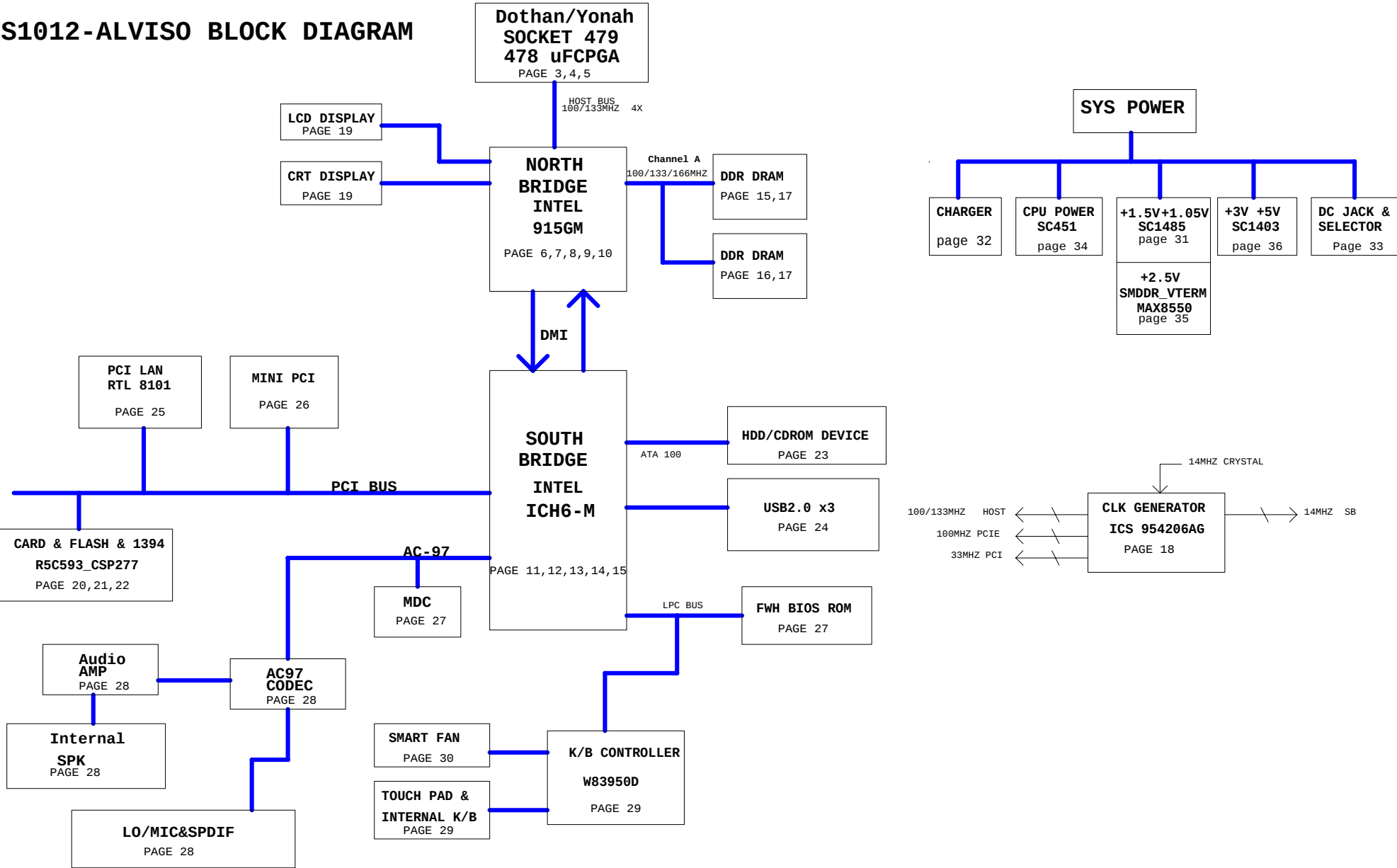


MS1012-ALVISO BLOCK DIAGRAM



Voltage Rails

Voltage	Description	Control Signal
PWR_SRC	AC ADAPTER OR BATTERY IN	
VHCORE	Core Voltage for Processor	GME_PWRGD
VTT	1.05 rail for Processor & Alviso I/O	RUNPWROK
SMDDR_VTERM	1.25V DDR Termination voltage (off in S4-S5)	+5VRUN
+1_5VSUS	1.5V power rail (off in S4-S5)	SUS_ON
+1_5VRUN	1.5V switched power rail(off in S3-S5)	RUN_ON
+1_8VRUN	1.8V switched power rail(off in S3-S5)	RUN_ON
+2_5VSUS	2.5V power rail DDR (off in S4-S5)	+5VSUS
+2_5VRUN	2.5V switched power rail(off in S3-S5)	RUN_ON
+3VALW	3.3V always on power rail	PWR_SRC
+3VSUS	3.3V power rail (off in S4-S5)	SUS_ON
+3VRUN	3.3V switched power rail(off in S3-S5)	RUN_ON
+5VALW	5.0V always on power rail	PWR_SRC
+5VSUS	5.0V power rail (off in S4-S5)	SUS_ON
+5VRUN	5.0V switched power rail(off in S3-S5)	RUN_ON

Voltage	Description	Control Signal
+V5_AUDIO	5.0V Power rail Audio codec(off in S3-S5)	+5VRUN

 GND	DIGTIAL GROUD	
 AGND	AUDIO GND	
 PGND	POWER Analogy GND	

POWER STATES

STATE \ SIGNAL	SLP_S3#	SLP_S4#	SLP_S5#	+V*ALWAYS	+V*SUS	+V*RUN	Clocks
Full ON	HIGH	HIGH	HIGH	ON	ON	ON	ON
S1M(Power On Suspend)	HIGH	HIGH	HIGH	ON	ON	ON	LOW
S3(Suspend to RAM)	LOW	HIGH	HIGH	ON	ON	OFF	OFF
S4(Suspend to Disk)	LOW	LOW	HIGH	ON	OFF	OFF	OFF
S5 / Soft OFF	LOW	LOW	LOW	ON	OFF	OFF	OFF

Note : WHEN AC MODE , System turn on then +V*SUS will always keep high



MICRO-STAR INT'L CO.,LTD.

Title

PLATFORM

Size

Document Number

B

MS-1012

Rev

1.1

Date:

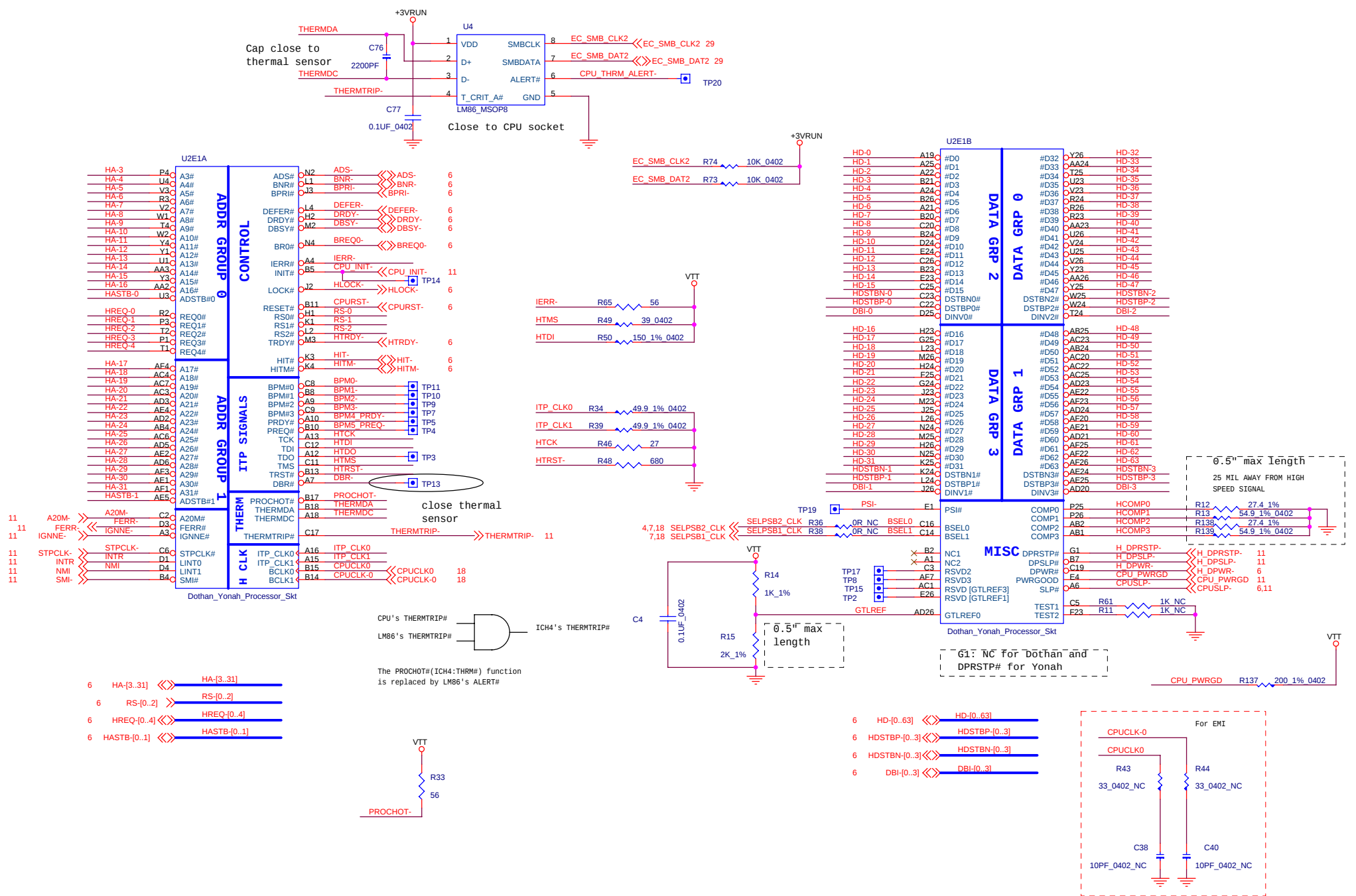
Friday, January 21, 2005

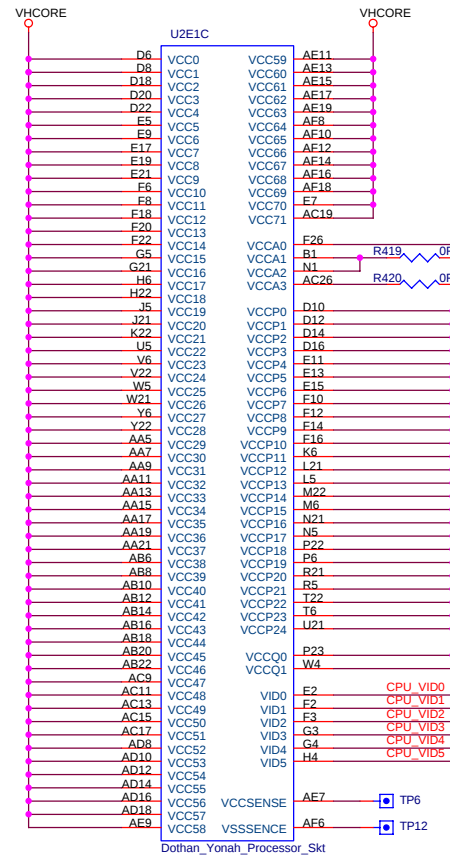
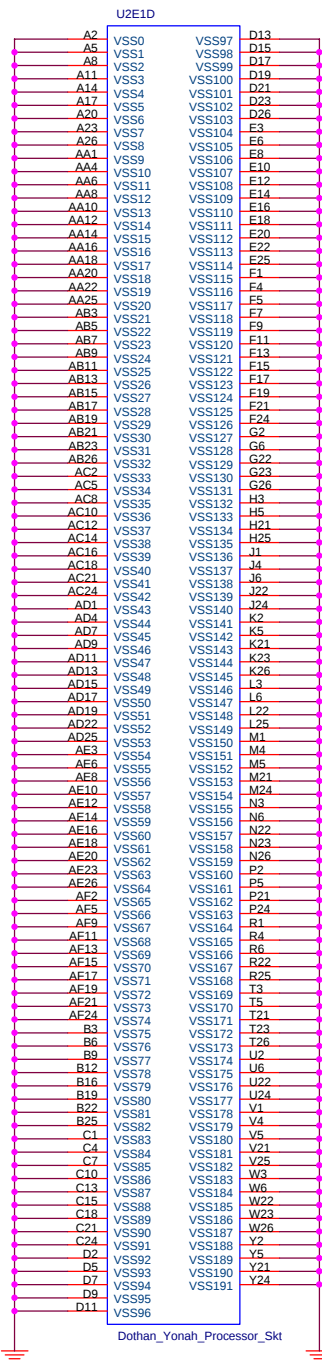
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of

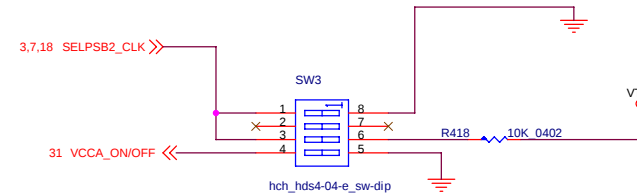
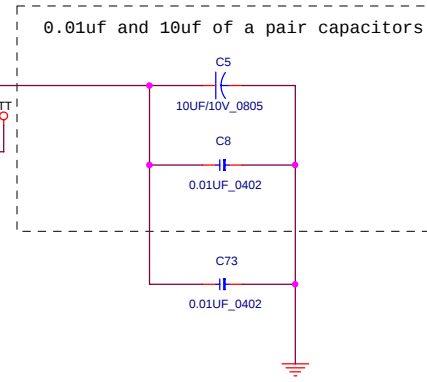
39





34 CPU_VID[0.5] << CPU_VID[0.5]

LAYOUT NOTE: Provide a test point (with no stub) to connect differential probe between VCCSENSE and VSSSENSE at the location where the two 54.9 ohm resistors terminate the 55 ohm transmission lines.



DIP4 ON CPU VCCA 1.8V
DIP4 OFF CPU VCCA 1.5V



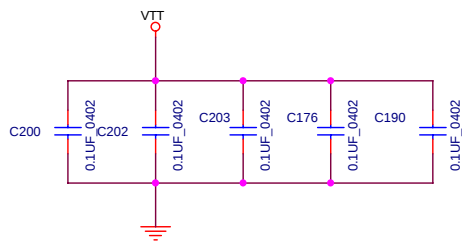
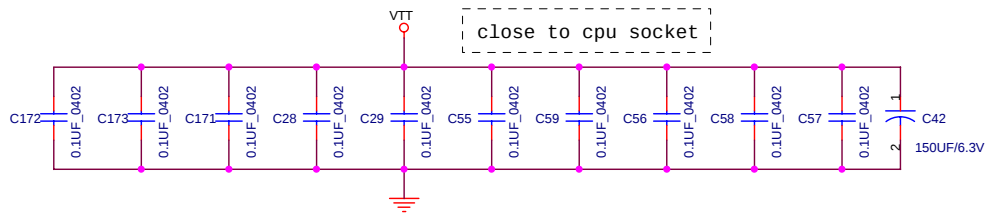
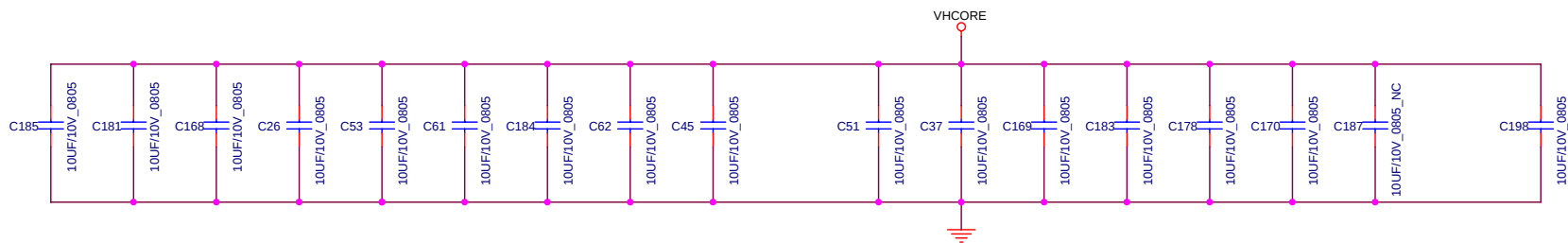
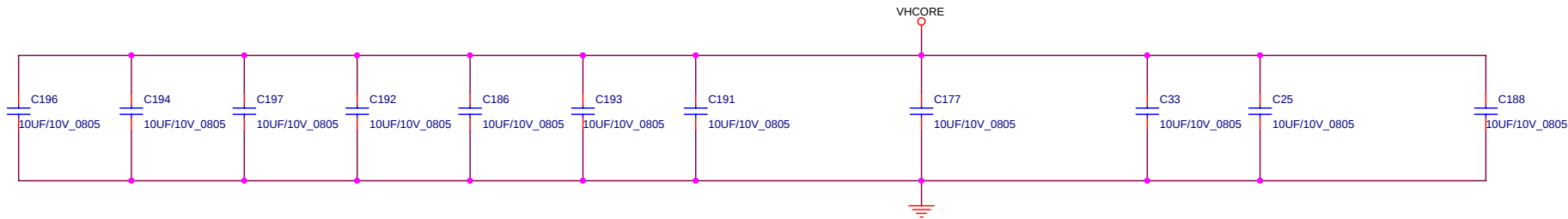
MICRO-STAR INT'L CO.,LTD.

