

T490S/X390 Logic Schematics

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21.SPI FLASH
22.BLANK
23.BLANK
24.BLANK
25.BLANK
26.BLANK
27.BLANK
28.BLANK
29.BLANK
30.BLANK
31.BLANK
32.BLANK
33.DDR4 SUB CHANNEL-A
34.DDR4 SUB CHANNEL-B
35.DDR4 SUB CHANNEL-C

36.DDR4 SUB CHANNEL-D
37.BLANK
38.BLANK
39.BLANK
40.BLANK
41.BLANK
42.BLANK
43.BLANK
44.BLANK
45.BLANK
46.BLANK
47.BLANK
48.BLANK
49.BLANK
50.BLANK
51.LCD INTERFACE
52.LID/CAMERA/MIC/TOUCH INTERFACE
53.BLANK
54.HDMI CONNECTOR
55.ALPINE RIDGE (1/2)
56.ALPINE RIDGE (2/2)
57.BLANK
58..BLANK
59.USB PD CONTROLLER
60.BLANK
61.Type-C Switch
62.DOCKING CONNECTOR
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64.M.2 SOCKET 3 MODULE I/F
65.BLANK
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68.DDI DEMUX/HDMI LEVEL SHIFTER
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70.USB TYPE-A CONN

Jazz/Sideswipe
VER 1.0
Jun/12/2018

BASE LOGIC 1 : Lightsaber-3 Pass-1 VER 0.25 Jul/10/2017
BASE LOGIC 2 : Finn-1 SIT VER 2.01 Jun/28/2017

71.BLANK
72.Smart card reader/FRP/NEC LED
73.GBE JACKSONVILLE
74.BLANK
75.BLANK
76.MEDIA CARD CONTROLLER
77.MEDIA CARD INTERFACE
78.AUDIO ALC3287
79.AUDIO CONNECTOR
80.AUDIO JACK SENSE
81.AUDIO EXT MIC I/F
82.AUDIO SPEAKER
83.AUDIO BEEP
84.AUDIO Debug port
85.MEC1663(1/3)
86.MEC1663(2/3)
87.MEC1663(3/3)
88.KEYBOARD/TRACK POINT
89.TOUCH PAD/NFC
90.FAN CONNECTOR
91.APS G-SENSOR
92.BLANK
93.SMBUS SWITCH
94.THINK ENGINE-3 (1/2)
95..THINK ENGINE-3 (2/2)
96.BLANK
97.BLANK
98.DISCRETE TPM 2.0

99.SCREW HOLES
100.DC-IN
101.BATTERY INPUT
102.BATTERY CHARGER(BQ25700A)
103.DC/DC VCC5M (NB690)
104.DC/DC VCC5M_PD (NB693)
105.DC/DC VCC3M (TPS51393)
106.BLANK
107.DC/DC VCC1R8_SUS (BU90104)
108.DC/DC IMVP8 (MP2949AGQKT)
109.DC/DC VCCCCPUCORE (MP86901C)
110.DC/DC VCCGFXCORE_I (MP86901)
111.DC/DC VCCSA (MP86901A)
112.DC/DC VCC1R2A(NB687)
113.BLANK
114.DC/DC VCC1R05_SUS(NB693)
115.BLANK
116.LOAD SW VCCST & VCCSTG
117.LOAD SW LAN
118.LOAD SW B
119.LOAD SW WLAN
120.LOAD SW PCH SUS

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JAZZ/SIDESWIPE Block Diagram

Project Code: FT491/FX390

2018 Feb '20

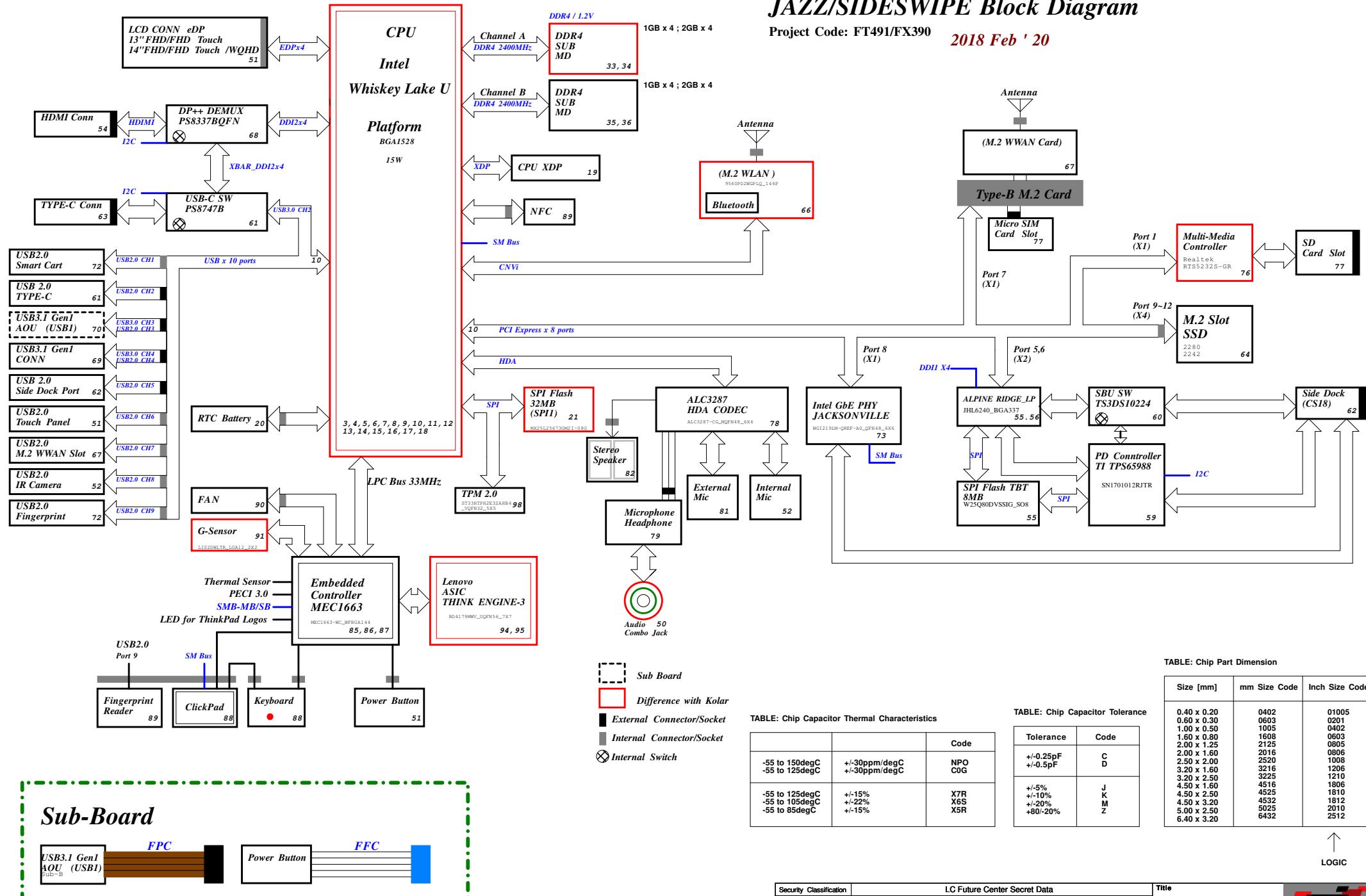
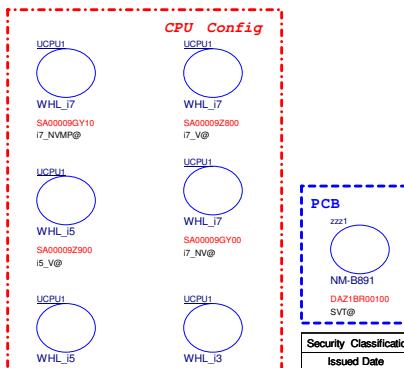
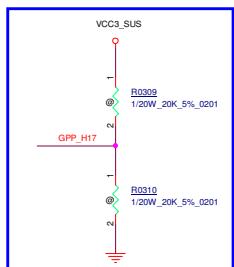
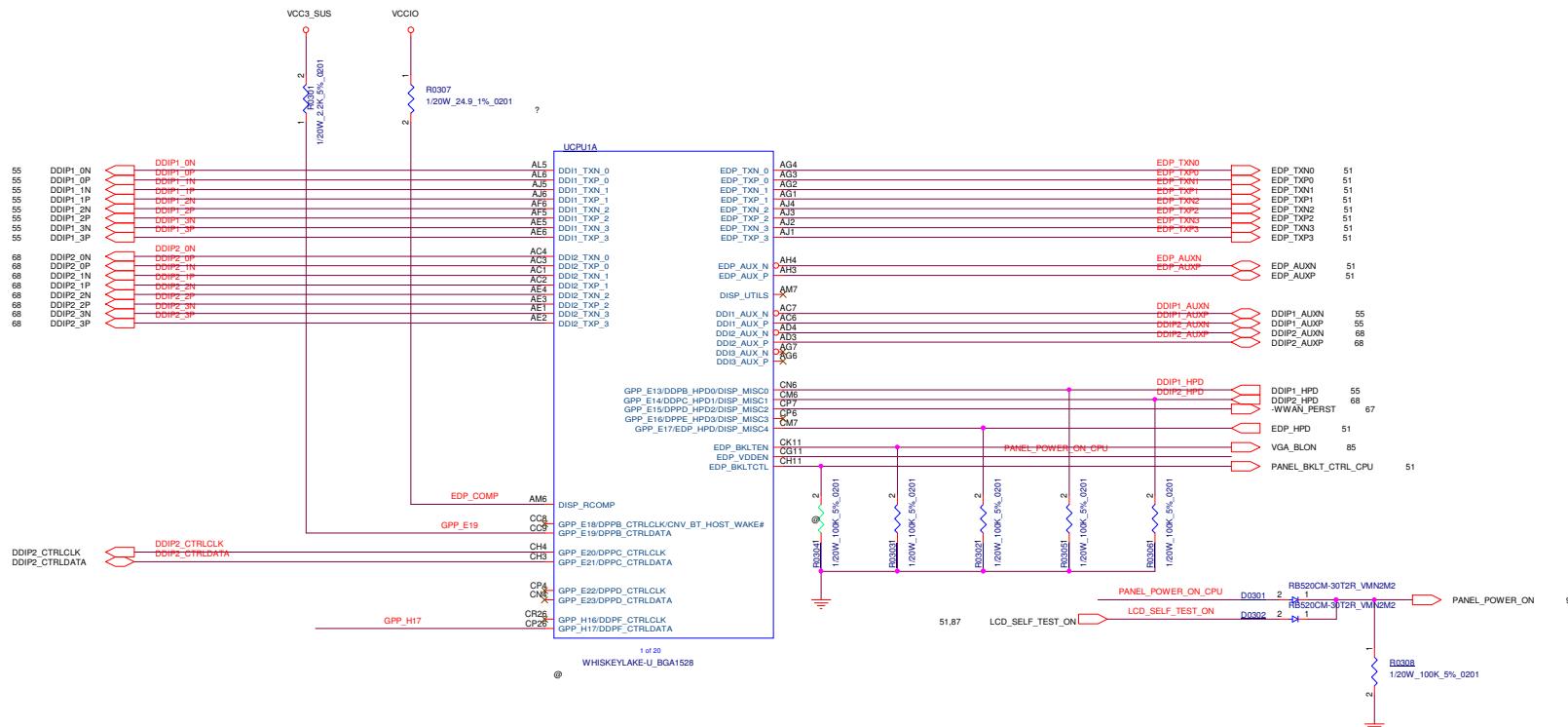


TABLE : Functional Strap

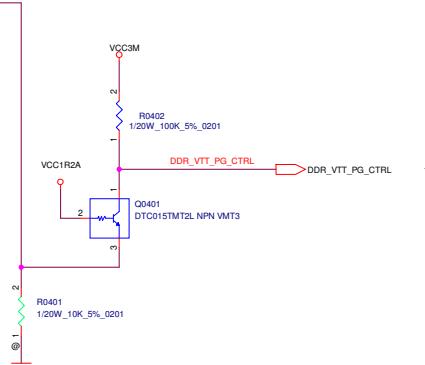
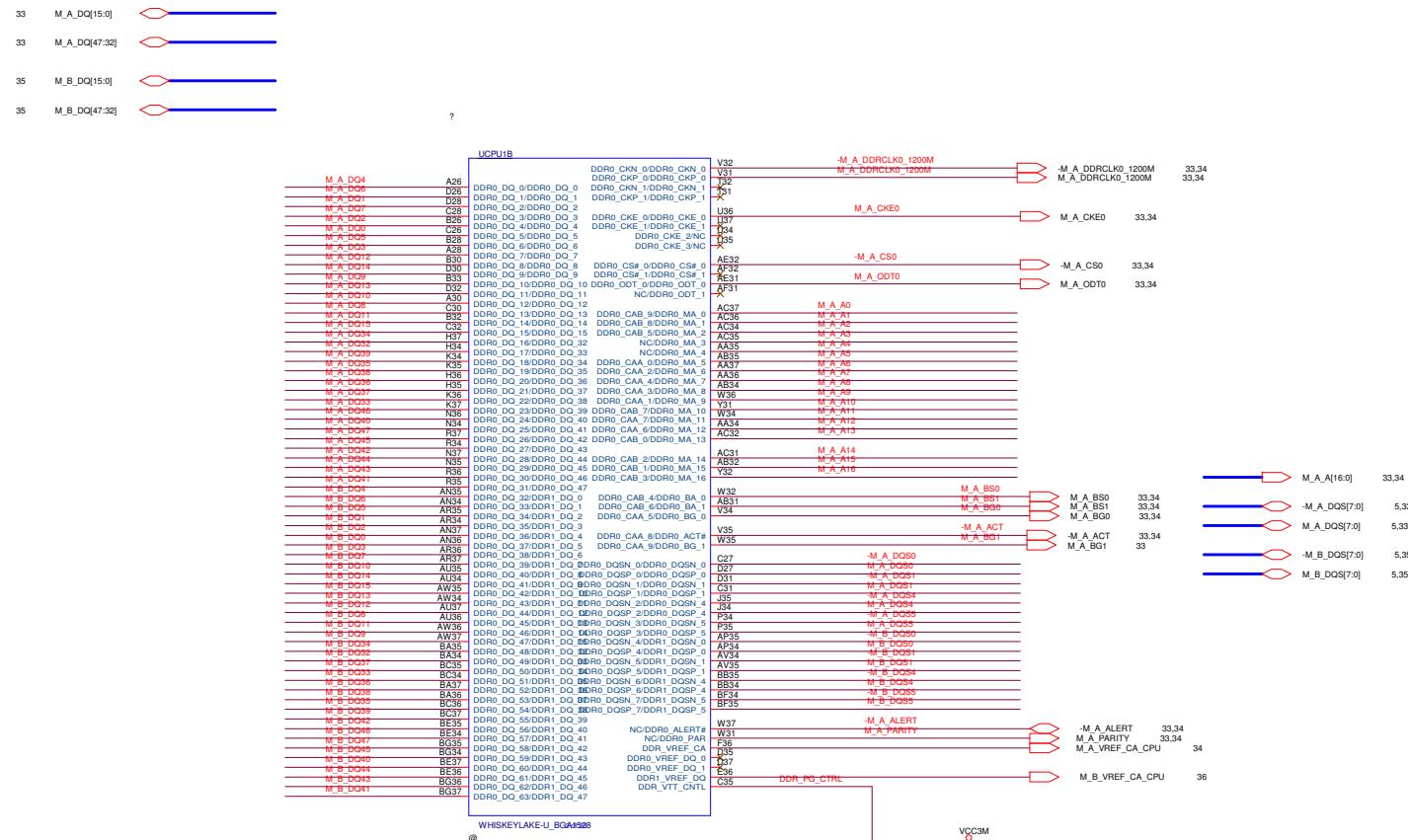
GPP_E19/DDP1_CTRLDATA/TBT_LSX0_RXD (DDP1 I2C / TBT LSX #0 PINS VCCIO CONFIGURATION)	
GPP_E21/DDP2_CTRLDATA/TBT_LSX1_RXD (DDP2 I2C / TBT LSX #1 PINS VCCIO CONFIGURATION)	
GPP_D10/DDP3_CTRLDATA/TBT_LSX2_RXD (DDP3 I2C / TBT LSX #2 PINS VCCIO CONFIGURATION)	
GPP_D12/DDP4_CTRLDATA/TBT_LSX3_RXD (DDP4 I2C / TBT LSX #3 PINS VCCIO CONFIGURATION)	
HIGH	3.3V
LOW	1.8V

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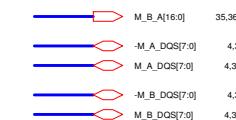
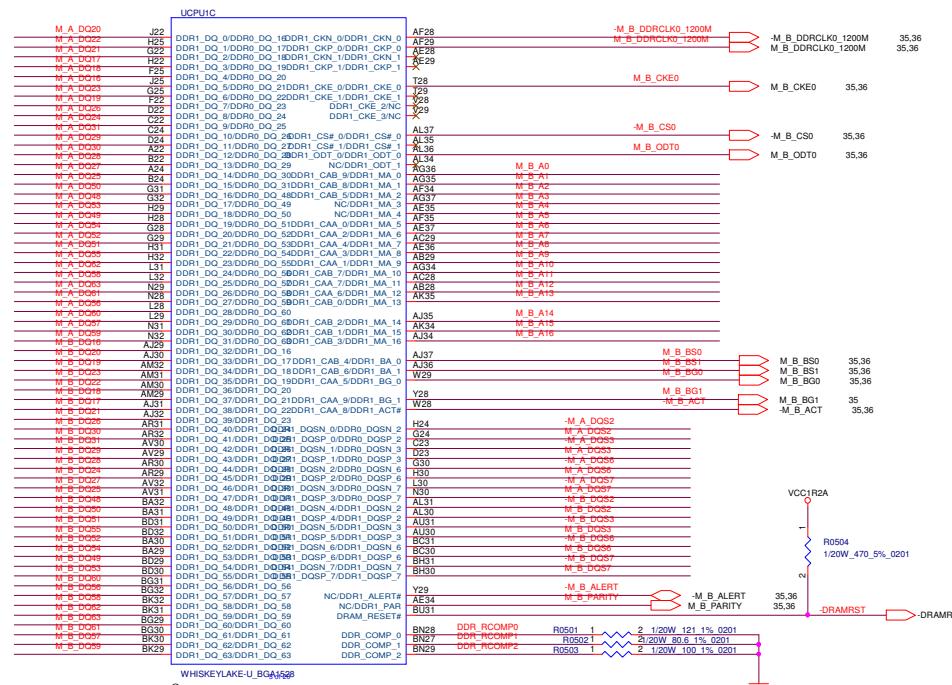
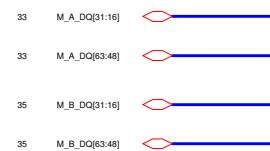


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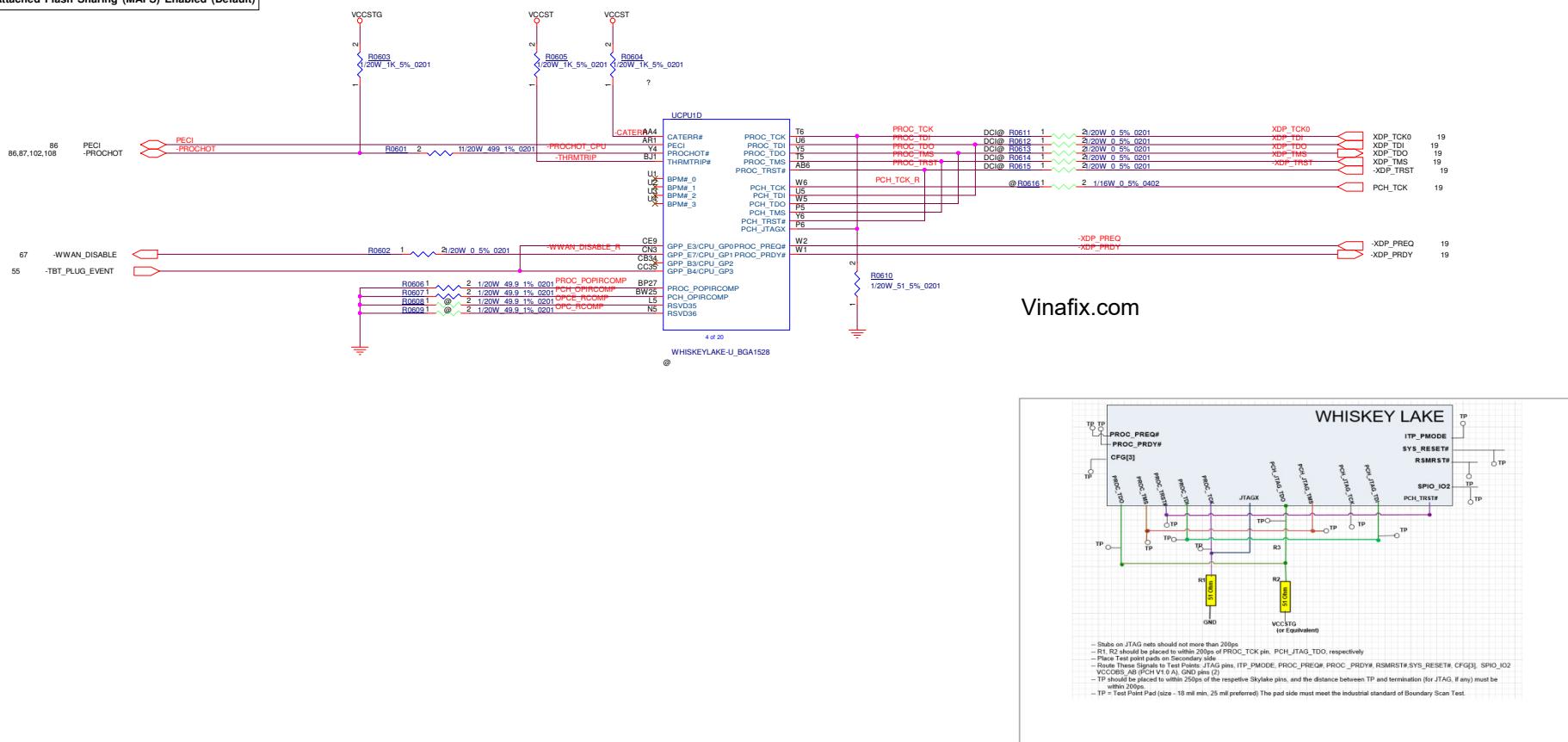


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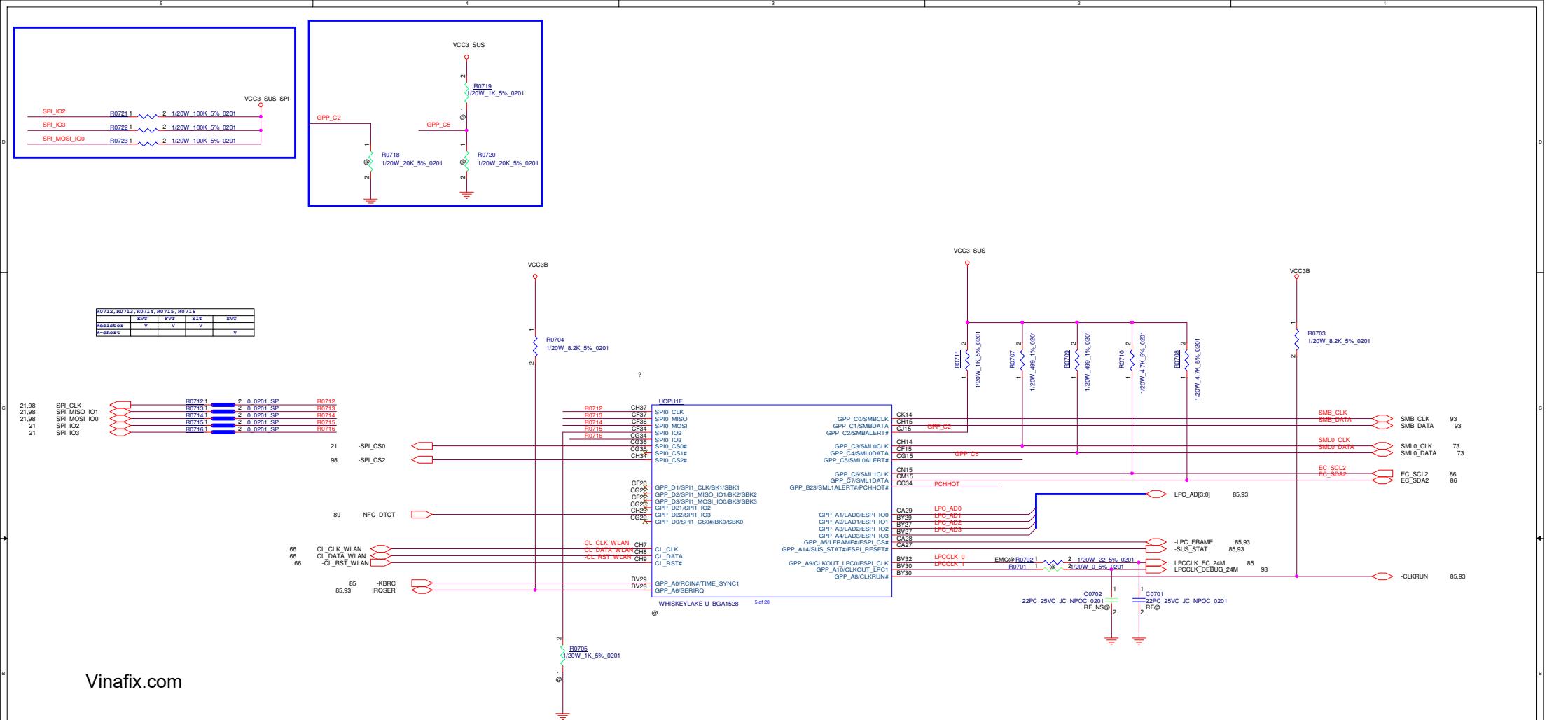


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Figure 13-6: Primary Debug Port/Connector Less Routing Topology



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GPP_C2 / SMBALERT#	TLS Confidentiality	Rising edge of RSMRST#	<p>This signal has a weak internal pull-down.</p> <p>0 = Disable Intel ME Crypto Transport Layer Security (TLS) cipher suite (no confidentiality). (Default)</p> <p>1 = Enable Intel ME Crypto Transport Layer Security (TLS) cipher suite (with confidentiality). Must be pulled up to support Intel AMT with TLS.</p> <p>Notes:</p> <ol style="list-style-type: none"> The internal pull-down is disabled after RSMRST# de-asserts. This signal is in the primary well.
--------------------	---------------------	------------------------	--

SPI0_IO2	Reserved	Rising edge of RSMRST#	<p>External pull-up is required. Recommend 100K if pulled up to 3.3V or 75K if pulled up to 1.8V.</p> <p>This strap should sample HIGH. There should NOT be any on-board device driving it to opposite direction during strap sampling.</p>
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SPI0_IO3	Reserved	Rising edge of RSMRST#	<p>External pull-up is required. Recommend 100K if pulled up to 3.3V or 75K if pulled up to 1.8V.</p> <p>This strap should sample HIGH. There should NOT be any on-board device driving it to opposite direction during strap sampling.</p>
----------	----------	------------------------	---

SPI0_MOSI	Reserved	Rising edge of RSMRST#	<p>External pull-up is required. Recommend 100K if pulled up to 3.3V or 75K if pulled up to 1.8V.</p> <p>This strap should sample HIGH. There should NOT be any on-board device driving it to opposite direction during strap sampling.</p>
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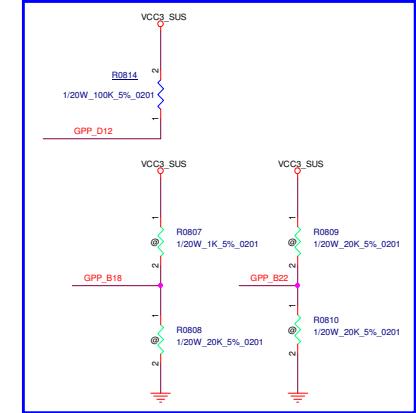
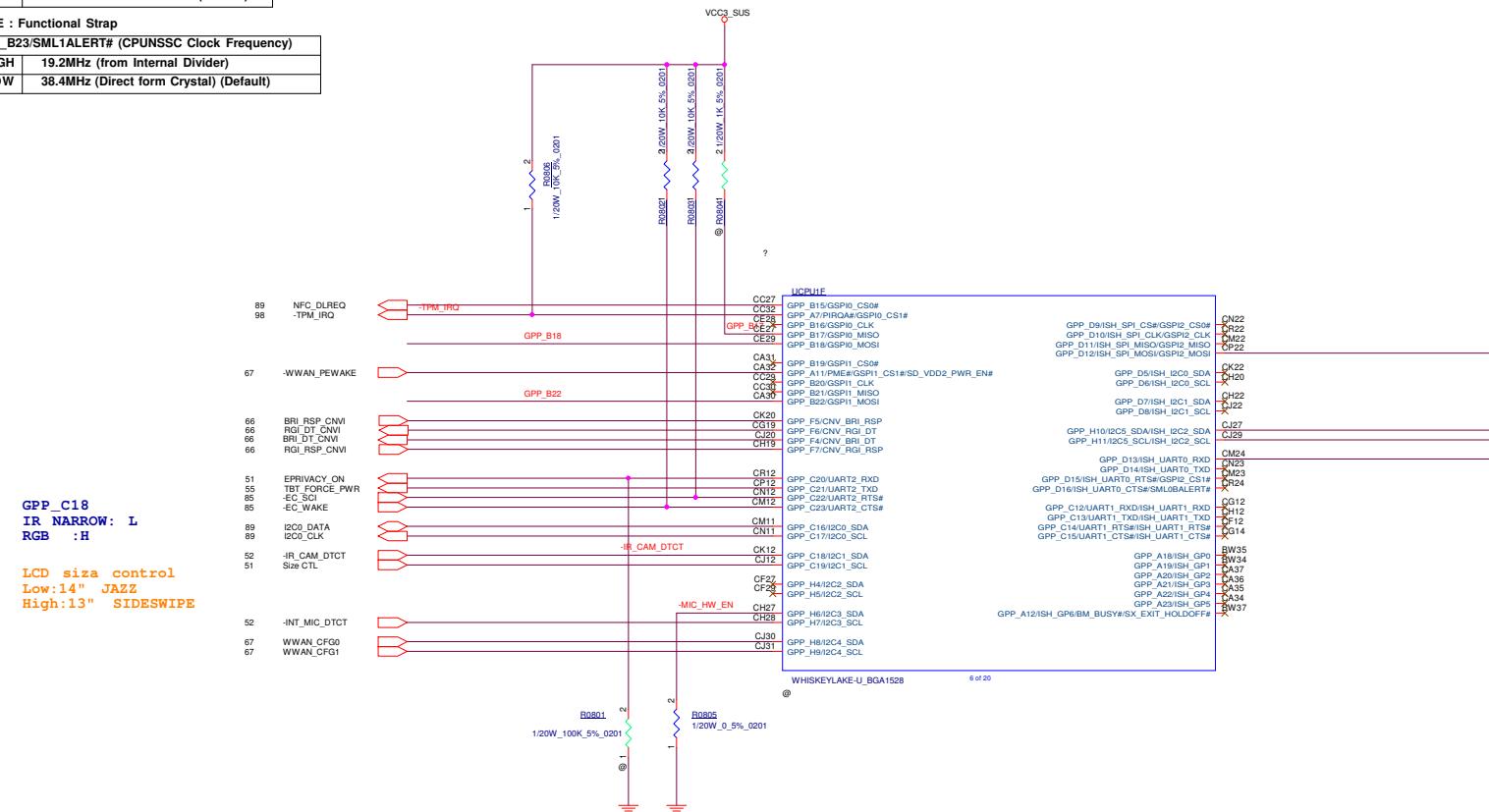
TABLE : Functional Strap	
GPP_B14/SPKR (Top Swap Override)	
HIGH	Enable "Top Swap" Mode
LOW	Disable "Top Swap" Mode (Default)

TABLE : Functional Strap

GPP_B18/GSPI0_MOSI (No Reboot)	
HIGH	Enable "No Reboot" Mode
LOW	Disable "No Reboot" Mode (Default)

TABLE : Functional Strap

GPP_B23/SML1ALERT# (CPUUNSSC Clock Frequency)	
HIGH	19.2MHz (from Internal Divider)
LOW	38.4MHz (Direct from Crystal) (Default)



The signal has a weak internal pull-down.
0 = **Disable** "No Reboot" mode. (Default)
1 = **Enable** "No Reboot" mode (PCH will disable the
TCO Timer system reboot feature). This function is
useful when running ITP/XDP.

Notes:

1. The internal pull-down is disabled after PCH_PWROK is high.
2. This signal is in the primary well.

determines the destination of accesses to the memory range. Also controllable using Boot BIOS.

BIT 6 Boot BIOS

BIT 0 Destination
0 SPI (Default)

1 LPC

internal pull-down is disabled after PWRQK is high.

If option 1 (LPC) is selected, BIOS may still be used on LPC, but all platforms are required to

SPI Flash connected directly to the PCH's SPI with a valid descriptor in order to boot.

