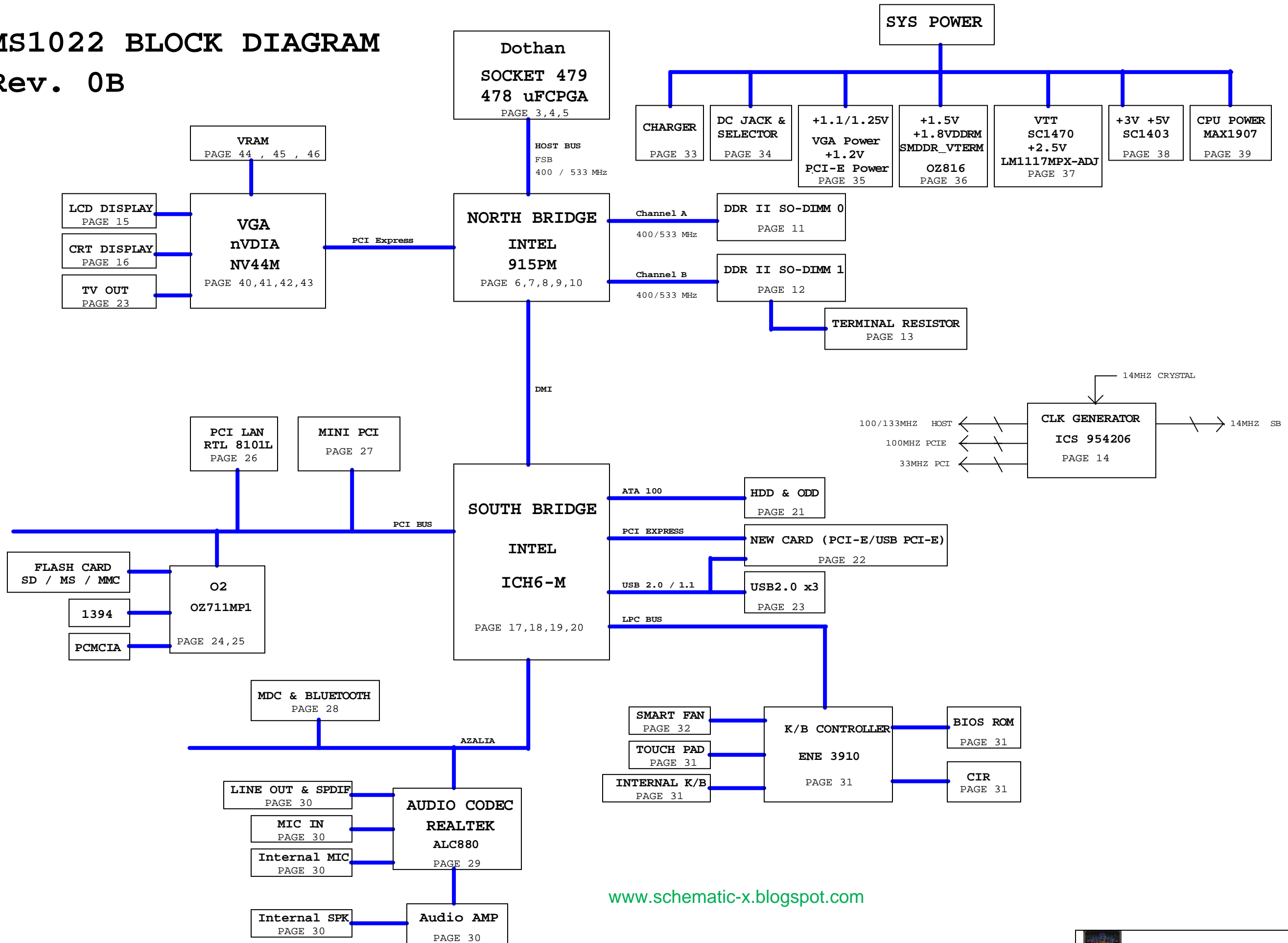
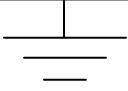
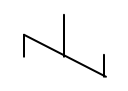
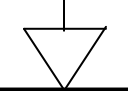


MS1022 BLOCK DIAGRAM
Rev. 0B



Voltage Rails


Voltage	Description	Control Signal
PWR_SRC	AC ADAPTER OR BATTERY IN	
+5VALW	5.0V always on power rail	ON5
+5VSUS	5.0V power rail	SUS_ON
+5VRUN	5.0V switched power rail(off in S3-S5)	RUN_ON
+3VALW	3.3V always on power rail	ON3
+3VSUS	3.3V power rail	SUS_ON
+3VRUN	3.3V switched power rail(off in S3-S5)	RUN_ON
+2_5VSUS	2.5V power rail	+3VSUS
+2_5VRUN	2.5V switched power rail(off in S3-S5)	+3VRUN
+1_8VDDRM	1.8V power rail DDR (off in S4-S5)	PM_SLP_S4#
+1_8VRUN	1.8V switched power rail(off in S3-S5)	RUN_ON
+1_5VRUN	1.5V switched power rail(off in S3-S5)	+5VRUN
SMDDR_VTERM	0.9V DDR Termination voltage (off in S3-S5)	RUN_ON
VTT	1.05V rail for Processor & Alviso I/O(off in S3-S5)	+5VRUN
VHCORE	Core Voltage for Processor(off in S3-S5)	VTT_PWRGD
ADD5V	5.0V Power rail Audio codec(off in S3-S5)	PM_SLP_S3#
+1_2VPEX	1.2V switched power rail(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	ON	OFF	OFF
S5 / Soft OFF	LOW	LOW	LOW	ON	ON	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

Rev

Custom

MS-1022

0.B

Date:

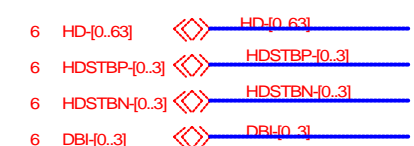
Thursday, June 09, 2005

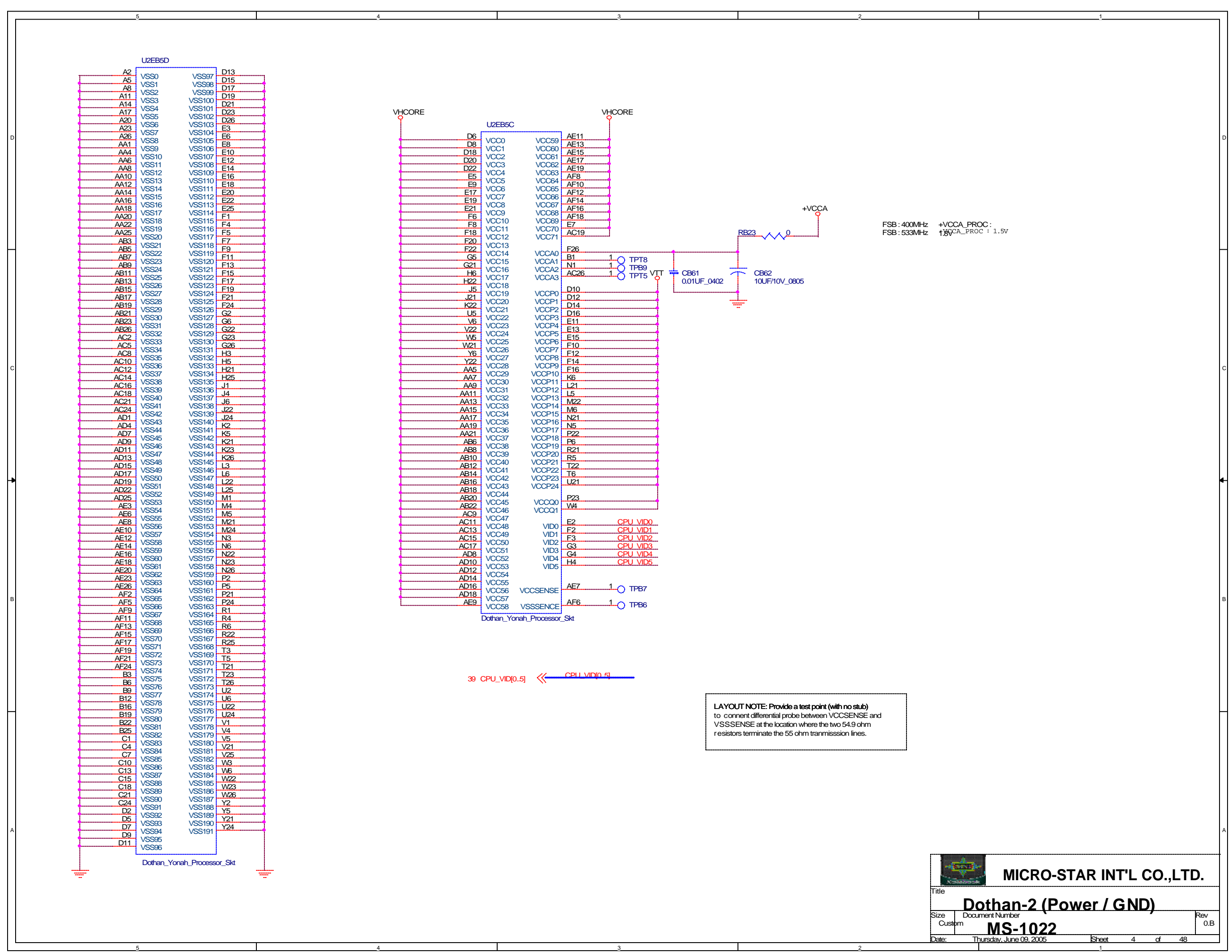
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2

of

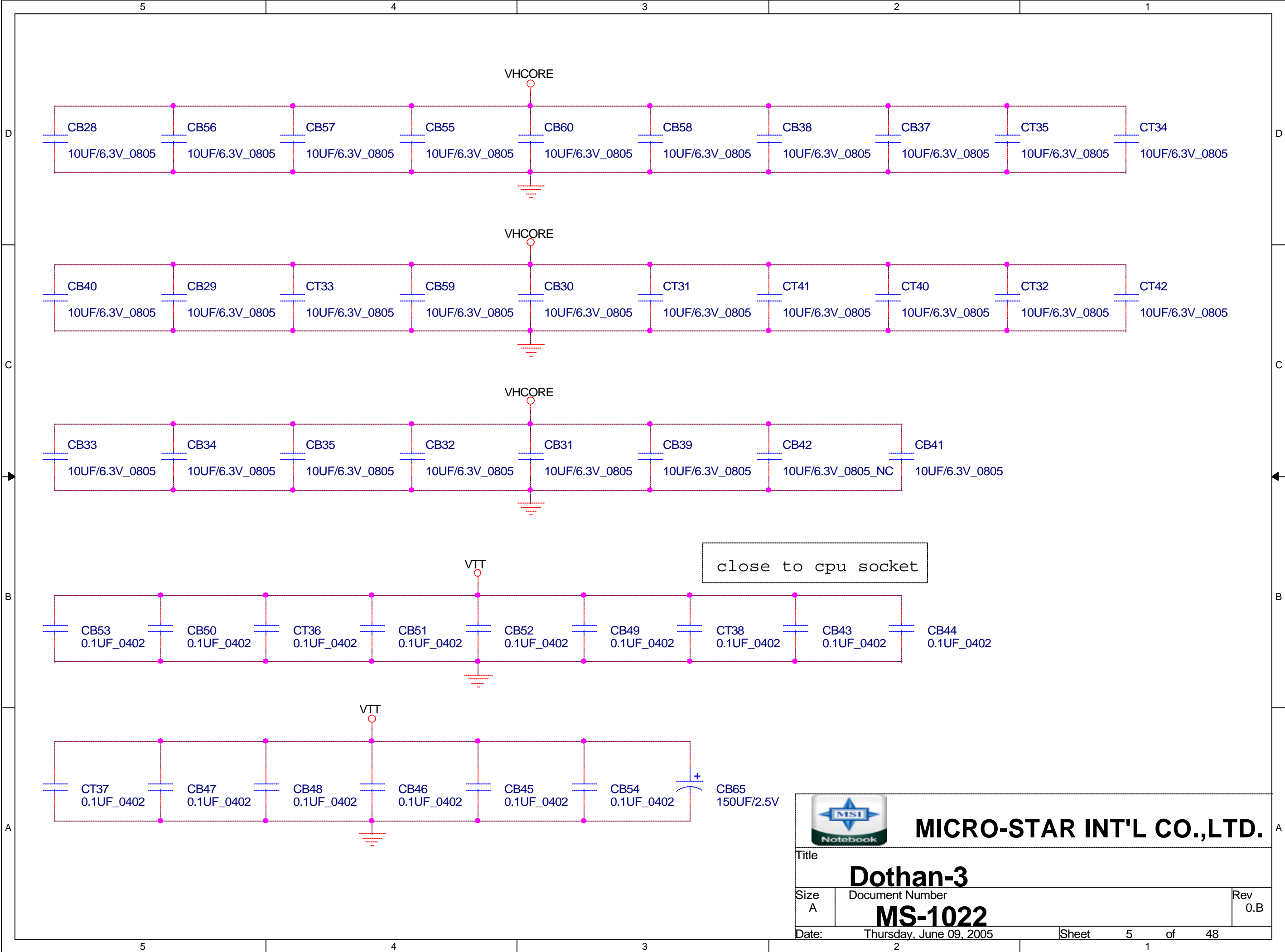
48





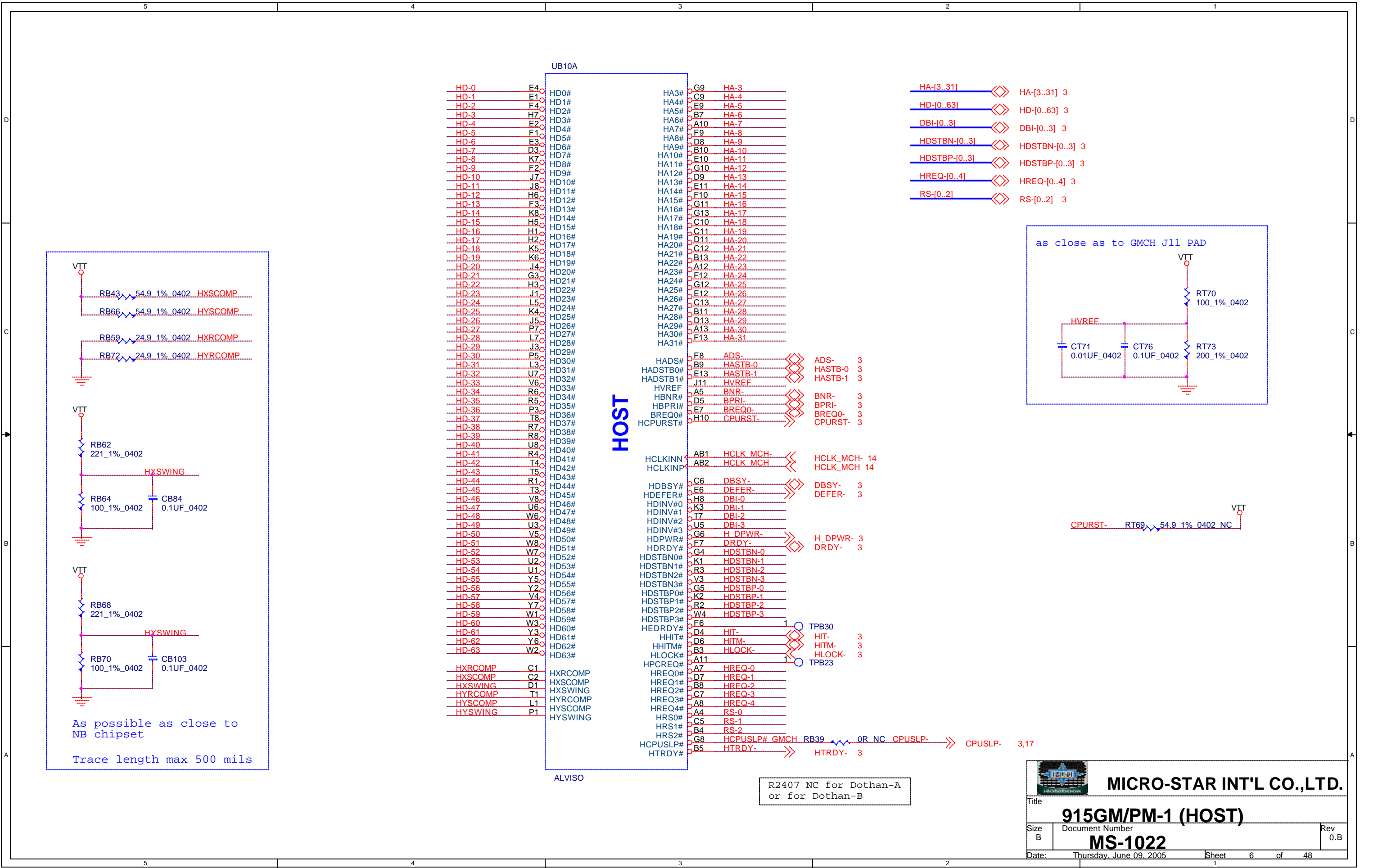
FSB : 400MHz
FSB : 533MHz
+VCCA_PROC :
+VCCA_PROC : 1.5V

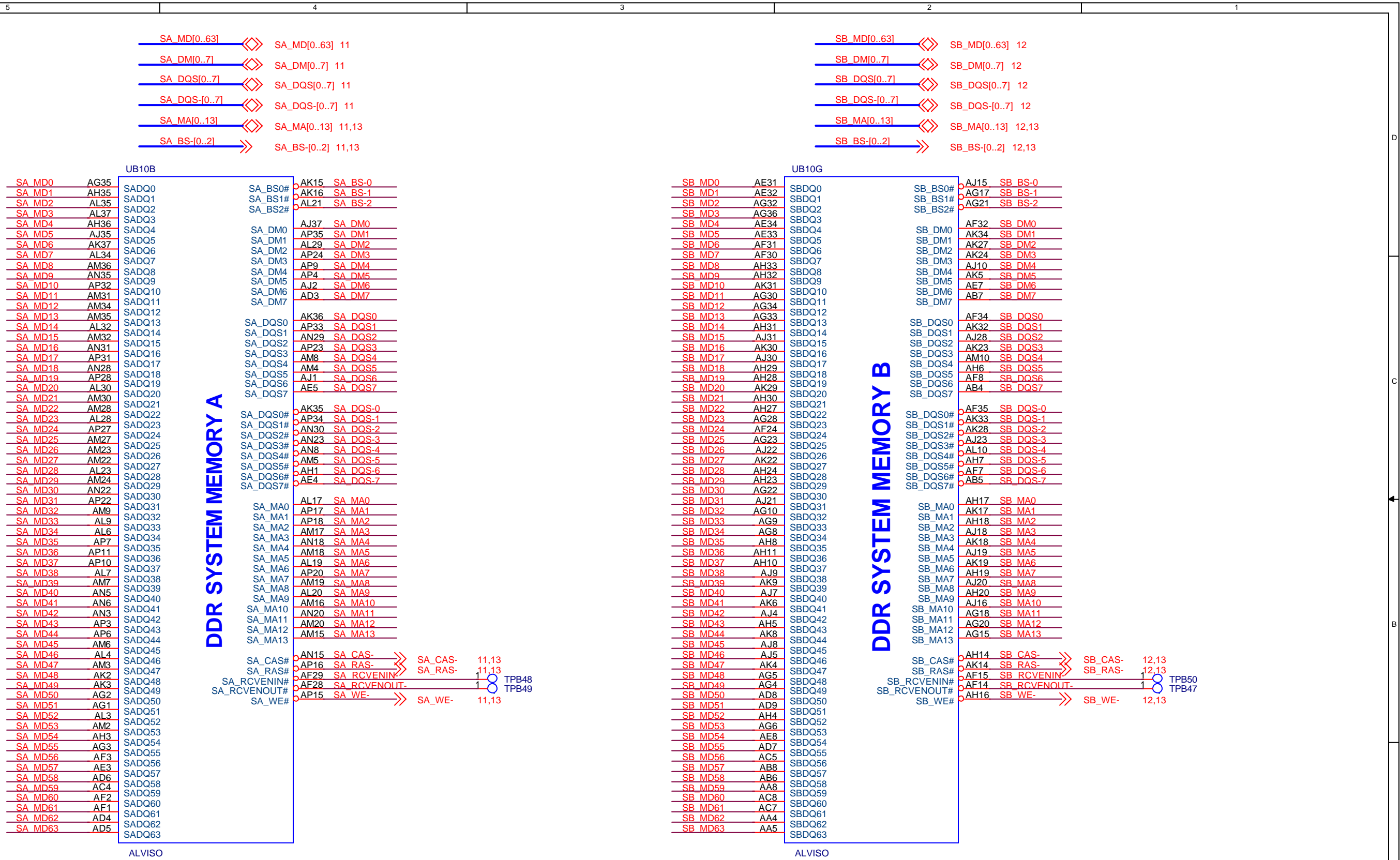
LAYOUT NOTE: Provide a test point (with no stub) to connect differential probe between VCCSENSE and VSSSENSE at the location where the two 54.9 ohm resistors terminate the 55 ohm transmission lines.