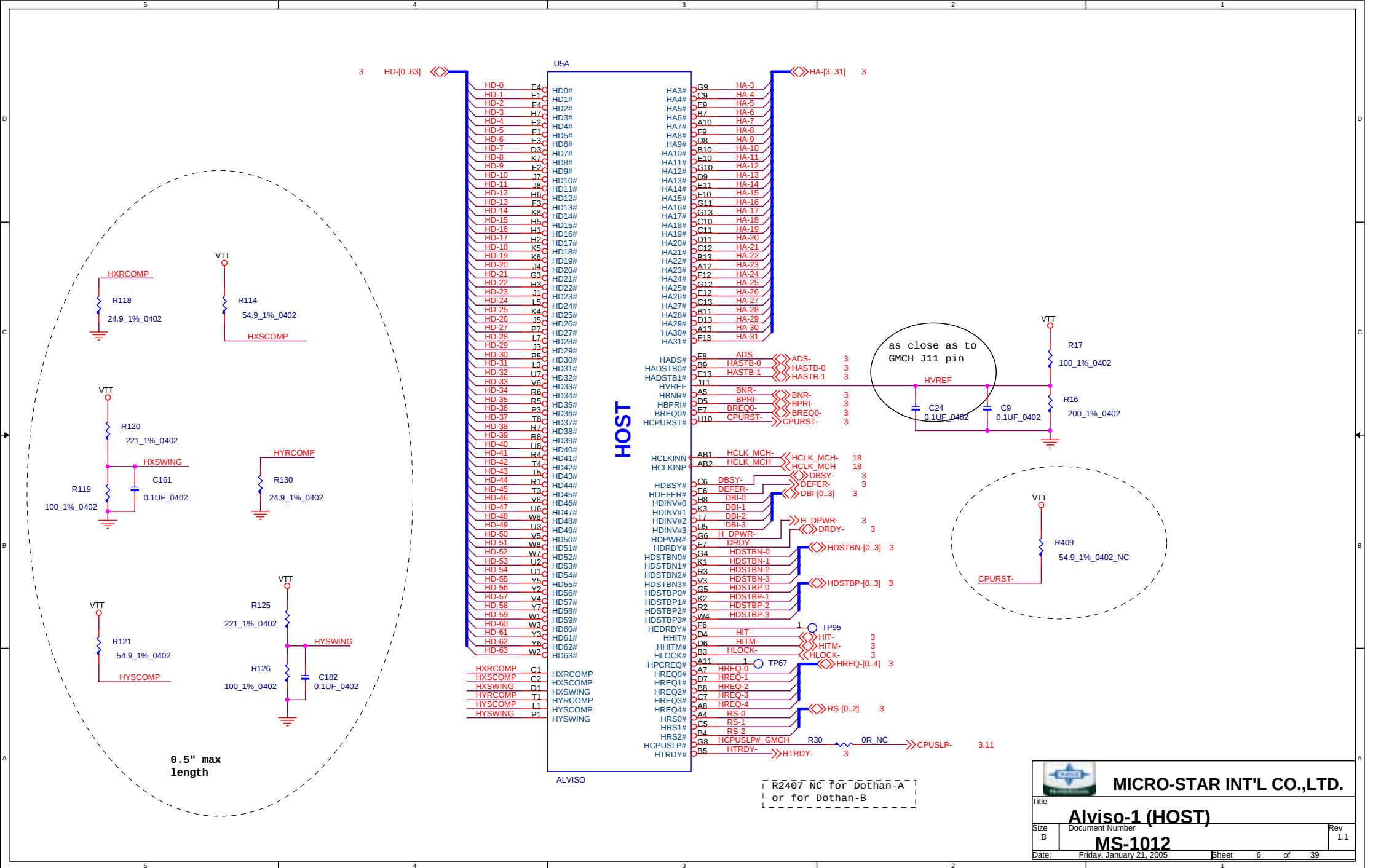
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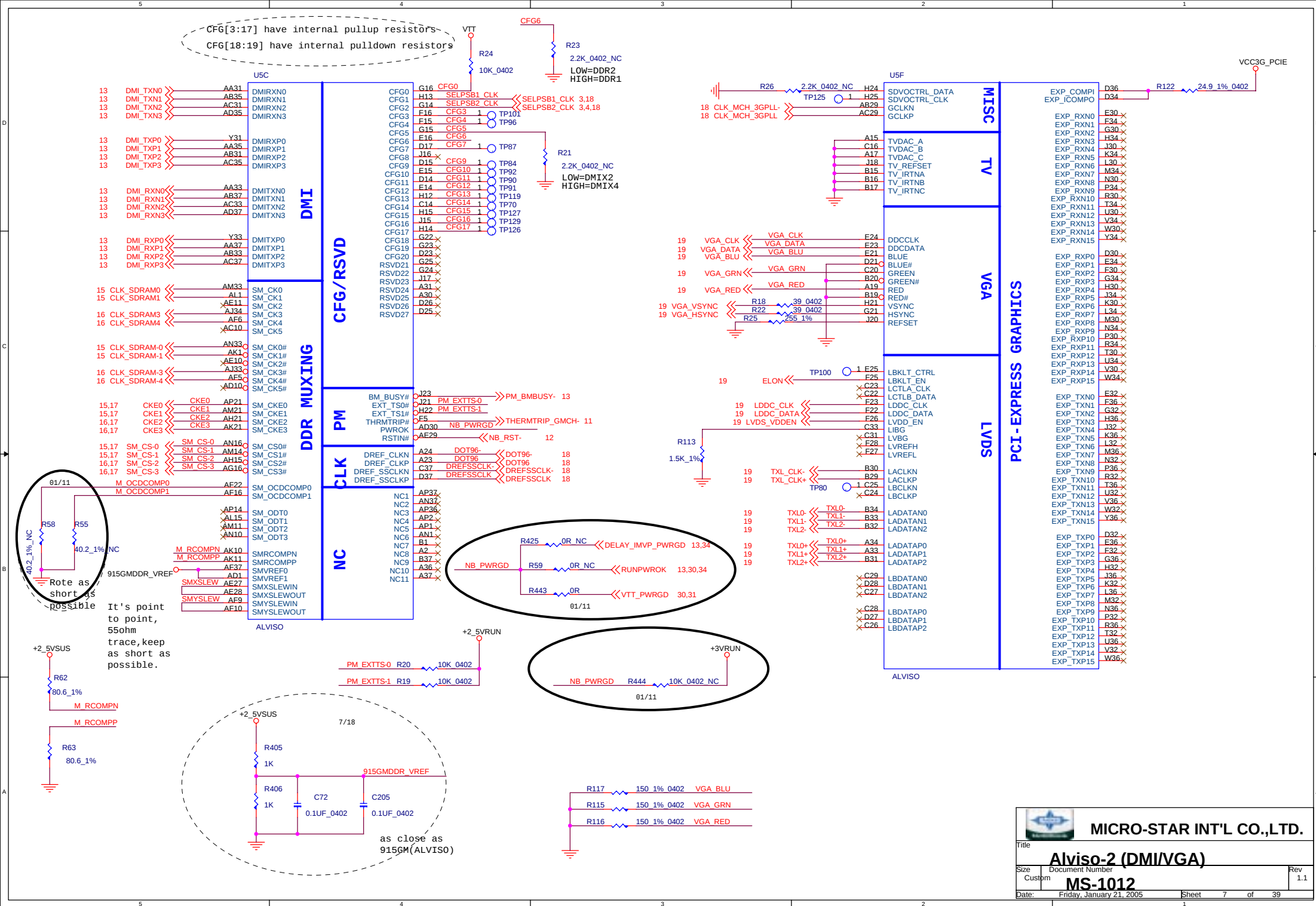
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MS-1012

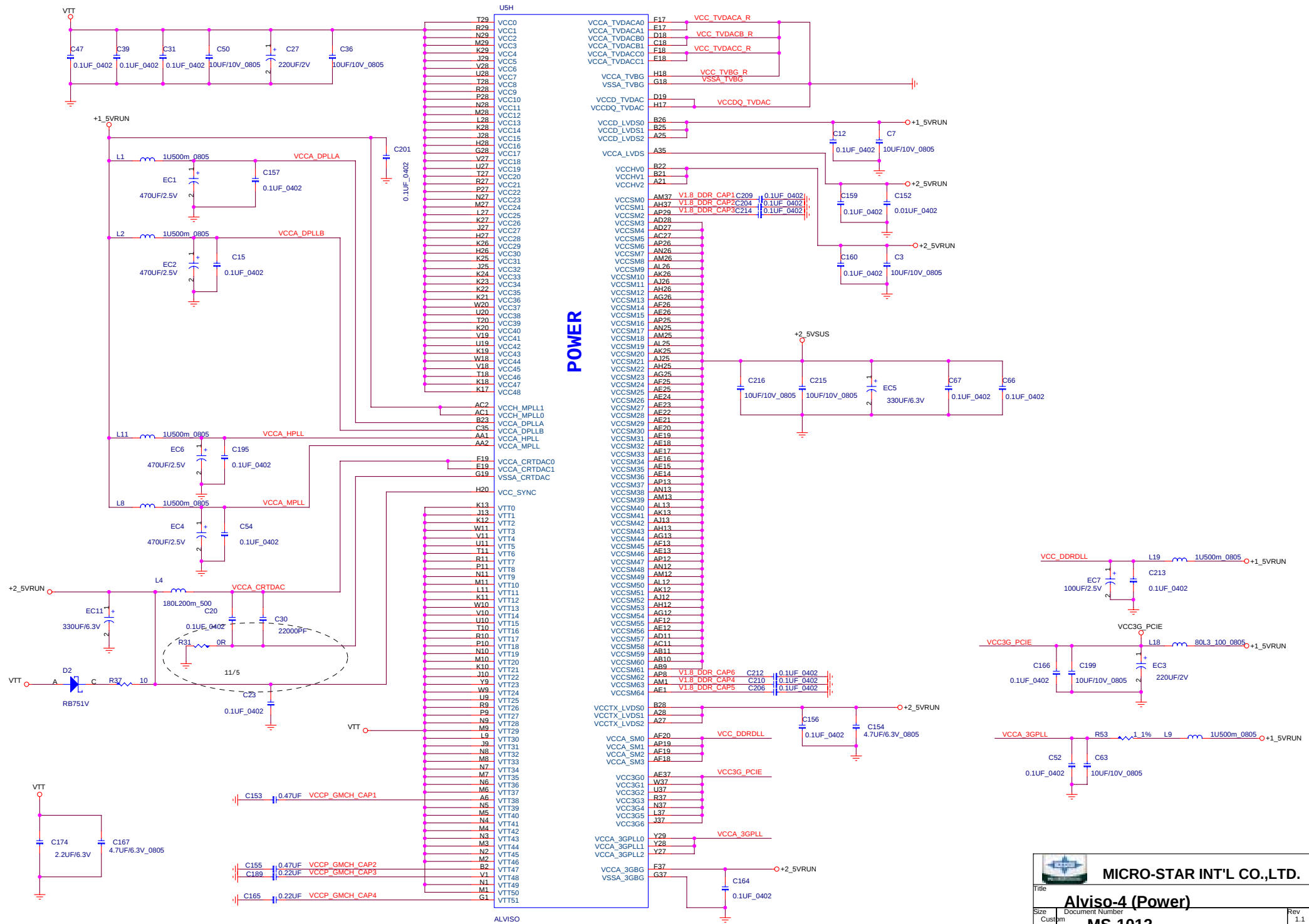
Rev
1.1

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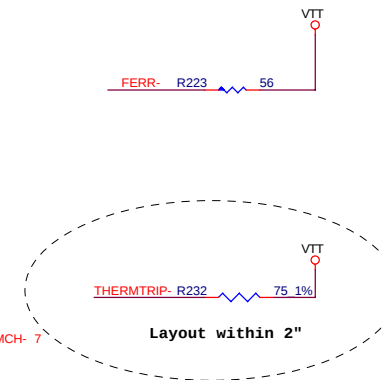
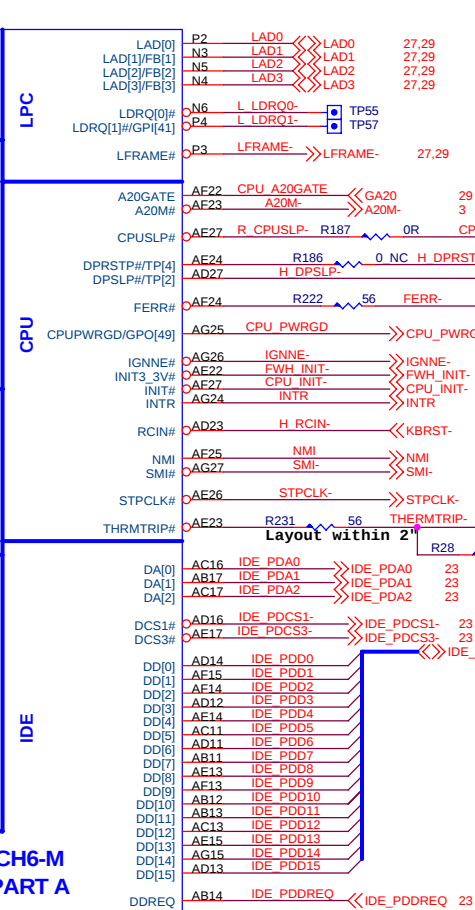
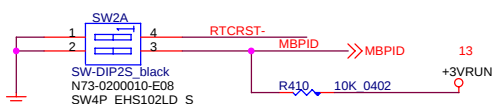
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Alviso-4 (Power)

Size	Document Number
Custom	MS-1012

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MICRO-STAR INT'L CO.,LTD.

Title

ICH6-M (PCI BUS)

Size
B

Document Number

B

MS-1012

Rev
1.

1.

