

MS-6388I1

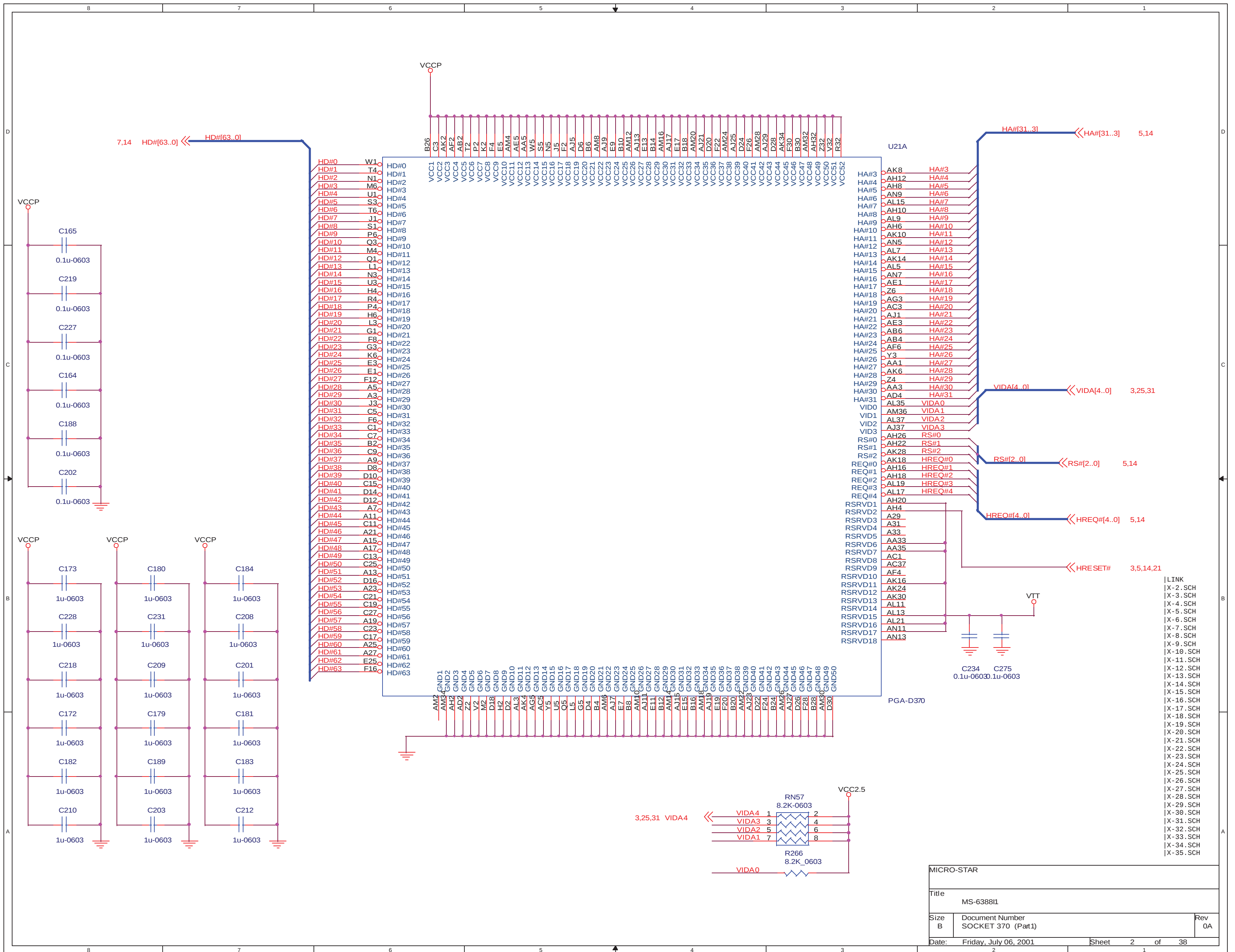
CPU: Intel Socket-370 Processor

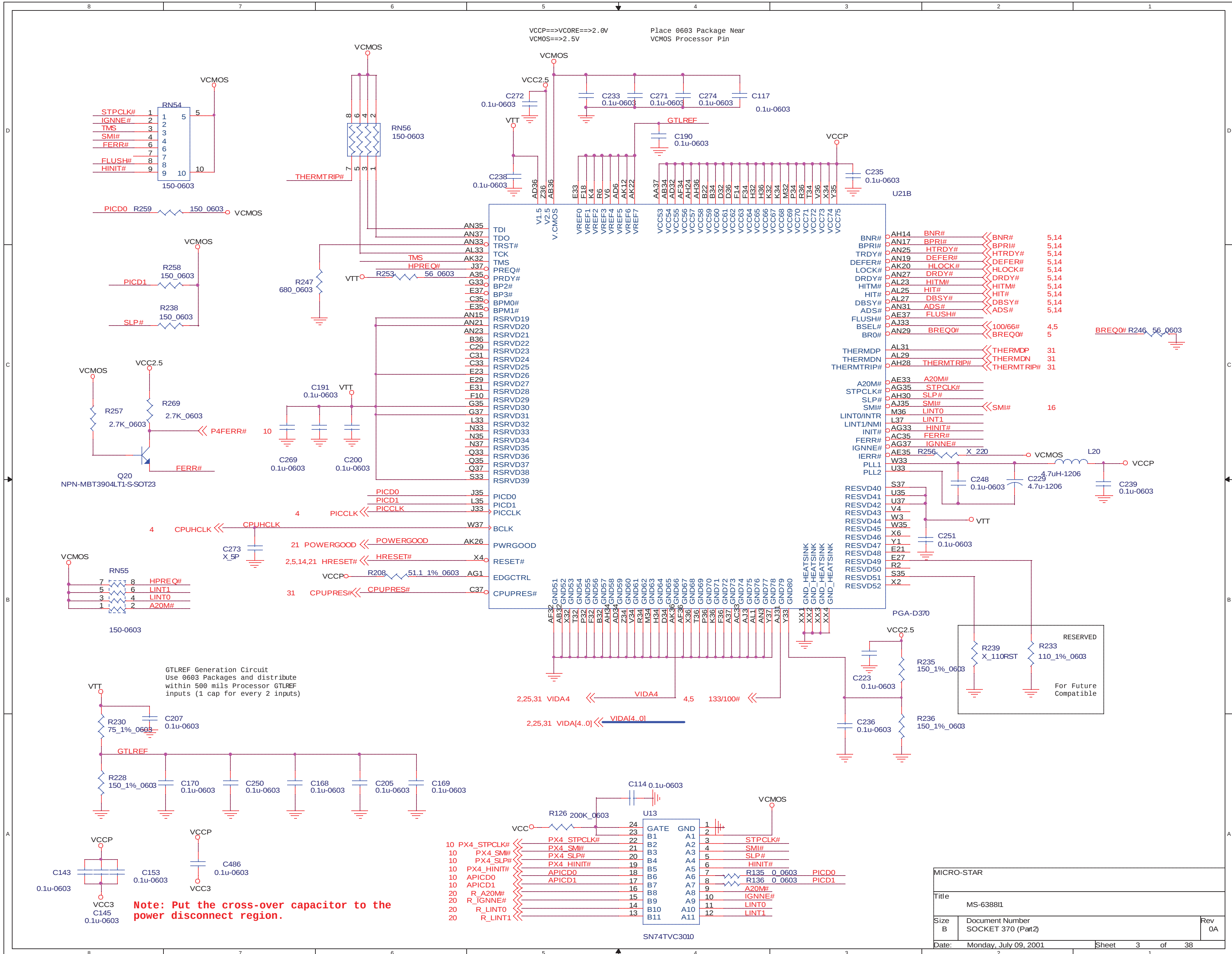
System Chipset: VIA 694X (Apollo Pro133A)
+ 686B

Expansion: PCI SLOT* 2

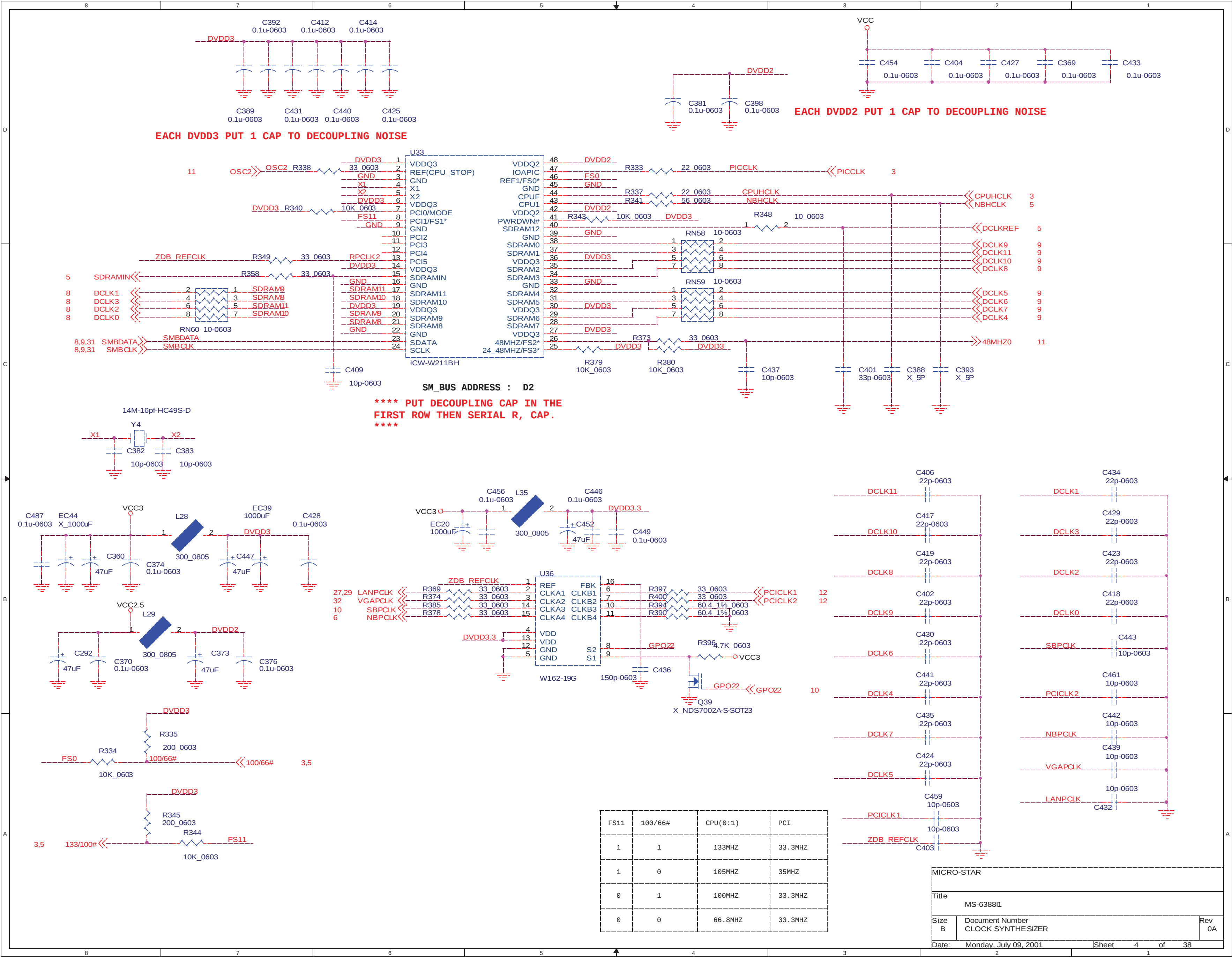
On Board: S3 PCI Graphic Controller
Dual Intel 82550 Ethernet Controller

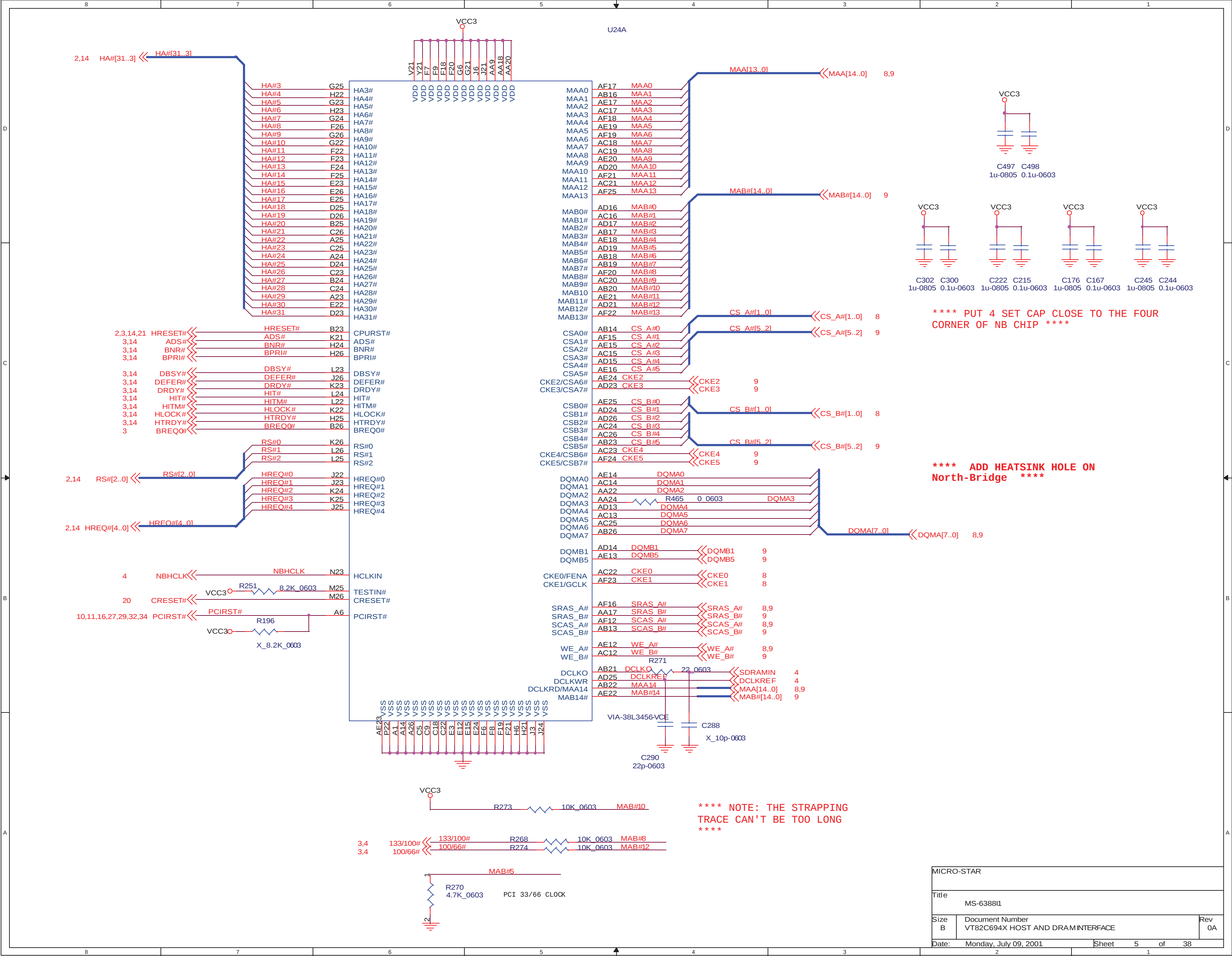
Title	Page
Cover Sheet	1
CPU 370 PGA Socket	2,3
Clock Synthesizer	4
694X(Apollo Pro133A)---North Bridge	5,6,7
System Memory	8,9
VT686B-----South Bridge	10
VT686B & Front Panel USB	11
PCI 1 & 2 Connectors	12
CPU & System FAN	13
GTL + BUS Termination	14
IDE Connectors	15
BIOS & WRITE PROTECT	16
Parallel / Serial Port	17,18
KB & MS	19
Linear Regulator & Bus Ratio selector circuit	20
Power Good Circuit & Front Panel	21
PCI BUS PULL HIGH/DOWN Resistor	22
ISA BUS PULL HIGH Resistor.	23
Bypass Capacitors	24
SC1153 CPU Power (VRM 8.4)	25
Rear USB Connector	26
Intel 82550 Ethernet Controller LAN1	27
LAN1 Connector	28
Intel 82550 Ethernet Controller LAN2	29
LAN2 Connector	30
WINBOND 83791 HW MONITOR & AOL2	31
S3 SAVAGE4 GRAPHIC CONTROLLER	32
S3 SAVAGE4 DISPLAY MEMORY & VGA CONNECTOR	33
CPLD FOR ASR	34
GPIO DEFINITION	35





MICRO-STAR		
Title		
MS-638811		
Size	Document Number	Rev
B	SOCKET 370 (Part2)	0A
Date:	Monday, July 09, 2001	Sheet 3 of 38



