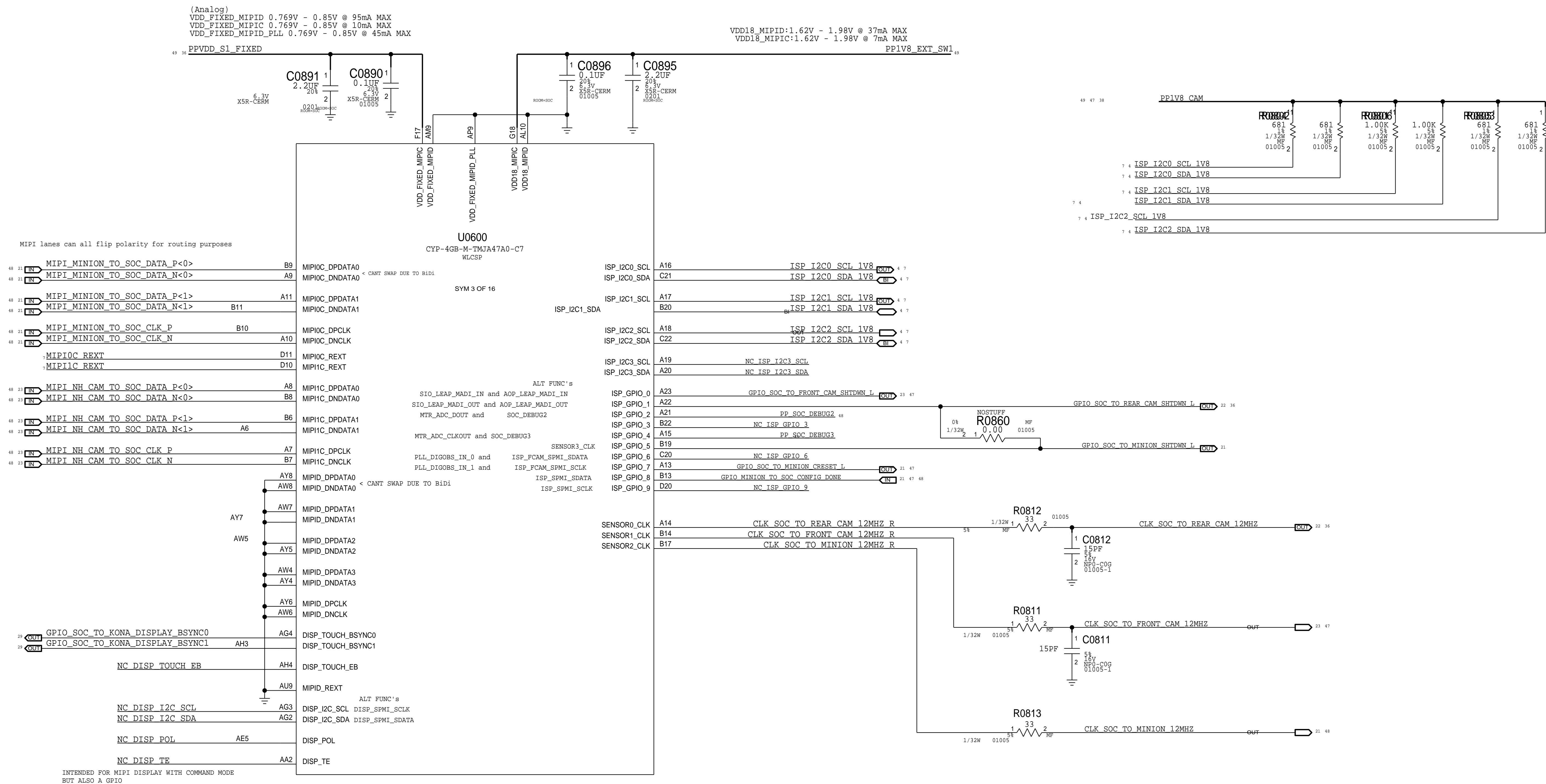


SYNCH MASTER=2217_MGR_B 6/10/2018

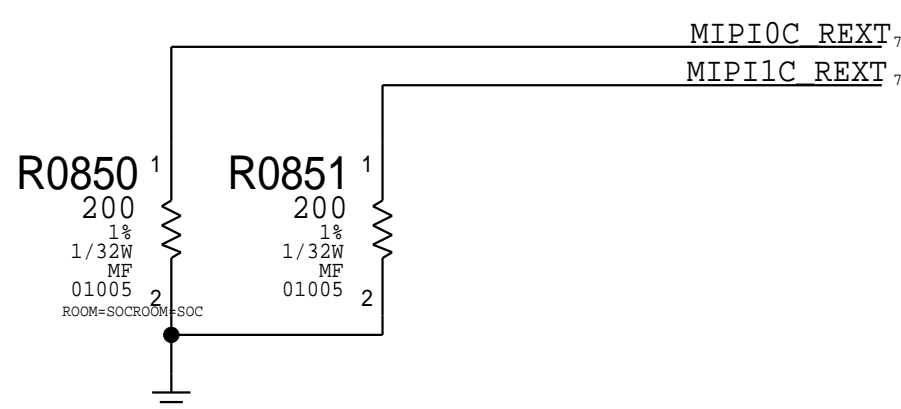
PAGE TITLE

SOC: PCIE

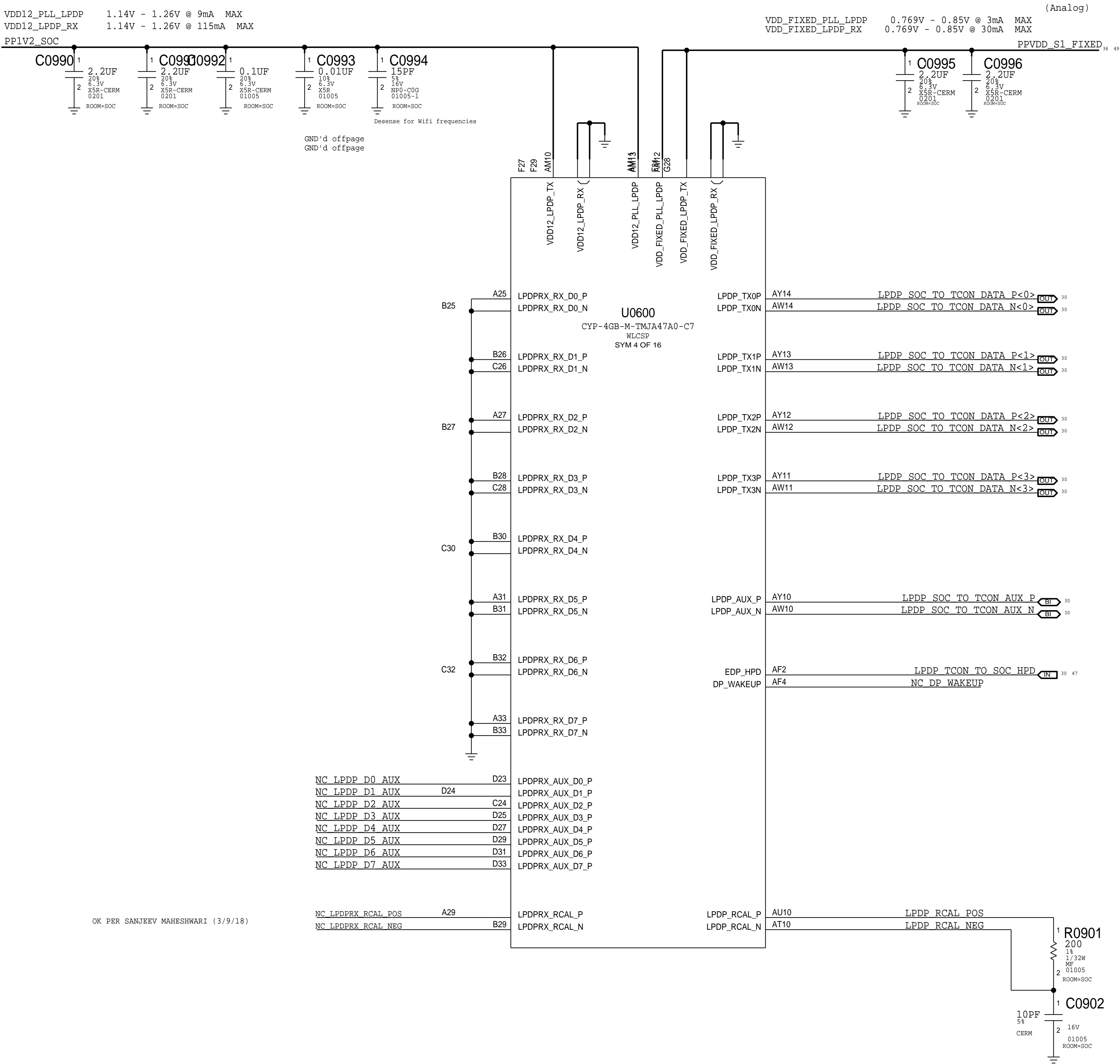
SOC – MIPI



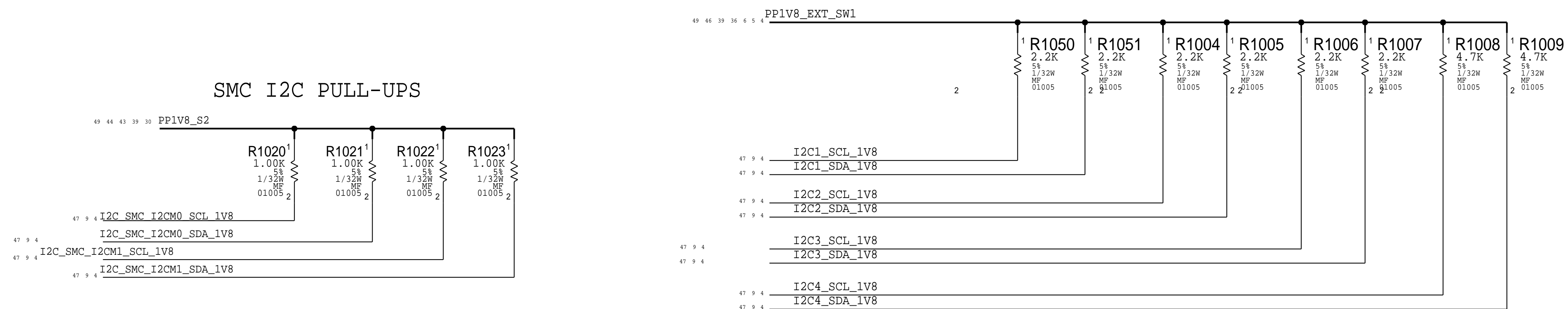
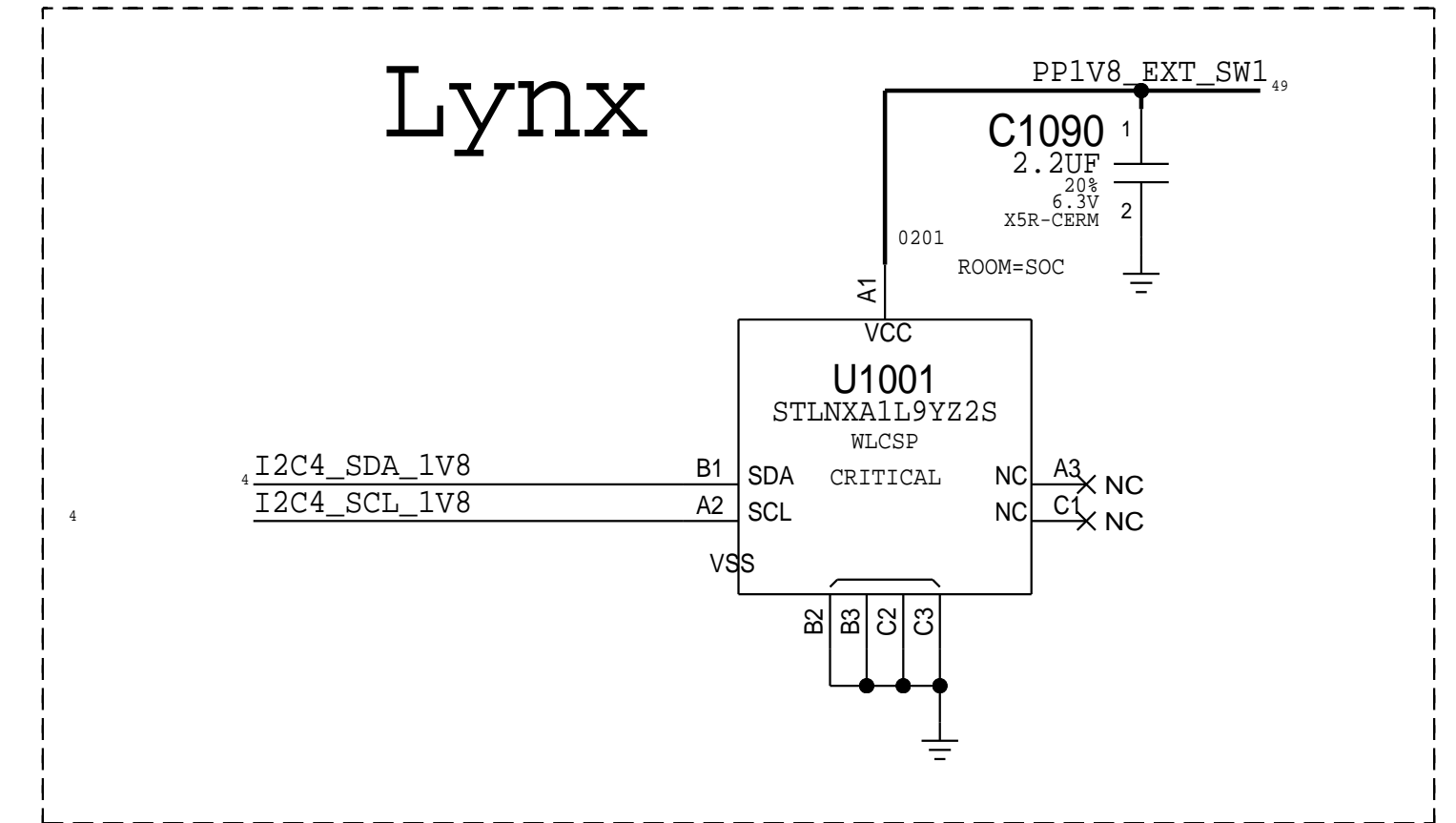
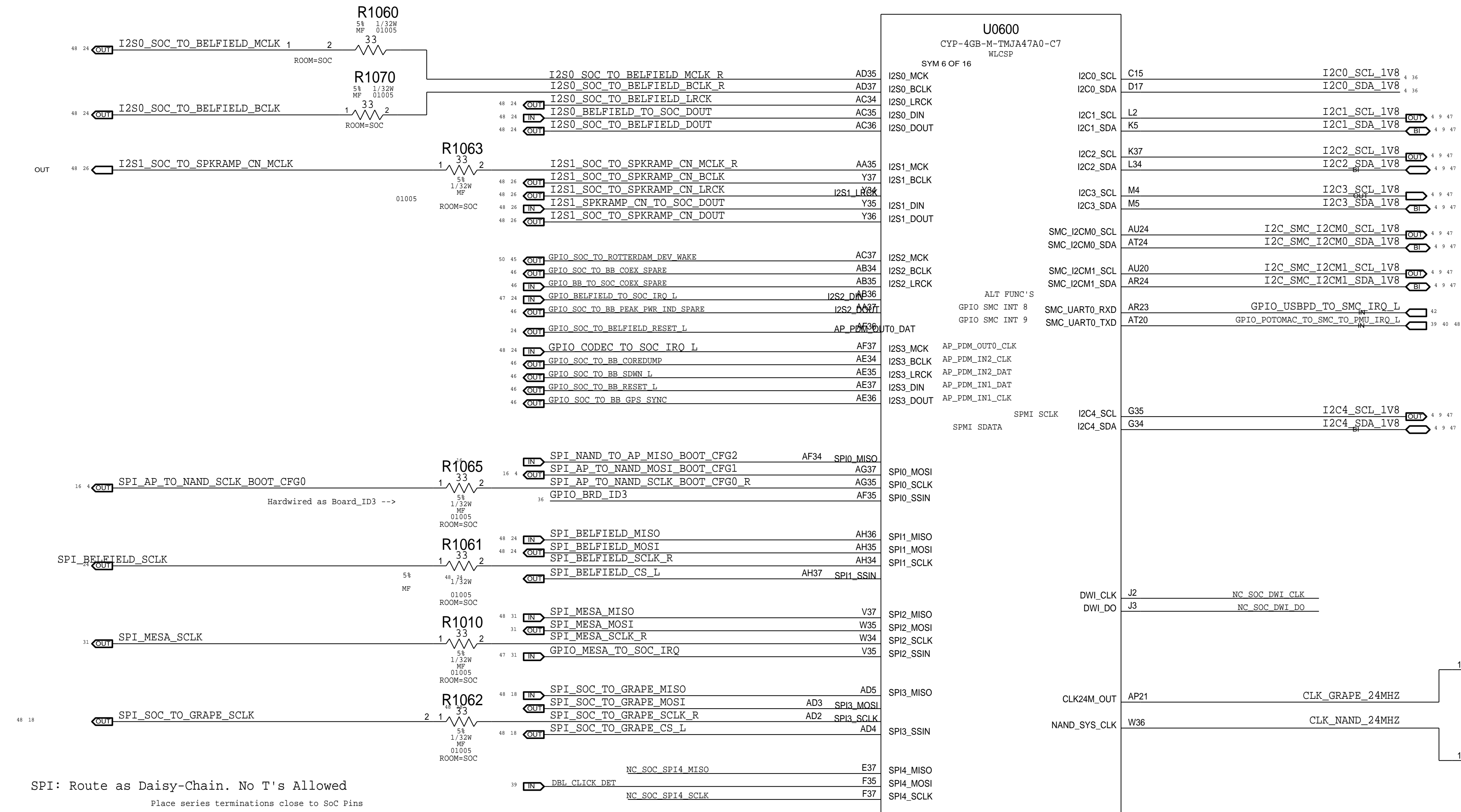
MIPI Reference



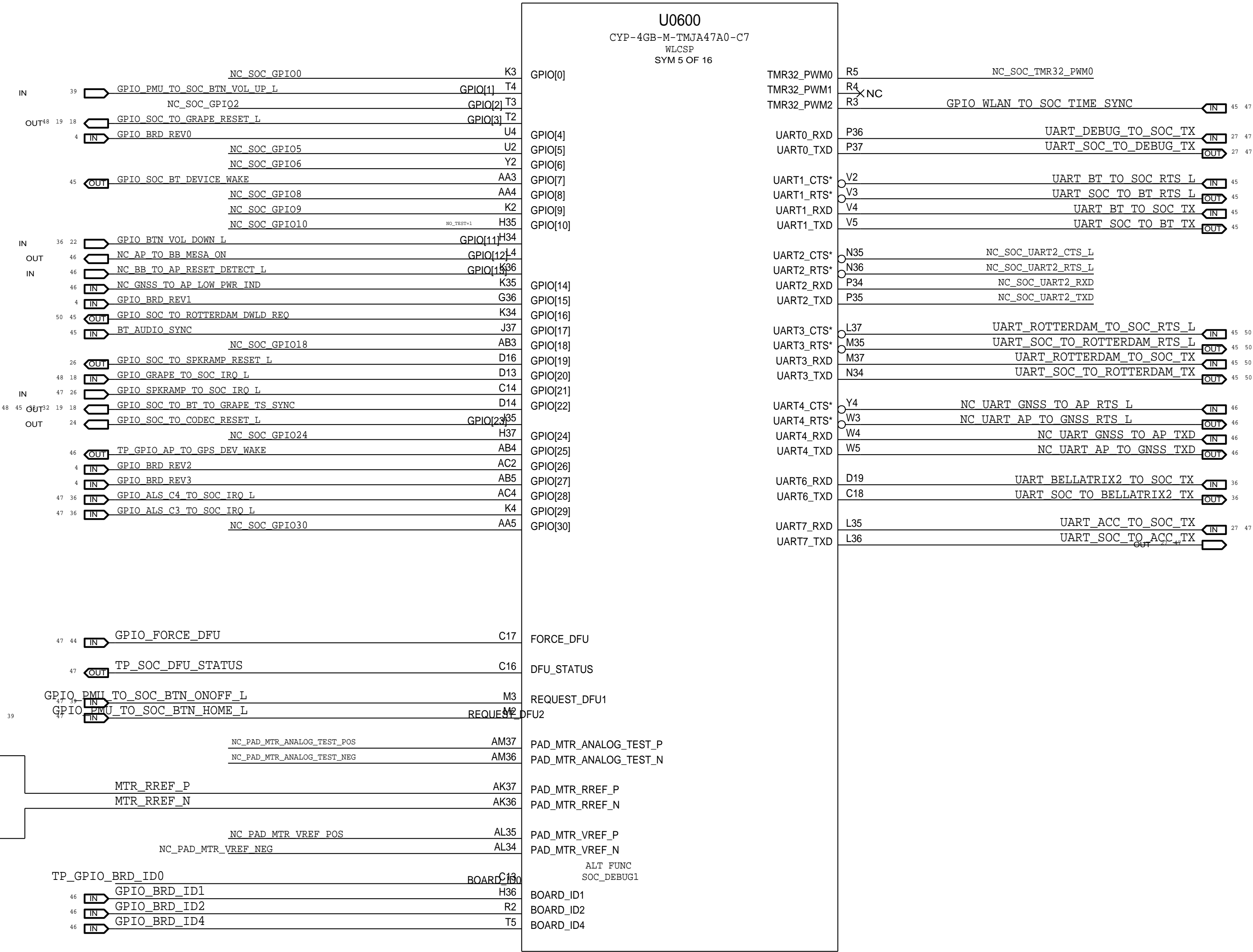
SOC - LPDP



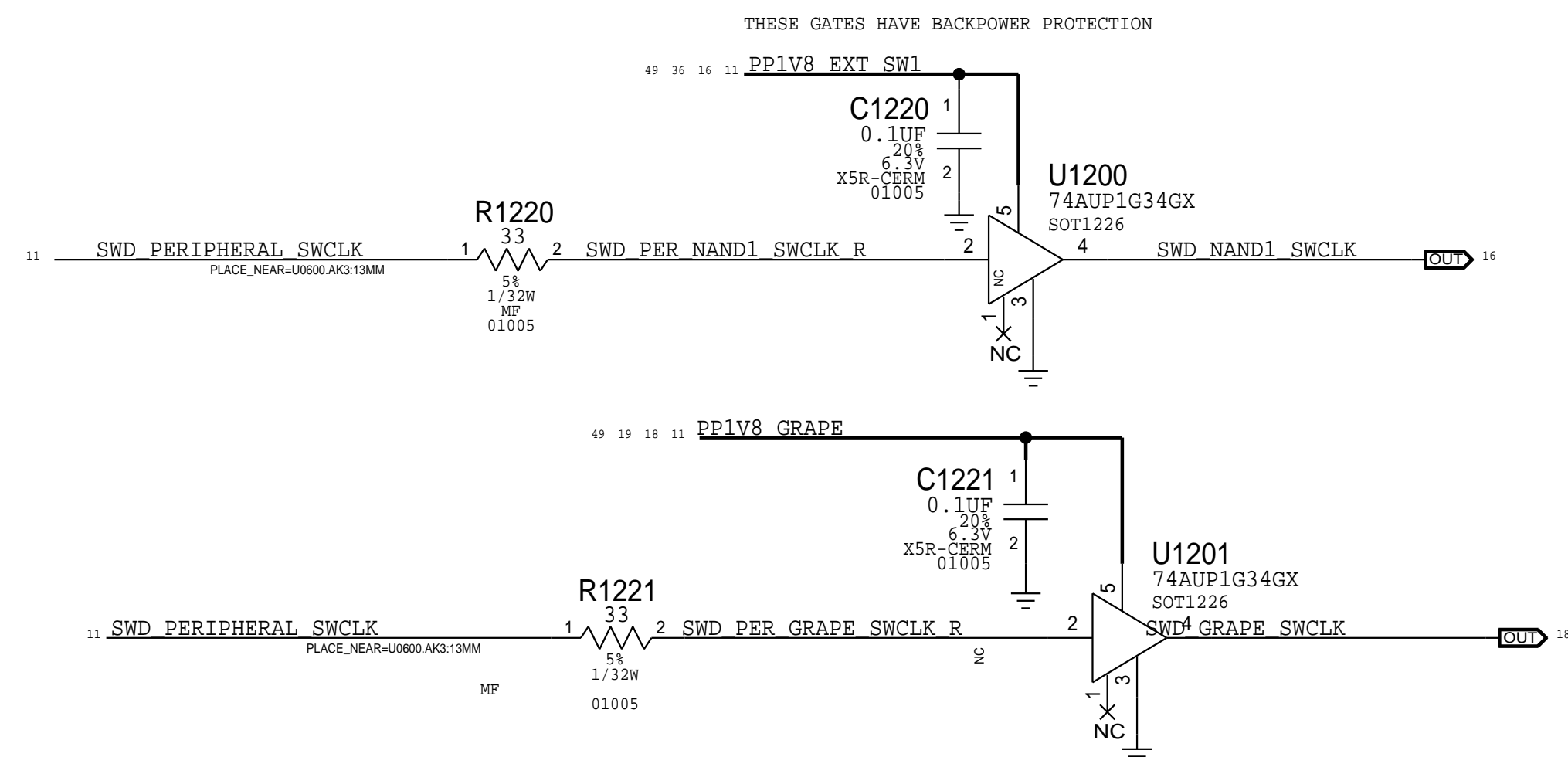
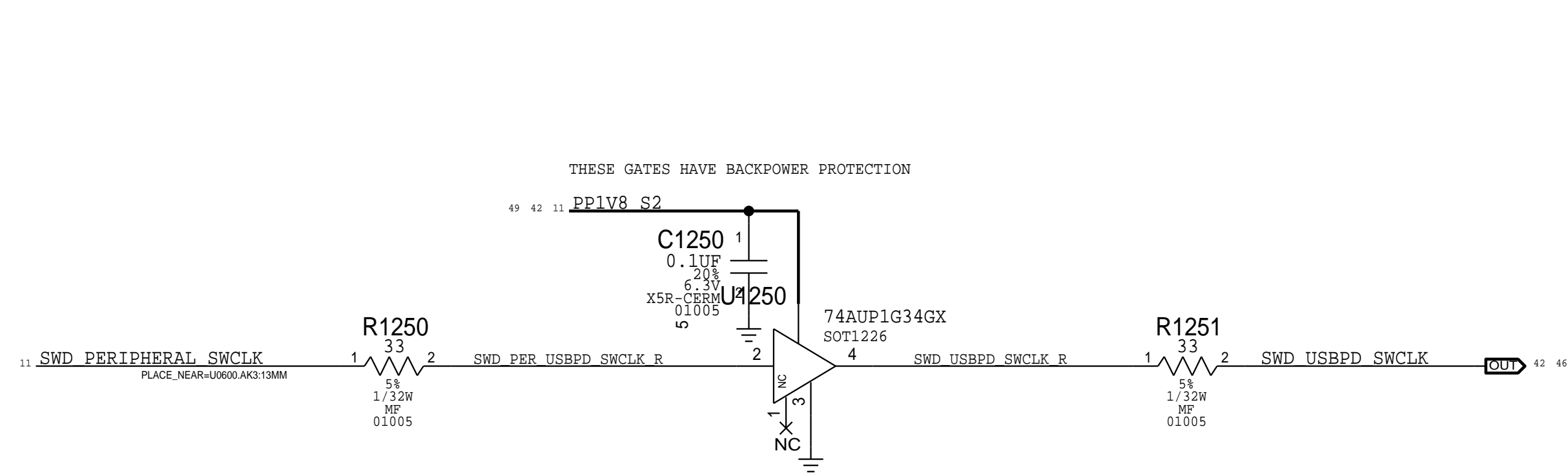
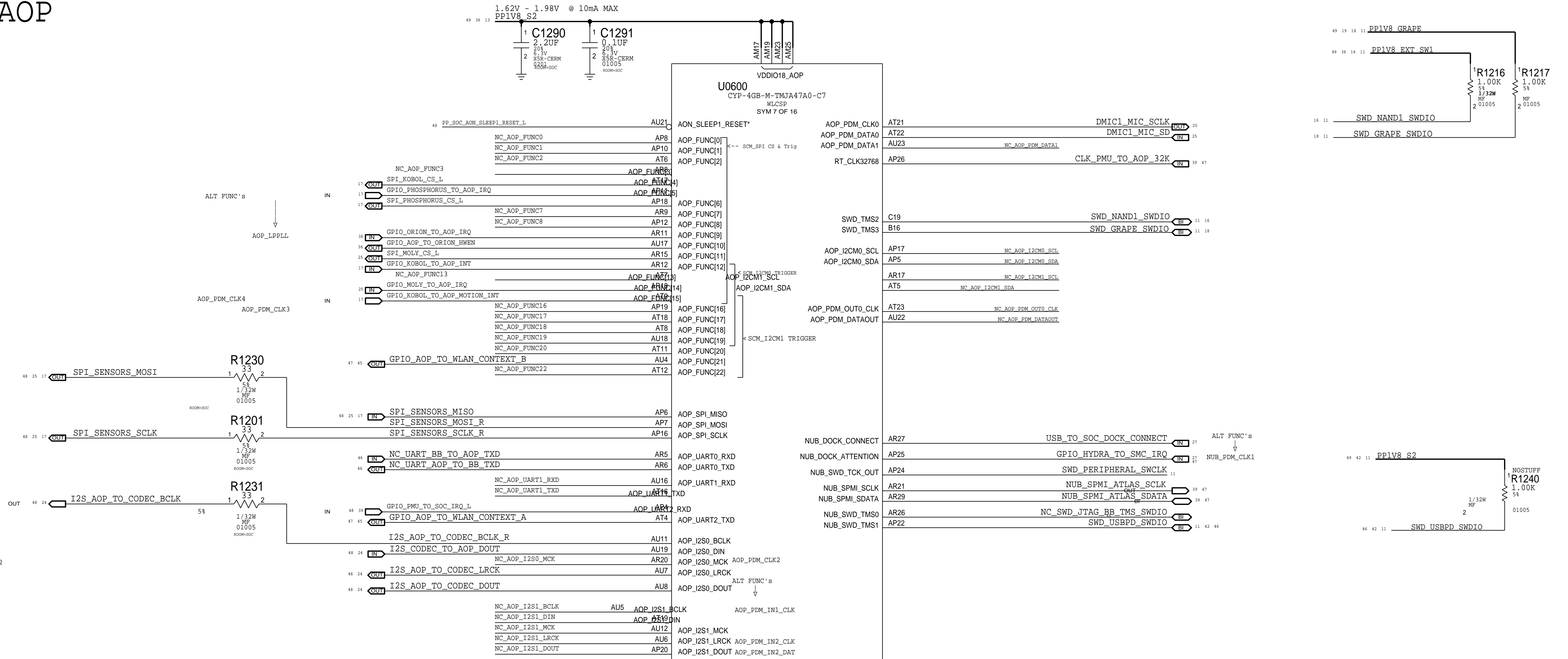
SOC - SERIAL INTERFACES



