

# Sideswipe&Jazz AMD Logic Schematics

- 1.TITLE PAGE

2.BLOCK DIAGRAM

3.FP5 PCIE/SATA I/F

4.FP5 Memory\_CHA

5.FP5 Memory\_CHB

6.FP5 DP/JTAG/SVI2/MISC

7.FP5 AZ/I2C/ACPI/GPIO

8.FP5 CLK/LPC/SD/EMMC/UART

9.FP5 USB/WIFI/CAM

10.FP5 POWER

11.FP5 GND

12.LPC DEBUG CONN

13.RTC BATTERY

14.SWITCH

15.SMBUS

16.DDR4 MD CHANNEL-A

17.DDR4 MD CHANNEL-B

18.LCD/LID/MIC/CAM/PWR SW

19.USB HUB

20.HDMI RETIMER

21.HDMI CONNECTOR

22.USB/DP redriver1

23.USB/DP redriver2

24.USB PD CONNTRROLLER

25.DOCKING CONNECTOR

26.USB\_TYPE-C CONNECTOR

27.USB\_A REDRIVER

28.BLANK

29.M.2 SSD

30.USB POWER/CONN

31.BLANK

32.DOCK LAN

33.BLANK

34.MEDIA\_CARD\_CONN
- 35.M.2 SOCKET1 MODULE I/F

36.M.2 SOCKET2 MODULE I/F

37.MEDIA CARD

38.AUDIO ALC3287-CG

39.AUDIO CONNECTOR

40.AUDIO

41.AUDIO EXT MIC I/F

42.AUDIO SPEAKER

43.AUDIO BEEP

44.EC\_IT8186E/FX

45.THERMAL SENSOR

46.CHARGE LED

47.KEYBOARD/TRACK POINT

48.TOUCH PAD/NFC/FPR/SCR

49.FAN CONNECTOR

50.APS G-SENSOR

51.DISCRETE TPM 2.0

52.LOAD SW 5VS/3VS/1.8VS/0.9VS

53.LOAD SW WLAN

54.OTP

55.DC-IN

56.BATTERY INPUT

57.BATTERY CHARGER(BQ25700A)

58.BLANK

59.DC/DC+5/3VALWL(TPS51285B)

60.+VDD\_CORE/CORENB (ISL62771)

61.+VDD\_CORE /CORENB DECOUPE

62.+0.9VALWP(NB693)

63.DC/DC+1.2V(NB687)

64.+1.8VALW(RT8068A)

65.SCREW

66.PWR-Power Diagram

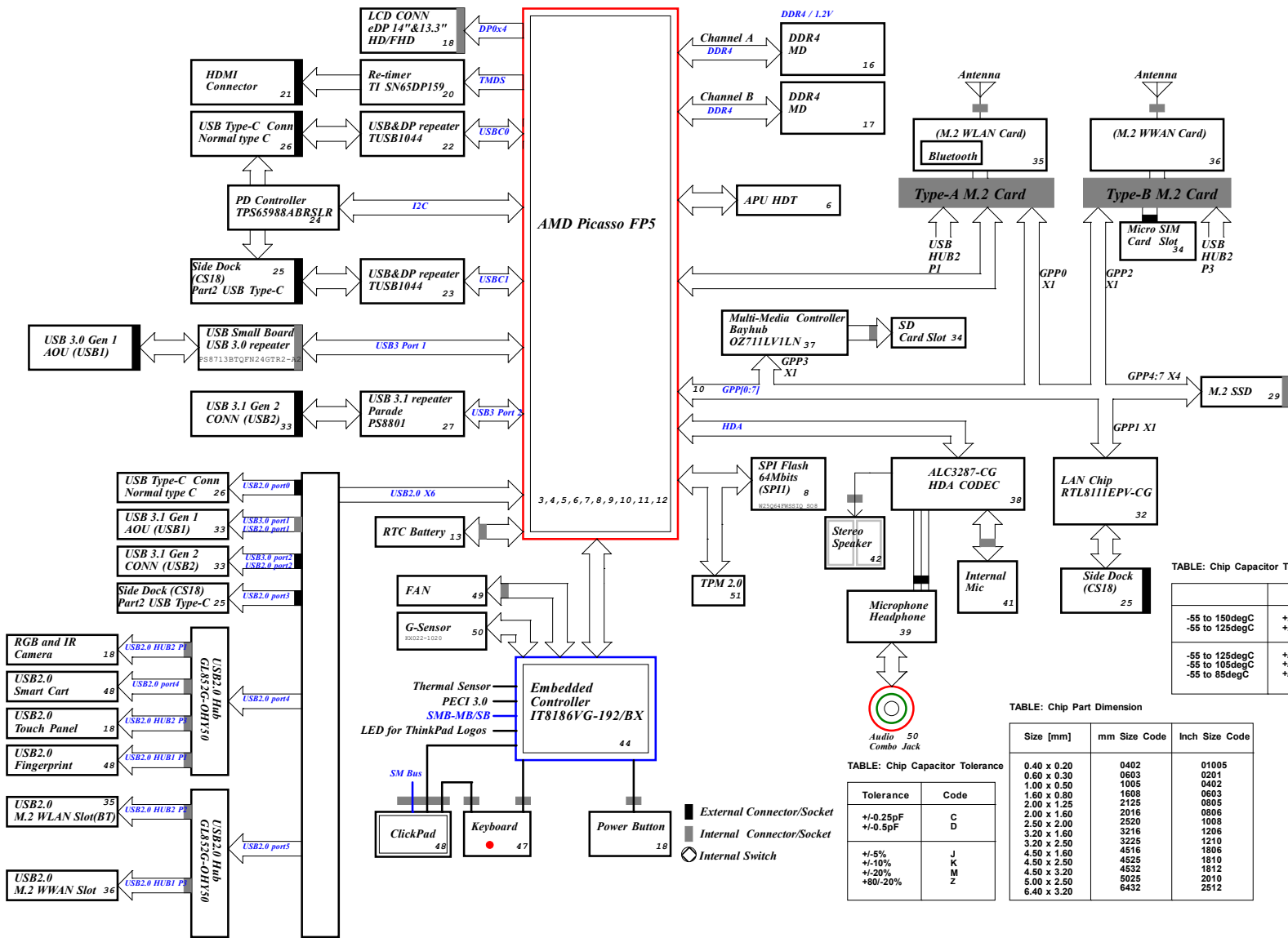


TABLE: Chip Capacitor Thermal Characteristics

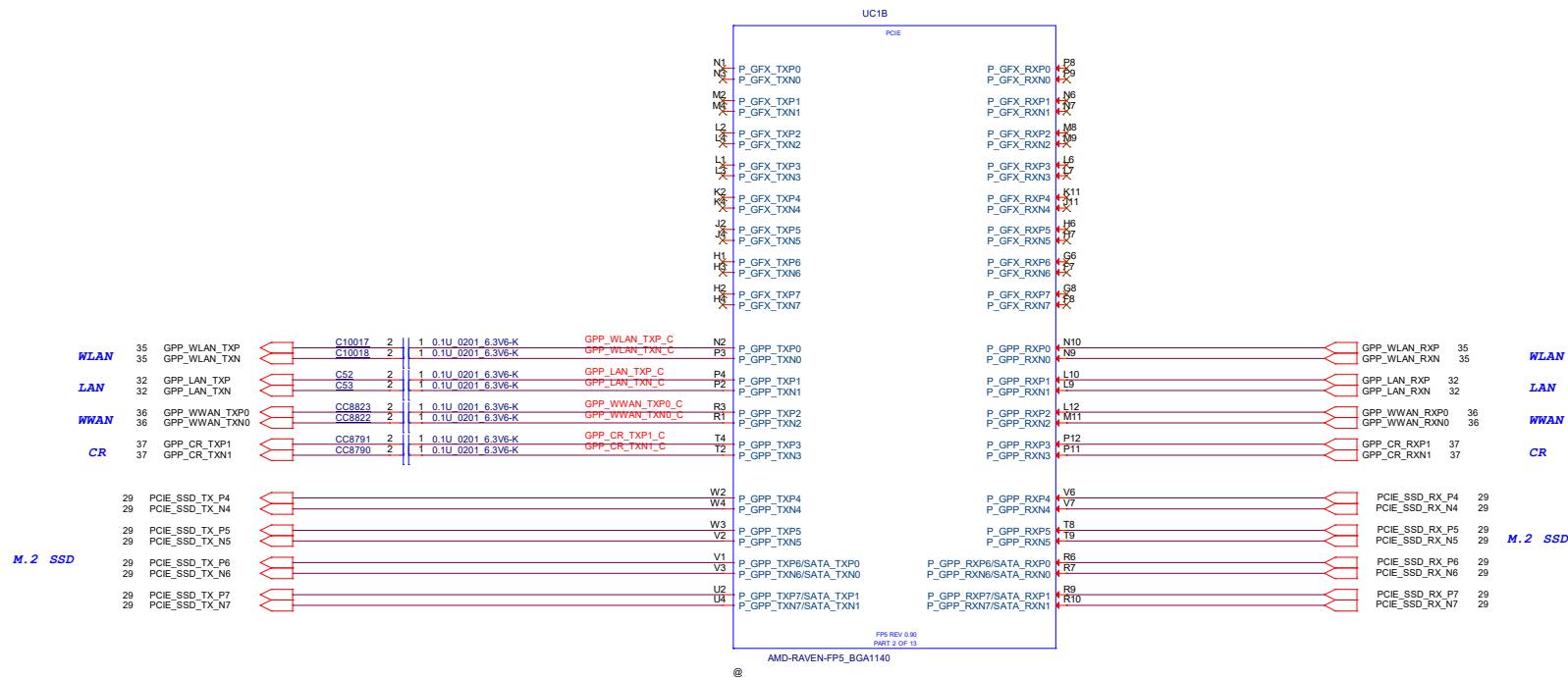
		Code
-55 to 150degC	+/-30ppm/degC	NPO
-55 to 125degC	+/-30ppm/degC	C0G
-55 to 125degC	+/-15%	X7R
-55 to 105degC	+/-22%	X6S
-55 to 85degC	+/-15%	X5R


TABLE: Chip Part Dimension

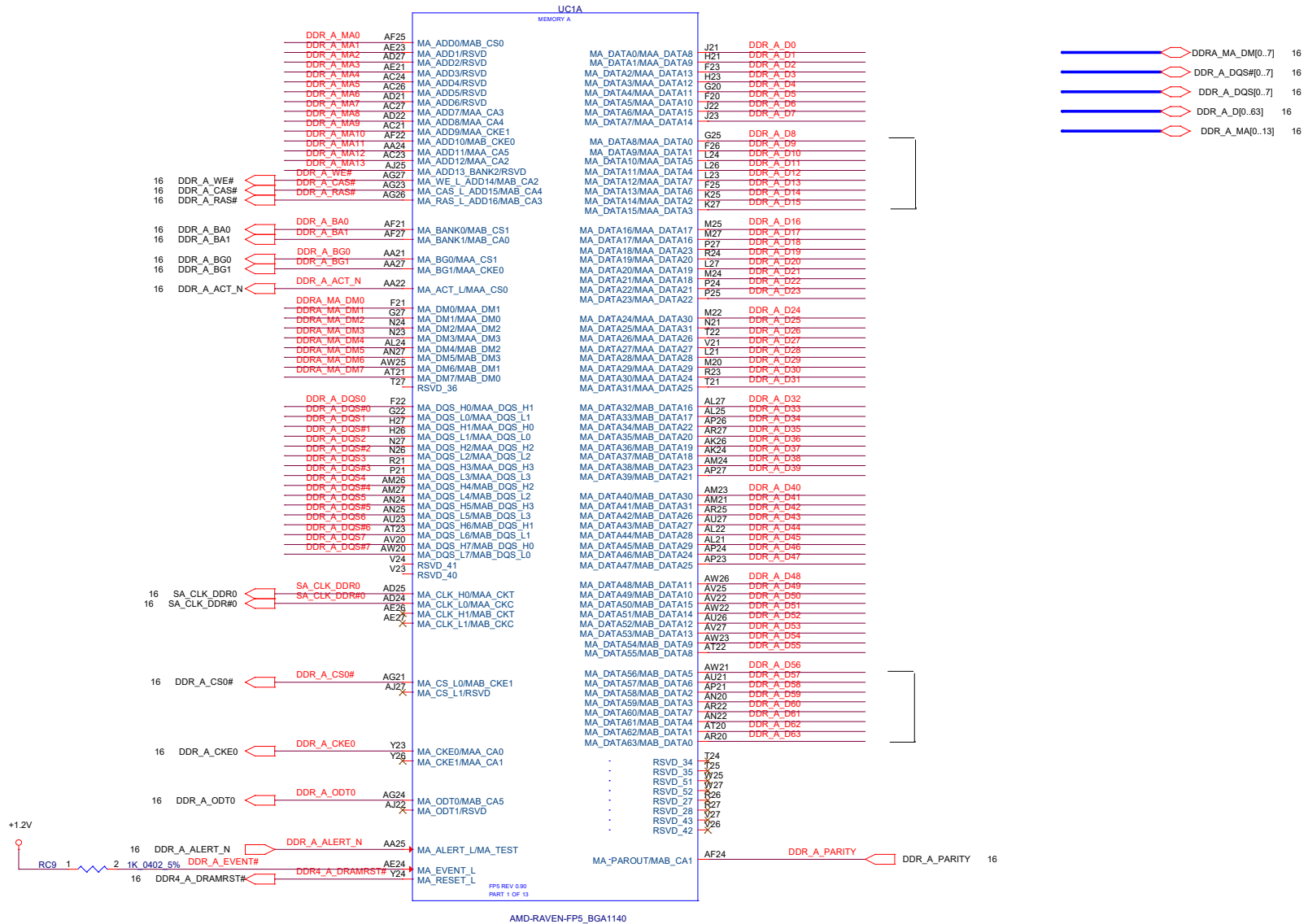
Size [mm]	mm Size Code	Inch Size Code
0.40 x 0.20	0402	01005
0.60 x 0.30	0603	0201
1.00 x 0.50	1005	0402
1.60 x 0.80	1608	0603
2.00 x 1.25	2125	0805
2.00 x 1.60	2016	0806
2.50 x 2.00	2520	1008
3.20 x 1.60	3216	1206
3.20 x 2.50	3225	1210
4.50 x 1.60	4516	1806
4.50 x 2.50	4525	1810
4.50 x 3.20	4532	1812
5.00 x 2.50	5025	2010
6.40 x 3.20	6432	2512

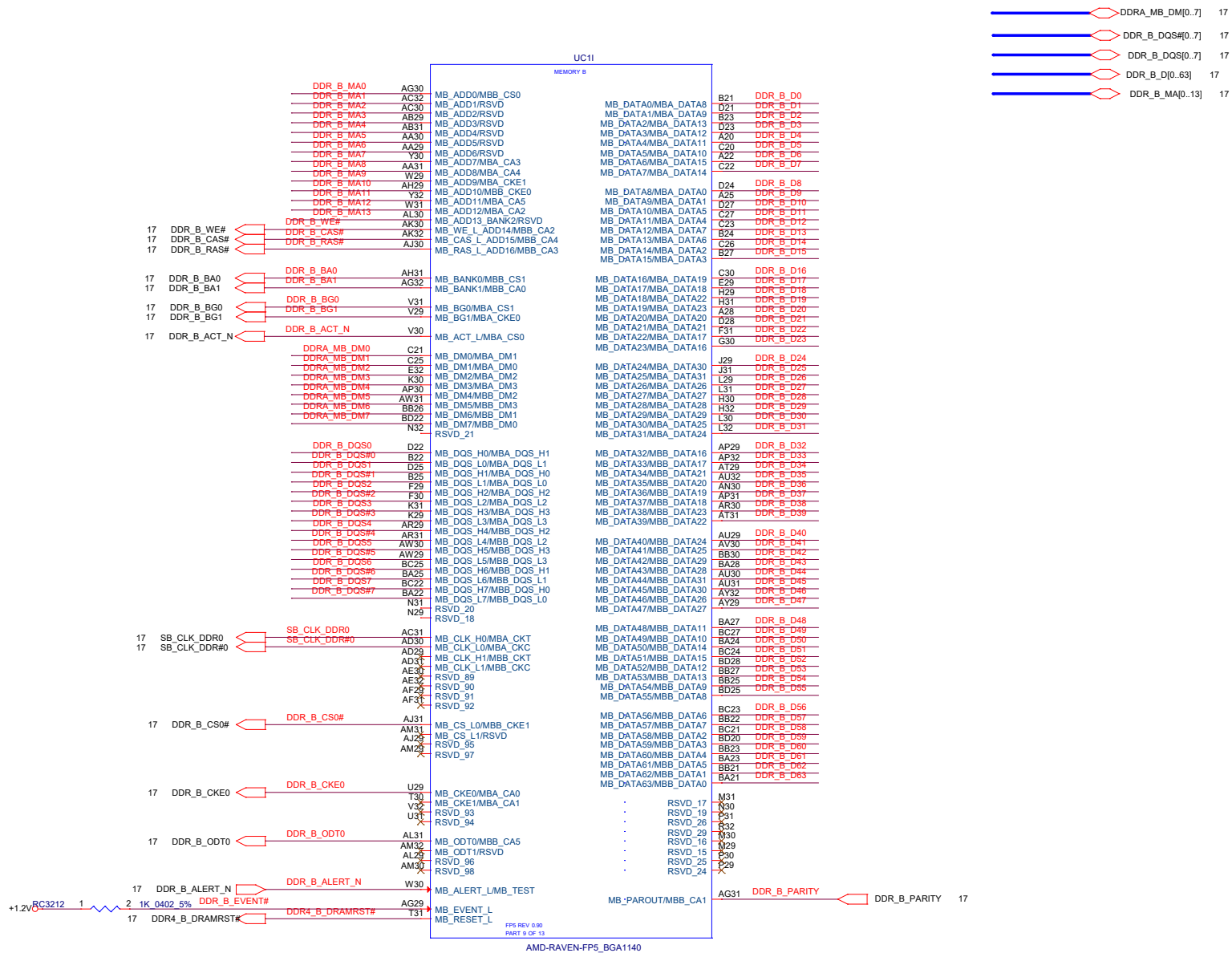
TABLE: Chip Capacitor Tolerance

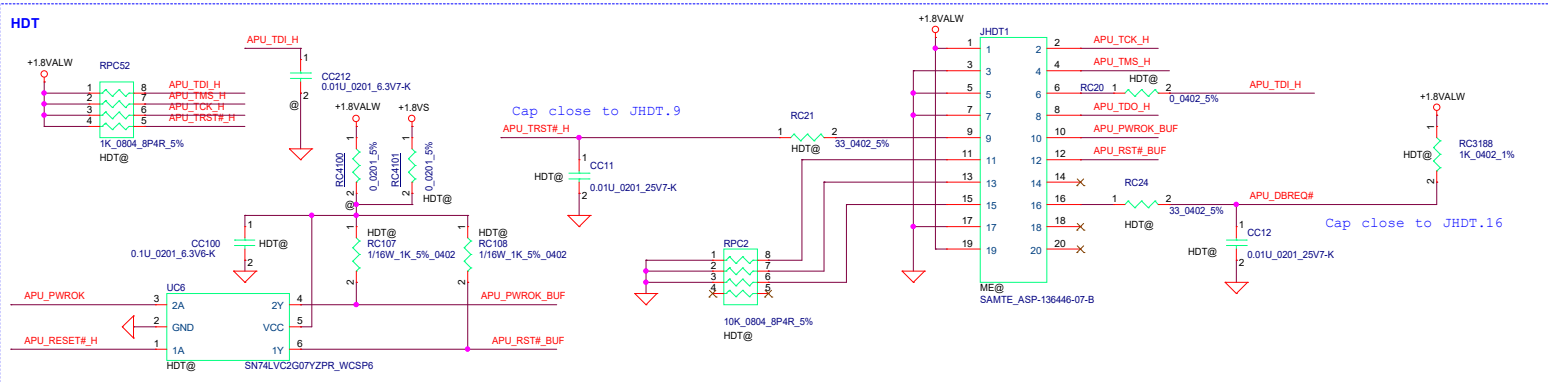
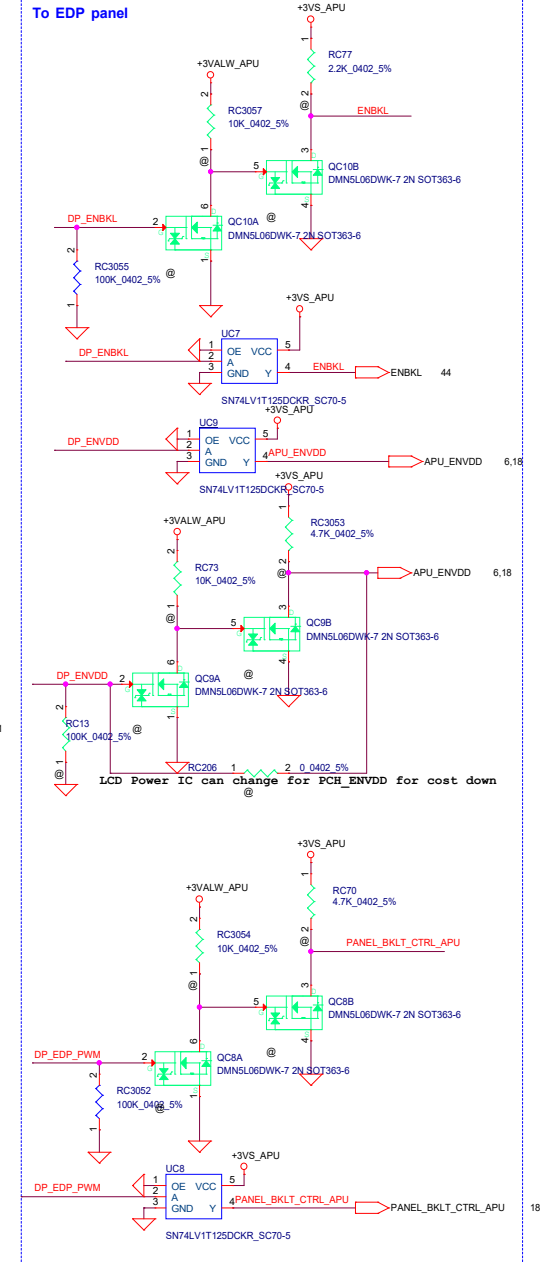
Tolerance	Code
+/-0.25pF	C
+/-0.5pF	D
+/-5%	J
+/-10%	K
+/-20%	M
+80/-20%	Z