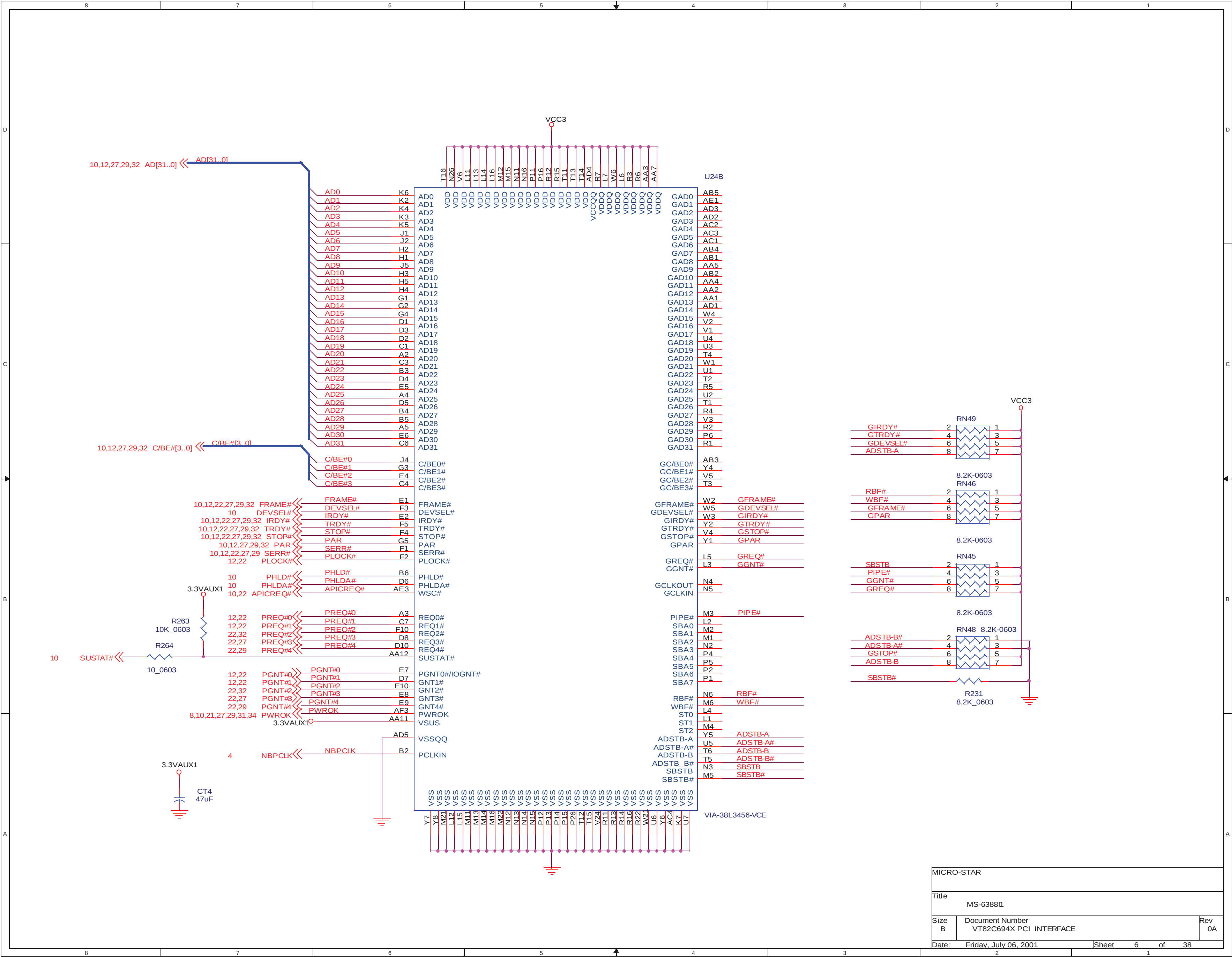


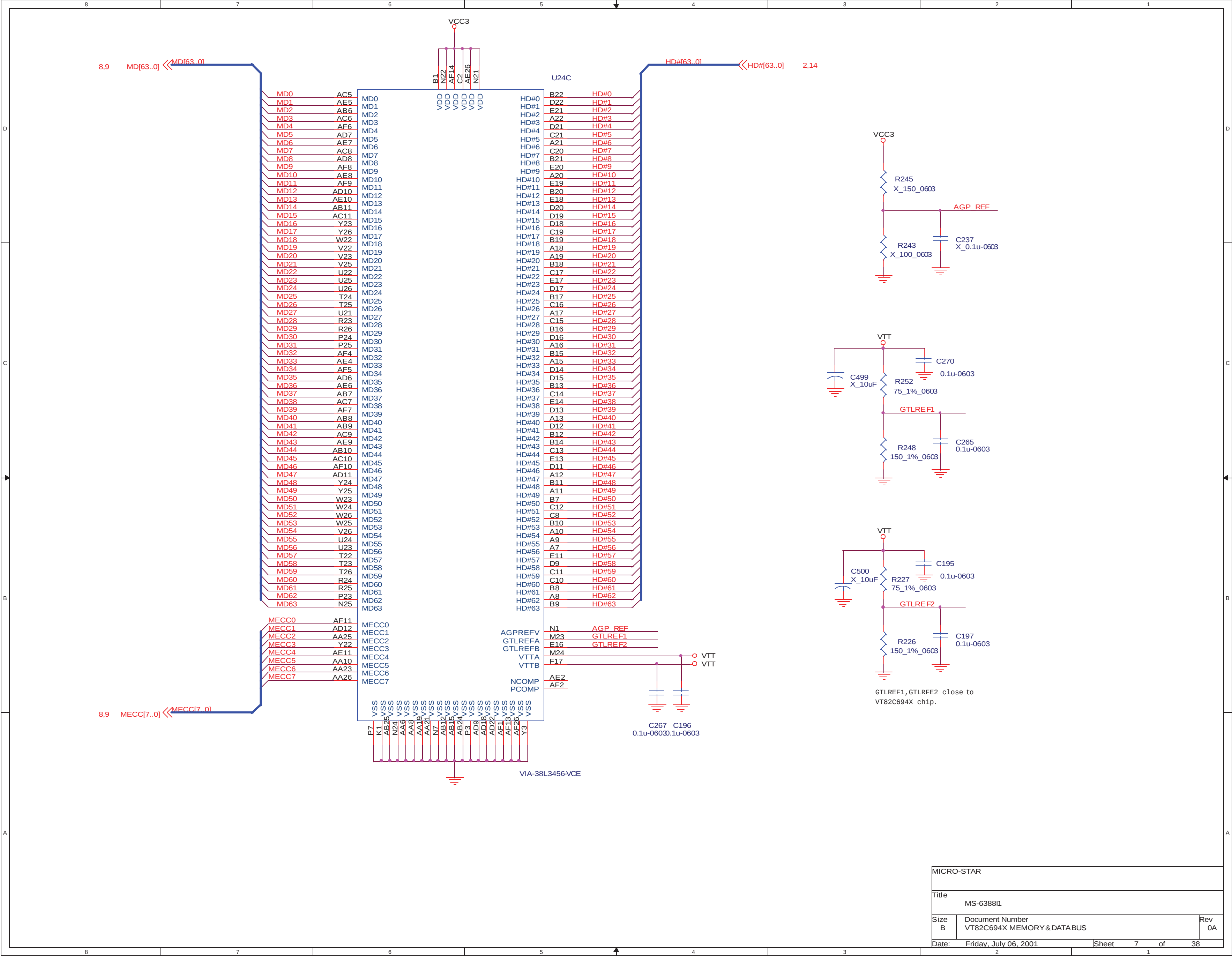
**** PUT 4 SET CAP CLOSE TO THE FOUR
CORNER OF NB CHIP ****

**** ADD HEATSINK HOLE ON
North-Bridge ****

**** NOTE: THE STRAPPING
TRACE CAN'T BE TOO LONG

MICRO-STAR		
Title		
MS-638811		
Size	Document Number	Rev
B	VT82C694X HOST AND DRAMINTERFACE	0A
Date:	Monday, July 09, 2001	Sheet 5 of 38





IF ENABLE SUSPEND TO DRAM JDIM1 AND JDIM2 SHORT

OPTION:SUSPEND TO DRAM

D

C

B

A

D

C

B

A

7,9 MD[63..0] << MDI[63..0]

10,21 SUSB# <<
10,21,27,29,31,34 PWROK <<

10,21 SUSC# << SUSC#

5,9 MAA[14..0] << MAA[14..0]

5,9 DQMA[7..0] << DQMA[7..0]

PLACE DIMMVCC3 BULK & DECOUPLING CAP TO THE START & ENDING POINT OF FAST DIMM SLOT

PLACE THESE CAP ON THE CROSS-OVER LINE OF VCC3 & DIMMVCC3 POWER PLANE

EACH DIMM SLOT PLACE 7 DECOUPLING CAP FOR DIMMVCC3

SM_BUS ADDRESS : A0

Place DIMM1 closest to North-Bridge Chip

NOTE ON ALL DIMM SOCKETS
Pin 147 should be pulled to a high state to accommodate registered DIMMs.

NOTE If GCKE is not used then each CKE requires a 22K pullup to VCC3.

DIMM1
DIMM2
DIMM3

MICRO-STAR		
Title MS-638811		
Size B	Document Number DIMM SOCKET 1	Rev 0A
Date: Friday, July 06, 2001	Sheet 8 of 38	

8

7

6

5

4

3

2

1

8

7

6

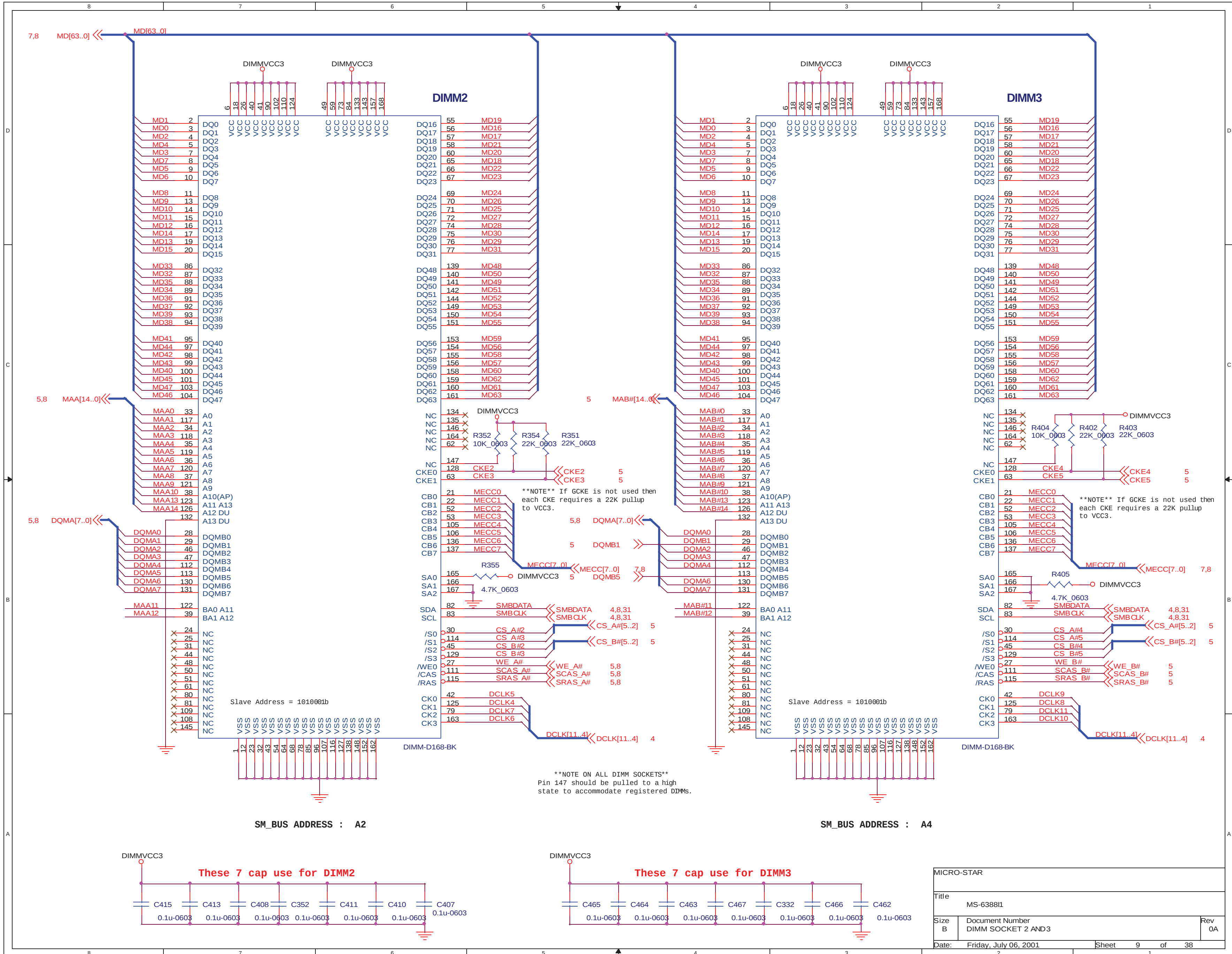
5

4

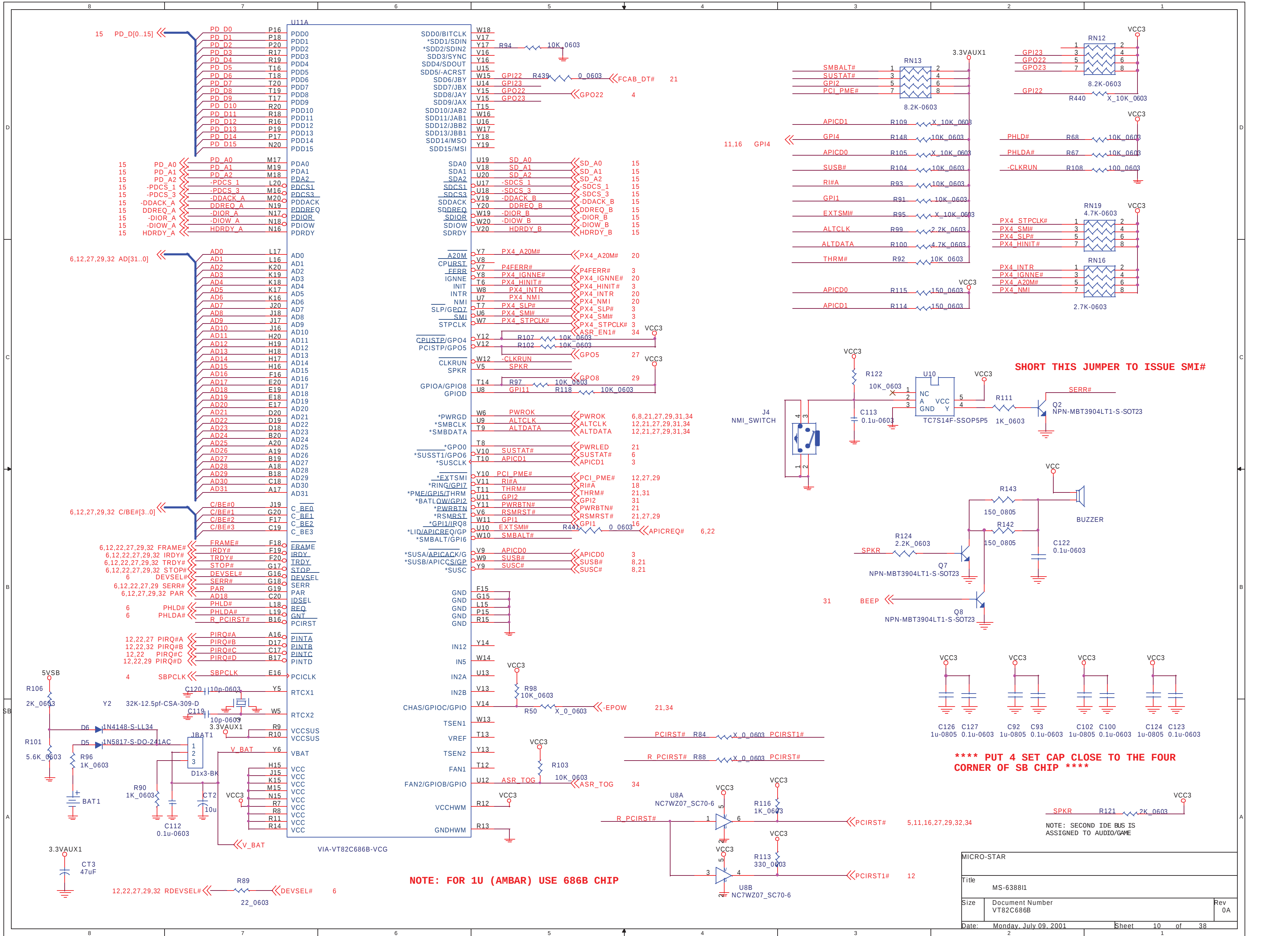
3

2

1

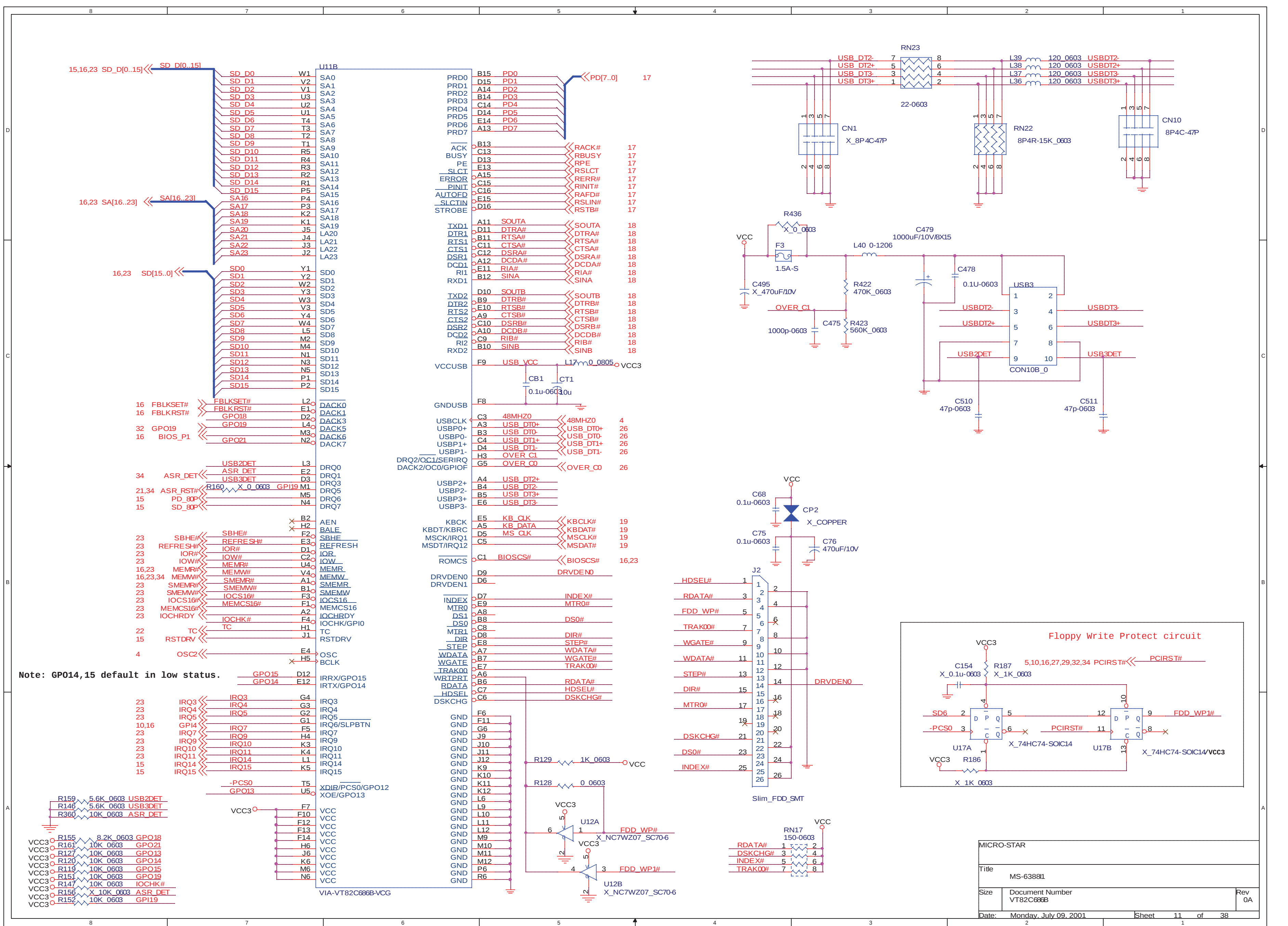


MICRO-STAR		
Title		
MS-6388I1		
Size	Document Number	Rev
B	DIMM SOCKET 2 AND 3	0A
Date:	Friday, July 06, 2001	Sheet 9 of 38

