

# LCFC Confidential


## S350 Renoir M/B Schematics Document

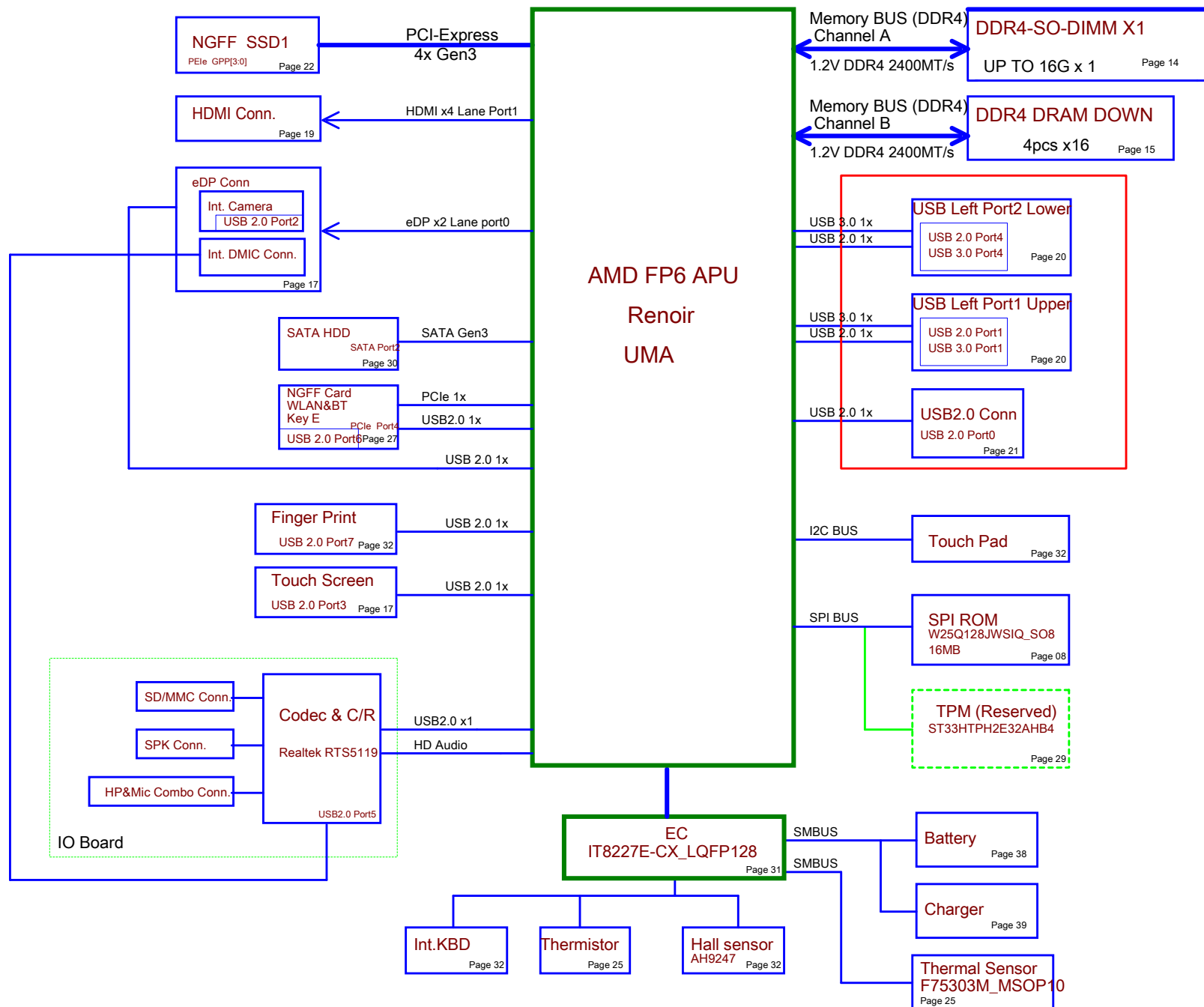
AMD FP6 Renoir with DDR4

2020-01-06

REV:1.0

<http://repair1.ru/>

Security Classification	LC Future Center Secret Data			Title	Cover Page	
Issued Date	2019/02/27	Deciphered Date	2020/02/27	Sheet	Document Number	
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<div> <div>power plane</div> <div>State</div> </div>	B+ (+20VSB) +3VL +5VLP	+5VALW +3VALW (+3VALW_APU) +1.8VALW +0.75VALW	+2.5V +1.2V	+5VS +3VS +1.8VS +0.75VS +0.6VS  +VDDC_VDD +VDDCR_SOC	
	S0	O	O	O	O
	S3	O	O	O	X
	S5 S4/AC	O	O	X	X
	S5 S4/ Battery only	O	X	X	X
	S5 S4/AC & Battery don't exist	X	X	X	X

APU I2C address

## SMBUS Control Table

[illegible]


Device	Address	Device	Address
PD		Charger	0b00010010
PMIC	0X34	Battery	?

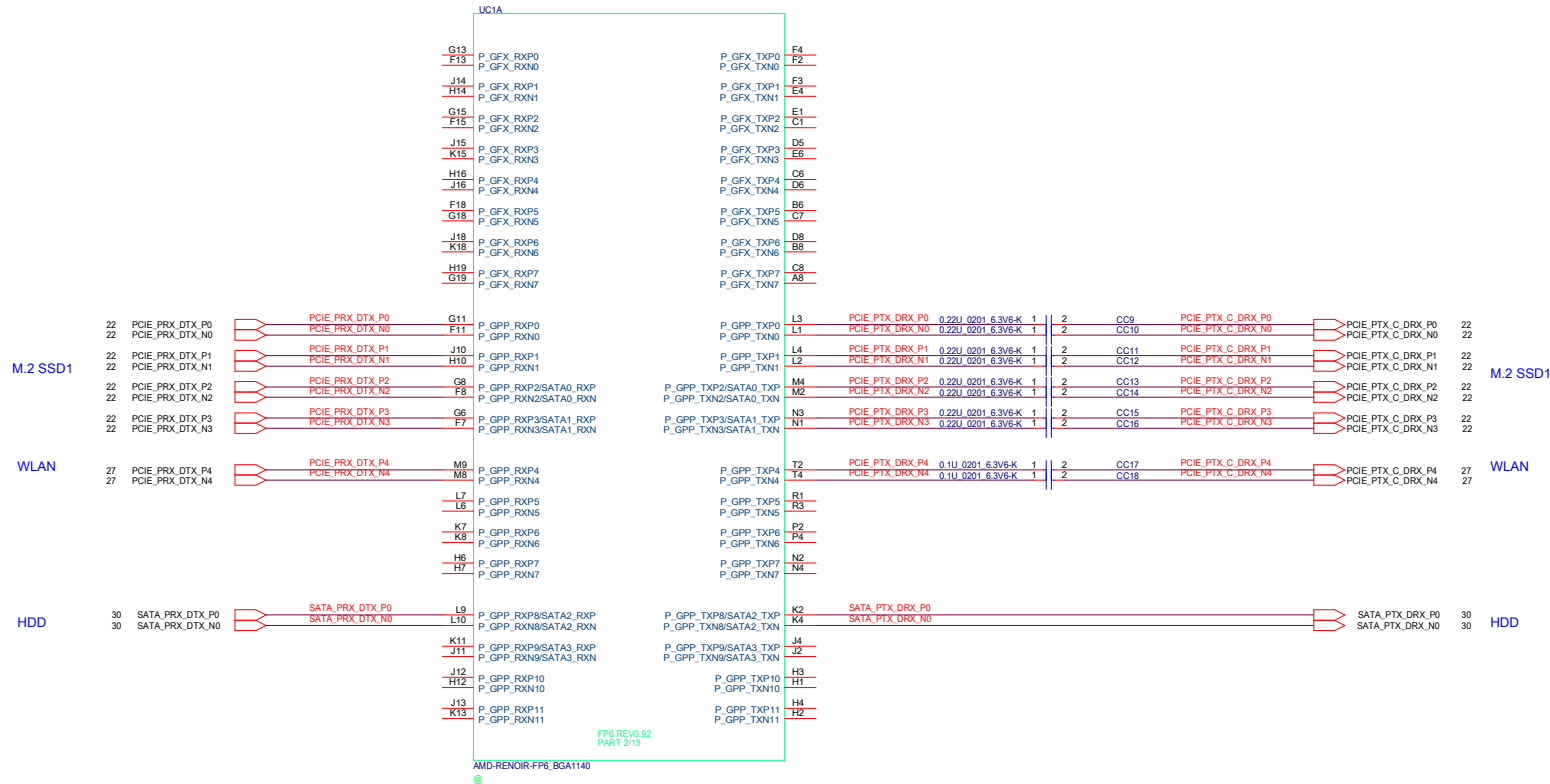
Device	Address
Expand IT8013	0100,A2,A1,A0

## Port List


HSIO Port		Device
GFX	0	N/A
	1	
	2	
	3	
	4	
	5	
	6	
	7	
GPP	0	SSD
	1	
	2	
	3	
	4	WLAN
	5	N/A
	6	
	7	
	8	HDD
	9	N/A
	10	
11		
USB3.0	0	N/A
	1	USB 3.0 Port1 Upper
	4	USB 3.0 Port2 Lower
	5	N/A
USB2.0	0	USB2.0
	1	USB 3.0 Port1 Upper
	2	Camera
	3	Touch Screen
	4	USB 3.0 Lower
	5	Cardreader
	6	BT
	7	Finger Print

[illegible]

