

MS-6576 Ver : 0A

ATI RS200 + SB200 CHIPSET

Willamette/Northwood 478pin mPGA-B Processor Schematics

CPU:

Willamette/Northwood mPGA-478B Processor

System Chipset:

ATI RS200 (North Bridge) + SB200 (South Bridge)

On Board Chipset:

LPC Super I/O -- W83697HF

Realtek Lan -- RTL8101L

Expansion Slots:

AGP2.0 SLOT * 1

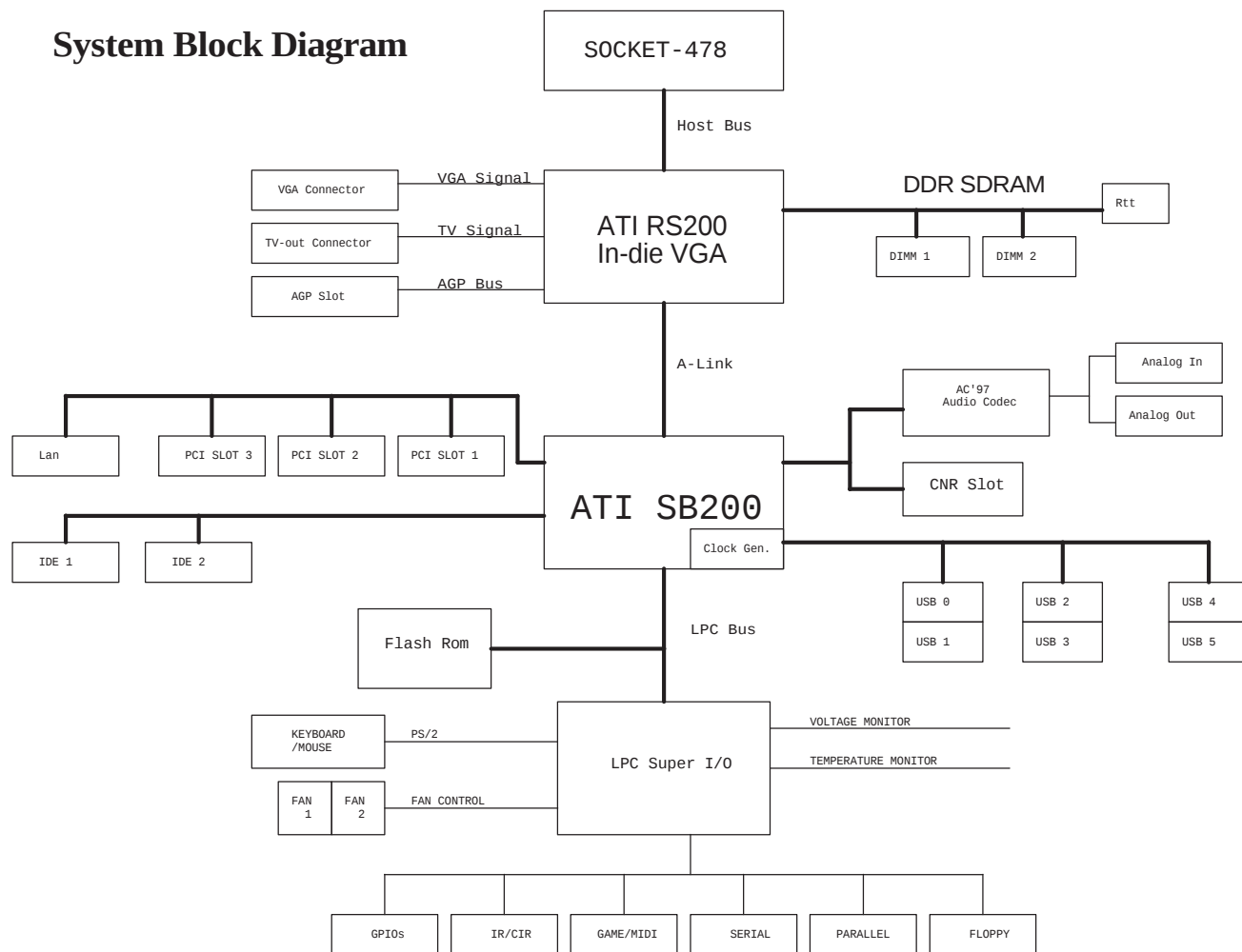
DDR DIMM * 2

PCI SLOT * 3

CNR SLOT * 1

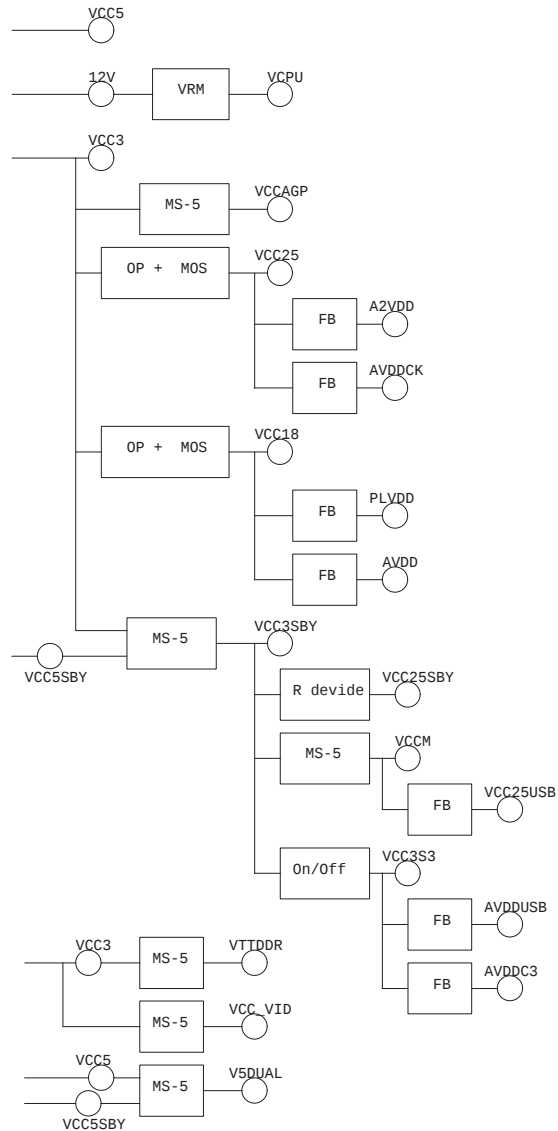
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System Block Diagram



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Power Flow



RS200	SB200
VDD_5V	5V_VREF
VCPU	VREF_CPU
VPCI, VDD_3.3V, +3.3V	VDDQ
VDD_AGP	
	VDD_CORE
A2VDD	
	AVDD_CK
VDD_CORE	
PLLVD	
A2VDDQ, AVDD	
	S5_3.3V
	S5_2.5V
VDRM	STB_2.5V
	VDD_USB
	STB_3.3V
	AVDDTX, AVDDRX
	AVDDC

S0 -- S1
5V VDD_5V x 1
3.3V VPCI x 6
VDD_3.3V x 2
+3.3V x 1
3.3V/1.5V VDD_AGP x 6
2.5V A2VDD x 1
1.8V VDD_CORE x 39
PLLVD x 2
A2VDDQ x 1
AVDD x 1
1.2V/1.7V VCPU x 1

S0 -- S3
2.5V VDRM x 17

SB200

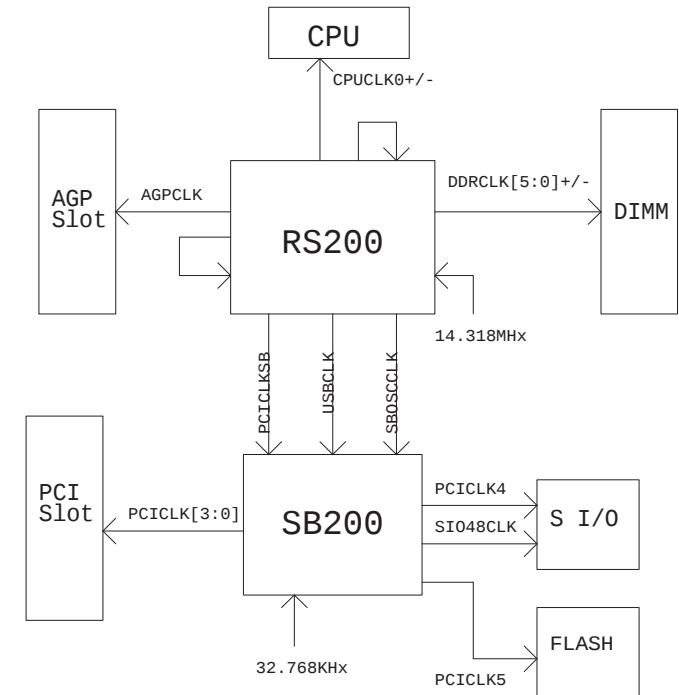
S0 -- S1
5V 5V_VREF x 1
3.3V VDDQ x 28
2.5V VDD_CORE x 16
AVDD_CK x 1
1.2V/1.7V VREF_CPU x 1

S0 -- S3
3.3V STB_3.3V x 7
2.5V STB_2.5V x 5

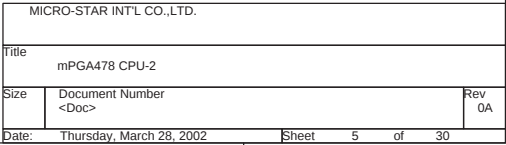
S0 -- S3/S5
3.3V AVDDTX x 3
AVDDRX x 3
AVDDC x 1
2.5V VDD_USB x 3

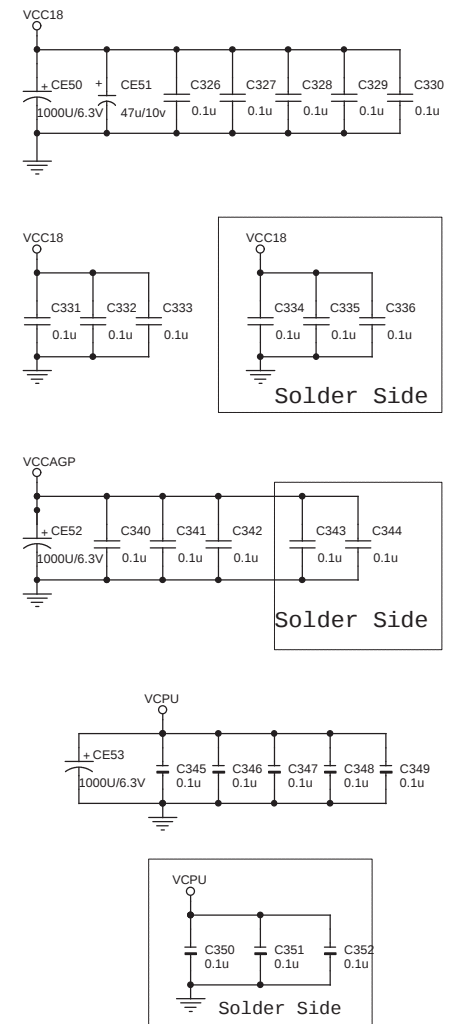
S0 -- S5
3.3V S5_3.3V x 1
2.5V S5_2.5V x 1

