MS-7717 Ver: 10 uATX(244mm X 244mm)

CPU:

INTEL -Sandy Bridge LGA 1155 (SOCKET H2)

System Chipset:

INTEL-H67 (COUGAR POINT)

OnBoard Chipset:

Audio Codec ALC887-VD
LAN: Gigabit LAN - INTEL 82579
IO: Fintek F71889AD
Flash ROM: 32 Mb SPI (CHIP)

Main Memory:

DDRIII (1066/1333MHz) * 4 (Dual Channel) max:16GB

Expansion Slots:

PCI Express (X16) Slot * 1
PCI Express (X1) Slot * 3

PWM:

Controller:Intersil ISL6364 4-Phase -- 95W

Other:

SATA(SATA2-300MB/s) *4+(SATA3-600MB/s) *2
USB2.0 *12 (Rear*6 / Front*6)
DVI-I PORT*1
COM port * 2

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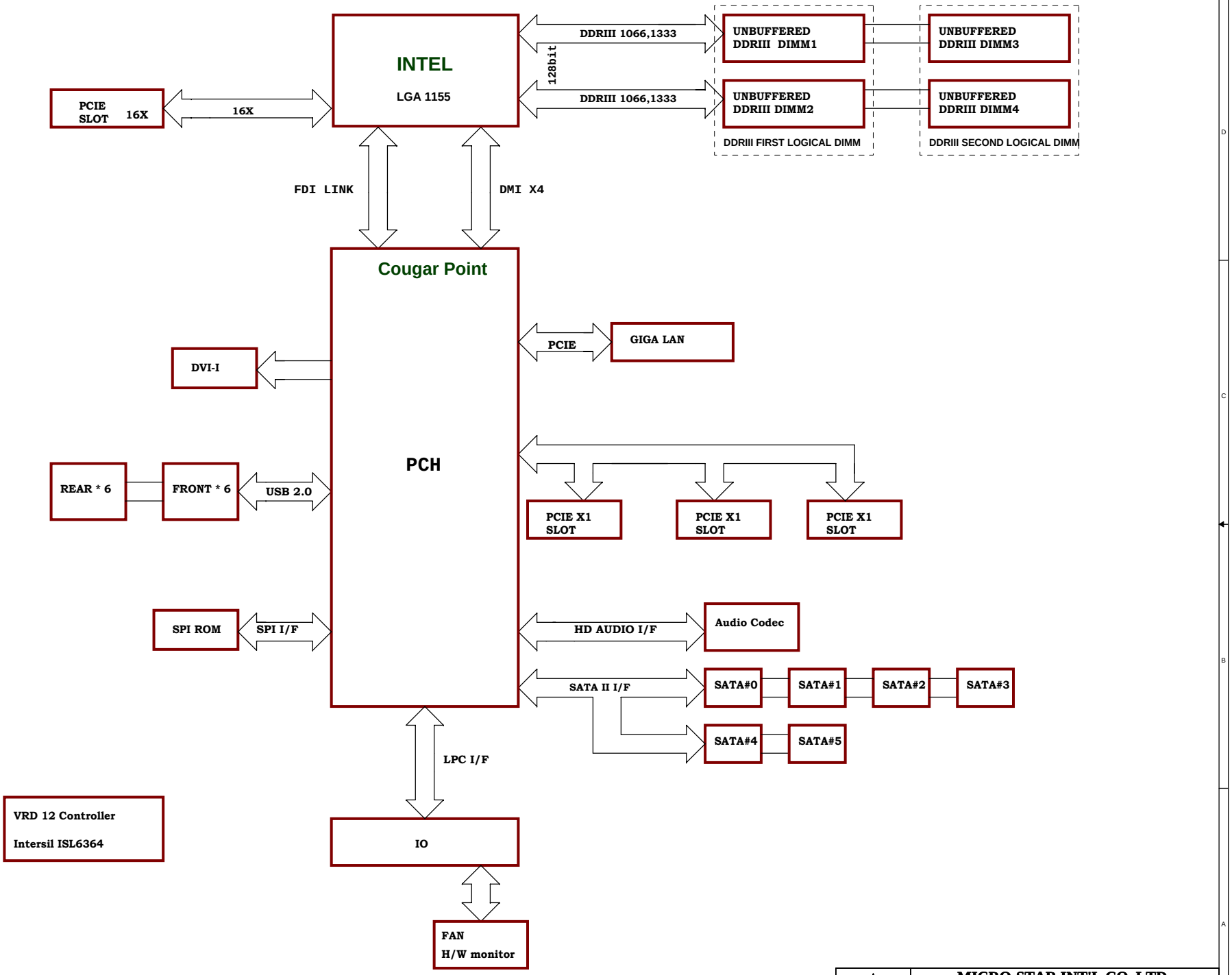
MS-7717-10-1105-A