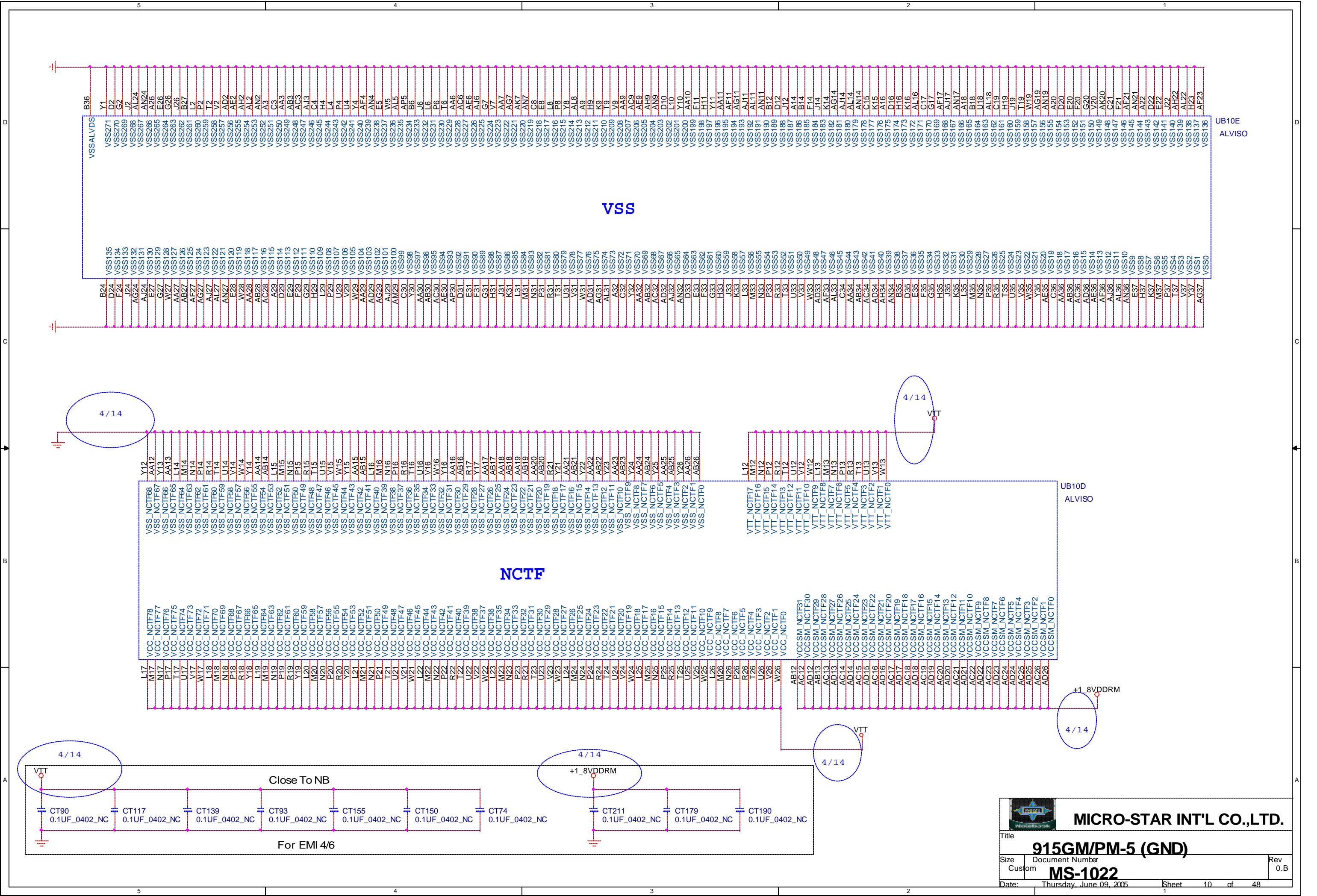


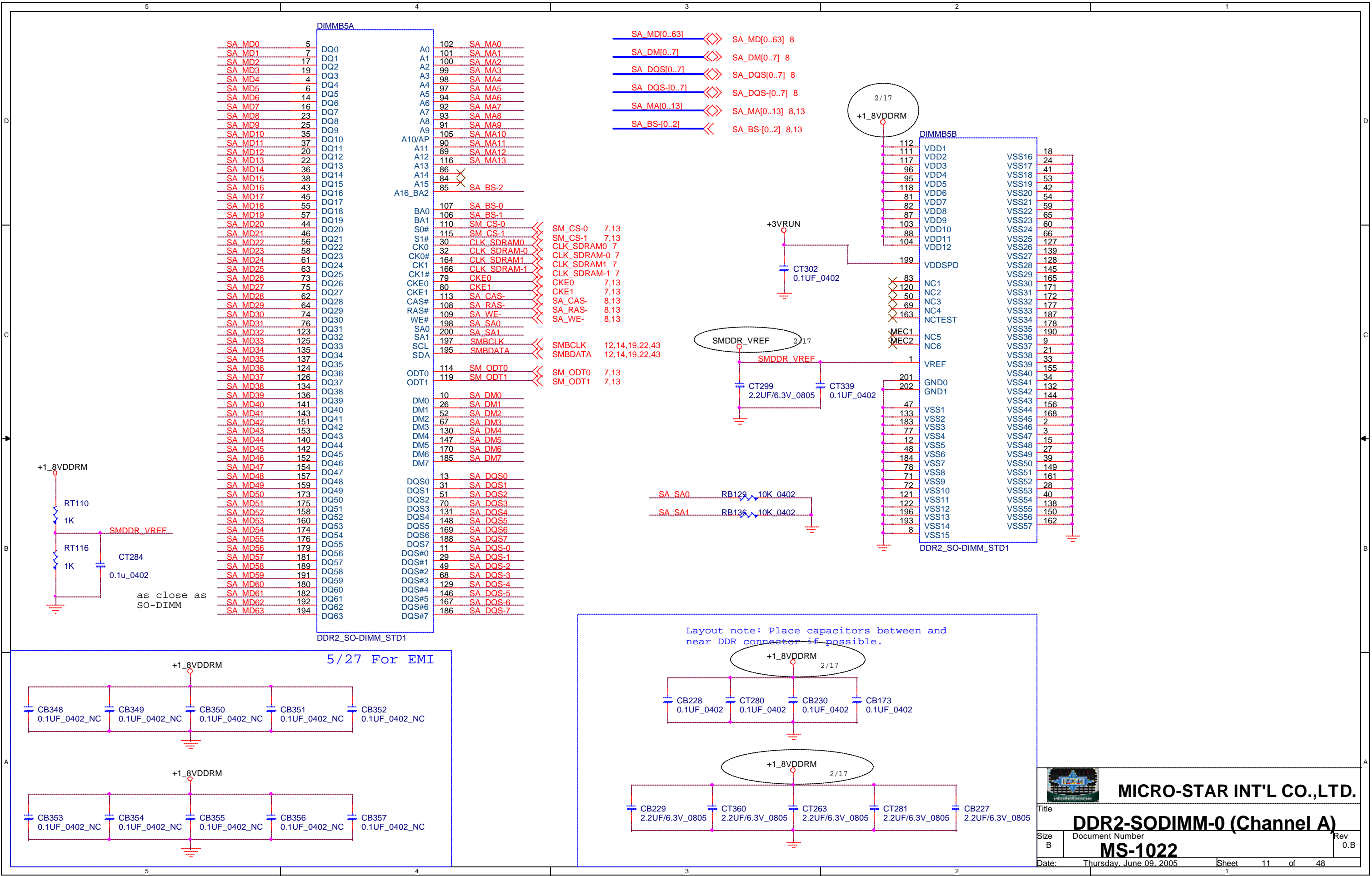
MICRO-STAR INT'L CO.,LTD.

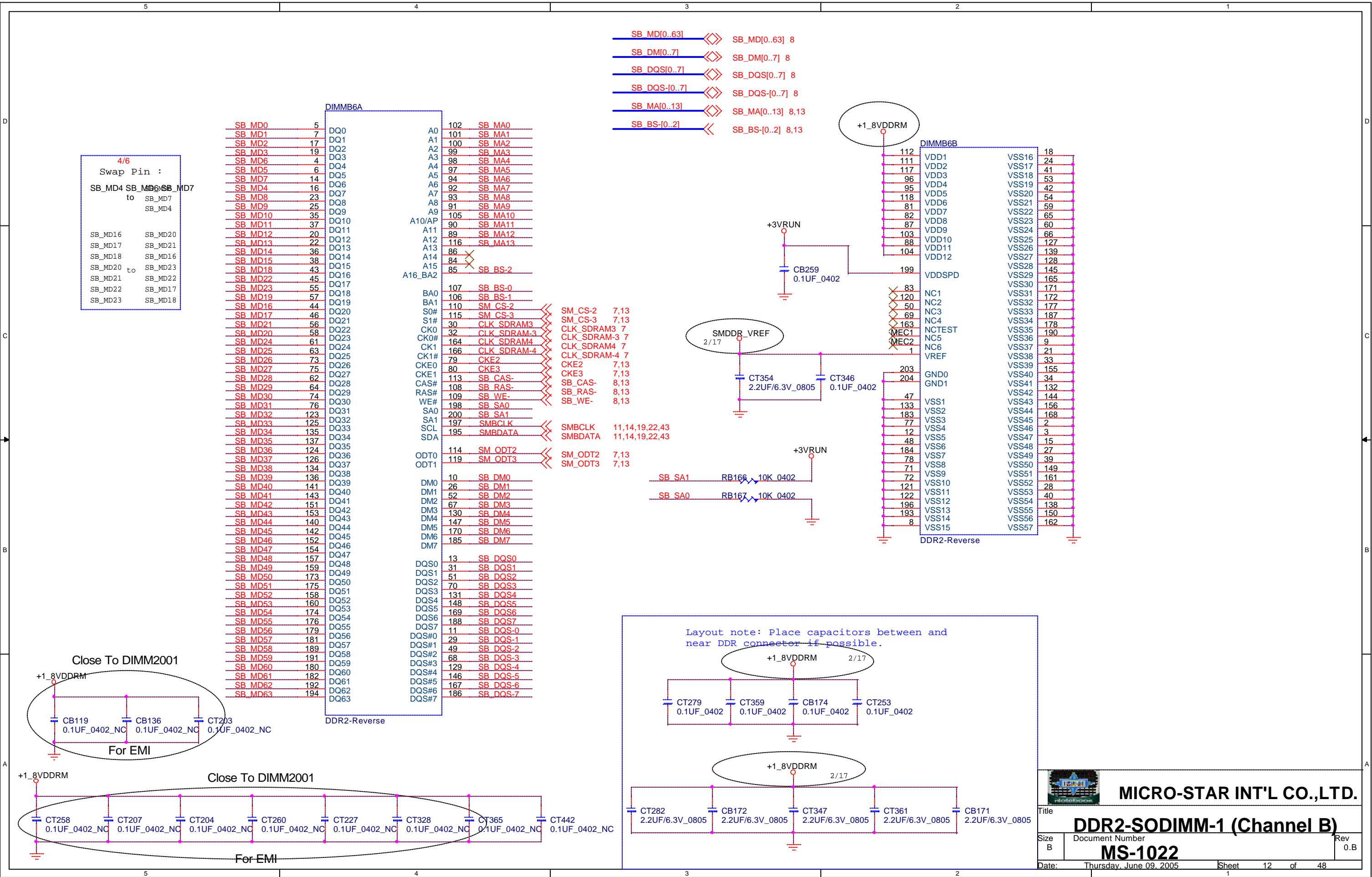
Title		
Dothan-3		
Size	Document Number	Rev
A	MS-1022	0.B
Date: Thursday, June 09, 2005		
Sheet 5 of 48		





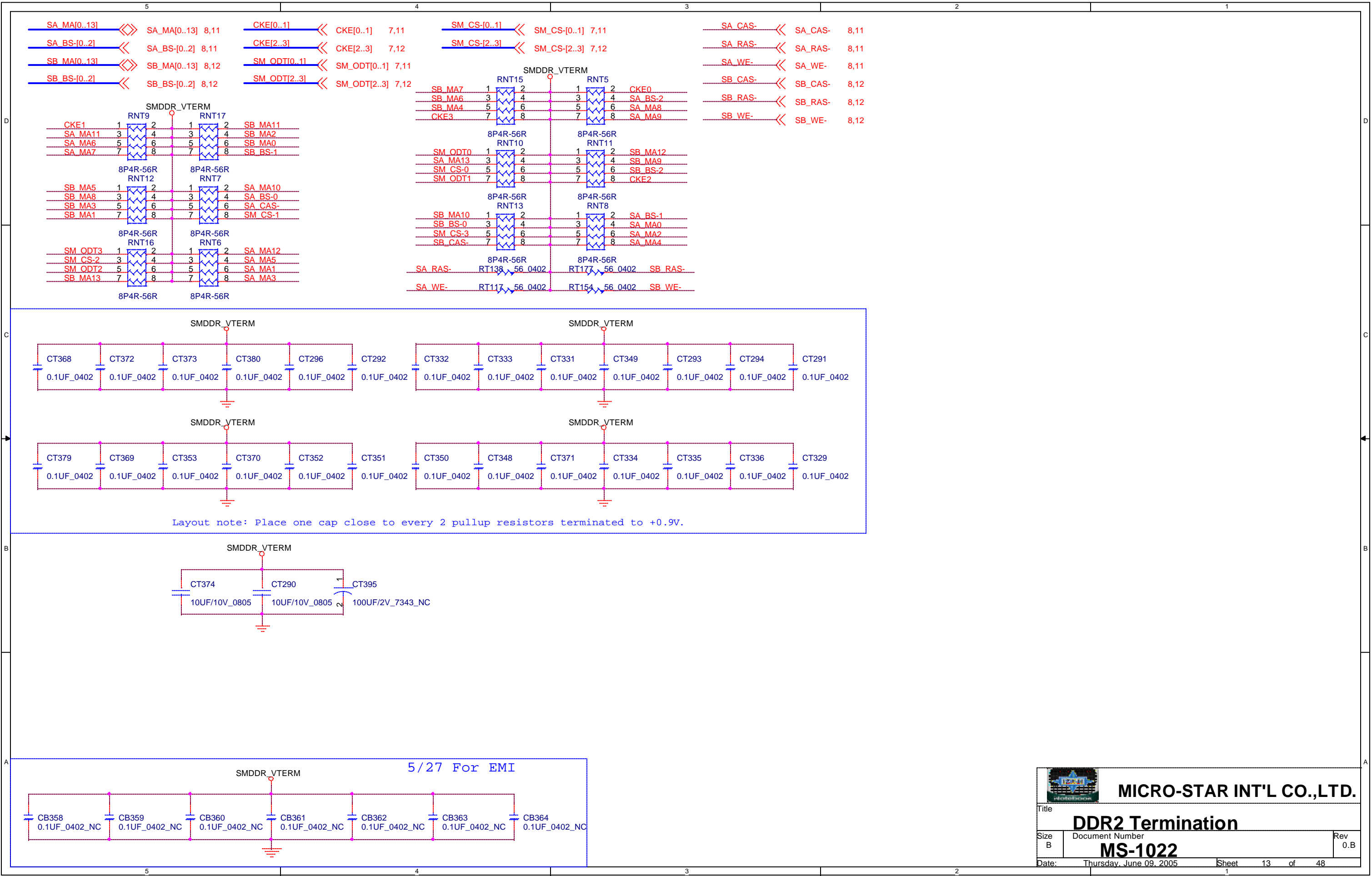






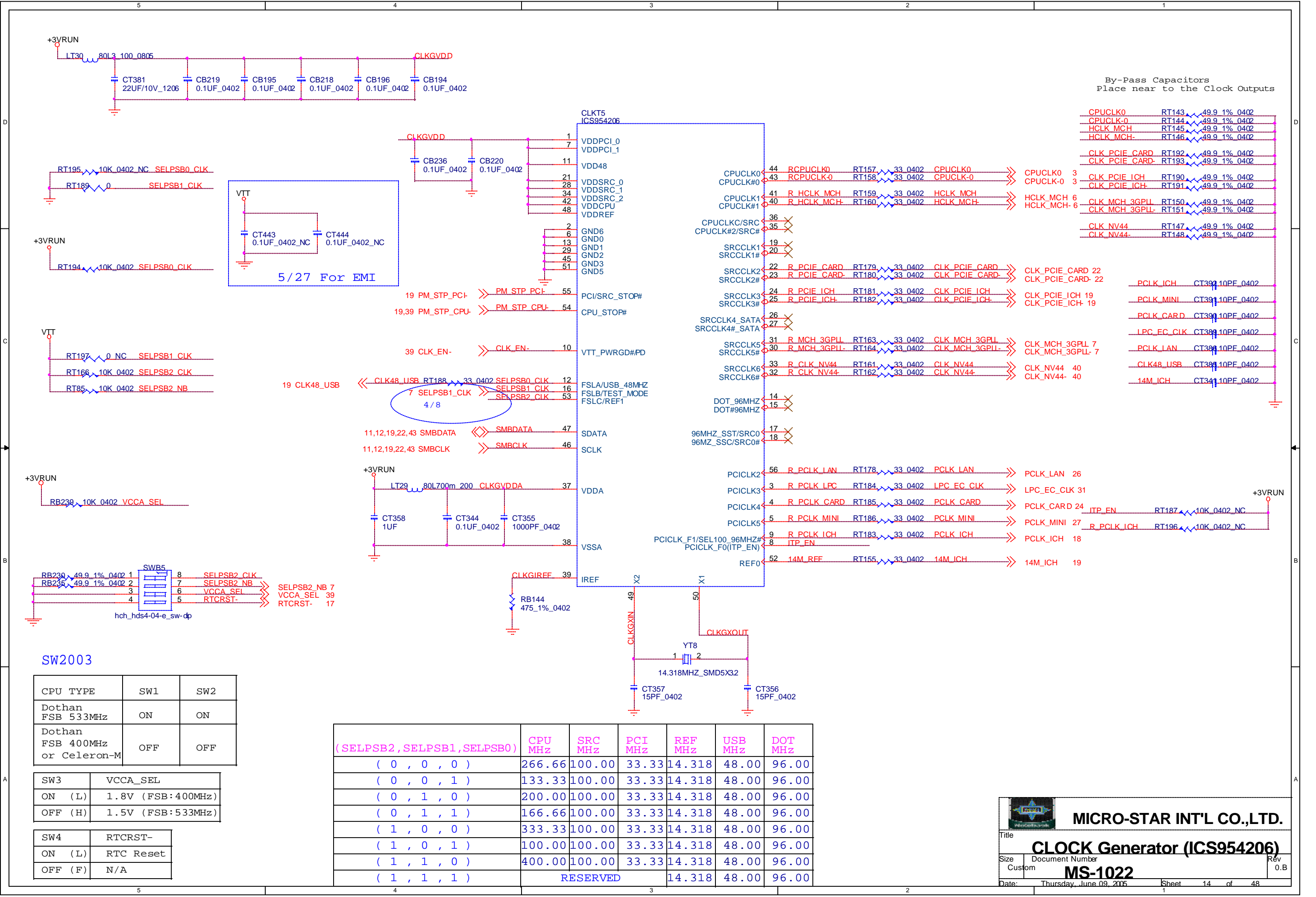
MICRO-STAR INT'L CO.,LTD.

