

MS-6332 Flex-ATX

Intel PPGA 370 Processor

Intel 815E (Solano2) Chipset

SMC LPC47M157

MS6332 Ver:50C Golden Sample 7/12/2001

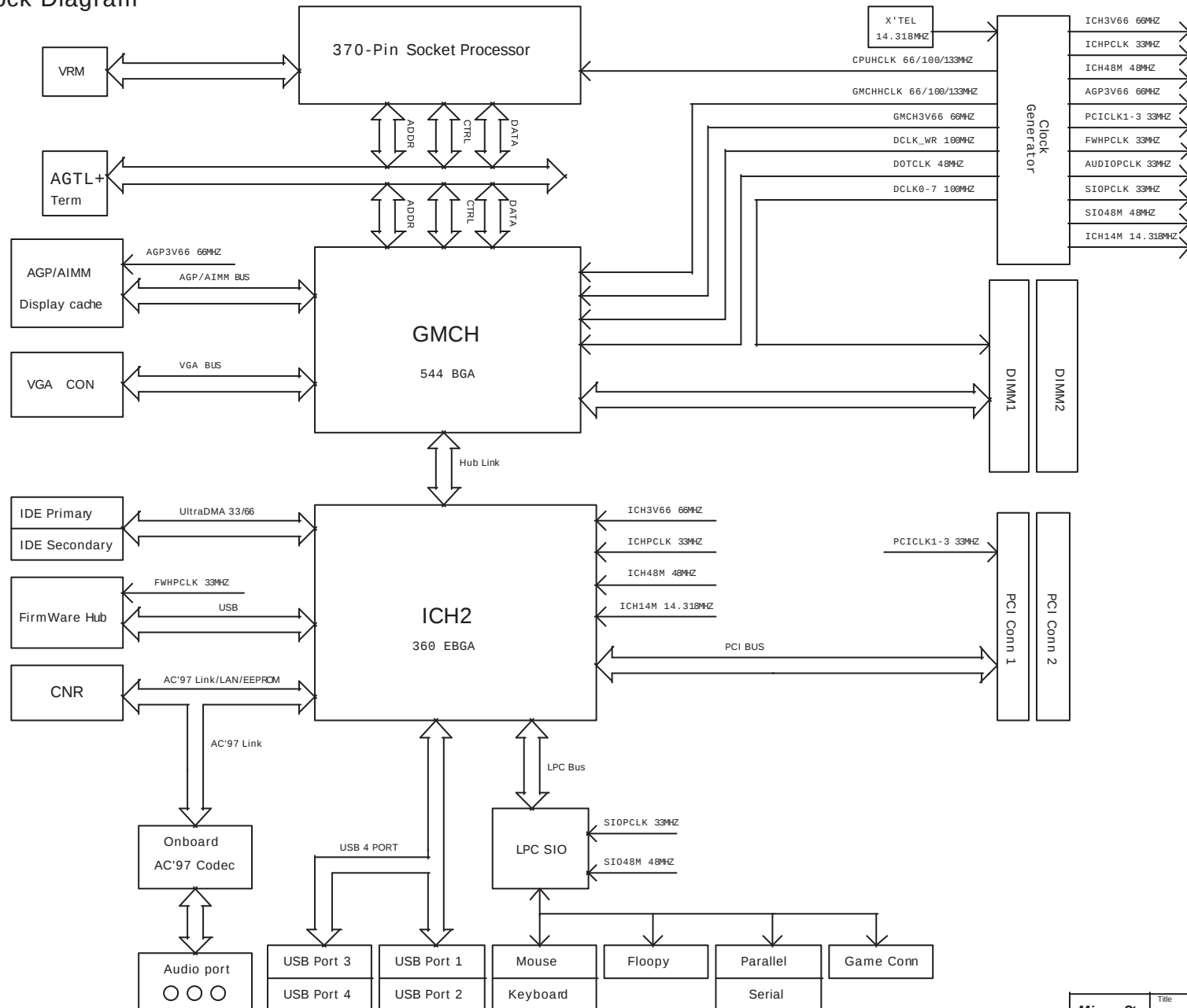
Assembly Revision : REV#130

Model option table

Model type	Function	Part Mark
MS6332	Stantard will be del	X_????
MS6332	ITP Port will be stuffed	T_????

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Block Diagram



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General Purpose I/O Spec.

ICH2

GPIO Pin	Type	Function
GPIO 0	I	Pull up (REQ#A)
GPIO 1	I	PREQ#5
GPIO 2,3,5	I	NC
GPIO 4	I	CLear Password
GPIO 6	I	THRM#
GPIO 7	I	LPC SMI#
GPIO 8	I	LAN Wake Up
GPIO 9	I	Not Implemented
GPIO 10	I	Not Implemented
GPIO 11	I	SMB ALERT
GPIO 12	I	CNR enable Codec down
GPIO 13	I	LPC PME
GPIO 14~15	I	Not Implemented
GPIO 16	O	Pull up(GNT#A)
GPIO 17	O	PGNT#5
GPIO 18~20	O	NC
GPIO 21	O	FAN Ctrl
GPIO 22	O	Pull up
GPIO 23	OD	BIOS update lock(H)/unlock(L)
GPIO 24	O	NC
GPIO 25	O	NC
GPIO 26	O	Not Implemented
GPIO 27	I/O	NC
GPIO 28	I/O	NC
GPIO 29~31	I/O	Not Implemented

FWH

GPIO Pin	Type	Function
GPI 0	I	ATA IDE 1 Detect
GPI 1	I	ATA IDE 2 Detect
GPI 2	I	GPI2=L GPI3=H Flash from FDD
GPI 3	I	GPI2=H GPI3=L Boot Auto clear CMOS

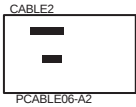
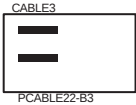
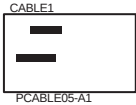
ICH2 SMLINK0,1 Connect to PCI2 for PCI card A0L

PCI Config.

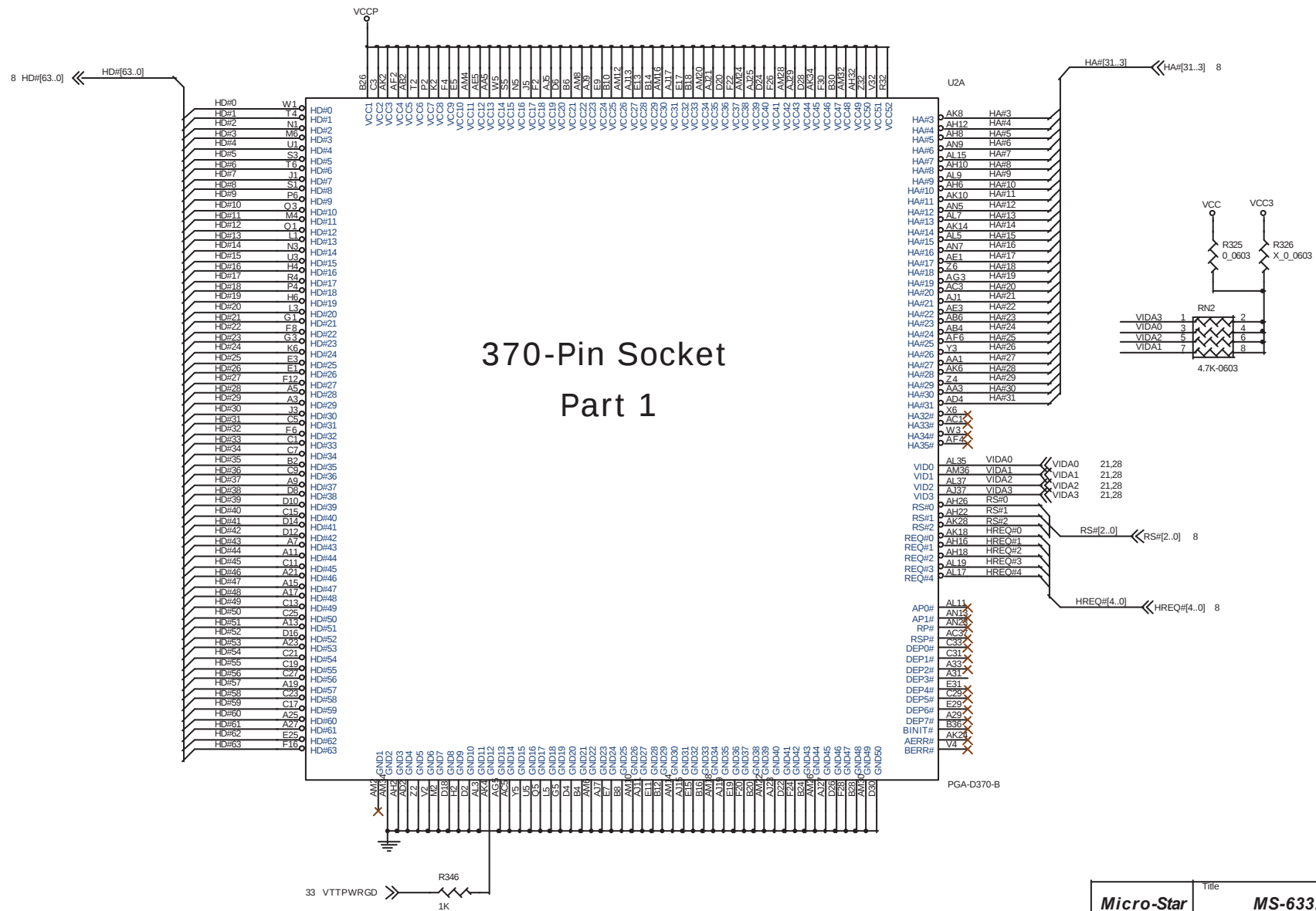
DEVICE	ICH2 INT Pin	IDSEL
PCI Slot 1	INTA# INTB# INTC# INTD#	AD16
PCI Slot 2	INTB# INTC# INTD# INTA#	AD17

JCWD1 Clease Password		JBAT1 Clear CMOS	
Open	Normal	1 - 2	Normal
Close	Clear PassWord	2 - 3	Clear CMOS

JP2 BIOS Update		JP3 CNR card setting	
SHORT	Locked	1-2	AUTO
OPEN	Unlocked	2-3	PRI_down



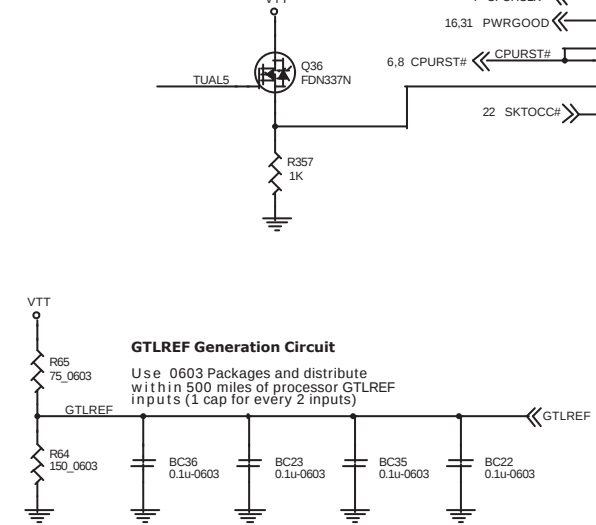
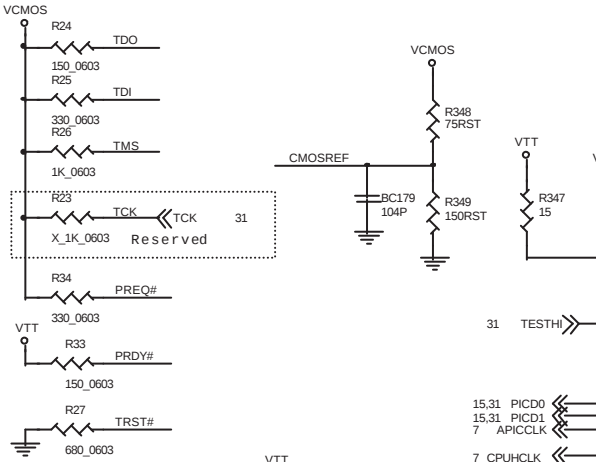
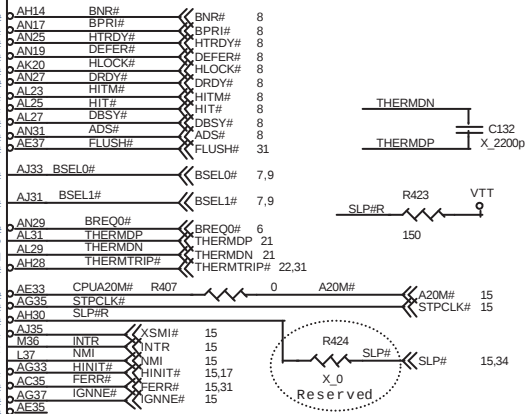
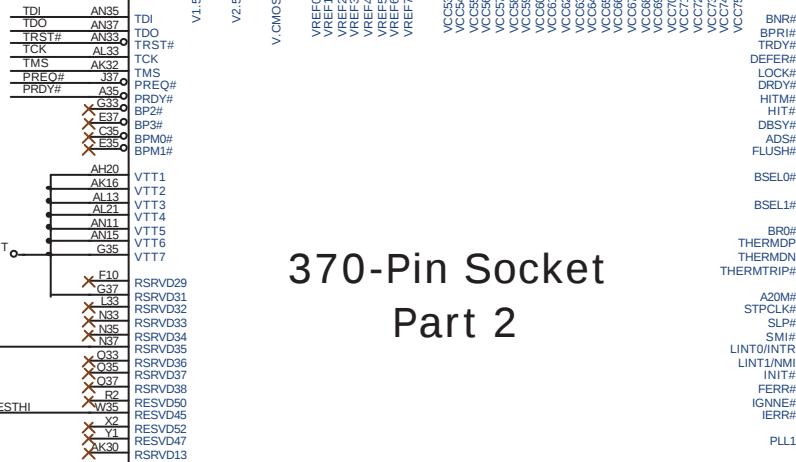
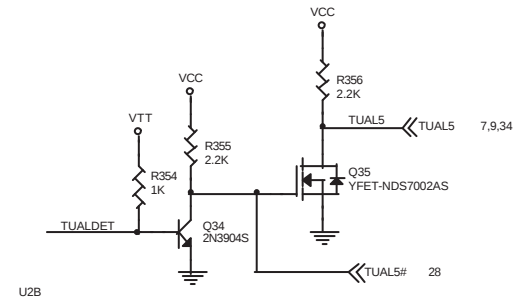
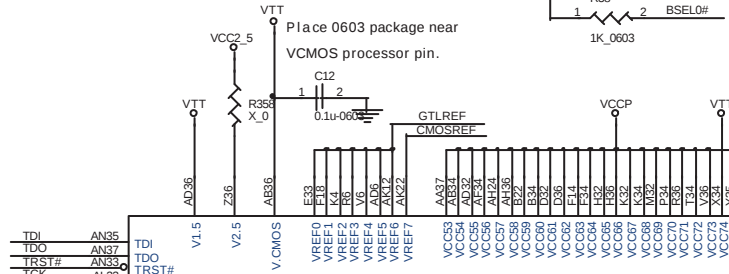
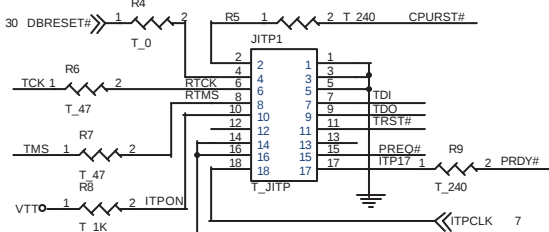
370PGA Socket Part 1



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370PGA Socket Part 2

FOR ITP TEST VIA

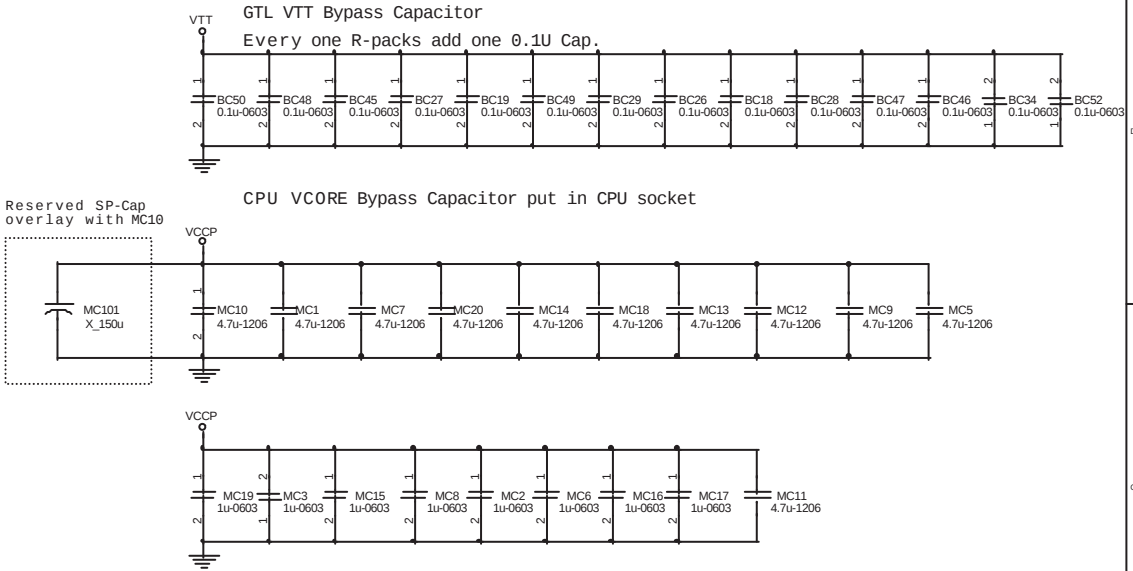


370-Pin Socket Part 2

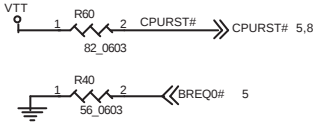
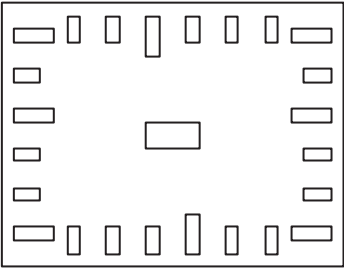
Pin AF36
CumIn= GND
Tualatin= NC