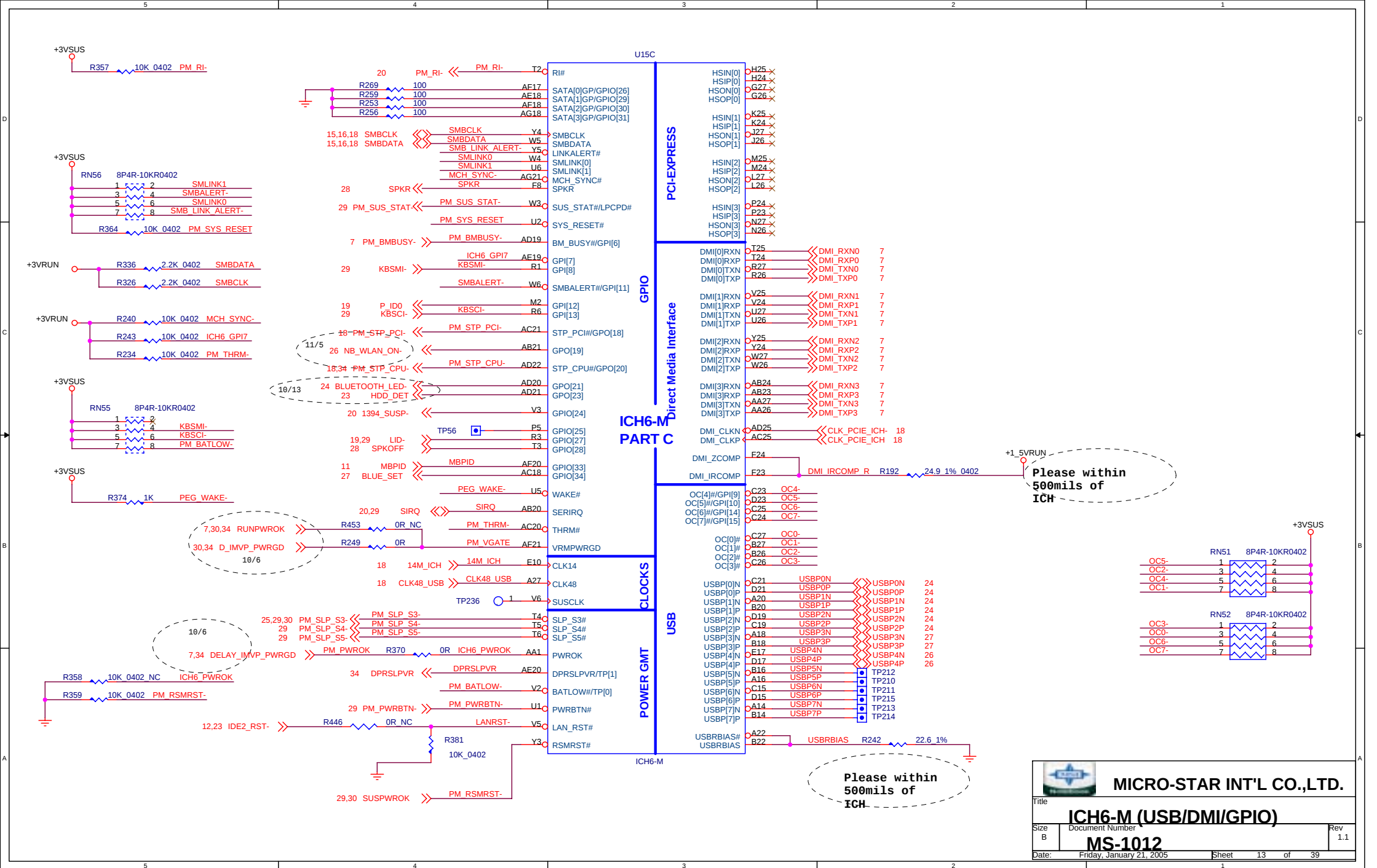
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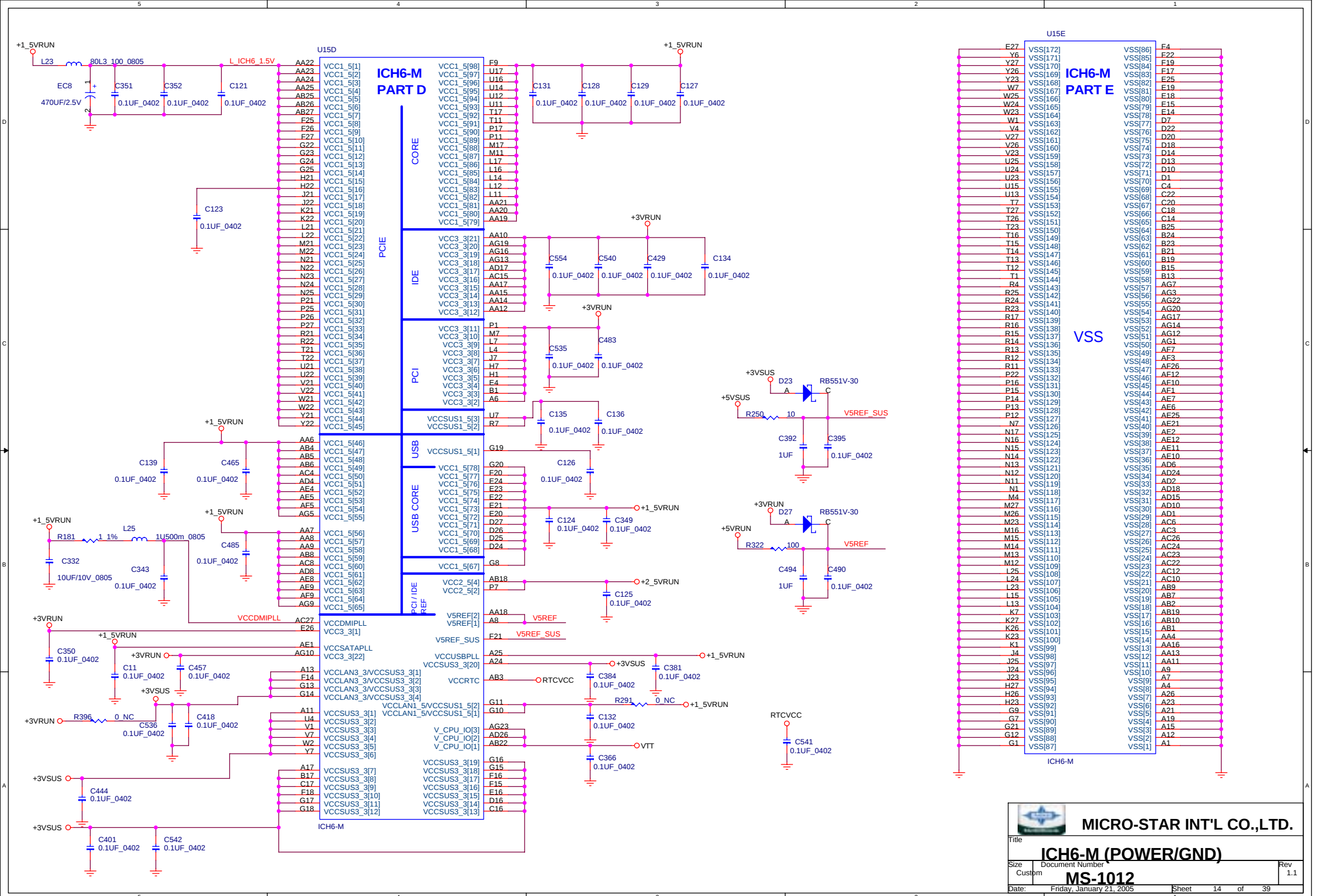
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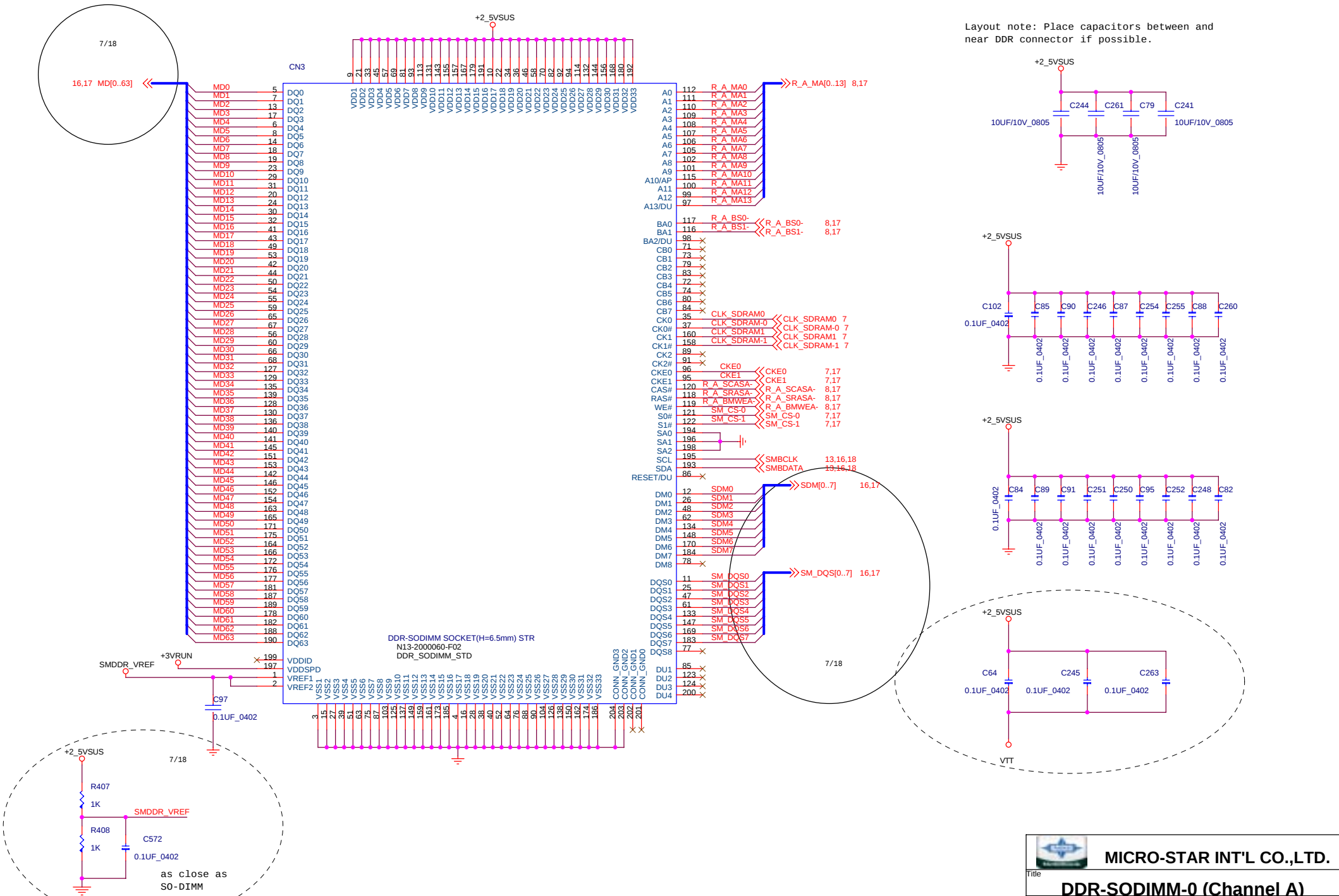
Sheet 12 of 35

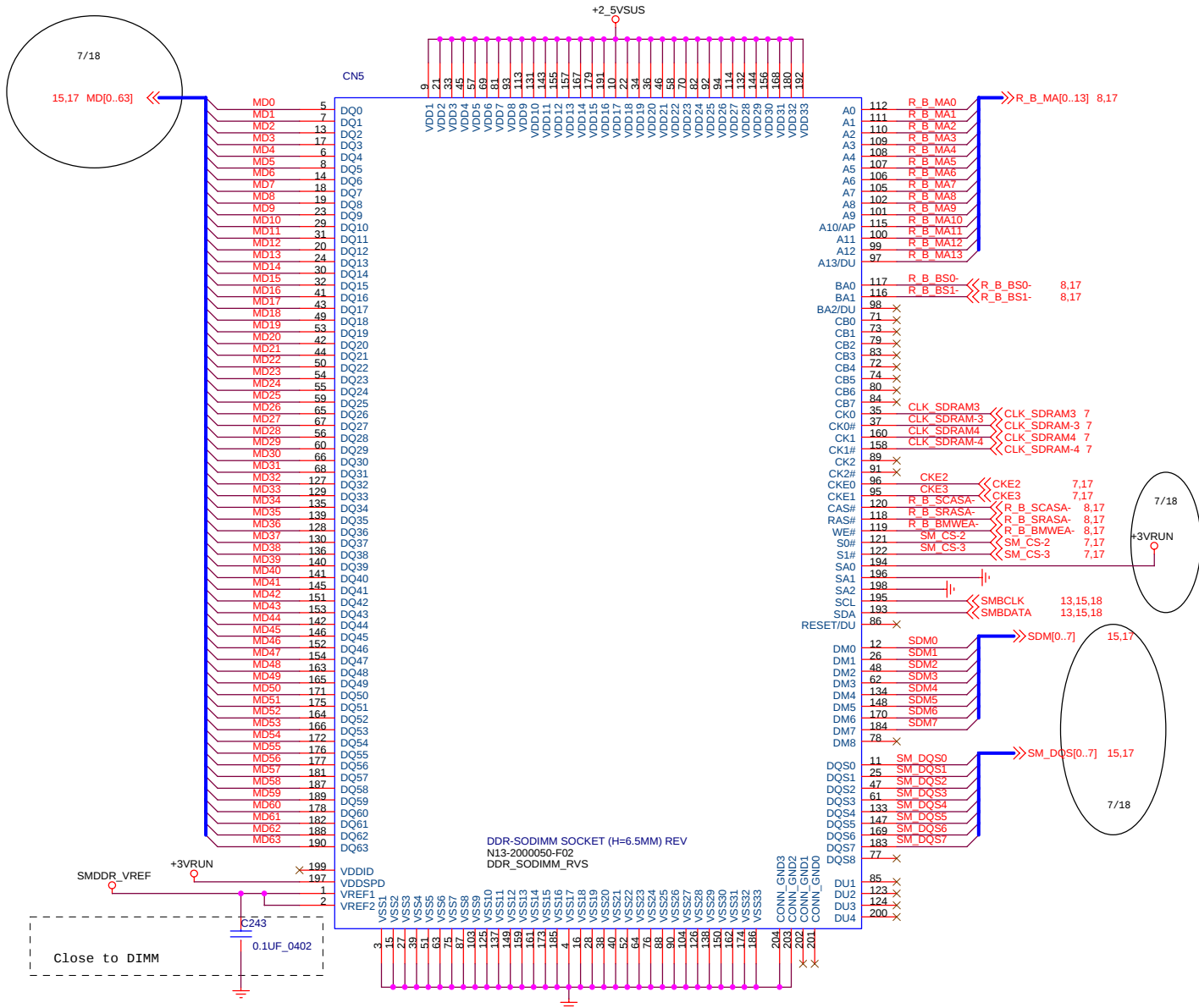
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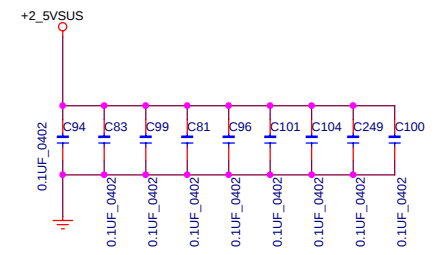
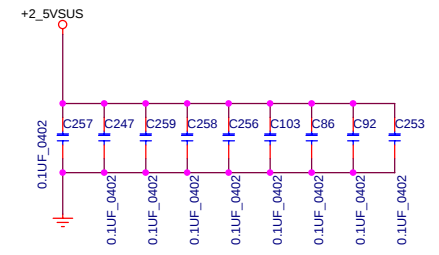
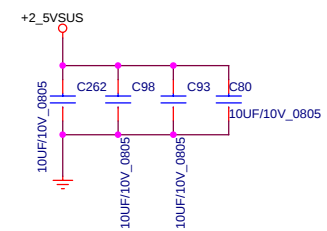