Title			DDR2-SODIMM-1 (Channel B)
Size	Document Number	Rev	
B	MS-1022	0.B	
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Title		
DDR2 Termination		
Size	Document Number	Rev
B	MS-1022	0.B
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By-Pass Capacitors
Place near to the Clock Outputs

5/27 For EMI


SW2003

CPU TYPE	SW1	SW2
Dothan FSB 533MHz	ON	ON
Dothan FSB 400MHz or Celeron-M	OFF	OFF

SW3	VCCA_SEL
ON (L)	1.8V (FSB:400MHz)
OFF (H)	1.5V (FSB:533MHz)

SW4	RTCRST-
ON (L)	RTC Reset
OFF (F)	N/A

(SELPSB2, SELPSB1, SELPSB0)	CPU MHz	SRC MHz	PCI MHz	REF MHz	USB MHz	DOT MHz
(0 , 0 , 0)	266.66	100.00	33.33	14.318	48.00	96.00
(0 , 0 , 1)	133.33	100.00	33.33	14.318	48.00	96.00
(0 , 1 , 0)	200.00	100.00	33.33	14.318	48.00	96.00
(0 , 1 , 1)	166.66	100.00	33.33	14.318	48.00	96.00
(1 , 0 , 0)	333.33	100.00	33.33	14.318	48.00	96.00
(1 , 0 , 1)	100.00	100.00	33.33	14.318	48.00	96.00
(1 , 1 , 0)	400.00	100.00	33.33	14.318	48.00	96.00
(1 , 1 , 1)	RESERVED			14.318	48.00	96.00

**MICRO-STAR INT'L CO.,LTD.**

CLOCK Generator (ICS954206)

Size Custom

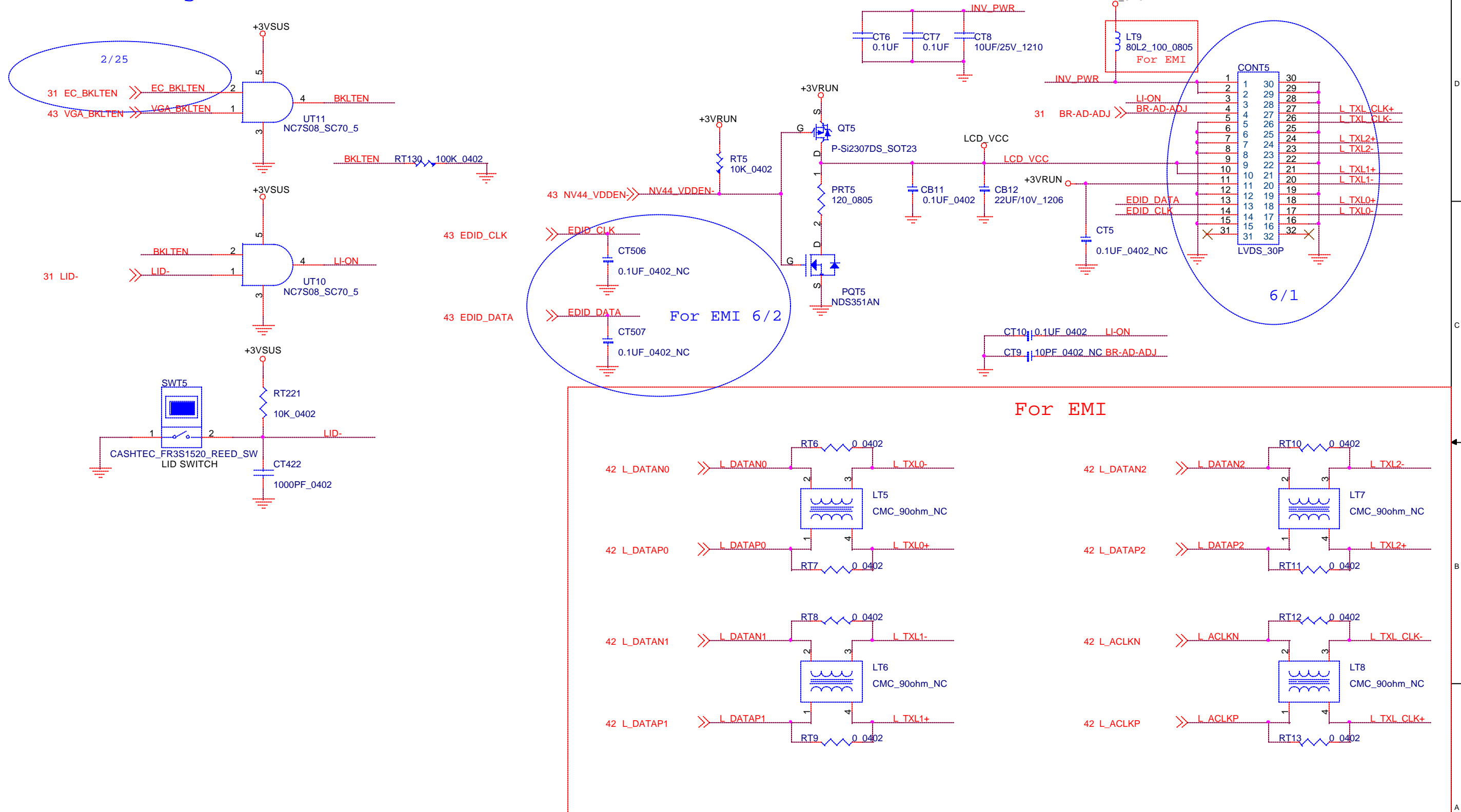
MS-1022

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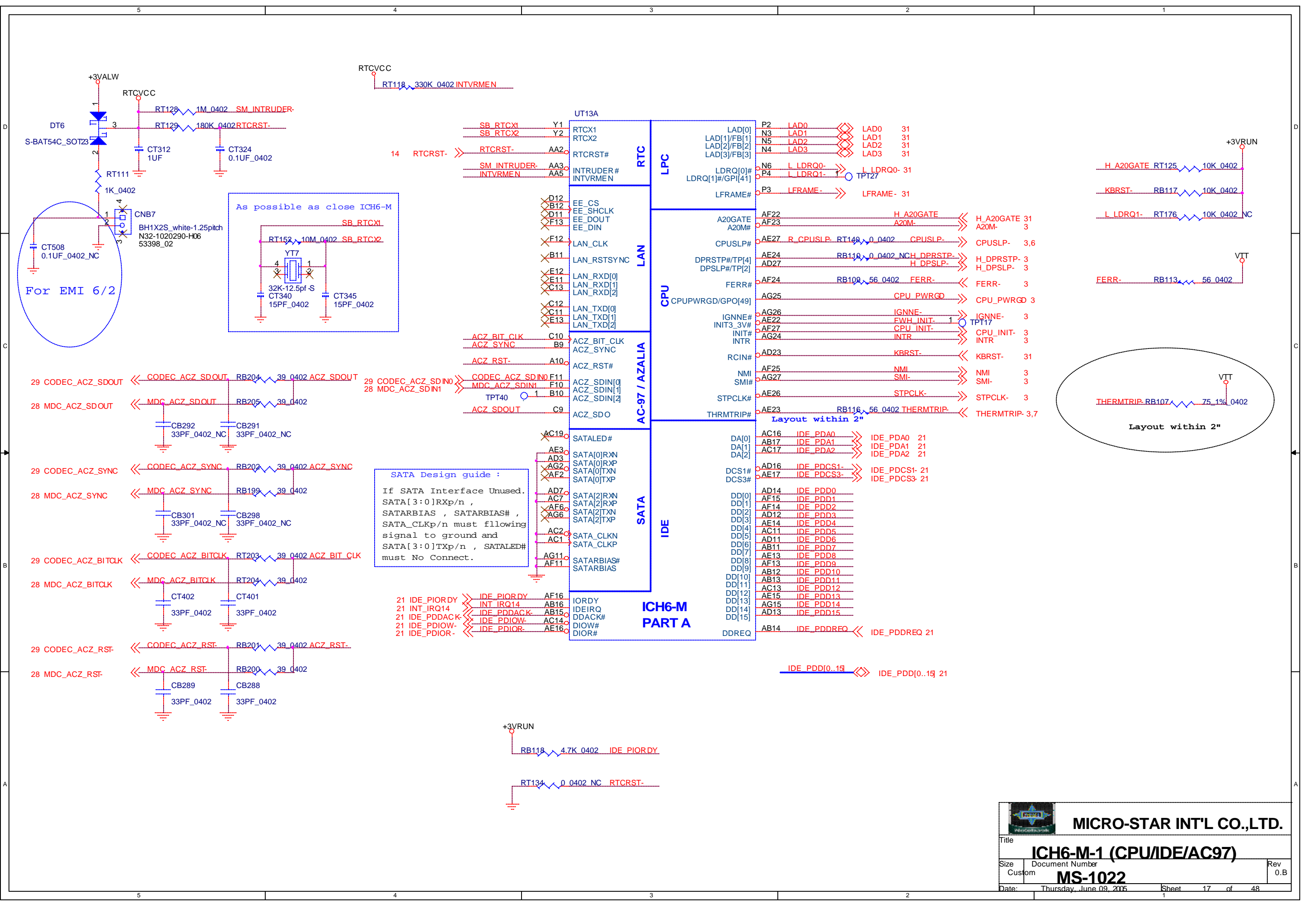
Rev 0.B

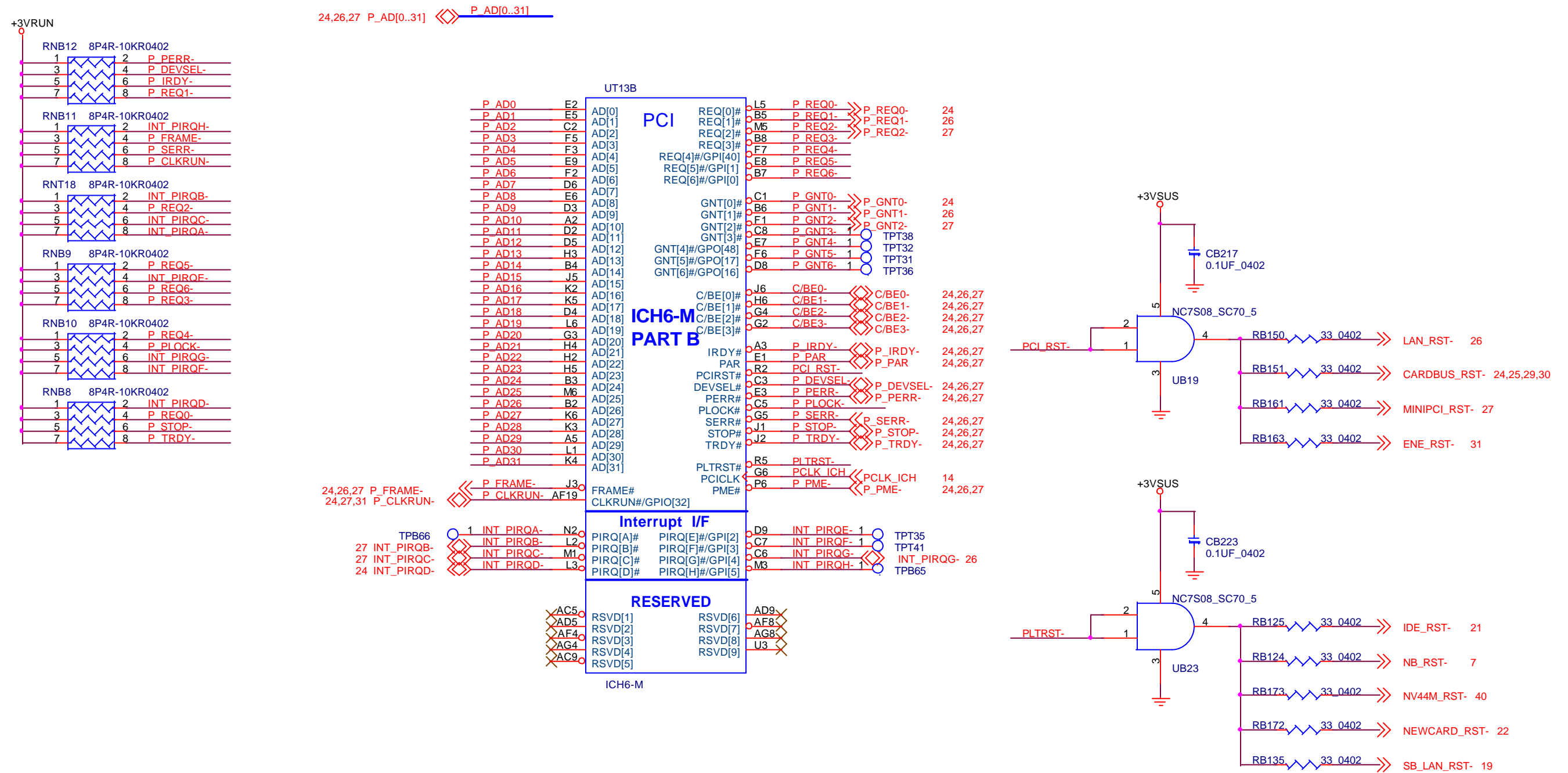
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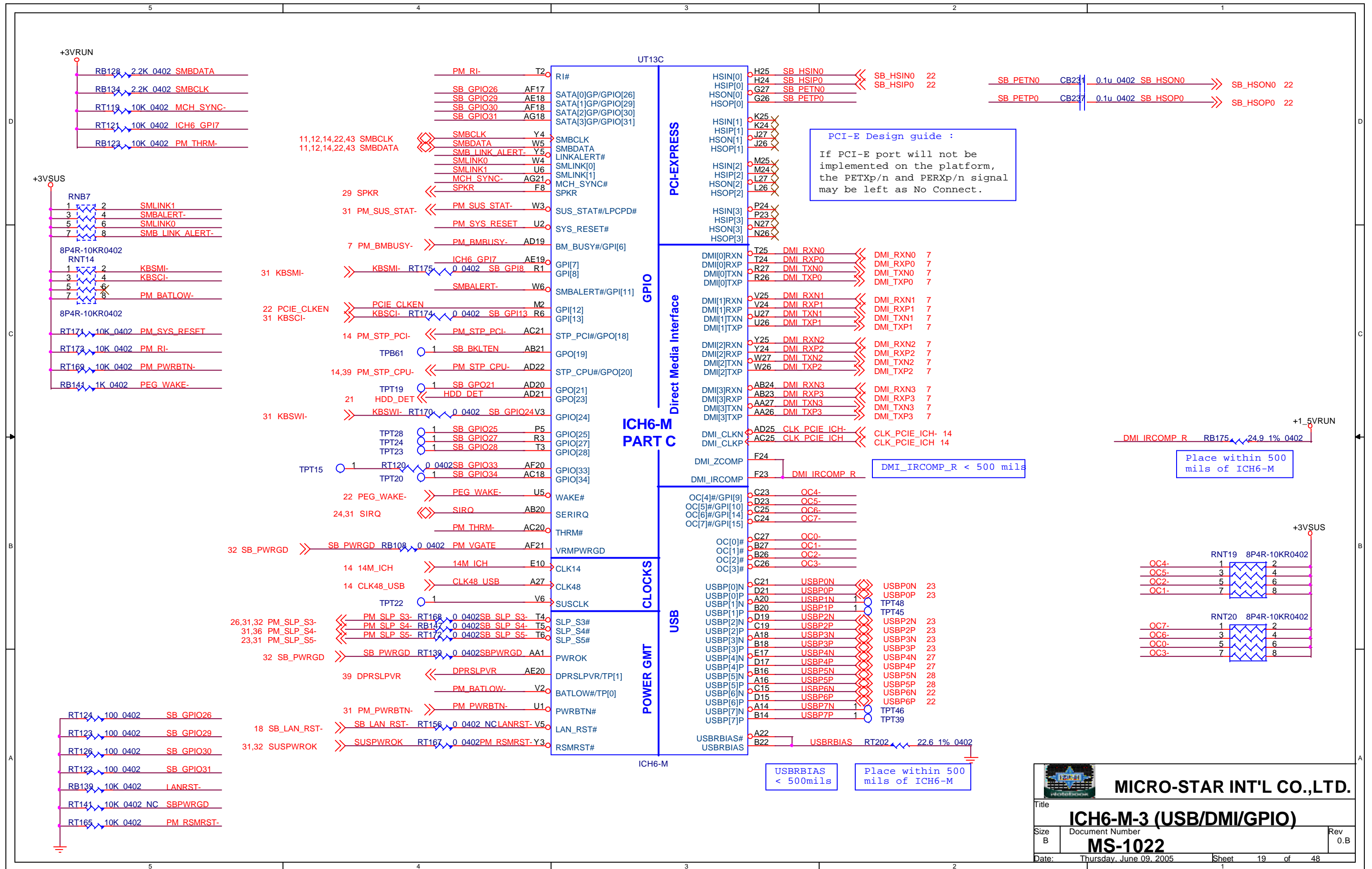


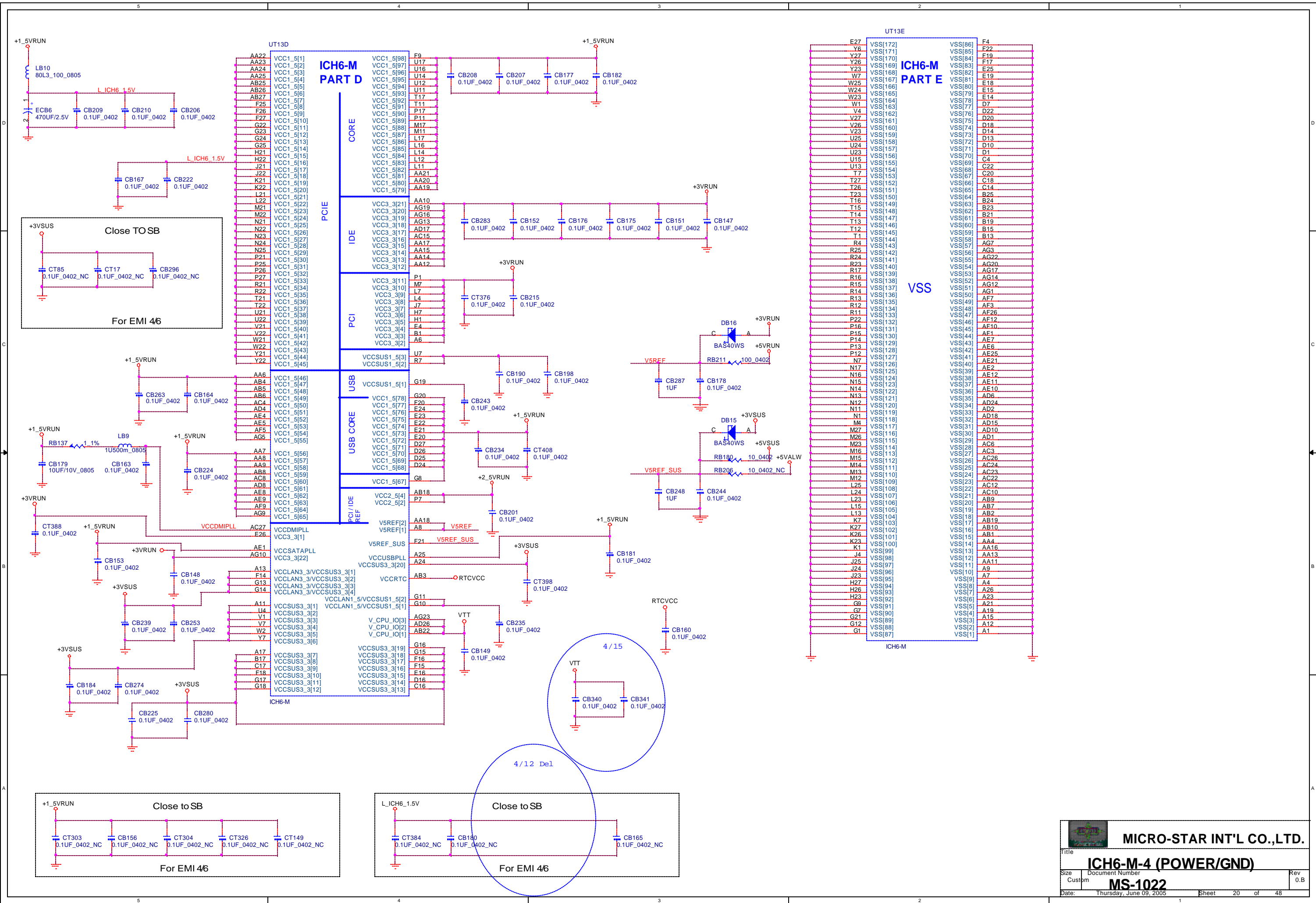
MICRO-STAR INT'L CO.,LTD.