Micro-Star	MS-6332	Rev 50C
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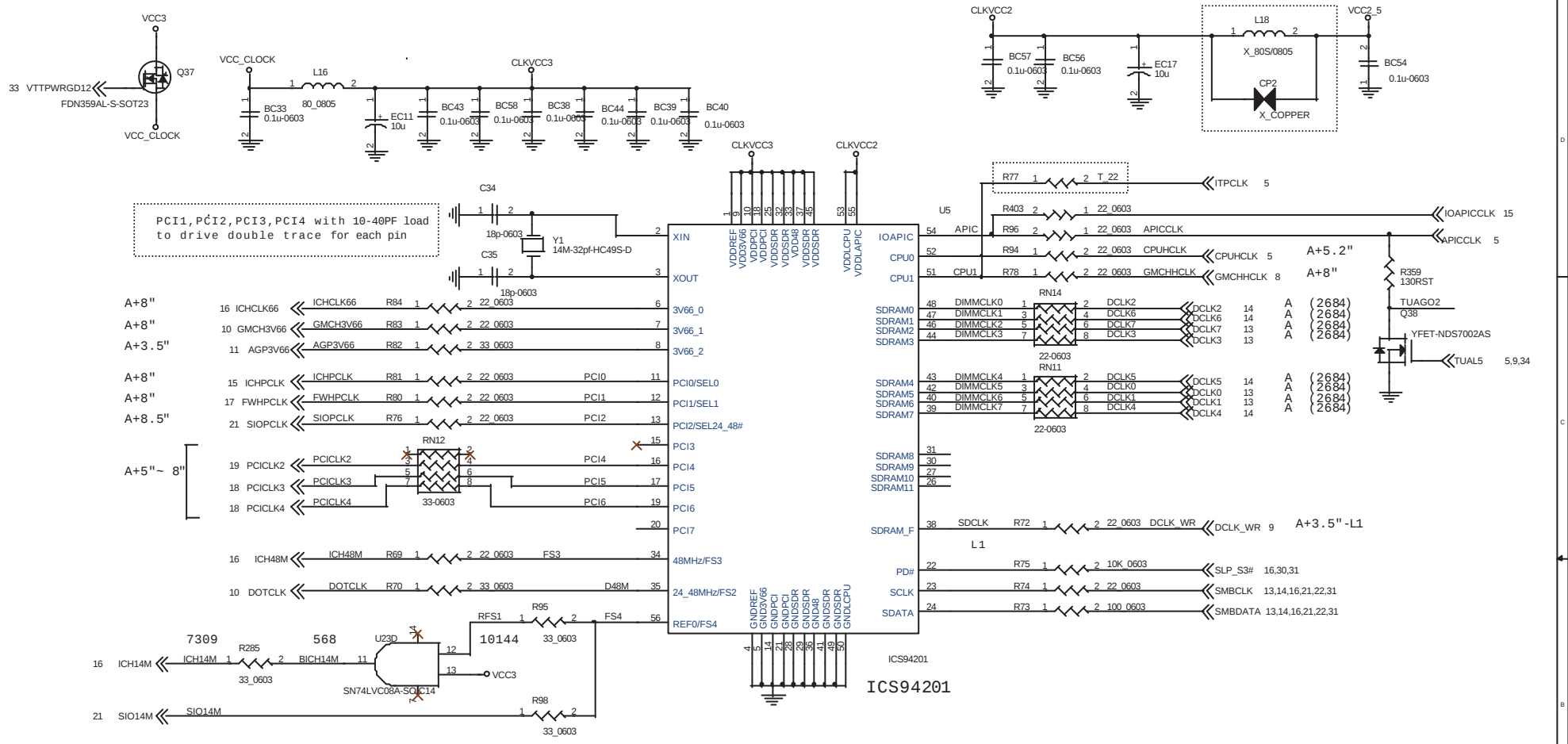
GTL Termination



- For VCCP
- 11 PCS 105P Cap. Placement
 - 2 PCS 4.7U/0805 Cap. Placement
 - 8 PCS 10U/1206 Cap. Placement

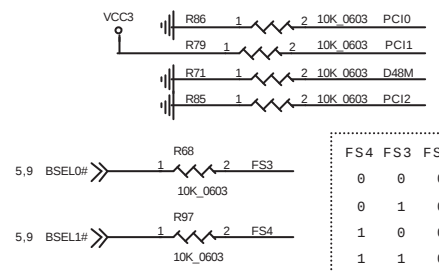


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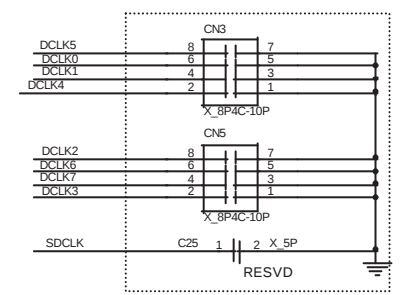


key: The GMCH power on strapping I/F on DRAM I/F, so when enter STR mode that ICH loss power, although PD# is asserted but all clock will not be keep greater than 3ms.

refer to FM-1776 page 134

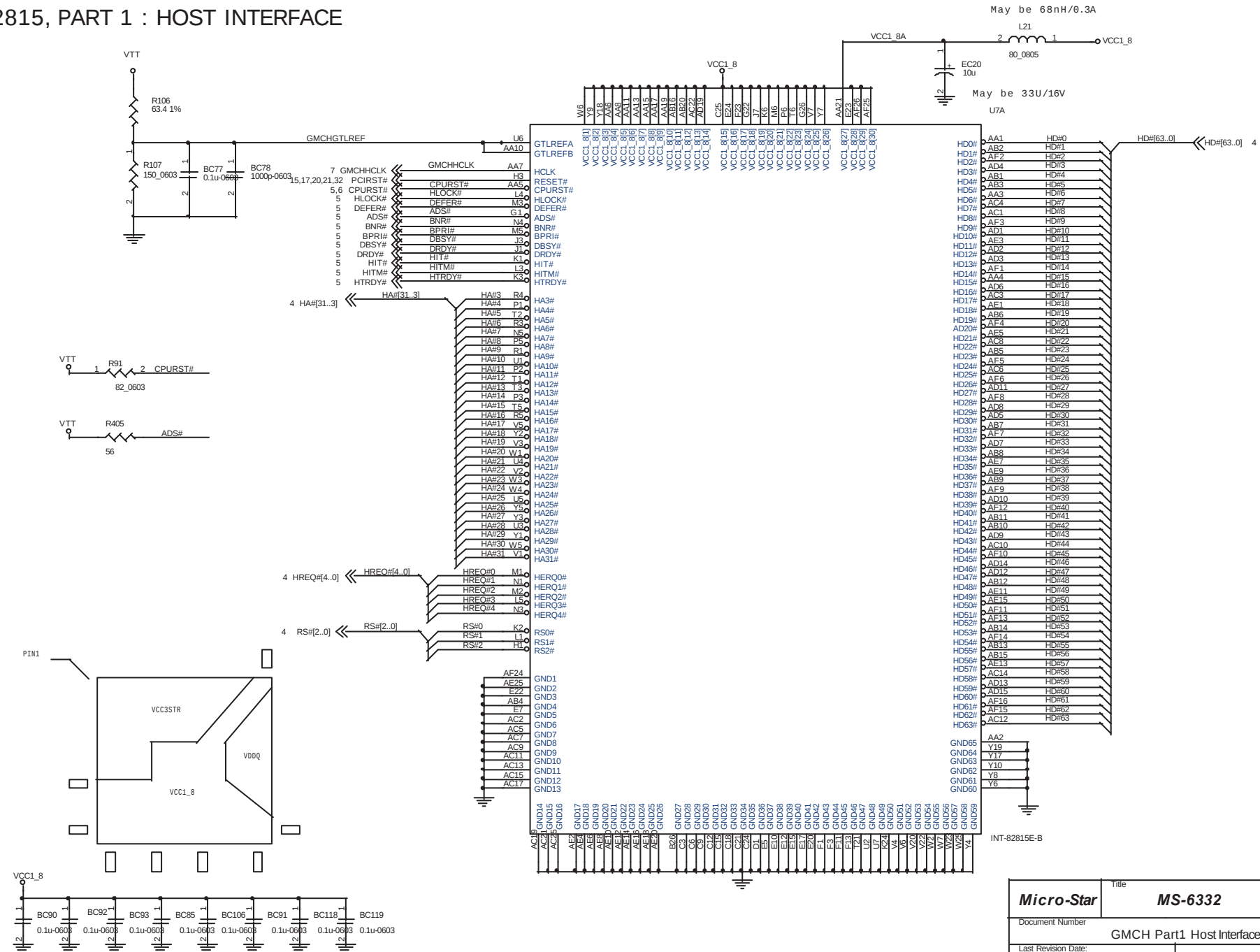


FS4	FS3	FS2	FS1	FS0	CPU	SDRAM
0	0	0	1	0	66.8	100.2
0	1	0	1	0	100.2	100.2
1	0	0	1	0	133.6	133.6
1	1	0	1	0	133.6	100.2



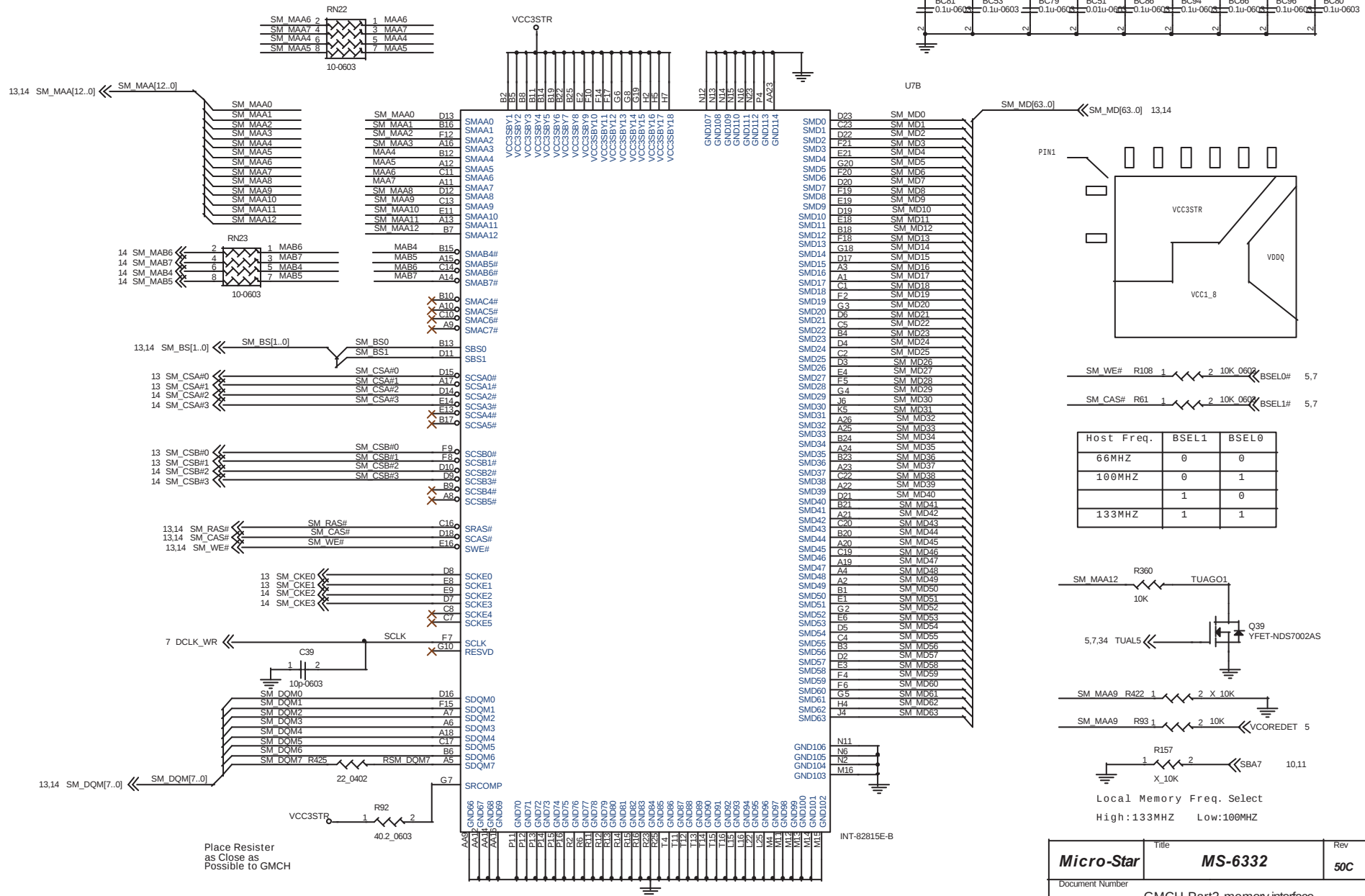
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Clock Synthesizer				
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82815, PART 1 : HOST INTERFACE

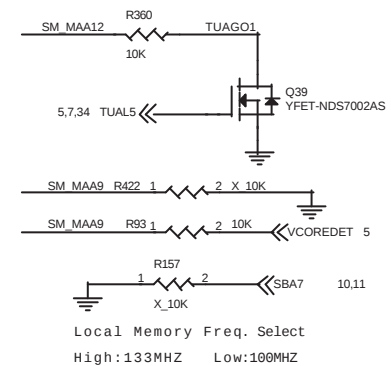


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GMCH Part1 Host Interface				
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GMCH, PART 2 : SYSTEM MEMORY



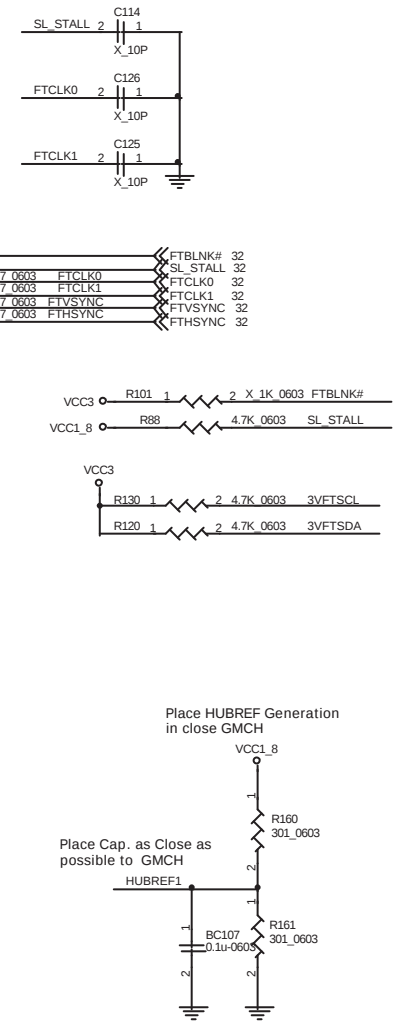
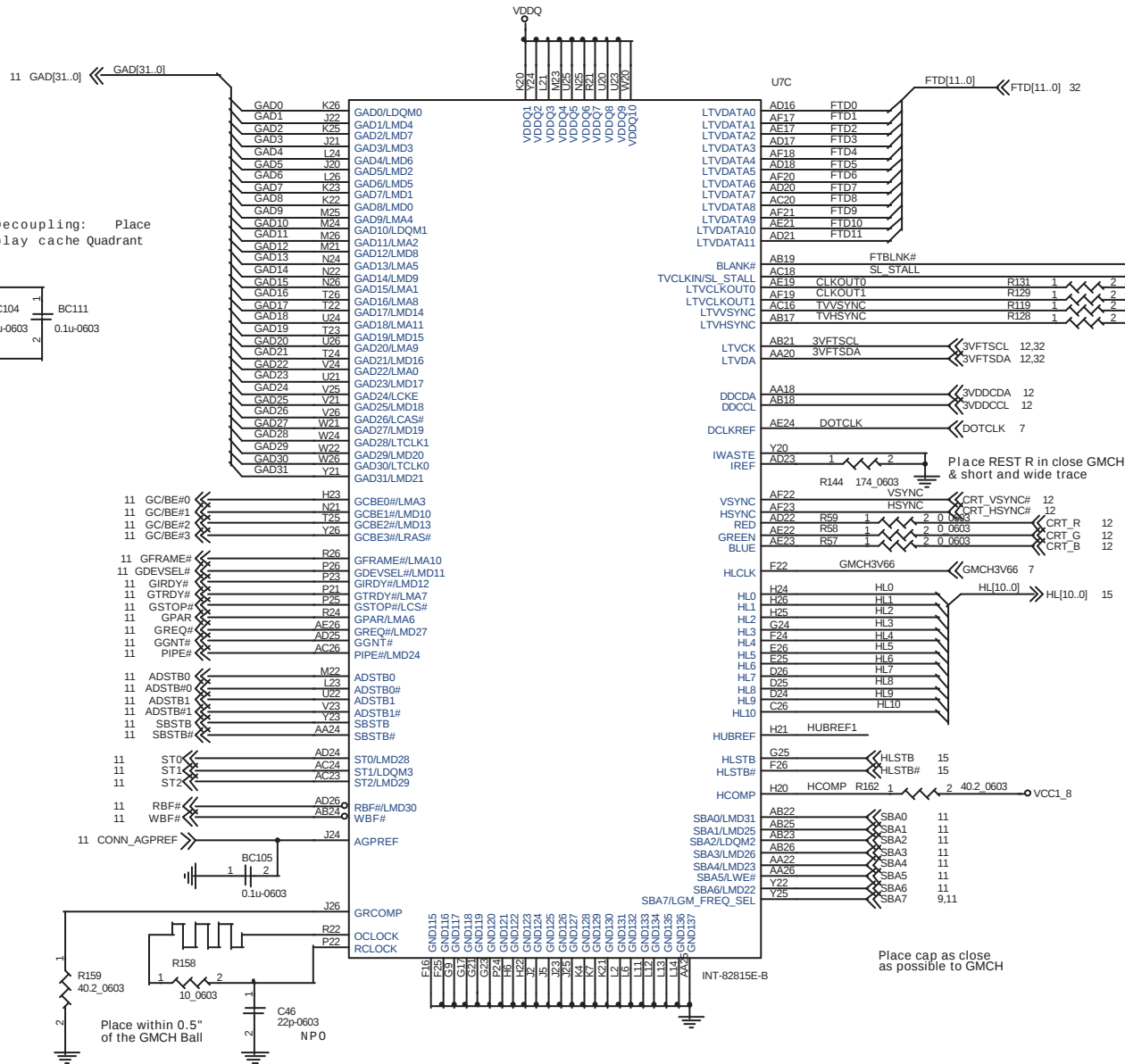
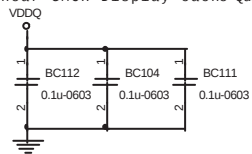
Host Freq.	BSEL1	BSEL0
66MHZ	0	0
100MHZ	0	1
133MHZ	1	1