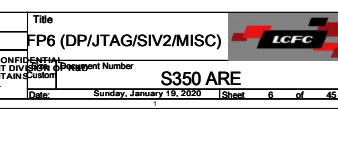
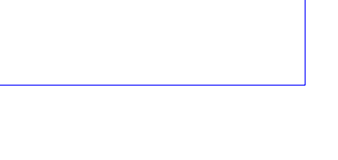
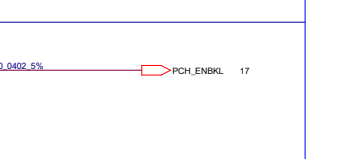
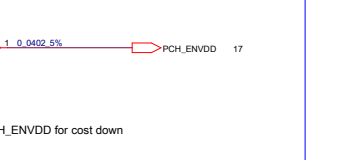
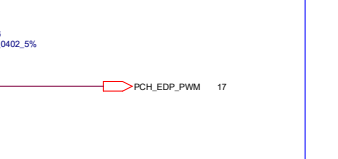
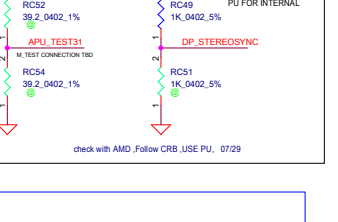
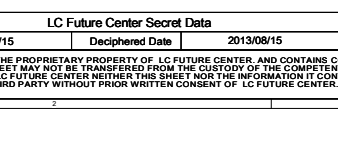
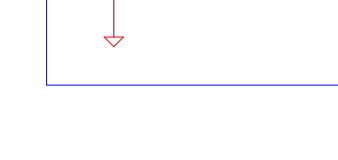
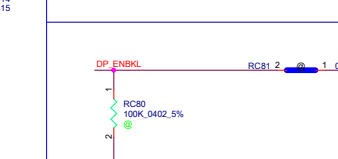
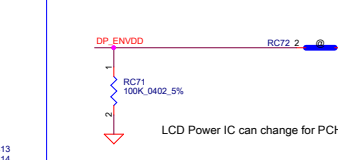
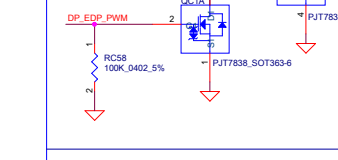
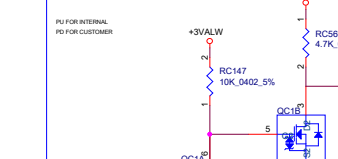
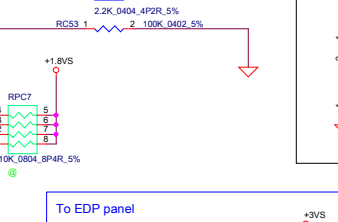
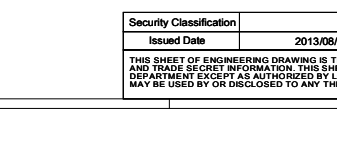
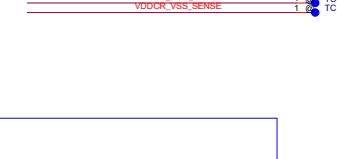
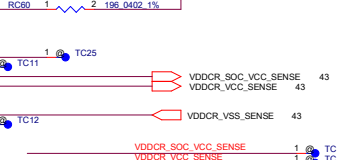
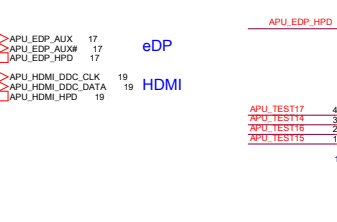
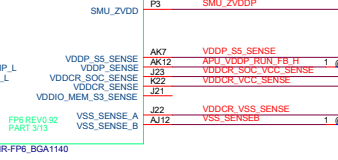
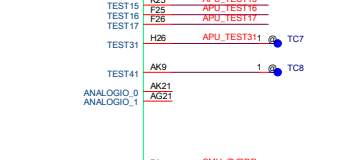
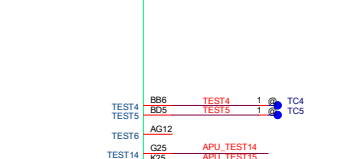
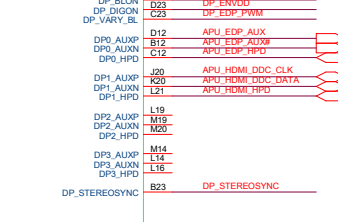
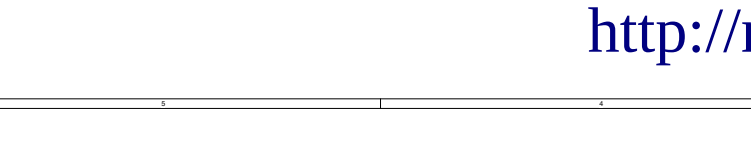
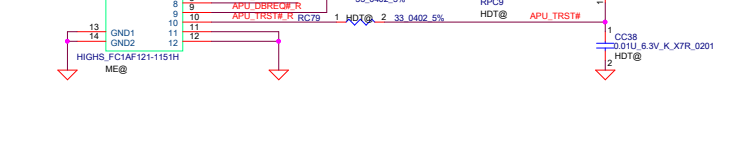
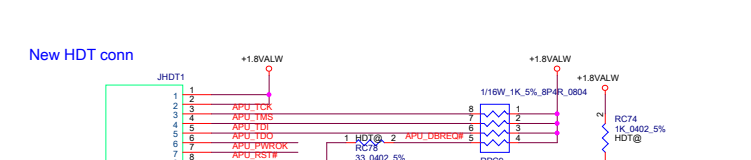
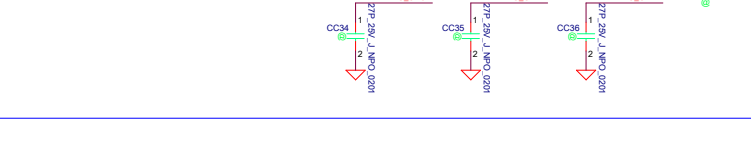
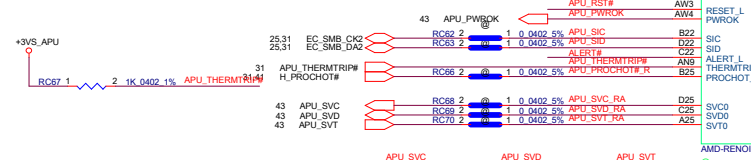
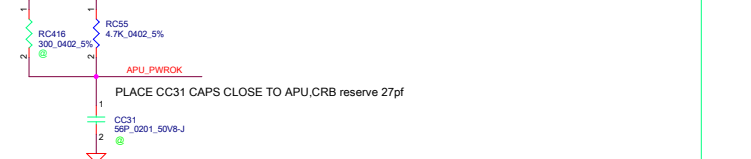
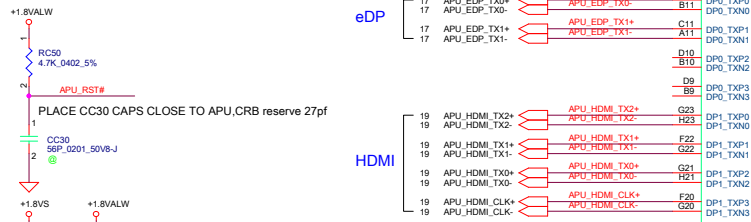
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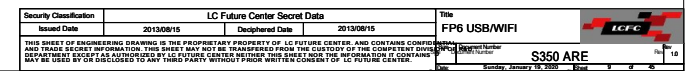


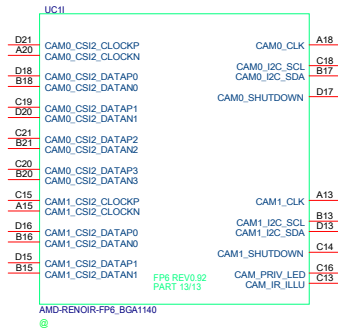
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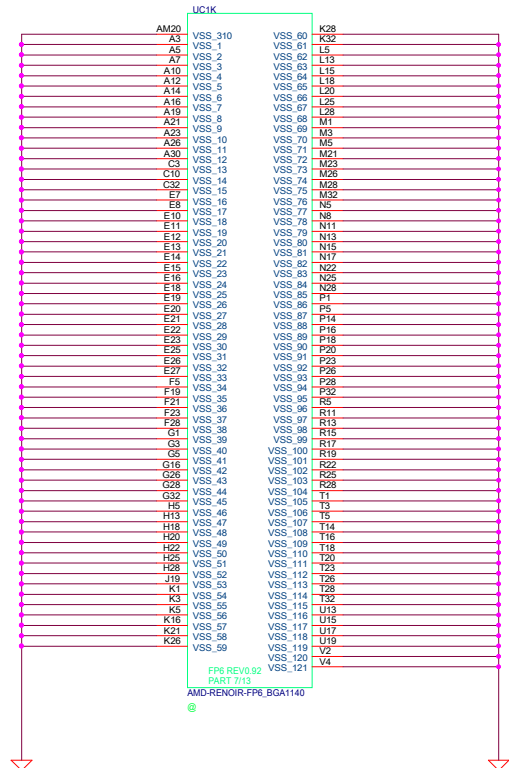


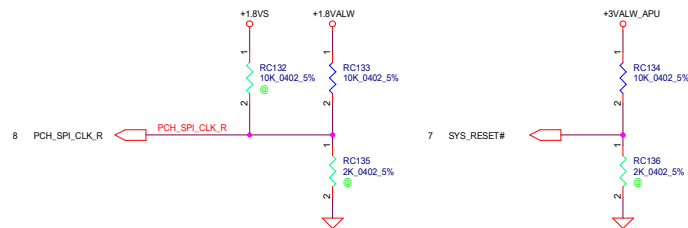




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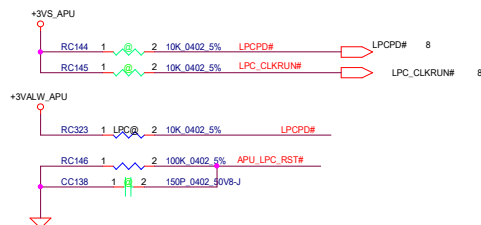
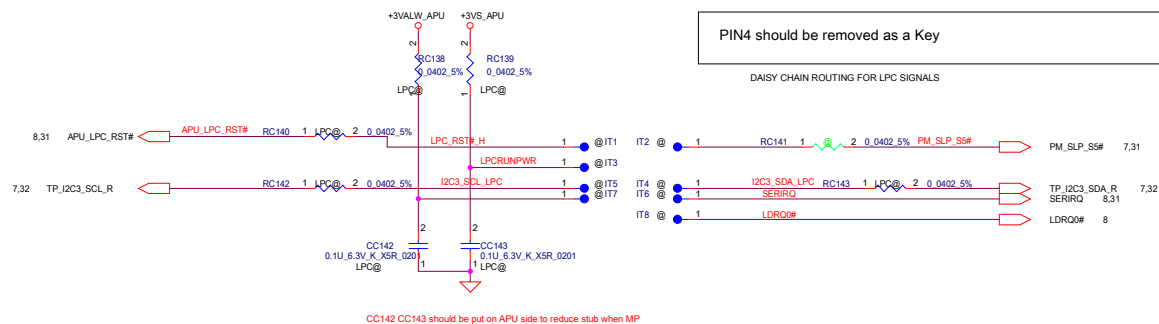






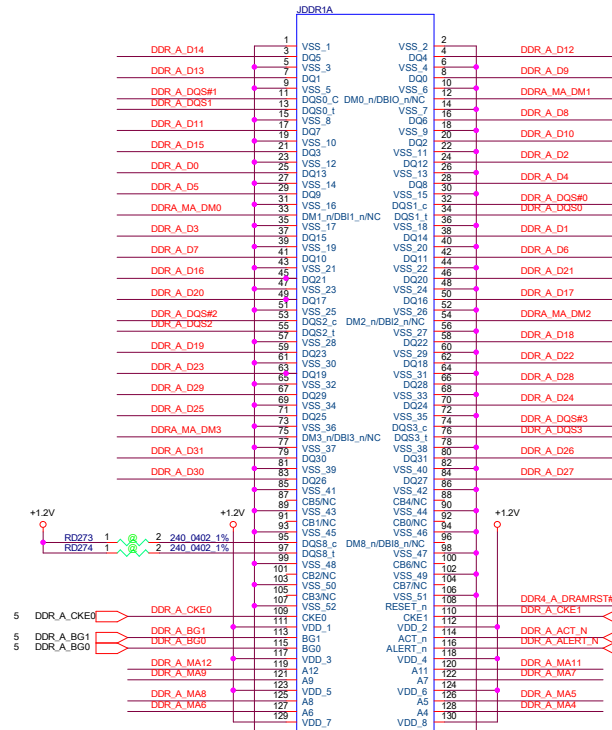
STRAP PINS	SYS_RESET#
PCH_SPL_CLK	1:USE 48MHZ CRYSTAL CLOCK AND GENERATE BOTH INTERNAL AND EXTERNAL CLOCKS(DEFAULT) 0:USE 100MHZ PCIE CLOCK AS REFERENCE CLOCK AND GENERATE INTERNAL CLOCKS ONLY
SYS_RESET#	1:NORMAL RESET MODE(DEFAULT) 0:SHORT RESET MODE

### LPC ROM EMULATOR HEADER

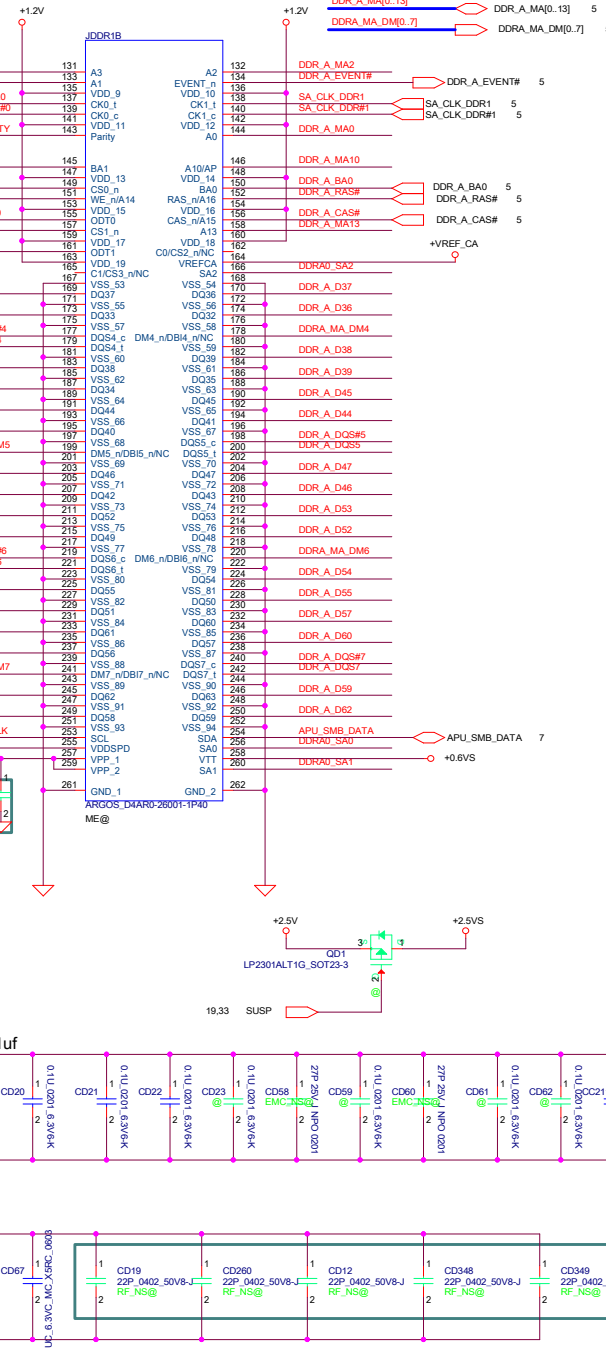
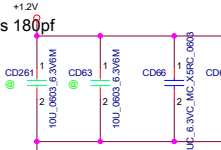
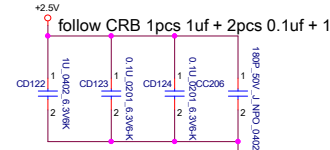
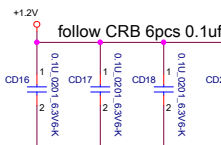
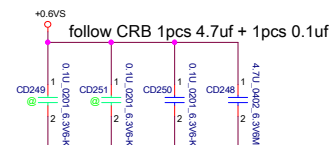
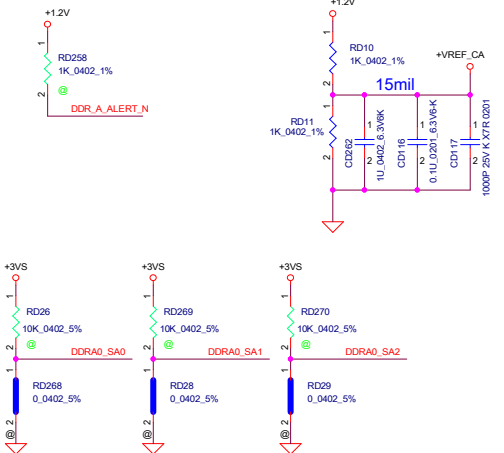
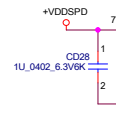