Title		
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Size	Document Number	Rev
B	MS-1022	0.B
Date:	Thursday, June 09, 2005	Sheet 15 of 48



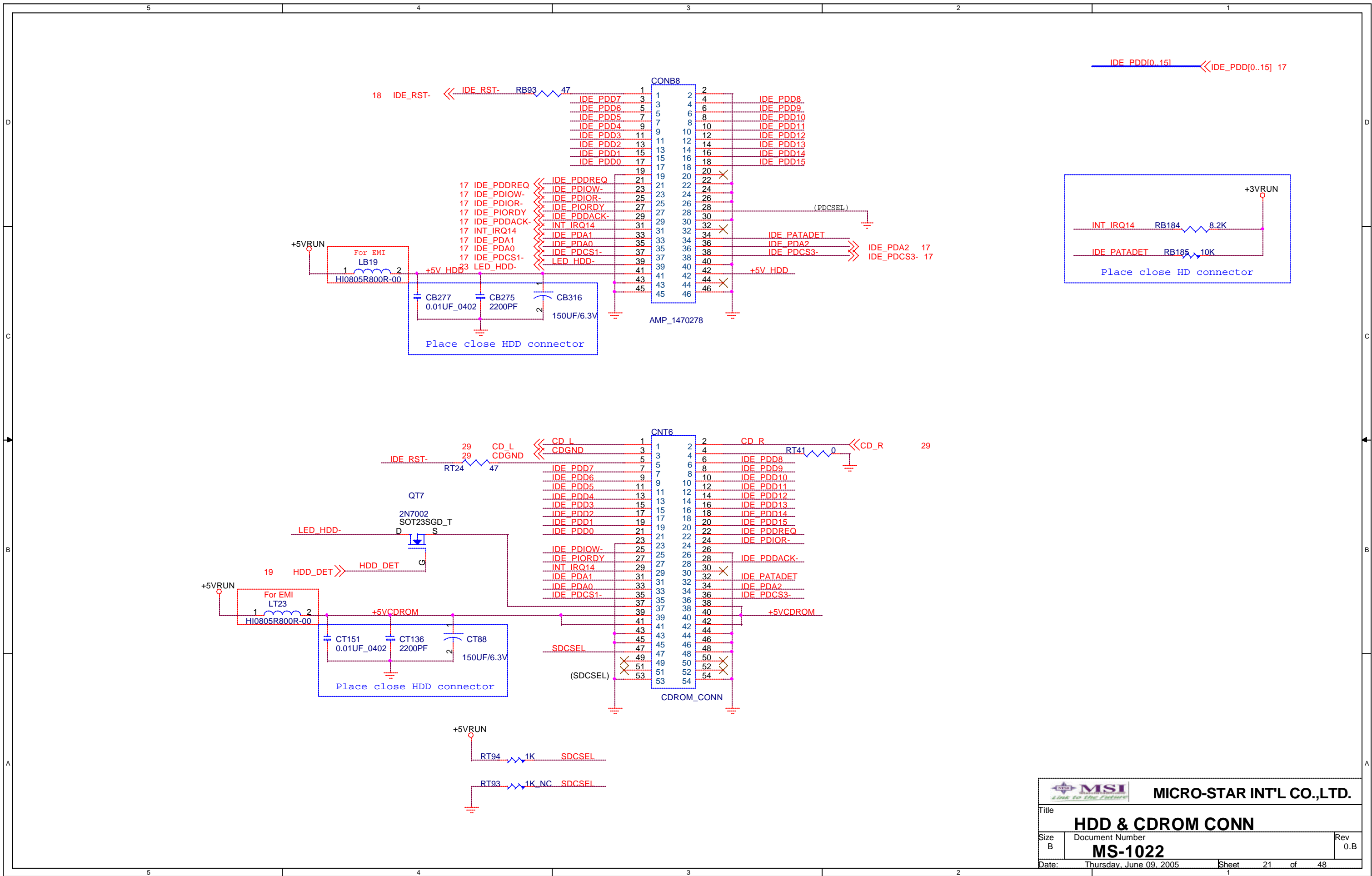




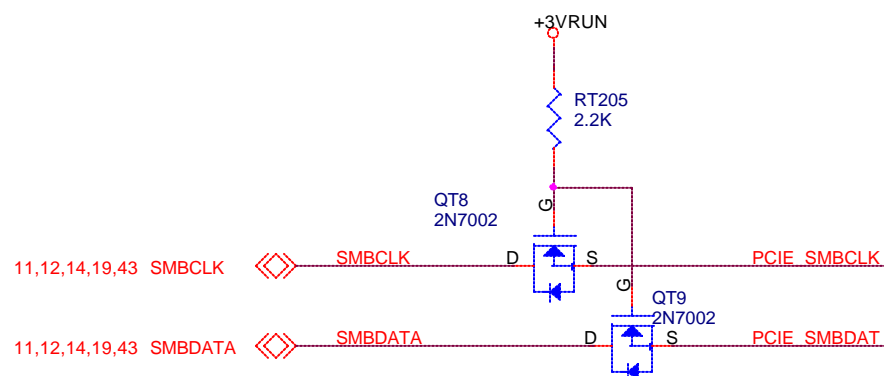
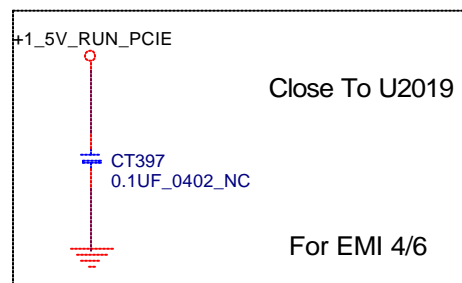
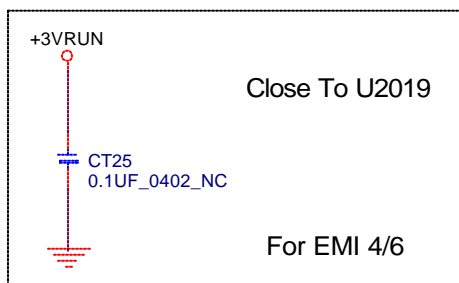
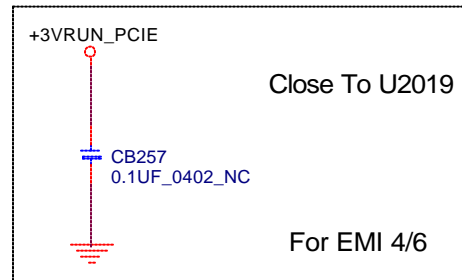
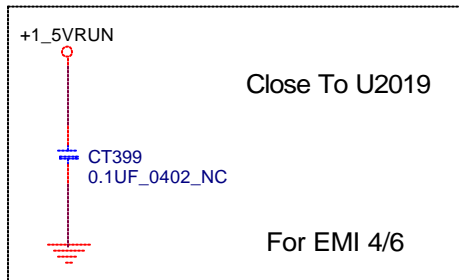
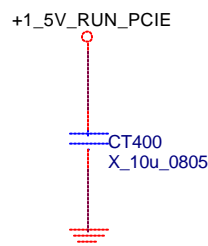
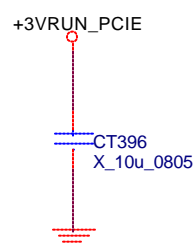
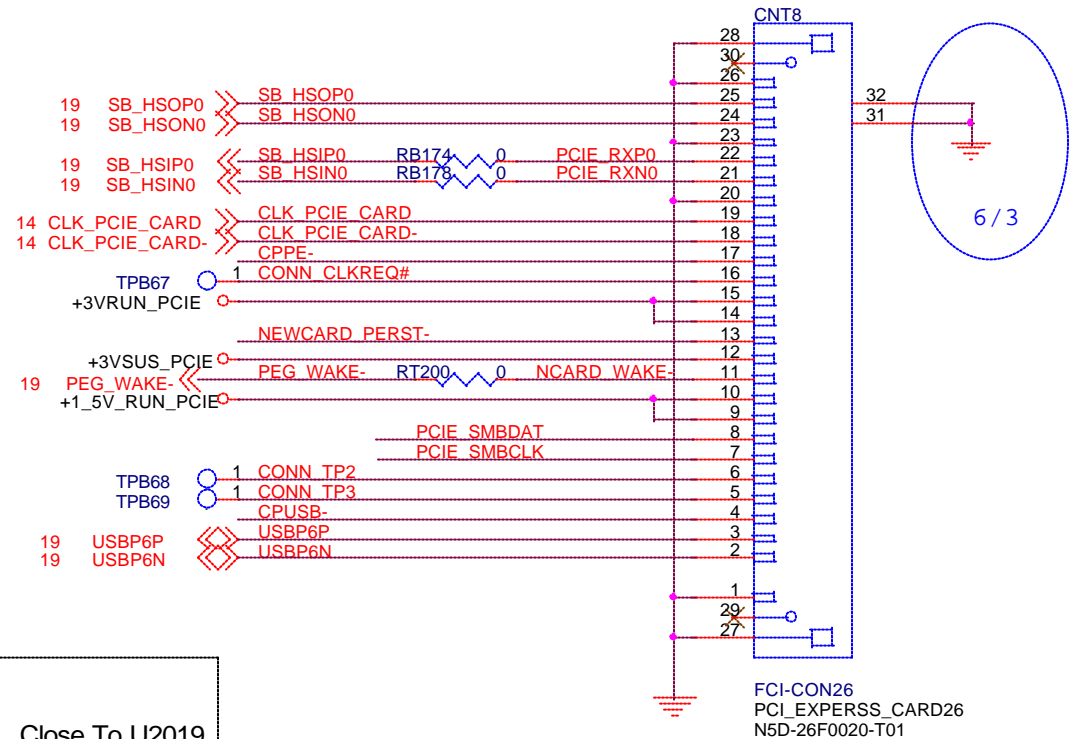
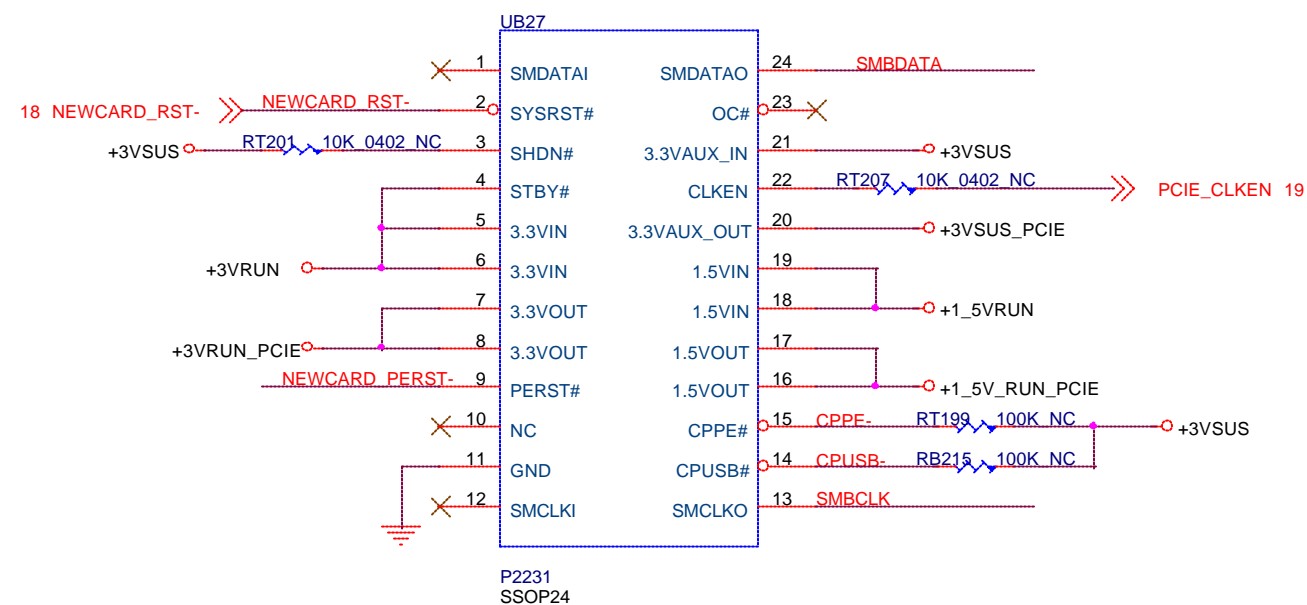


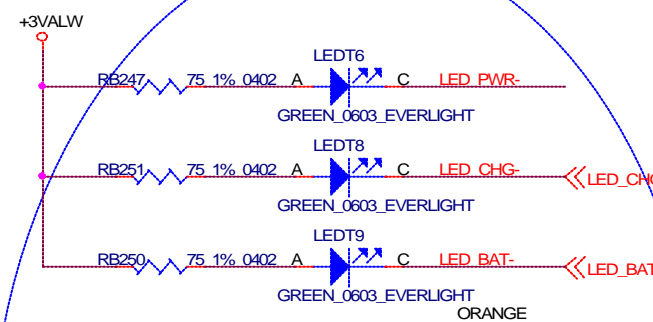
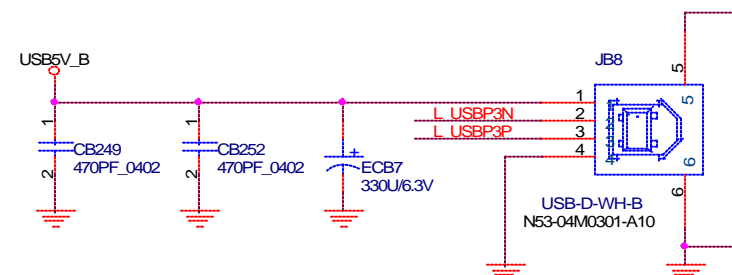
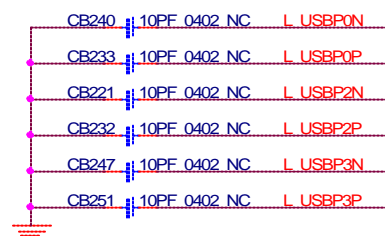
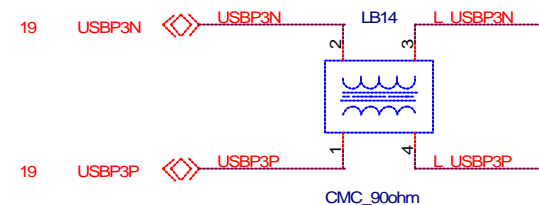
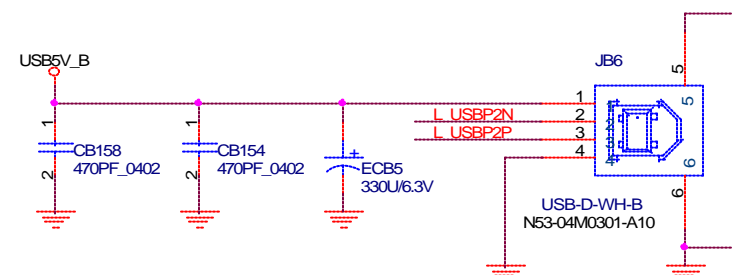
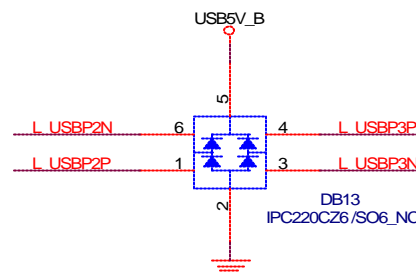
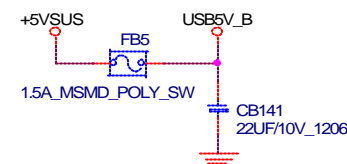
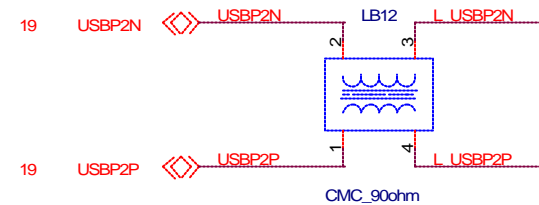
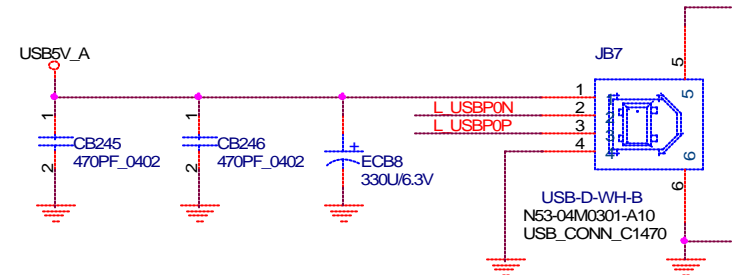
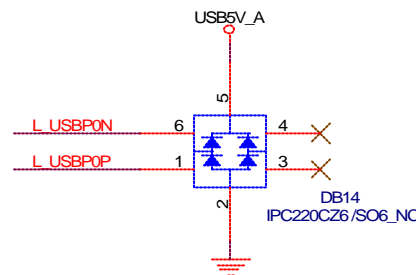
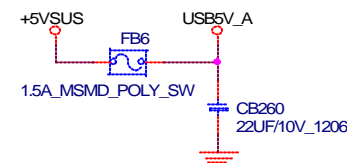
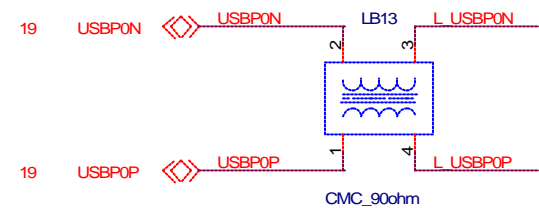
MICRO-STAR INT'L CO.,LTD.