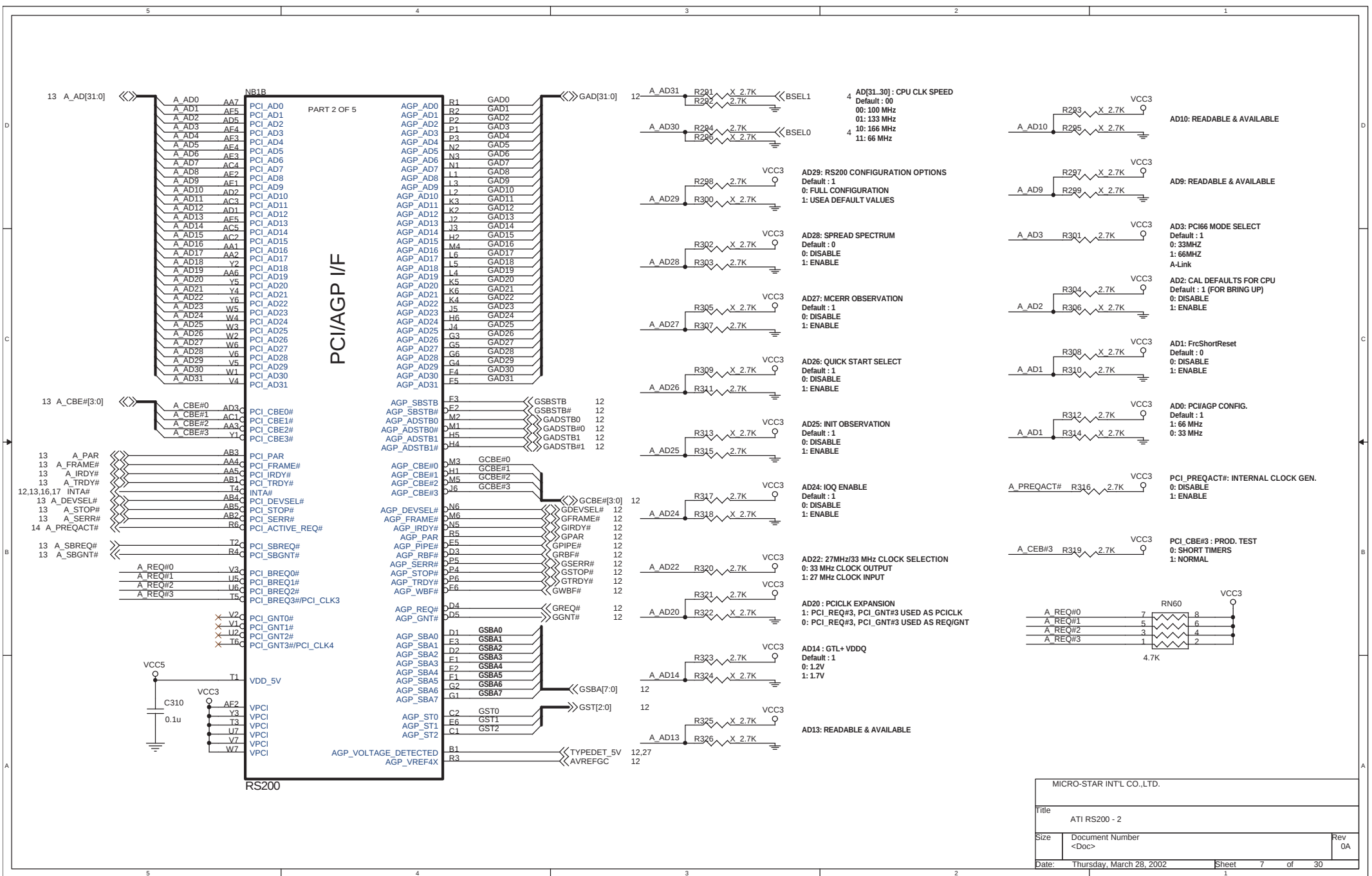
Clock Flow

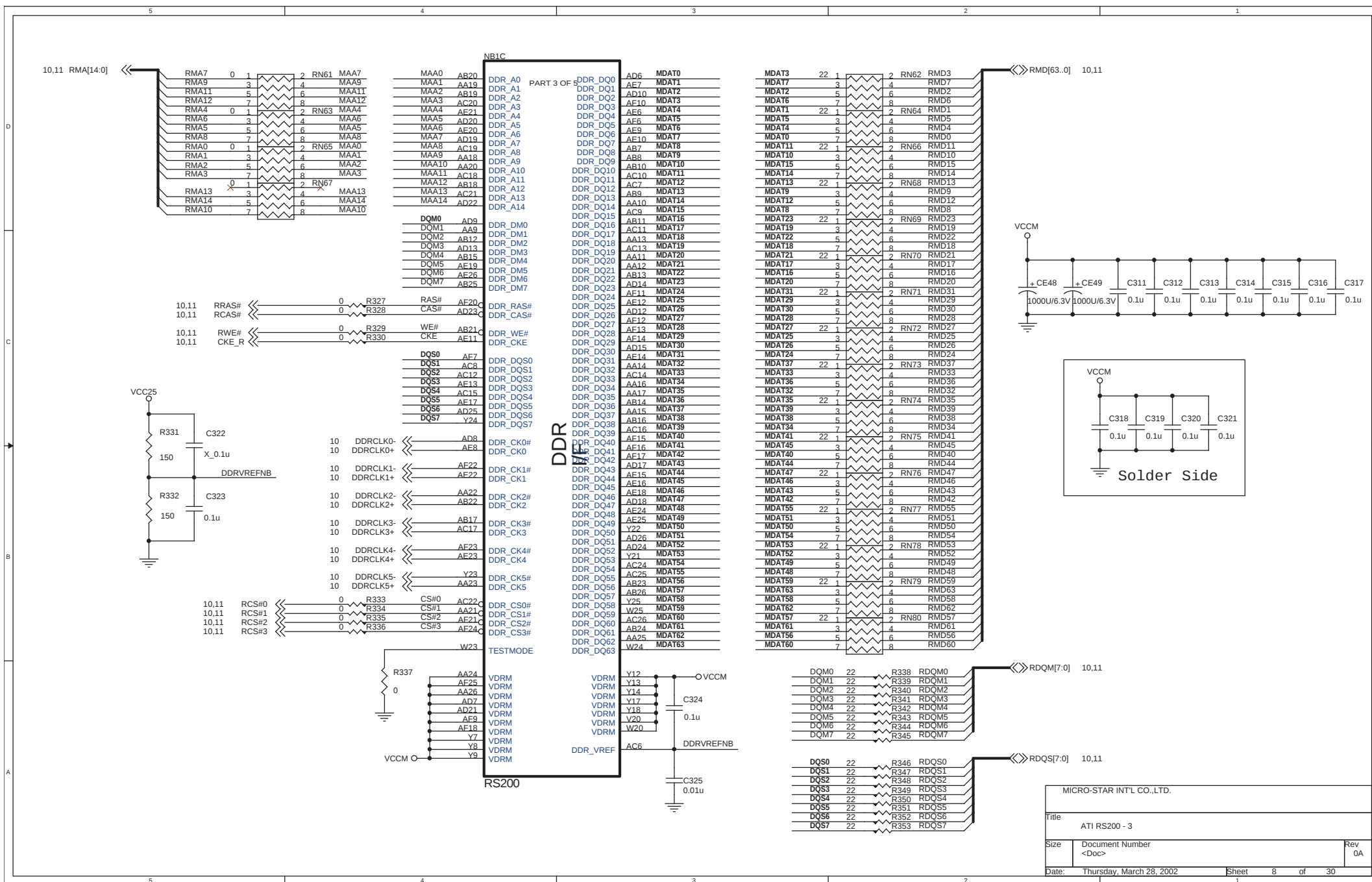


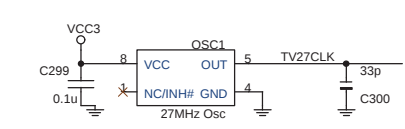
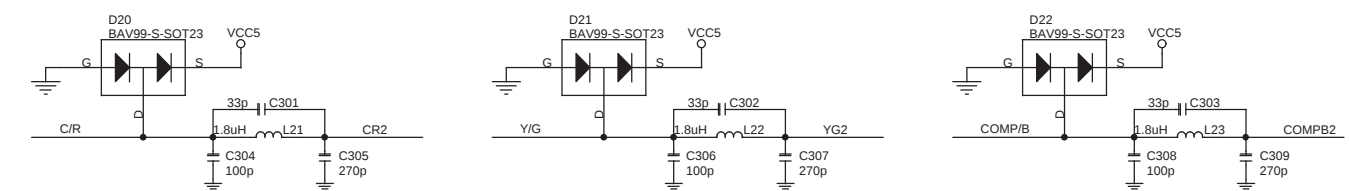
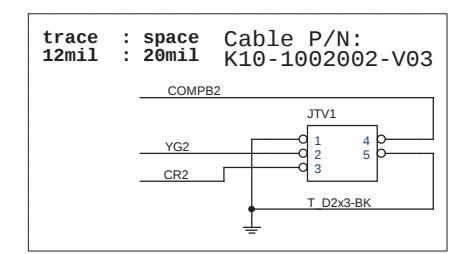
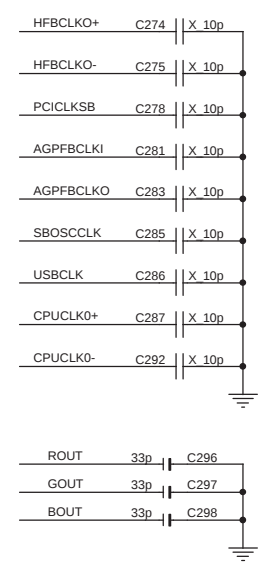