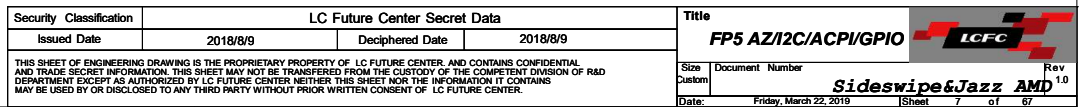
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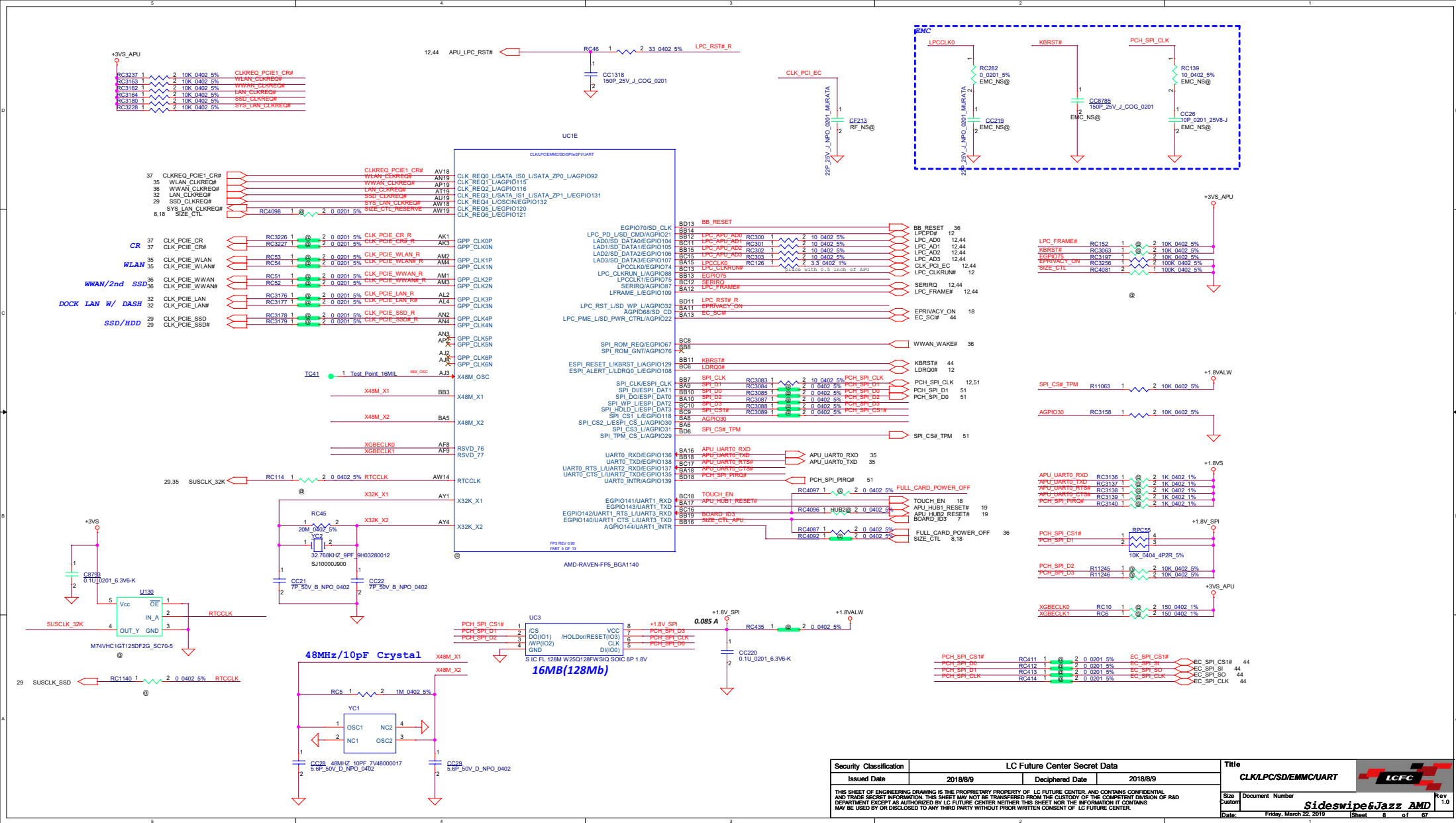




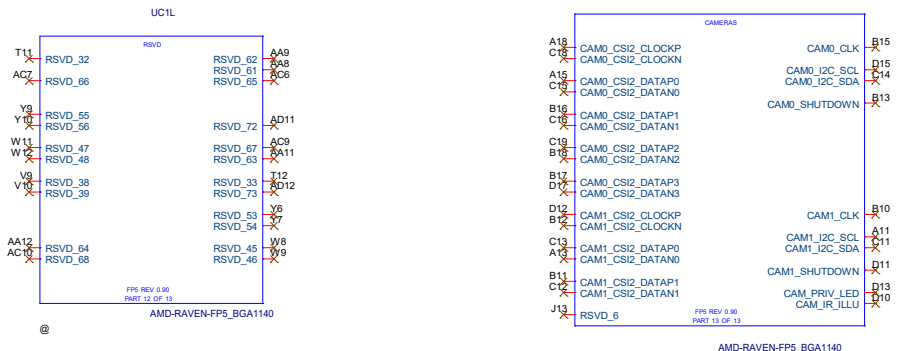
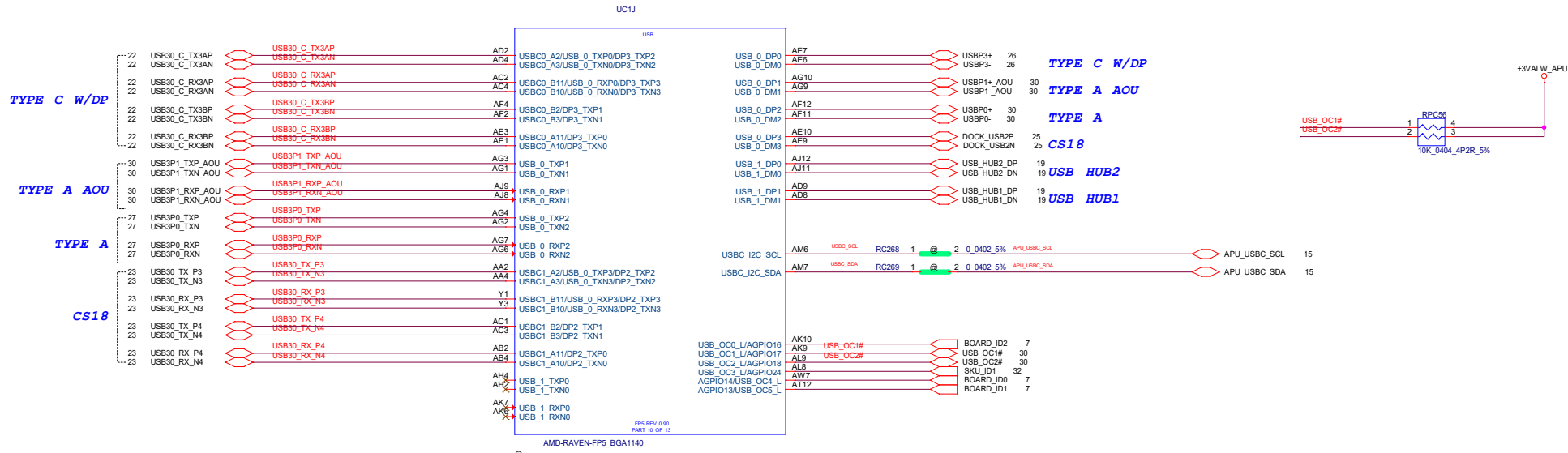
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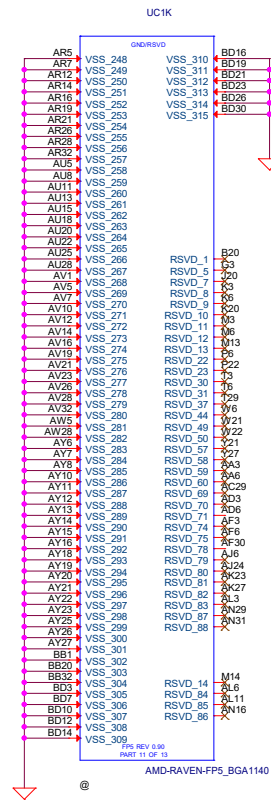
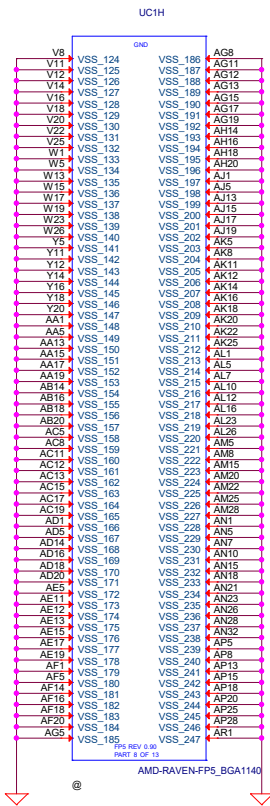
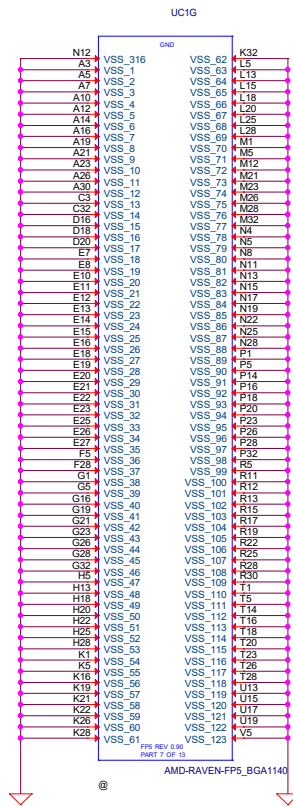


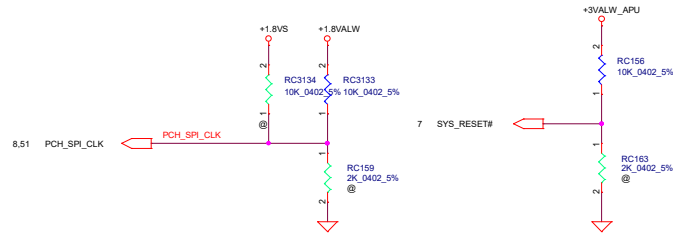




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Date:		Friday, March 22, 2019		Sheet	9 of 67

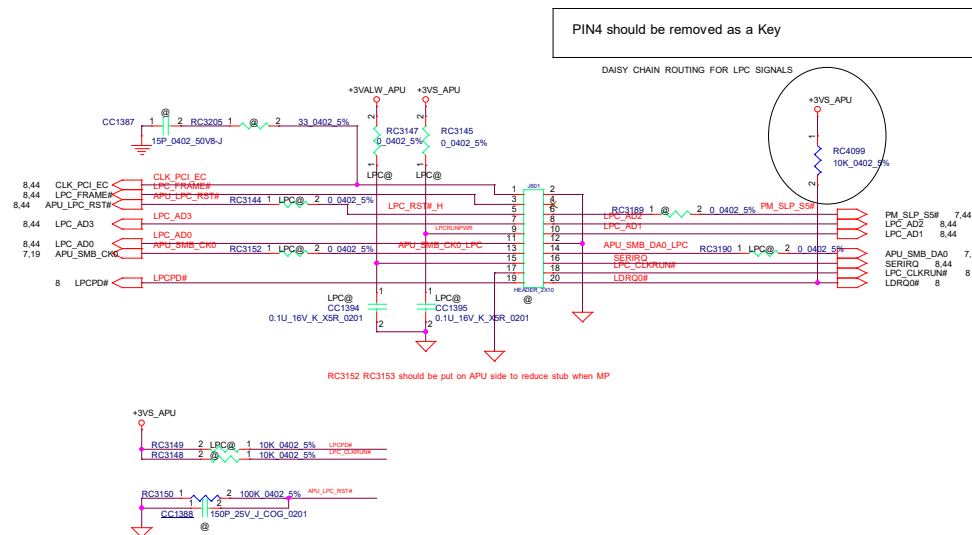


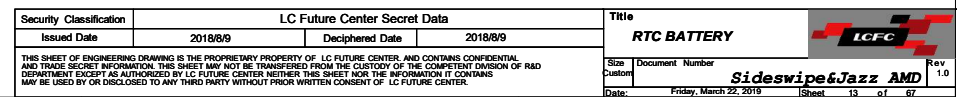


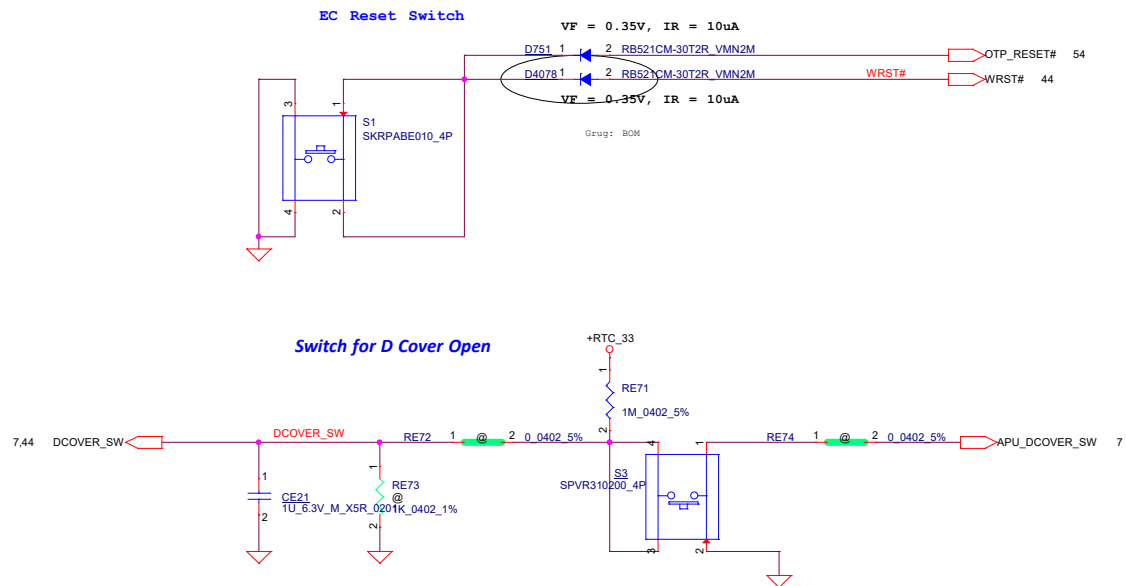



STRAP PINS	SYS_RESET#
PCH_SPI_CLK	1:USE 48MHZ CRYSTAL CLOCK AND GENERATE BOTH INTERNAL AND EXTERNAL CLOCKS(DEFAULT) 0:USE 100MHZ PCIE CLOCK AS REFERENCE CLOCK AND GENERATE INTERNAL CLOCKS ONLY
SYS_RESET#	1:NORMAL RESET MODE(DEFAULT) 0:SHORT RESET MODE

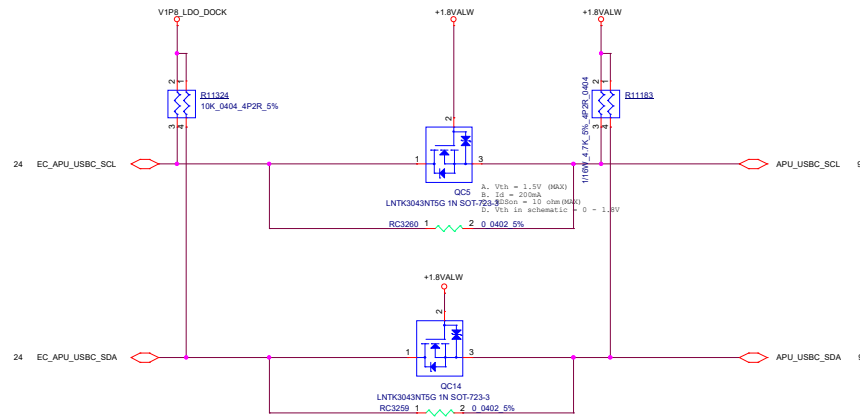
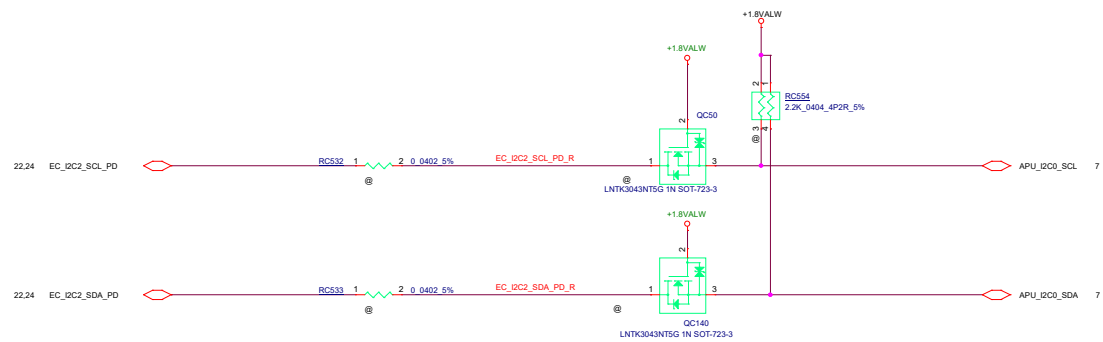
## LPC ROM EMULATOR HEADER