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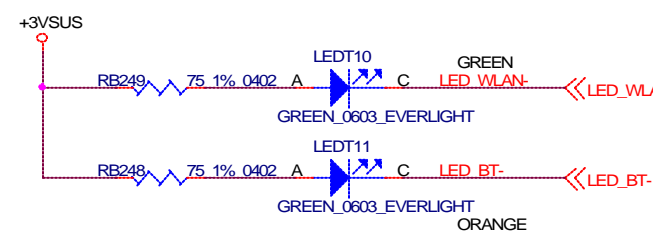


NEW CARD

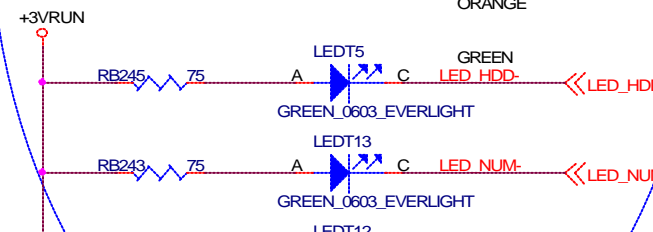




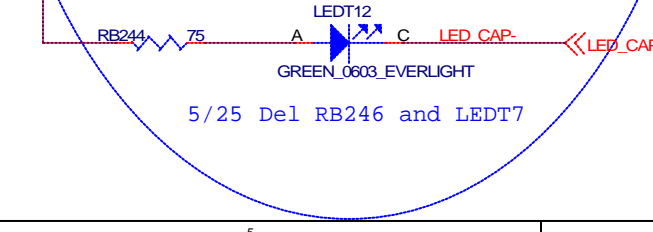
LED1 Power On LED
ON : Normal (Power ON)
OFF : S4/S5 state
Flash : S3 state



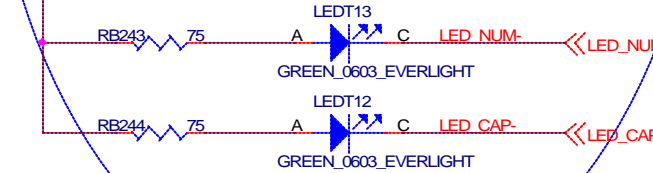
LED3 & LED9 Battery status LED
Green : Battery Charger LED
Orange : Battery Low LED
Orange flashing : Battery Fail LED



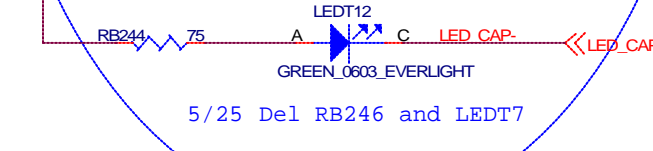
LED2 & LED8 Wireless Lan & Blue Tooth LED
Green : Wireless Lan On
Orange : Blue Tooth On
Green & Orange flashing : WLAN & BT coexist On



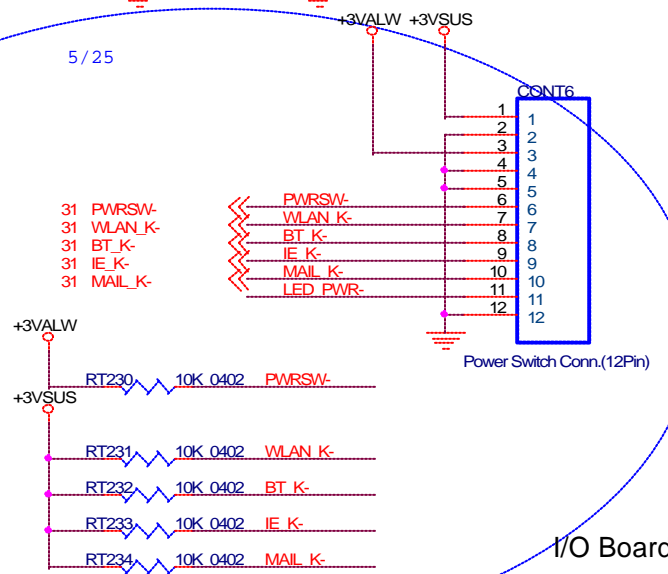
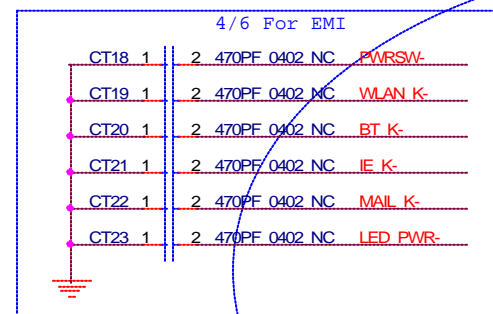
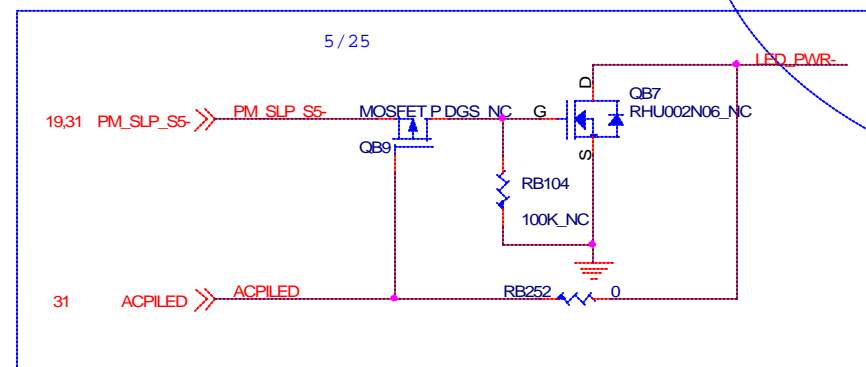
LED4 Hard Disk status LED

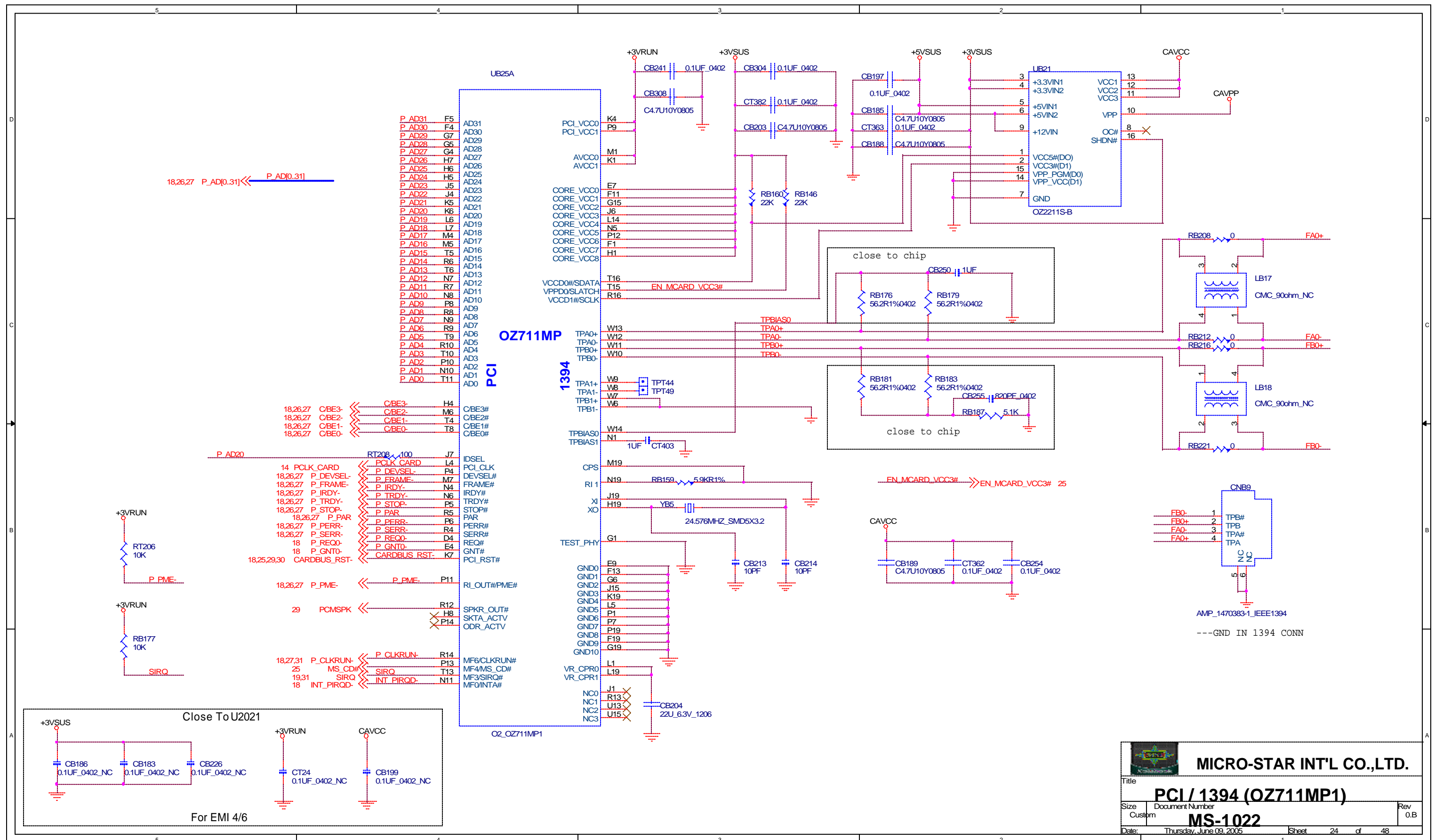


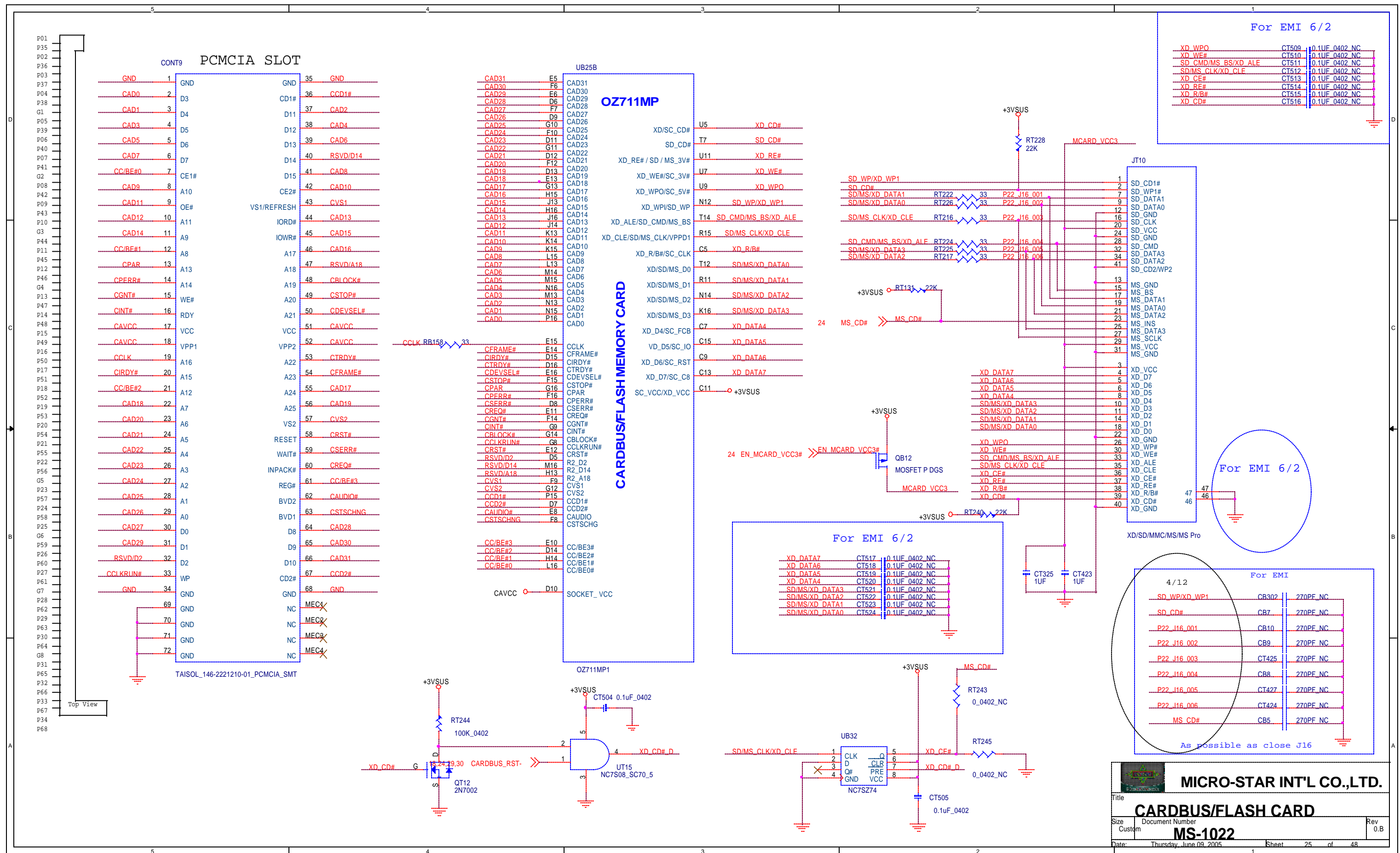
LED5 NumLock LED

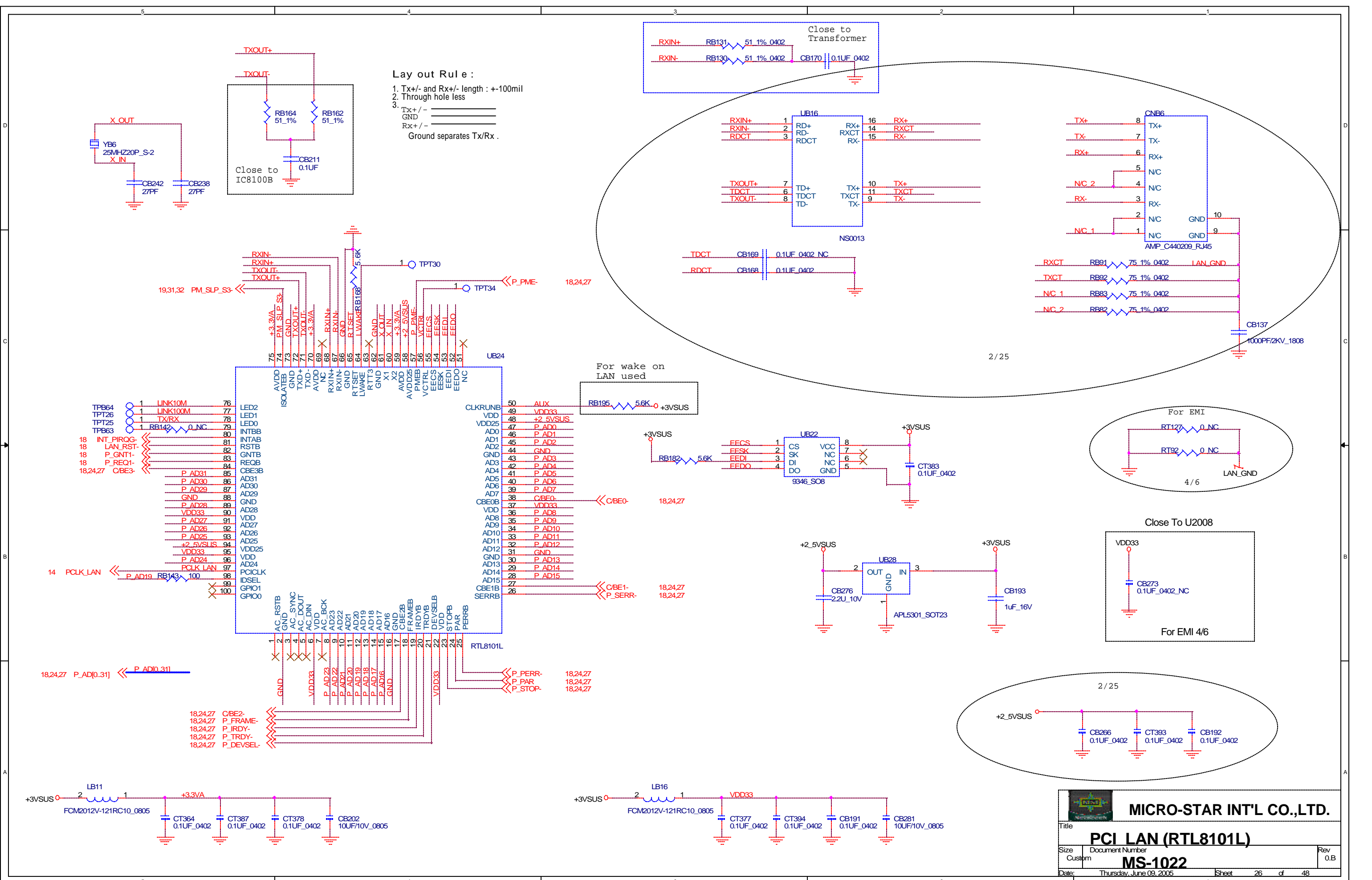


LED6 CapsLock LED





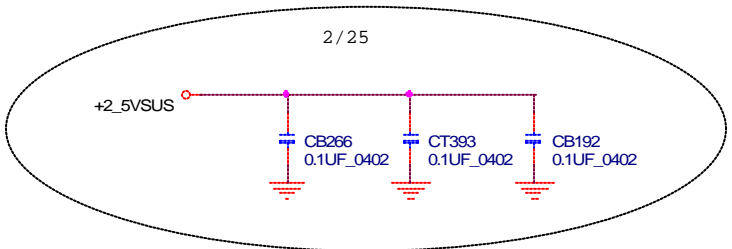
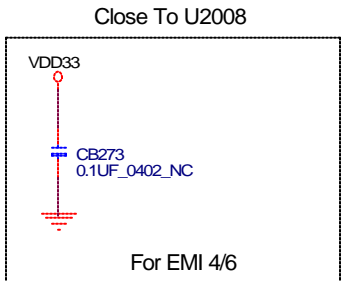
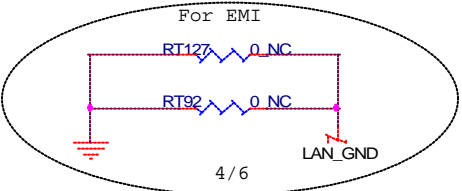
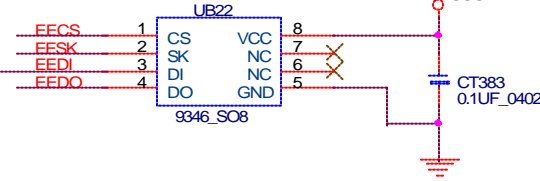
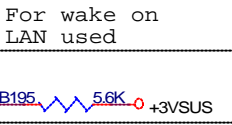
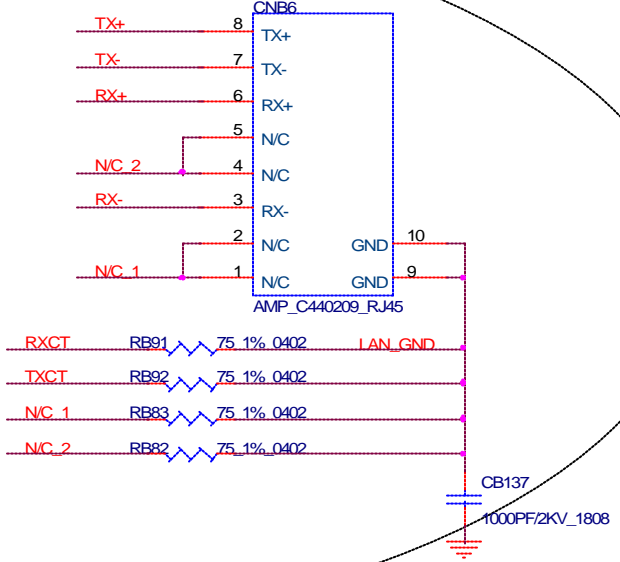
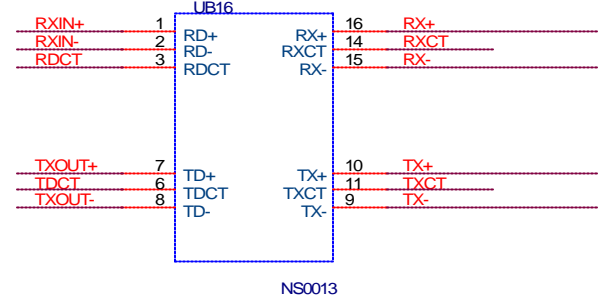
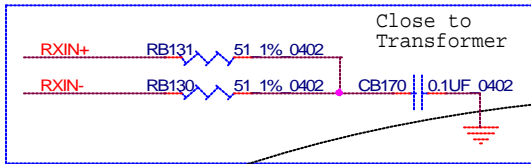