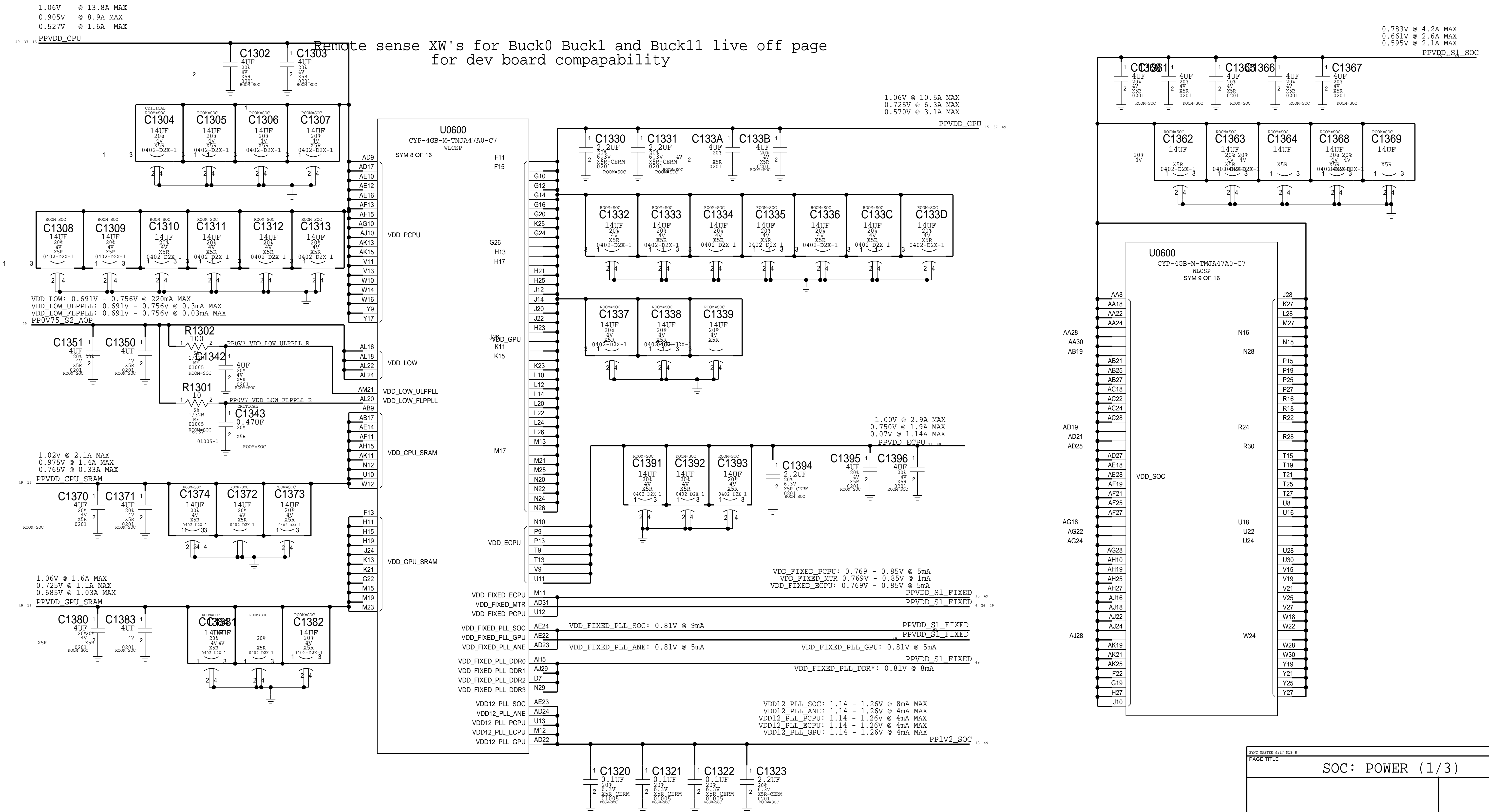
SOC - GPIO INTERFACES



SOC – AOP



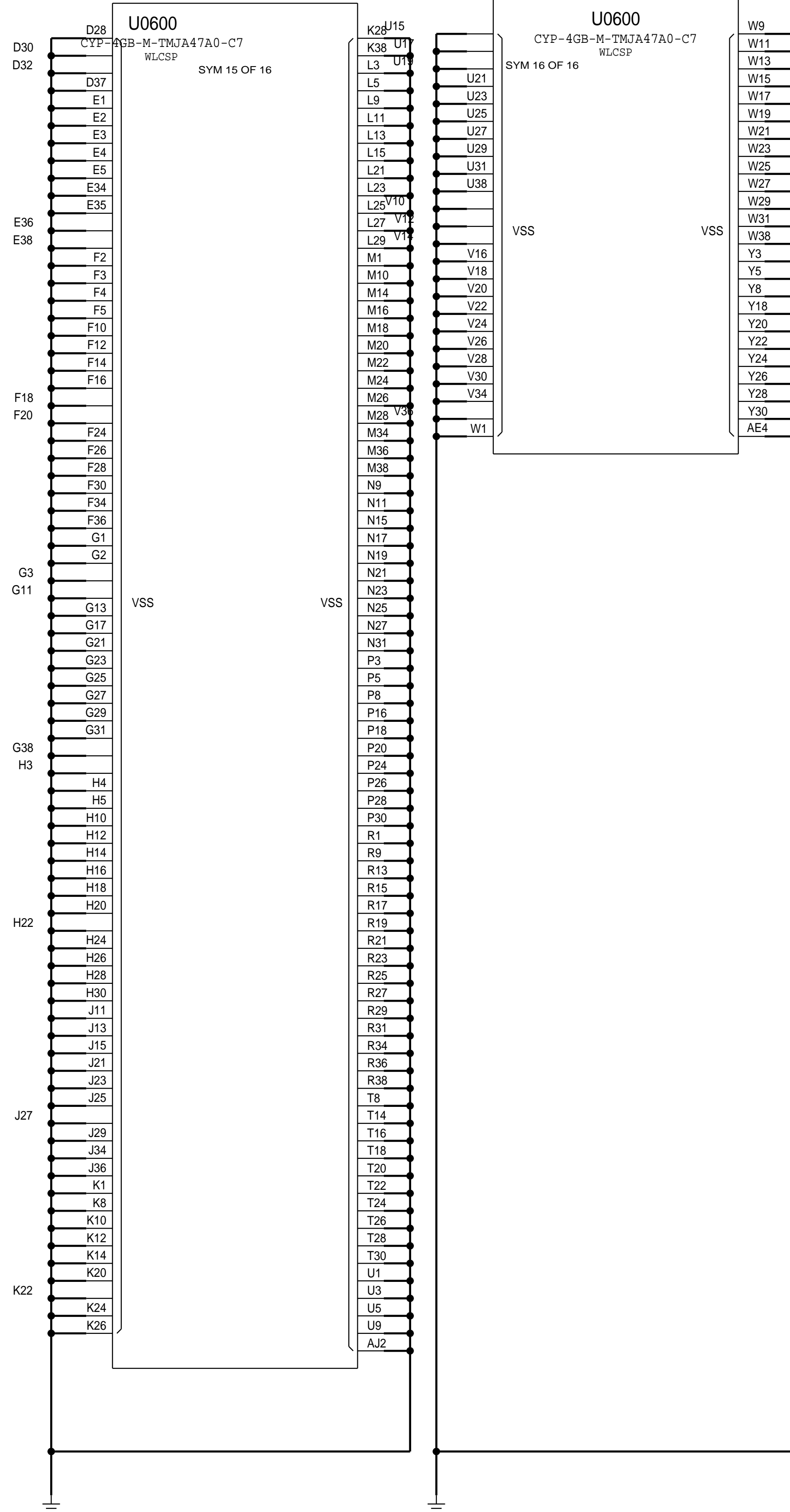
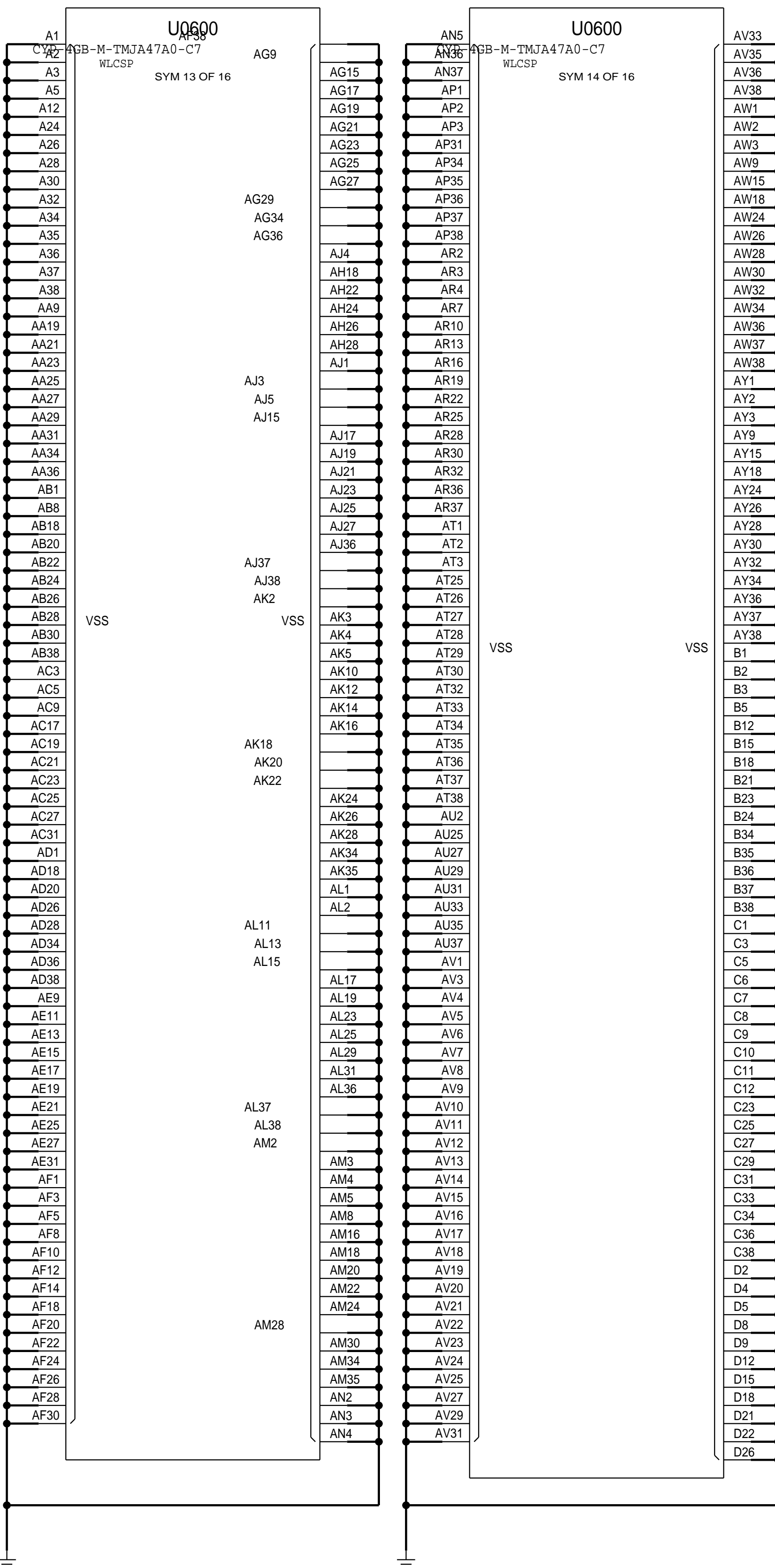
SOC - CPU, GPU & SOC RAILS



D



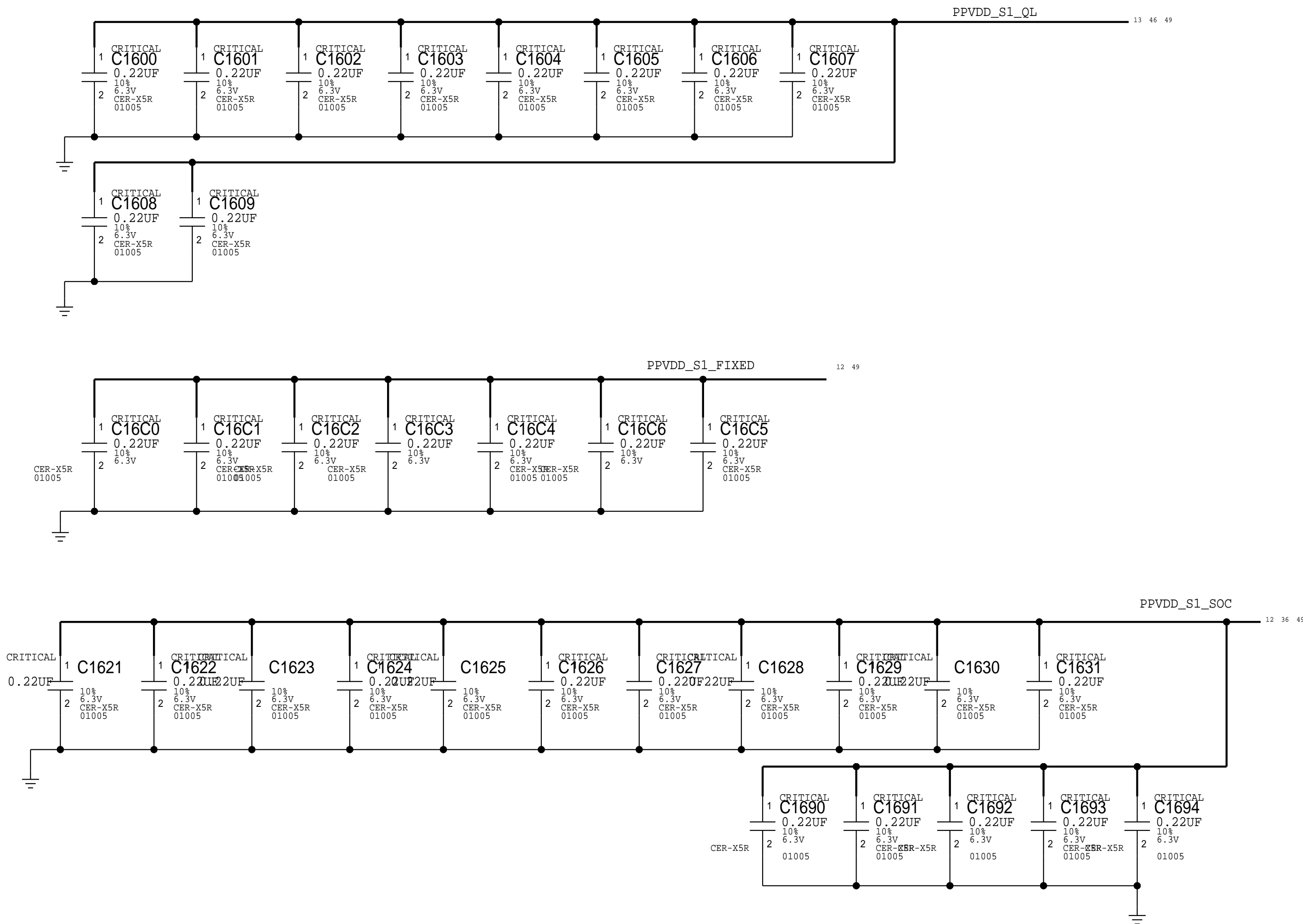
SOC - POWER SUPPLIES



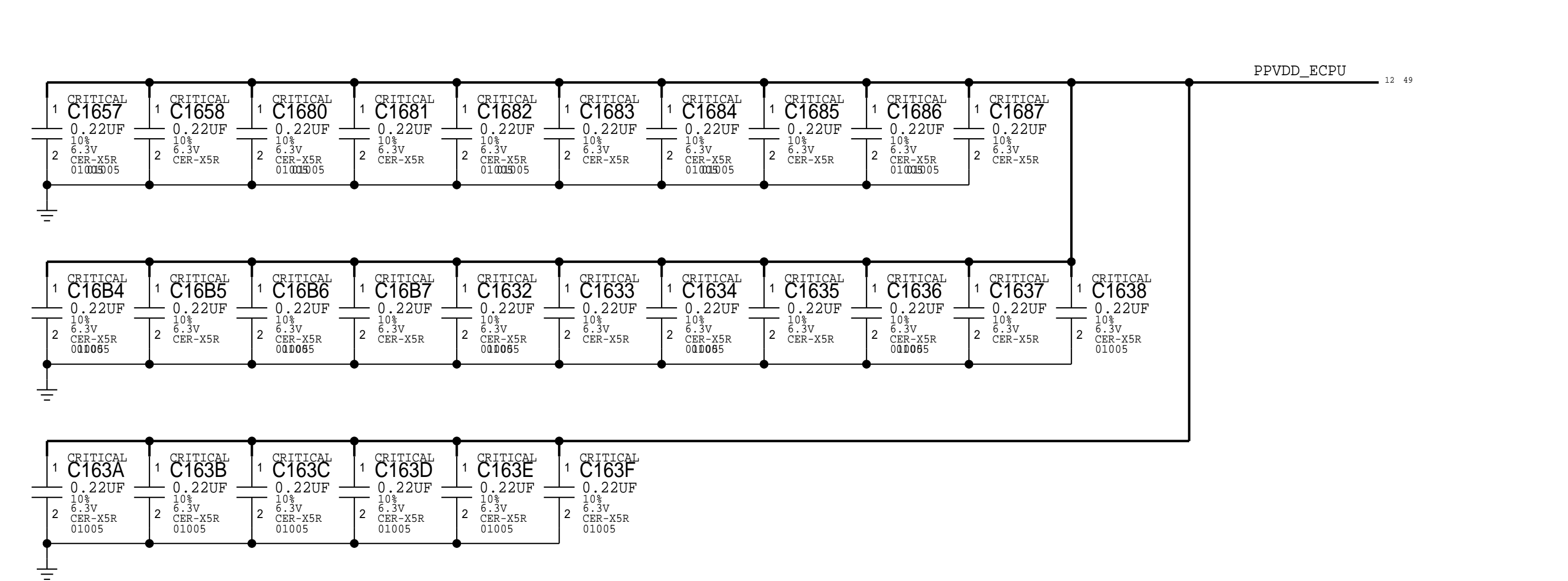
BOTTOM SIDE SOC CAPS

0.1UF = 132S00238 (0201, 0.11MM)

D

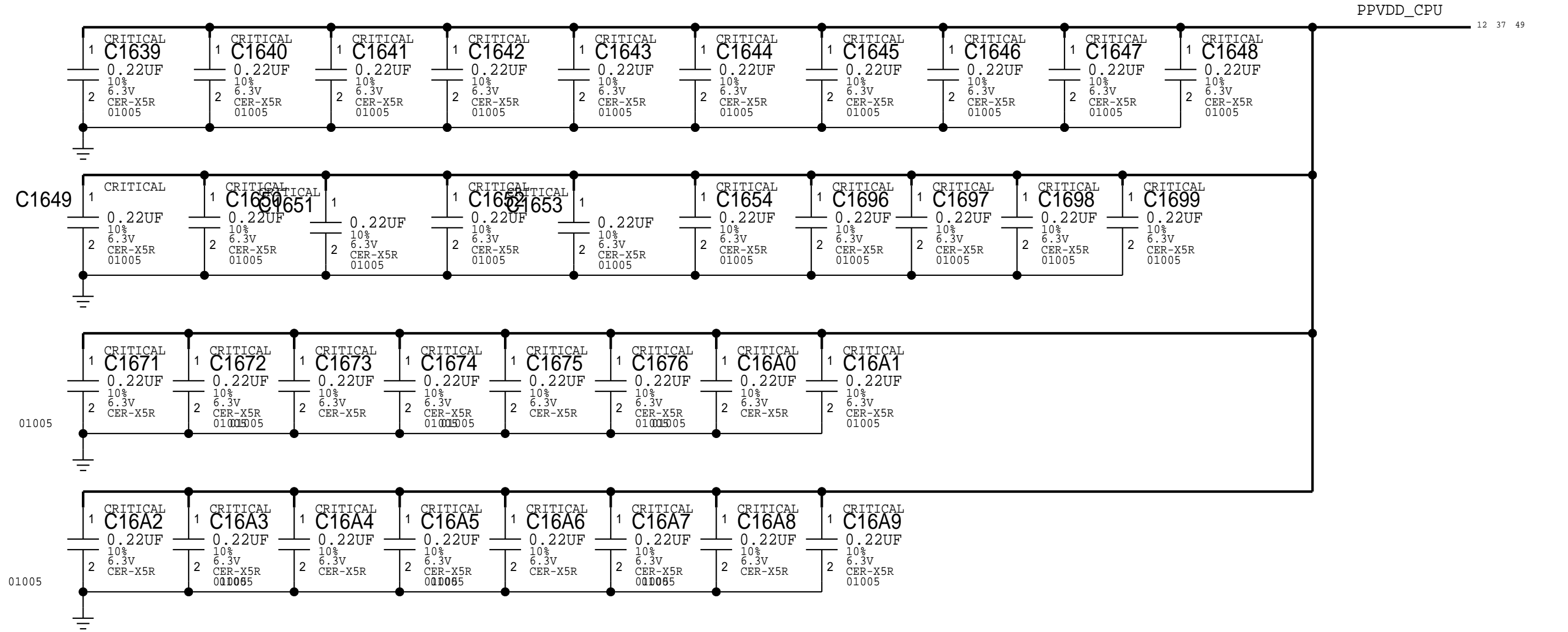


B



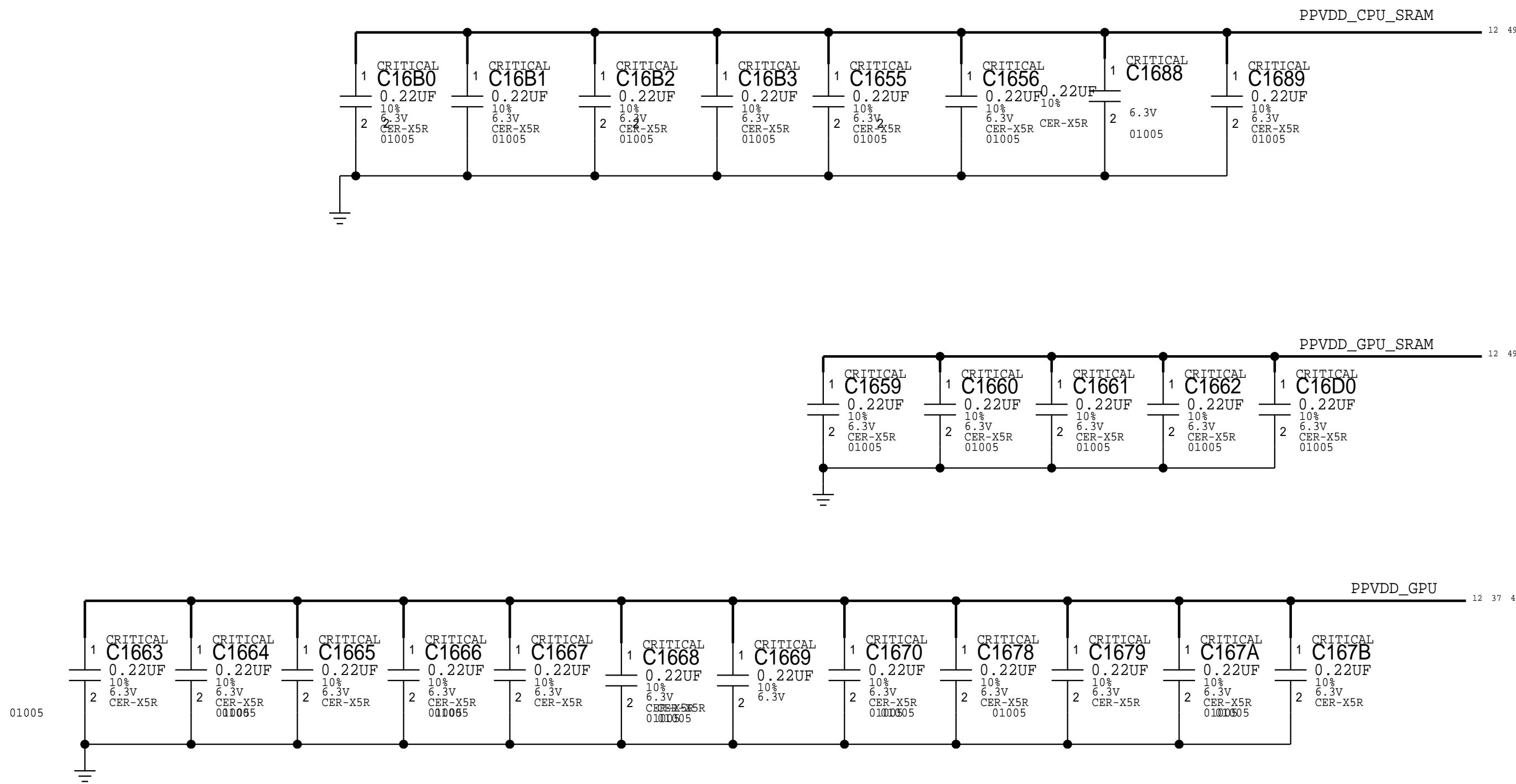
A

D



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B



A

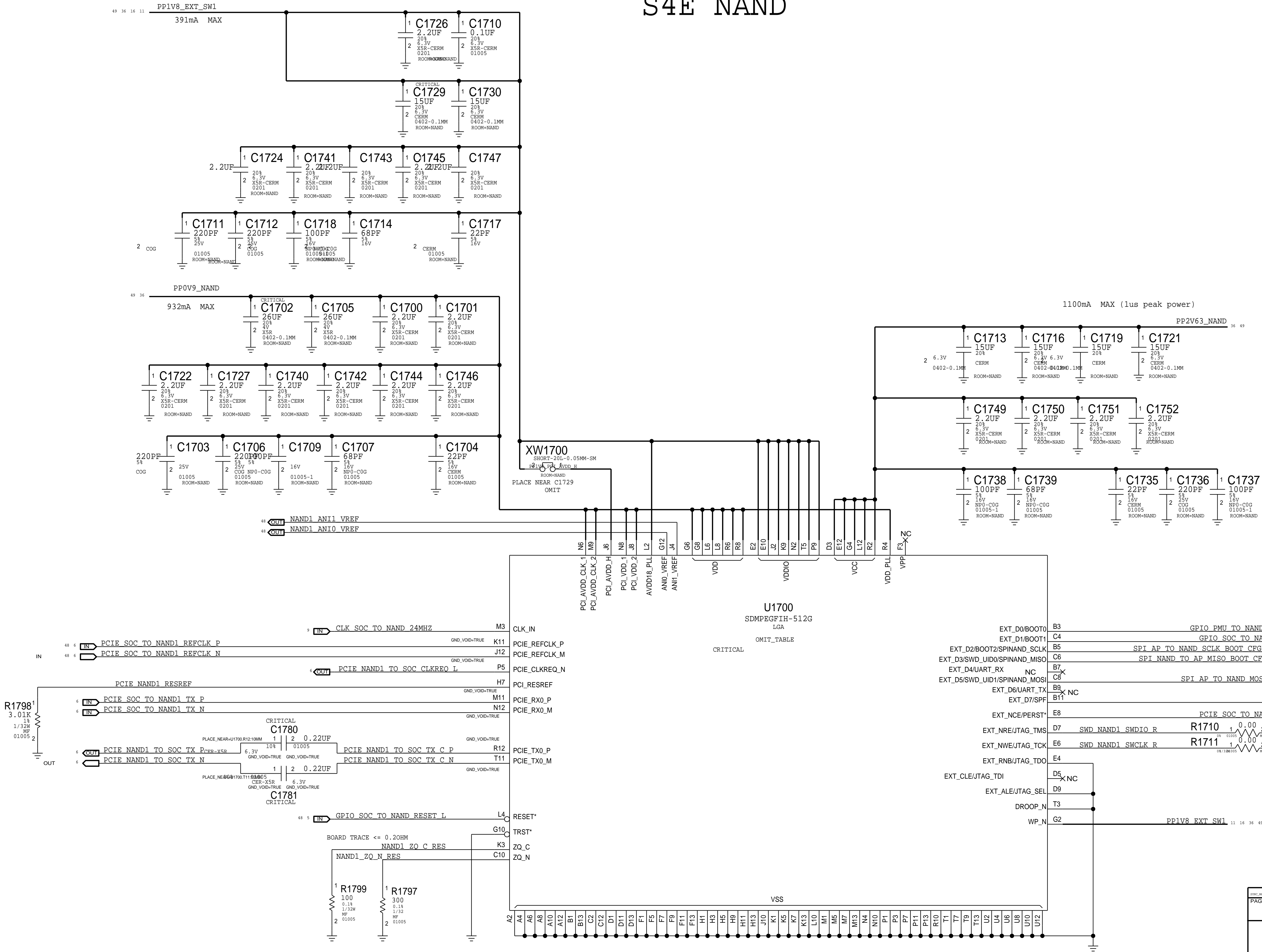
SYNCH: MATEER-0217_MSA_B

HWID: DATE=10/01/2018

PAGE TITLE

SOC: BOTTOM SIDE DECAPS

S4E NAND

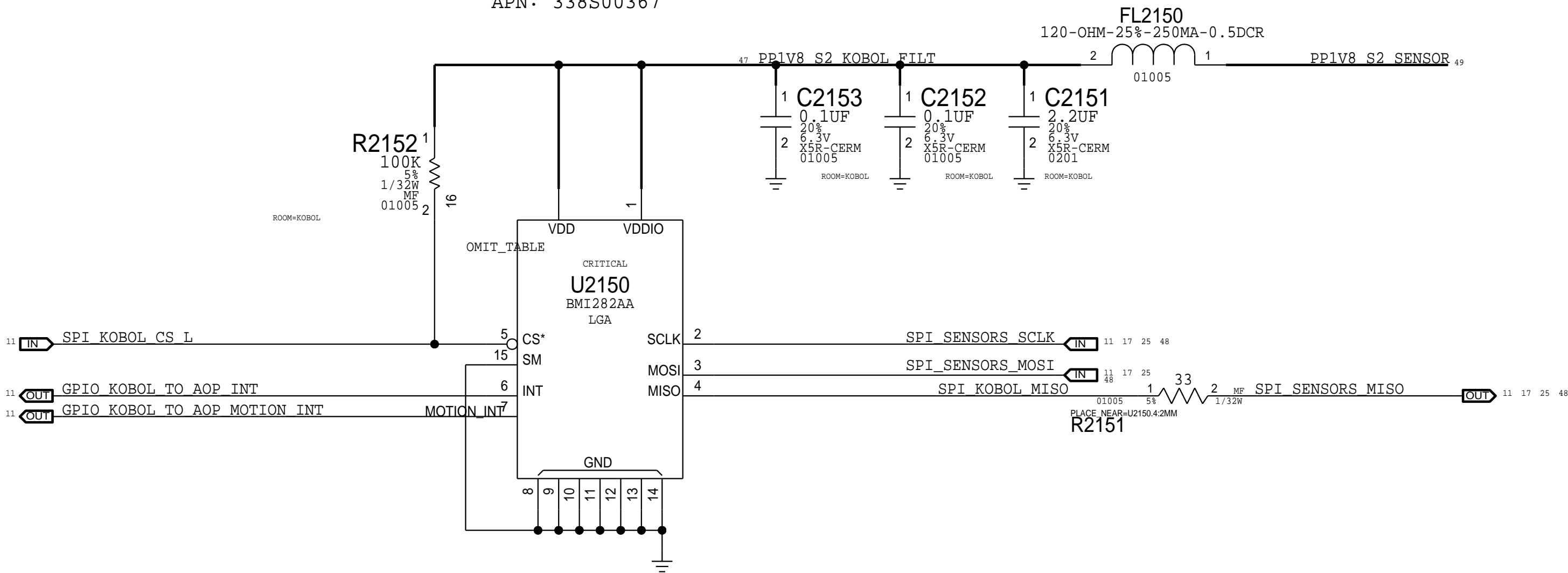


PAGE TITLE	
NAND: S4E NAND	

SENSORS

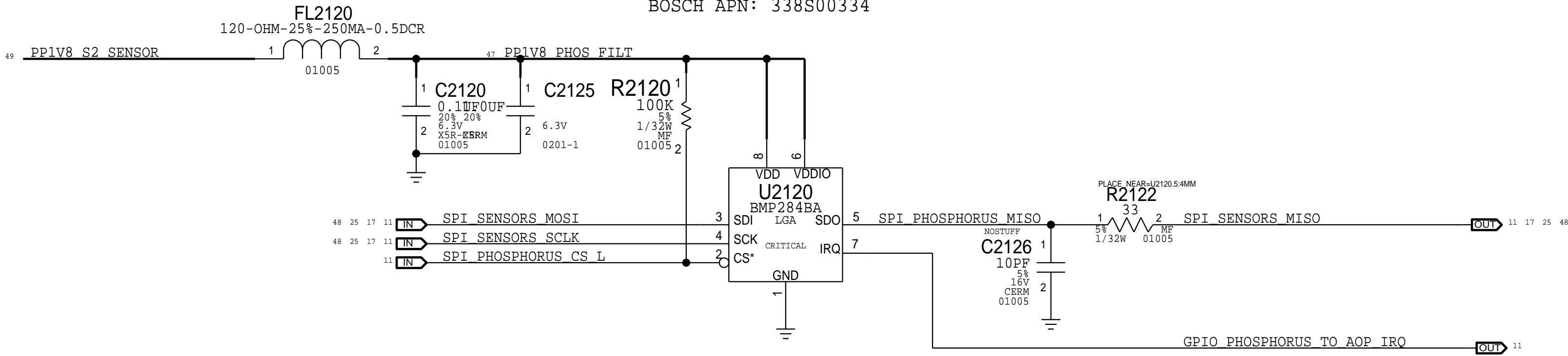
KOBOL - ACCEL & GYRO

APN: 338S00367



PHOSPHORUS2

BOSCH APN: 338S00334



PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
155S00016	155S0686		FL2120, ECT	BOARD : // PROBLEM / 15809407