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update JDDR1 symbol 1129



for MEM\_MB\_RST# overshoot issue




### Swap Table

Pin Name	Net Name
D00	DR0A, D006
D01	DR0A, D065
D02	DR0A, D002
D03	DR0A, D003
D04	DR0A, D004
D05	DR0A, D000
D06	DR0A, D001
D07	DR0A, D007
D0S#0	DR0A, D0S#0
D0S0	DR0A, D0S0
D08	DR0A, D013
D09	DR0A, D009
D010	DR0A, D014
D011	DR0A, D010
D012	DR0A, D012
D013	DR0A, D008
D014	DR0A, D015
D015	DR0A, D011
D0S#1	DR0A, D0S#1
D0S1	DR0A, D0S1
D016	DR0A, D020
D017	DR0A, D021
D018	DR0A, D022
D019	DR0A, D019
D020	DR0A, D016
D021	DR0A, D017
D022	DR0A, D023
D023	DR0A, D018
D024	DR0A, D0S#2
D0S2	DR0A, D0S2
D024	DR0A, D028
D025	DR0A, D029
D026	DR0A, D031
D027	DR0A, D027
D028	DR0A, D024
D029	DR0A, D025
D030	DR0A, D030
D031	DR0A, D026
D0S#3	DR0A, D0S#3
D0S3	DR0A, D0S3
D032	DR0A, D033
D033	DR0A, D037
D034	DR0A, D034
D035	DR0A, D038
D036	DR0A, D032
D037	DR0A, D036
D038	DR0A, D035
D039	DR0A, D039
D0S#4	DR0A, D0S#4
D0S4	DR0A, D0S4
D040	DR0A, D044
D041	DR0A, D040
D042	DR0A, D047
D043	DR0A, D043
D044	DR0A, D041
D045	DR0A, D045
D046	DR0A, D046
D047	DR0A, D042
D0S#5	DR0A, D0S#5
D0S5	DR0A, D0S5
D048	DR0A, D048
D049	DR0A, D049
D050	DR0A, D050
D051	DR0A, D051
D052	DR0A, D052
D053	DR0A, D053
D054	DR0A, D054
D055	DR0A, D055
D0S#6	DR0A, D0S#6
D0S6	DR0A, D0S6
D056	DR0A, D060
D057	DR0A, D056
D058	DR0A, D063
D059	DR0A, D059
D060	DR0A, D061
D061	DR0A, D057
D062	DR0A, D058
D063	DR0A, D062
D0S#7	DR0A, D0S#7
D0S7	DR0A, D0S7

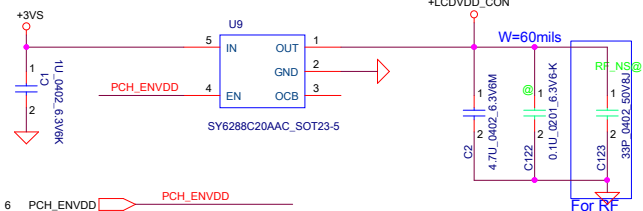
SPD Address = A0H



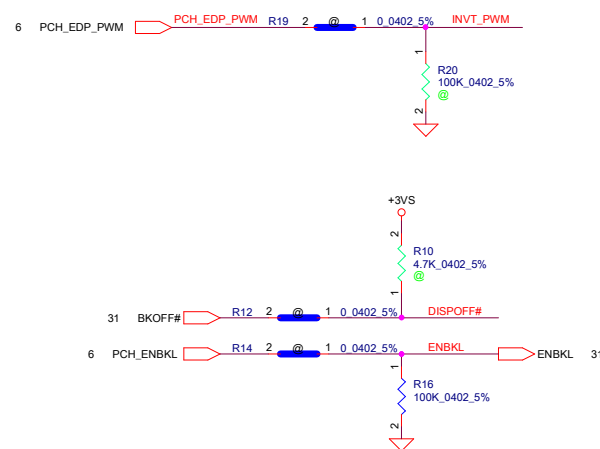
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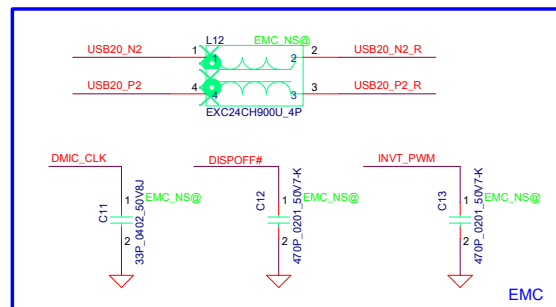
## LCD POWER CIRCUIT



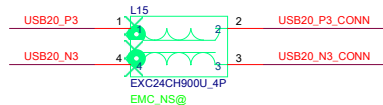
APU output enable Voh min is  $1.8V - 0.45V = 1.35V$



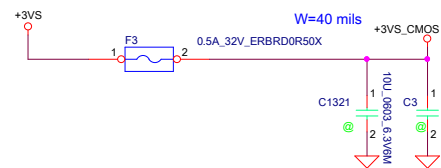
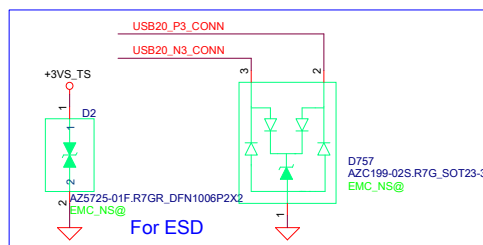
## CMOS Camera



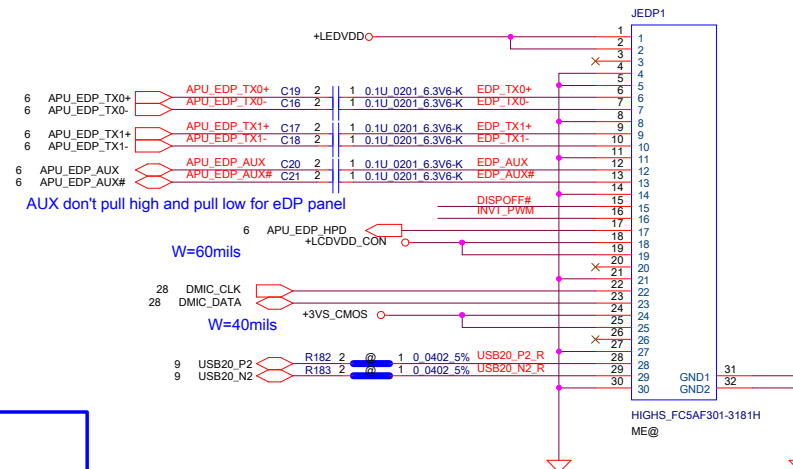
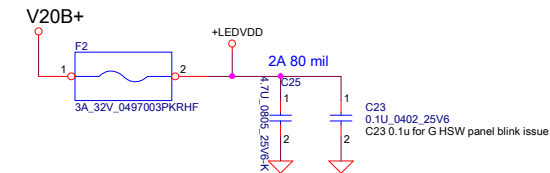
## Touch Screen



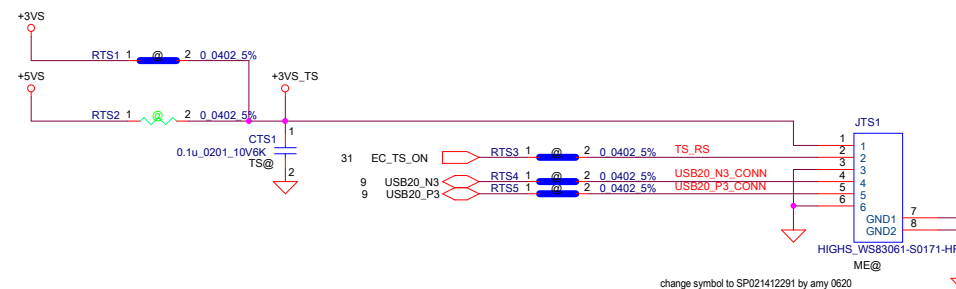
For EMI



## B+ to +LEDVDD POWER



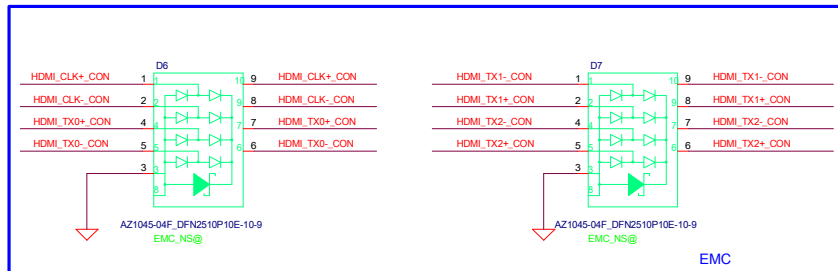
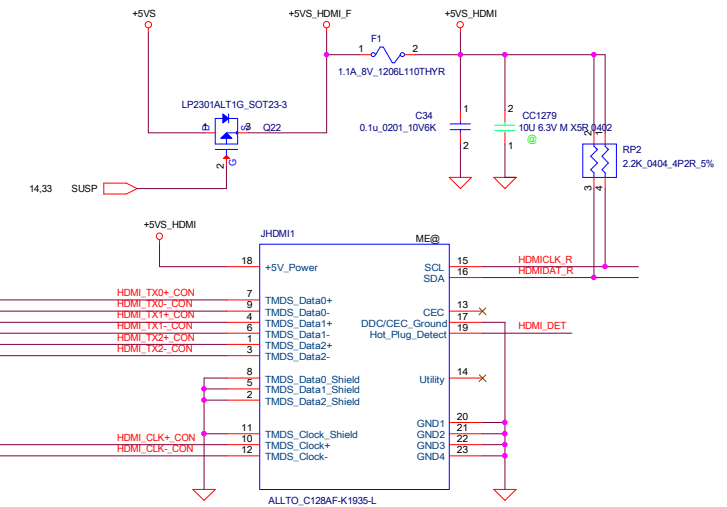
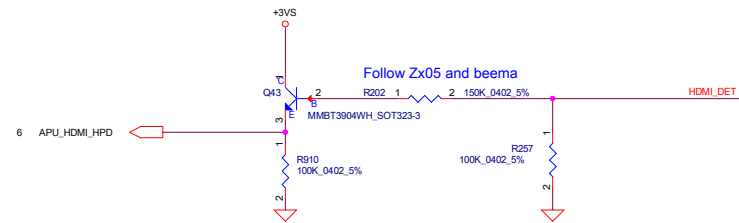
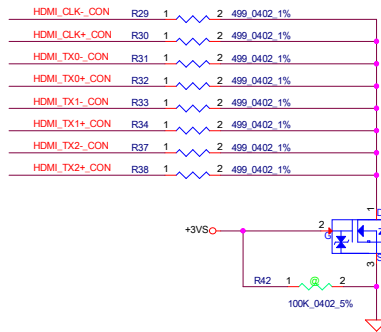
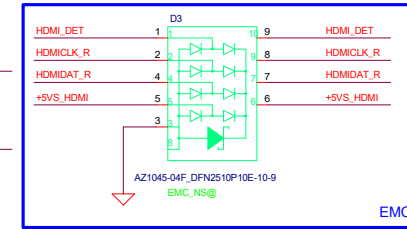
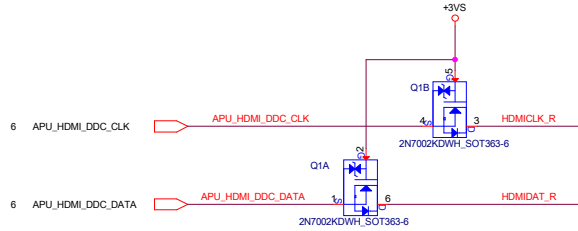
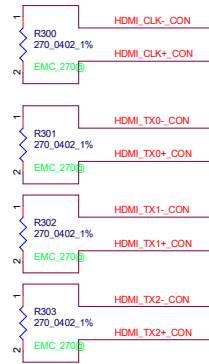
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D								D	
C								C	
B								B	
A								A	

