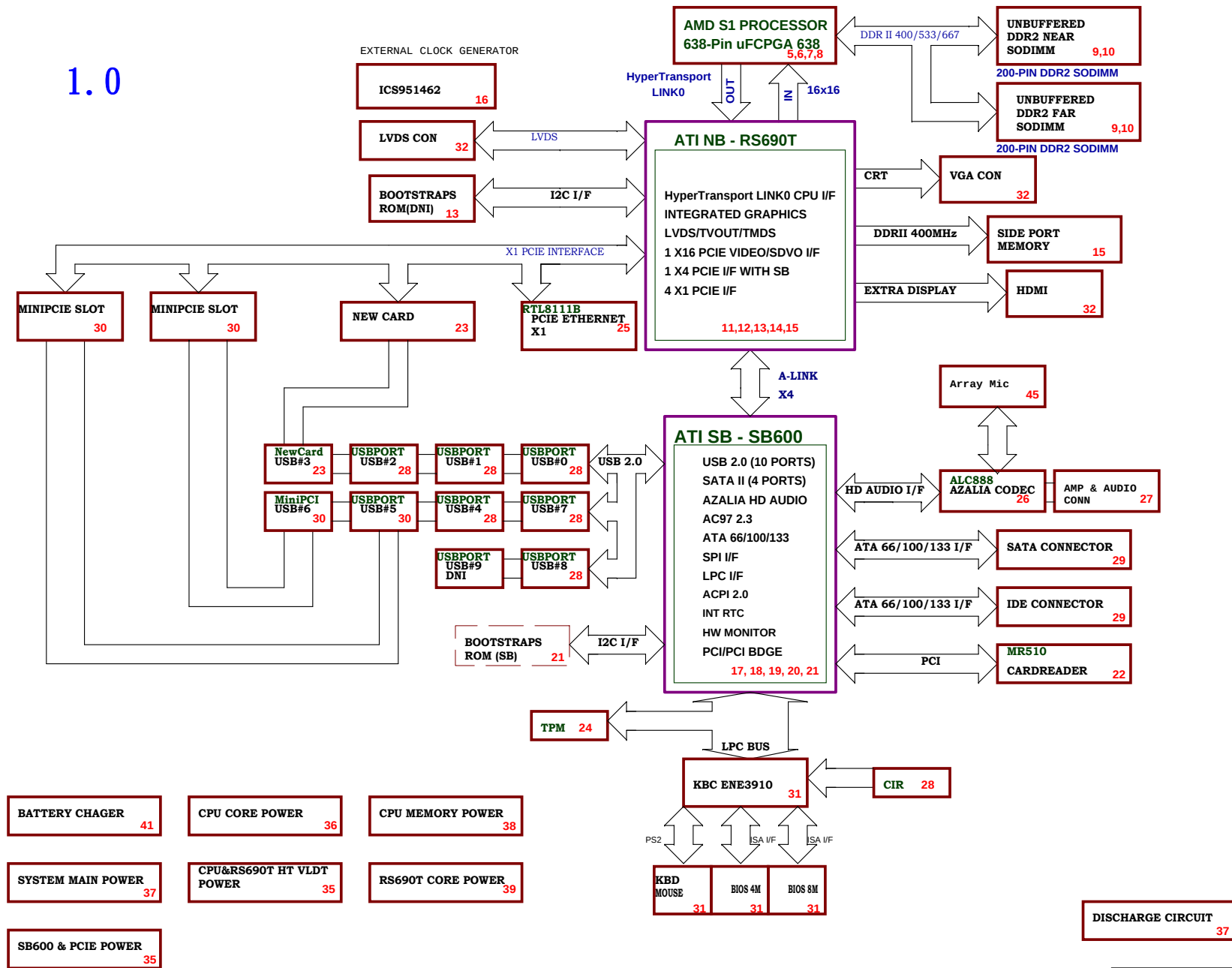


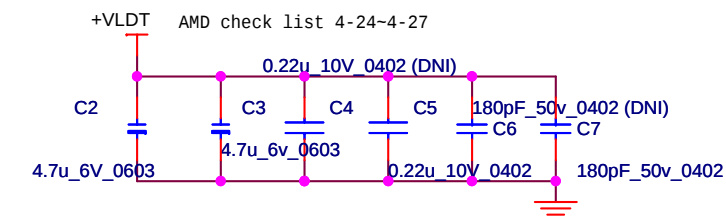
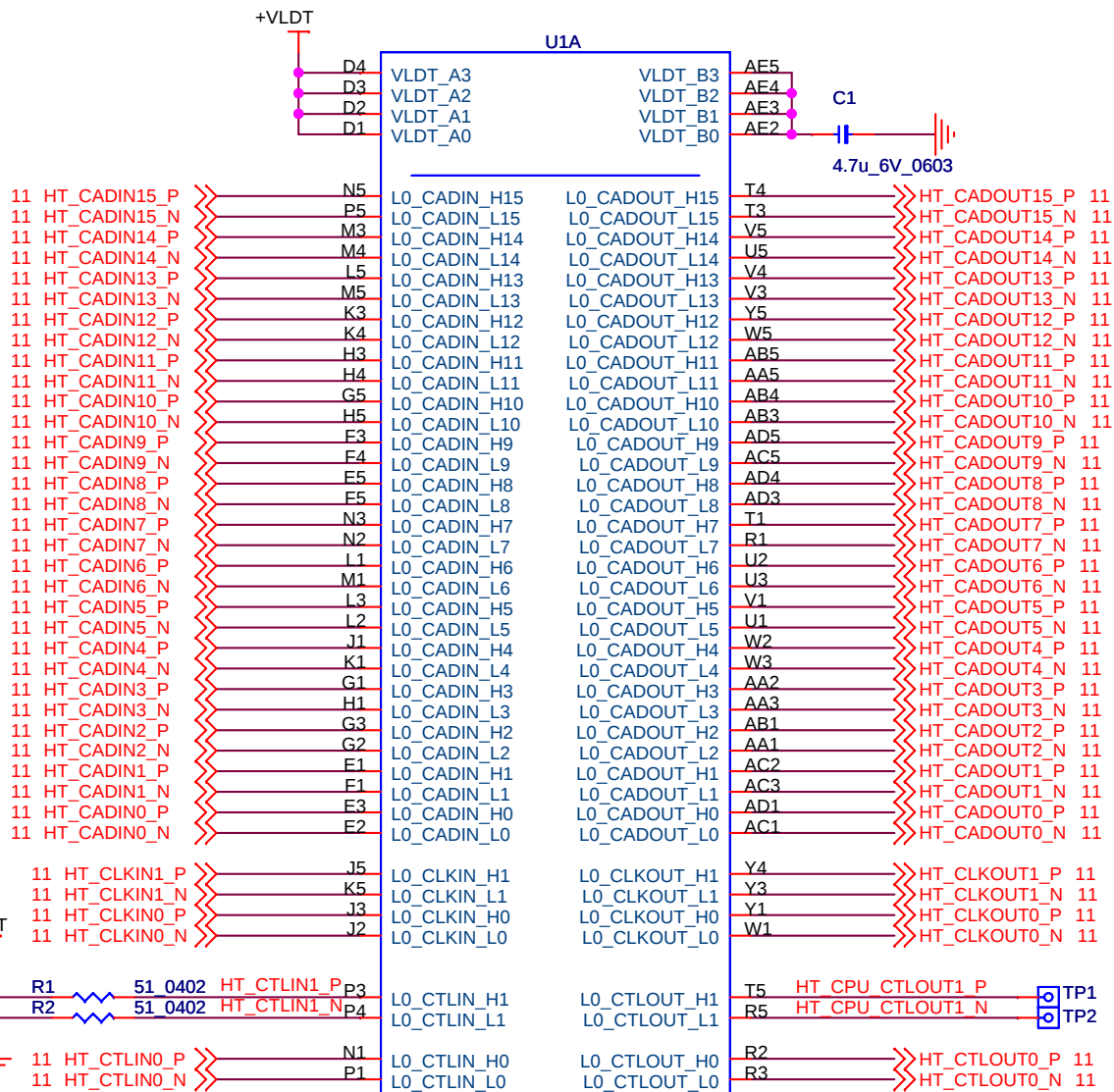
1.0





PROCESSOR HYPERTRANSPORT INTERFACE

VLDT_Ax AND VLDT_Bx ARE CONNECTED TO THE LDT_RUN POWER SUPPLY THROUGH THE PACKAGE OR ON THE DIE. IT IS ONLY CONNECTED ON THE BOARD TO DECOUPLING NEAR THE CPU PACKAGE



LAYOUT: Place bypass cap on topside of board



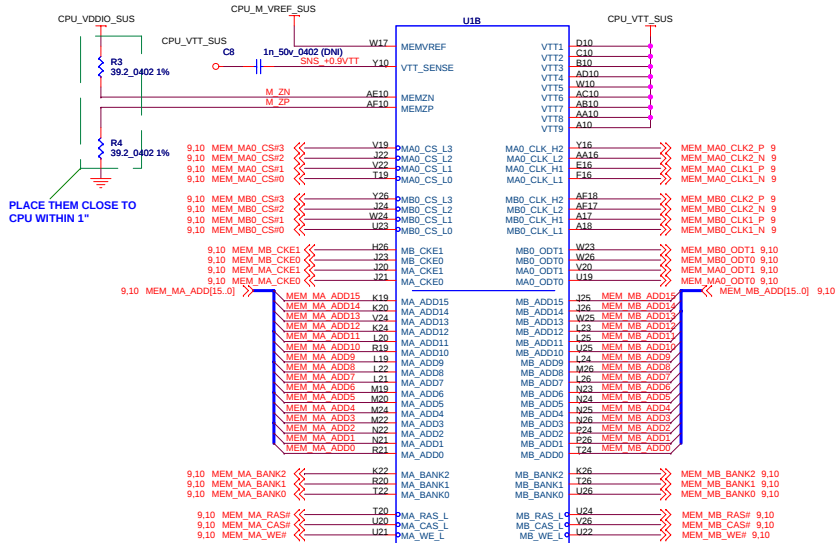
NEAR HT POWER PINS THAT ARE NOT CONNECTED DIRECTLY TO DOWNSTREAM HT DEVICE, BUT CONNECTED INTERNALLY TO OTHER HT POWER PINS
PLACE CLOSE TO VLDT0 POWER PINS

Athlon 64 S1
Processor
Socket

 MICRO-STAR INT'L CO.,LTD.	
Title SOCKET S1 HT I/F	
Size Custom	Document Number MS-12221
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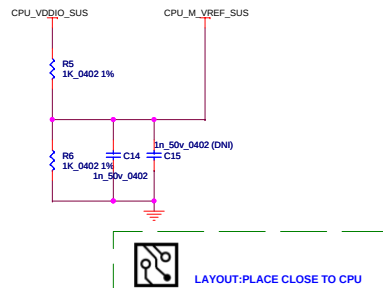
Processor DDR2 Memory Interface

VDD, VTT, SUS, CPU, IS CONNECTED TO THE VDD, VTT, SUS POWER SUPPLY THROUGH THE PACKAGE OR ON THE DIE. IT IS ONLY CONNECTED ON THE BOARD TO DECOUPLING NEAR THE CPU PACKAGE.