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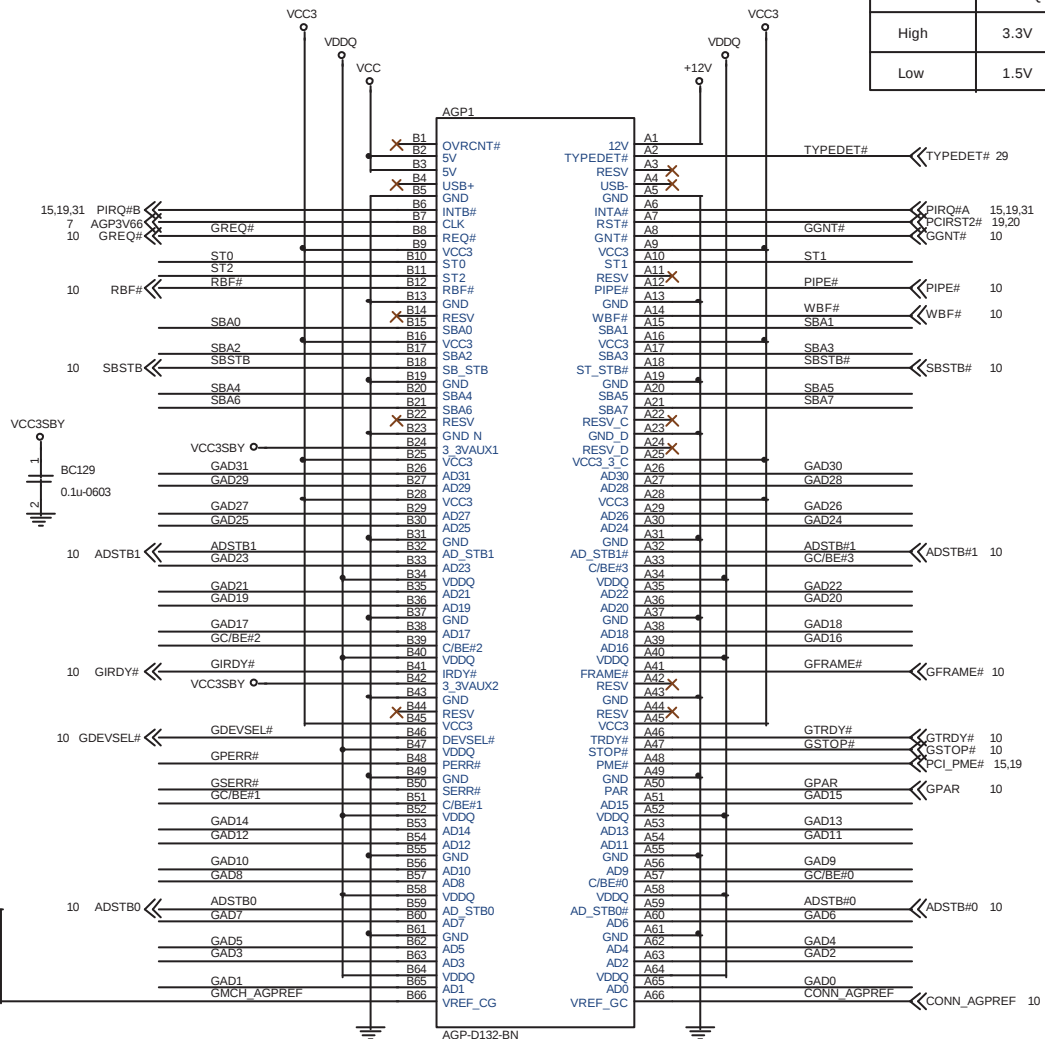
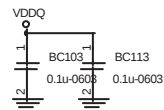
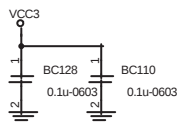
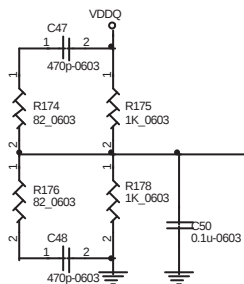
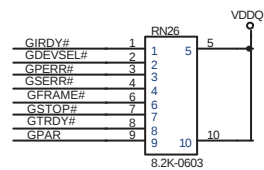
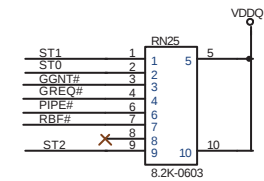
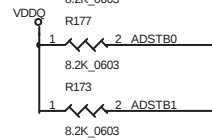
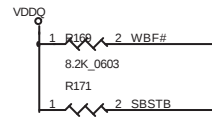
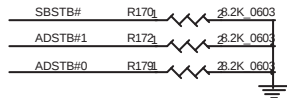
GMCH PART 3 : AGP & VIDEO Interface & HUB link

GMCH 3.3V io Decoupling: Place near GMCH Display cache Quadrant

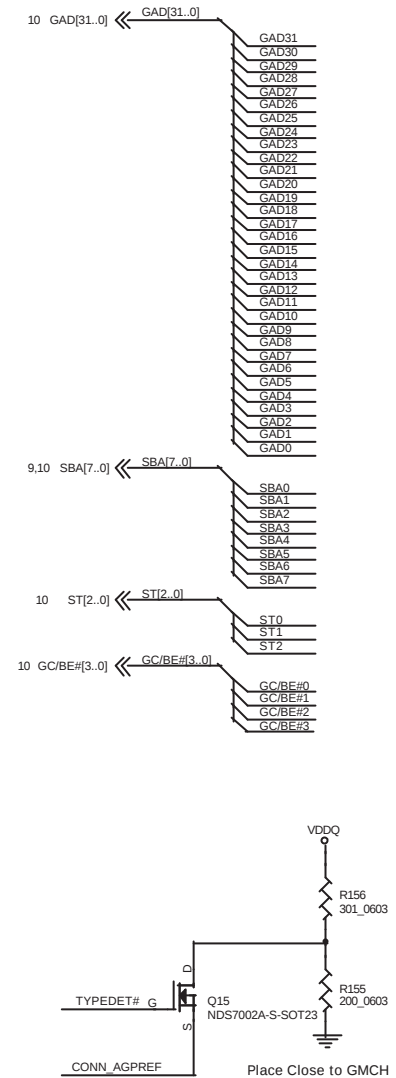


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Document Number GMCH Part3 AGP & Video & HUB interface		
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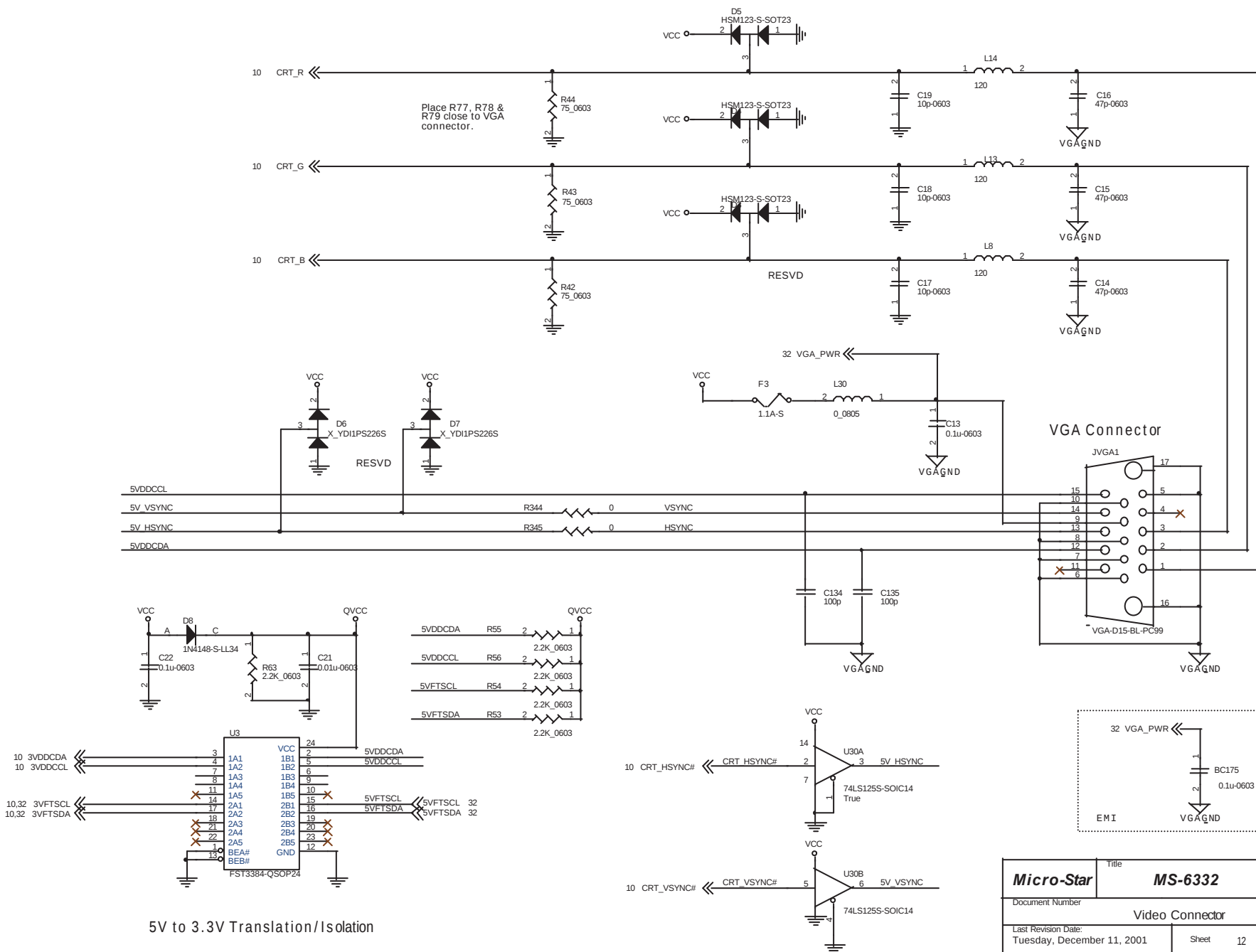
AGP Connector



TYPEDET#	VDDQ
High	3.3V
Low	1.5V

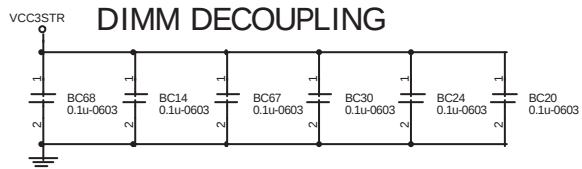
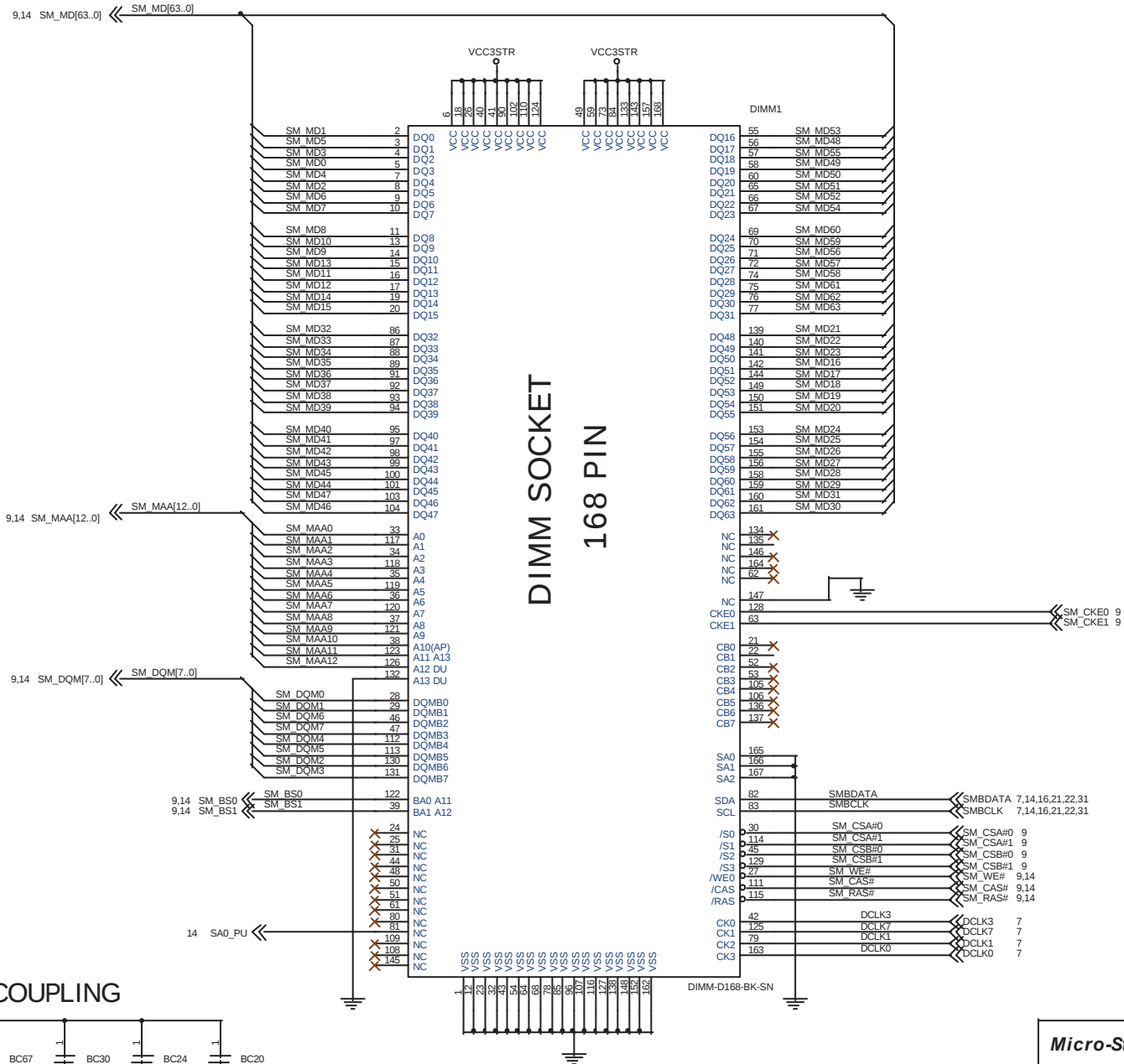