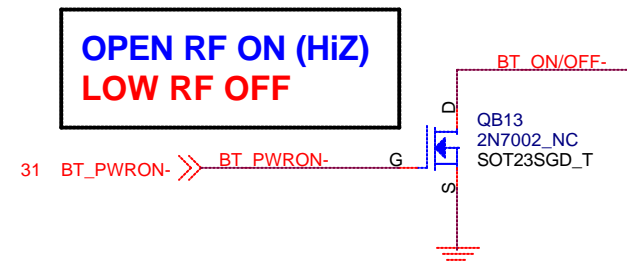
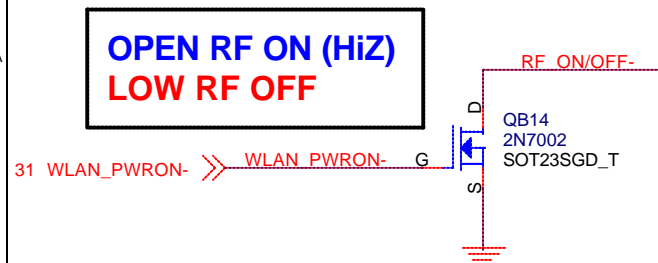
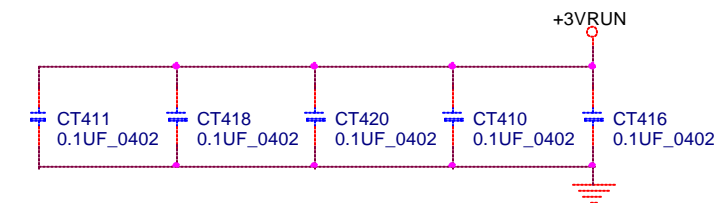
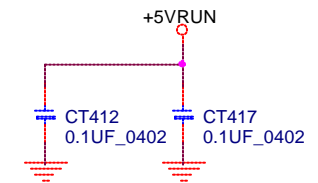
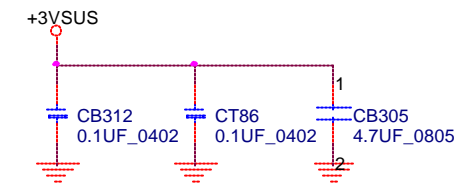
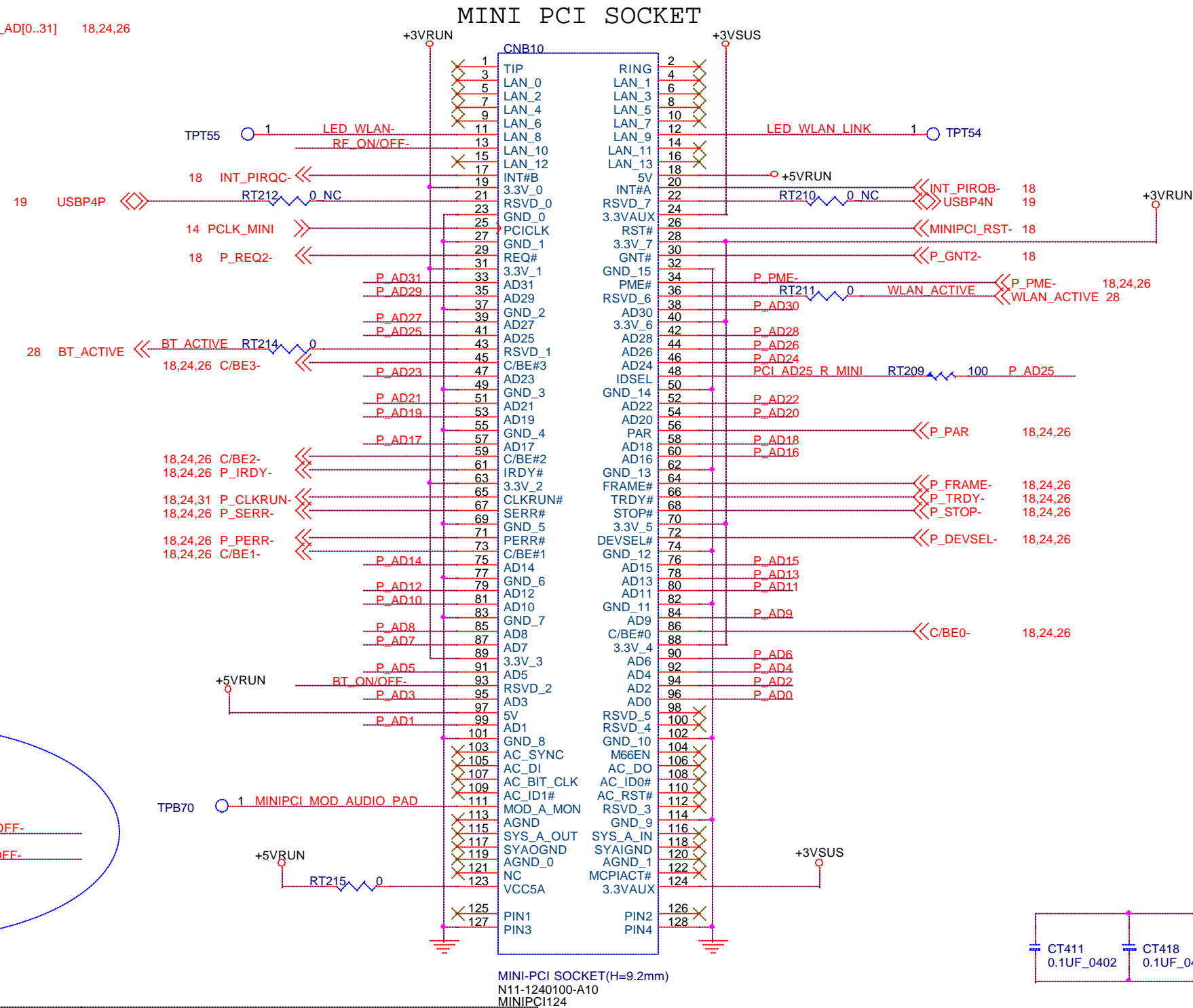


Lay out Rule :

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

Ground separates Tx/Rx .





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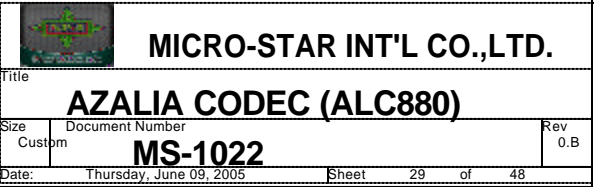
MINI PCI POWER SPEC.
TOYAL      : 2W
+5V        : 100mA
3.3VAUX    : 5/200/375mA
VCC5A      : 100mA
+3V

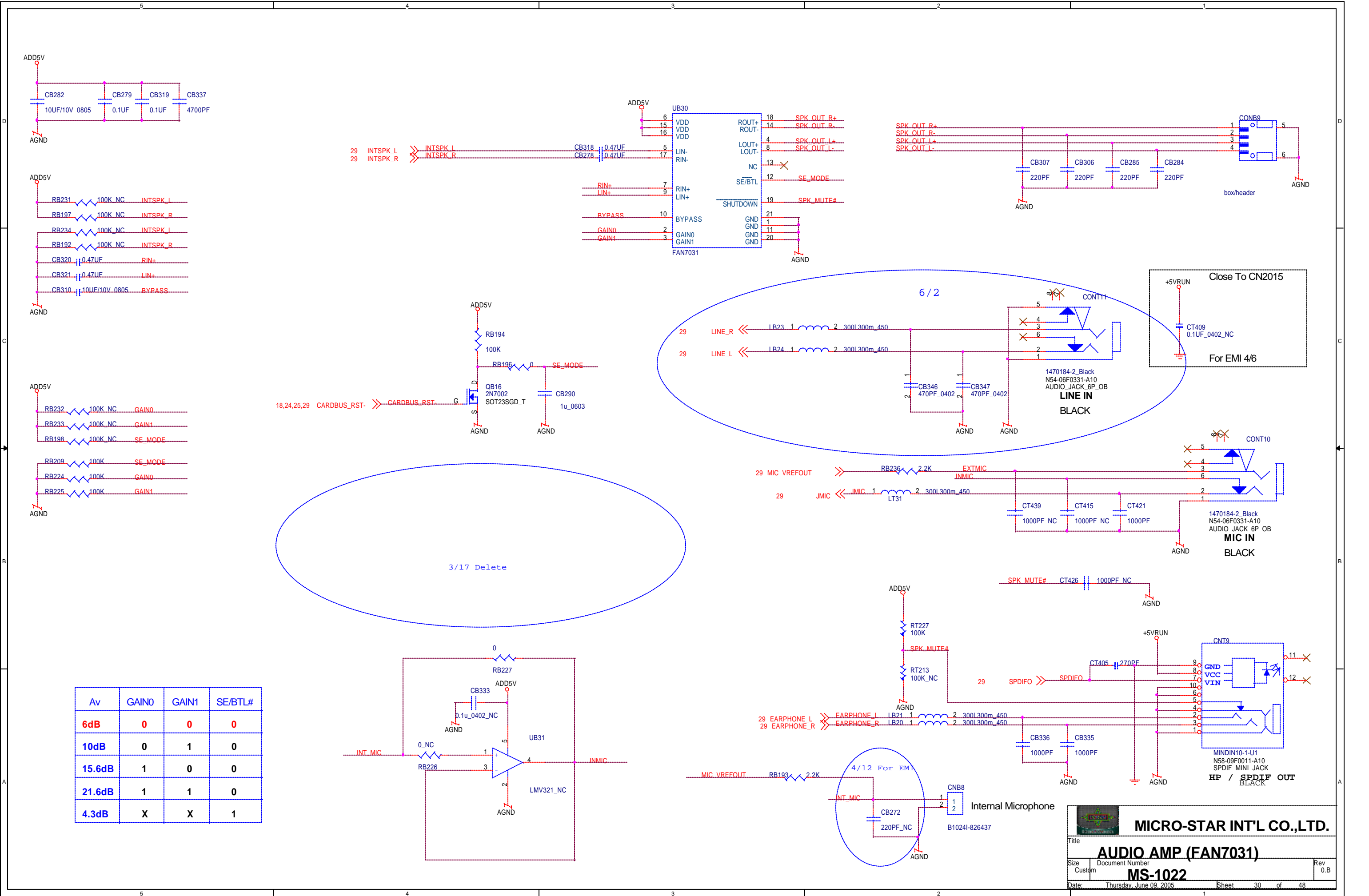
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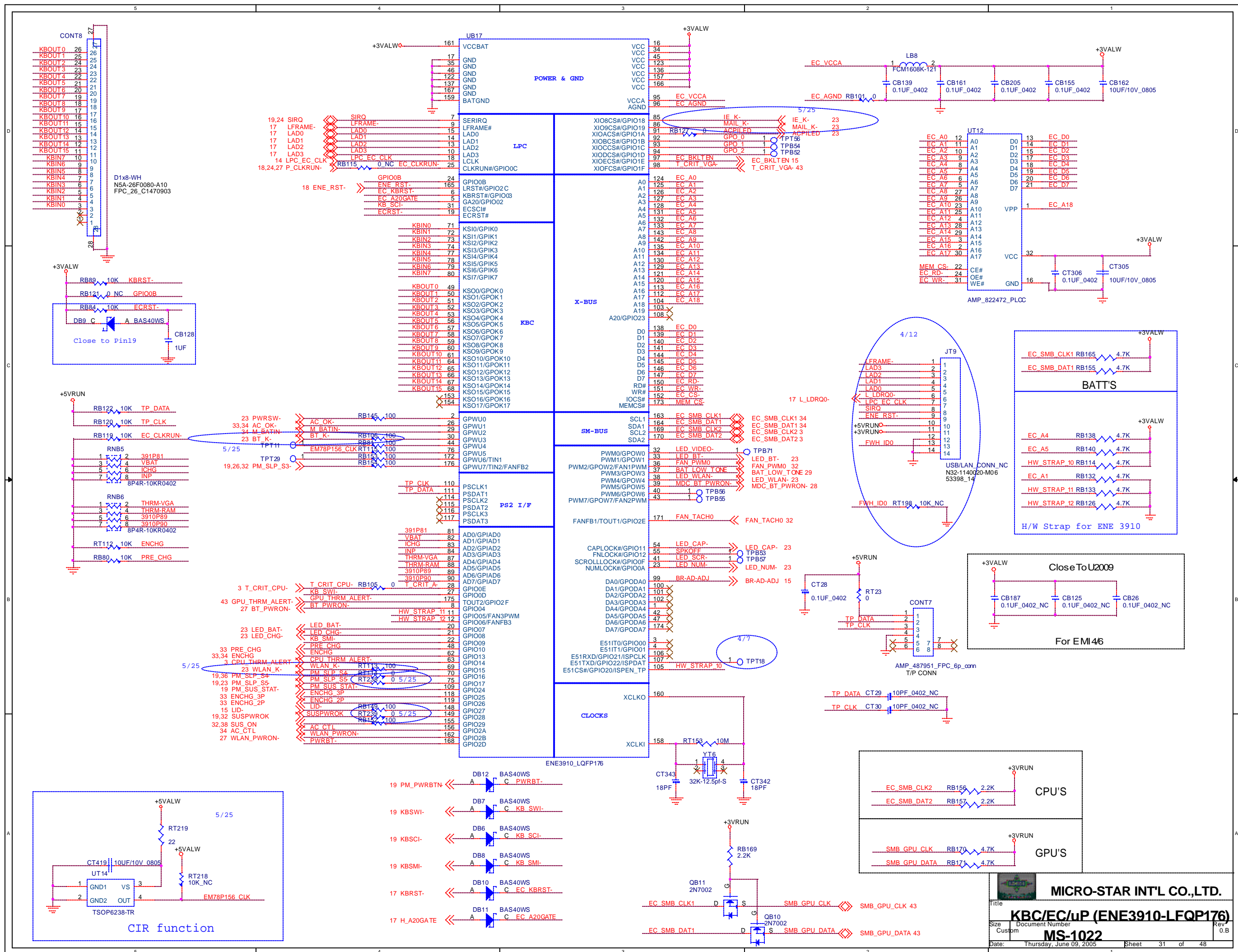
MICRO-STAR INT'L CO.,LTD.

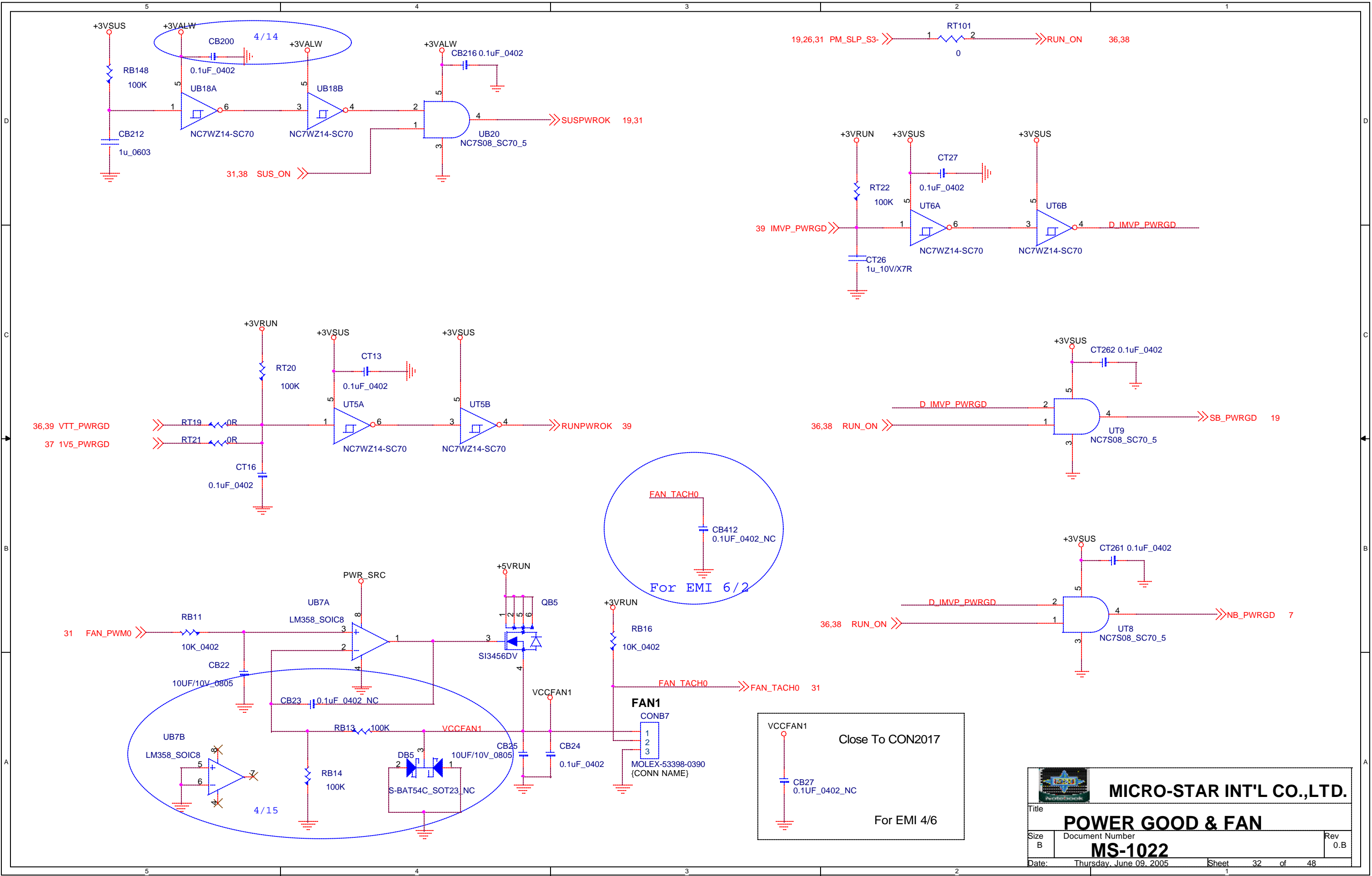
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MINIPCI			
Size B	Document Number		Rev 0.B
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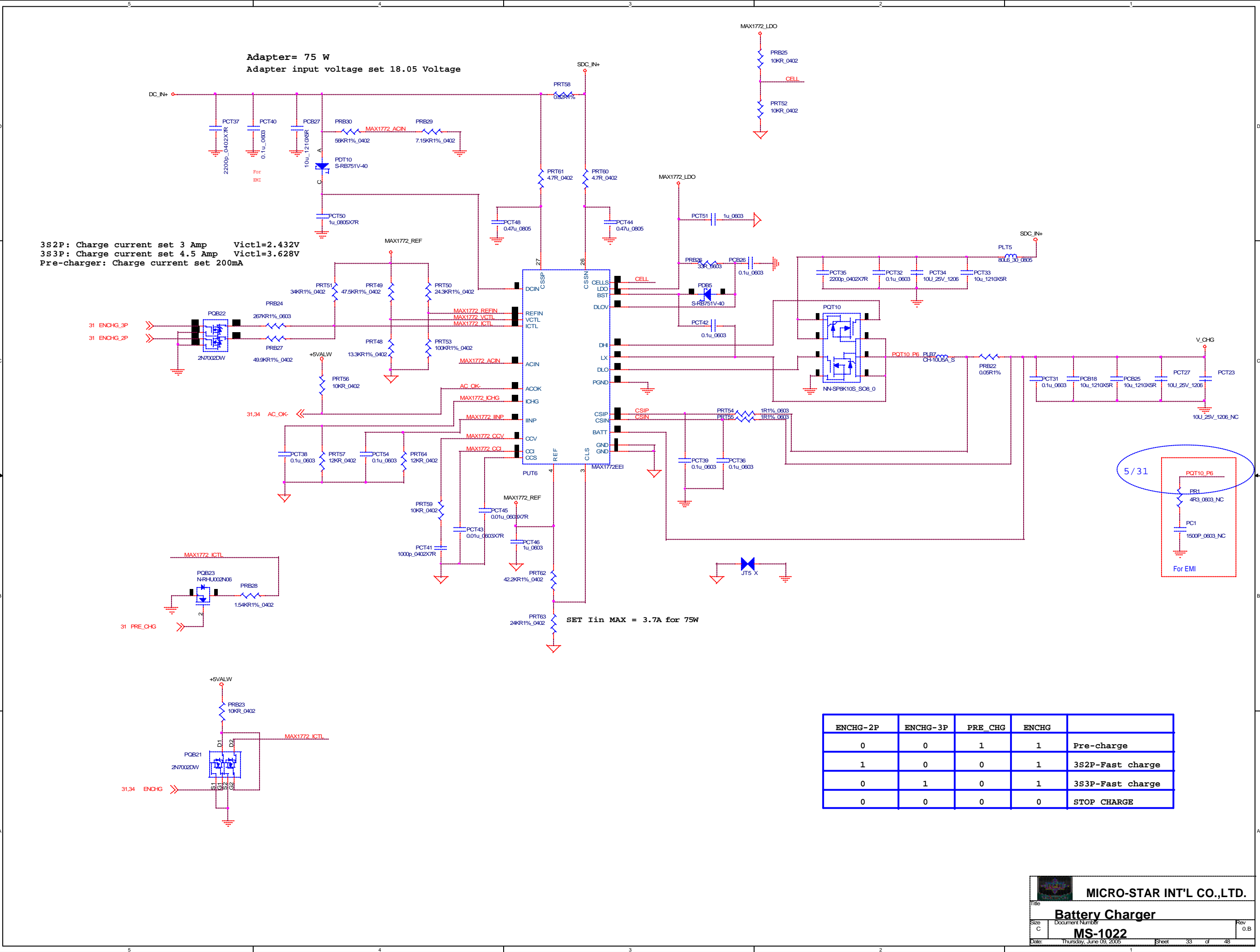