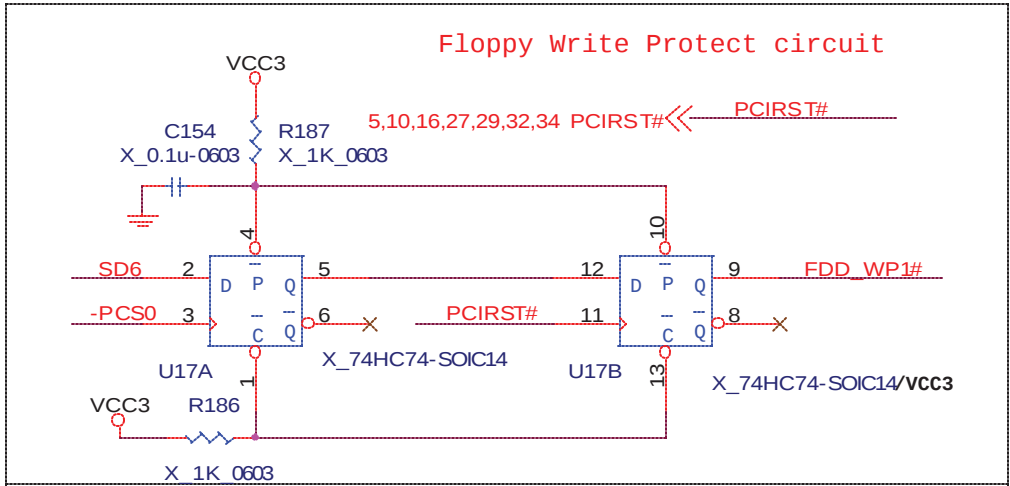


NOTE: FOR 1U (AMBAR) USE 686B CHIP

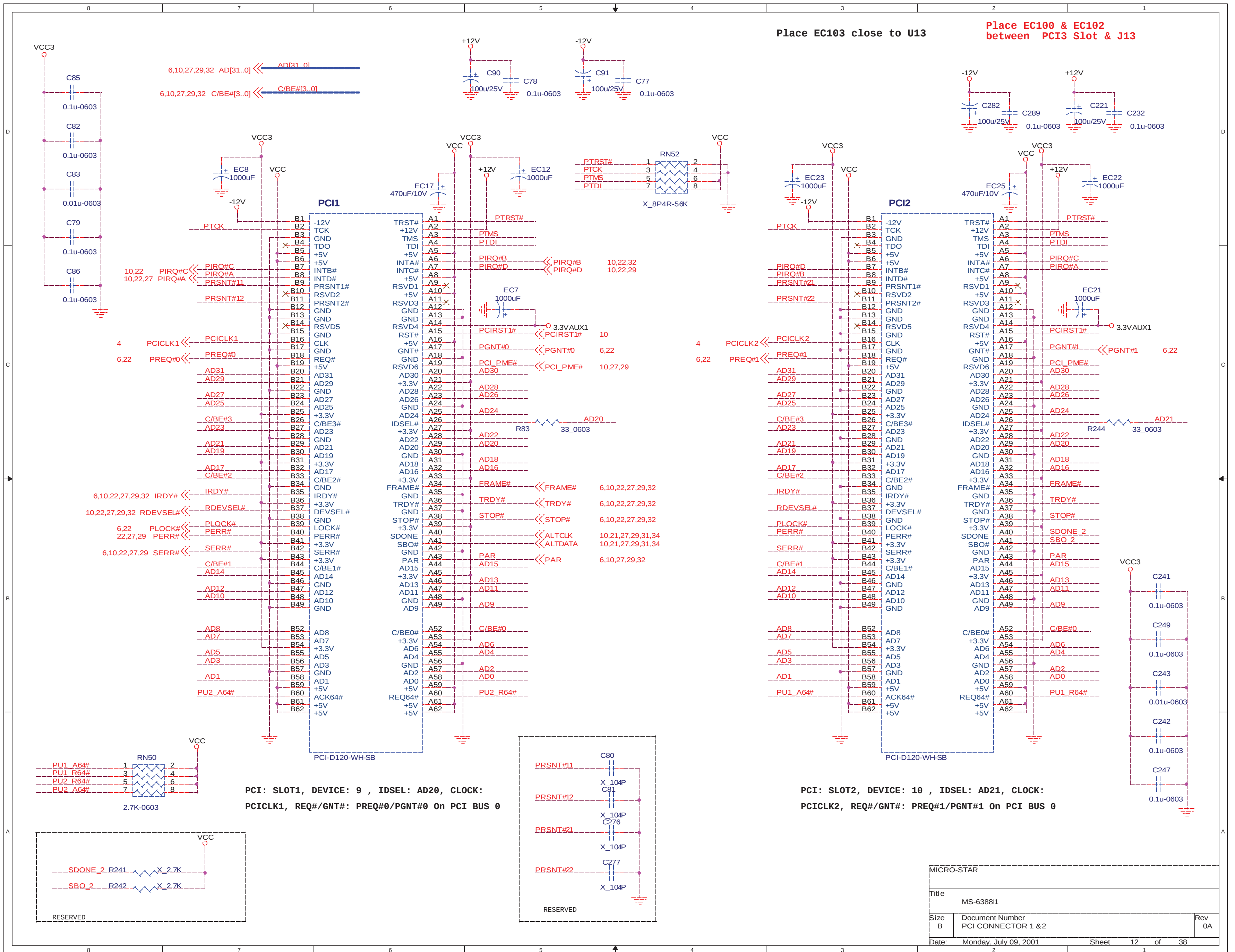
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Title MS-638811		
Size	Document Number VT82C686B	Rev 0A
Date: Monday, July 09, 2001	Sheet 10	of 38

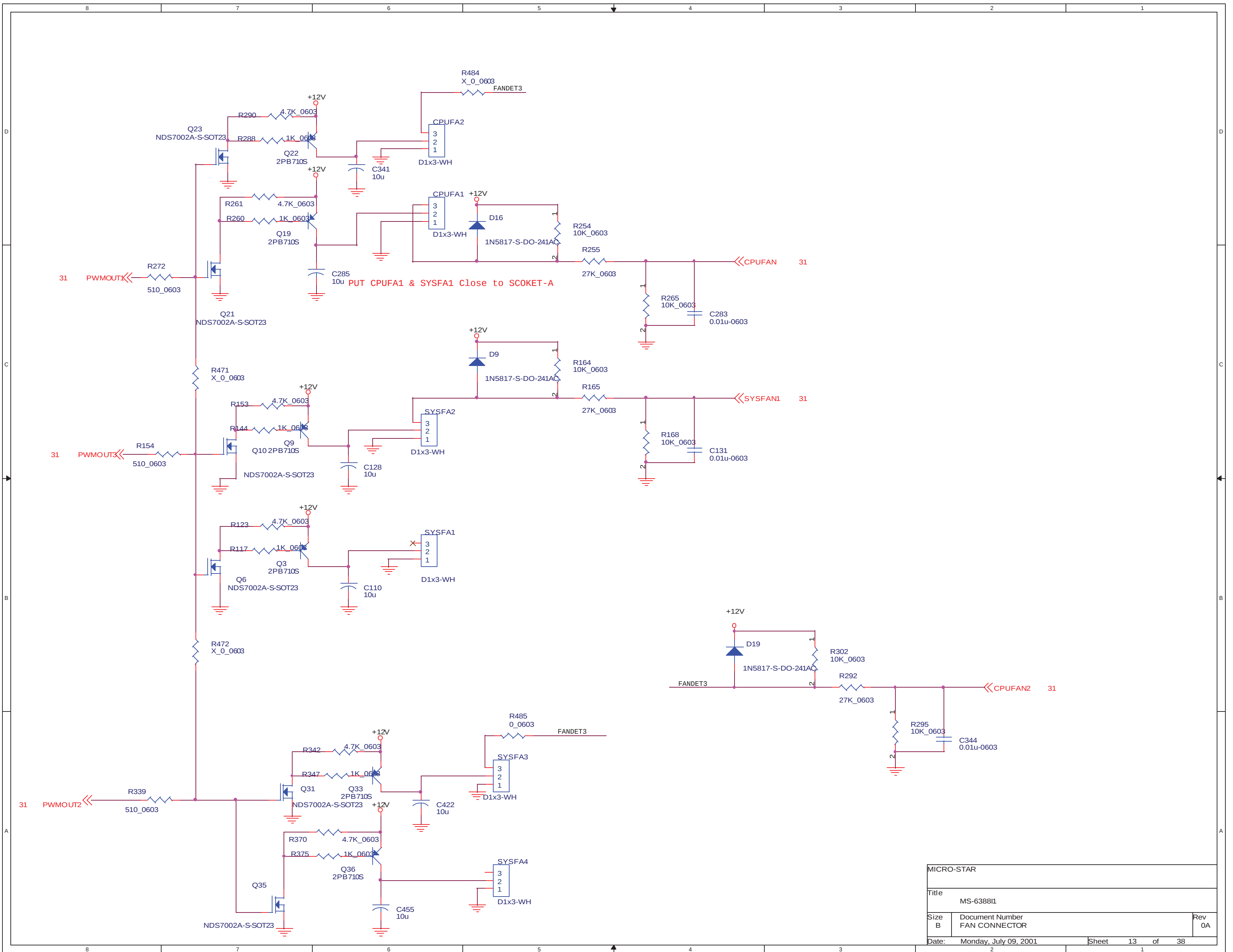


Note: GPO14,15 default in low status.

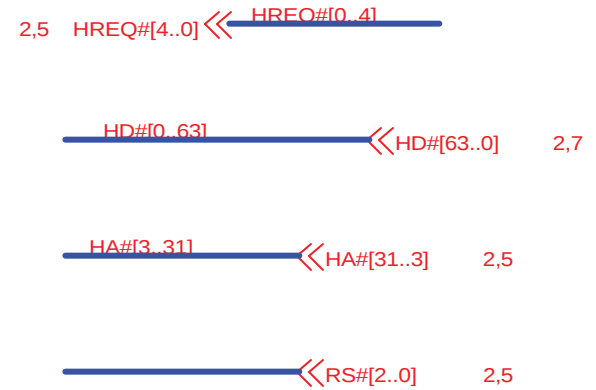
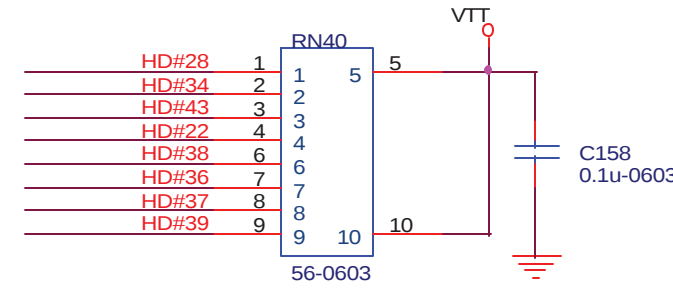
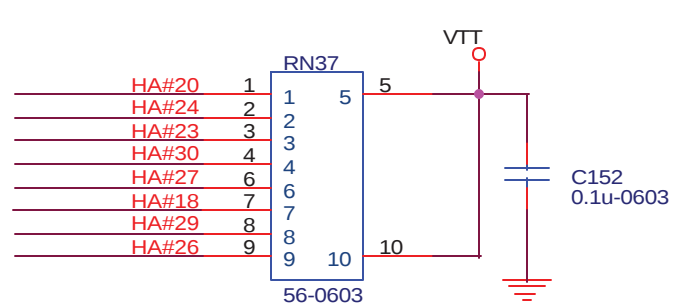


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Title				
MS-638811				
Size	Document Number VT82C686B			Rev 0A
Date:	Monday, July 09, 2001		Sheet	11 of 38

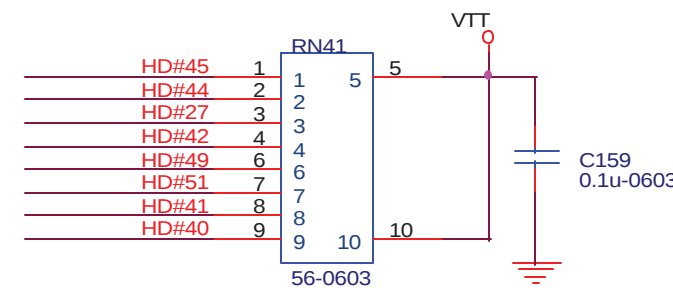
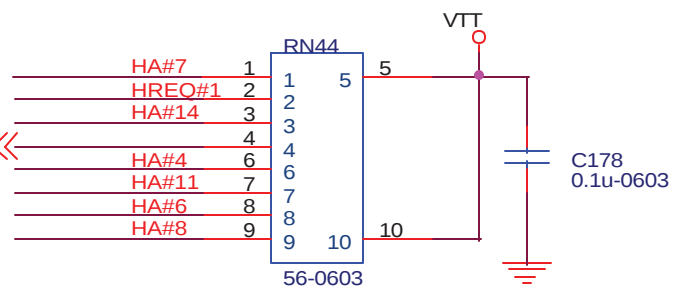