PAGE TITLE
SENSOR: KOBOL, PHOS2

KONA: SLAVE

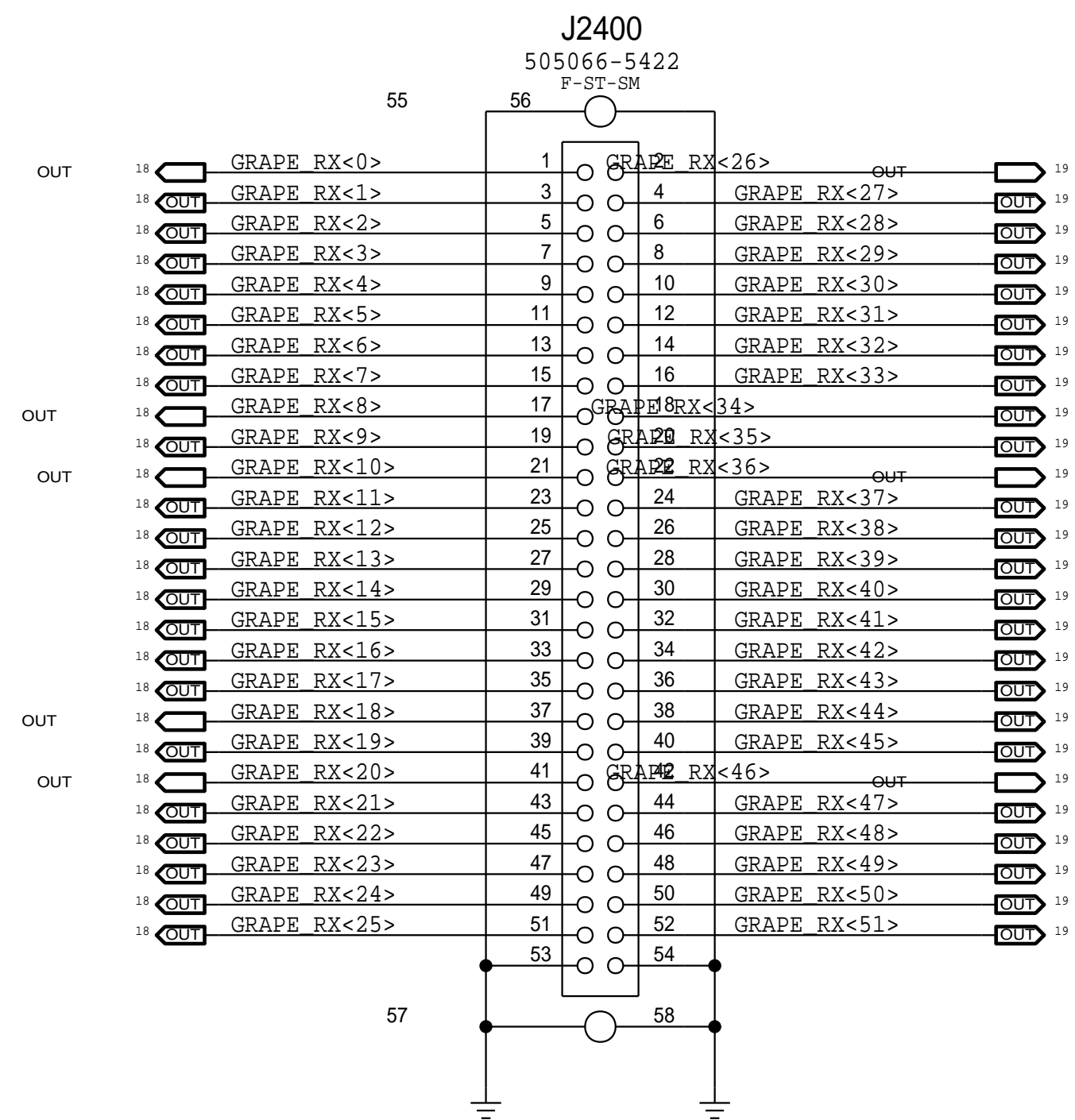




MATCHES J207_GRAPE_FLEX 051-01606_3.0.0

MLB: 516S00063
FLEX: 516S00064

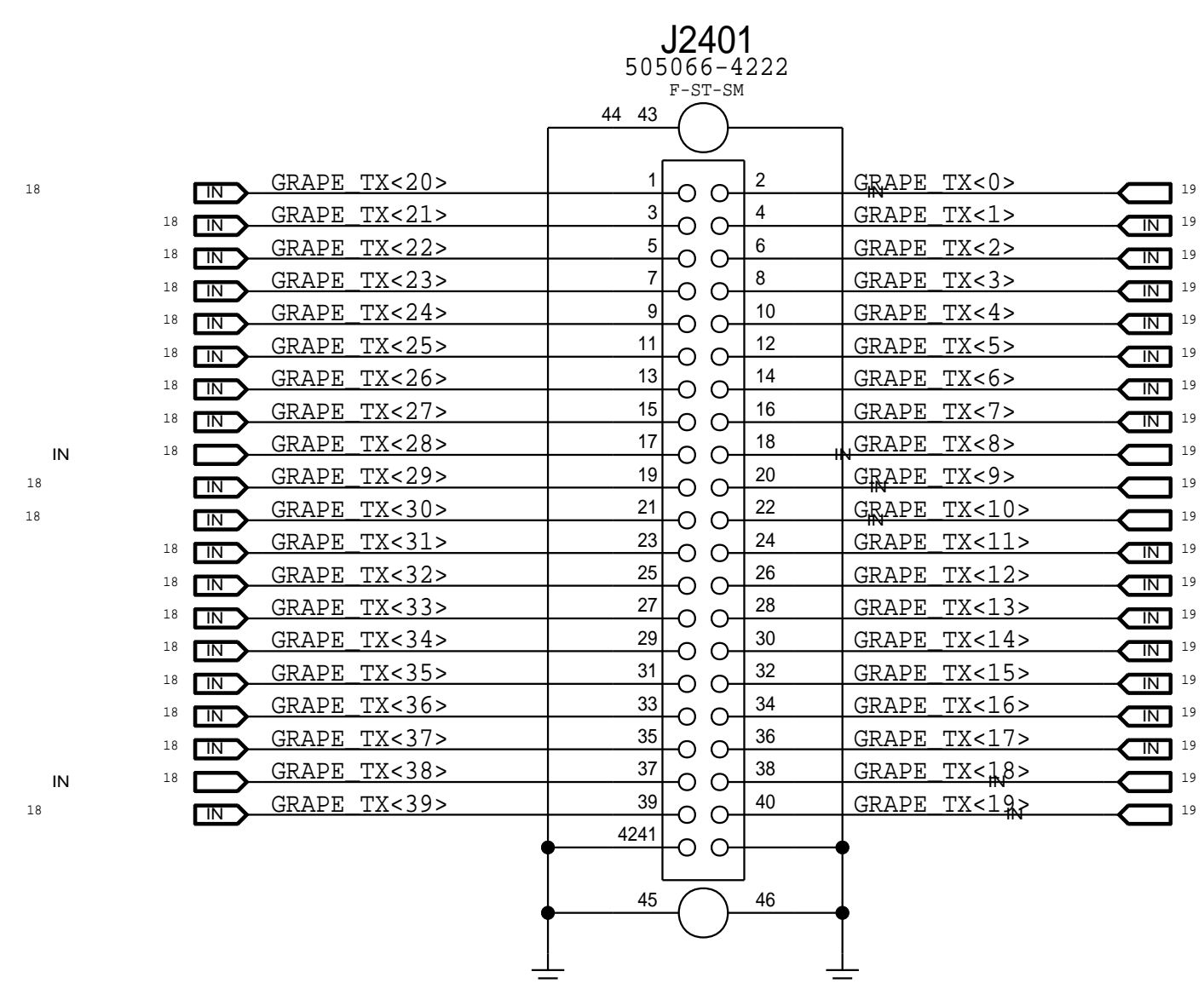
MOUNTING PINS CAN BE USED FOR ELECTRICAL CONNECTIONS



MATCHES J207_GRAPE_FLEX 051-01606_3.0.0

MLB: 516S00224
FLEX: 516S00225

MOUNTING PINS CAN BE USED FOR ELECTRICAL CONNECTIONS

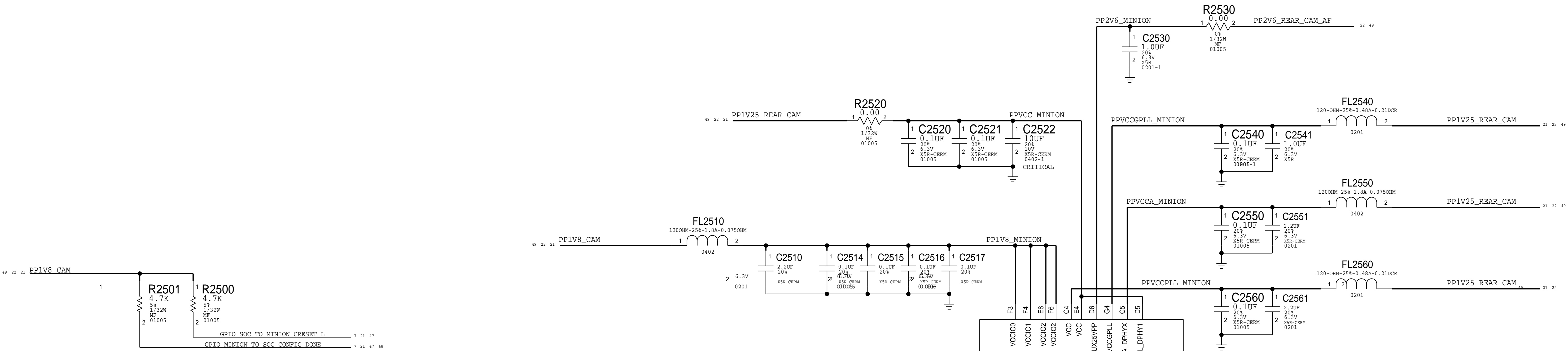


MINION

VCCIO: NOM 1.8V
VCC: NOM 1.2V (1.25V CAMERA RAIL IS ACCEPTABLE)
VCCAUX: NOM 2.5V (2.6V CAMERA RAIL IS ACCEPTABLE)

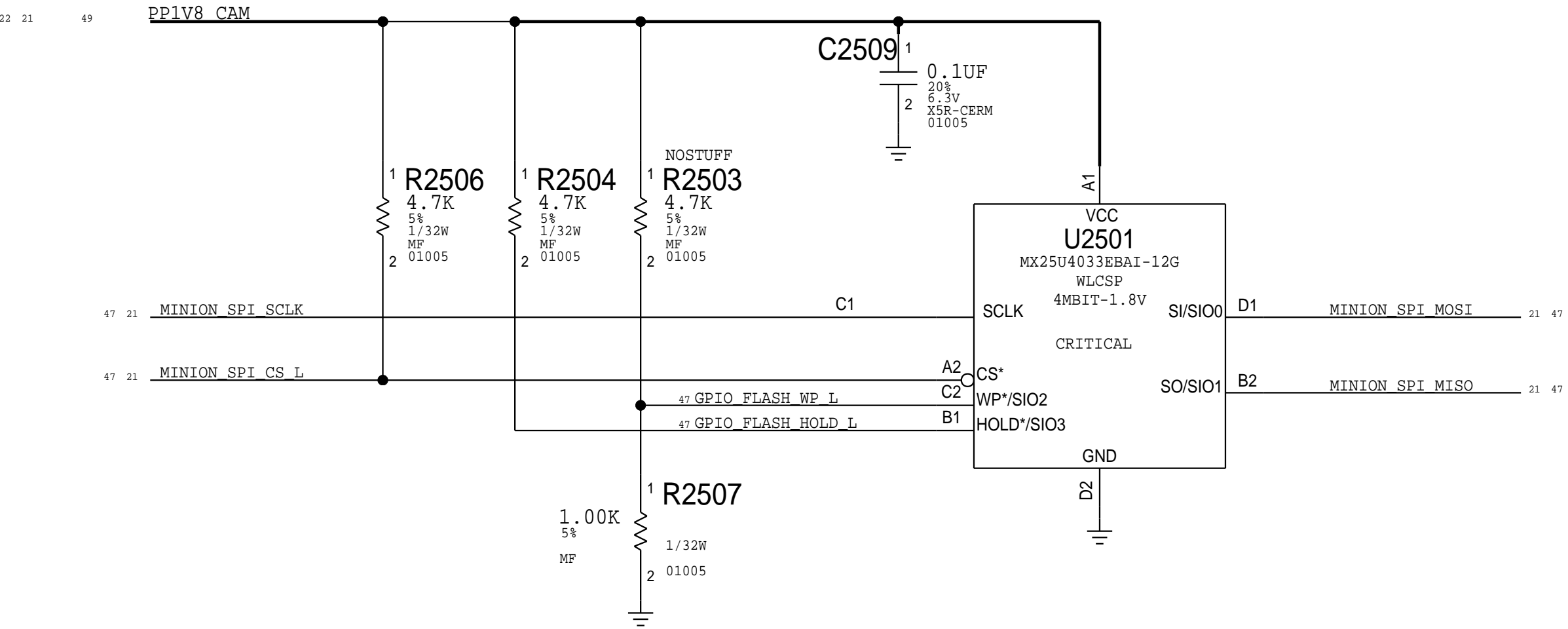
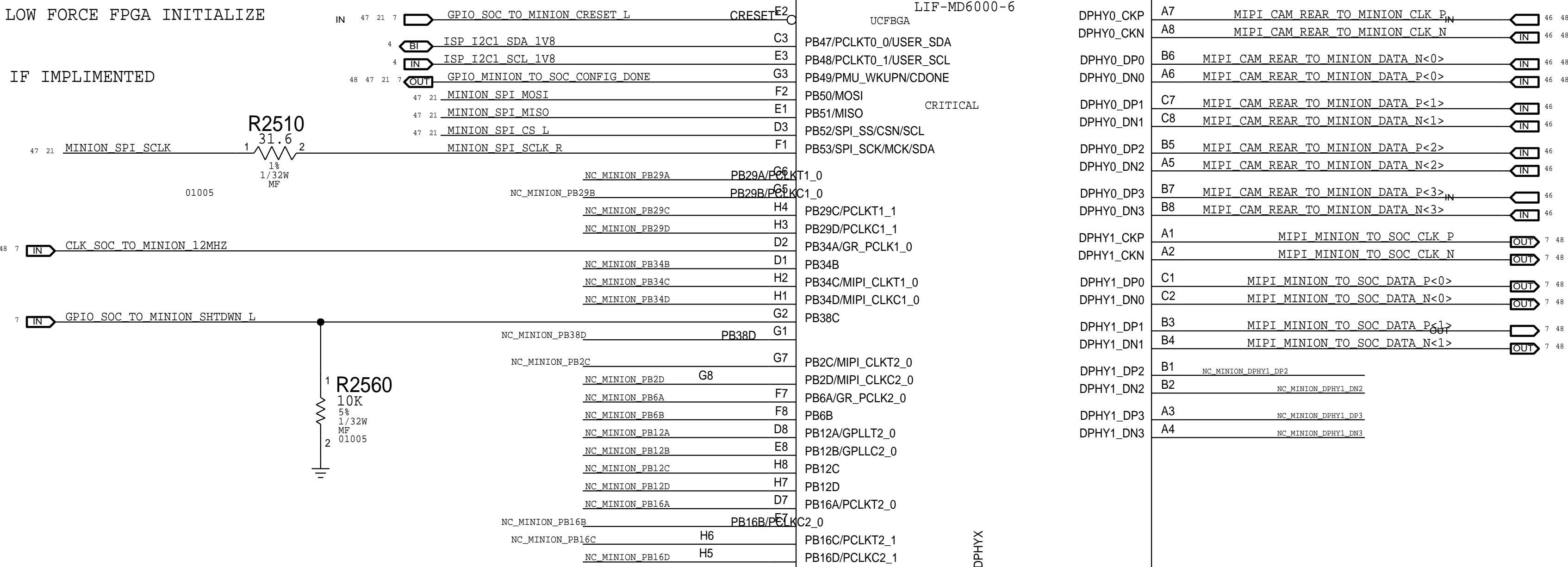
D

D



LOW FORCE FPGA INITIALIZE

HIGH INDICATES FPGA INITIALIZED AND LOW WAKE PMU IF IMPLIMENTED



SYNC_MASTER=1217_MEB_B

PAGE TITLE

CAMERA: MIPI BRIDGE

A

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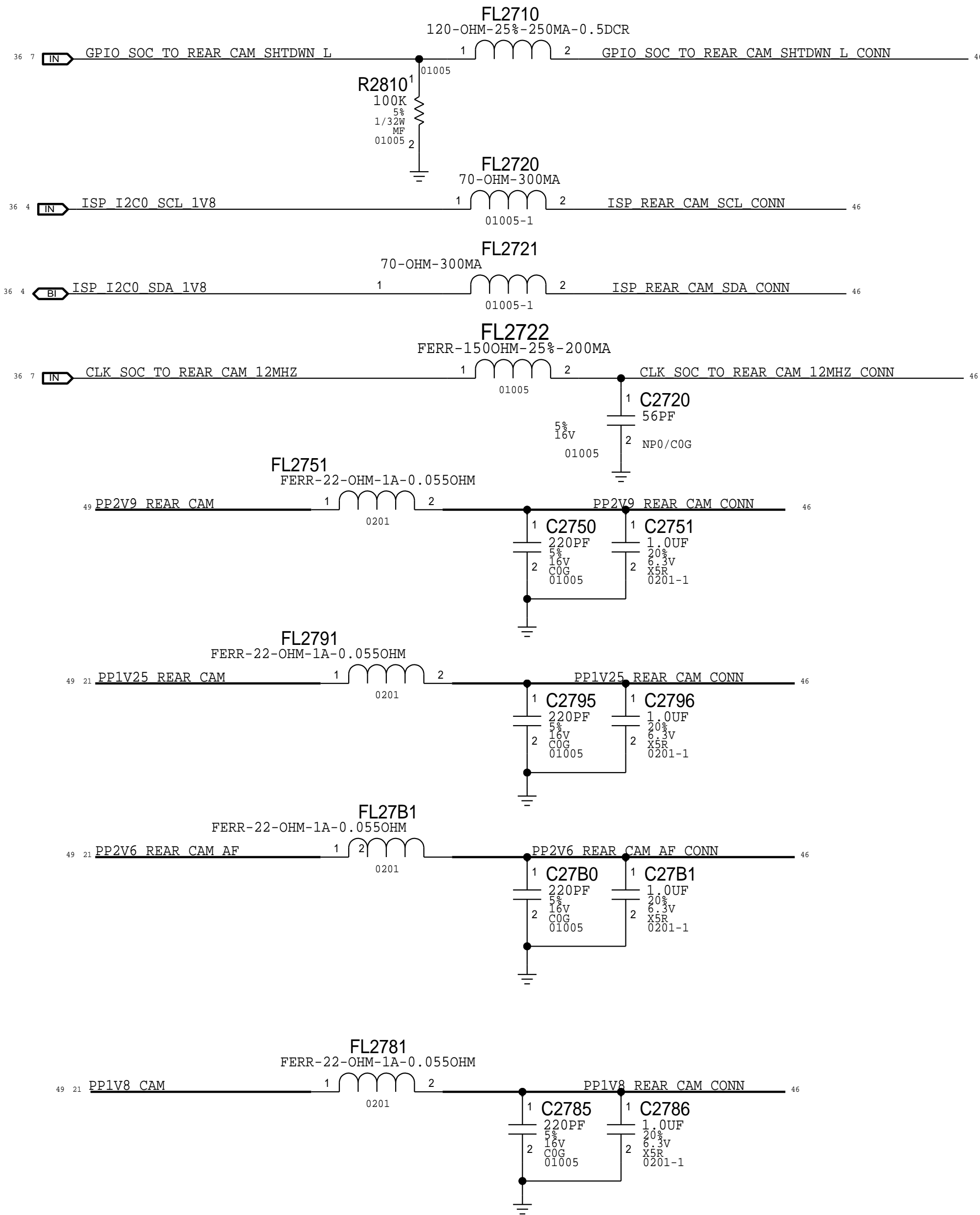
4

3

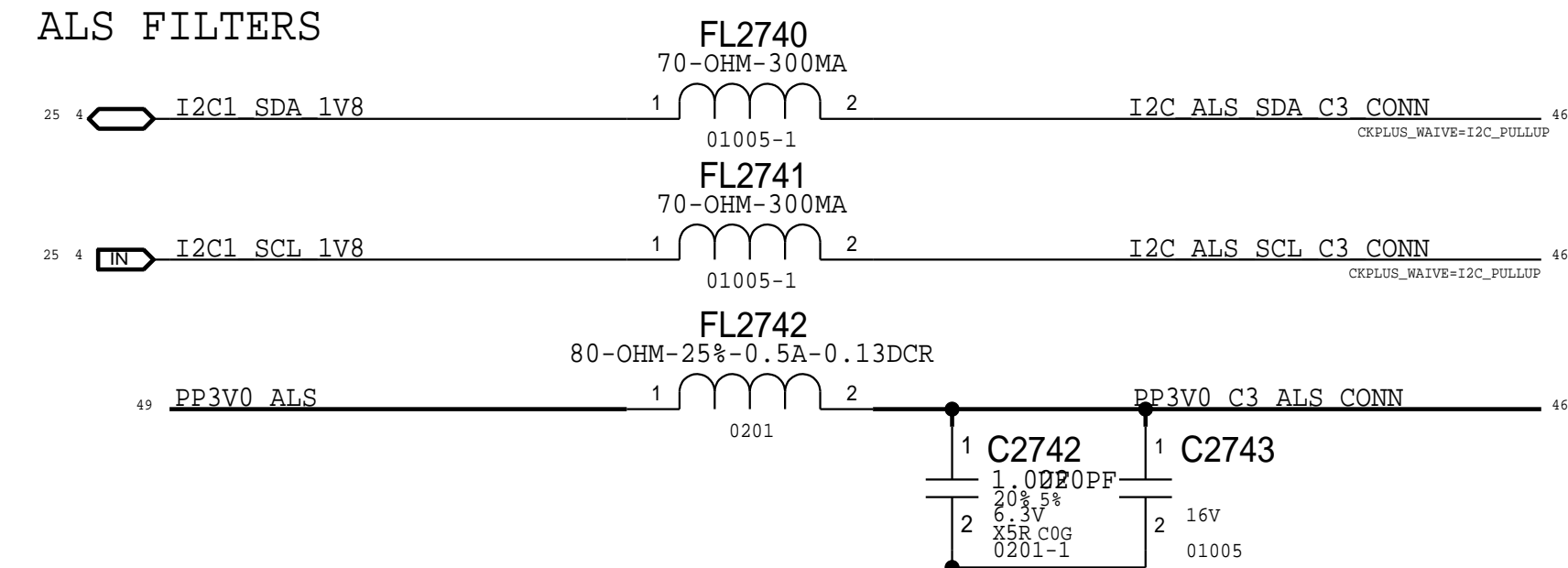
2

1

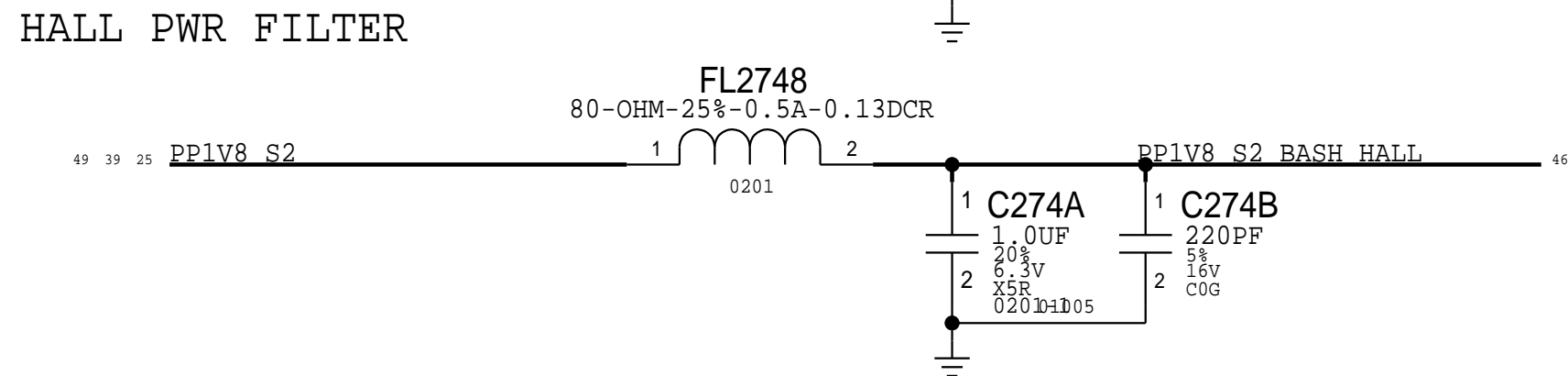
CORNER3 XFER FLEX B2B



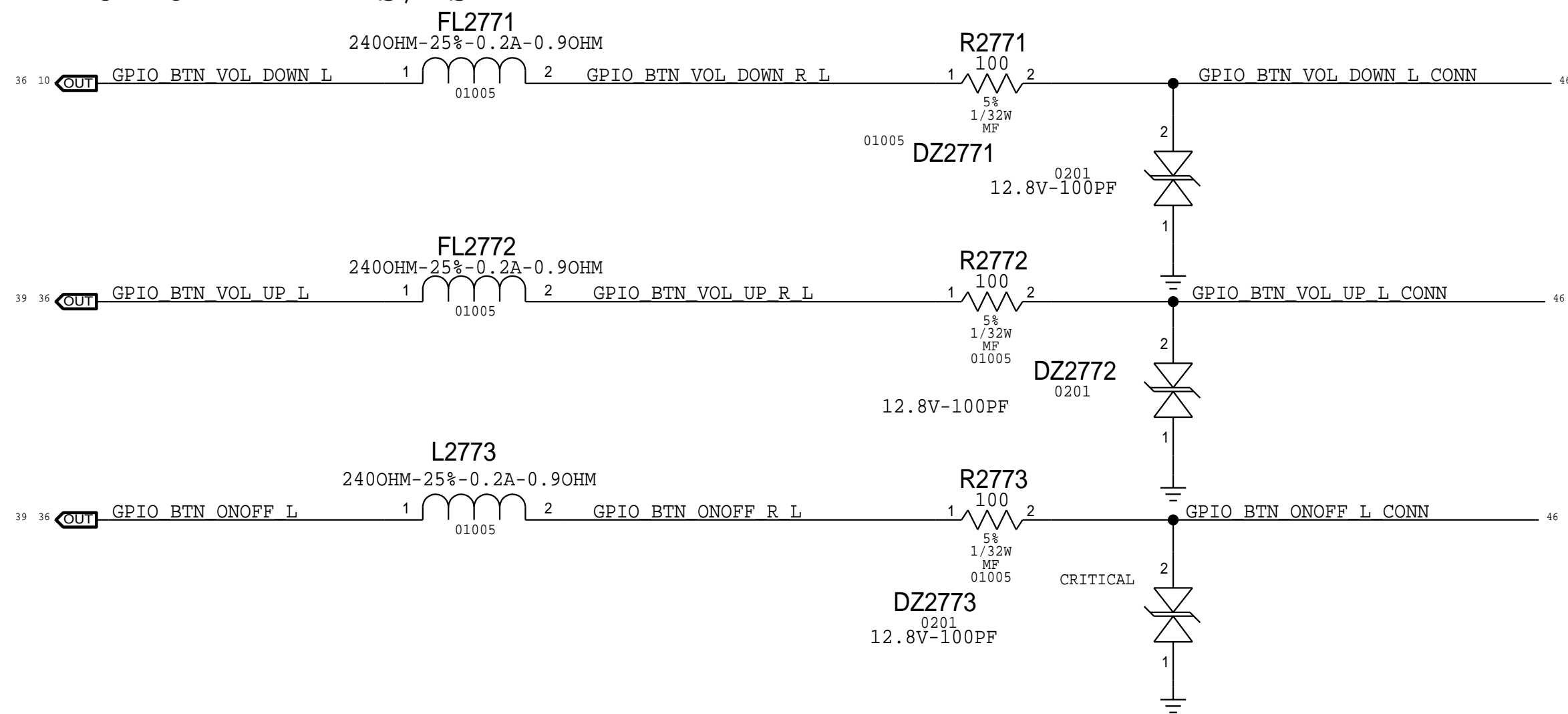
ALS FILTERS



HALL PWR FILTER



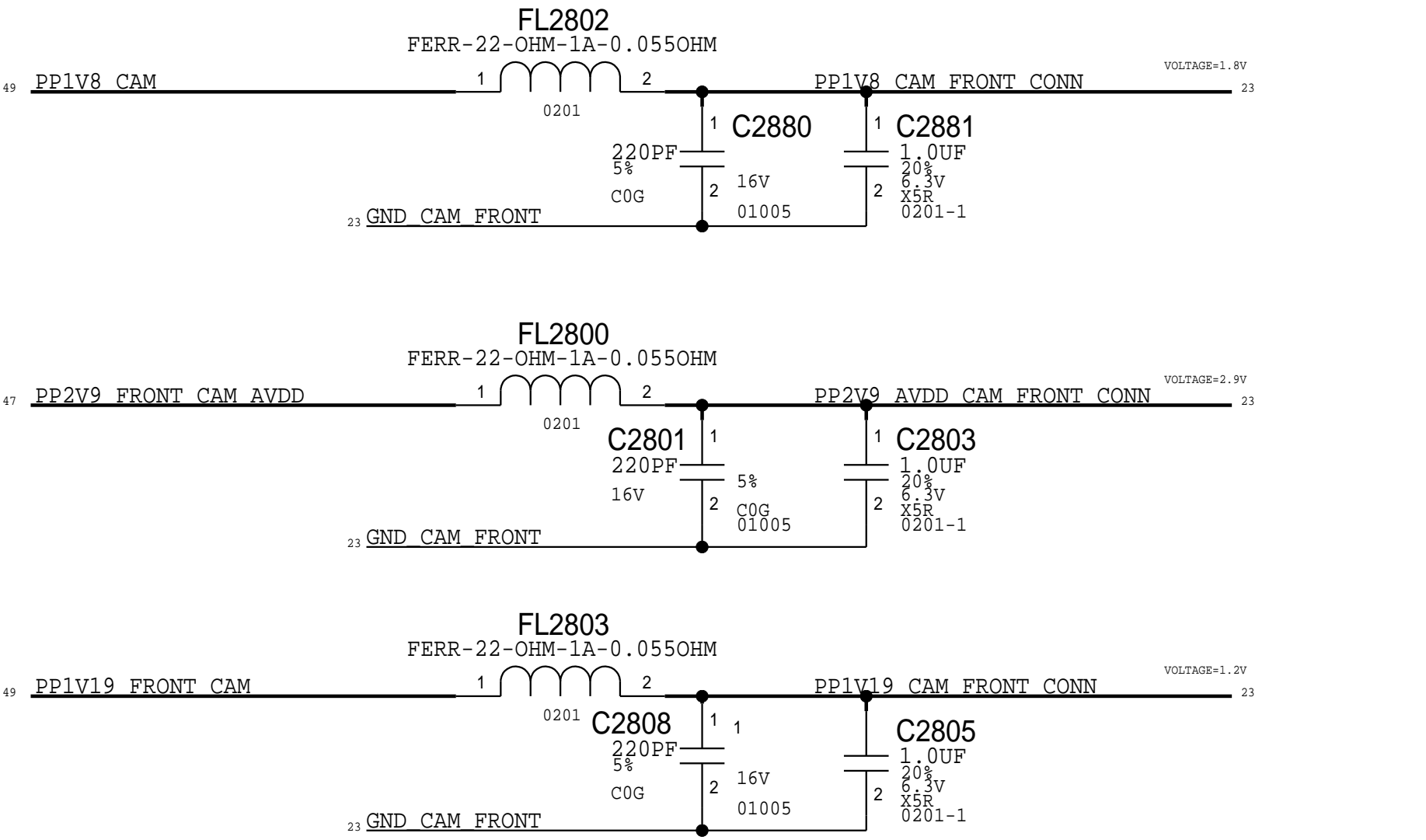
BUTTON FILTERS/ESD



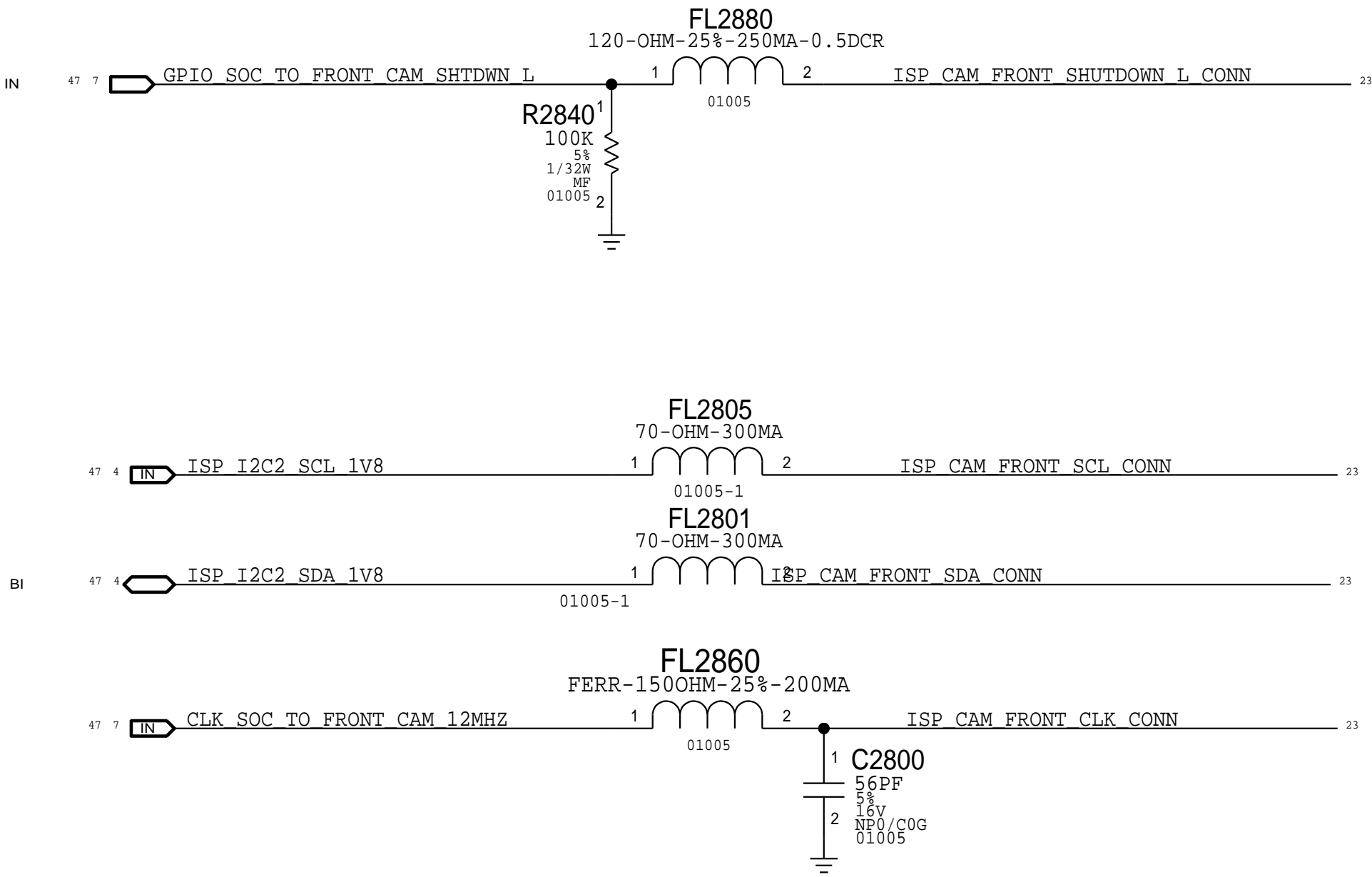
FLEX CONNS: CORNER 3	

FRONT CAMERA (NH)