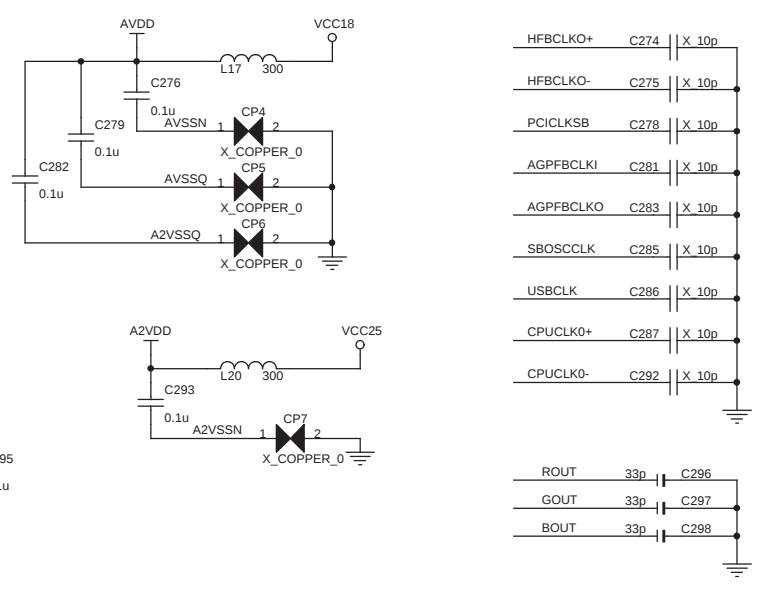
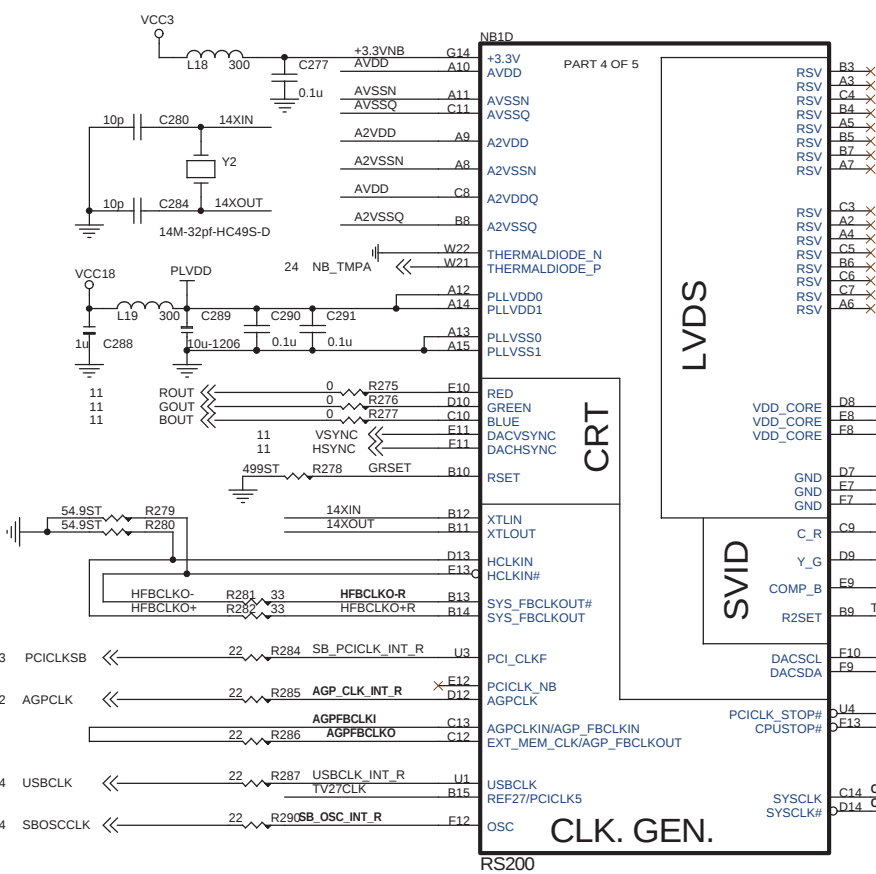
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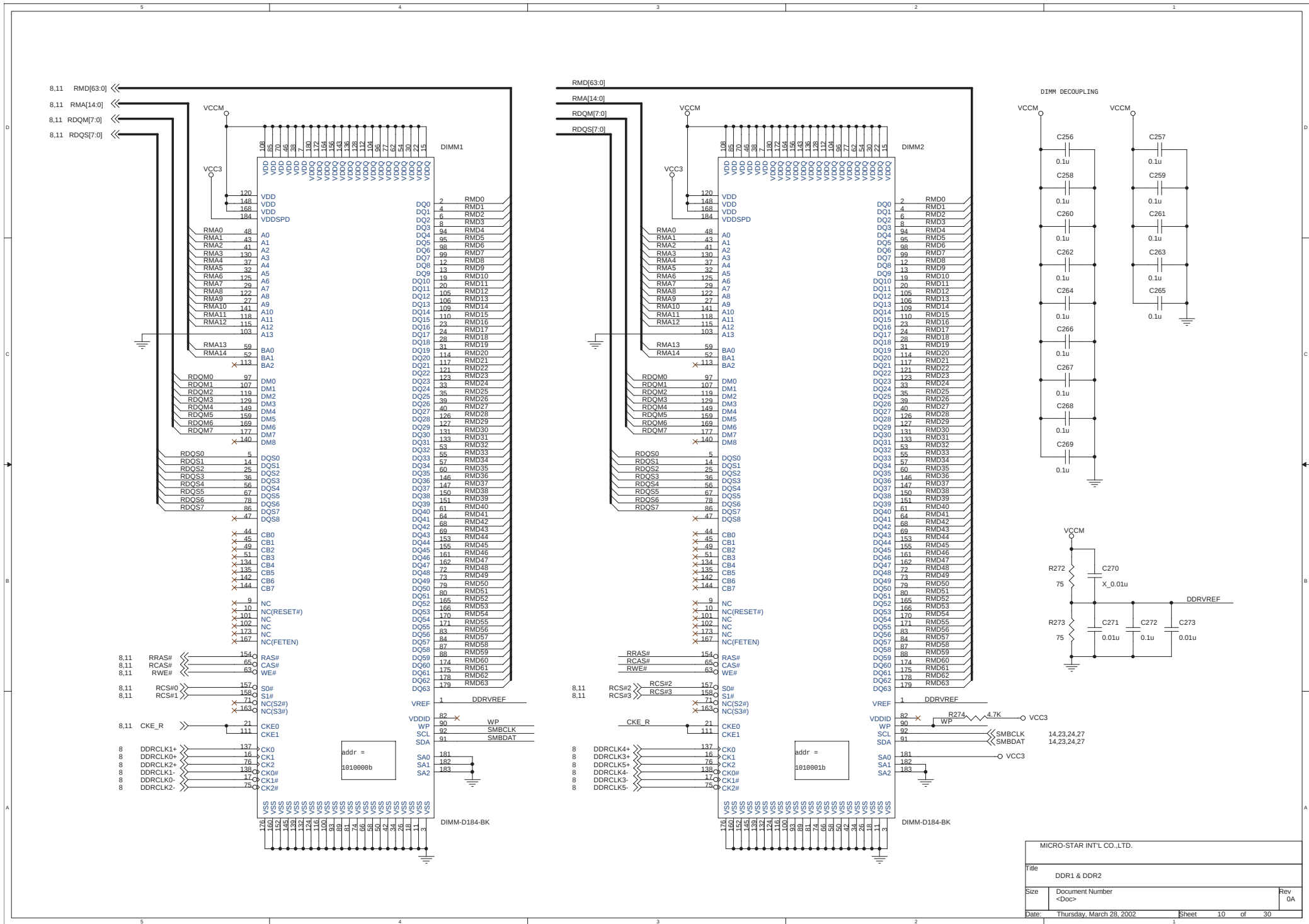


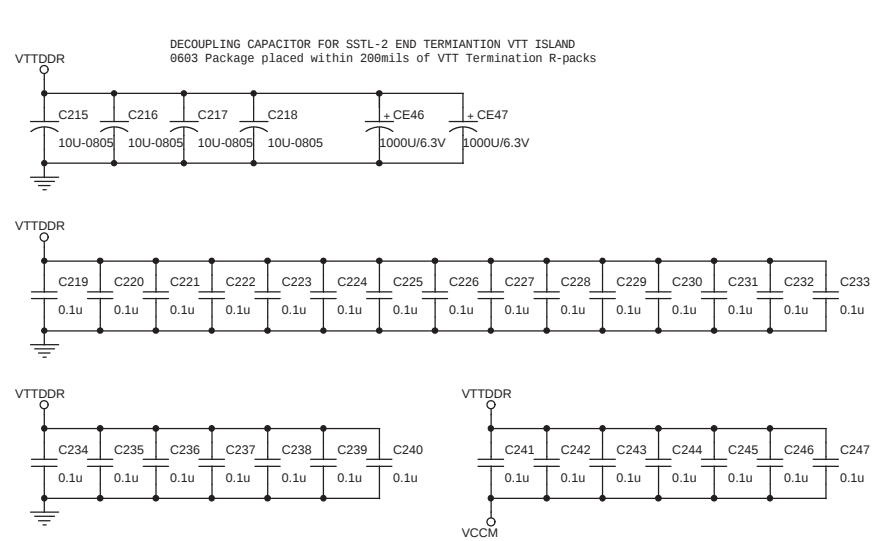
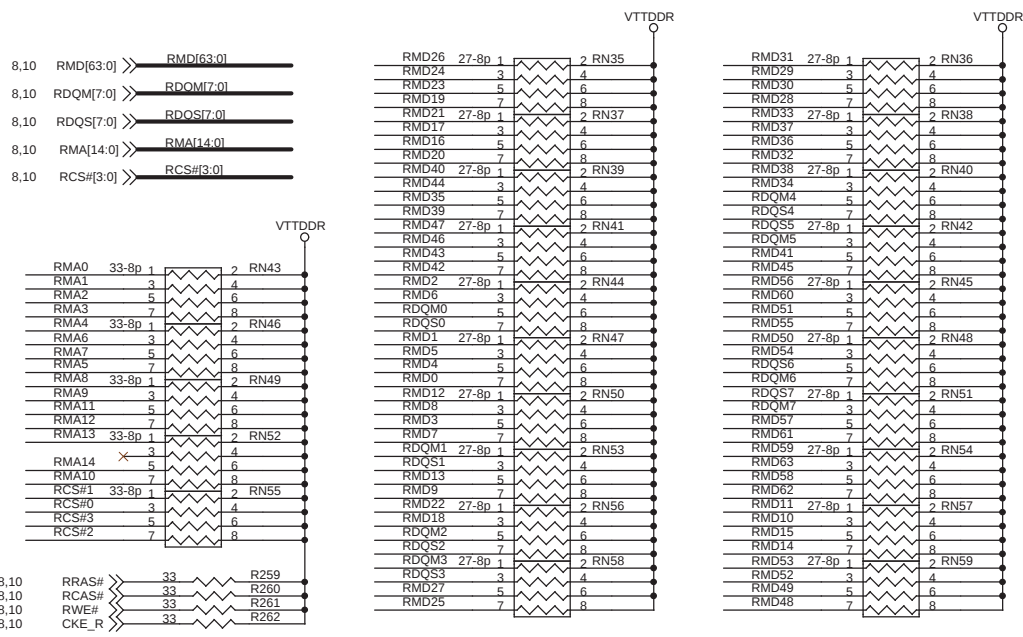