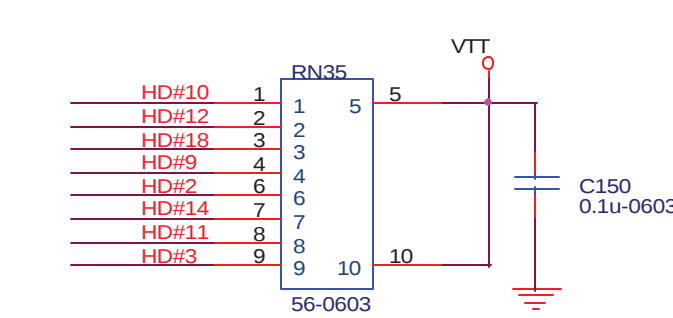
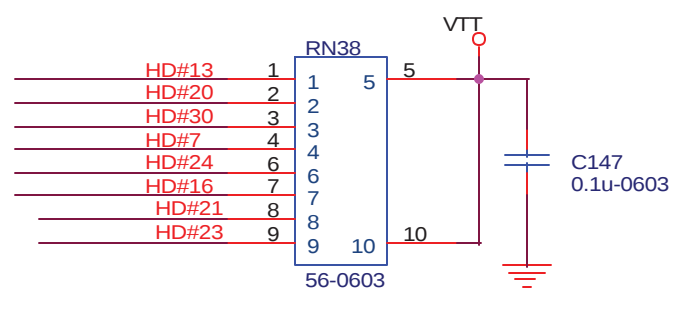
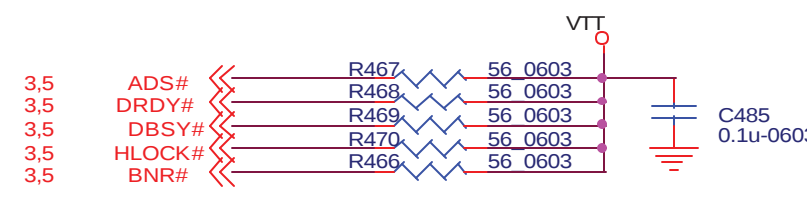
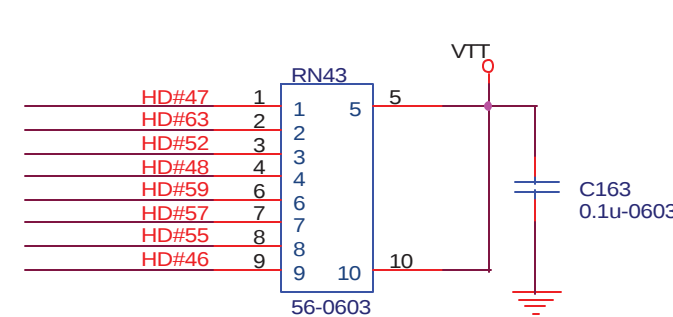
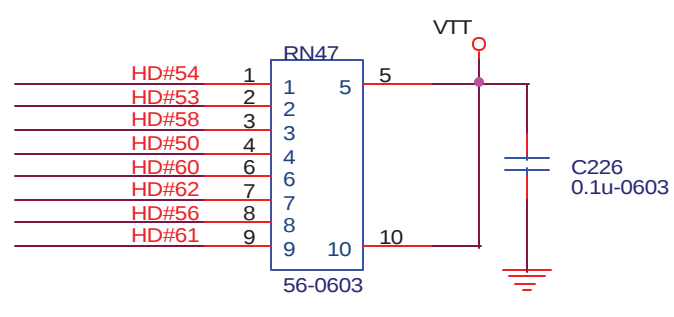
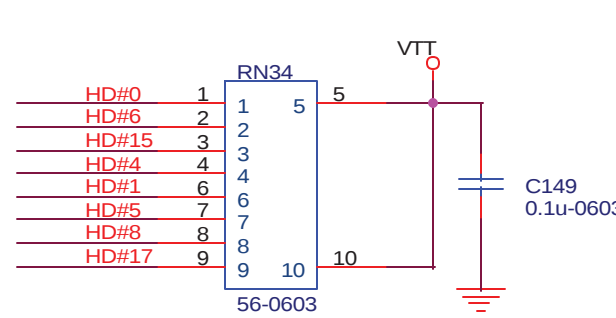
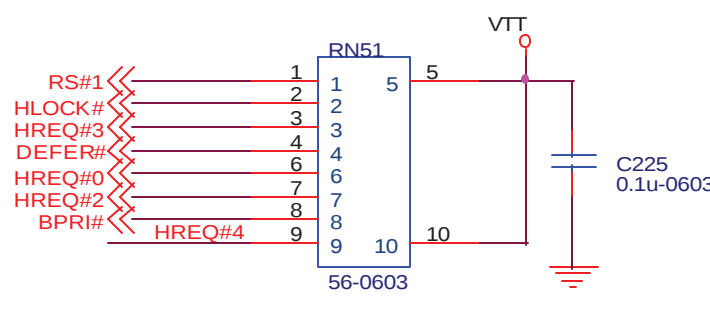
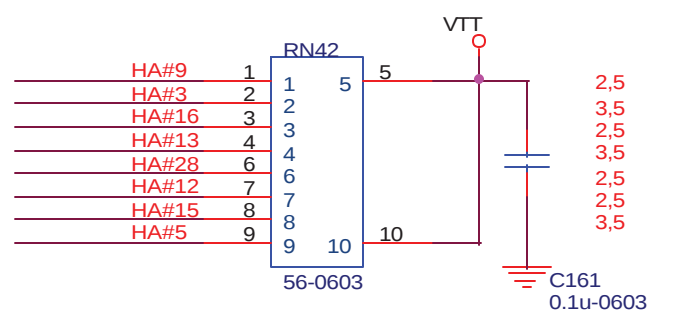
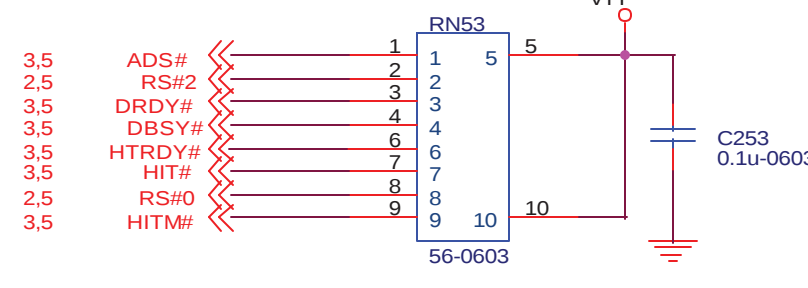
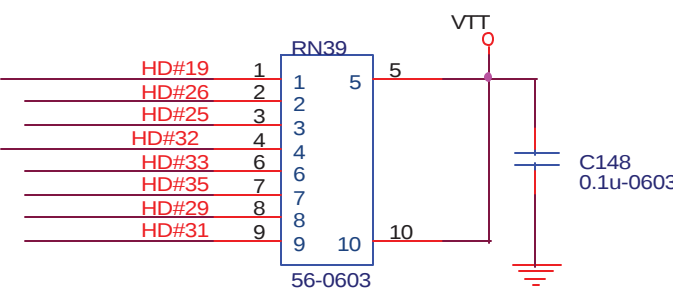
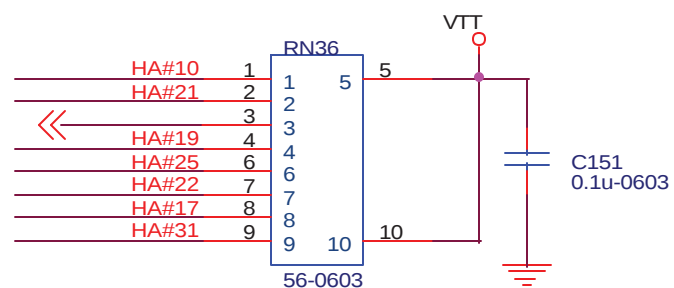
GTL TERMINATION



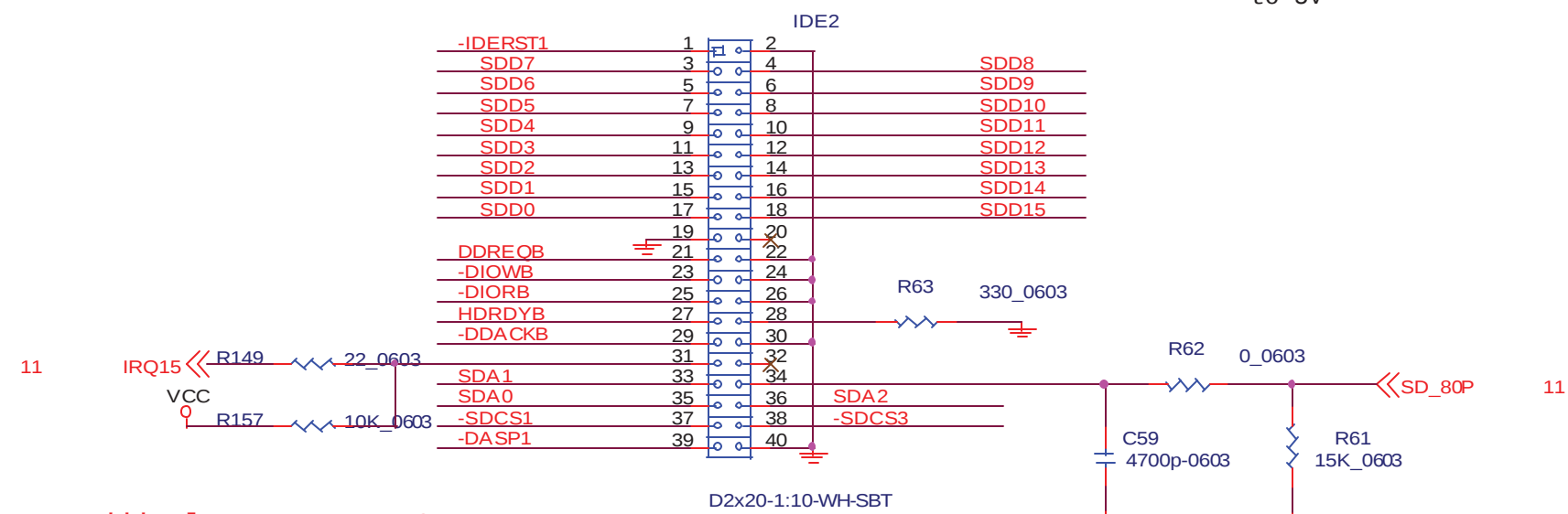
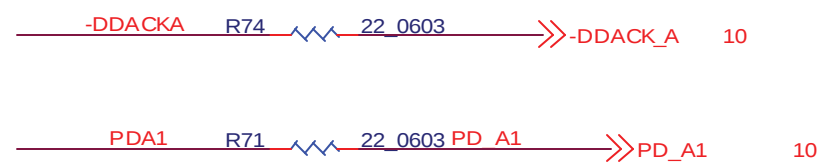
3,5 BNR#



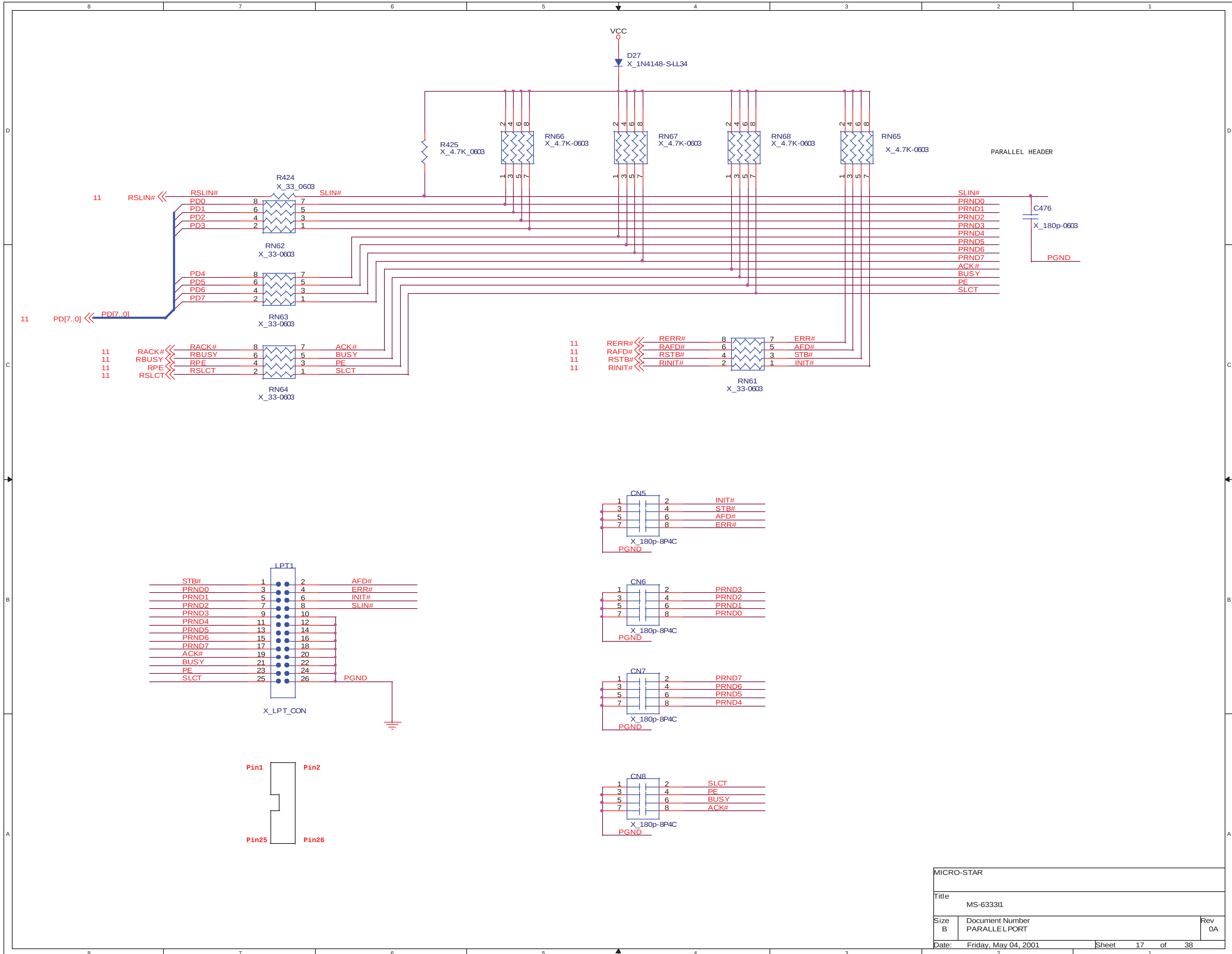
2,3,5,21 HRESET#

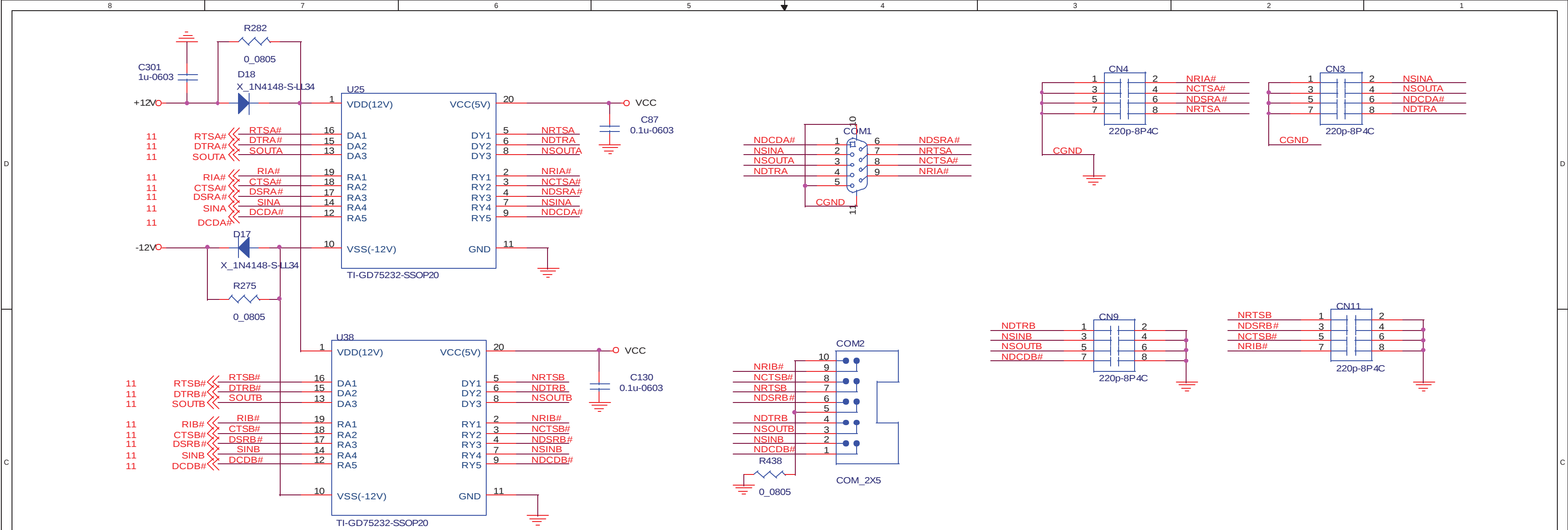


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Title		
MS-638811		
Size	Document Number	Rev
B	GTL BUS TERMINATION	0A
Date:	Friday, July 06, 2001	Sheet 14 of 38