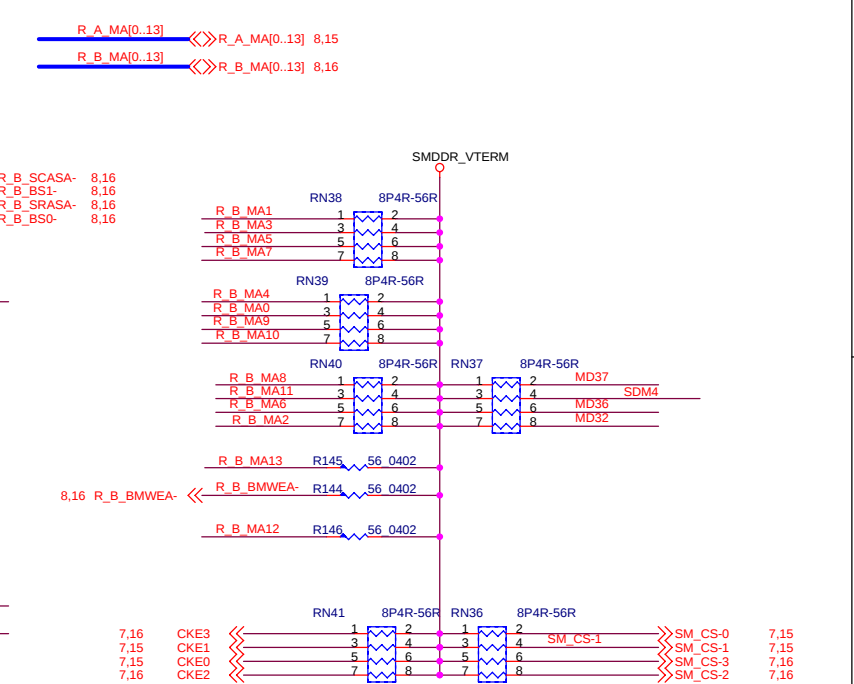
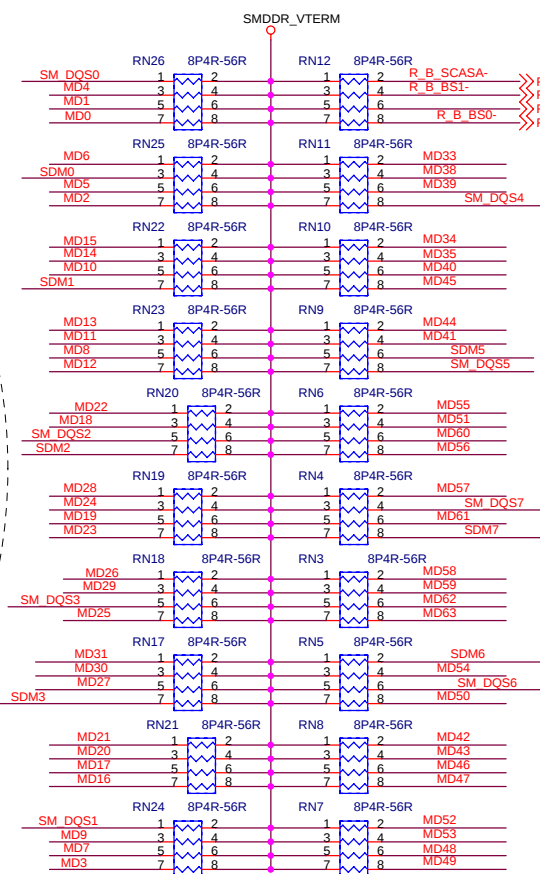
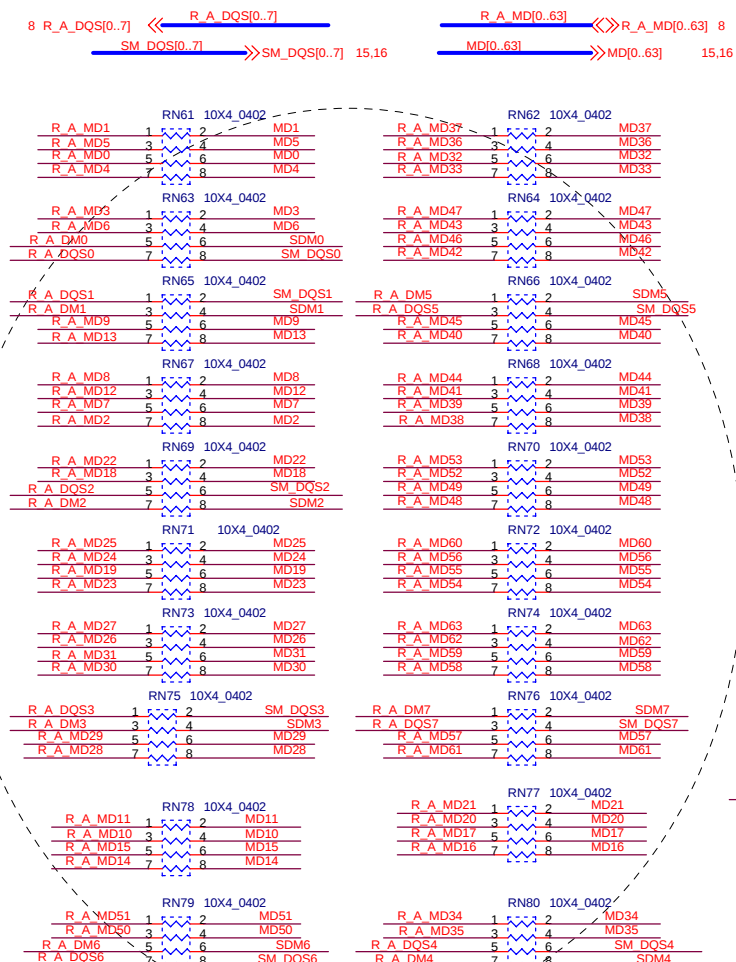




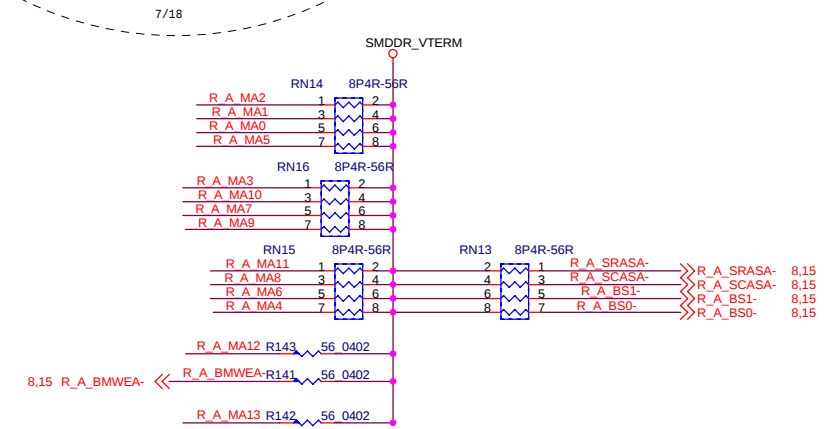
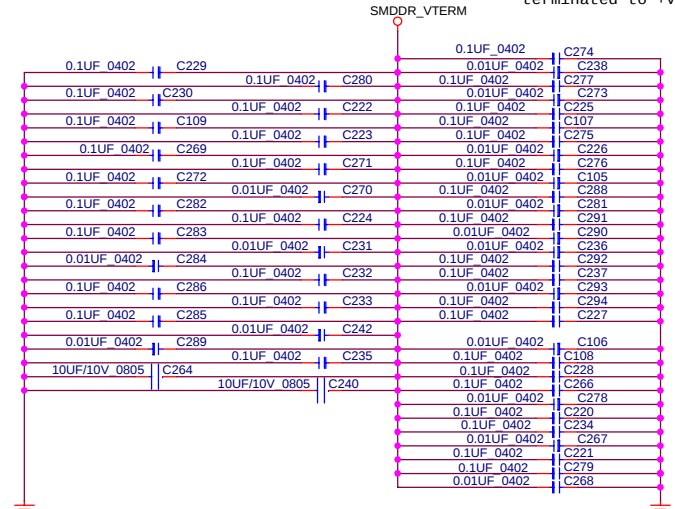


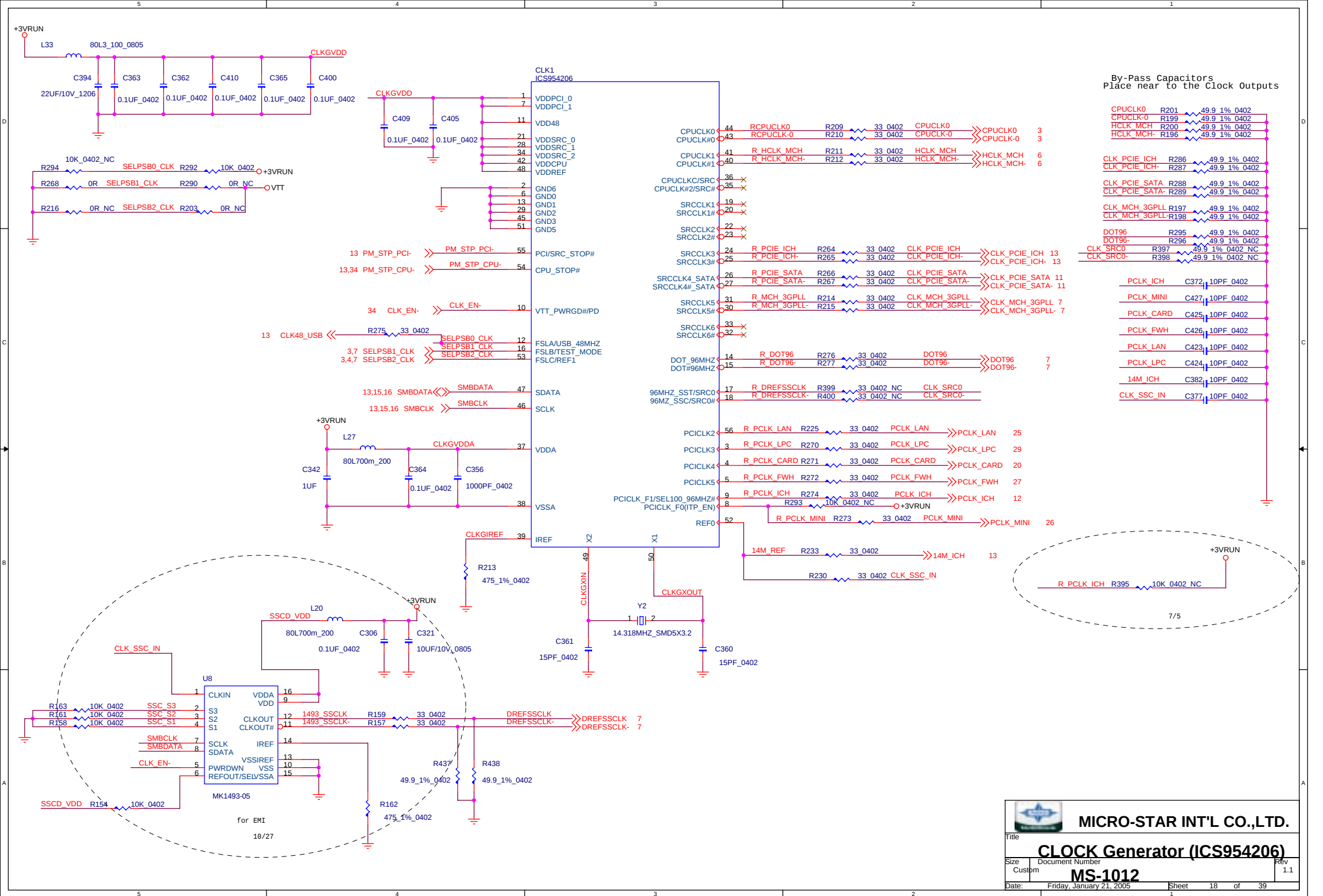
Layout note: Place capacitors between and near DDR if possible.

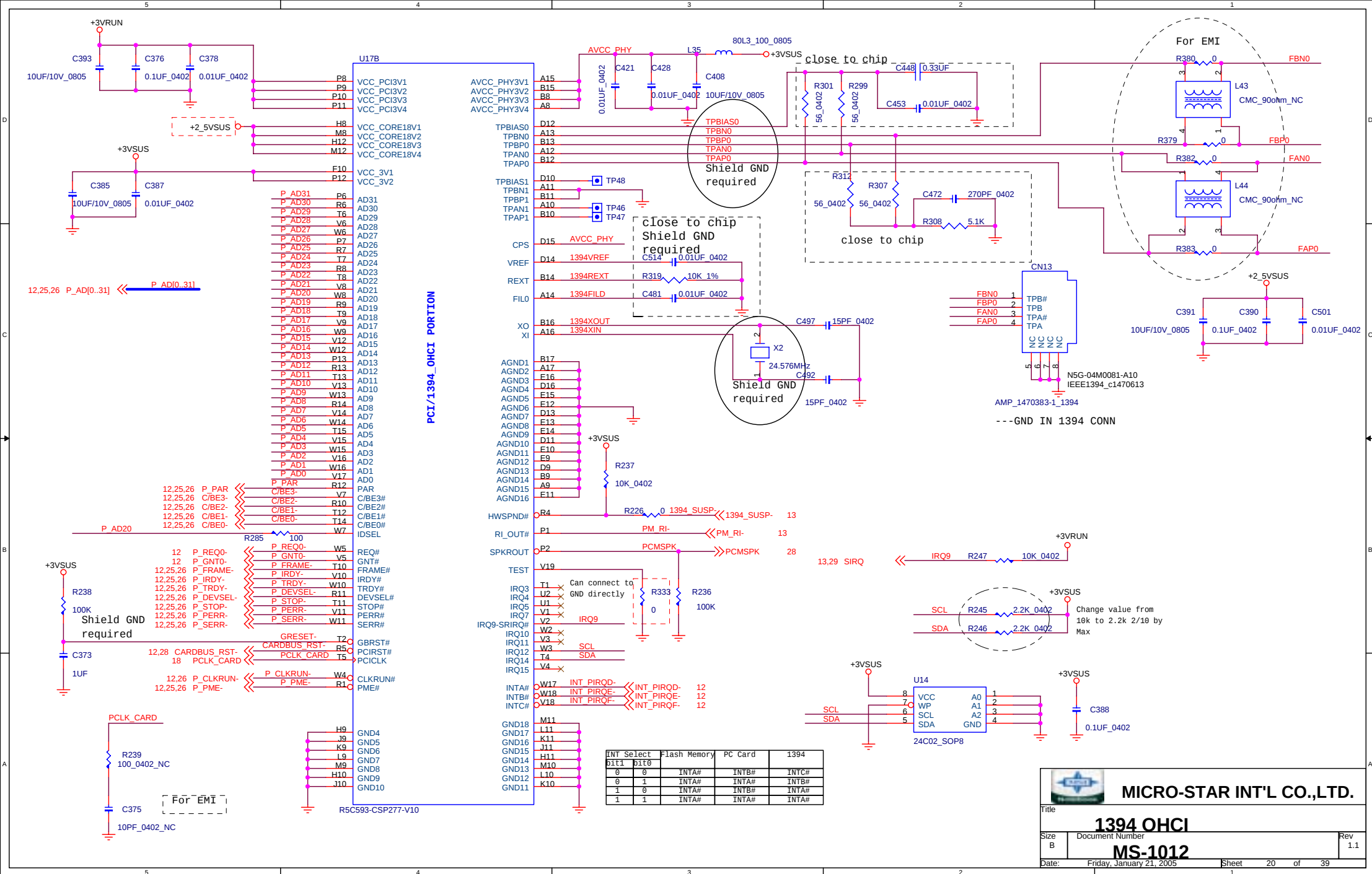


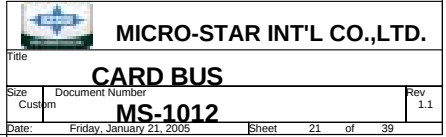


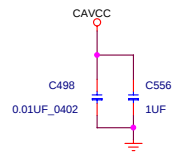
Layout note: Place one cap close to every 2 pullup resistors terminated to +V1.25.



