MS-7113

Version 1B
17/06/2005

SIS (R) 649 (GMCH) + 965L Chipset
Intel Tejas & Prescott LGA775 Processor

CPU:

Intel Tejas/Prescott - 3.0G & Above

System Chipset:

SIS 649(North Bridge)
SIS 965L(South Bridge)

On Board Chipset:

BIOS -- LPC EEPROM
AC97 Codec -- ALC 655
LPC Super I/O -- W83627THF
LAN -- RTL 8100C
CLOCK -- ICS953401+93732

Main Memory:

DDR I * 2 (Max 2GB)

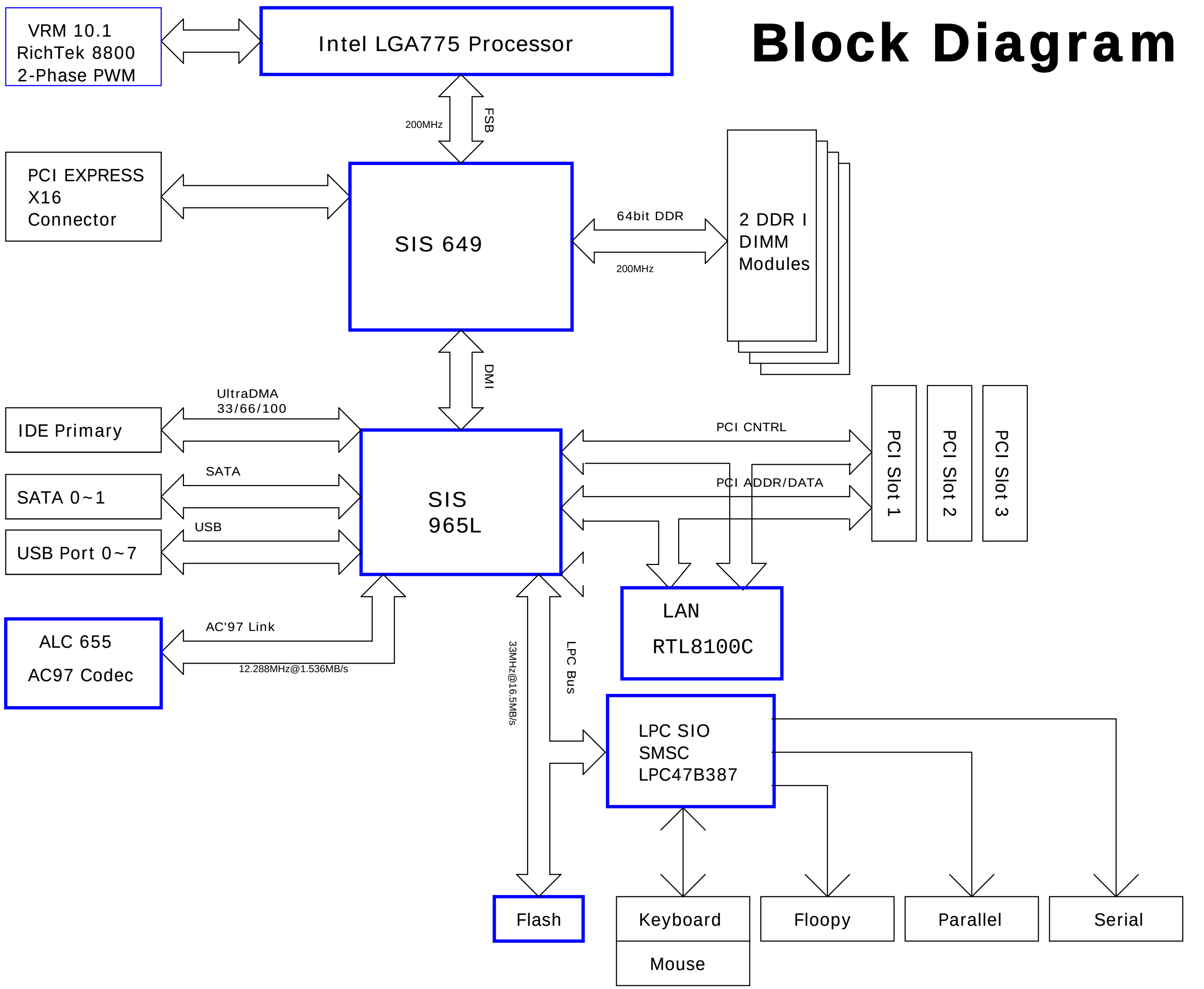
Expansion Slots:

PCI2.3 SLOT * 3
AGP X1 SLOT * 1
PCI EXPRESS X16 SLOT

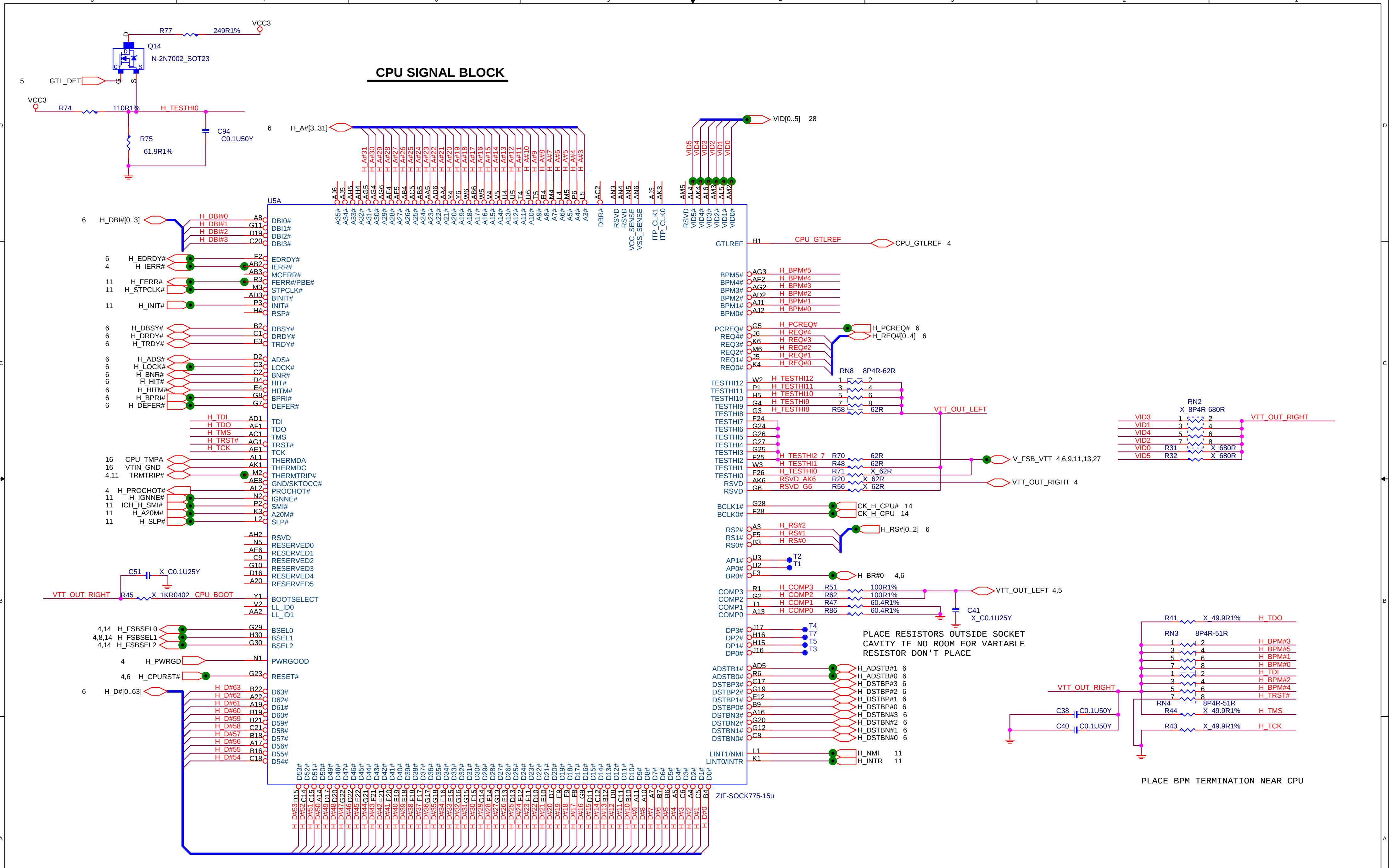
RichTek PWM:

Controller: RT8800B 2 Phase
Driver: RT9602 * 1

Block Diagram



MSI	MICRO-STAR INt'L CO., LTD.	
Title	BLOCK DIAGRAM	
Size	Document Number MS-7113	Rev 1B
Date: Wednesday, August 03, 2005	Sheet 2 of 32	



MICRO-STAR INt'L CO., LTD.

Title	Intel LGA775 CPU - Signals	
Size	Document Number: MS-7113	Rev 1B
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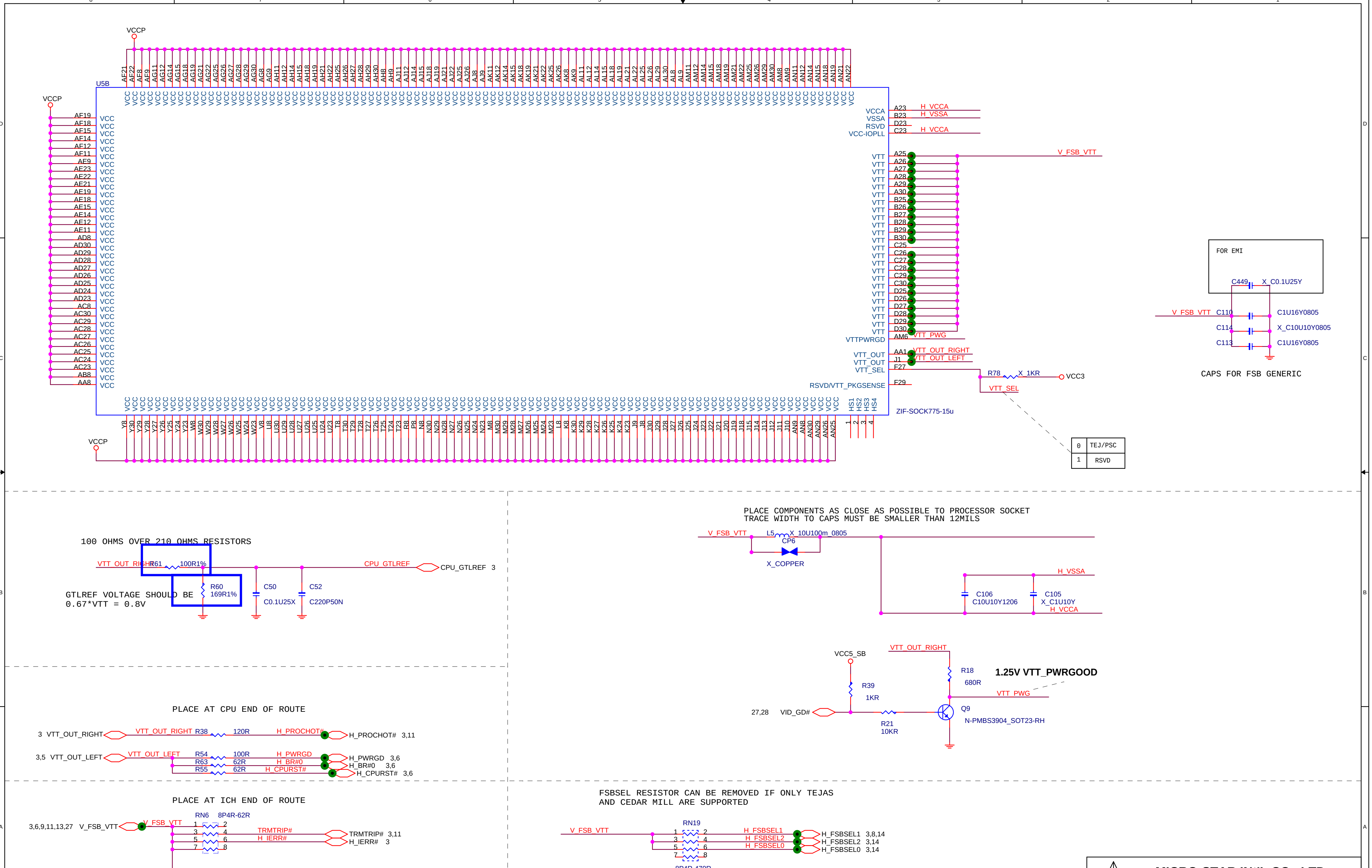

MICRO-STAR INt'L CO., LTD.