BIOS Destination select to LPC by functional or using Boot BIOS Destination bit will not SPI accesses initiated by Intel ME or

signal is in the primary well.

le

CRIU (6/16): LRSS/ISH

— IFC

Document Number _____ Rev _____

Jazz/Sideswipe

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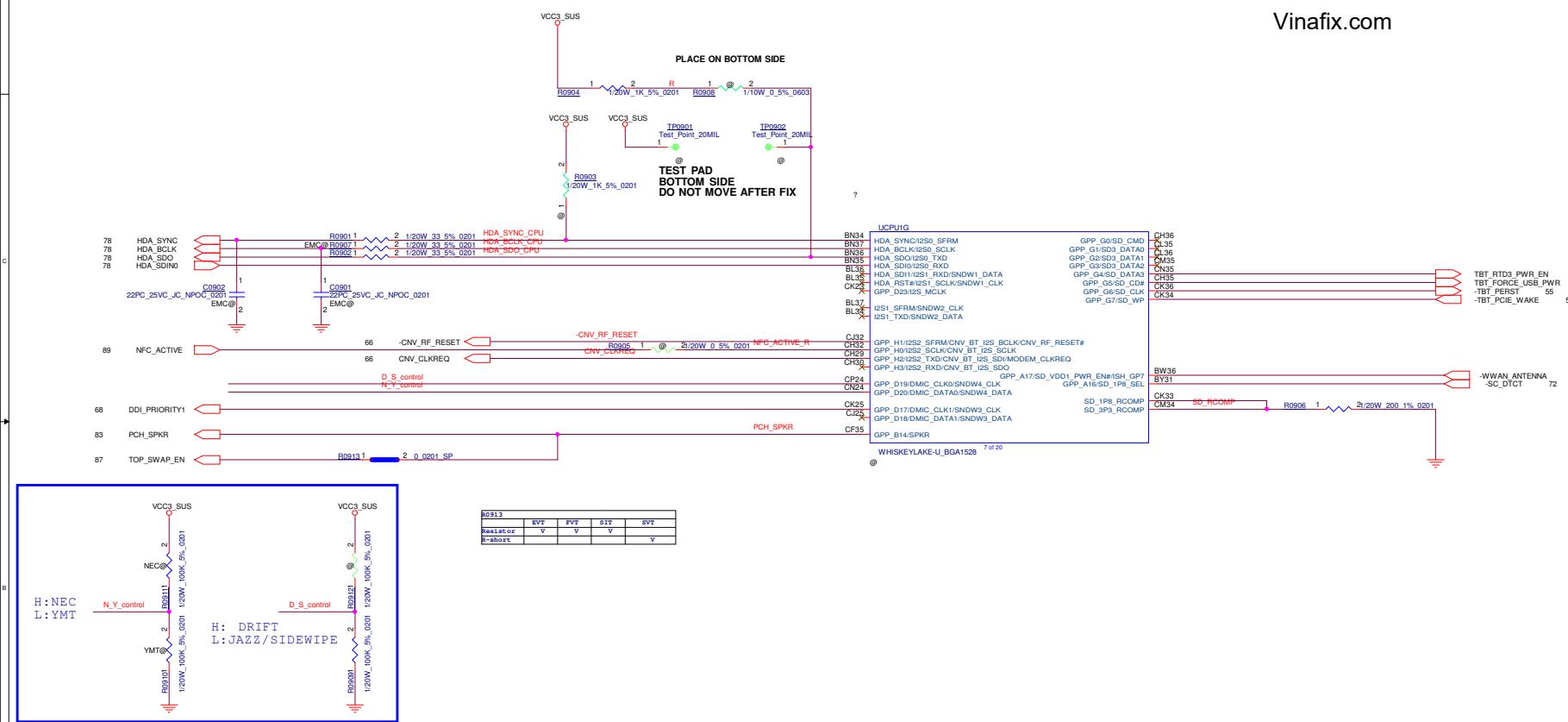
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Custod				<i>Jazz/Sideswipe</i>		
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TABLE : Functional Strap

HDA_SDO1250_TxD	
Flash Descriptor Security Override	
HIGH	Disable Flash Descriptor Security (Override)
LOW	Enable Flash Descriptor Security (Default)

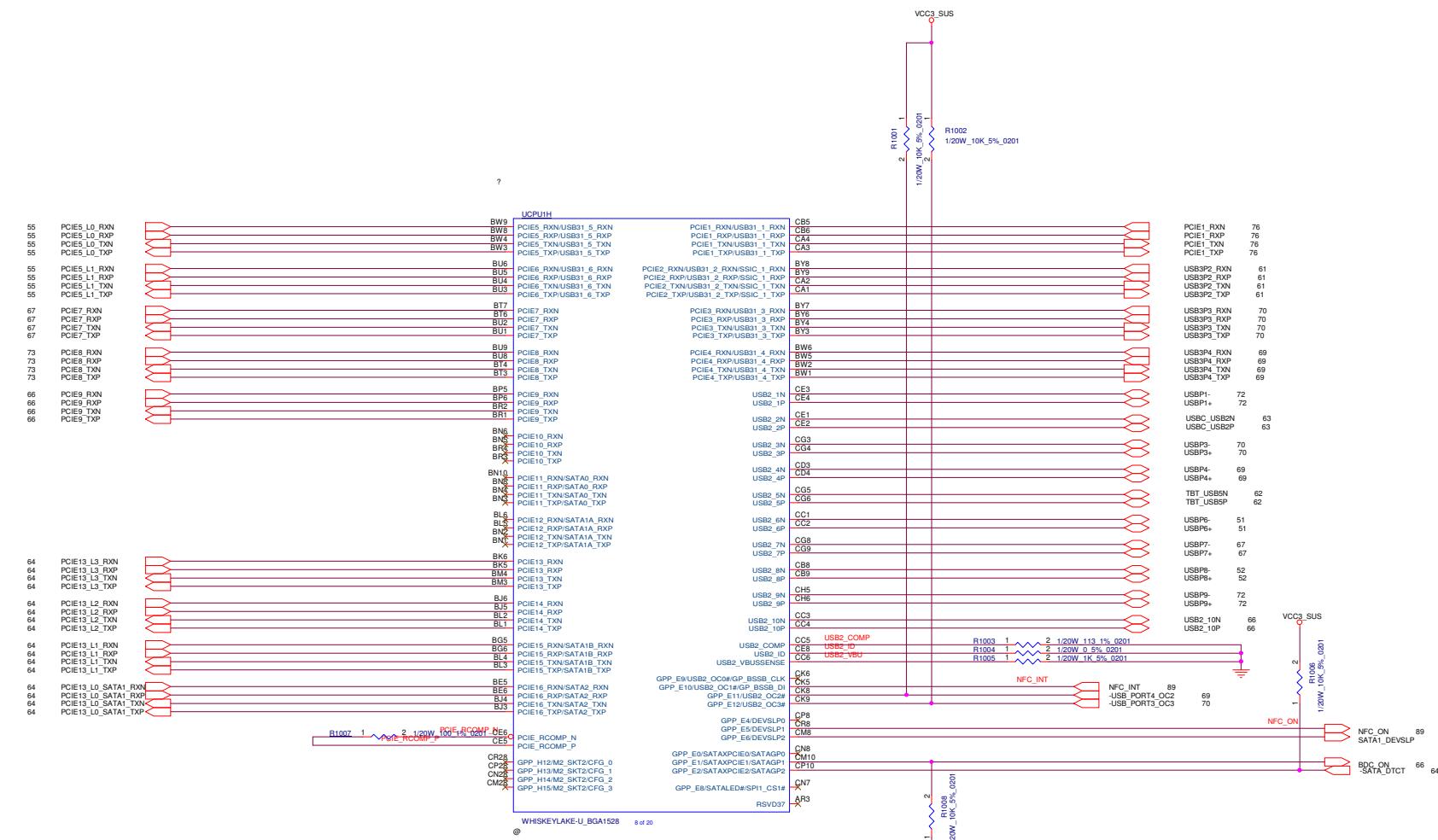
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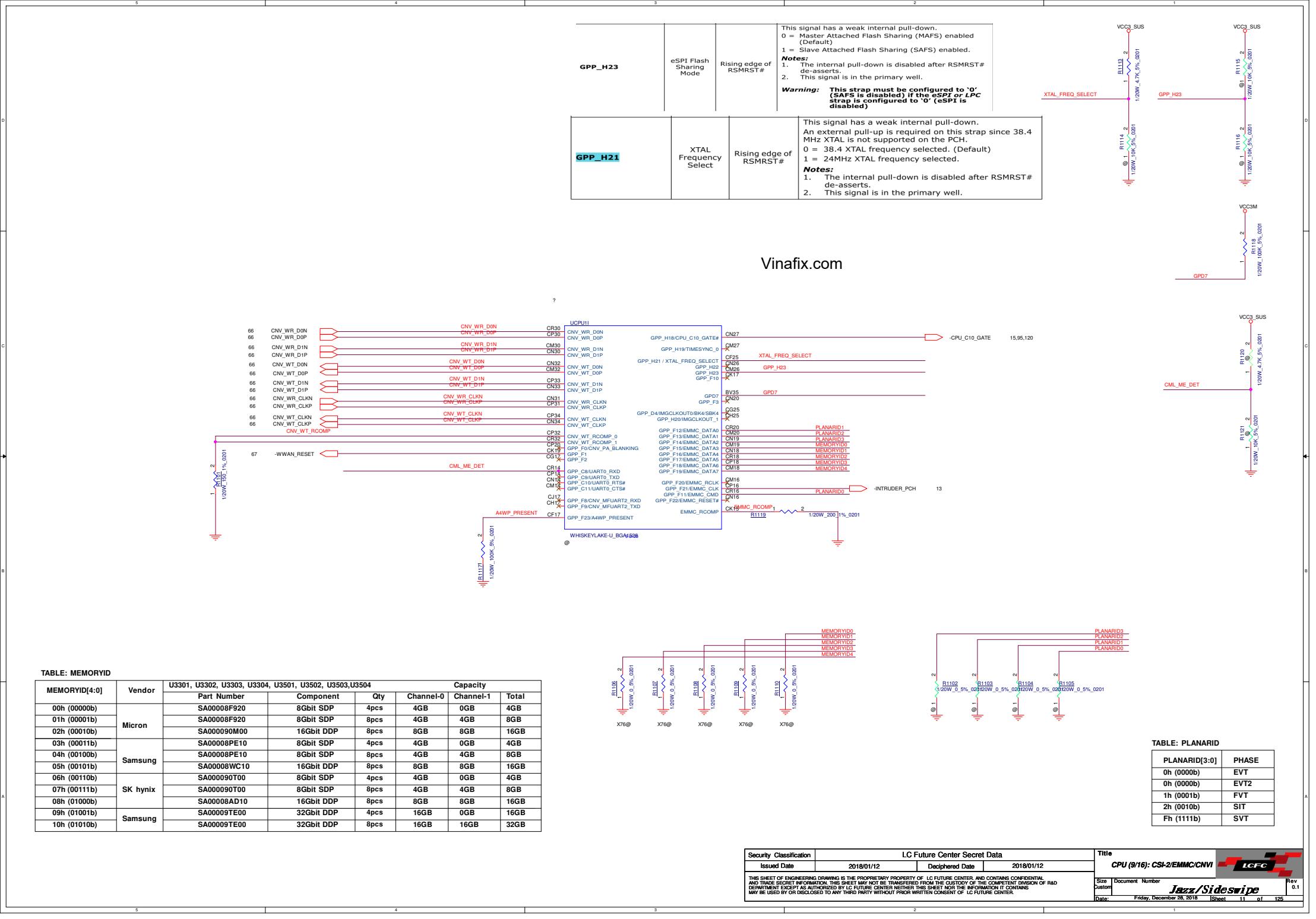
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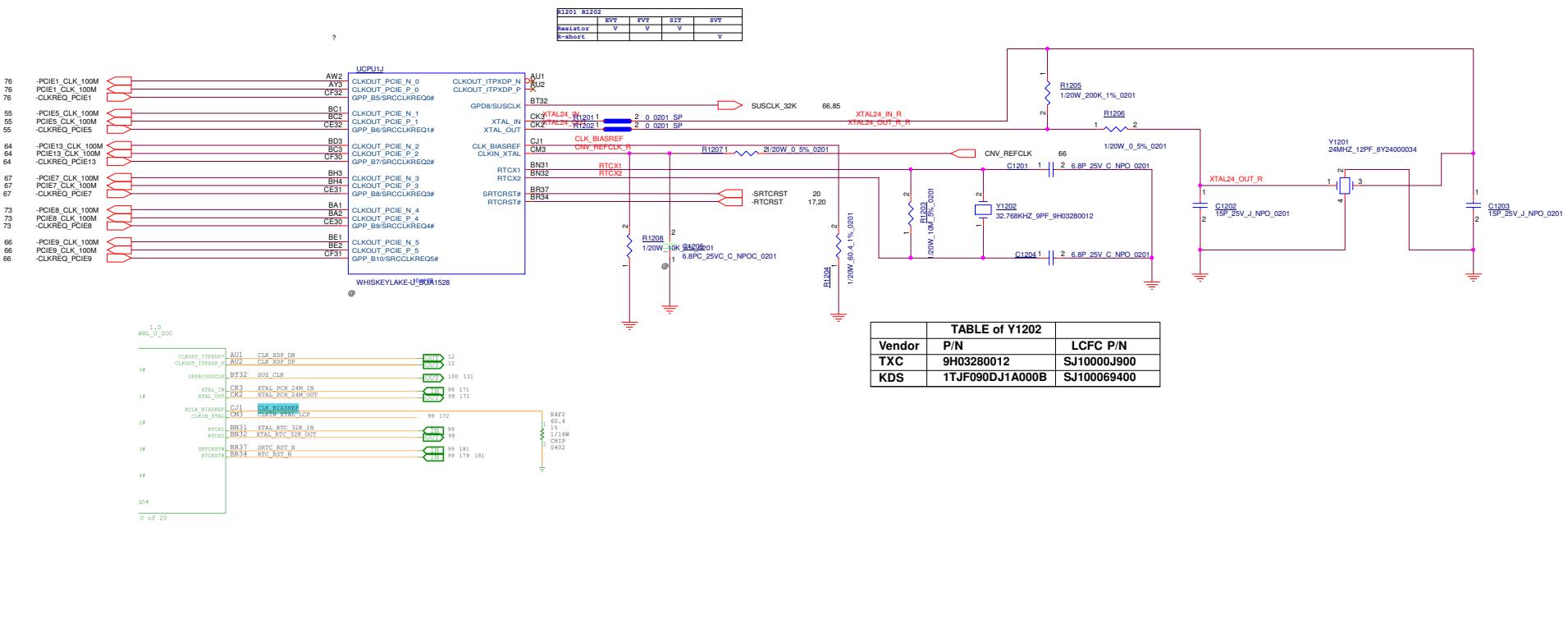
PCIe Port Assignment		USB 2.0 Port Assignment	USB 3.0 Port Assignment	SATA Port Assignment
PCIE 1	Media Card Controller	USB2_1 Smart Card	USB3_1 Type-C Port C	SATA 0
PCIE 2		USB2_2 Type-C Port C	USB3_2 Type-C Port C	SATA 1A SATA SSD
PCIE 3		USB2_3 Type-A Port (AOU)	USB3_3 Type-A Port (AOU)	SATA 1B
PCIE 4		USB2_4 Type-A Port (DCI)	USB3_4 Type-A Port (Gen2)	SATA 2
PCIE 5 (x4)	Alpine Ridge-DP	USB2_5 TBT Port B		
PCIE 7	WWAN	USB2_6 Touch Panel		
PCIE 8	GBE	USB2_7 WWAN Card		
PCIE 9 (x4)	WLAN	USB2_8 RGB / IR Hybrid Camera		
PCIE 13 (x1)	NVMe SSD	USB2_9 Fingerprint Reader		
PCIE 14 (x1)		USB2_10 WLAN		

Flexible I/O Configuration					CS19 T14/T15/P53s			
HSIO Port	High Speed Signals	PCI		HSIO Configuration	Device	Descriptor for PCIe	PCI Device	
		Device	Function					
Port 1	USB3_1 / PCIE 1	X2	0h	PCIE 1	Media Card Controller	4x1 LaneReversal		
Port 2	USB3_2 / PCIE 2	X4	1Ch	USB3_3	Type-A Port (Gen2)	Enabled		
Port 3	USB3_3 / PCIE 3	X2	2h	USB3_4	Type-A Port (AOU)	Disabled		
Port 4	USB3_4 / PCIE 4		3h					
Port 5	USB3_5 / PCIE 5	X2	4h	PCIE 5'2 LO	Alpine Ridge - DP			
Port 6	USB3_6 / PCIE 6	X4	5h	PCIE 5'2 L1	Alpine Ridge - DP			
Port 7	PCIE 7 (GbE)	X2	6h	PCIE 7				
Port 8	PCIE 8 (GbE)		7h	PCIE 8				
Port 9	PCIE 9 (GbE)	X2	0h	PCIE 9				
Port 10	PCIE 10	X2	1h					
Port 11	PCIE 11 / SATA 0	X4	2h					
Port 12	PCIE 12 / SATA 1A	X2	3h					
Port 13	PCIE 13 (GbE)	X2	4h	PCIE 9 x4 L3	Storage Lane 3			
Port 14	PCIE 14 (GbE)	X4	5h	PCIE 9 x4 L2	Storage Lane 2			
Port 15	PCIE 15 / SATA 1B	X2	6h	PCIE 9 x4 L1	Storage Lane 1			
Port 16	PCIE 16 / SATA 2		7h	PCIE 9 x4 L0 / SATA1	Storage Lane 0 / SATA	Enabled		



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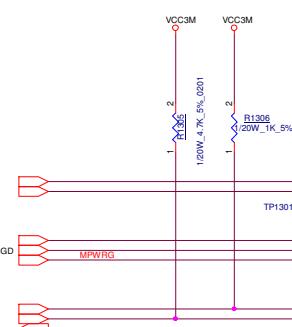
R1307, R1308, R1309, R1310			
Resistor	EVT	FVT	SIT
R-short	V	V	V

17.19

19.94

-XDP_DBR

-RSMRST



86.89

93.95

108

94.95

BPWRG

CPUCORE_PWRGD

MPWRG

MPWRG

TP1301Test_Point_20MIL

CPU_PWRGD

VCCST_PWRGD

BPWRG_R

CR10

R1307_1

2

0.0201

SP

CPUCORE_PWRGD

SYS_PWRGD

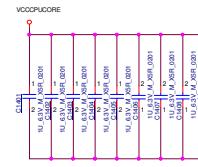
PCH_PWRGD

BP30

DSW_PWRGD

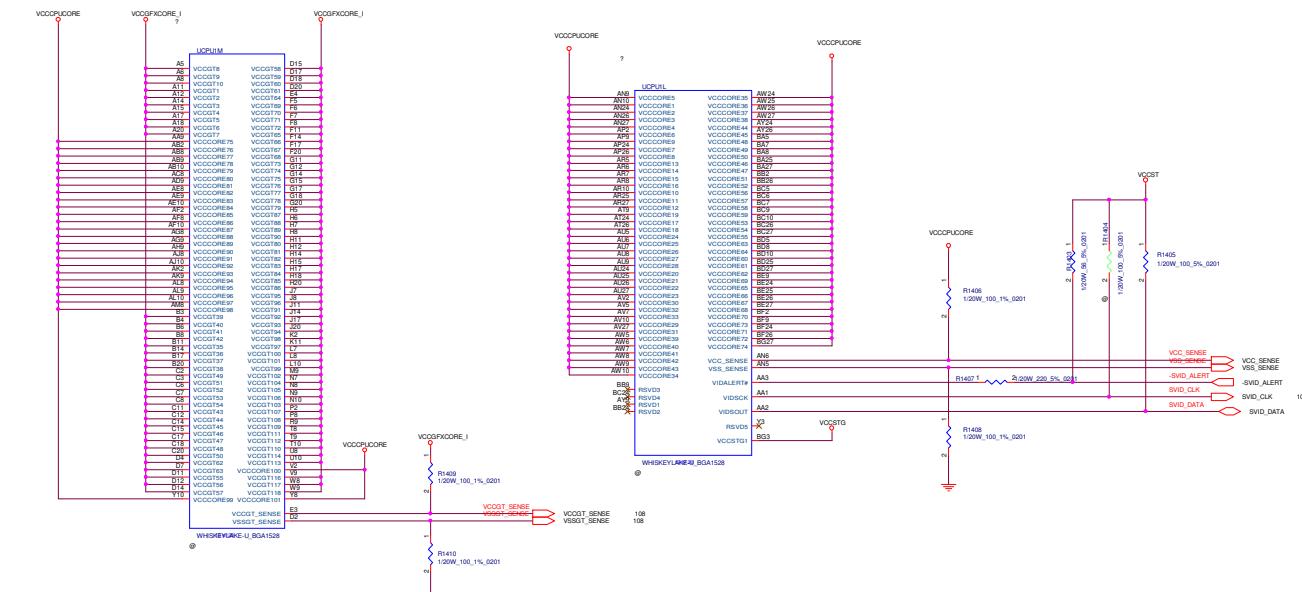
PCH_PWRGD

BP30

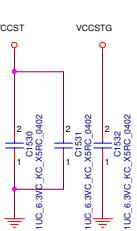
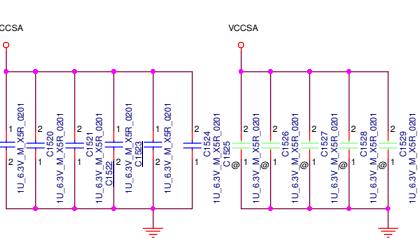
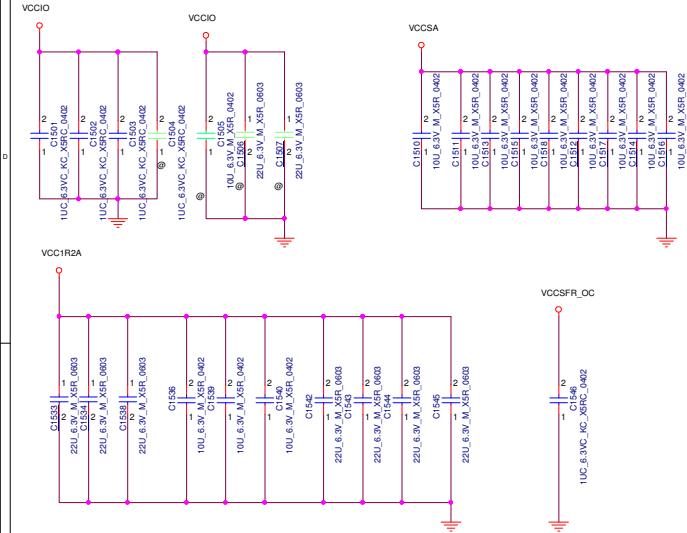


VccGT	PDG	LCFC
47uF_0805	4	HW:0/PWR:0
22uF_0603	15	HW:2/PWR:24
10uF_0402	15	HW:1/PWR:10
1uF_0402/0201	11	HW:10/PWR:10

VccCORE	PDG	PDG
47uF_0805	18	HW:0/PWR:0
22uF_0603	9	HW:0/PWR:24
10uF_0402	22	HW:0/PWR:10
1uF_0402/0201	42	HW:0/PWR:10



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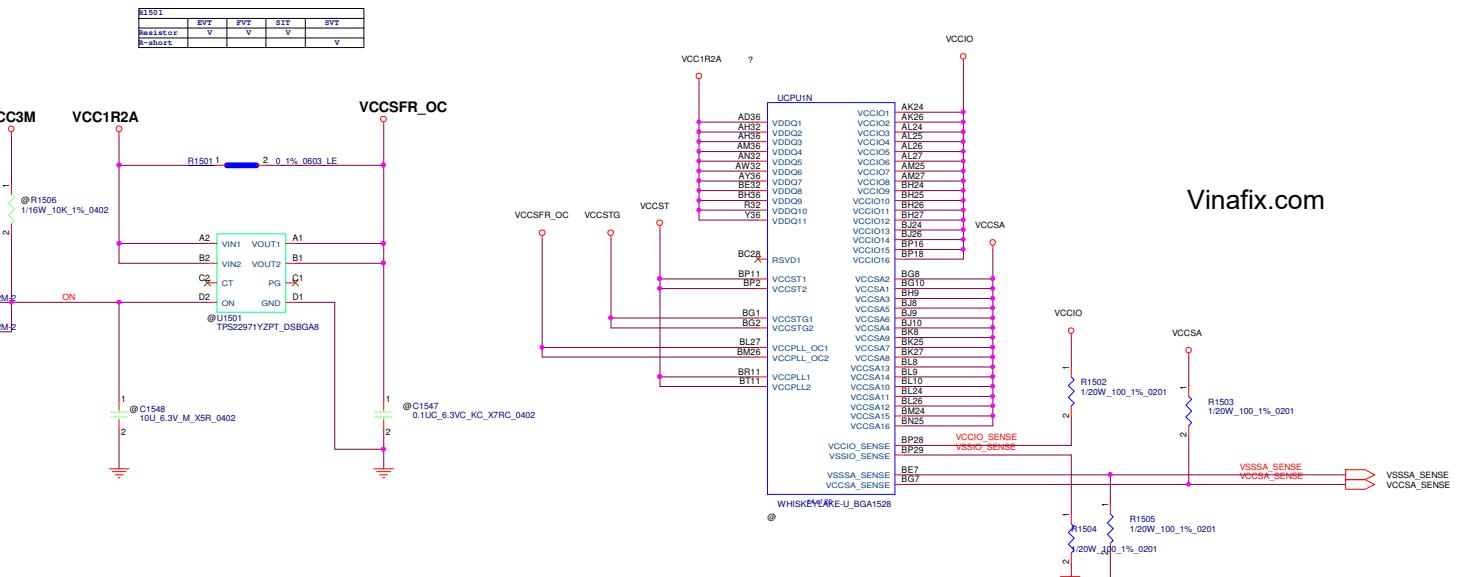


VccSA	PDG	LCFC
47uF_0805	2	HW:0/PWR:0
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10uF_0402	13	HW:5/PWR:7
1uF_0402	0	HW:6/PWR:7

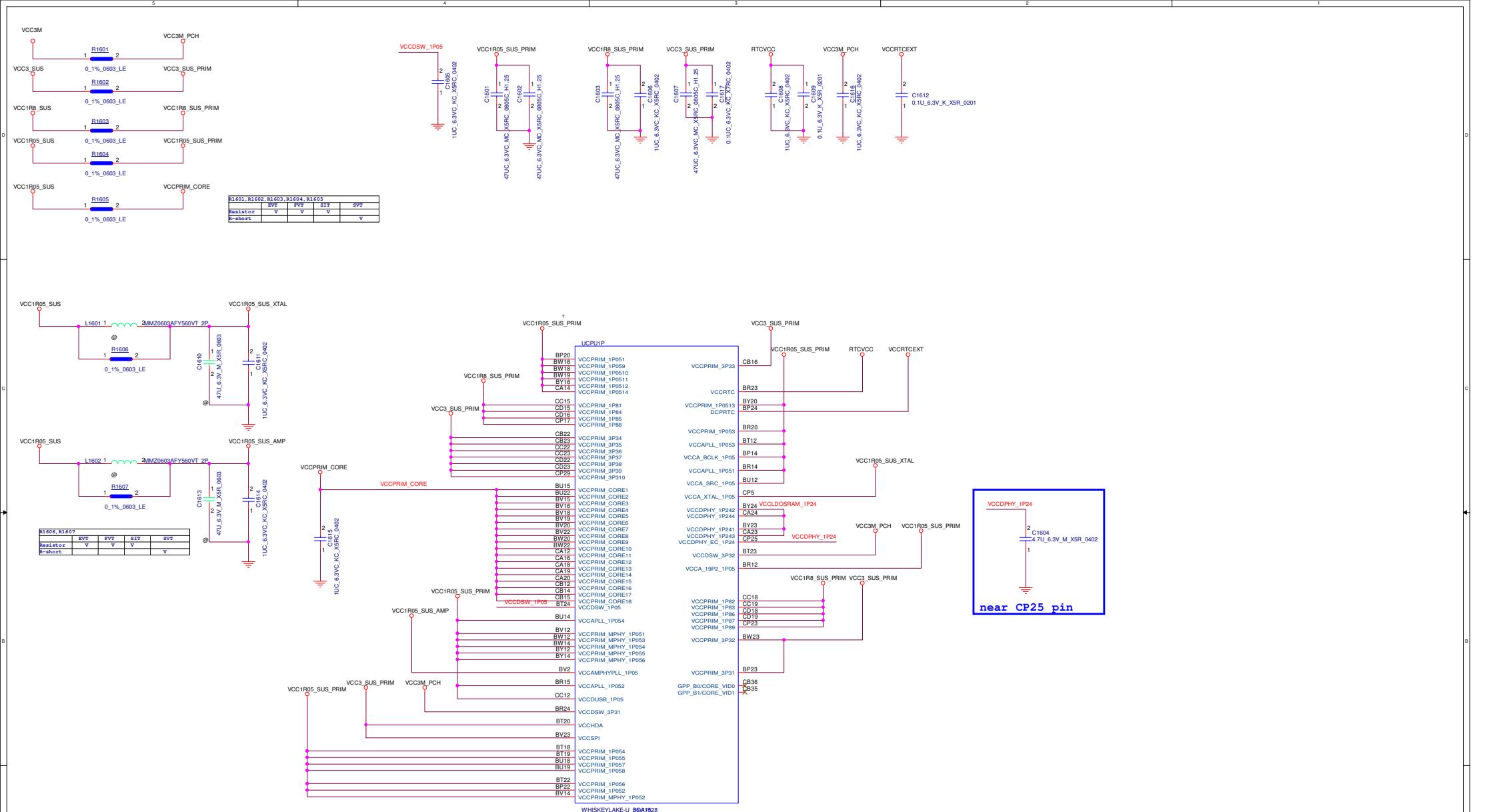
VDDQ	PDG	LCFC
47uF_0805	0	HW:0/PWR:0
22uF_0805	1	HW:7/PWR:6
10uF_0402	9	HW:4/PWR:0
1uF_0402	4	HW:6/PWR:0

VccIO	PDG	LCFC
47uF_0805	0	HW:0/PWR:0
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10uF_0402	6	HW:0/PWR:0
1uF_0402	4	HW:3/PWR:0

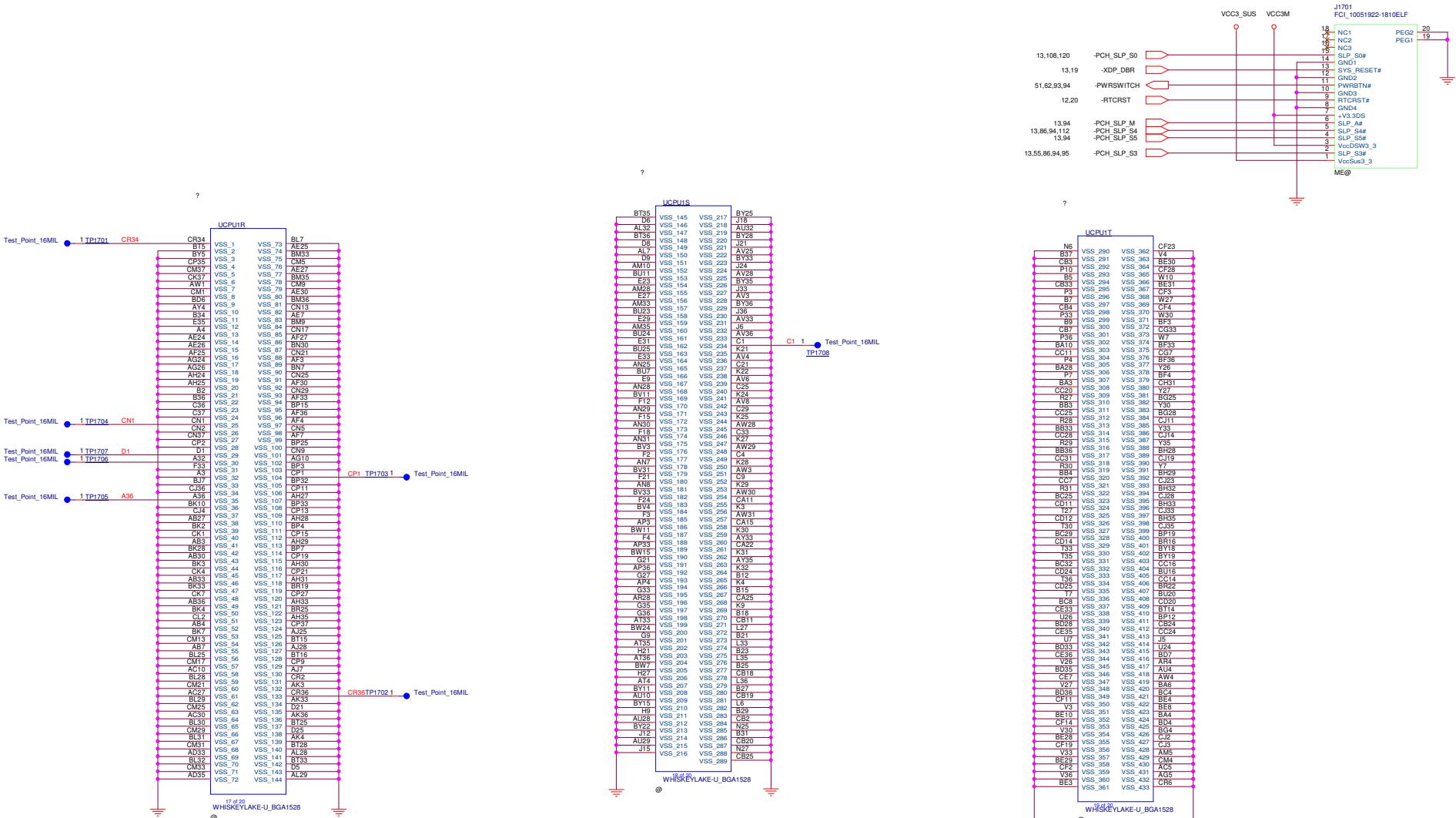
VccPLL	PDG	LCFC
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0.1uF_0201	1	HW:0/PWR:0
VccPLL_OC	PDG	LCFC
1uF_0402	1	HW:1/PWR:0



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Custom	C	Friday, December 28, 2018	Sheet 15 of 125	0.1		

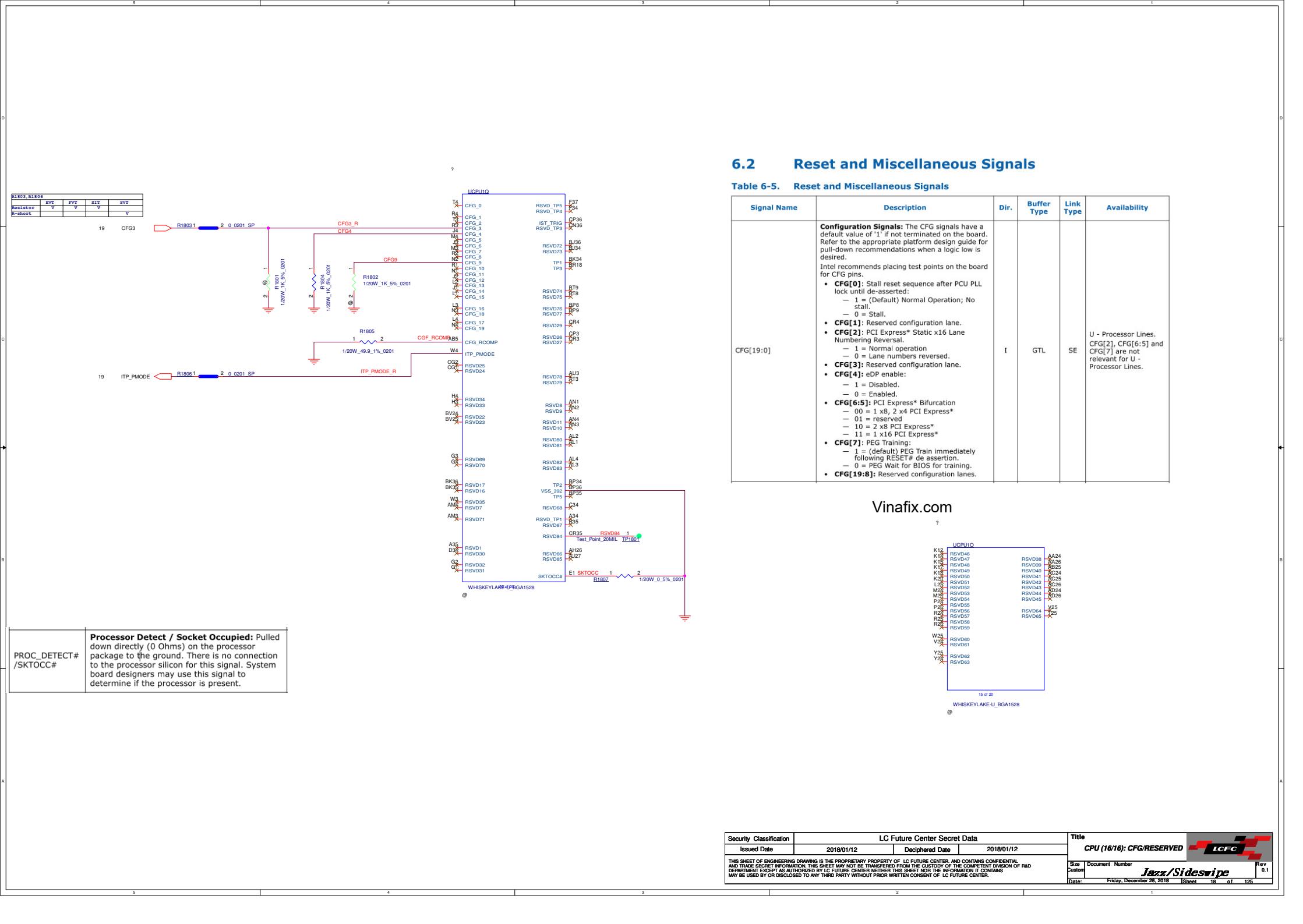


APS/PETS Interface



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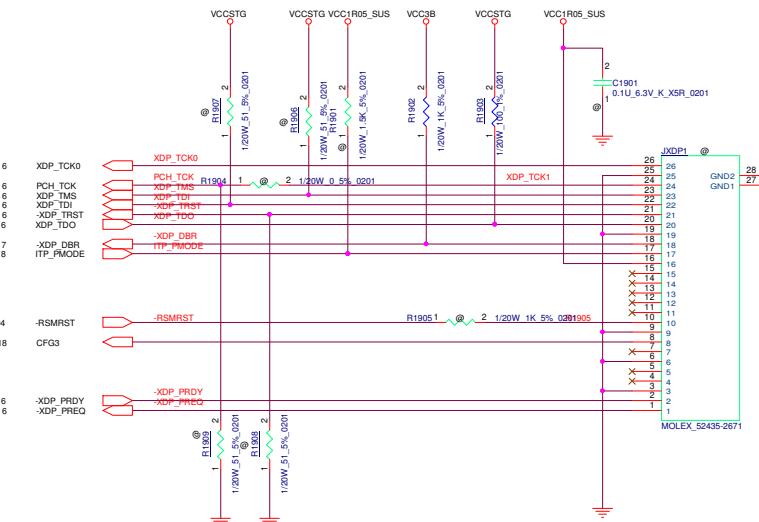
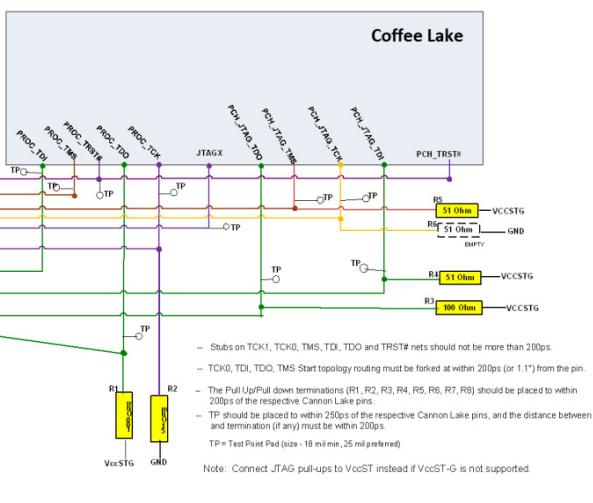


Figure 13-1. Primary Debug Port-JTAG Topology for Dual Scan Chain Only Design

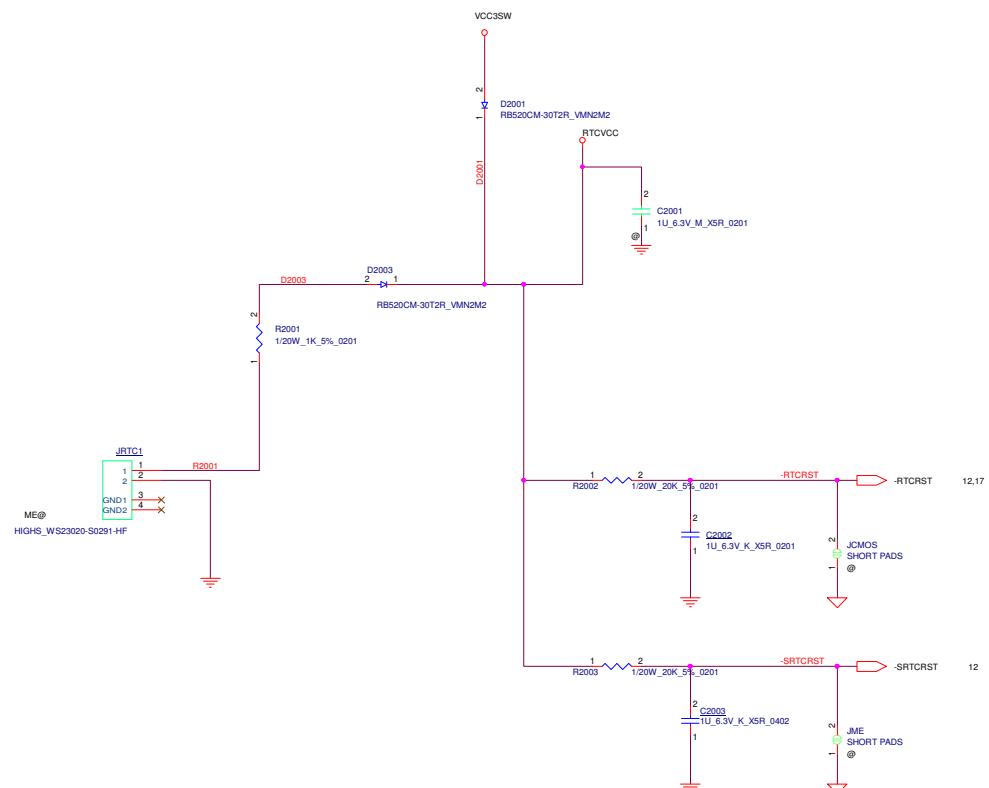


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Logic	Ref Des	Merged	DCI 2.0
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Page 18	R1801	ASM	NO_ASM
Page 19	JXDP1	ASM	NO_ASM
	C1901	ASM	NO_ASM
	R1903	ASM	ASM
	R1902	ASM	ASM
	R1901	ASM	NO_ASM
Page 19	R1905	ASM	NO_ASM
	R1904	ASM	NO_ASM