Video Connector

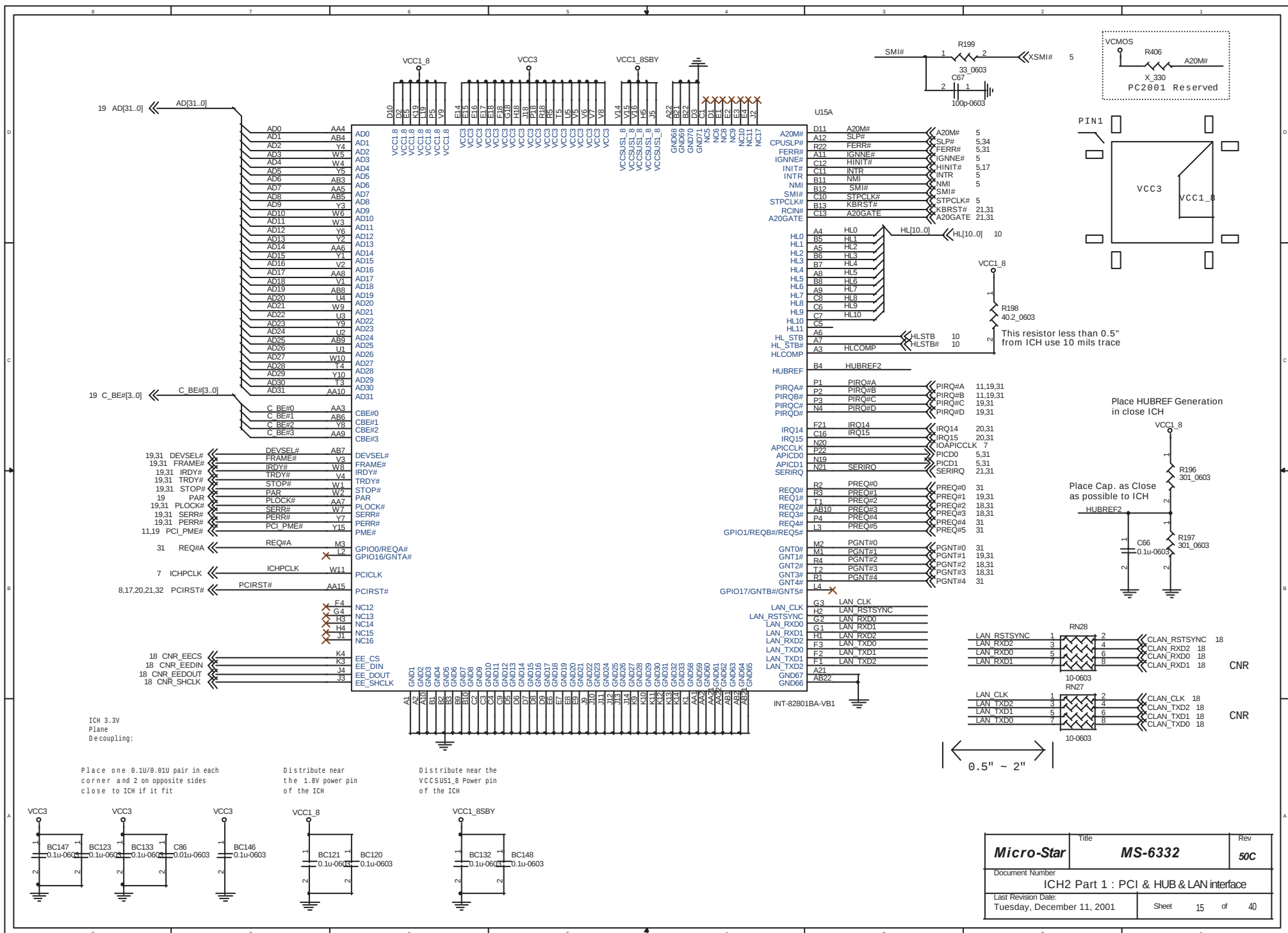


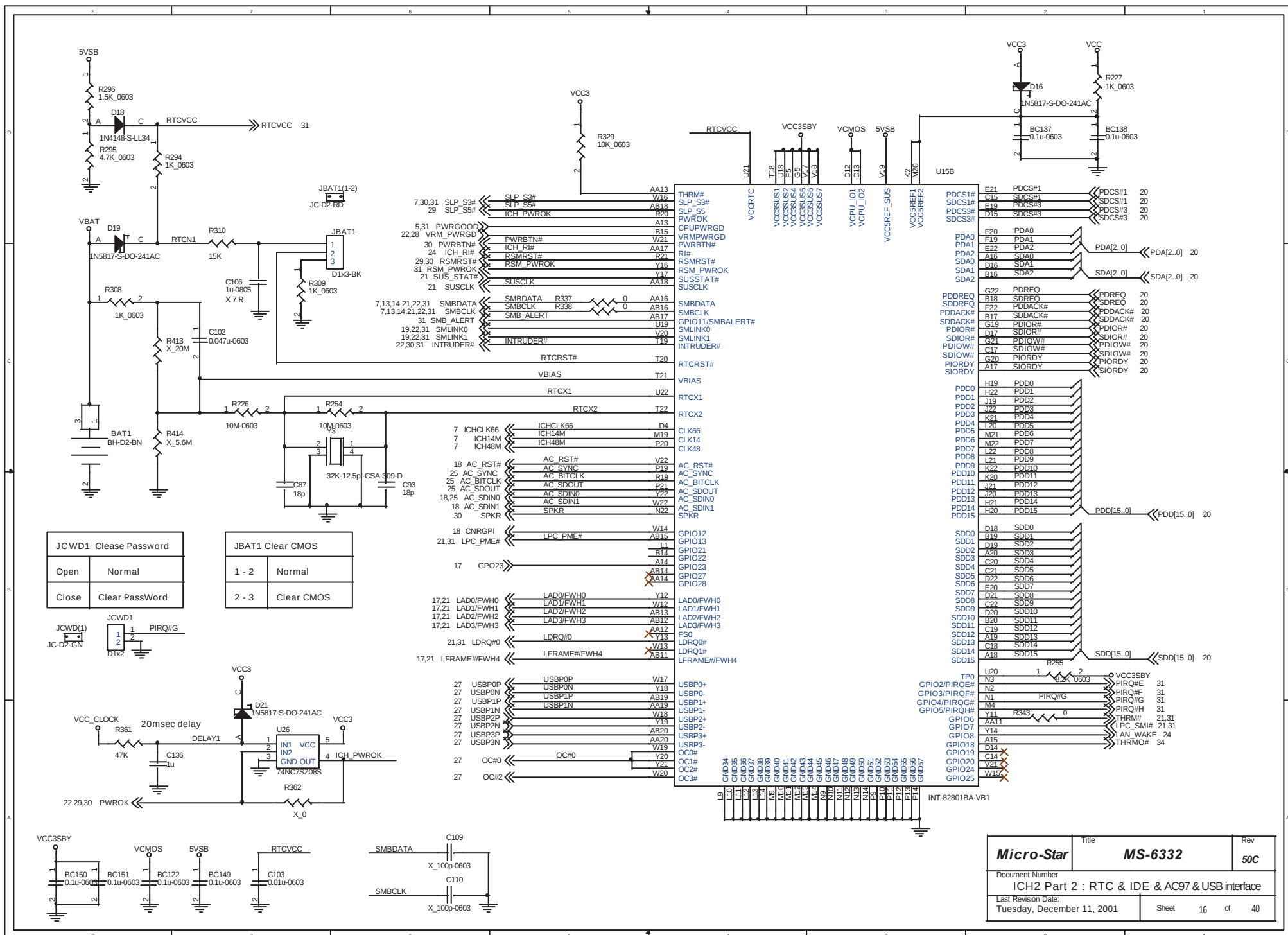
Micro-Star	Title MS-6332	Rev 50C
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Video Connector		
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DIMM1

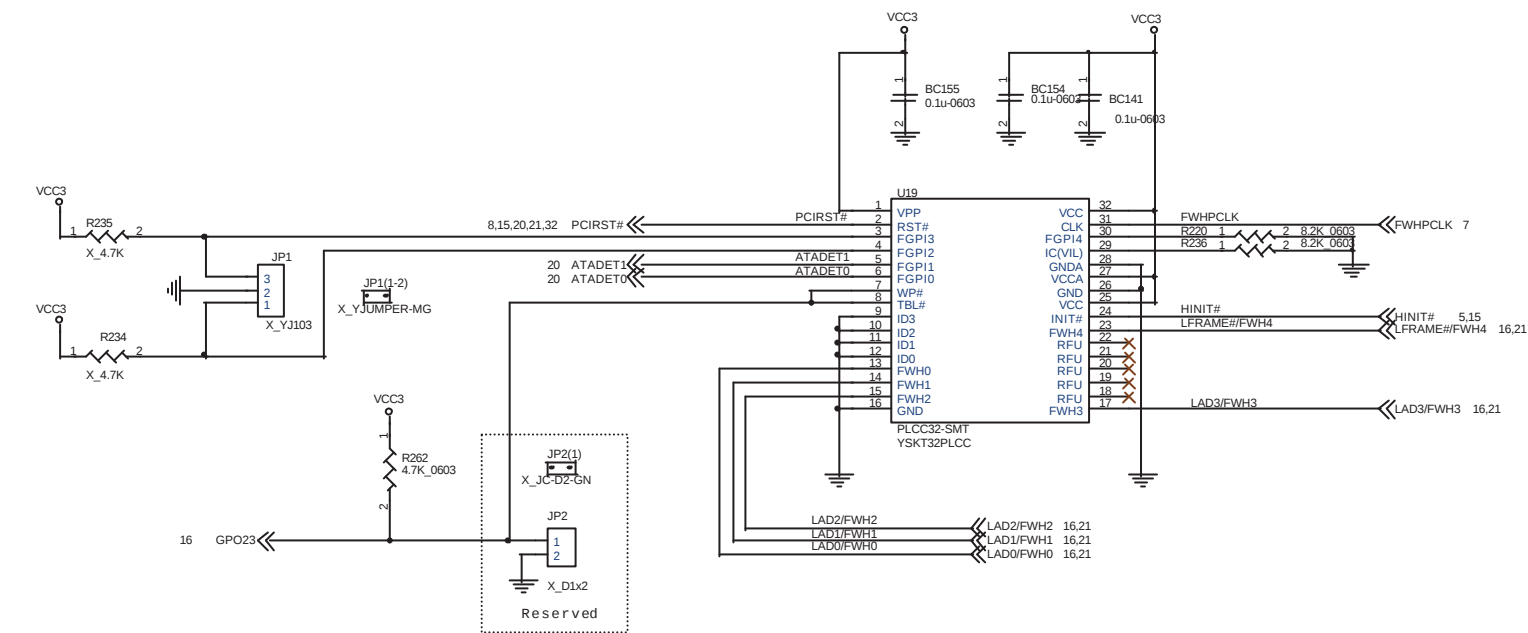


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System Memory: DIMM1		
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Firware Hub (FWH)



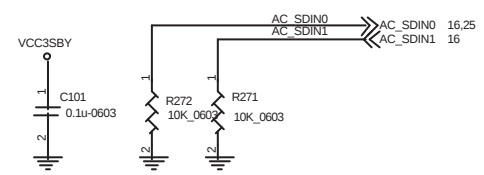
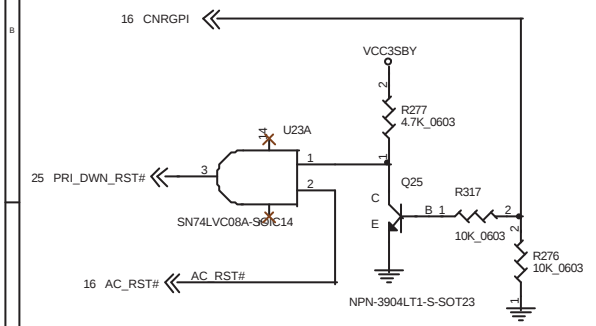
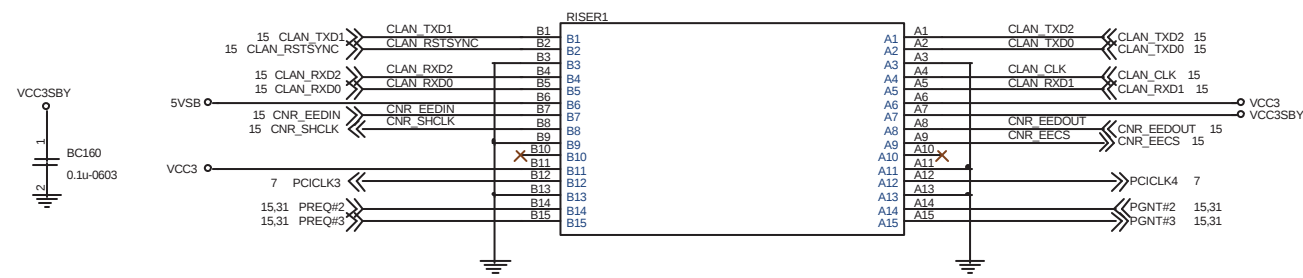
JP1 BIOS Update Configuration	
1 - 2	Normal Mode
2 - 3	Boot auto clear CMOS
OPEN	Flash from FDD

JP2 BIOS Update	
SHORT	Locked
OPEN	Unlocked

*

Micro-Star	Title	MS-6332	Rev	50C
	Document Number	Firware HUB (FWH)		
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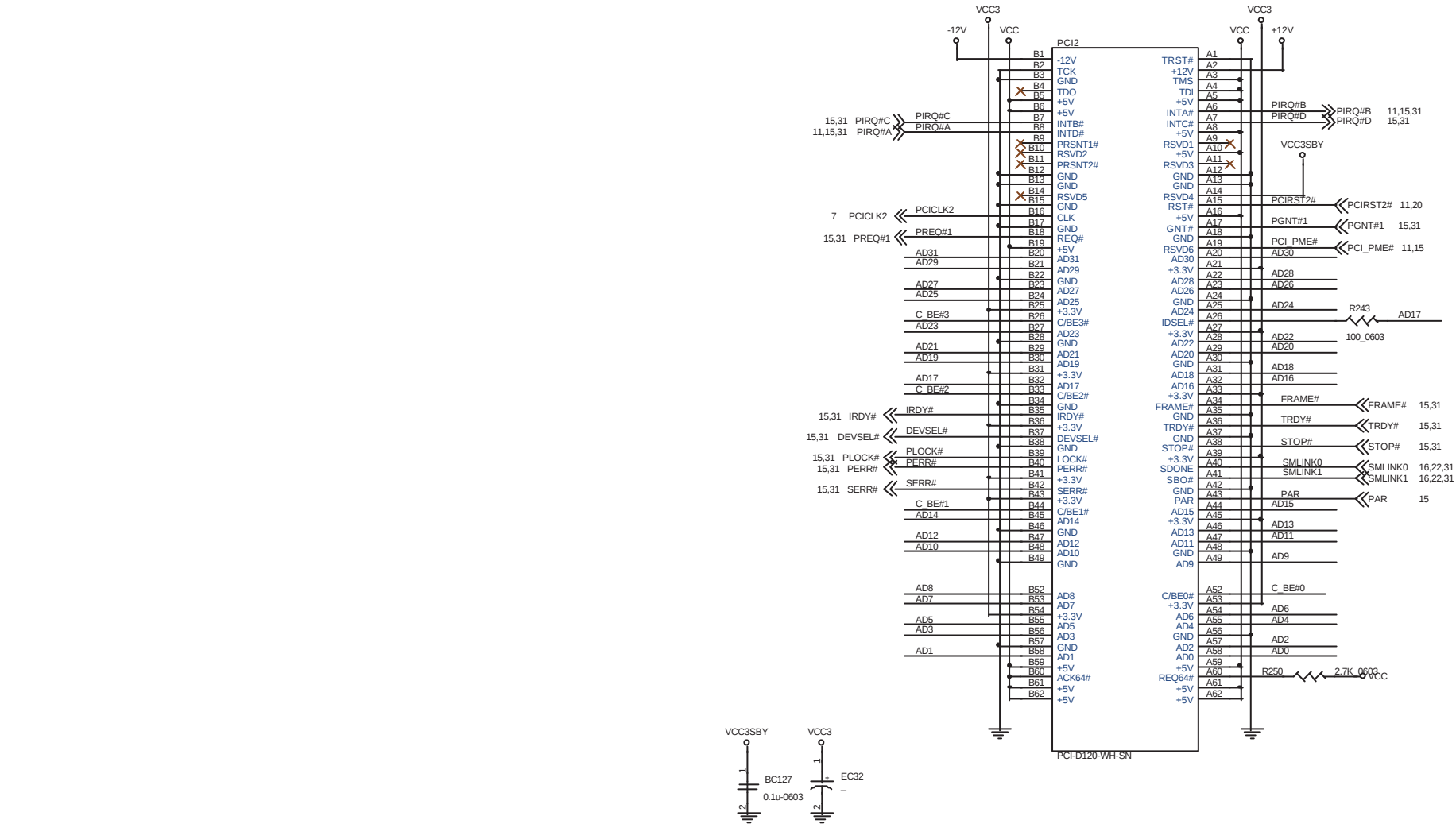
Comm. Networking Riser



JP3 CNR card setting	
1-2	AUTO
2-3	PRI_codec not down
Open	PRI_codec down

Micro-Star	Title	MS-6332	Rev	50C
	Document Number	CNR Slot		
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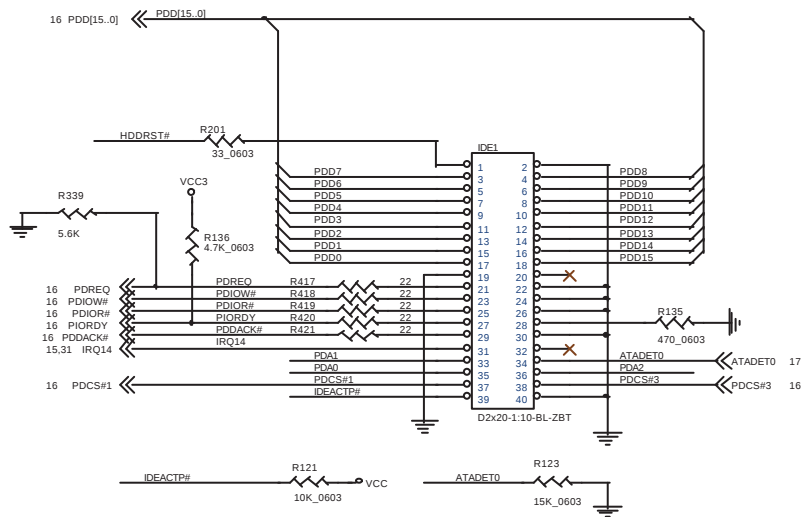
PCI Connectors



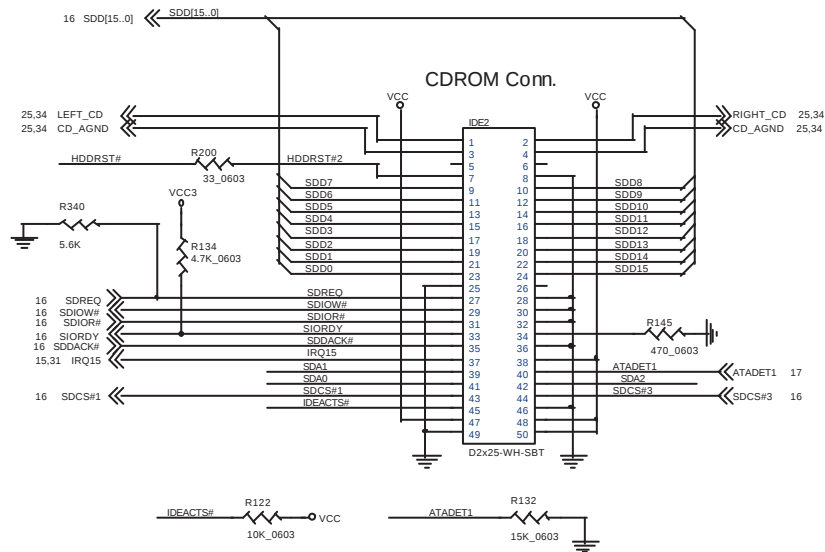
15 AD[31..0] << AD[31..0]
15 C_BE#[3..0] << C_BE#[3..0]

Micro-Star	Title	MS-6332	Rev	50C
	Document Number	PCI Slot 1 & 2		
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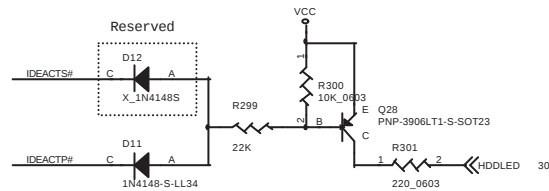
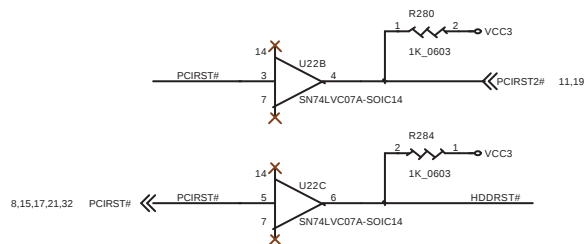
PRIMARY IDE CONN.