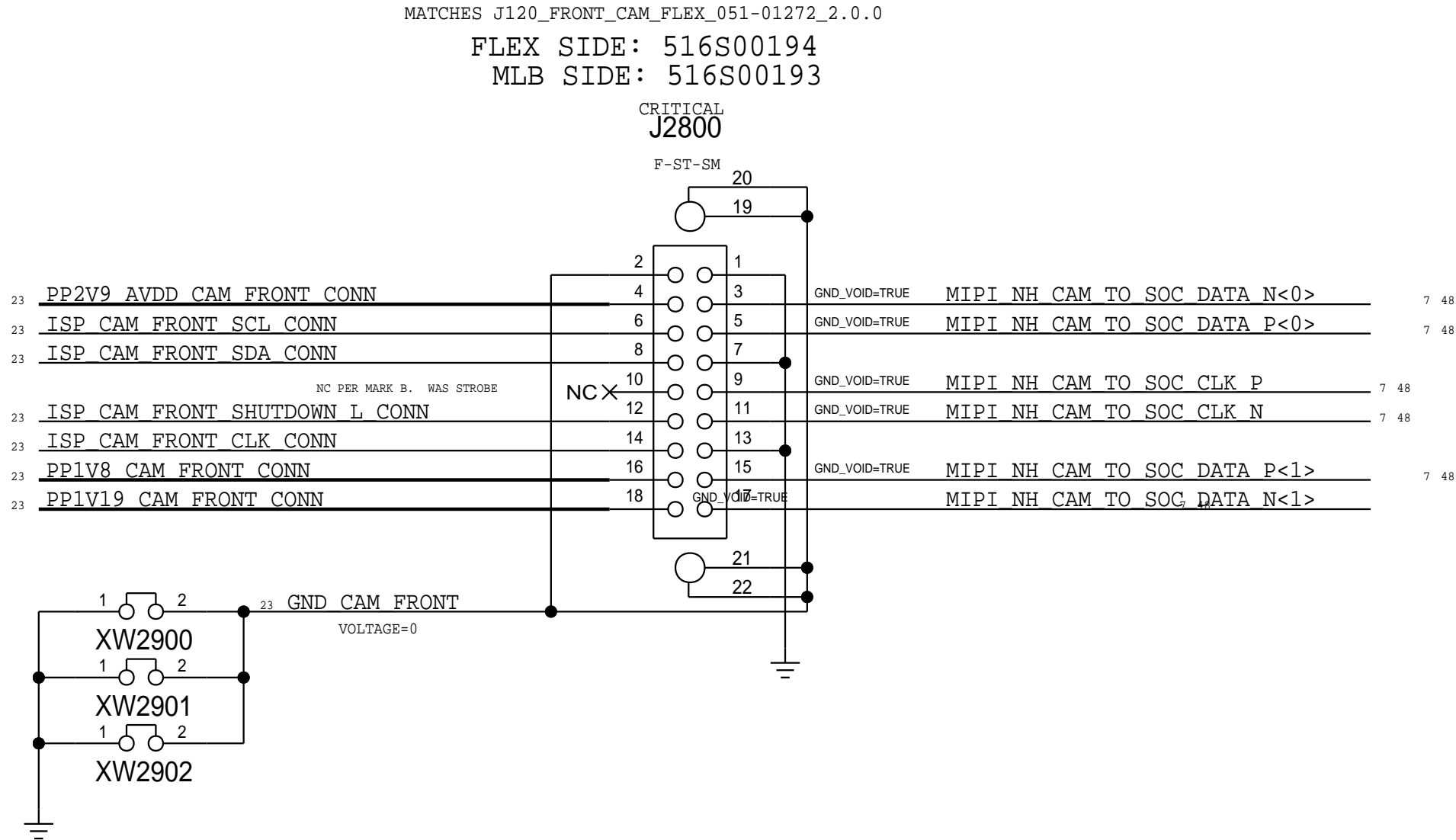
POWER FILTERS



IO FILTERS



FRONT CAMERA CONNECTOR

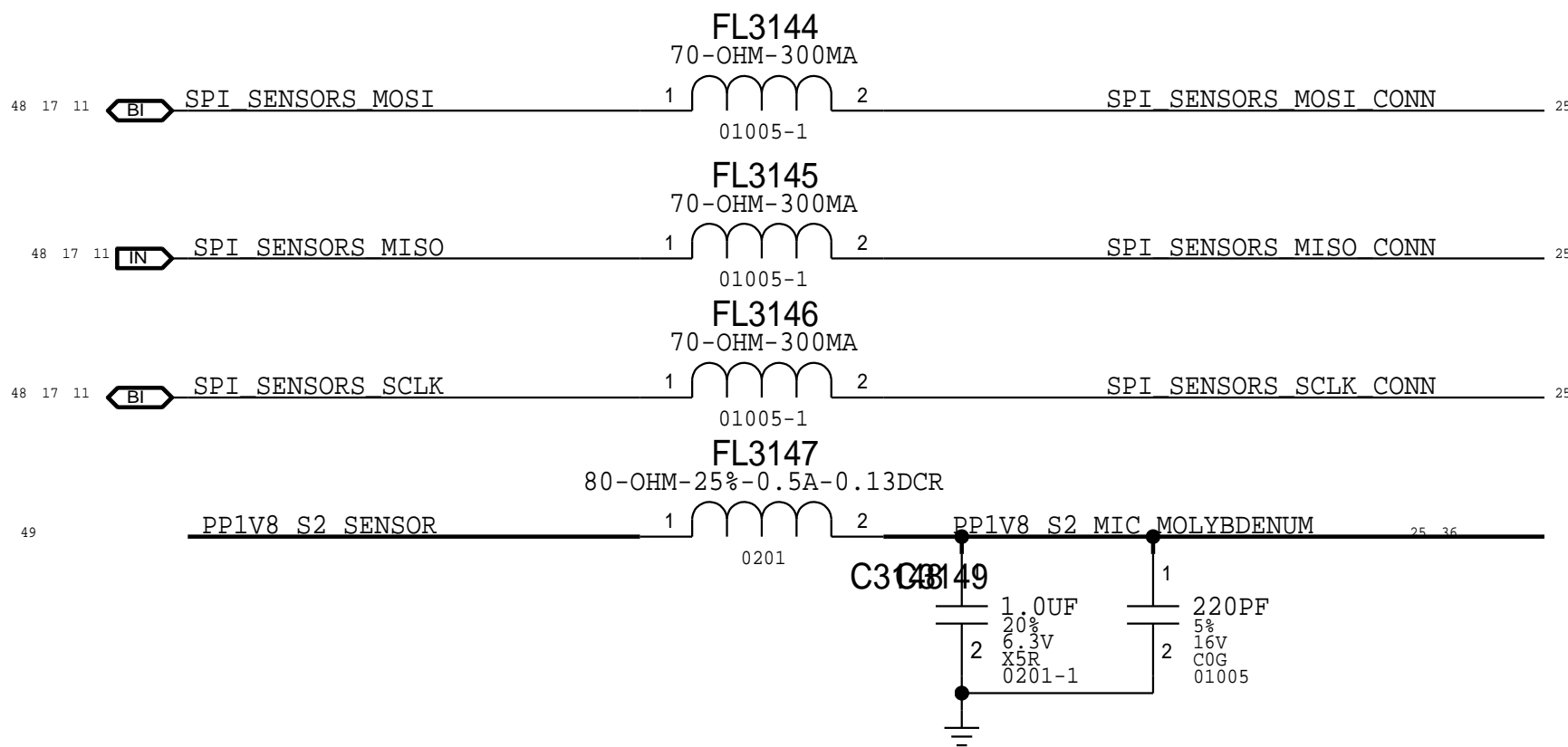


PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
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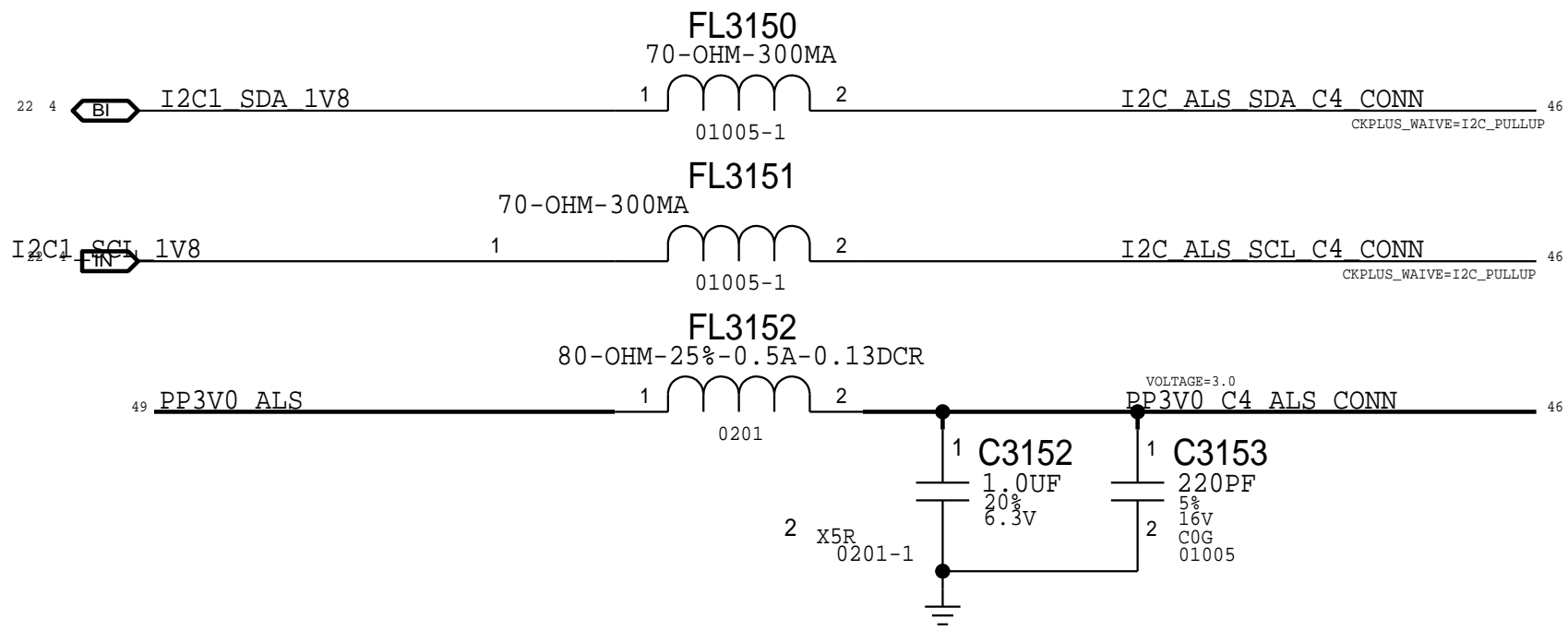
--	--

CORNER 4 + DMIC FLEX FILTERS

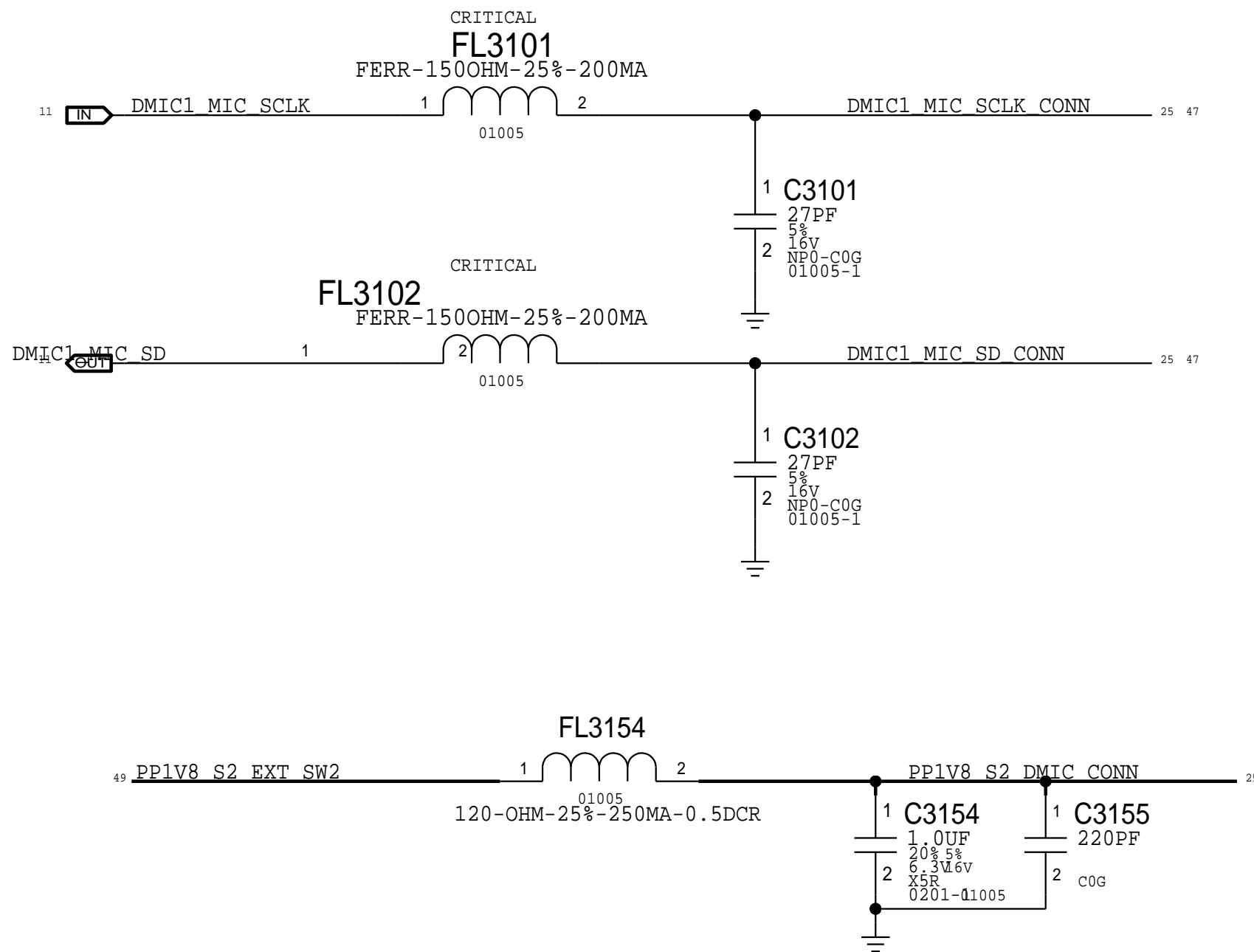
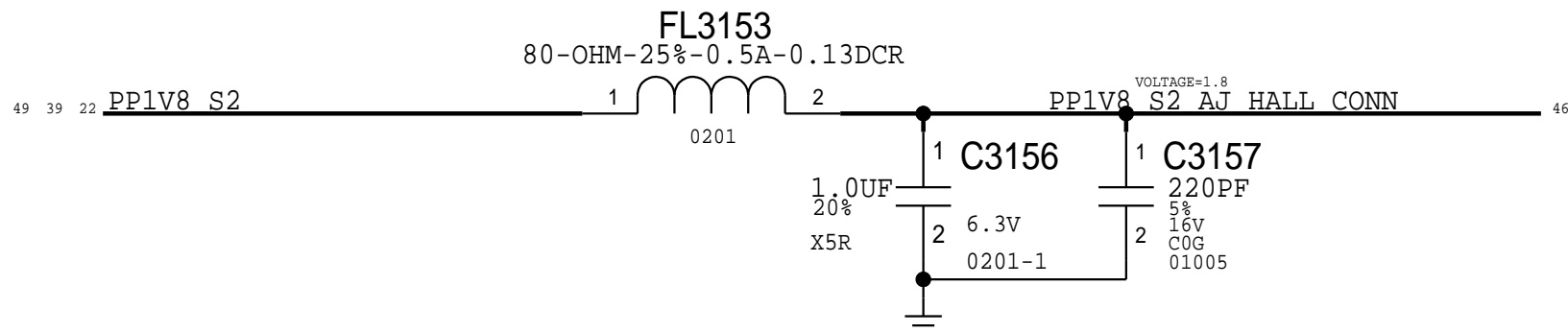
MOLYBDENUM SPI FILTERS



ALS FILTERS

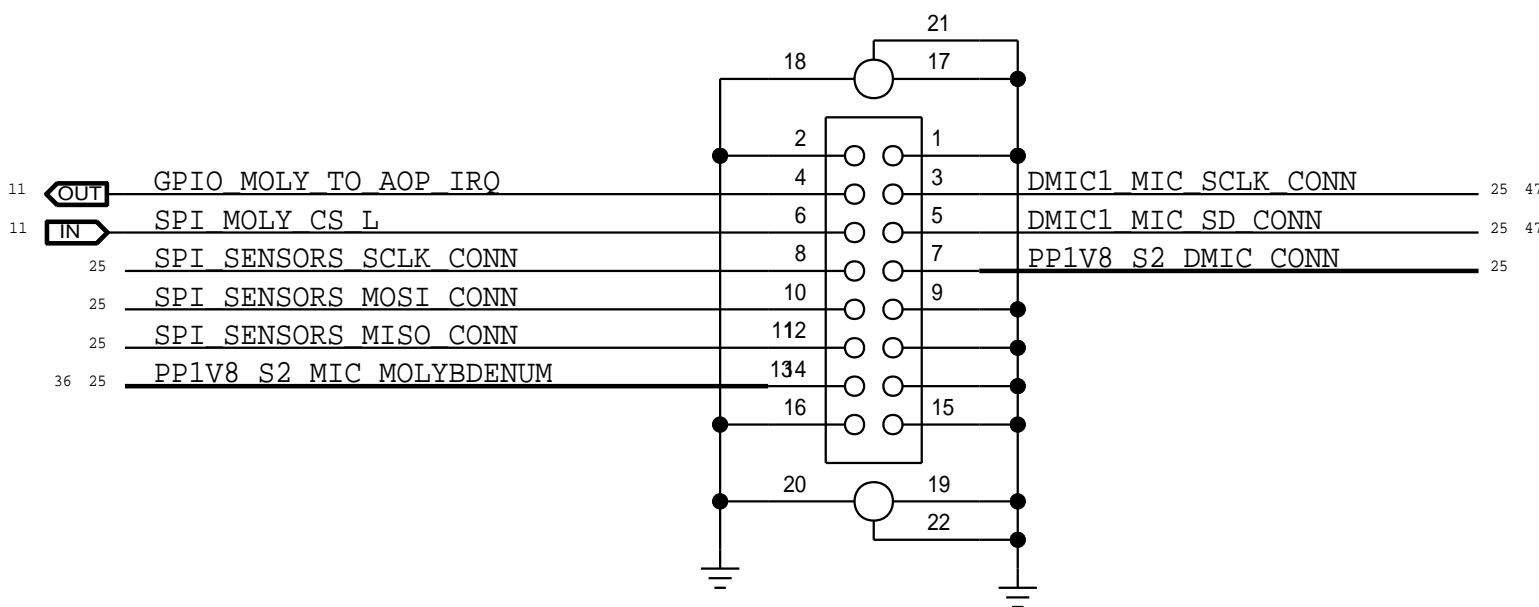


HALL FILTER



MIC FLEX B2B

MATCHES J207_MIC_FLEX_051-01915_0.5.0
MLB APN: 516S1278
FLEX APN: 516S1280
CRITICAL
J3100
24-5857-016-201-829
P-ST-SM



ROUTING	SIGNAL	LOCATION	DATA ASSERTS ON	DATA LATCHED ON
MIC1	DMIC1	HIGH	CENTER SPLINE	CLK RISING EDGE
MIC2	DMIC1	LOW	REAR	CLK FALLING EDGE

SYNC_MASTER=J217_MCB_B
PAGE TITLE
FLEX CONNS: C4 & DMIC
SYNC_DATE=10/01/2018

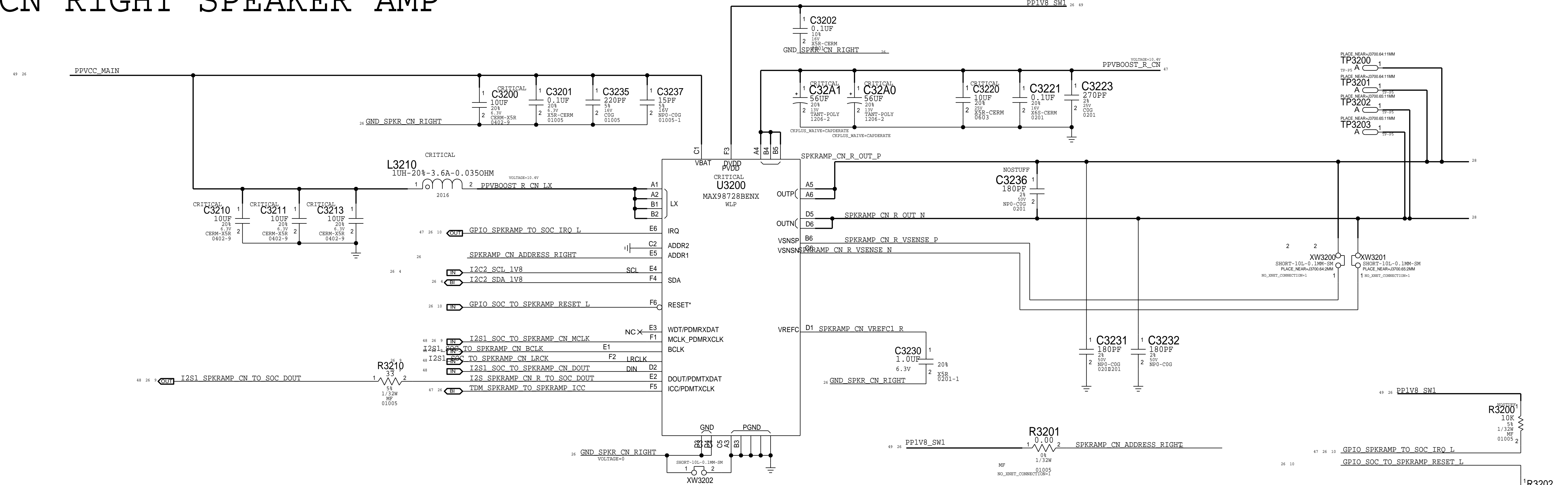
CN RIGHT SPEAKER AMP

D

B

B

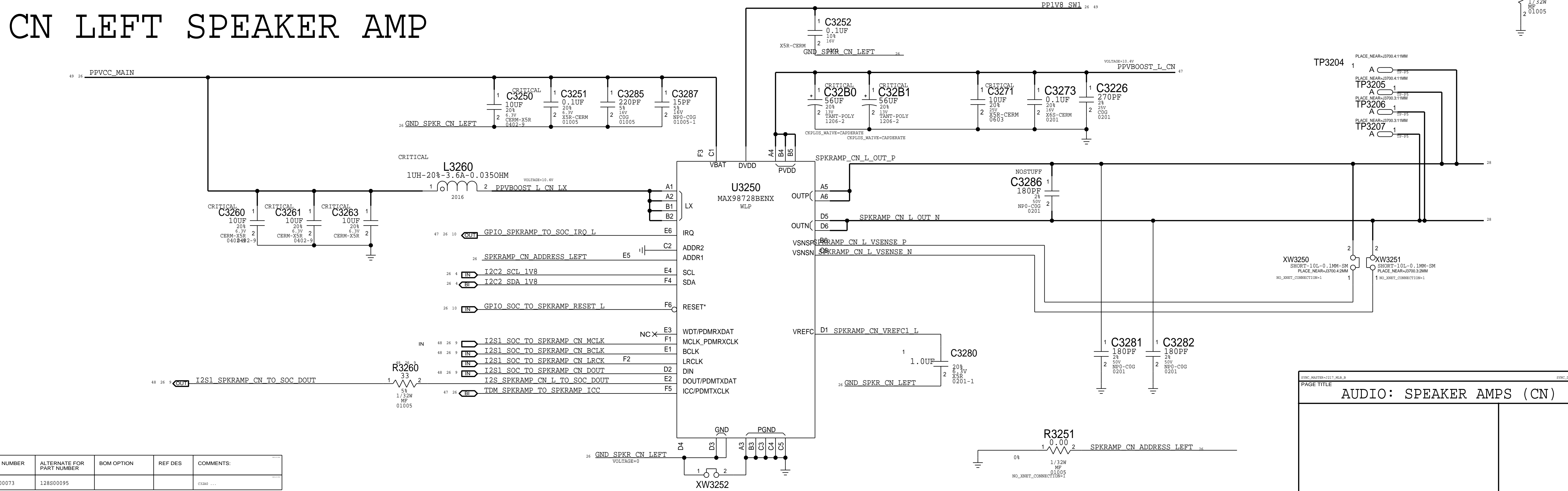
A



CN LEFT SPEAKER AMP

B

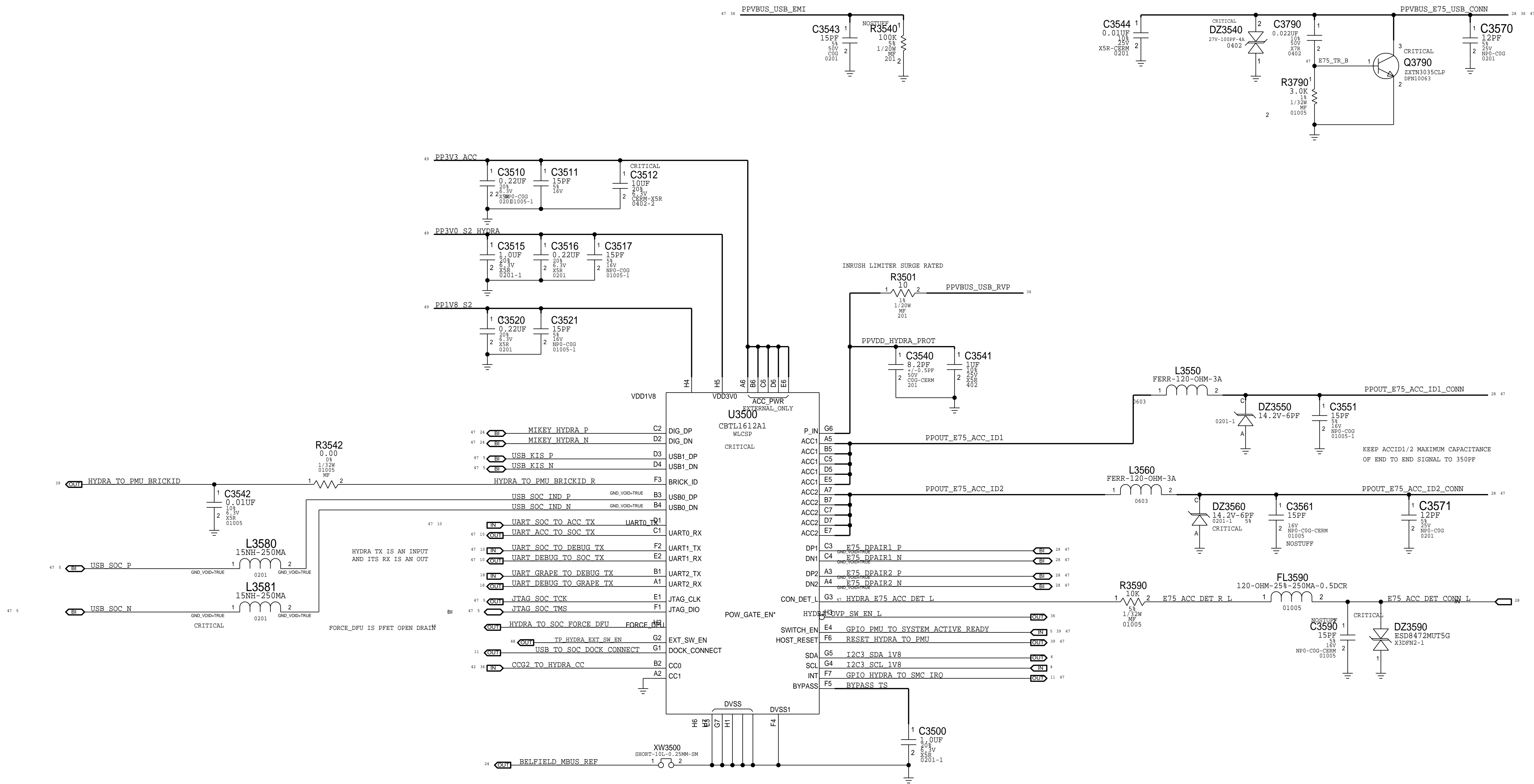
A



PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
128S00073	128S00095			C32A0 ...