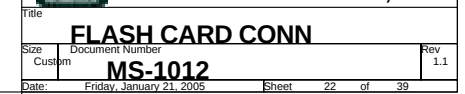
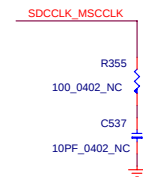
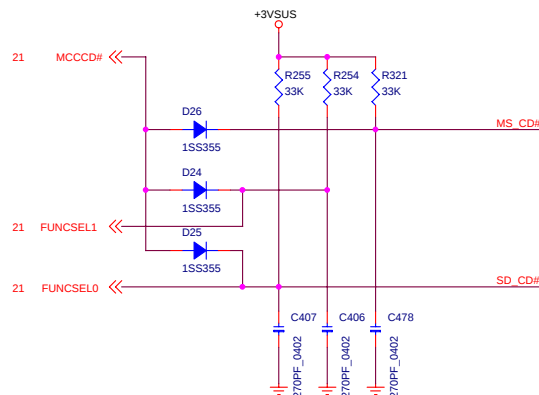


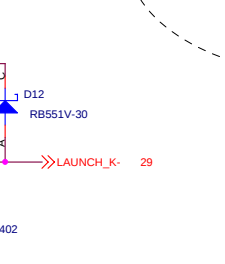
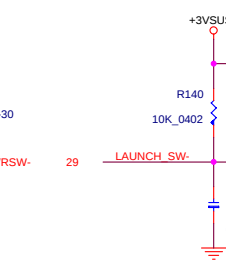
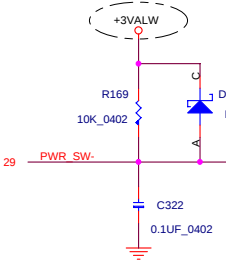
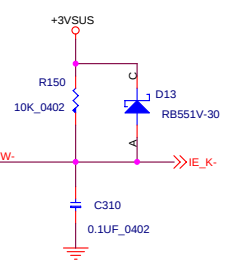
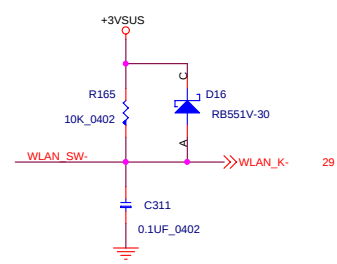
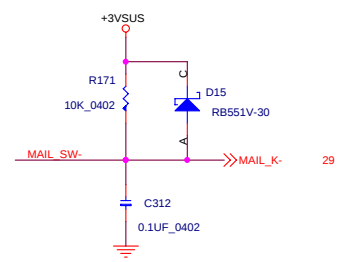
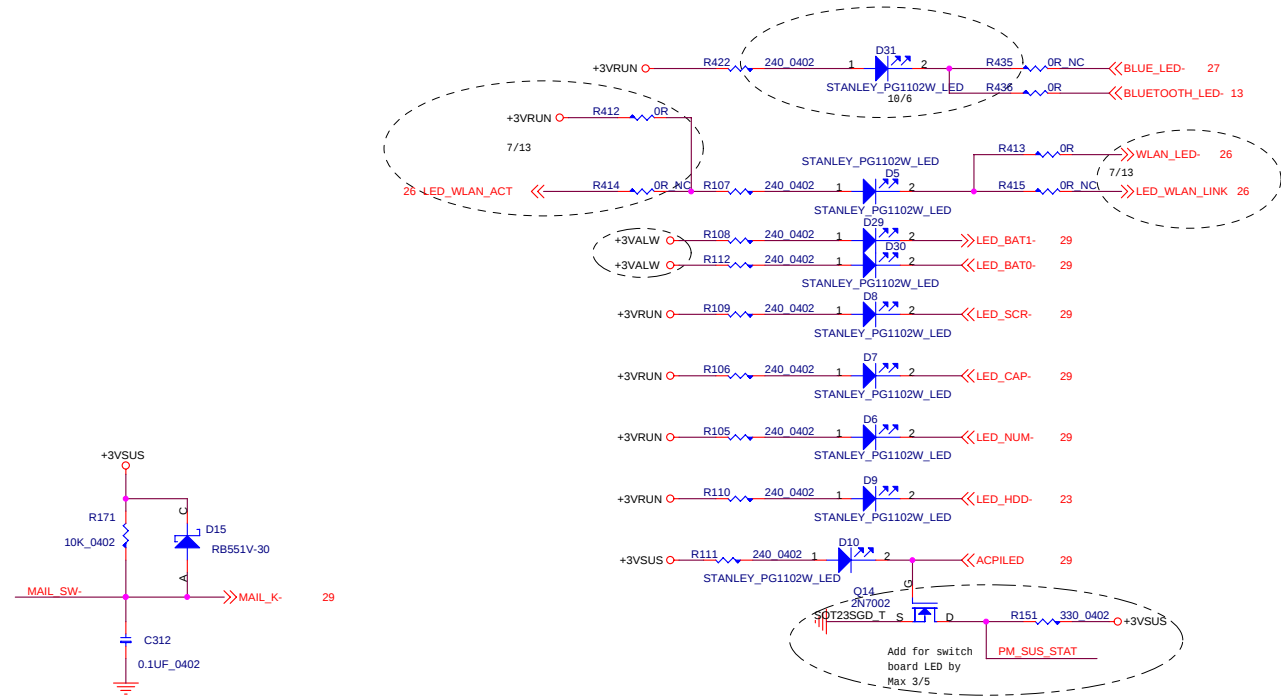
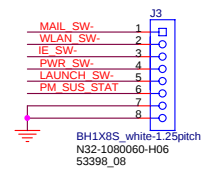
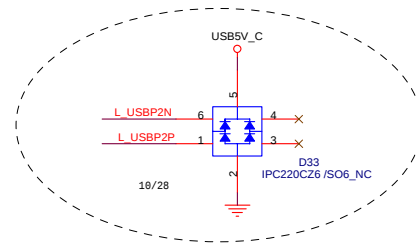
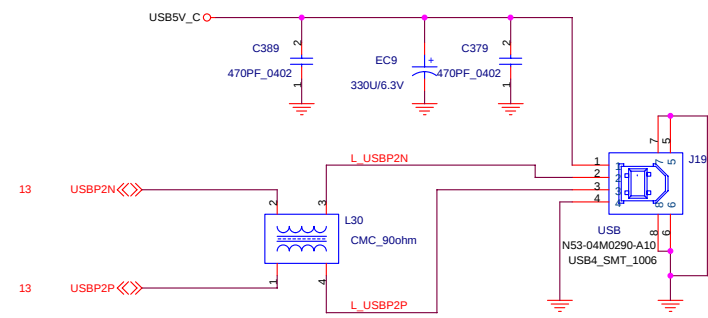
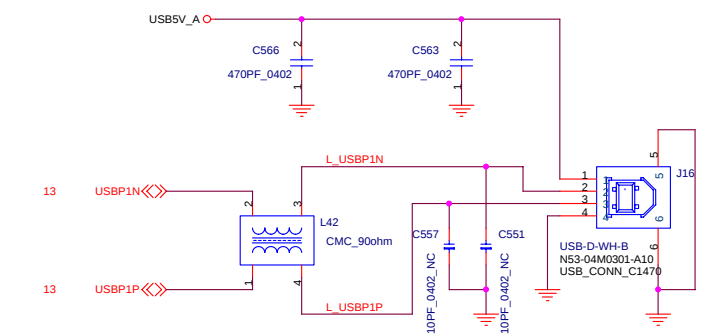
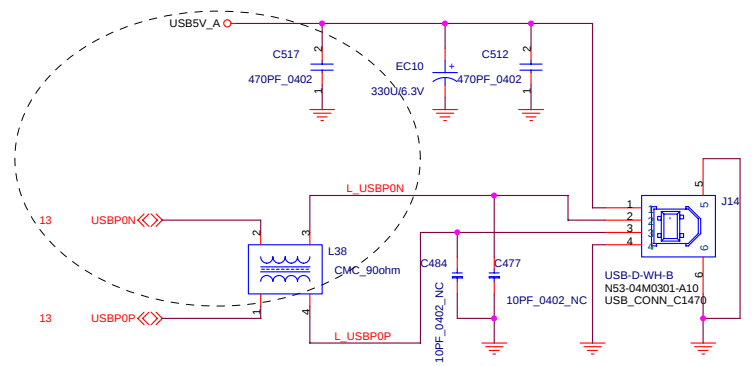
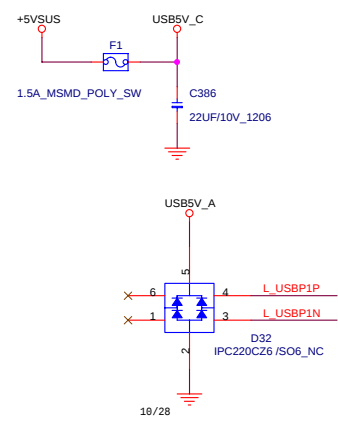
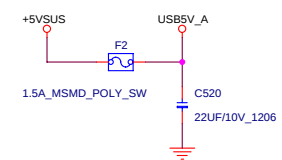
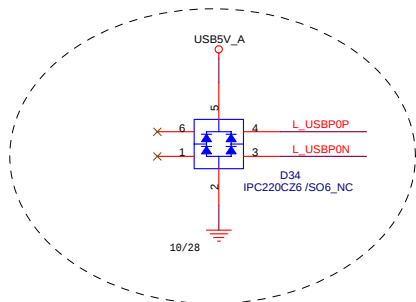






DO NOT INSERT SMARTMEDIA, SD/MMC AND MEMORYSTICK SIMULTANEOUSLY.



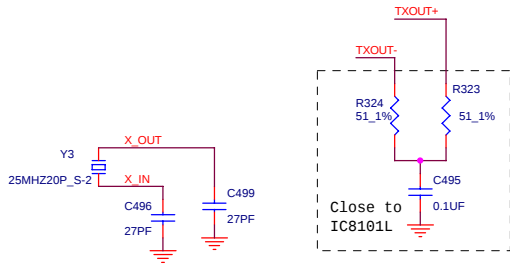


MICRO-STAR INT'L CO.,LTD.

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Size: Document Number
Custpm: **MS-1012**
Date: Friday, January 21, 2005 Sheet 24 of 39

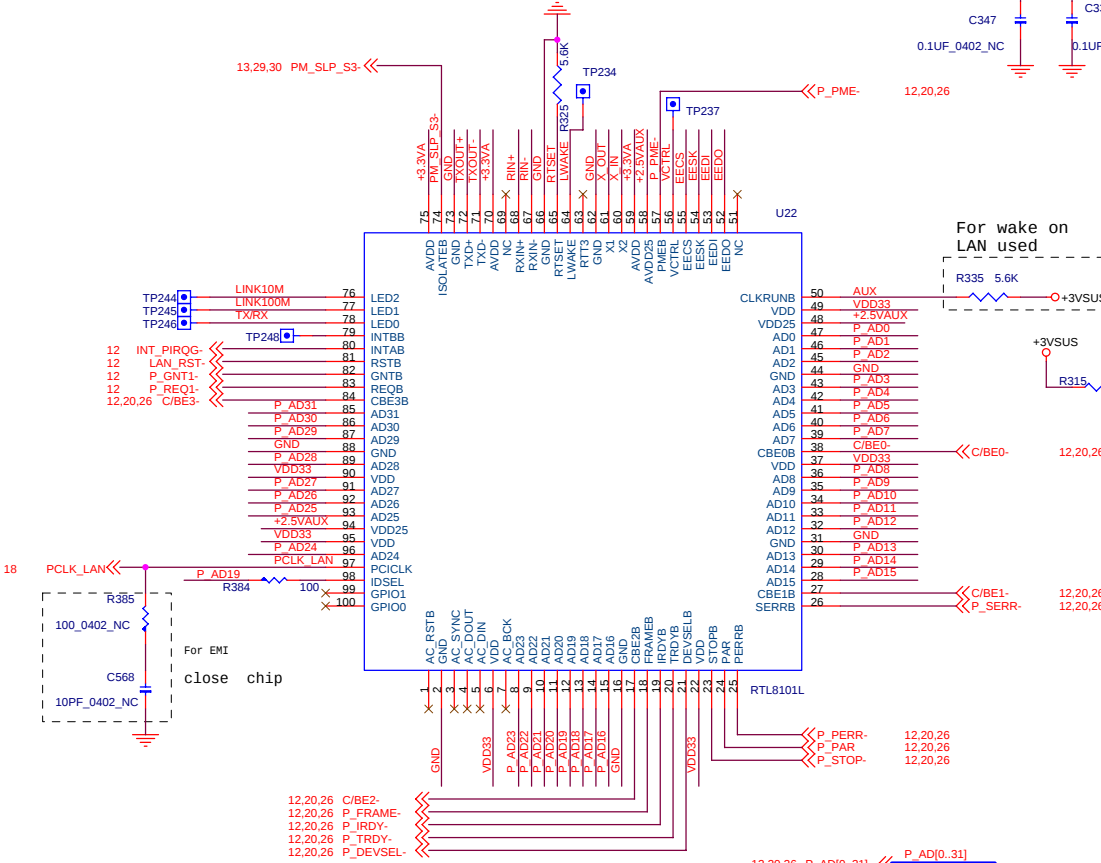
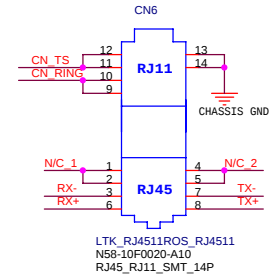
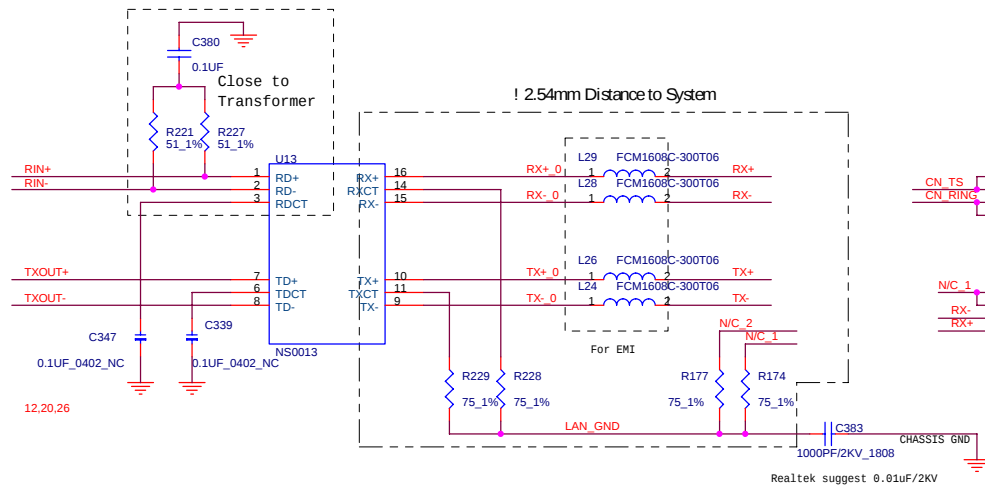
Rev 1.1



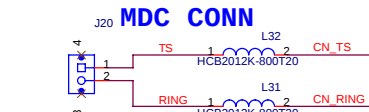
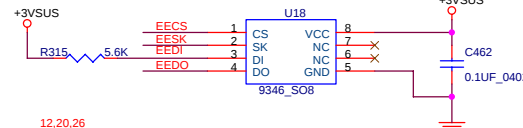
Layout Rule:

1. Tx+/- and Rx+/- length: +100mil
2. Through hole less.
3. Tx+/- GND Rx+/- GND

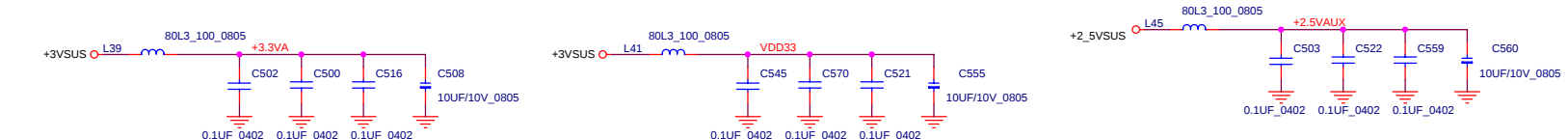
Ground separates Tx/Rx.