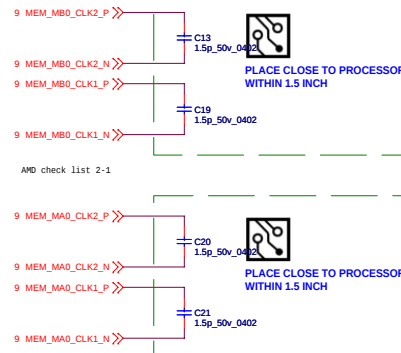


DDR II: CMD/CTL/CLK
Athlon 64 S1
Processor Socket

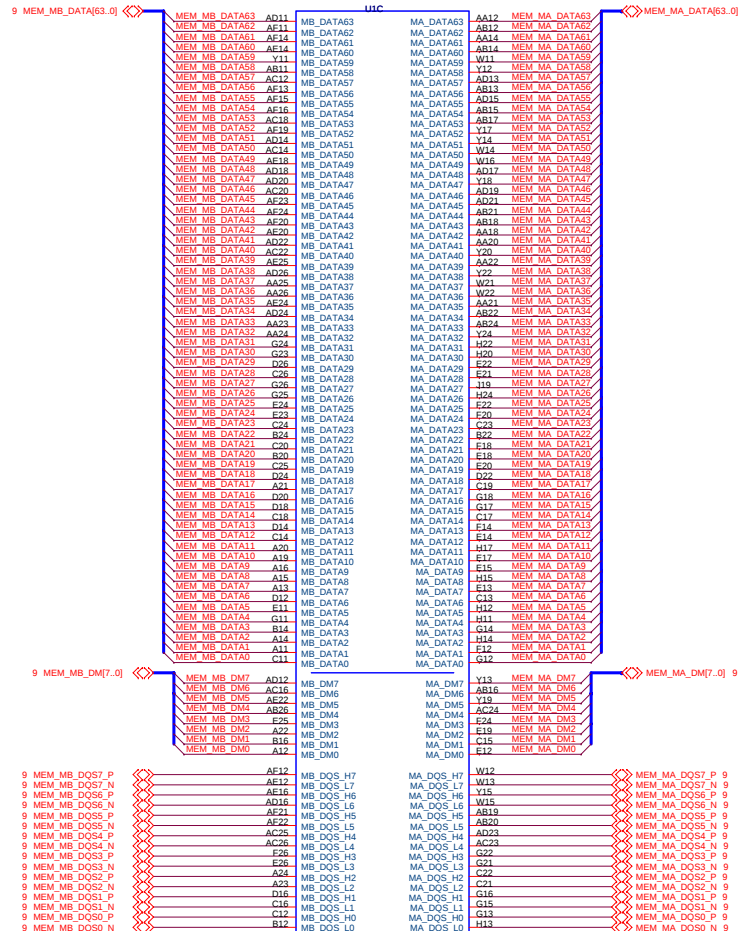
VDD, VREF, SUS, CPU



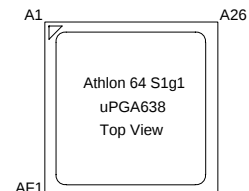
LAYOUT: PLACE CLOSE TO CPU



AMD check list 2-1



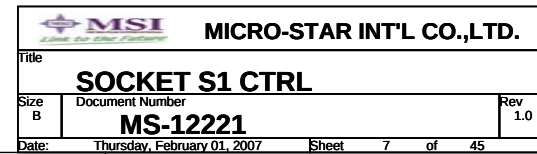
DDR: DATA
Athlon 64 S1
Processor Socket

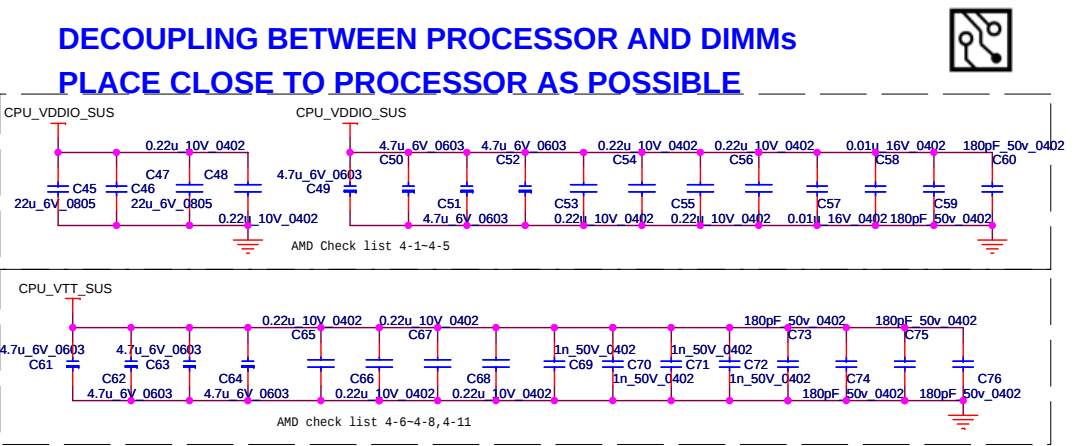
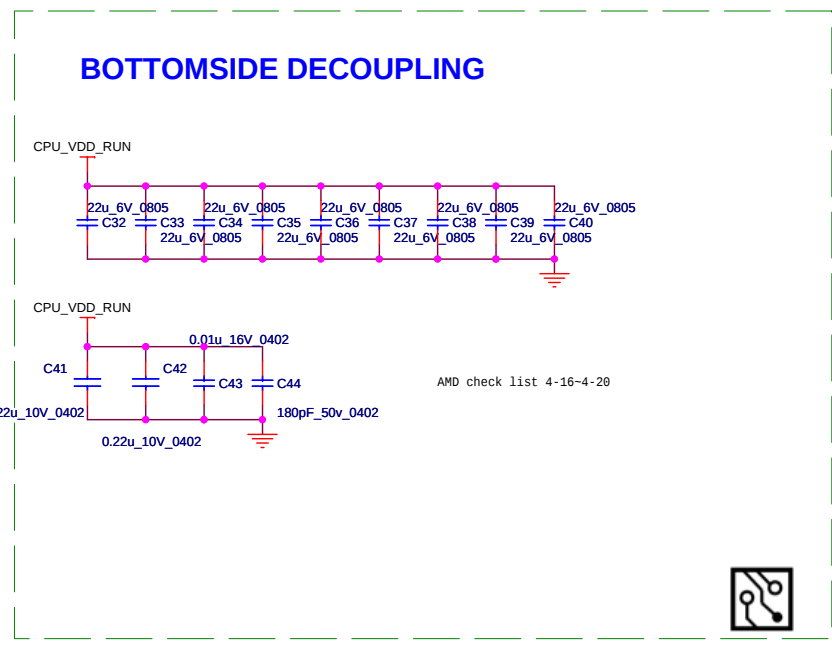
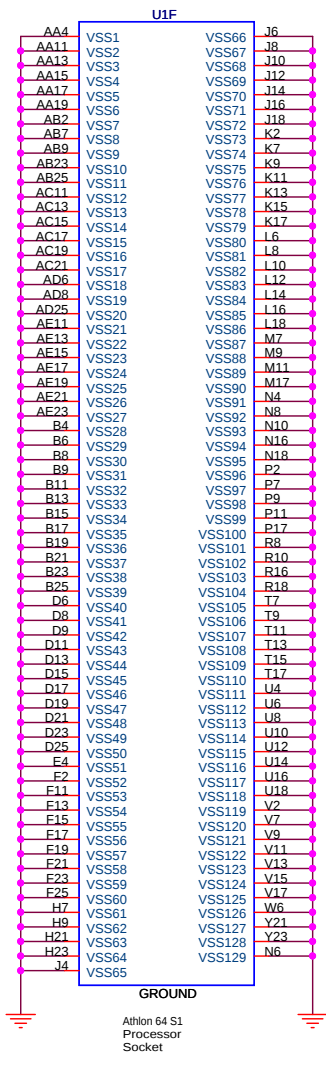
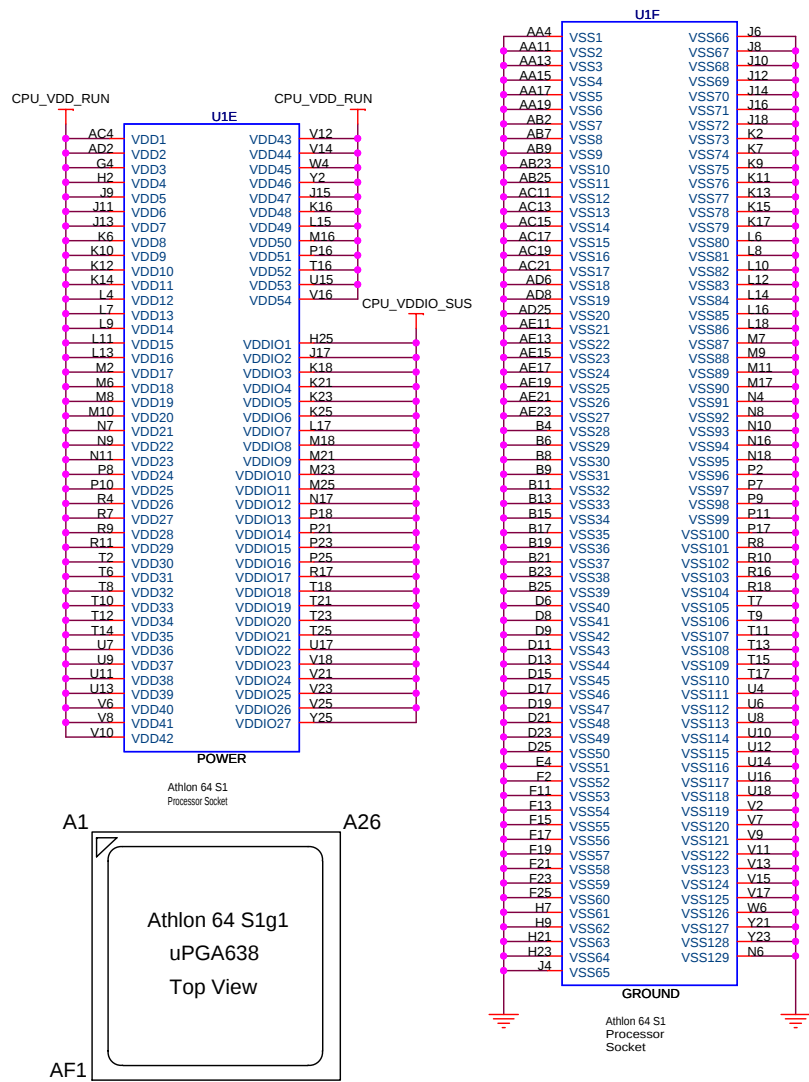


LAYOUT: ROUTE VDDA TRACE APPROX.
50 mils WIDE (USE 2x25 mil TRACES TO
EXIT BALL FIELD) AND 500 mils LONG.

maximun
40 ohm

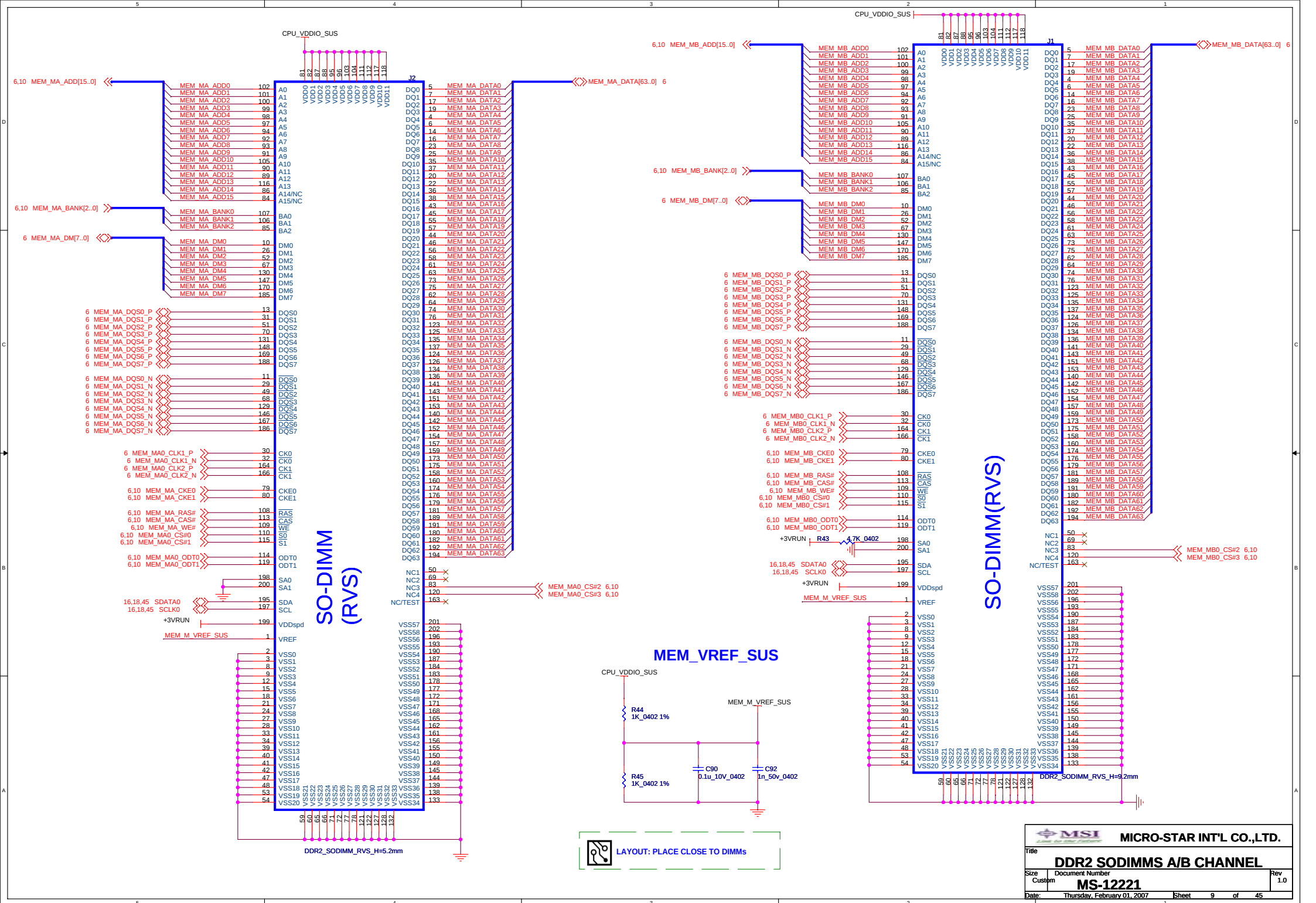
CPU_VDDIO_SUS

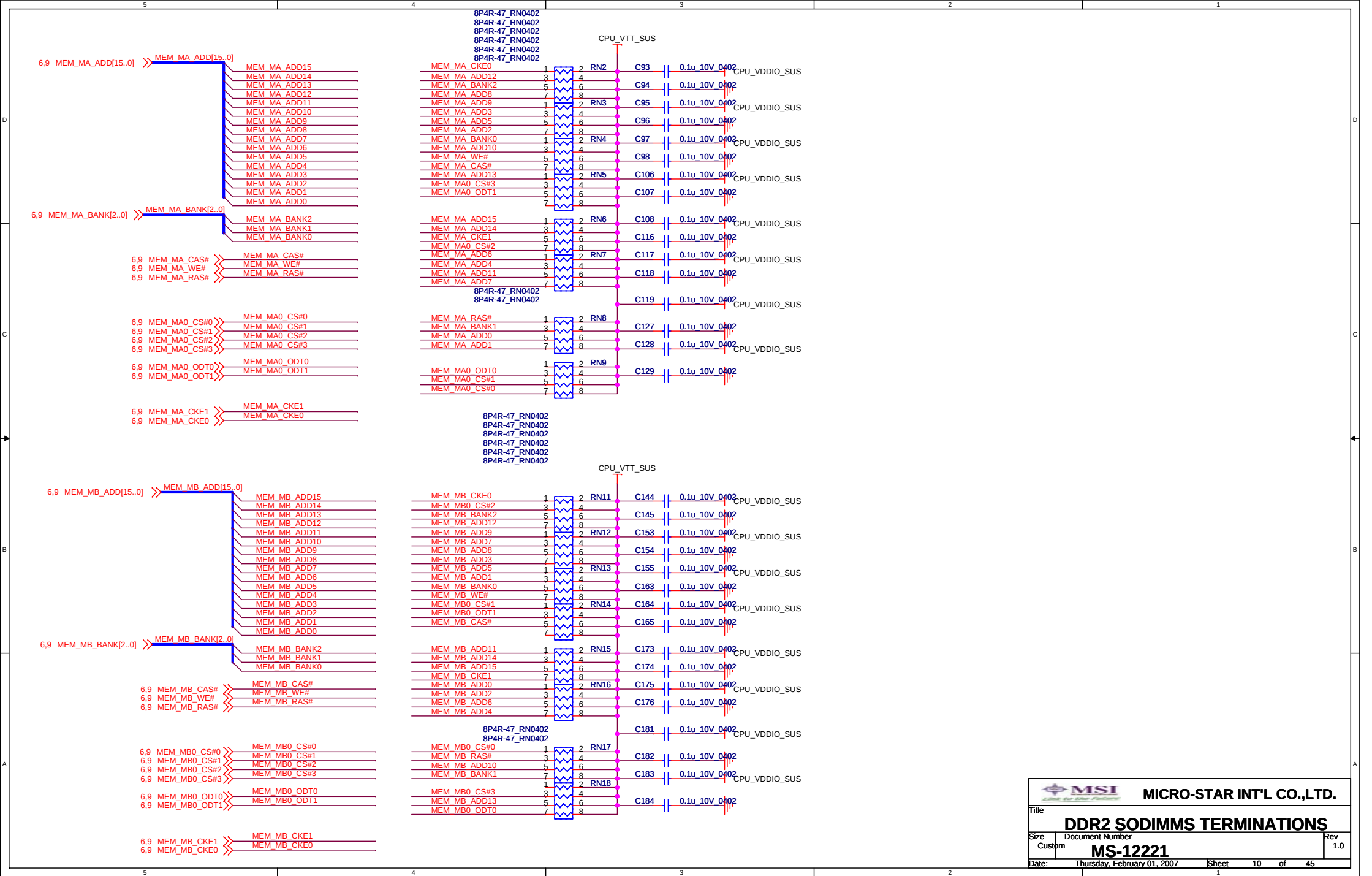


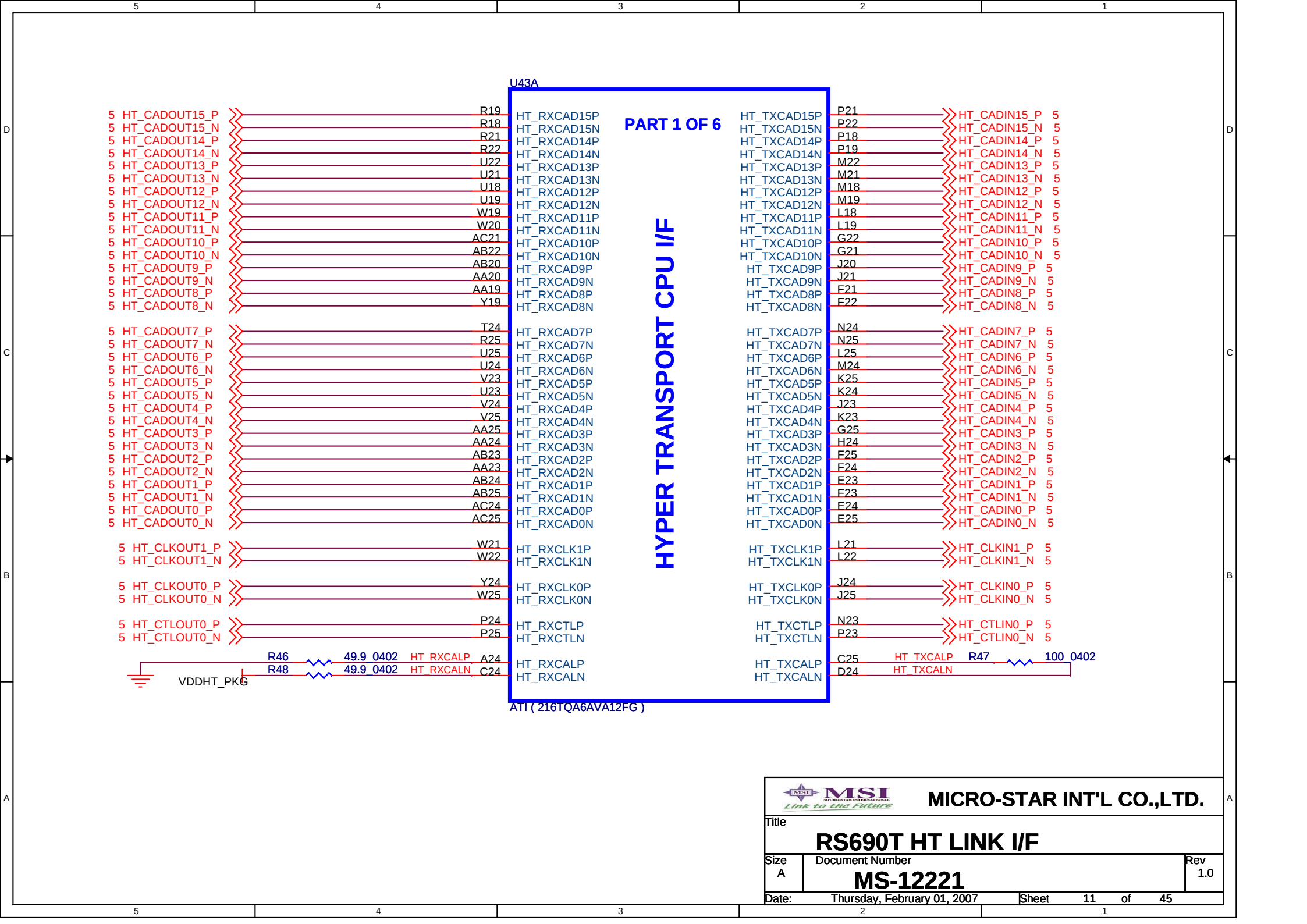


PROCESSOR POWER AND GROUND

 MICRO-STAR INT'L CO.,LTD.			
Title			
SOCKET S1 PWR & GND			
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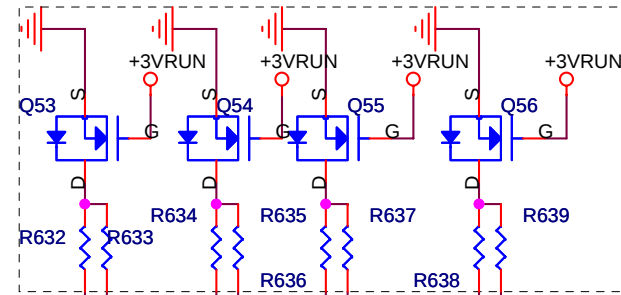




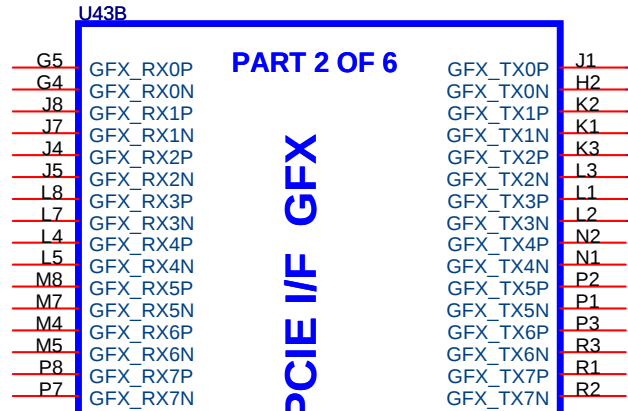


Errata PA_IGPGENF5

715_0402 N-2N7002_SOT23
715_0402 N-2N7002_SOT23
715_0402 N-2N7002_SOT23
715_0402 N-2N7002_SOT23
715_0402 N-2N7002_SOT23
715_0402 N-2N7002_SOT23

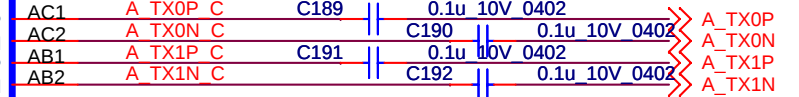
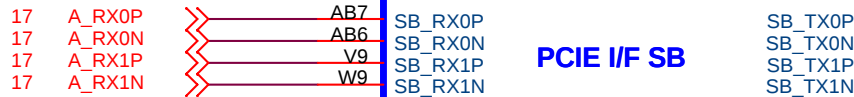
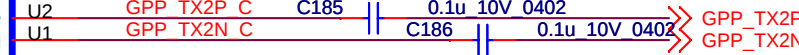
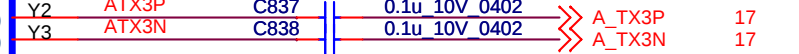
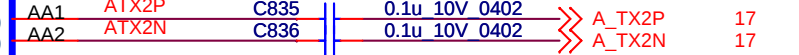


Harry 2007/01/18



Place these Caps close to HDMI connect

HDMI I/F



ATI (216TQA6AVA12FG)

R50 5620hm
R52 2K0hm



MICRO-STAR INT'L CO.,LTD.