AUDIO: SPEAKER AMPS (CN)

HYDRA



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HOTBAR CONNECTOR TO I/O FLEX

TO BE MATCHED TO J217_IO_FLEX

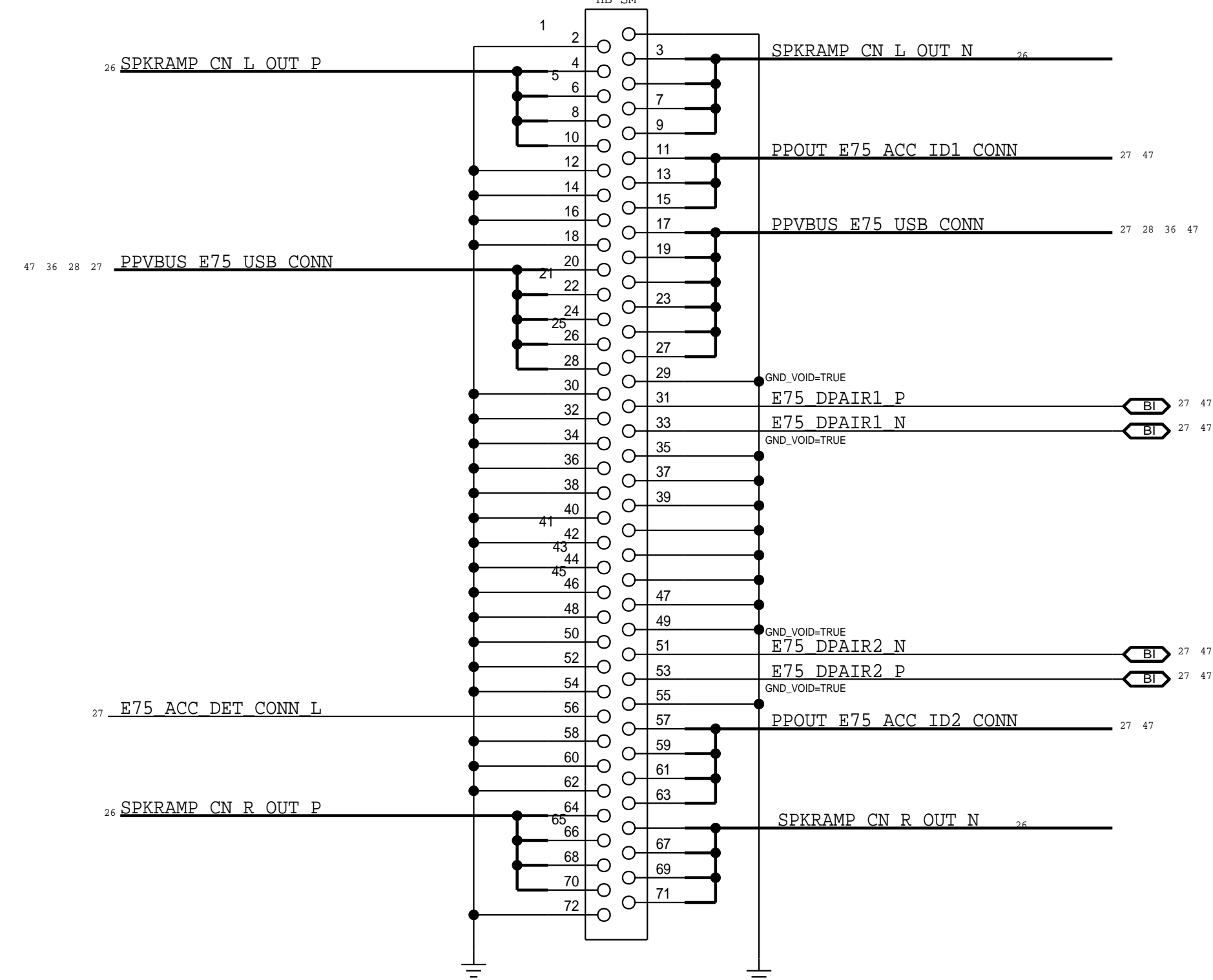
MLB APN: 998-01935

FLEX APN: 998-01936

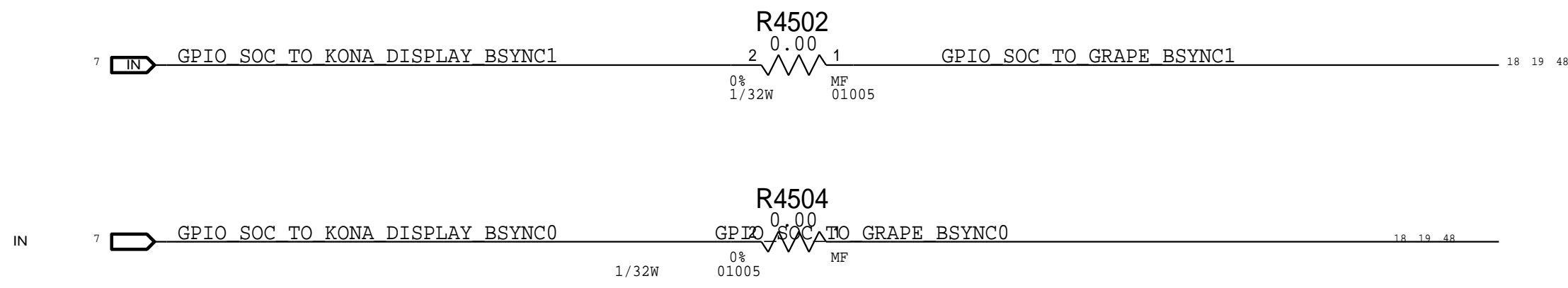
J3700

PCB-0.60MM

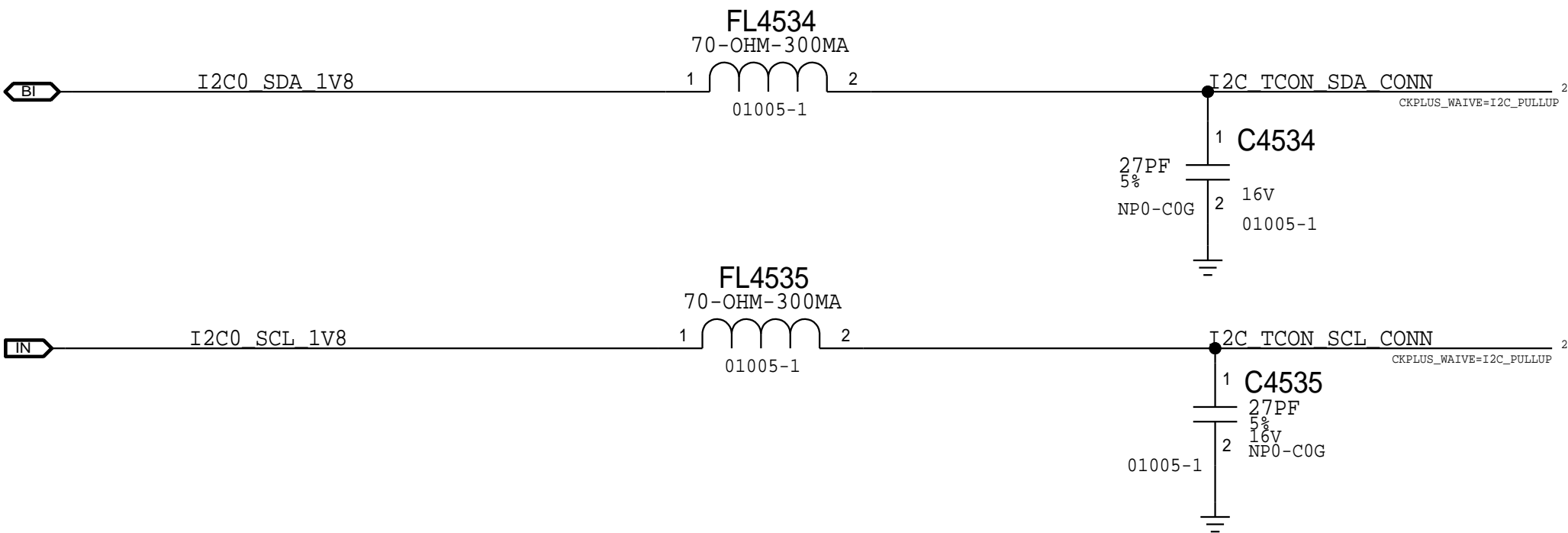
HB-SM



EDP FLEX FILTERS AND CONNECTORS

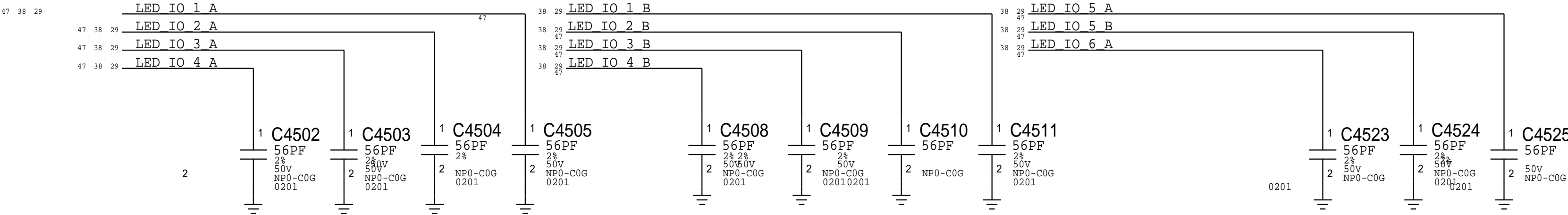


TCON I2C FILTERS

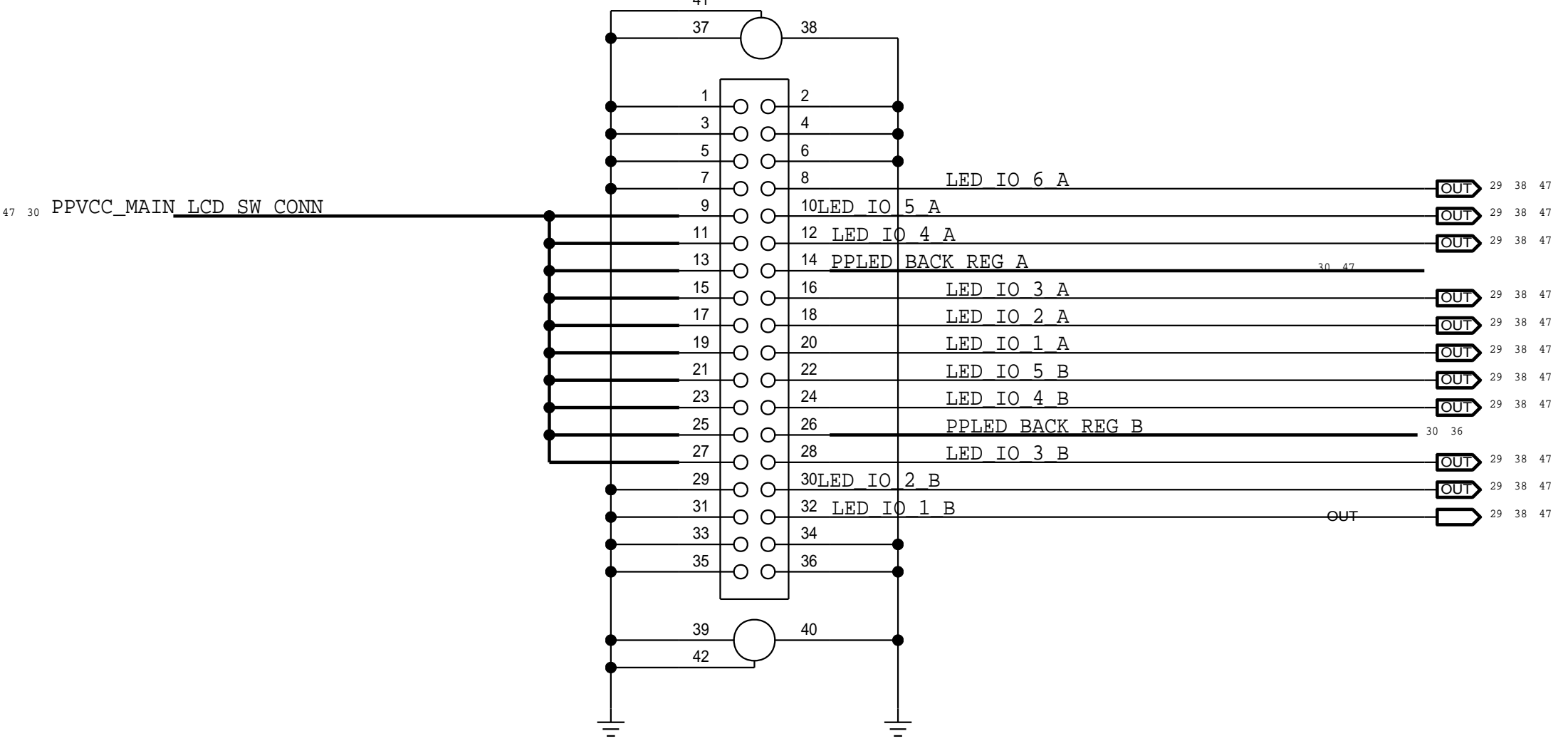


----- DISPLAY ID -----
0 - X1452 (OXIDE DISPLAY)
1 - X1449 (A-SI DISPLAY)

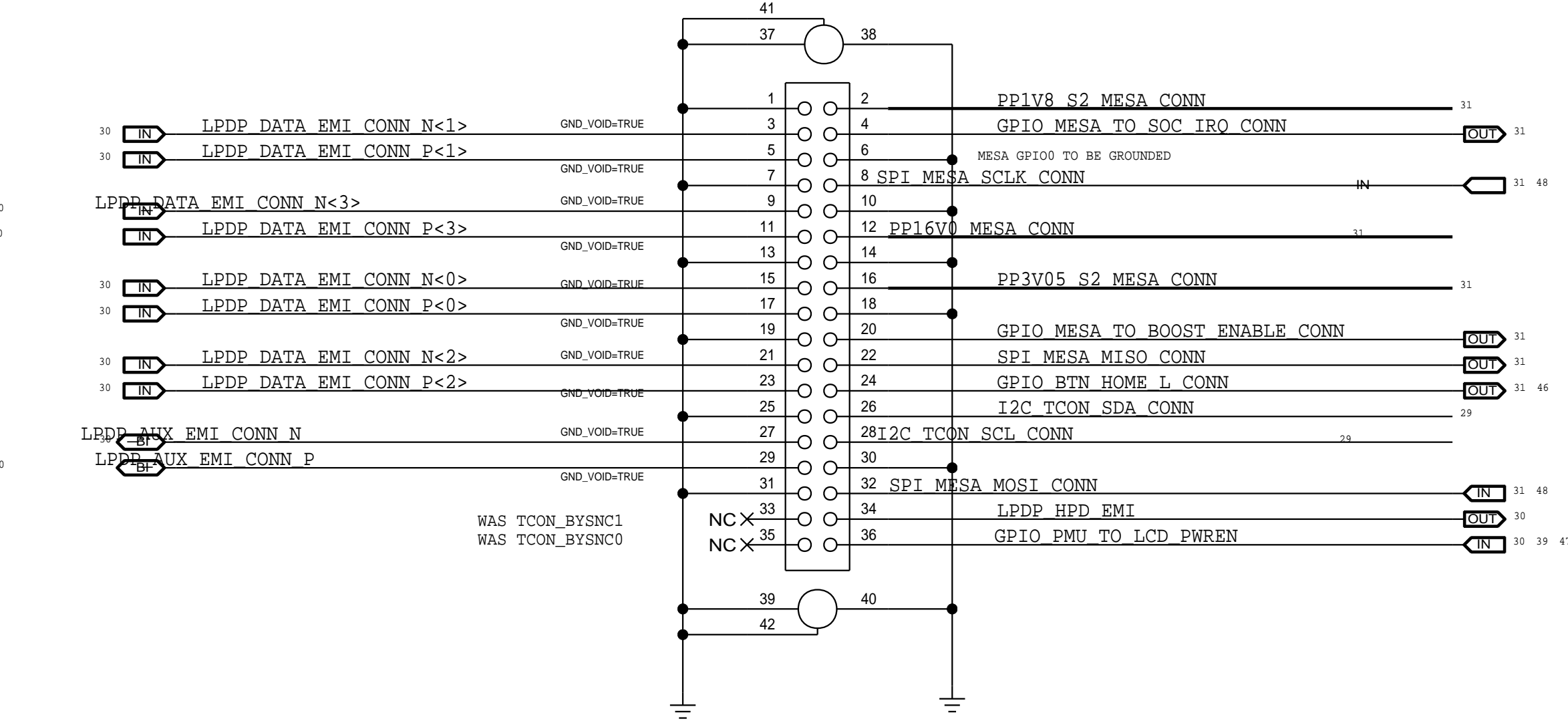
LED DRIVER FILTERS



MATCHES J207_EDP_FLEX_051-01615_2.0.0
APN (FLEX): 516S1282
APN (MLB): 516S1281
J4500
24-5859-036-201-829
F-ST-SM



MATCHES J207_EDP_FLEX_051-01615_2.0.0
APN (FLEX): 516S1282
APN (MLB): 516S1281
J4520
24-5859-036-201-829
F-ST-SM



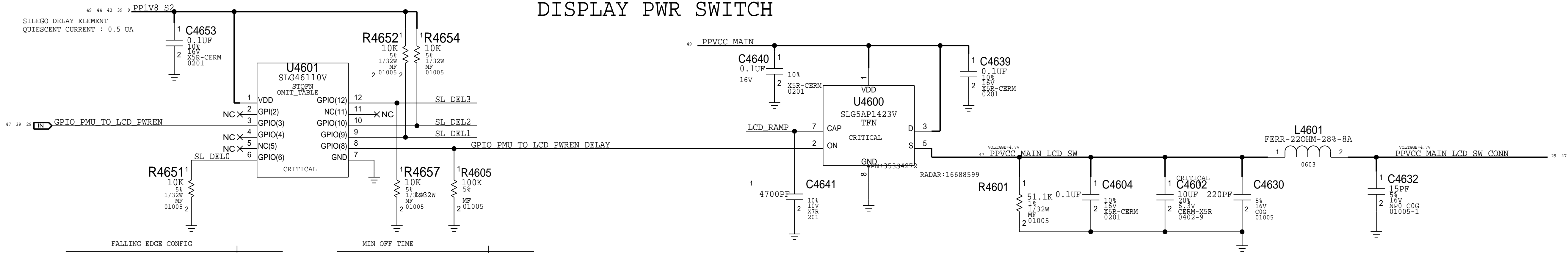
SYNC_MASTER=X217_MES_B
PAGE TITLE
SYNC_DATA=X10_01/2018

DISPLAY CONN

EDP CONNECTOR SUPPORT

PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
155S0914	155S0897		L4602, ETC	RADAR: //PROBLEM/21527410

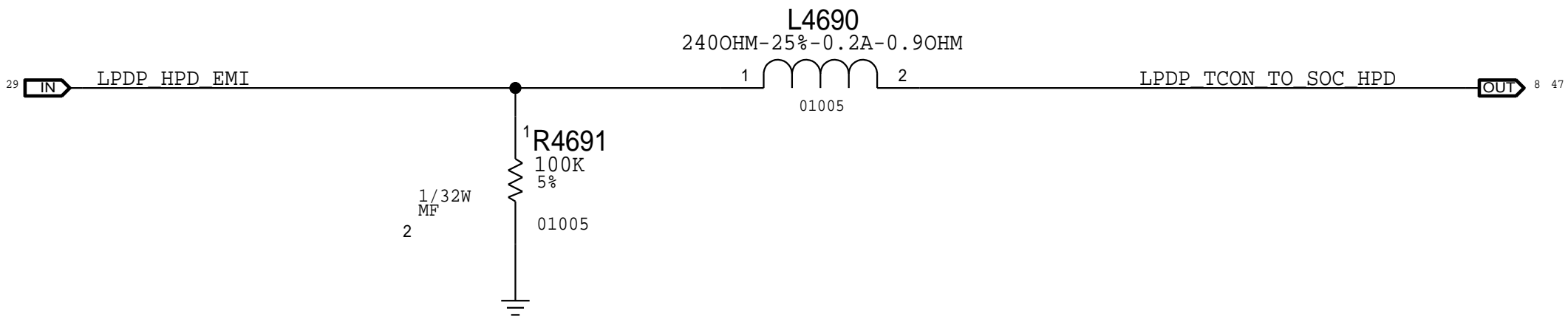
DISPLAY PWR SWITCH



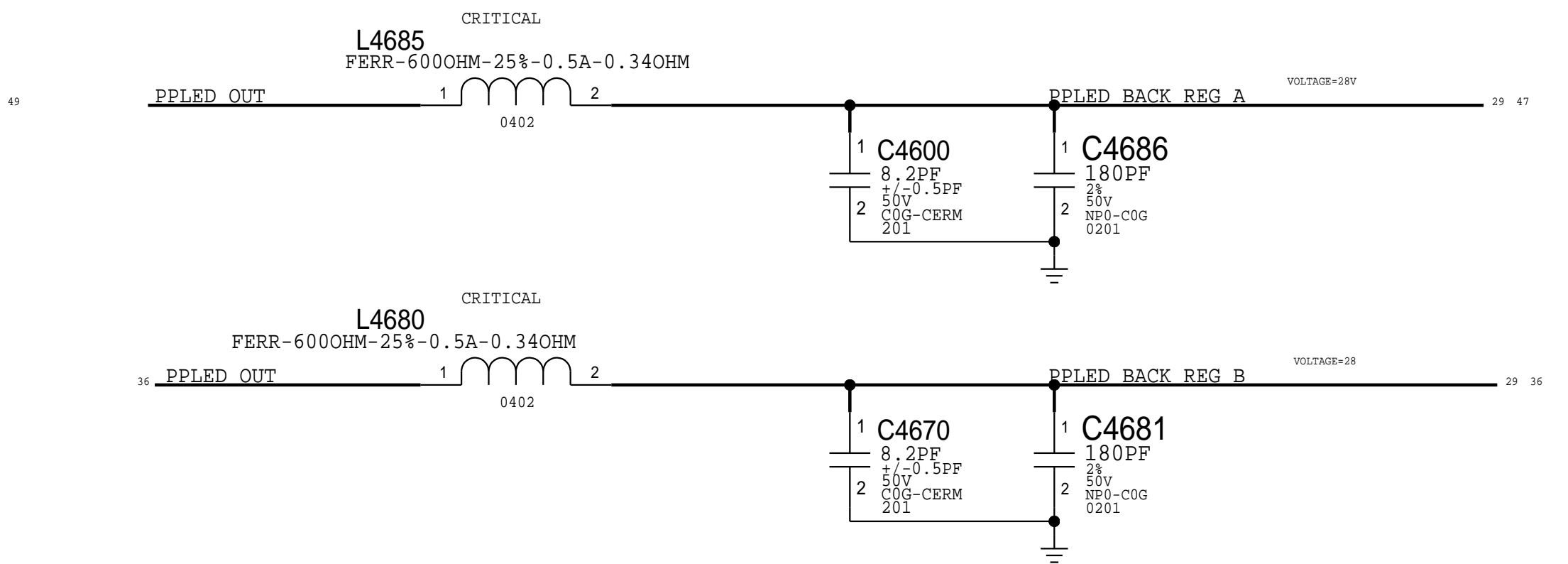
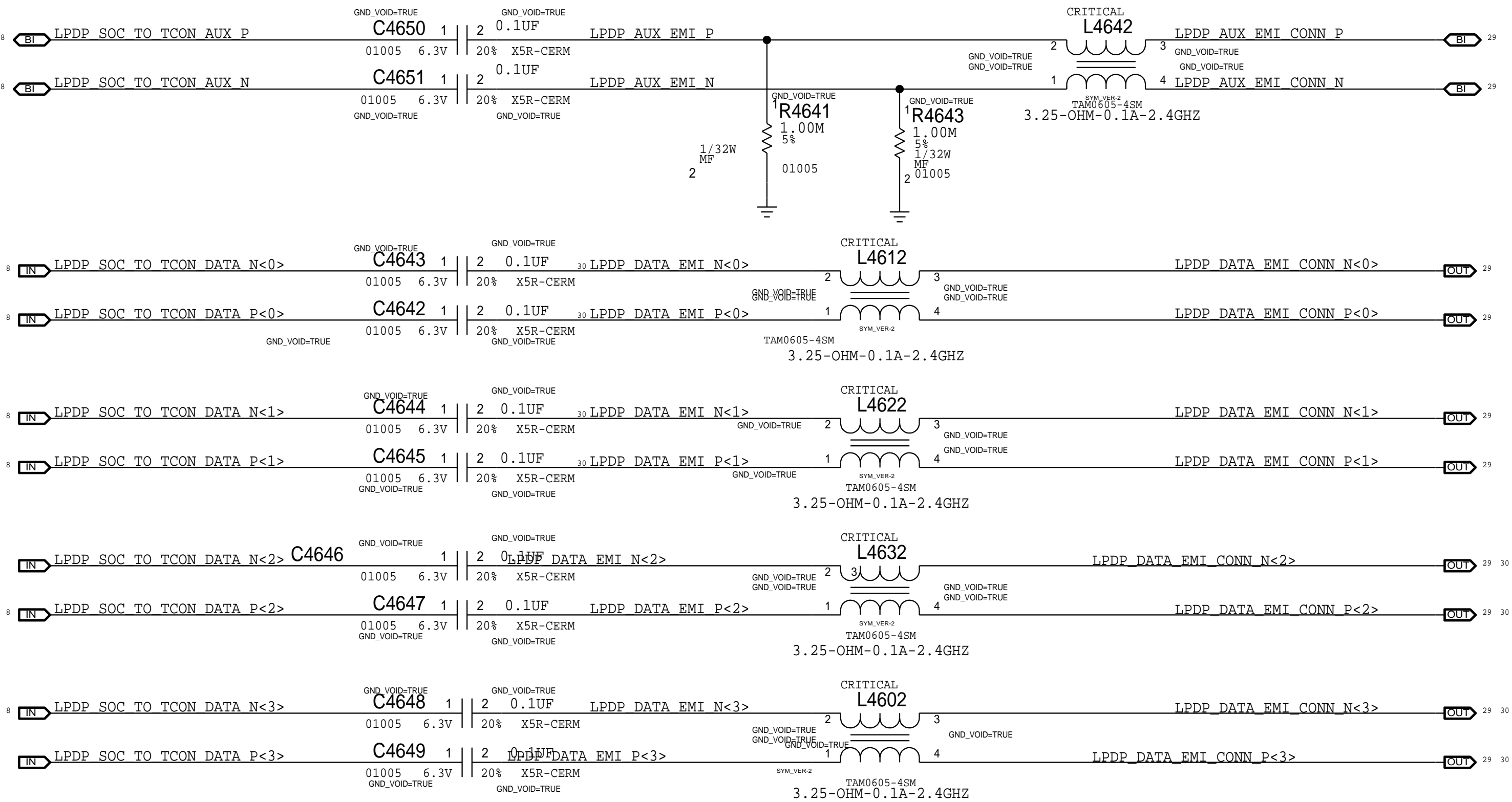
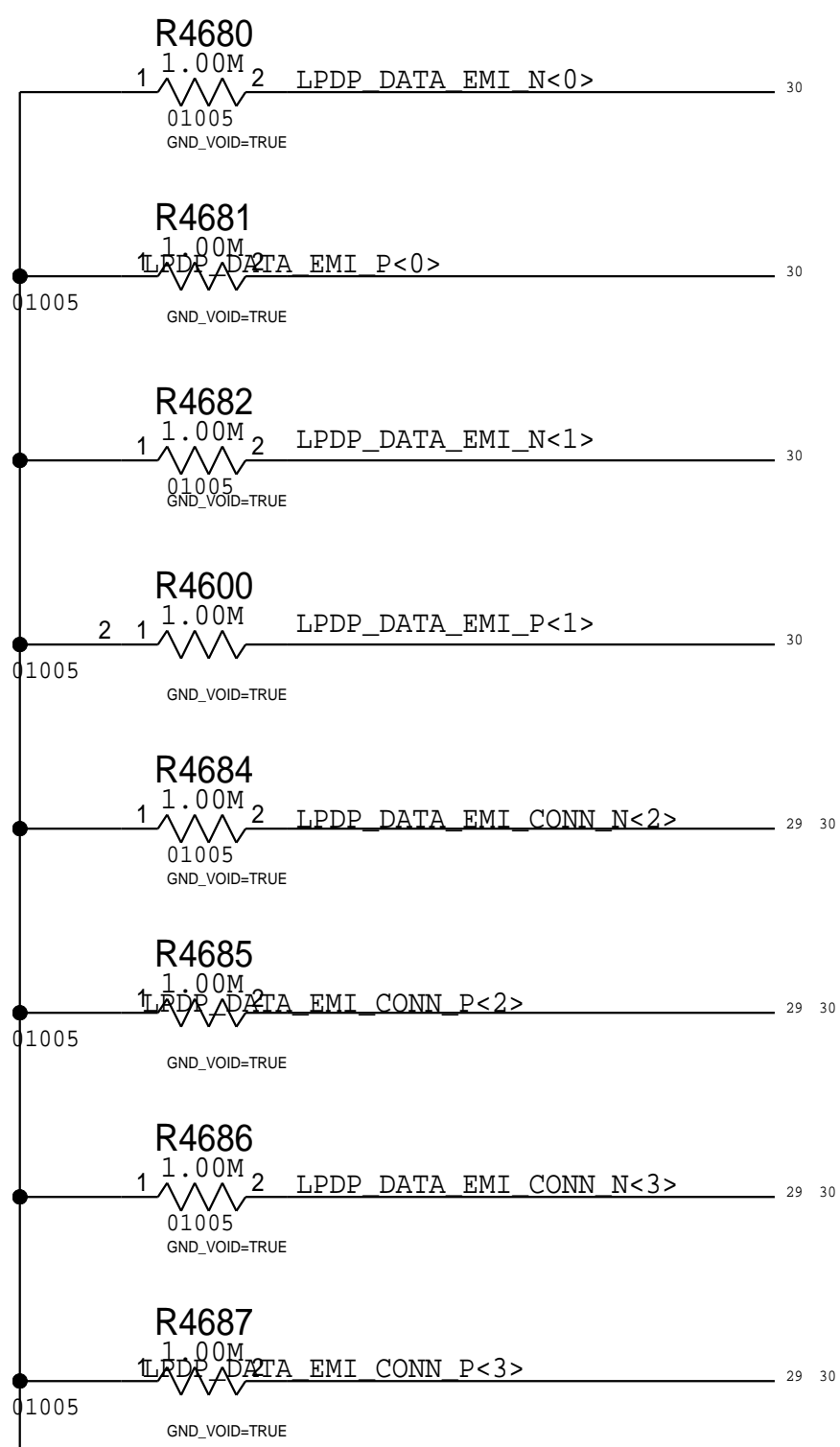
FALLING EDGE CONFIG		MIN OFF TIME	
SL_DELO - LOW , SL_DELI - LOW	N/A	SL_DEL2 - LOW , SL_DEL3 - LOW	N/A
SL_DELO - LOW , SL_DELI - HIGH	50 MS	SL_DEL2 - LOW , SL_DEL3 - HIGH	50 MS
SL_DELO - HIGH, SL_DELI - LOW75 MS		SL_DEL2 - HIGH, SL_DEL3 - LOW	100 MS
SL_DELO - HIGH, SL_DELI - HIGH	100 MS	SL_DEL2 - HIGH, SL_DEL3 - HIGH	150 MS

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
343S00293	1	DISP. DELAY SAK, SLG4AP1158	U4601	CRITICAL	

HIBISCUS HPD VOLTAGE IS 1.8V COMPATIBLE, VOLTAGE DIVIDER REMOVED
VOLTAGE DIVIDER REFERENCE IN PREVIOUS PLATFORMS: RADAR: //PROBLEM/15390794



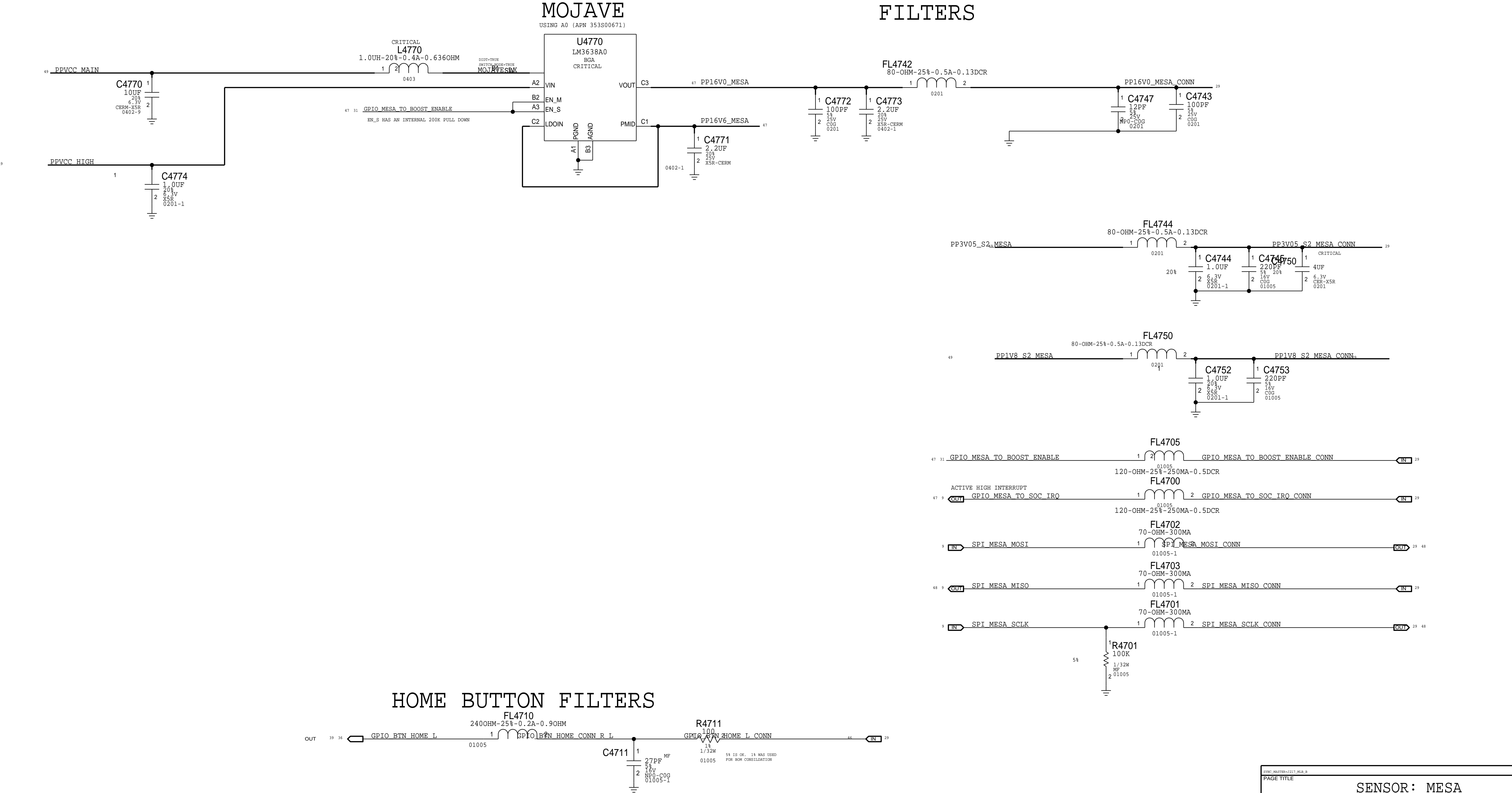
LPDP-AC COUPLING & CMC



PAGE TITLE	
DISPLAY: EDP SUPPORT	

MESA & HOME BUTTON

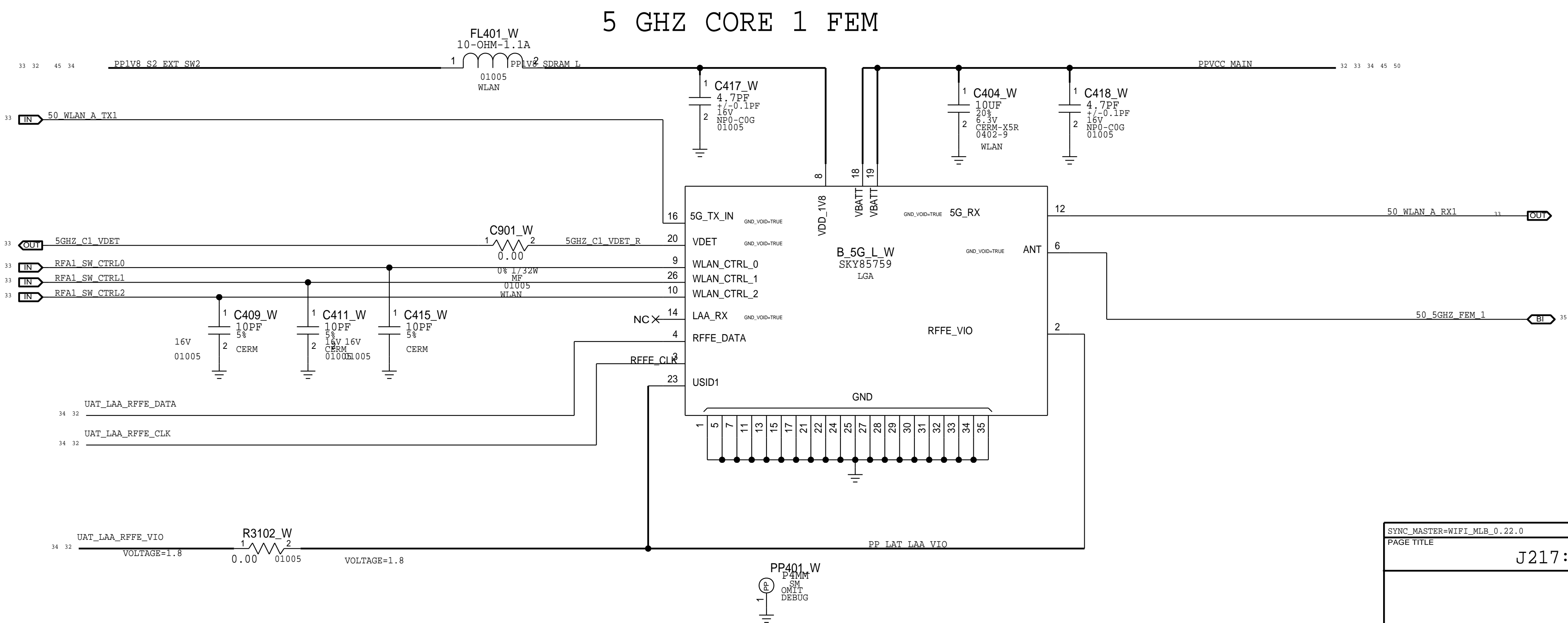
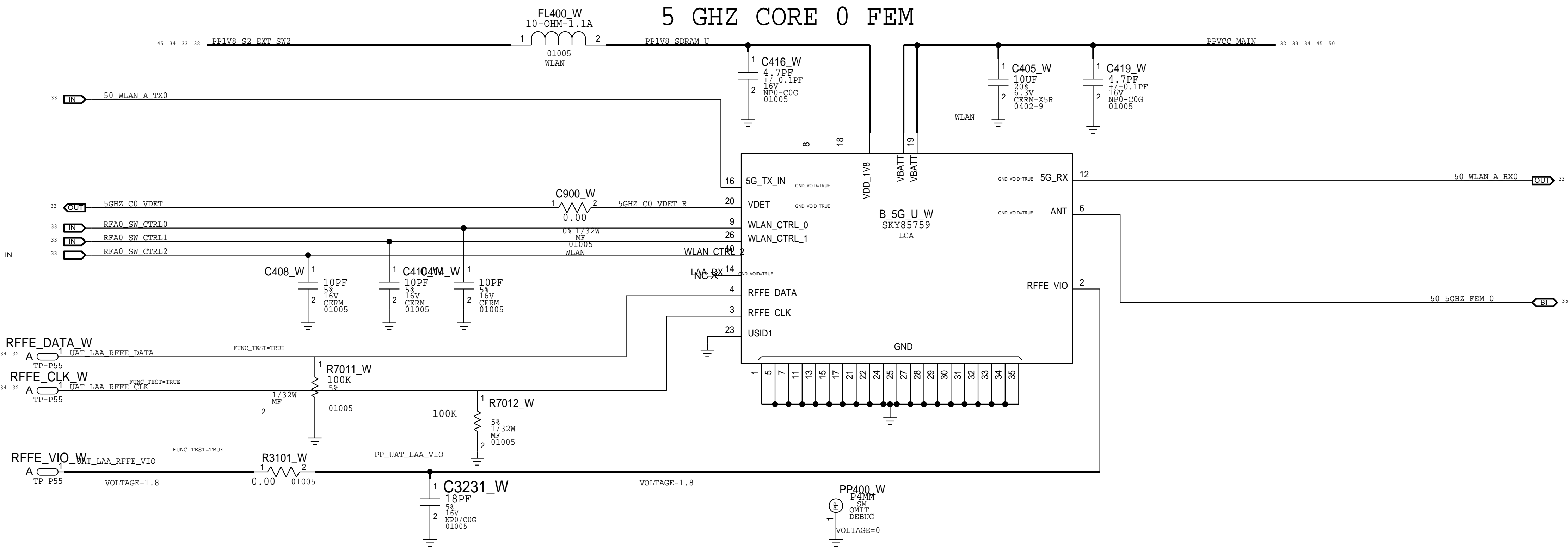
PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
132S00088	132S0639		04746, ETC	RDAR: // PROBLEM/26928883