For wake on LAN used

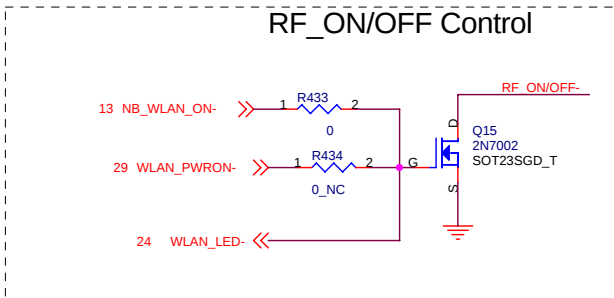
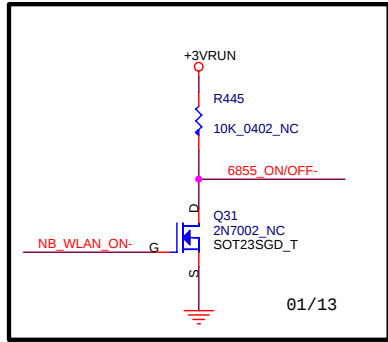
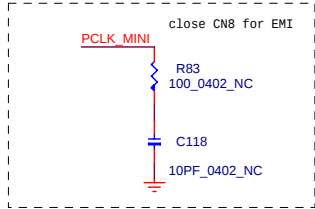
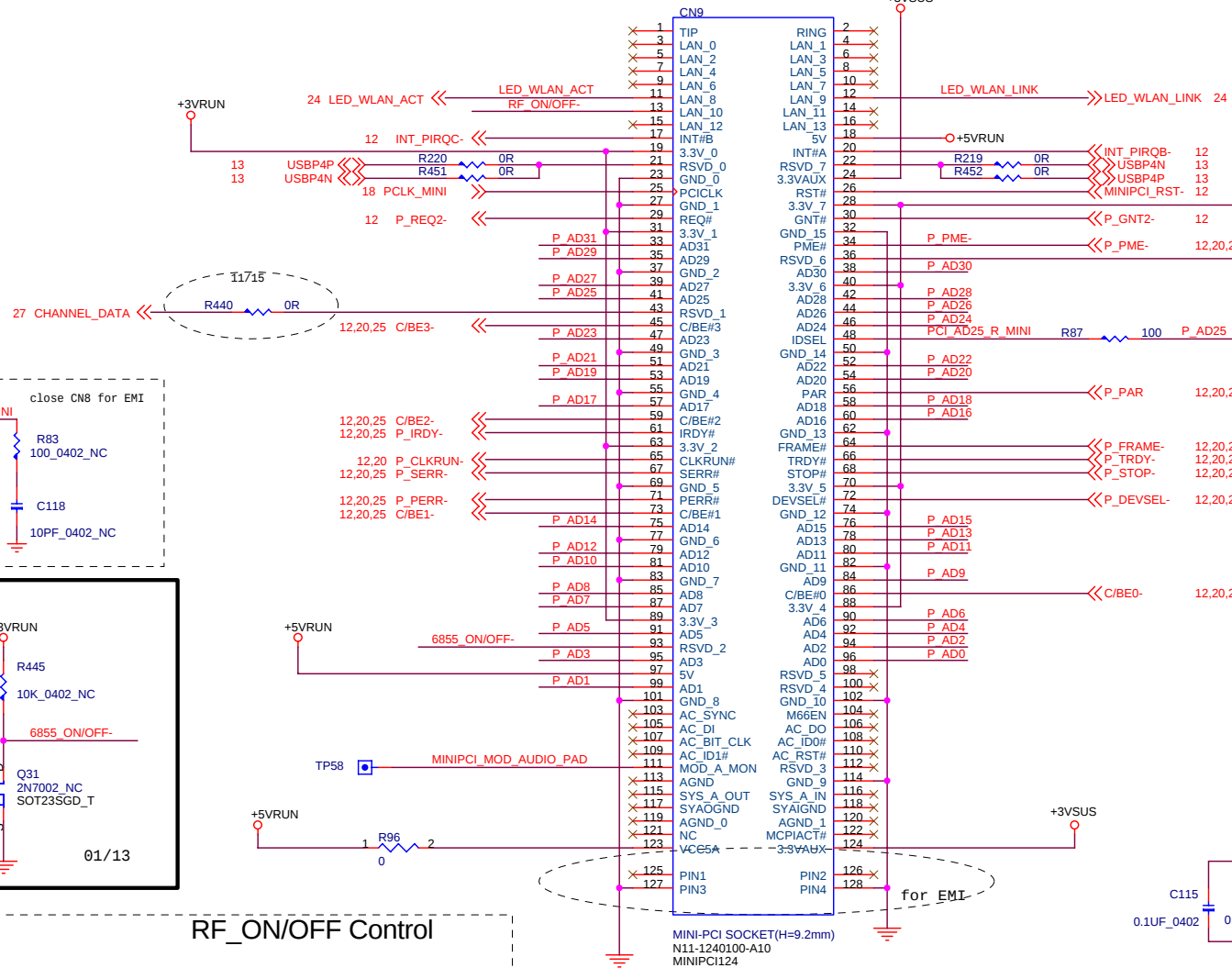


OTHER SIGNALS ARE FAR AWAY THIS TWO TRACES.
 *** THIS DISTANCE IS MIN. 2.5mm ***
 ***THIS SPACE IS IN 3D SPACE AND INCLUDE ANY ***
 ***POWER ANG GROUND ***



MINI PCI SOCKET

P_AD0[0..31] << P_AD[0..31] 12,20,25



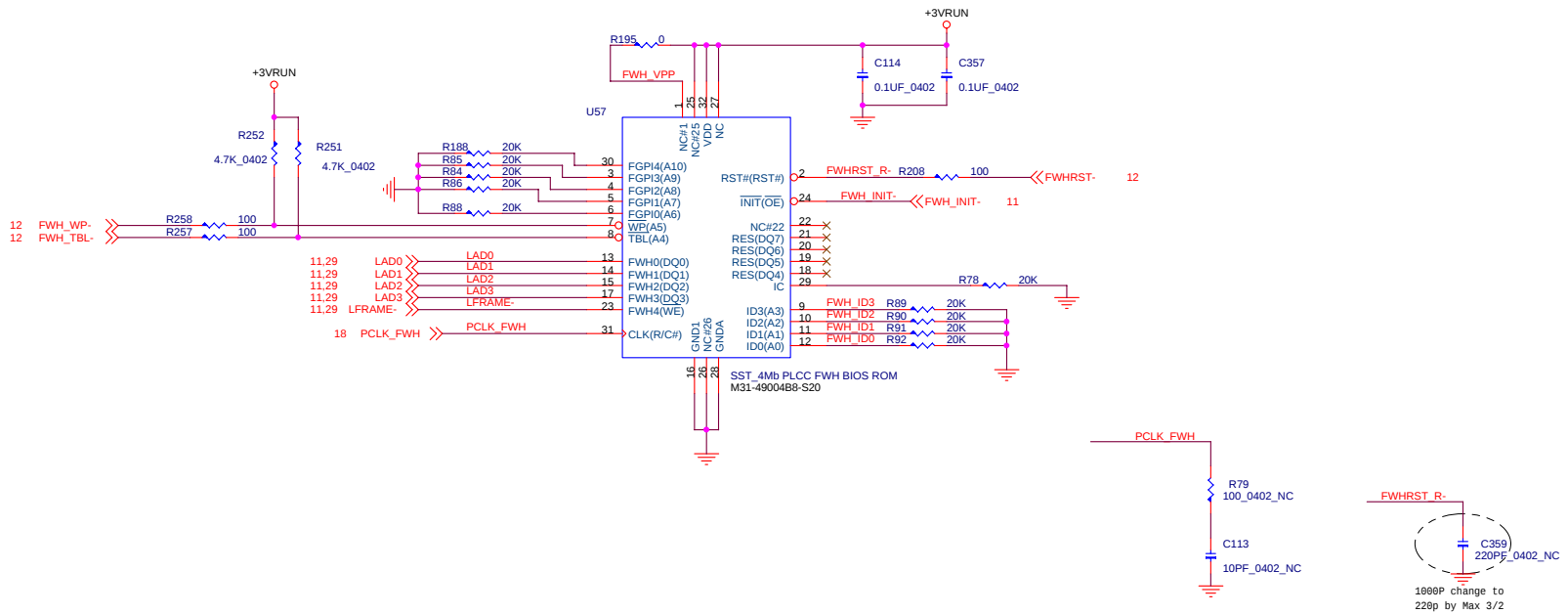
OPEN RF ON (HiZ)
LOW RF OFF

MINI PCI POWER SPEC.
TOYAL : 2W
+5V : 100mA
3.3VAUX : 5/200/375mA
VCC5A : 100mA
+3V

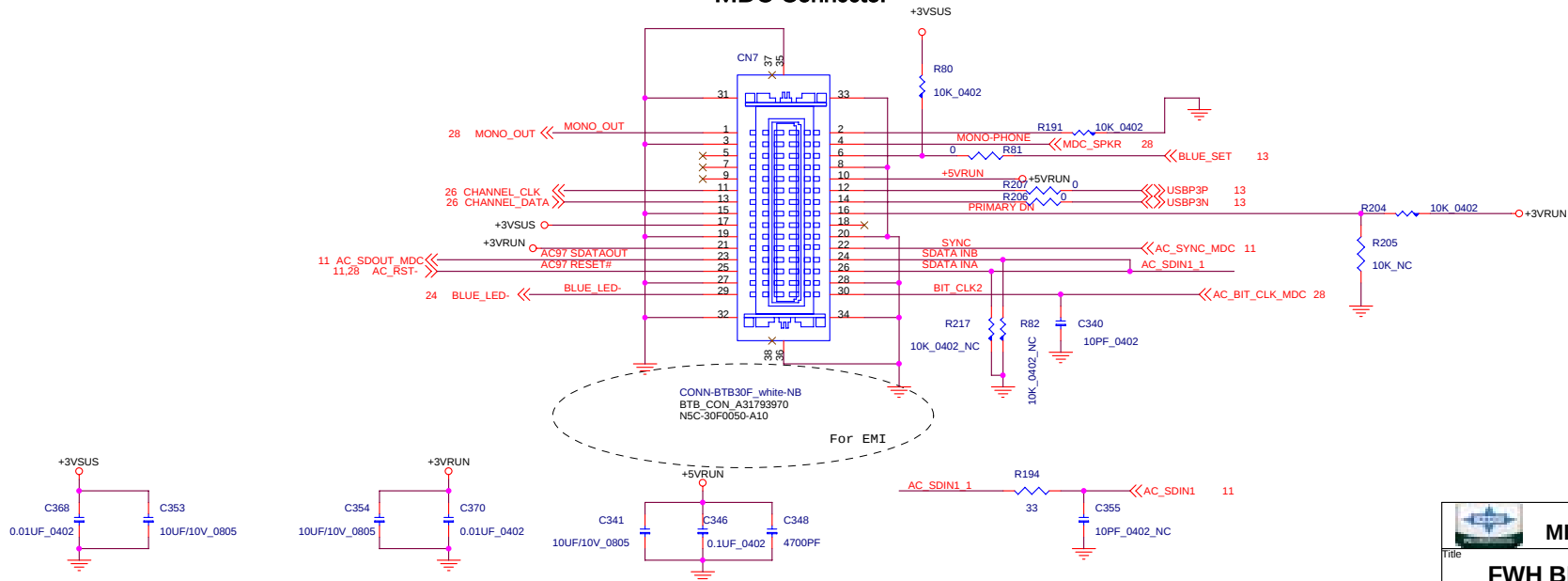


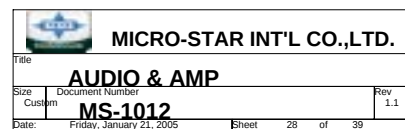
MICRO-STAR INT'L CO.,LTD.