Title: Intel LGA775 CPU - Power

Size | Document Number: MS-7113 | Rev: 1B

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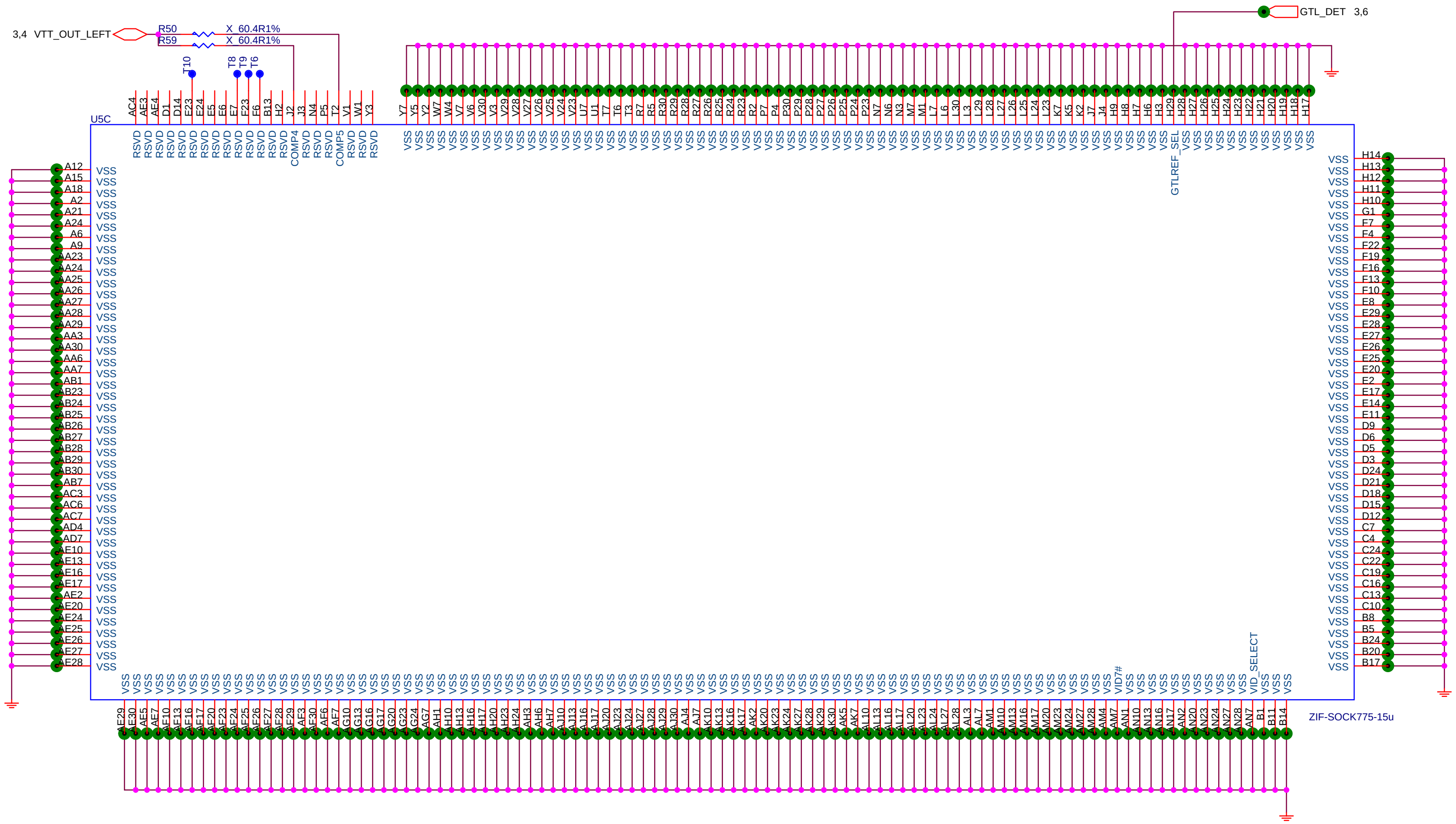

MICRO-STAR INt'L CO., LTD.

Title: Intel LGA775 CPU - GND

Size	Document Number	Rev
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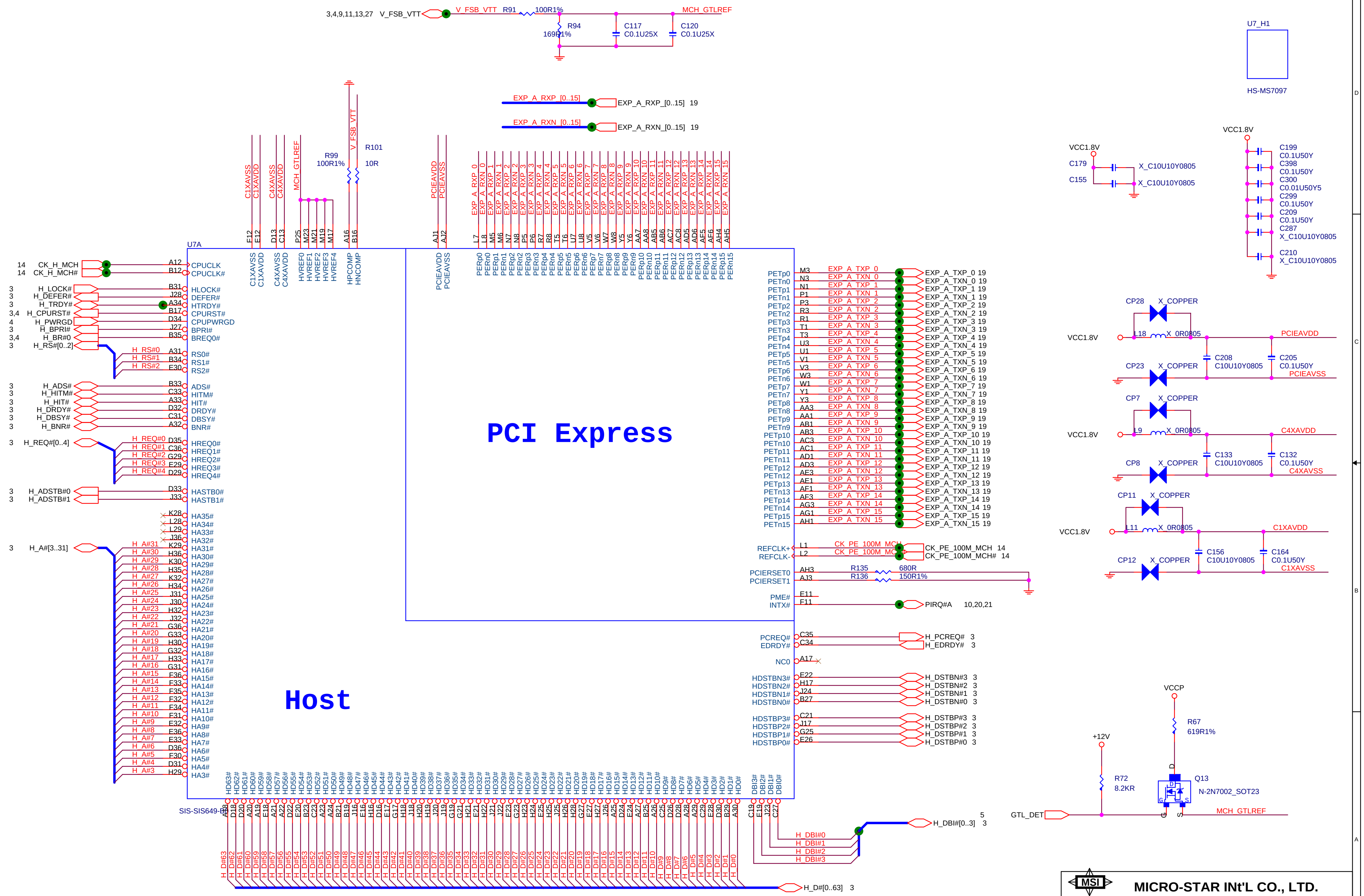

MICRO-STAR INt'L CO., LTD.

Title: SIS 649 CPU PCI-E

Size | Document Number: MS-7113 | Rev 1B

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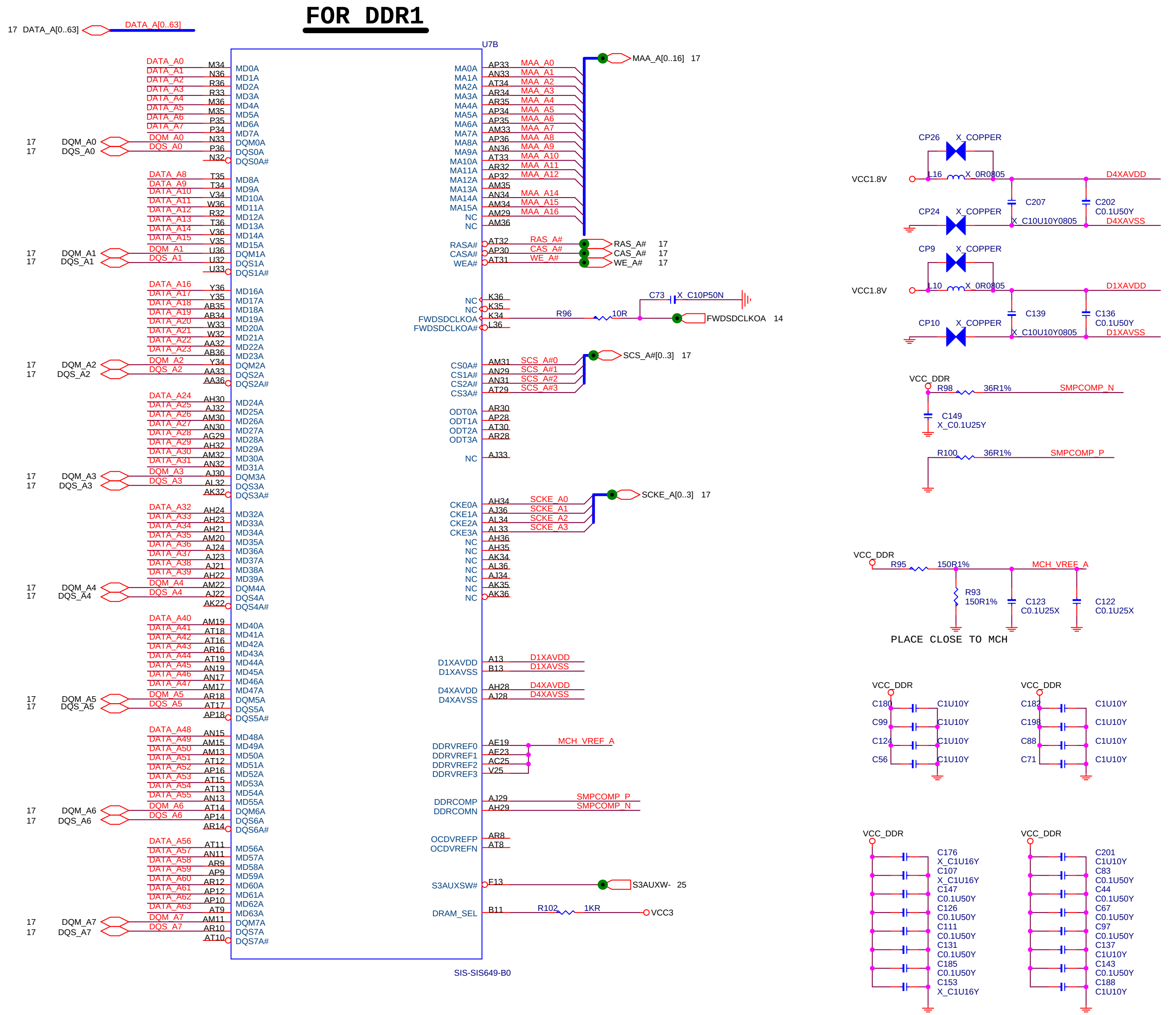

MICRO-STAR INt'L CO., LTD.

Title	SIS 649 MEMORY		
Size	Document Number: MS-7113		Rev 1B
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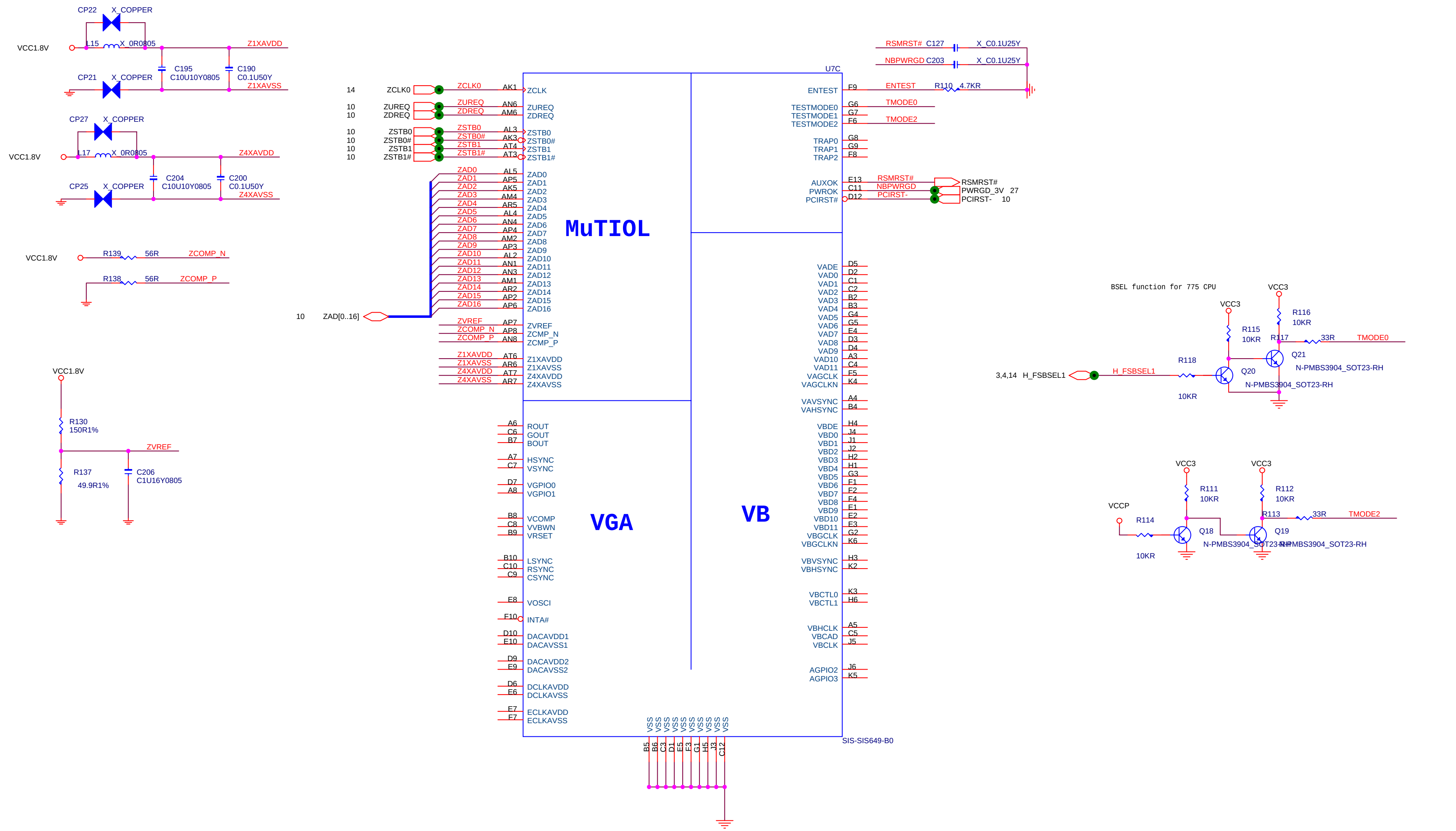