Size	Document Description	Rev
Custom	Cover Sheet	10

Date: Friday, November 05, 2010 Sheet 1 of 40



MSI	MICRO-STAR INT'L CO.,LTD	
	MS-7717-10-1105-A	
Size: Custom	Document Description: Block Diagram	Rev: 10
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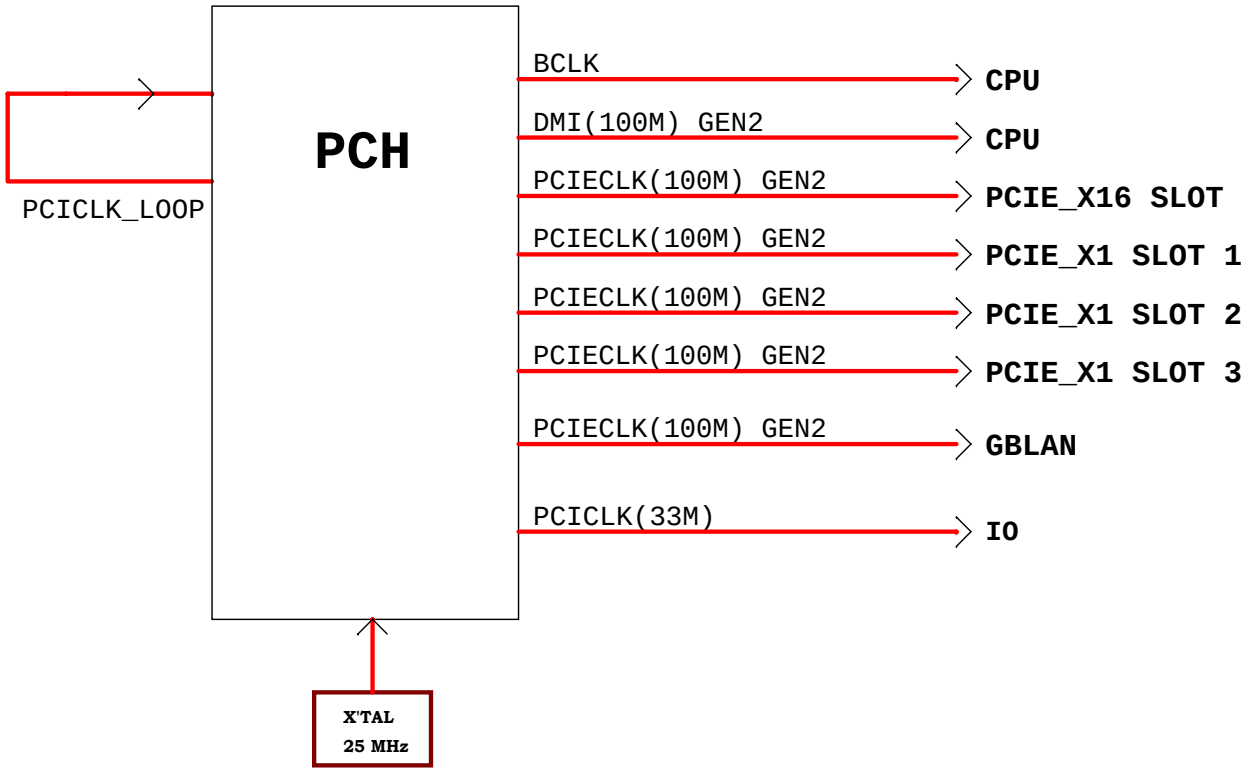
DDR DIMM Config.