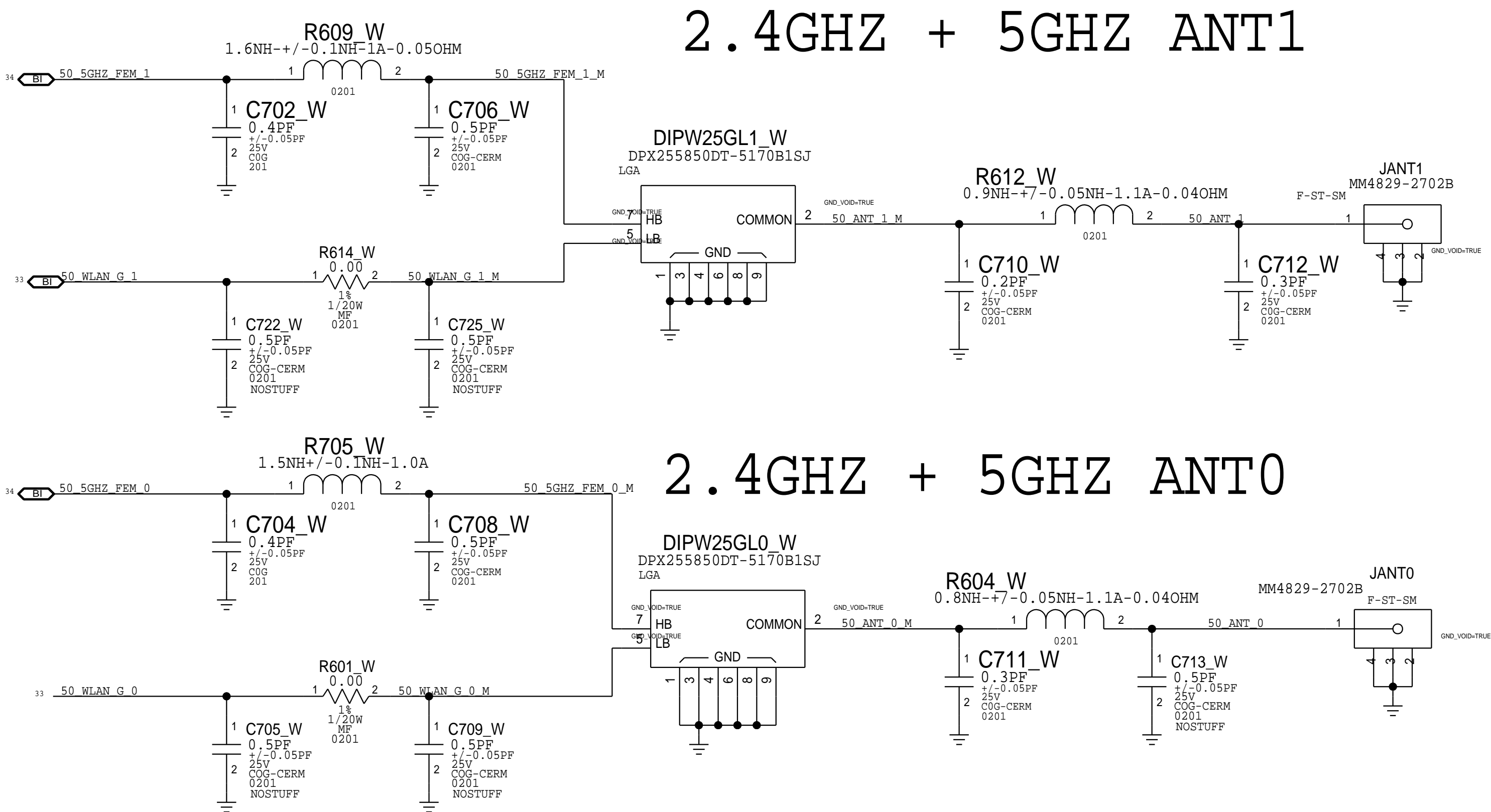
D

A

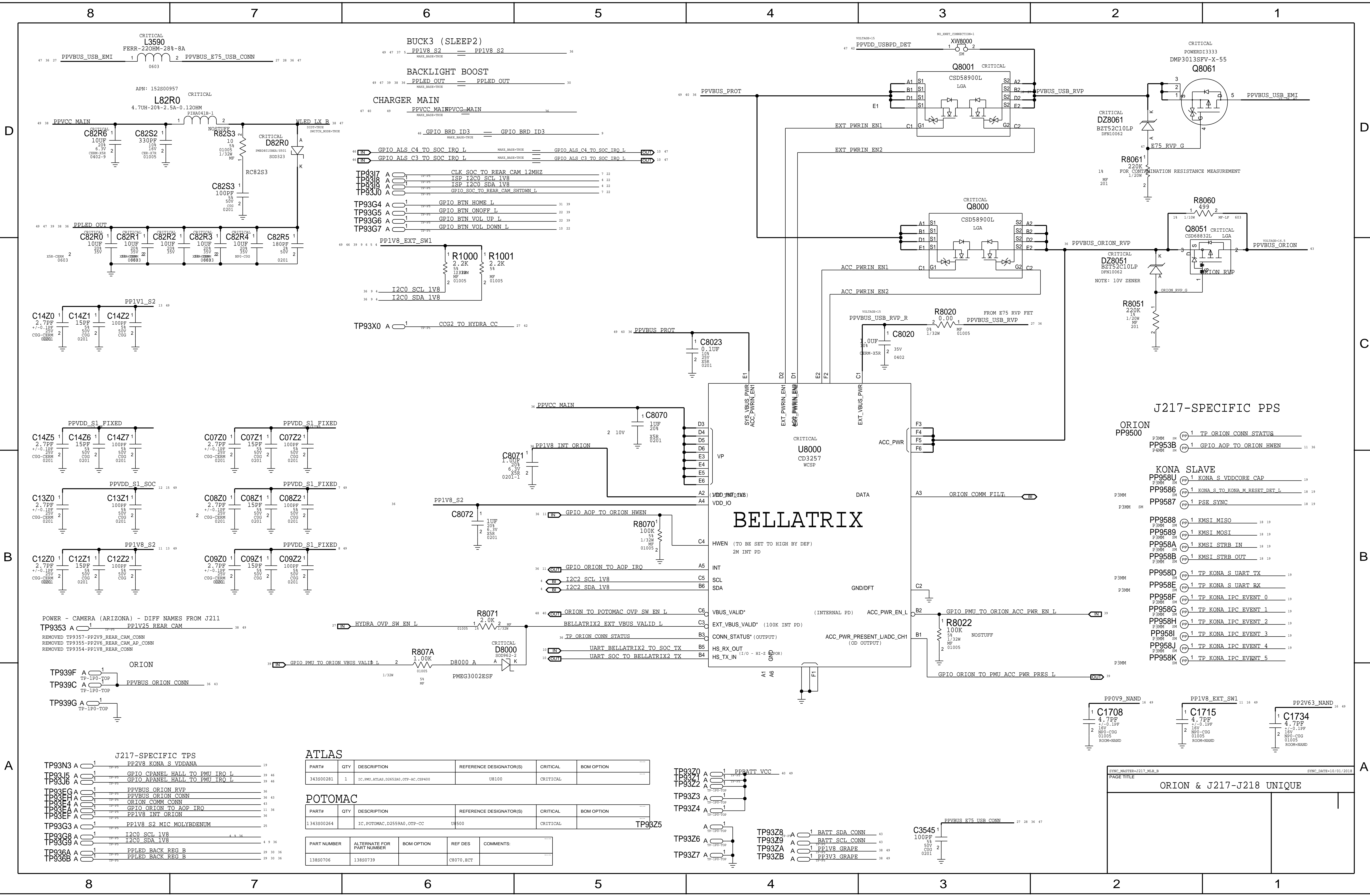
J218: DIET COKE REMOTE FEMS



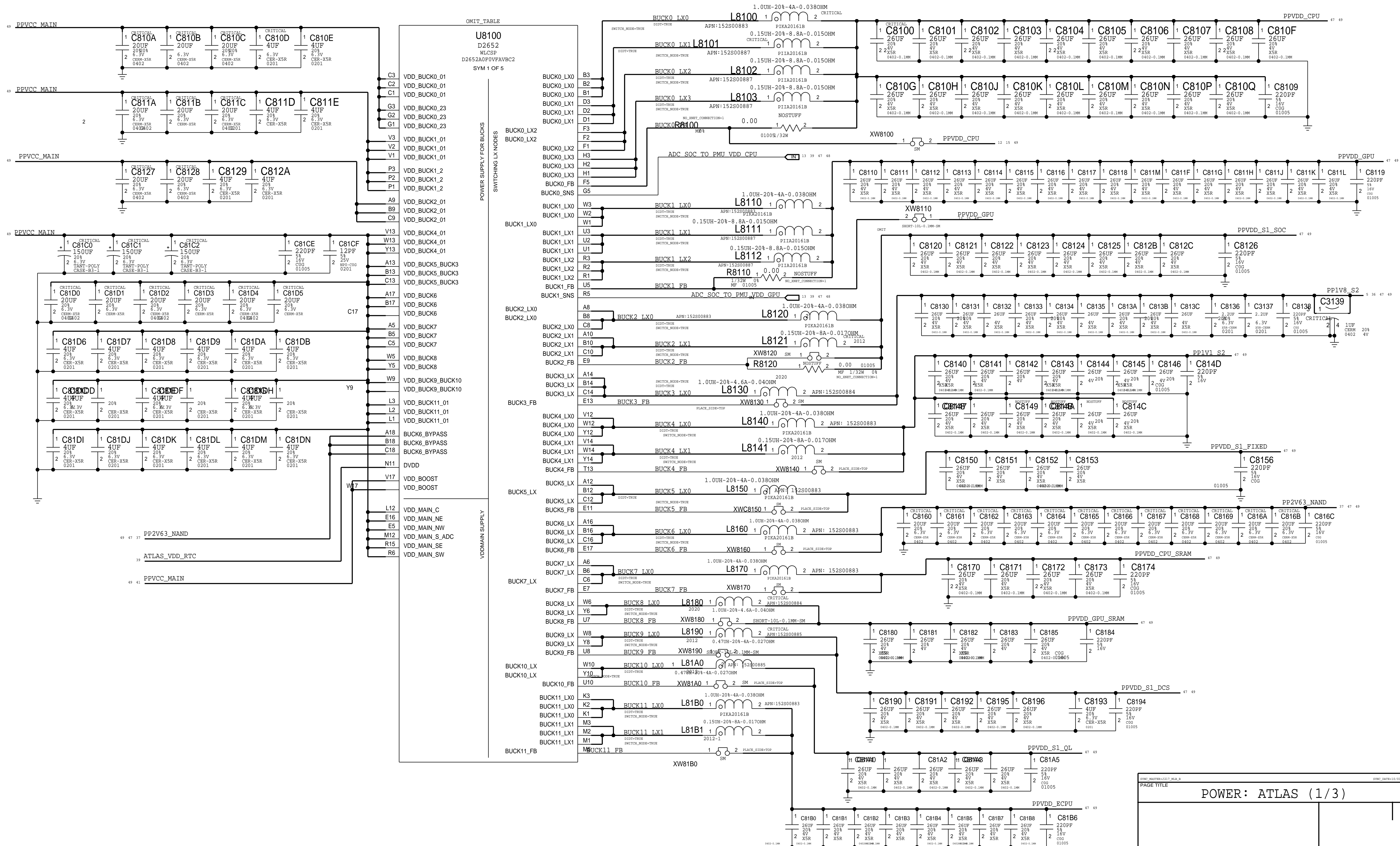
J217: FRONT END



PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	BOM OPTION
131S00030	1	NOSTUFF	C243_W	NOSTUFF
131S0893	1	CAP,CER,COG,0.2PF,01005,HQ	C238_W	
152S00427	1	IND,FILM,2.0NH,+/-0.1NH,SHQ,01005	R237_W	
152S00431	1	IND,FILM,2.4NH,+/-0.1NH,,01005	R238_W	
131S0893	1	CAP,CER,COG,0.2PF,,01005,HQ	C244_W	
131S0893	1	CAP,CER,COG,0.2PF,01005,HQ	C231_W	



ATLAS BUCKS



ATLAS LDOS (2/3)

D

B

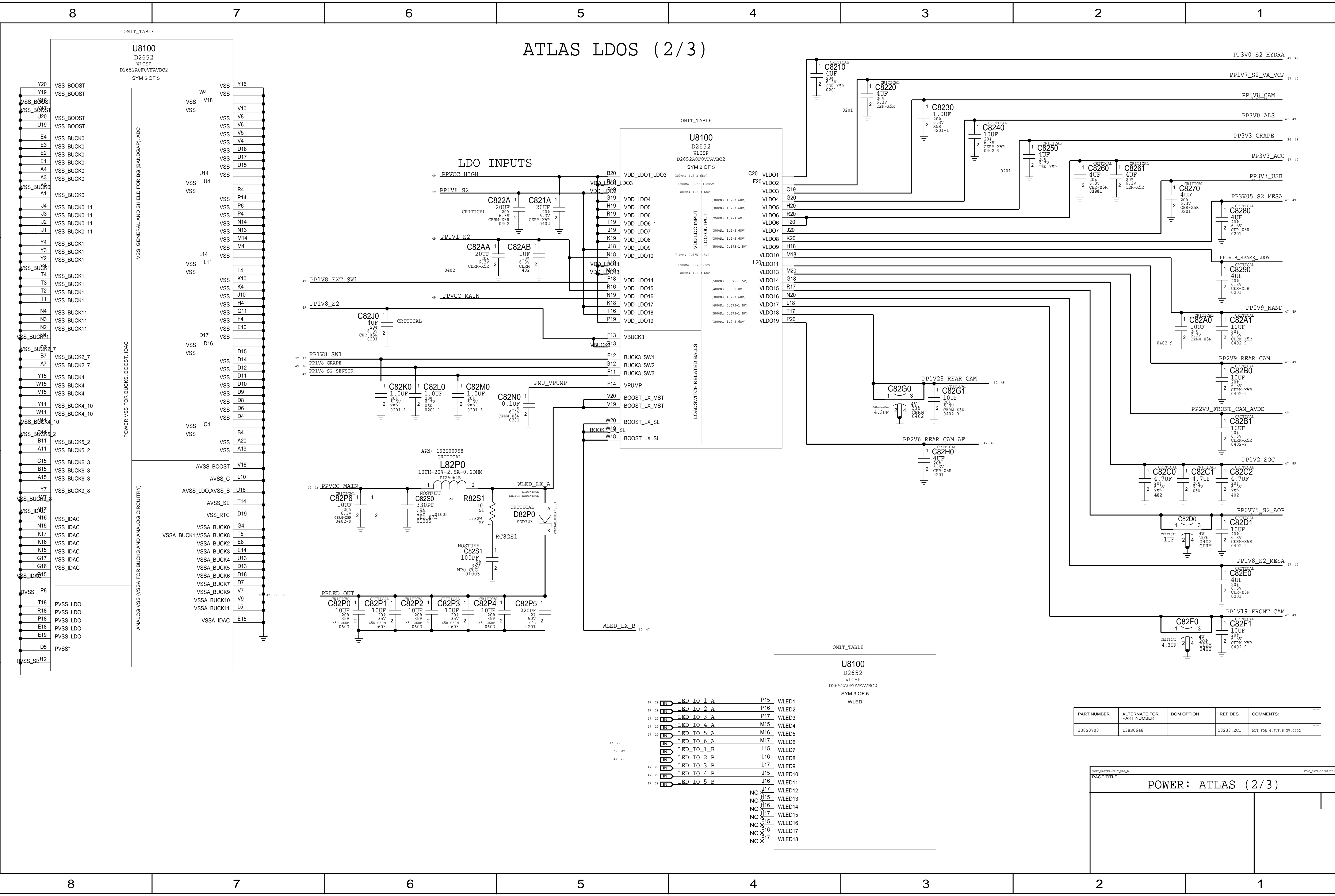
A

D

C

B

A



POTOMAC/RENO

PART NUMBER	ALTERNATE FOR PART NUMBER	BOM OPTION	REF DES	COMMENTS:
376S00071	376S00070		Q8581,BCT	ROAD: // /PROBLEM/20277540

D

D

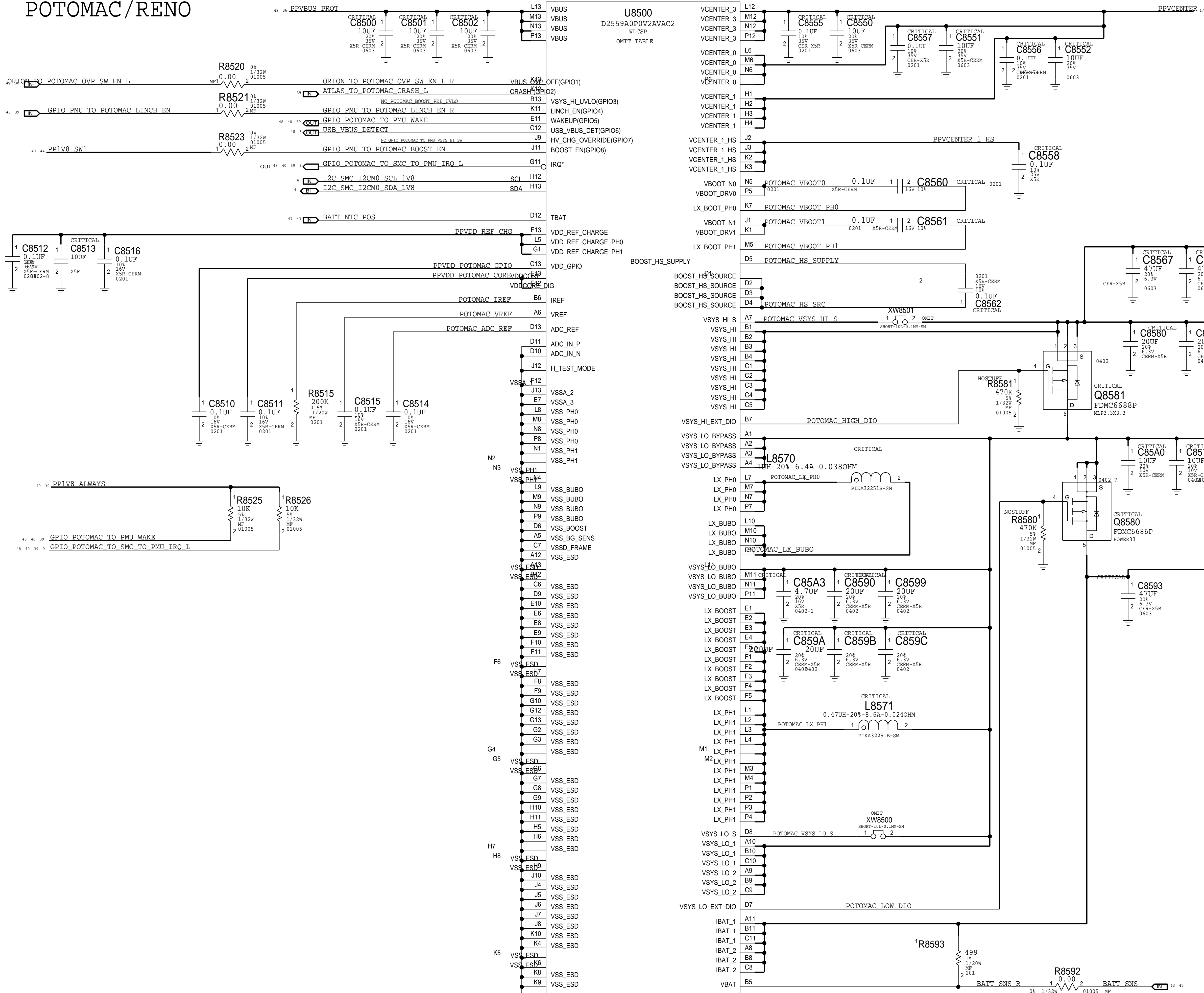
C

B

A

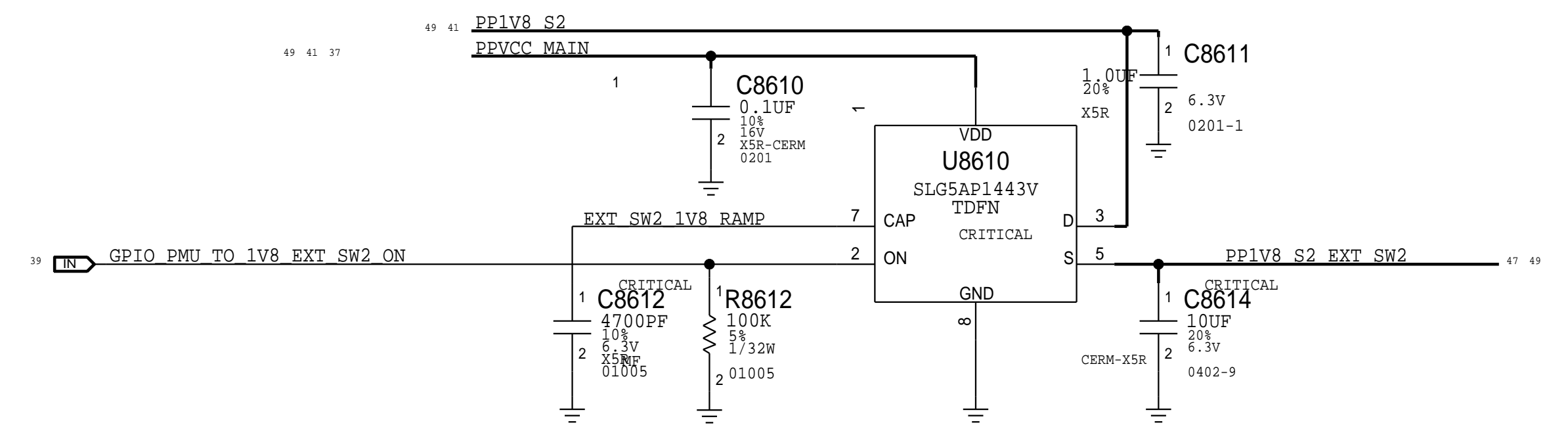
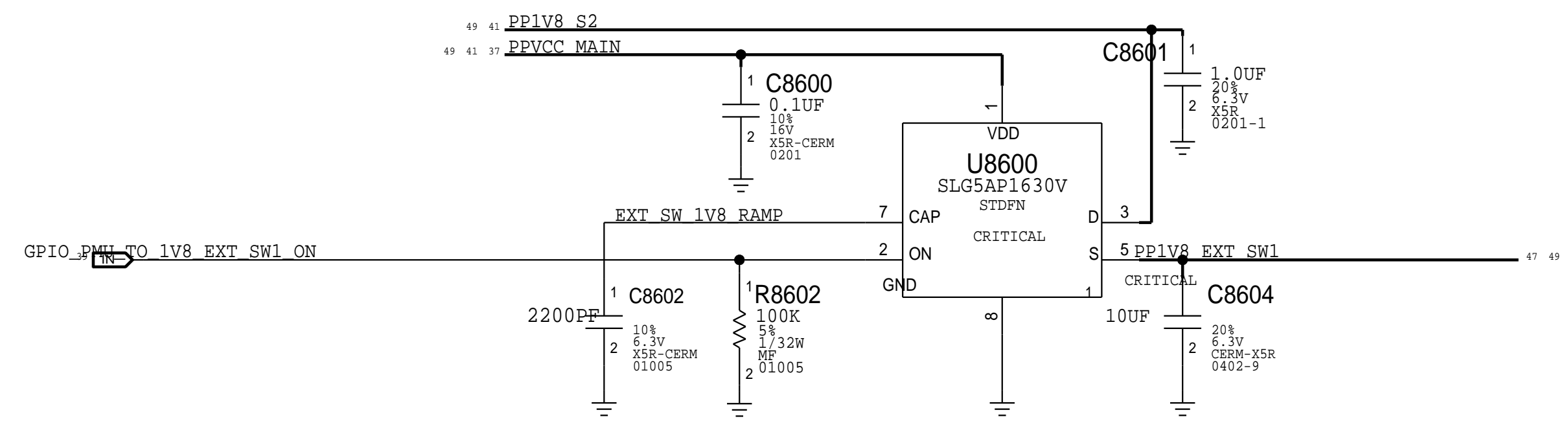
B

A

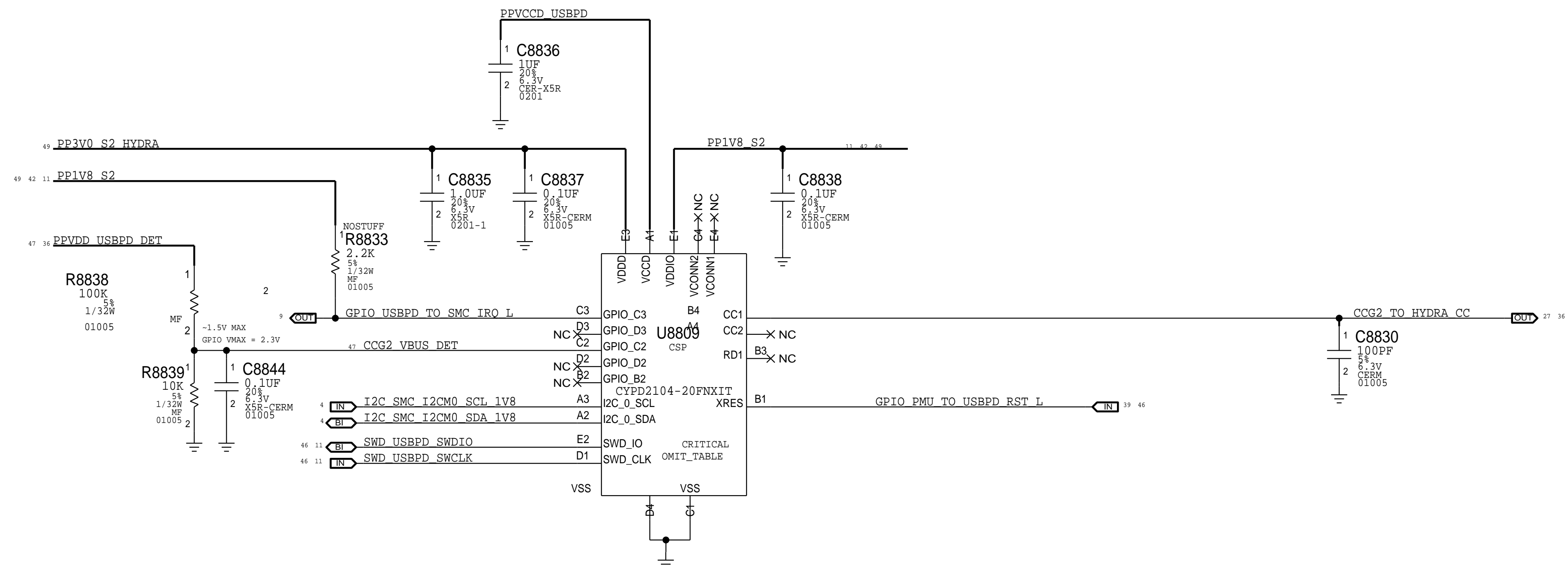


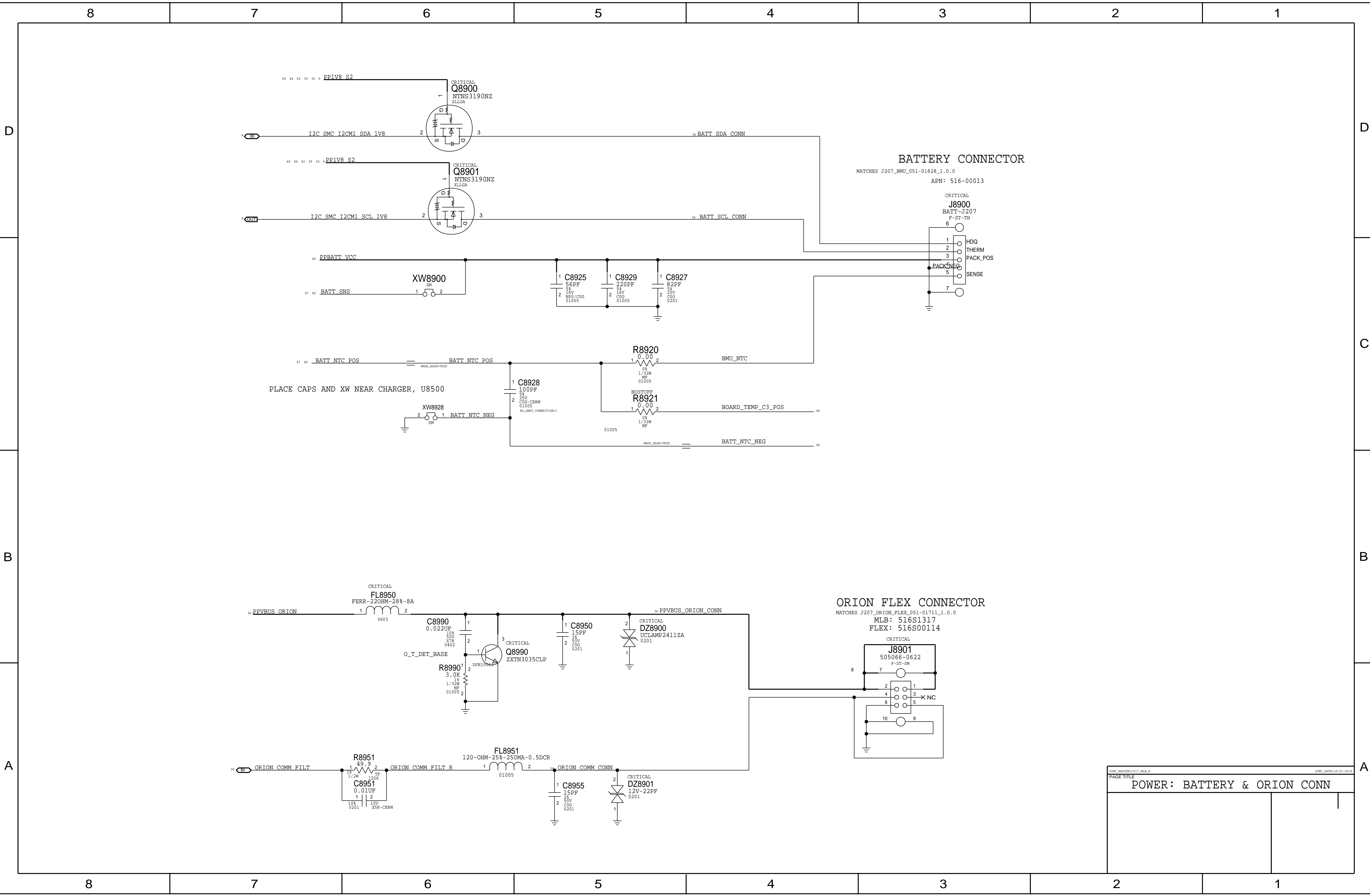
POWER: CHARGER

EXTERNAL POWER SWITCHES



USBPD





WLAN/BT ALIASES

WLAN

POWER

49	PPVCC MAIN	==	PPVCC MAIN	32	33	34	50
49	PP1V8_S2_EXT_SW2	==	PP1V8_S2_EXT_SW2	32	33	34	

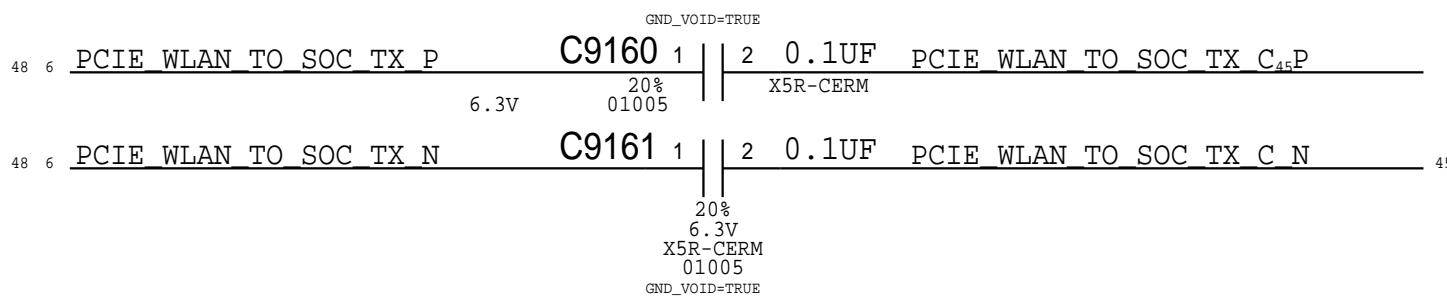
GPIOs

47	39	IN	GPIO_PMU_TO_WLAN_REG_ON	MAKE_BASE+TRUE	==	GPIO_PMU_TO_WLAN_REG_ON	OUT	32	33
47	39	OUT	GPIO_WLAN_TO_PMU_HOST_WAKE	MAKE_BASE+TRUE	==	GPIO_WLAN_TO_PMU_HOST_WAKE	IN	32	33
47	39	IN	CLK_PMU_TO_WLAN_32K	MAKE_BASE+TRUE	==	CLK_PMU_TO_WLAN_32K	OUT	32	33
47	39	IN	GPIO_AOP_TO_WLAN_CONTEXT_A	MAKE_BASE+TRUE	==	GPIO_AOP_TO_WLAN_CONTEXT_A	OUT	32	33
47	39	IN	GPIO_AOP_TO_WLAN_CONTEXT_B	MAKE_BASE+TRUE	==	GPIO_AOP_TO_WLAN_CONTEXT_B	OUT	32	33
47	39	IN	GPIO_WLAN_TO_SOC_TIME_SYNC	MAKE_BASE+TRUE	==	GPIO_WLAN_TO_SOC_TIME_SYNC	IN	32	33
47	39	OUT	NC_GPIO_WLAN_TO_SCORPIUS_TX_IND	MAKE_BASE+TRUE	==	NC_GPIO_WLAN_TO_SCORPIUS_TX_IND	IN	32	33