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Title	SIS 649 MuTIOL	
Size	Document Number MS-7113	Rev 1B
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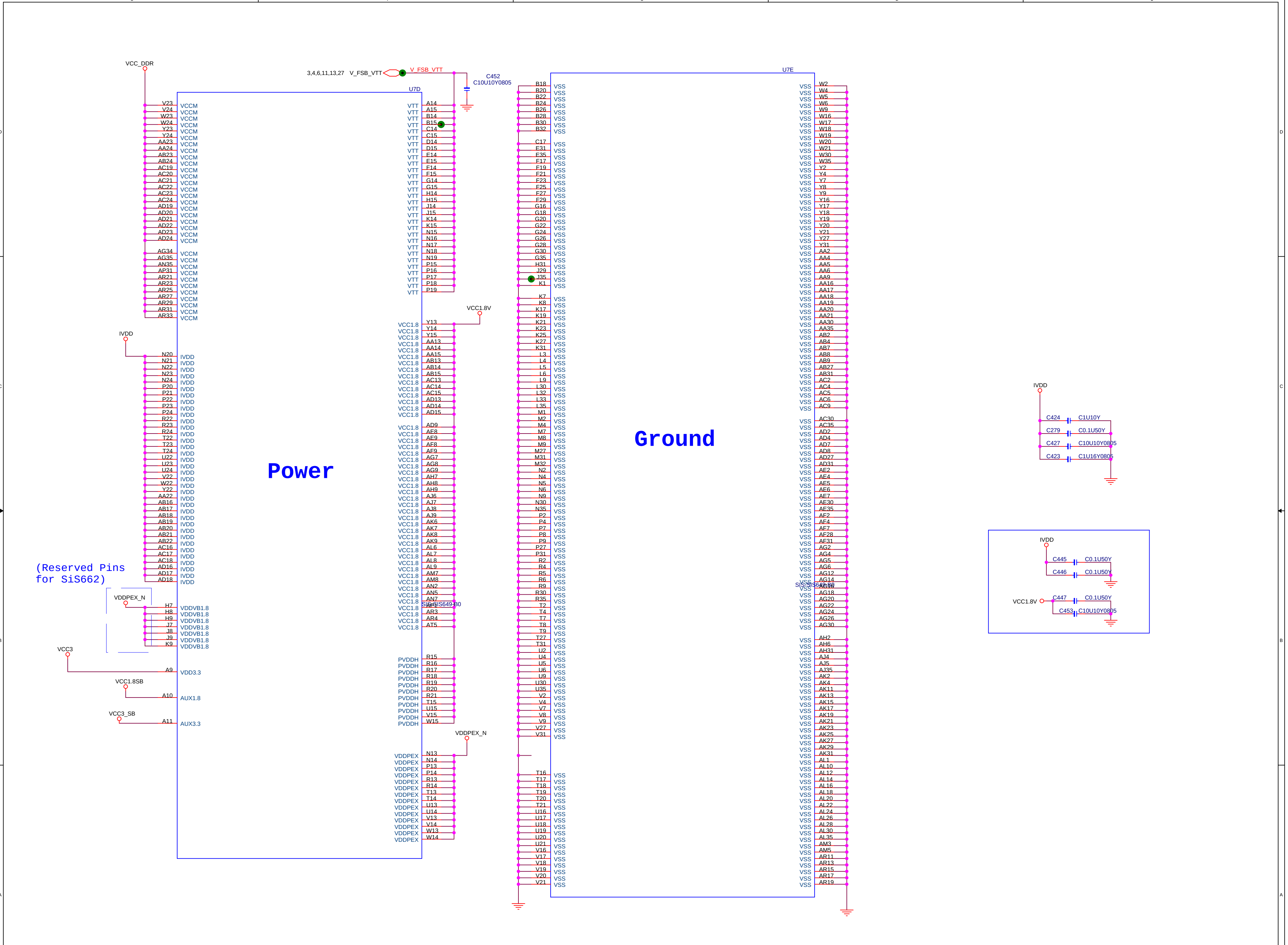

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Title	SIS 649 POWER, GND	
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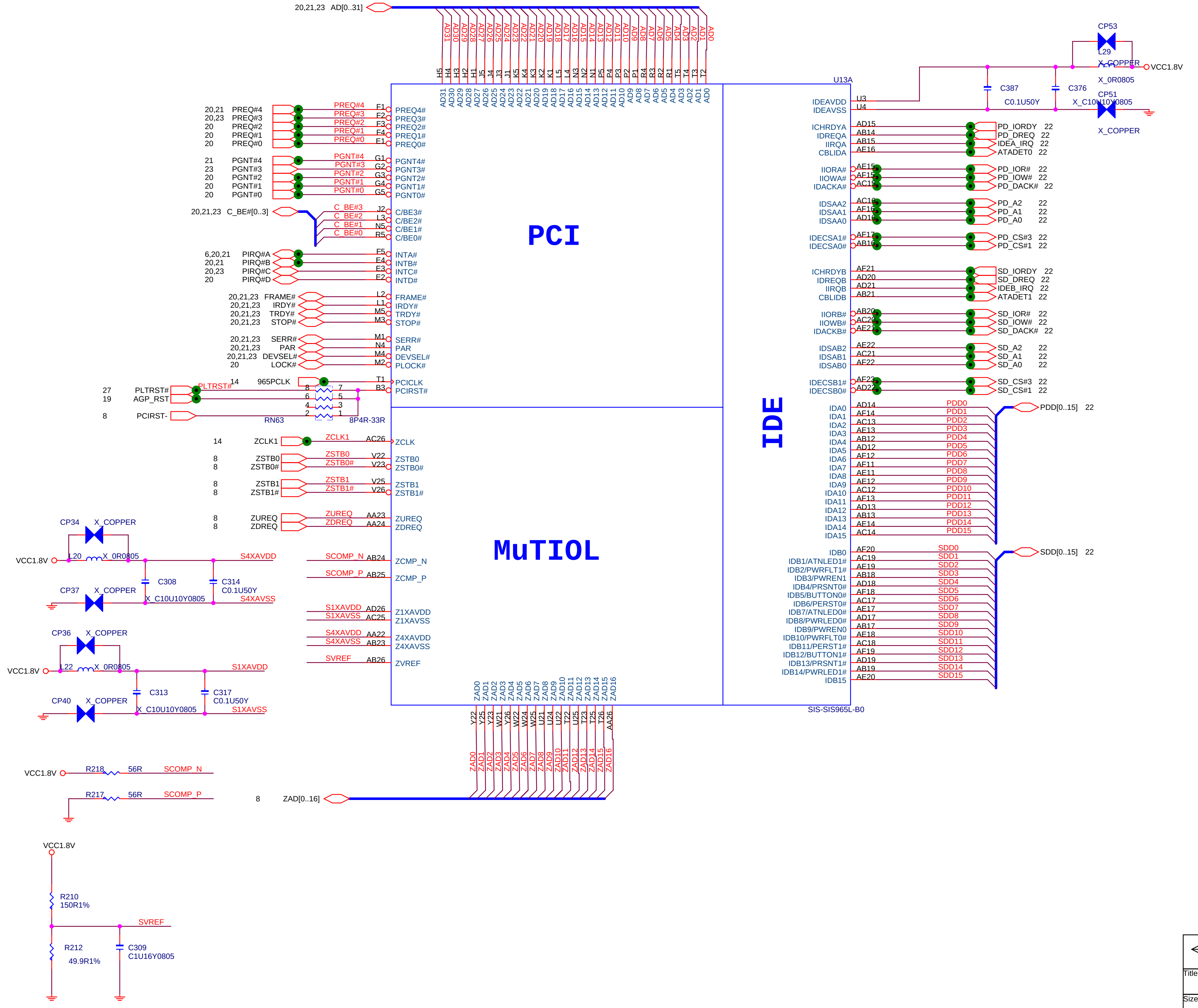

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Title	SIS 965 PCI, MuTIOL, IDE
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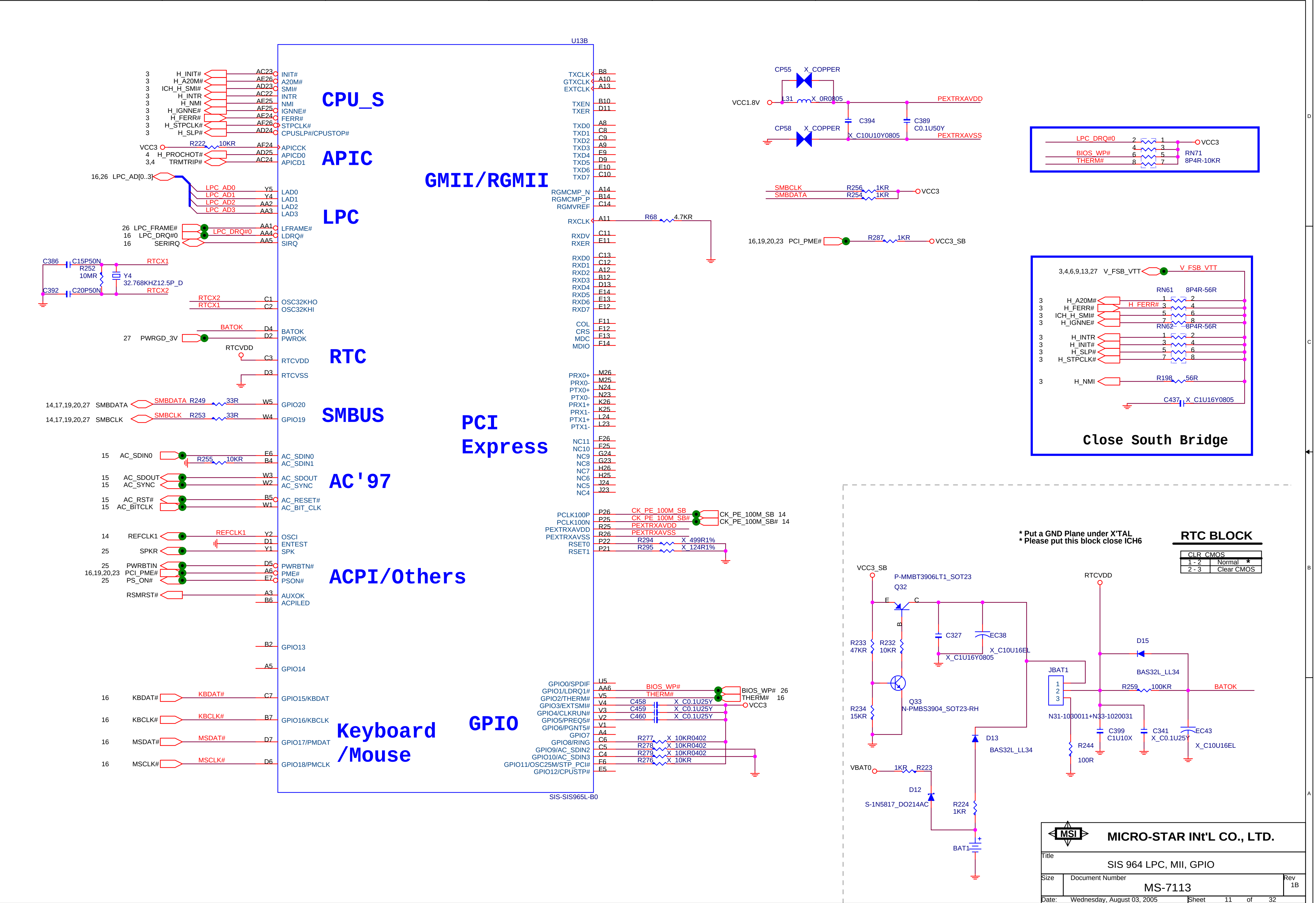

MSI MICRO-STAR INt'L CO., LTD.

Title	SIS 964 LPC, MII, GPIO
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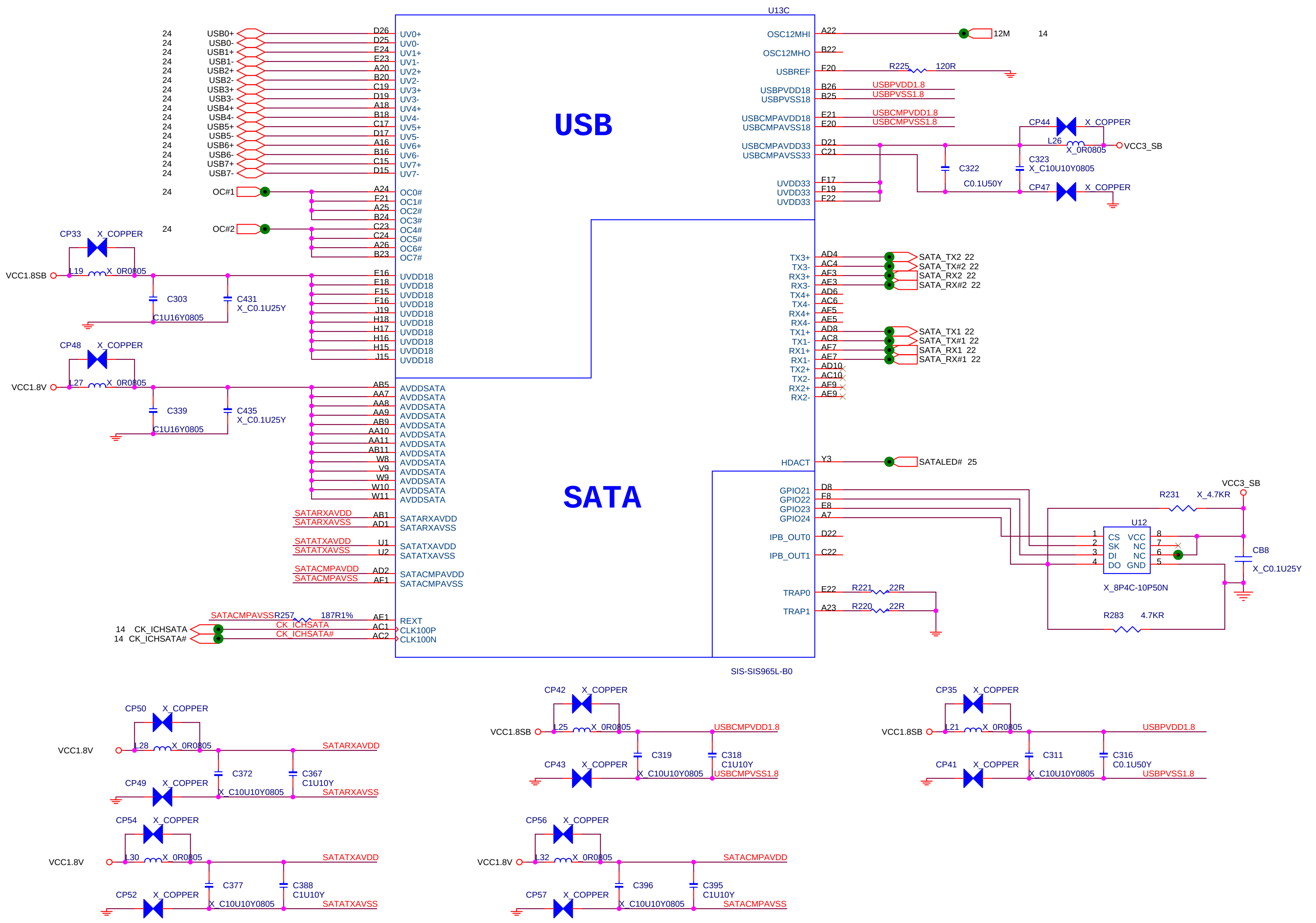

MICRO-STAR INt'L CO., LTD.