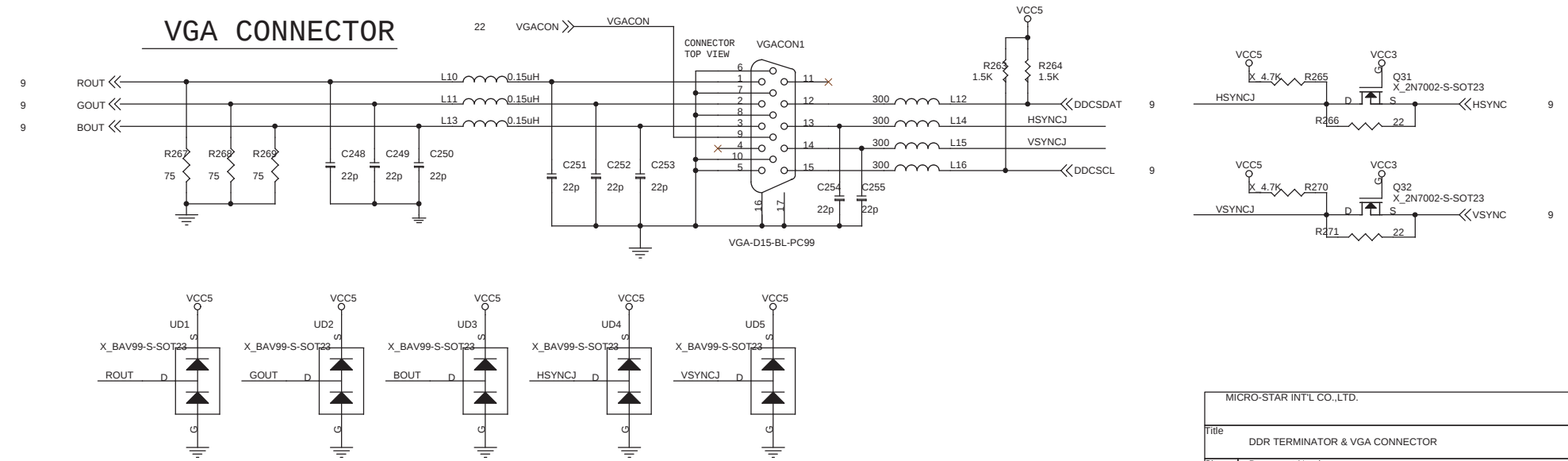


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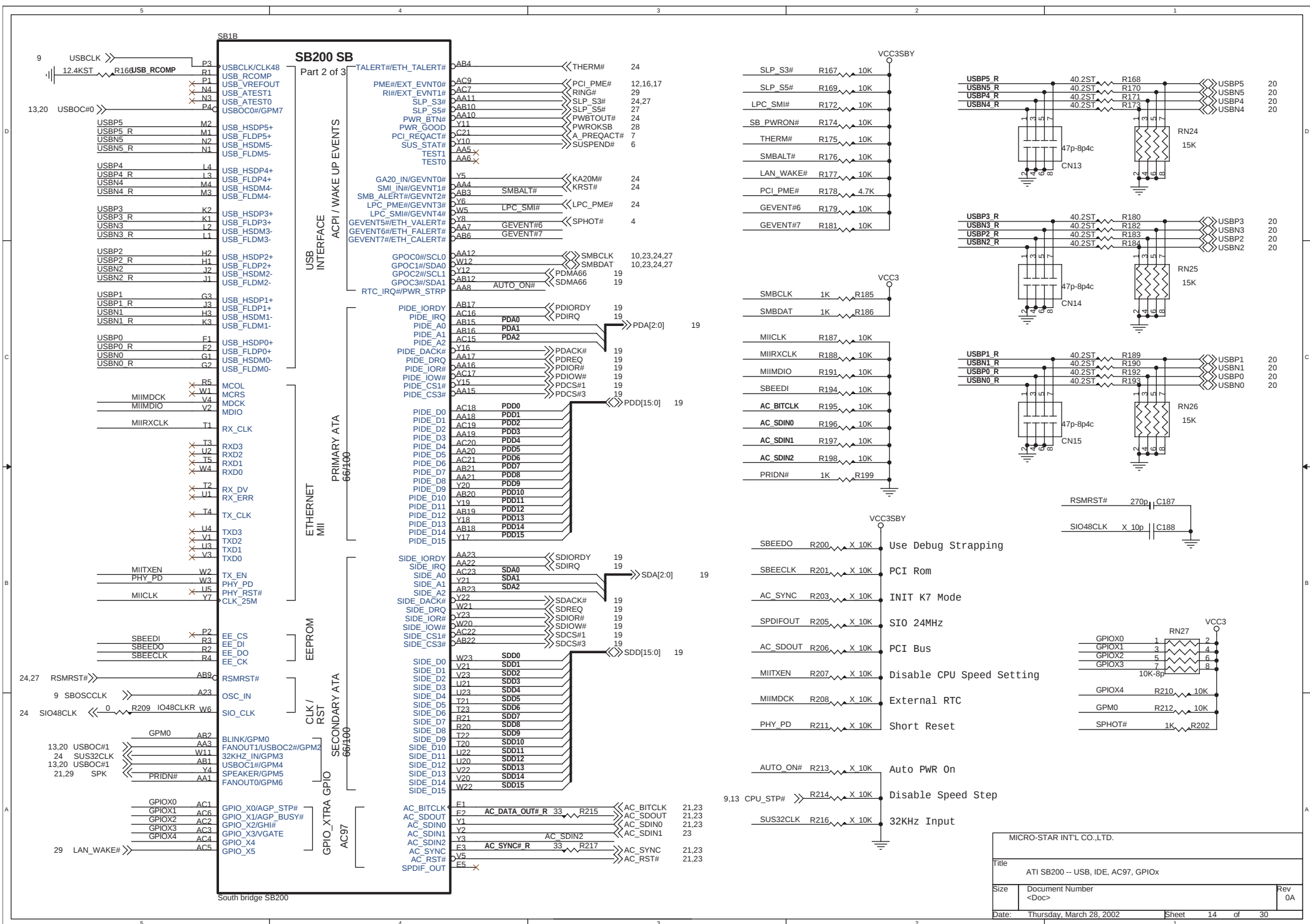


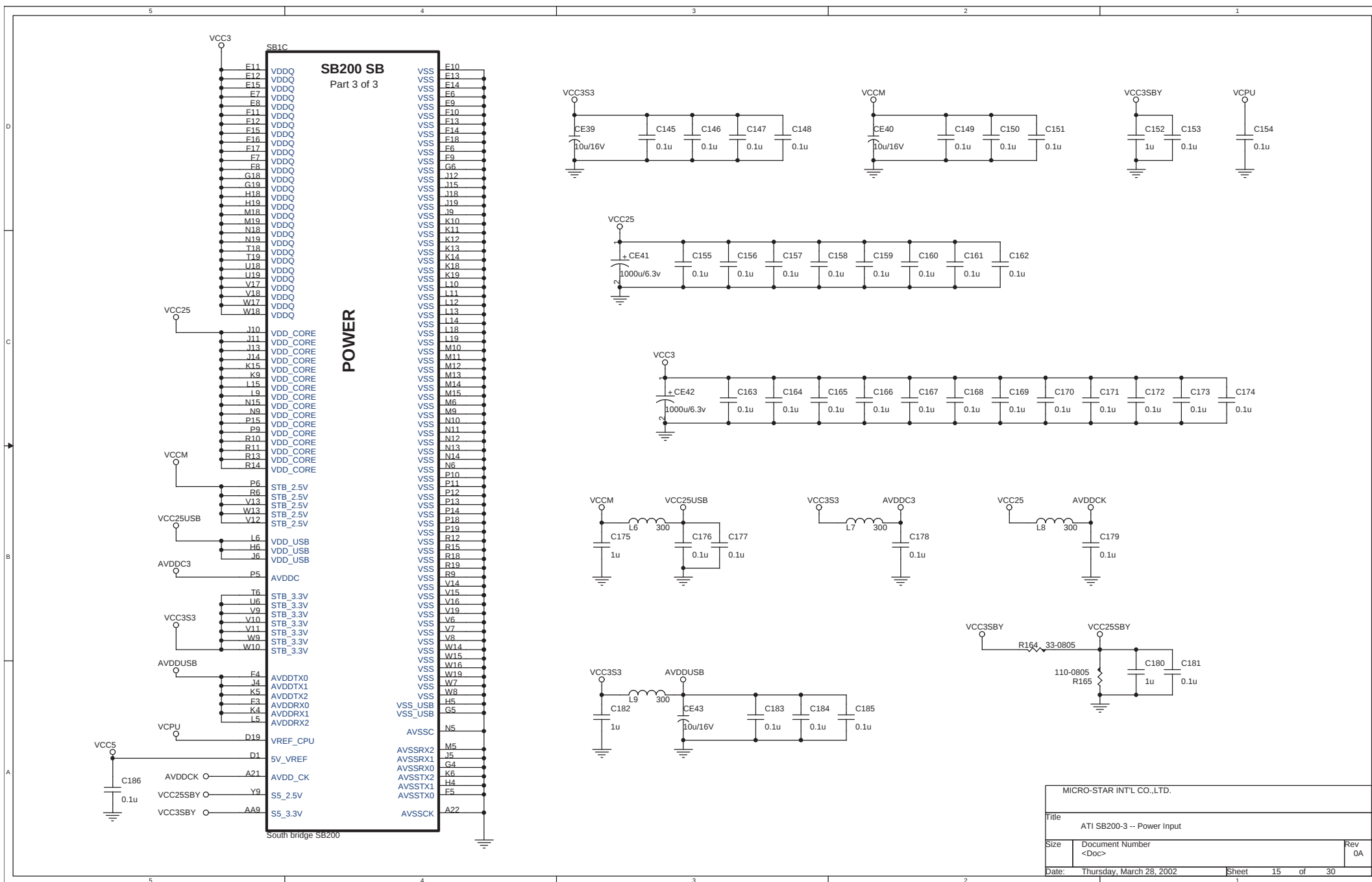


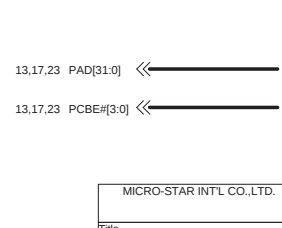
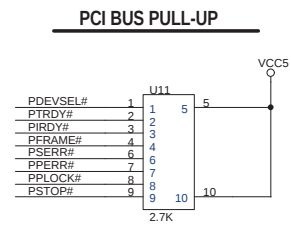
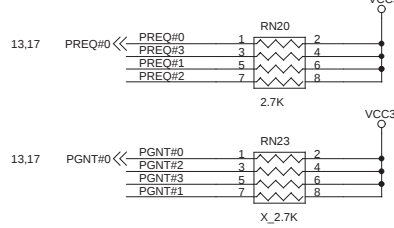
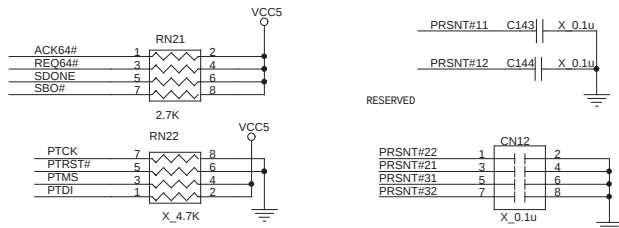
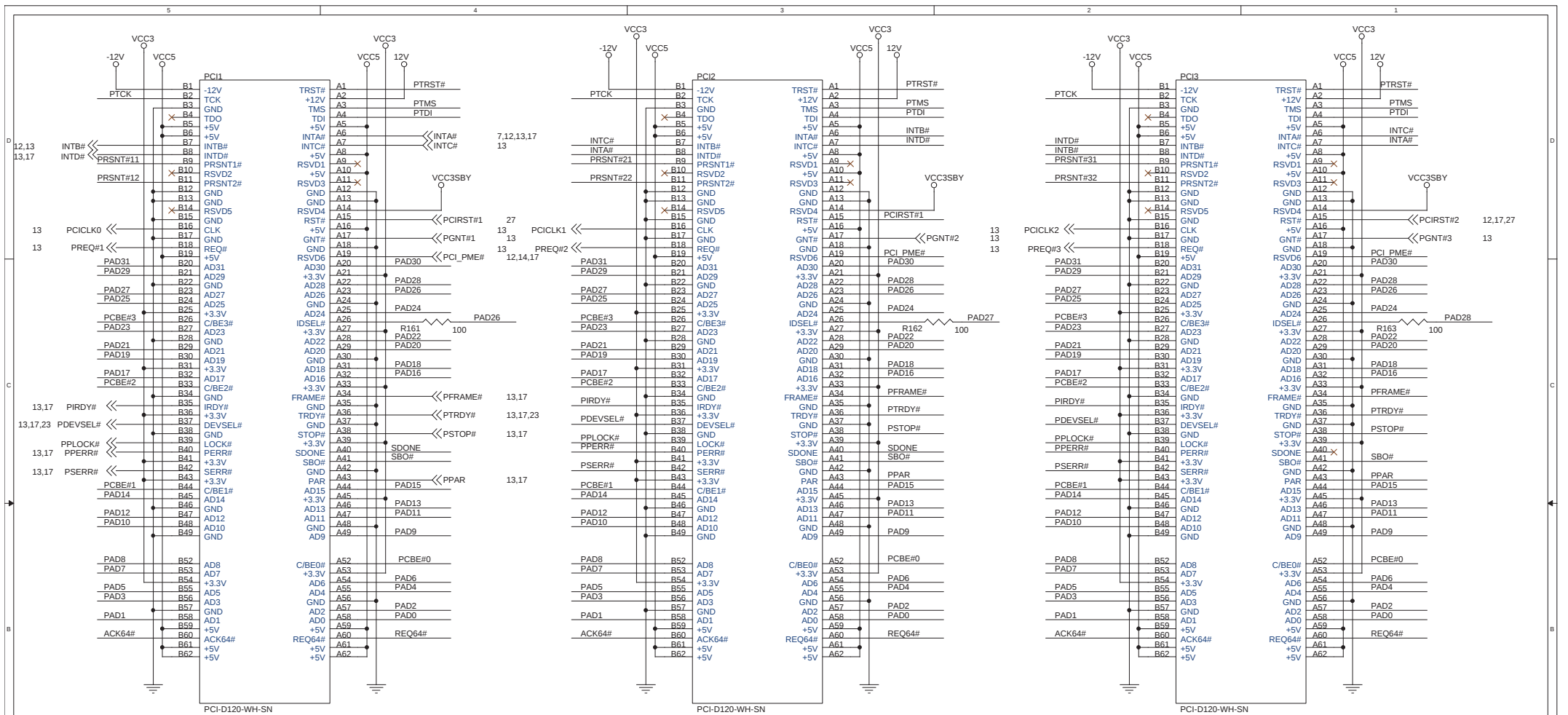
VGA CONNECTOR