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LOGIC

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				LCFC
			Date:	Wednesday, January 02, 2019 Sheet 20 of 126

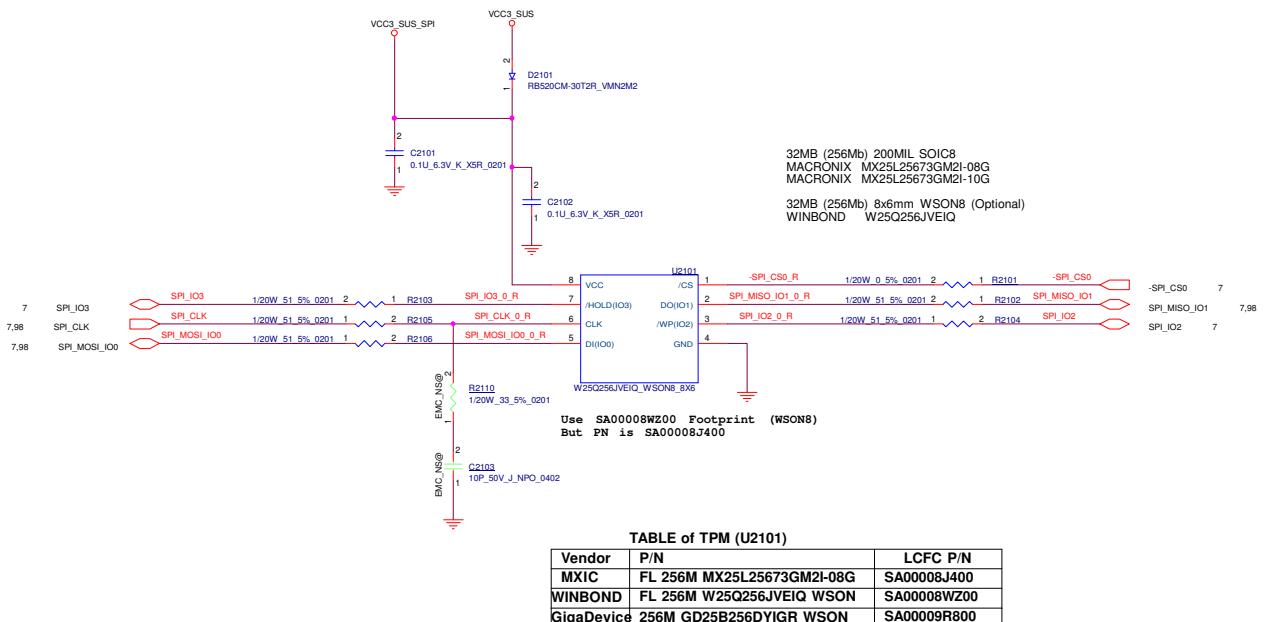


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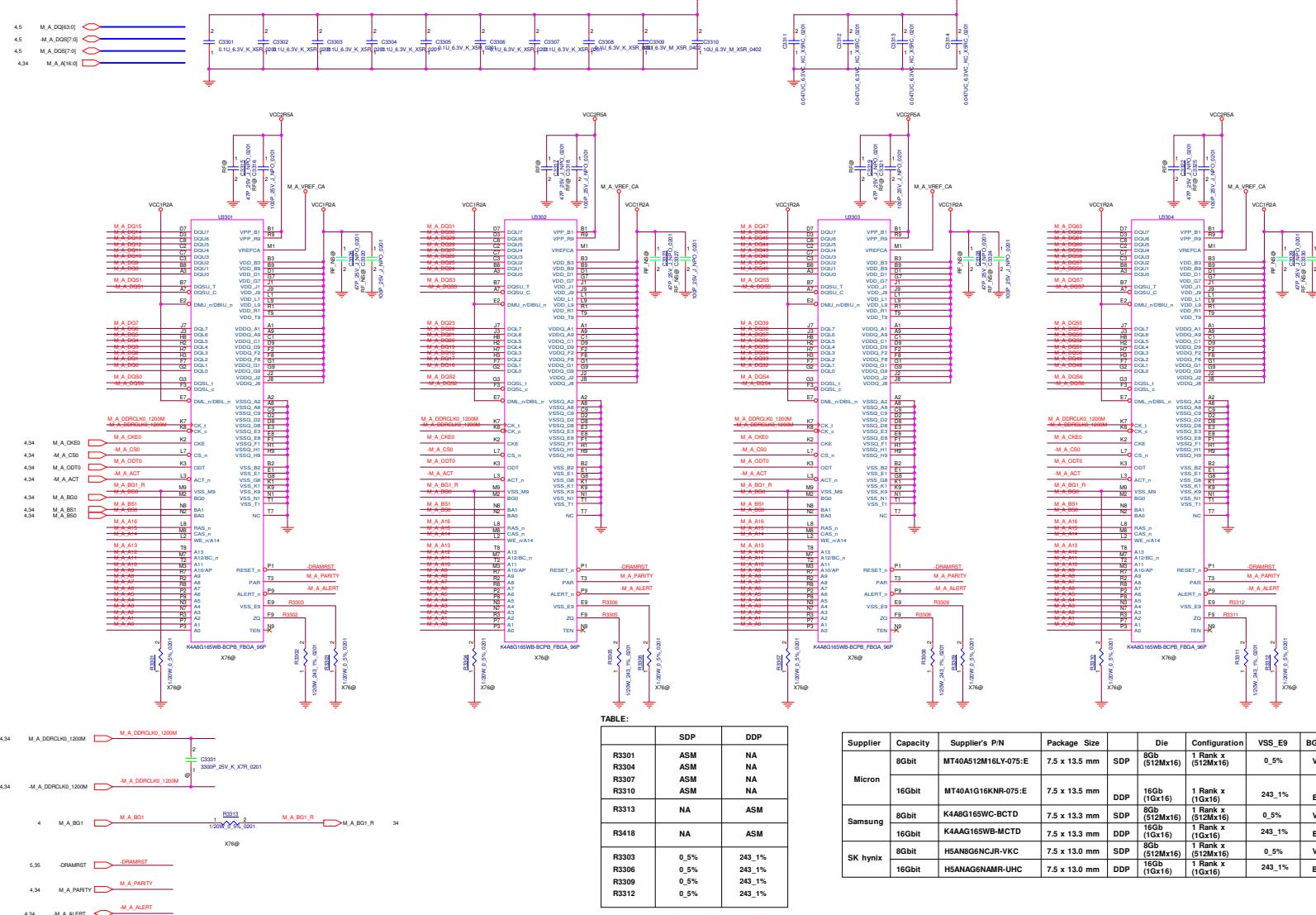
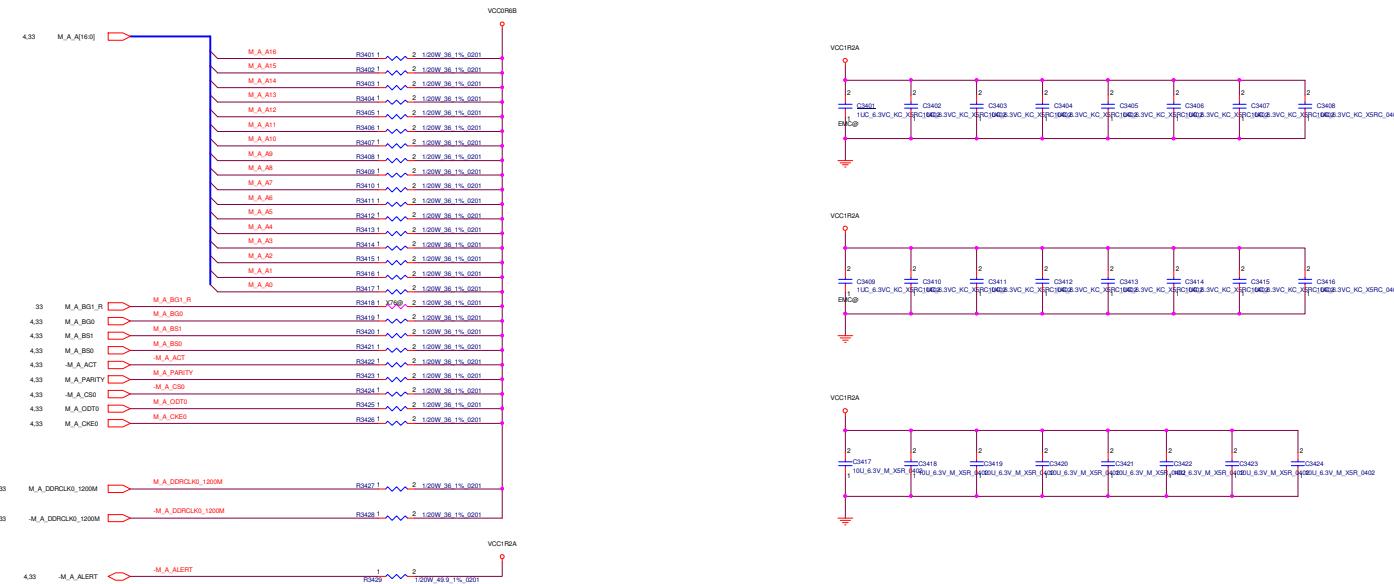


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R3307	ASM	NA
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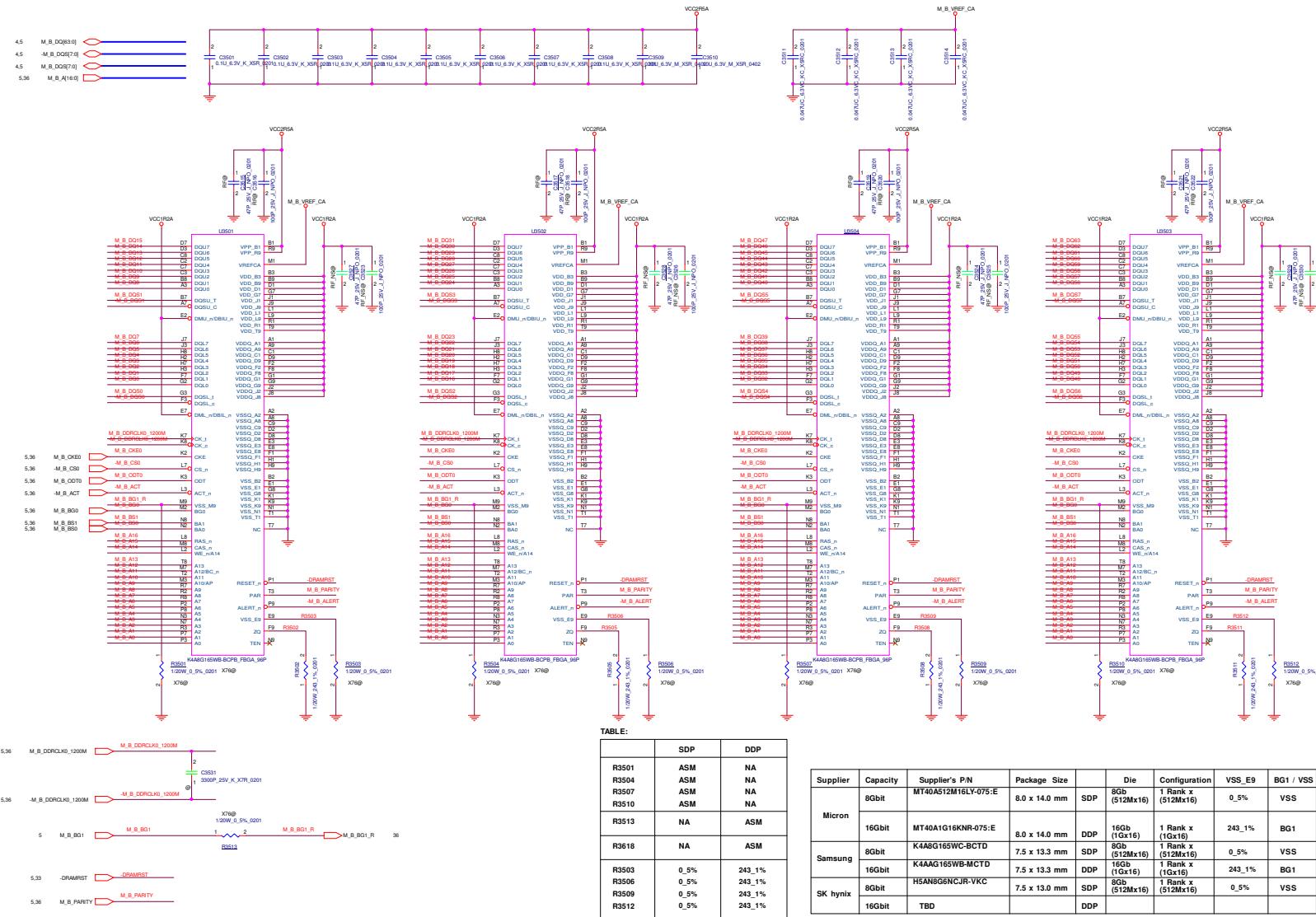
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Samsung	8Gbit	K4A8G16SW-BCTD	SA00008PE10
	16Gbit	K4AAC165WB-MCTD	SA00008WC10
SK hynix	8Gbit	H5AN9GNCJR-KVC	SA000090T00
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				Date:	Friday, October 14, 2016		



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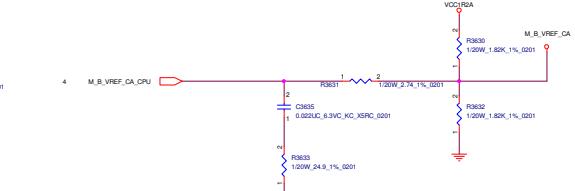
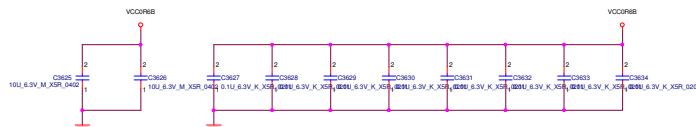
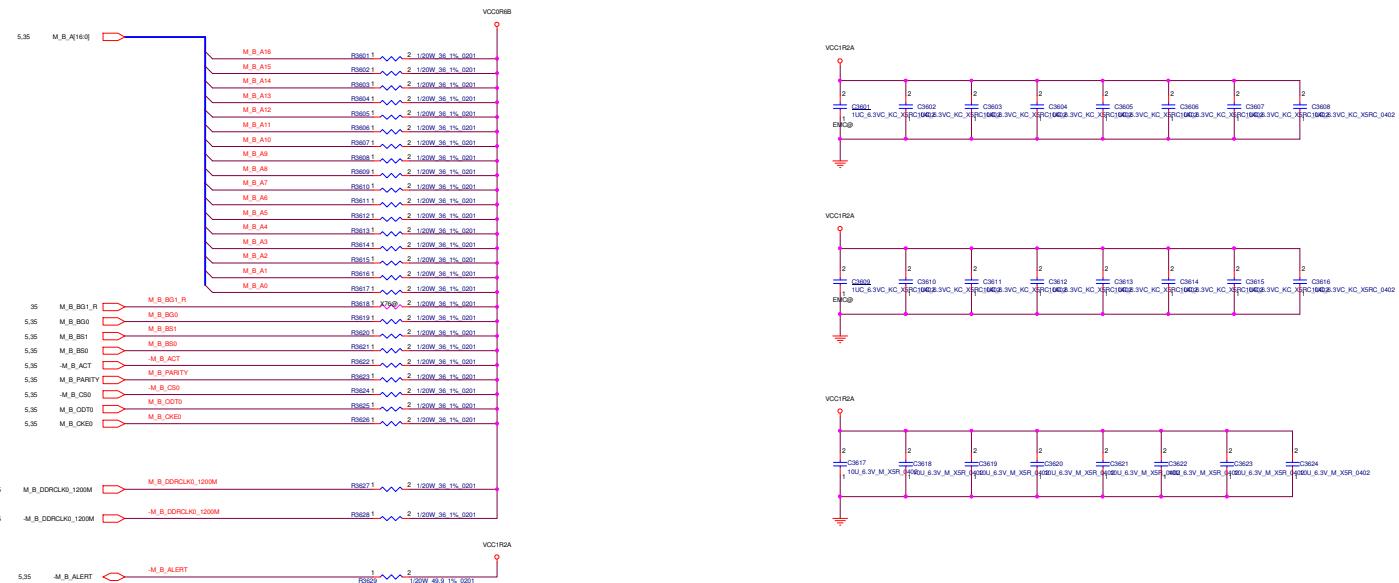
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R3504	ASM	NA
R3507	ASM	NA
R3510	ASM	NA
R3513	NA	ASM
R3618	NA	ASM
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R3506	0..5%	243..1%
R3509	0..5%	243..1%
R3512	0..5%	243..1%

DRAM Configuration: X7

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	16Gbit	MT40A1G16KNR-075:E	SA00009M000
Samsung	8Gbit	K4A6G165WC-BCTD	SA00008PE10
	16Gbit	K4AA1G165WB-MCTD	SA00008WC10
SK hynix	8Gbit	H5N8W6NCJR-VKC	SA00009T00
	16Gbit	TBD	

Supplier	Capacity	Supplier's P/N	Package Size	Die	Configuration	VSS_E9	BG1 / VSS	Single Ch	Dual Ch
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	16Gb	MT40A1G16KNR-075-E	8.0 x 14.0 mm	DDP	16Gb (1Gx16)	1 Rank x (1Gx16)	243_1%	BG1	8GB
Samsung	8Gb	K4A6G16SW-BCTD	7.5 x 13.3 mm	SDP	8Gb (512Mx16)	1 Rank x (512Mx16)	0_5%	VSS	4GB
	16Gb	K4AAG16SW-BCTD	7.5 x 13.3 mm	DDP	16Gb (1Gx16)	1 Rank x (1Gx16)	243_1%	BG1	8GB
SK hynix	8Gb	H5AN8G06NCJR-VRKC	7.5 x 13.0 mm	SDP	8Gb (512Mx16)	1 Rank x (512Mx16)	0_5%	VSS	4GB
	16Gb	TBD		DDP					

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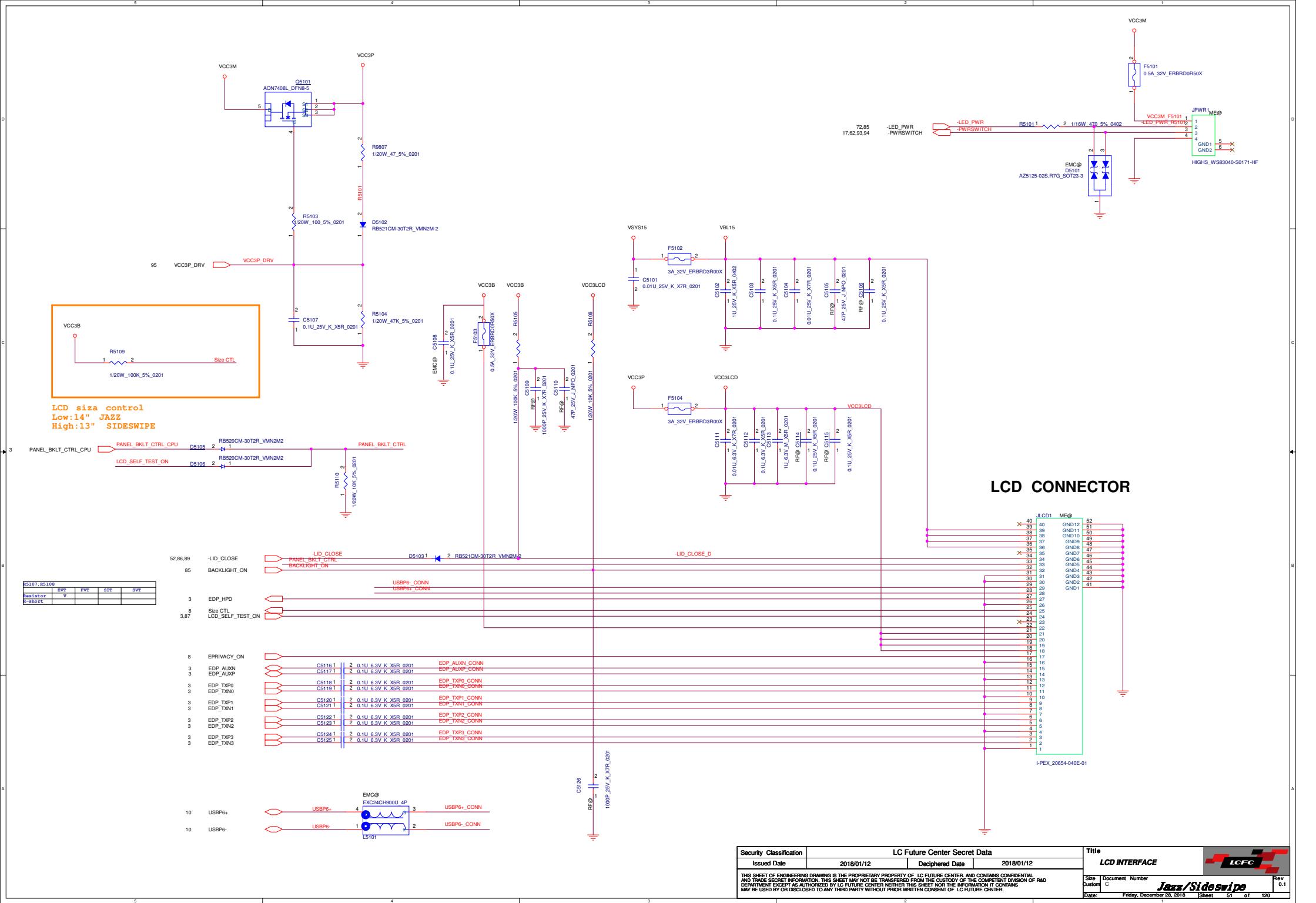
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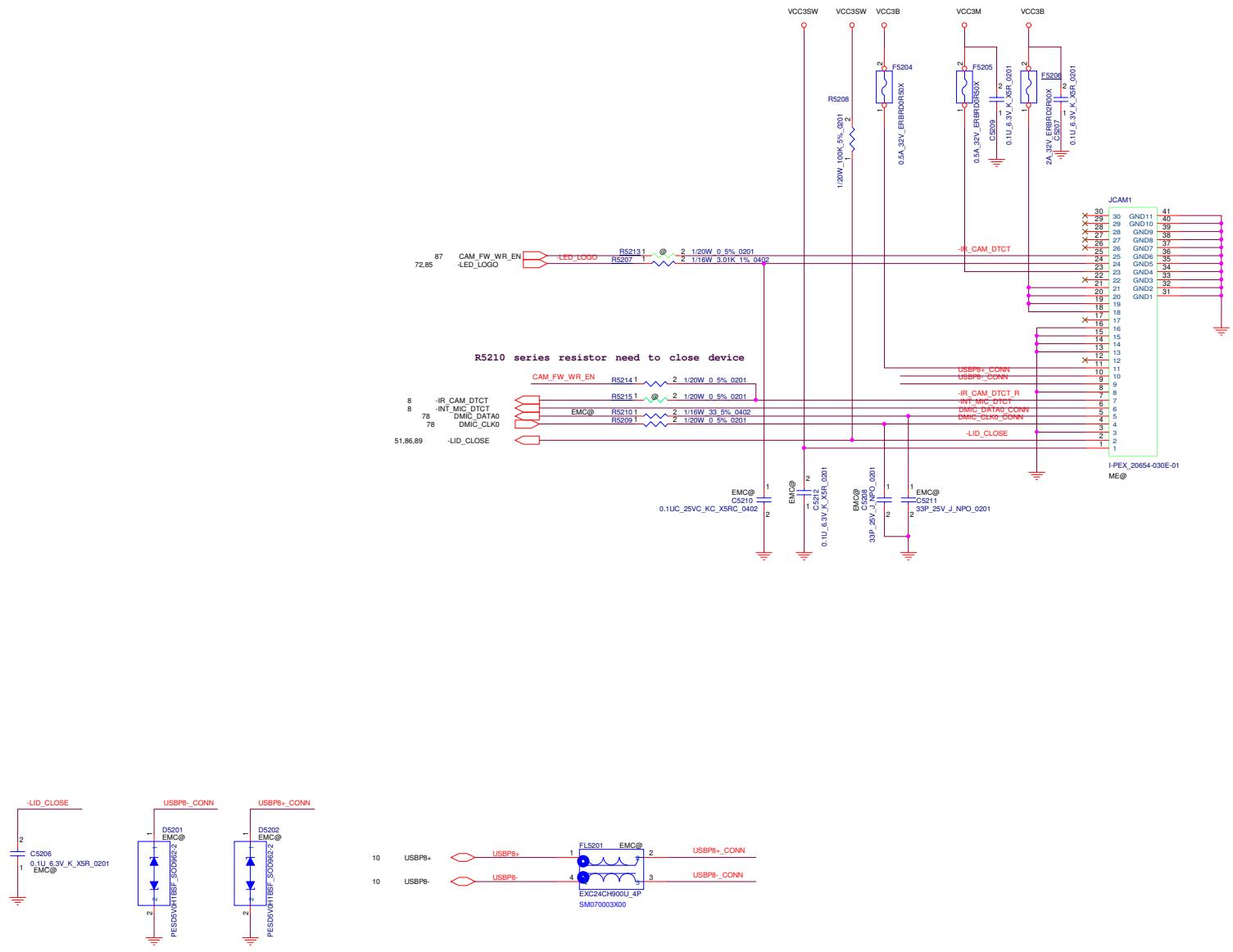
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LCD CONNECTOR

Pin	Name	Function
40	JLCD1 ME@	
39	GND12	
38	GND11	
37	GND10	
36	GND9	
35	GND8	
34	GND7	
33	GND6	
32	GND5	
31	GND4	
30	GND3	
29	GND2	
28	GND1	
27		
26		
25		
24		
23		
22		
21		
20		
19		
18		
17		
16		
15		
14		
13		
12		
11		
10		
9		
8		
7		
6		
5		
4		
3		
2		
1		

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Customer	C	0.1	LCFC
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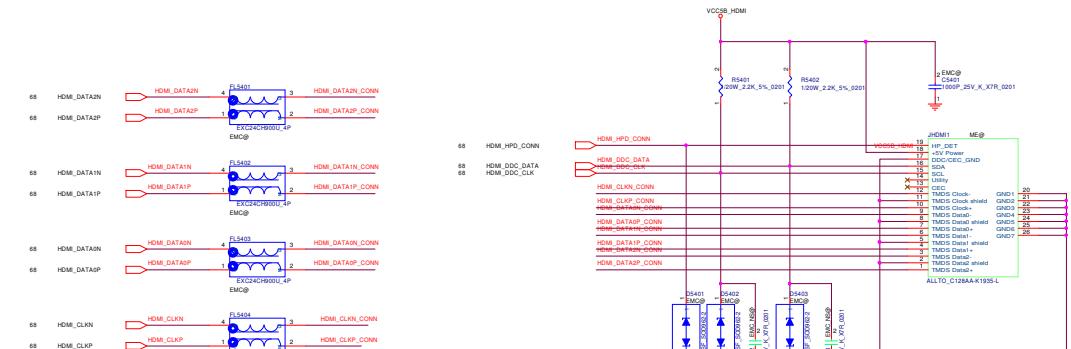


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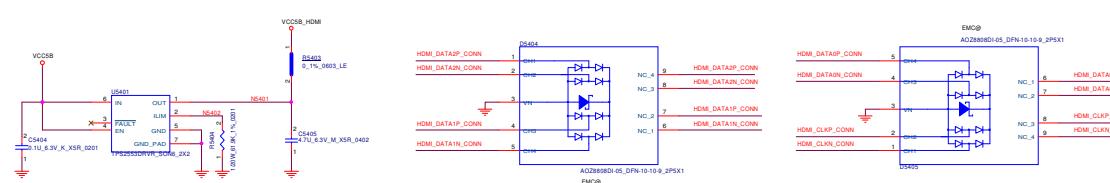
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Custom	C				Date:	Friday, December 28, 2018
					Sheet	53 of 125

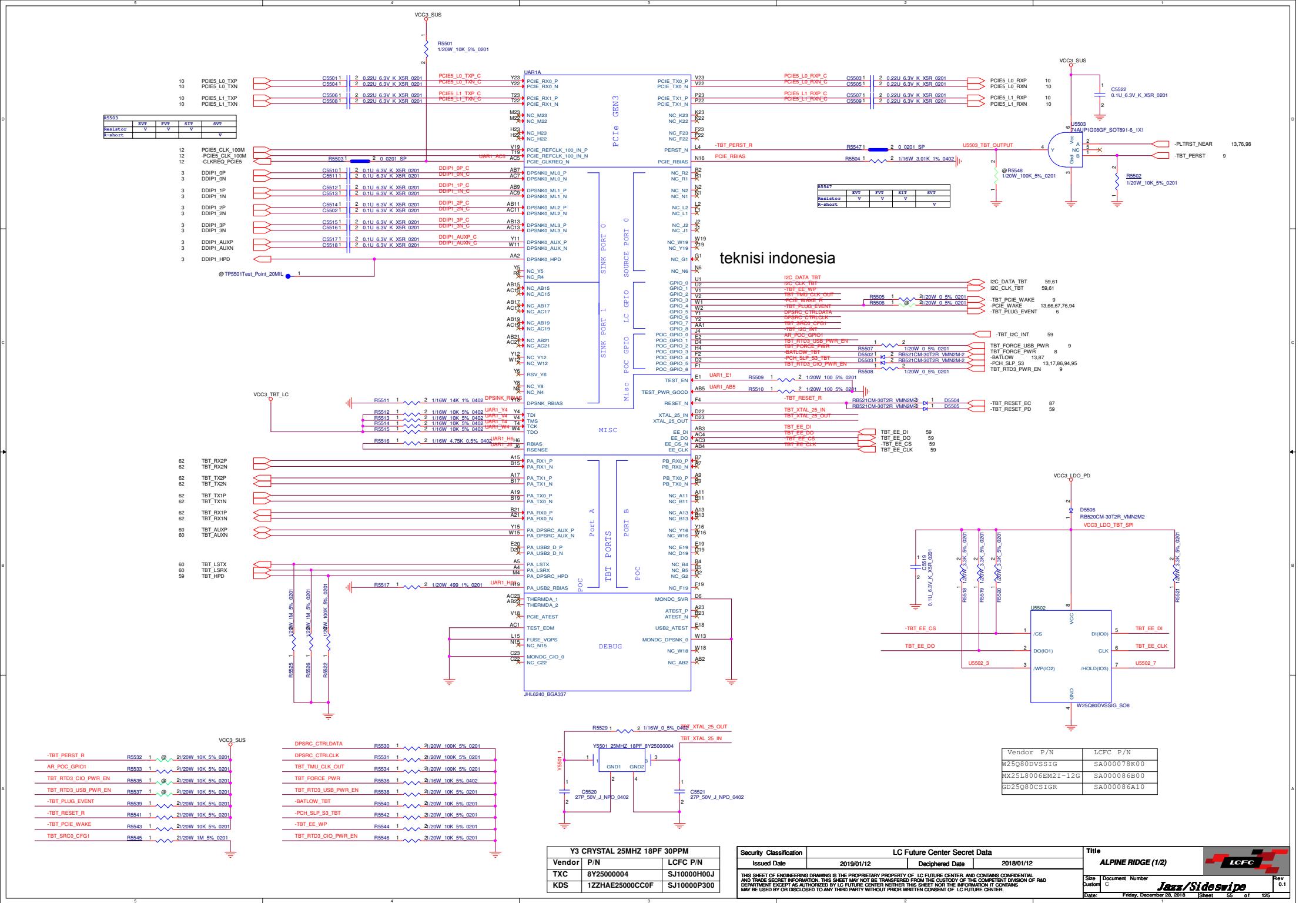


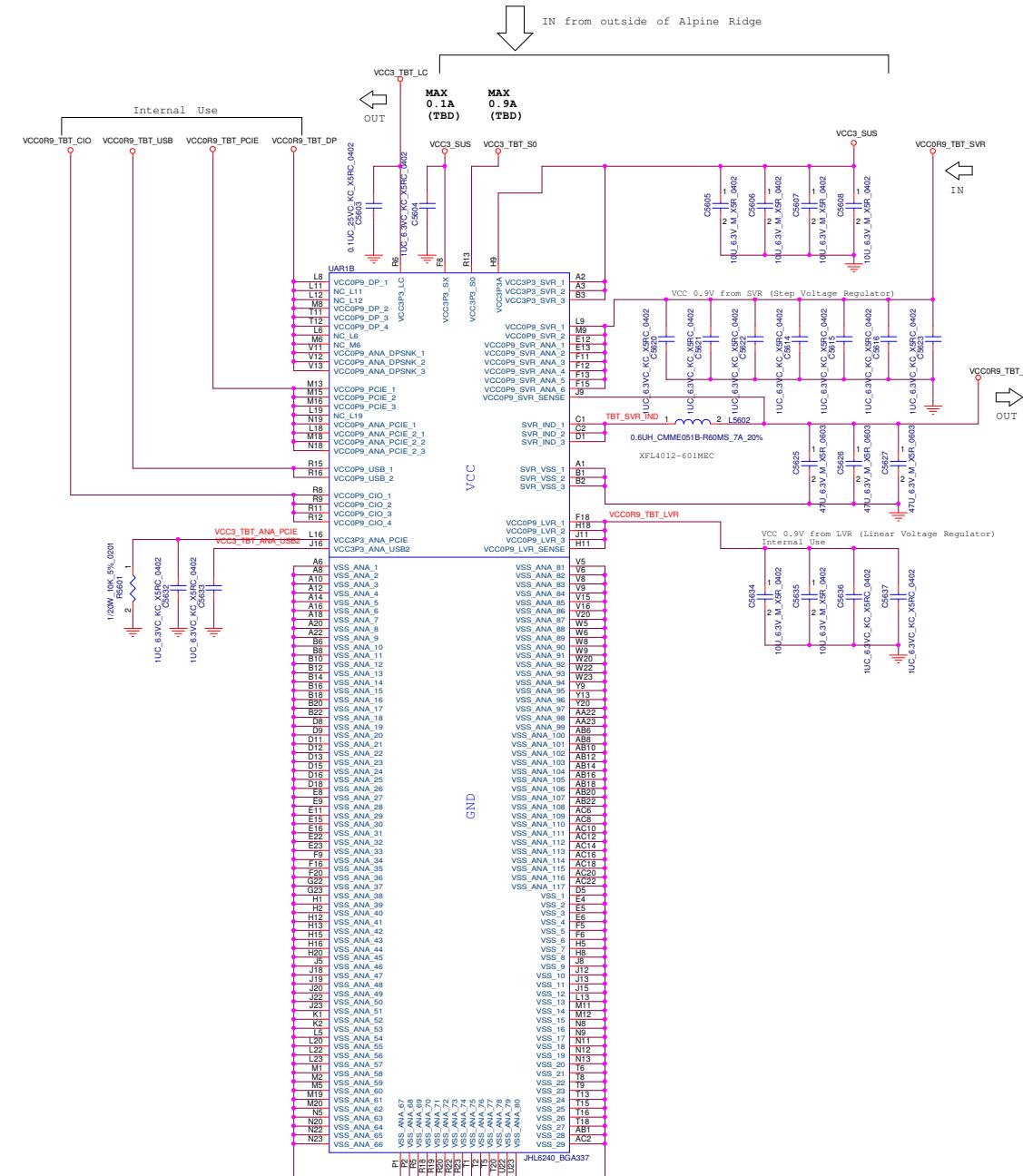
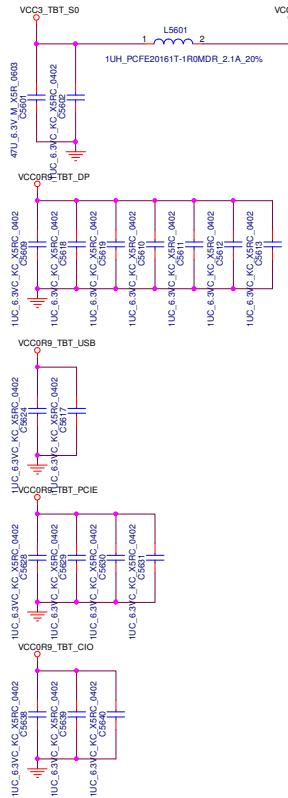
NEAR HDMI CONN