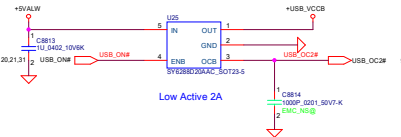
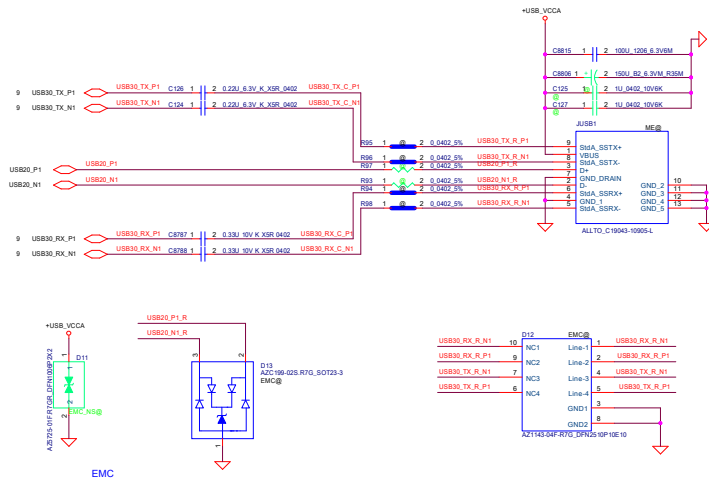
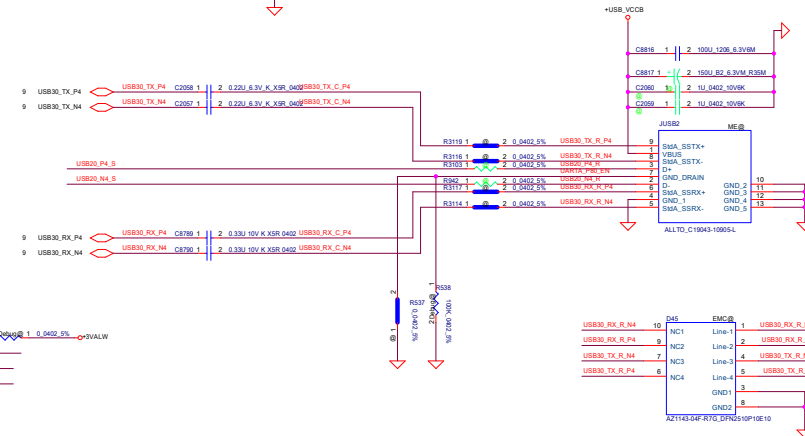
# 7/29 S145API EMC request for HDMI



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19		of		44	

Low Active 2A


[illegible]

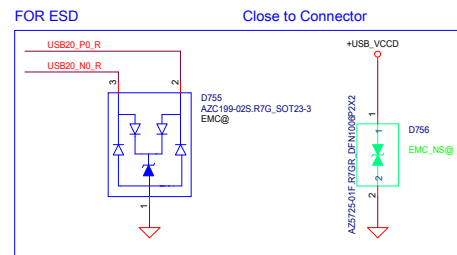
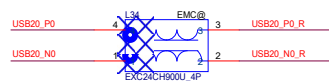
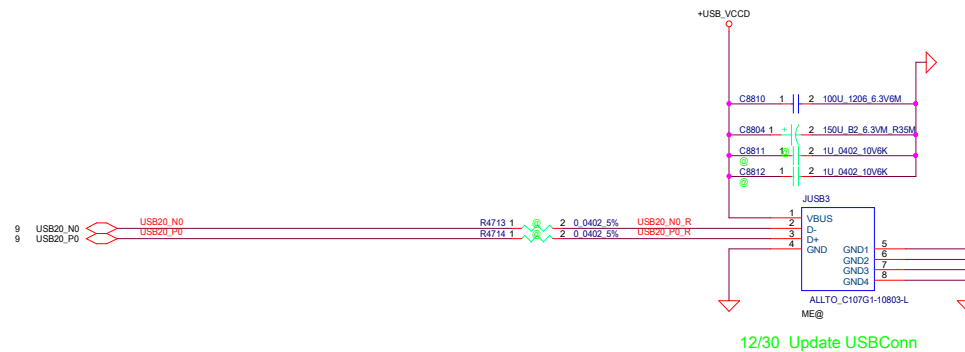
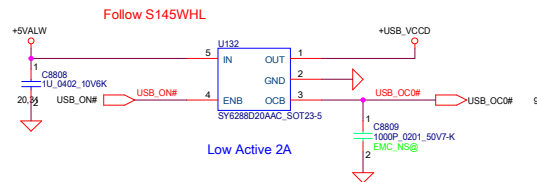
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Set input	Set input
Set output Low	ENABLE

UARTA_P80_EN	POST 80
Set input	DISABLE
Set output Low	ENABLE


OE#	S	FUNCTION
H	X	DISABLE
L	L	D(+/-) to 1D(+/-)
L	M	D(+/-) to 3D(+/-)

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						Rev 1.0

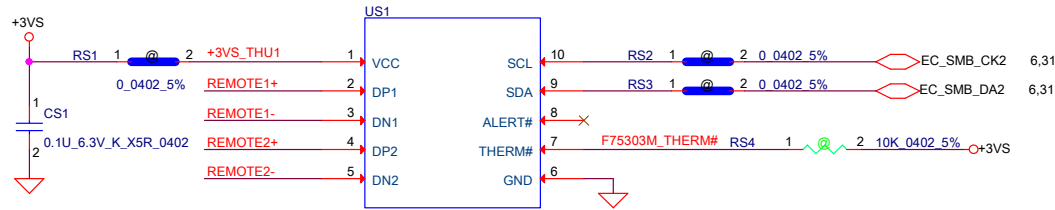


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				Date:	Sunday, January 19, 2020	Sheet	23 of 44

5	4	3	2	1															
D				D															
C				C															
B				B															
A				A															
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# Thermal Sensor placed nearby SO-DIMM

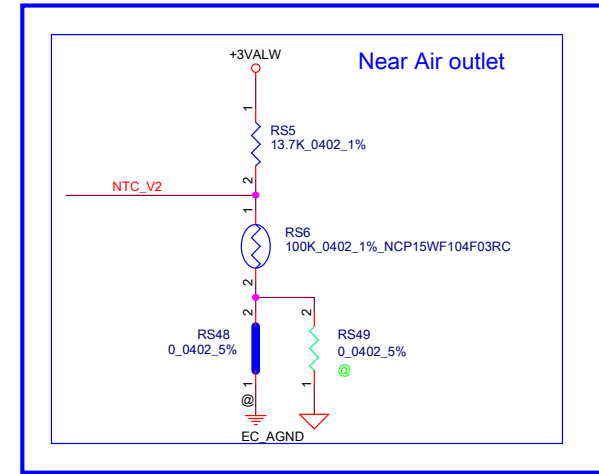


Address 1001\_101xb

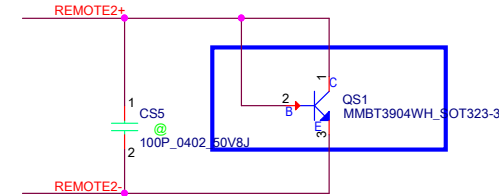
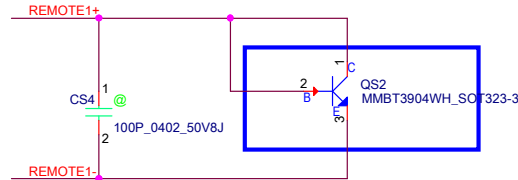
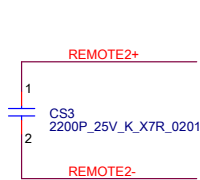
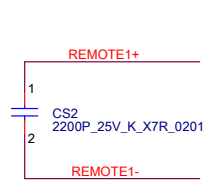
Internal pull up 1.2K to 1.5V

R for initial thermal shutdown temp

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

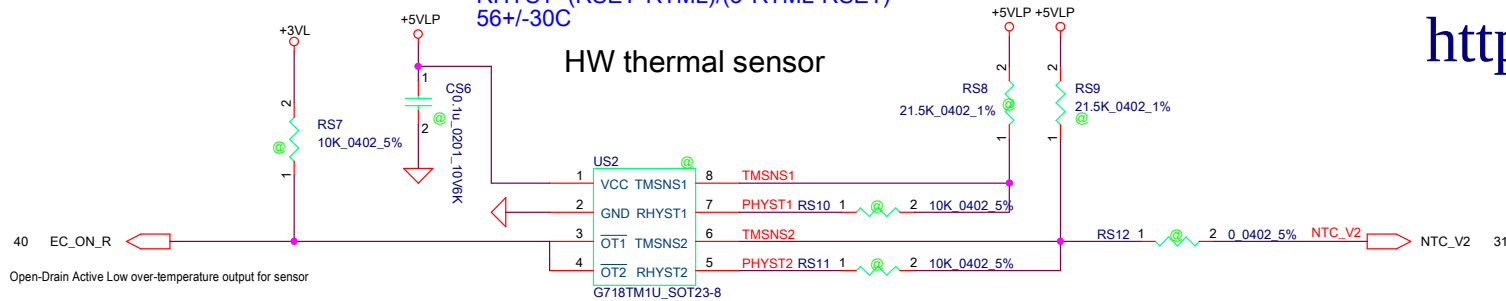


Close APU



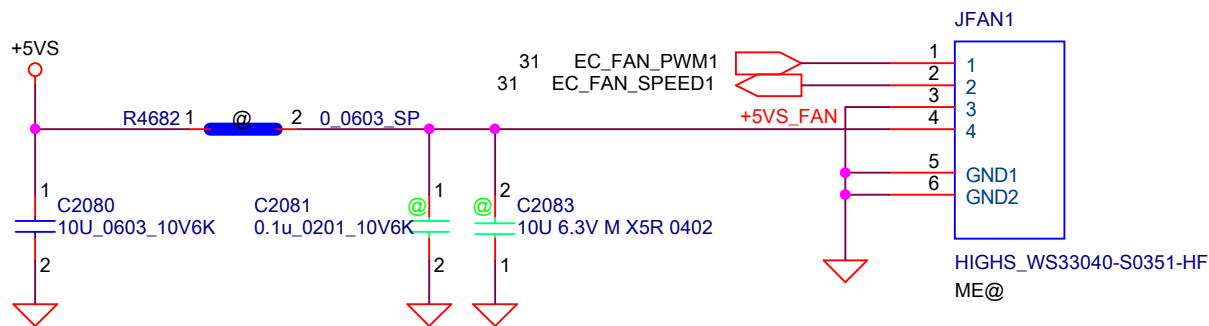
over temperature threshold:  
RSET=3\*RTMH  
92+/-30C  
Hysteresis temperature threshold.  
RHYST=(RSET\*RTML)/(3\*RTML-RSET)  
56+/-30C