SECONDARY IDE CONN.

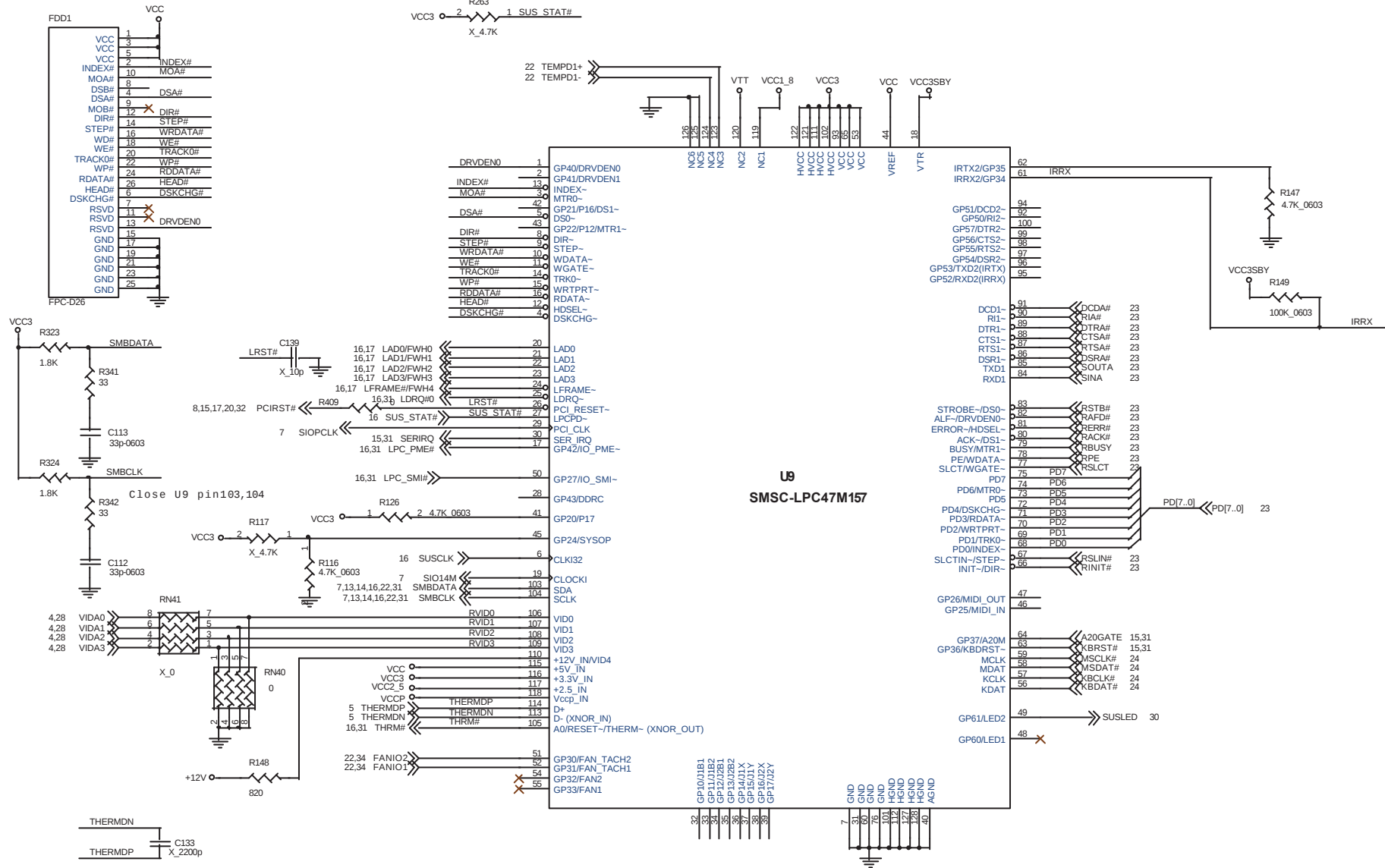


16 PDA[2..0] << PDA[2..0]
16 SDA[2..0] << SDA[2..0]

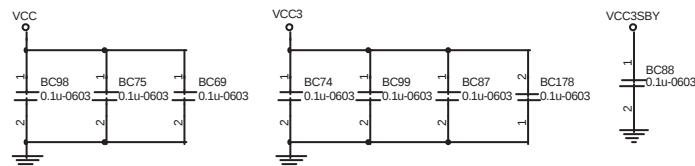


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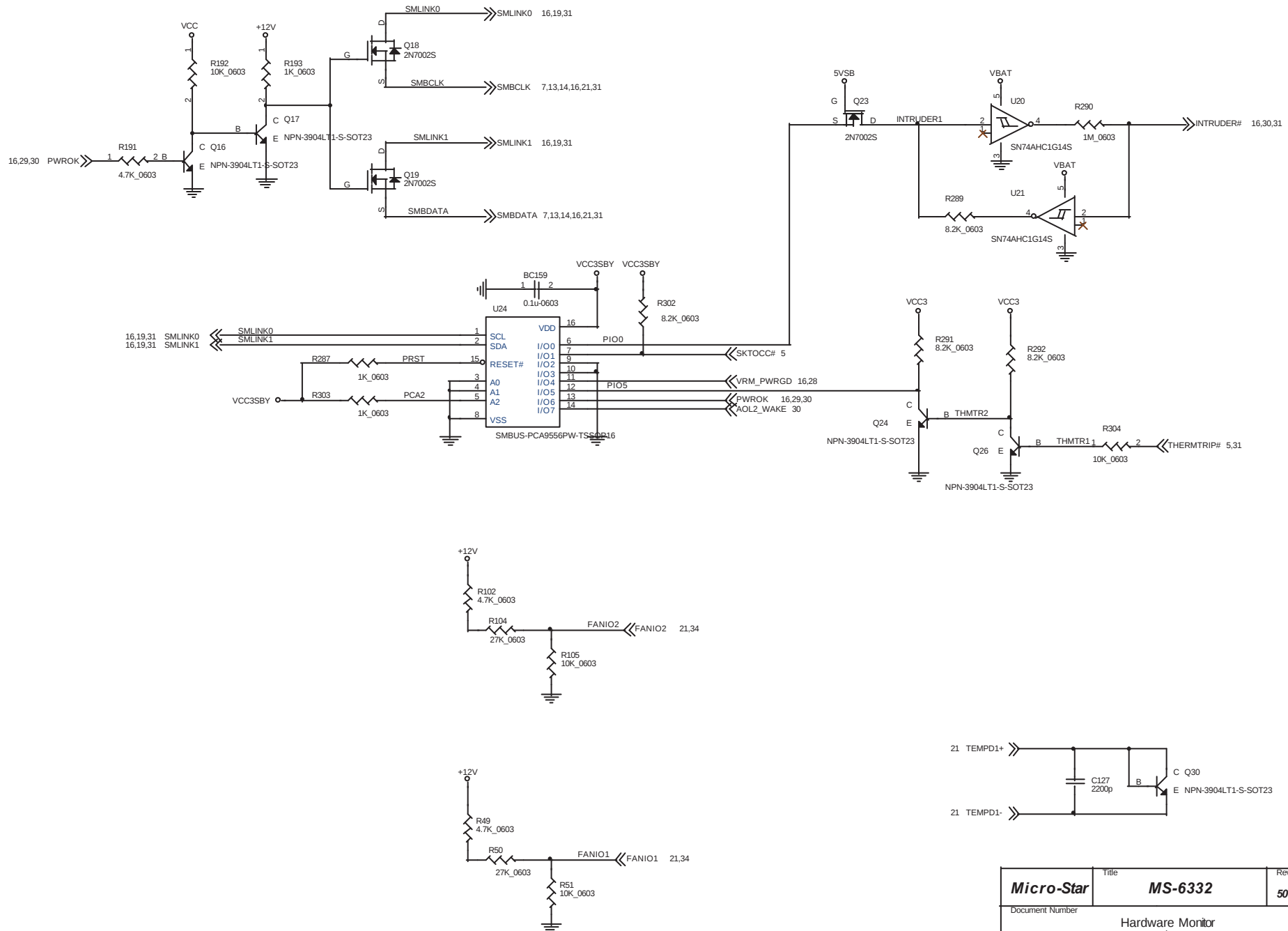
FLOPPY DISK HEADER



SIO ADDRESS	
R116	2E
R117	4E

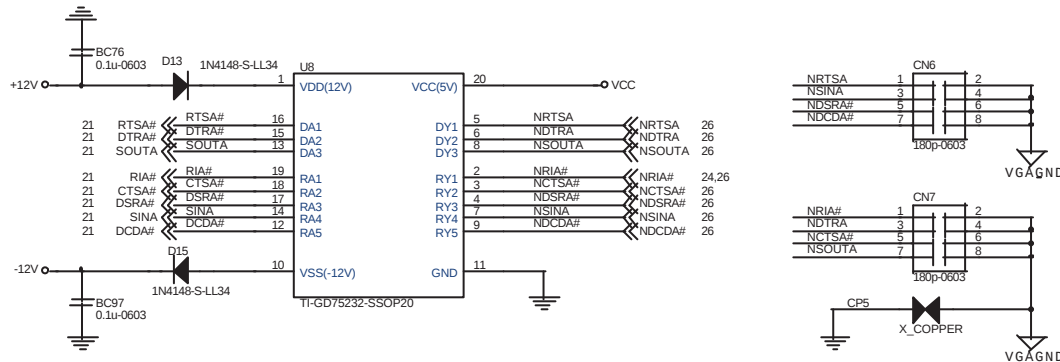
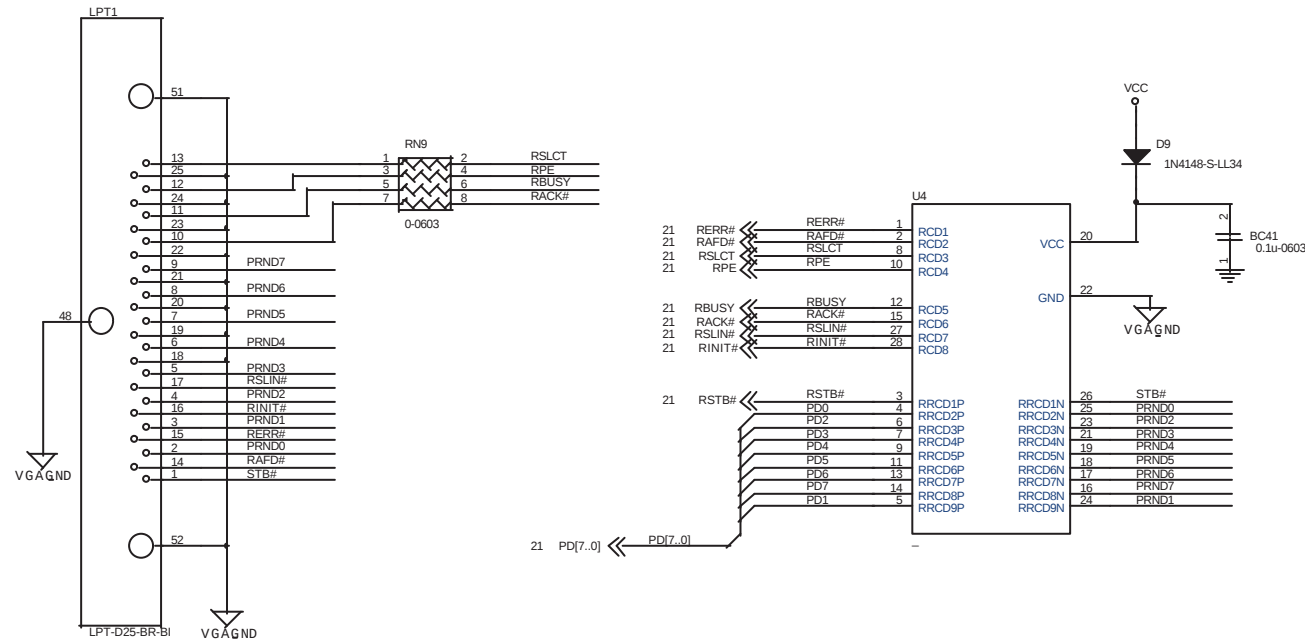


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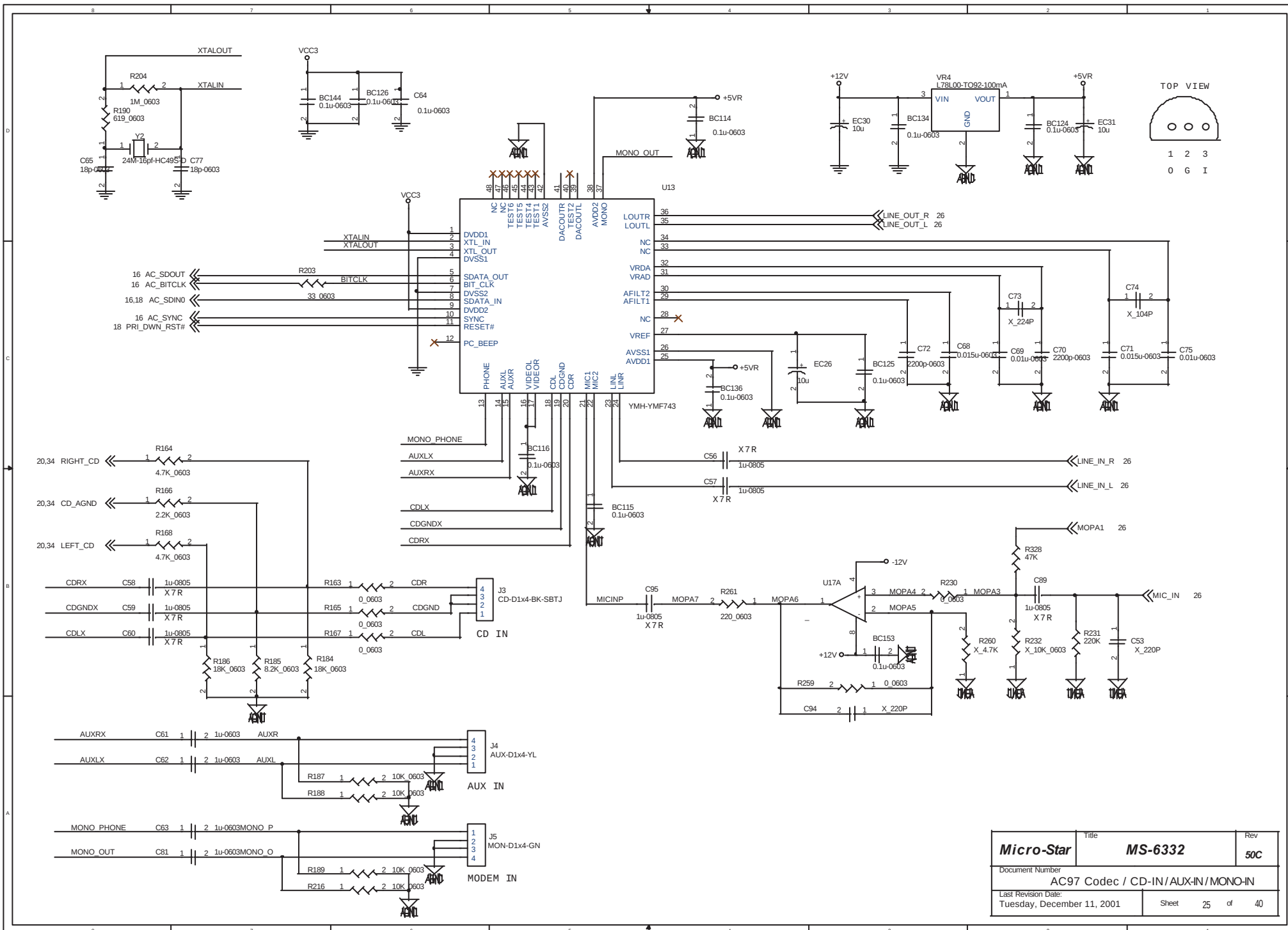
Parallel Port Header