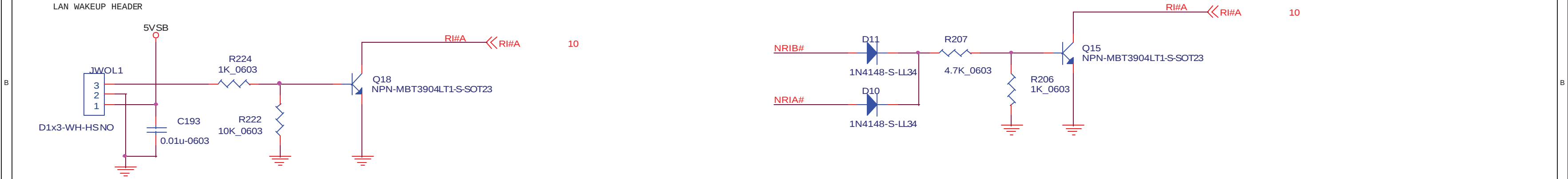


*** Place R177, R179,
R175,R173 CLOSE TO
South-Bridge ***

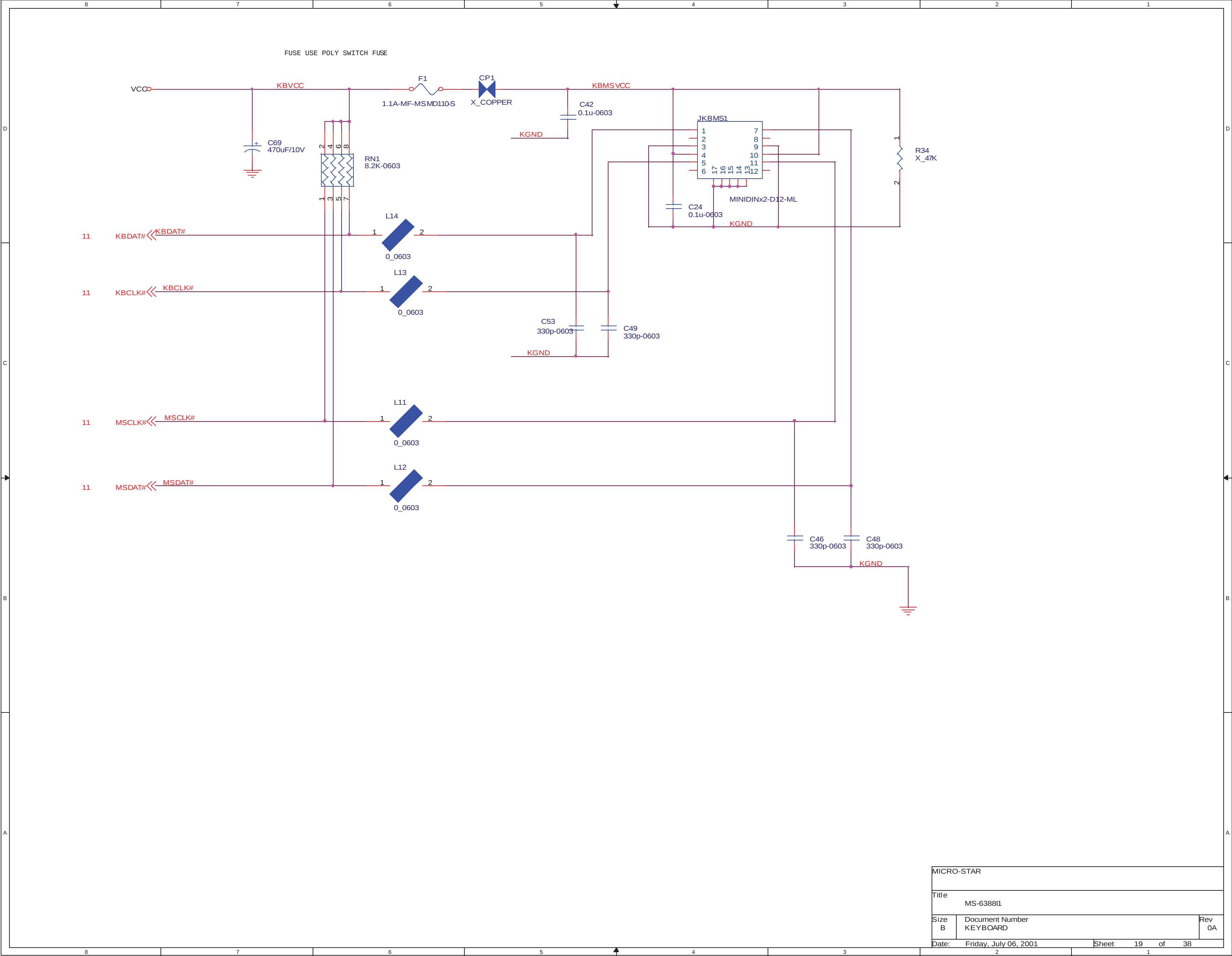


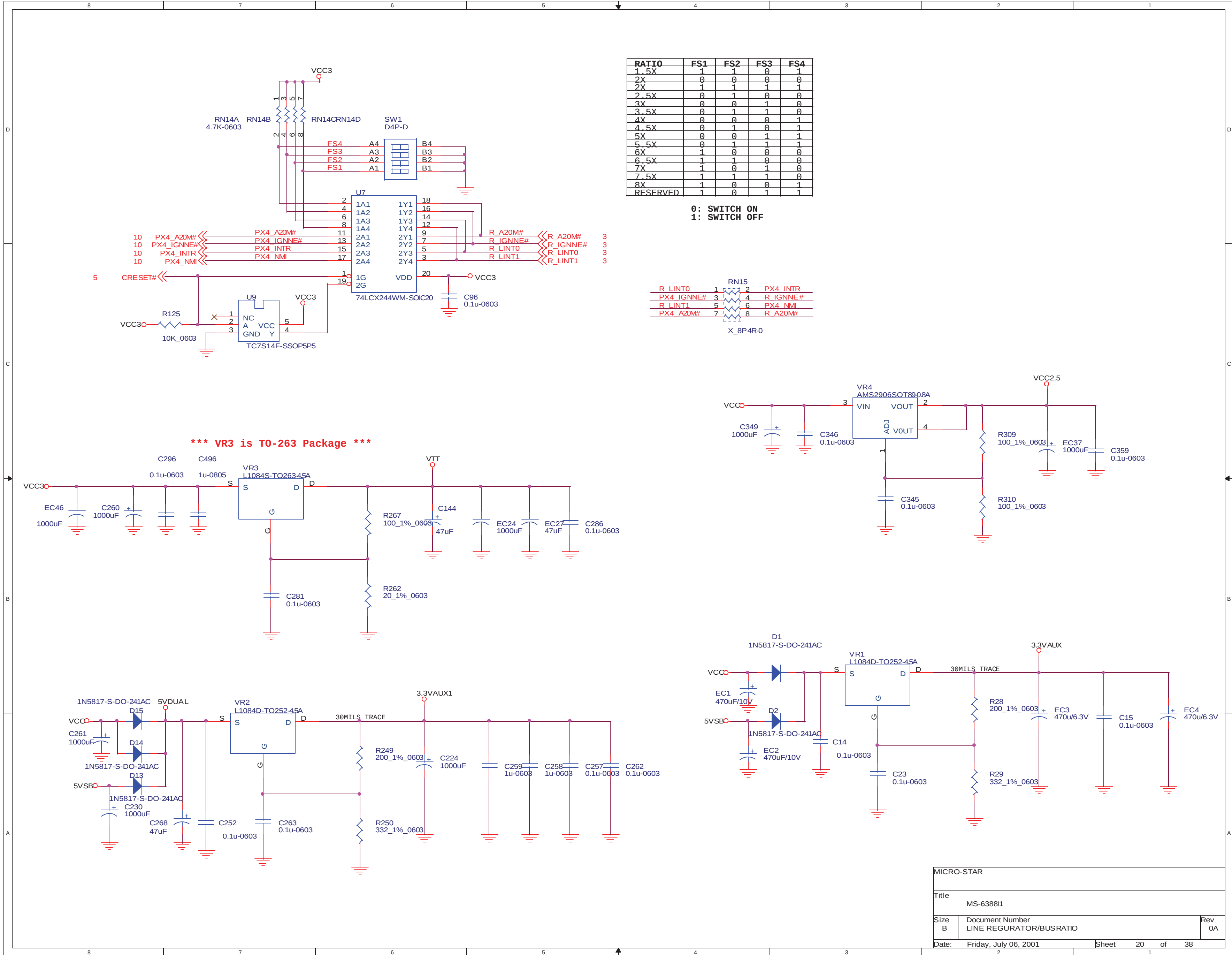


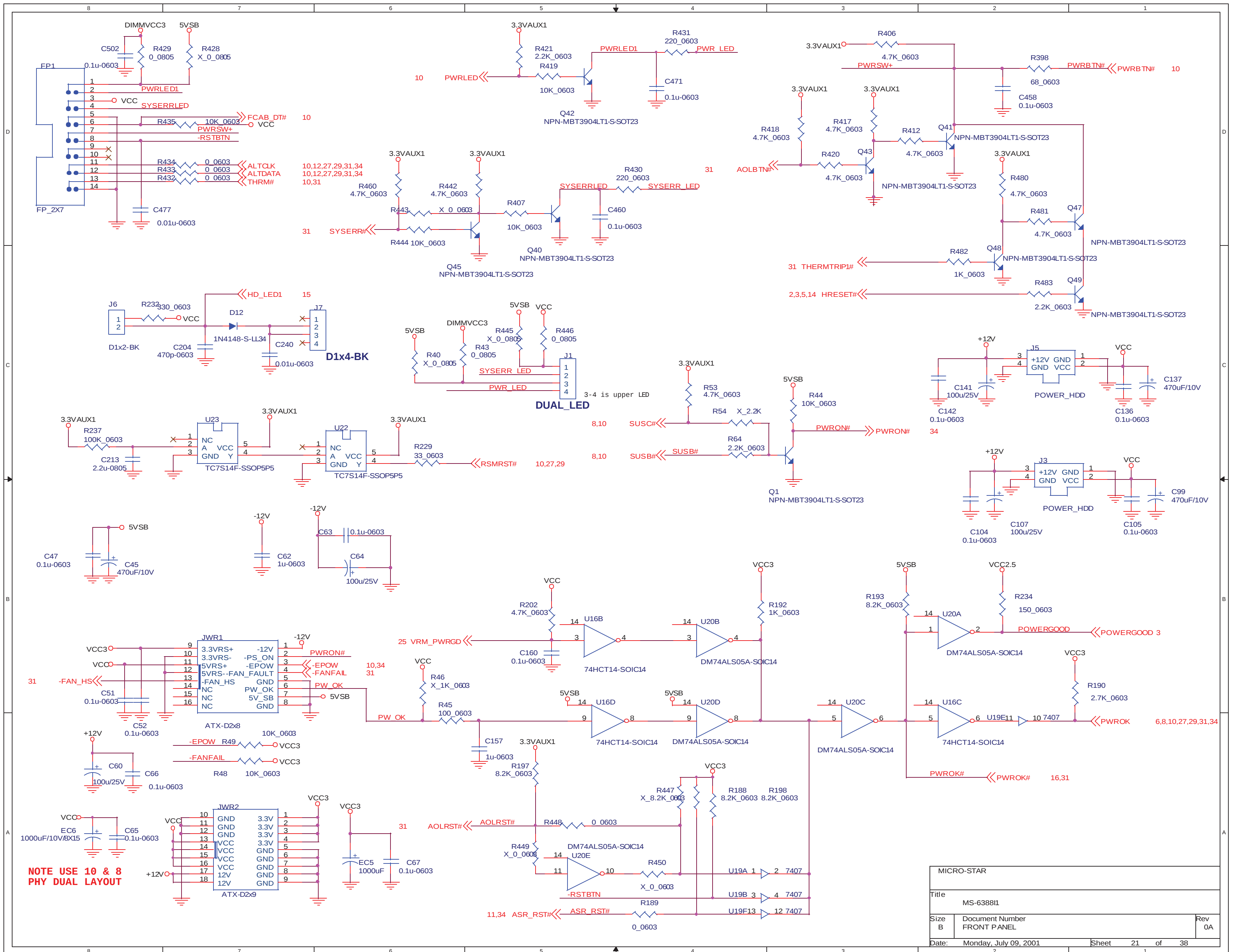
Check Layout Pin Define

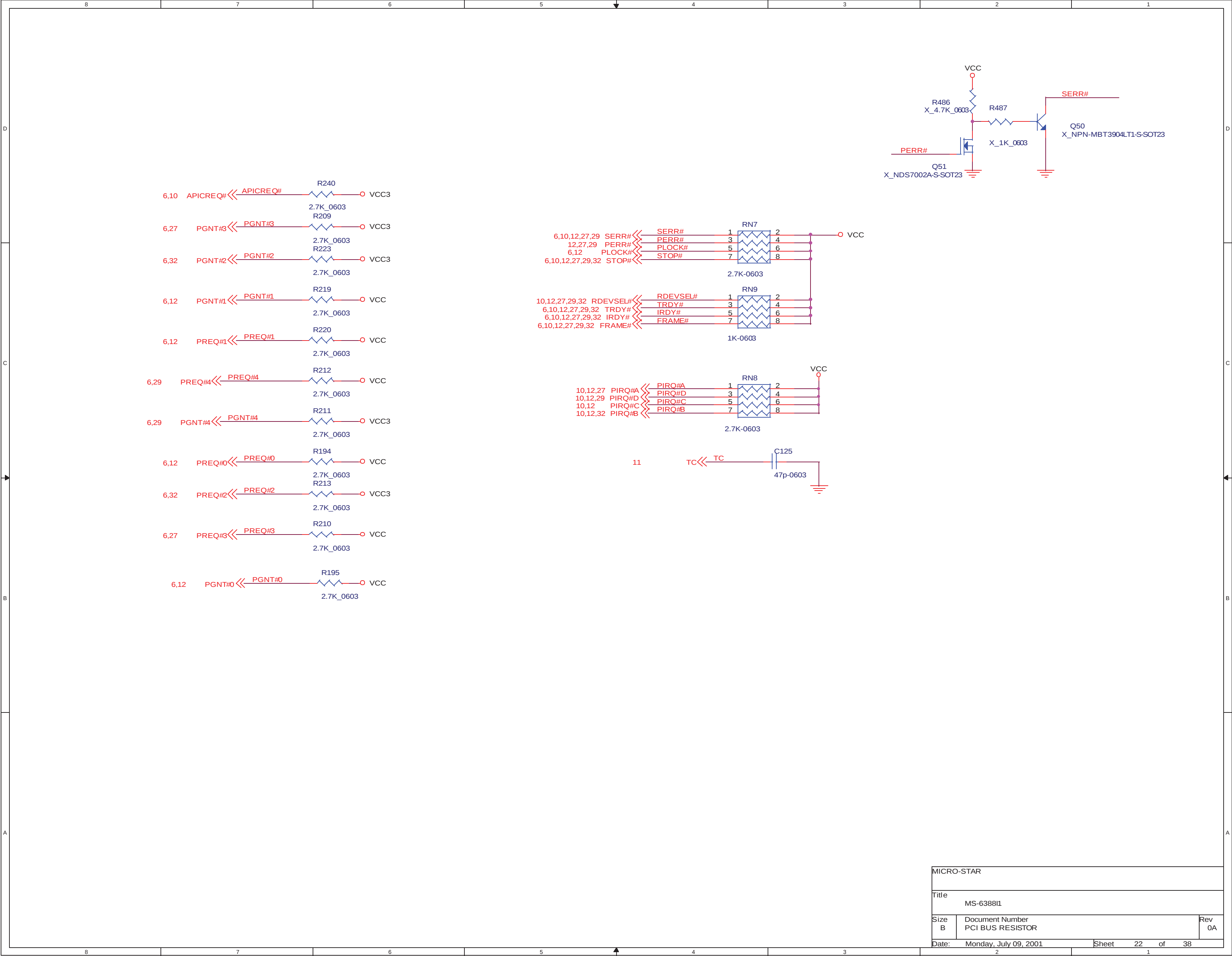


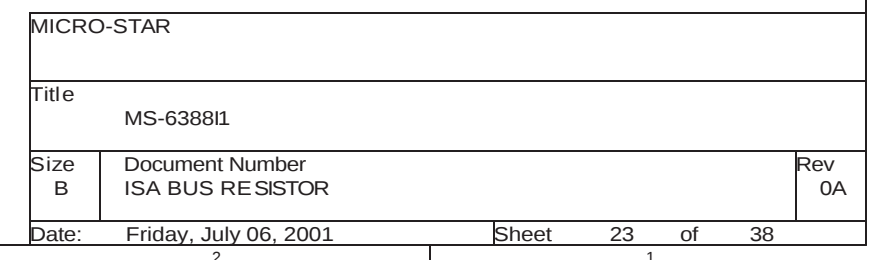
MICRO-STAR		
Title		
MS-638811		
Size	Document Number	Rev
B	RS-232 CONNECTORS	0A
Date:	Friday, July 06, 2001	Sheet 18 of 38



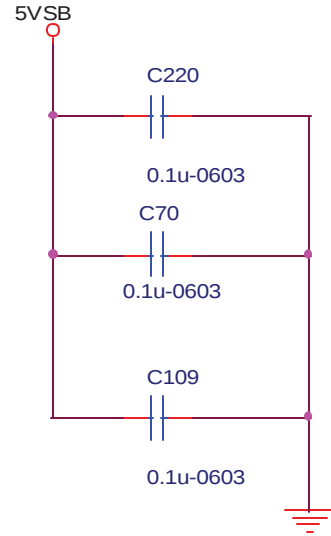
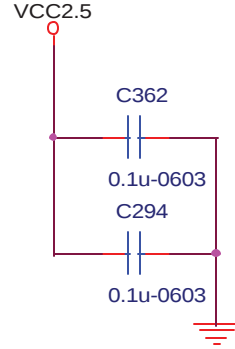
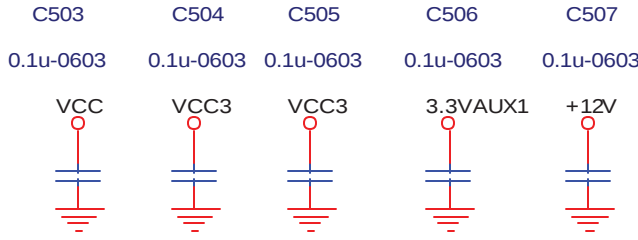
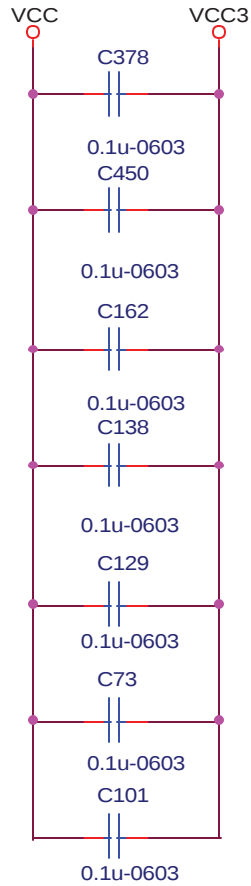
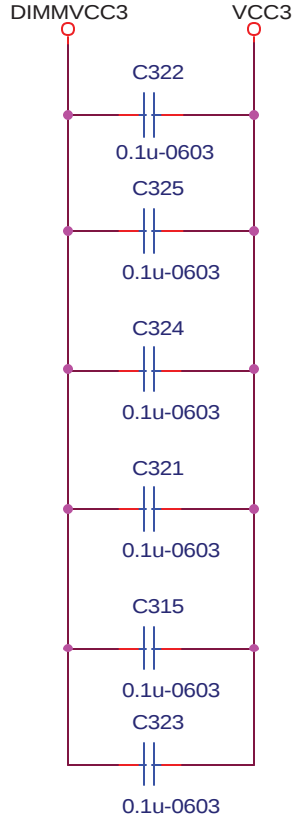
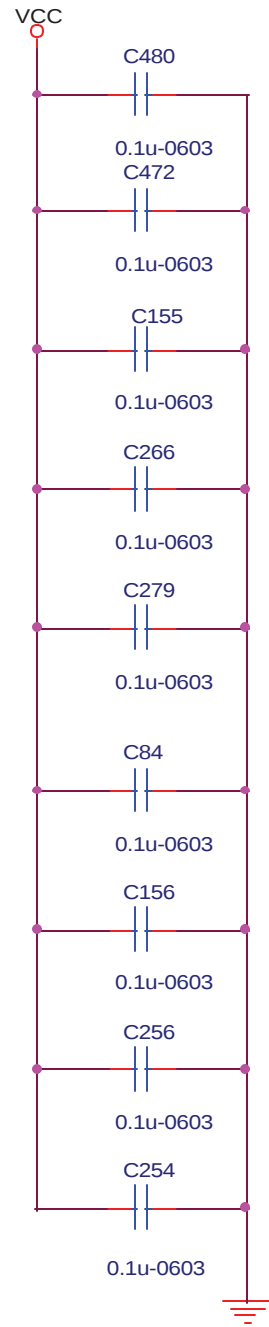
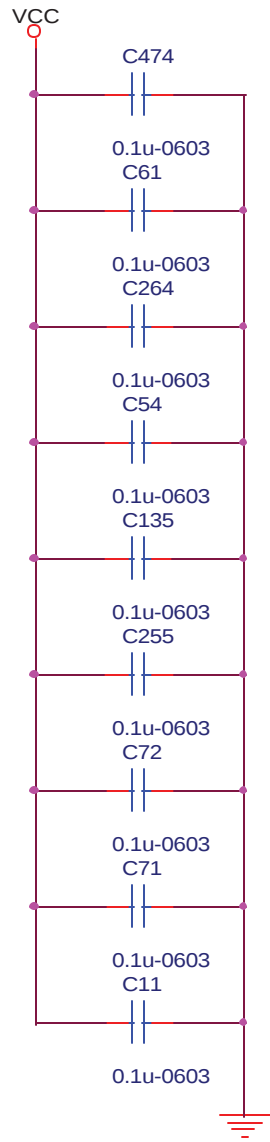
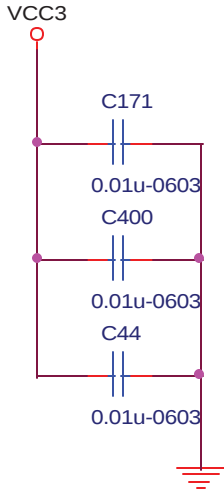
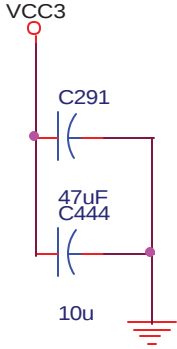
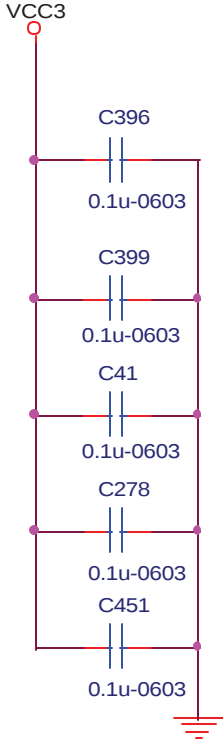