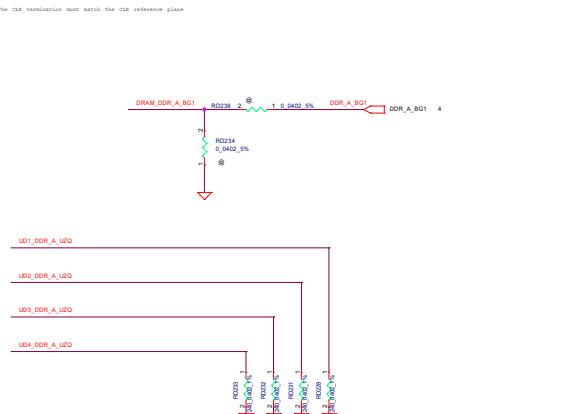
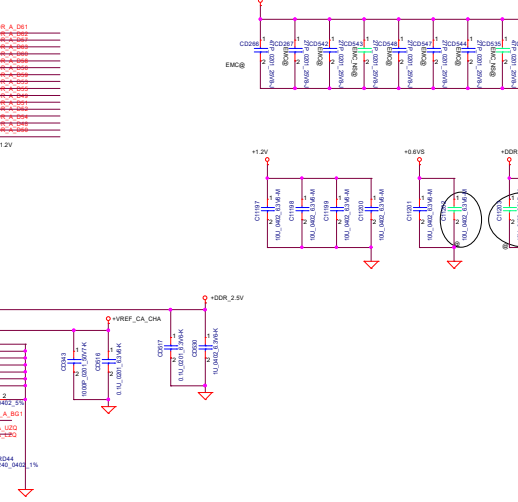
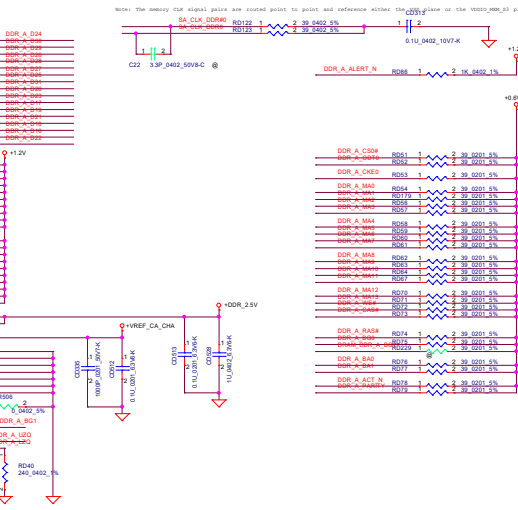
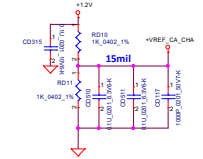
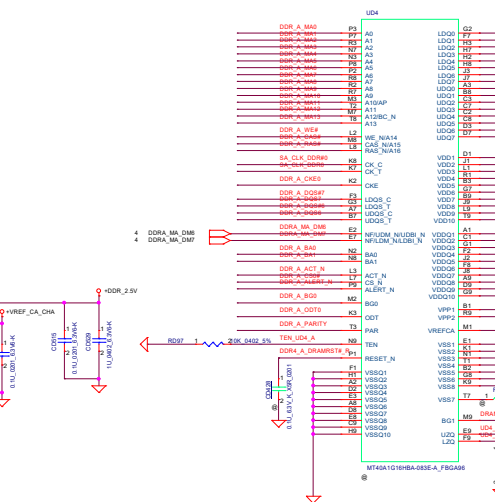
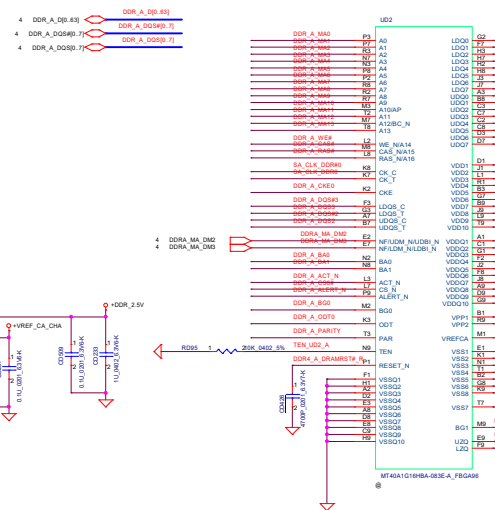
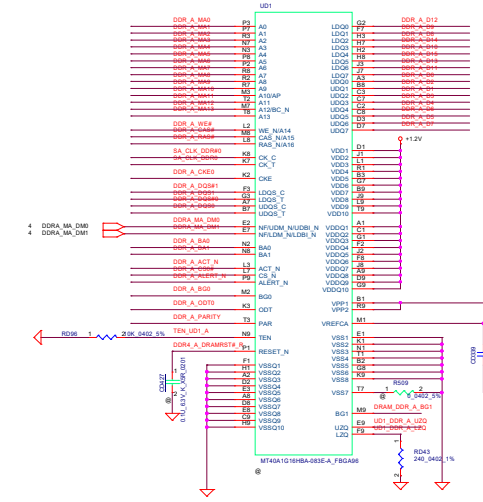
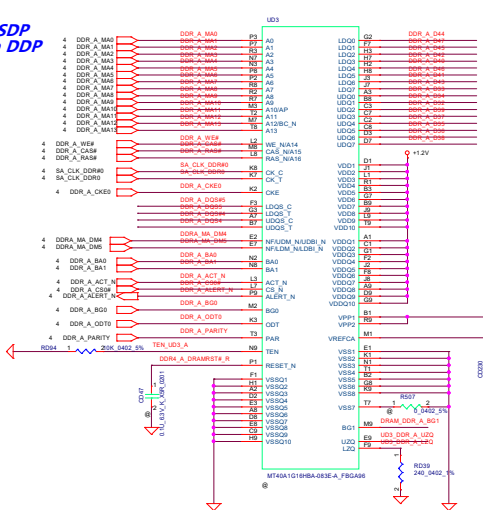




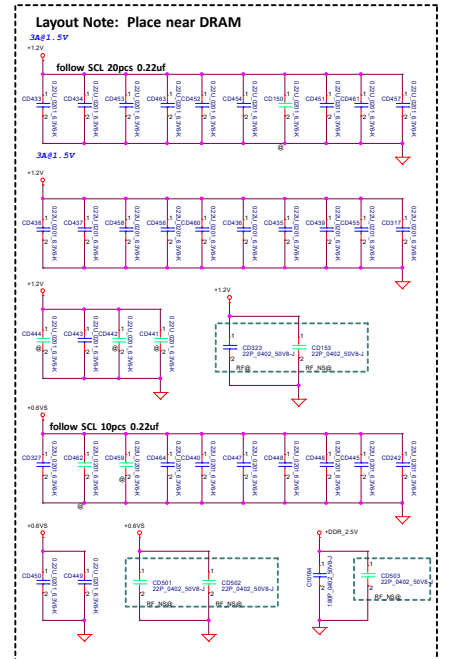
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				Date:		Friday, March 22, 2019		Sheet 14 of 67








RD233 RD232 RD231 RD228 will install different value base on SDP or DDP.control by Virtual symbol



**Table 32. DDR4 DRAM Down Per-Channel Decoupling Capacitors**

Capacitor		Configuration	VDDIO_MEM_S3-VSS	VDDIO_MEM_S3-VTT	VTT-VSS	VREF_CA- VDDIO_MEM_S3
Value	Package Size / Material					
0.1 $\mu$ F	0402 XSR	SRx16	-	-	-	4
0.22 $\mu$ F	0402 XSR	SRx16	18	5	5	-

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8Gb SDP  
16Gb DDP

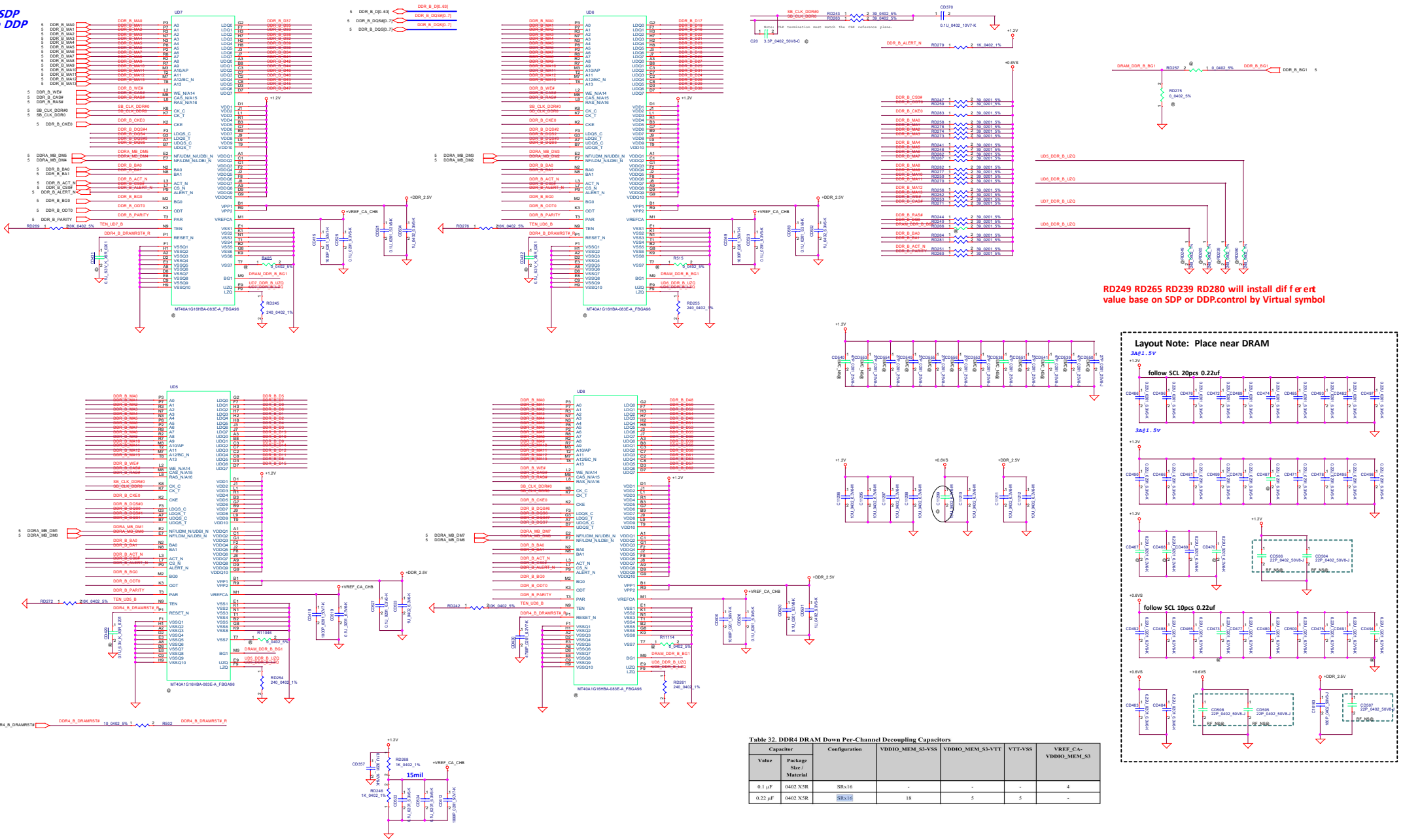
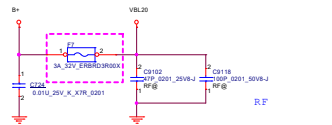
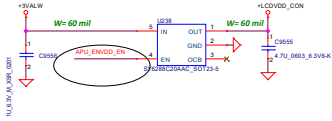


Table 32. DDR4 DRAM Down Per-Channel Decoupling Capacitors

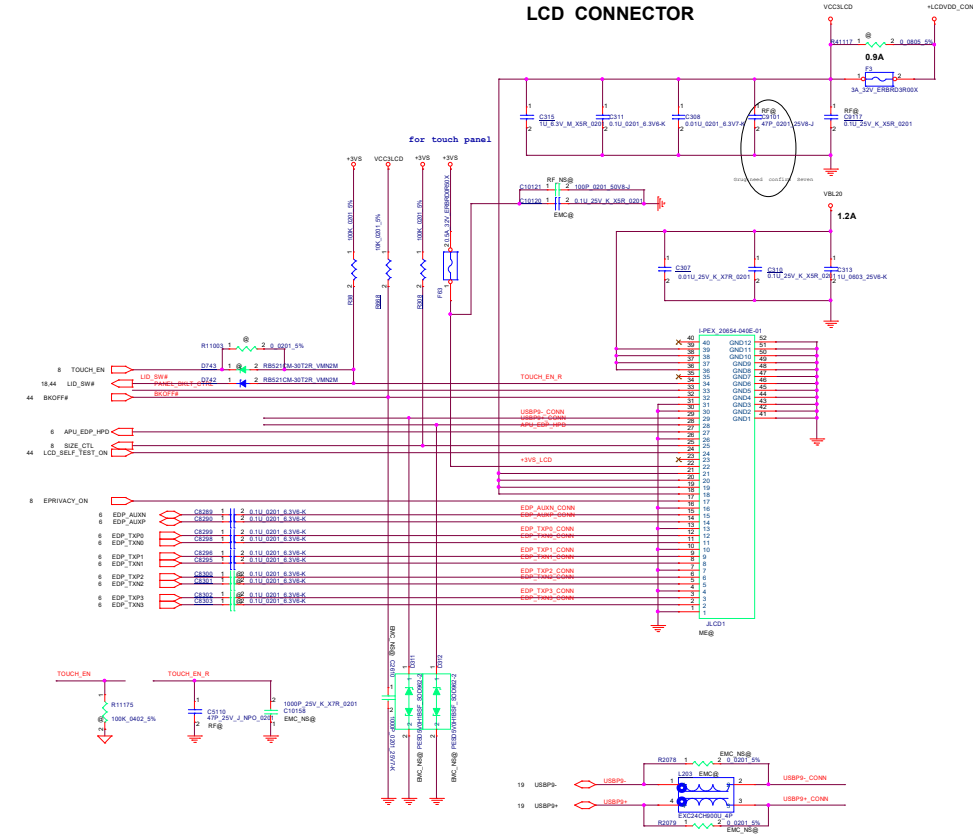
Capacitor	Configuration	VDDIO_MEM_S3-VSS	VDDIO_MEM_S3-VTT	VTT-VSS	VREF_CA- VDDIO_MEM_S3
Value	Package Size/ Material				
0.1 µF	0402 XSR	SRa16	-	-	4
0.22 µF	0402 XSR	SRa16	18	5	-



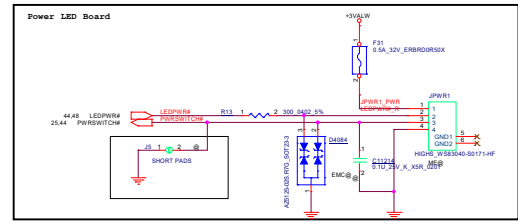
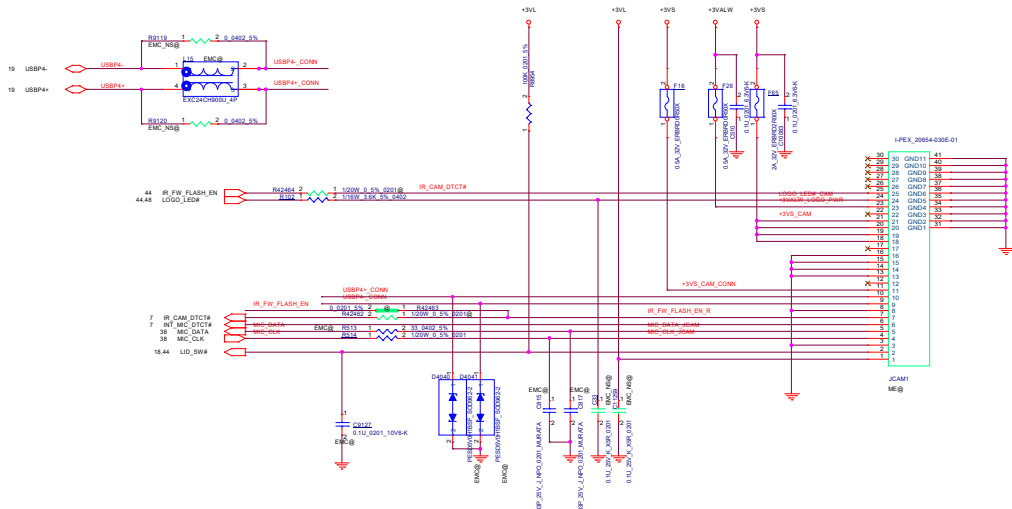
LCDVDD Circuit



LCD CONNECTOR



CAMERA CONNECTOR



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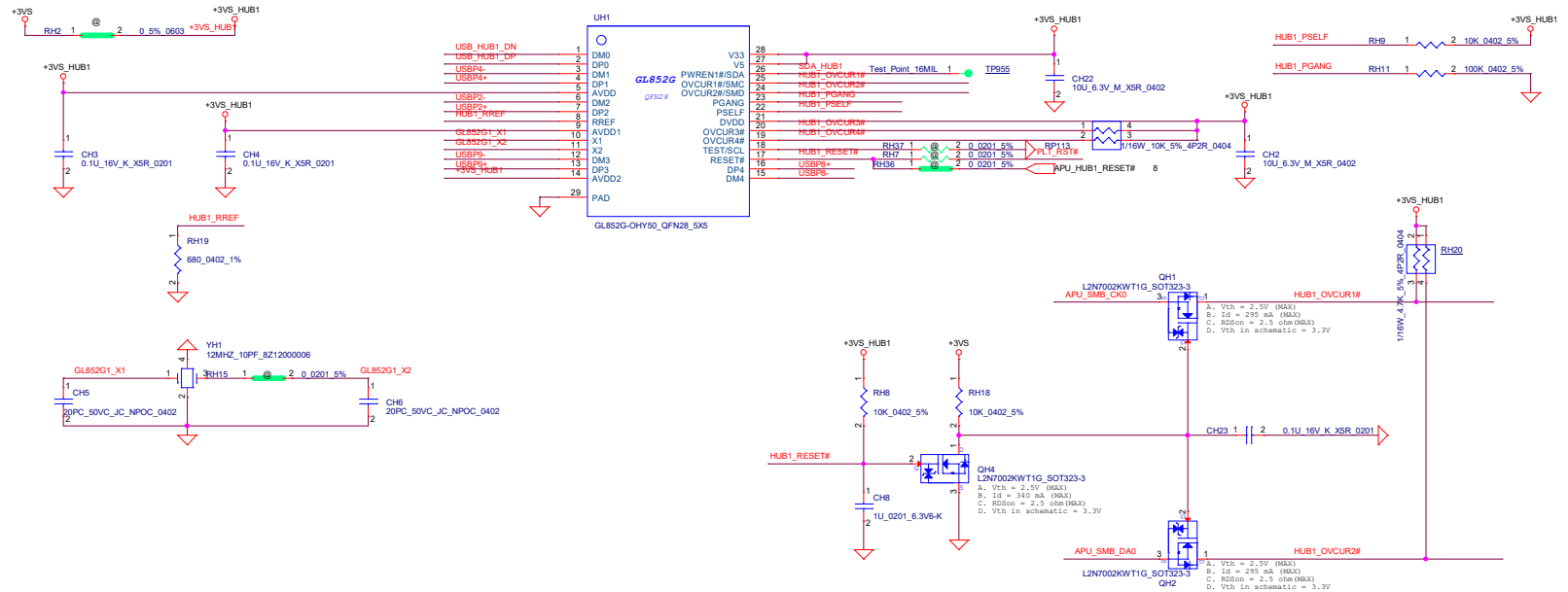
## USB Hub1

9 USB\_HUB1\_DP  
9 USB\_HUB1\_DN

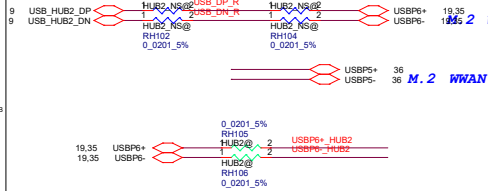
USBP4+ 18  
USBP4- 18  
USBP2+ 48  
USBP2- 48  
USBP9+ 18  
USBP9- 18  
USBP6+ 48  
USBP6- 48

PORT1	IR Camera
PORT2	M.2 WLAN BT
PORT3	Touch Panel
PORT4	2D Camera

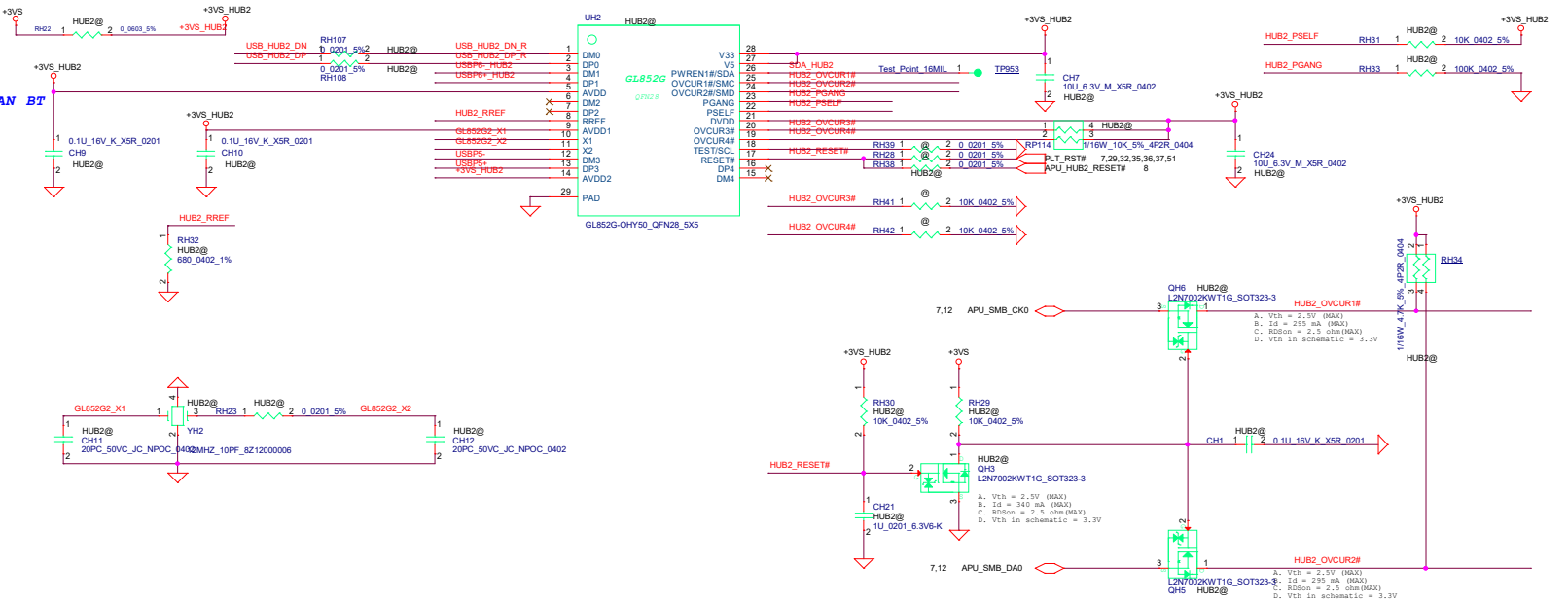
Camera  
Smart Cart  
Touch Panel  
Fingerprint