Title	SIS 964 USB, SATA
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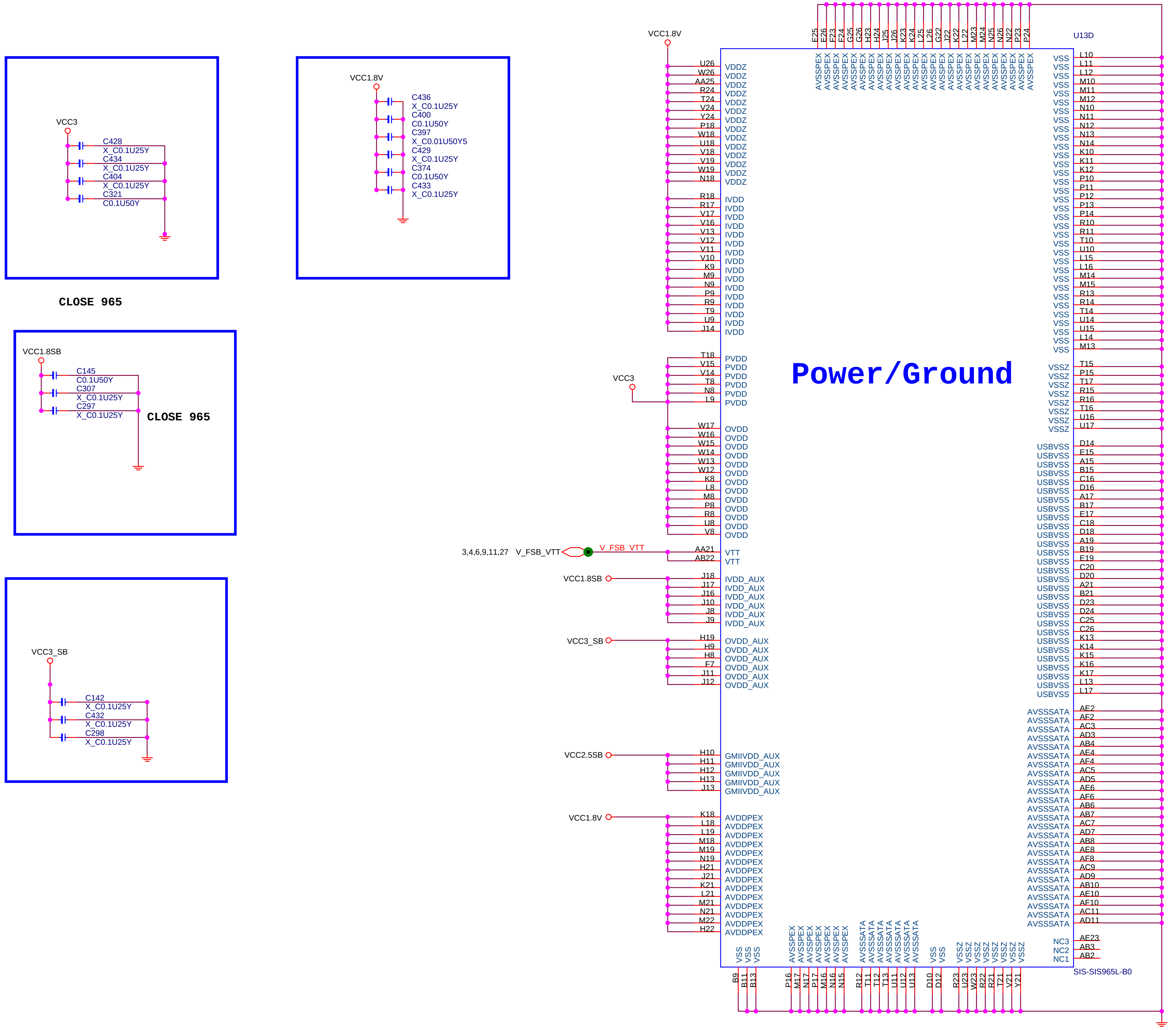

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Title	SIS 964 POWER, GND	
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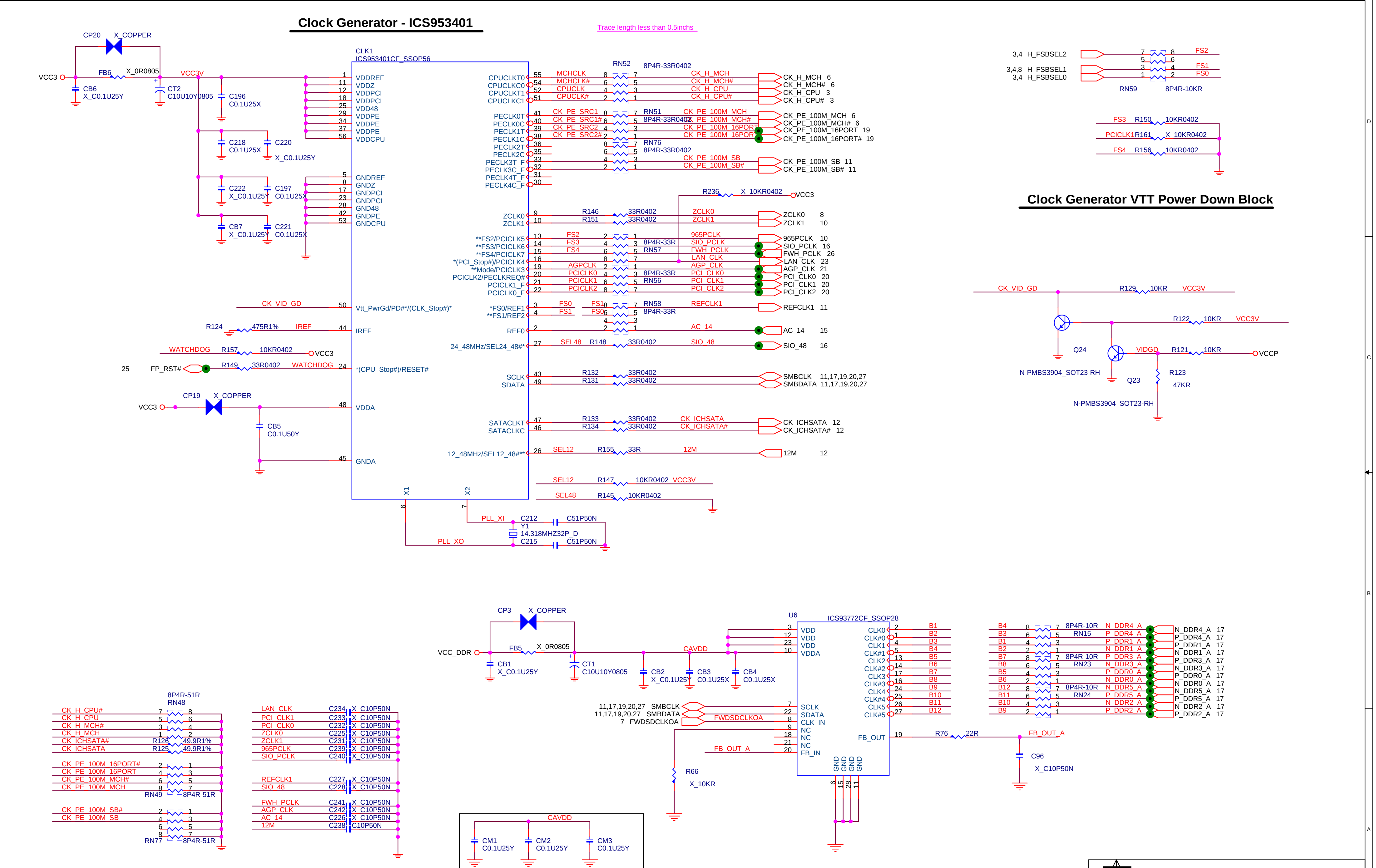
Clock Generator - ICS953401



MICRO-STAR INt'L CO., LTD.	
Title	Clock - ICS953401 + 93732
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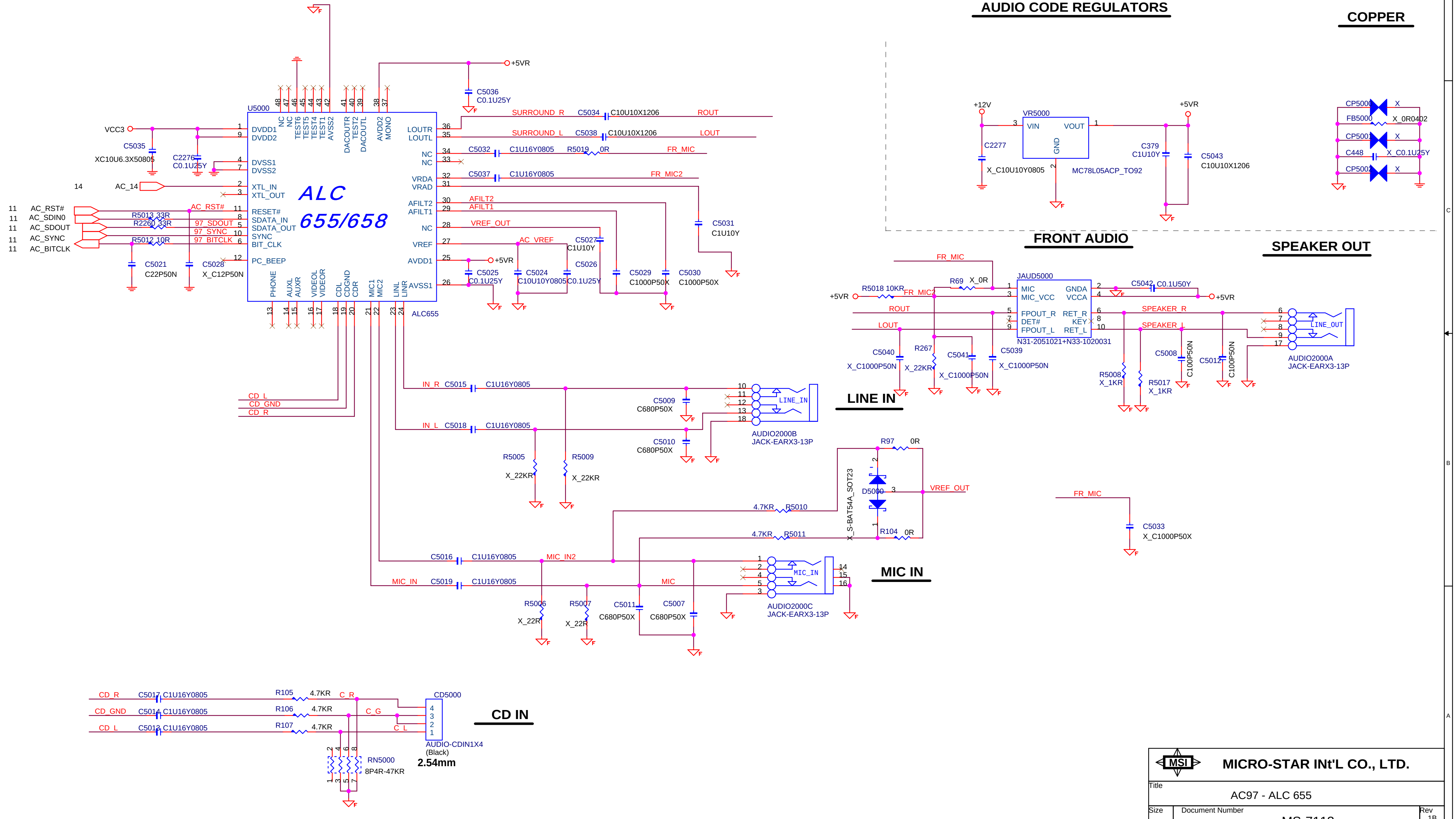
AC'97 Codec -- ALC655