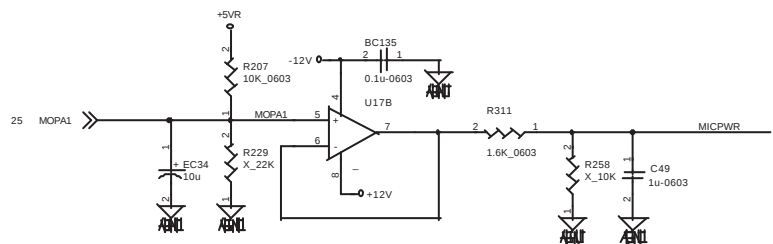
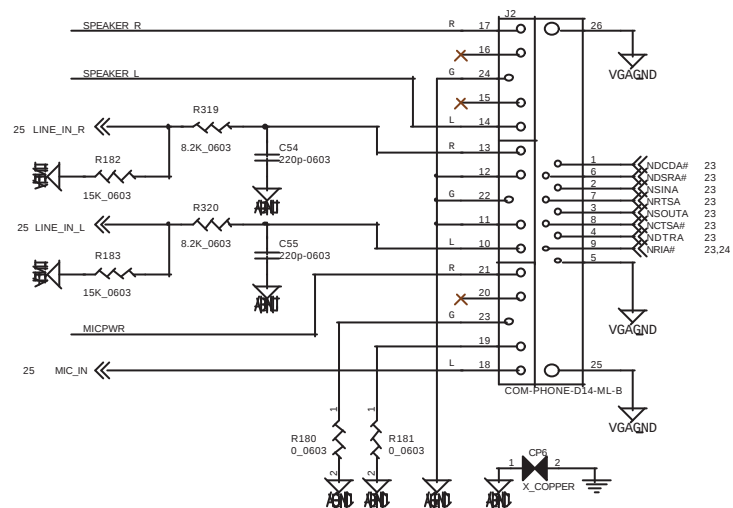
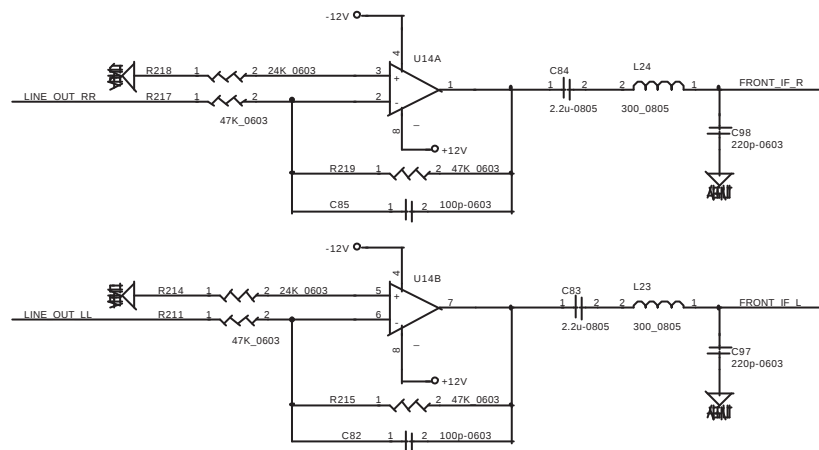
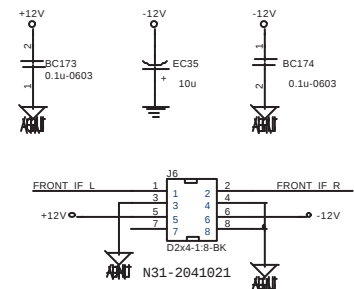
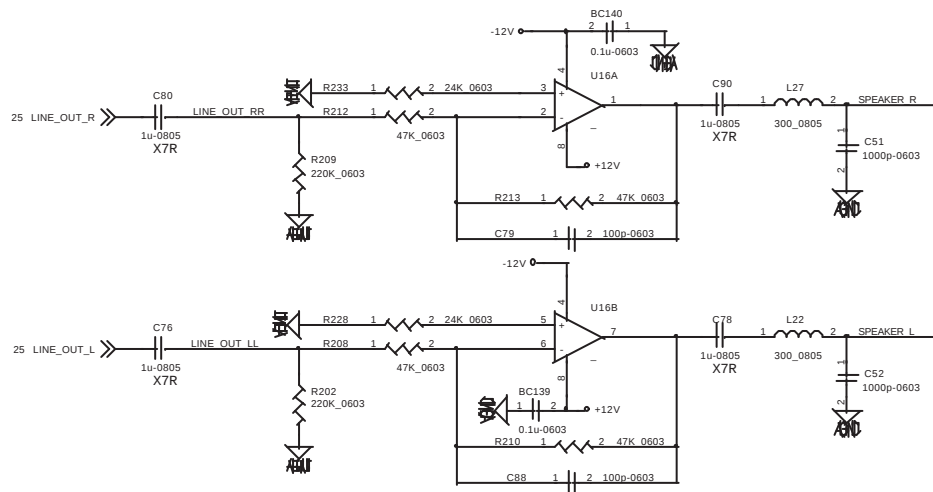
Micro-Star	Title	MS-6332	Rev	50C
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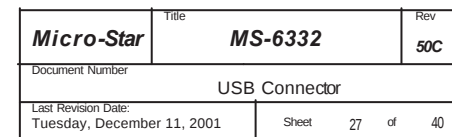
Micro-Star	Title MS-6332	Rev 50C
Document Number		
Keyboard / Mouse port		
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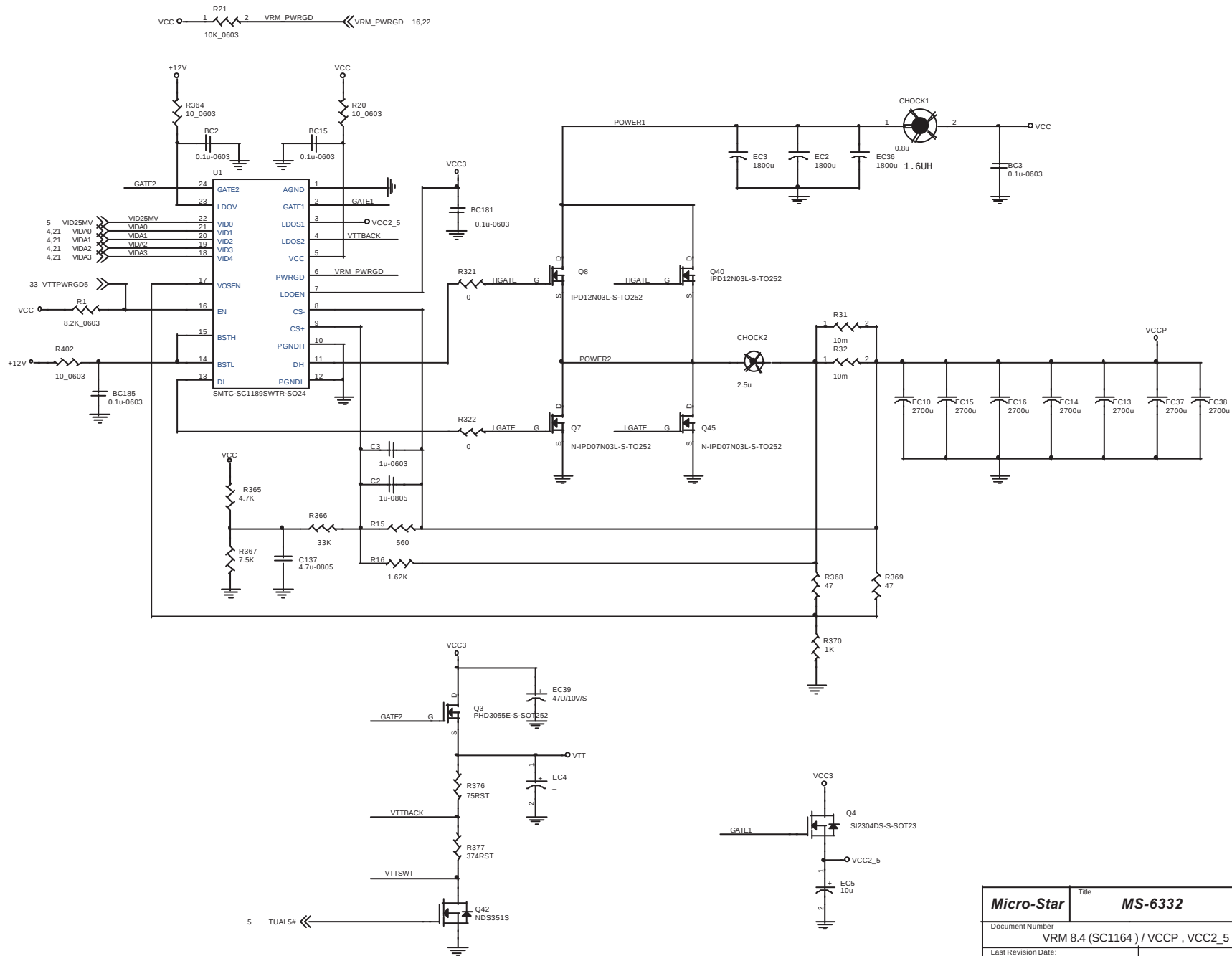


Micro-Star	Title	Rev
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AC97 Codec / CD-IN/AUX-IN/MONO-IN		
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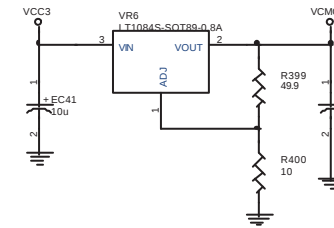
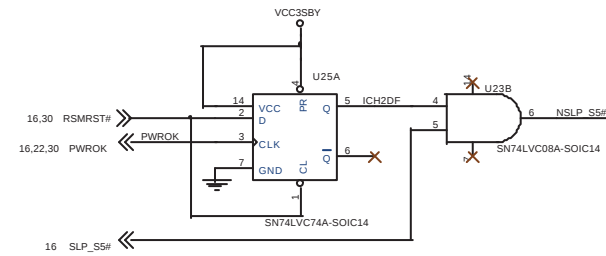


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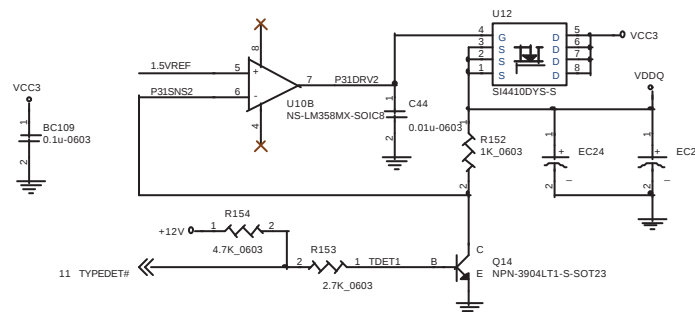
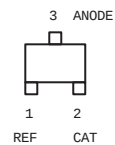
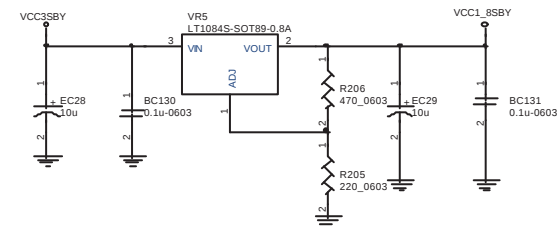
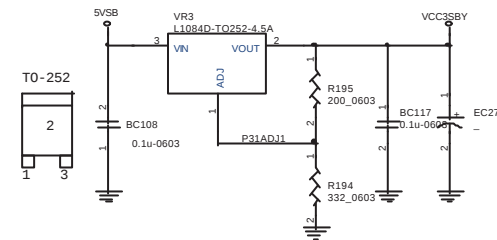
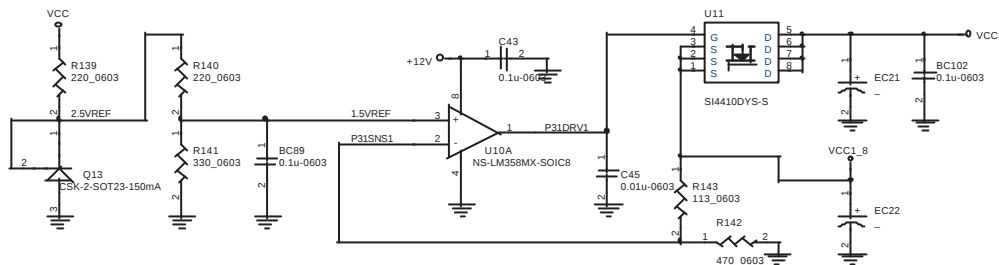


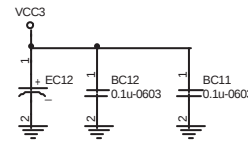
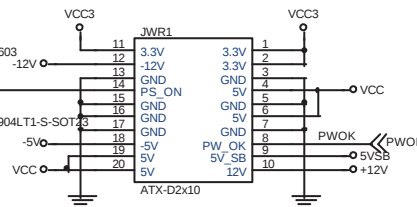
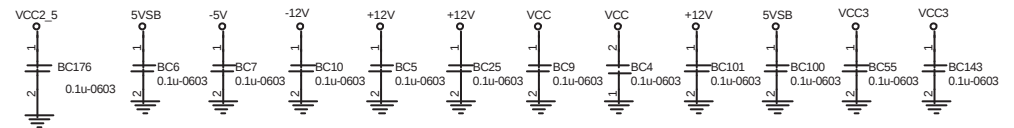
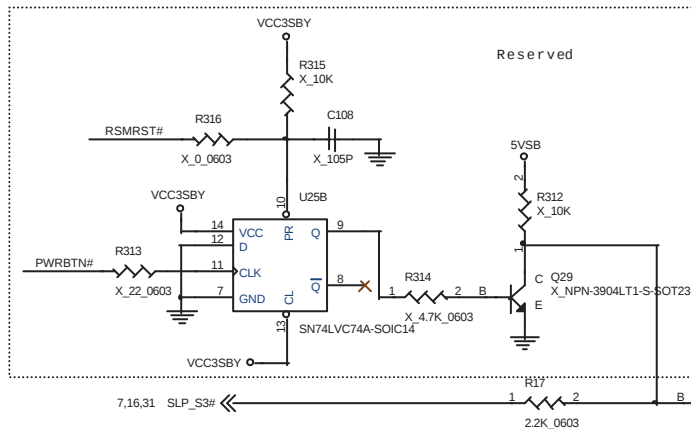
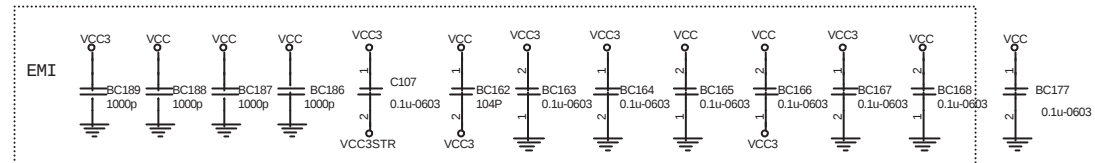
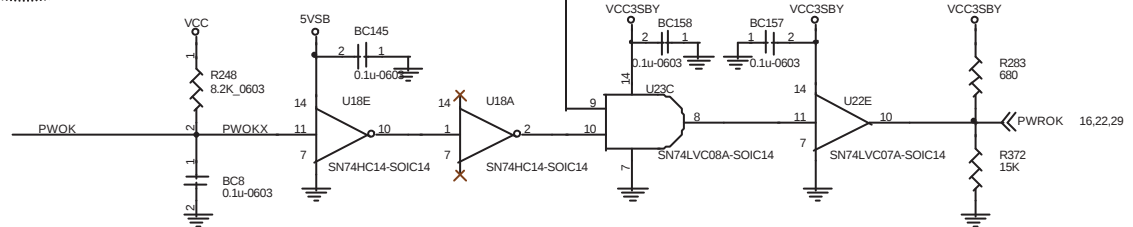
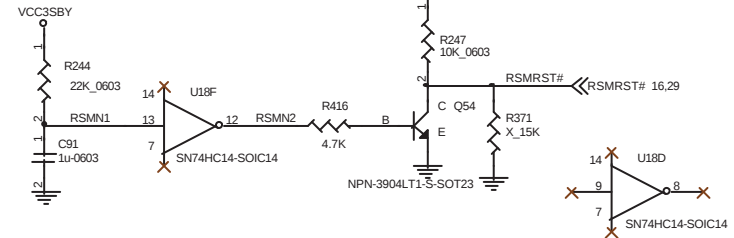
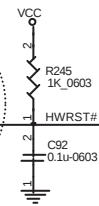
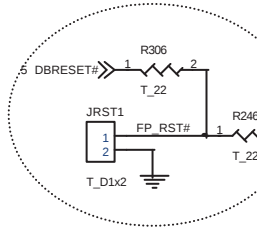
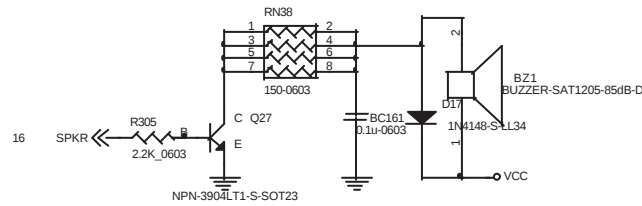
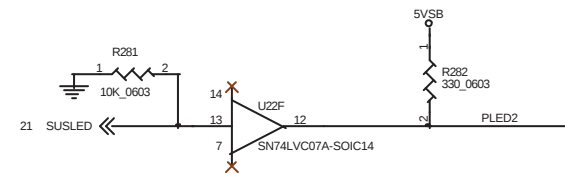
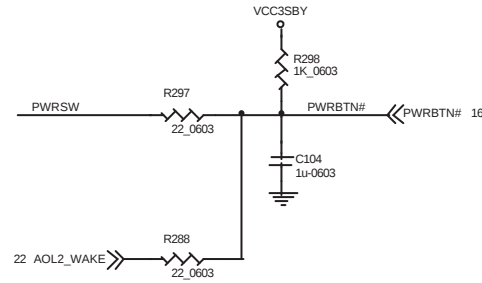
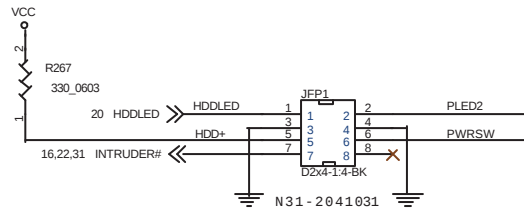