DEVICE	ADDRESS	CLOCK
DIMM 2 CH-A	10100001B	MEM_MA_CLK_H2/L2 MEM_MA_CLK_H3/L3
DIMM 1 CH-A	10100000B	MEM_MA_CLK_H0/L0 MEM_MA_CLK_H1/L1
DIMM 4 CH-B	10100011B	MEM_MB_CLK_H2/L2 MEM_MB_CLK_H3/L3
DIMM 3 CH-B	10100010B	MEM_MB_CLK_H0/L0 MEM_MB_CLK_H1/L1



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MS-7717-10-1105-A

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Date: Friday, November 05, 2010 | Sheet 3 of 40

Name	Net Name	Power Well	Default	NOTES
GPIO00	BM_BUSY#	Core	GPI	not use pull up VCC3
GPIO01	CPC_BPC_SW	Core	GPI	not use pull up VCC3
GPIO02	PIRQ#E	Core	GPI	not use pull up VCC3
GPIO03	PIRQ#F	Core	GPI	not use pull up VCC3
GPIO04	PIRQ#G	Core	GPI	not use pull up VCC3
GPIO05	PIRQ#H	Core	GPI	not use pull up VCC3
GPIO06	Mini_PCIE1_GPIO	Core	GPI	not use pull up VCC3
GPIO07	Mini_PCIE2_GPIO	Core	GPI	not use pull up VCC3
GPIO08	IGC_EN_N	Suspend	GPO	not use 1K to GND (FCIM Function)
GPIO09	OC#4_5	Suspend	Native	not use pull up 3VSB
GPIO10	OC#6_7	Suspend	Native	not use pull up 3VSB
GPIO11	PCH_SMBALERT#	Suspend	Native	not use pull up 3VSB
GPIO12	LAN_DISABLE#	Suspend	Native	pull up 3VSB LAN_PHY_PWR_CTRL,
GPIO13	SLOT_PWR_SW	Suspend	GPI	pull up 3VSB (GPO: Slot power function)
GPIO14	OC#6_7	Suspend	Native	not use pull up 3VSB
GPIO15	PCH_GPIO15	Suspend	GPO	not use Strapping : internal pull-down(TLS function)
GPIO16	JUSB30_SENSE#A	Core	GPI	not use pull up VCC3
GPIO17	BOOT_BLOCK_RECOVERY	Core	GPI	not use pull up VCC3
GPIO18 (Mobile Only)		Core	Native	NA
GPIO19	JUSB2_SENSE#B	Core	GPI	Strapping :Pull-up resistors are not required
GPIO20	PCH_GP20	Core	Native	not use pull up VCC3
GPIO21	JUSB2_SENSE#A	Core	GPI	not use pull up VCC3
GPIO22	MB_ID0	Core	GPI	not use pull up VCC3
GPIO23	LDRQ1#	Core	Native	internal pull-up
GPIO24	H_SKTOCC_PCH_R	Suspend	GPO	pull up 3VSB (GPI:CPU detect: Low Active)
GPIO25 (Mobile Only)		Suspend	Native	NA
GPIO26 (Mobile Only)		Suspend	Native	NA
GPIO27	HDOUT_AMP_DIS#	DSW	GPI	not use pu 3VA
GPIO28	OD_PLL_VR_EN	Suspend	GPO	not use pull up 3VSB
GPIO29	SLP_LAN#	Suspend	GPI	SLP_LAN# function
GPIO30	SUS_WARN#	Suspend	Native	SUS_WARN# function