Title

RS690T PCI-E LINK&HDMI I/F

Size
A

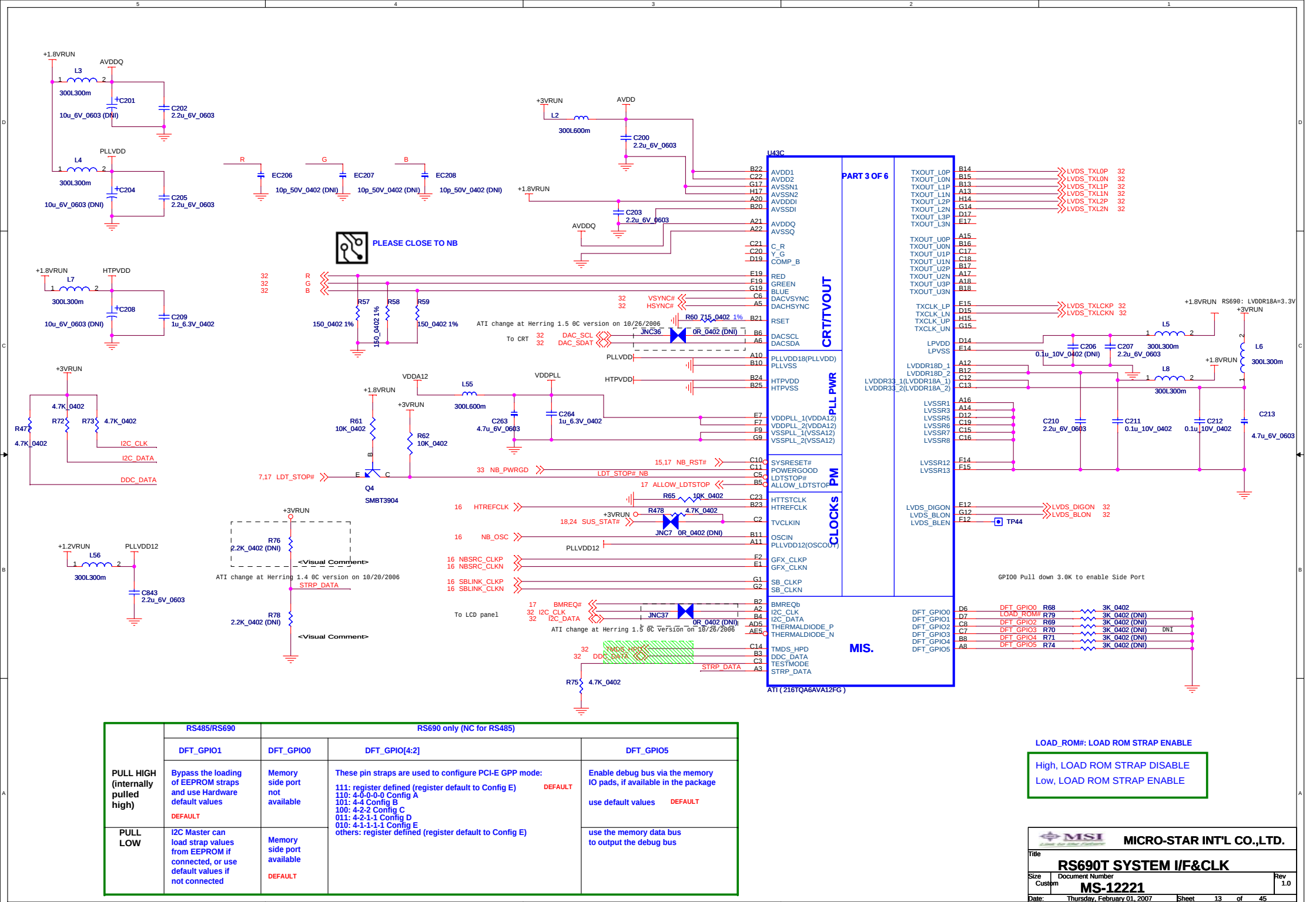
Document Number

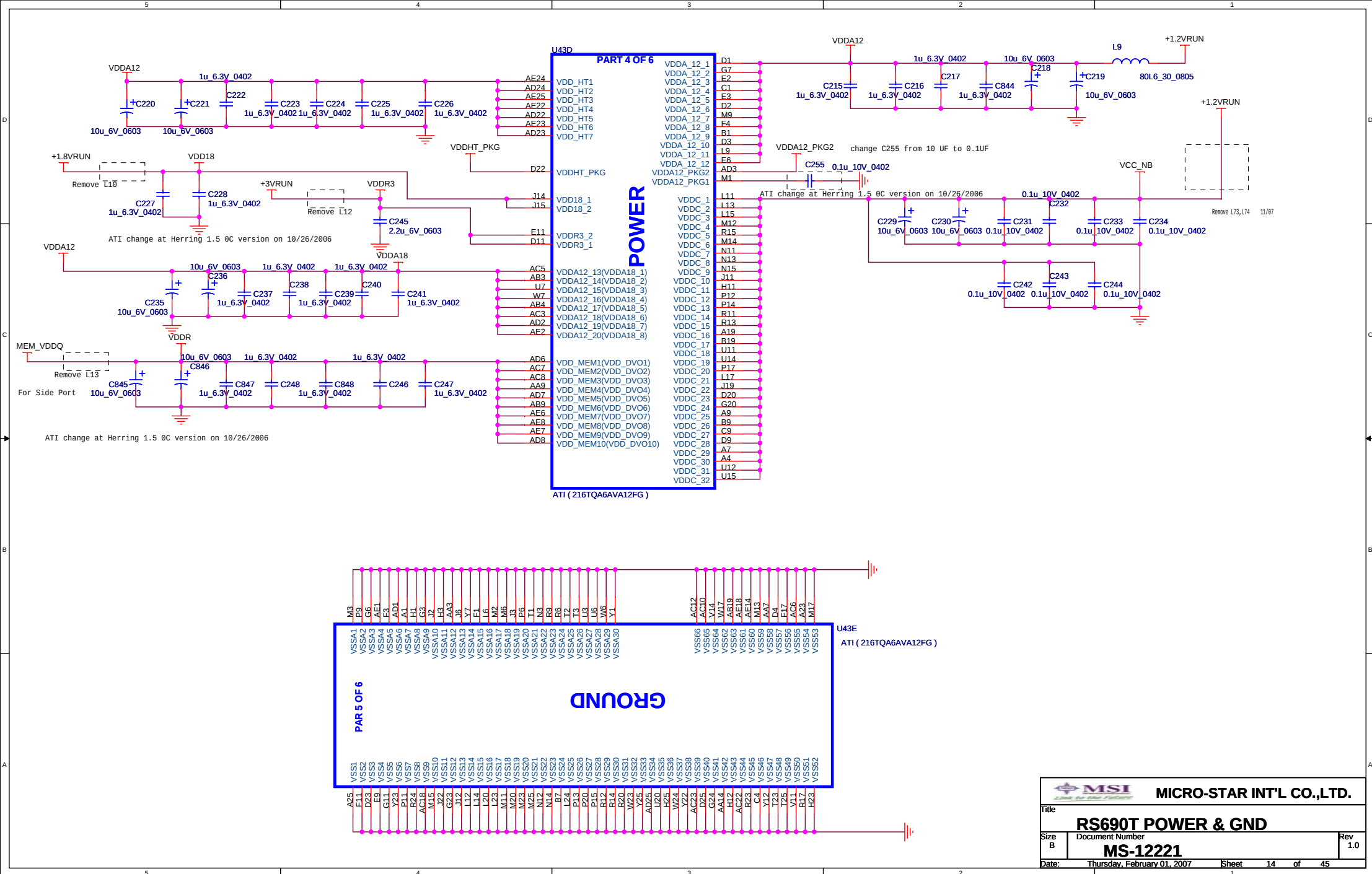
MS-12221

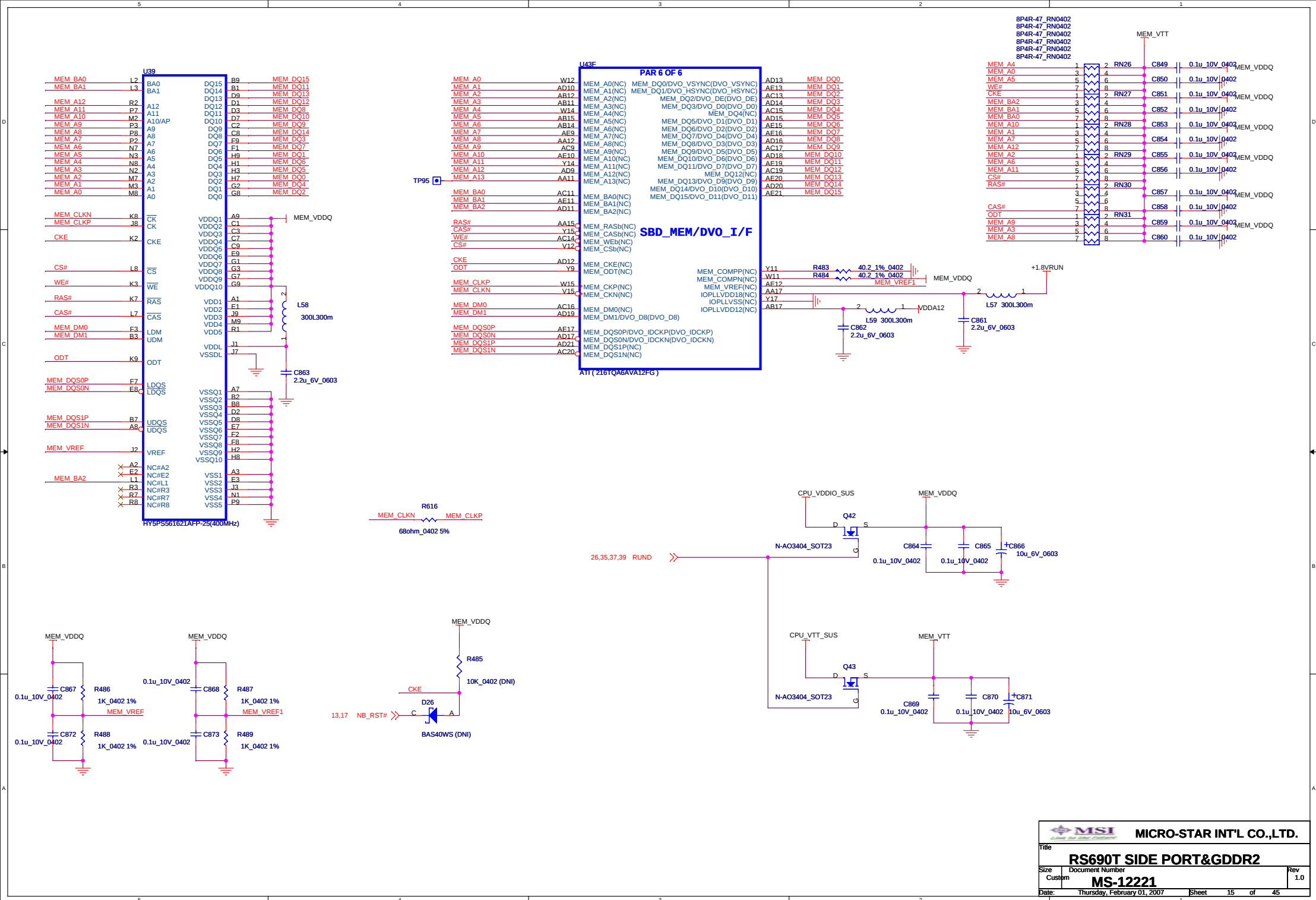
Rev
1.0

Date: Thursday, February 01, 2007

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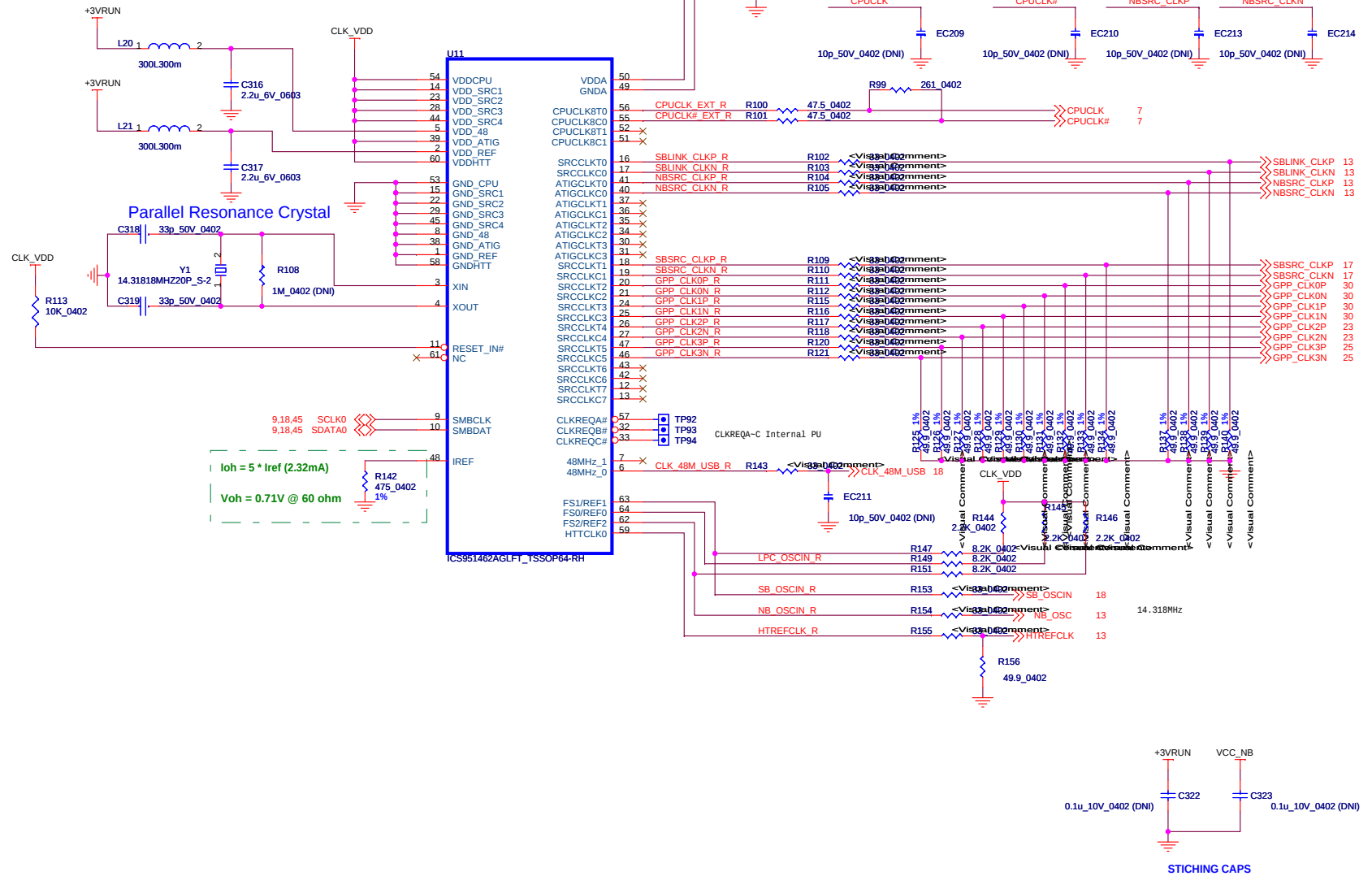