## USB Hub2

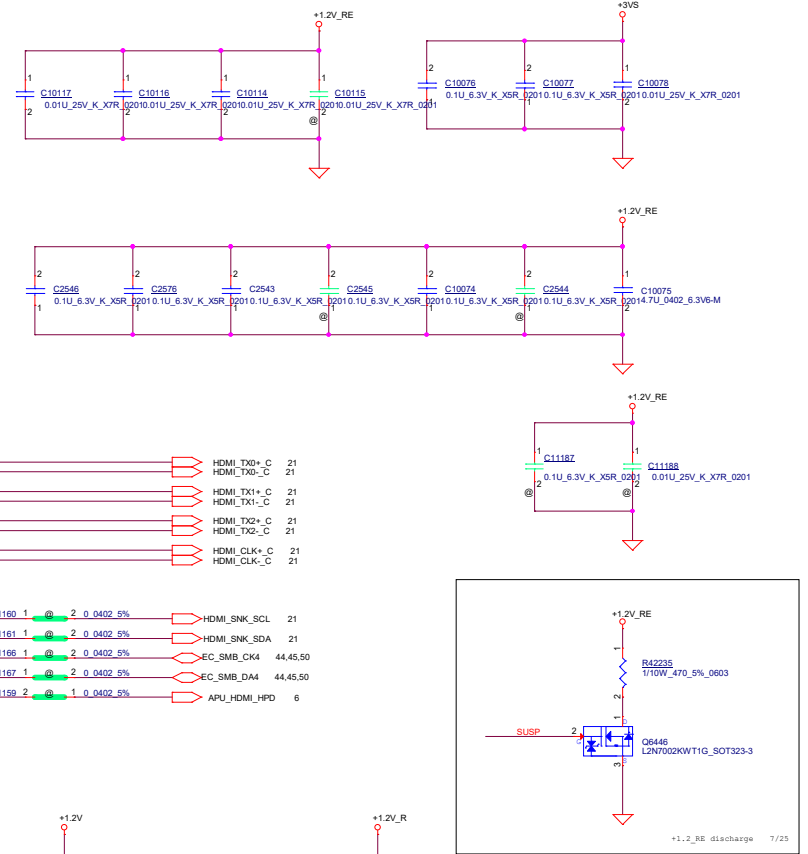



PORT1	Finger print
PORT3	M.2 WWAN
PORT4	smart card

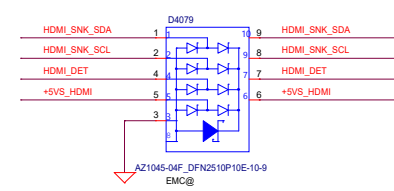
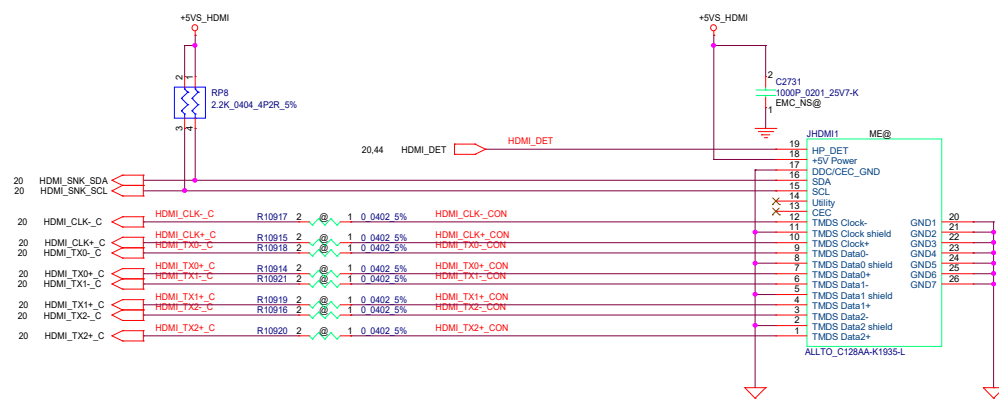
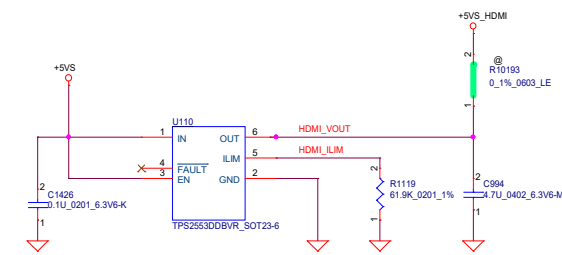
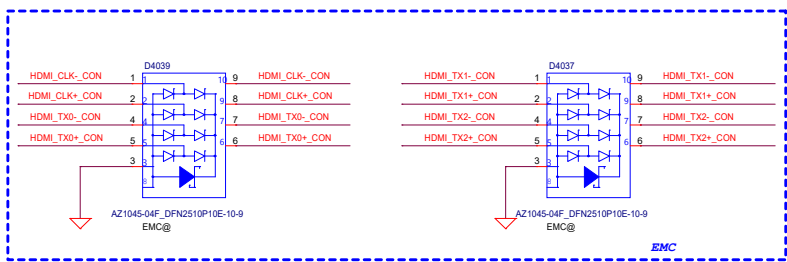
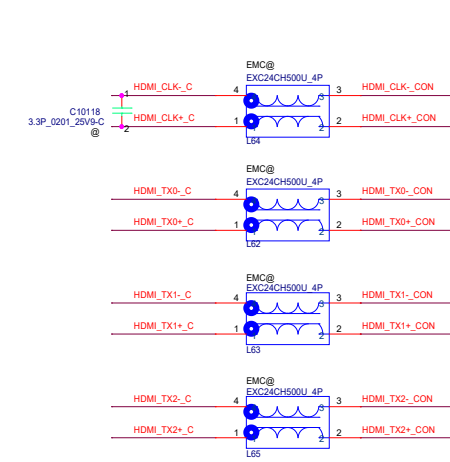


# HDMI Re-timer

The diagram illustrates the internal connections of an HDMI Re-timer. It shows the mapping of source signals to internal components and then to sink signals. Key components include DCIN\_ENB, DCIN\_EN, DCIN\_RST, DCIN\_REDRIVER\_EQ, DCIN\_REXT, DCIN\_PRE, DCIN\_CLK\_R, DCIN\_DET, DCIN\_I2C\_ADDR, and DCIN\_ID. The diagram also shows power supply connections for +3V0 and +1.2V\_I. The bottom of the diagram shows the board number PS8409AQN48GTR2-A2\_QFN48\_6X6.

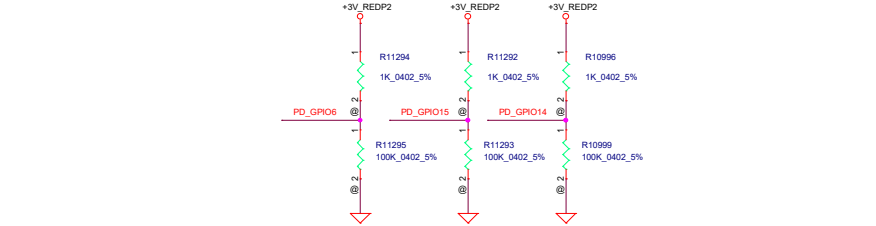
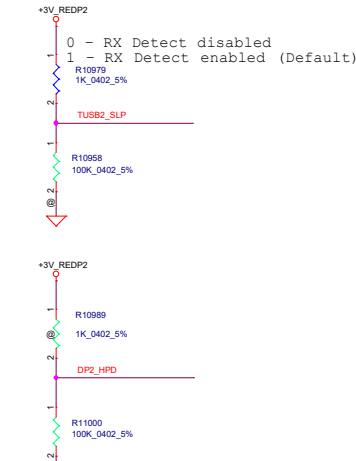
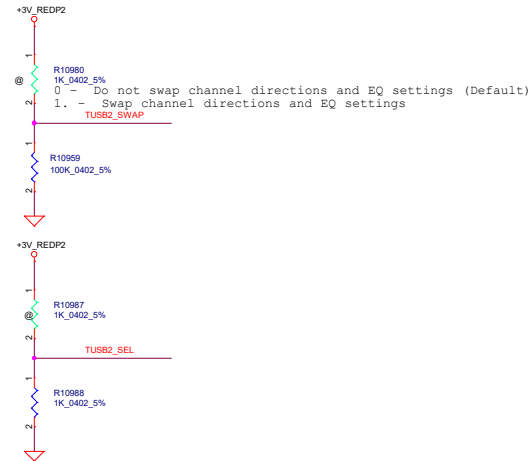
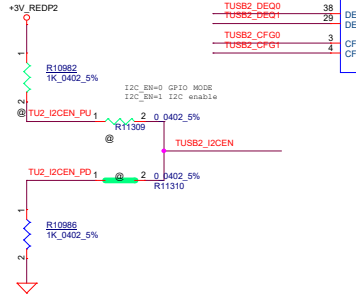
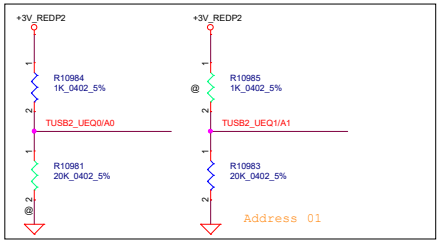
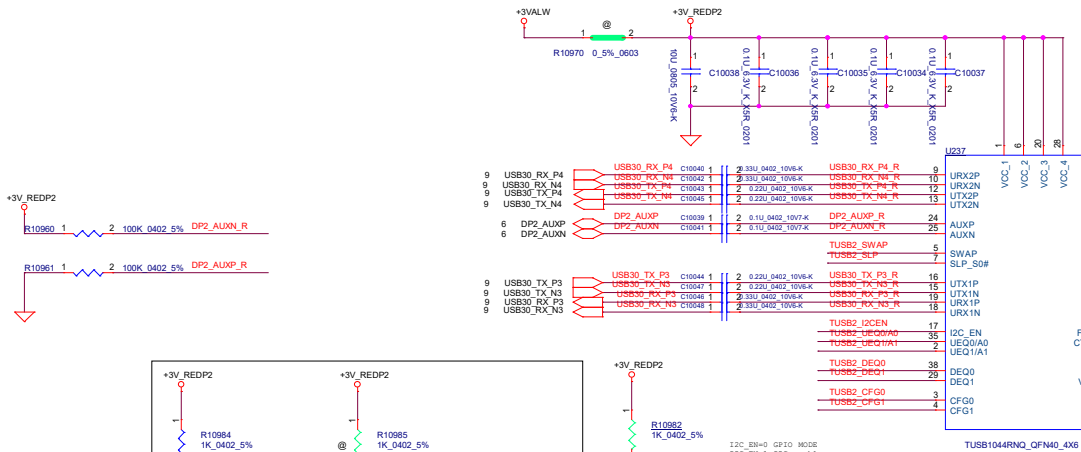


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					Sheet 20 of 67	

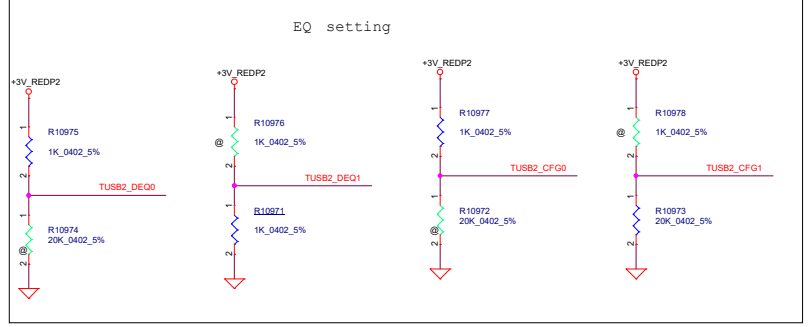
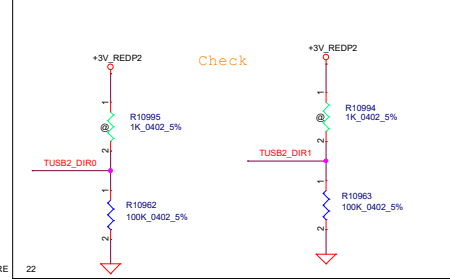









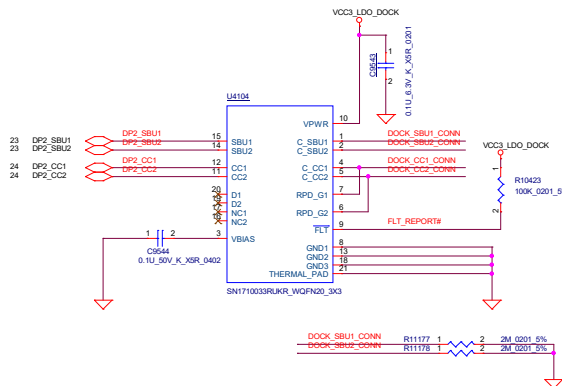
L = DisplayPort Disabled.  
H = DisplayPort Enabled.  
When I2C\_EN = 0, this pin is not used by device.



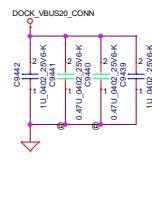
0 = 3.3-V configuration I/O voltage, 3.3-V I2C interface (Default)  
1 = 1.8-V configuration I/O voltage, 1.8-V I2C interface

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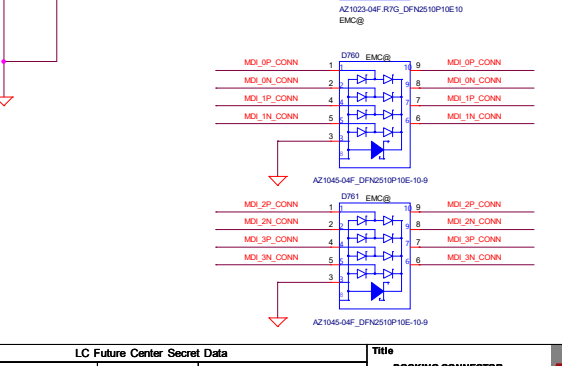
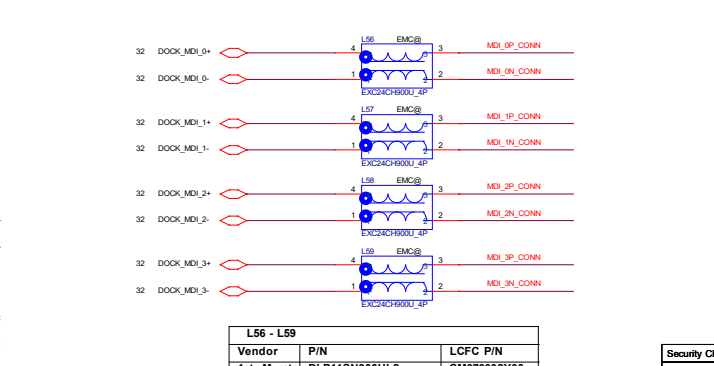
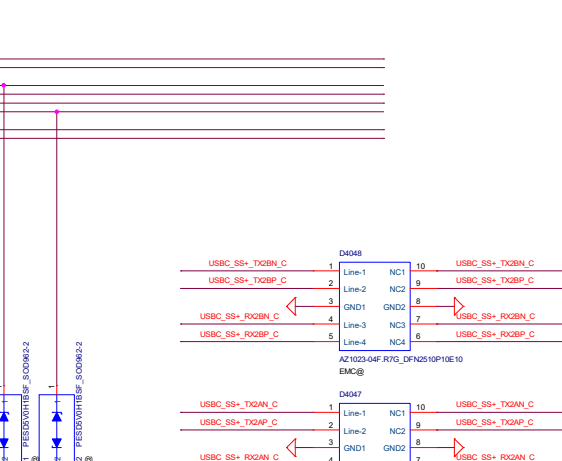
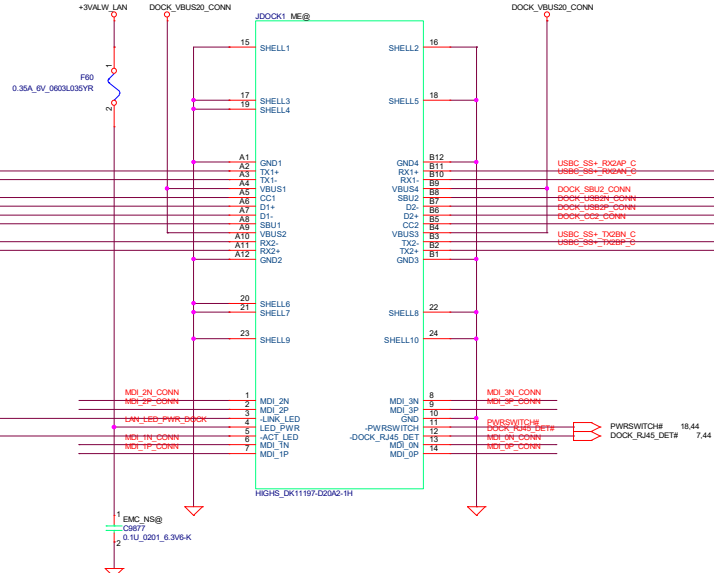
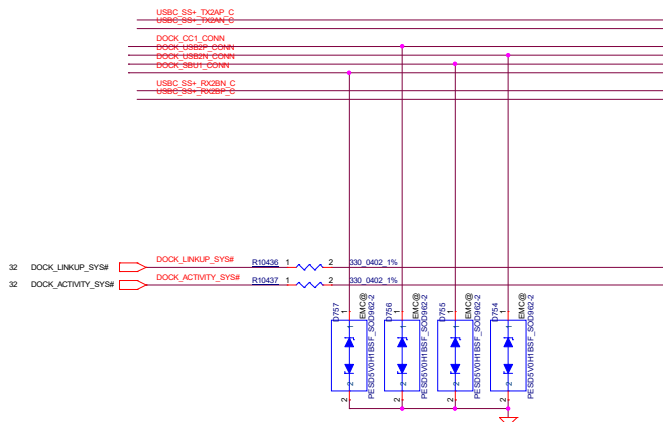
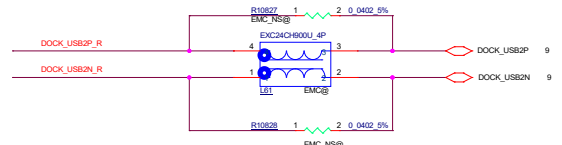
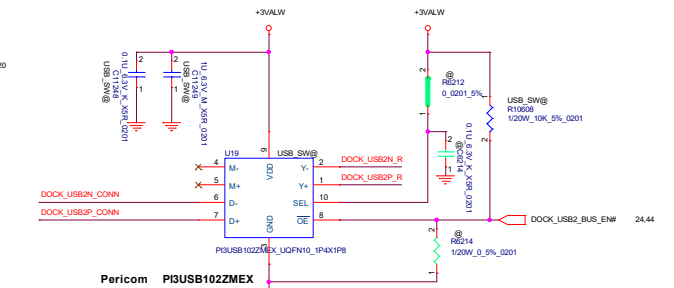