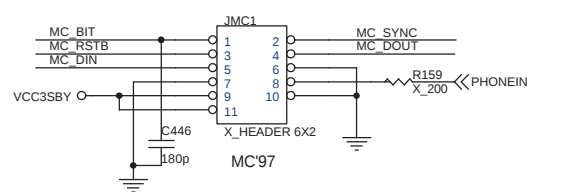
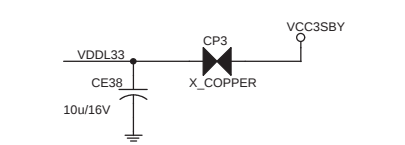
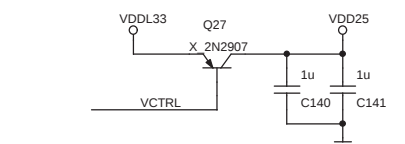
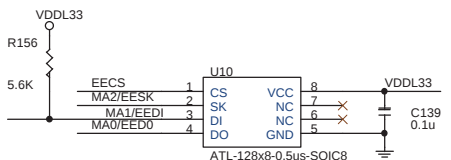
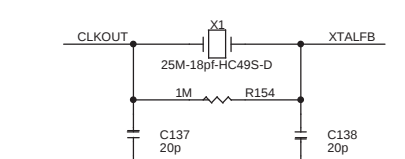
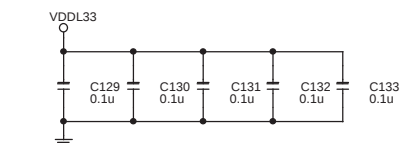
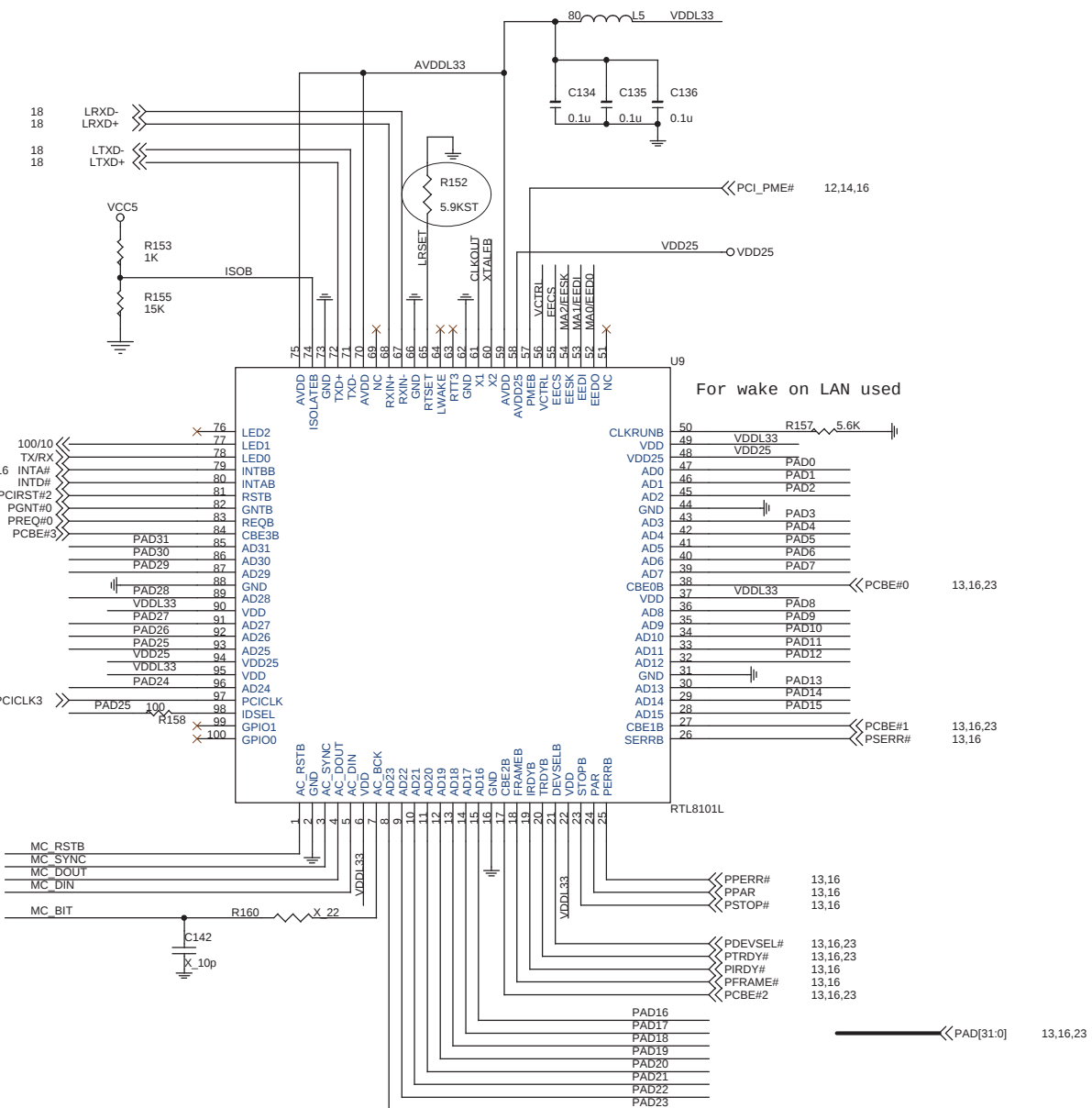
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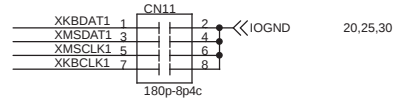


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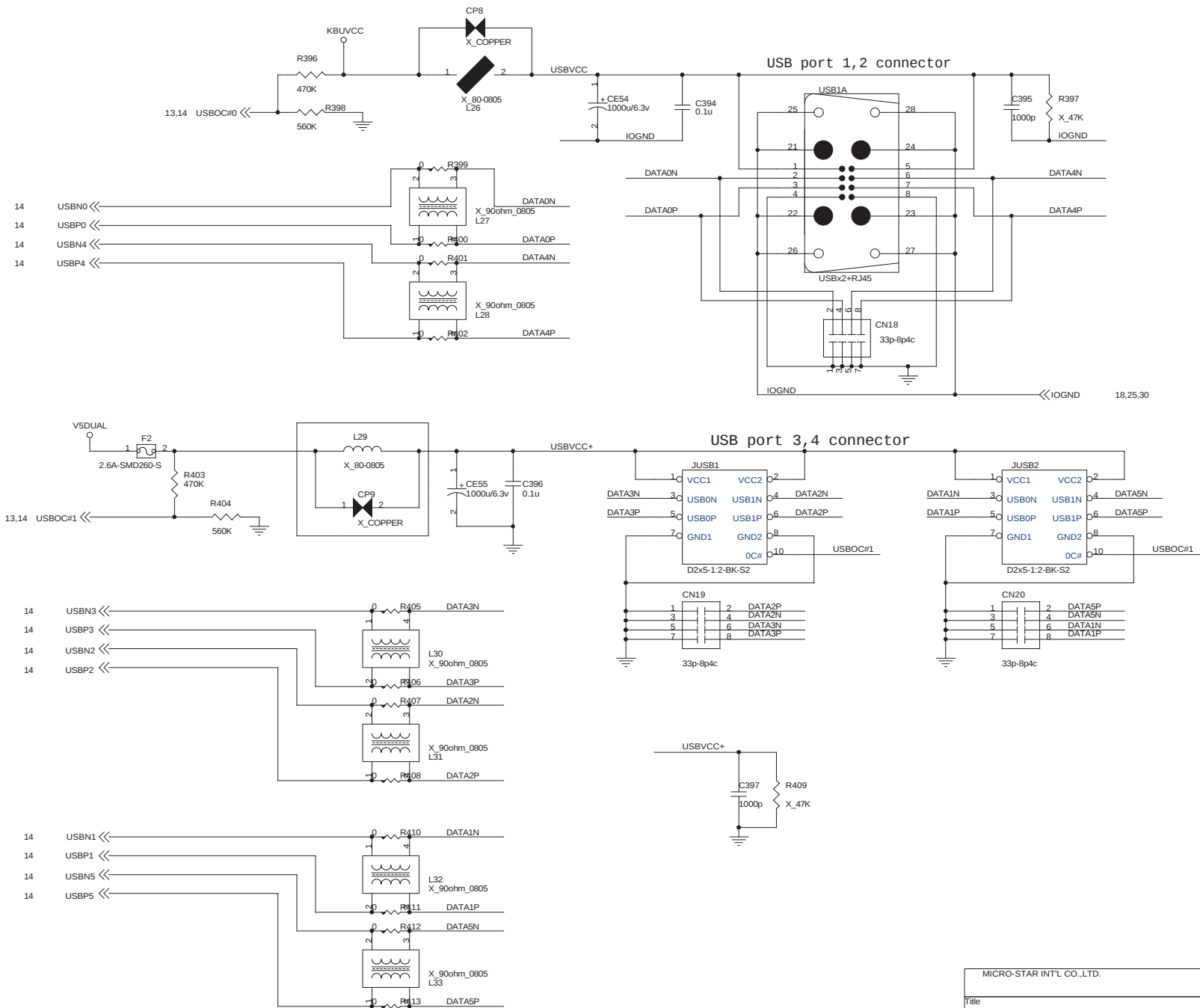