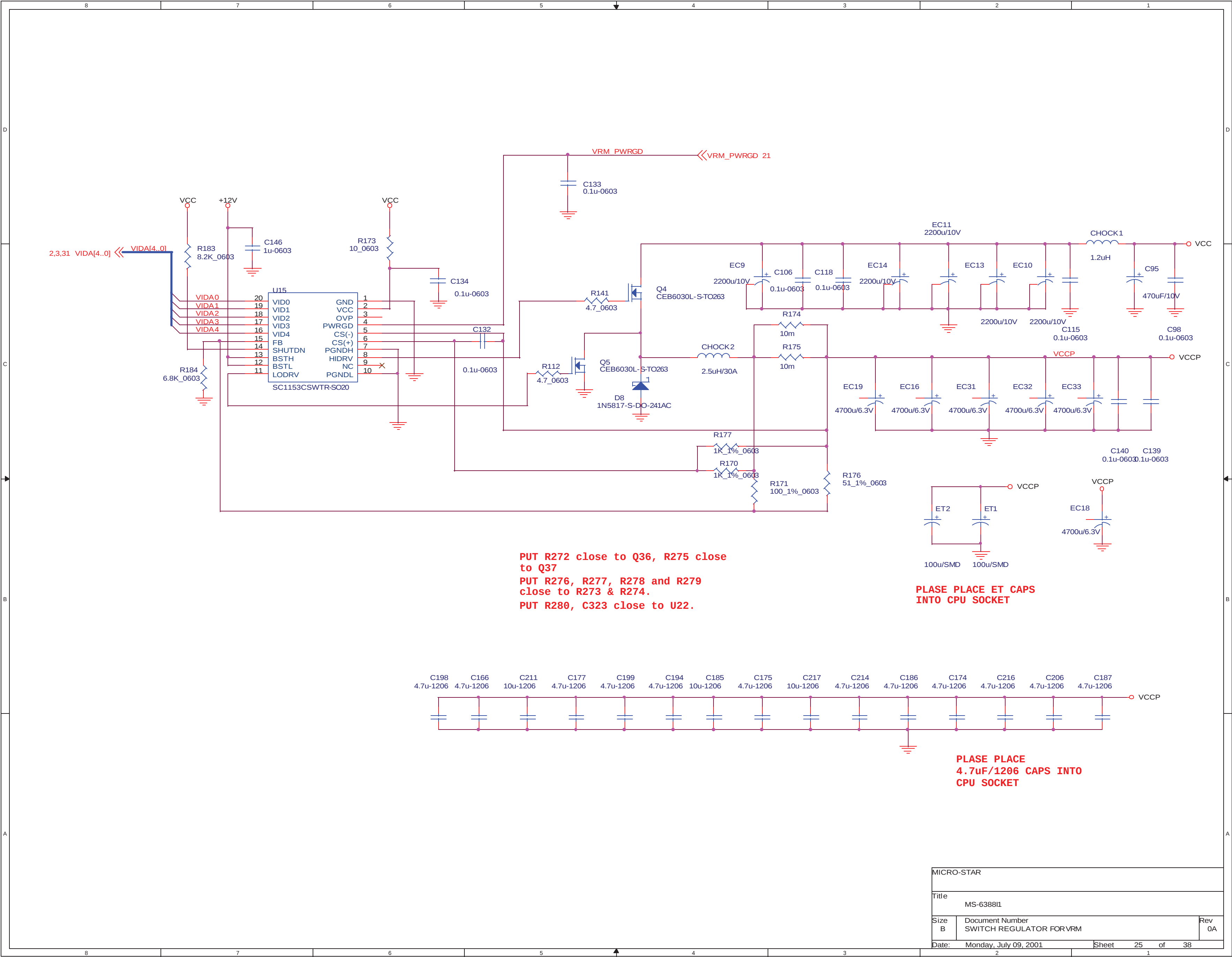


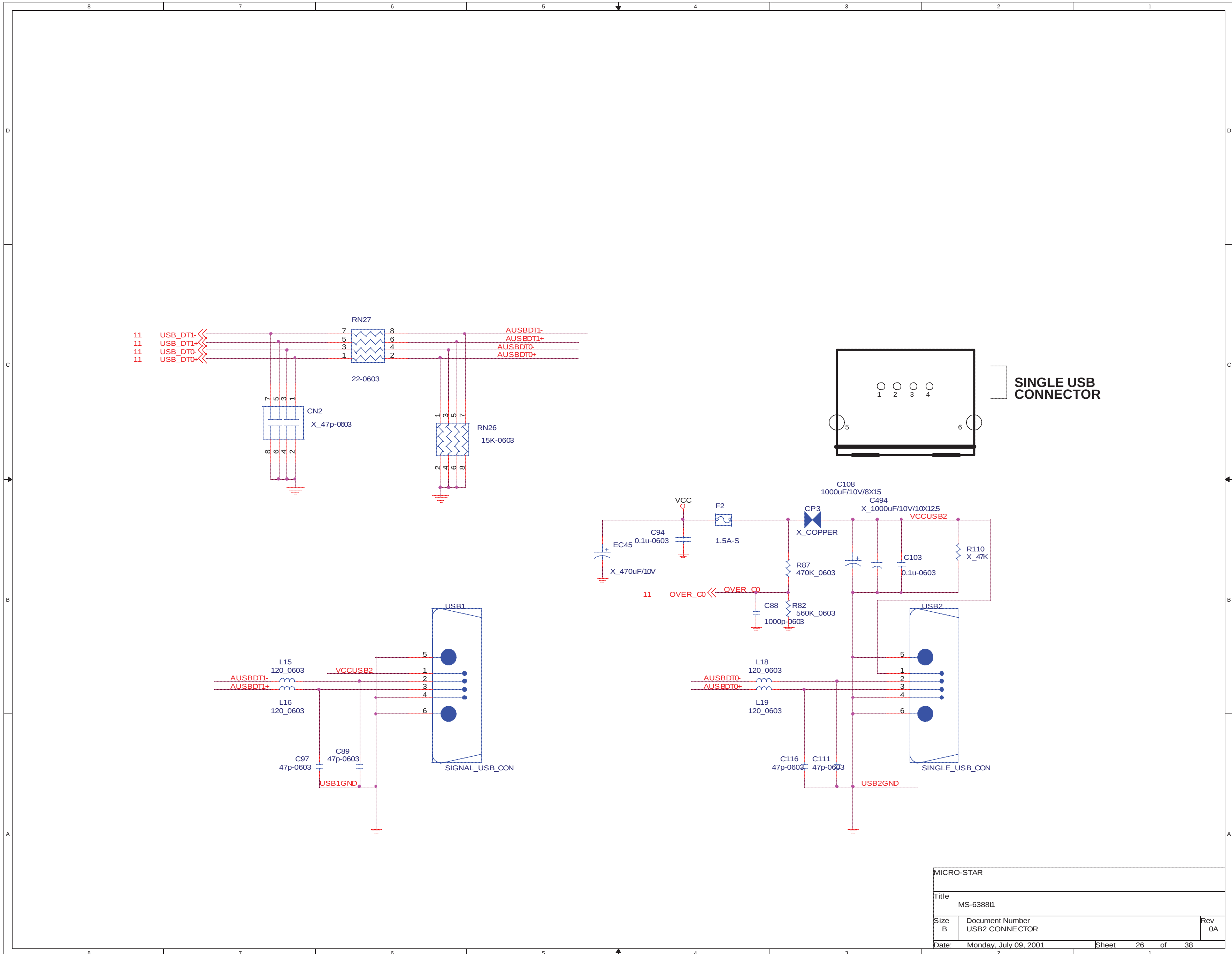


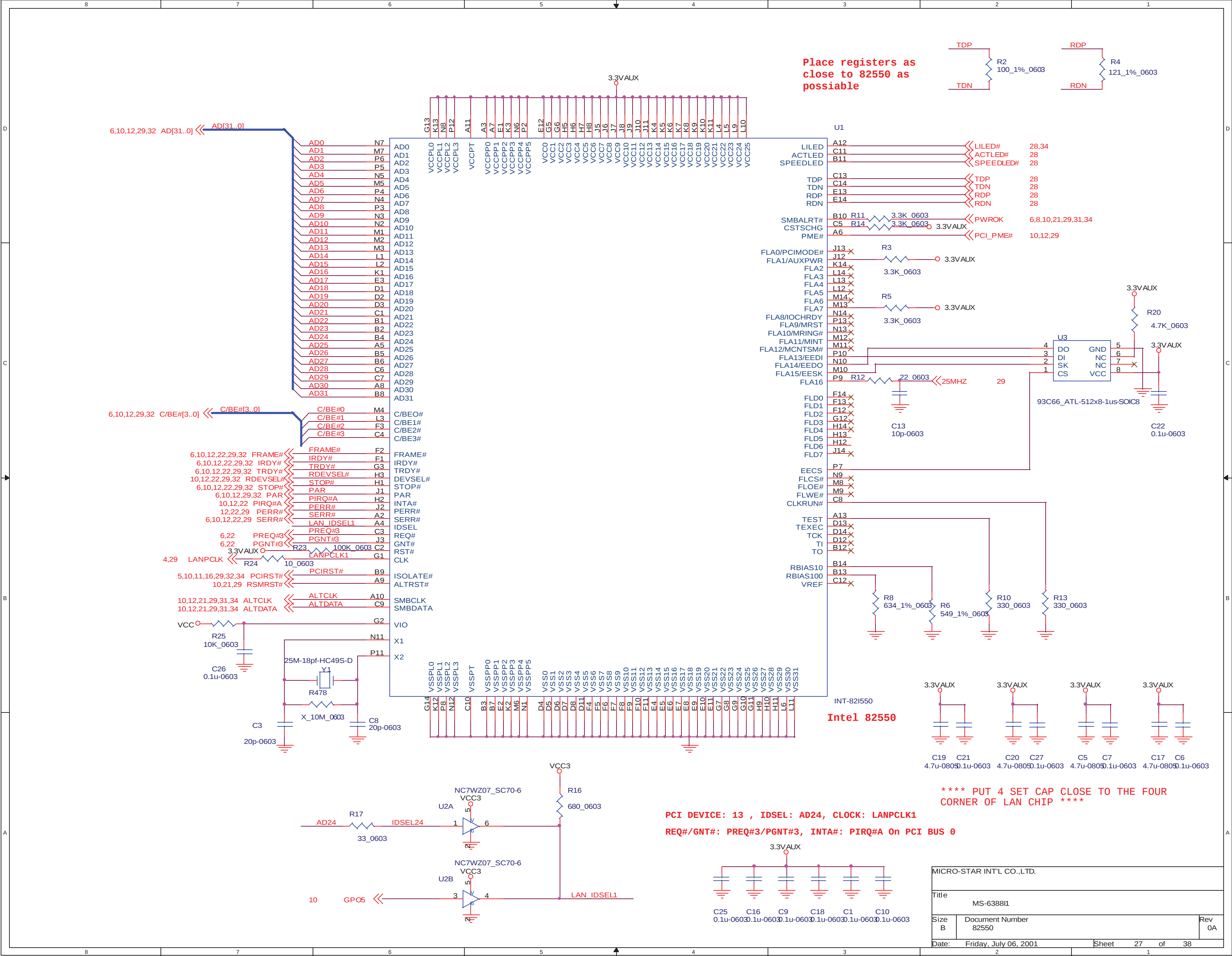
DIMM DECOUPLING

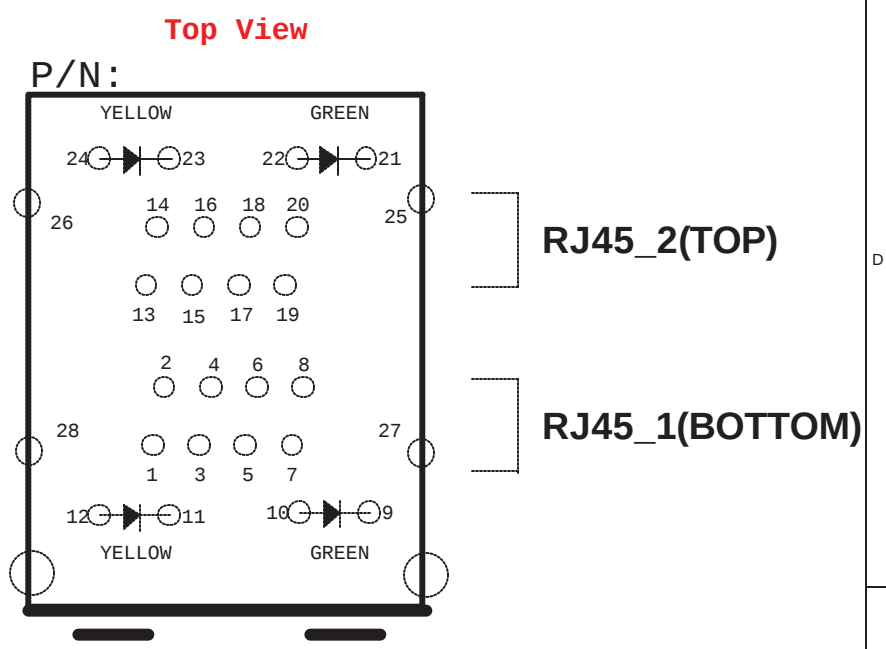
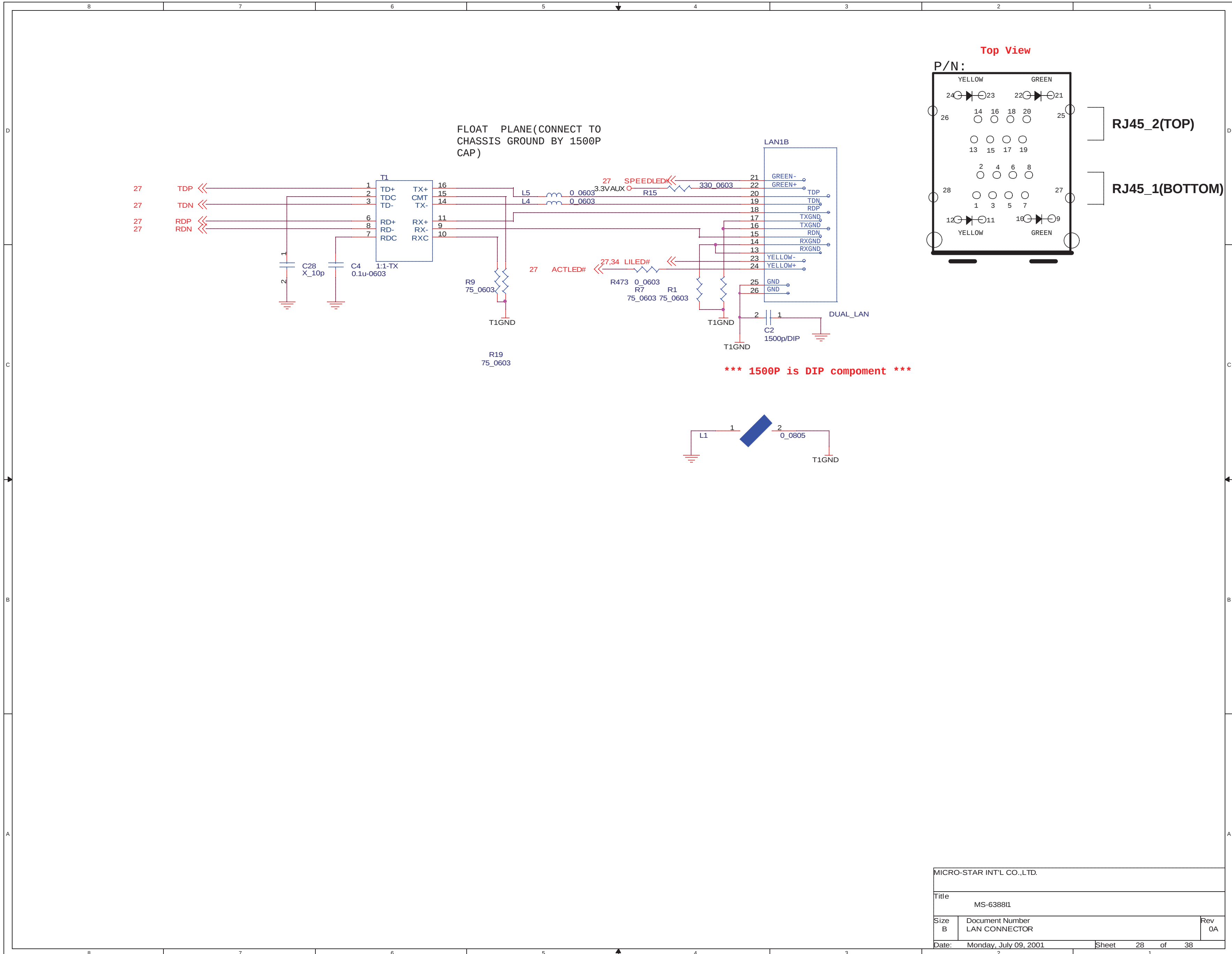