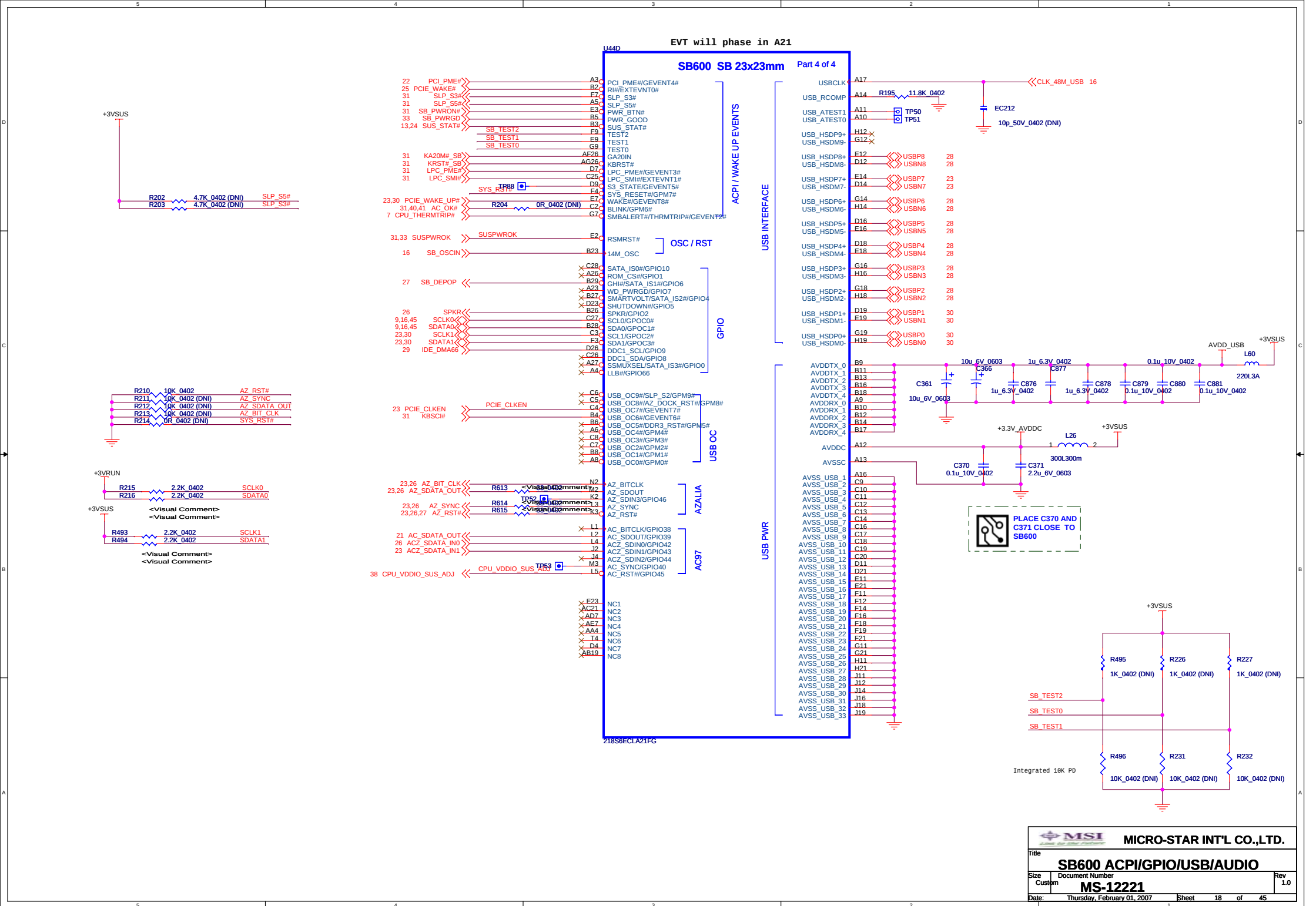


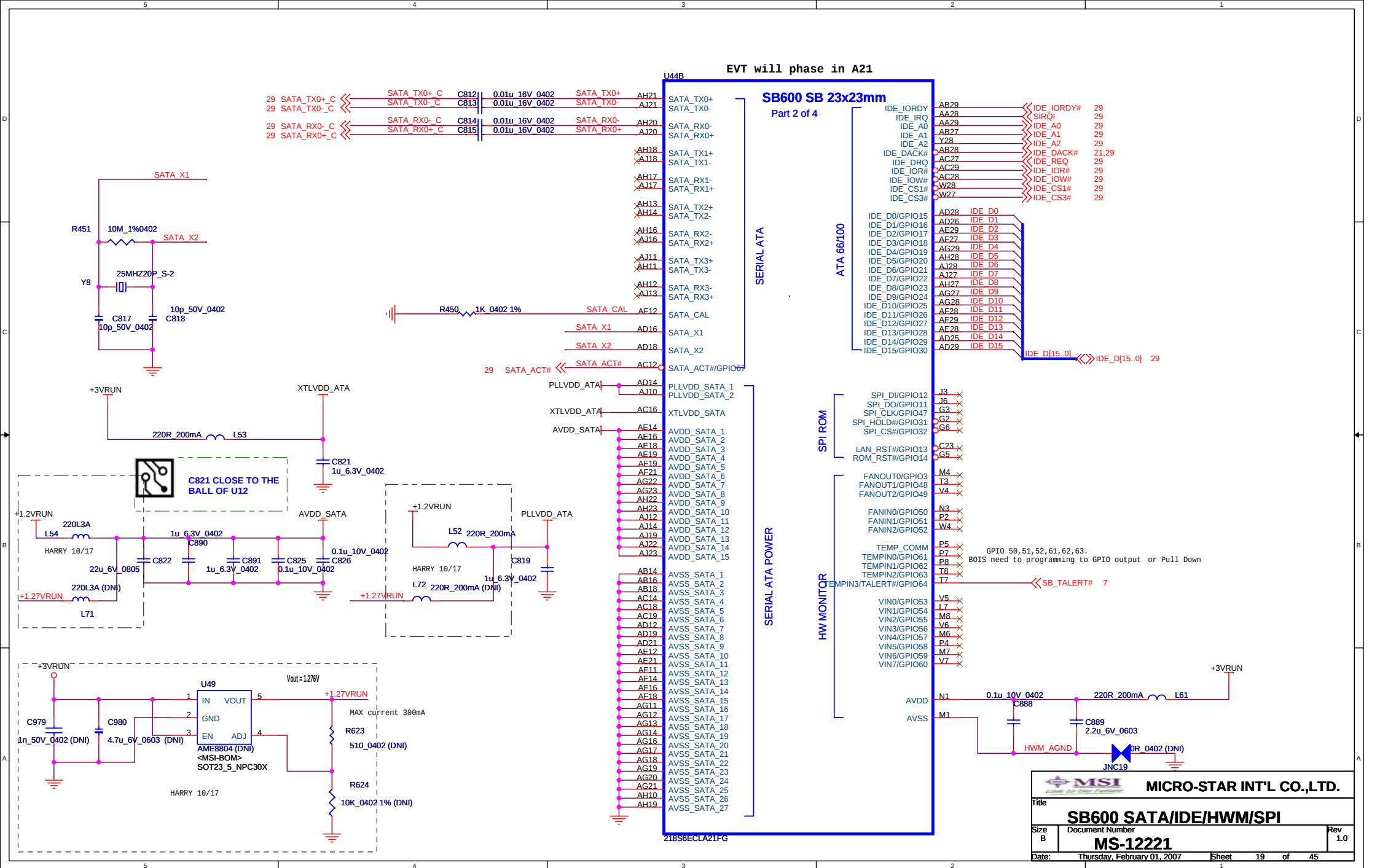




- 1- PLACE ALL SERIAL TERMINATION RESISTORS CLOSE TO U11
- 2- PUT DECOUPLING CAPS CLOSE TO U11 POWER PIN

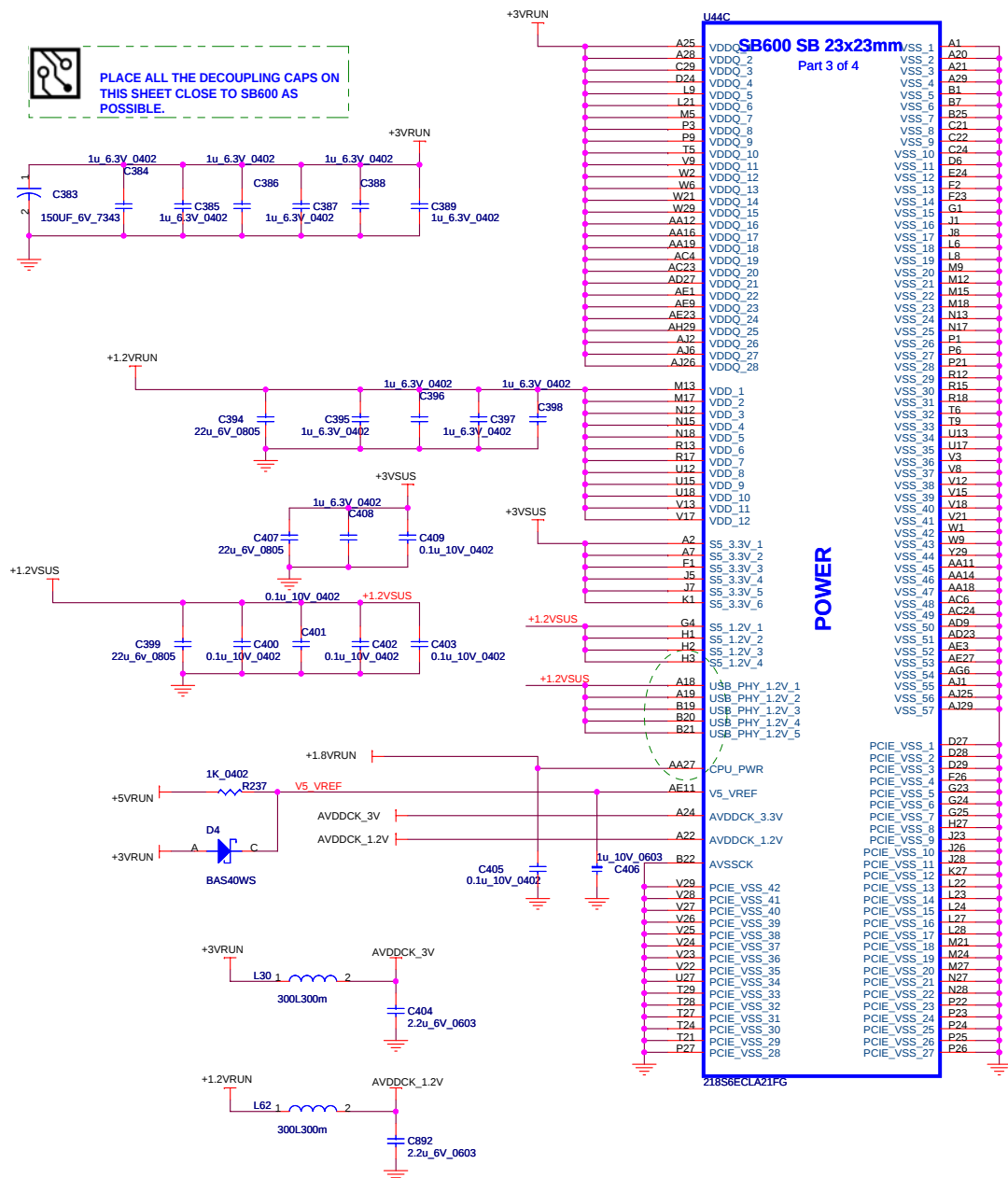








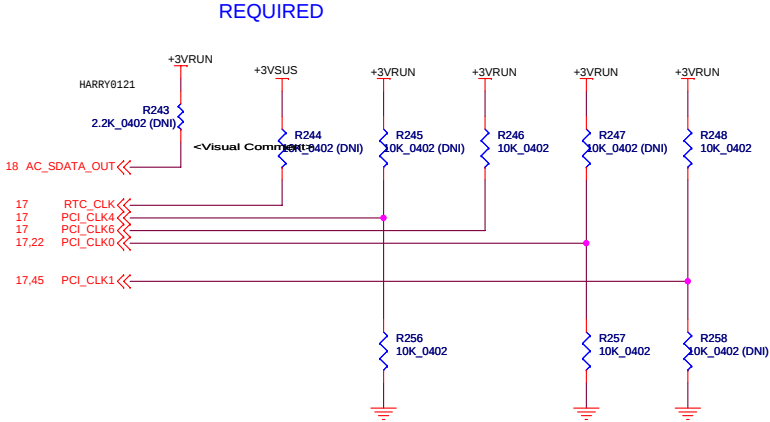
PLACE ALL THE DECOUPLING CAPS ON THIS SHEET CLOSE TO SB600 AS POSSIBLE.



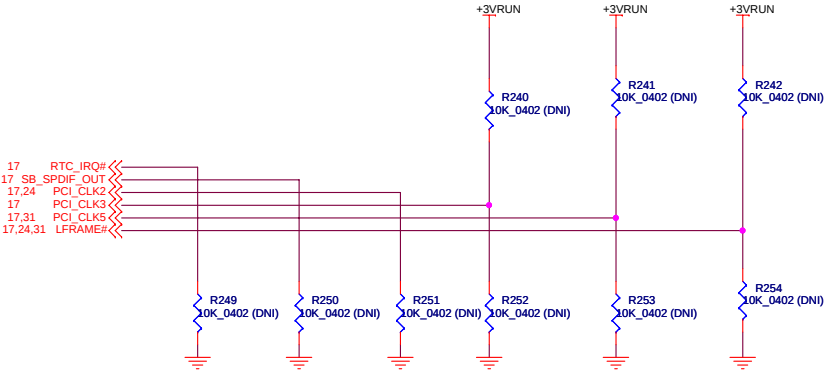
POWER

REQUIRED STRAPS

NPTE: FOR SB460, EXTERNAL PU/PD ARE REQUIRED



SPDIF_OUT Integrated 15K PU/PD. Default: PU/PD not enable. BIOS must confirm with AMI/ATI

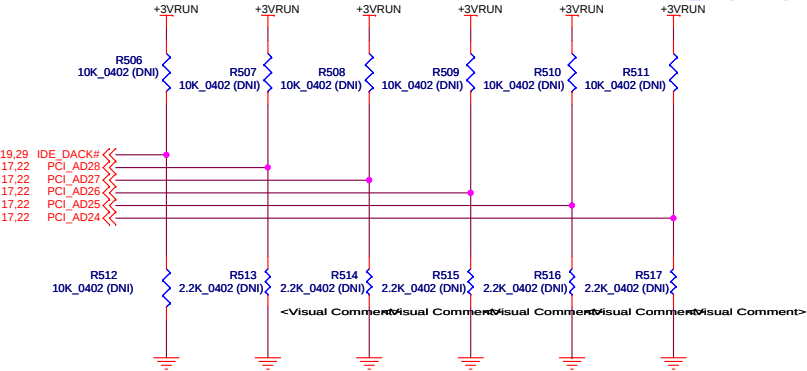


SB600						
PULL HIGH	AC_SDOUT	RTC_CLK	PCI_CLK4	PCI_CLK6	PCI_CLK0	PCI_CLK1
	USE DEBUG STRAPS DEFAULT	INTERNAL RTC DEFAULT	USE INT. PLL48	CPU IF=K8 DEFAULT	ROM TYPE: H, H = PCI ROM H, L = SPI ROM L, H = LPC ROM L, L = FWH ROM DEFAULT	
PULL LOW	IGNORE DEBUG STRAPS DEFAULT	EXTERNAL RTC	USE EXT. 48MHZ DEFAULT	CPU IF=P4		

	ACPWRON	SPDIF_OUT	PCI_CLK2	PCI_CLK3	PCI_CLK5	LFRAME#
PULL HIGH	MANUAL PWR ON DEFAULT	SIO 24MHz	XTAL MODE NOT SUPPORTED	USB PHY POWERDOWN DISABLE DEFAULT	PCIE_CM_SET LOW DEFAULT	ENABLE THERMTRIP# DEFAULT
PULL LOW	AUTO PWR ON	SIO 48MHz DEFAULT	48MHZ OSC MODE DEFAULT	USB PHY POWERDOWN ENABLE	PCIE_CM_SET HIGH	DISABLE THERMTRIP#

DEBUG STRAPS

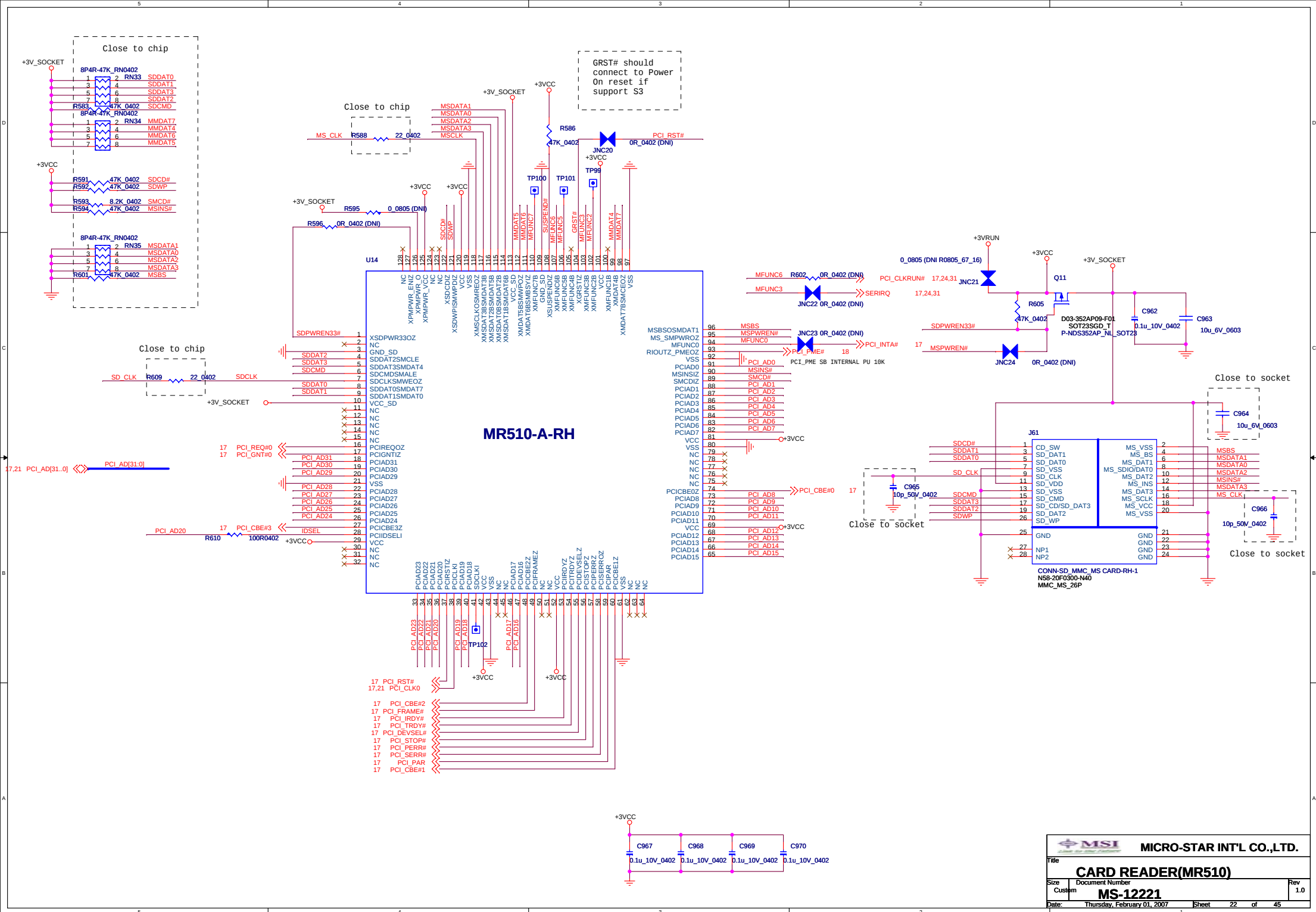
SB600 HAS 15K INTERNAL PU FOR PCI_AD[31:23]