F60		
Vendor	P/N	LCFC P/N
LITELFUSE	0603L035YR	SP040007900
BOURNS	MF-FSMF035X-2	SP040007700
AEM	PMS0603-035	SP040007B00

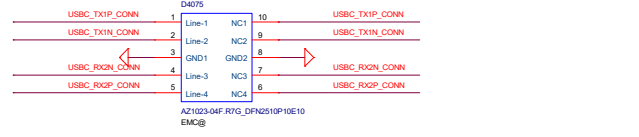
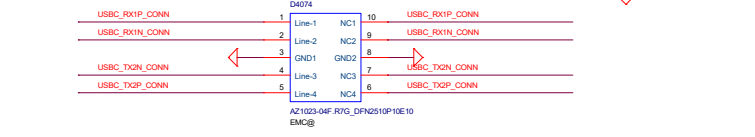
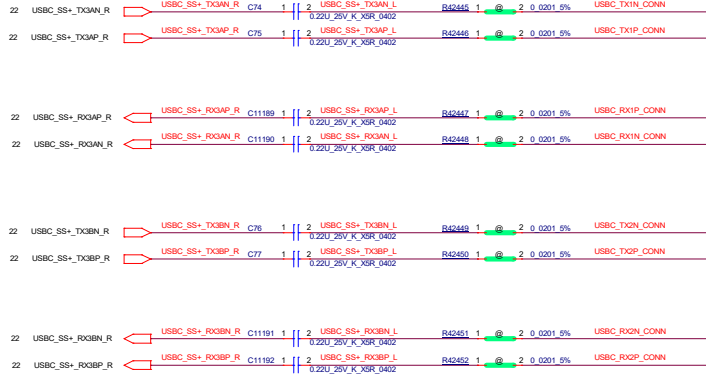
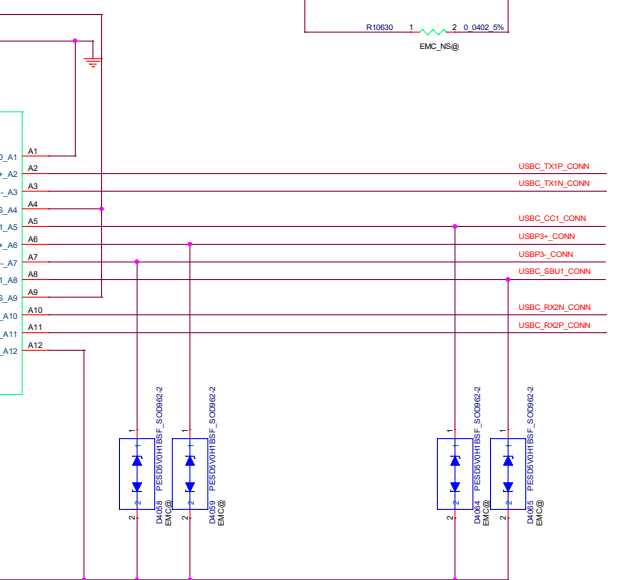
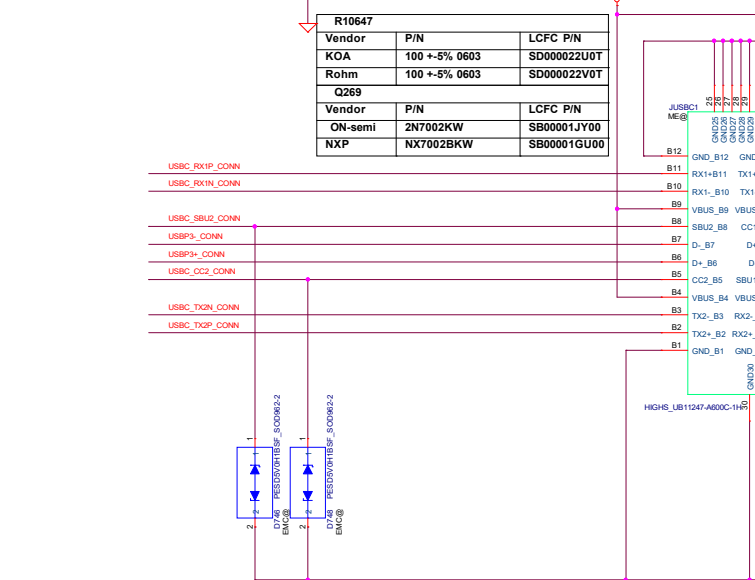
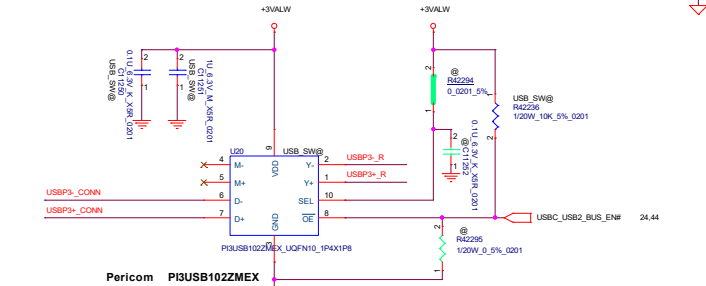
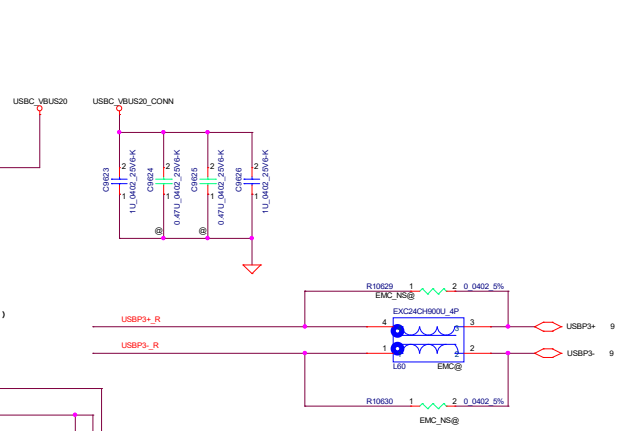
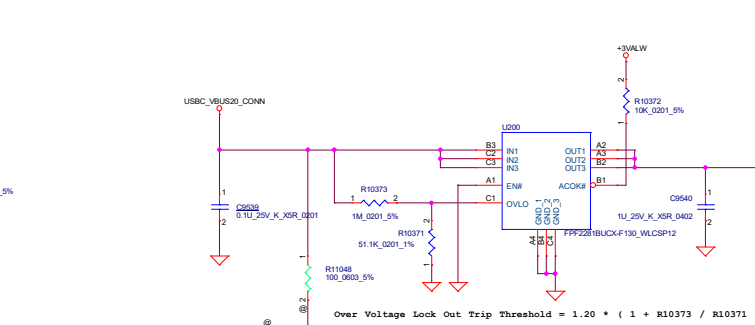
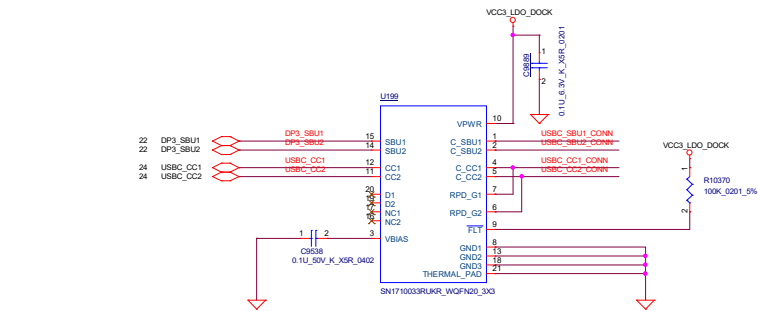


Vendor	P/N	LCFC P/N
KOA	100 +5% 0603	SD000022U0T
Rohm	100 +5% 0603	SD000022V0T
Q269		
Vendor	P/N	LCFC P/N
ON-semi	2N7002KW	SB00001JY00
NXP	NX7002BKW	SB00001GU00



L56 - L59		
Vendor	P/N	LCFC P/N
1st: Murata	DLP11SN900H2	SM070002Y00
2nd: TDK	MCZ1210AH900L2TA0G	SM070004A00

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Author	Document Number	Sideswipe&Jazz AMD
Date	Friday, March 22, 2019	Sheet 25 of 27



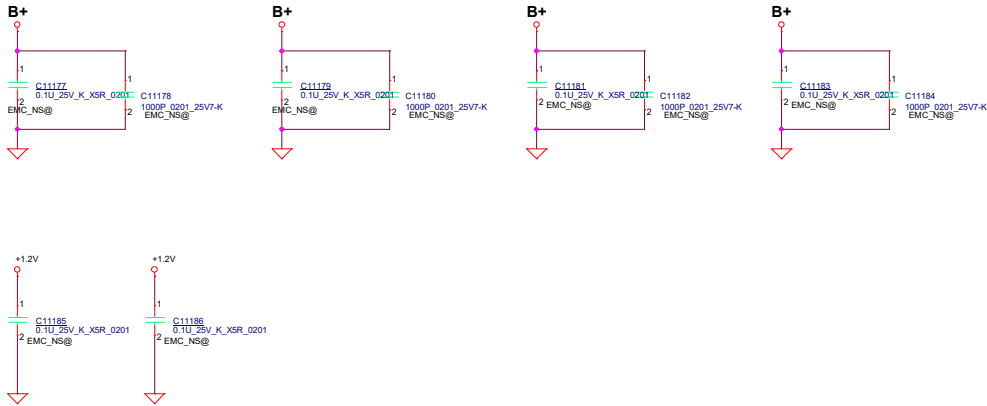




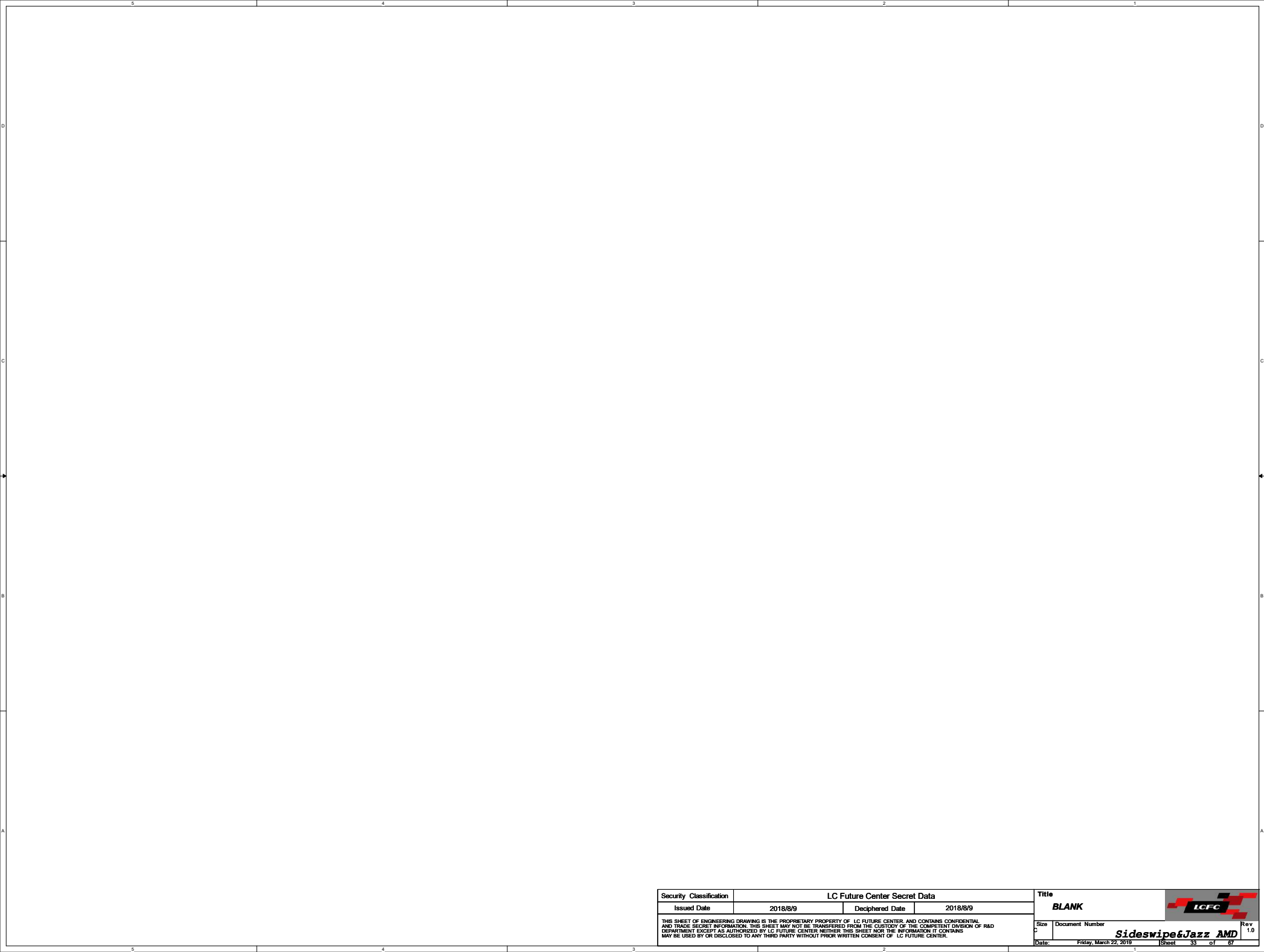






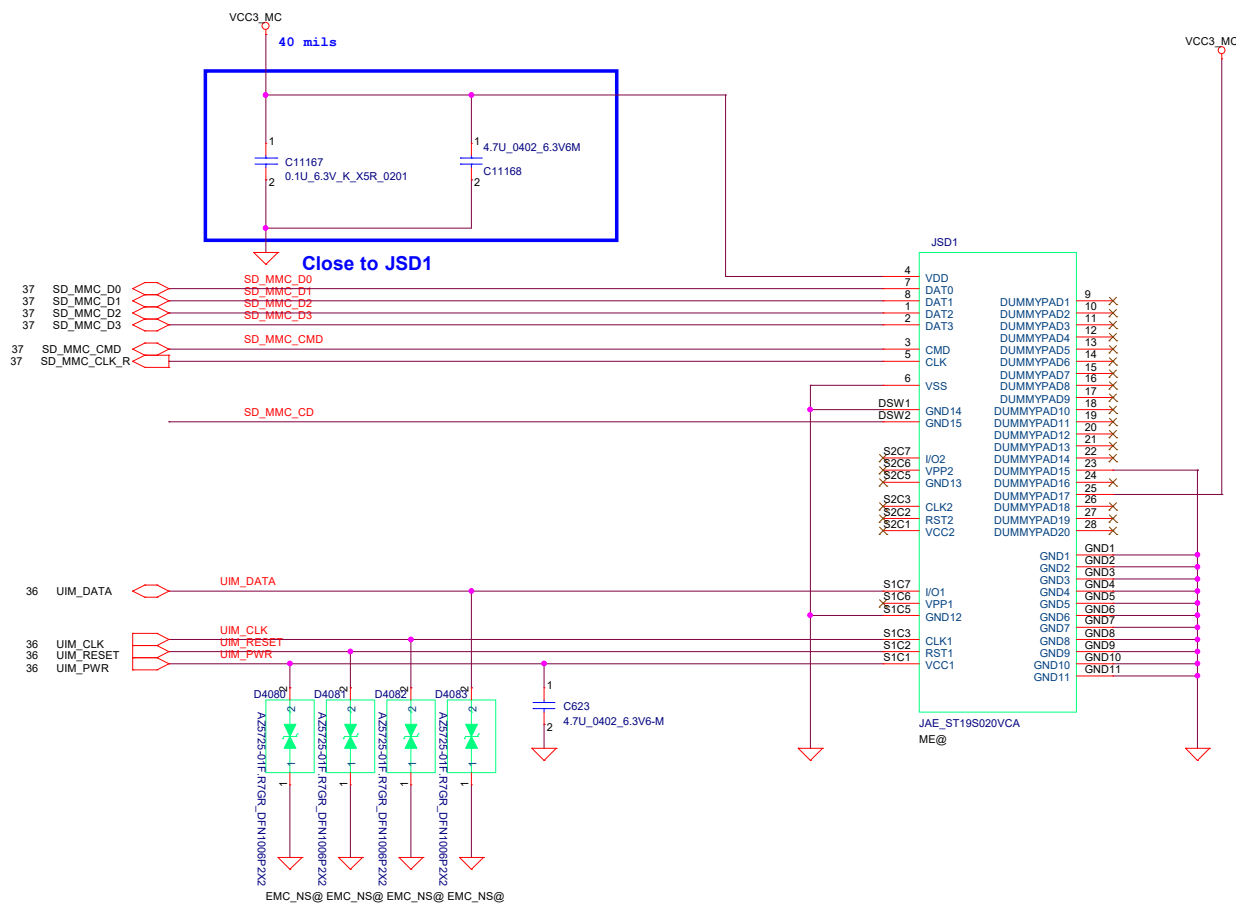
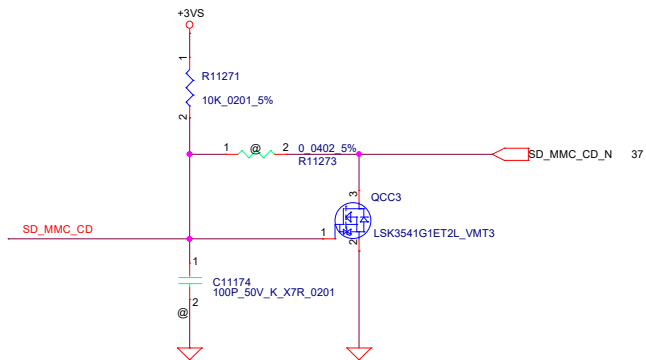






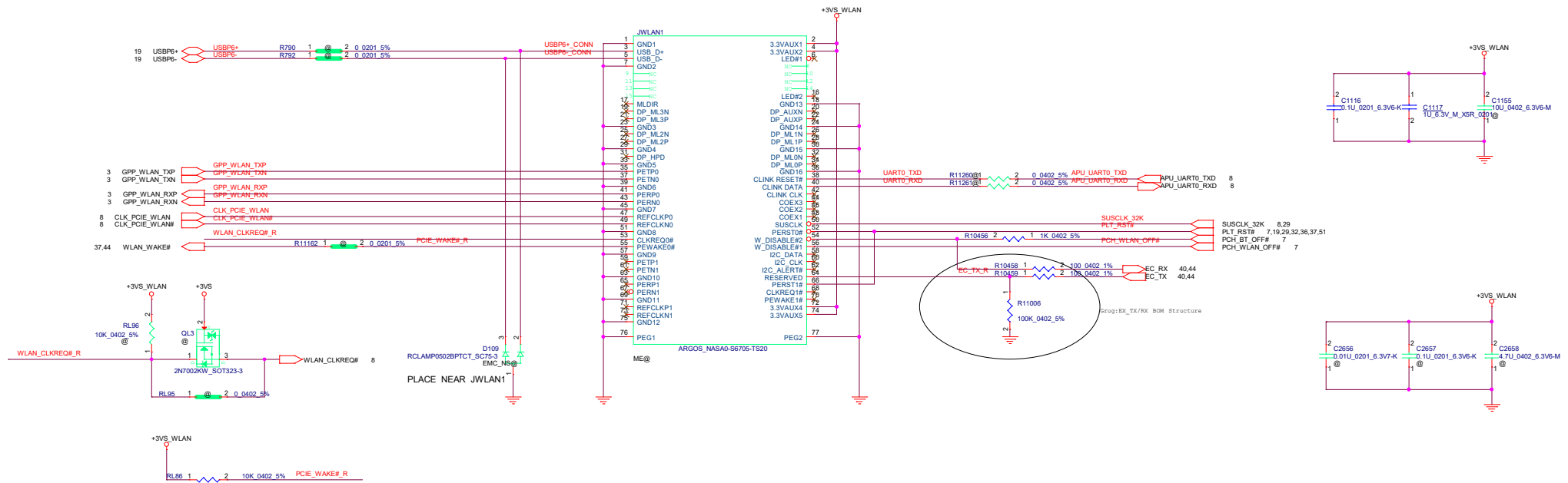
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Issued Date	2018/8/9	Deciphered Date	2018/8/9	BLANK	
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				Date: Friday, March 22, 2019	Rev 1.0
				Sheet 33 of 67	






# TYPE-A NGFF CARD FOR WLAN

H=2.00mm Connector



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Size				Document Number				Sideswipe&Jazz AMD			
Date:				Friday, March 22, 2019				Sheet		35 of 67	
								Rev		1.0	