## HW thermal sensor




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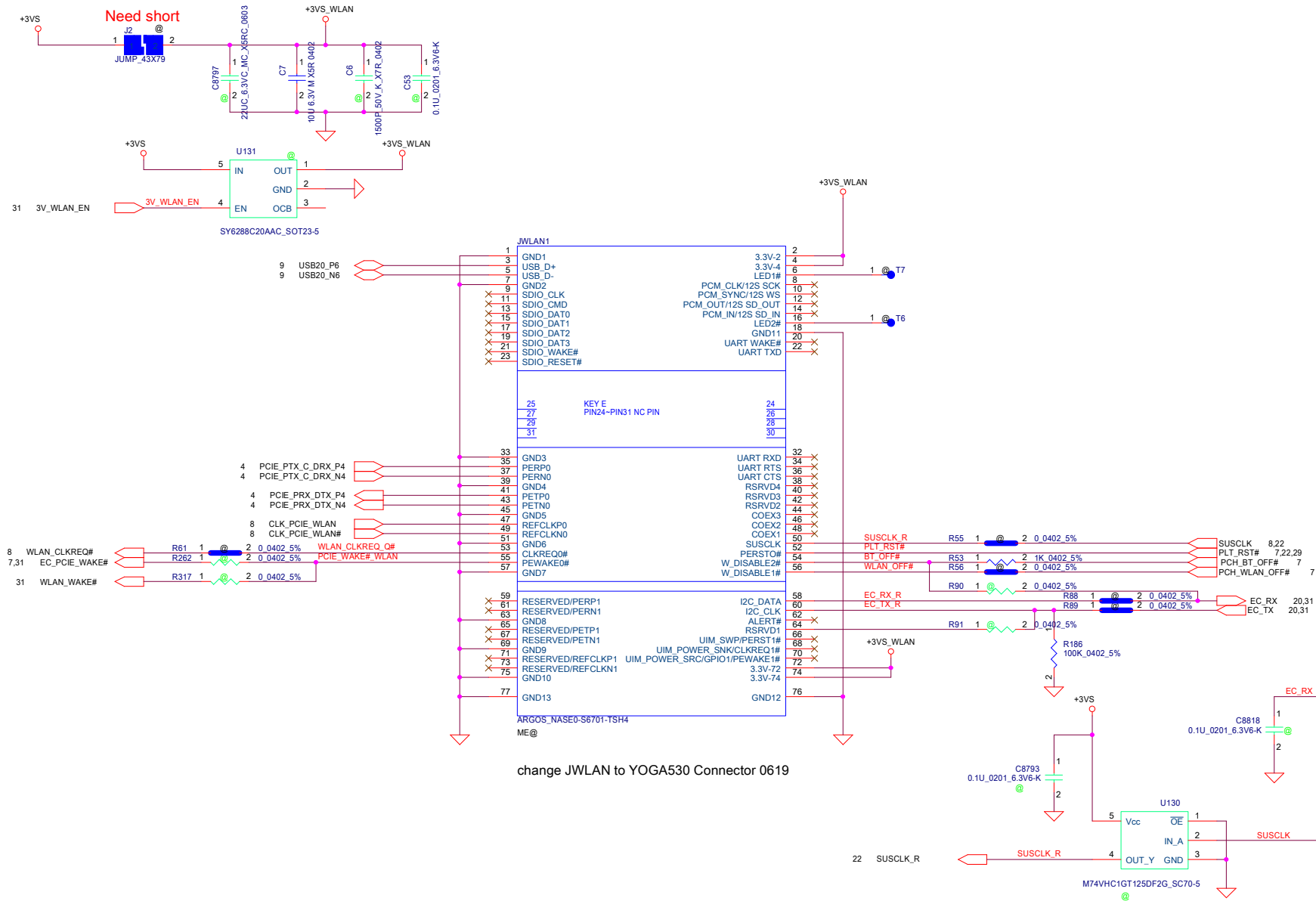
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						Date:		Sunday, January 19, 2020		Sheet	26	of	44
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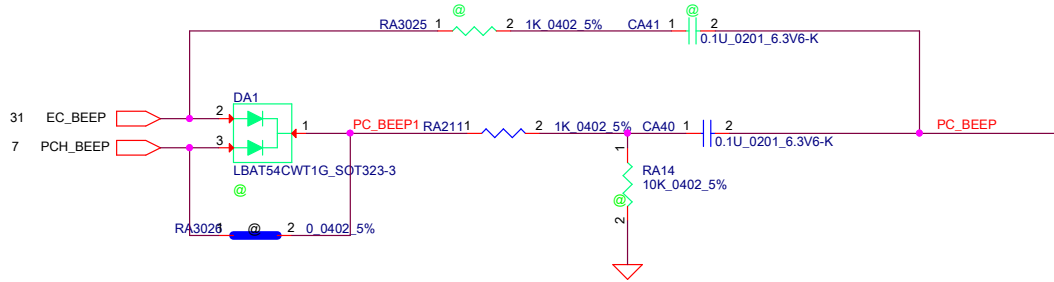
# Mini-Express Card(WLAN/WiMAX)



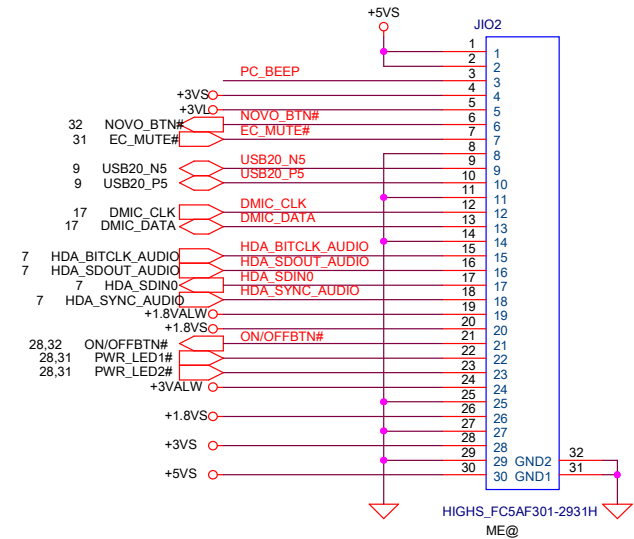
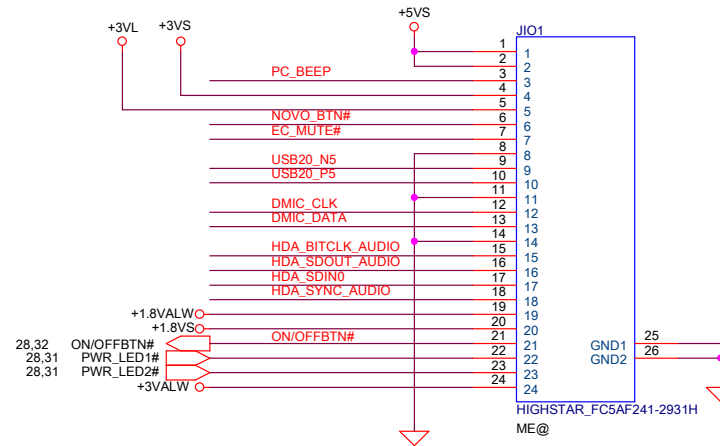
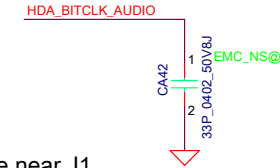
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				Rev	1.0