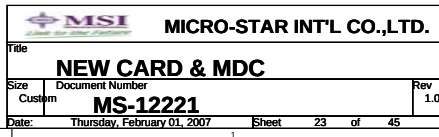


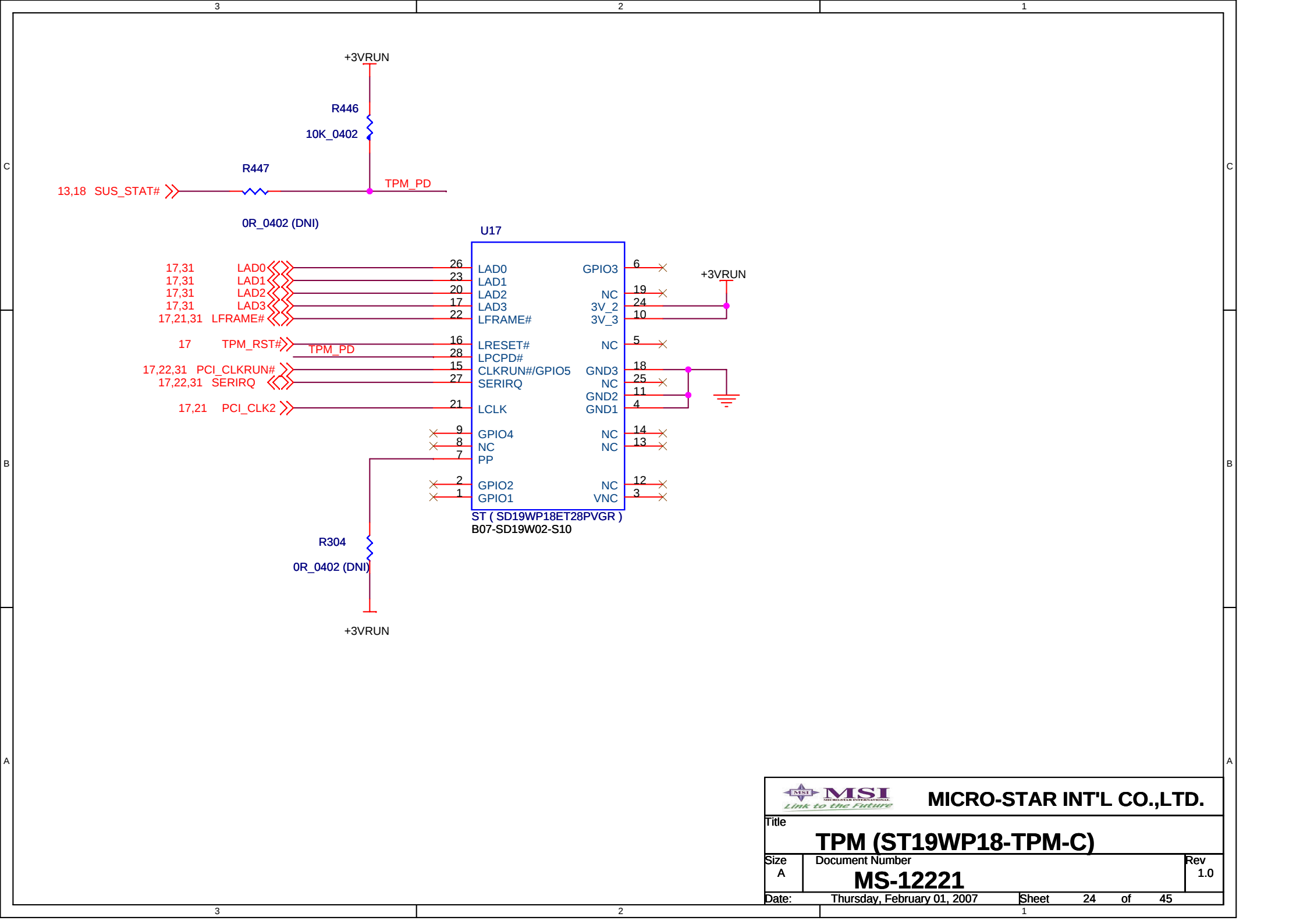
	PCI_AD28	PCI_AD27	PCI_AD26	PCI_AD25	PCI_AD24
PULL HIGH	USE LONG RESET DEFAULT	USE PCI PLL DEFAULT	USE ACPI BCLK DEFAULT	USE IDE PLL DEFAULT	USE DEFAULT PCIE STRAPS DEFAULT
PULL LOW	USE SHORT RESET	BYPASS PCI PLL	BYPASS ACPI BCLK	BYPASS IDE PLL	USE EEPROM PCIE STRAPS



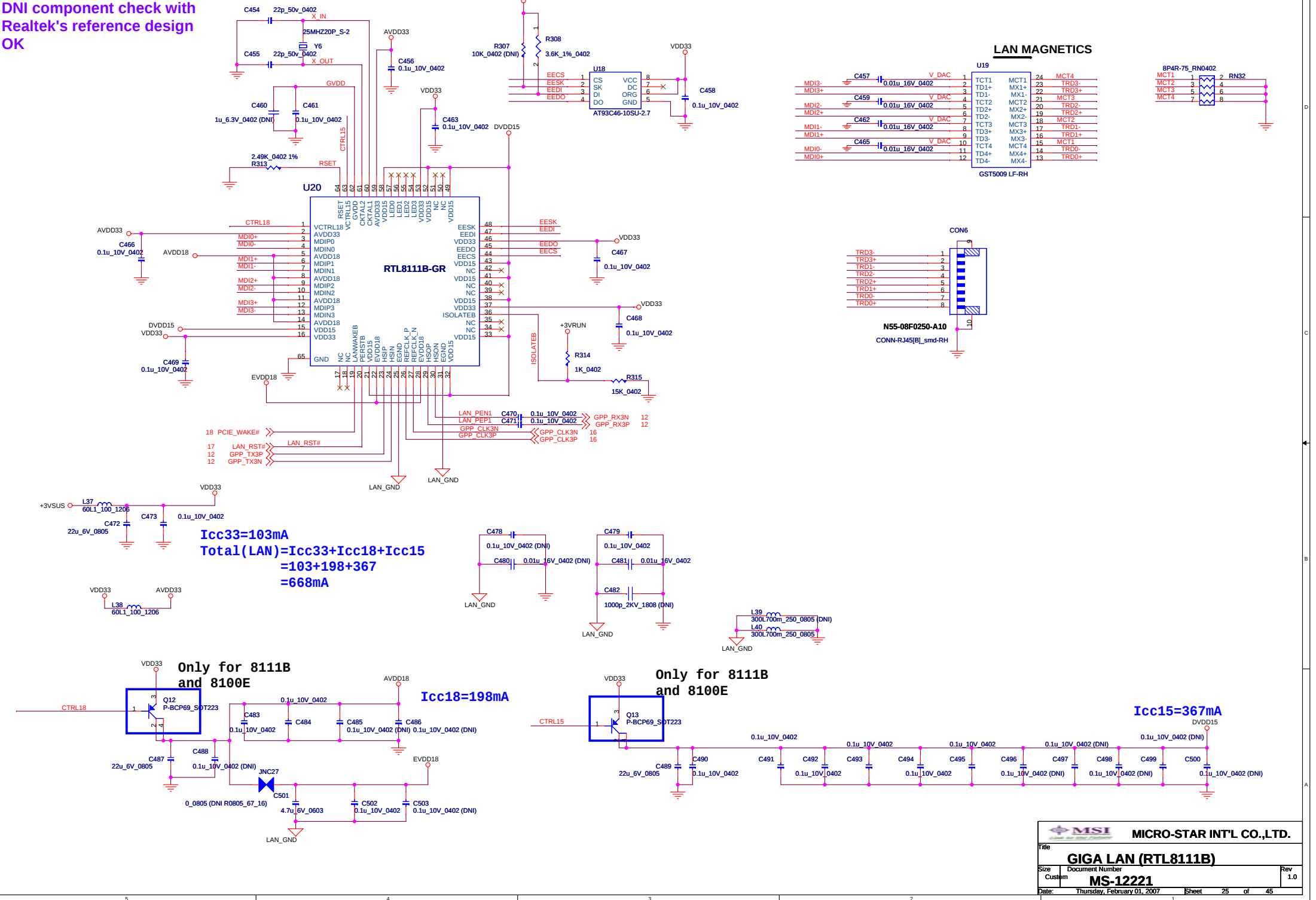
OVERLAP COMMON PADS WHERE POSSIBLE FOR DUAL-OP RESISTORS.

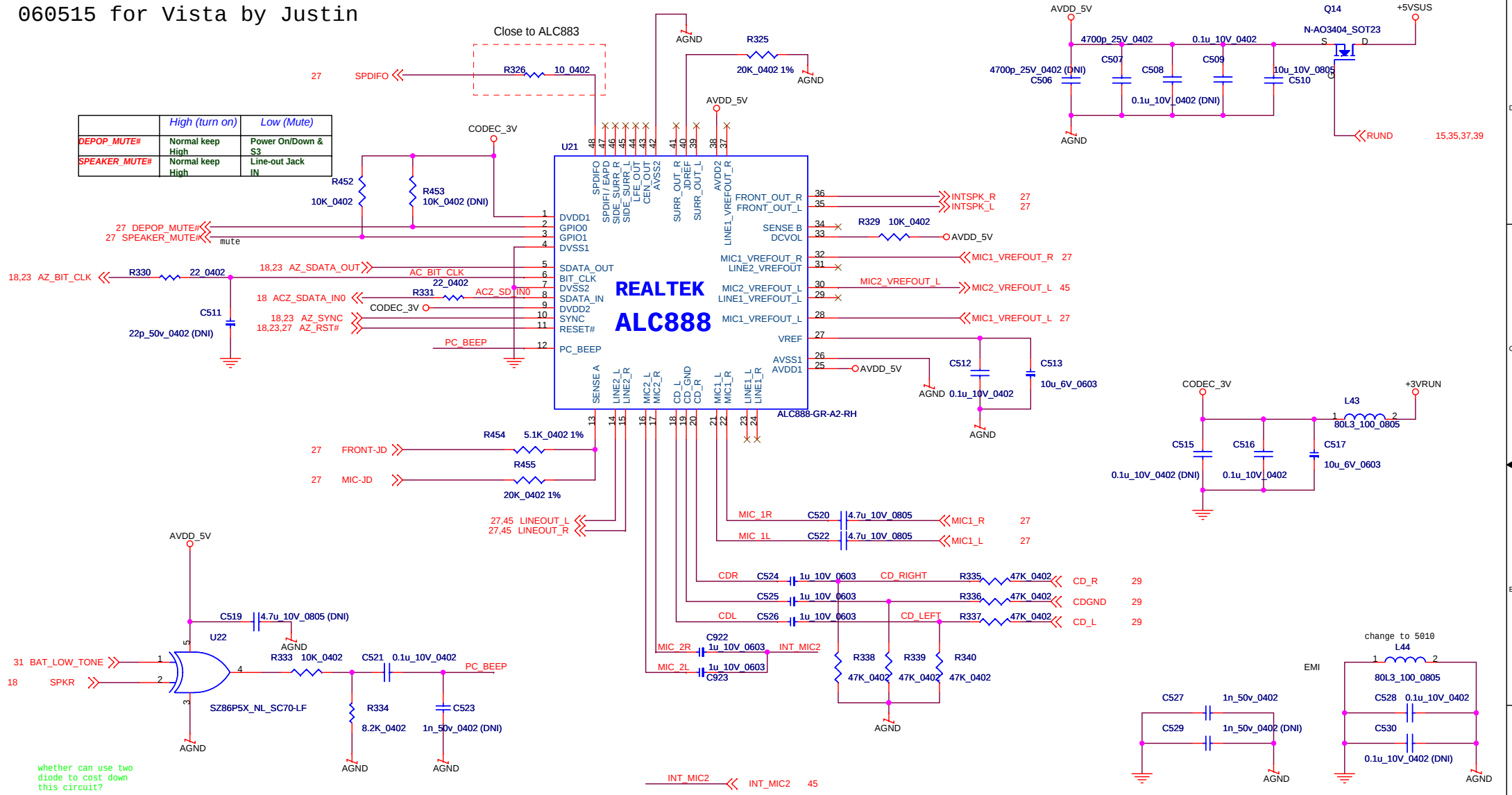






**DNI component check with
Realtek's reference design
OK**





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

Title

AUDIO(ALC883)

Size B

Document Number

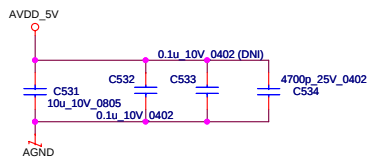
MS-12221

Rev 1.0

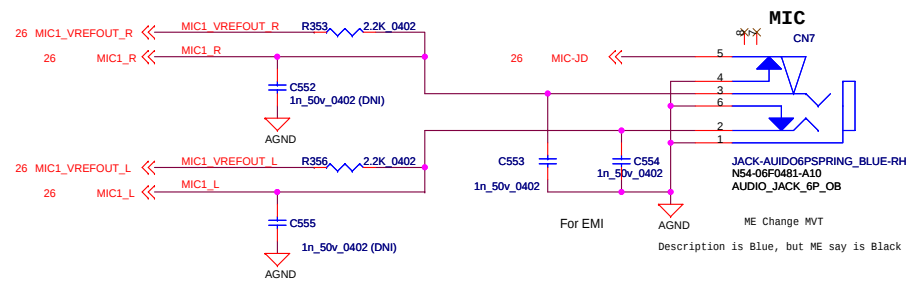
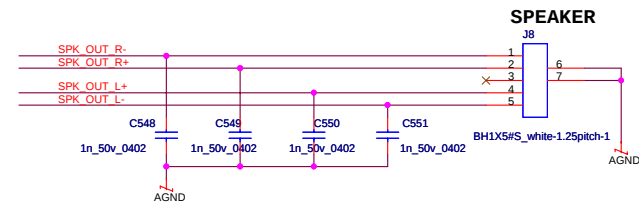
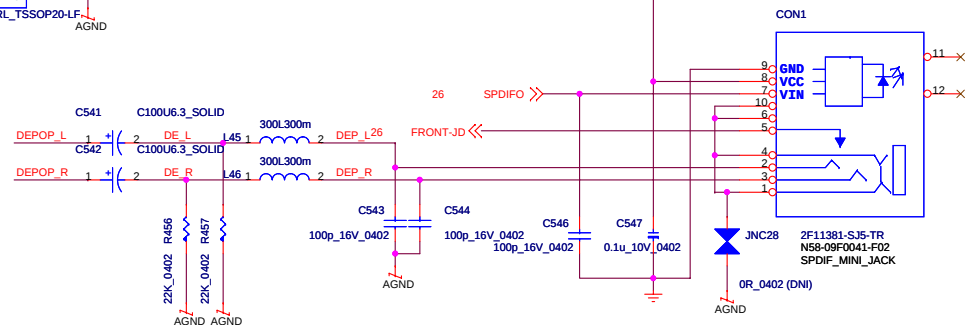
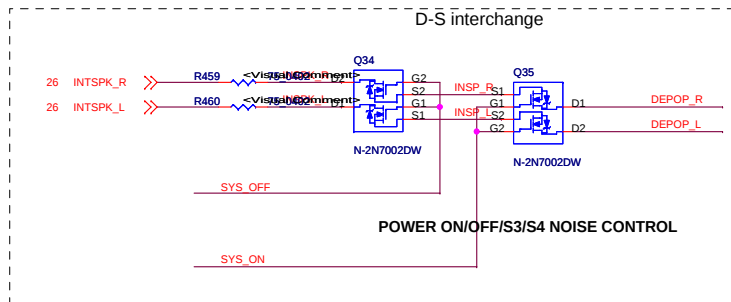
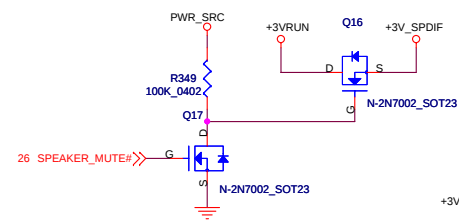
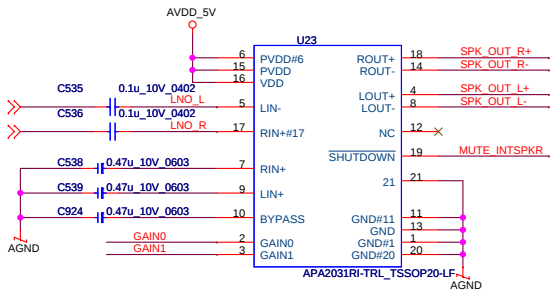
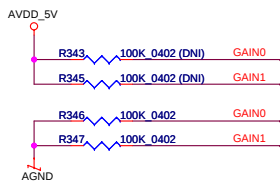
Date:

Thursday, February 01, 2007

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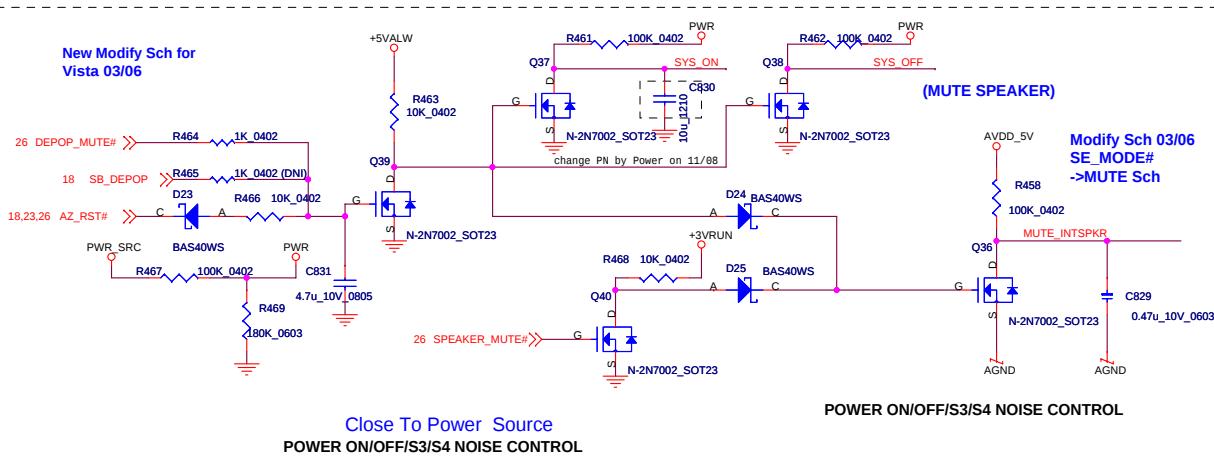
	GAIN0	GAIN1	SE/BTL#
6dB	0	0	0
10dB	0	1	0
15.6dB	1	0	0
21.6dB	1	1	0
4.3dB	X	X	1

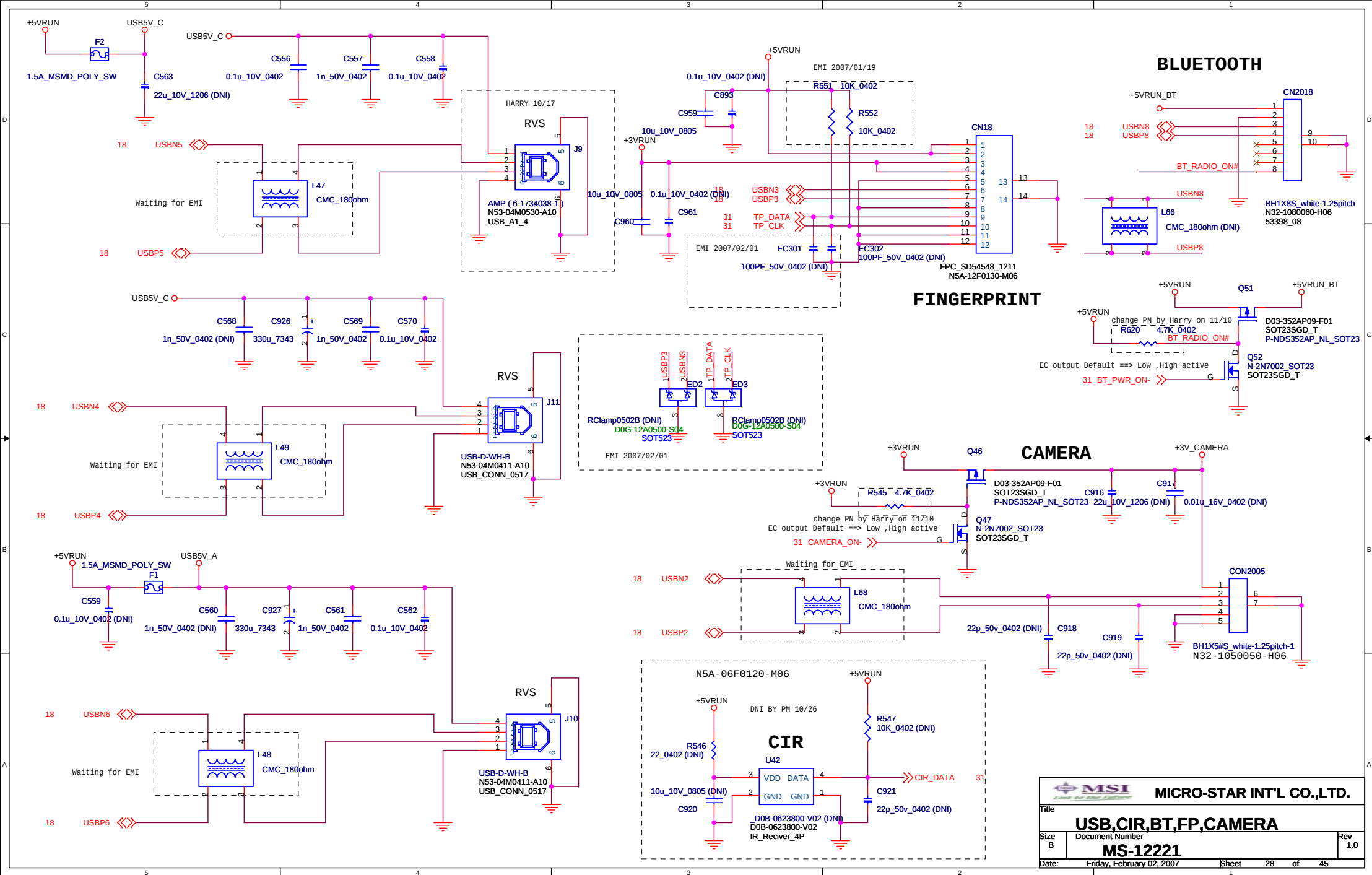


Mobile Configuration:

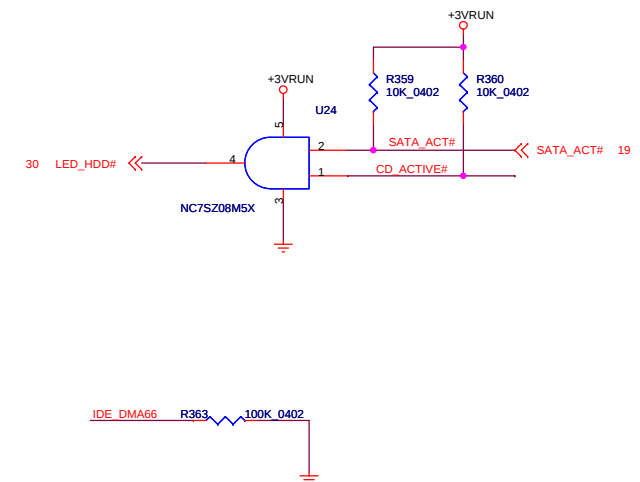
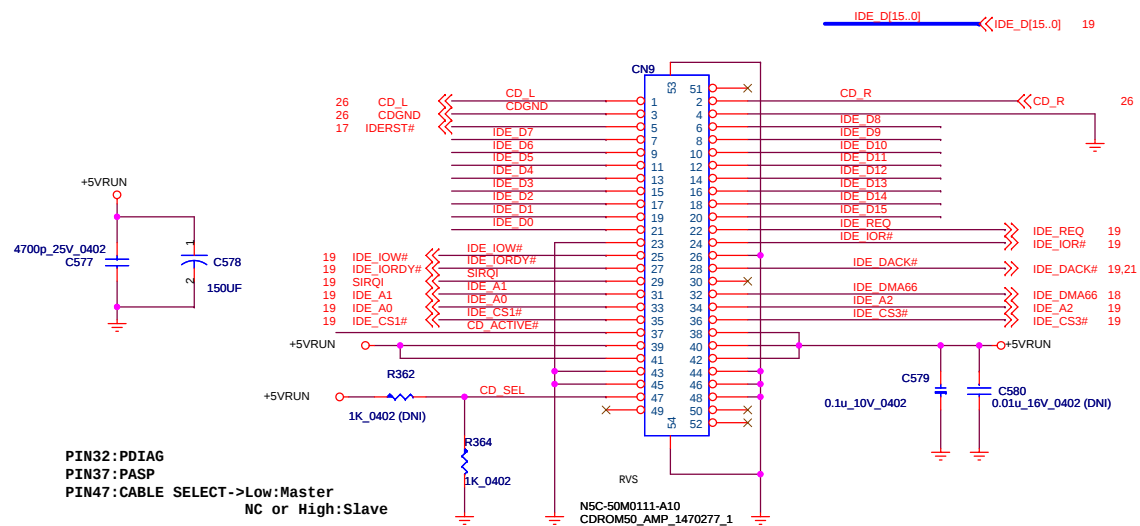
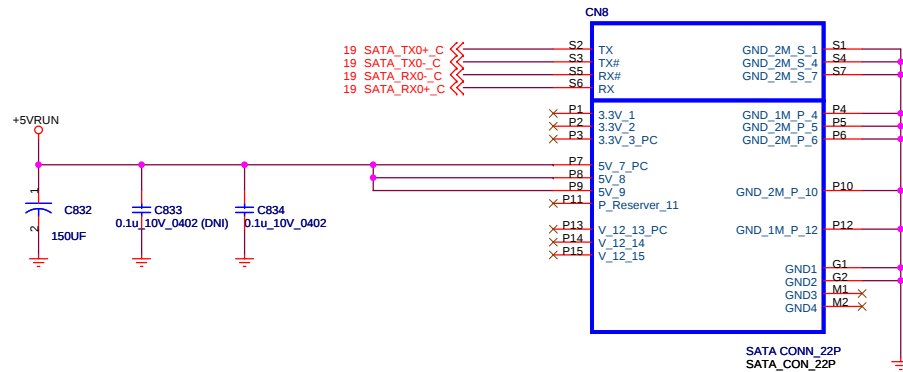
(3 external jacks, 1 internal Mic, 2 sets stereo internal speaker)

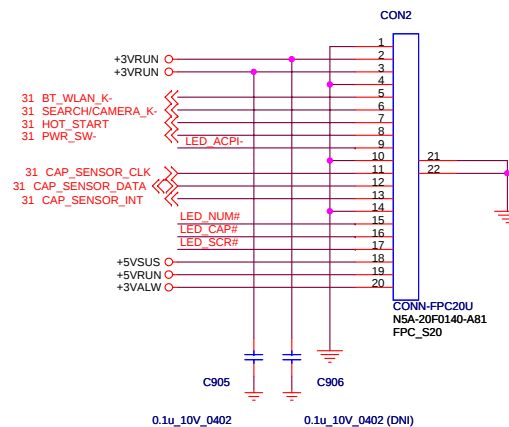
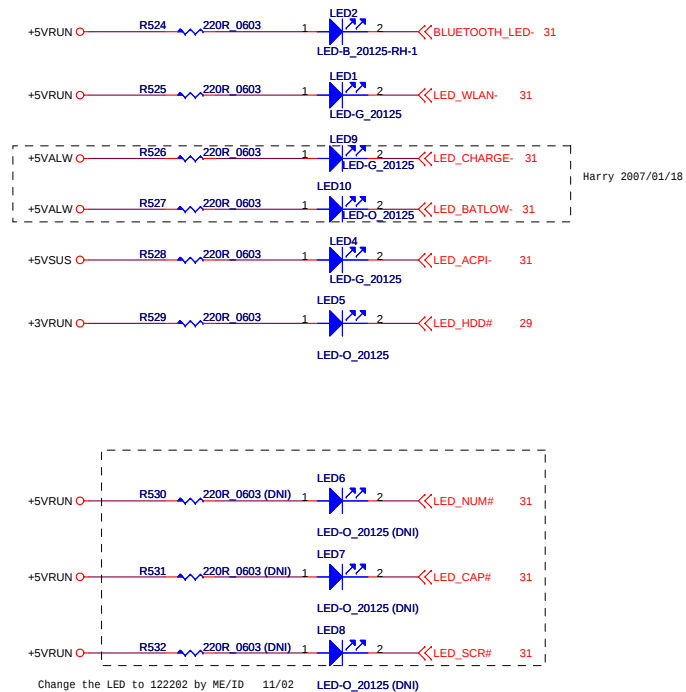
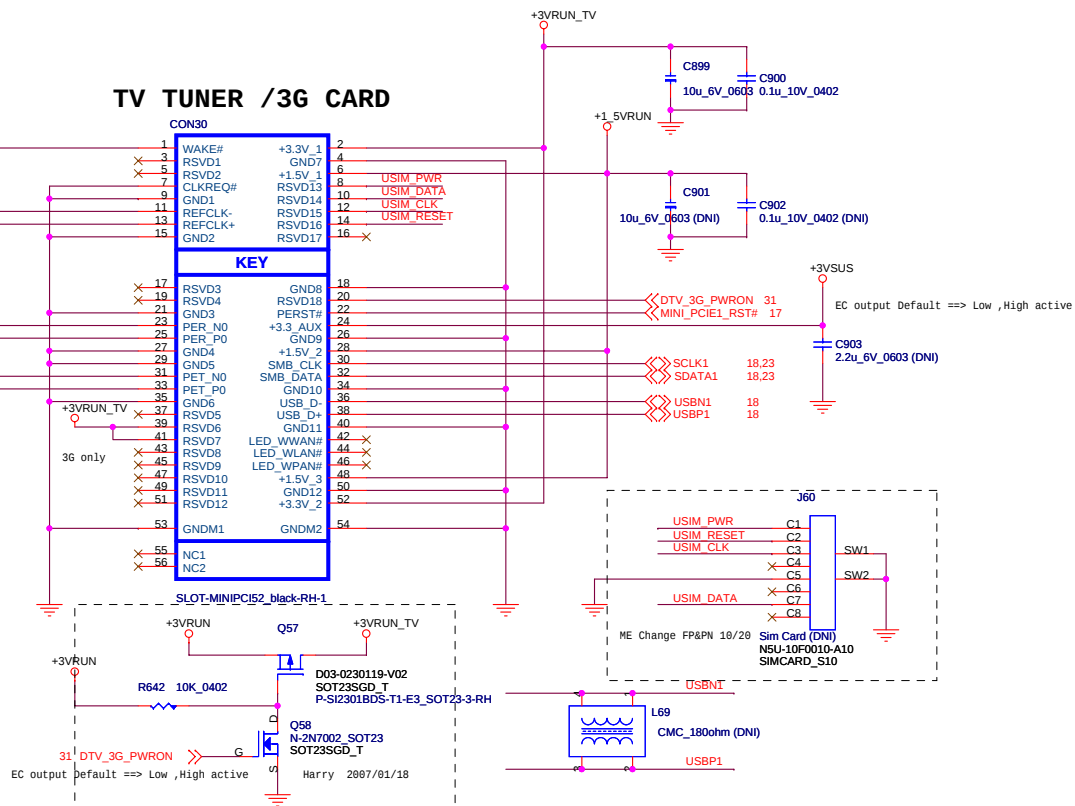
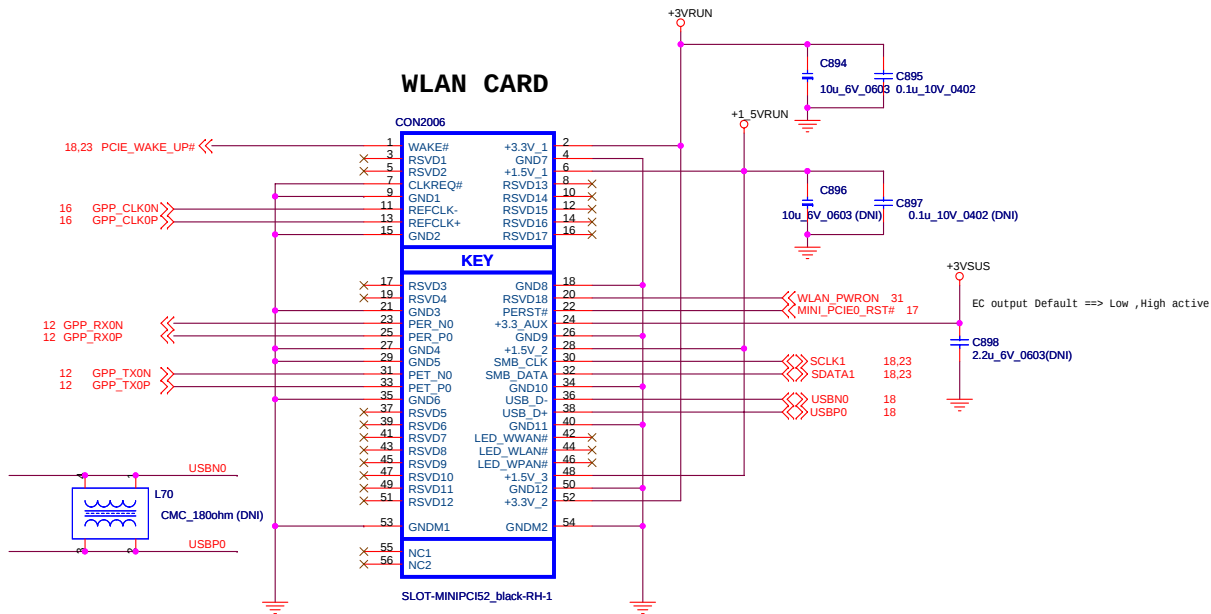
Pin Assignment	Location	Re-tasking
FRONT (pin-35/36)	SPDIF jack, AMP	SPDIF output, AMP output(Int.SPKR) , ?
SURR (pin-39/41)	X	X
CEN/LFE (pin-43/44)	X	X
SIDESURR (pin-45/46)	X	X
LINE1 (pin-23/24)	Line-in jack	Line input, ?
MIC1 (pin-21/22)	MIC-in jack	Mic input, ?
MIC2 (pin-16/17)	Int.MIC	Int.Mic input