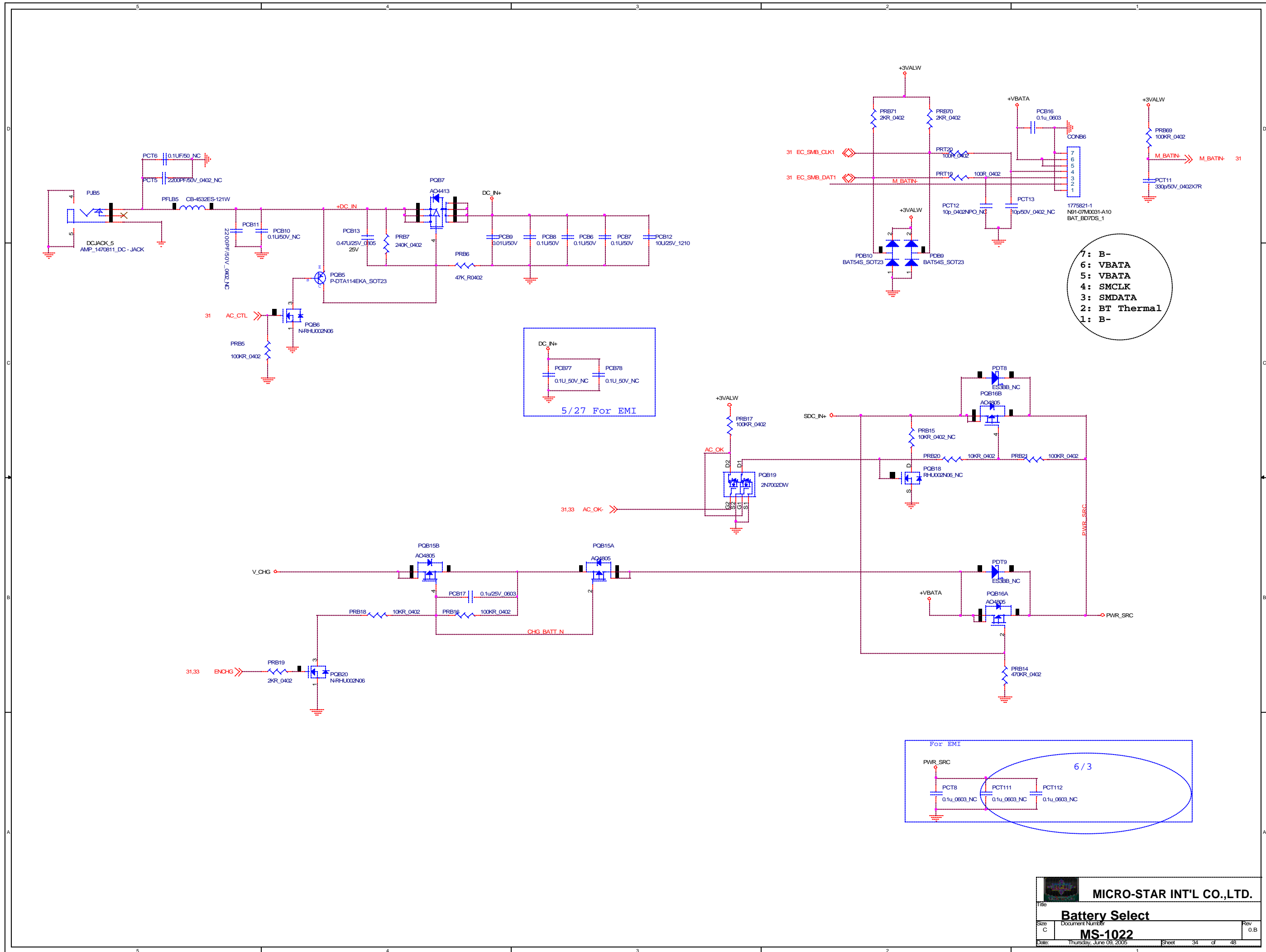


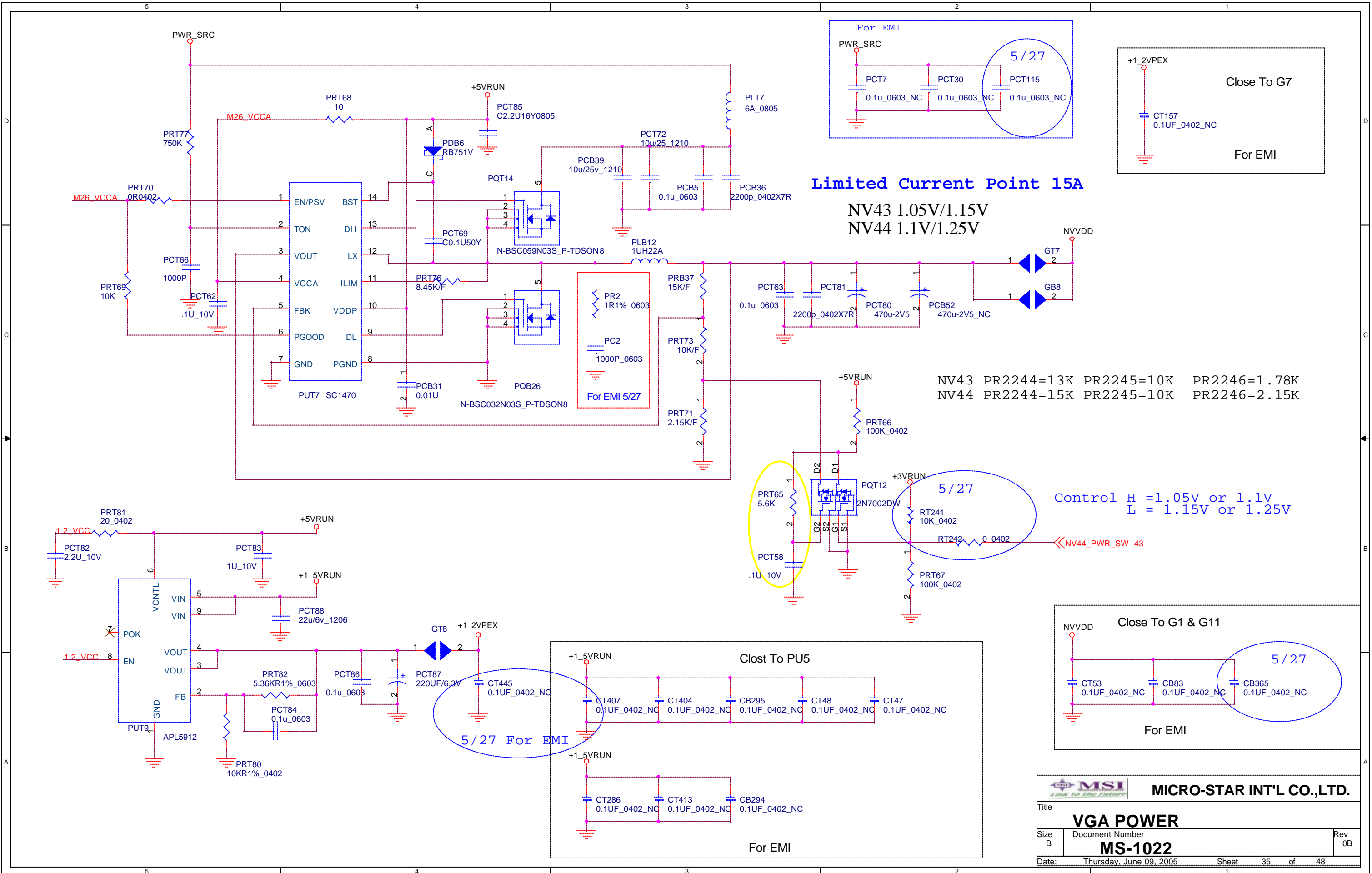
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10dB	0	1	0
15.6dB	1	0	0
21.6dB	1	1	0
4.3dB	X	X	1

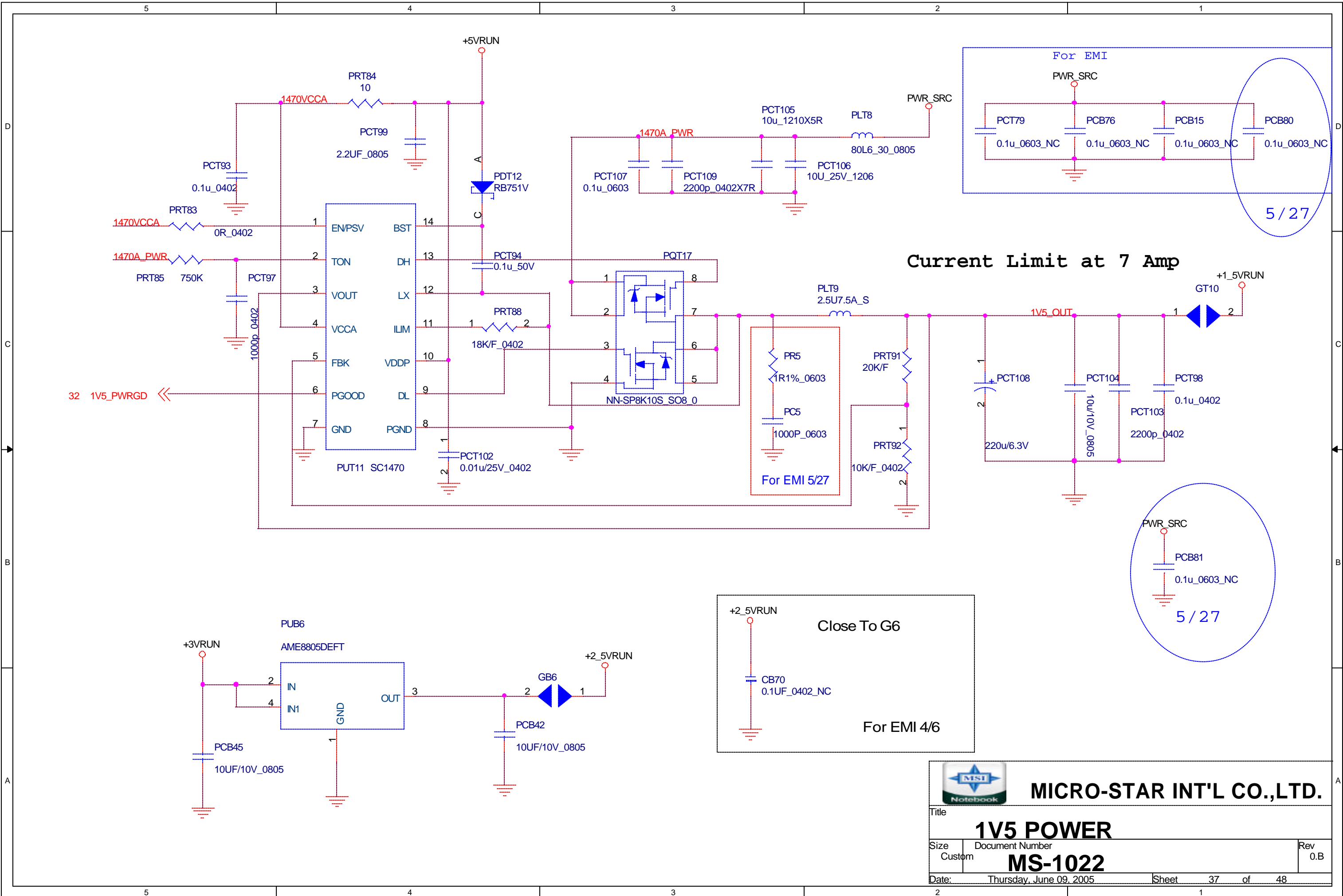






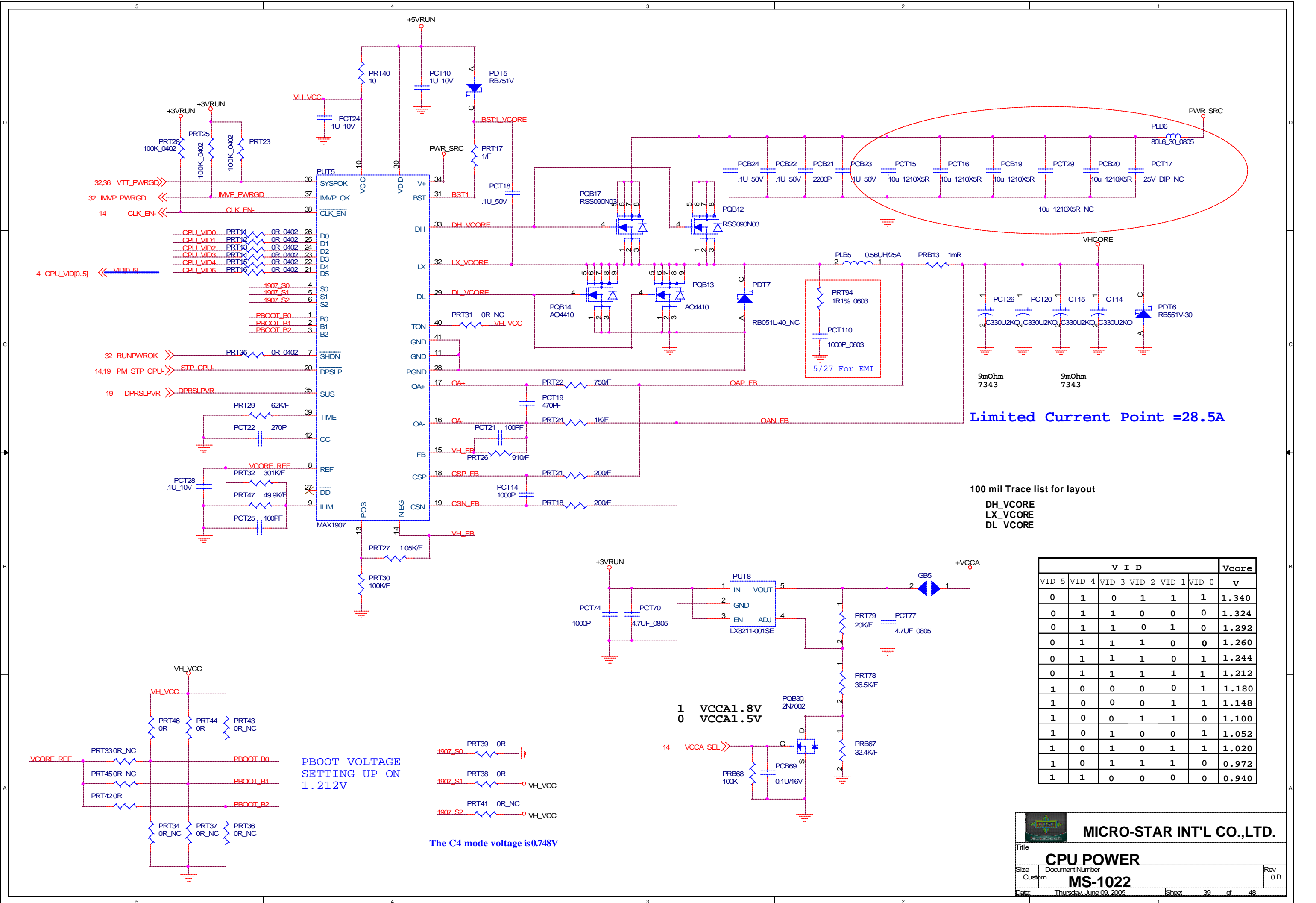






MICRO-STAR INT'L CO.,LTD.