GPIO31	FRONT_OUT_DISABLE	DSW	GPI	not use pu 3VA
GPIO32	SPI_WP#	Core	GPO	pull up 3VSB SPI_WP# function Active Low
GPIO33	SPI_HOLD_GPO#	Core	GPO	SPI_HOLD_GPO# Active Low
GPIO34	HOOD_SW_DET#	Core	GPI	not use pull up VCC3
GPIO35	PCH_GPIO35	Core	GPO	not use
GPIO36	JUSB3_SENSE#A	Core	GPI	not used NC
GPIO37	JUSB3_SENSE#B	Core	GPI	not used NC
GPIO38	MB_ID1	Core	GPI	not use pull up VCC3
GPIO39	MB_ID2	Core	GPI	not use pull up VCC3
GPIO40	OC#0_1	Suspend	Native	not use pull up 3VSB
GPIO41	OC#2_3	Suspend	Native	not use pull up 3VSB
GPIO42	OC#2_3	Suspend	Native	not use pull up 3VSB
GPIO43	OC#4_5	Suspend	Native	not use pull up 3VSB
GPIO44	PCIECLKRQ5#	Suspend	Native	pull up 3VSB
GPIO45	PCH_GPIO45	Suspend	Native	not use pull up 3VSB
GPIO46	CLEAR_PWD	Suspend	Native	not use pull up 3VSB
GPIO47 (Mobile Only)		Suspend	Native	NA
GPIO48	MB_ID3	Core	GPI	not use pull up VCC3
GPIO49	JUSB30_SENSE#B	Core	GPI	not use pull up VCC3
GPIO50	PREQ#1	Core	Native	not use pull up VCC3
GPIO51	PGNT#1	Core	Native	Strapping :Pull-up resistors are not required
GPIO52	PREQ#2	Core	Native	not use pull up VCC3
GPIO53	PGNT#2	Core	Native	not use Do not pull low,
GPIO54	PREQ#3	Core	Native	not use pull up VCC3
GPIO55	PGNT#3	Core	Native	Pull-up resistors are not required on these signals
GPIO56 (Mobile Only)		Suspend	Native	NA
GPIO57	USB_DET1	Suspend	GPI	not use pull up 3VSB
GPIO58	PCH_SML1CLK	Suspend	Native	not use pull up 3VSB
GPIO59	OC#0_1	Suspend	Native	not use pull up 3VSB
GPIO60	PCH_SML0ALERT#	Suspend	Native	not use pull up 3VSB

GPIO61	USB_DET2	Suspend	Native	not use pull up 3VSB
GPIO62	SUSCLK	Suspend	Native	No external resistors required
GPIO63	SLP_S5#	Suspend	Native	No pull up/down resistors needed
GPIO64	TP_CLKOUTFLEX0	Core	Native	not use
GPIO65	TP_CLKOUTFLEX1	Core	Native	not use
GPIO66	TP_CLKOUTFLEX2	Core	Native	not use
GPIO67	CK_48M_SIO_R	Core	Native	SIO_48M_clock
GPIO68	JUSB1_SENSE#A	Core	GPI	not use pull up VCC3
GPIO69	JUSB1_SENSE#B	Core	GPI	not use pull up VCC3
GPIO70	TP_GPIO70	Core	Native	not use pull up VCC3
GPIO71	TP_GPIO71	Core	Native	not use pull up VCC3
GPIO72	HOOD_SENSE#	Suspend	Native (Mobile Only)	not use pull up 3VSB
GPIO73 (Mobile Only)				NA
GPIO74	PCH_SML1ALERT#	Suspend	Native	not use pull up 3VSB
GPIO75	PCH_SML1DATA	Suspend	Native	not use pull up 3VSB

ADD:

GPIO46 : Use to control ME Flash function

Enable : Low

Disable : High

Default : High

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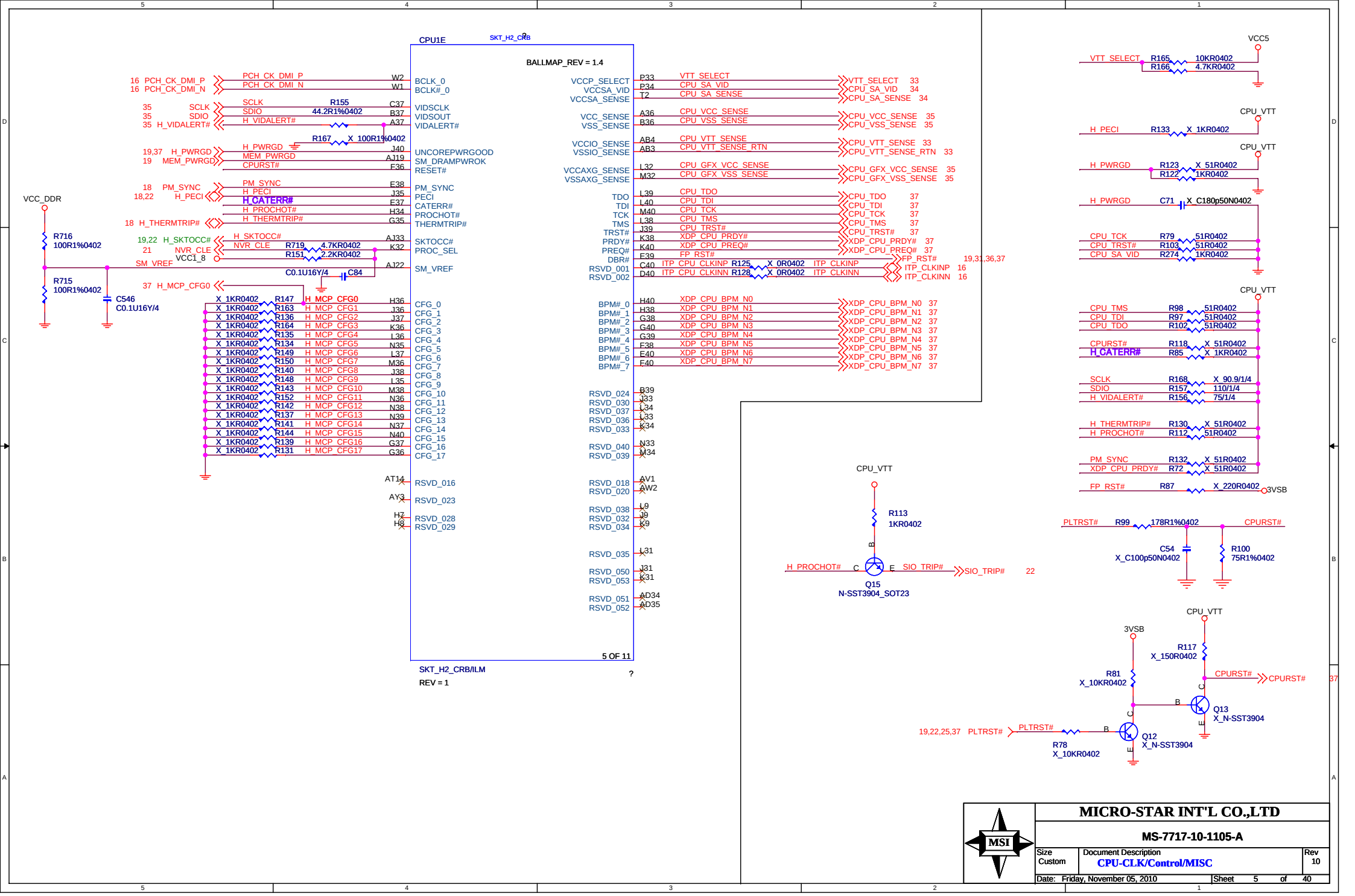