# IO Connector



S145API EMC request for  
HDA\_BITCLK\_AUDIO




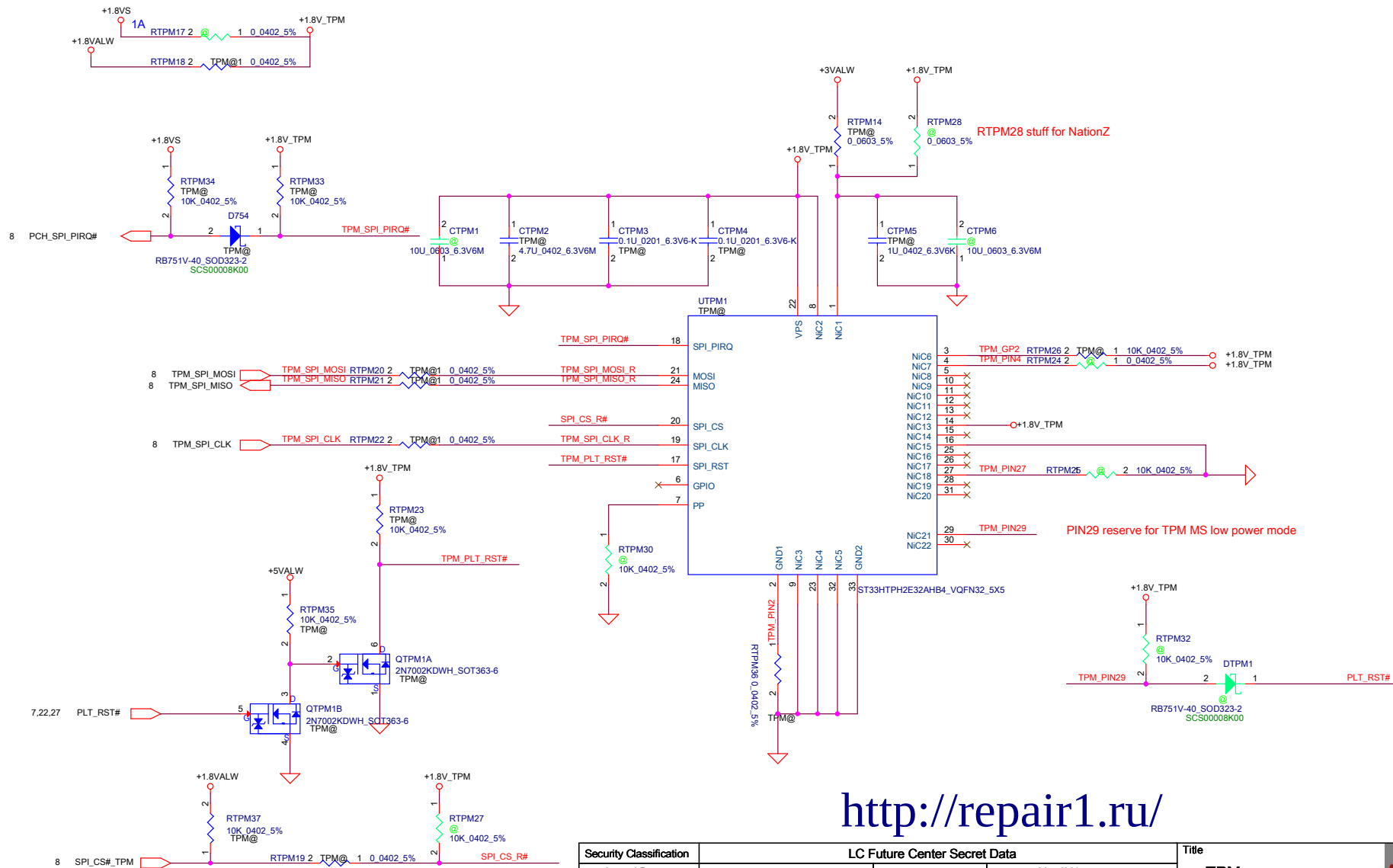
24Pin CONN

change SP01001IF00 to SP01001YP00(30pin)0619

30Pin CONN

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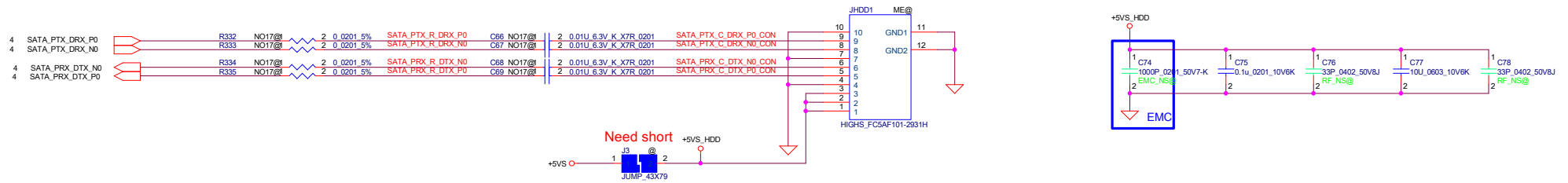
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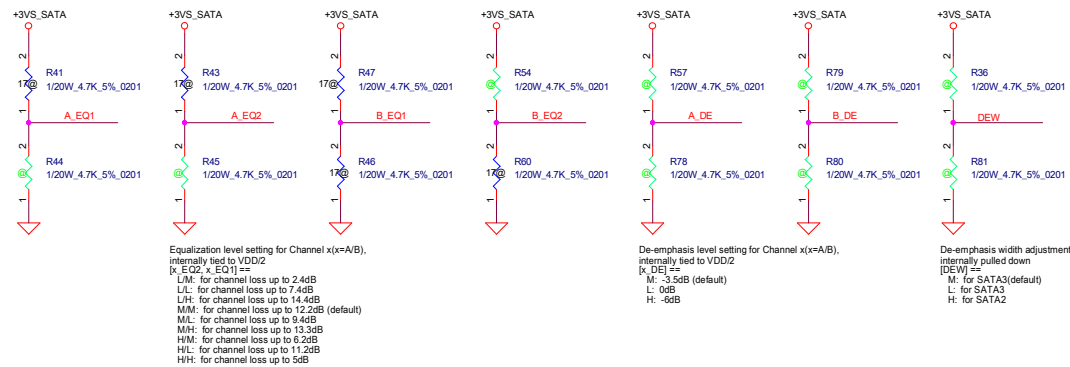
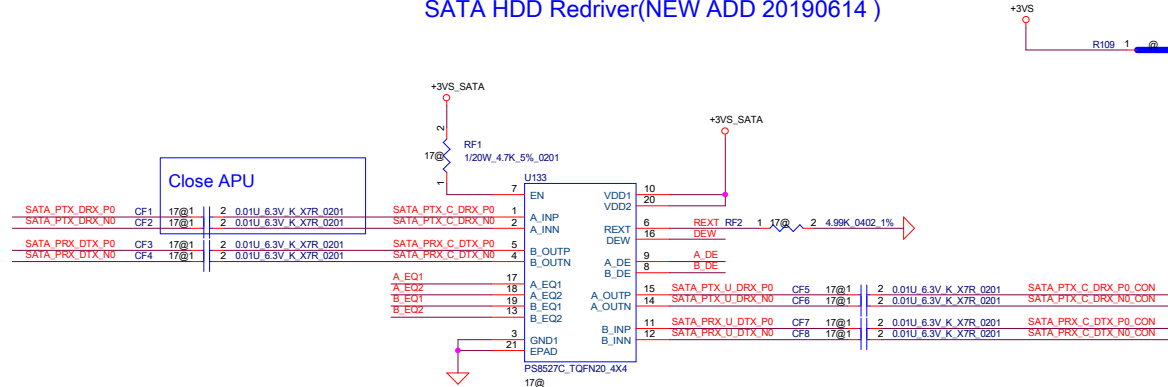
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SATA HDD Conn.




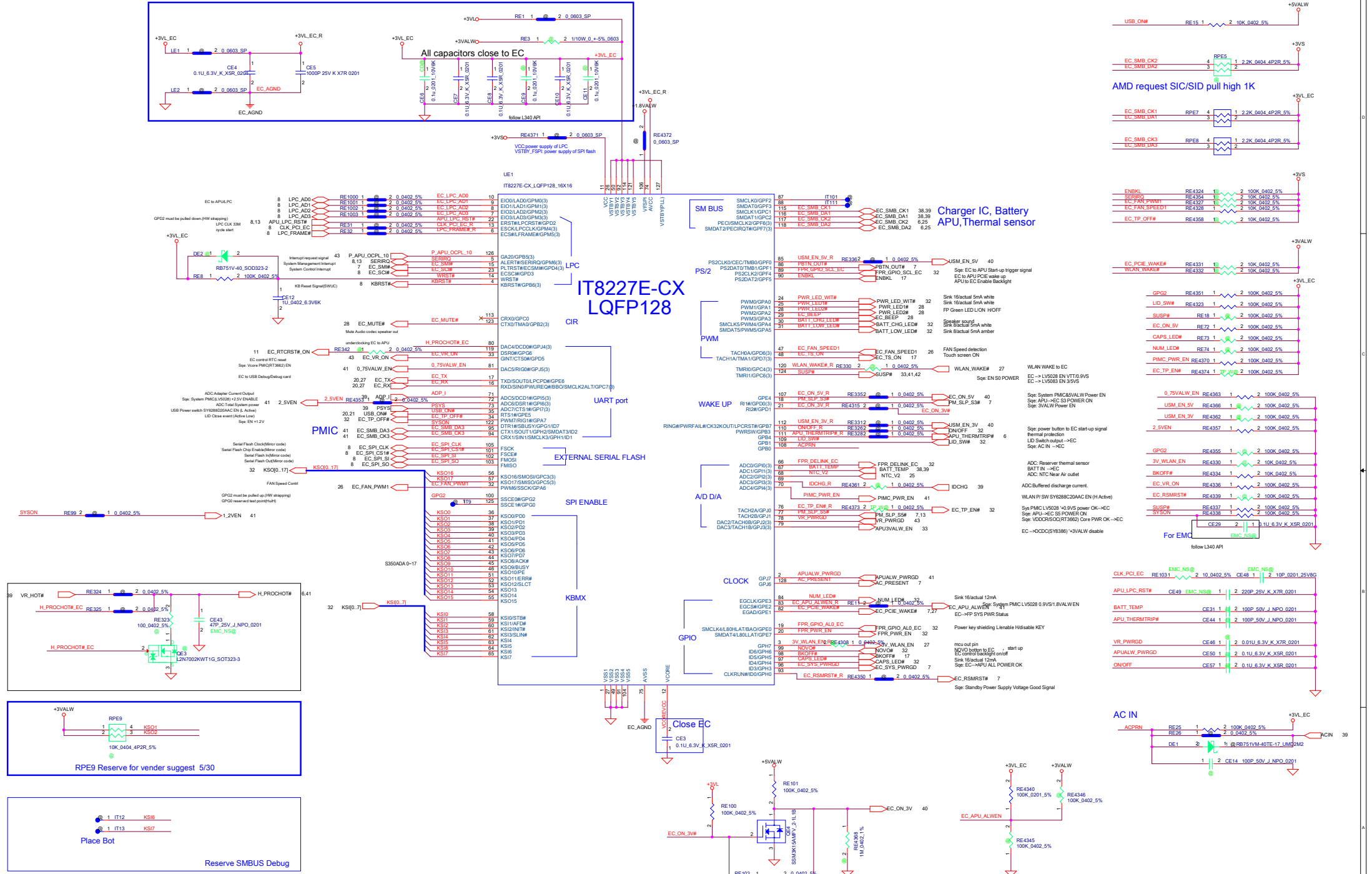
SATA HDD Redriver(NEW ADD 20190614 )




Follow Vendor suggest

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				Date:	Sunday, January 19, 2020	Sheet 30 of 44 Rev 1.0

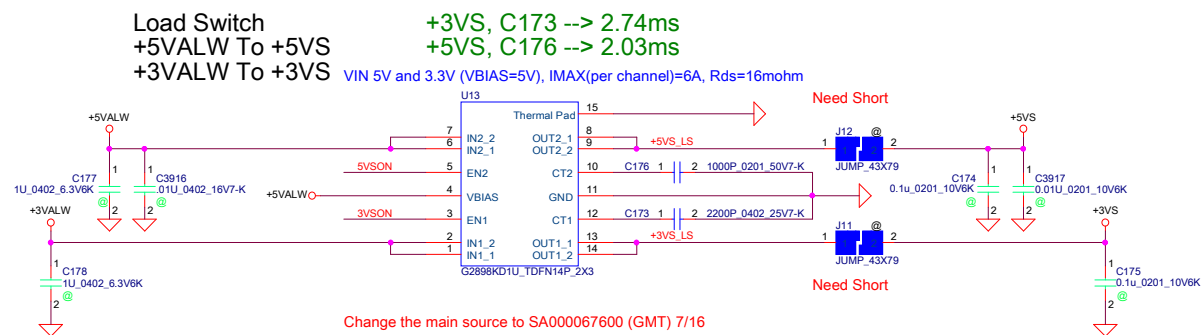
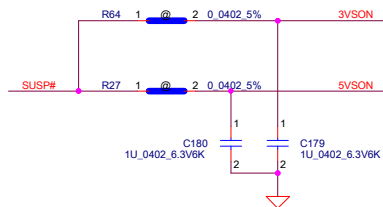
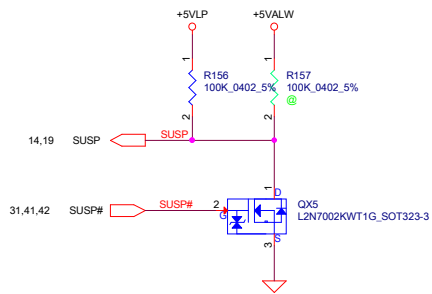


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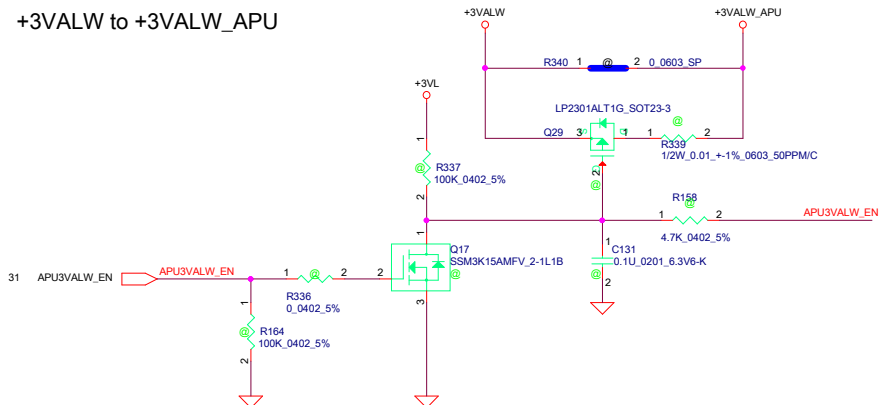
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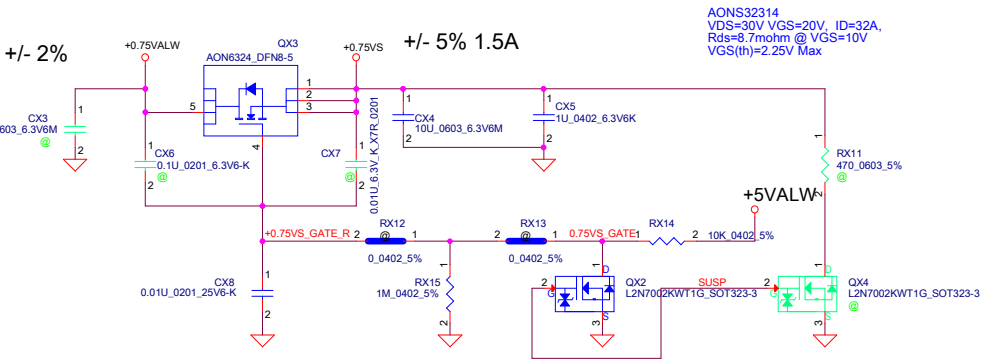
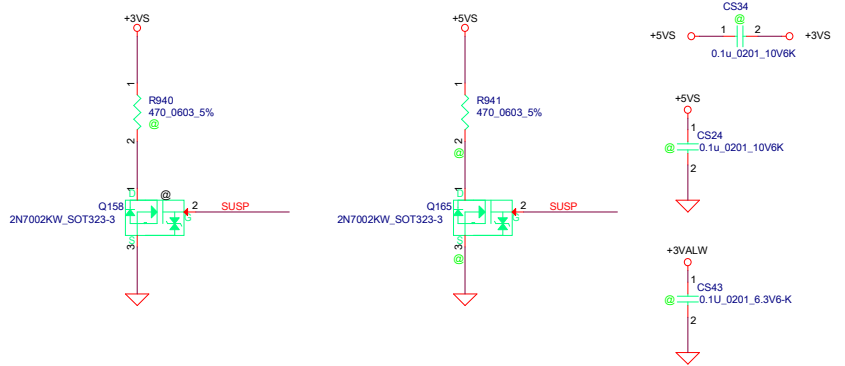