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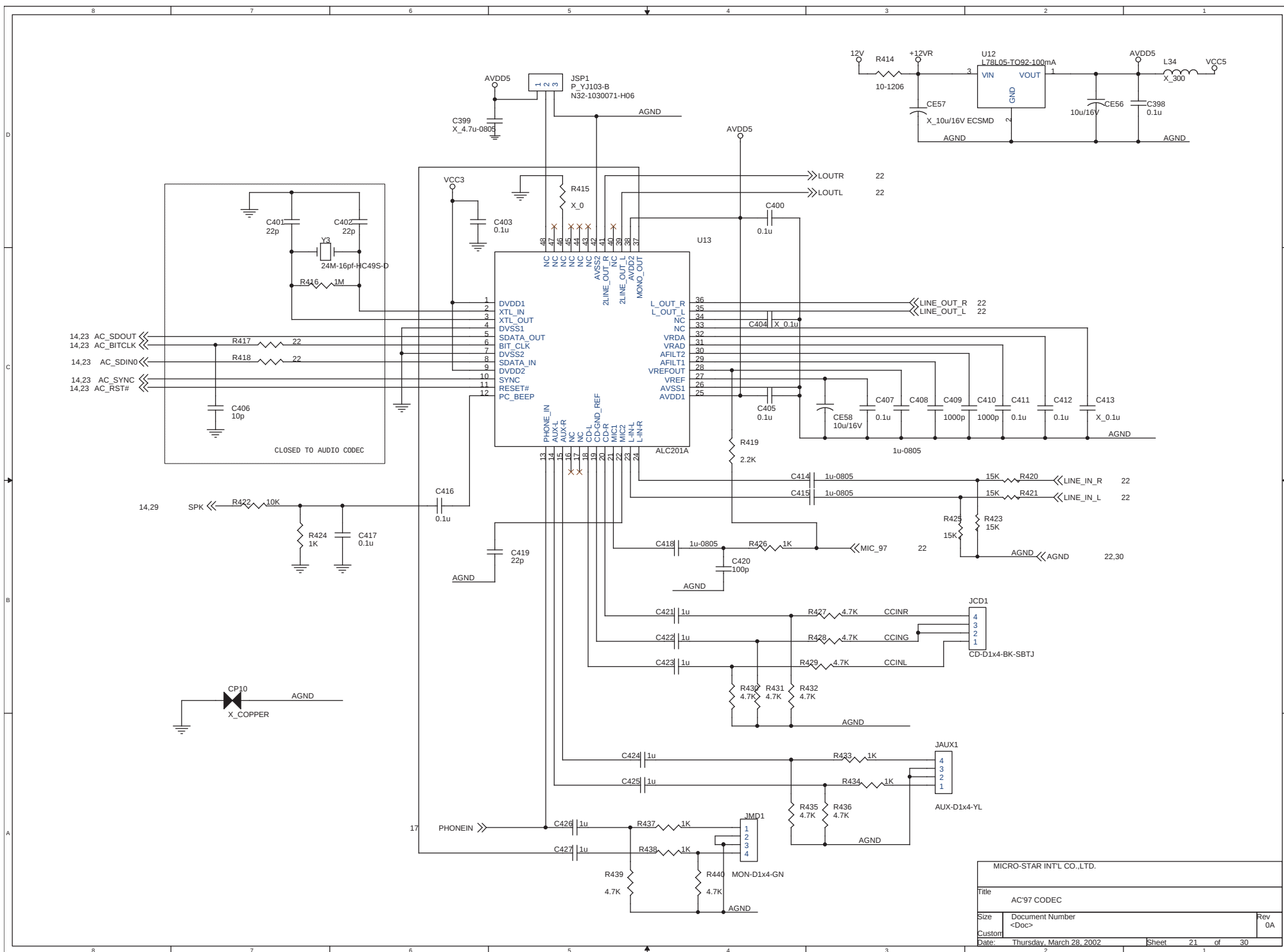
The schematic diagram illustrates the Keyboard/Mouse Port circuit. It features a 10K-8p4r resistor (RN18) connected to the KBCLK pin (pin 7) of the keyboard/mouse connector. The other end of the resistor is connected to the KBMSVCC pin. A diode (CP1) is connected in series with the KBCLK line, with its cathode to the connector and its anode to the microcontroller. A 1000pF capacitor (C121) and a 47K resistor (R145) are connected in parallel between the KBCLK line and the IOGND pin. The keyboard/mouse connector is labeled with pins 1 through 8, with pins 1, 3, 5, and 7 labeled KBDAT, MSDAT, MSCLK, and KBCLK respectively. The microcontroller pins are labeled KBMSVCC, IOGND, and KBCLK. The keyboard/mouse connector is also labeled with pins 1 through 8, with pins 1, 3, 5, and 7 labeled KBDAT, MSDAT, MSCLK, and KBCLK respectively. The keyboard/mouse connector is also labeled with pins 1 through 8, with pins 1, 3, 5, and 7 labeled KBDAT, MSDAT, MSCLK, and KBCLK respectively.

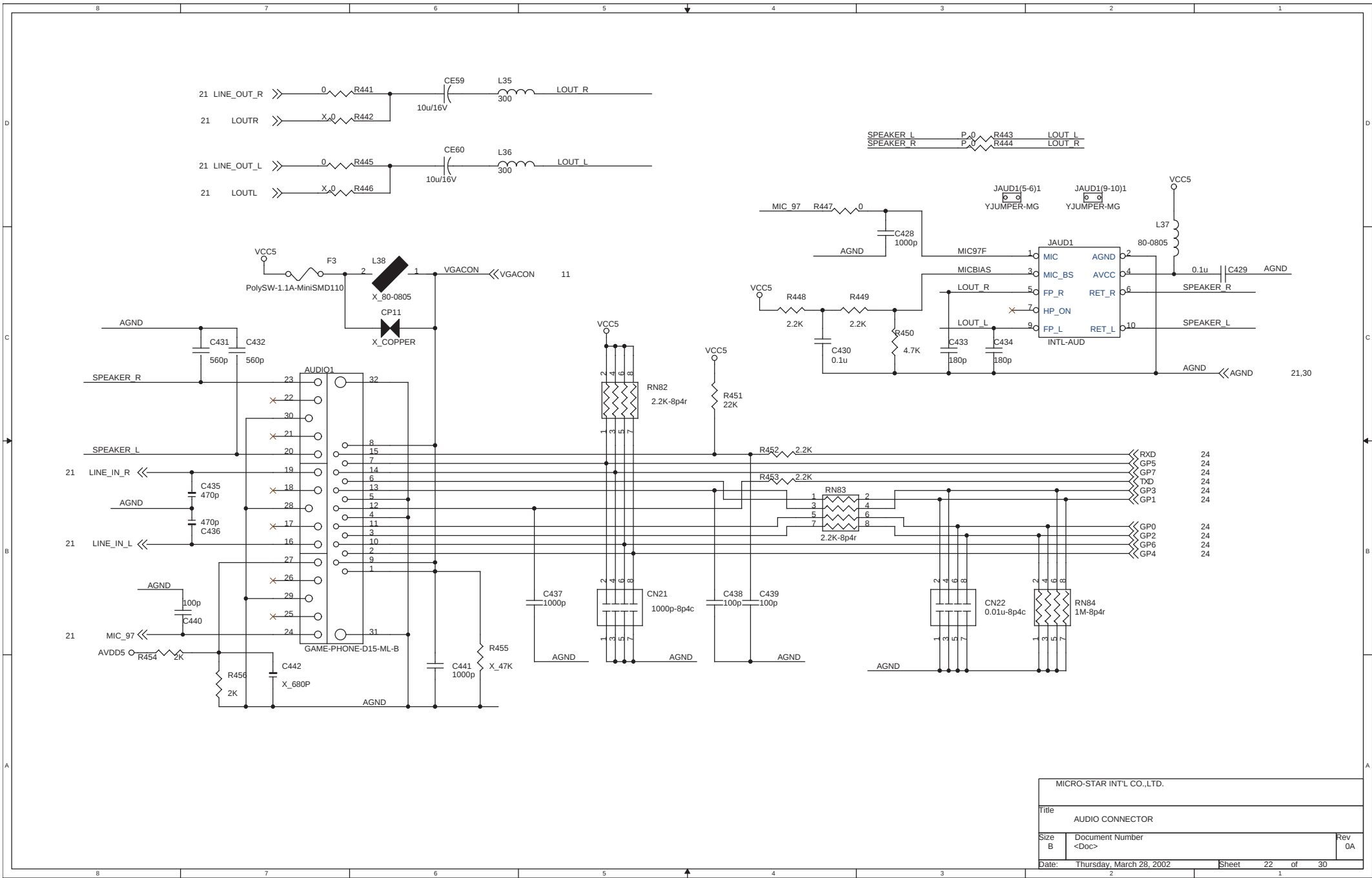


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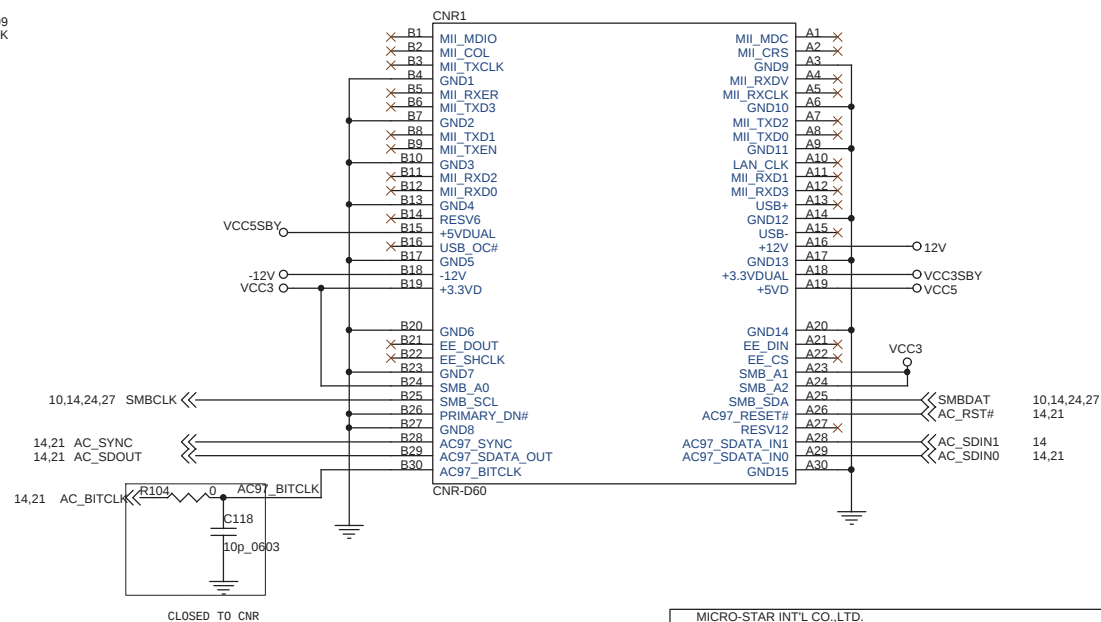
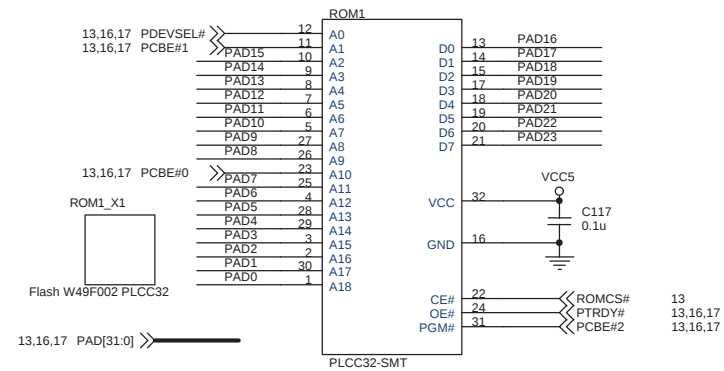
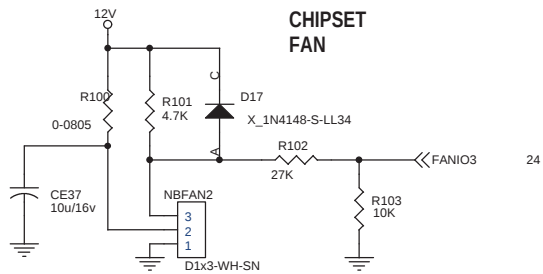
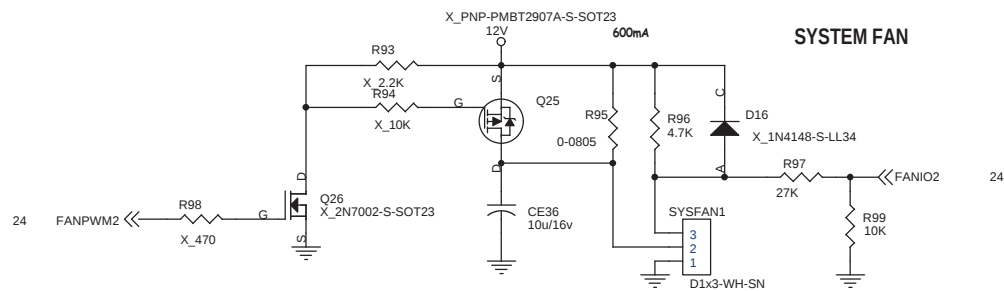
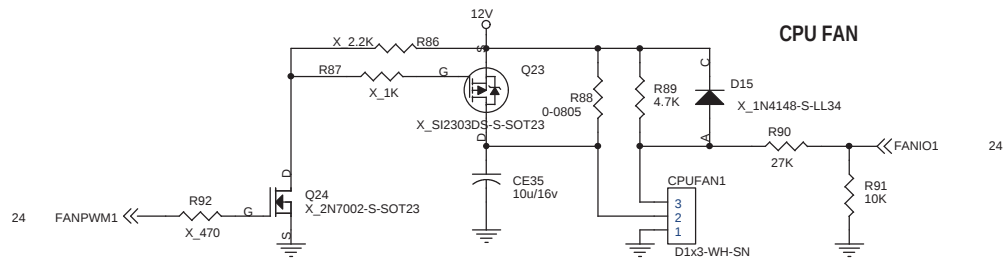