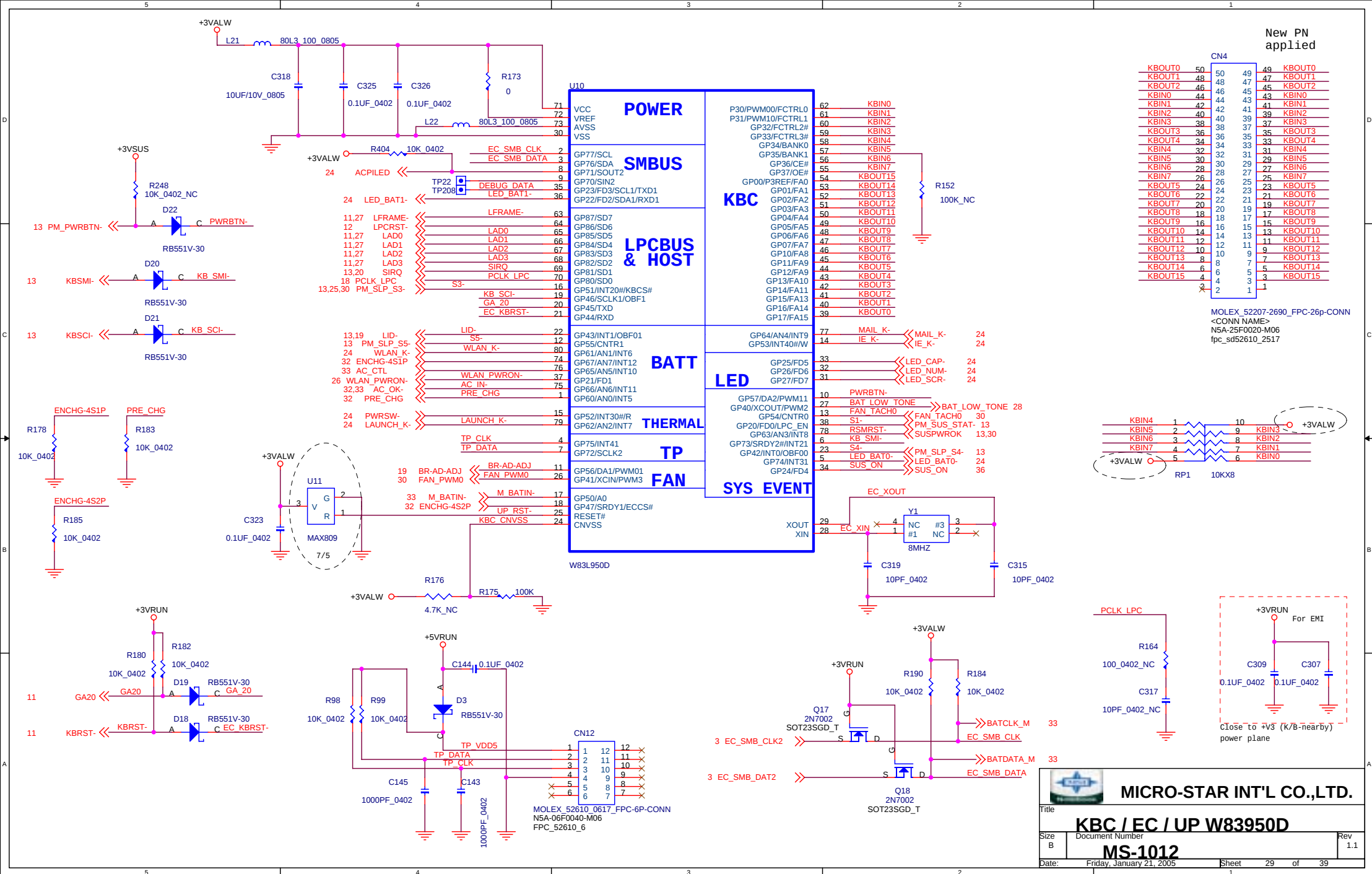
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MINI PCI			
Size B	Document Number		Rev 1.1
MS-1012			
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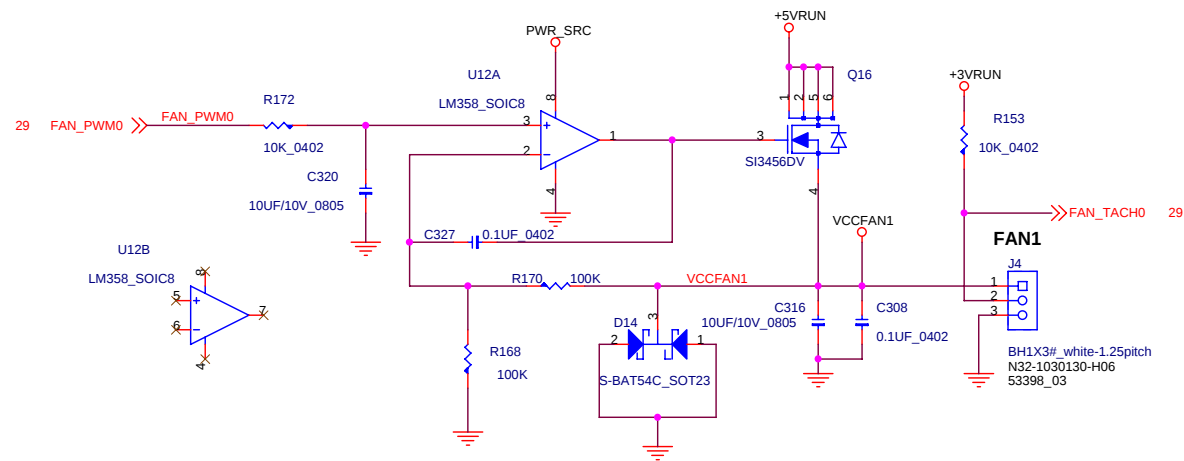
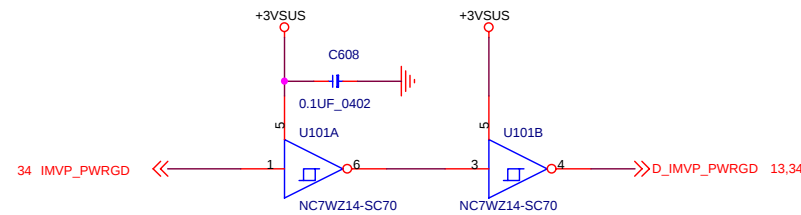
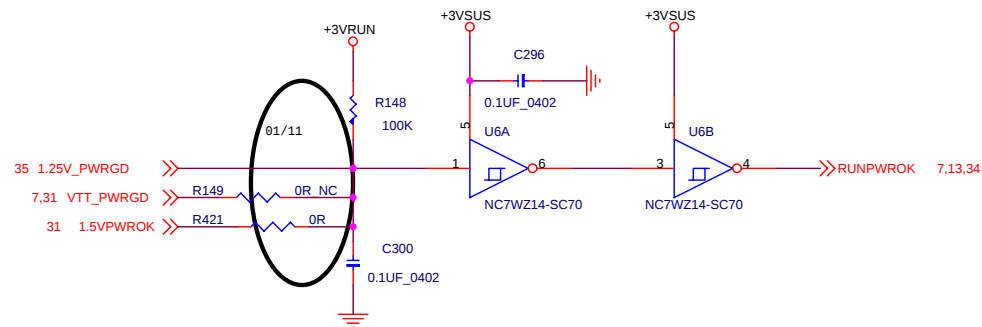
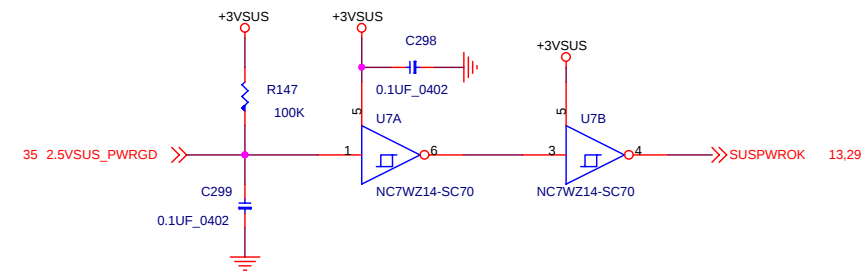


MDC Connector



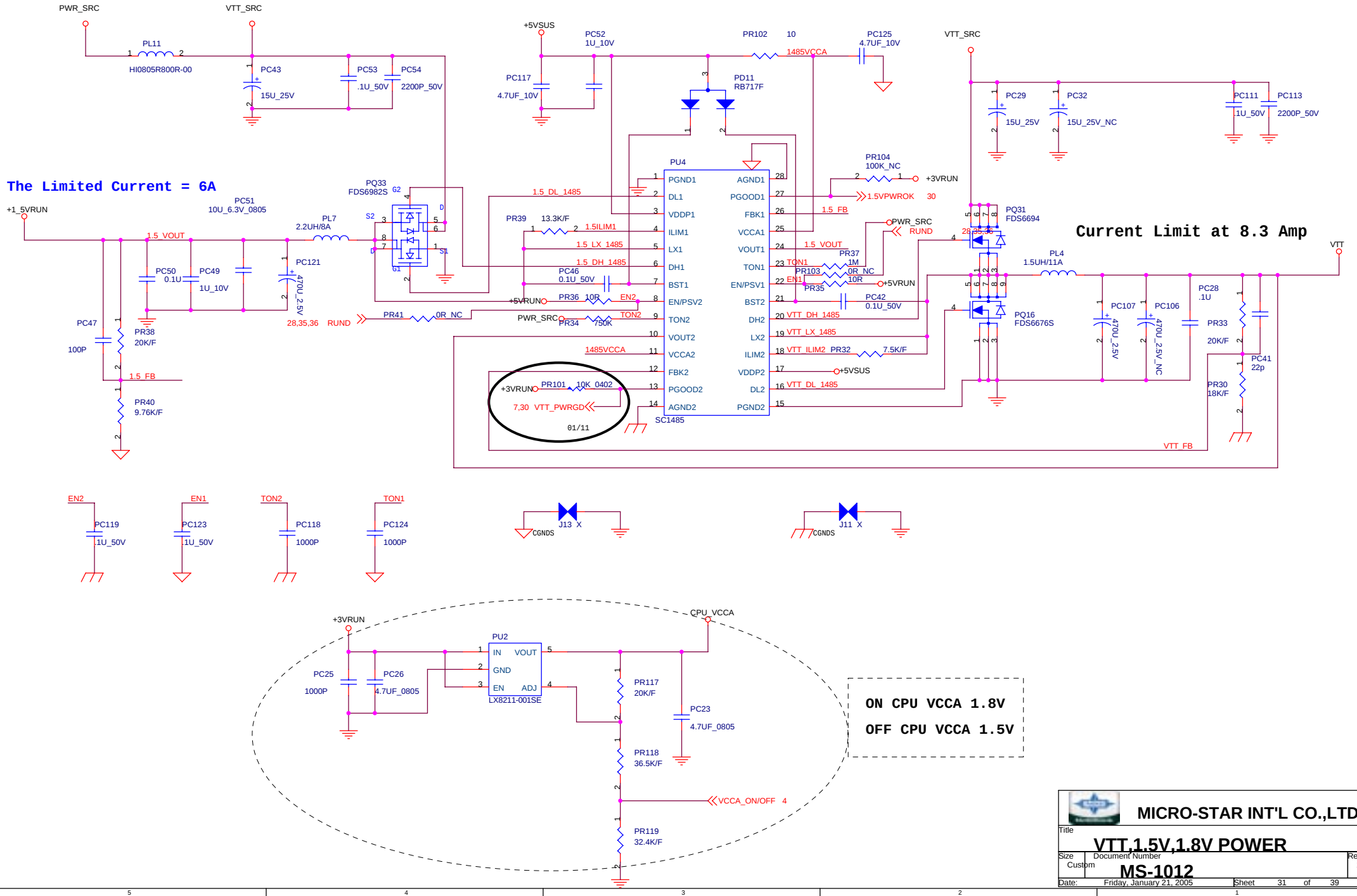






The Limited Current = 6A

Current Limit at 8.3 Amp

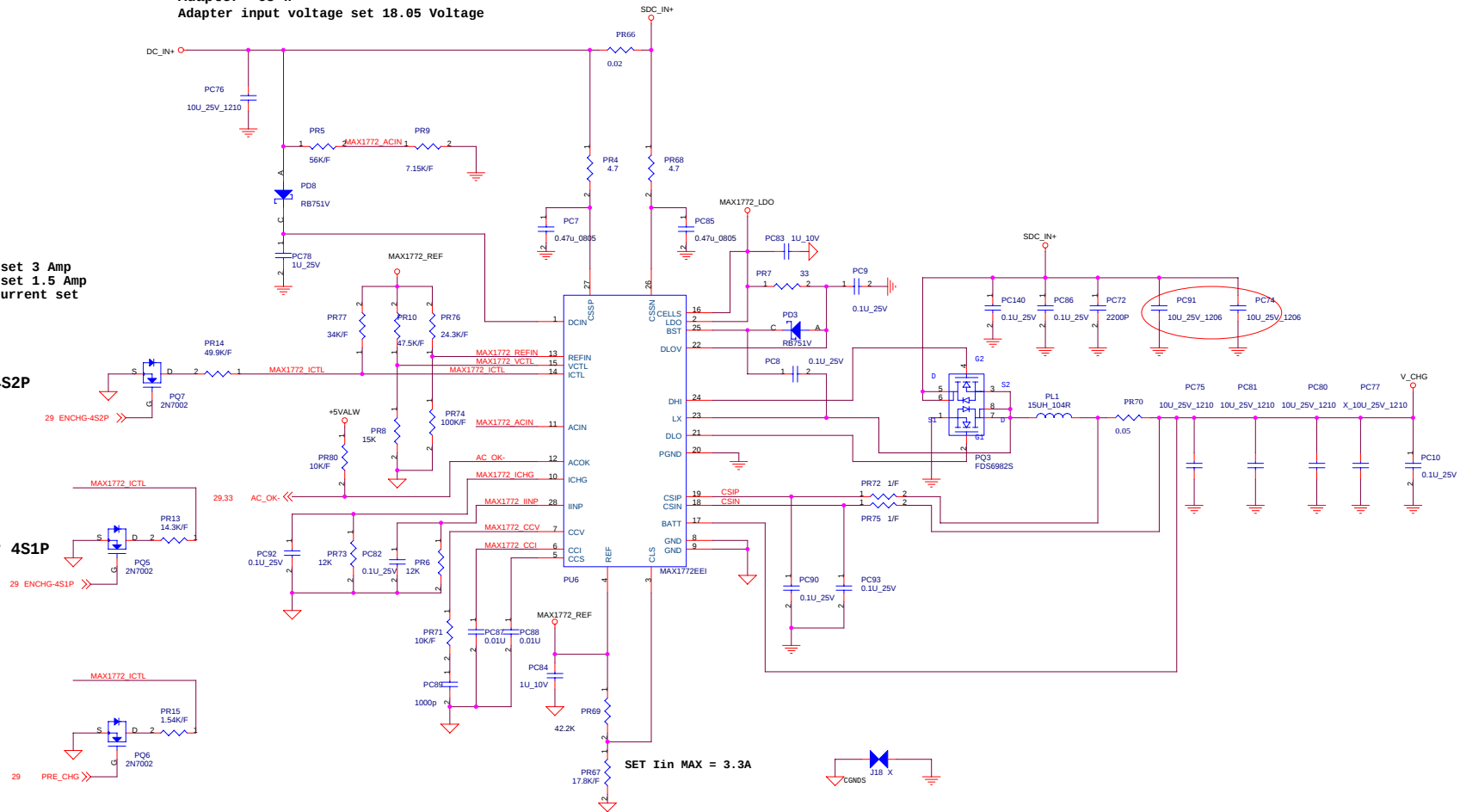


Adapter= 65 W
Adapter input voltage set 18.05 Voltage

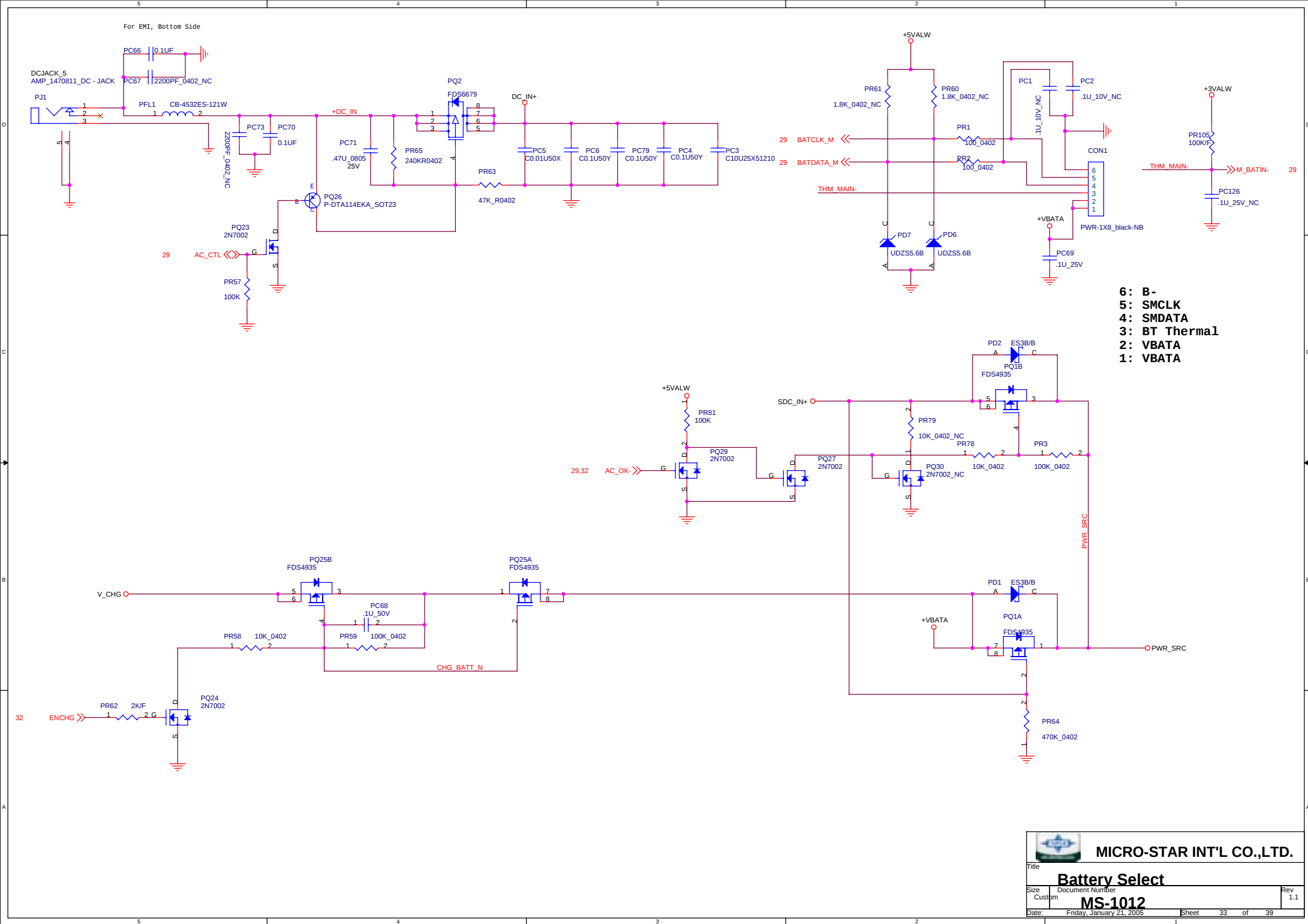
4S2P: Charger current set 3 Amp
4S1P: Charger current set 1.5 Amp
Pre-charger: Charger current set 200mA