+3VALW to +3VALW\_APU



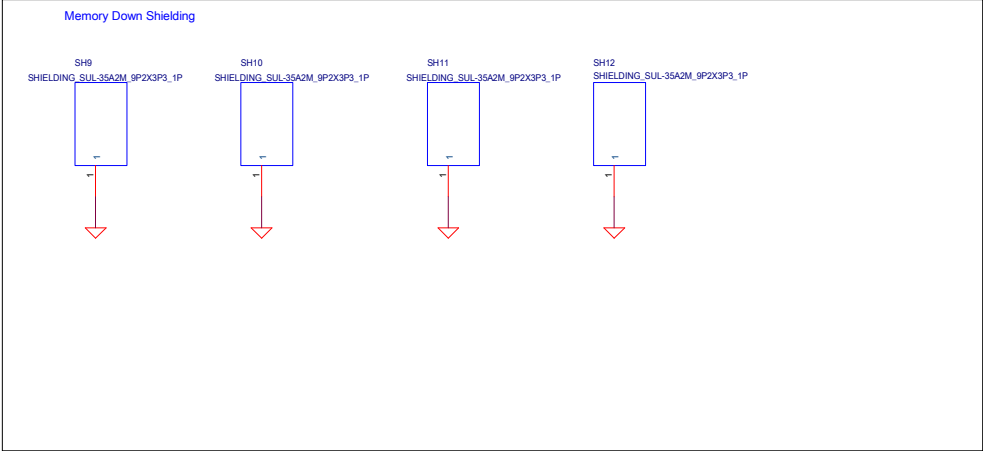
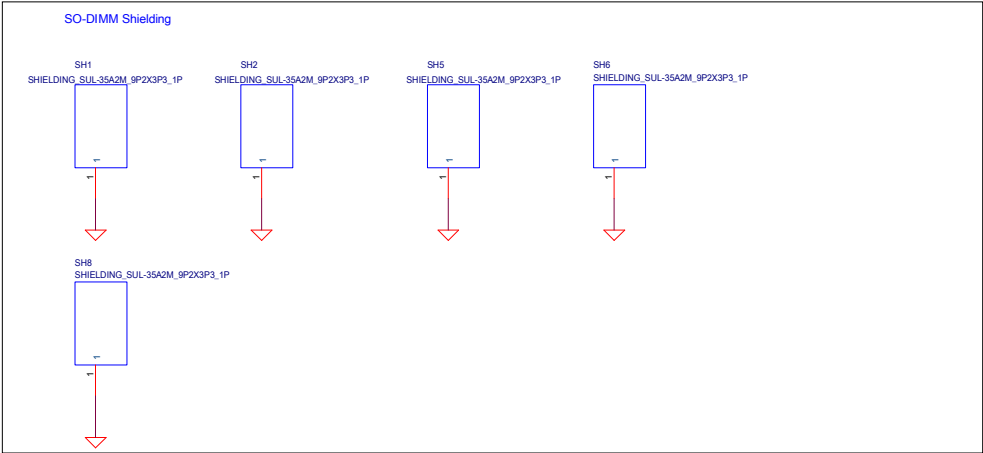
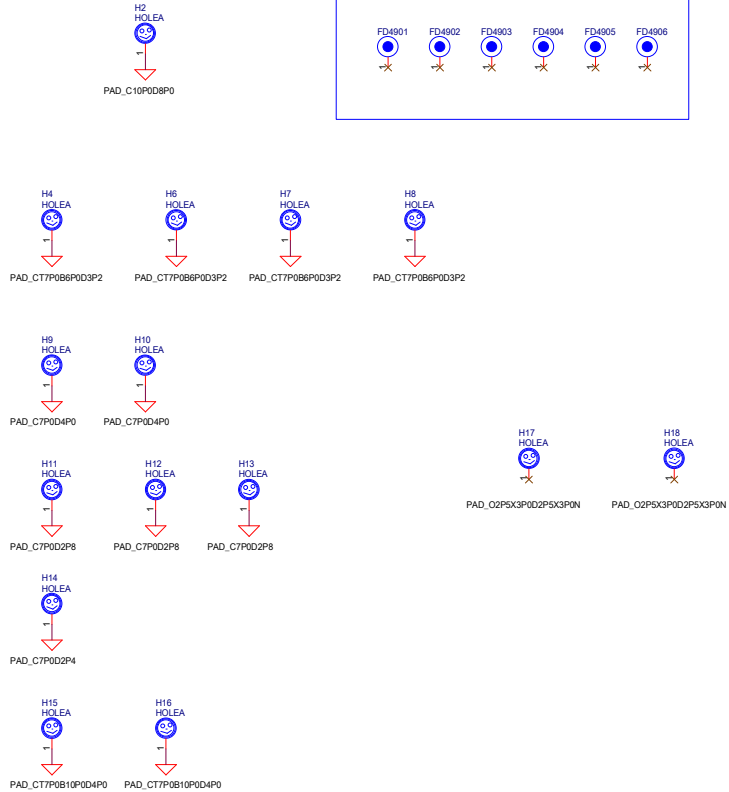
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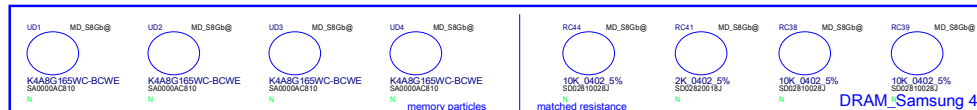
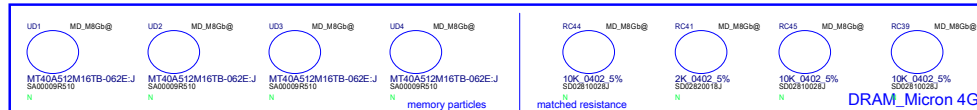
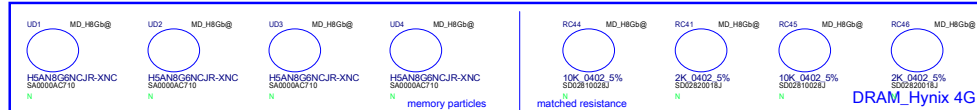
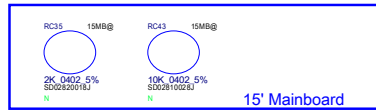
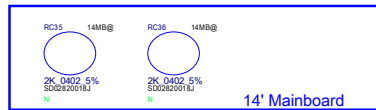
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				Sheet				33 of 44			
				Rev				1.0			

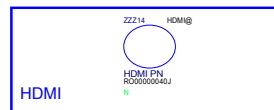
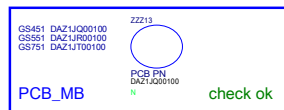
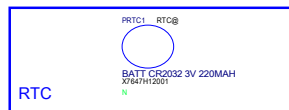
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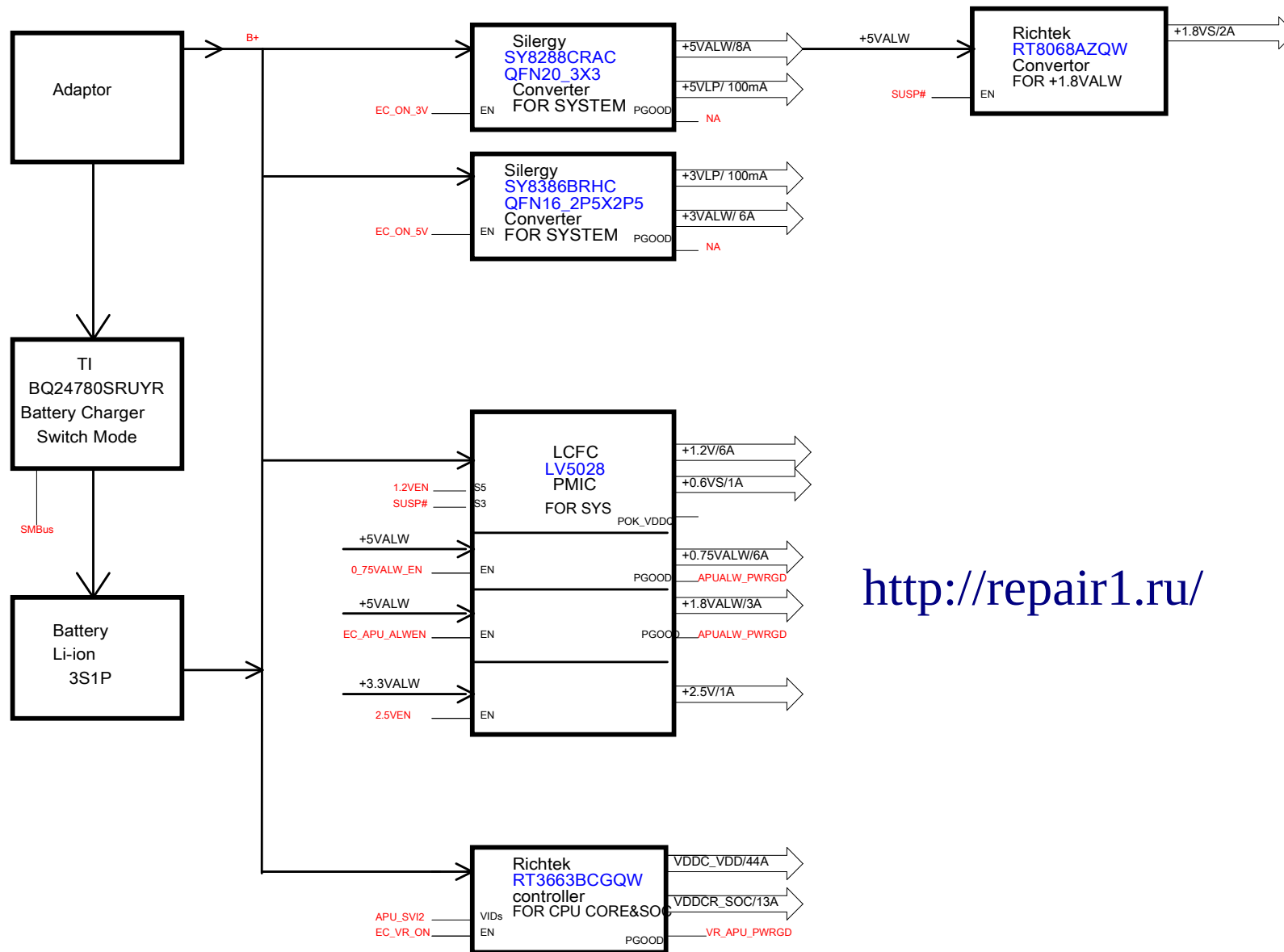
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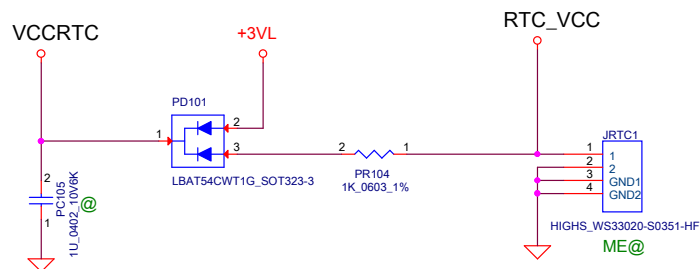
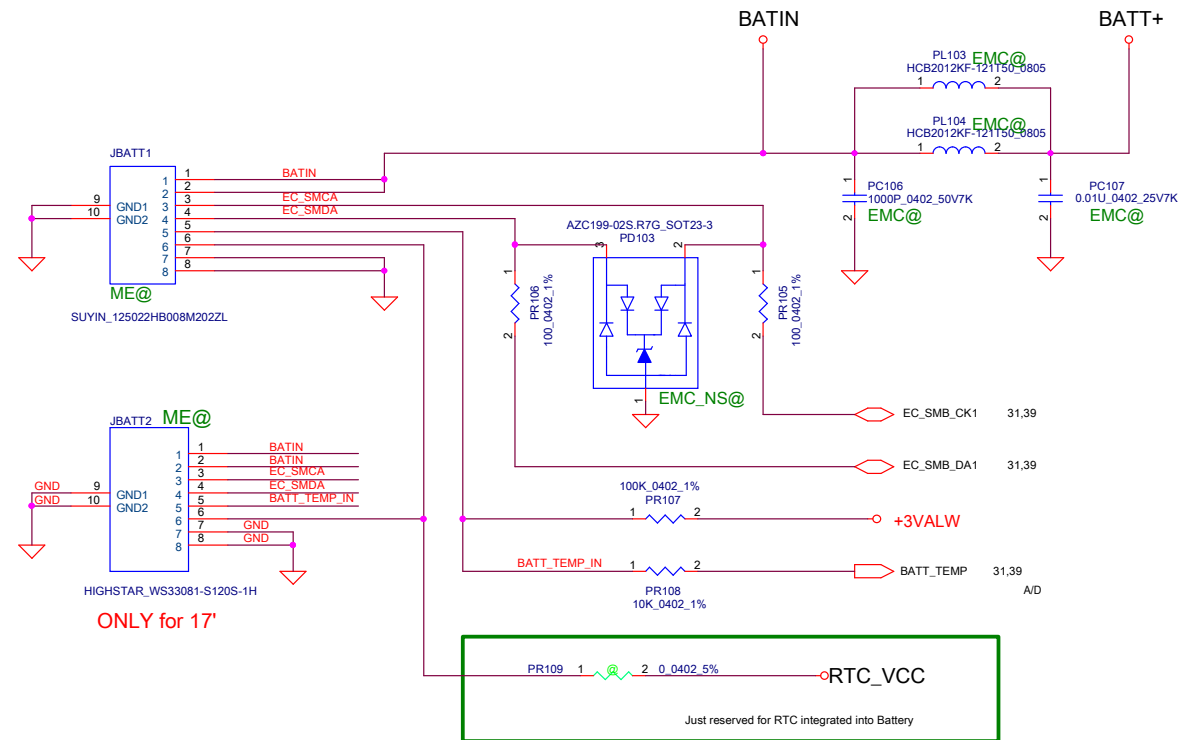
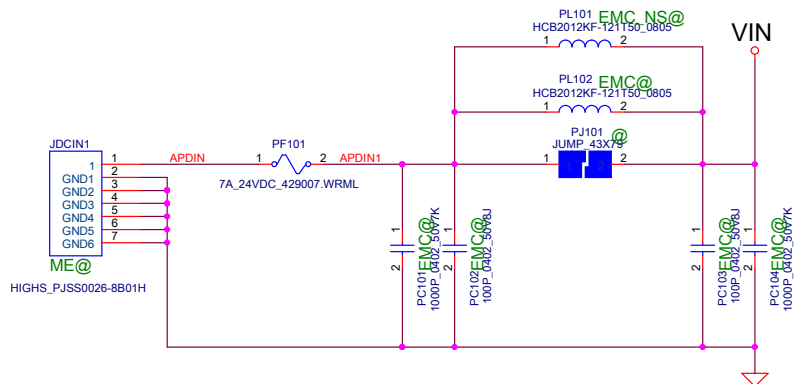
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				Date	Sunday, January 15, 2020 Sheet 35 of 44