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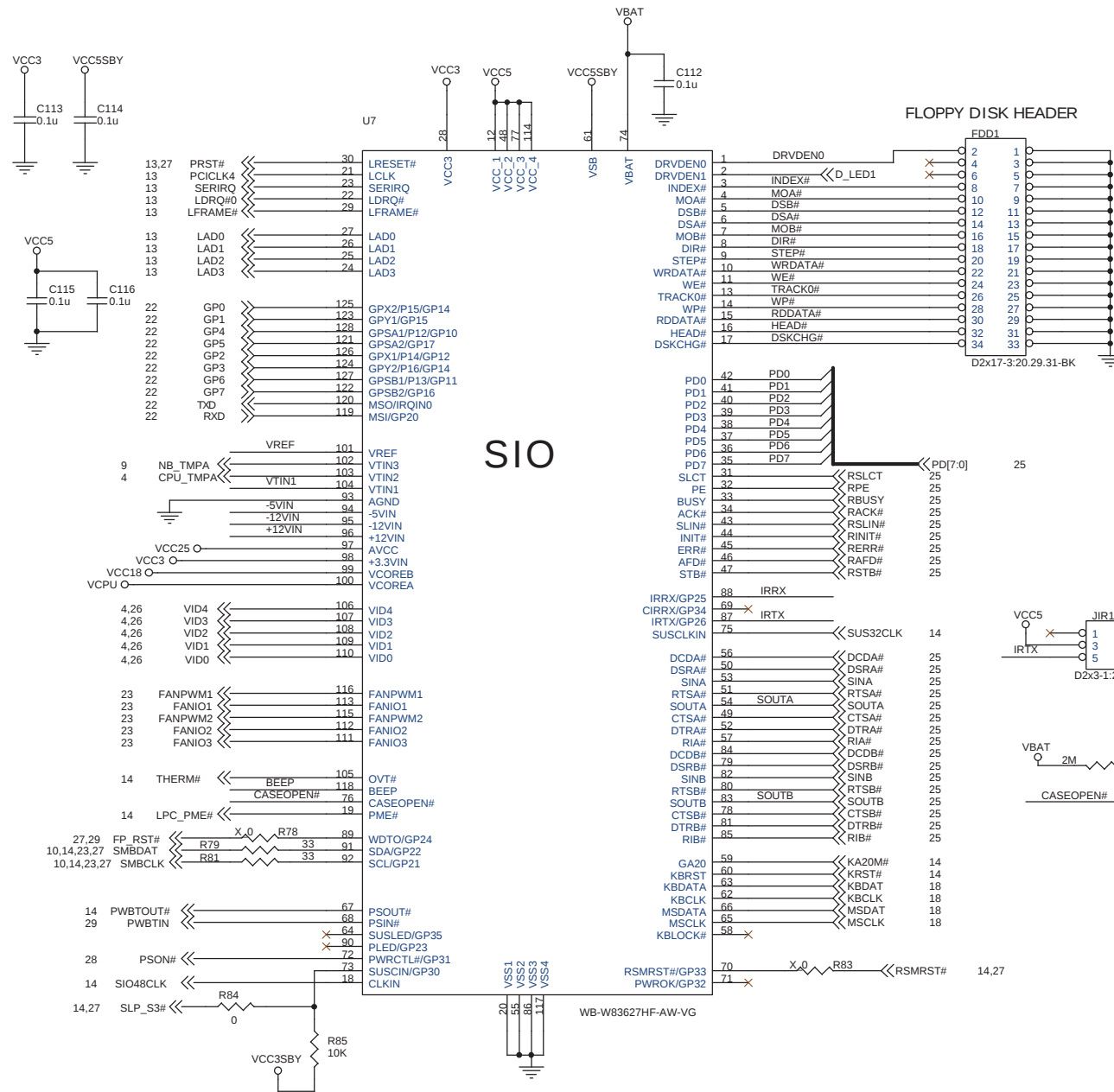




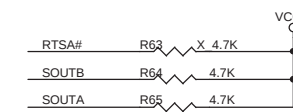
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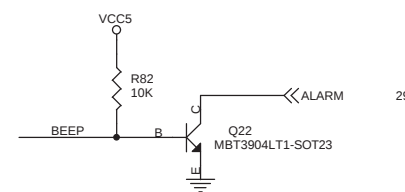
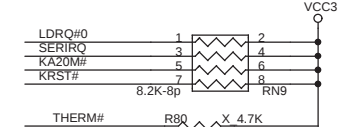
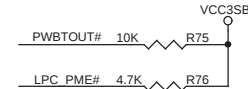
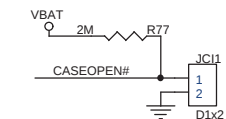
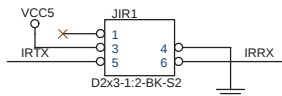
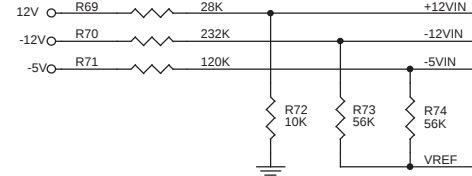
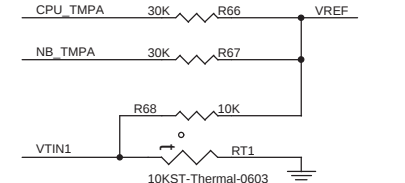
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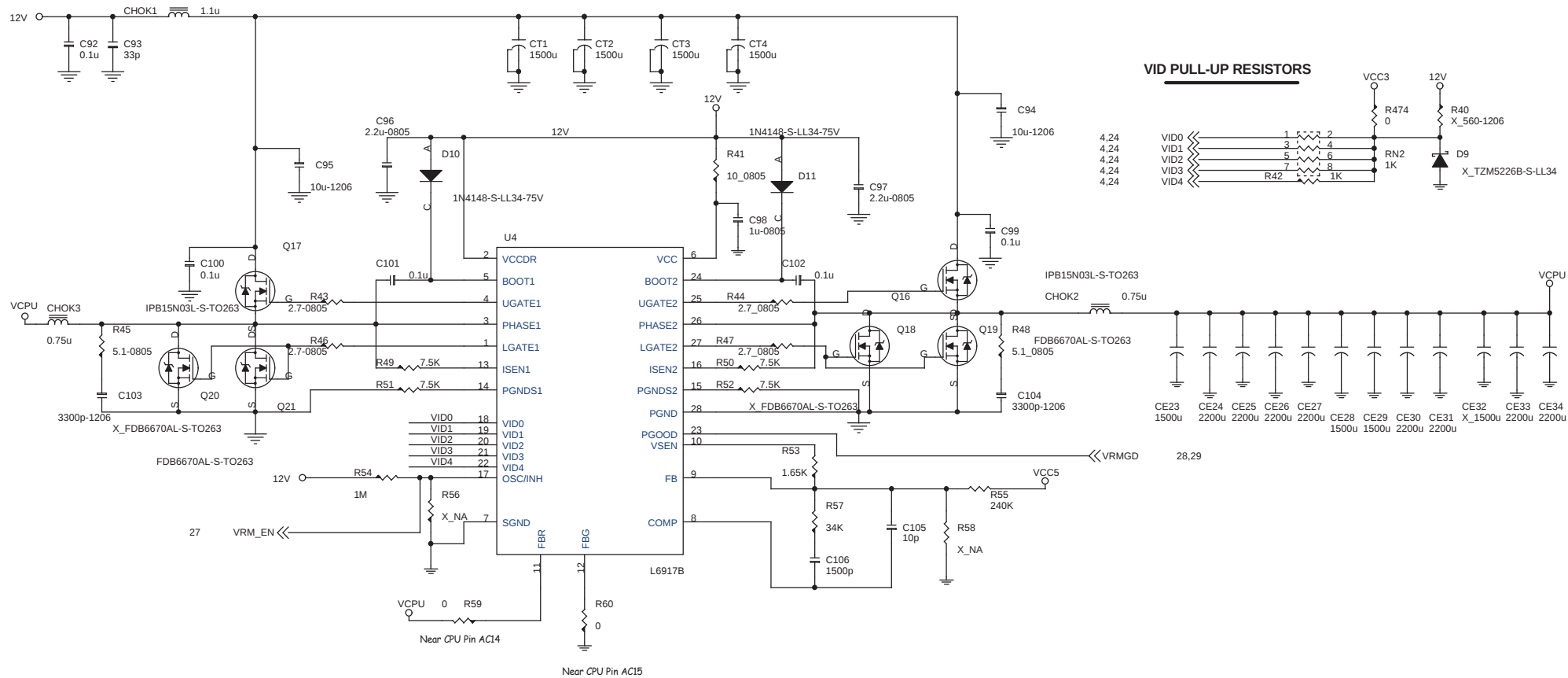
RTSA#	L: CFAD=2E	H: CFAD=4E
SOUTB	L: 24MHZ	H: 48MHZ