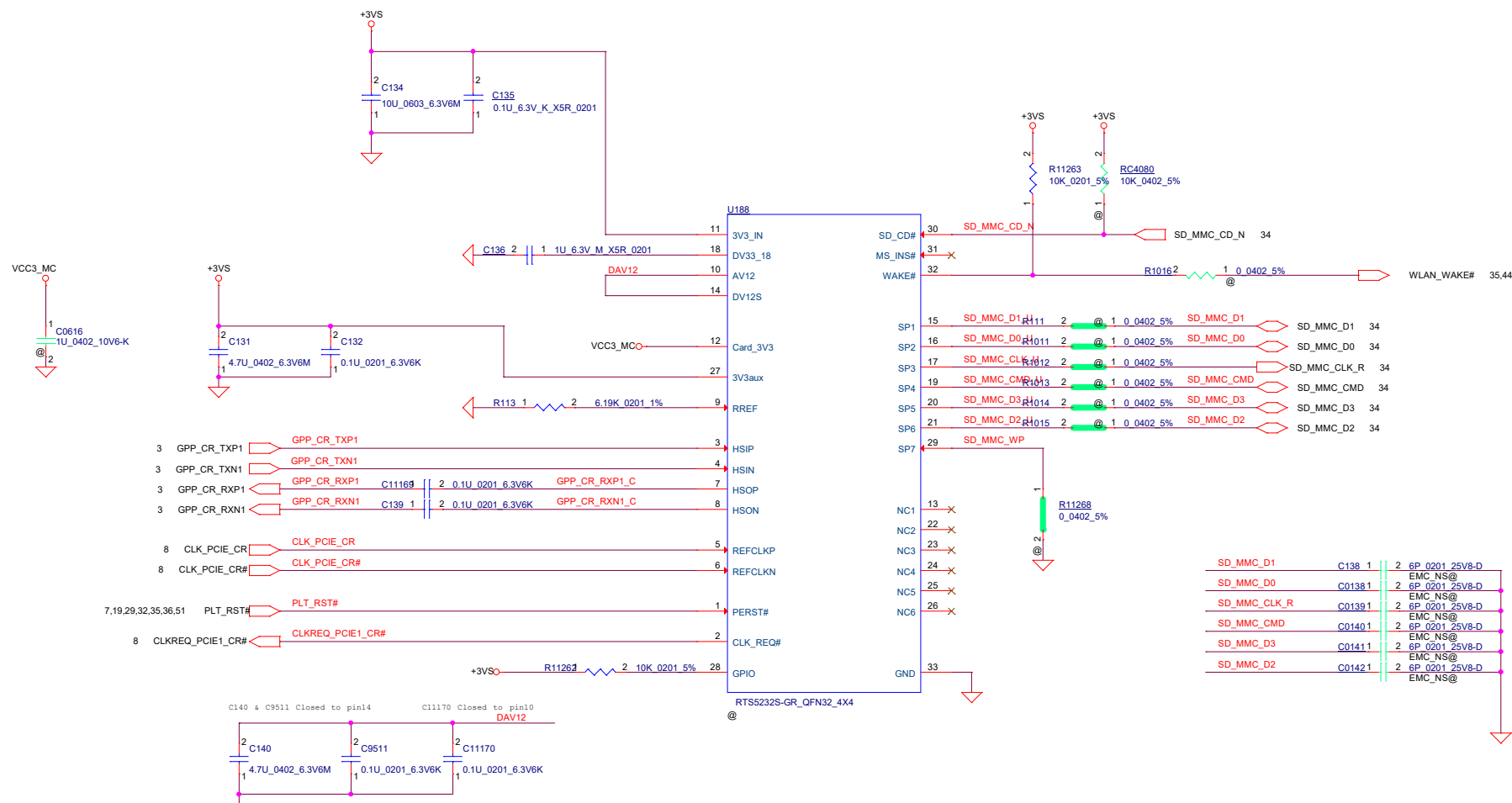


**Sideswipe&Jazz AMD**

Rev 1.0

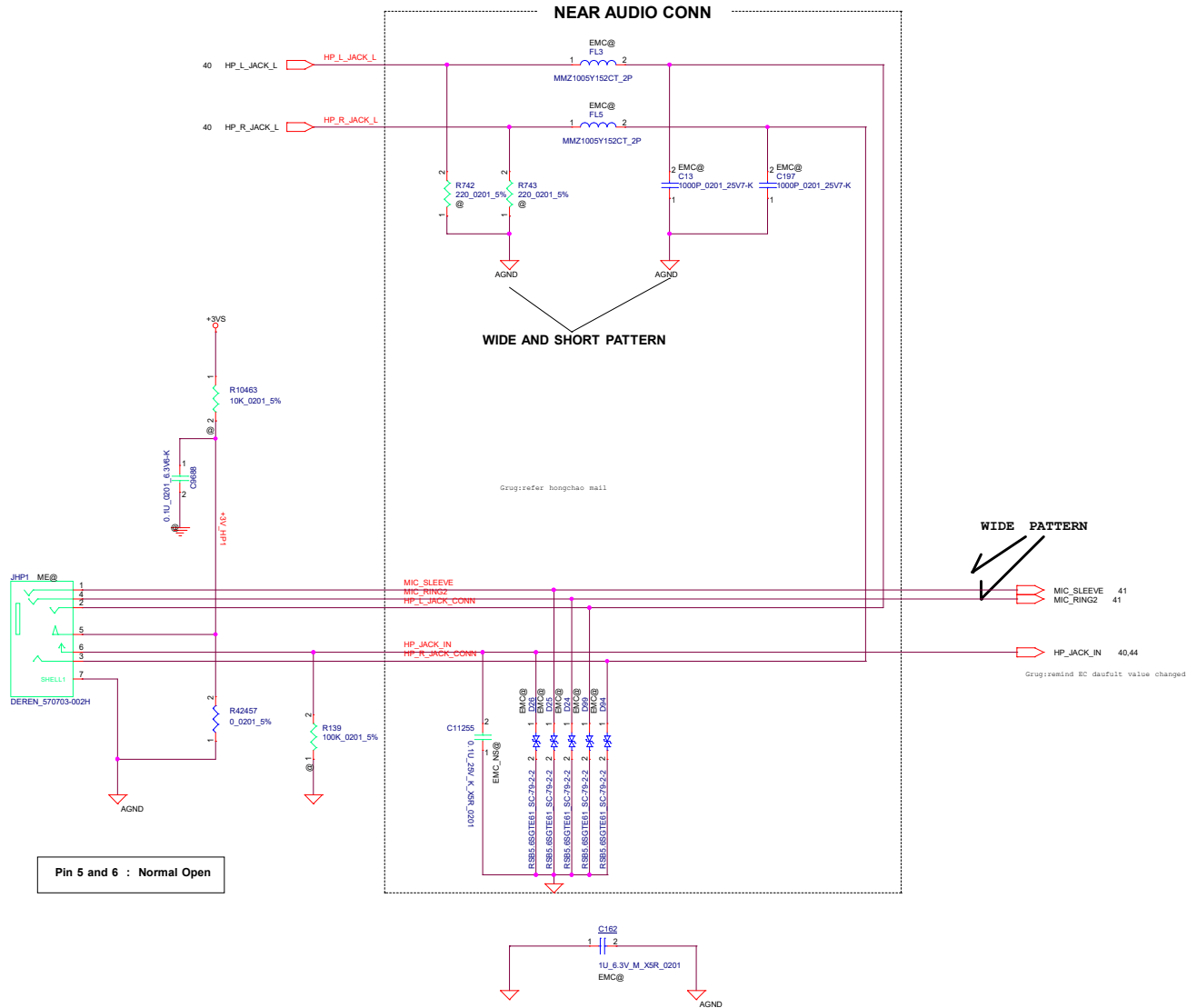






14	DV12S	O	1.2V power
15	SP1	I/O	SD Data 1 (SD_D1)
16	SP2	I/O	SD Data 0 (SD_D0) and MS Data 1 (MS_D1)
17	SP3	I/O	SD Clock signal (SD_CLK) and MS Data 0 (MS_D0)
18	DV33_18	O	3.3V/1.8V power
19	SP4	I/O	SD CMD signal (SD_CMD) and MS Data 2 (MS_D2)
20	SP5	I/O	SD Data 3 (SD_D3) and MS Data 3 (MS_D3)
21	SP6	I/O	SD Data 2 (SD_D2) and MS Clock signal (MS_CLK)
22	NC		
23	NC		
24	NC		
25	NC		
26	NC		

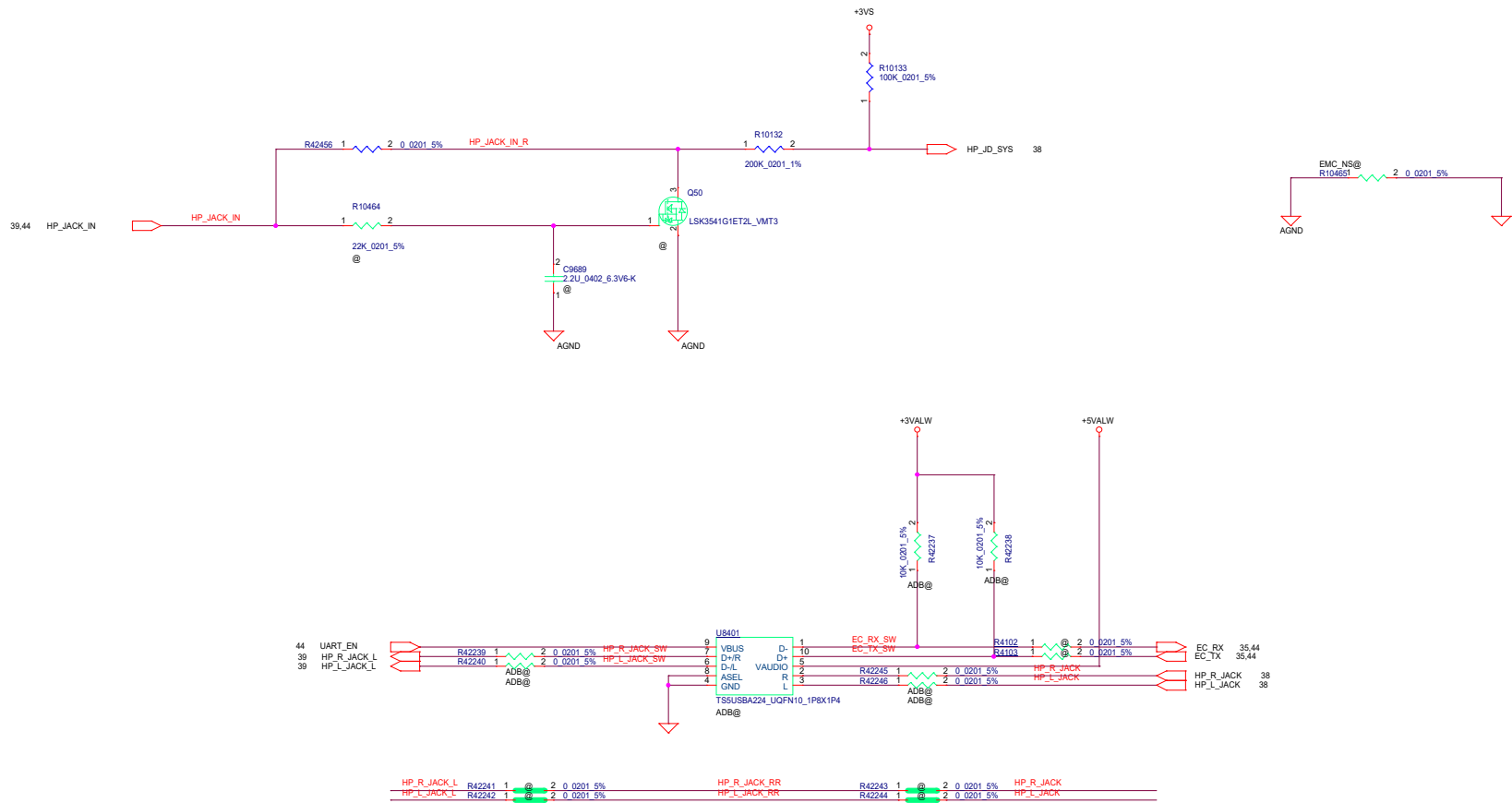


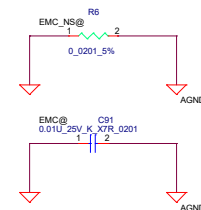
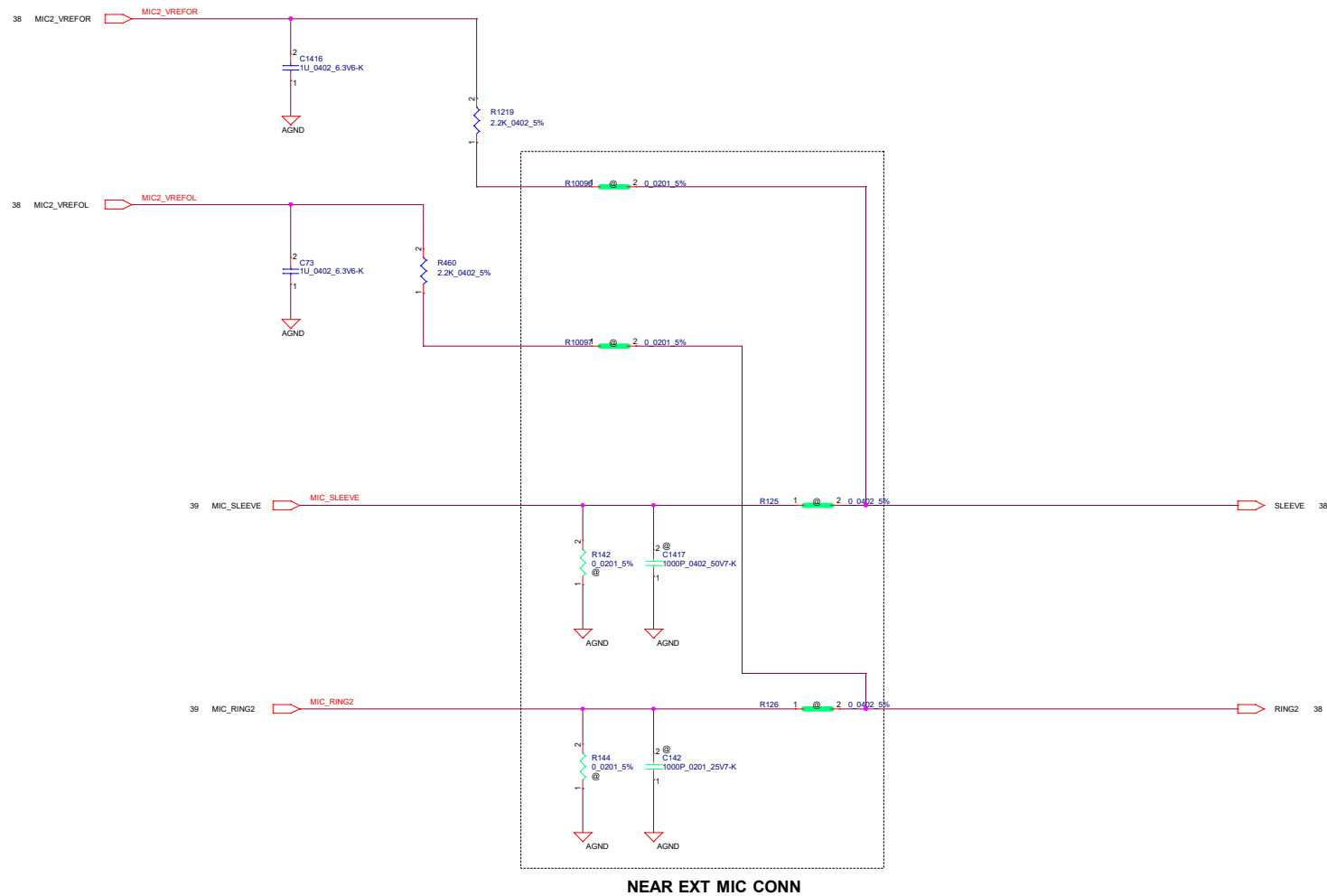


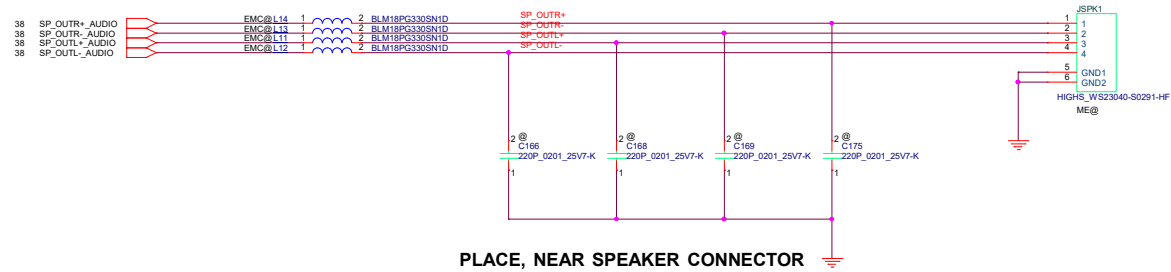
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Issued Date				2018/8/9		Deciphered Date		2018/8/9	
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				Date:		Friday, March 22, 2018		Sheet 39 of 67	



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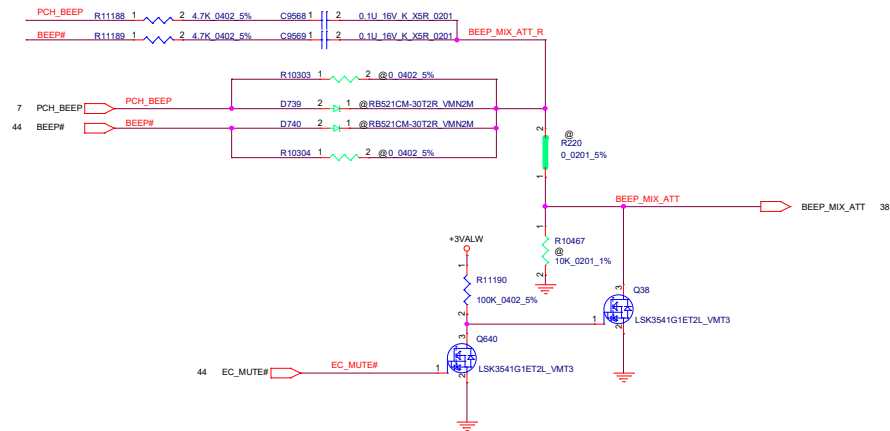





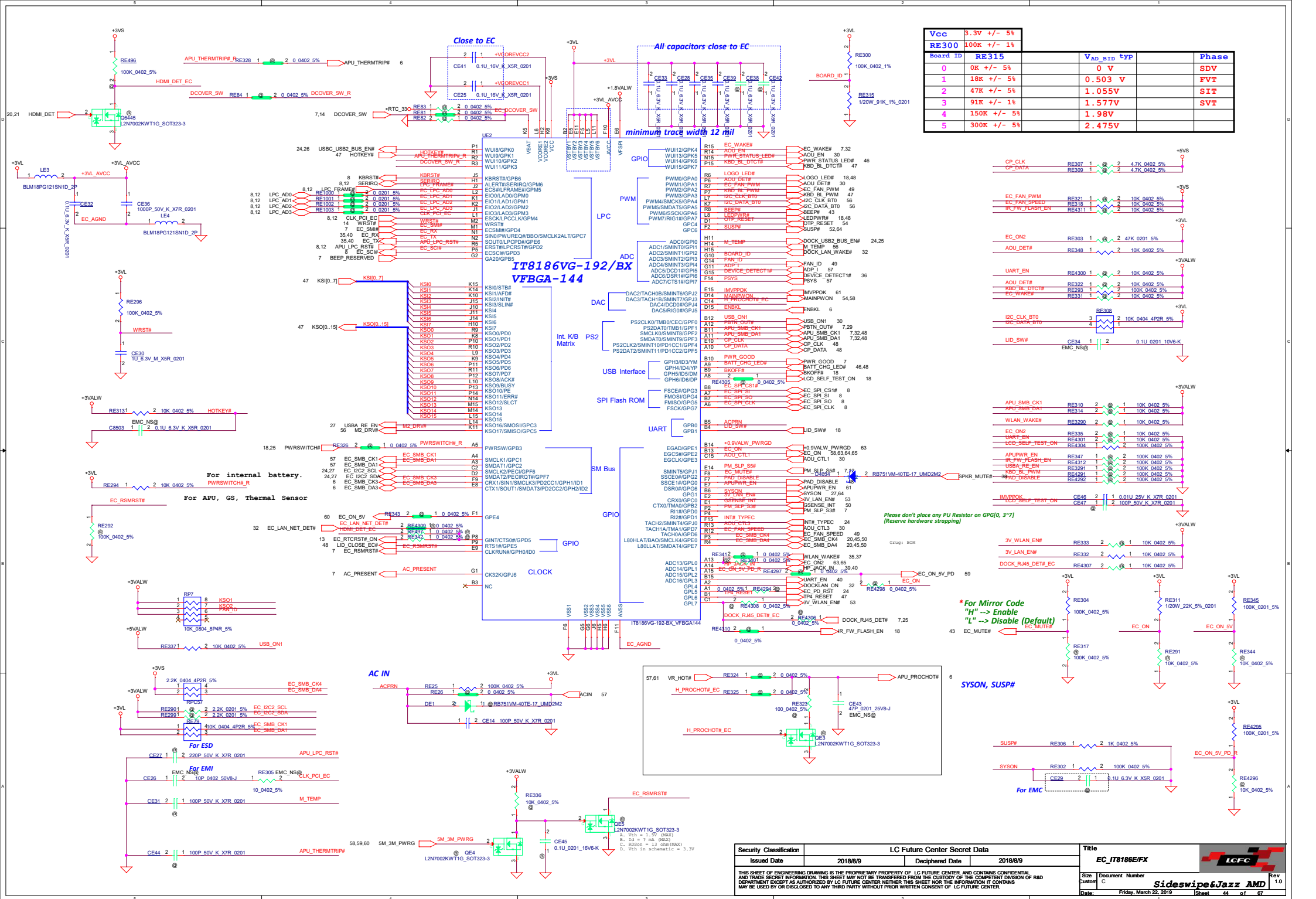


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				Sheet	42 of 67



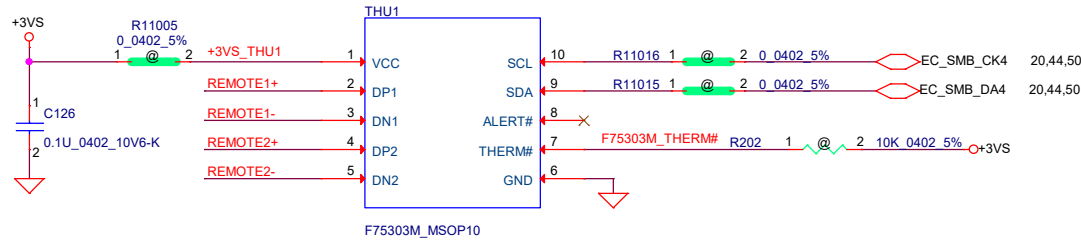


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Custom	C	1.0			
Date:	Friday, March 22, 2018	Sheet	45	of	67