UART (SHARED WITH BT)

PCIE

			PCIE_SOC_TO_WLAN_REFCLK_P	MAKE_BASE+TRUE	==	PCIE_SOC_TO_WLAN_REFCLK_P	OUT	32	33
6	IN		PCIE_SOC_TO_WLAN_REFCLK_N	MAKE_BASE+TRUE	==	PCIE_SOC_TO_WLAN_REFCLK_N	OUT	32	33
6	IN		PCIE_SOC_TO_WLAN_TX_P	MAKE_BASE+TRUE	==	PCIE_SOC_TO_WLAN_TX_P	OUT	32	33
6	IN		PCIE_SOC_TO_WLAN_TX_N	MAKE_BASE+TRUE	==	PCIE_SOC_TO_WLAN_TX_N	OUT	32	33
			PCIE_WLAN_TO_SOC_TX_C_P	MAKE_BASE+TRUE	==	PCIE_WLAN_TO_SOC_TX_C_P	IN	32	33
45			PCIE_WLAN_TO_SOC_TX_C_N	MAKE_BASE+TRUE	==	PCIE_WLAN_TO_SOC_TX_C_N	IN	32	33
48	6	OUT	PCIE_WLAN_TO_SOC_CLKREQ_L	MAKE_BASE+TRUE	==	PCIE_WLAN_TO_SOC_CLKREQ_L	IN	32	33
48	6	IN	PCIE_SOC_TO_WLAN_RESET_L	MAKE_BASE+TRUE	==	PCIE_SOC_TO_WLAN_RESET_L	OUT	32	33



BLUETOOTH

SOC GPIOs

47	39	IN	GPIO_PMU_TO_BT_REG_ON	MAKE_BASE+TRUE	==	GPIO_PMU_TO_BT_REG_ON	OUT	32	33
39	IN		GPIO_SOC_BT_DEVICE_WAKE	MAKE_BASE+TRUE	==	GPIO_SOC_BT_DEVICE_WAKE	OUT	32	33

UART

		10	IN	UART SOC TO BT TX	MAKE_BASE+TRUE	==	UART SOC TO BT TX	OUT	32	33									
		10	IN	UART SOC TO BT RTS L	MAKE_BASE+TRUE	==	UART SOC TO BT RTS L	OUT	32	33									
UART		10	OUT	TO SOC TX	MAKE_BASE+TRUE	==	UART BT TO SOC TX	IN	32	33									
		10	OUT	UART BT TO SOC RTS L	MAKE_BASE+TRUE	==	UART BT TO SOC RTS L	IN	32	33									
48	45	33	32	19	18	10	IN	GPIO SOC TO BT TO GRAPE TS SYNC	MAKE_BASE+TRUE	==	GPIO SOC TO BT TO GRAPE TS SYNC	OUT	10	18	19	32	33	45	48
48	45	33	32	18	10	IN	GPIO TOUCH TO BT SYNC	MAKE_BASE+TRUE	==	GPIO TOUCH TO BT SYNC	OUT	18	32	33	45	48			
								NC BT TO SCORPIUS TX IND	MAKE_BASE+TRUE	==	NC BT TO SCORPIUS TX IND	IN	32	33					
10	OUT			BT AUDIO SYNC	MAKE_BASE+TRUE	==	BT AUDIO SYNC	IN	33										

ROTTERDAM

POWER

49	PP1V8_S2_EXT_SW2	==	PP1V8_S2_EXT_SW2	50
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GPIOs

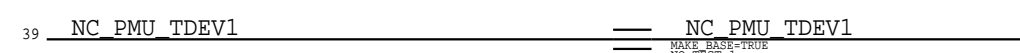
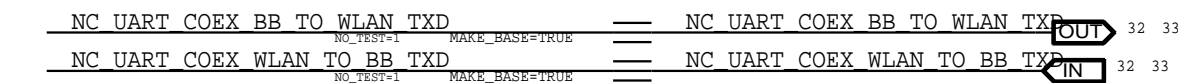
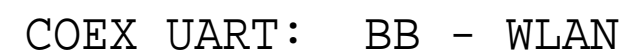
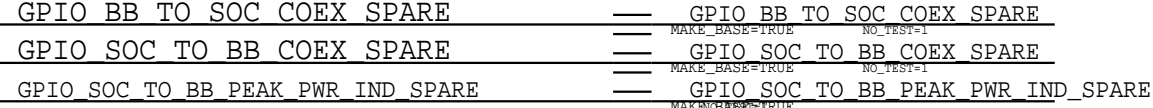
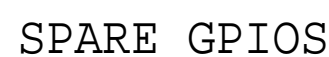
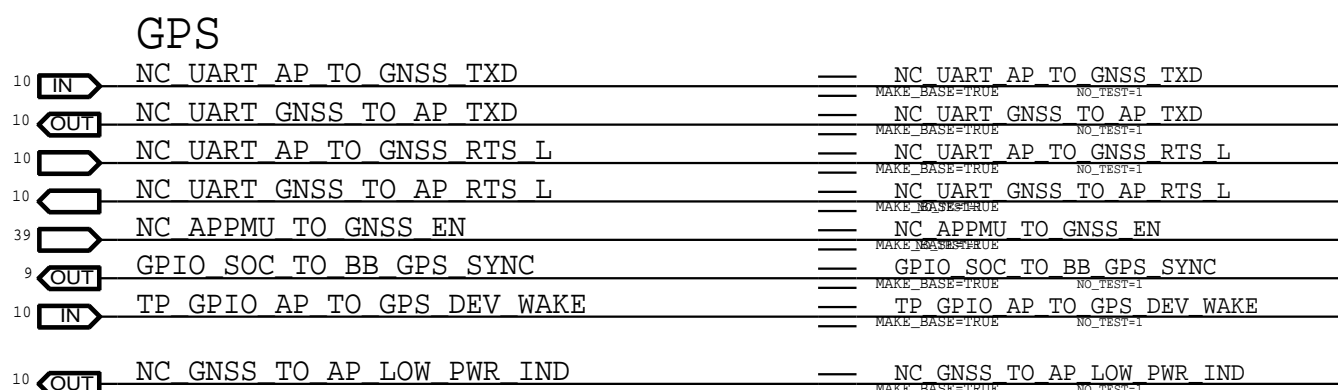
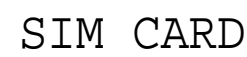
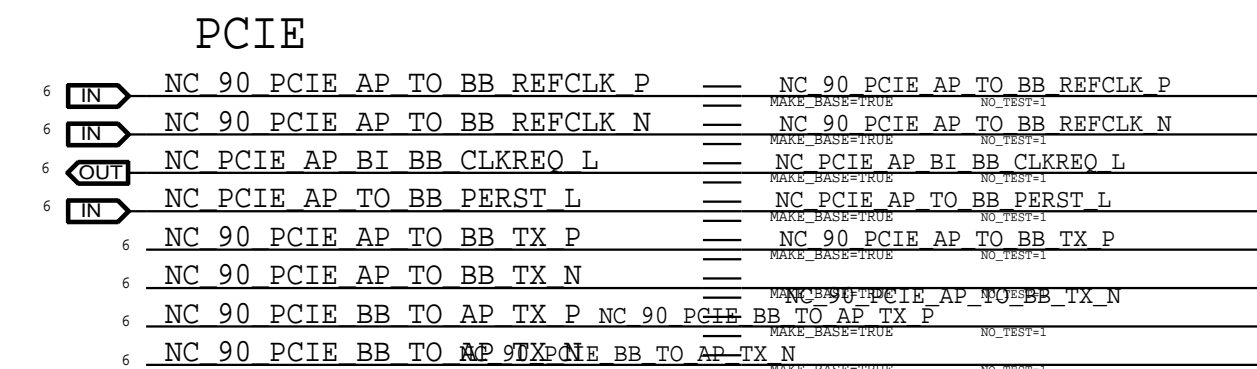
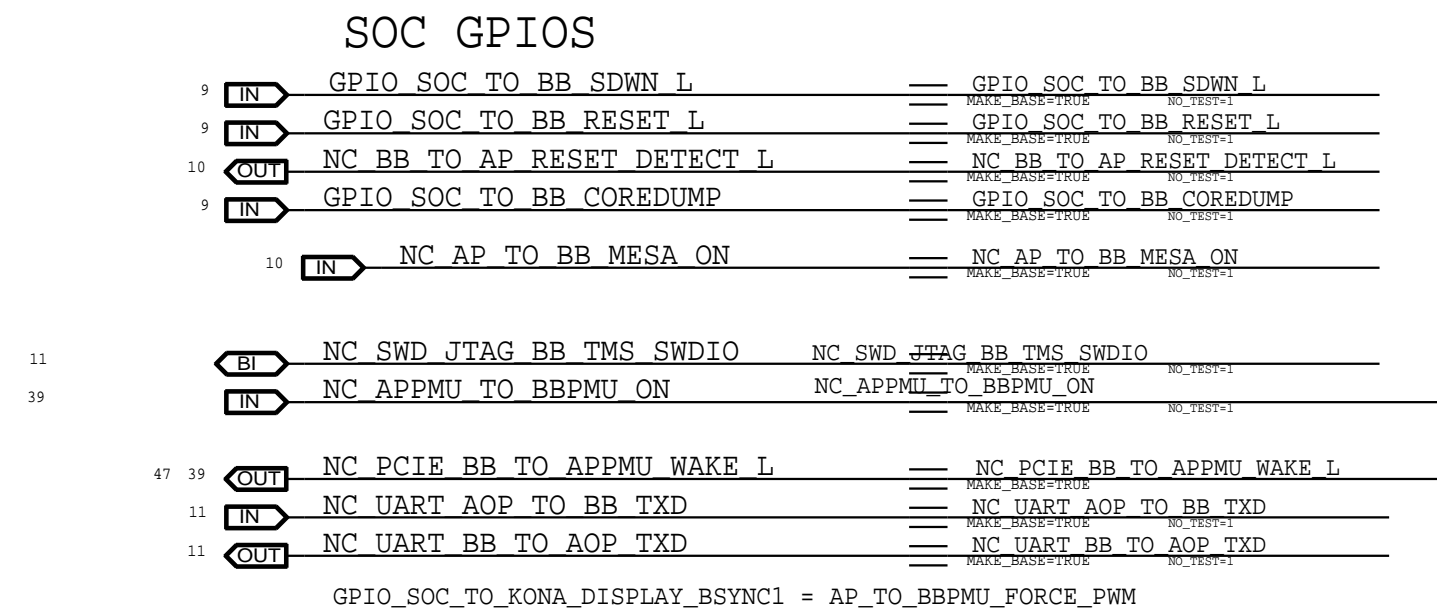
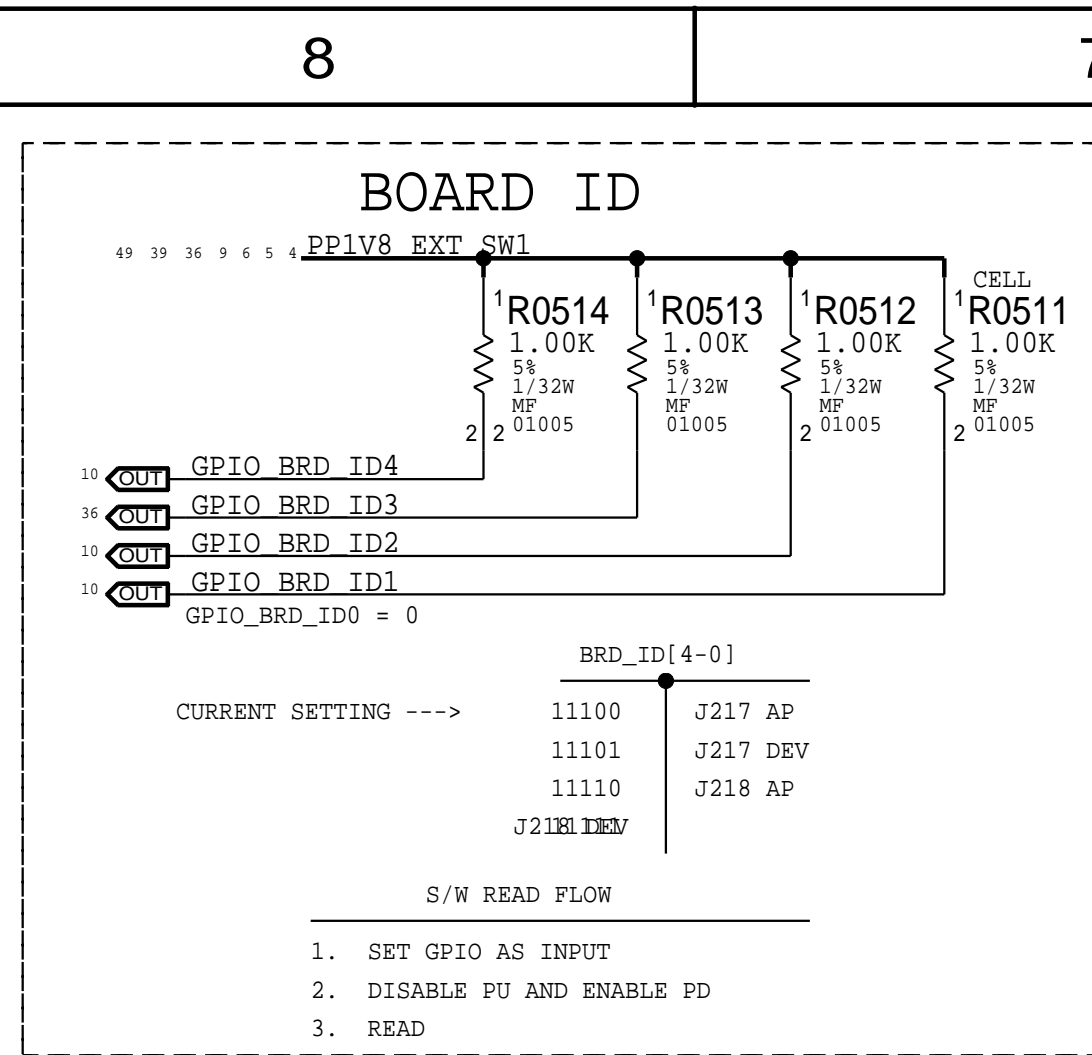
50	45	9	IN	GPIO_SOC_TO_ROTTERDAM_DEV_WAKE	MAKE_BASE+TRUE	==	GPIO_SOC_TO_ROTTERDAM_DEV_WAKE	OUT	9	45	50
50	45	10	IN	GPIO_SOC_TO_ROTTERDAM_DWLD_REQ	MAKE_BASE+TRUE	==	GPIO_SOC_TO_ROTTERDAM_DWLD_REQ	OUT	10	45	50
39	IN		GPIO_PMU_TO_ROTTERDAM_EN	MAKE_BASE+TRUE	==	GPIO_PMU_TO_ROTTERDAM_EN	OUT	50			

UART

50	45	10	IN	UART_SOC_TO_ROTTERDAM_TX	MAKE_BASE+TRUE	==	UART_SOC_TO_ROTTERDAM_TX	OUT	10	45	50
50	45	10	OUT	UART_ROTTERDAM_TO_SOC_TX	MAKE_BASE+TRUE	==	UART_ROTTERDAM_TO_SOC_TX	IN	10	45	50
50	45	10	IN	UART_SOC_TO_ROTTERDAM_RTS_L	MAKE_BASE+TRUE	==	UART_SOC_TO_ROTTERDAM_RTS_L	OUT	10	45	50
50	45	10	OUT	UART_ROTTERDAM_TO_SOC_RTS_L	MAKE_BASE+TRUE	==	UART_ROTTERDAM_TO_SOC_RTS_L	IN	10	45	50

SYNCH_MASTER=2217_MCU_B SYNCH_DATE=19/01/2018

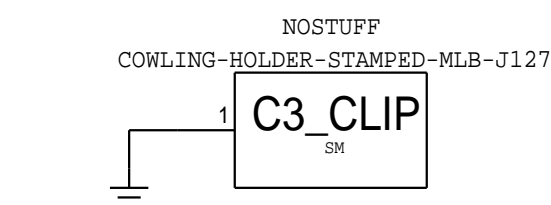
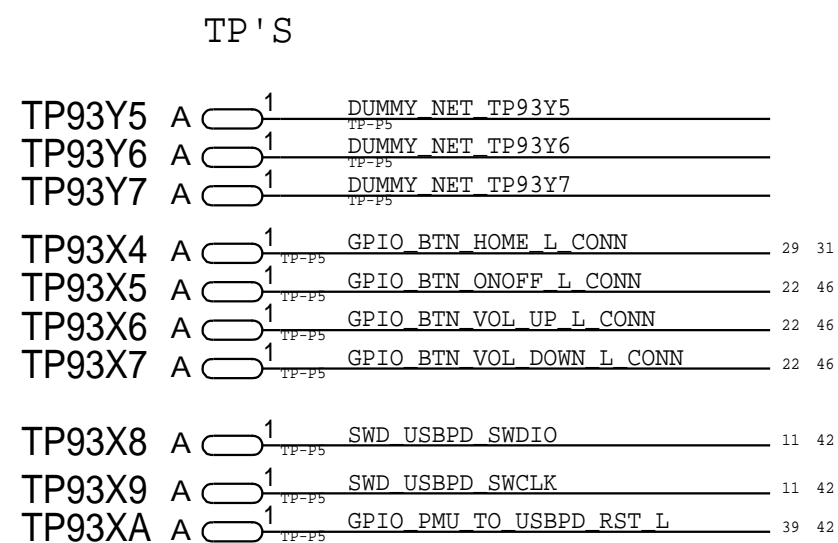
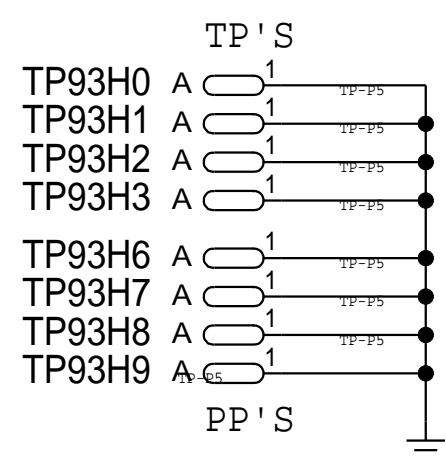
PAGE TITLE ALIASES: WLAN/BT



PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
806-09232	1	SHIELD_CAN_MLB_KONA_J207	TOUCH_CAN	CRITICAL	
806-17995	1	MLB_WIFI_PP_J217	WIFI_FENCE	CRITICAL	
806-18102	1	FENCE_MLB_AP_YN_J217	AP_FENCE	CRITICAL	

BARCODE LABEL/EEEE CODES

PART#	QTY	DESCRIPTION	REFERENCE DESIGNATOR(S)	CRITICAL	BOM OPTION
825-7691	1	EEEE FOR (MLB A BEST)	EEEE_K705	CRITICAL	BEST
825-7691 FOR (MLB A ULTIMATE)			EEEE_LF80CRITICAL		ULTIMATE
825-7691 FOR (MLB A SUPREME)			EEEE_K70CRITICAL		SUPREME
825-7691	1	EEEE FOR (MLB A EXTREME)	EEEE_K70J	CRITICAL	EXTREME

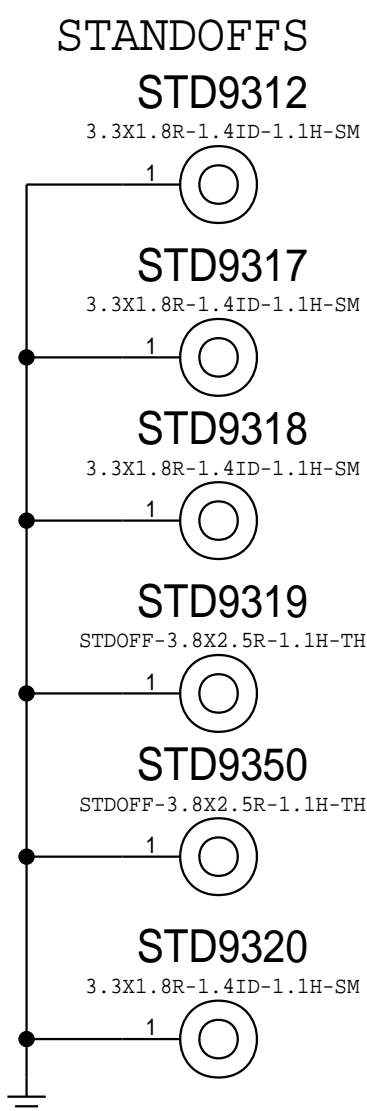
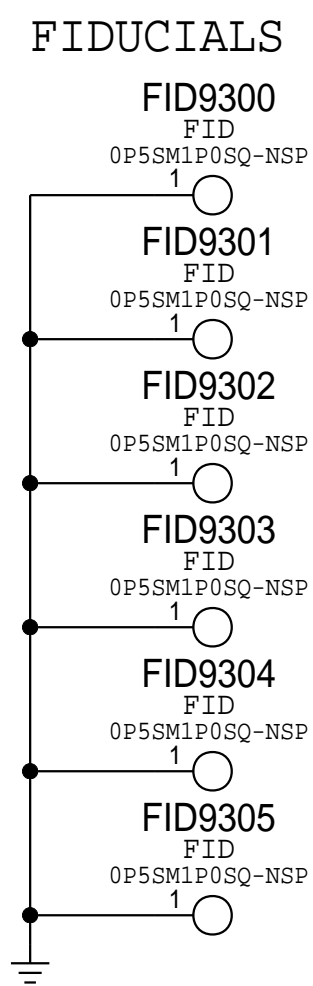
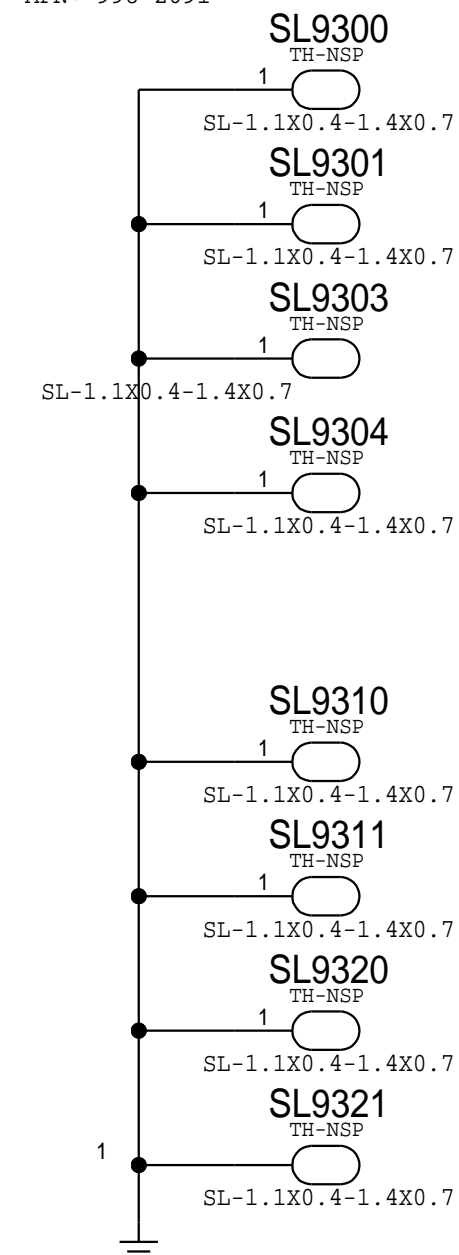


CAN MOUNTING HOLES

DRILL SIZE: 1.1MM X 0.4MM

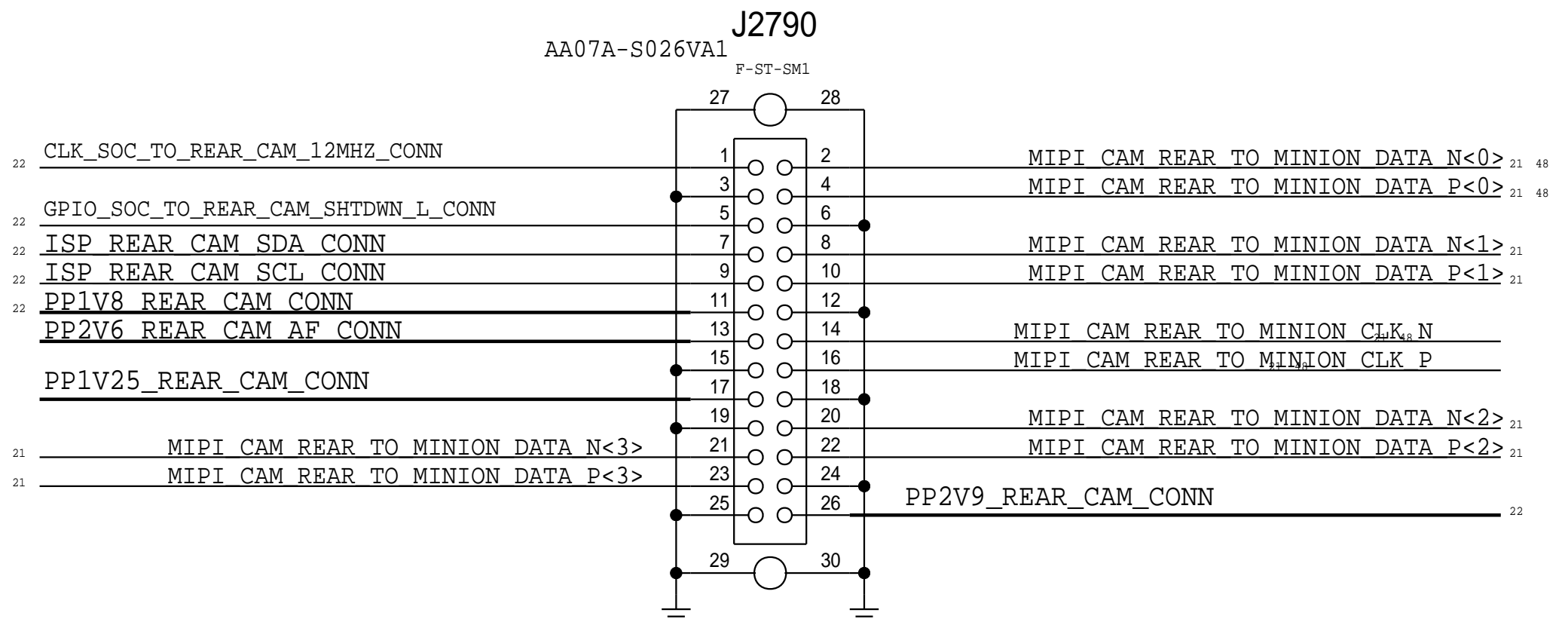
PLATING SIZE: 1.4MM X 0.7MM

APN: 998-2691



REAR_CAM_FLEX APN: 516S0750

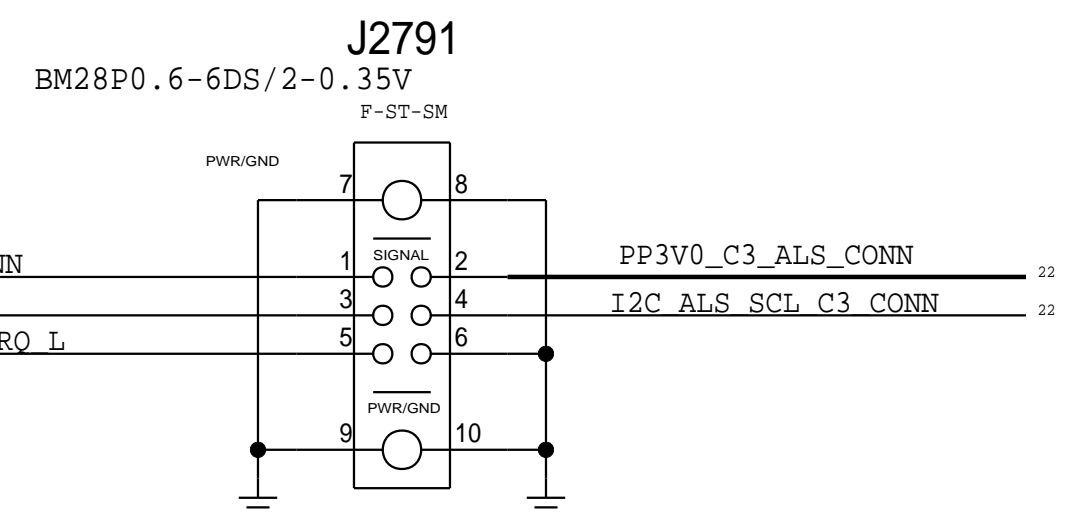
MLB APN: 516S00073



POWER BUTTON + ALS FLEX

ALS PWR FLEX APN: 516S00185

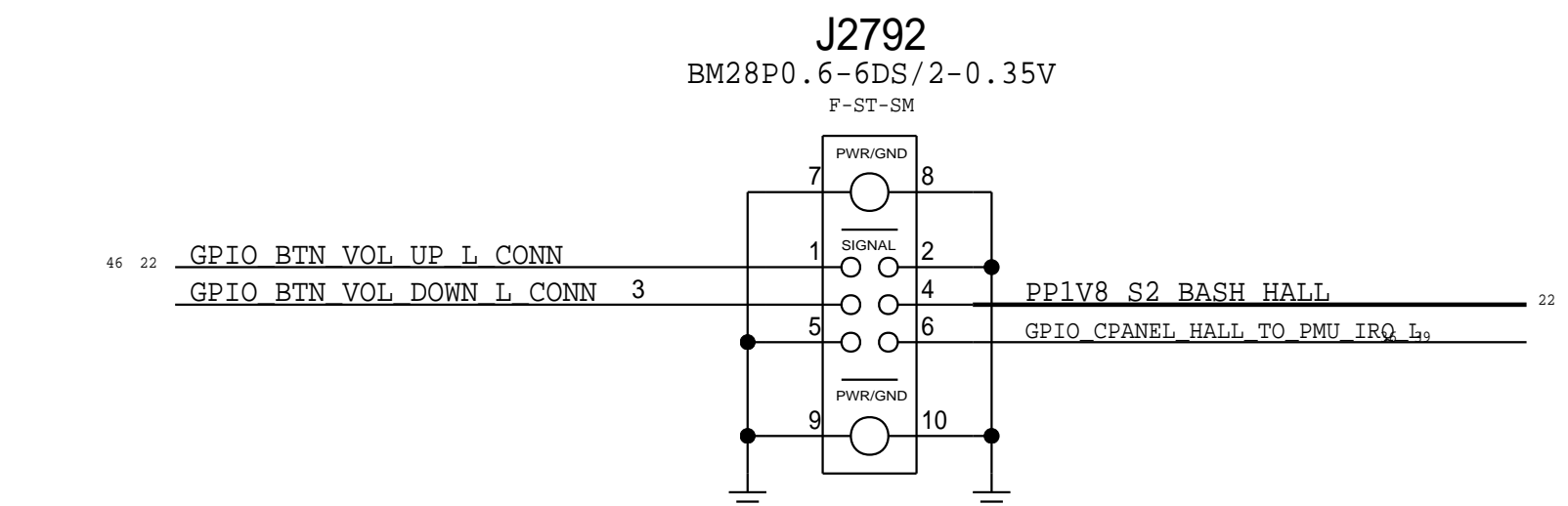
MLB APN: 516S00186



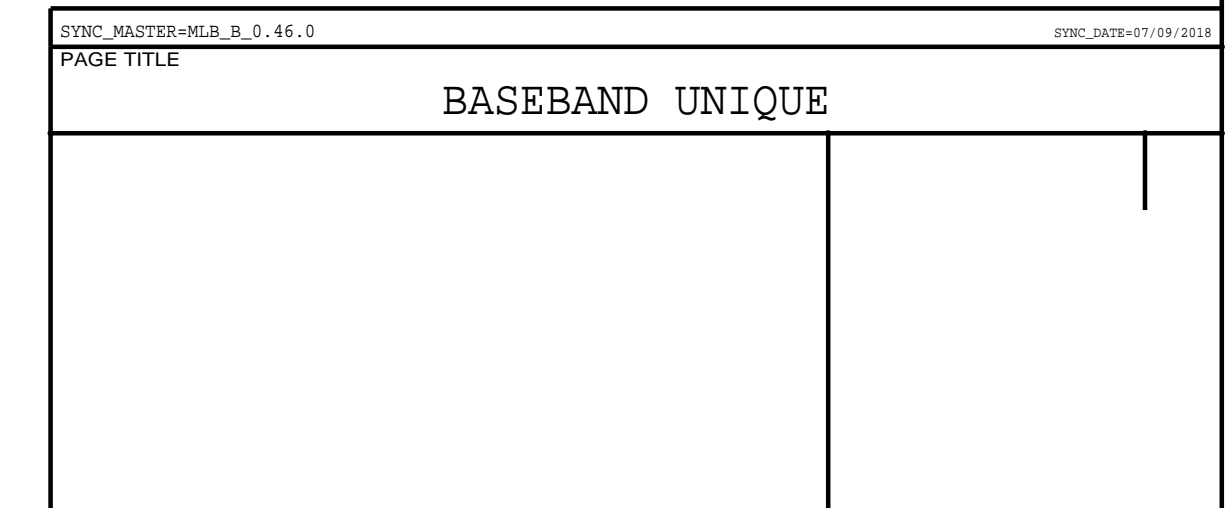
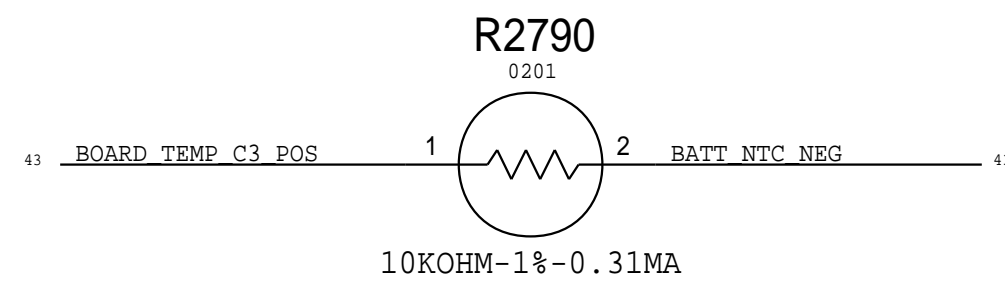
VOL HALL FLEX