MSI	MICRO-STAR INt'L CO., LTD.	
Title	AC97 - ALC 655	
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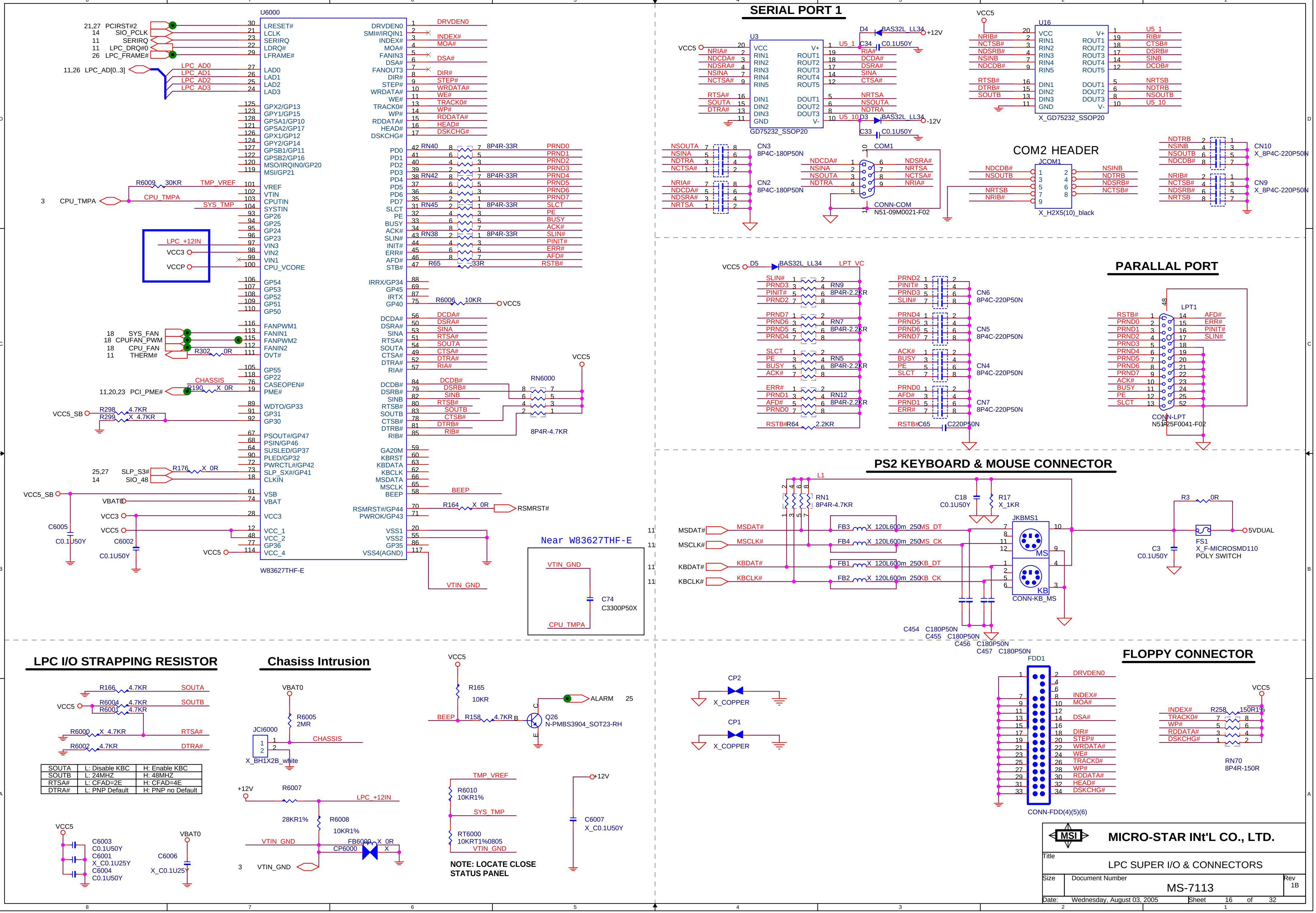

SOUTA	L: Disable KBC	H: Enable KBC
SOUTB	L: 24MHZ	H: 48MHZ
RTSA#	L: CFAD=2E	H: CFAD=4E
DTRA#	L: PNP Default	H: PNP no Default

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Title: LPC SUPER I/O & CONNECTORS

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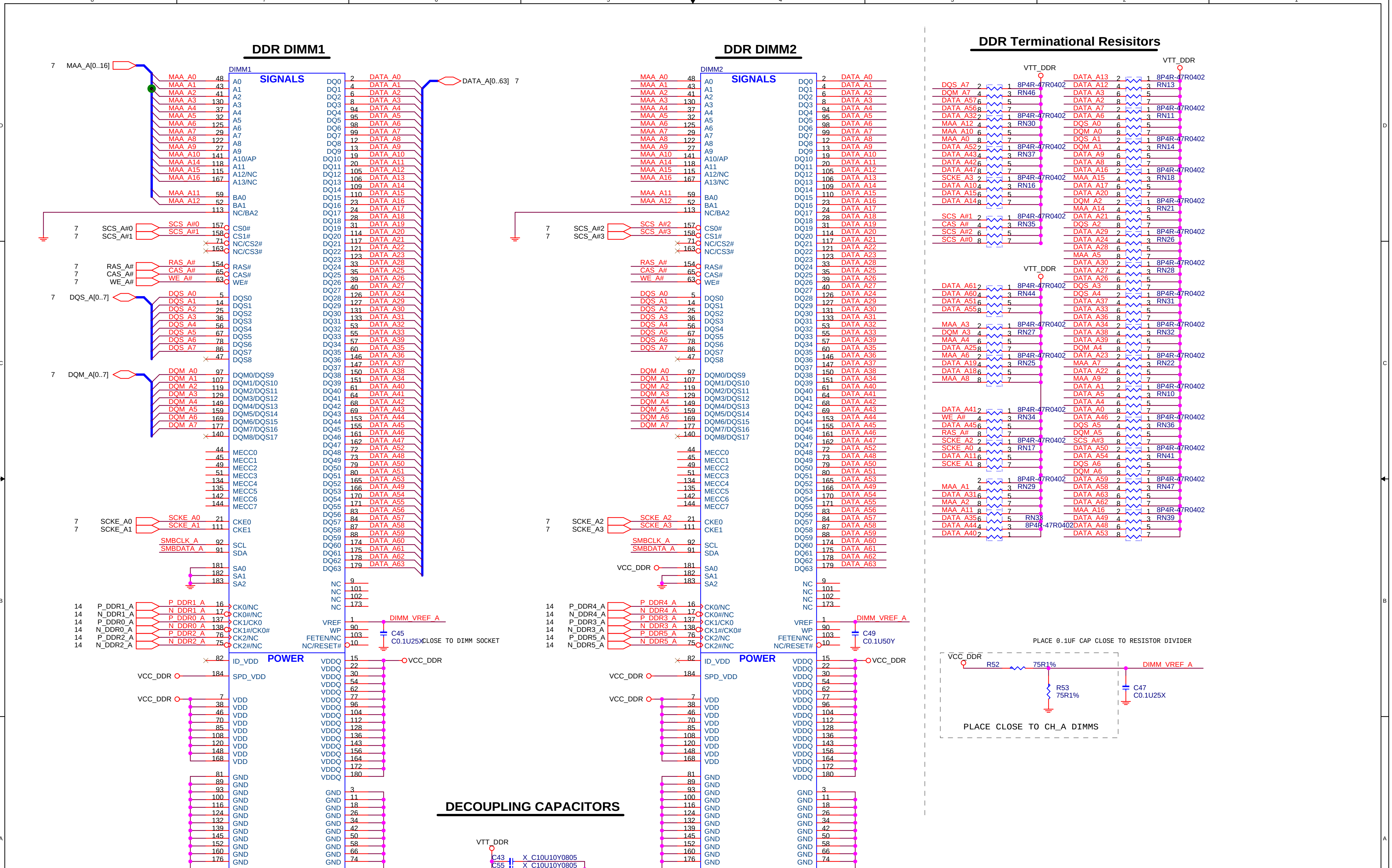

MICRO-STAR INt'L CO., LTD.

Title: DDR I DIMM 1 & 2

Size | Document Number: MS-7113 | Rev: 1B

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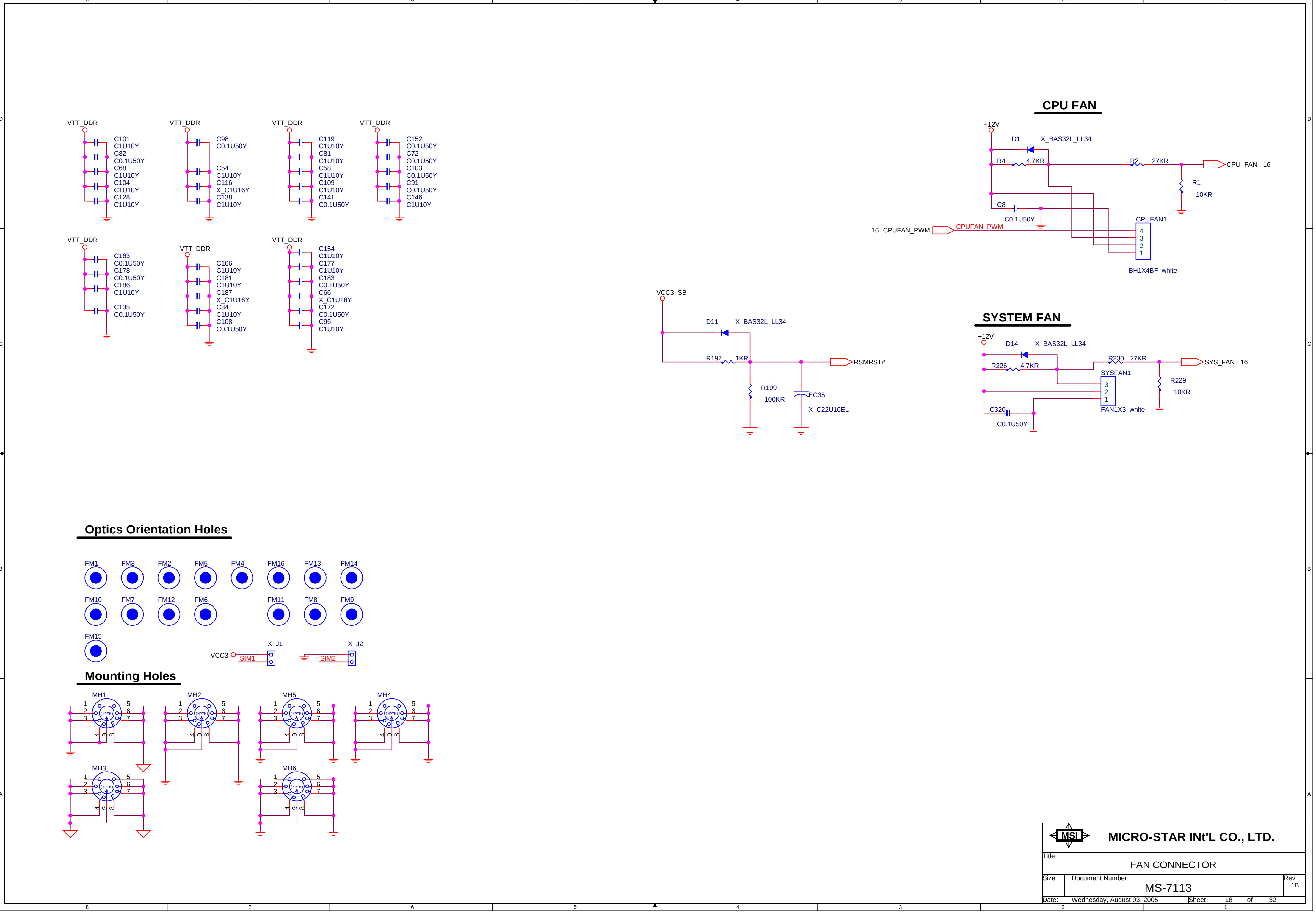
CPU FAN
+12V
D1 X_BAS32L_LL34
R4 4.7KR
R2 27KR
CPU_FAN 16
R1
10KR
C8
C0.1U50Y
CPUFAN1
16 CPUFAN_PWM
CPUFAN_PWM
4
3
2
1
BH1X4BF_white
VTT_DDR
C101 C1U10Y
C82 C0.1U50Y
C68 C1U10Y
C104 C1U10Y
C128 C1U10Y
C98 C0.1U50Y
C54 C1U10Y
C116 X_C1U16Y
C138 C1U10Y
C119 C1U10Y
C81 C1U10Y
C58 C1U10Y
C109 C1U10Y
C141 C0.1U50Y
C152 C0.1U50Y
C72 C0.1U50Y
C103 C0.1U50Y
C91 C0.1U50Y
C146 C1U10Y
C163 C0.1U50Y
C178 C0.1U50Y
C186 C1U10Y
C135 C0.1U50Y
C166 C1U10Y
C181 C1U10Y
C187 X_C1U16Y
C84 C1U10Y
C108 C0.1U50Y
C154 C1U10Y
C177 C1U10Y
C183 C0.1U50Y
C66 X_C1U16Y
C172 C0.1U50Y
C95 C1U10Y
VCC3_SB
D11 X_BAS32L_LL34
R197 1KR
RSMRST#
R199
100KR
EC35
X_C22U16EL
SYSTEM FAN
+12V
D14 X_BAS32L_LL34
R230 27KR
SYS_FAN 16
R226 4.7KR
SYSFAN1
3
2
1
R229
10KR
C320
C0.1U50Y
FAN1X3_white
Optics Orientation Holes
FM1 FM3 FM2 FM5 FM4 FM16 FM13 FM14
FM10 FM7 FM12 FM6 FM11 FM8 FM9
FM15
VCC3
X_J1
SIM1
X_J2
SIM2
Mounting Holes
MH1 MH2 MH5 MH4
MH3 MH6
NPTH
MSI
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Title
FAN CONNECTOR
Size
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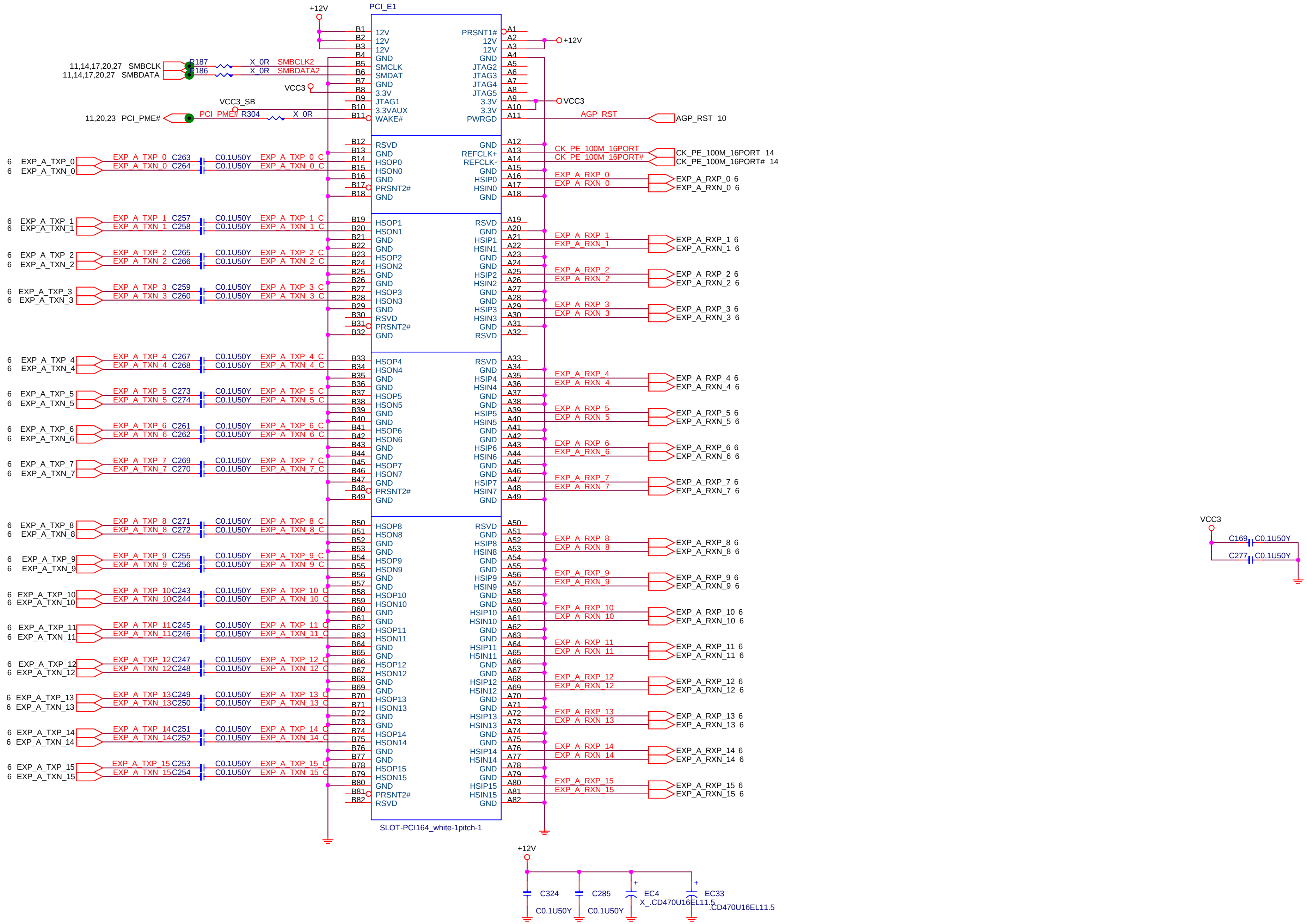