Hardware Monitor

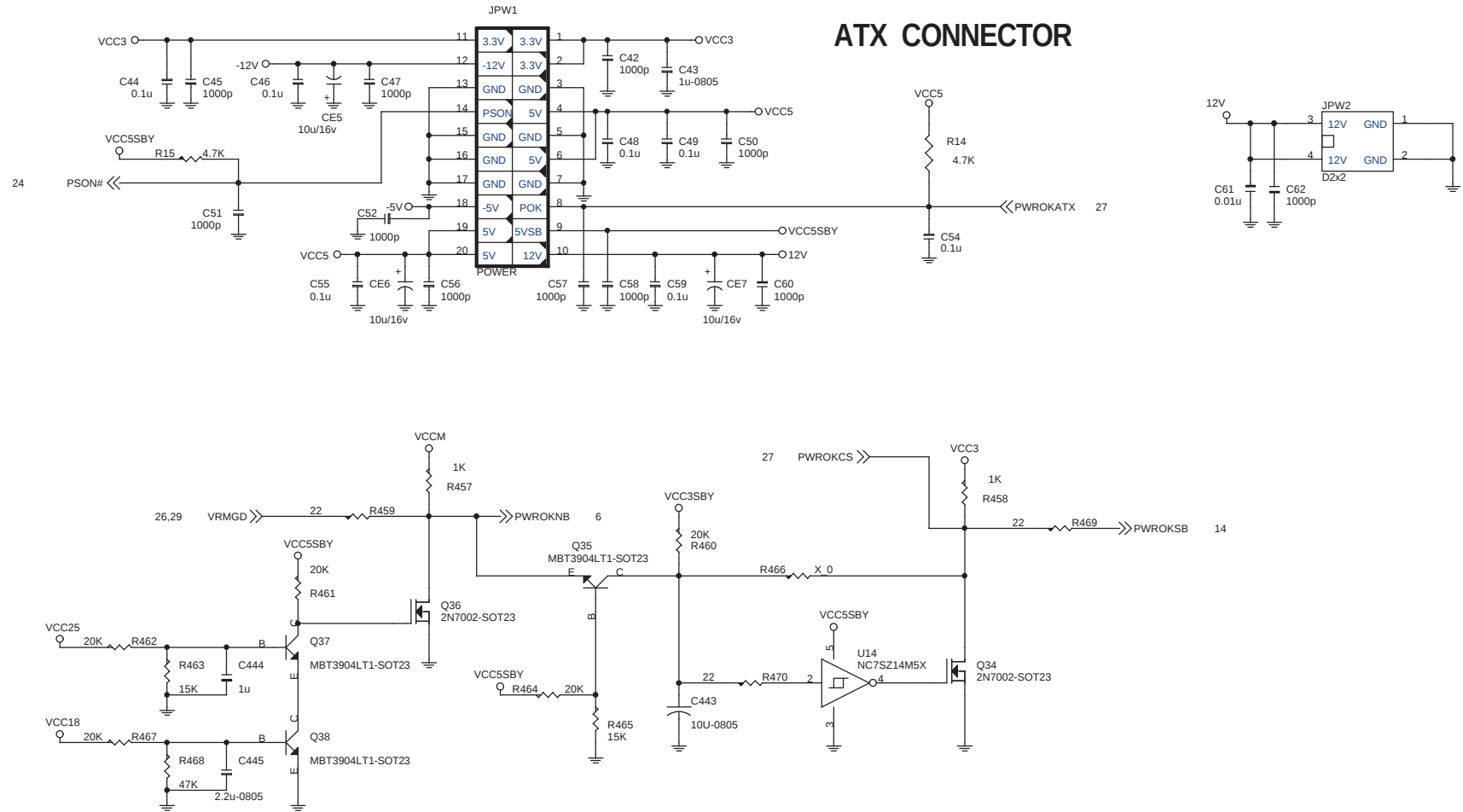


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LPC I/O(W83627HF)			
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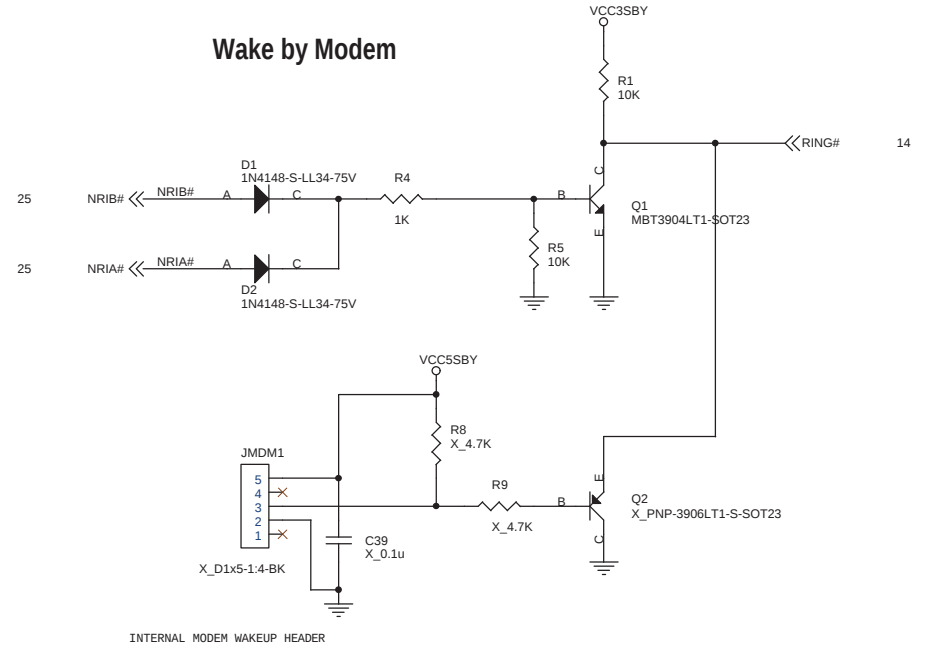
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ATX CONNECTOR

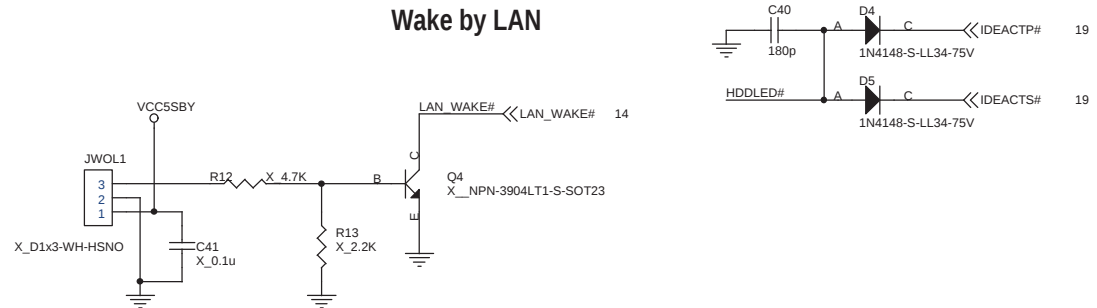


MICRO-STAR INT'L CO.,LTD.			
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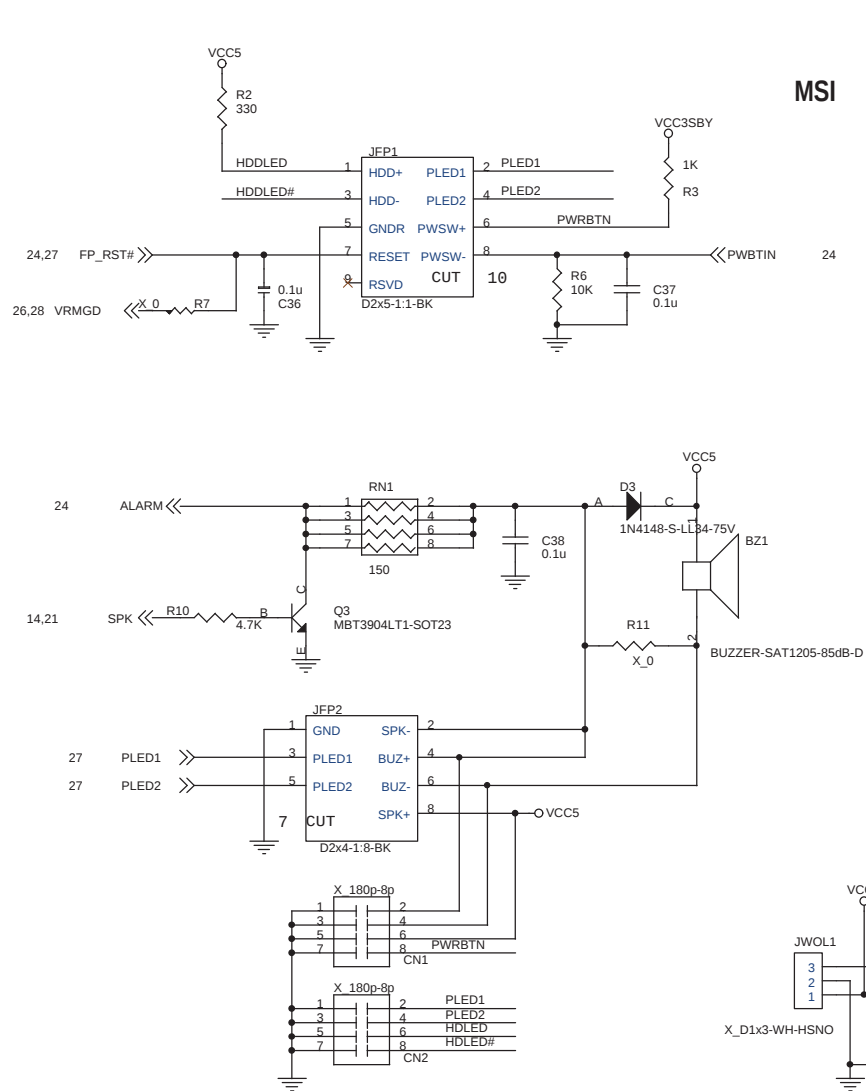
Wake by Modem



Wake by LAN

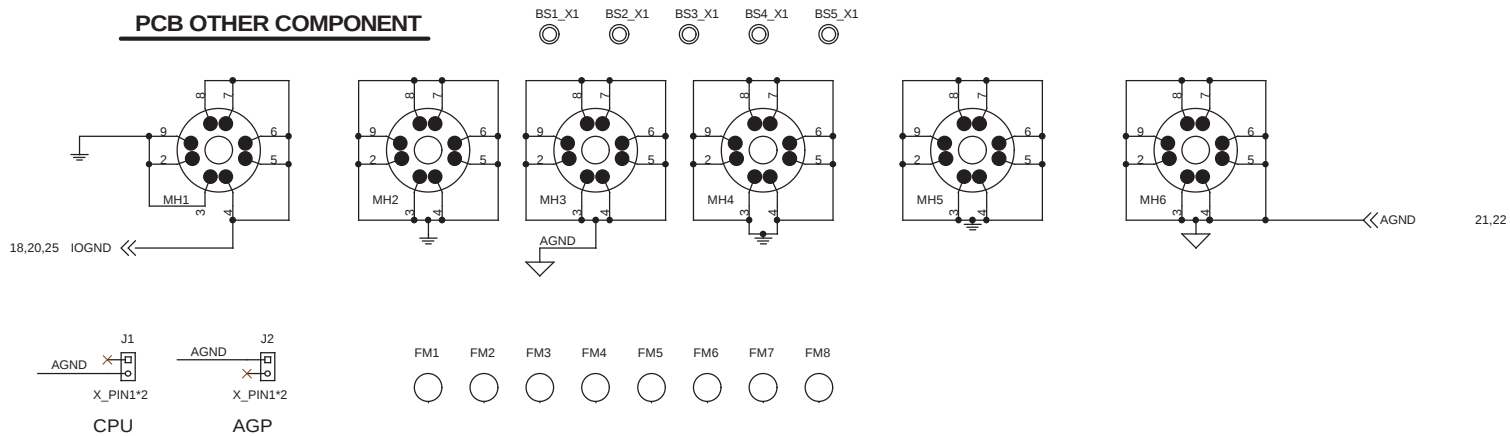


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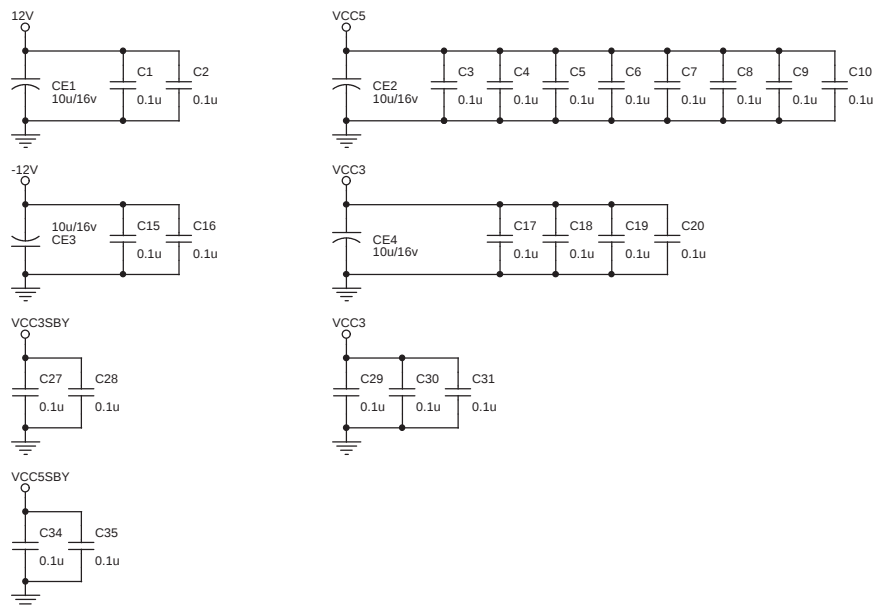


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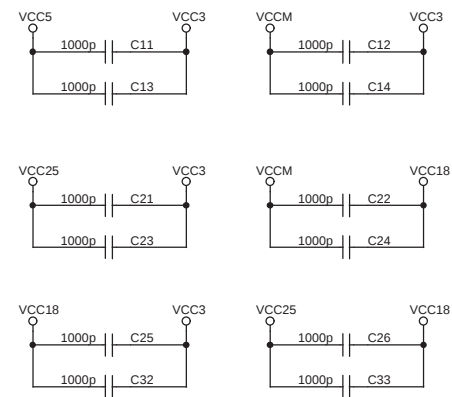
PCB OTHER COMPONENT



System Decoupling Capacitors



High Freq. return current decoupling



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