VOL_HALL_FLEX APN: 516S00185

MLB APN: 516S00186



NTC: AMBIENT



EE CHARACTERIZATION PP/TP

SOC

PP9504	P3MM	SM	PP	1	ADC_SOC_TO_PMU_ANALOGMUX_OUT	6	18
PP950C	P3MM	SM	PP	1	VDDOL_SENSE_POS	13	
PP9505	P3MM	SM	PP	1	ADC_SOC_TO_PMU_VDD_SOC	13	39 47
PP9506	P3MM	SM	PP	1	SOC_SENSE_NEG	13	47
PP9507	P3MM	SM	PP	1	ADC_SOC_TO_PMU_VDD_GPU	13	37 39 47
PP9508	P3MM	SM	PP	1	GPU_SENSE_NEG	13	
PP9509	P3MM	SM	PP	1	DCS_SENSE_POS	13	
PP950A	P3MM	SM	PP	1	ADC_SOC_TO_PMU_VDD_CPU	13	37 39 47
PP950B	P3MM	SM	PP	1	CPU_PCORE_SENSE_NEG	13	47
PP950E	P3MM	SM	PP	1	PP_SOC_DEBUG2	7	
PP950F	P3MM	SM	PP	1	PP_SOC_DEBUG3	7	
PP950G	P2MM	SM	PP	1	PP_SOC_AON_SLEEP1_RESET_L	11	

HYDRA

PP9503	P2MM	SM	PP	1	TP_HYDRA_EXT_SW_EN	22	
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CODEC I2S

PP9510	P2MM	SM	PP	1	I2S_AOP_TO_CODEC_BCLK	11	24
PP9511	P2MM	SM		1	I2S_AOP_TO_CODEC_LRCK	11	24
PP9512	P2MM	SM	PP	1	I2S_AOP_TO_CODEC_DOUT	11	24
PP9513	P2MM	SM	PP	1	I2S_CODEC_TO_AOP_DOUT	11	24

BELFIELD I2S

PP9514	P2MM	SM	PP	1	I2S0_SOC_TO_BELFIELD_BCLK	9	24
PP9515	P2MM	SM	PP	1	I2S0_SOC_TO_BELFIELD_LRCK	9	24
PP9516	P2MM	SM		1	I2S0_SOC_TO_BELFIELD_DOUT	9	24
PP9517	P2MM	SM	PP	1	I2S0_BELFIELD_TO_SOC_DOUT	9	24
PP9518	P2MM	SM	PP	1	I2S0_SOC_TO_BELFIELD_MCLK	9	24

CN SPEAKER I2S

PP9525	P2MM	SM	PP	1	I2S1_SOC_TO_SPKRAMP_CN_MCLK	9	26
PP9526	P2MM	SM	PP	1	I2S1_SOC_TO_SPKRAMP_CN_BCLK	9	26
PP9527	P2MM	SM	PP	1	I2S1_SOC_TO_SPKRAMP_CN_LRCK	9	26
PP9528	P2MM	SM	PP	1	I2S1_SOC_TO_SPKRAMP_CN_DOUT	9	26
PP9529	P2MM	SM	PP	1	I2S1_SPKRAMP_CN_TO_SOC_DOUT	9	26

POTOMAC

PP9539	P2MM	SM	PP	1	SYS_ALIVE	16	39
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AUDIO

PP953A	P2MM	SM	PP	1	GPIO_CODEC_TO_SOC_IRO_L	9	24
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BELFIELD SPI LINES

PP9540	P3MM	SM	PP	1	SPI_BELFIELD_CS_L	9	24
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PP9542	P3MM	SM	PP	1	SPI_BELFIELD_MOSI	9	24
PP9543	P3MM	SM	PP	1	SPI_BELFIELD_MISO	9	24

SENSOR SPI LINES

PP9544	P3MM	SM	PP	1	SPI_SENSORS_SCLK	PLACE_NEAR=U2150.2.10MM	11 17 25 48
PP9545	P3MM	SM	PP	1	SPI_SENSORS_MISO	PLACE_NEAR=U0609.A06.10MM	
PP9546	P3MM	SM	PP	1	SPI_SENSORS_MOSI	PLACE_NEAR=U2150.3.10MM	11 17 25 48
PP9547	P3MM	SM	PP	1	SPI_SENSORS_SCLK	PLACE_NEAR=U2120.4.10MM	11 17 25 48
PP9548	P3MM	SM	PP	1	SPI_SENSORS_SCLK	PLACE_NEAR=U2140.A3.10MM	11 17 25 48
PP9549	P3MM	SM	PP	1	SPI_SENSORS_MOSI	PLACE_NEAR=U2120.3.10MM	11 17 25 48
PP954A	P3MM	SM	PP	1	SPI_SENSORS_MOSI	PLACE_NEAR=U2140.A4.10MM	11 17 25 48

MESA SPI LINES

PP954B	P3MM	SM	PP	1	SPI_MESA_MISO	9	31
PP954C	P3MM	SM	PP	1	SPI_MESA_MOSI_CONN	29	31
PP954D	P3MM	SM	PP	1	SPI_MESA_SCLK_CONN	29	31

CAMERA - FRONT

PP9560	P2MM	SM	PP	1	MIPI_NH_CAM_TO_SOC_CLK_P	7	23
PP9561	P2MM	SM	PP	1	MIPI_NH_CAM_TO_SOC_CLK_N	7	23
PP9562	P2MM	SM	PP	1	MIPI_NH_CAM_TO_SOC_DATA_P<0>	7	23
PP9563	P2MM	SM	PP	1	MIPI_NH_CAM_TO_SOC_DATA_N<0>	7	23
PP9564	P2MM	SM	PP	1	MIPI_NH_CAM_TO_SOC_DATA_P<1>	7	23
PP9565	P2MM	SM	PP	1	MIPI_NH_CAM_TO_SOC_DATA_N<1>	7	23

CAMERA - REAR & MINION

PP9566	P2MM	SM	PP	1	MIPI_MINION_TO_SOC_CLK_P	7	21
PP9567	P2MM	SM		1	MIPI_MINION_TO_SOC_CLK_N	7	21
PP9568	P2MM	SM	PP	1	MIPI_MINION_TO_SOC_DATA_P<0>	7	21
PP9569	P2MM	SM	PP	1	MIPI_MINION_TO_SOC_DATA_N<0>	7	21
PP956G	P2MM	SM	PP	1	MIPI_MINION_TO_SOC_DATA_P<1>	7	21
PP956H	P2MM	SM	PP	1	MIPI_MINION_TO_SOC_DATA_N<1>	7	21

PP956A	P2MM	SM	PP	1	MIPI_CAM_REAR_TO_MINION_CLK_P	21	46
PP956B	P2MM	SM	PP	1	MIPI_CAM_REAR_TO_MINION_CLK_N	21	46
PP956C	P2MM	SM	PP	1	MIPI_CAM_REAR_TO_MINION_DATA_P<0>	21	46
PP956D	P2MM	SM	PP	1	MIPI_CAM_REAR_TO_MINION_DATA_N<0>	21	46

PP956E	P2MM	SM	PP	1	GPIO_MINION_TO_SOC_CONFIG_DONE	7	21 47
PP956F	P2MM	SM	PP	1	CLK_SOC_TO_MINION_12MHZ	7	21

GRAPE

PP9580	P3MM	SM	PP	1	SPI_SOC_TO_GRAPE_SCLK	9	18
PP9581	P3MM	SM	PP	1	SPI_SOC_TO_GRAPE_MISO	9	18
PP9582	P3MM	SM	PP	1	SPI_SOC_TO_GRAPE_MOSI	9	18
PP9583	P3MM	SM	PP	1	SPI_SOC_TO_GRAPE_CS_L	9	18
PP9584	P3MM	SM	PP	1	GPIO_SOC_TO_GRAPE_RESET_L	10	18 19
PP9585	P3MM	SM	PP	1	GPIO_GRAPE_TO_SOC_IRO_L	10	18

PP958C	P3MM	SM	PP	1	KONA_BOOST_ATEST	18	
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PP958L	P3MM	SM	PP	1	TP_KONA_GPIO_ADC_03	18	
PP958M	P3MM	SM	PP	1	CLK_KONA_M_24MHZ	18	
PP958N	P3MM	SM	PP	1	GPIO_SOC_TO_GRAPE_BSYNCO	18	19 29
PP958P	P3MM	SM	PP	1	GPIO_SOC_TO_GRAPE_BSYNC1	18	19 29

GRAPE POWER

PP958R	P3MM	SM	PP	1	PP3V3_GRAPE_FILT	18	
PP958S	P3MM	SM	PP	1	PP1V8_GRAPE_XTAL_FILT	18	19
PP958T	P3MM	SM	PP	1	KONA_M_VDDCORE_CAP	18	

PP958V	P3MM	SM	PP	1	PP1V8_GRAPE_AON_RC	18	19
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NAND PCIE TPS

PP95D4	P2MM	SM	PP	1	PLACE_NEAR=U1700.X011.3MM	PCIE_SOC_TO_NAND1_REFCLK_P	6	16
PP95D5	P2MM	SM	PP	1	PLACE_NEAR=U1700.Y12.3MM	PCIE_SOC_TO_NAND1_REFCLK_N	6	16
PP95D6	P2MM	SM	PP	1	PLACE_NEAR=U1700.F8.20MM	PCIE_SOC_TO_NAND1_RESET_L		
PP95D7	P2MM	SM	PP	1	PLACE_NEAR=U1700.Y4.20MM	NAND1_ANI1_VREF	16	
PP95D8	P2MM	SM	PP	1	PLACE_NEAR=U1700.G12.20MM	NAND1_ANIO_VREF	16	

PP95DI	P2MM	SM	PP	1	PLACE_NEAR=U1800.G4.20MM	GPIO_SOC_TO_NAND_FW_STRAP	5	16
PP95DJ	P2MM	SM	PP	1	PLACE_NEAR=U1800.L4.20MM	GPIO_SOC_TO_NAND_RESET_L	5	16

PMU/POTOMAC

PP95G1	P2MM	SM	PP	1	GPIO_PMU_TO_SOC_IRO_L	11	39
PP95G2	P2MM	SM	PP	1	GPIO_POTOMAC_TO_PMU_WAKE	39	40
PP95G3	P2MM	SM	PP	1	GPIO_POTOMAC_TO_SMC_TO_PMU_IRO_L	9	39 40
PP95G4	P2MM	SM	PP	1	ORION_TO_POTOMAC_OVP_SW_EN_L	36	40
PP95G5	P2MM	SM		1	GPIO_PMU_TO_POTOMAC_LINCH_EN	39	40
PP95G6	P2MM	SM	PP	1	ATLAS_FAULT_OUT_L	39	
PP95G7	P2MM	SM	PP	1	USB_VBUS_DETECT	5	40

WIFI

PP95BL	P2MM	SM	PP	1	GPIO_SOC_TO_BT_TO_GRAPE_TS_SYNC	10	18 19 32 33 45
PP95BM	P2MM	SM	PP	1	GPIO_TOUCH_TO_BT_SYNC	18	32 33 45

WLAN PCIE TPS

PP95E0	P2MM	SM	PP	1	PLACE_NEAR=U0609.BE11.3MM	PCIE_WLAN_TO_SOC_TX_P	6	45
PP95E1	P2MM	SM	PP	1	PLACE_NEAR=U0600.BE11.3MM	PCIE_WLAN_TO_SOC_TX_N	6	45
PP95E2	P2MM	SM	PP	1	PLACE_NEAR=U0600.BF38.4MM	PCIE_WLAN_TO_SOC_CLKREQ_L	6	45

PP95E7	P2MM	SM	PP	1	PLACE_NEAR=U4000.E7.3MM	PCIE_SOC_TO_WLAN_RESET_L	6	45
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POWER CONNECTIONS

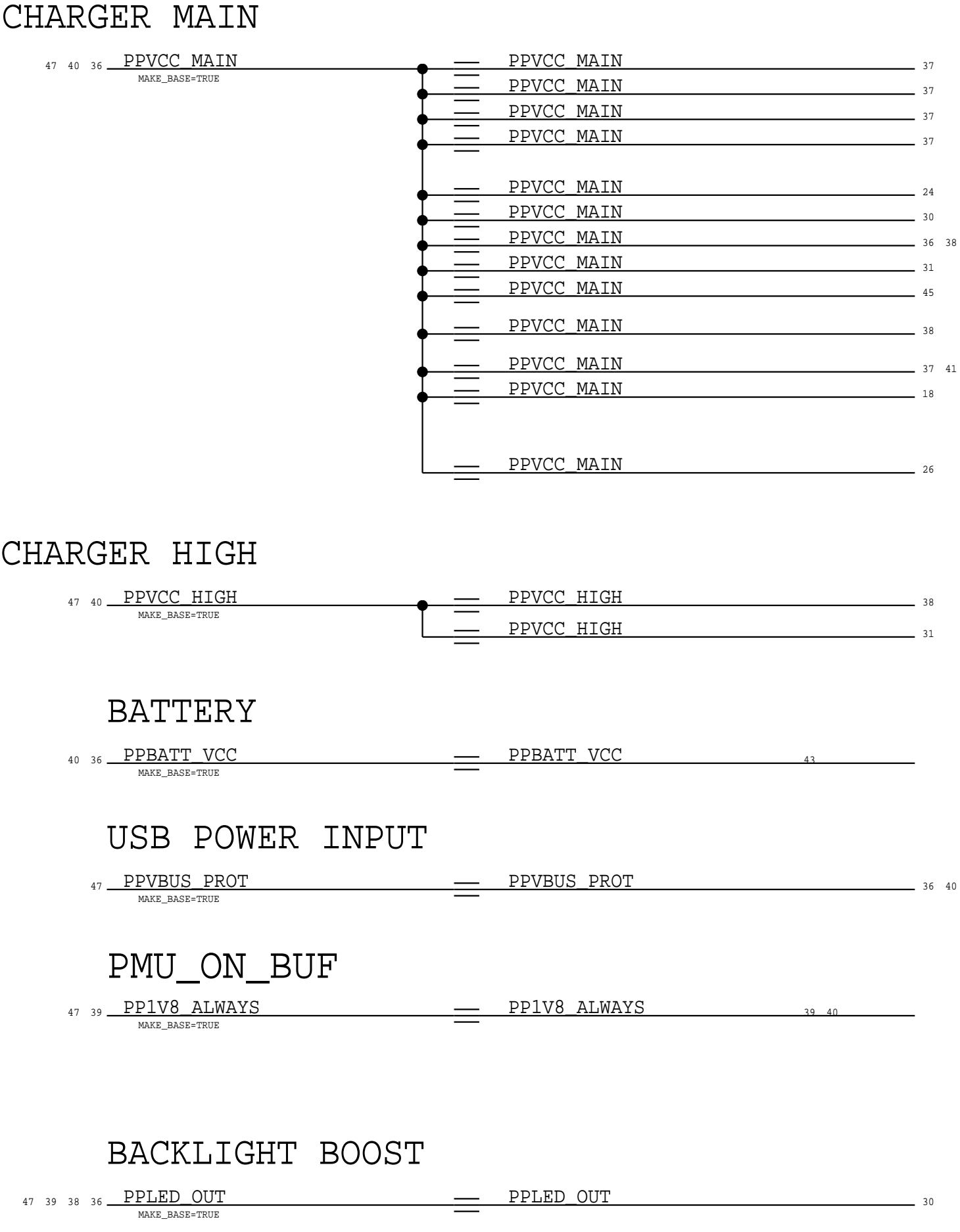
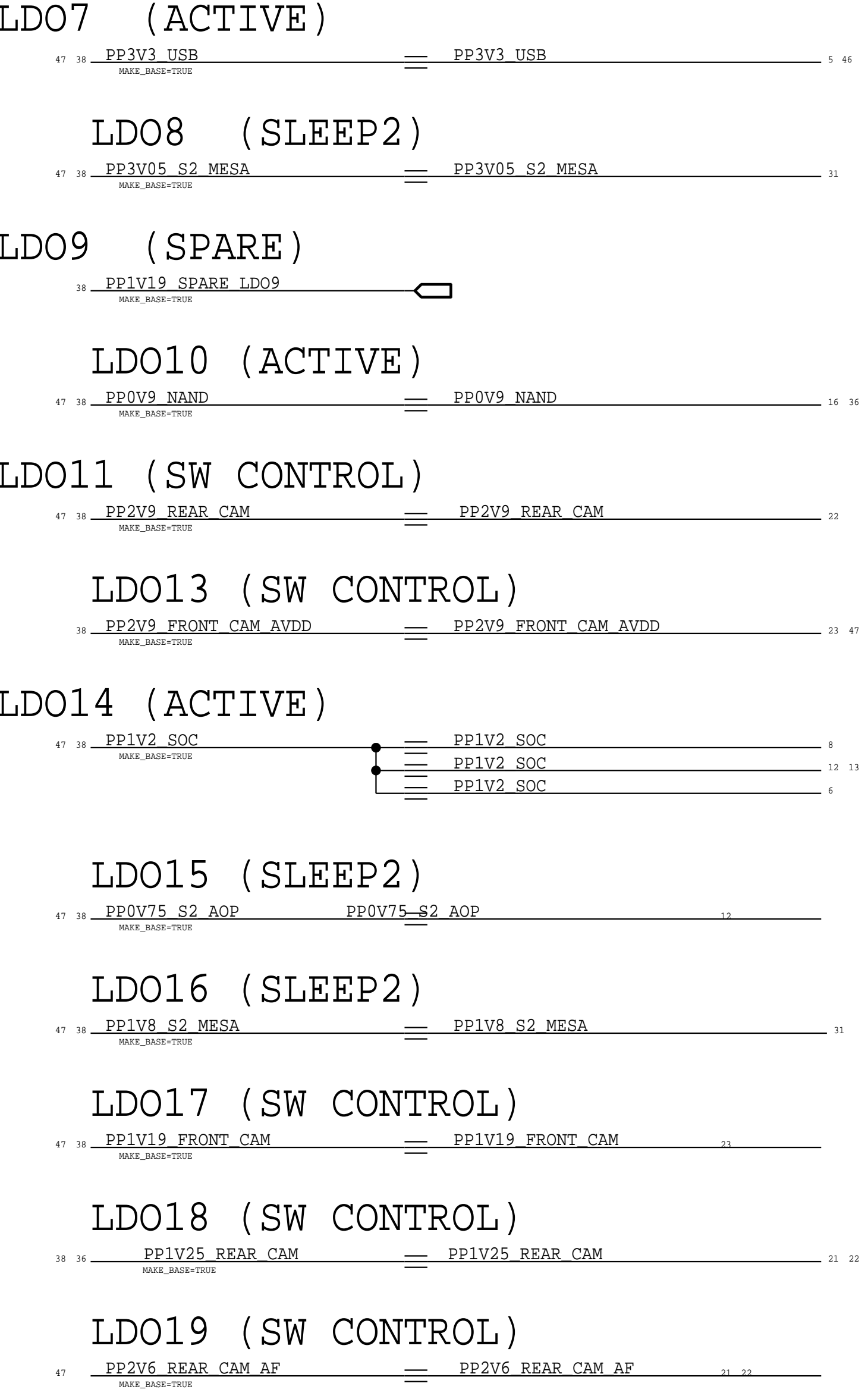
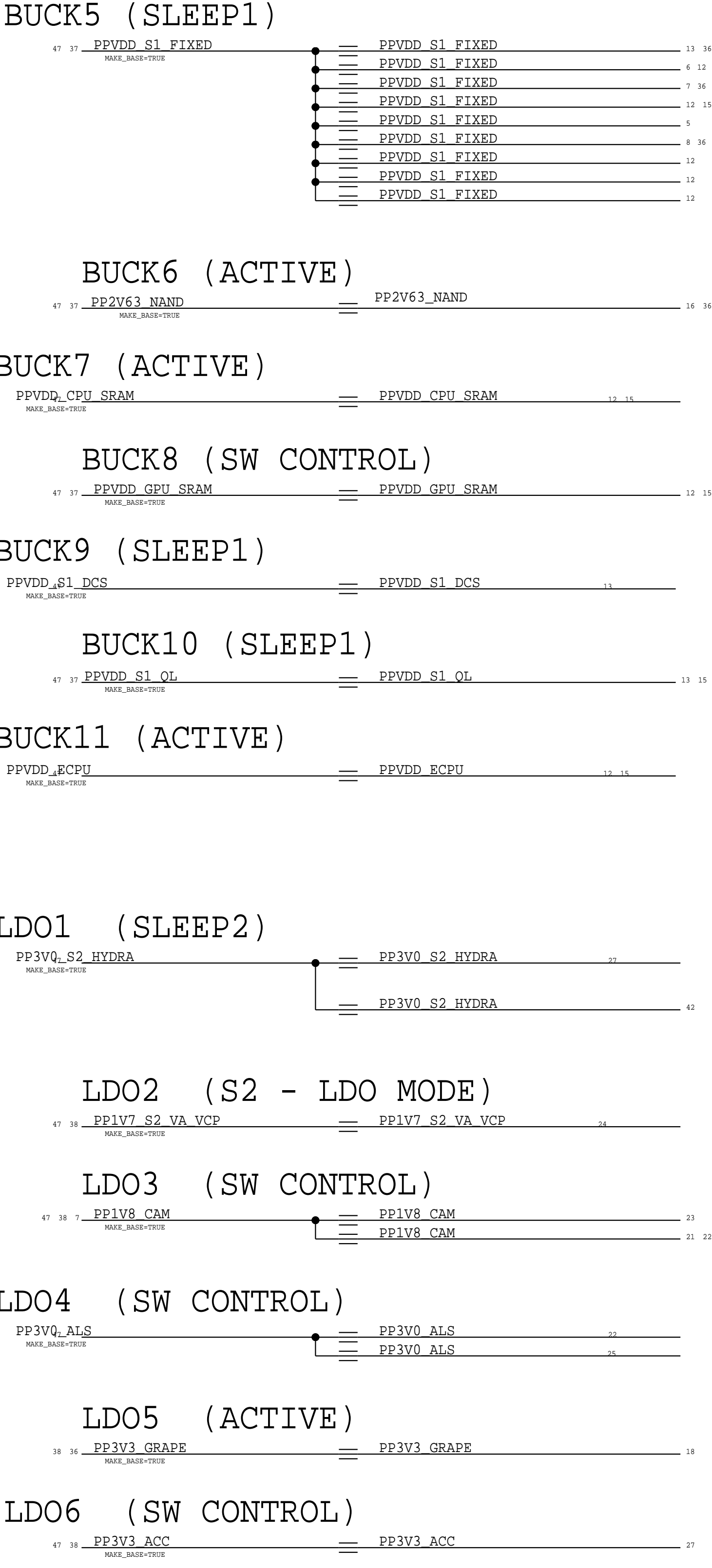
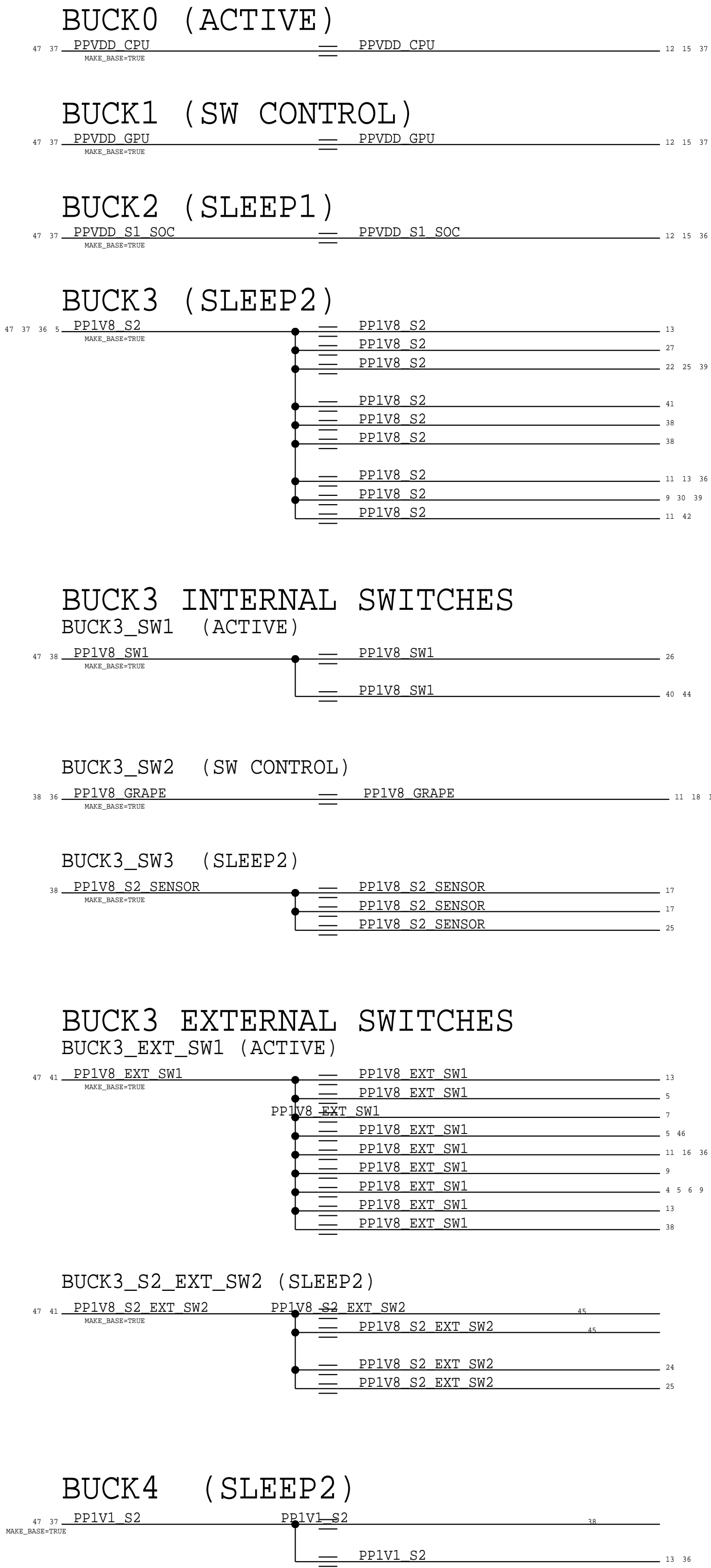
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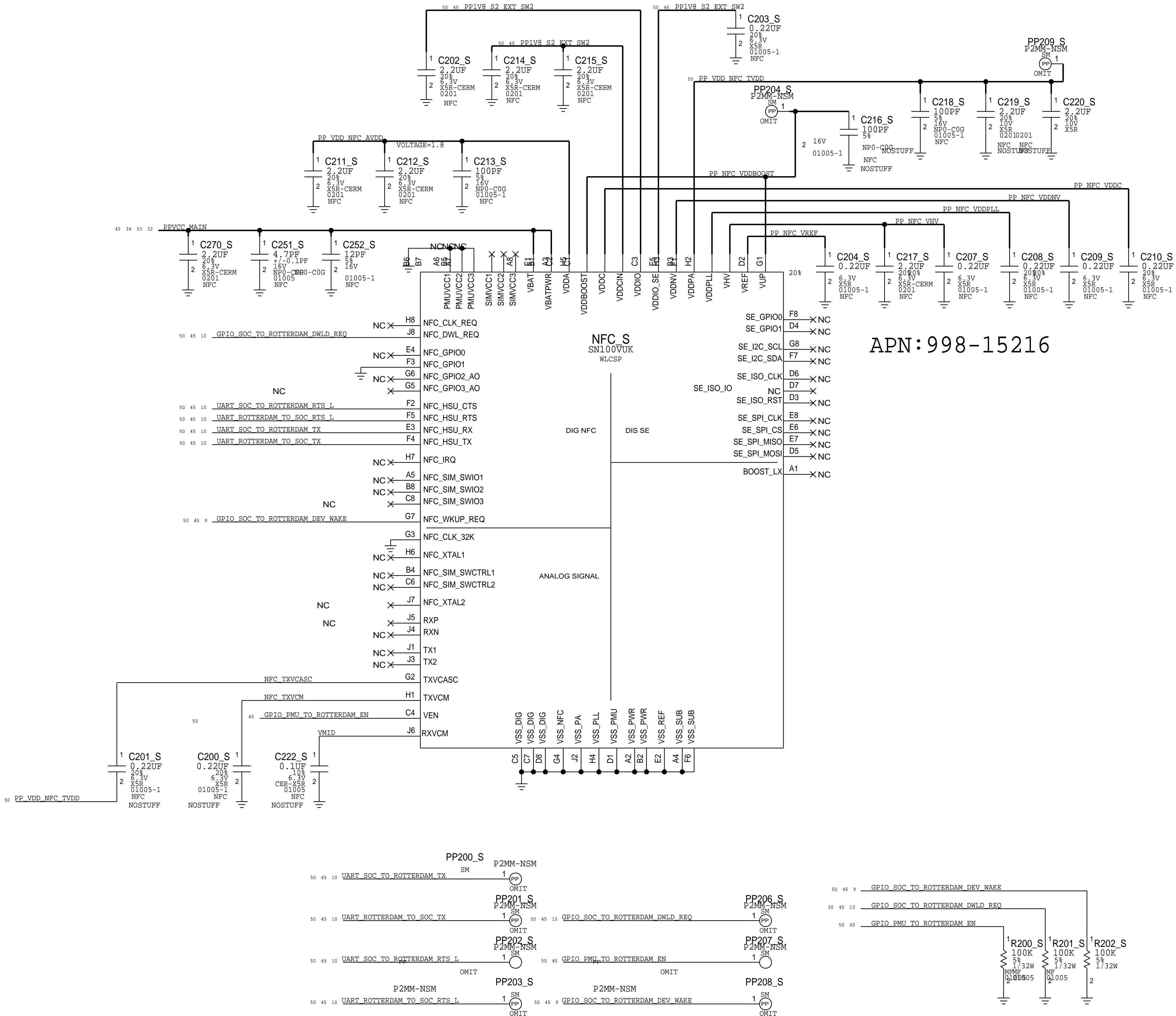
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