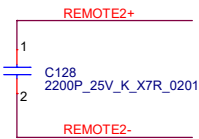
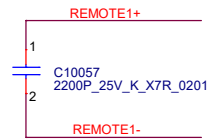


# **Thermal Sensor placed nearby SO-DIMM**

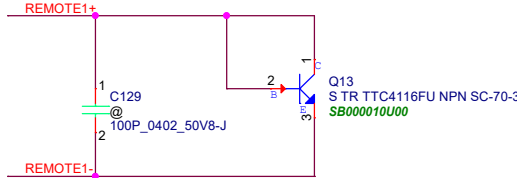


**Address 1001\_101xb**  
**Internal pull up 1.2K to 1.5V**  
**R for init i d t her md shutdo wnte mp**

**Close to U1**

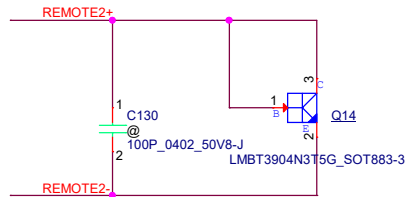



**Close to FIN**



**REMOTE2+/-:**  
**Trace width/space:10/10 mil**  
**Trace length:<8"**

**Close CPU**

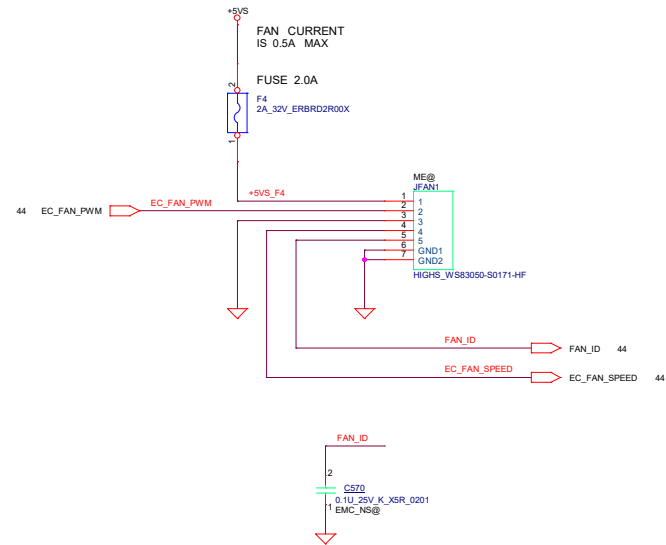



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Date:		Friday, March 22, 2019		Sheet		45 of 67		1.0





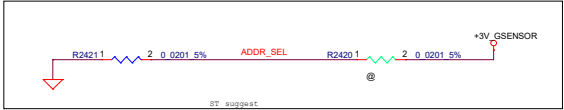




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Issued Date		Deciphered Date		FAN CONNECTOR		
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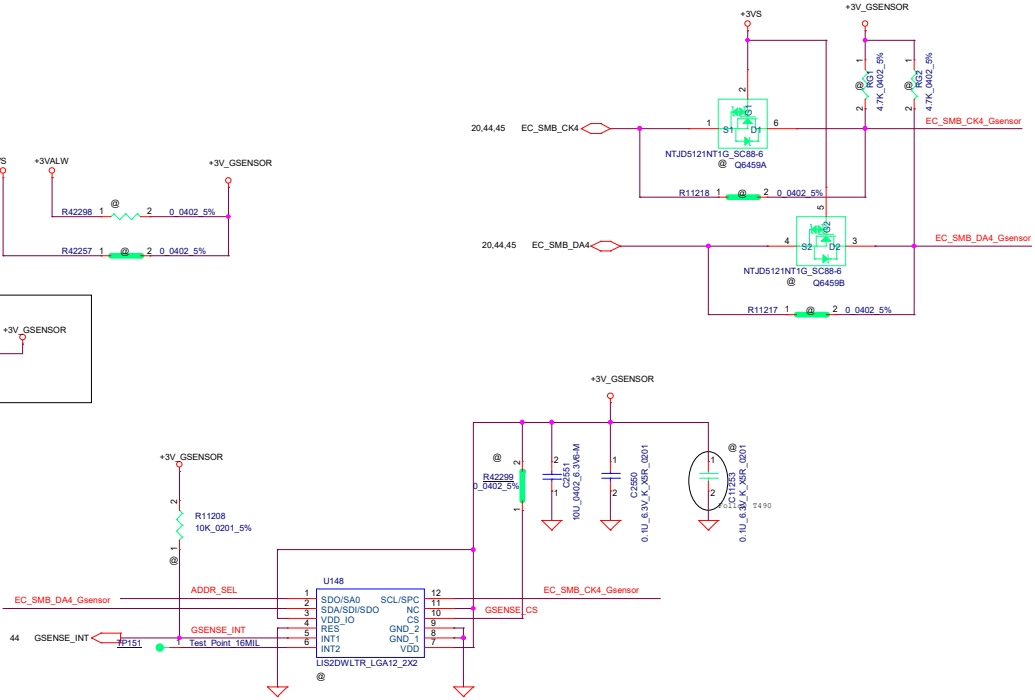
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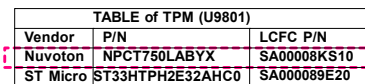


TABLE

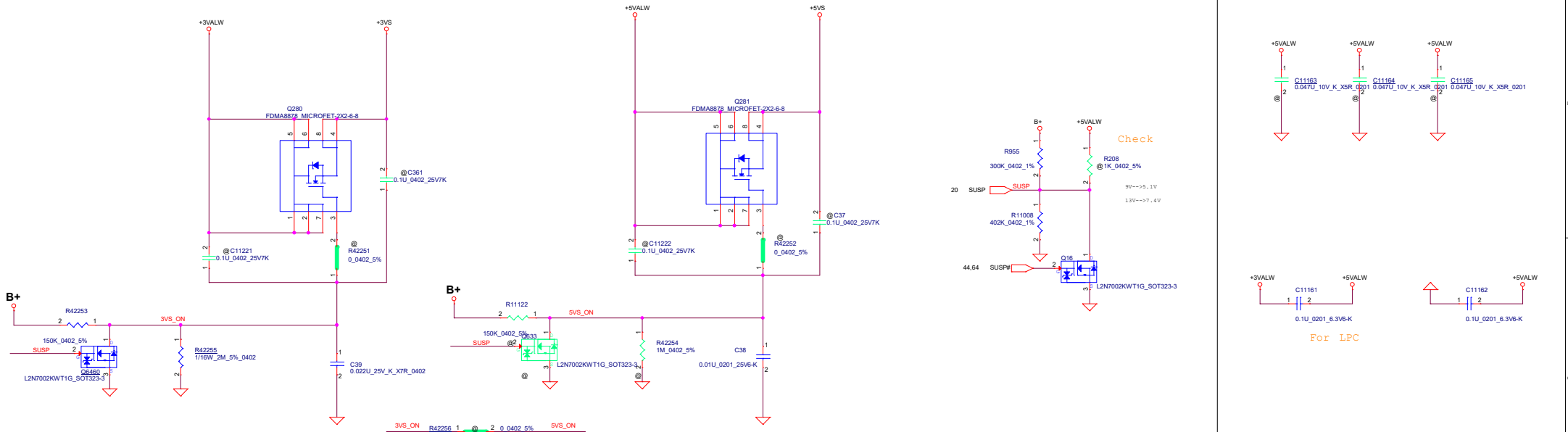
P/N	ADDR_SEL	Address
LIS2DWLTR	H L	32h (W) & 33h (R) 30h (W) & 31h (R)
KX022-1020	H L	3Eh (W) & 3Fh (R) 3Ch (W) & 3Dh (R)

TABLE of G-Sensor (U148)		
Vendor	P/N	LCFC P/N
ST	LIS2DWLTR	SA00009AQ00
Kionix	KX022-1020	SA000081E00



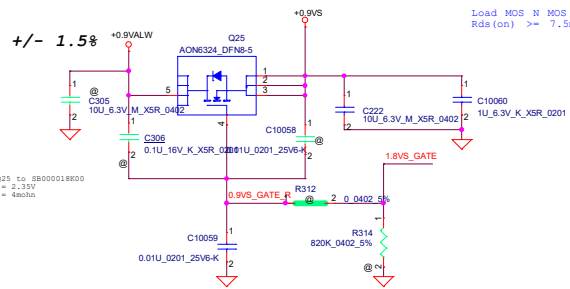


Pin No	TCG PTP Spec (v38)	Nuvoton NPCT750LABYX	ST Micro ST33H7P2H32AHC
1	VDD	VSB	NC
2	GND	NC	GND
3	NC	NC	NC
4	GPIO	GPIO/PP	PP
5	NC	NC	NC
6	GPIO	GPIO3	NC
7	GPIO	NC	GPIO
8	VDD	VHIO	NC
9	NC	NC	NC
10	NC	NC	NC
11	NC	NC	NC
12	NC	NC	NC
13	GPIO	GPIO4	NC
14	NC	NC	NC
15	NC	NC	NC
16	GND	GND	NC
17	SPI_RST#	RST#	SPI_RST#
18	SPI_PIRQ#	PIRQ#/GPIO2	SPI_PIRQ#
19	SPI_CLK	SCLK	SPI_CLK
20	SPI_CS#	CS#/GPIO5	SPI_CS#
21	MOSI	MOSI/GPIO7	MOSI
22	VDD	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	SDA/GPIO1	SDA/GPIO1	NC
30	SDA/GPIO0	SDA/GPIO0	NC
31	NC	NC	NC
32	NC	NC	NC

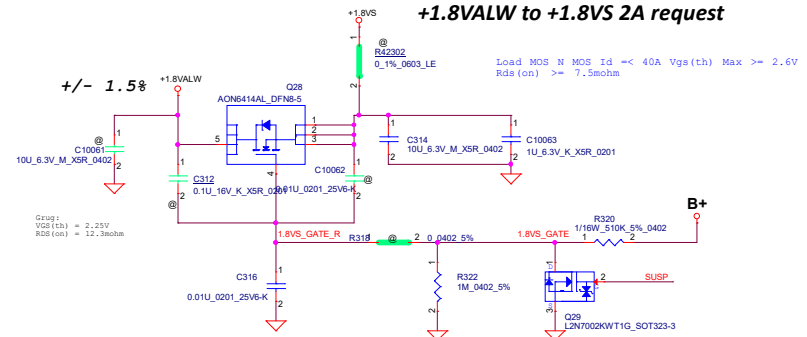


**+0.9VALW\_VDDP to +VDDP 10A request**  
B+ 9V--13.6V

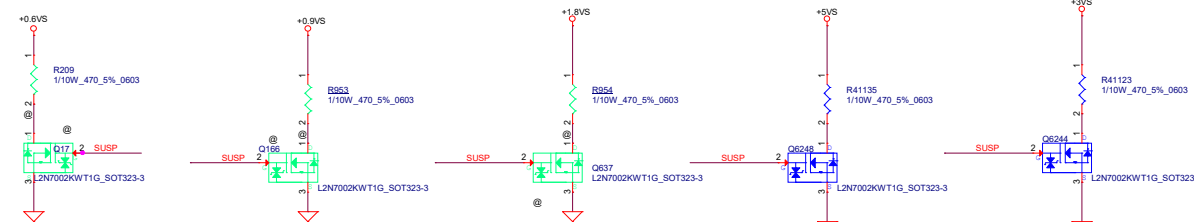
SB000013Q00, SB00001B300 AON7400



**+1.8VALW to +1.8VS 2A request**

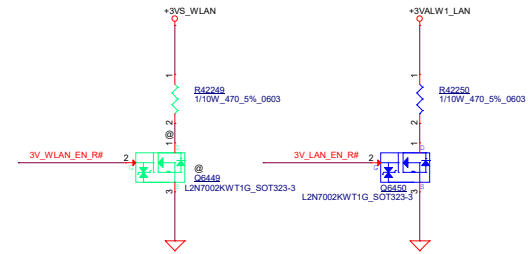
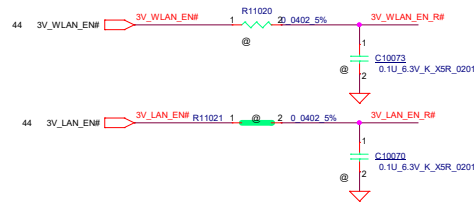


**For DisCharge**

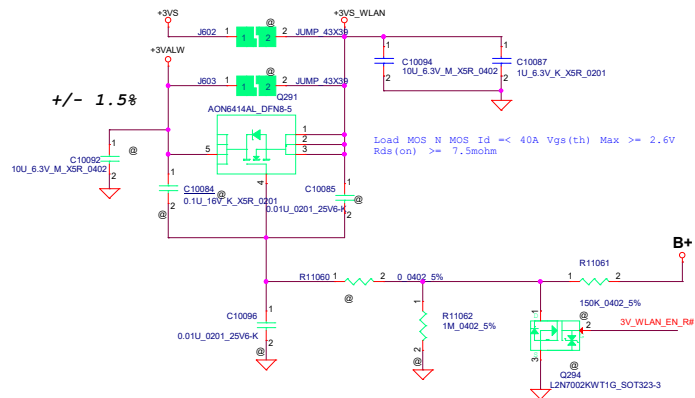


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				Rev	1.0

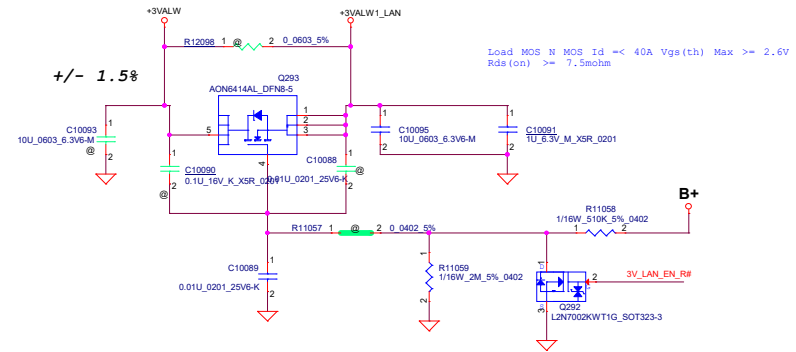




B+ 9V--13.6V  
**+0.9VALW\_VDDP to +VDDP 10A request** SB000013Q00, SB00001B300 AON7400

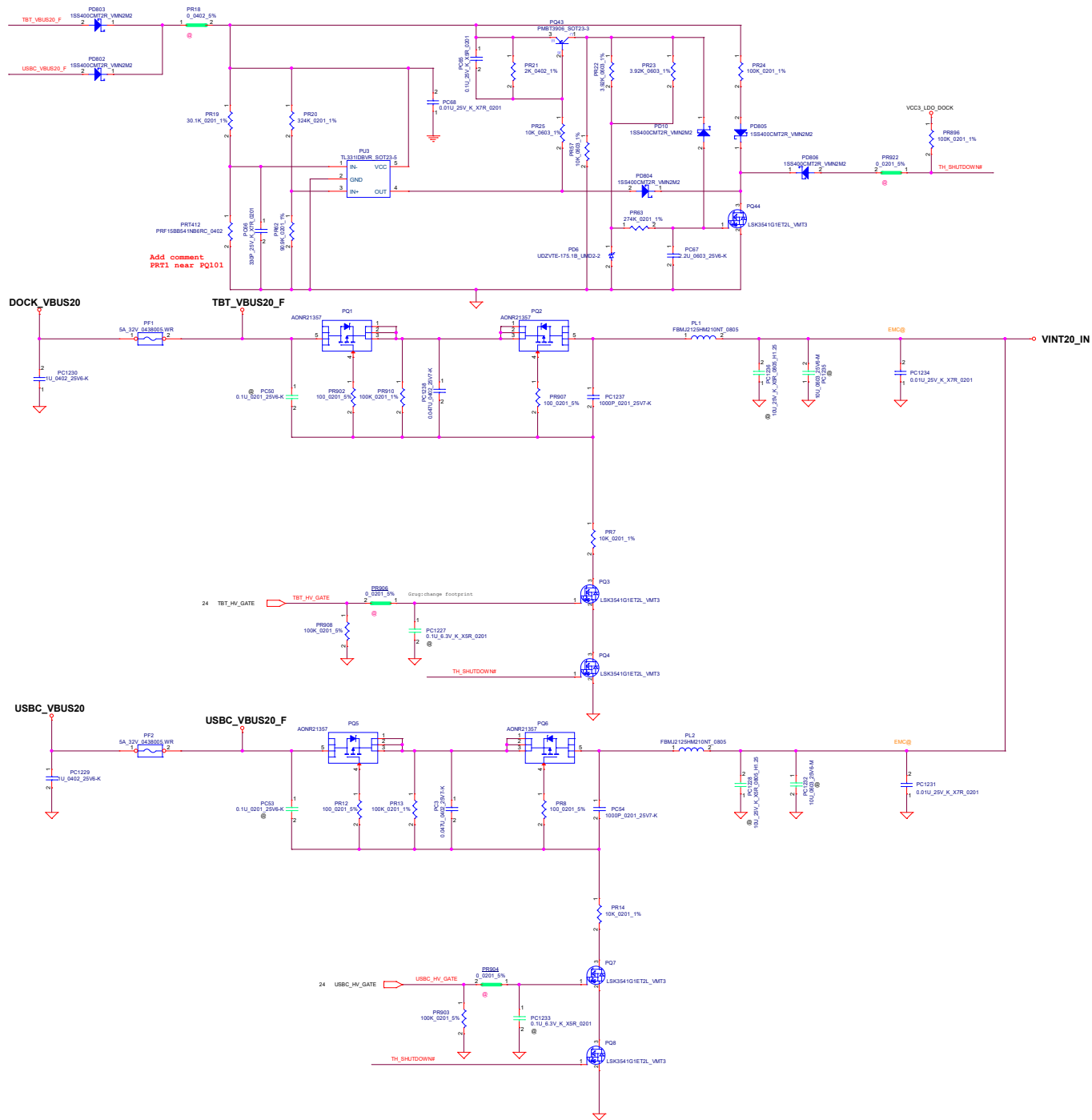


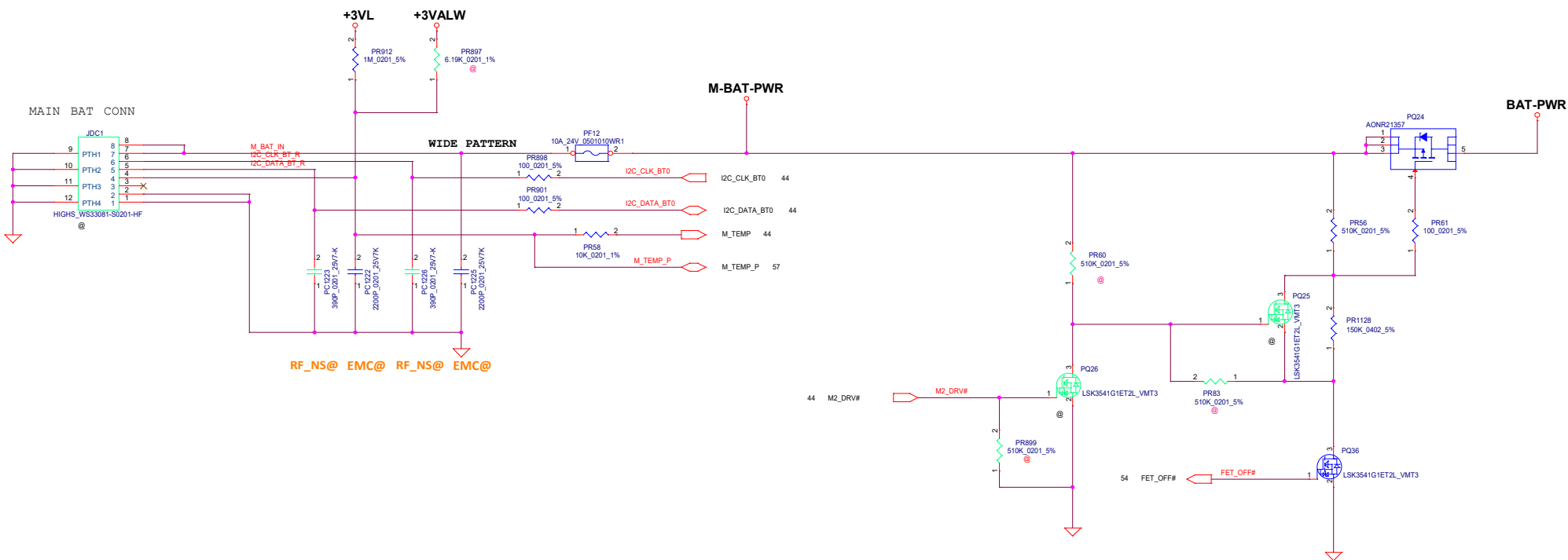
**+1.8VALW to +1.8VS 2A request**



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			Date:	Friday, March 22, 2019	Sheet 53 of 67