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Title
PCI EXPRESS 16 PORT

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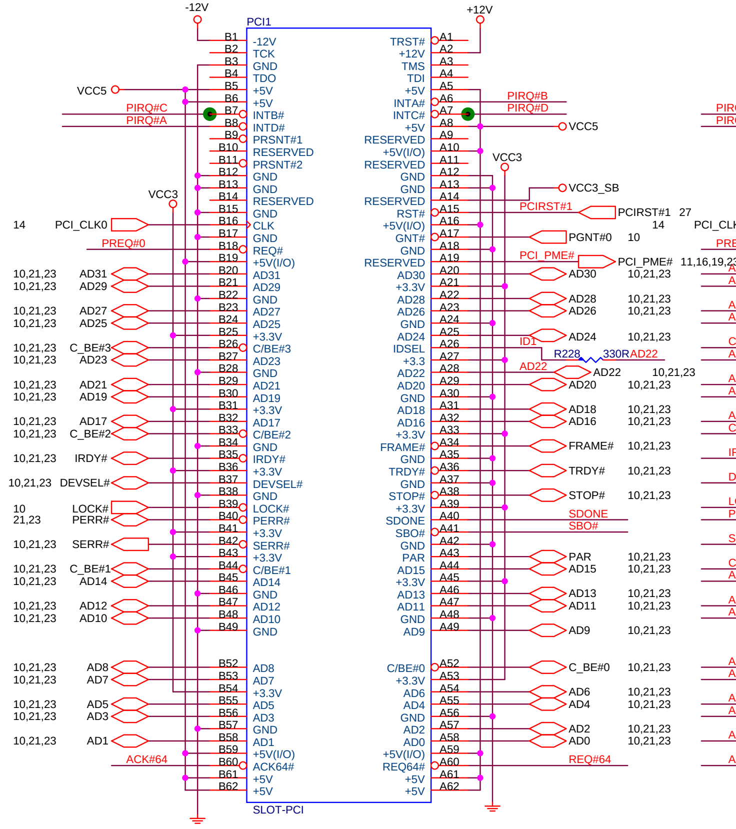
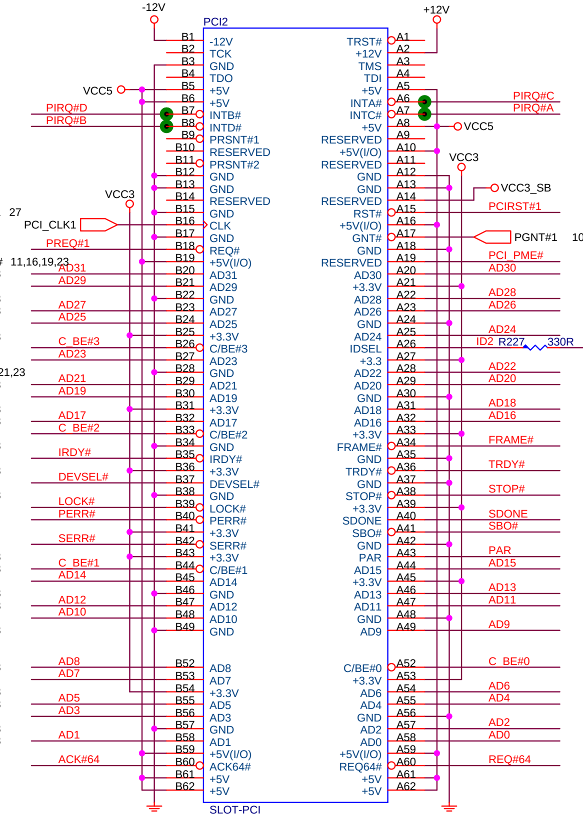
PCI SLOT 1 (PCI VER: 2.2 COMPLY)



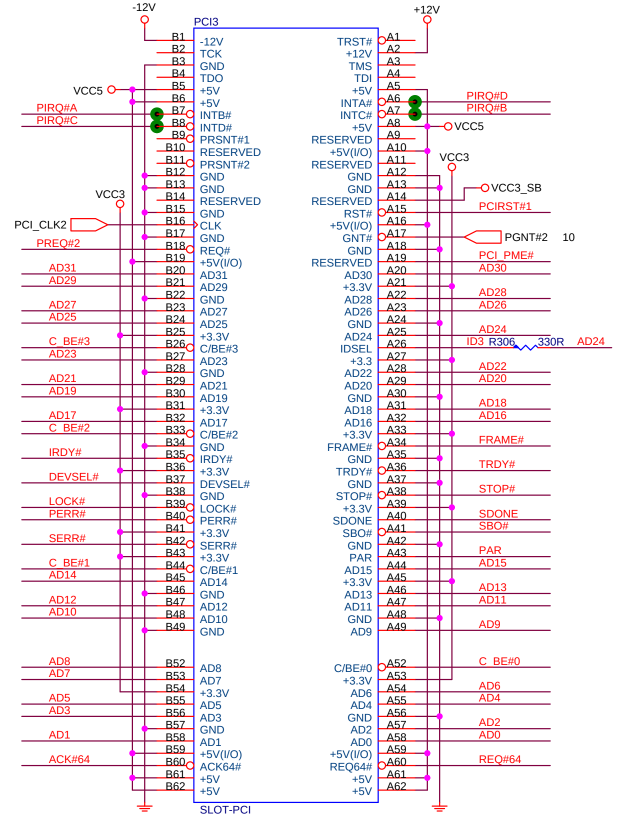
IDSEL = AD22
MASTER = PREQ#0
PIRQ#B

PCI SLOT 2 (PCI VER: 2.2 COMPLY)



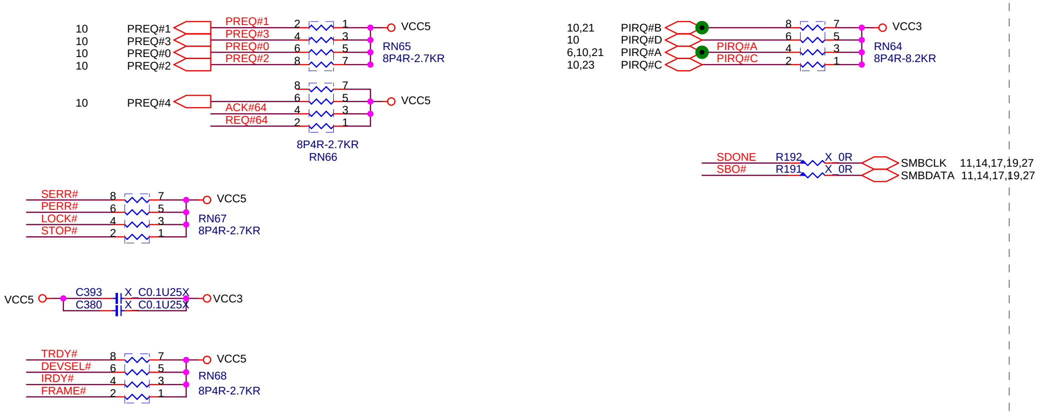
IDSEL = AD23
MASTER = PREQ#1
PIRQ#C

PCI SLOT 3 (PCI VER: 2.2 COMPLY)

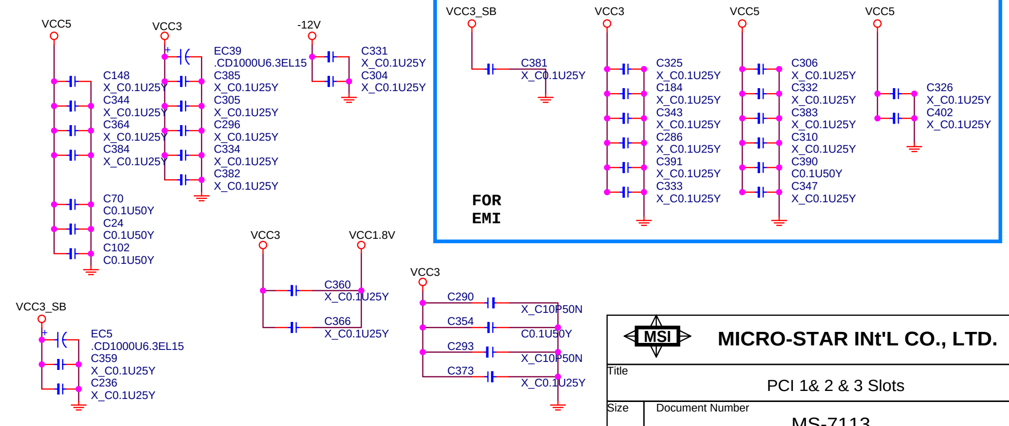


IDSEL = AD24
MASTER = PREQ#2
PIRQ#C

PCI PULL-UP / DOWN RESISTORS



PCI SLOT DECOUPLING CAPACITORS



FOR EMI

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Title	PCI 1& 2 & 3 Slots		
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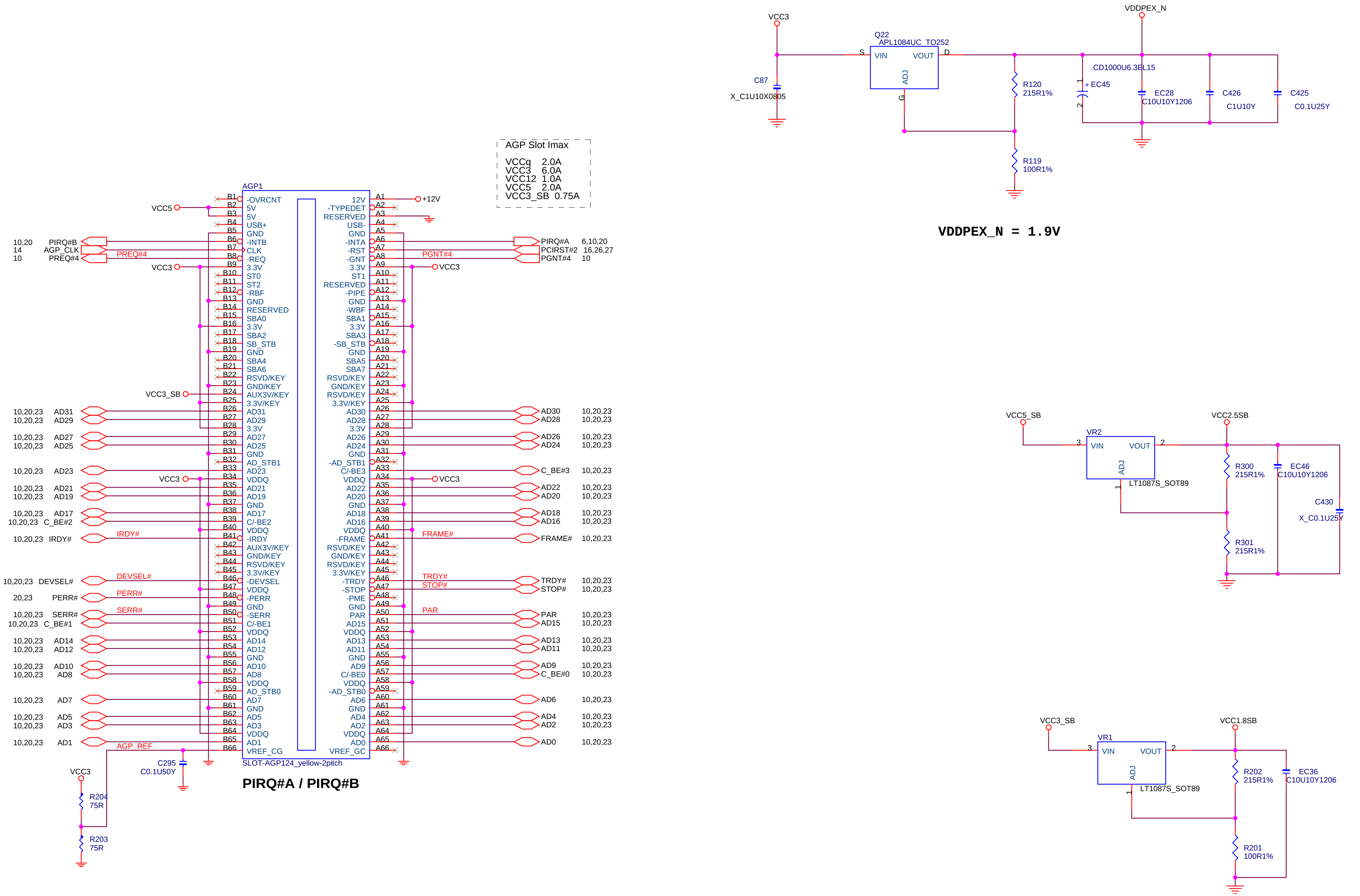