Pin No.	Pin Name	Pin Name	Pin Name	Pin Name
1				
2				
3				

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2018/01/12				
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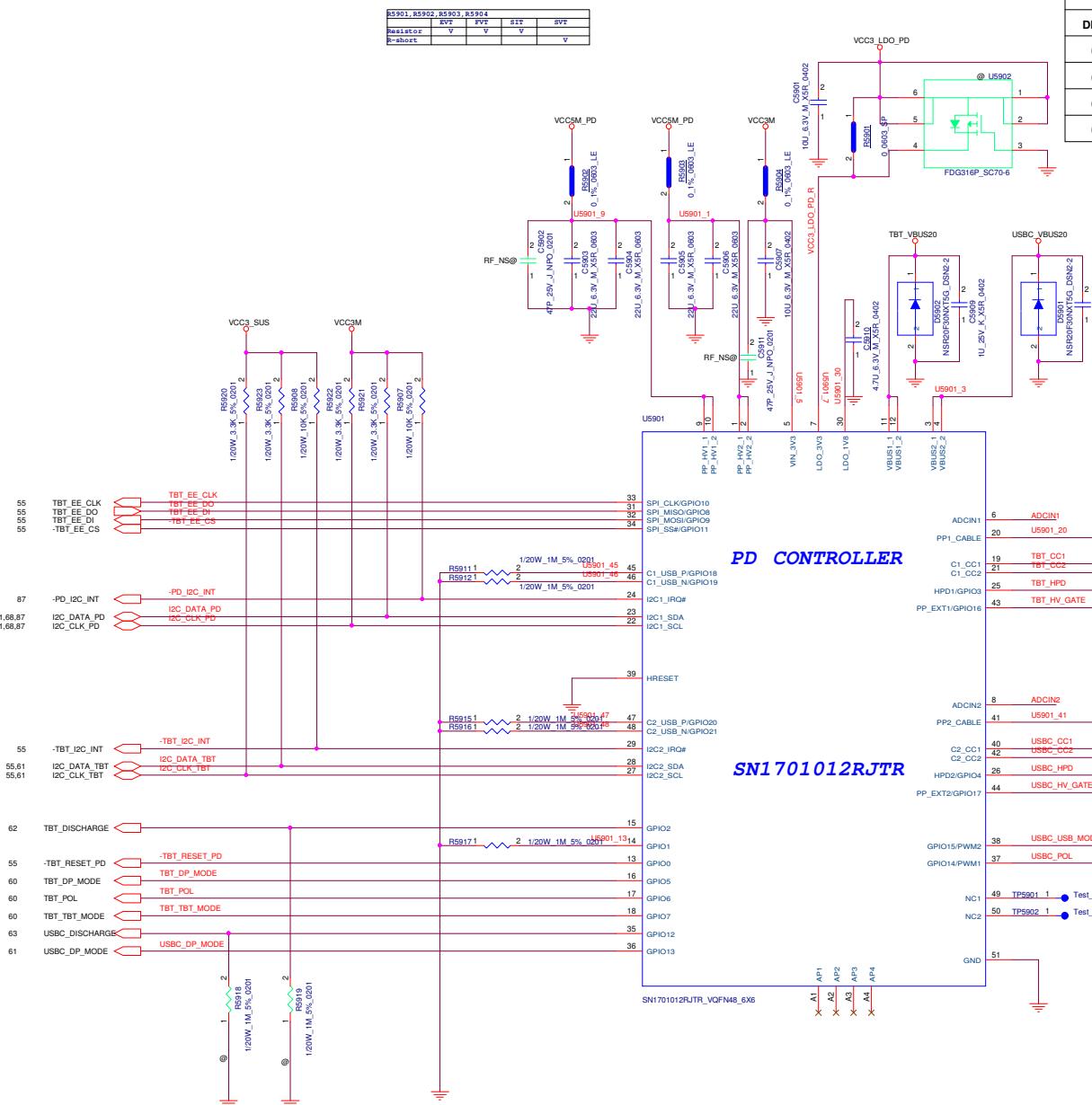


TABLE BUSPOWER Configuration - ADCIN1

DIV = R2/ (R1+R2)		Configuration
DIV MIN	DIV MAX	
0.00	0.18	BP_NoResponses
0.20	0.38	BP_WaitFor3V3_Internal
0.40	0.58	BP_WaitFor3V3_External
0.60	1.00	BP_NoWait

TABLE BUSPOWER Configuration - ADCIN2

DIV = R2/ (R1+R2)		I ₂ C Unique Address [3:1]	
DIV MIN	DIV MAX	I ₂ C_ADDR_DECODE_C1	I ₂ C_ADDR_DECODE_C2
0.00	0.18	000b	100b
0.20	0.38	001b	101b
0.40	0.58	010b	110b
0.60	1.00	011b	111

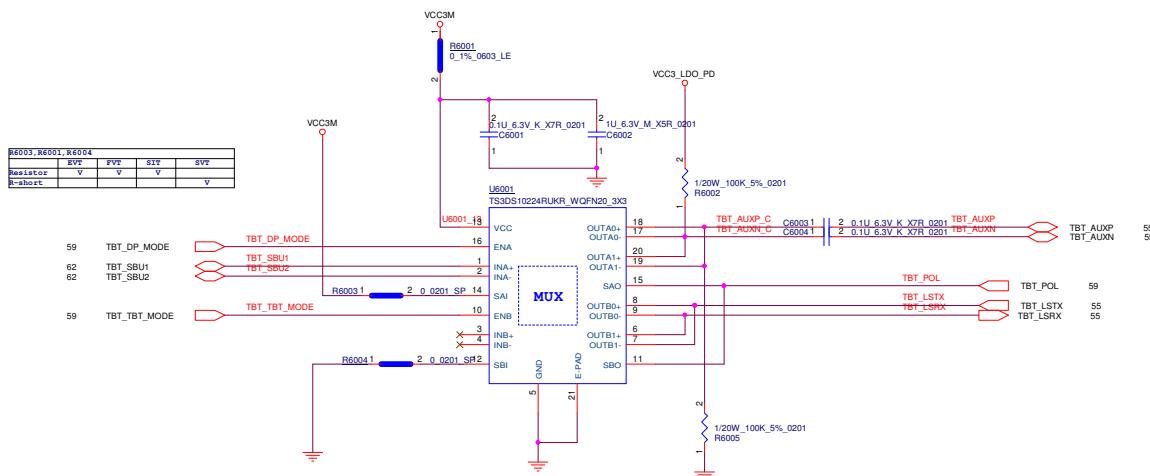
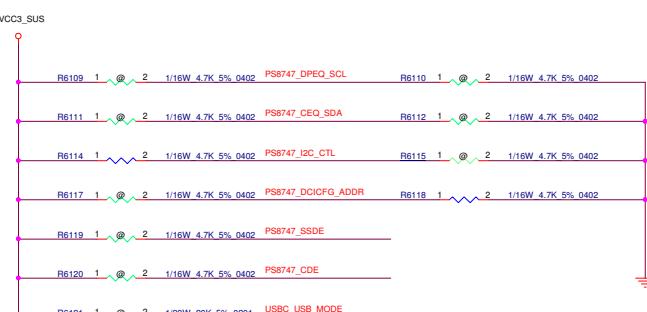
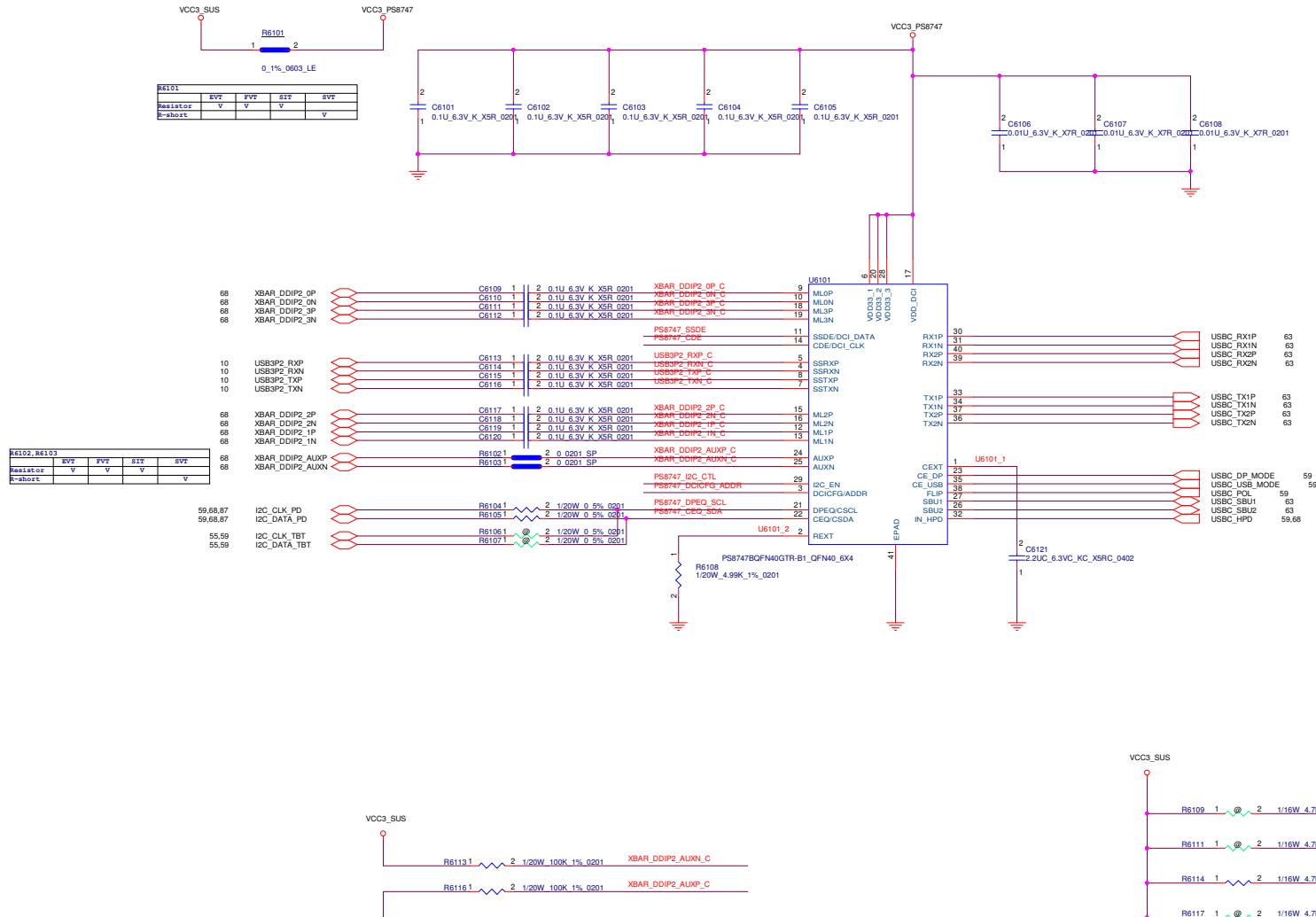


TABLE of U6001		
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TI	TS3DS10224RUKR	SA00008AS00
DIODES	PI3DBS3224ZNAEX	SA00008CC00

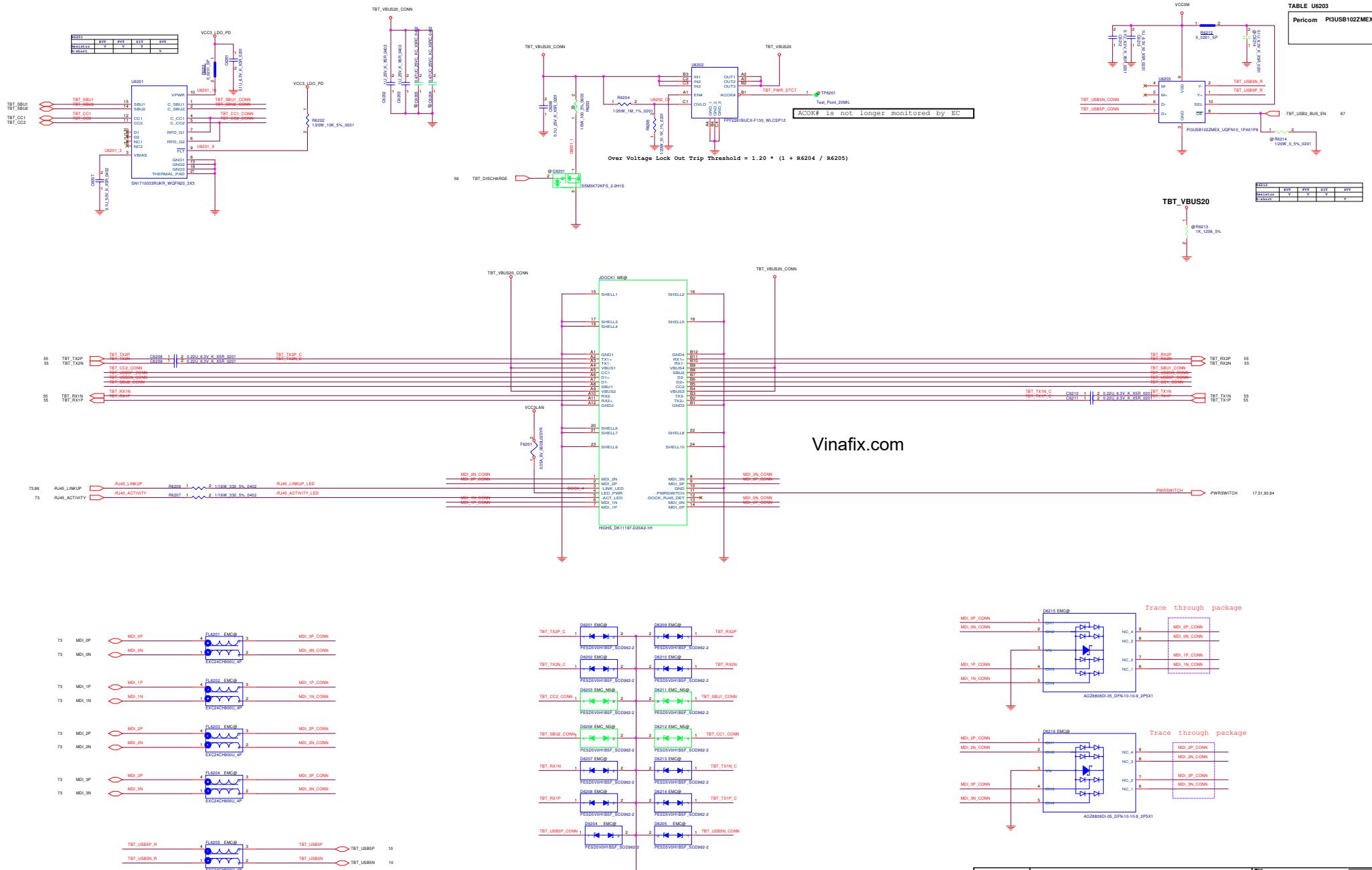


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Size	Document Number	Jazz/Sideswipe	
Customer	Rev 0.1		Date: Friday, December 28, 2018



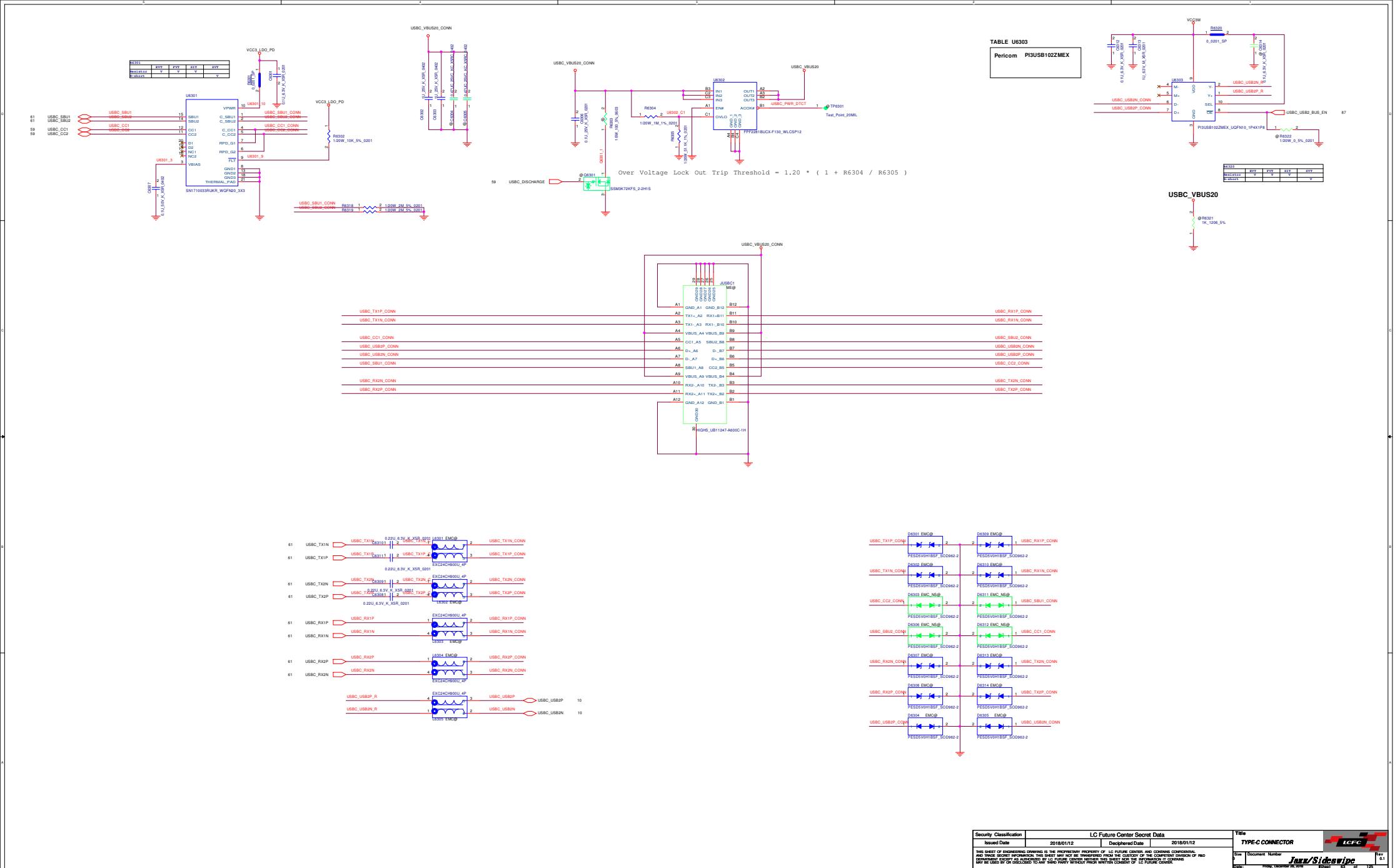
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TABLE U6203
Pericom PI3USB1022MEX



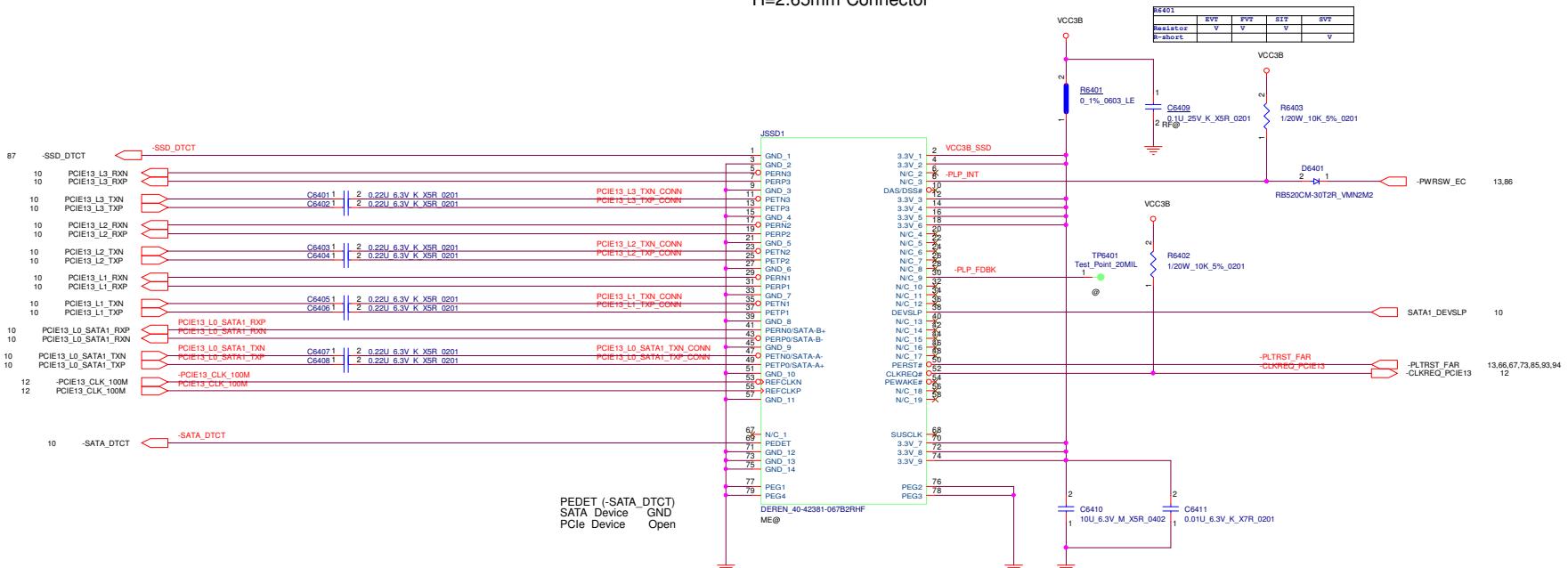
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M.2 Socket 3 (Key-M) for 2280 S3 SSD

H=2.65mm Connector



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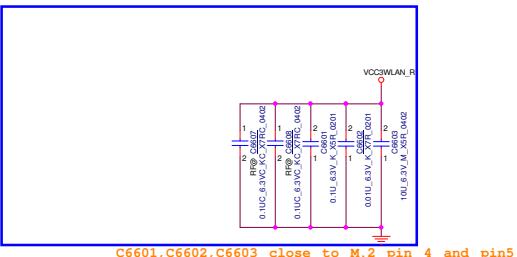
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TABLE

Companion RF (CRF)	CNVio	REFCLK	CLKREQ
Jefferson Peak (JPF)	Gen1	Supported	Supported
Harrison Peak (HP)	Gen2	Not Supported	Not Supported

TABLE

Platform	CNVio	PCH IP	REFCLK
Whiskey Lake	Gen1	Pulsar	38.4MHz Clock from JfP Module
Ice Lake	Gen2	Quasar	Generated inside SoC



C6604, C6605, C6606 close to M.2 pin72 and pin73

M.2 Type 1216 Module for WLAN / Bluetooth

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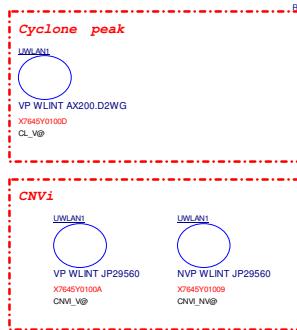
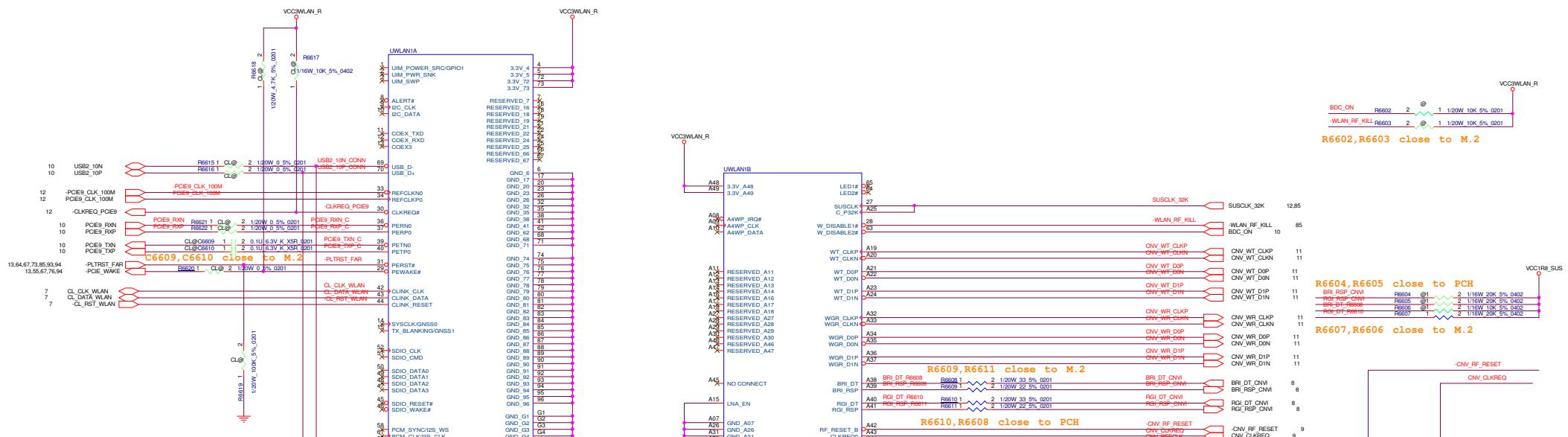


TABLE of CNVI (UWB1A & UWB1B)

Vendor	Model	LCFC P/N
Intel	Jefferson Peak 2 9560 2*2ac+BT5.0 vPro M.2 1216 LGA	PK295001400
Intel	Jefferson Peak 2 9560 2*2ac+BT5.0 non-vPro M.2 1216 LGA	PK295001500

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M.2 Socket 2 (Key-B) for 3042 S3 WWAN

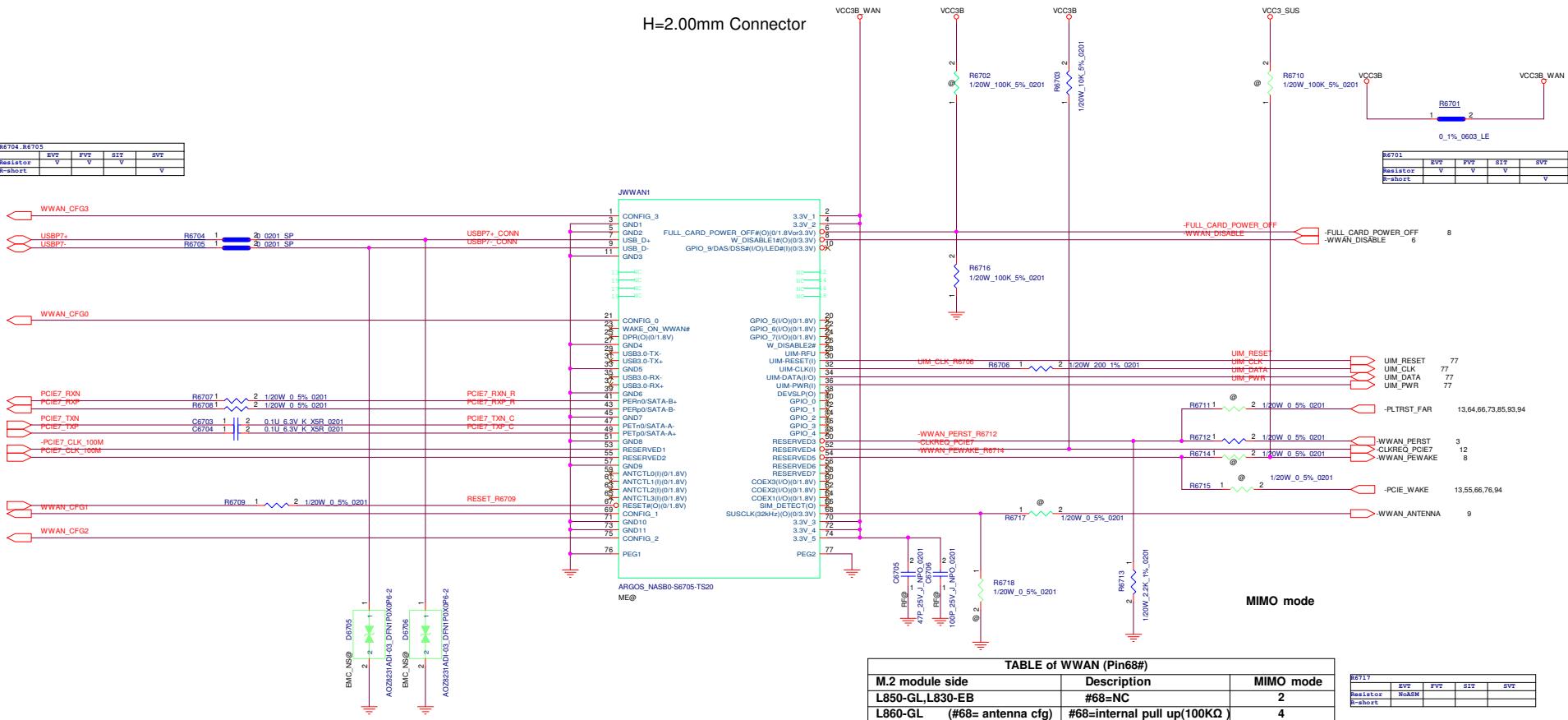
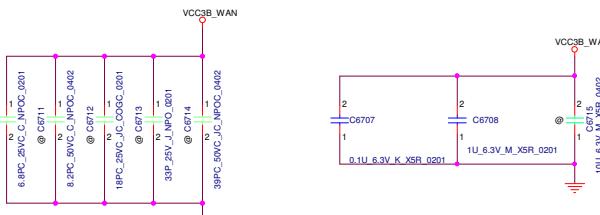


TABLE I

State #	Module Configuration Decodes			Module Type and Main Host Interface	Port Configuration	Module	
	CONFIG_0 (Pin 21)	CONFIG_3 (Pin 1)	CONFIG_2 (Pin 75)				
0	GND	GND	GND	GND	SSD - SATA	N/A	
1	GND	GND	GND	NC	SSD - PCIe	N/A	
2	GND	GND	NC	GND	WWAN - PCIe	0	
3	GND	GND	NC	NC	WWAN - PCIe	1	
4	GND	NC	GND	GND	WWAN - PCIe, USB 3.1 Gen1	0	WWAN L850
5	GND	NC	GND	NC	WWAN - PCIe, USB 3.1 Gen1	1	
6	GND	NC	NC	GND	WWAN - PCIe, USB 3.1 Gen1	2	
7	GND	NC	NC	NC	WWAN - PCIe, USB 3.1 Gen1	3	
8	NC	GND	GND	GND	WWAN - SSIC	0	WWAN L830
9	NC	GND	GND	NC	WWAN - SSIC	1	
10	NC	GND	NC	GND	WWAN - SSIC	2	
11	NC	GND	NC	NC	WWAN - SSIC	3	
12	NC	NC	GND	GND	WWAN - PCIe	2	WWAN L860
13	NC	NC	GND	NC	WWAN - PCIe	3	
14	NC	NC	NC	GND	WWAN - PCIe, USB 3.1 Gen1	Vendor Defined	
15	NC	NC	NC	NC	No Module Present	N/A	

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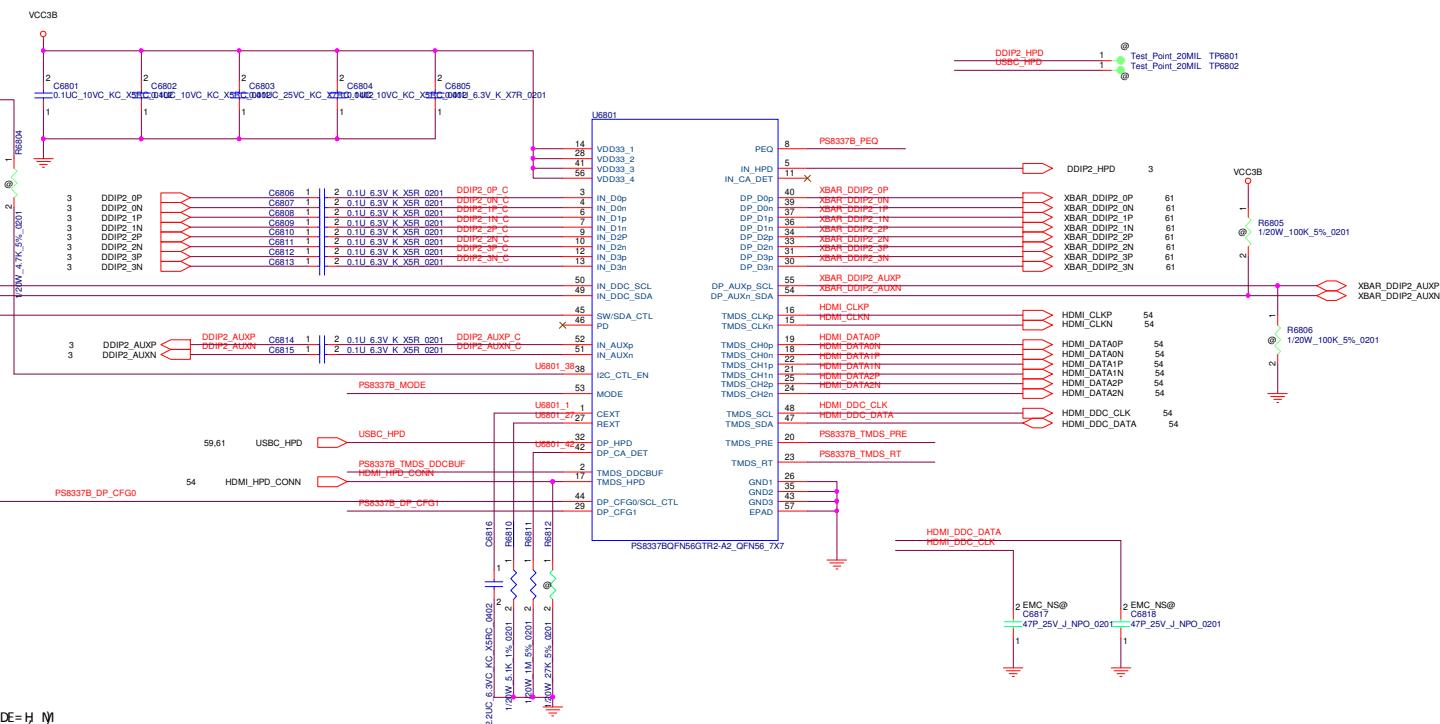
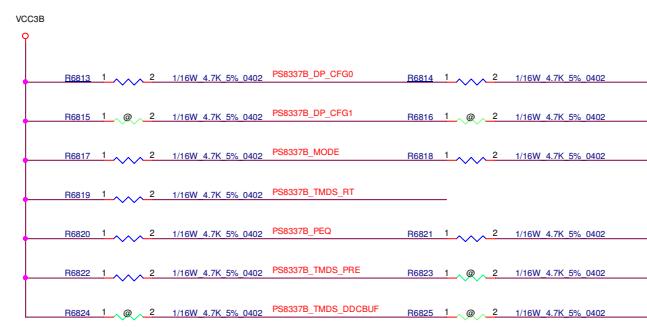


TABLE: Automatic Switching Mode (MODE=H/M)

SW(DDI_PRIORITY1)	
L DP Port has higher priority when both ports are plugged	DEFAULT
H TMDS Port has higher priority when both ports are pulgged	

MODE =	
H : Automatic Switching mode,HDMI ID Disabled	
M : Automatic Switching mode,HDMI ID Enabled	
L : Control Switching mode,HDMI ID Disabled	DEFAULT



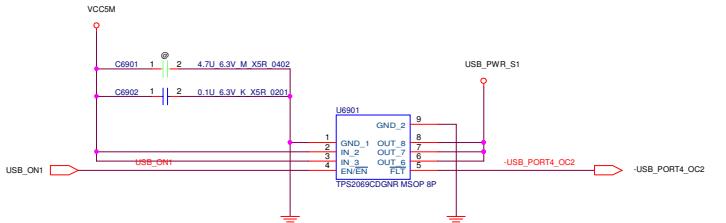
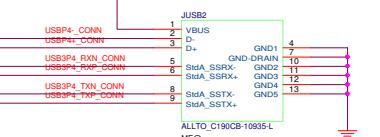
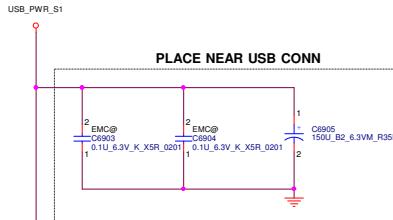
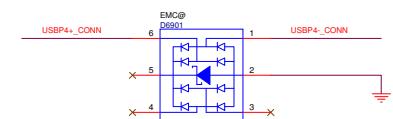
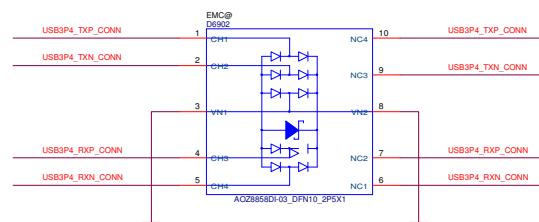
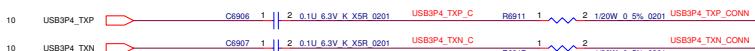


TABLE of USB3.0 Single (U6901)		
Vendor	P/N	LCFC P/N
TI	TPS2069CDGNR	SA00005TE00
Rohm	BD82032FVJ-GE2	SA000084S00