Micro-Star	Title	MS-6332	Rev	50C
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Last Revision Date:		Tuesday, December 11, 2001		
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	N5LP_S#5	PWR0K	S5GATE1	S5GATE3	5VSTR	S5GATE5	S5GATE6	5VDDUAL
Mechanical off	0	0	0	0	0	0	0	0
Standby power on(S5)	0	0	0	1	0	1	0	0
S5 to S0	1	1	0	1	1	0	1	1
S0 to S3	1	0	1	0	1	1	0	1
S0 to S5	0	0	0	1	0	1	0	0

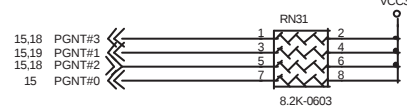
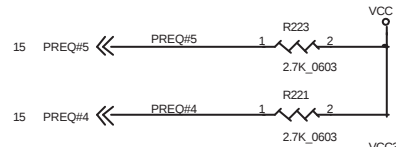
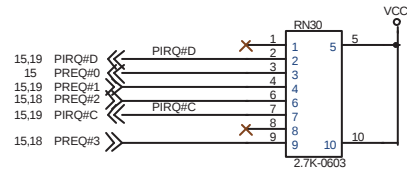
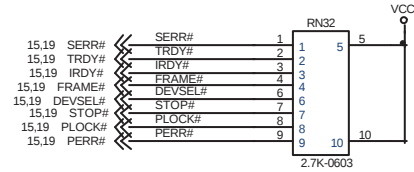




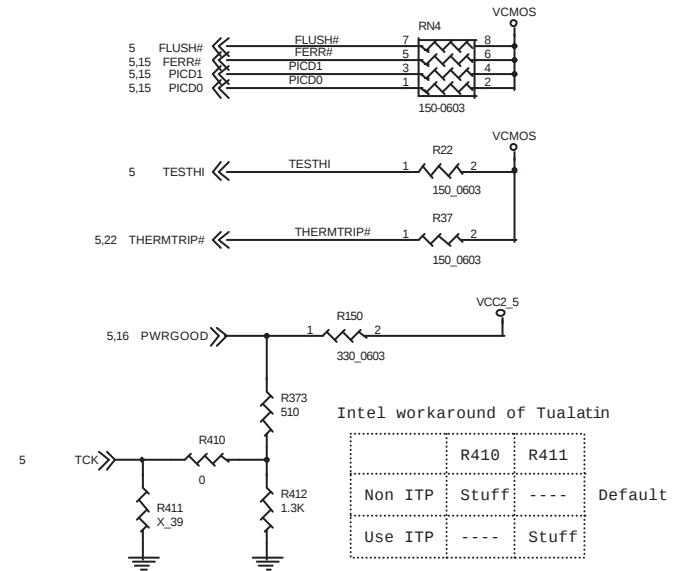
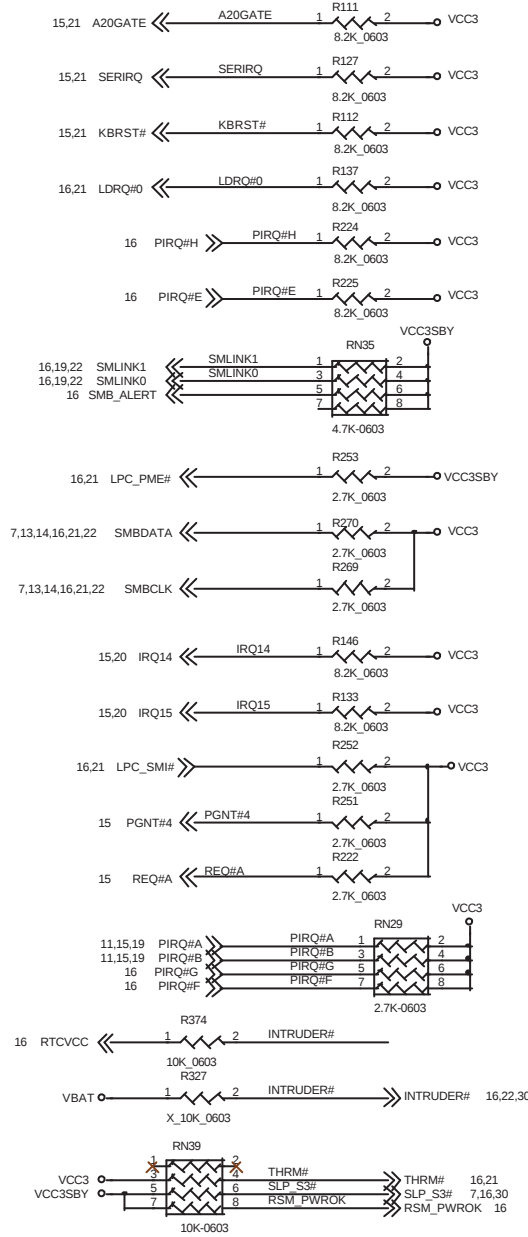
Micro-Star	Title MS-6332	Rev 50C
Document Number	Front Panel and ATX Power Connector	
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PULL-UP RESISTORS

PCI BUS



ICH2



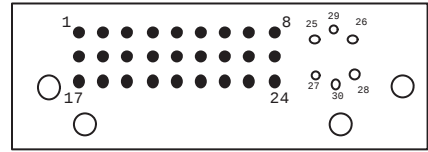
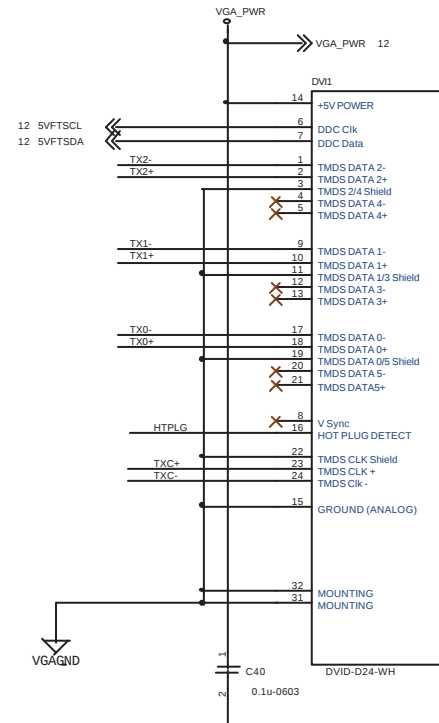
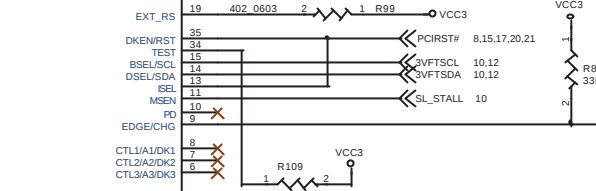
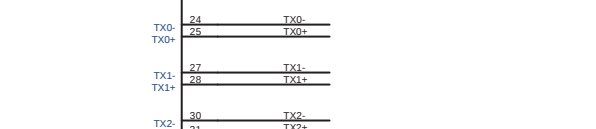
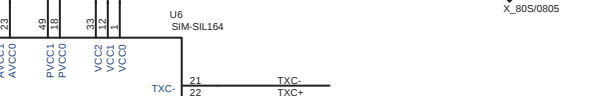
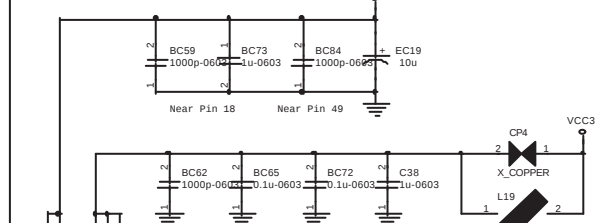
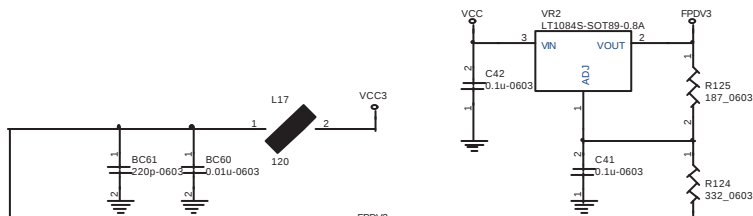
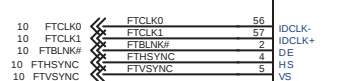
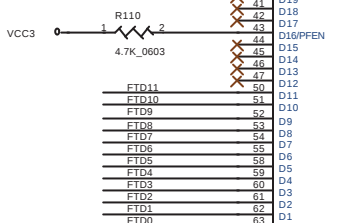
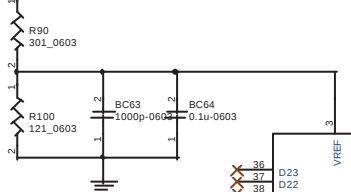
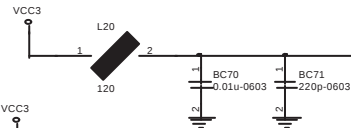
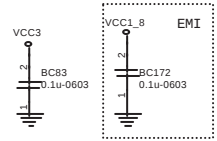
Intel workaround of Tualatin

	R410	R411	
Non ITP	Stuff	----	Default
Use ITP	----	Stuff	

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PANEL LINK Transmitter

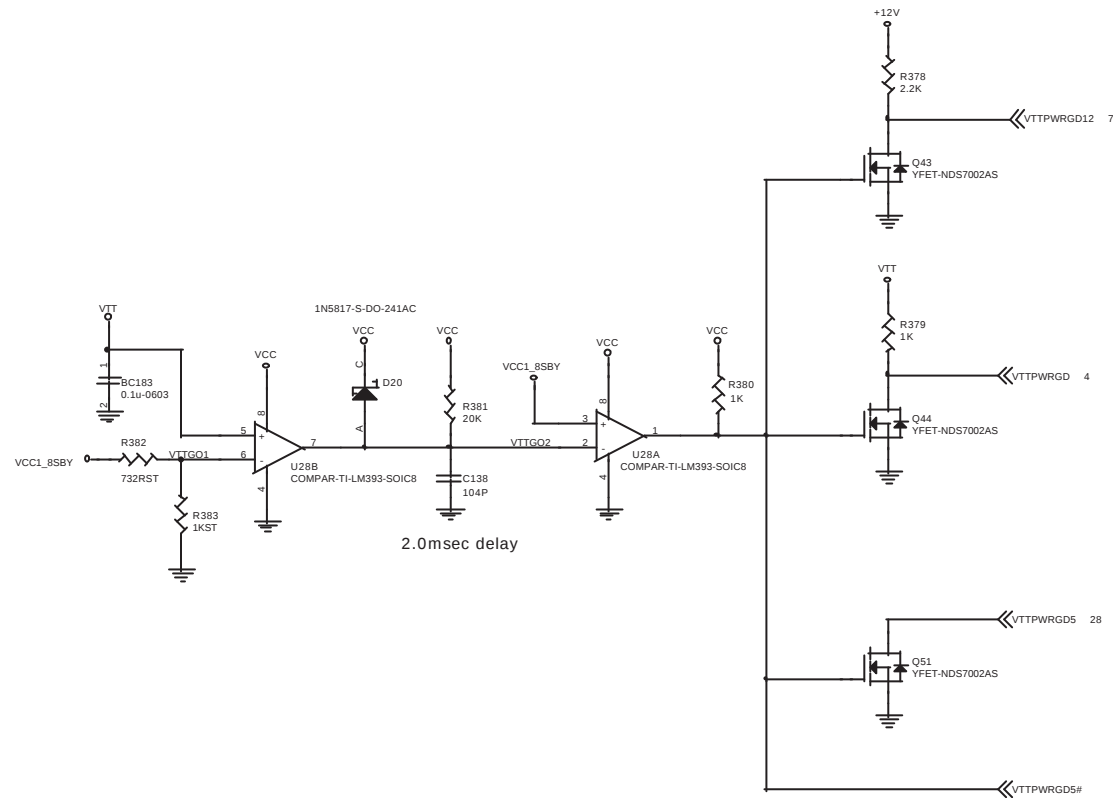
10 FTD[11..0] << FTD[11..0]



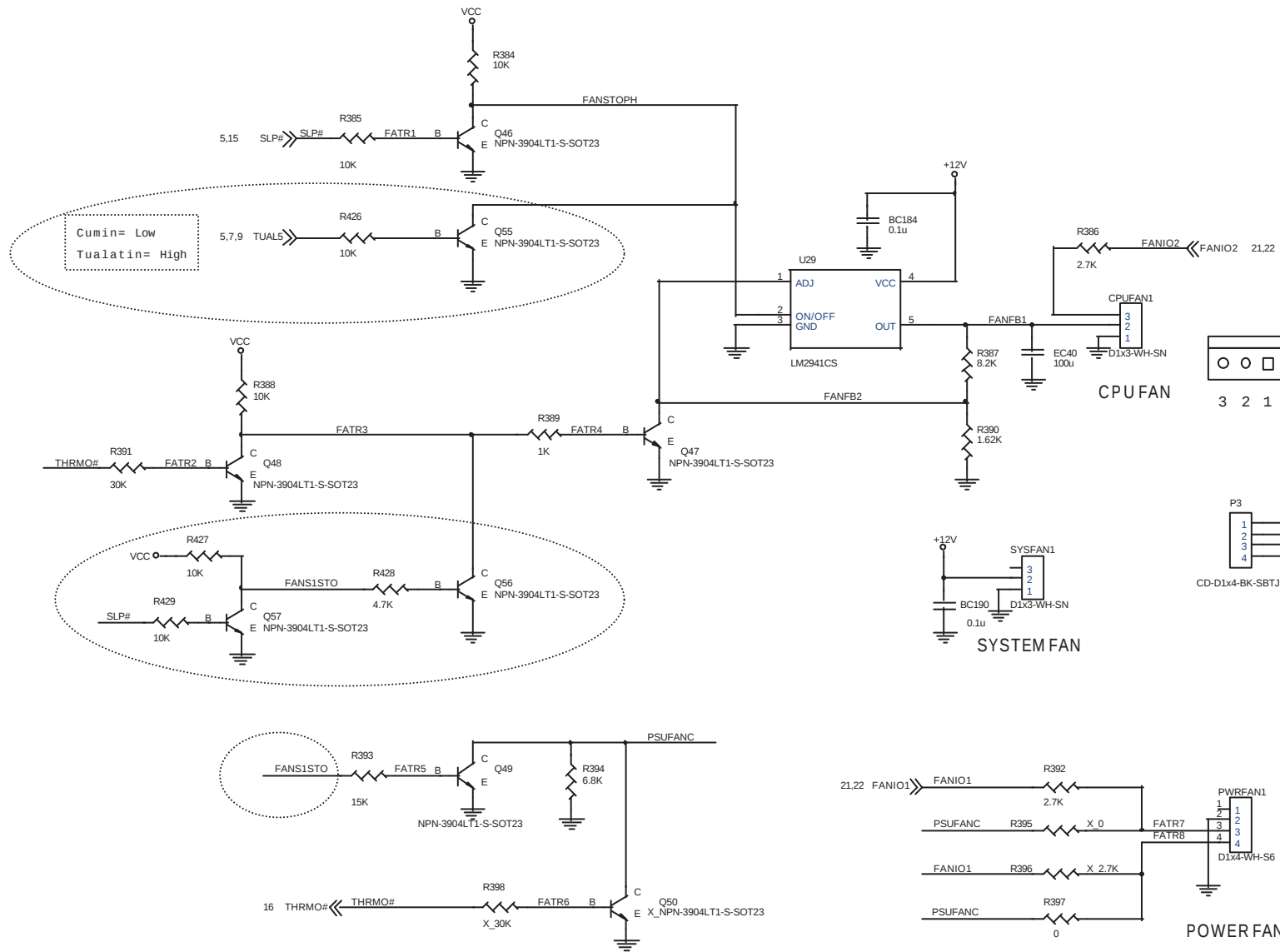
DVI CONN PIN DESCRIPTION(MicroCross--I)
24 pin -->YCN24F ; 24+5 pin -->YCN29F