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Title	PCI SLOT 4
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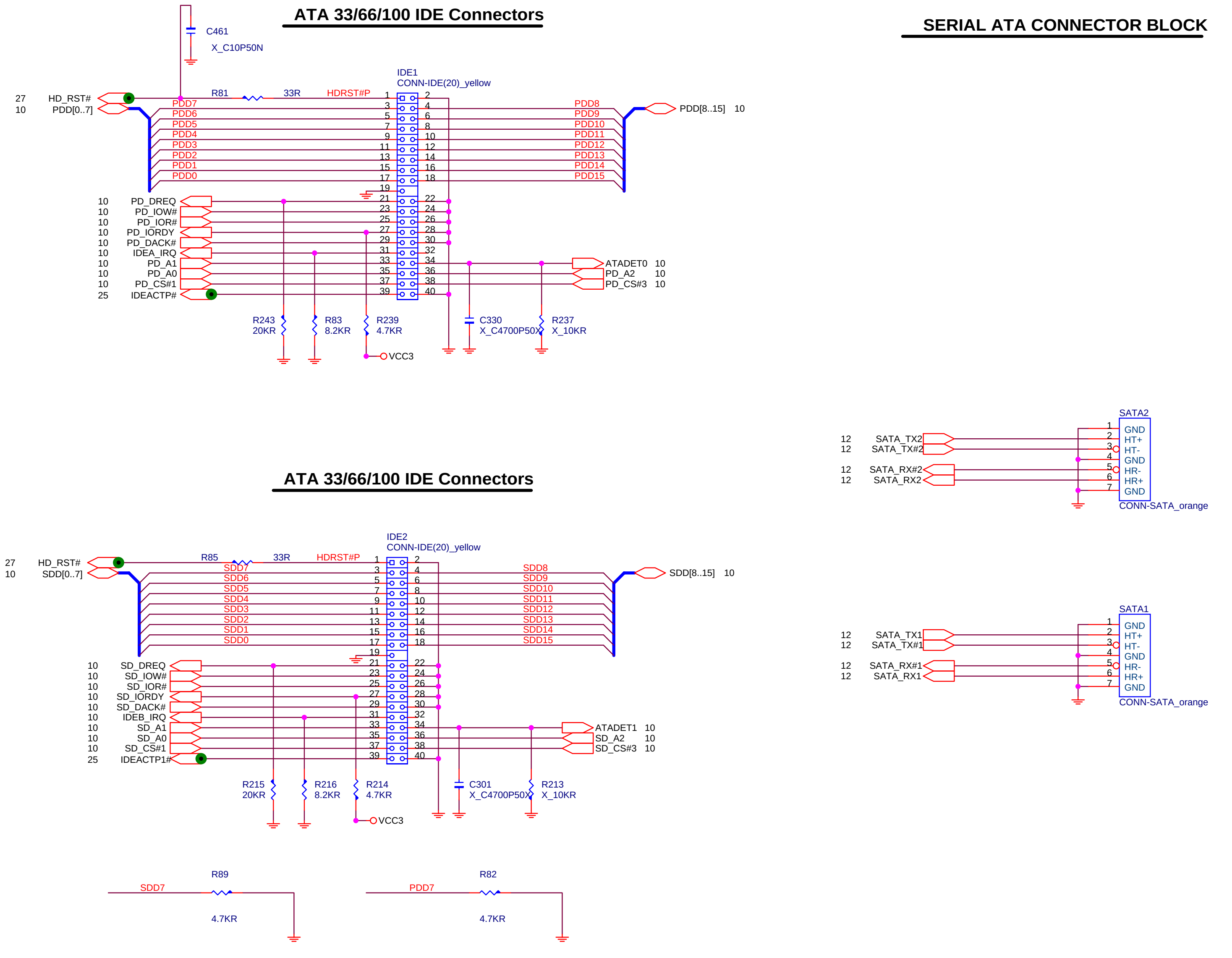

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Title	ATA33/66/100 IDE & SATA Connectors
Size / Document Number	MS-7113
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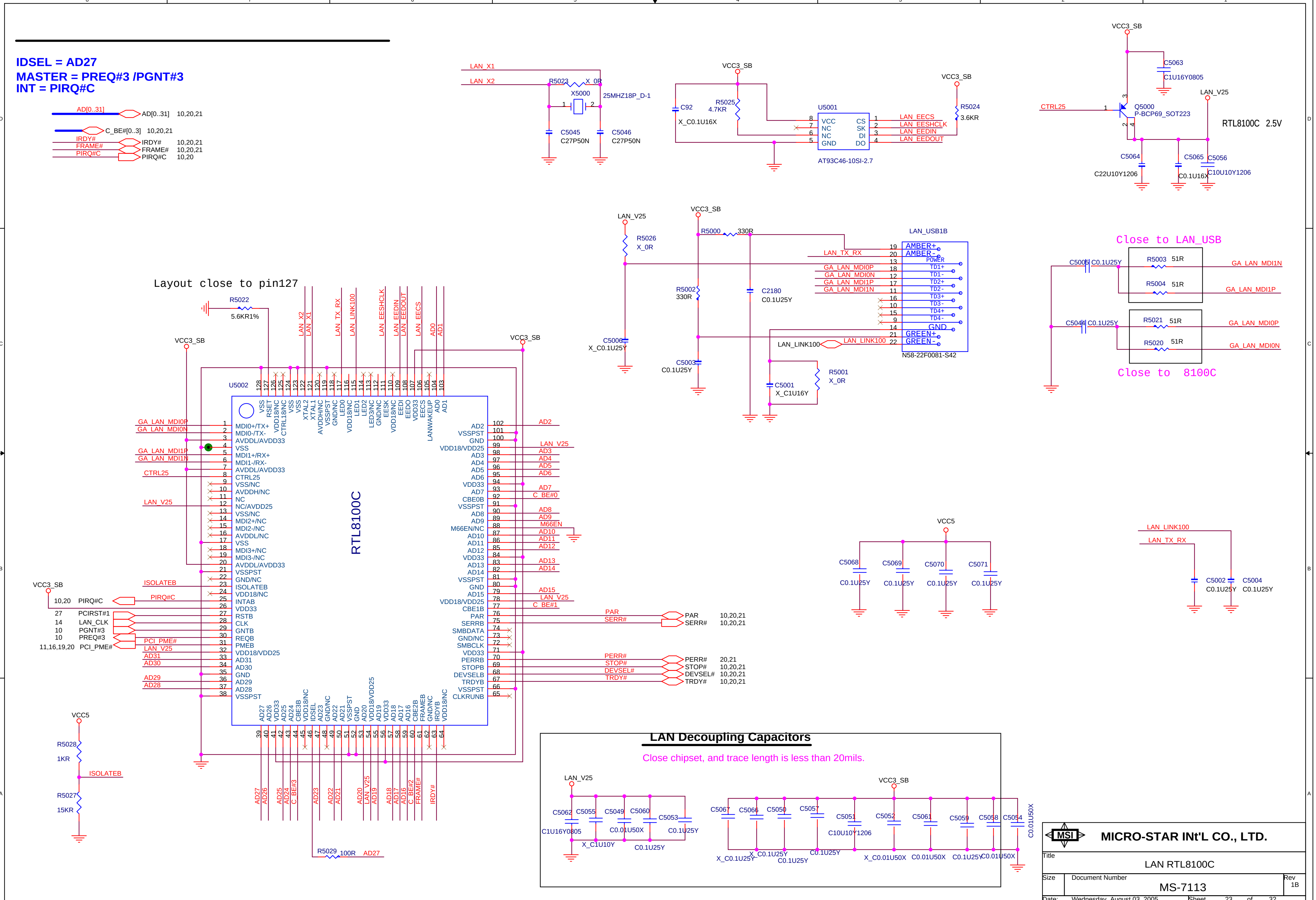

MICRO-STAR INt'L CO., LTD.

Title	LAN RTL8100C
Size / Document Number	MS-7113
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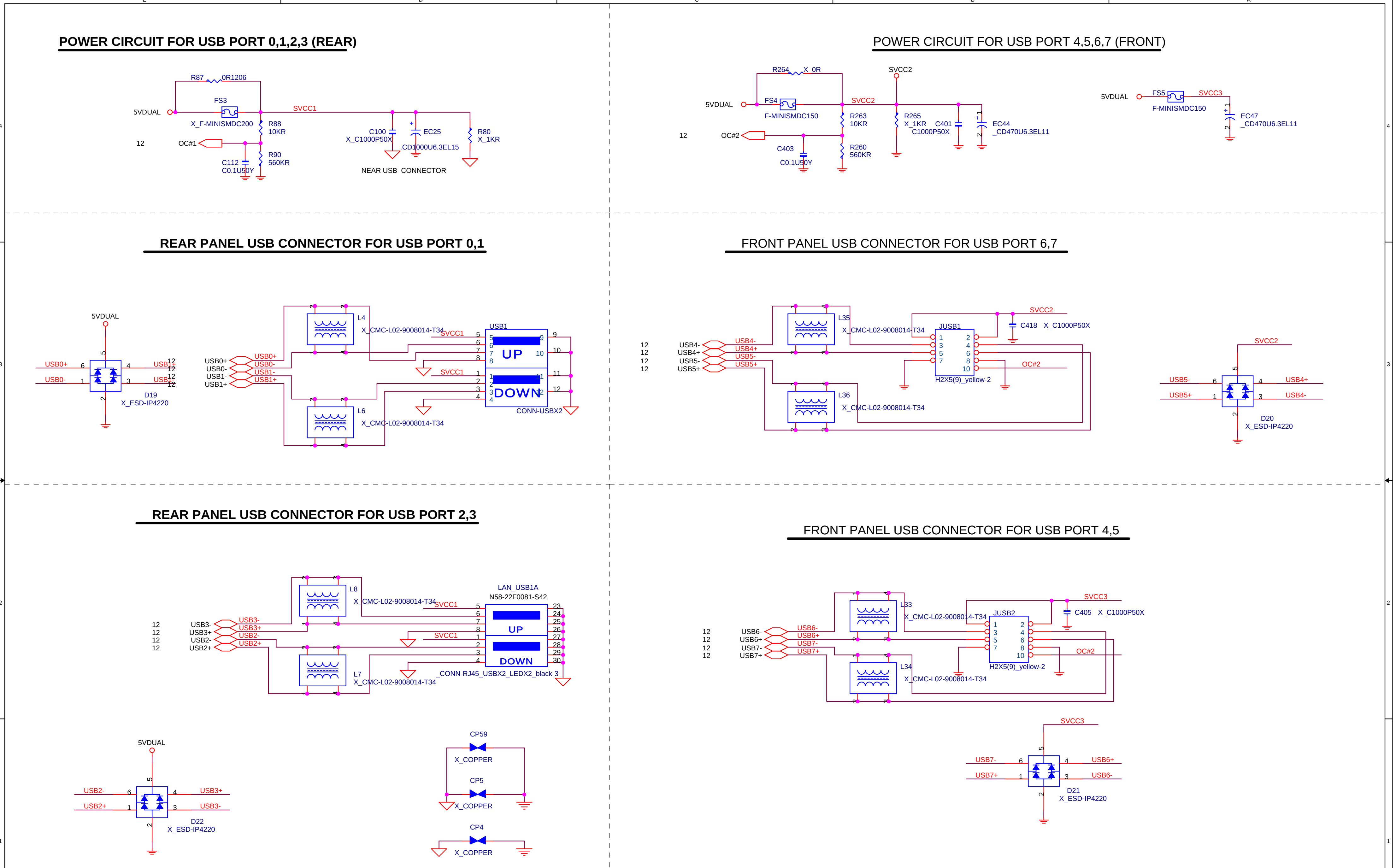