B6911, B6917, B6918, B6922, B6923, B6924			
EVT	FVT	SIZ	SVZ
2967/2920	V		
2944/2926			

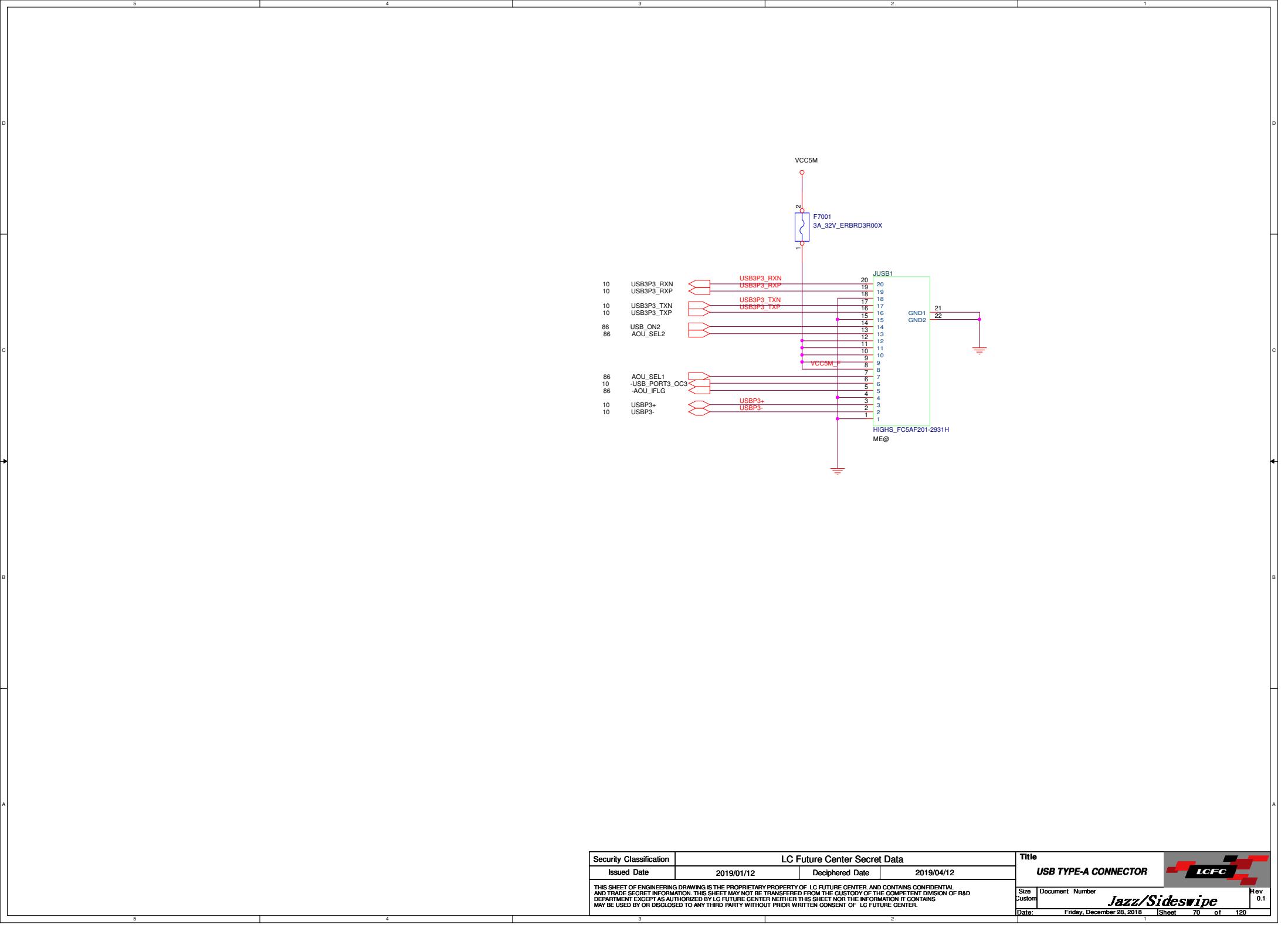


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Security Classification

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Deciphered Date

2019/04/12

Title

USB TYPE-A CONNECTOR



Size

Custom

Document Number

Rev 0.1

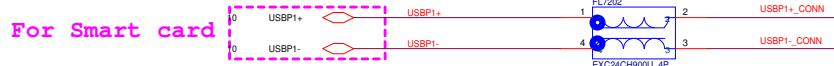
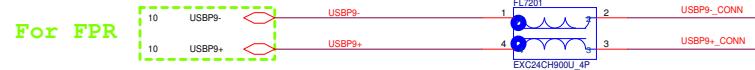
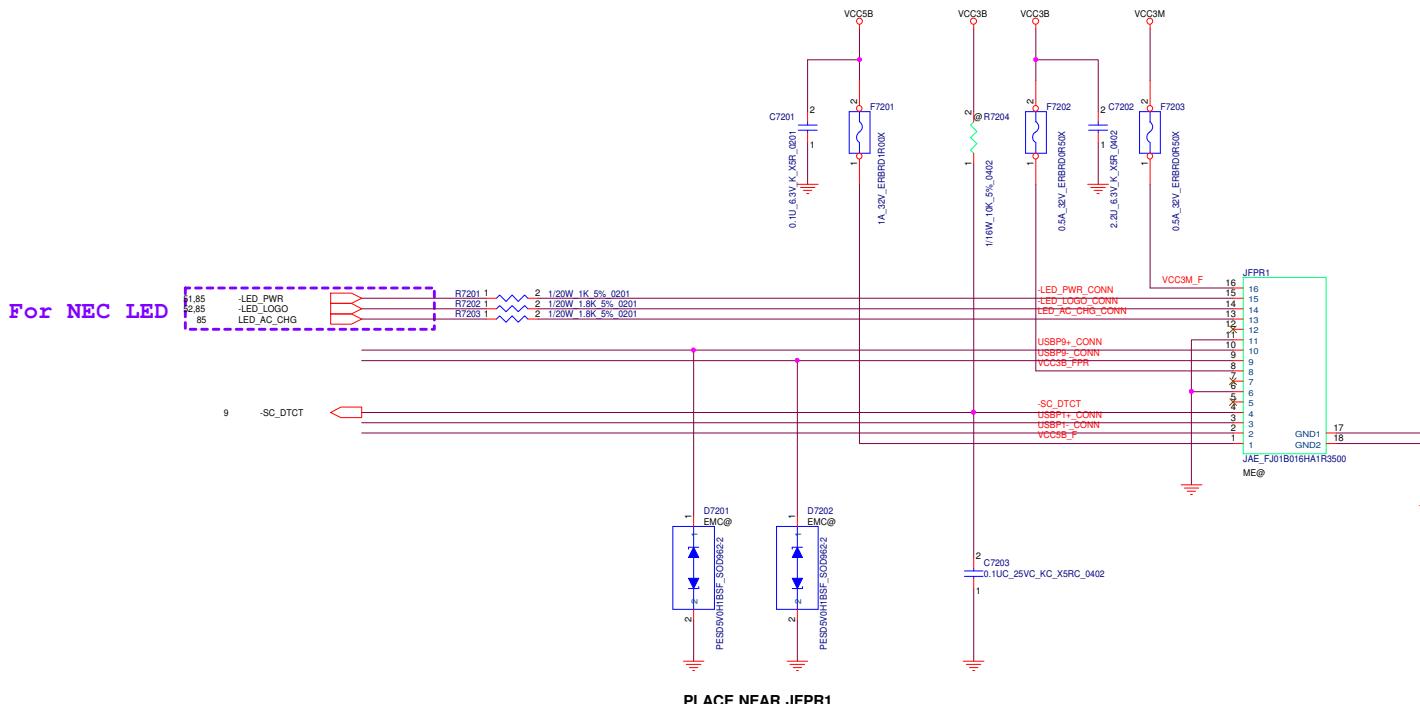
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Date

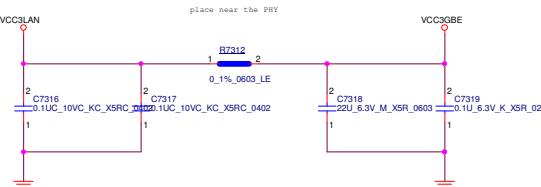
Friday, December 28, 2018 Sheet 70 of 120

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				Date: Friday, December 28, 2018	Sheet 71 of 125



R7205, R7206, R7207, R7208				
Resistor	V	V	SIT	SIT
R-short	V	V	V	V



R7312	EVT	FVT	SIT	SVT
Resistor	V	V	V	V
R7300T				V

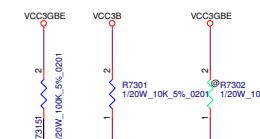
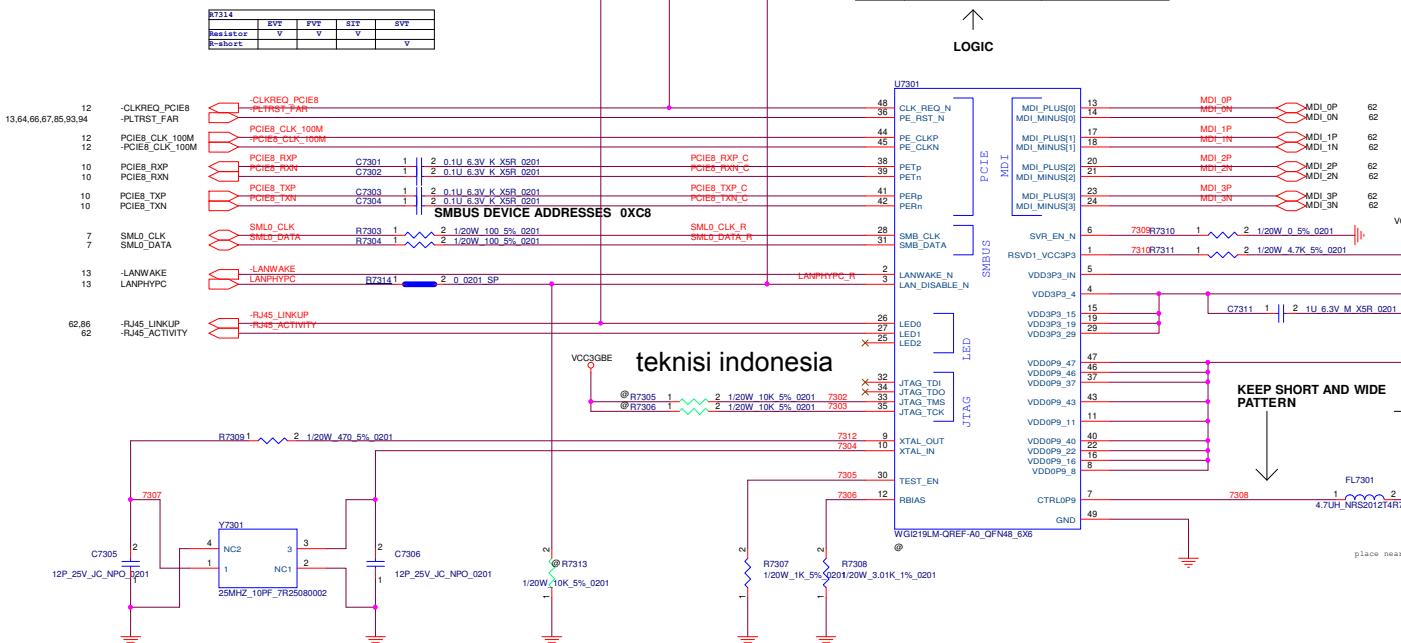


TABLE vPro Capability		
GbE PHY	Yes	No
U7301 Jacksonville-LM	Jacksonville-LM	Jacksonville-V

LOGIC



teknisi indonesia

Y7301 CRYSTAL - 25MHz 10pF 30ppm 2016		
Vendor	P/N	LCFC P/N
TXC	7R25080002	SJ10000PP00
KDS	1ZZHAE25000CC0B	SJ10000MN00
Epson	Q22FA1280055900	SJ10000PU00

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Issued Date	Deciphered Date	2018/01/12
		2018/01/12

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 LCFC
 Size: Document Number: Rev. 0.1
 Custom: C
 Date: Friday, December 28, 2018 Sheet: 73 of 120
T4908T500

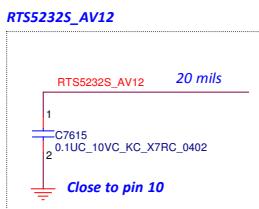
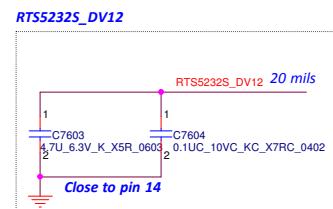
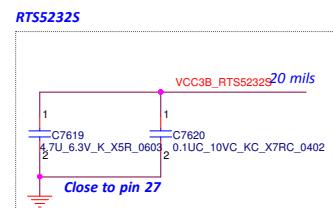
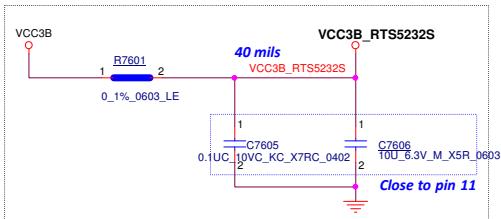
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Custom	Rev. 0.1	Date: Friday, December 28, 2018	Sheet 74 of 125

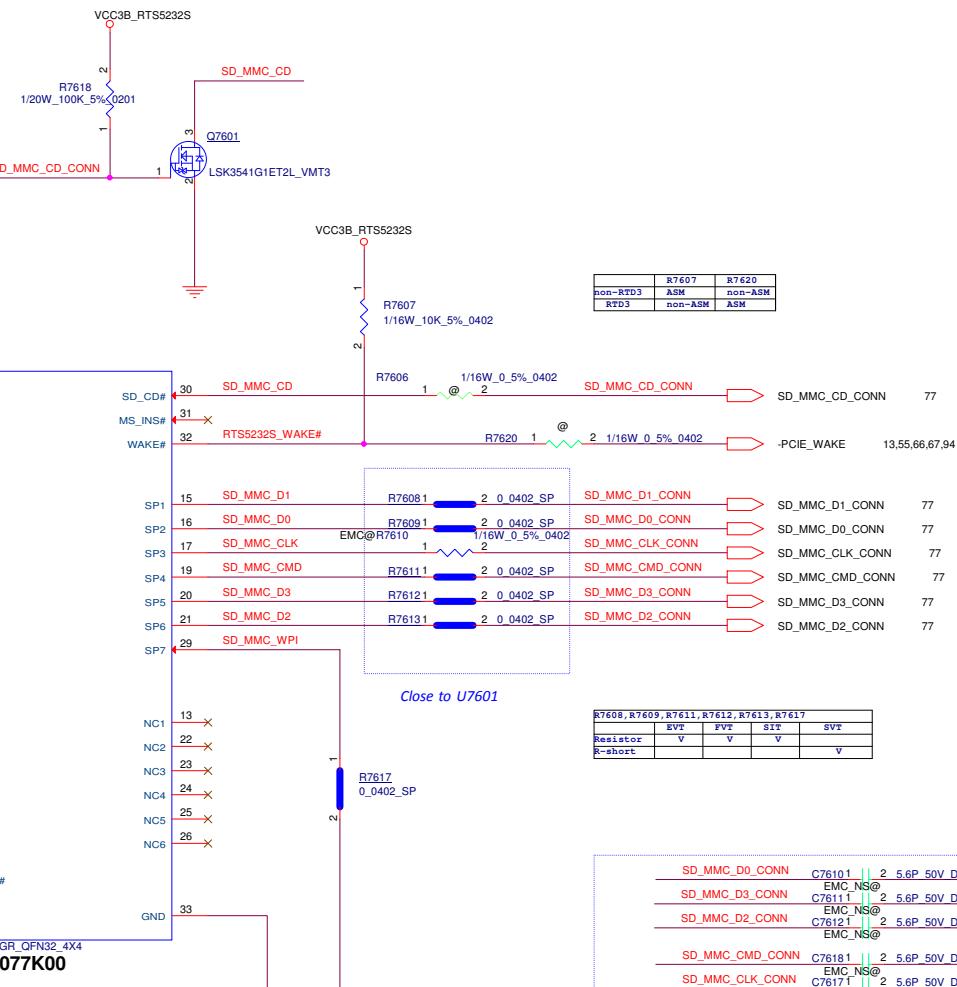
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R7601, R7603				
	EVT	FVT	SIT	SVT
Resistor	V	V	V	
R-short				V



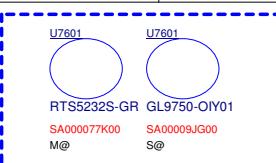
	R7607	R7620
D3	ASM	non-ASM
	non-ASM	ASM

	EVT	FVT	SIT	SVT
or	V	V	V	
t				V

<u>SD_MMC_D0_CONN</u>	C76101	2	5.6P 50V D NPO	0402
<u>SD_MMC_D3_CONN</u>	C76111	2	5.6P 50V D NPO	0402
<u>SD_MMC_D2_CONN</u>	C76121	2	5.6P 50V D NPO	0402
		EMC NS@		
<u>SD_MMC_CMD_CONN</u>	C76101	2	5.6P 50V D NPO	0402
<u>SD_MMC_CLK_CONN</u>	C76171	2	5.6P 50V D NPO	0402
<u>SD_MMC_D1_CONN</u>	C76161	2	5.6P 50V D NPO	0402
		EMC NS@		

EMC close to U7601

Part Number	Vendor
SA000077K00	RTS5232S-GR REALTEK
SA00009JG00	GL9750-OIY02 GENESYS

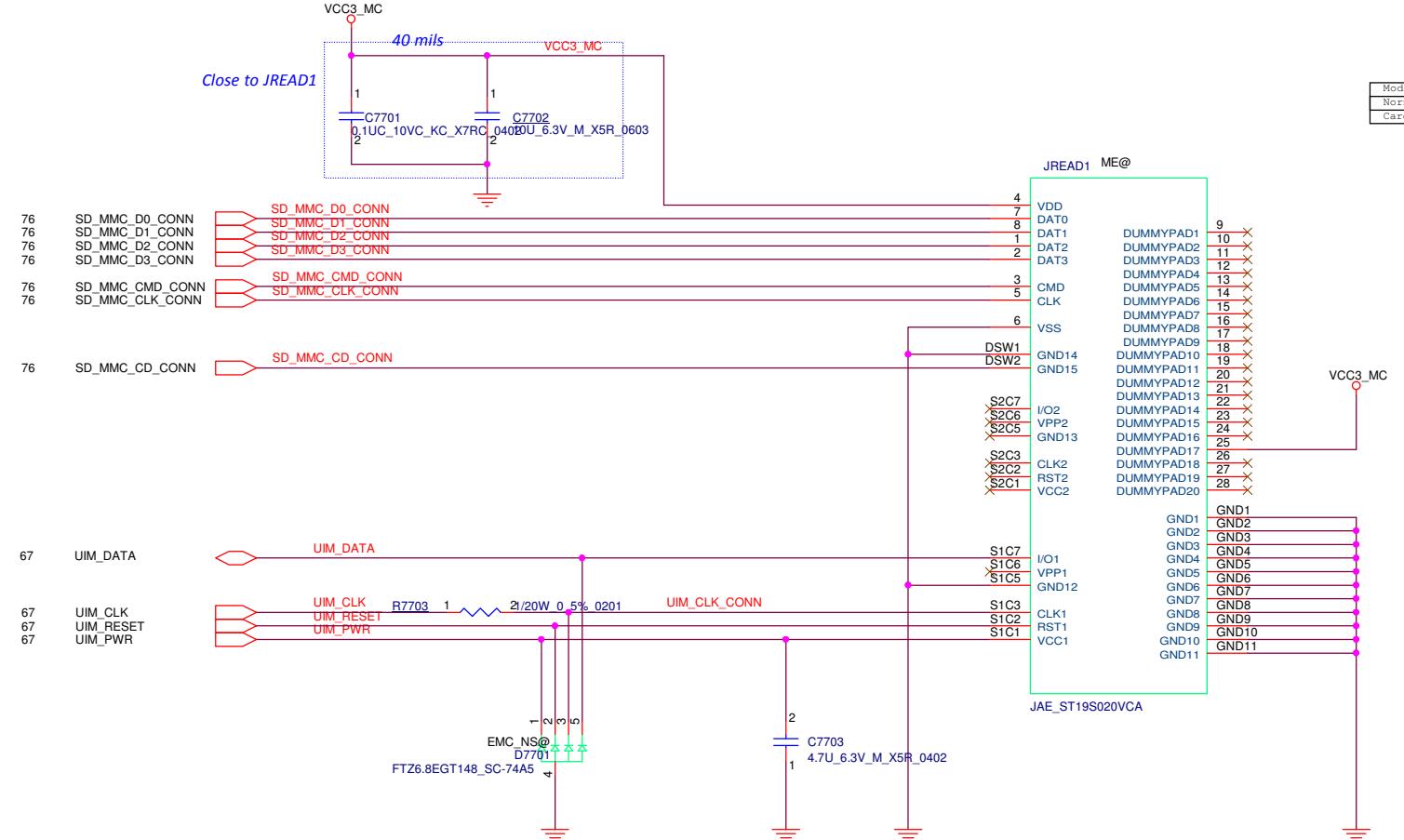


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MEDIA CARD CONTROLLER

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Title

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Size

Document Number

T490&T590

Rev

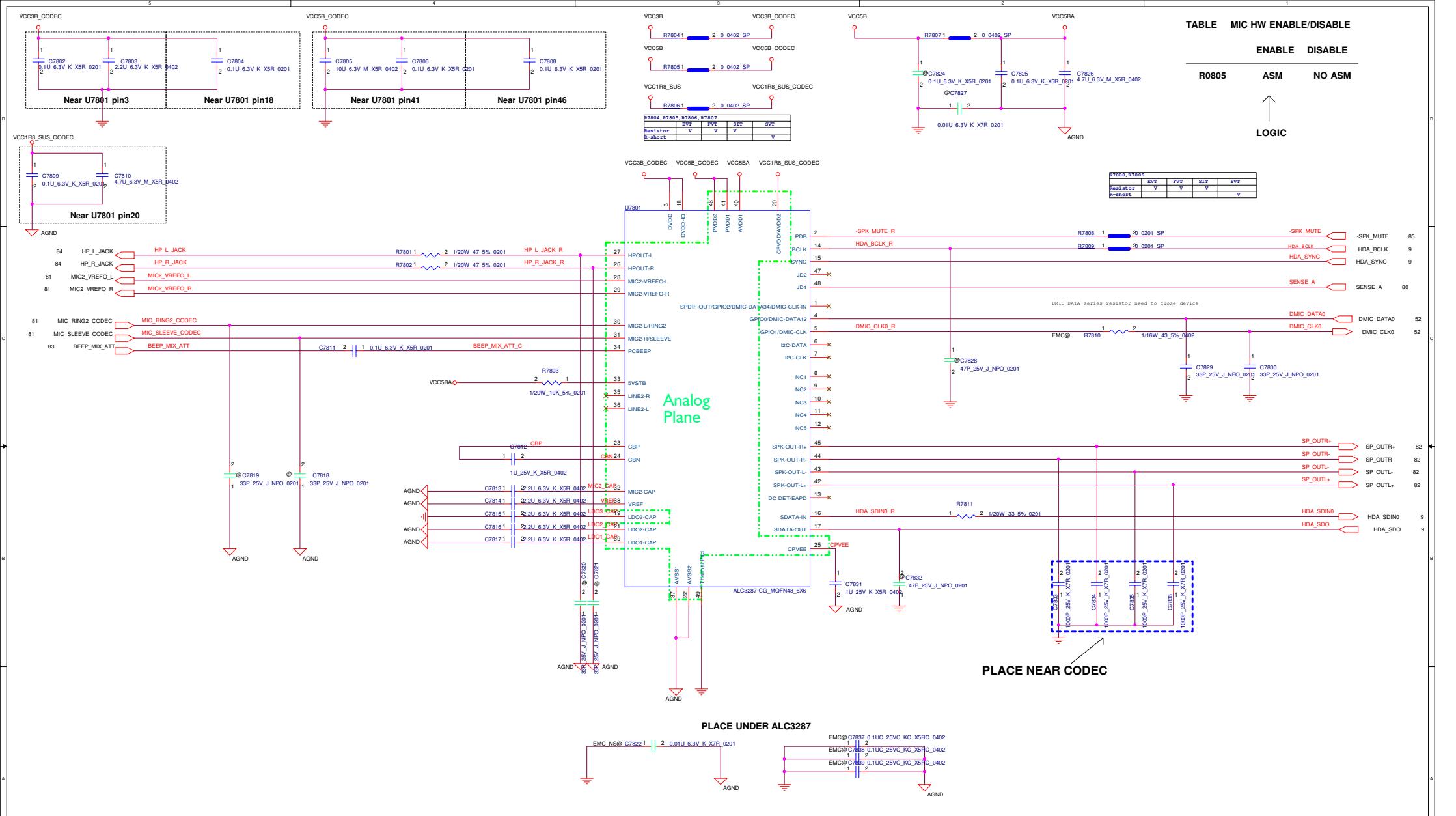
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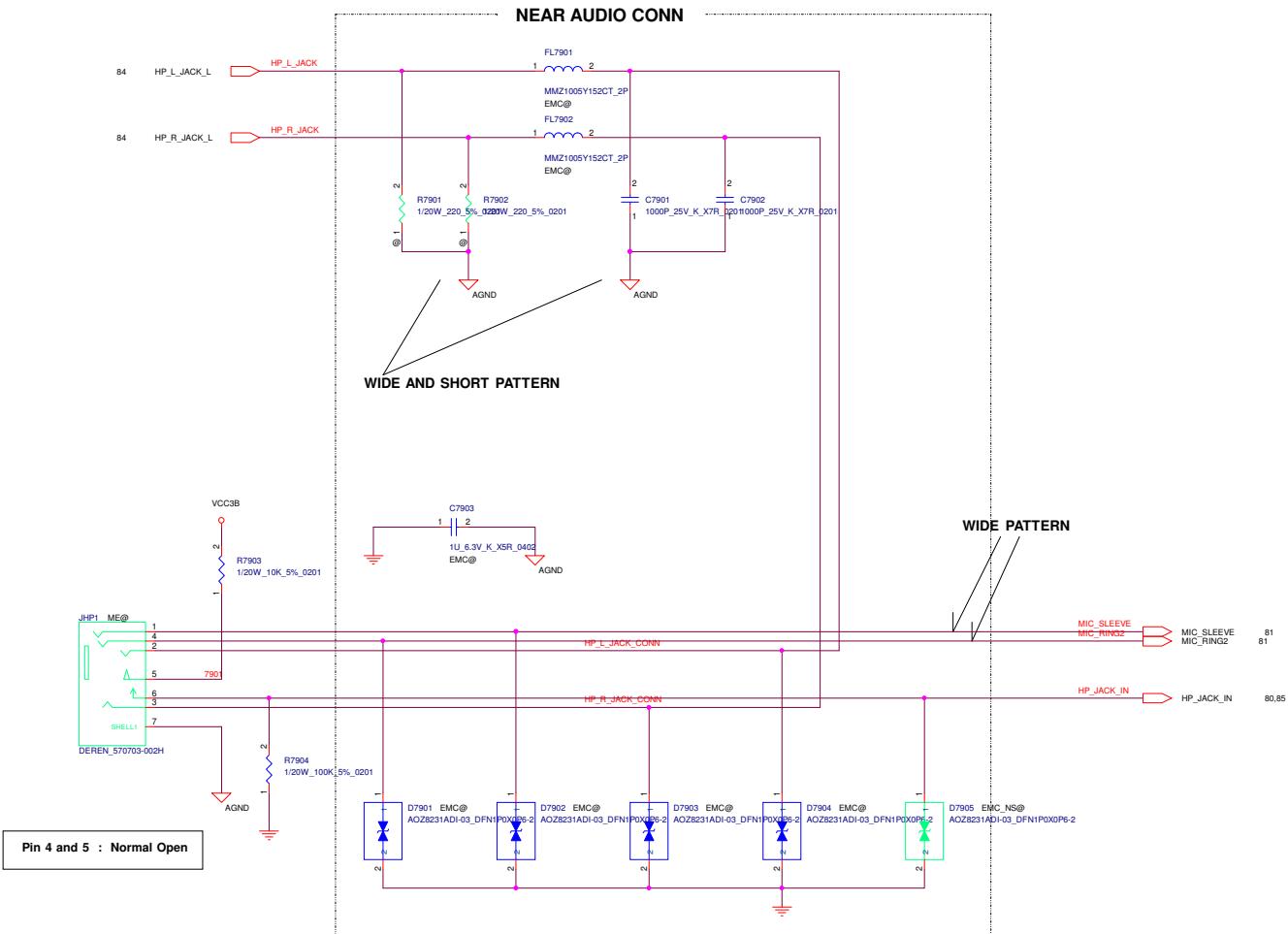
TABLE MIC HW ENABLE/DISABLE

	ENABLE	DISABLE
R0805	ASM	NO ASM

100

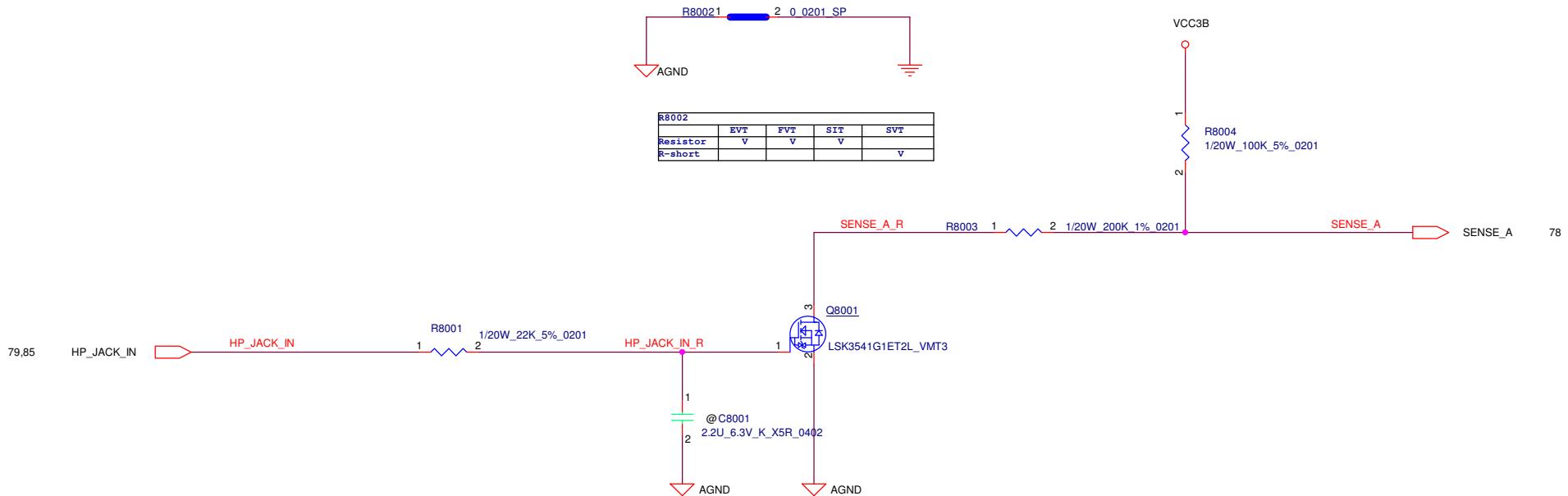


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Document Number	2019/04/12			Size	Document Number	
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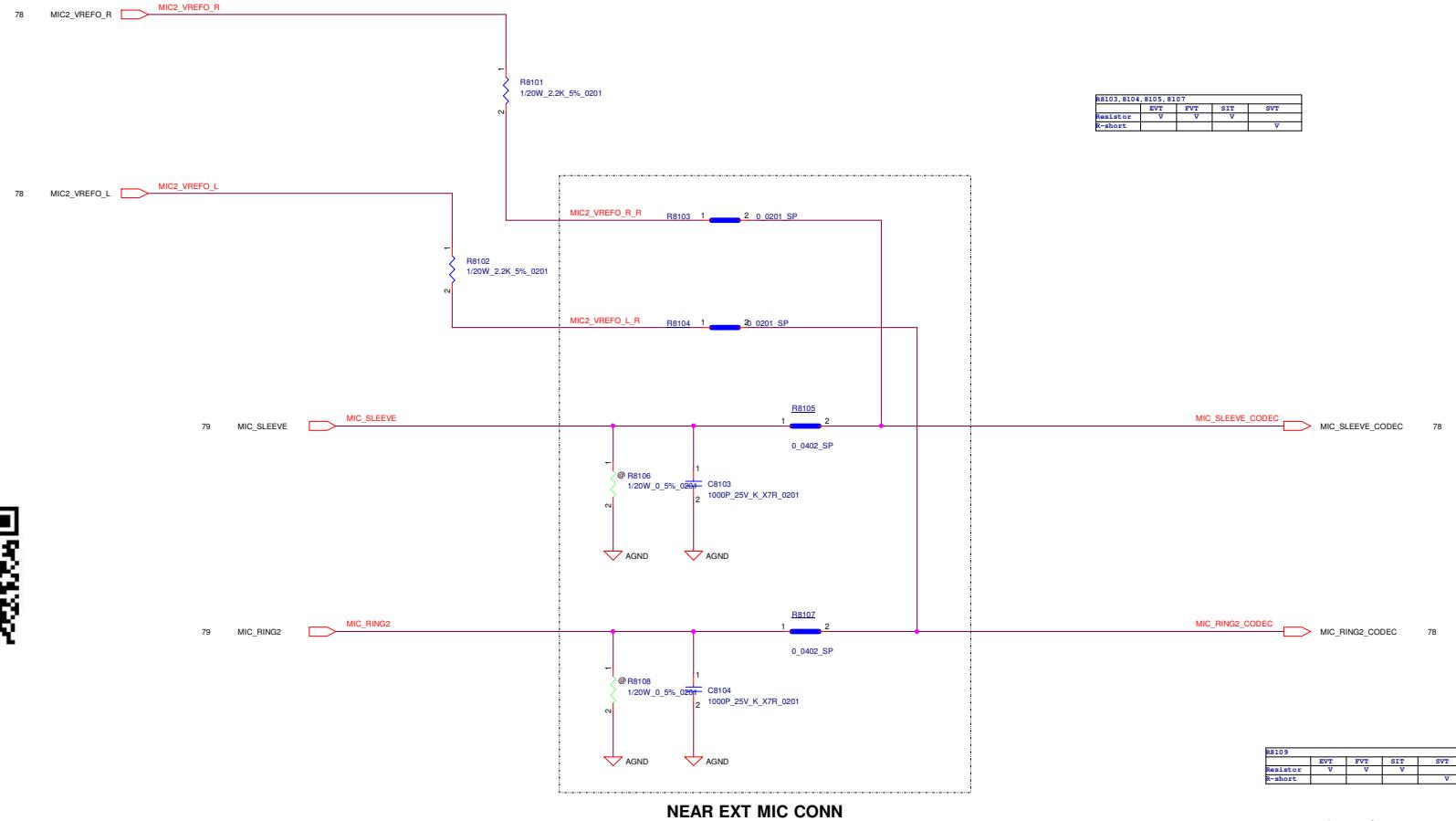


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Date: Friday, December 28, 2018 Sheet 80 of 125								

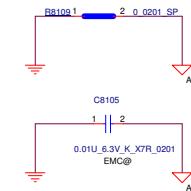


R8103, R8104, R8105, R8107			
EVT	FVT	SIT	SVT
Resistor	V	V	V

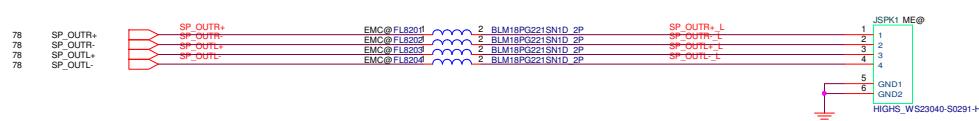
R=short

R8109			
EVT	FVT	SIT	SVT
Resistor	V	V	V

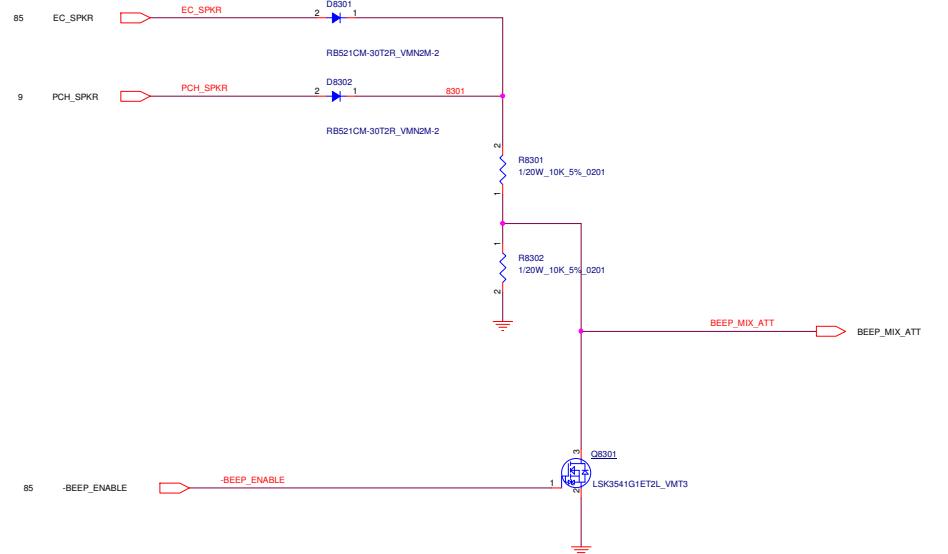
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Size	Document Number	Jazz	
Customer	LCFC		
Date:	Friday, December 28, 2018 Sheet 81 of 125 Rev 0.1		



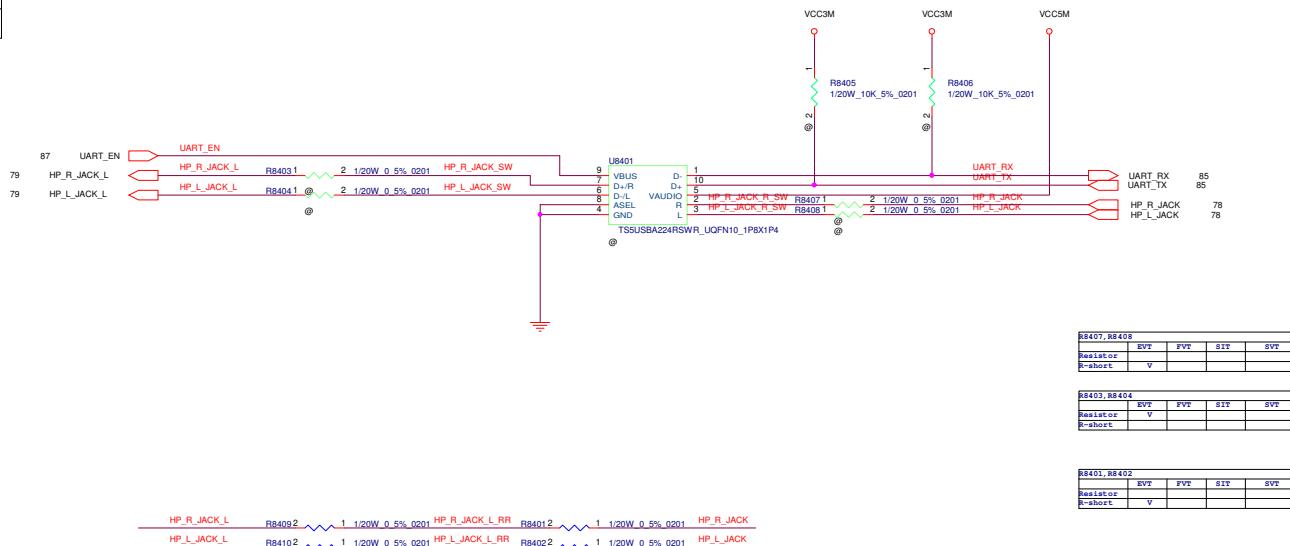
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Issued Date	2019/01/12	Deciphered Date	2019/04/12	AUDIO SPEAKER
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Issued Date	2019/01/12	Deciphered Date	2019/04/12	AUDIO_BEEP
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TABLE:

Mode	Audio	UART
UART_EN	L	H



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Size	Document Number	Rev 0.1	
Customer	C	Jazz	
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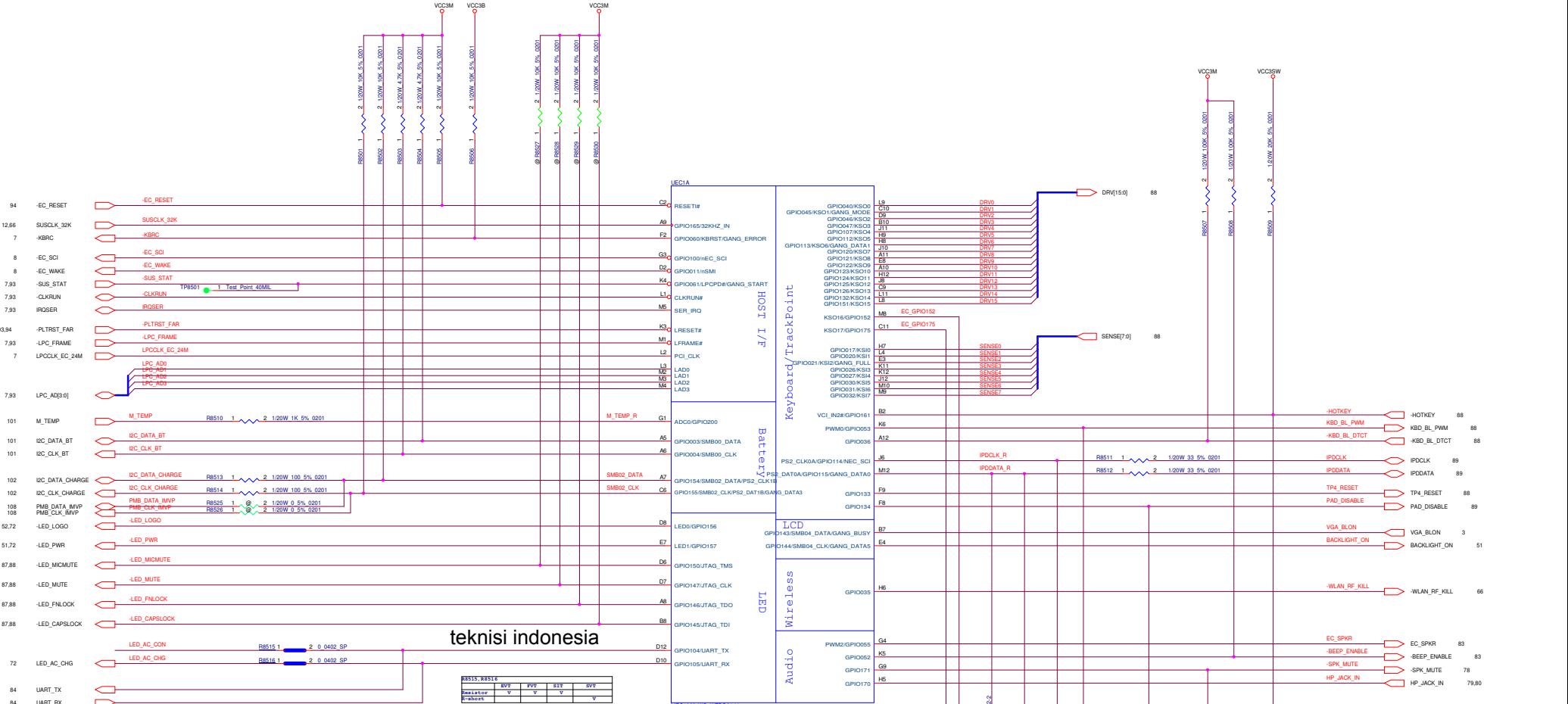
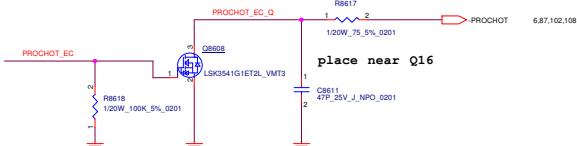
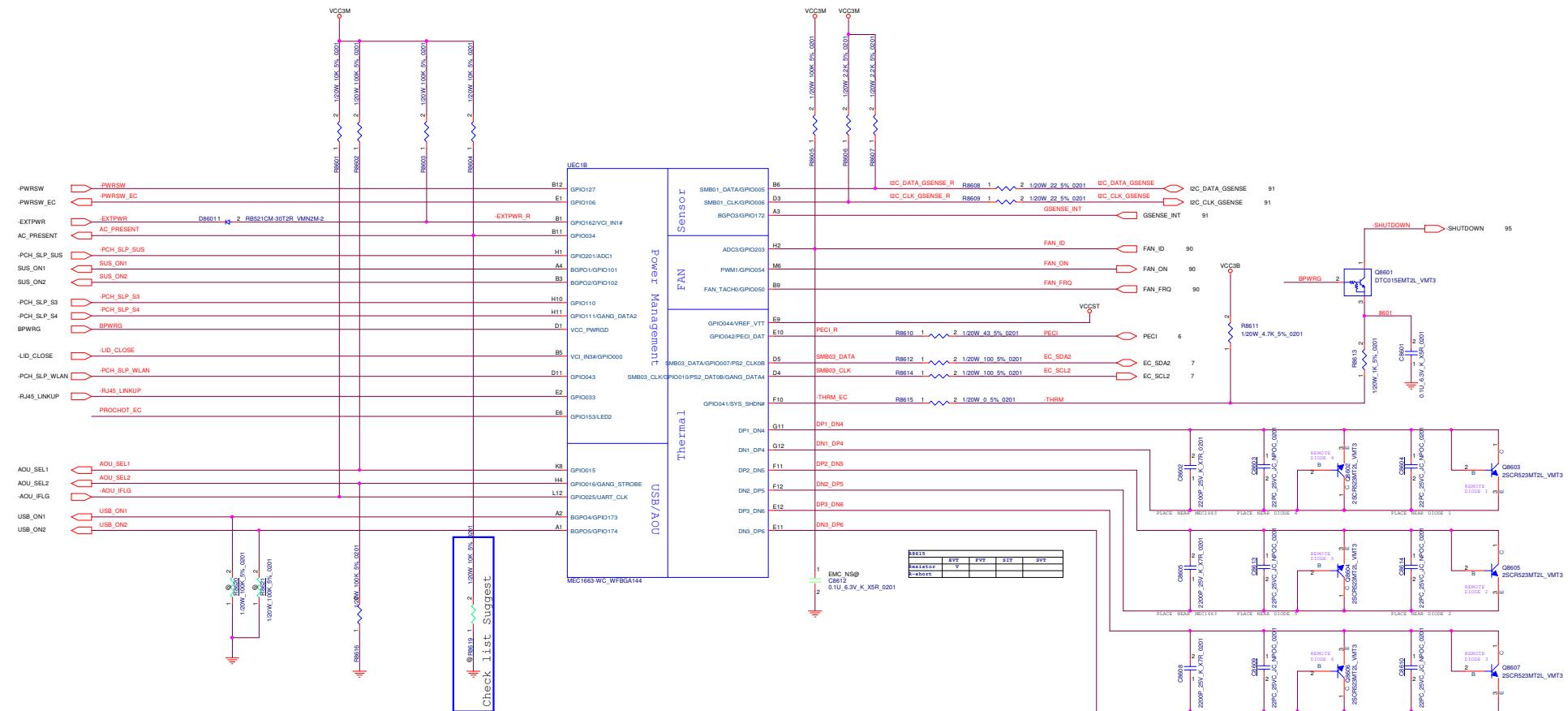
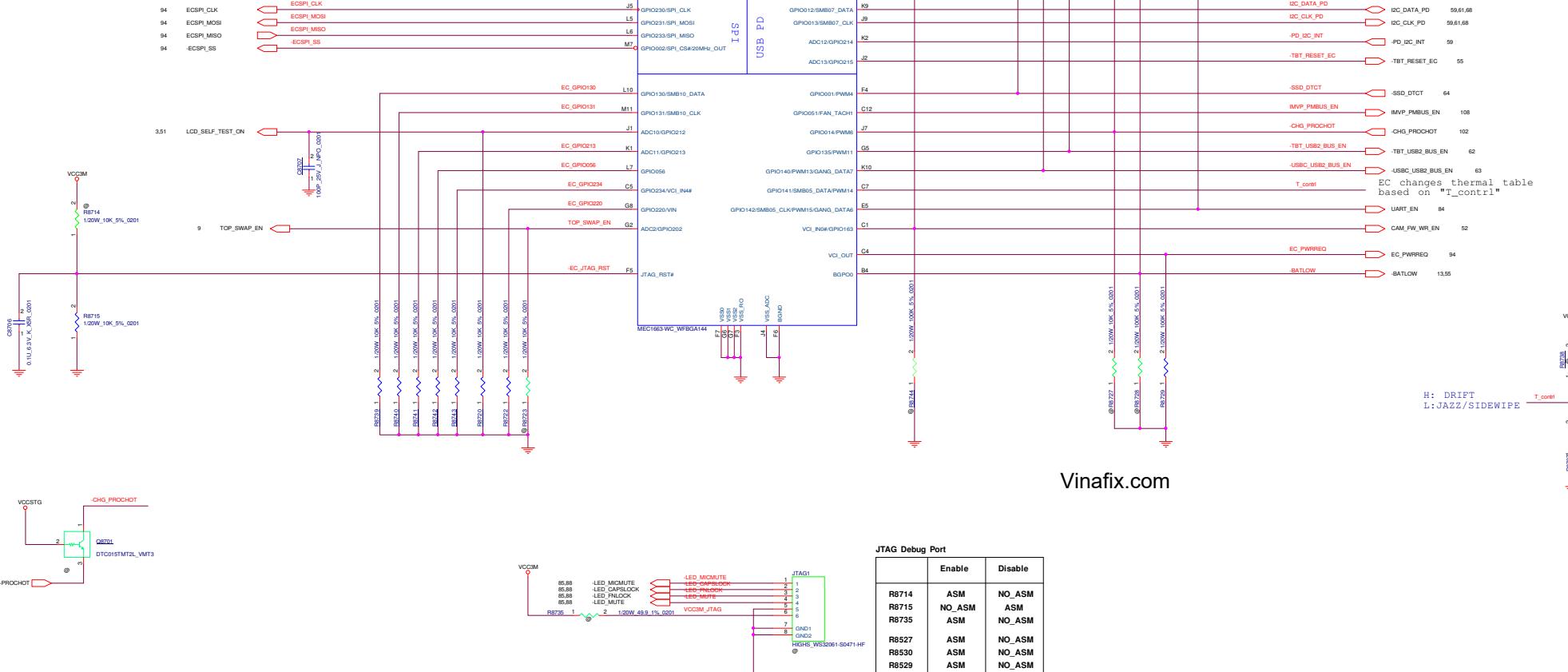


TABLE OF LED1					
Vendor	P/N	LCFC P/N			
EVERLIGHT	12-22A/S2ST3D-C30	SC50000GD00			
LITEON	LWT-327DSKF-5A	SC50000GM00			



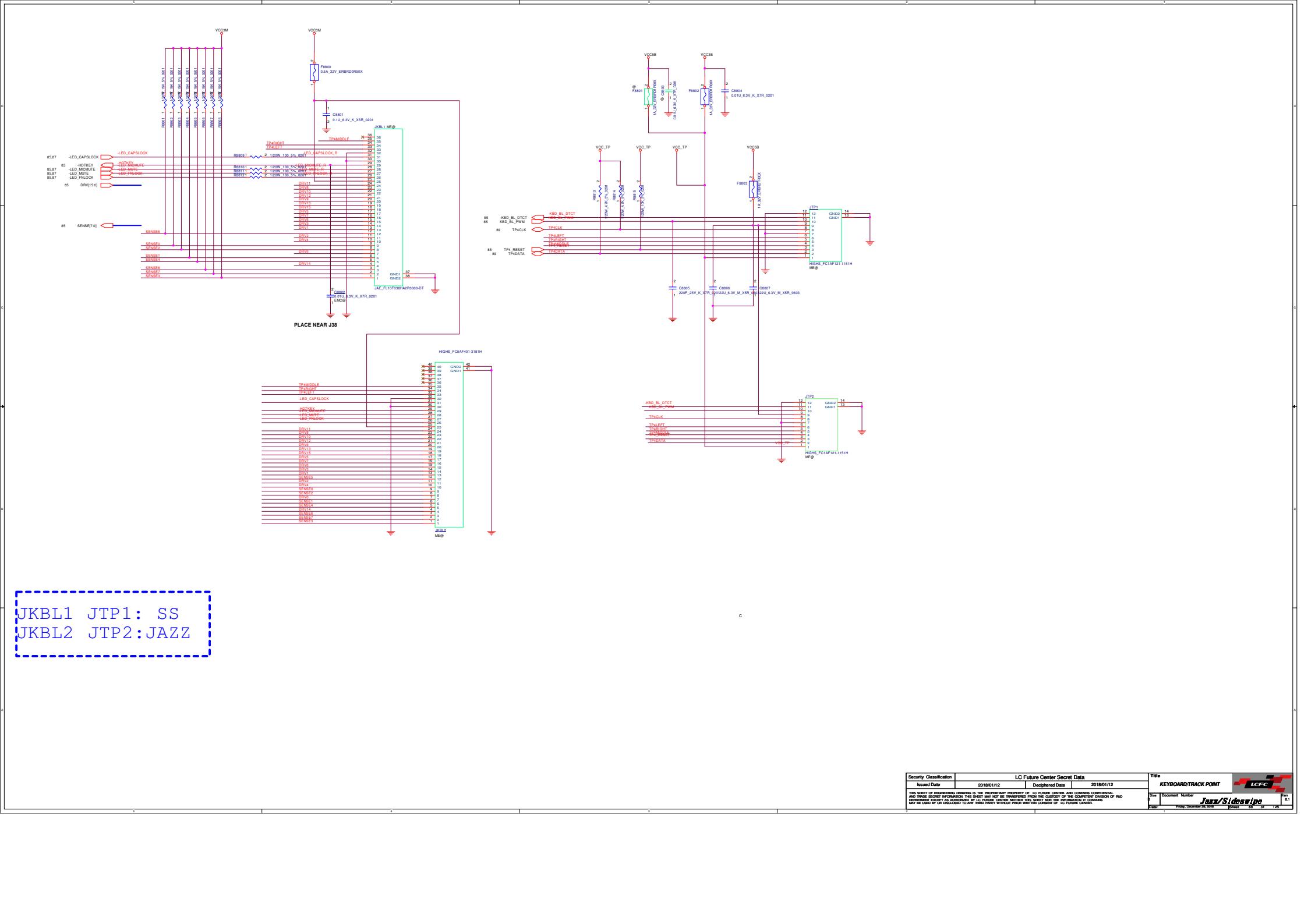
Sensor	Device	Placed on
DIODE0	EC Internal	TOP
DIODE1	CPU DC/DC	BOTTOM
DIODE2	Charger	BOTTOM
DIODE3	FAN	BOTTOM
DIODE4	SSD	BOTTOM
DIODE5	WLAN/WiGig	BOTTOM
DIODE6	DDR4	BOTTOM

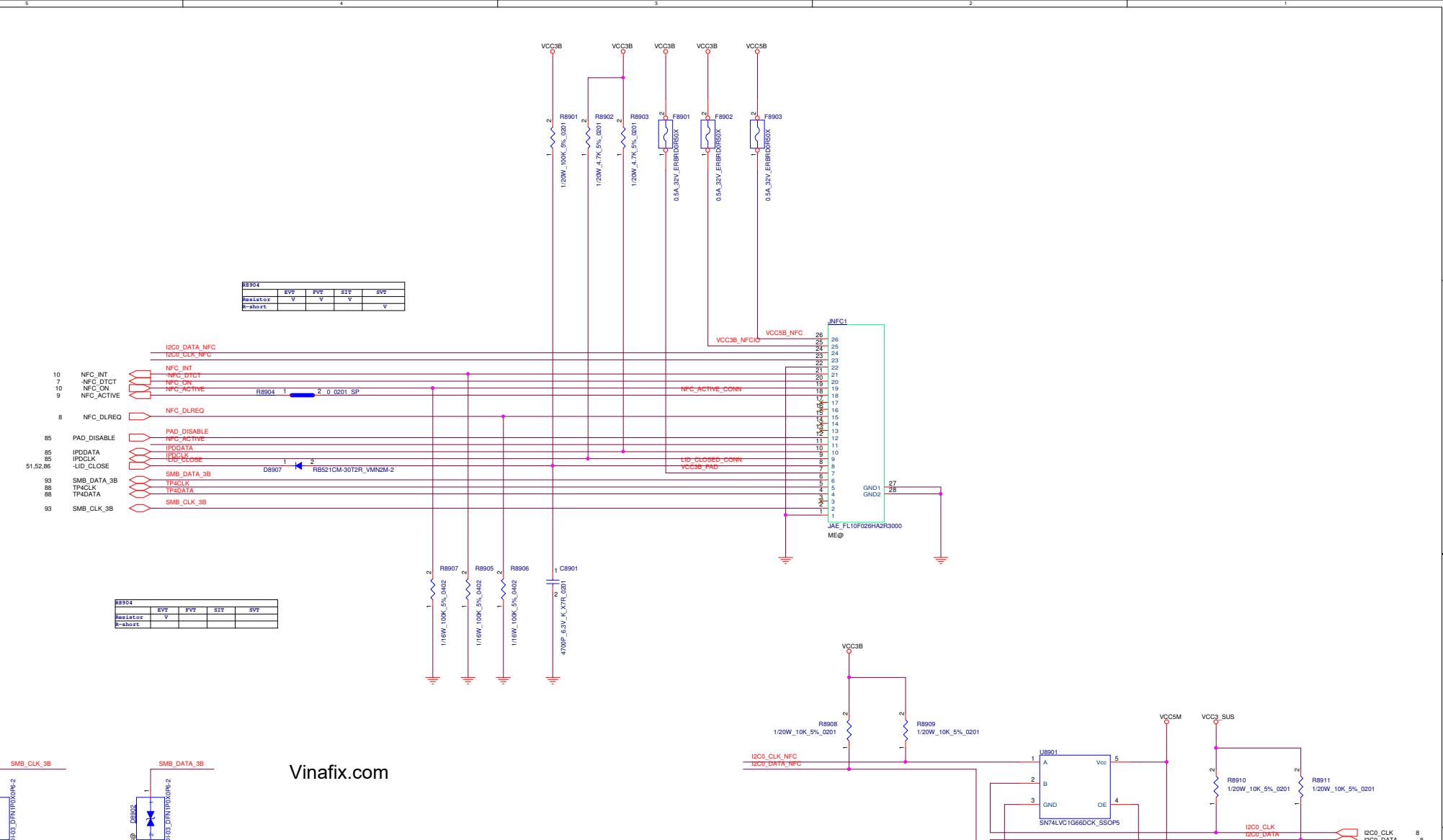


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	Enable	Disable
R8714	ASM	NO_ASM
R8715	NO_ASM	ASM
R8735	ASM	NO_ASM
R8527	ASM	NO_ASM
R8530	ASM	NO_ASM
R8529	ASM	NO_ASM
R8528	ASM	NO_ASM

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2019/01/12	2019/04/12	MEC1663(3/3)	
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TABLE of U8901/U8902		
Vendor	P/N	LCFC P/N
TI	SN74LVC1G66DCK	SA00005BE0J
NXP	74LVC1G66GW	SA00007KS00
ONSem	MC74VHC1G66DFT2G	SA00008JQ00

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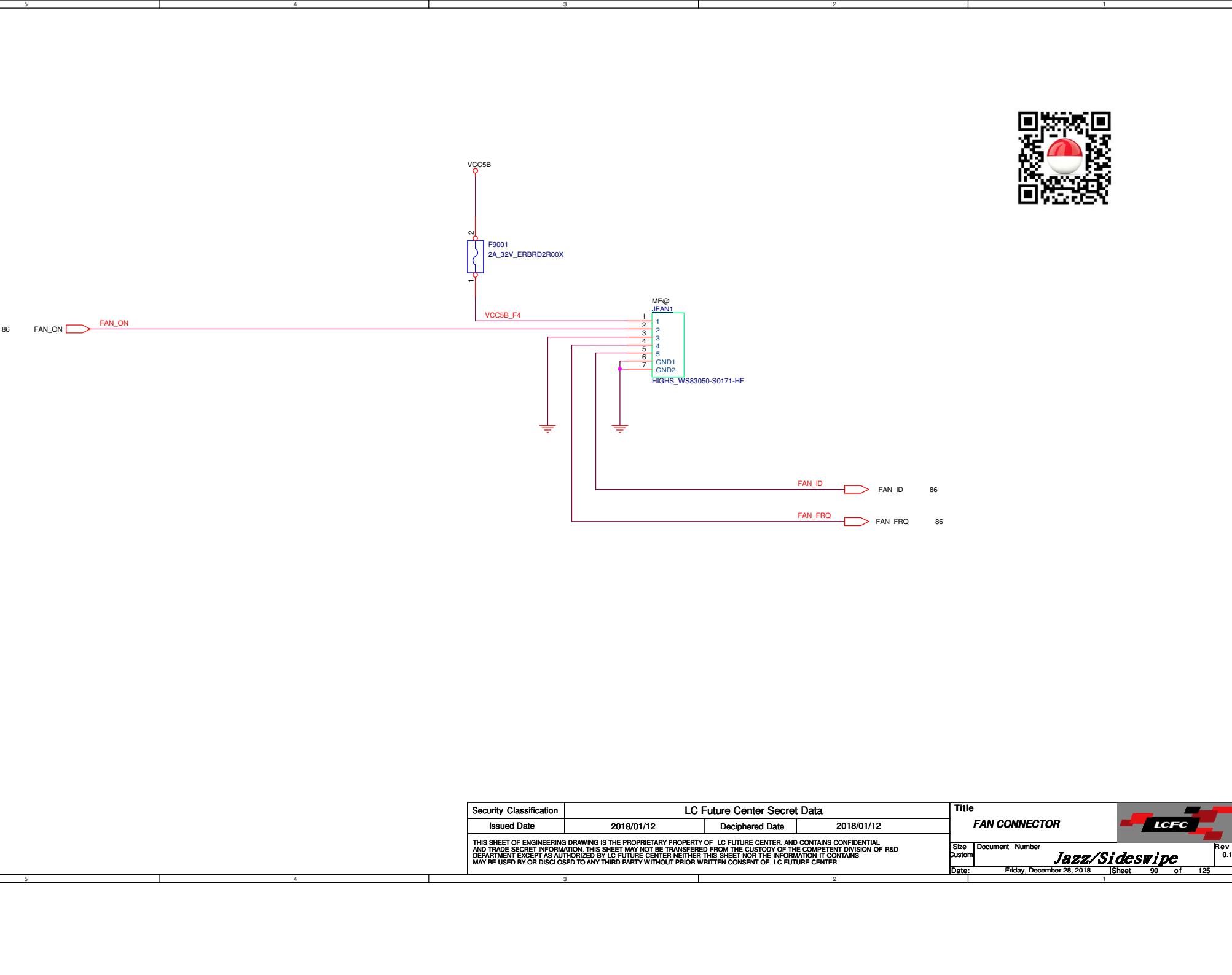


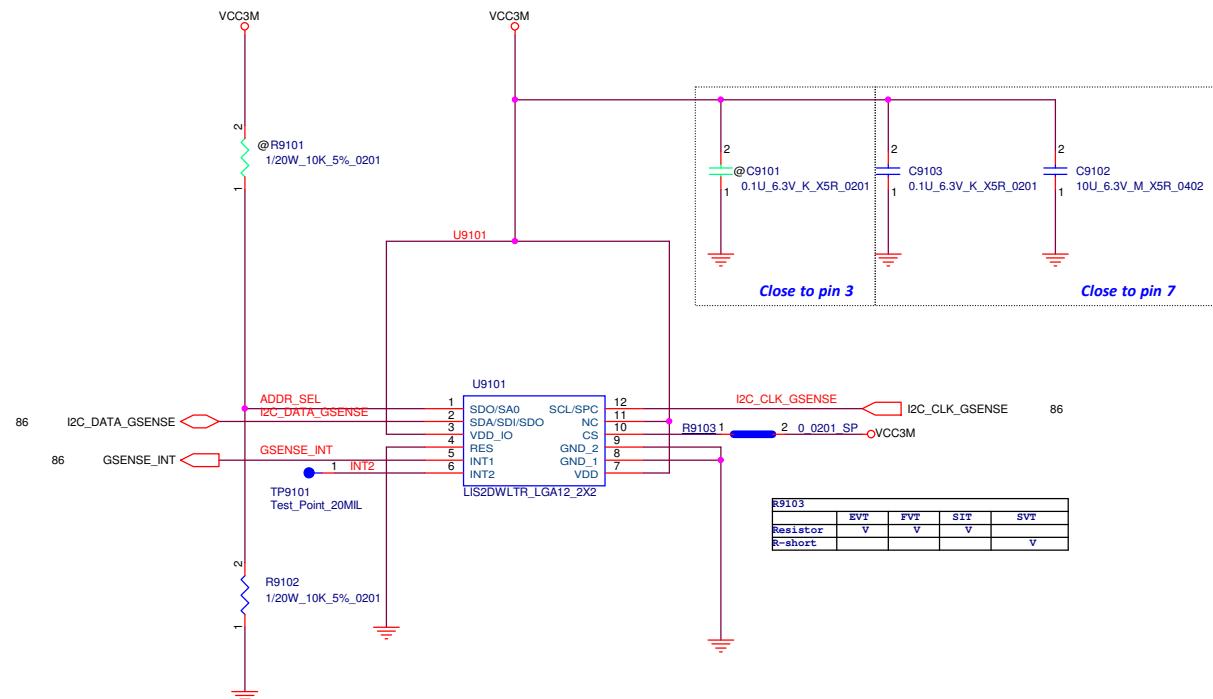
TABLE : G-Sensor Power

HDD Support	VCC3M
SSD Only	VCC3B

TABLE

P/N	ADDR_SEL	Address
LIS2DWLTR	H L	32h (W) & 33h (R) 30h (W) & 31h (R)
KX022-1020	H L	3Eh (W) & 3Fh (R) 3Ch (W) & 3Dh (R)

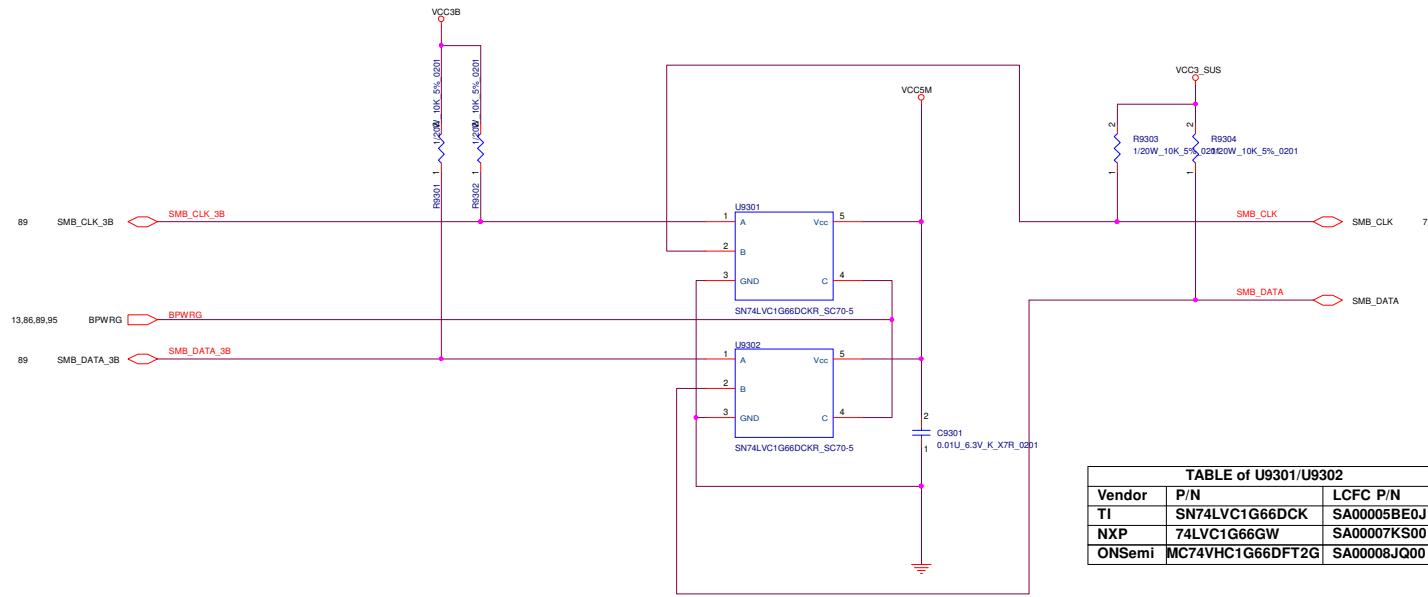
TABLE of G-Sensor (U9101)		
Vendor	P/N	LCFC P/N
ST	LIS2DWLTR	SA00009AQ00
Kionix	KX022-1020	SA000081E00



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Issued Date	2018/01/12	Deciphered Date	2018/01/12	APS G-SENSOR
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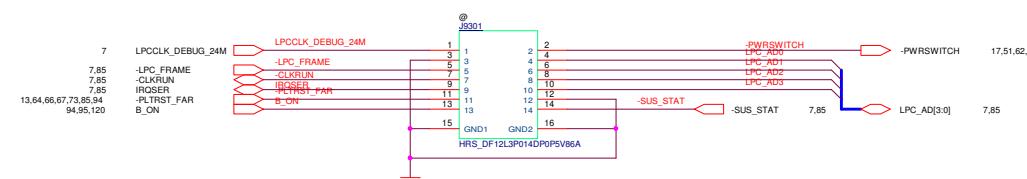


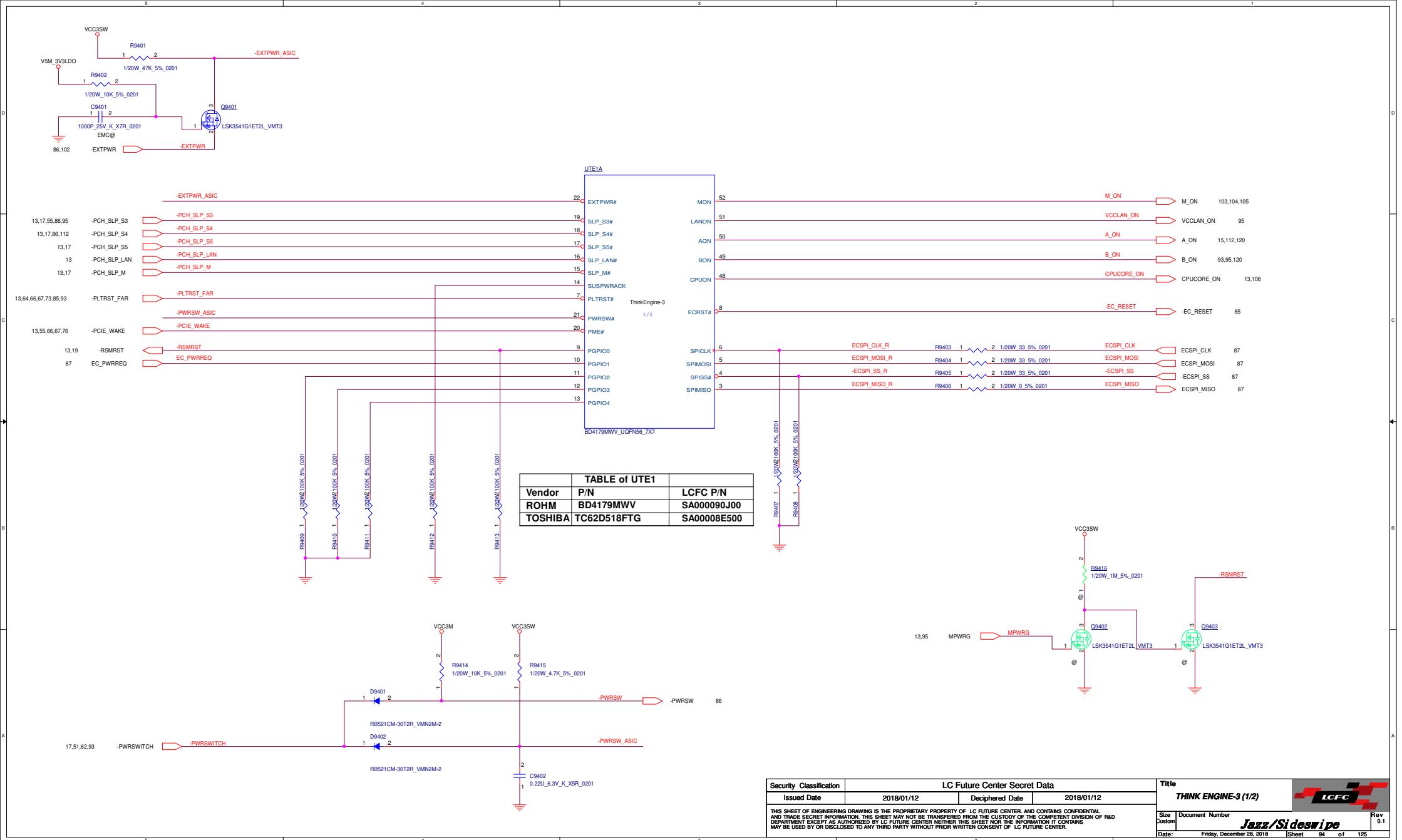
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R220	ASM	NO_ASM

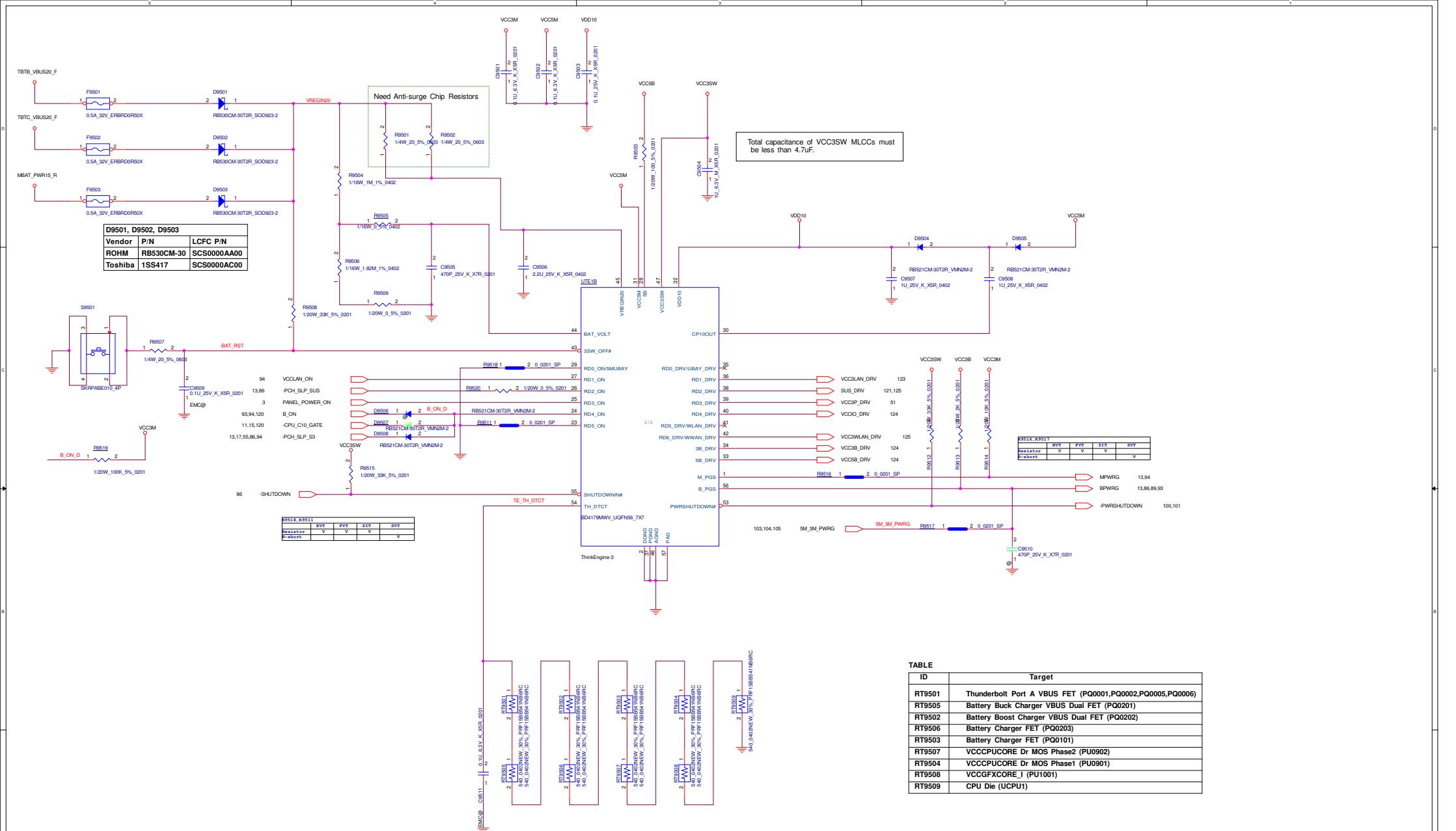
LOGIC

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TABLE

ID	Target
RT9501	Thunderbolt Port A VBUS FET (PQ0001,PQ0002,PQ0005,PQ0006)
RT9505	Battery Buck Charger VBUS Dual FET (PQ0201)
RT9502	Battery Boost Charger VBUS Dual FET (PQ0202)
RT9506	Battery Charger FET (PQ0203)
RT9503	Battery Charger FET (PQ0101)
RT9507	VCCCPUCORE Dr MOS Phase2 (PU0902)
RT9504	VCCCPUCORE Dr MOS Phase1 (PU0901)
RT9508	VCCGFXCORE_I (PU1001)
RT9509	CPU Die (UCP01)