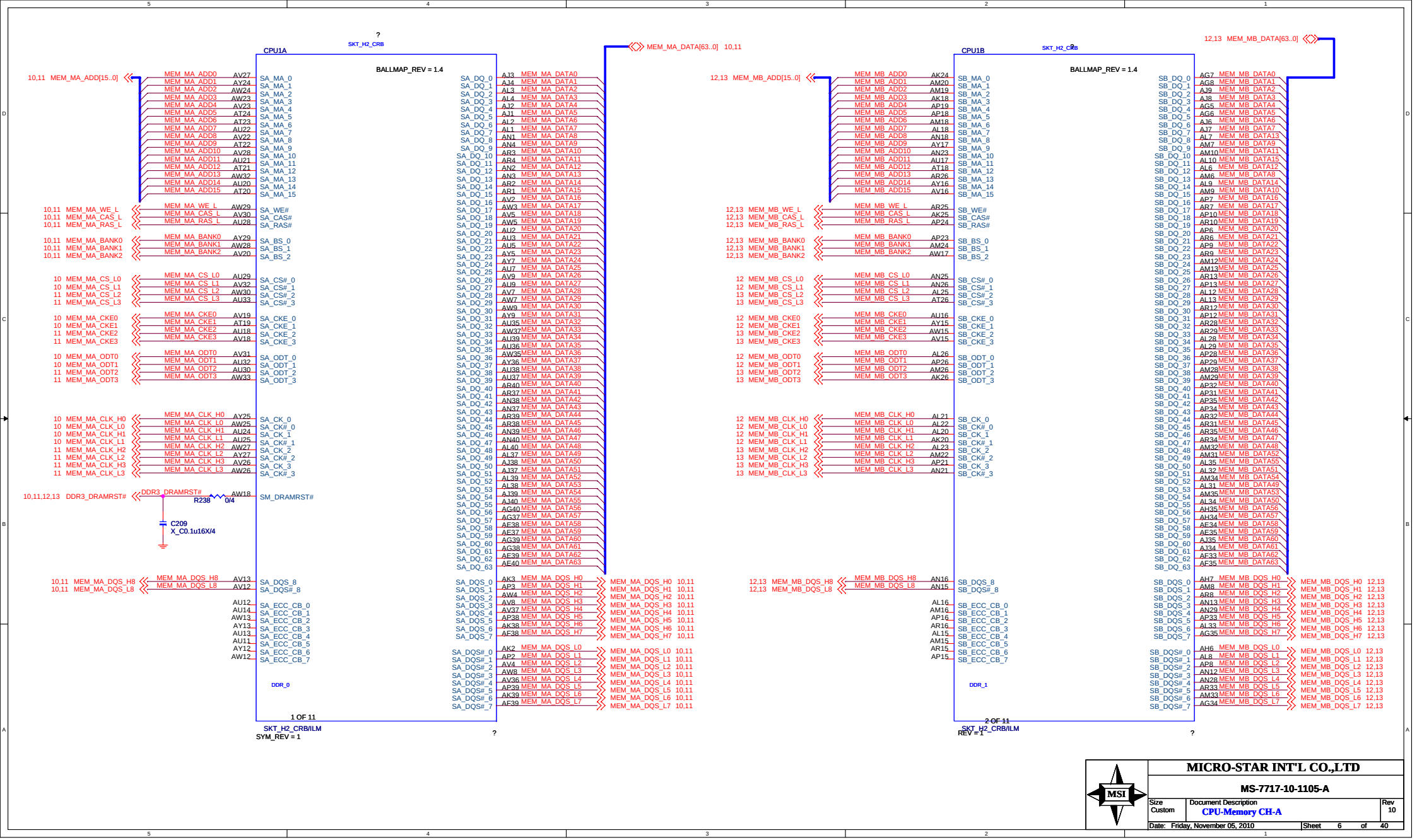

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Size: Custom	Document Description: CPU-Memory CH-A	Rev: 10