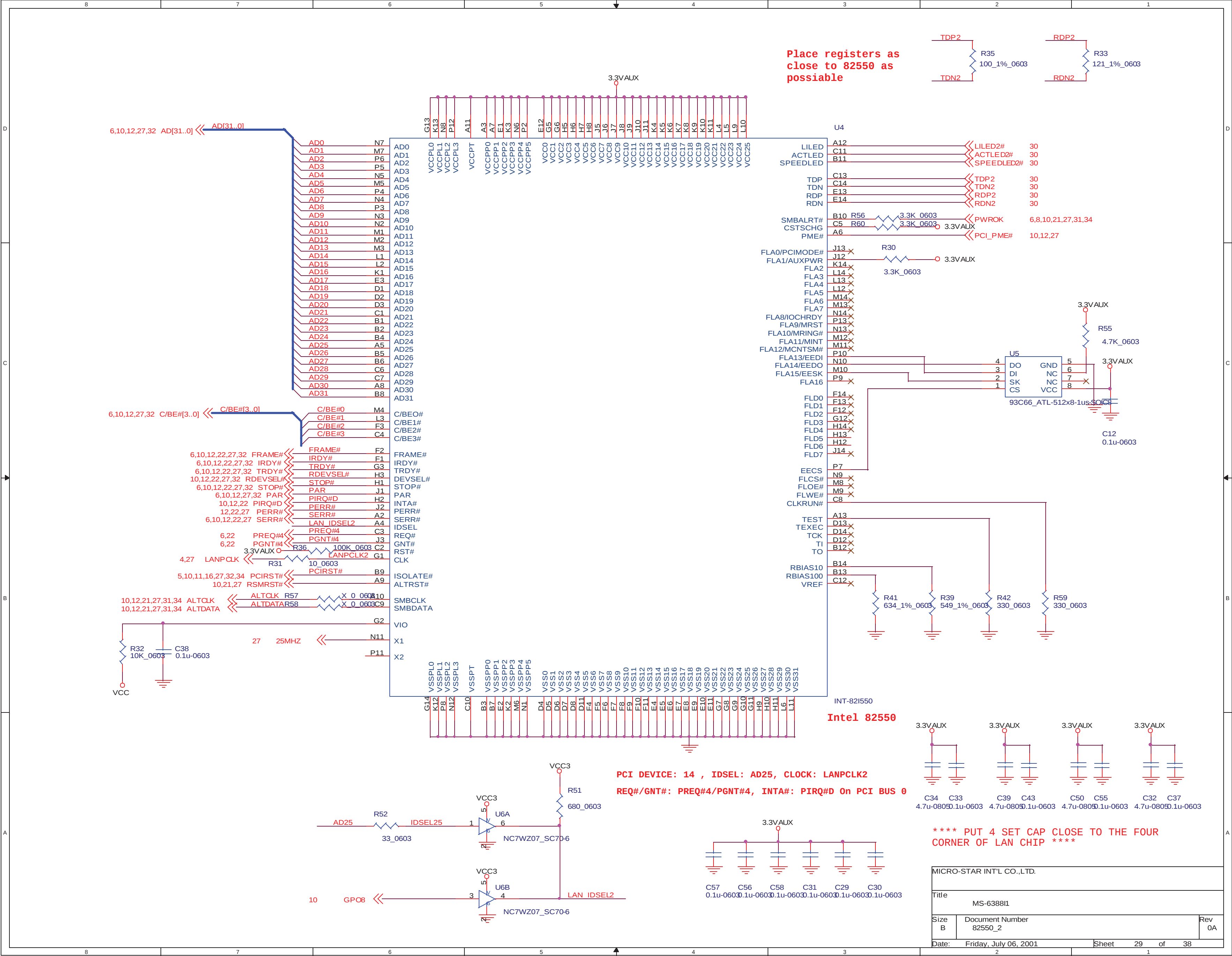
MICRO-STAR		
Title		
MS-638811		
Size	Document Number	Rev
B	DECOUPLING CAPACITOR	0A
Date:	Friday, July 06, 2001	Sheet 24 of 38

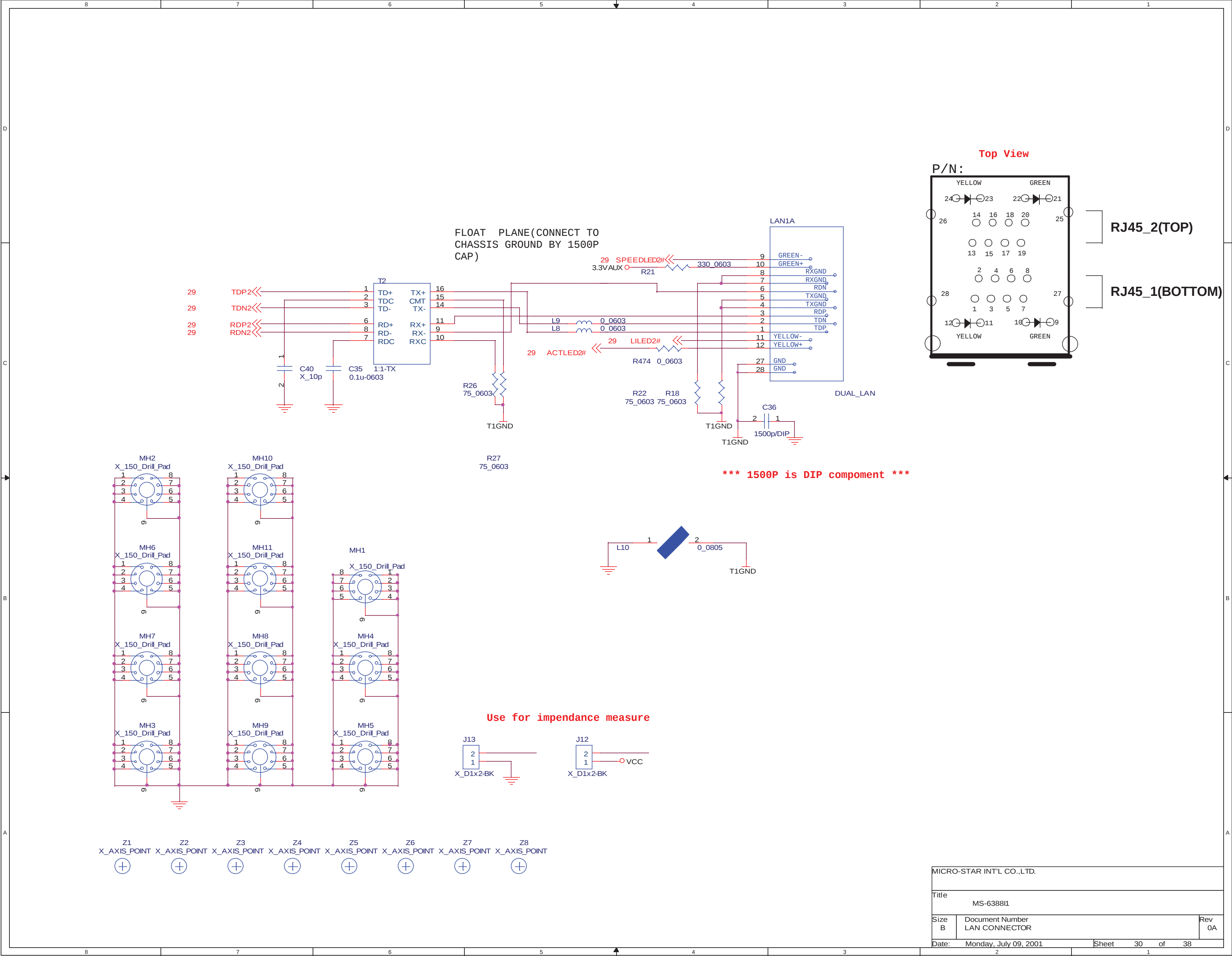


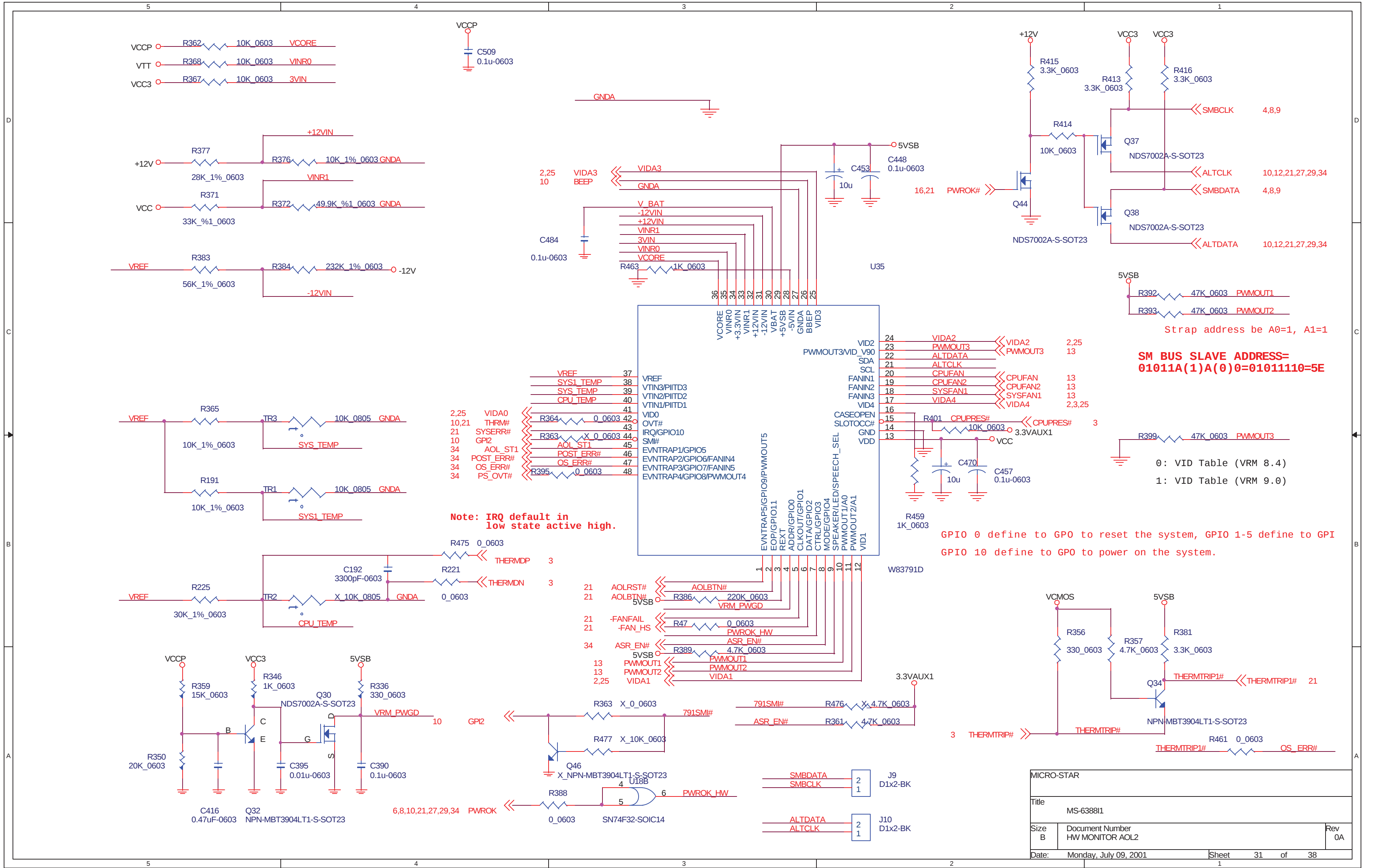












Strap address be A0=1, A1=1

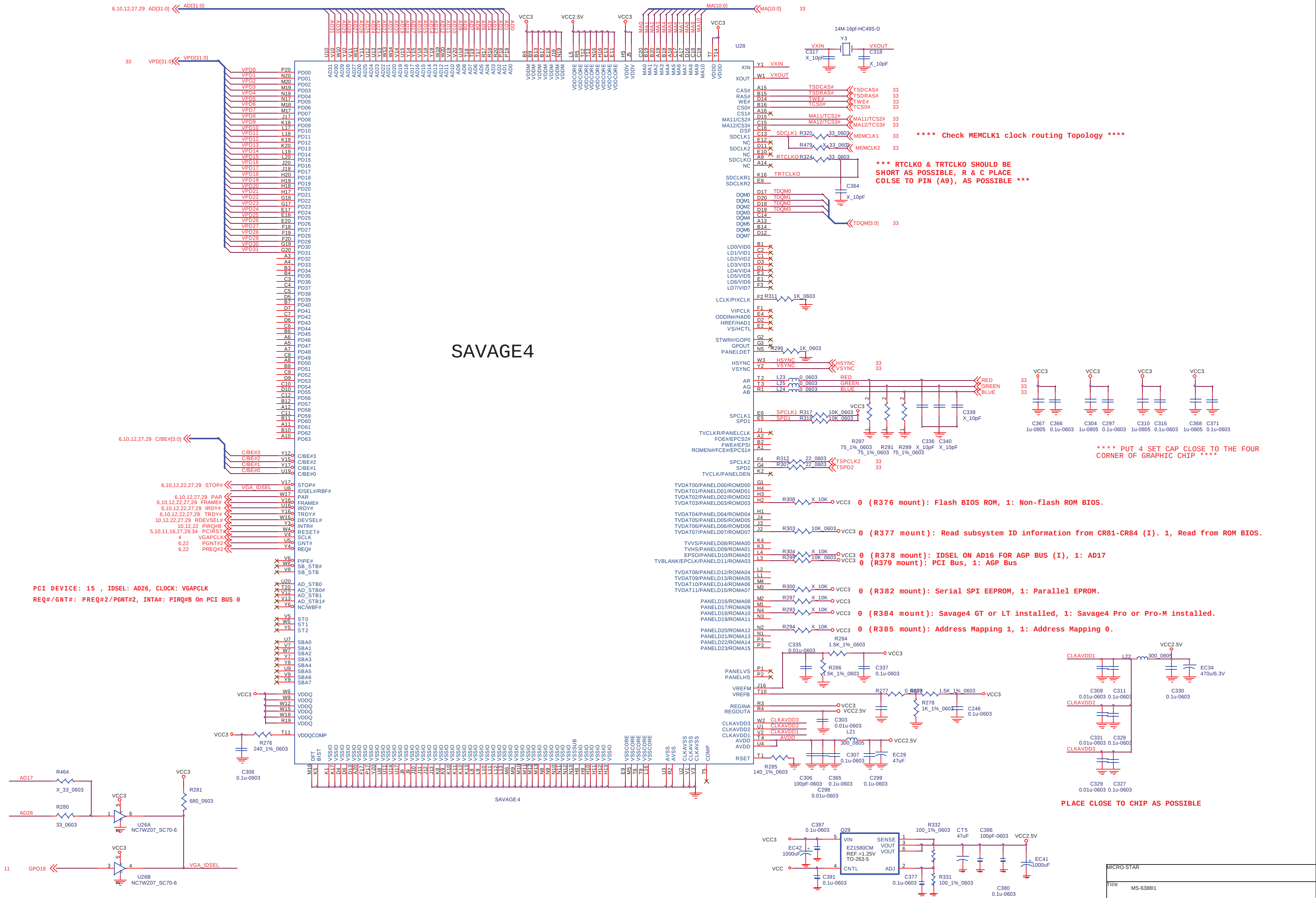
SM BUS SLAVE ADDRESS=
01011A(1)A(0)0=01011110=5E

0: VID Table (VRM 8.4)
1: VID Table (VRM 9.0)