Charge to 3A for 4S2P

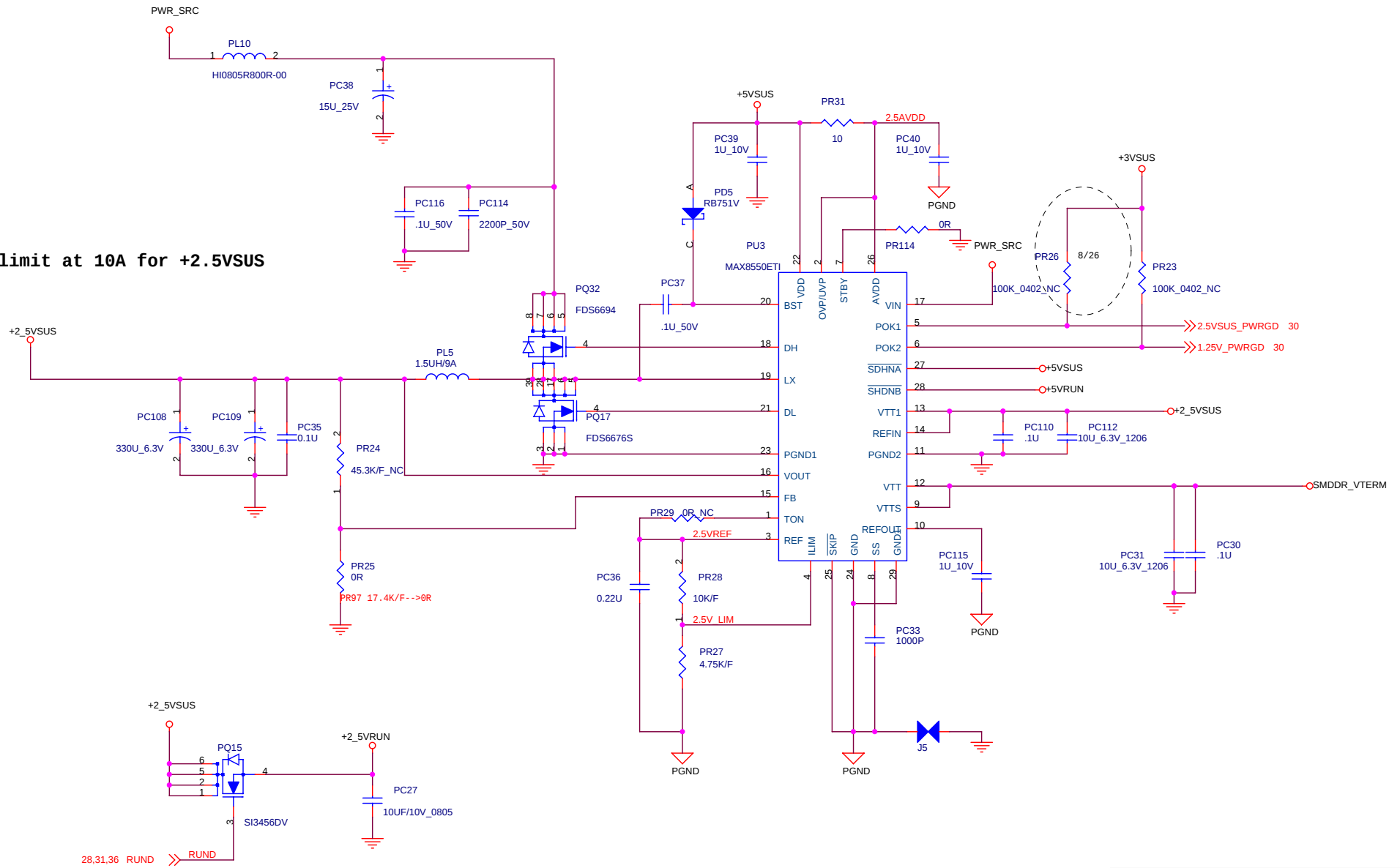
Charge to 1.5A for 4S1P



	4S1P	4S2P	Pre-charger
Pre-charger	1	0	1
Fast-charger	1	0	0
Fast-charger	0	1	0
Stop-charger	0	0	0



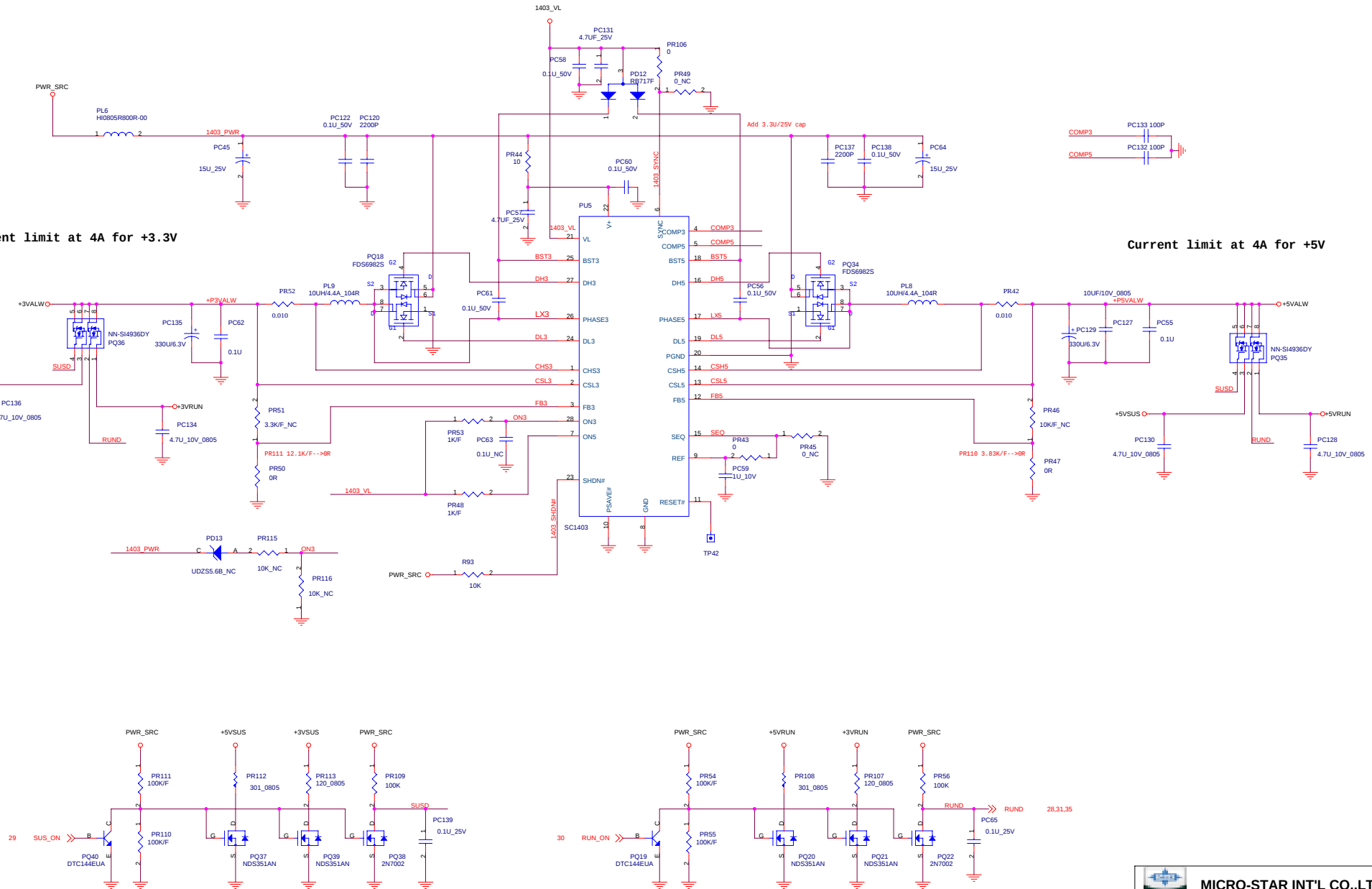
Current limit at 10A for +2.5VSUS

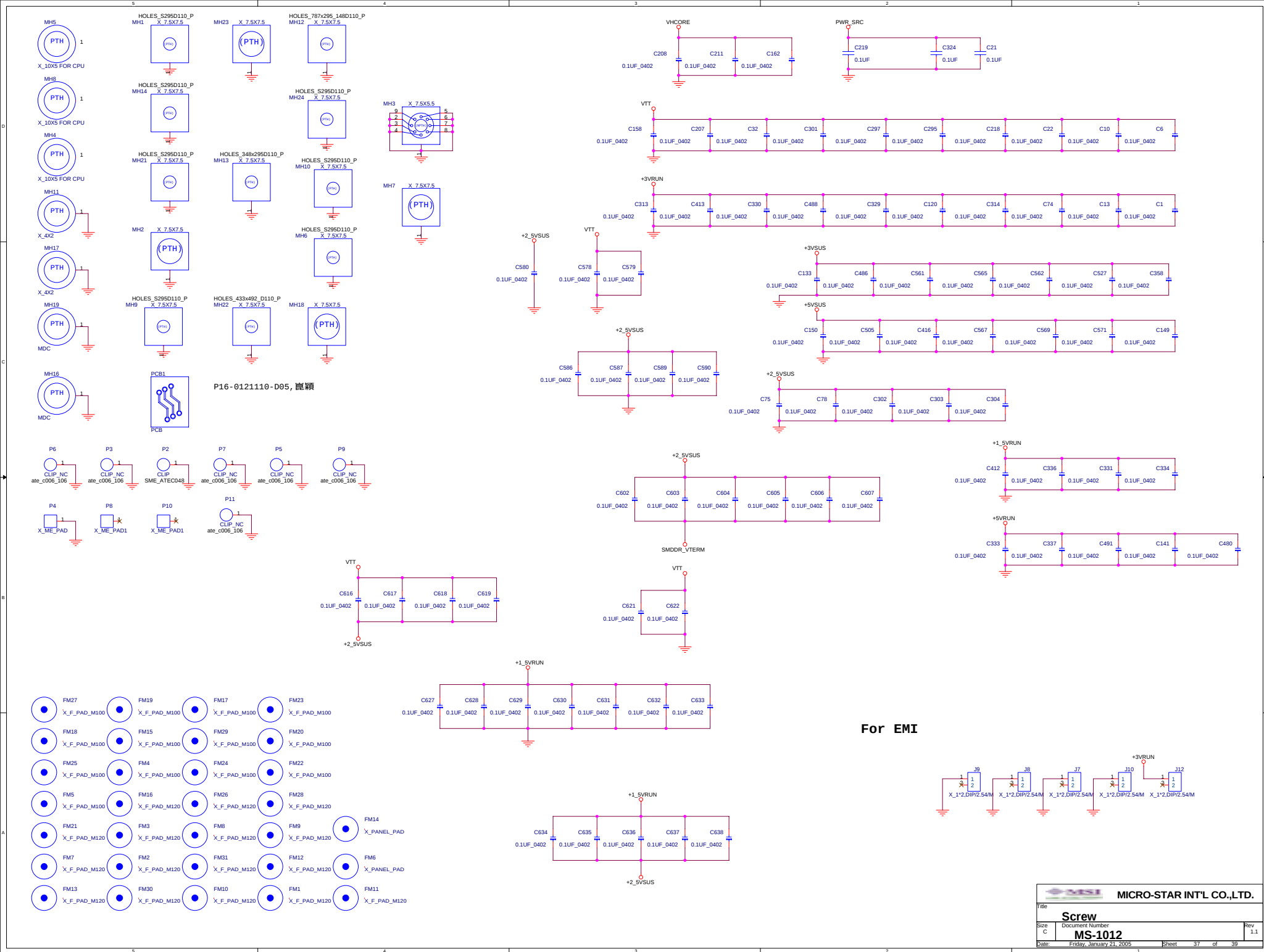


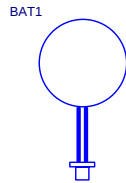
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DDR POWER					
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Current limit at 4A for +3.3V

Current limit at 4A for +5V







RTC_BAT
D06-0100300-K26



ML3
DDRMYLAR
E26-1003120-SA6



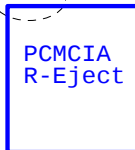
ML6
DDRMYLAR
E26-1003120-SA6



SC1
VGASC
E42-A040535-F02



SC2
VGASC
E42-A040535-F02



PCMCIA-EJECT
N5D-68M0170-T01



SHD1
PCMCIA SHIELDING
E21-1006060-Y28



ML1
SDMYLAR
E26-1006100-P38



ML4
KBMYLAR
E26-1006190-P38



ML5
KBMYLAR
E26-1006190-P38



ML2
KBMYLAR
E26-1006090-P38



SHD2
VGA SHIELDING
E21-1006020-Y28



SC3
M2X12



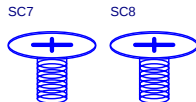
SC4
M2X12



SC5
M2X12



SC6
M2X12



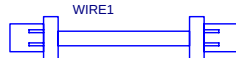
SC7
M2X4



SC8
M2X4



MDC1
MDCASSB
S52-2801040-A95



WIRE1
MDCWIRE
K10-3002044-H39



ML7
HD CUSHION SPONG
E25-1012050-SE2



ML8
HD CUSHION SPONG
E25-1012050-SE2



ML9
HDD MYLAR
E26-1013010-SE2



ML10
THERMAL PAD
E26-1012040-C60



ML11
THERMAL PAD
E26-1012040-C60



ML12
CONDUCTIVE GASKET FOR RJ11
E25-1012040-CA7

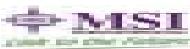


ML13
CONDUCTIVE GASKET FOR 1394
E25-1012020-CA7

11/12

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1. Modify Page7 NB_PWRGD Link to VTT_PWRGD add R443 & R444
2. Modify Page7 Delete R58 & R55 & R59
3. Modify Page13 Add R453 & R446 0 ohm NC
4. For EMI Modify Page 17
C270,C231,C284,C242,C289,C238,C273,C226,C105,C281,C290,C236
C293,C106,C278,C267,C268 Change to 0.01UF_0402 CAP
5. For MSI_6855 Wireless & Bluebooth Mini_PCI
Modify Page 26 Add R445 10K ohm & Q31 2N7002 & R451 & R452 0 ohm
6. For EMI Solution (1) Modify Page 28 R314 0 ohm change to 33 ohm
(2) Modify Page 28 add C440 22PF CAP
(3) Modify Page 28 add C450 33PF CAP
(3) Modify Page 28 add short pin J23,J2,J22
7. Modify Page 28 Delete Q19 2N7002 & add D36
8. Modify Page 30 Delete R149 0 ohm
9. For EMI Solution Modify Page 32 Add PL12 & PC140
10. For EMI Solution Modify Page 31 PR101 change to 10K_0402
11. For EMI Solution Modify Page 37 Delete P5,P6,P9
12. For EMI Solution Modify Page 33 PC67 & PC70 0.1UF_0402 CAP
13. Modify Page 28 R429 Change to 100K_0402

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