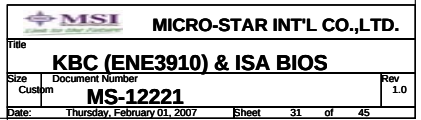


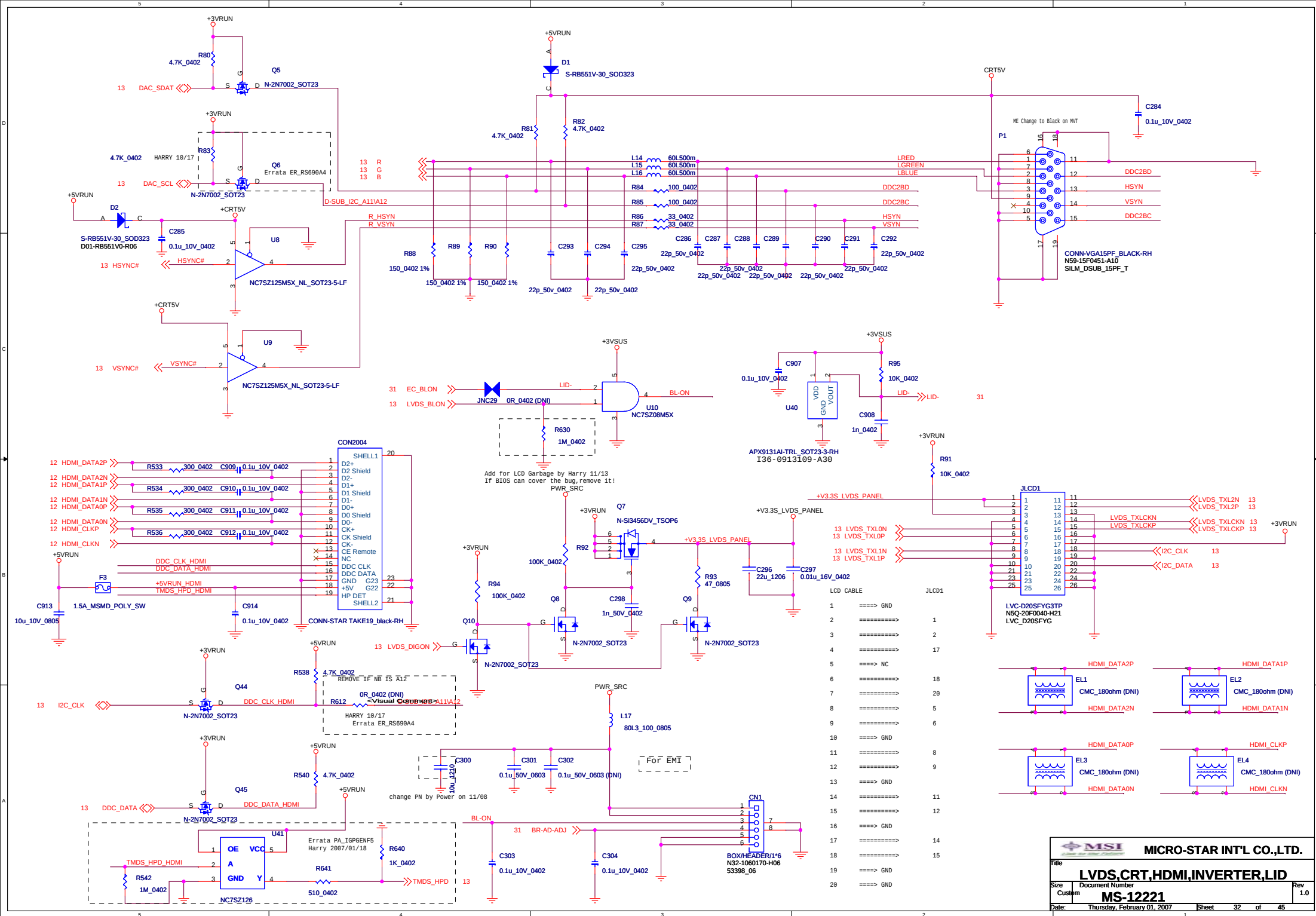


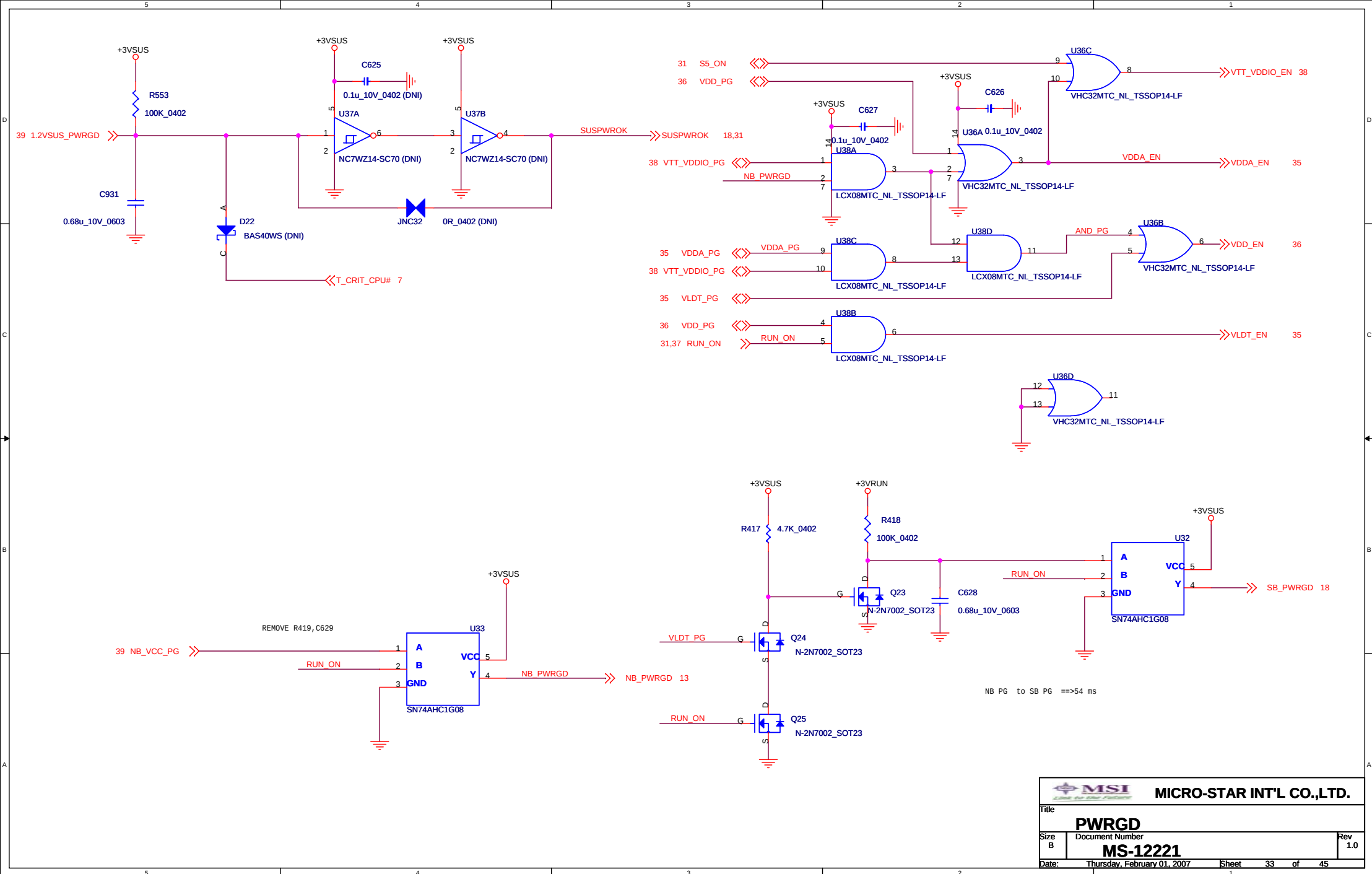
2.5"HD DRIVE

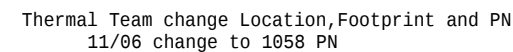




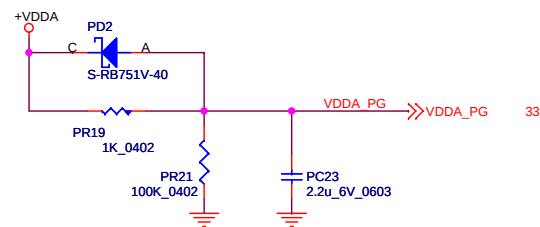
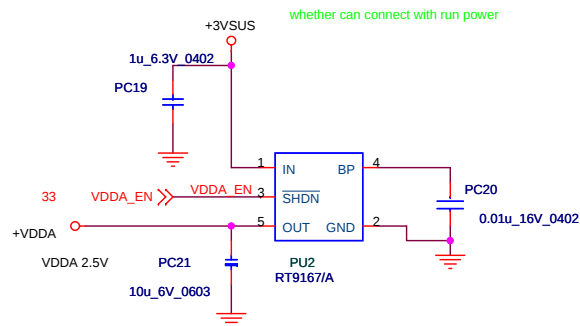
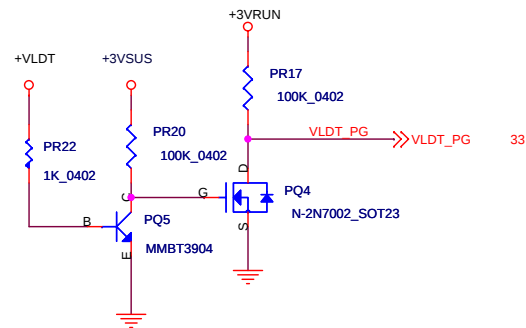
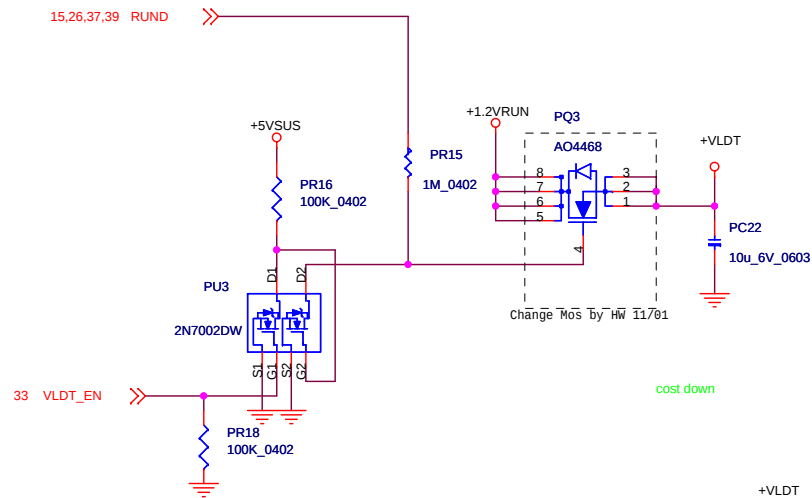




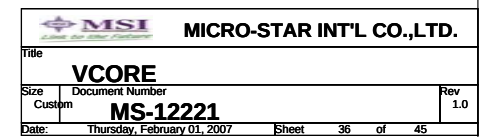




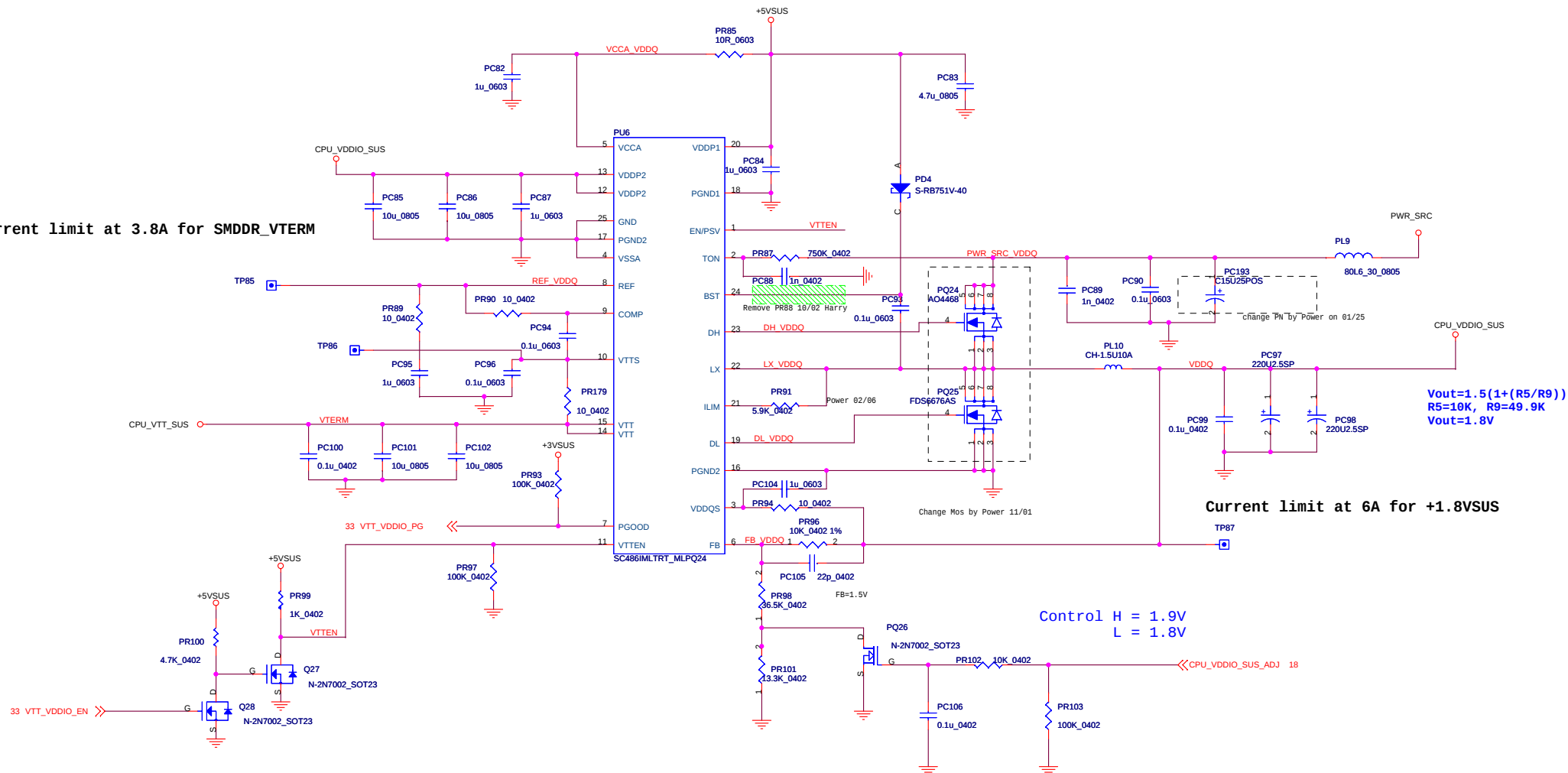
 MSI Micro-Star International, Inc. <i>Link to the Future</i>		MICRO-STAR INT'L CO.,LTD.	
Title			
FAN			
Size A	Document Number MS-12221		Rev 1.0
Date:	Thursday, February 01, 2007	Sheet	34 of 45



		MICRO-STAR INT'L CO.,LTD.	
Title		M 1.2V VDDA 2.5V VLDT	
Size	Document Number	Rev	
B	MS-12221	1.0	
Date:	Thursday, February 01, 2007	Sheet	35 of 45