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VTT Voltage Regulators



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Cumin= Low
Tualatin= High

CPUFAN

SYSTEM FAN

POWER FAN

Cumin TUAL5 = Low

Tualatin TUAL5 = High

	SLP#	TUAL5	THRM0#	FANSTOPH	FANFB2	PSUFANC
S0	1	0	0	0	0	1
S0	1	0	1	0	1	1
S1	0	0	0	1	1 *	0
S1	0	0	1	1	1 *	0

	SLP#	TUAL5	THRM0#	FANSTOPH	FANFB2	PSUFANC
S0	1	1	0	0	0	1
S0	1	1	1	0	1	1
S1	0	1	0	0	1 **	0
S1	0	1	1	0	1 **	0

* CPUFAN will be trun off when FANSTOPH = high and ignore FANFB2

** CPUFAN still be trun on with low speed when FANSTOPH = low and FANFB2=high

Micro-Star	Title	MS-6332	Rev	50C
	Document Number	Hardware Monitor		
Last Revision Date:		Wednesday, December 12, 2001	Sheet	34 of 40

Schematic change from 00A to 00B

PAGE	Description	Check	Date
5	Fix ITP port layout library : The ITP port pin definition is same as J1TP1 of schematic	E-mail	10/03/00
7	Fix power on frequency setting : R68 pin1 & R97 pin1 net swap	MSI H/W	10/03/00
22	Spec change : Add JHWM1 for 2X3-pin6 pin headerfor I/F board	E-mail	10/03/00
21	Spec change : FDD1 Change from slim type to standard type	Meeting	09/26/00
26	Fix mic-phone power : Add R311 with 1.6K	E-mail	10/06/00
30	Fix system will power on when Plug in power connector : Add R312,R313,R314 R315,R316,C108,Q29 & connect signal to U25B; R17 value change from 4.7 K to 2.2K	MSI H/W	10/09/00
16	JCWD1 Password Clear GPIO pin change from GPIO5 (U15 pin M4) to GPIO4 (U15 pin N1)	E-mail	10/10/00
30	Add Cap. 104P for EMI : C107 , BC162 , BC163 , BC164 , BC165 , BC166 , BC167 , BC168	MSI EMI	10/13/00
12	Fix EMI issue : Change CP3 form Copper to L30 with 0 Ohm/0805 size resistor	MSI EMI	10/13/00
7	Fix memory issue of can not boot up : RN11 , RN14 change value from 10 Ohm to 22 Ohm	MSI H/W	10/13/00
18	Fix CNR card compatibility issue: Add R317 with 10K	MSI H/W	10/16/00

Schematic change from 00B to 00C

PAGE	Description	Check	Date
5	Fix AOL2 issue : The pin C37 of U2 connect to net SKTOCC#	MSI H/W	10/27/00
13,14	Spec. change : DIMM1 & DIMM2 placement exchange; DIMM1 & DIMM2 clock exchange ; DIMM1= DCLK6,2,4,5 ; DIMM2=3,7,1,0	E-mail	10/17/00
7	EMI issue (Reserved) : Add C120 , C121 with 10PF	MSI EMI	11/07/00
16,21	SM-bus issue (Reserved):Add C109,C110 with 100PF;Add R323,R324 with 4.7K;Add C112,C113 with 10PF; route ground shielding trace around SM-bus	Meeting	11/07/00
26	Fix Line-in level : Add R319,R320 with 8.2K	E-mail	11/02/00
25,26	Fix Audio frequency response: R209,R202 change from 47K to 220K & change C56-60,C76,C78,C80,C89,C90,C95 package size from 0603 to 0805	E-mail	11/02/00
27,29	Fix USB/keyboard/mouse voltage level too low issue: Add JP4 to swap VCC or 5VSB ; F1 & F2 pin1 change from 5VSTR TO 5VDUAL1	MSI H/W	10/17/00
28	Fix VRM8.4 thermal issue: 1. change EC2,EC3 package size 1500UF/16V ; 2. Chock2 use Tc6052 core with 0.8x3 wire gauge ; 3. Add R321,R322	E-mail	10/17/00 10/25/00
30	Fix SUSLED issue: R281 pin1 net change from 5VSB to GND	E-mail	10/25/00
21	Fix Fdd & LPC47M157 data sheet incorrect issue : stuff R138,R151 with 1K ; U9 pin125,126 connect to GND	E-mail	10/25/00
10	Fix DVI issue : Don't stuff R101 , R88 from 1K change to 4.7K	MSI H/W	10/25/00

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Schematic change from 00B to 00C

PAGE	Description	Check	Date
22	Spec. change : change R304 pin2 net from THRM# to THERMTRIP#	E-mail	11/02/00
16	Fix can not power issue when remove battery: Don't stuff R293,R307	E-mail	11/10/00
27	Fix USB isgnal Tfr / Tff / Vcrs no good issue: RN34, RN36 change from 15 to 10 ohm ; Don't stuff C4,C5,C6,C7,C8,C9	Meeting	11/07/00
30	Add Cap. 104P for EMI : BC172,BC173,BC174,BC175,BC176	MSI EMI	11/07/00
22,10	EMI issue (Reserved) : Add C123,C124 with 100PF on pin2,3 of SYSFAN1 ; Add C114,C125,C126 with 10PF on net ST_STALL, FTCLK0,FTCLK1	MSI EMI	11/07/00
27	EMI issue (Reserved) : Add C116,C117 with 10PF on USB3N, USB3P signal	MSI EMI	11/07/00

Schematic change from 00C to 100

PAGE	Description	Check	Date
04,21	Fix Hardware monitor issue: Add R325,R326, RN40,RN41with 0 ohm ; and stuff R325,RN40 only	Meeting	11/20/00
16,21	Fix FAN control issue under ACPI mode : Add R329, U15 pinAA13 disconnect from THRM# , U9 pin 48 connect to net THRM#	Meeting	11/22/00
16,22	Fix FAN control issue under ACPI mode : Add Net name is THRMO# connect to U15 pin A15 and change JHWM1 pin1 from THRM# to THRMO#	Meeting	11/22/00
17	Fix BOM : Don't Stuff JP2	Meeting	11/20/00
21,22	Spec change for system temperature: Add C127 ,Q30 and add net TEMPD1+ , TEMPD1-	Meeting	11/22/00
22	Fix BOM: change R304 from 4.7K to 10K	Meeting	11/20/00
25,26	Fix Audio frequency response: change C56-60,C76,C78,C80,C89,C90,C95 capacitor type from Y5V to X7R with LMK212BJ105K of Taiyoyuden	Meeting	11/21/00
25,26	Fix MIC issue:Add R328 with 47K and change EC34 pin1 net from U17 pin7 to net MOPA1 (U17 pin5); don't stuff R232; change R231 from 10K to 220K	Meeting	11/22/00
27	Fix USB Droop valtage issue: change JP4 pin1,2 trace wide from 40mil to 60mil and EC6 from 470uF to 1000uF/6.3V ESR=40~45	Meeting	11/22/00
30	Fix S3 issue: Change R267 pin2 net from VCC to 5VSB	Meeting	11/23/00
30	Reserved The system will Power on when plug power connector issue : Fix BOM Q29 R314, R316,R313 for Reserved.	Meeting	11/17/00
31	Fix Intruder & battery issue: Add R327 with 10K & disconnect RN39 pin1, pin2	Meeting	11/21/00
	Fix Layout Library: Fix U9 & D10 Layout Library for easy production (Don't need change schematic)	MSI H/W	11/23/00
	Fix EMI issue: Let screw hole have more GND plane and Add GND via on GND plane. (Don't need change schematic)	Meeting	11/22/00

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Schematic change from 100 to 10A

PAGE	Description	Check	Date
14	Fix SM_bus issue: Add R335,R336,C128,C129 on SMBDATA & SMBCLK and place parts to close DIMM2	Meeting	12/01/00
16	Fix SM_bus issue: Add R337,R338 on SMBDATA & SMBCLK signal and place these parts to close U15	Meeting	12/01/00
21	Fix SM_bus issue: Add R341,R342 on SMBDATA & SMBCLK signal and place these parts to close U9 ; R323,R324 vaule change from reserved to 1.8K	Meeting	12/01/00
20	Reserved for IDE : Add R339 pull down resistor on signal PDREQ ; Add R340 pull down resistor on signal SDREQ	Meeting	12/01/00
21,31	Disconnect RN35 pin5 from net EXTSMI# & del net name EXTSMI#; Add series resistor R343 in between U15 pin Y11 and THRM#	Meeting	12/01/00
29	Spec change for USB , Keyboard,mouse will no power on S5 state: Add R331,R332,R330,Q31,Q32,Q33 C130,C131& del JP4 , D1(C130,C131 Reserved)	Meeting	12/01/00
18	Spec change for Riser1: disconnect Riser1 pin B10 & A10 from SMBCLK & SMBDATA	Meeting	12/01/00
30	Spec change: Del JGS1 del net name EXTSMI#	e-mail	12/01/00
3	Spec change: GPIO6 (pin Y11) of U15 change from EXTSMI# to THRM#	e-mail	12/01/00
30	EMI request: Add BC169 , BC177	MSI EMI	12/05/00

Schematic change from 10A to 10B

PAGE	Description	Check	Date
5,21	Fix CPU temperature noise issue: Add C132 , C133 on THERMDP & THERMDN signal .Also modify Layout with GND shielding and more space	Meeting	12/27/00
21	EMI request: Add BC178	Meeting	12/27/00

Schematic change from 10B to 10C

PAGE	Description	Check	Date
12	Fix 5V_VSYNC and 5V_HSYNC signal quality issue: Add series resistor R344 , R345 on 5V_VSYNC & 5V_HSYNC signal .Also add C134 , C135 on 5VDDCCL & 5VDDCDA signal and del CN2.	Meeting	2/01/01

Schematic change from 10C to 500

PAGE	Description	Check	Date
4,5	Spec change for Tualatin: Add R346,R348,R349,BC179,R347R350,Q36,R357,R352,R353,R354,R355,R356,Q34,Q35,R358 ; Del R67 & Create new net CMOSREF, TUAL5,TUALDET,VID25MV,TUAL5# ; Add R404 for Reserved	Meeting	2/08/01
7	Spec change for Tualatin: Add Q37 & Create new net VTTPWRGD12 ,VCC_CLOCK ; L16,BC33 Change net from VCC3 to VCC_CLOCK; Del L15 ; Add R359,Q38 on APICCLK signal	Meeting	2/08/01
9,16	Spec change for Tualatin: Add Q39,R360 on SM_MAA12 & TUAL5 signal ; Add 361,C136,D21,U26,R362 delay PWROK signal of ICH2 ; Del R293,R307	Meeting	2/08/01

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Schematic change from 10C to 500

PAGE	Description	Check	Date
07,8	Spec change for Tualatin by DGU0.92: Add R405 connect to ADS# & R118 not mount & Change R106 from 75 to 63.4 ohm Del GTL bus pull up 56 ohm Resistor array RN20,RN19,RN18,RN8,RN3,RN6,RN17,RN16,RN15,RN13,RN7,RN10,RN21,RN5	begin update 0.92	2/28/01
28	Spec change for VRM8.5: Add Q40,Q45,R364,R368,R369,R370,R365,R367,R366,C137,BC181,EC36,EC37,EC38,R376,R377,Q42,EC39,R402,BC185;Change R321,R322 from 10 to 0 ohm & R15 from 1K to 560 ohm;Change wire of CHOCK1 from 1.2 to 0.8*3 & CHOCK2 size from 6052 to 6852A or 6018	Meeting	2/08/01
30,31	Fix ICH2 RTC leakage issue: Add pull down resistor R371,R372 on signal RSMRST# & PWROK & add pull up RTCVCC resistor R374 on signal INTRUDER#	Meeting	2/08/01
33	Spec change for Tualatin: Add BC183,R382,R383,U28,D20,R381,C138,R380,Q43,R378,Q44,R379 ,Q51 for VTTPWRGD12,VTTPWRGD,VTTPWRGD5#,VTTPWRGD5	Meeting	2/08/01
18,27	Spec change for CNR: Del R265,R257,R256,R268,R273,C99,JP3,JP3(1-2),R278,BC156,CNR1	Meeting	2/19/01
07,19	Spec change for PCI: Del R242,R249,PCI1& disconnect RN12 pin1,2 & U5 pin15	Meeting	2/19/01
21	Spec change for FDD1: Change FDD1 from standard type connector to slim tpye connector ; Add r409,c139 Reserved for meet LPC timing spec of ICH2.	Meeting	2/19/01
22,34	Spec change for FAN speed control of I/F card on board:Add Q46,Q47,Q48,Q49,Q50,R385,R384,R388,R391,R389,U29,BC184,R387,R390,EC40,R386,R393,R394,R398,R392,R395,R396,R397 & P8 for CPU FAN connector & P9 for system FAN connector & P3 for CD-IN connector ; Del JHWM1 connector	Meeting	2/19/01
7,15	Spec change for PC2001: Add R403 for IOAPICCLK of ICH2 & connect PICD0,PICD1 to ICH2 ; Add R408 series be connected between the pin AE33 of CPU and A20M# ; & Add R407,R406 for PC2001Reserved	PC2001	2/27/01
30	EMI request: Add BC186, BC187	EMI	03/1/01

Schematic change from 500 to 50A

PAGE	Description	Check	Date
12	Fix VGA noise issue: Add U30 Connect net on U30 pin2,3,5,6 & U30 pin1,4,7 connect to GND , pin14 to VCC &; Disconnect U3 pin7,8,6,9	E-mail	4/11/01
6	VRM8.5 Spec. Fine tune : Del MC4. Move MC15 close to MC20 . MC5,MC9,MC11 package size change to 1206. Every Pad of 1206 size Cap. have to two via on GND and VCCP . These two via of pad must be have fat copper.	Meeting	3/20/01
28	Improve interference problem between heatsink and Chock2. Update Chock2 Layout library with CHK6852A. Fine tune Q7,Q8,Q40,Q45 position for more thermal copper space.Q7,Q45 change to IPD07N03 Rds=7.5mOhm	E-mail	3/26/01
33	Rename SYSFAN1 to PWRFAN1; Add BC190 and 3 pin fan connector SYSFAN1. The SYSFAN1 layout library is same as CPUFAN1 Change CPUFAN1 , SYSFAN1 and PWRFAN1 position	E-mail E-mail	3/15/01 4/10/01
28	VRM8.5 OCP point:R16 keep 1.62K,C137 from 1u change to 4.7U,R368 from 15 change 47,R369 from 36 change to 47 ohm,R366 from 20K change to 33K	H/W DQA2	3/20/01
16	Improve RTCRST# to meet RC time delay Spec of ICH2:Change R310 from 8.2K to 15K ; Change C106 from 0.01u 0603 t0 1u 0805 X7R	MSI check list	3/23/01
	Modify some silk print on the original CNR area to put bar code label . Check Add silk print of the CPU	E-mail	3/23/01
34	Change R387 resistor value from 6.19K to 8.2K	E-mail	4/11/01

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Schematic change from 500 to 50A

PAGE	Description	Check	Date
5,31	Fix Intel Thermtrip# workaround :Change R23 default not stuffed ; Change R373 resistor value from 1.8K to 510; Add R410,R411,R412.	E-mail	4/12/01
29	Fix 5VDUAL have voltage output in S5 state: Change R11 from 4.7K to 10K	ECN	4/24/01

Schematic change from 50A to 50B

PAGE	Description	Check	Date
16	Reserved RTC issue: Add R413,R414 for RTC circuit cannot oscillate under higher humidity environment	meeting	5/25/01
29	Fix 5VDUAL have voltage output in S5 state:Add Q52,Q53 ,R415 and Change R10 to 4.7K	meeting	5/25/01
30	Fix RSMRST# signal level issue:Add R416,Q54 and disconnect U18 pin8,pin9	meeting	5/25/01
34	BOM Add R394 with 6.8K for PSU FAN control	E-mail	5/28/01
20	Add damper resistor R417(PDREQ),R418(PDIOW#),R419(PDIOR#),R420(PIORDY),R421(PDDACK#)	meeting	5/25/01
	Modify the power fan conector position to 5 mm upward; enlarge the silk print area of chock2 ; Modify the silk print area of CPU socket to enlarge 1mm.	E-mail	5/14/01
9	Add reserved resistor R422 with 10K on SM_MAA9 signal for 815EB design guide update.	E-mail	5/30/01

Schematic change from 50B to 50C

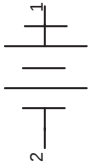
PAGE	Description	Check	Date
	Assembly issue:modify placement for Interference CHOCK1 and EC3,EC36,EC4 capacitors ; Interference EC6 and L5.	E-mail	6/22/01
05	D0-step erratum: For SLP# signal ,Add R423 with 150 ohm pull-up VTT; add R424 with 0 ohm for reserved	meeting	7/12/01
06	VRM8.5 Reserved: Add MC101for reserved and layout overlay with MC10	meeting	7/09/01
09	SM_DQM7 glitch issue: Add damper resistor R425 with 22 ohm package size 0402 on SM_DQM7 signal	meeting	7/09/01

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BAT-CR2032-3V-210mAh

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