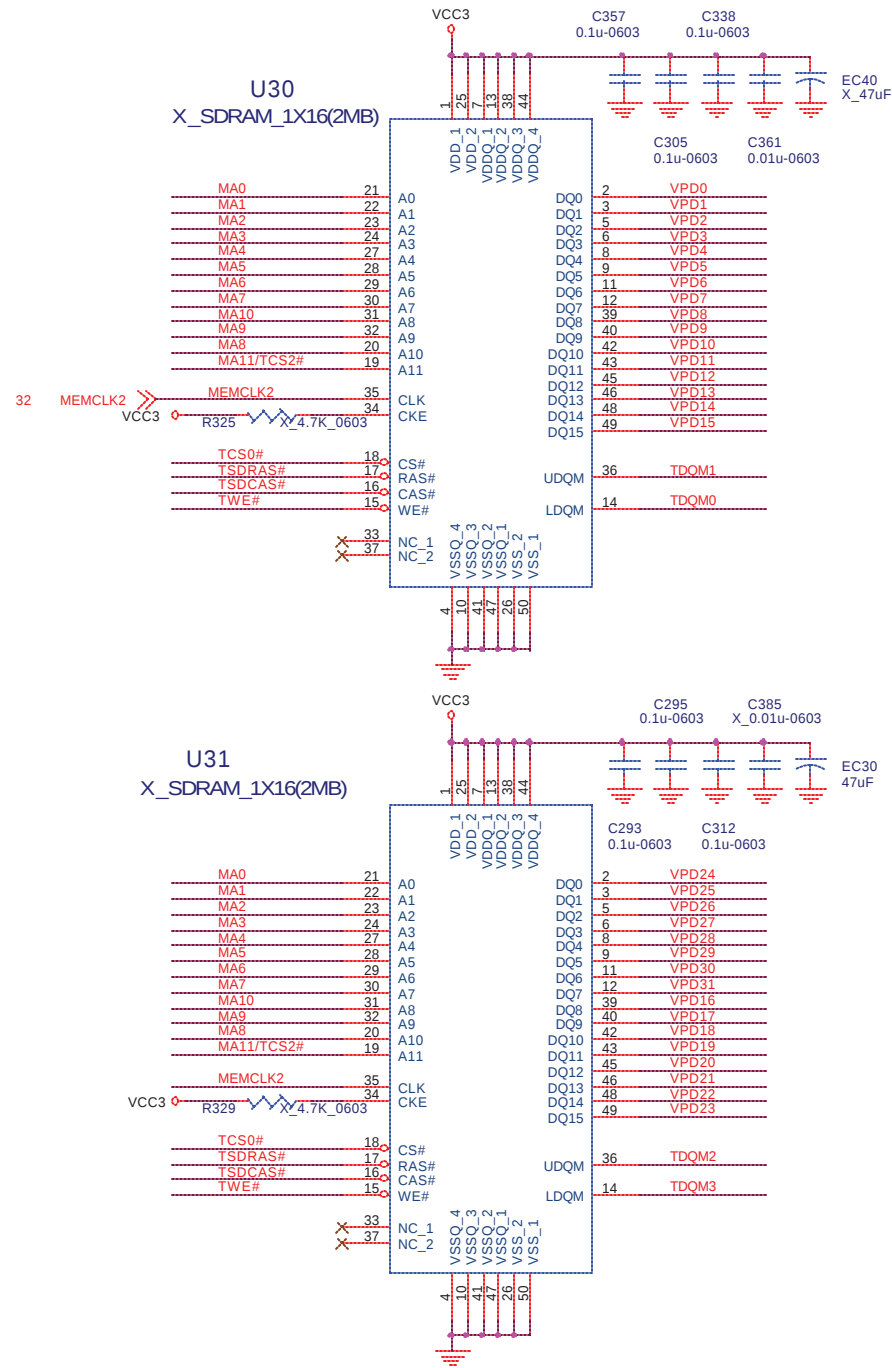
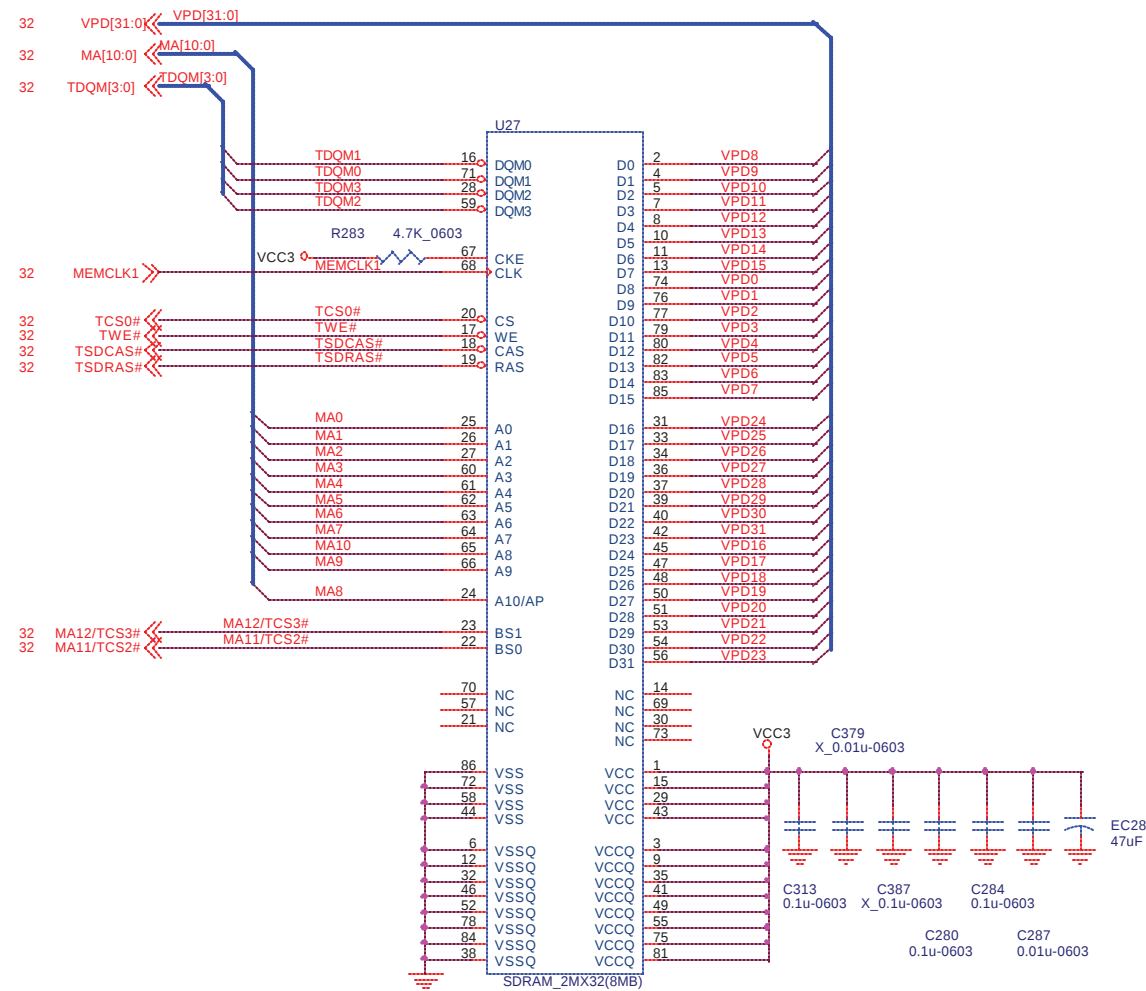
GPIO 0 define to GP0 to reset the system, GPIO 1-5 define to GPI
GPIO 10 define to GP0 to power on the system.

MICRO-STAR		
Title		
MS-638811		
Size	Document Number	Rev
B	HW MONITOR AOL2	0A
Date:	Monday, July 09, 2001	Sheet 31 of 38

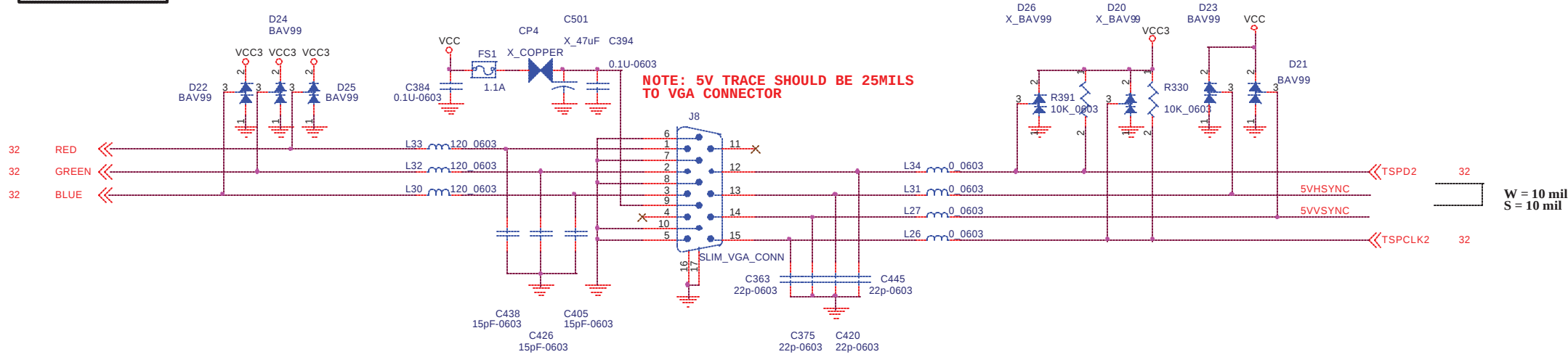
SAVAGE4



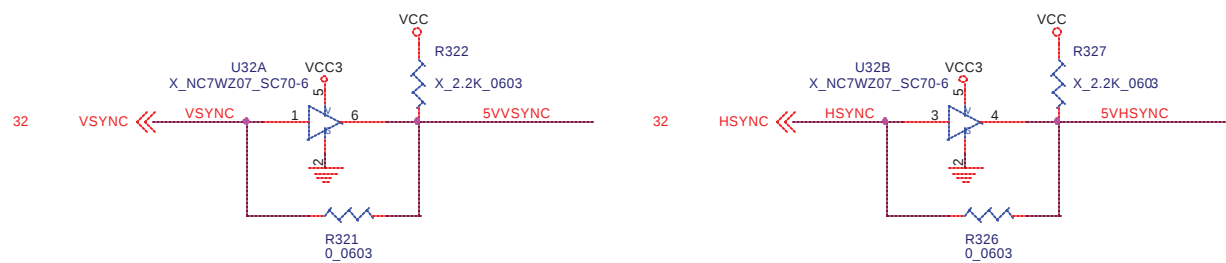
MICRO-STAR		
Title MS-638811		
Size	Document Number S3_Savage4	Rev 0A
Date	Friday, July 06, 2001	Sheet 32 of 38



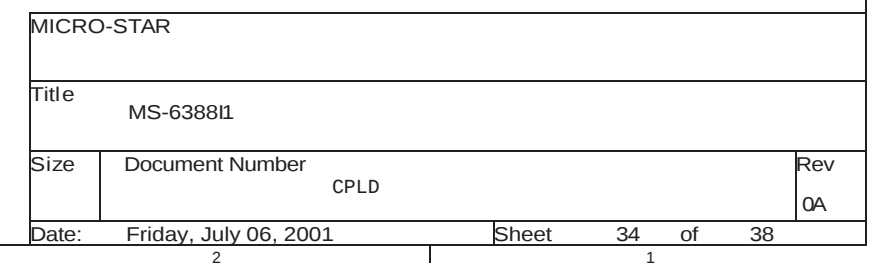
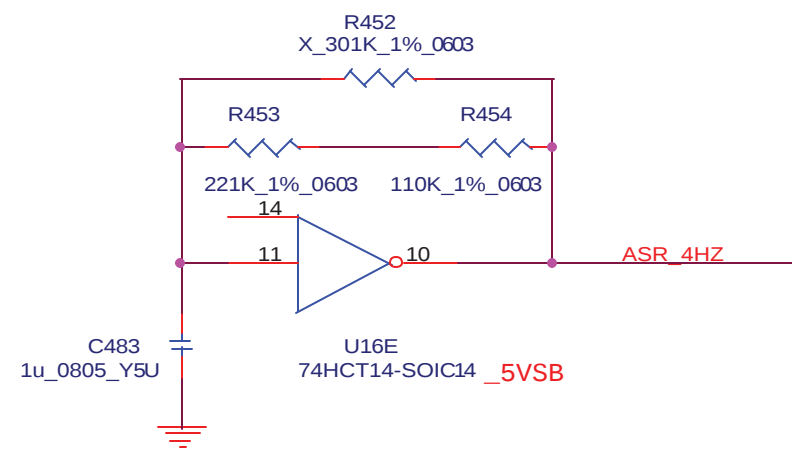
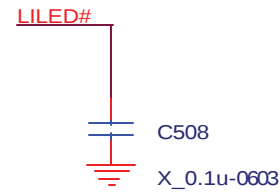
VGA CONNECT



ALL the component close to VGA connector as possible



MICRO-STAR		
Title	MS-638811	
Size	Document Number	Rev
	S3_Savage4 Display memory & VGA connector	0A
Date:	Monday, July 09, 2001	Sheet 33 of 38



Change History:

01/19/2001 modify:

- 1. sheet 27: Change 82550 RST# connect from VCC to 3.3VAUX.
- 2. sheet 29: Change 82550 RST# connect from VCC to 3.3VAUX.
- 3. sheet 31, Thermal Resistor change from 0603 size to 0805 size.
- 4. modify EC42 footprint to 2200uF

01/29/2001 modify:

- 1. sheet 27: Change 82550 INA# net from PIRQ#B to PIRQ#A.
- 2. sheet 29: Change 82550 INA# net from PIRQ#C to PIRQ#D.
- 3. sheet 29: Change VGA INA# net from PIRQ#D to PIRQ#B.
- 4. sheet 18: Add COM2 port circuit.
- 5. sheet 11: Add Front USB port circuit.
- 6. sheet 31: Add two 1x2 jumper header for SMBus & ALTBUS.
- 7. sheet 34: Add R456 for 4HZ clock generator.
- 8. sheet 21: Change power connector type for IBM. Add three GPIO pin to South-Bridge & 2 GPI pin to CPLD pin for fan speed control & fan fault detect & overheat detect.
- 9. sheet 21: Add R458 & R459 for POWER & SYSERR LED.
- 10. sheet 31: Change CPU tempeature detect from external thermisitor to CPU internal thermisitor.
- 11. sheet 31: Connect HW monitor beep tone to internal buzzer.

01/30/2001 modify:

- 1. sheet 21: Change SYSERR LED source from HW monitor SMI# pin to IRQ pin.
- 2. sheet 31: Connect HW monitor SMI# to South-Bridge EXTSMI#.
- 3. sheet 34: Change C468, C469 size to 0805 and Y5U meterial.
- 4. sheet 13: Add optional (R465) to SYSFAN1 for smart fan control to SYSFAN1 & SYSFAN2 at same time.
- 5. sheet 34: Del R442, R456 for 4HZ clock generator.
- 6. sheet 4: Change L2, L3, L40 from 0603 to 0805 size.
- 7. sheet 6: connect North-Bridge AGP interface power to VCC3 and add pull-high resistor & pull-low resistor for AGP interface.

01/31/2001 modify:

- 1. sheet 34: Connect ROMMEMW# to CPLD in order to save U14 cost.
- 2. sheet 34: Connect PS_OVT# event to HW monitor optional with PWMOUT4.
- 3. sheet 21: Add C479, C480 for secondary power connector 3.3VRS & 5VRS decouping. Add R469 for -FANFAIL open collector signal pull high.
- 4. sheet 31: Remove -5V voltage monitor.

02/01/2001 modify:

- 1. sheet 16: Delete 2M FlashROM dual image circuit.
- 2. sheet 31: Add R470.
- 3. sheet 12: Connect ALTCLK & ALTDATA signal to PCI slot1 to support AOL2 enable adatpter.
- 4. sheet 21: Change Front_Panel foot-print. Delete R406.
- 5. sheet 27: Change LAN connector ground to all connect to T1GND.
- 6. sheet 29: Change LAN connector ground to all connect to T1GND.

02/02/2001 modify:

- 1. sheet 2: Add 3 pcs cross-over capacitor (VCC3 to VCCP) for AGTL+ Bus.
- 2. sheet 34: Add VPD EEPROM and connect ALTBUS.

02/05/2001 modify:

- 1. sheet 34: Rename ASR_RST to ASR_RST# (active low).

MICRO-STAR			
TitleMS-6388I1			
Size	Document Number	COVER PAGE	Rev0A
Date:	Friday, March 09, 2001	Sheet 36 of 38	

Change History:

02/06/2001 modify:

- 1. sheet 3: C39 change to connect net to VCCP.
- 2. sheet 15: Change IDE serial resistor value from 33 or 82 ohm to 22 ohm.
- 3. sheet 20: Change EC18 to SMT capacitor.
- 4. sheet 11: Connect U7 Pin F7 to VCC3.
- 5. sheet 28: Reserve Bead pad for EMI solution on Lan signal .
- 6. sheet 30: Reserve Bead pad for EMI solution on Lan signal and add 3 screw hole.

02/07/2001 modify:

- 1. sheet 3: C39 change to connect net to VCCP.
- 2. sheet 24: Add 6 pcs cross-over capacitor for DIMMVCC3 to VCC3 and 3 pcs cross-over capacitor for VCC to VCC3.
- 3. sheet 2: Add 8 pcs decoupling capacitor for VCCP.
- 4. sheet 3: Add 1 pcs decoupling cap. for GTLREF net and 1 pcs for VTT, 1 pcs for VCMOS.
- 5. sheet 21: Add 2 decoupling cap. +12V for CD-ROM & HDD power connector.
- 6. sheet 6: Add 47uF SMT capacitor for 3.3VAUX1.
- 7. sheet 10: Add 47uF SMT capacitor for 3.3VAUX1.
- 8. sheet 7: Add AGPREF net.
- 9. sheet 25: Add 6 pcs 4.7u/1206 decoupling capacitor for VCCP.

MICRO-STAR			
TitleMS-6388I1			
Size	Document Number	COVER PAGE	Rev0A
Date: Friday, March 09, 2001	Sheet 37 of 38		