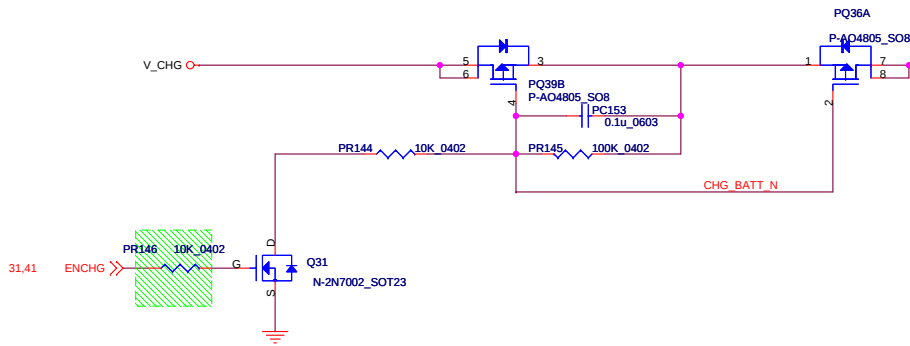
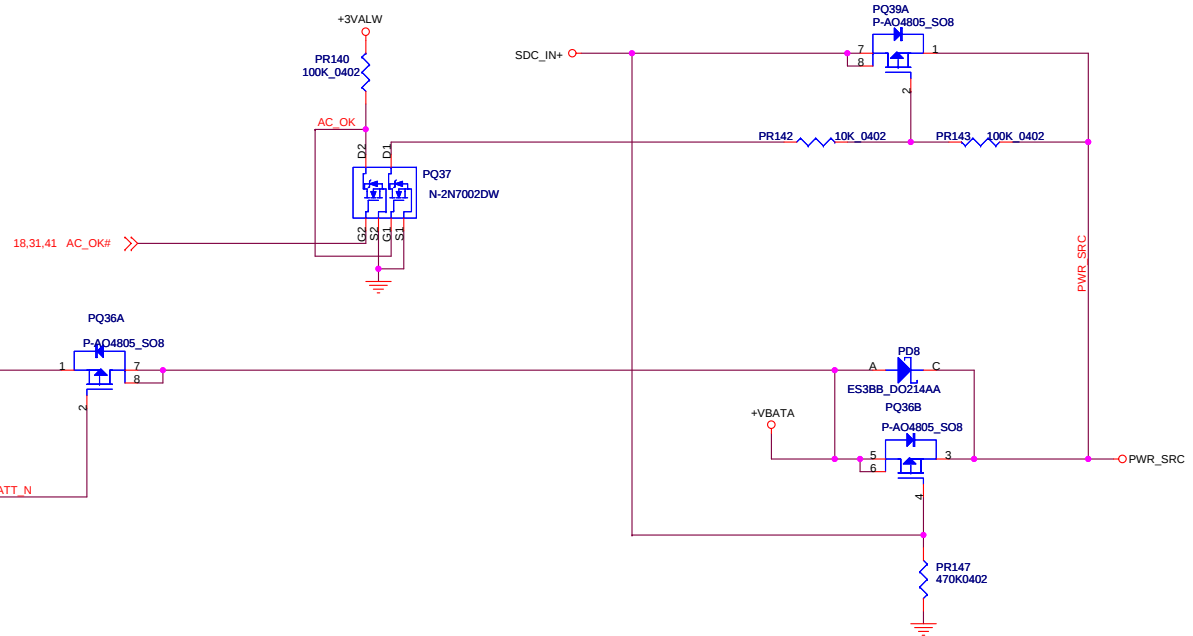
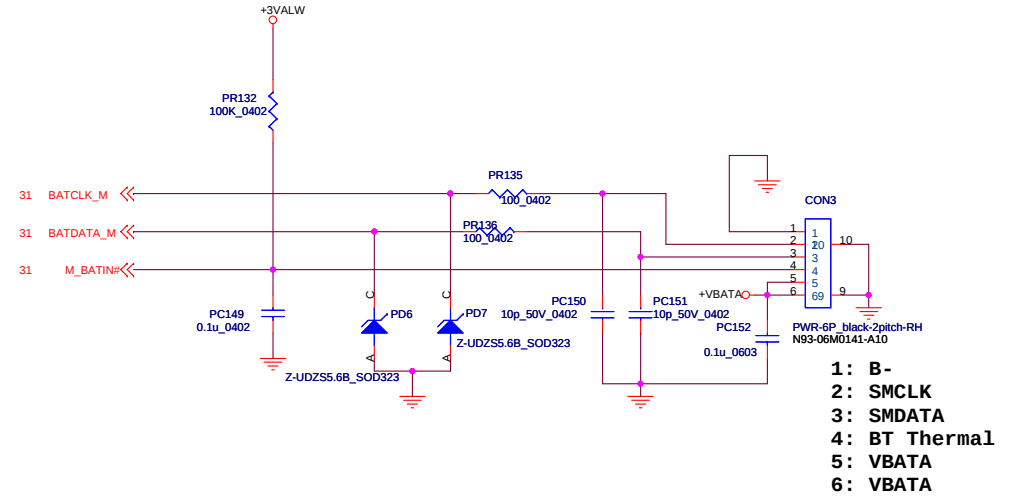
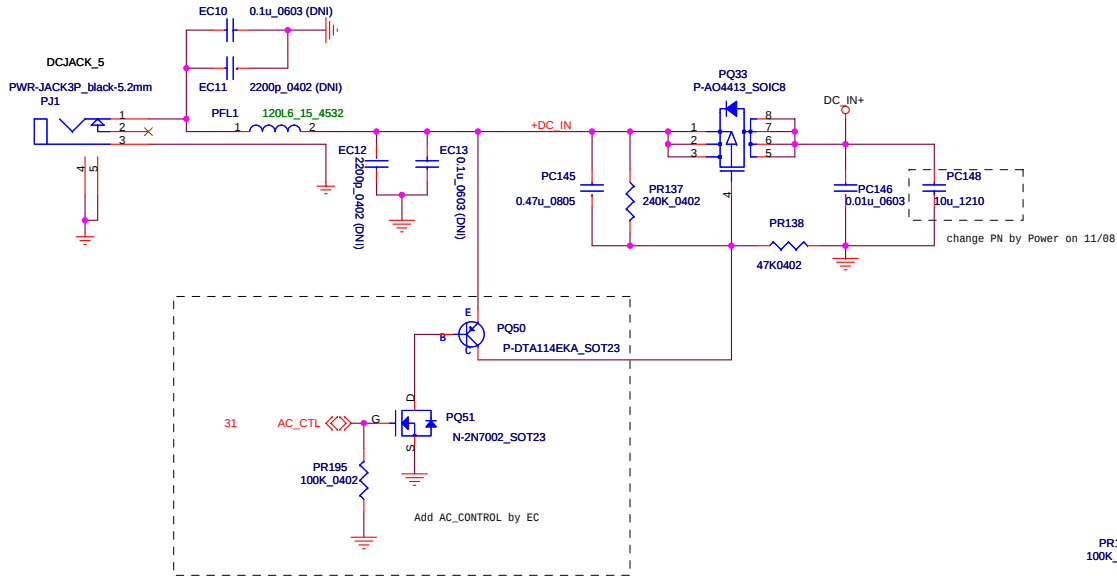
Current limit at 3.8A for SMDR_VTERM



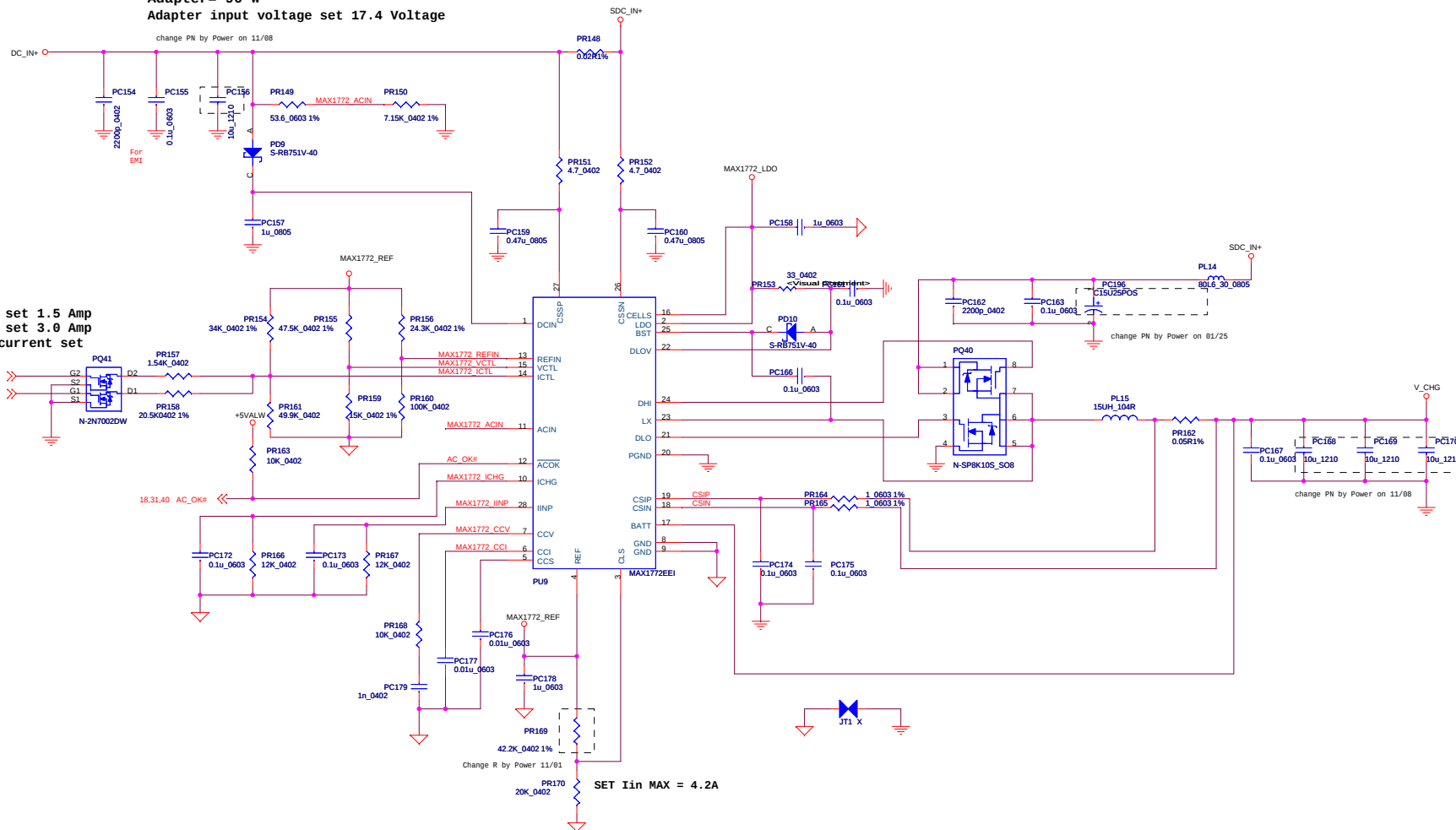
The Limited Current = 4A

Current Limit at 10 Amp

3.3V>1.8V>1.2V=VCC_NB



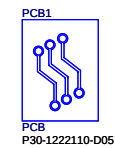
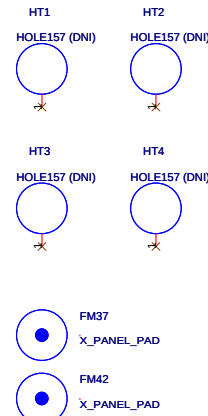
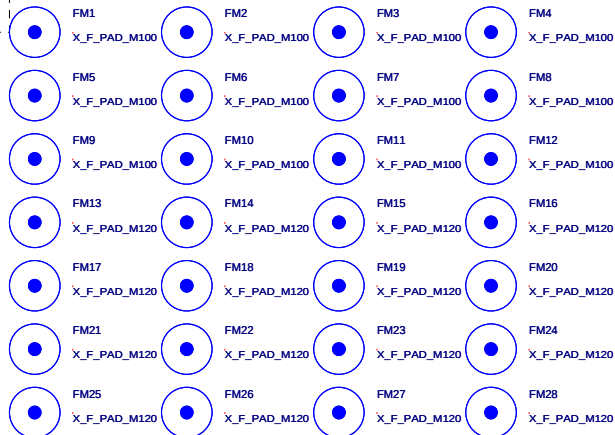
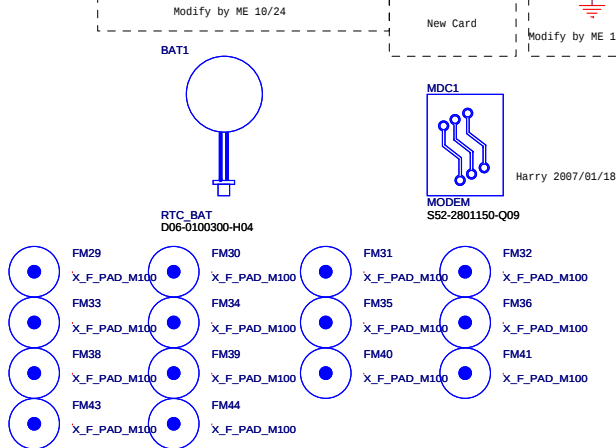
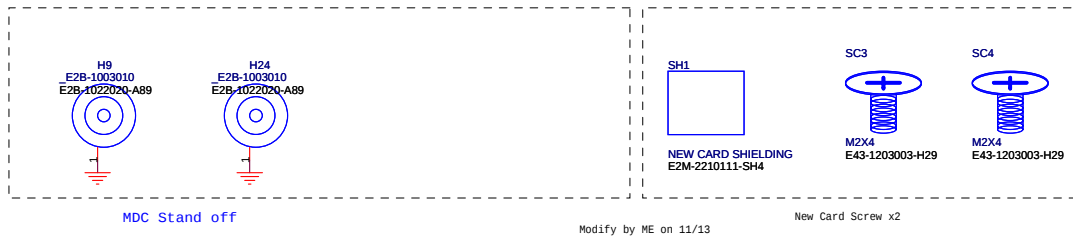
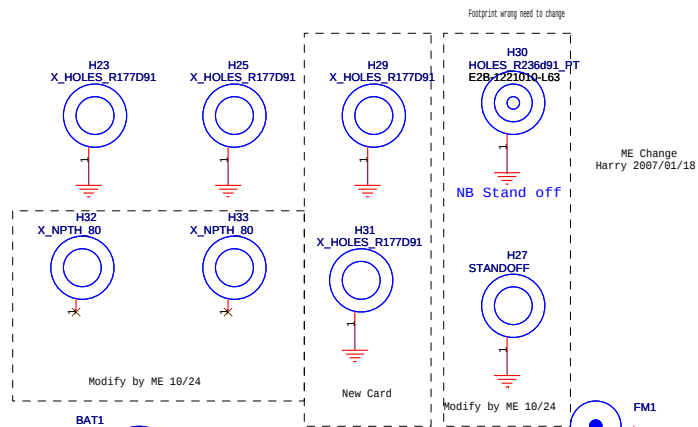
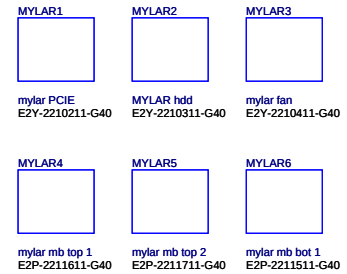
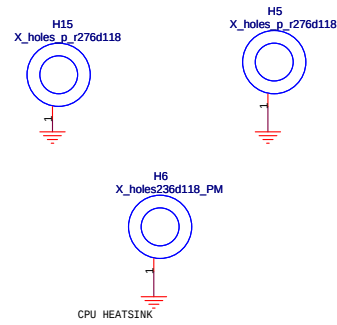
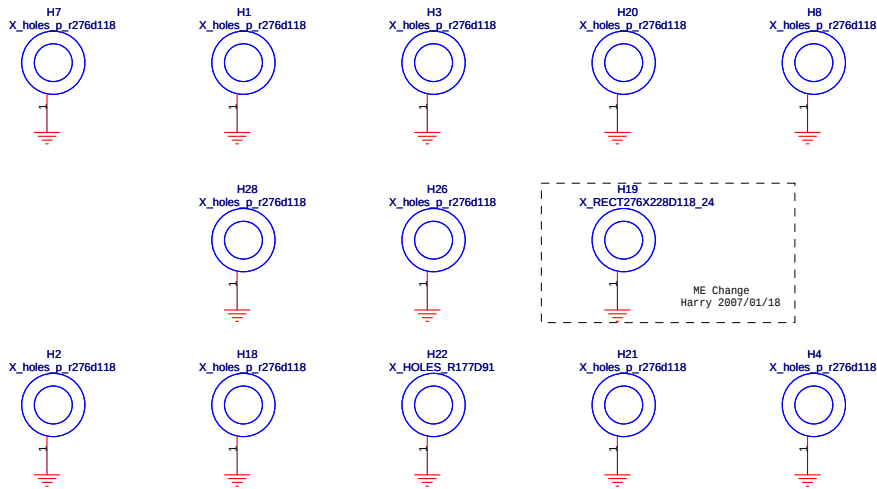
Adapter= 90 W
Adapter input voltage set 17.4 Voltage

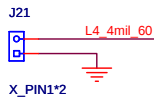
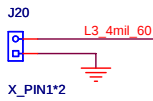


4S1P: Charge current set 1.5 Amp
4S2P: Charge current set 3.0 Amp
Pre-charger: Charge current set 200mA

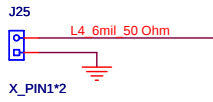
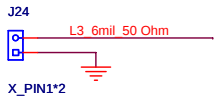
ENCHG-1P	PRE_CHG	ENCHG	
0	1	1	Pre-charge
1	0	1	4S1P-Fast charge
X	X	0	STOP CHARGE

Define on 4S2P charge current

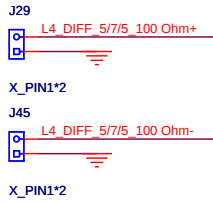
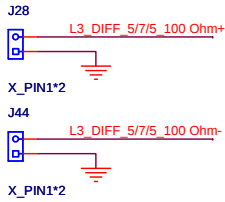




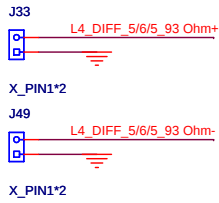
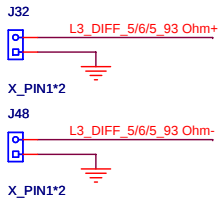
Normal Signal 60 Ohm



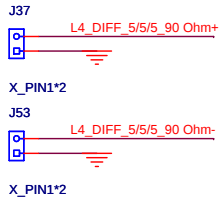
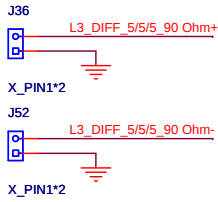
RGB Signal 50 Ohm



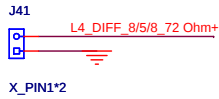
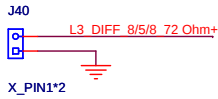
Differential Pair 100 Ohm



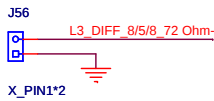
Differential Pair 93 Ohm



Differential Pair 90 Ohm



Differential Pair 72 Ohm



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