City Classification | IC Future Center Secret Data

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Title		THINK ENGINE-3 (2/2)			Rev. 0.1
Size Custom	Document Number	<i>Jazz/Sideswipe</i>			
Date:		Friday, December 28, 2018	Sheet	95	of 125

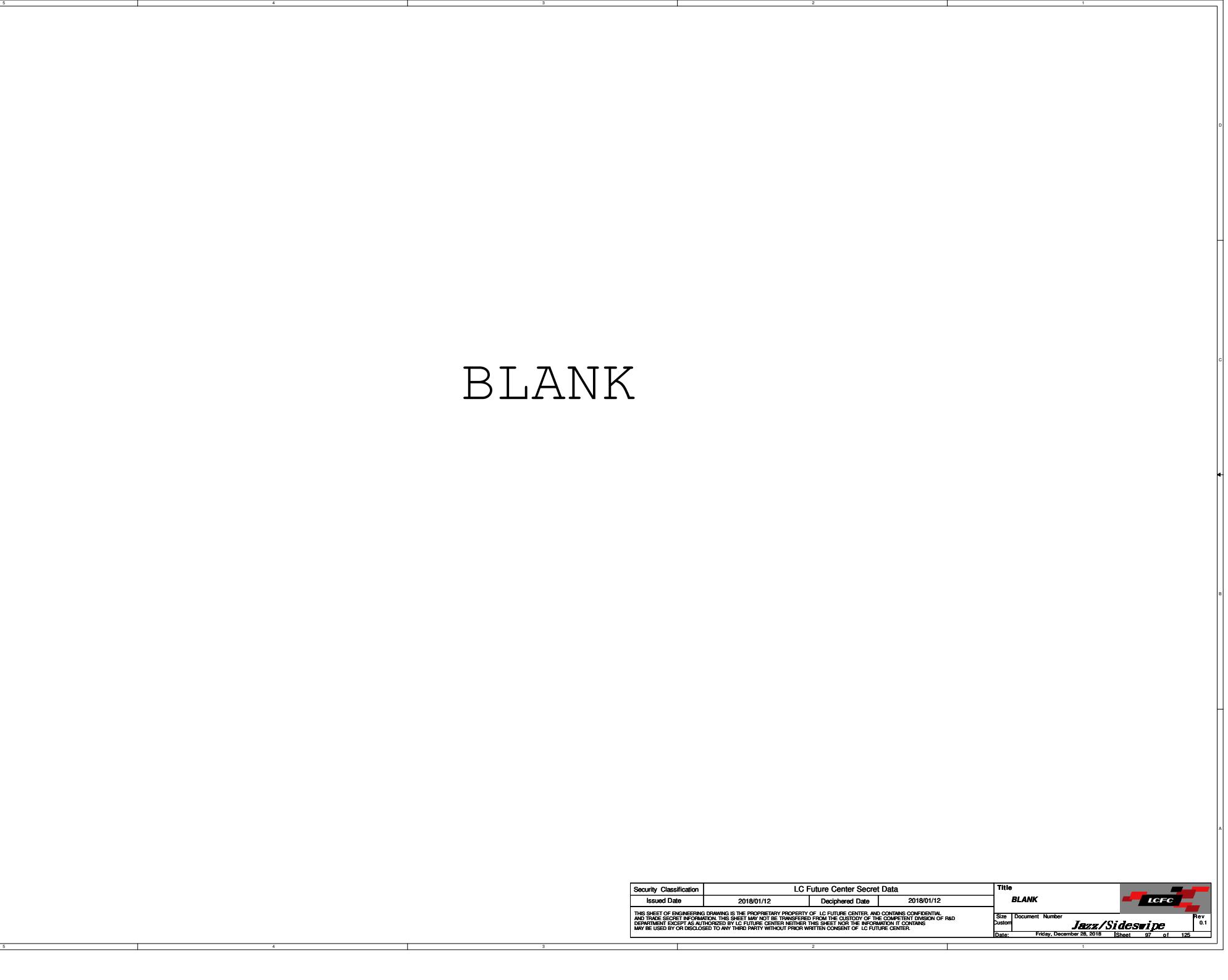


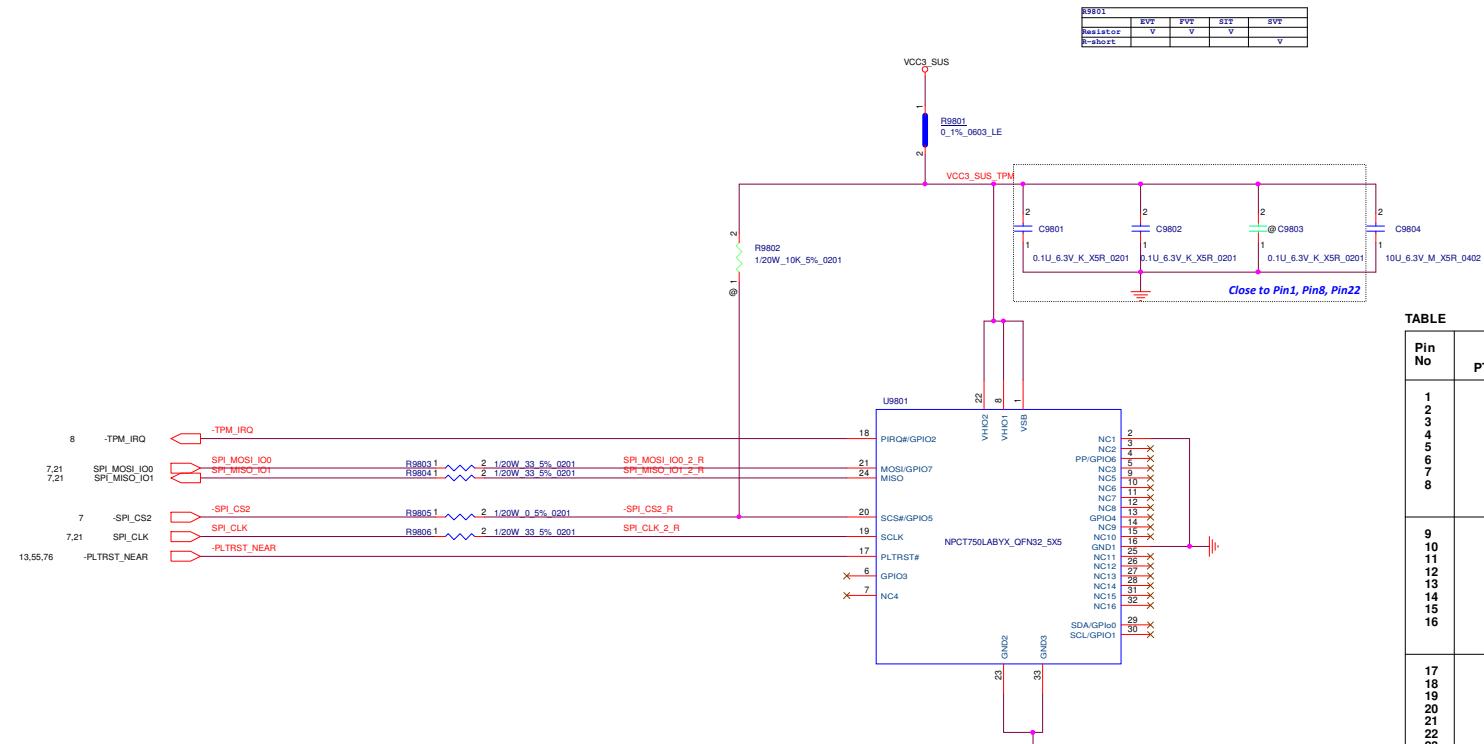
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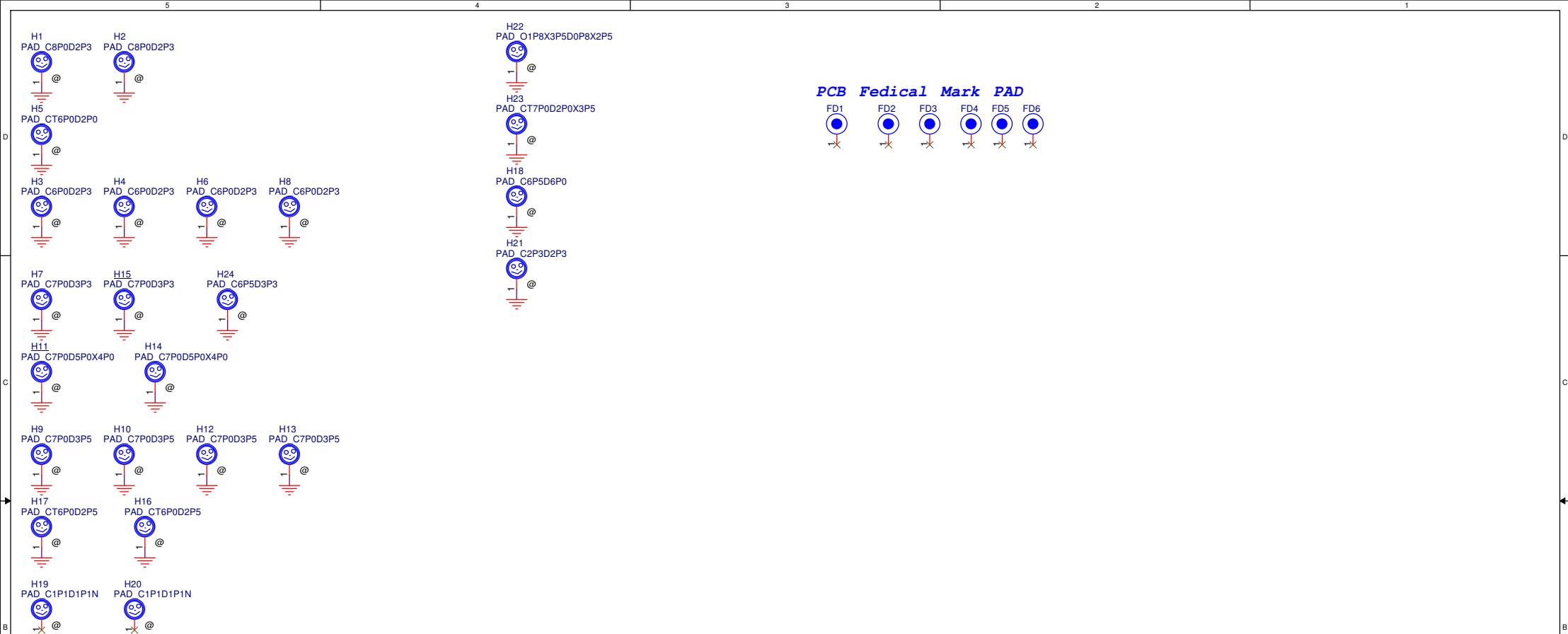
TABLE

Pin No	TCG PTP Spec (v38)	Nuvoton NPCT750LABYX	ST Micro ST33HTPH2E32AHCO
1	VDD	VSB	NC
2	GND	GND	NC
3	NC	NC	NC
4	GPIO	GPIO/PP	PP
5	NC	NC	NC
6	GPIO	GPIO3	NC
7	GPIO	NC	GPIO
8	VDD	VHIO	NC
9	NC	NC	NC
10	NC	NC	NC
11	NC	NC	NC
12	NC	NC	NC
13	NC	GPIO4	NC
14	NC	NC	NC
15	NC	NC	NC
16	GND	GND	NC
17	SPI_RST#	RST#	SPI_RST#
18	PIRQ#/GPIO2	PIRQ#/GPIO2	SPI_PIRQ#
19	SPI_CLK	SCLK	SPI_CLK
20	SPI_CS#	SPI_CS#	SPI_CS#
21	MOSI/GPIO7	MOSI	MOSI
22	VHIO	VHIO	VPS
23	GND	GND	NC
24	MISO	MISO	MISO
25	NC	NC	NC
26	NC	NC	NC
27	NC	NC	NC
28	NC	NC	NC
29	NC	SDA/GPIO1	SDA/GPIO1
30	SDA/GPIO0	SDA/GPIO0	SDA/GPIO0
31	NC	NC	NC
32	NC	NC	NC

R9805	EVT	FVT	SIT	SVT
Resistor 0-Short	V	V	V	V

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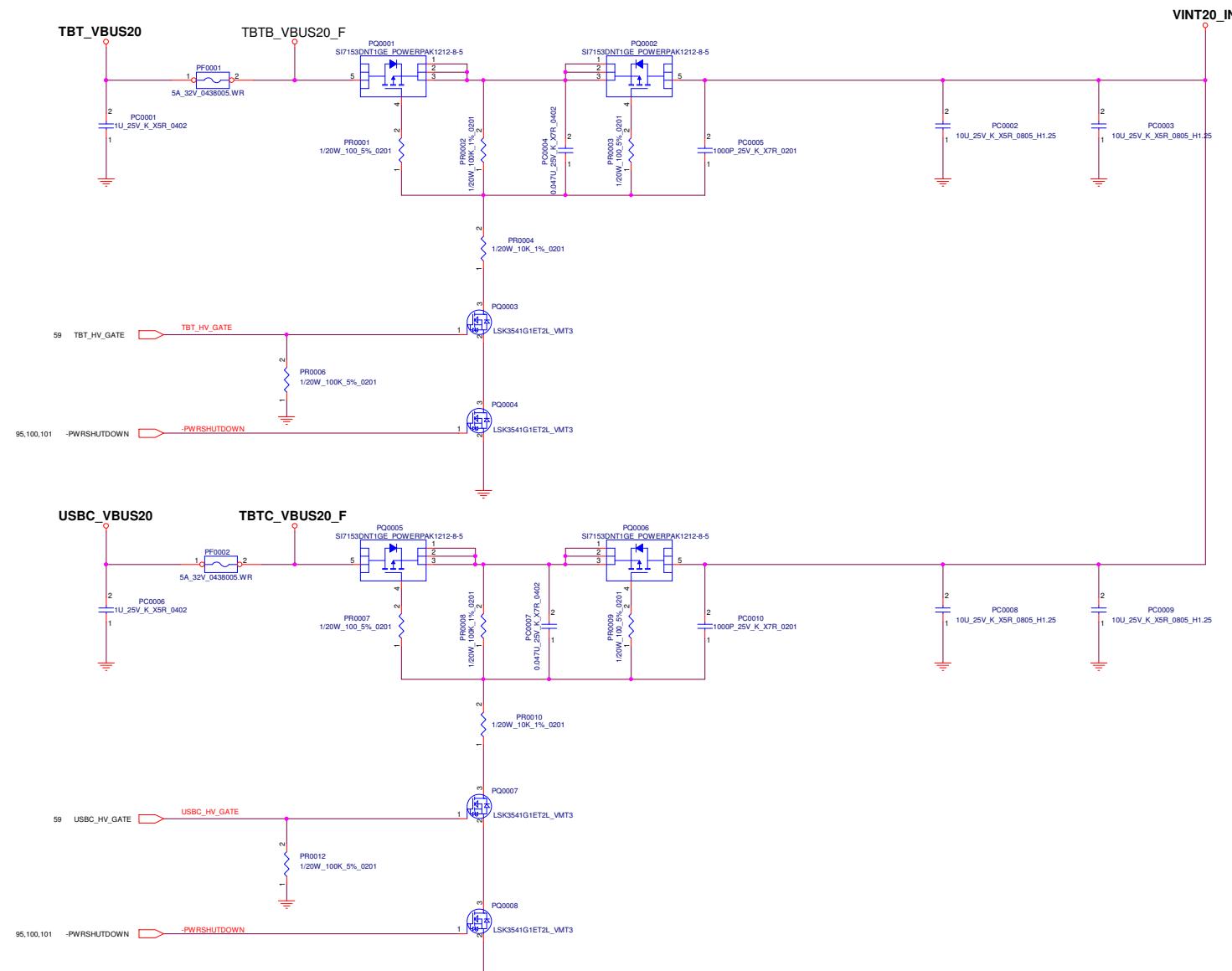
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TABLE PQ0001,PQ0002,PQ0005,PQ0006

1st : VISHAY SI7153DN-T1-GE3
2nd : AOS AON7409

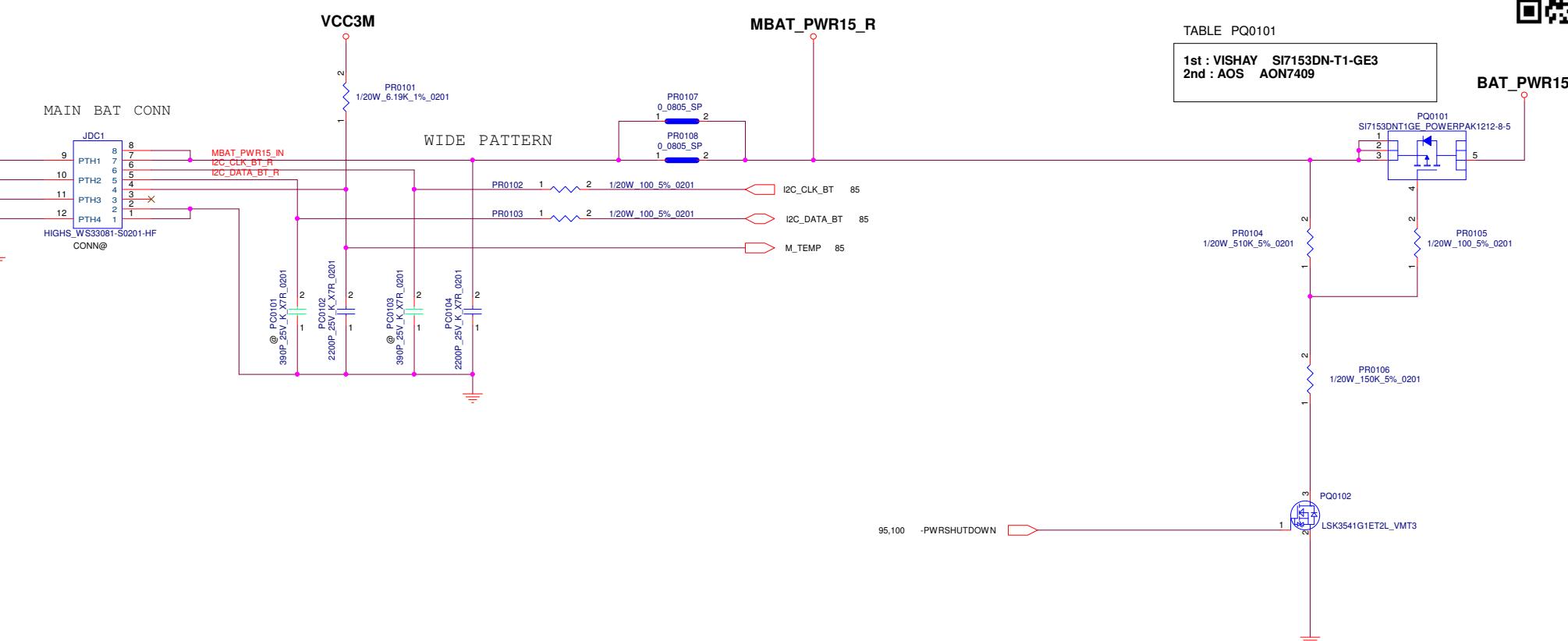


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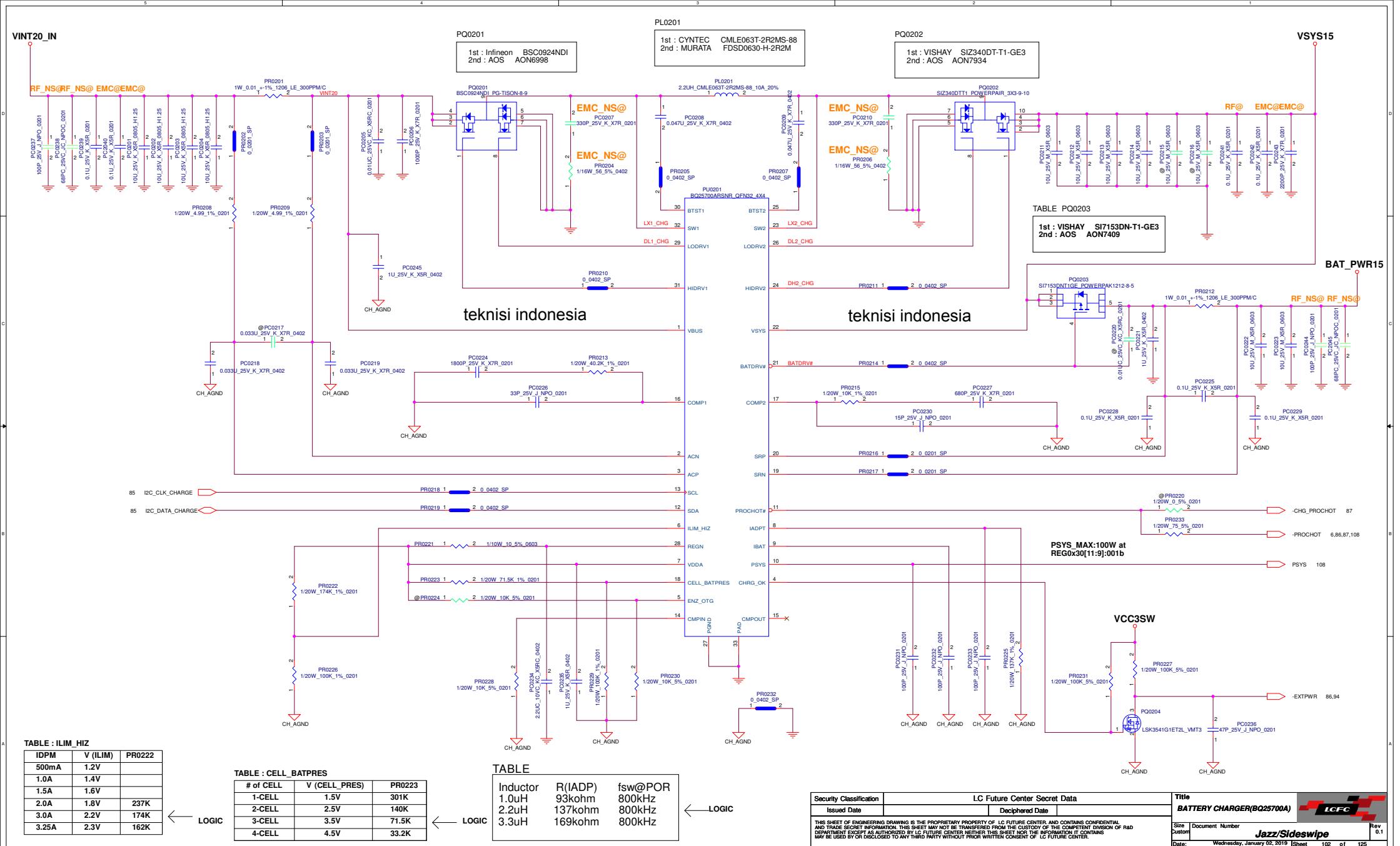


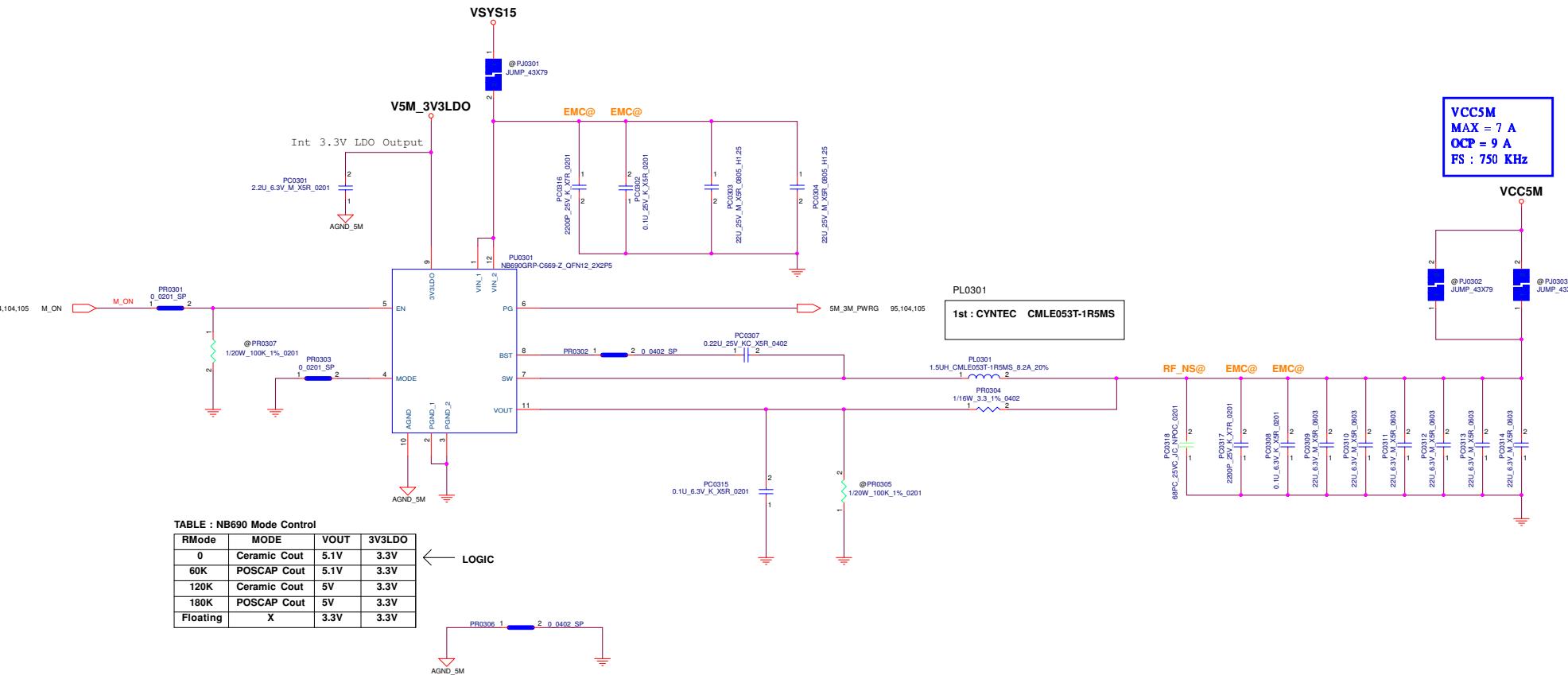
TABLE PQ0101

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2nd : AOS AON7409



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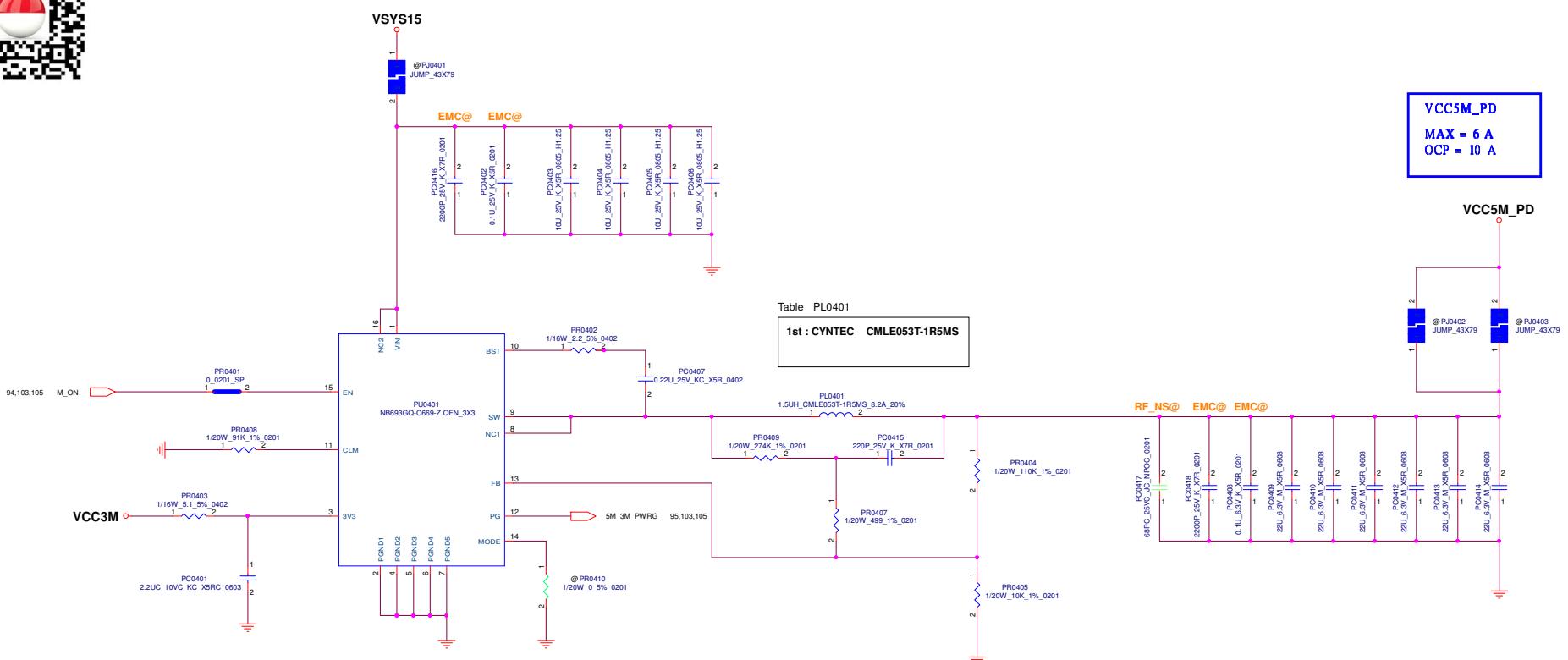
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Title: DC/DC VCC5M (NB690)

LCFC

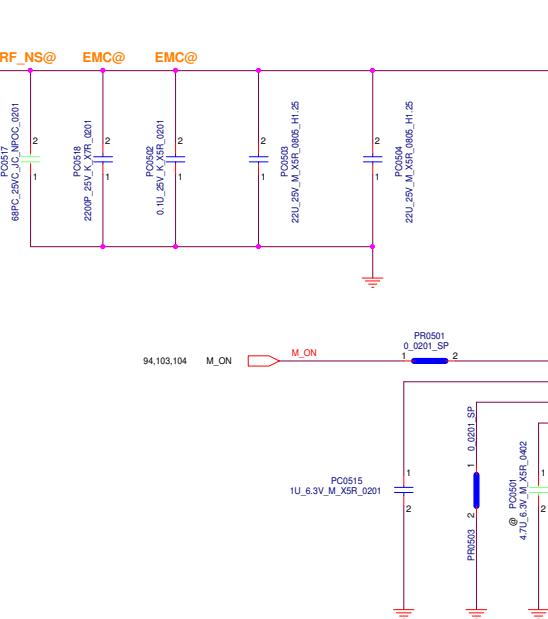
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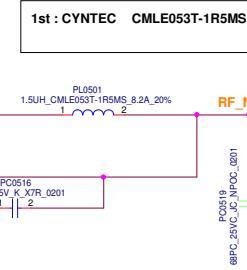
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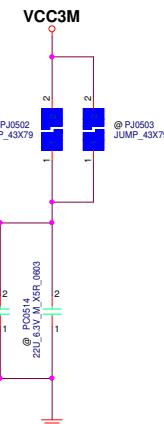
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Table PL0501

1st : CYNTEC CMLE053T-1R5MS



VCC3M
MAX = 8 A
OCP = 9.6 A



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VCC5M

@PJ0701
JUMP_43X79

EMC@ EMC@

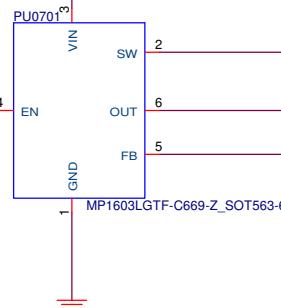
PC0707
2200P_25V_K_X7R_0201PC0701
0.1u_6.3V_K_X5R_0201PC0702
10UC_6.3V_C_M_X5RC_0603

Table PL0701

1st : MURATA DFE252012F-1R0M-P2
2nd : CYNTEC HMLQ25201B-1R0MSR

VCC1R8_SUS

MAX = 1.81 A
OCP = 3 A

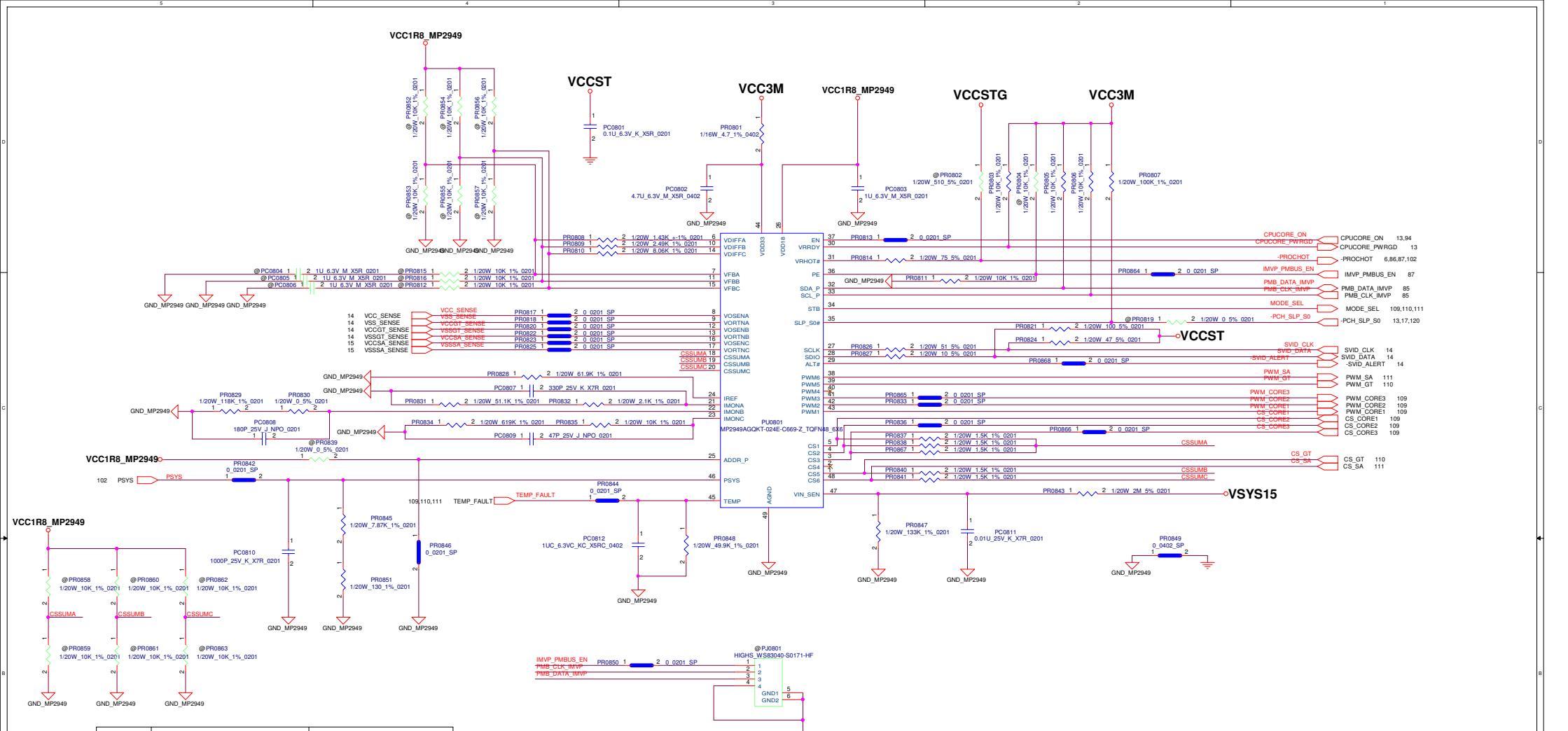
VCC1R8_SUS

@PJ0702
JUMP_43X79

EMC@ EMC@

PC0708
2200P_25V_K_X7R_0201PC0703
0.1u_6.3V_K_X5R_0201PC0704
22U_6.3V_M_X5R_0603PC0705
22U_6.3V_M_X5R_0603PC0706
22U_6.3V_M_X5R_0603