Title		
1V5 POWER		
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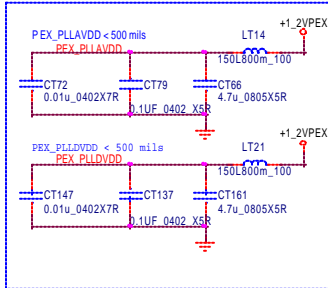


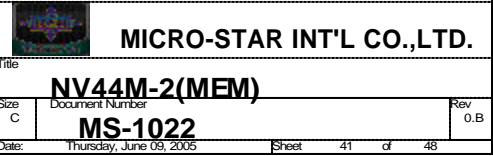
Limited Current Point =28.5A

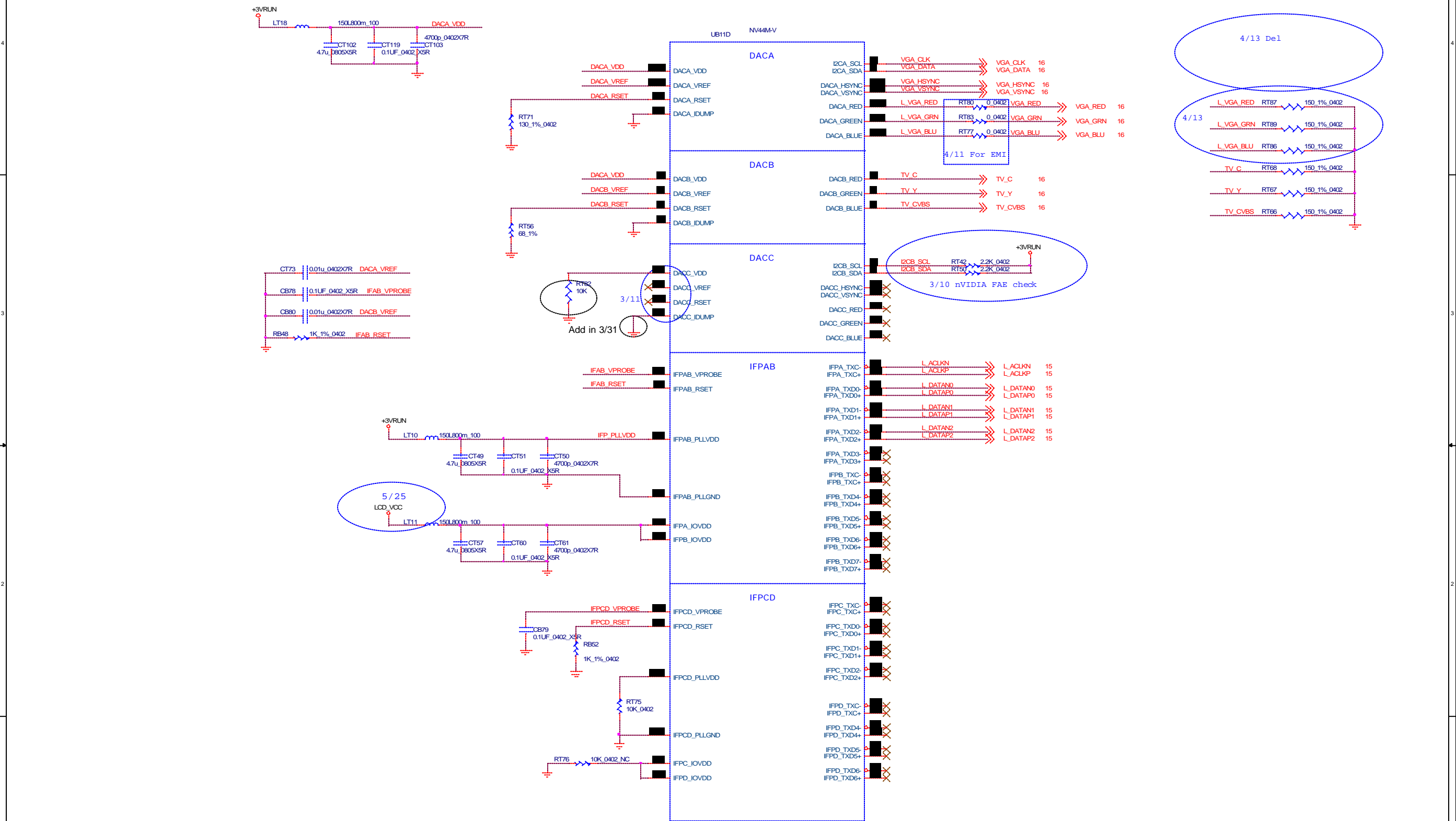
100 mil Trace list for layout

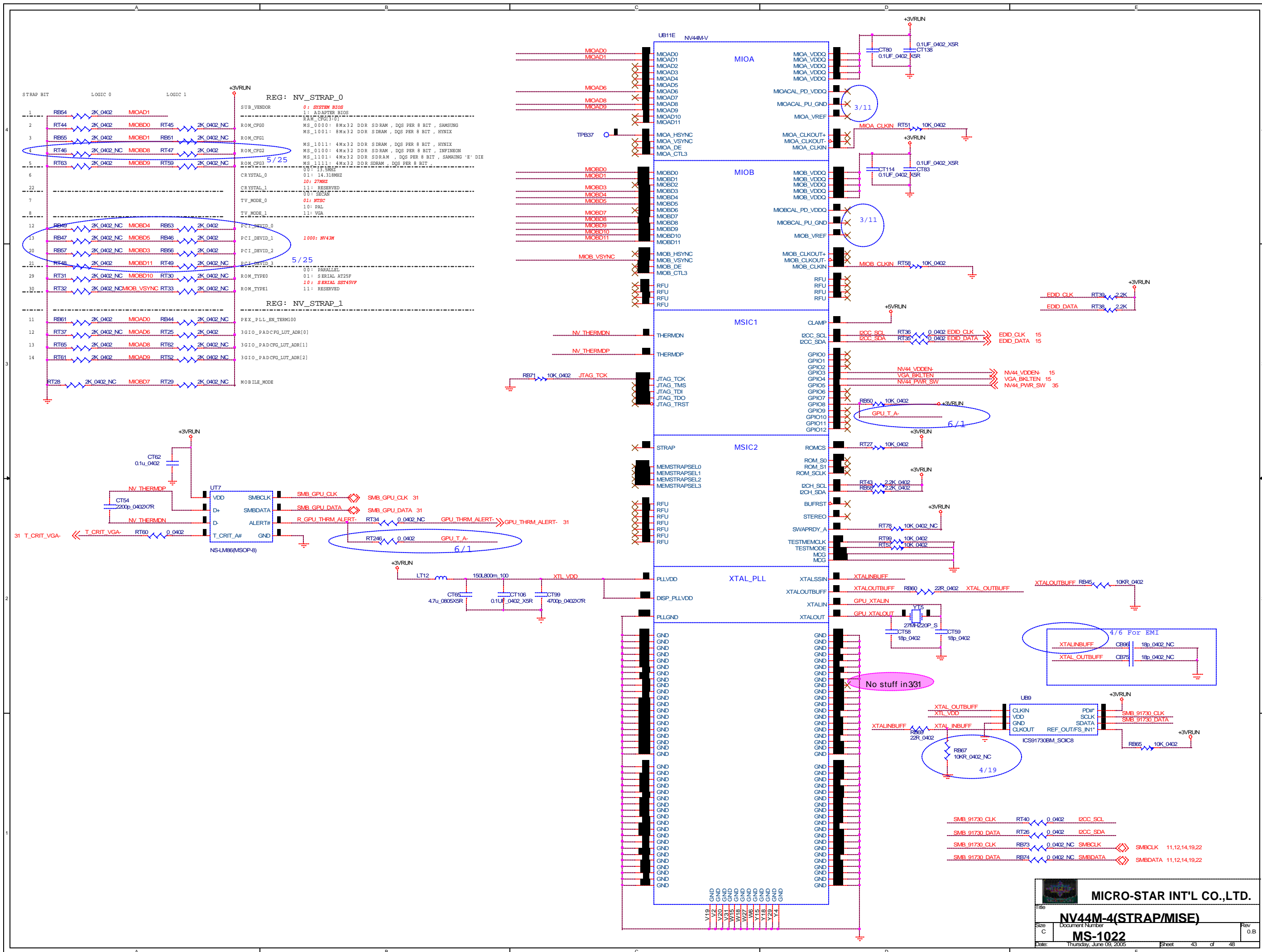
DH_VCORE
LX_VCORE
DL_VCORE

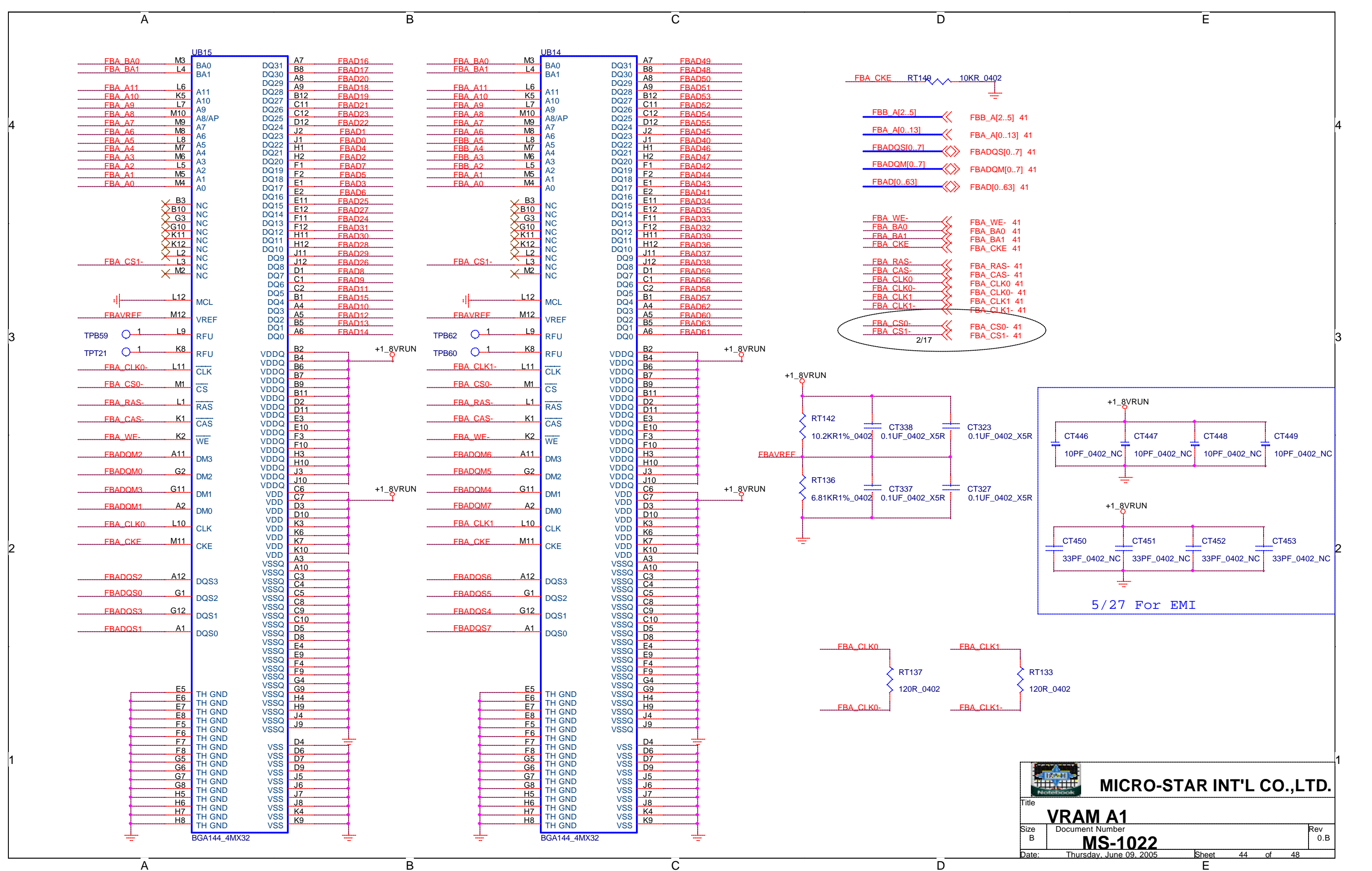
V I D						Vcore
VID 5	VID 4	VID 3	VID 2	VID 1	VID 0	v
0	1	0	1	1	1	1.340
0	1	1	0	0	0	1.324
0	1	1	0	1	0	1.292
0	1	1	1	0	0	1.260
0	1	1	1	0	1	1.244
0	1	1	1	1	1	1.212
1	0	0	0	0	1	1.180
1	0	0	0	1	1	1.148
1	0	0	1	1	0	1.100
1	0	1	0	0	1	1.052
1	0	1	0	1	1	1.020
1	0	1	1	1	0	0.972
1	1	0	0	0	0	0.940

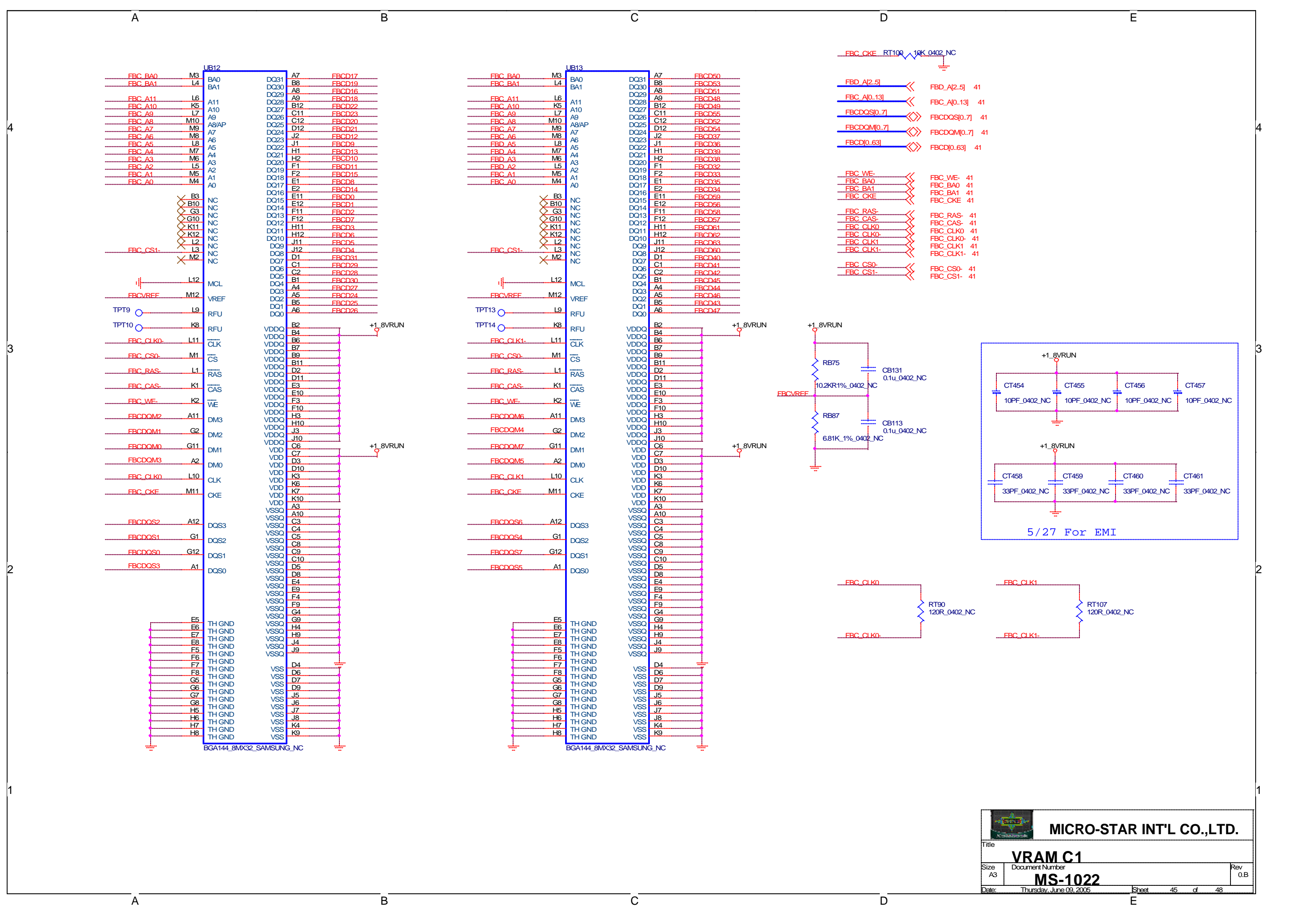


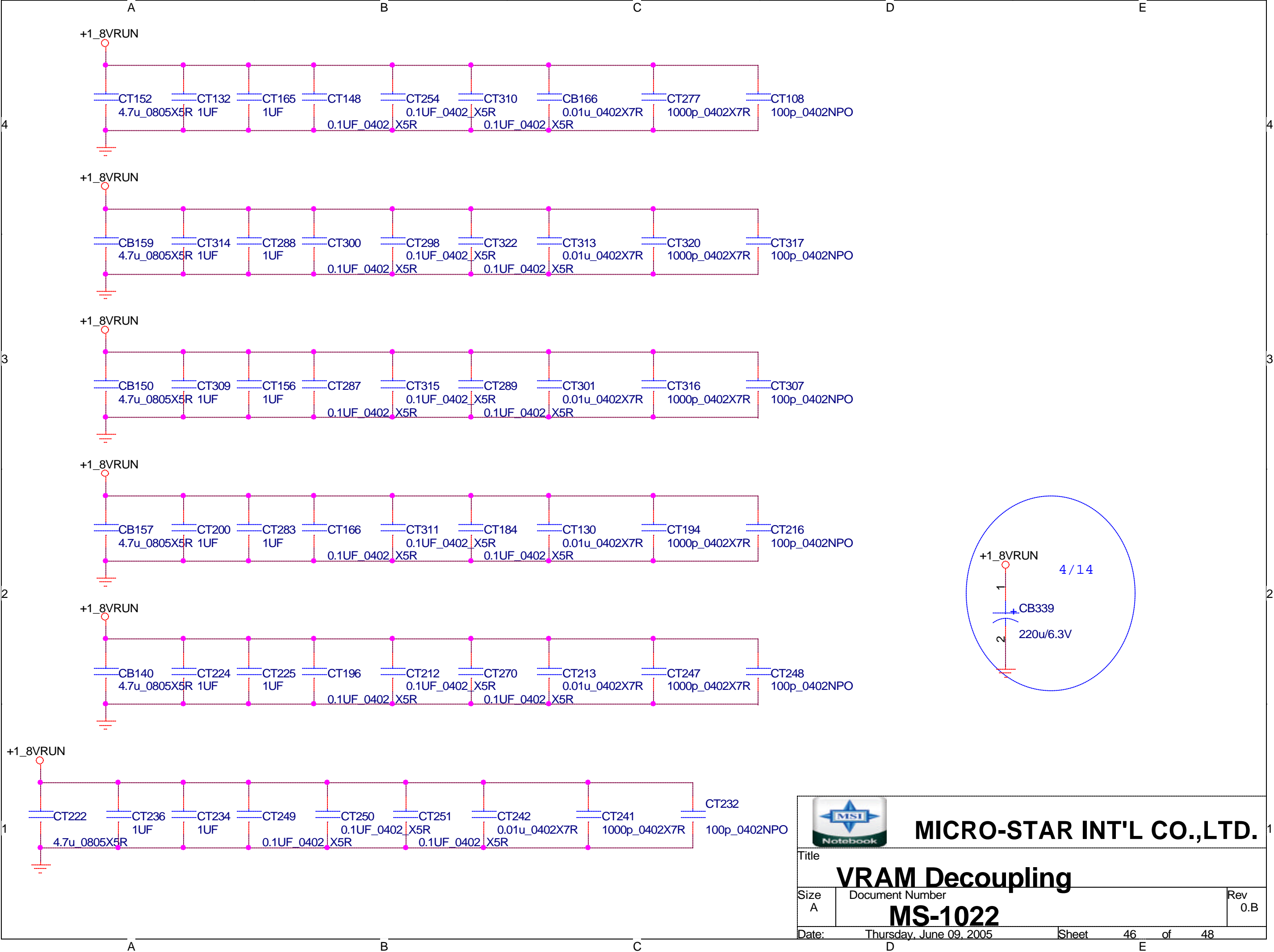












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