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Title: USB Connectors

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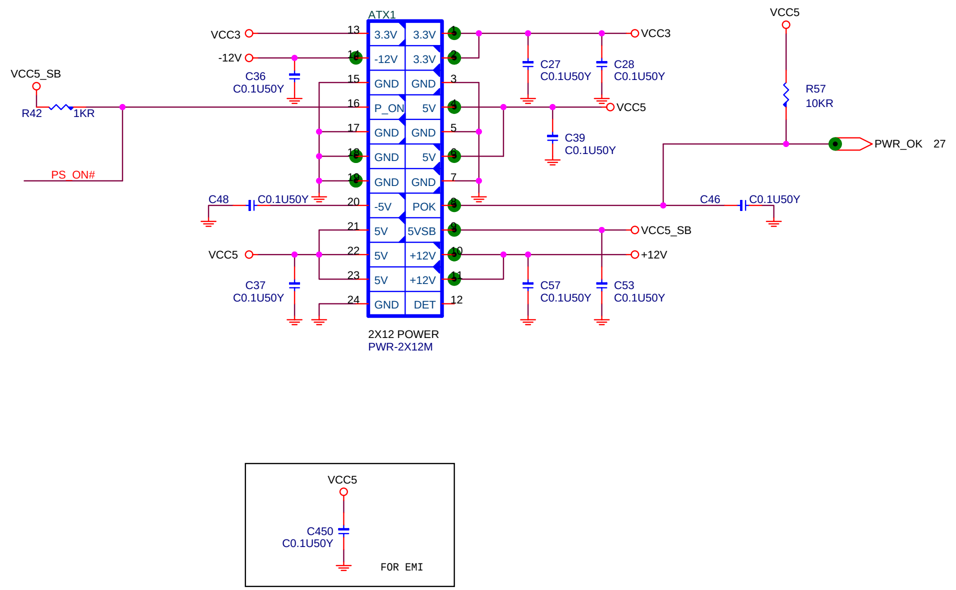
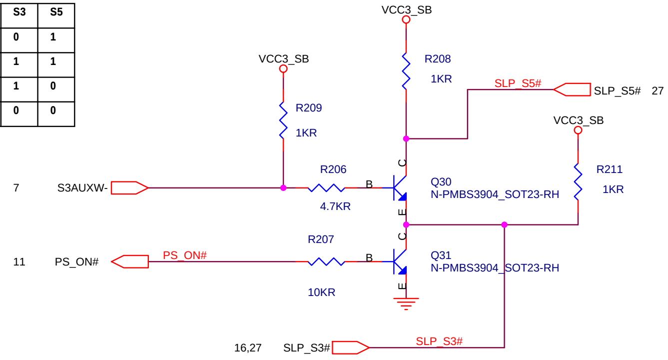
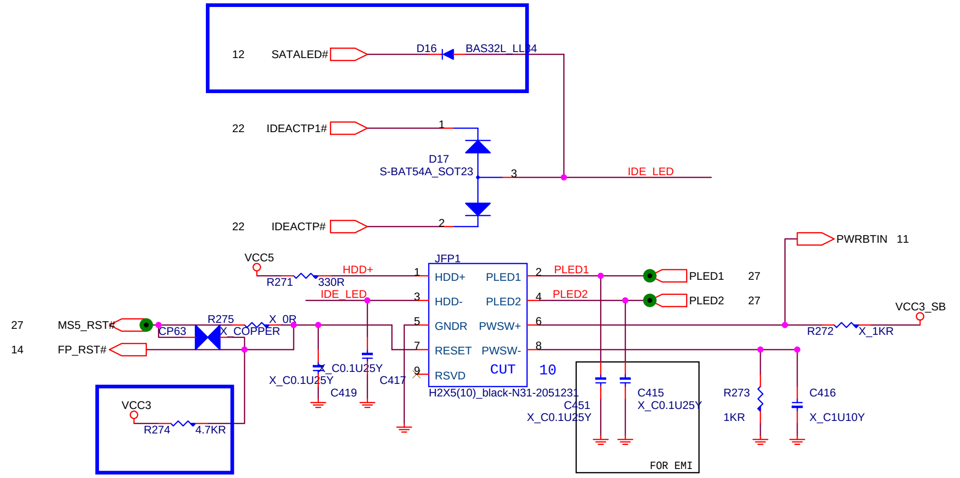
ATX Connector



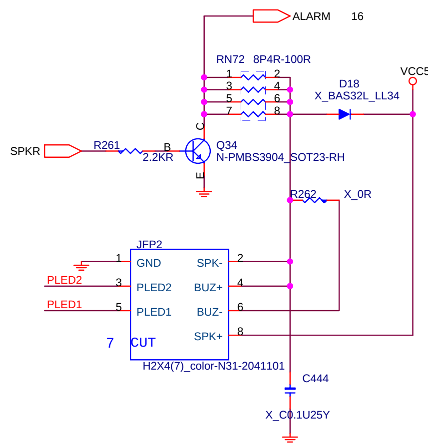
	S0	S3	S5
S3AUXSW#	1	0	1
PSON#	0	1	1
SLP_S5#	1	1	0
SLP_S3#	1	0	0



INTEL/PB Front Panel Connector



MSI Front Panel Connector



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Title	ATX Connector & Front Panel	
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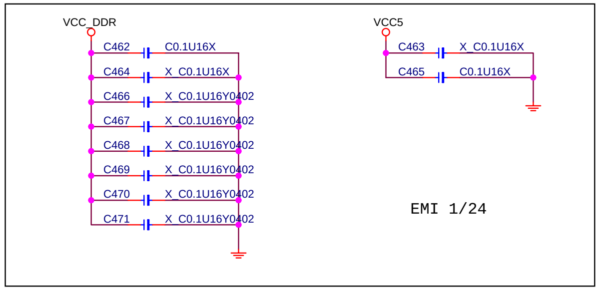
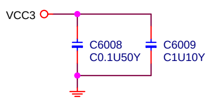
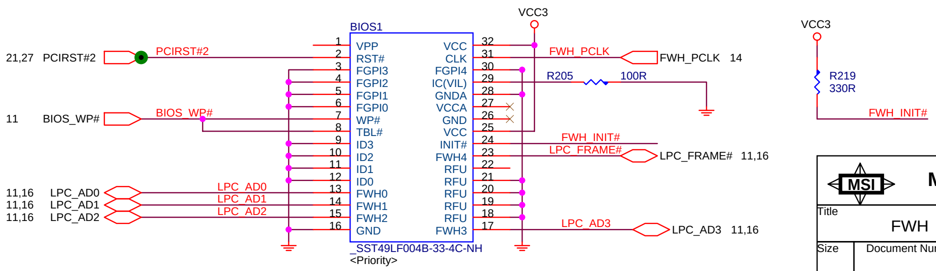


LPC DECOUPLING CAPACITORS



Place Cap. as Close to LPC< 350 mil

LPC ROM



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Title: FWH		
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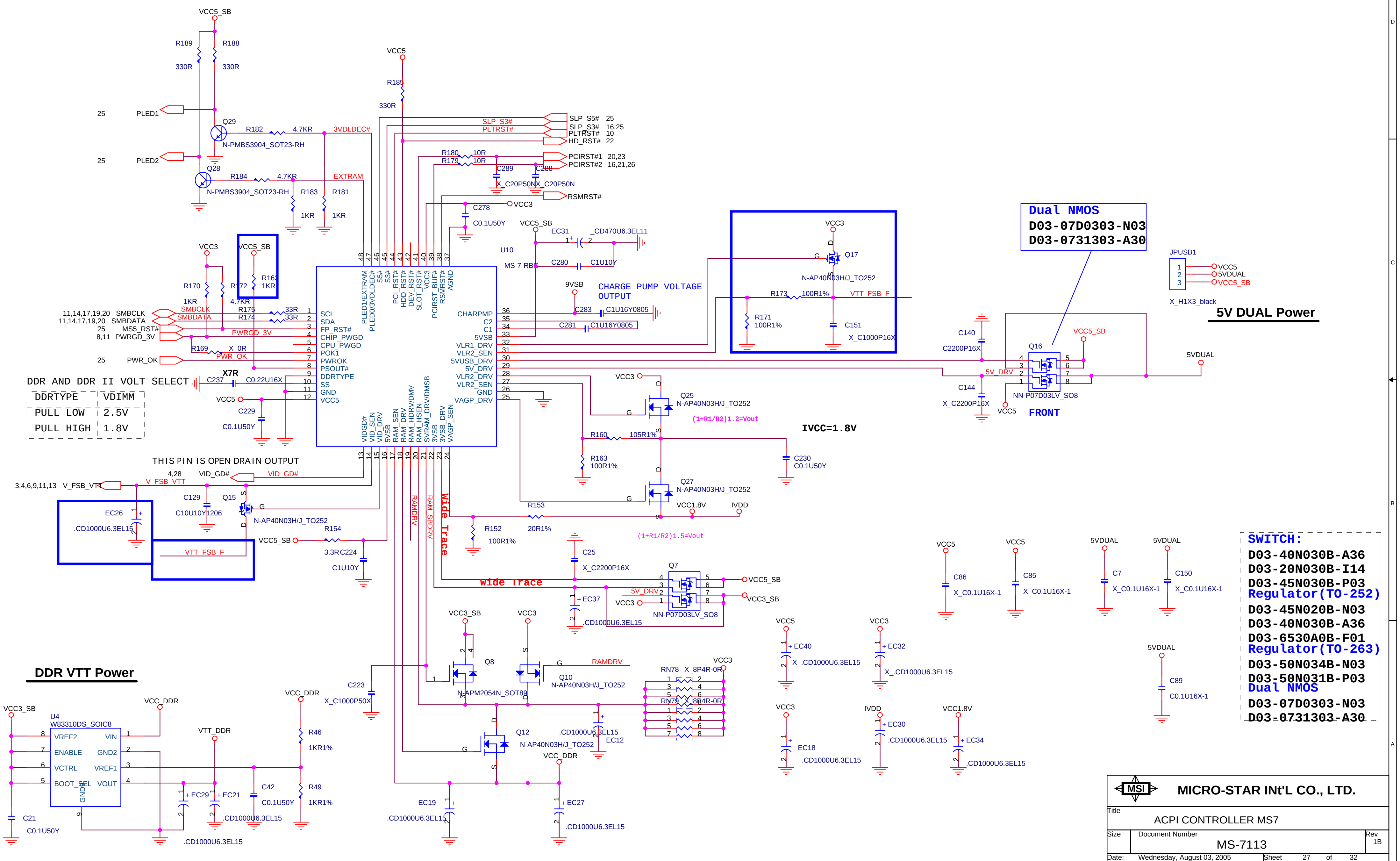
ACPI Controller

3VSB MODE SELECT

3VSB MODE	3VDLDEC#
SINGLE MOSFET	PULL HIGH
DUAL MOSFET	PULL LOW

VDIMM LINEAR OR PWM SELECT

VDIMM MODE	EXTRAM
LINEAR REGULATOR	PULL LOW
PWM REGULATOR	PULL HIGH



DDR AND DDR II VOLT SELECT

DDRTYPE	VDIMM
PULL LOW	2.5V
PULL HIGH	1.8V

SWITCH:
D03-40N030B-A36
D03-20N030B-I14
D03-45N030B-P03

Regulator(TO-252)
D03-45N020B-N03
D03-40N030B-A36
D03-6530A0B-F01

Regulator(TO-263)
D03-50N034B-N03
D03-50N031B-P03

Dual NMOS
D03-07D0303-N03
D03-0731303-A30

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Title	ACPI CONTROLLER MS7
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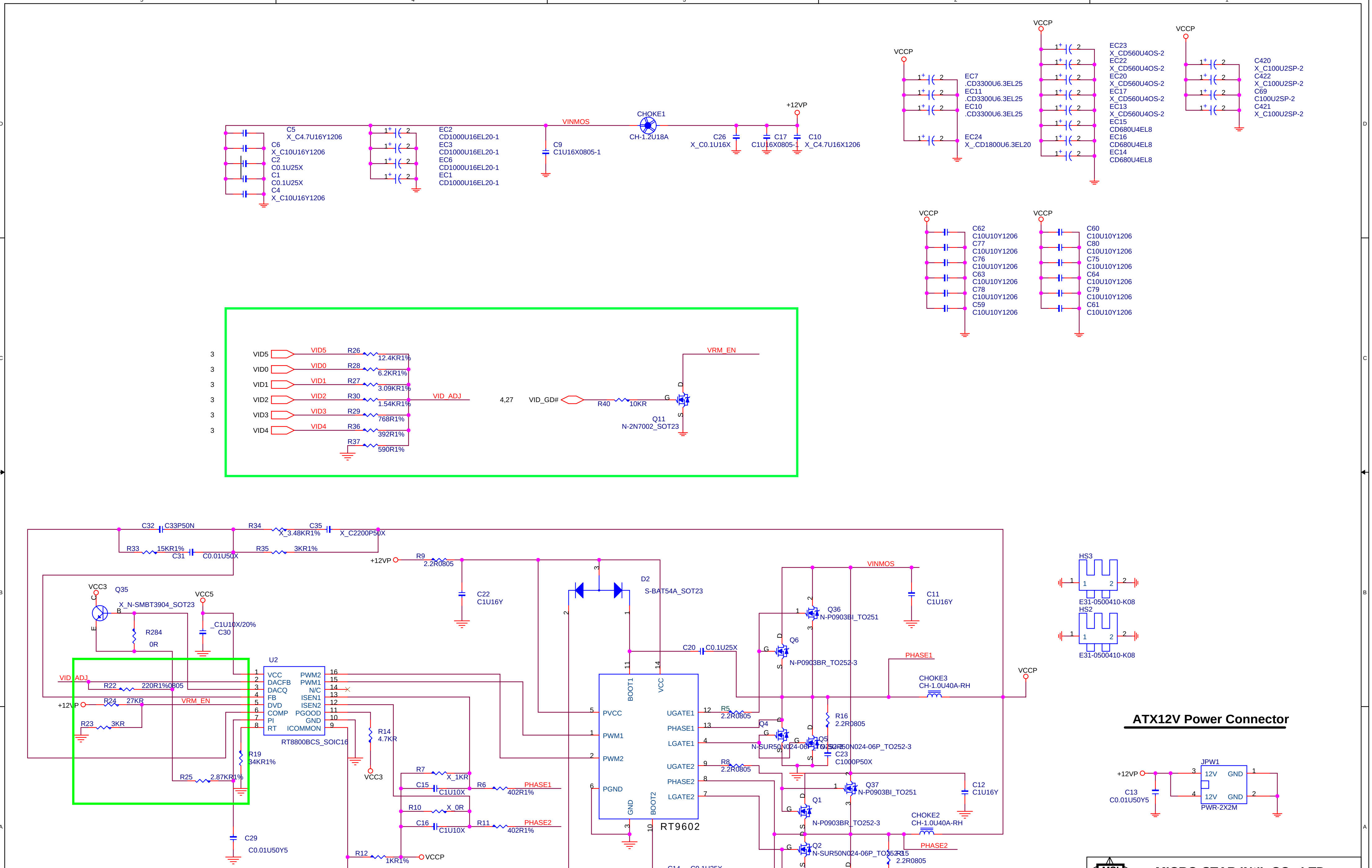

MICRO-STAR INt'L CO., LTD.

Title	RT8800B + RT9602
Size	
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