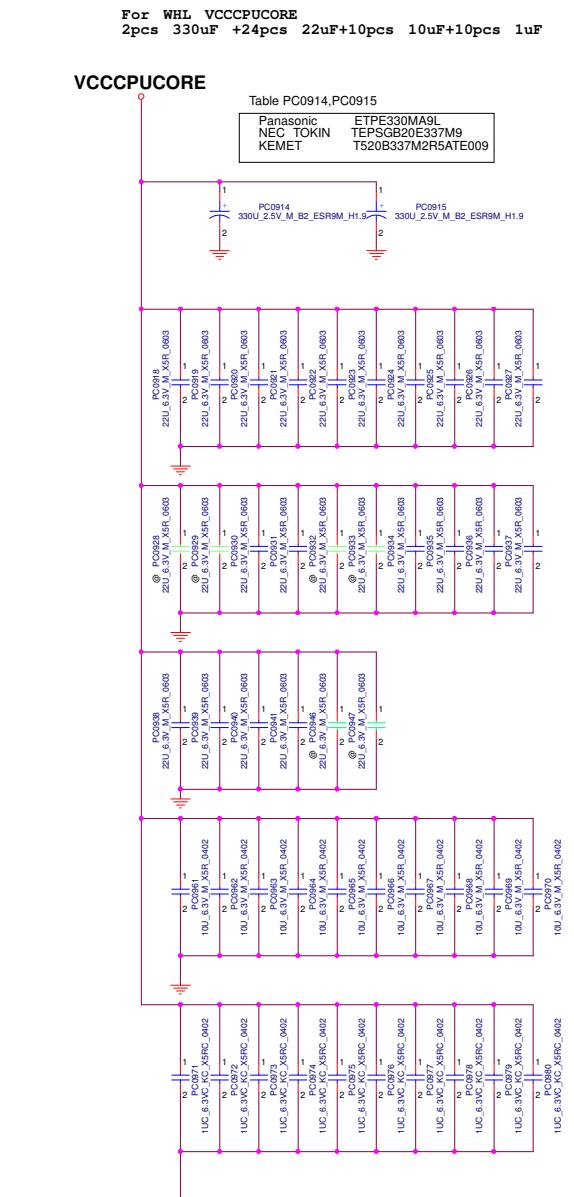
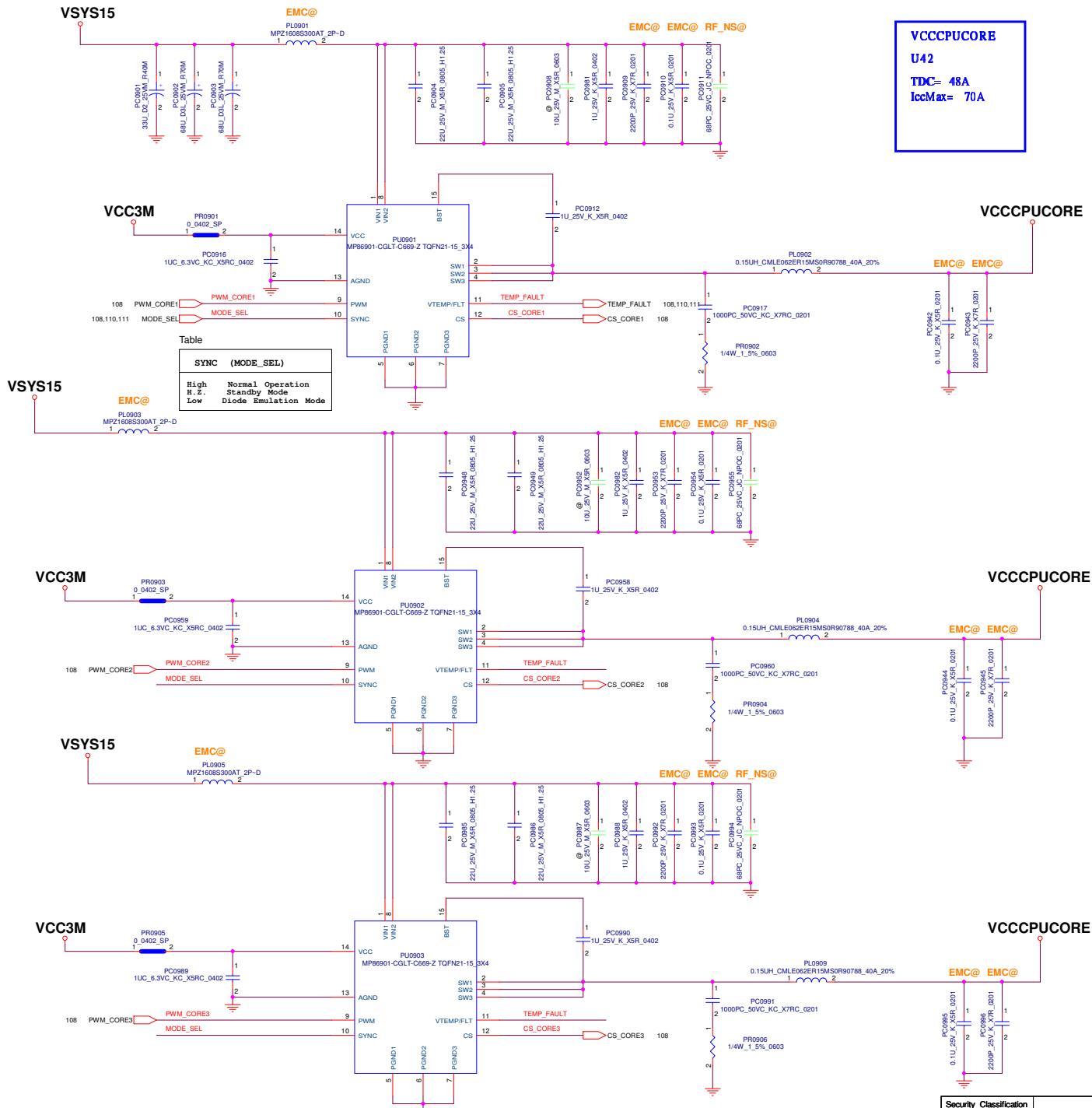
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	WHL U42	U22
PU401	MP2949AGQKT-024E-C669	NA
PR0833	0_0201_5%	NA
PR0836	0_0201_5%	NA
PR0838	1.5K_0201_1%	NA
PR0832	2.1K_0201_1%	1K_0201_1%
PR0831	51.1K_0201_1%	154K_0201_1%
PC0807	330P_0201_25V7-K	220P_0201_25V7-K
PR0839	NA	2.8K_0201_1%
PR0846	0_0201_5%	20K_0201_1%



MFR_PHASE_CFG[4:0]	Active PWM Pins		
	Rail A	Rail B	Rail C
00100b	1, 2, 3, 4	5	6
00111b	1, 2, 3	4, 5	6
01001b	1, 2, 3	5	6
01100b	1, 2	4, 5	6
01110b	1, 2	5	6
10001b	1	5	6

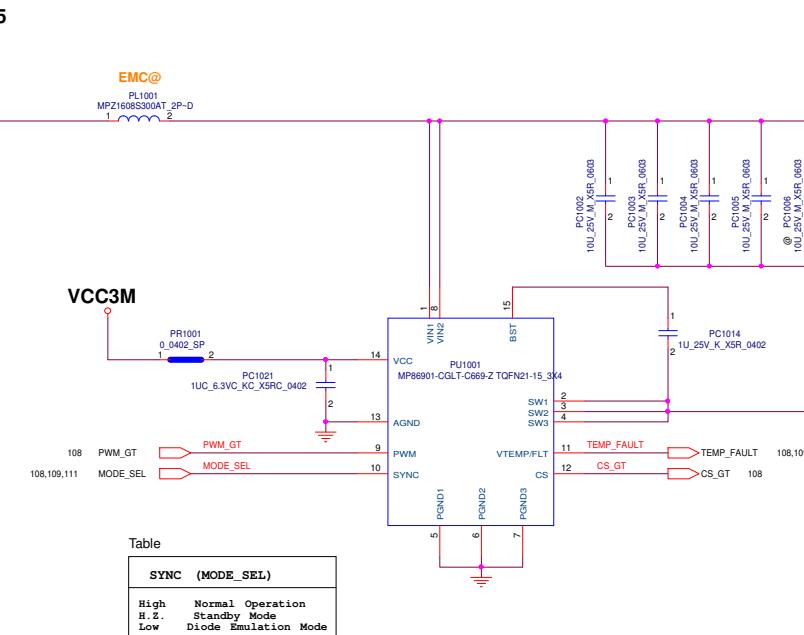


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For WHL VCCGFXCORE_I
1pcs 330uF +24pcs 22uF+10pcs 10uF+10pcs 1uF

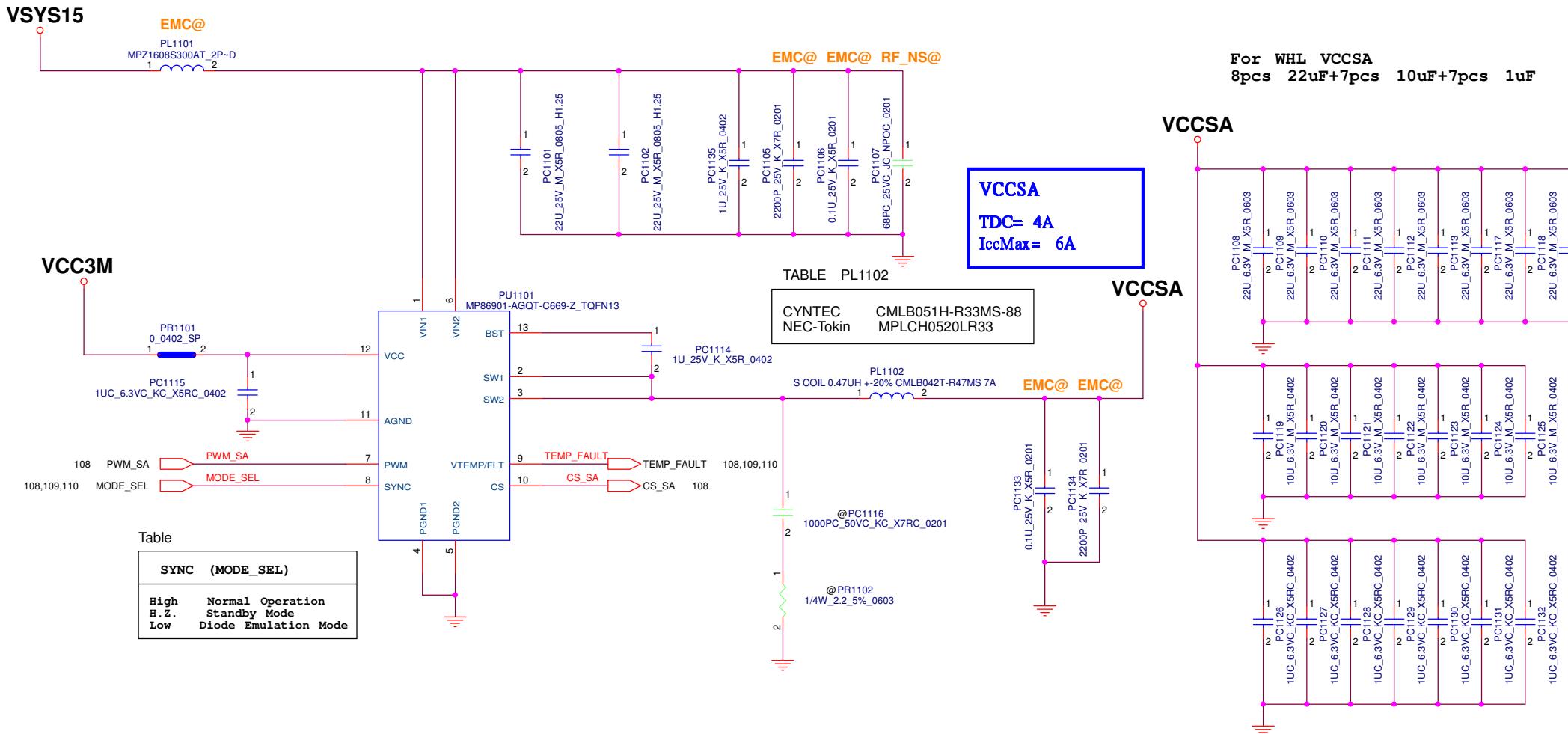


VCCGFXCORE_I

Table PC1001

Panasonic	ETPE330MA9L
NEC TOKIN	TEPSGB20E337M9
KEMET	T520B337M2R5ATE009

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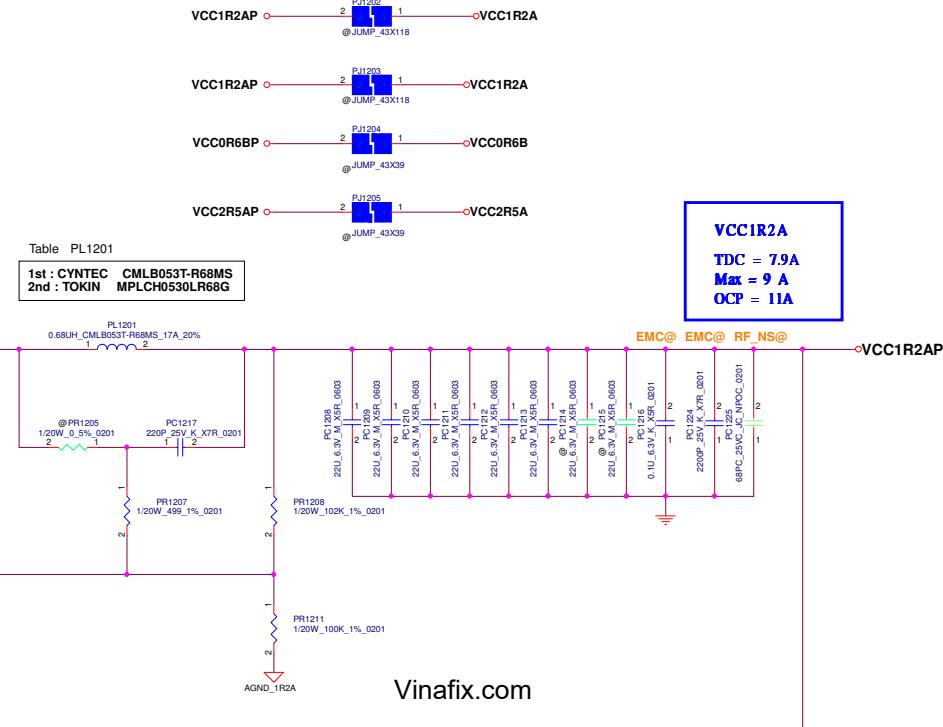
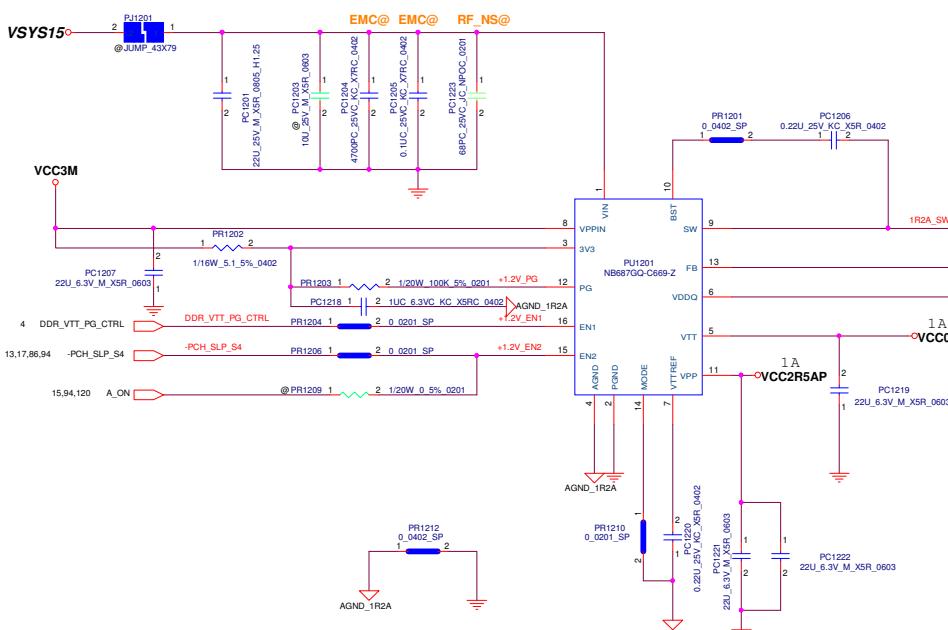


TABLE NB687GQ:EN1/EN2

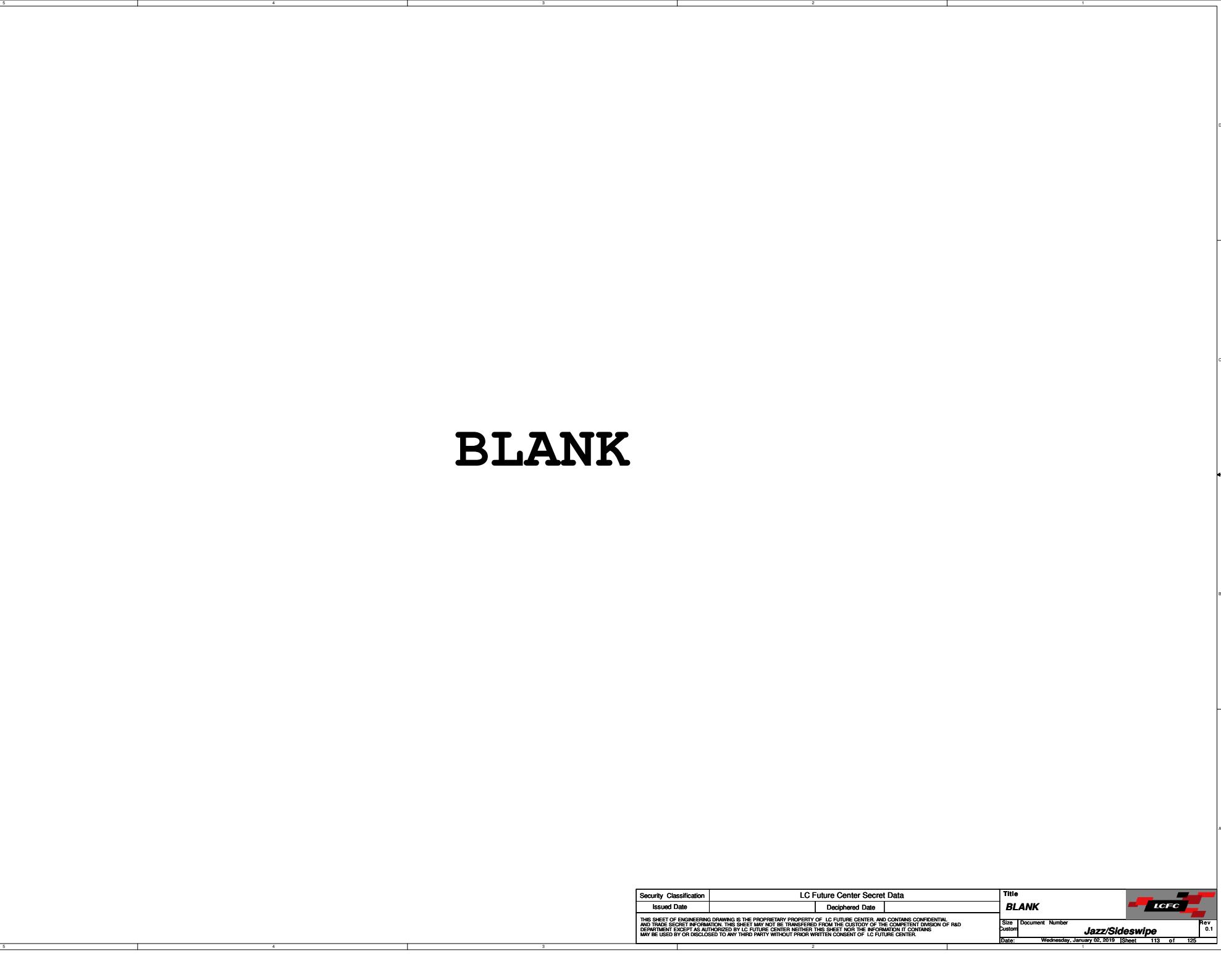
State	EN1	EN2	VDDQ	VTTREF	VTT	VPP
S0	High	High	ON	ON	ON	ON
S3	Low	High	ON	ON	OFF (High-Z)	ON
S4/S5	Low	Low	OFF	OFF	OFF	OFF
Others	High	Low	OFF	OFF	OFF	OFF

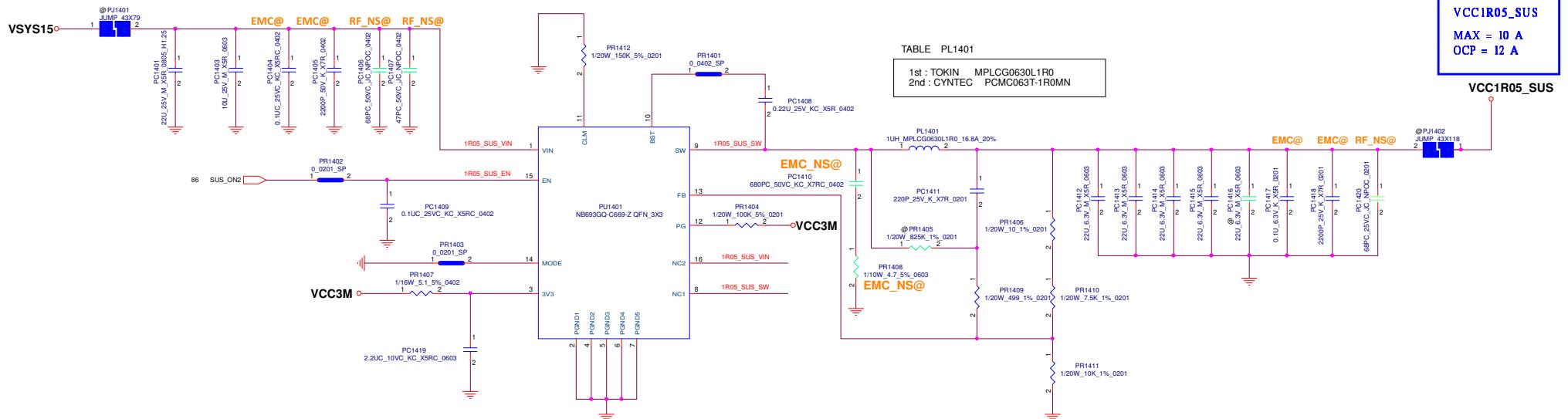
TABLE NB687GQ:MODE

State	USM	Fs	Resistor to GND
M1	NO	700KHz	0
M2	YES	700KHz	90K
M3	NO	500KHz	150K
M4	YES	500KHz	>230K or Float

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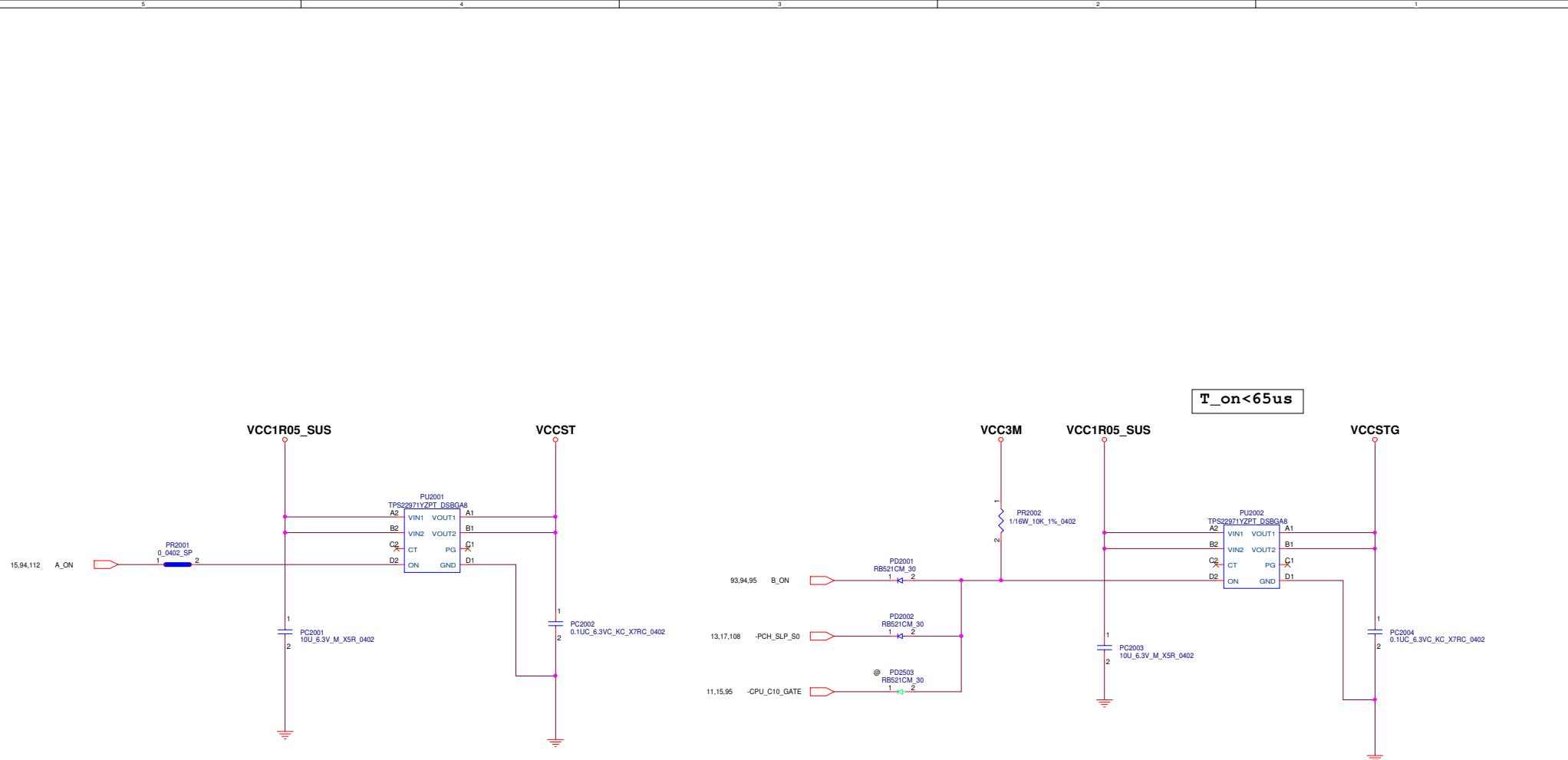


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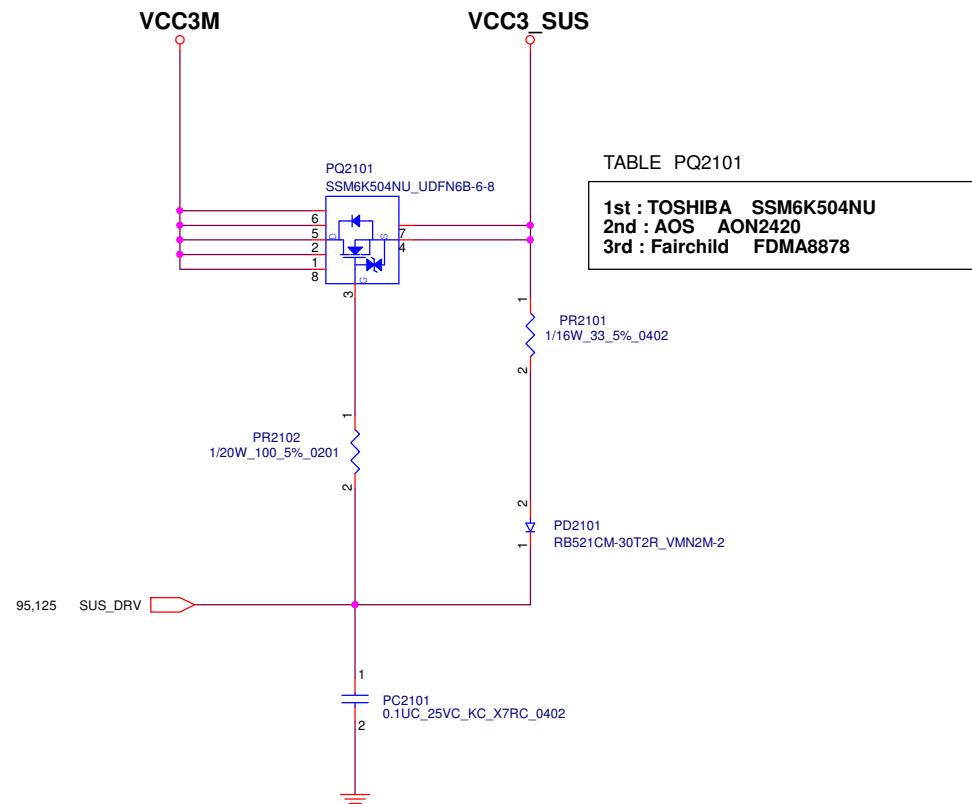
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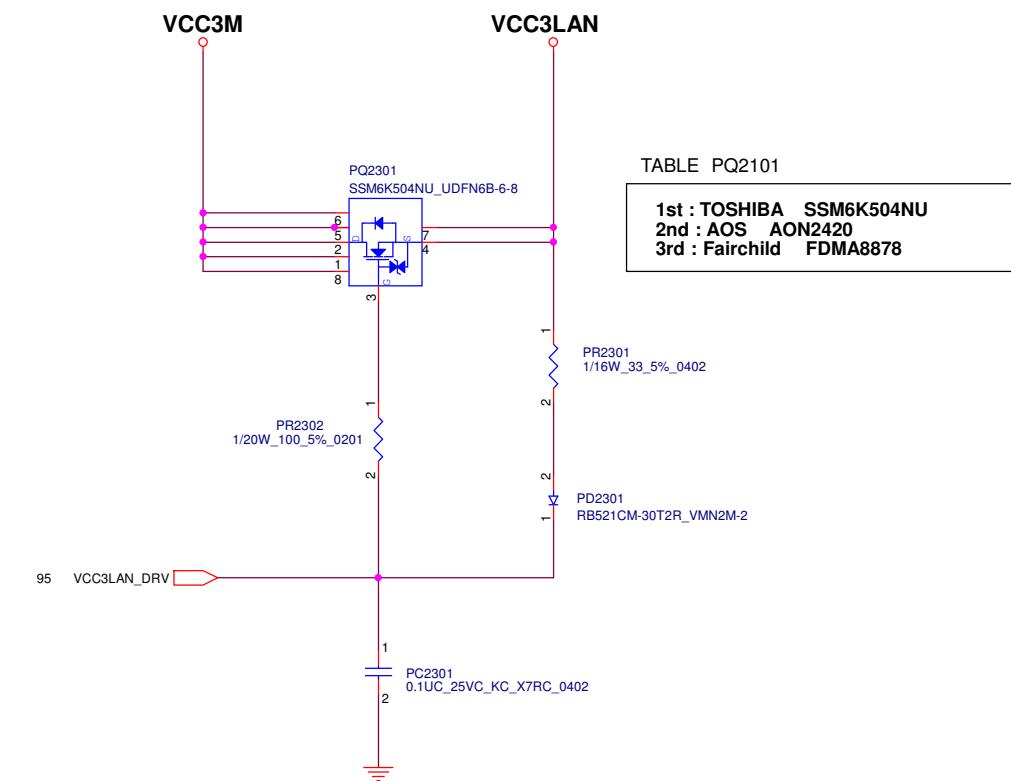


TABLE PQ2101

1st : TOSHIBA SSM6K504NU
2nd : AOS AON2420
3rd : Fairchild FDMA8878

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					Date:	Wednesday, January 02, 2019	Sheet 123 of 125

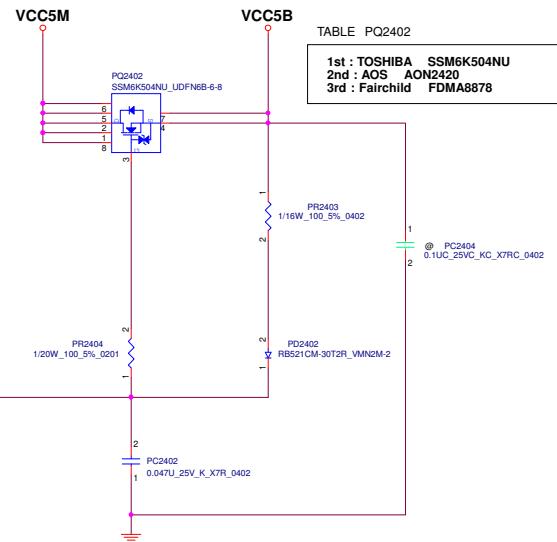
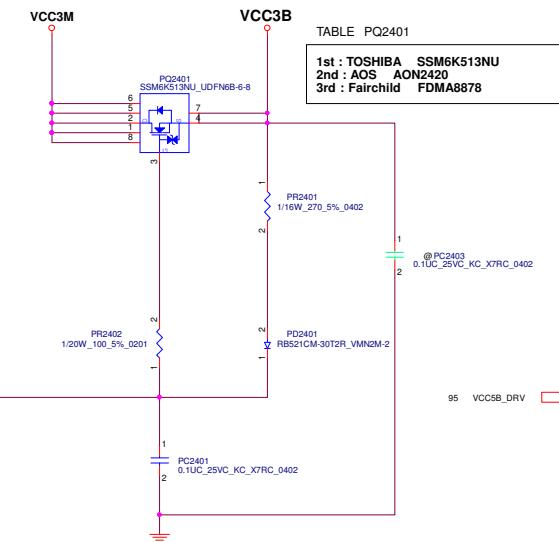
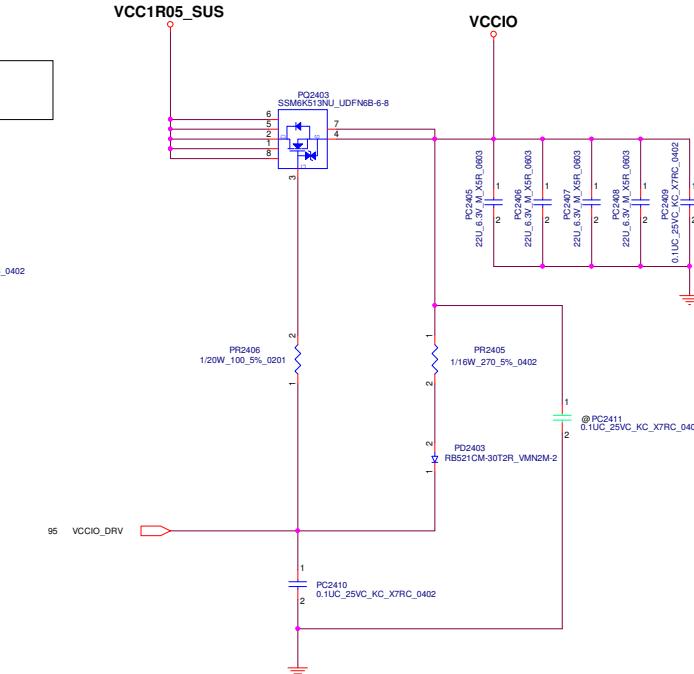
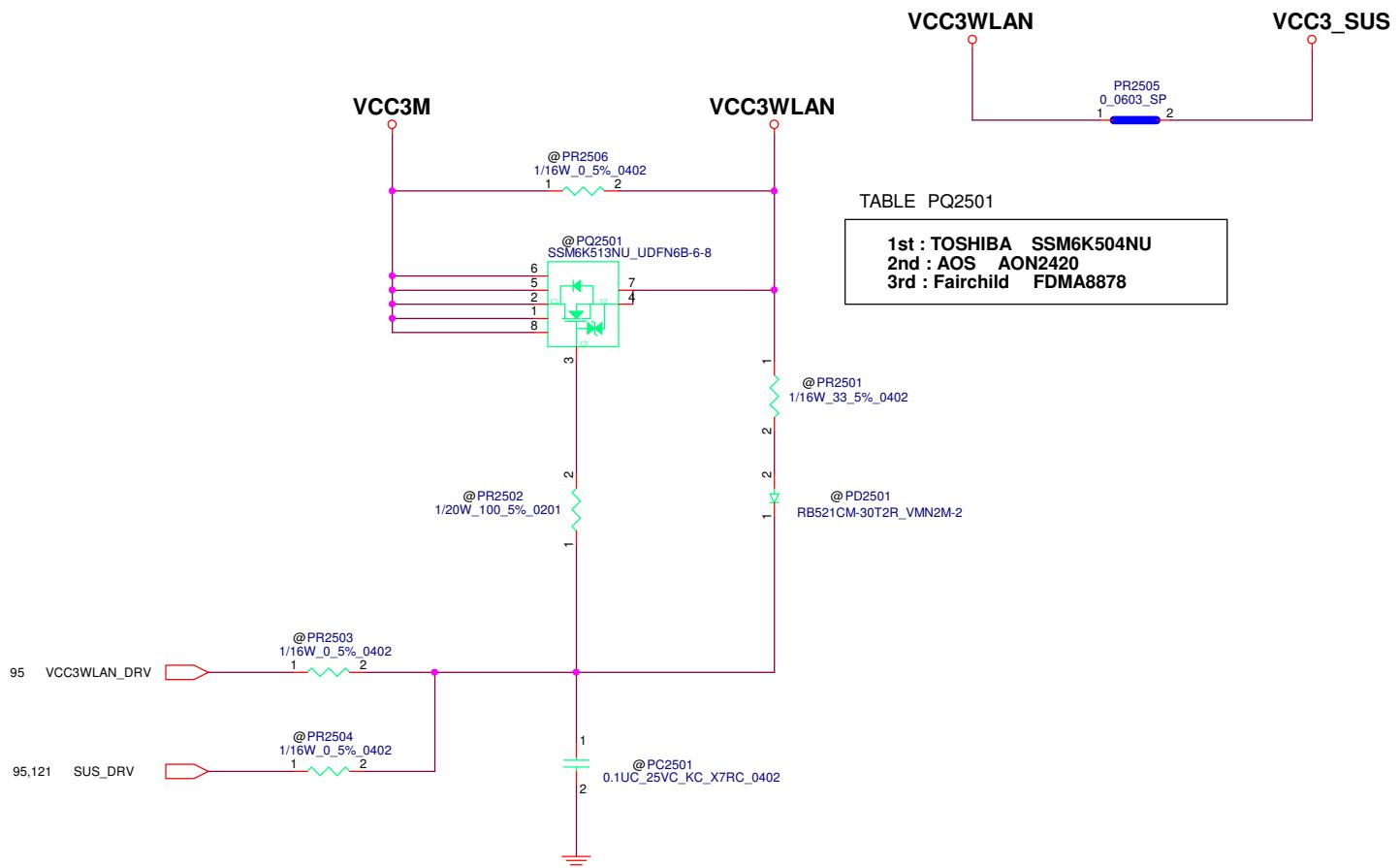


TABLE PQ2403

1st : TOSHIBA SSM6K513NU
2nd : AOS AON2420
3rd : Fairchild FDMA8878





VCC3WLAN

VCC3_SUS

TABLE PQ2501

1st : TOSHIBA SSM6K504NU
2nd : AOS AON2420
3rd : Fairchild FDMA8878

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Title

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