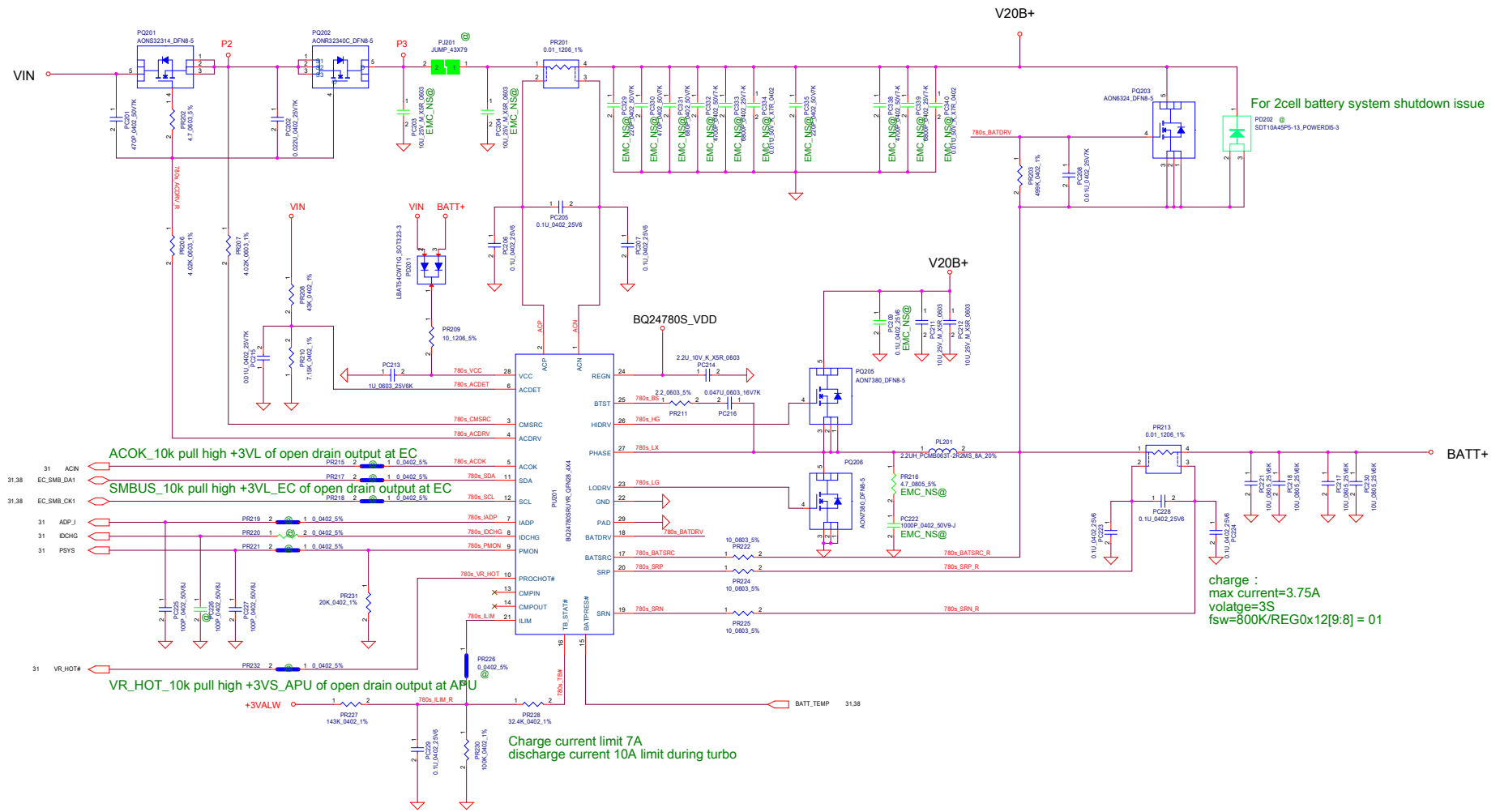


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										Custom				1.0
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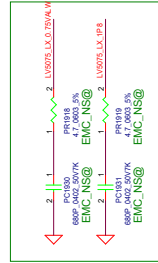



<http://repair1.ru/>



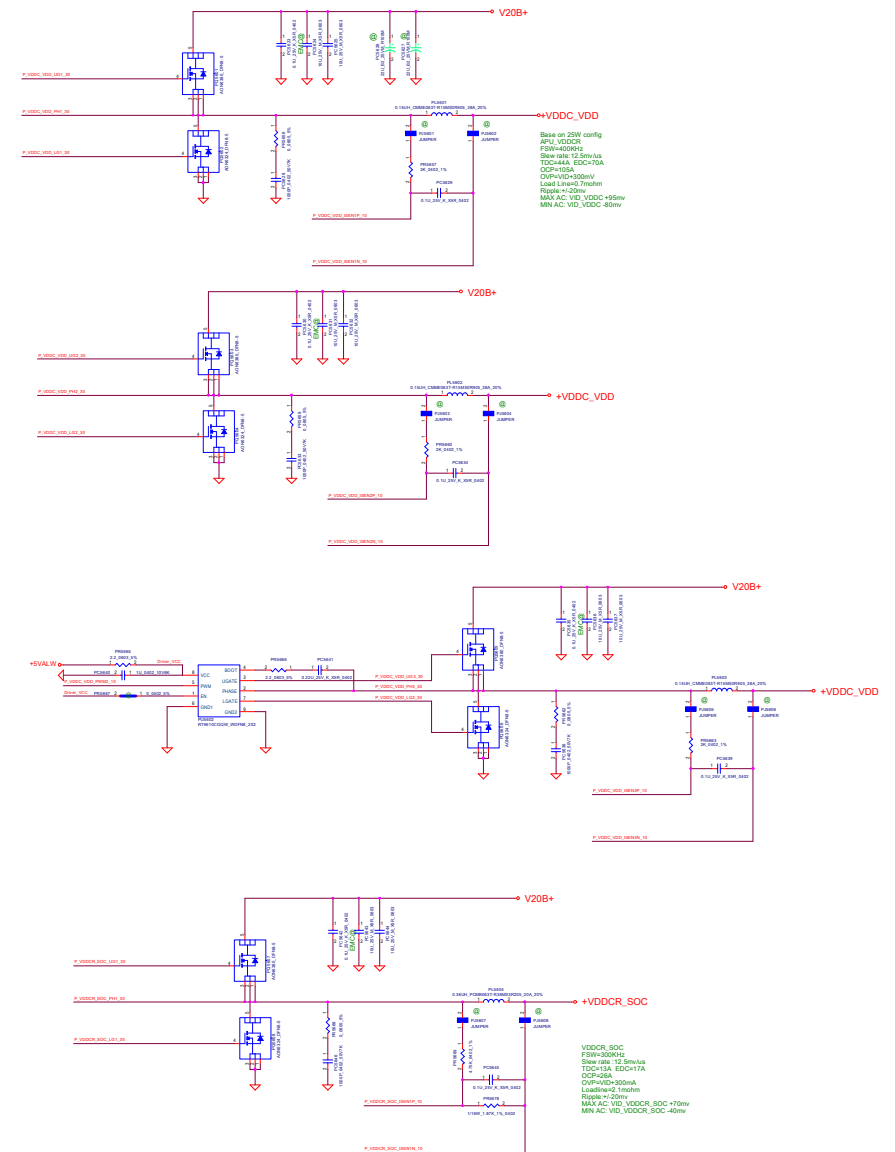


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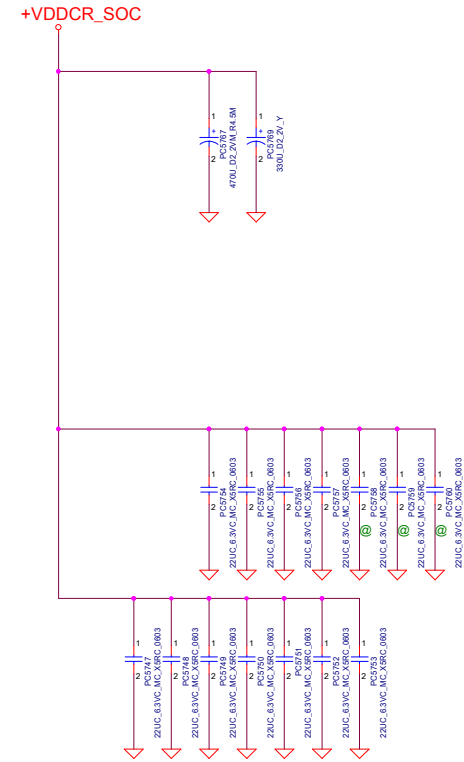
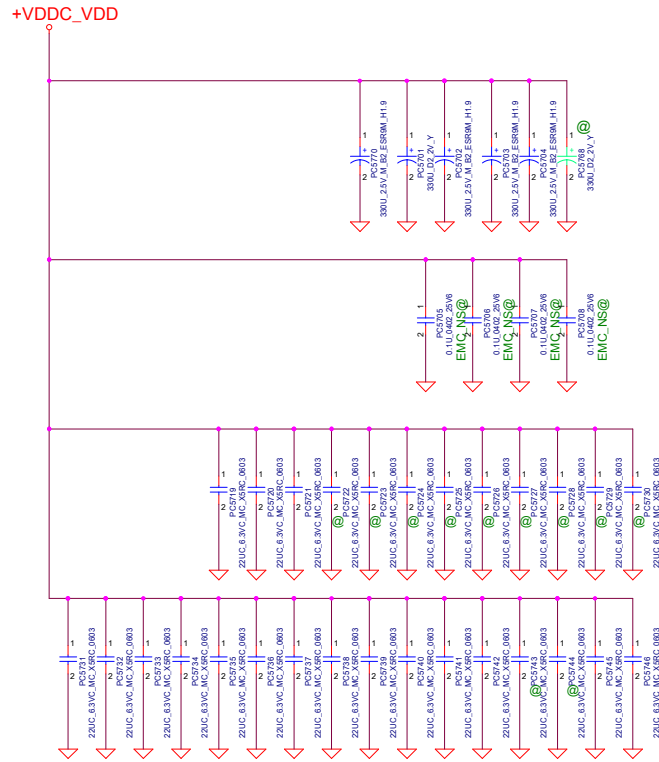


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