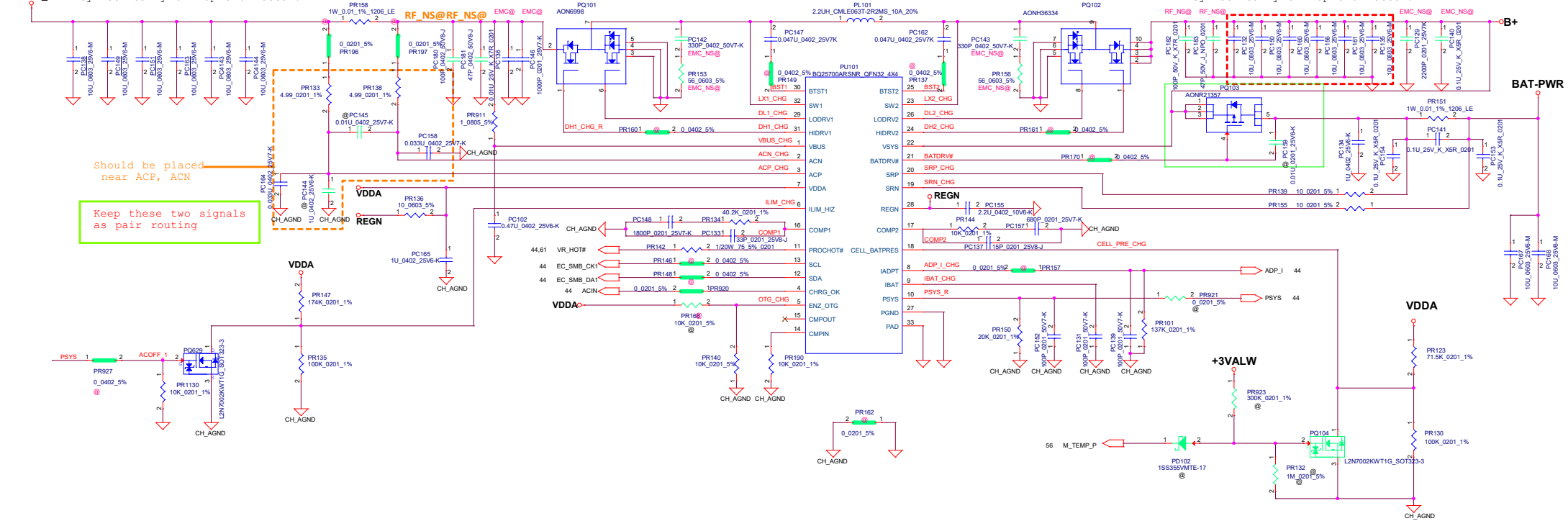




VINT20\_IN MLCCs must be placed symmetrically on Top and Bottom.

Table PL101  
TOKO : FDSD0630-H-2R2M  
Cytotec : CMLE063T-2R2MS

MLCCs must be placed symmetrically on Top and Bottom.



Should be placed near ACP, ACN

Keep these two signals as pair routing

IDPM	V (ILIM)	PR147
500mA	1.2V	402K
1.0A	1.4V	332K
1.5A	1.6V	280K
2.0A	1.8V	237K
3.0A	2.2V	174K
3.25A	2.3V	162K

← LOGIC

# of CELL	VCELL_PRES	PR154
1-CELL	1.5V	301K
2-CELL	2.5V	140K
3-CELL	3.5V	71.5K
4-CELL	4.5V	33.2K

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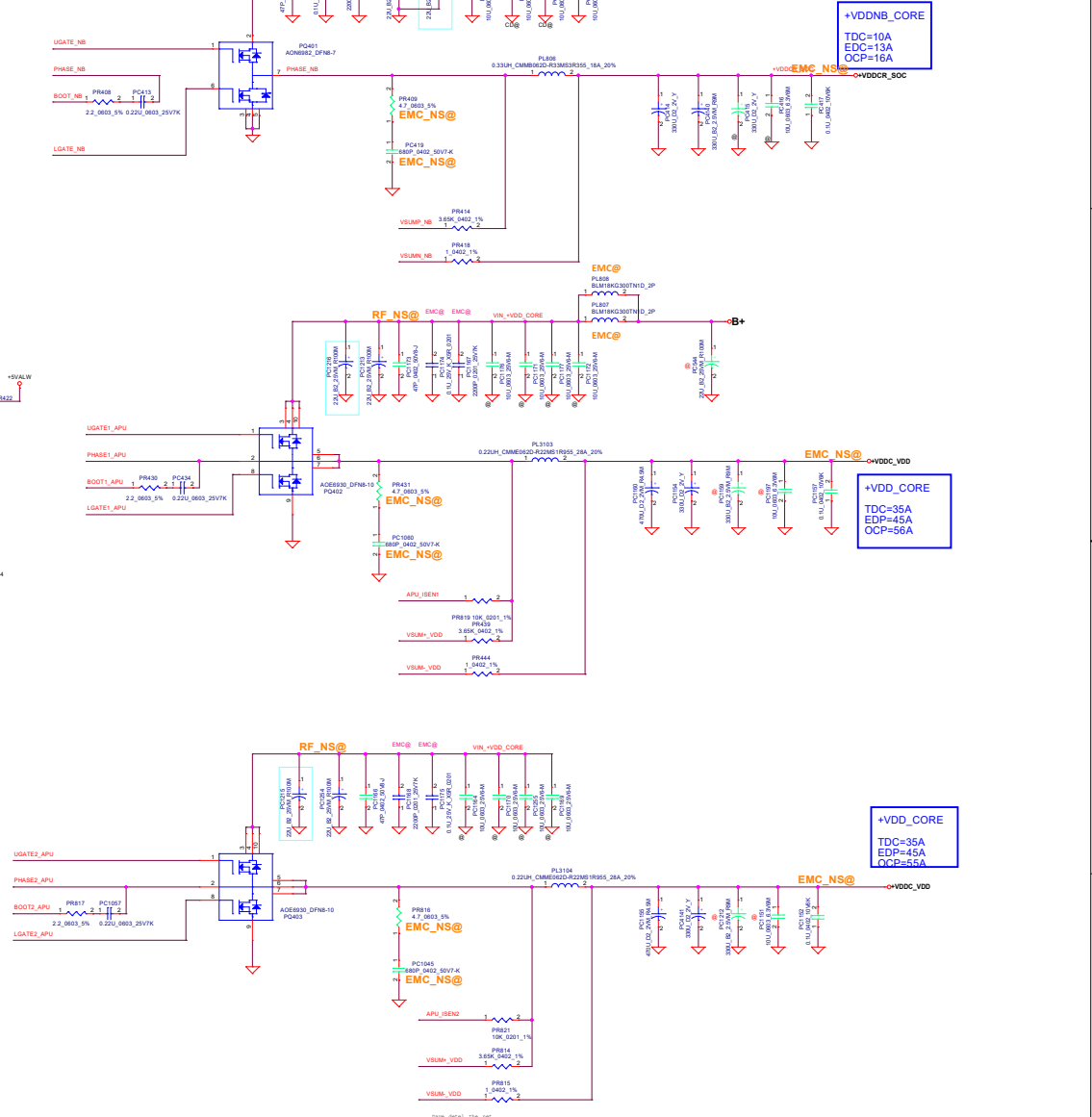
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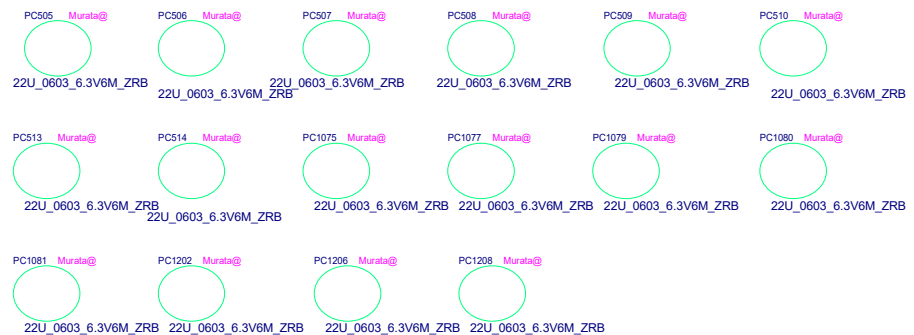
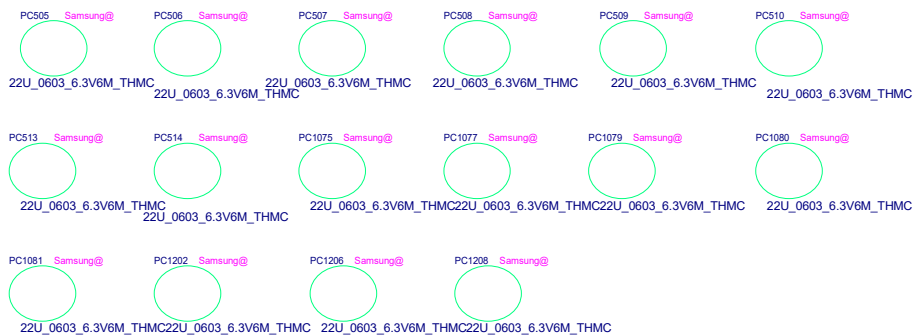
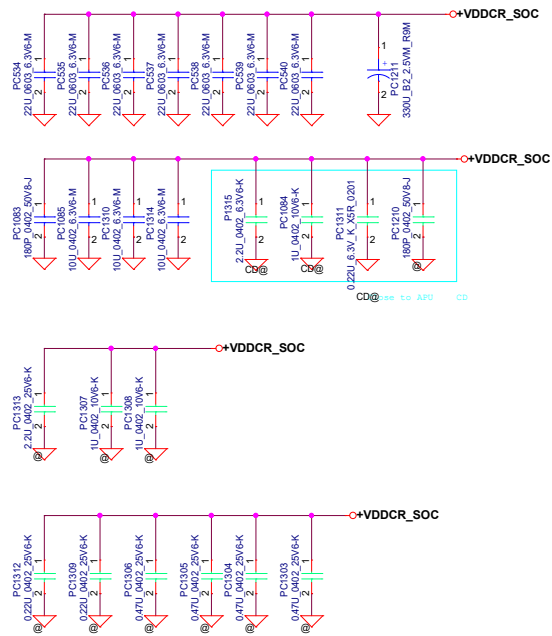
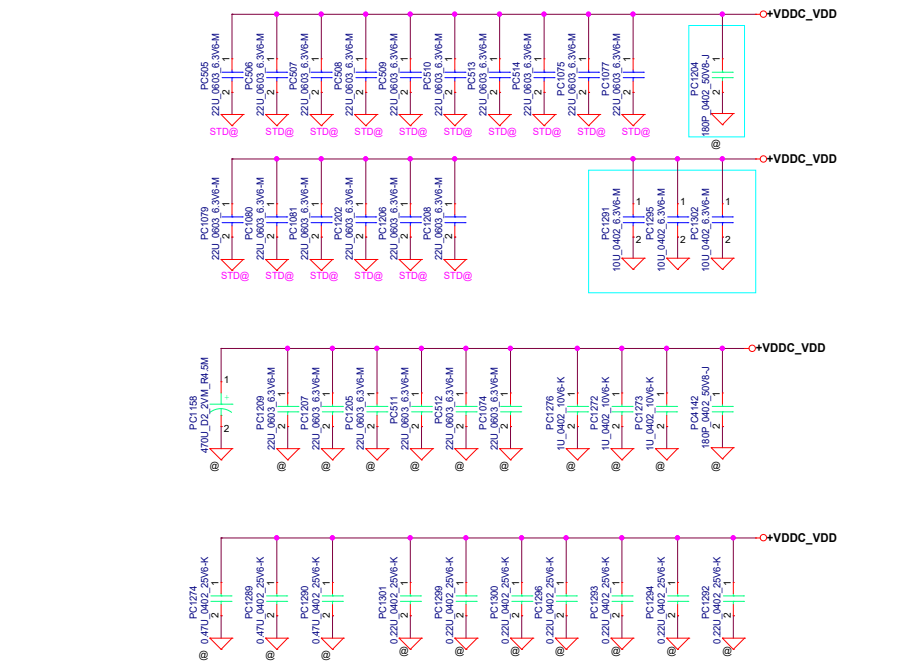





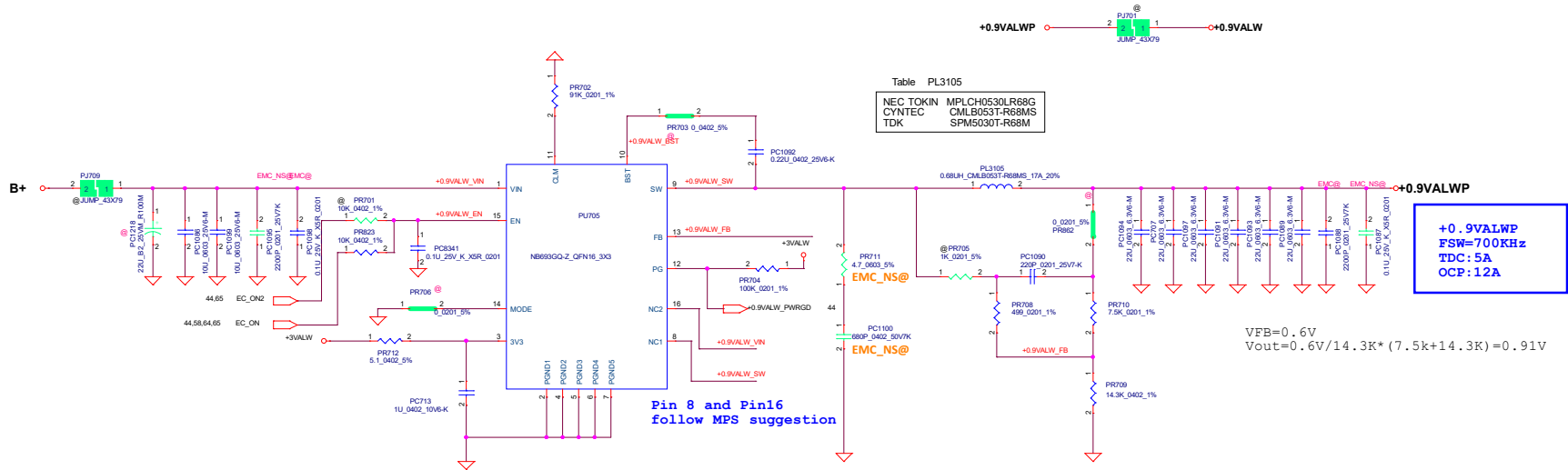








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Date:	Friday, March 22, 2019		Sheet	62 of 67	



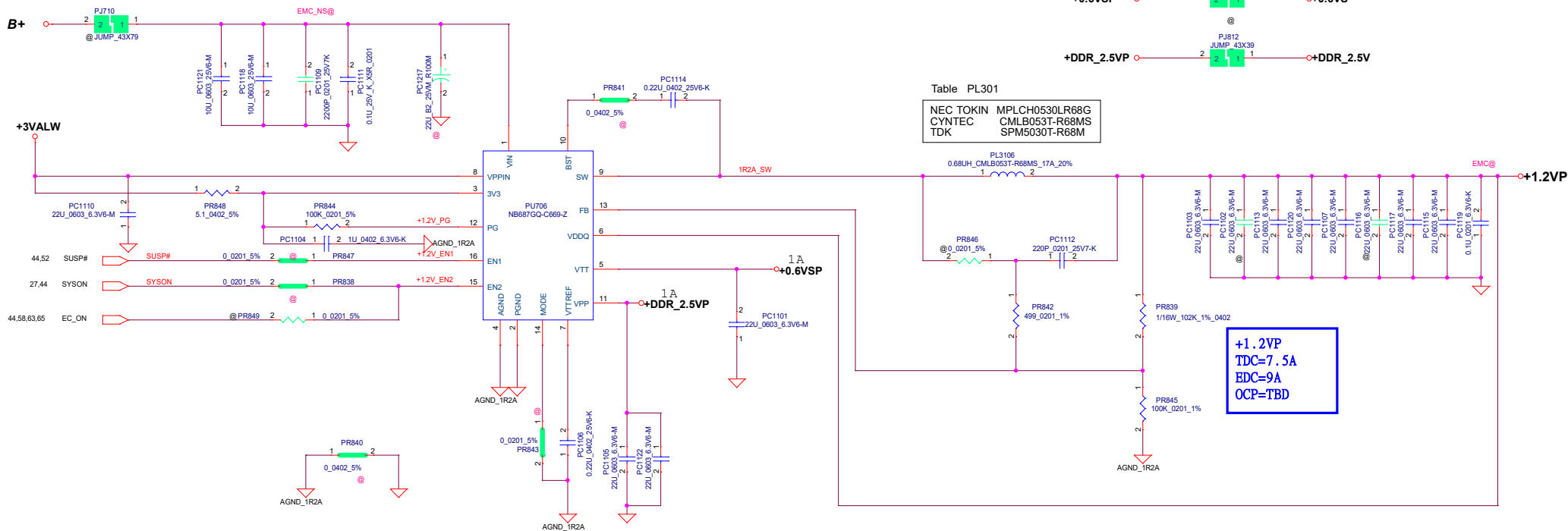
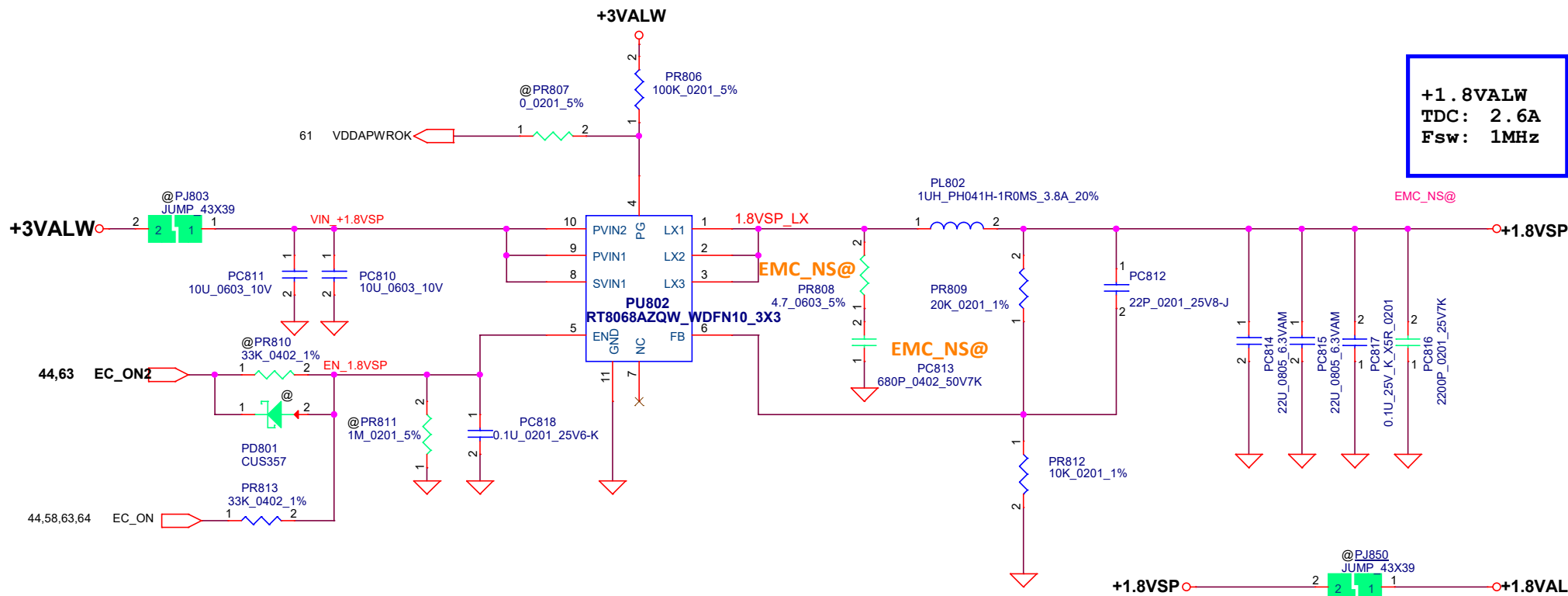



TABLE NB687GQ:EN1/EN2

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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Date: Friday, March 22, 2019						Sheet 65 of 67	Rev 1.0