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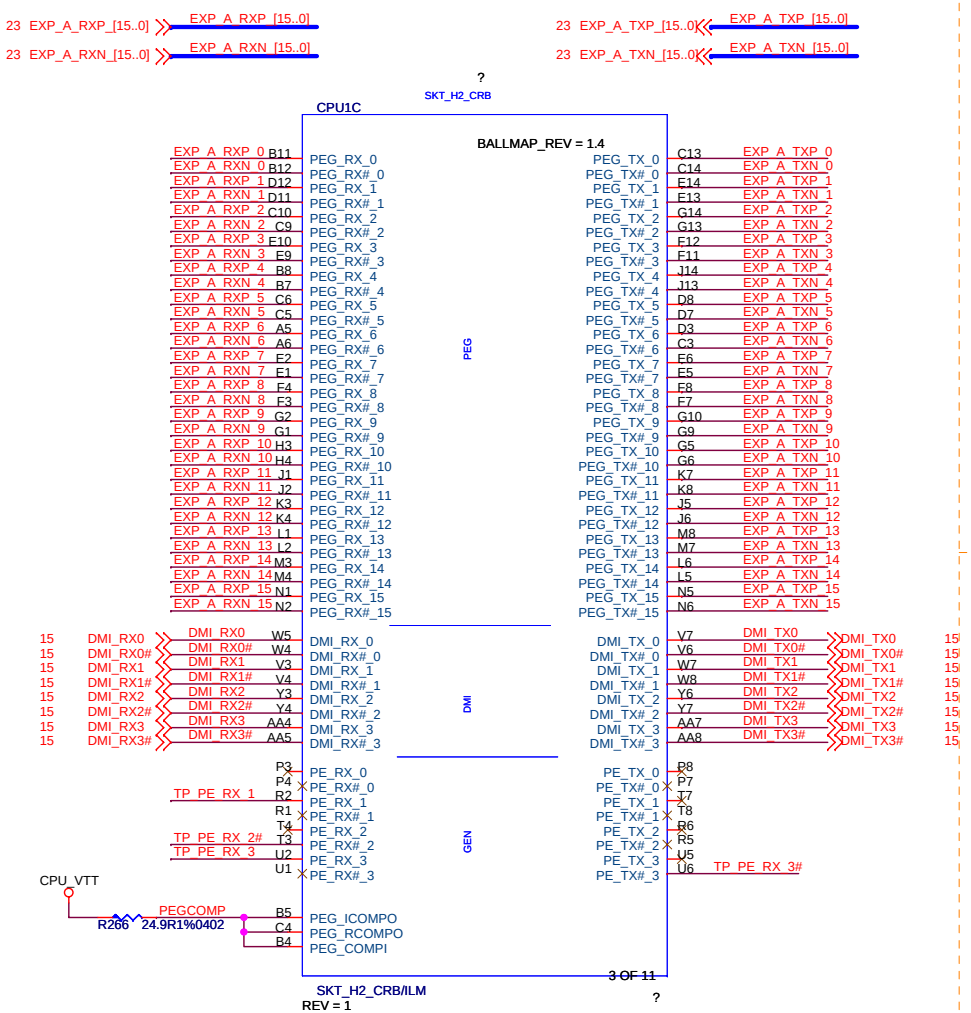
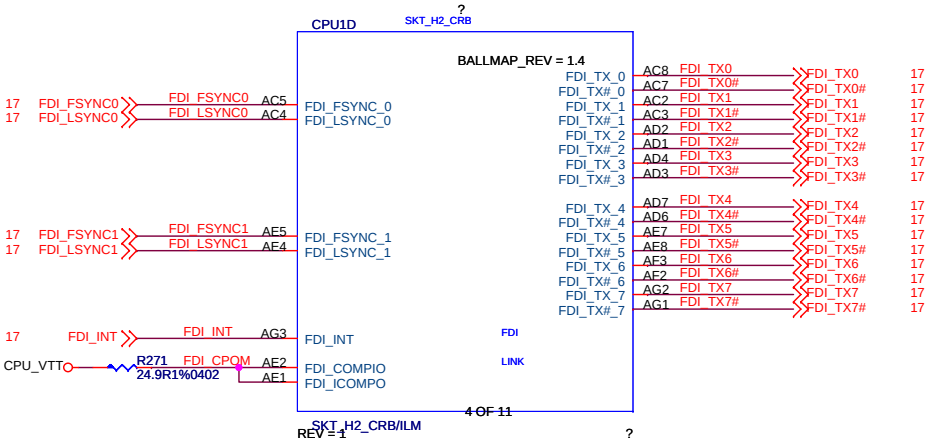
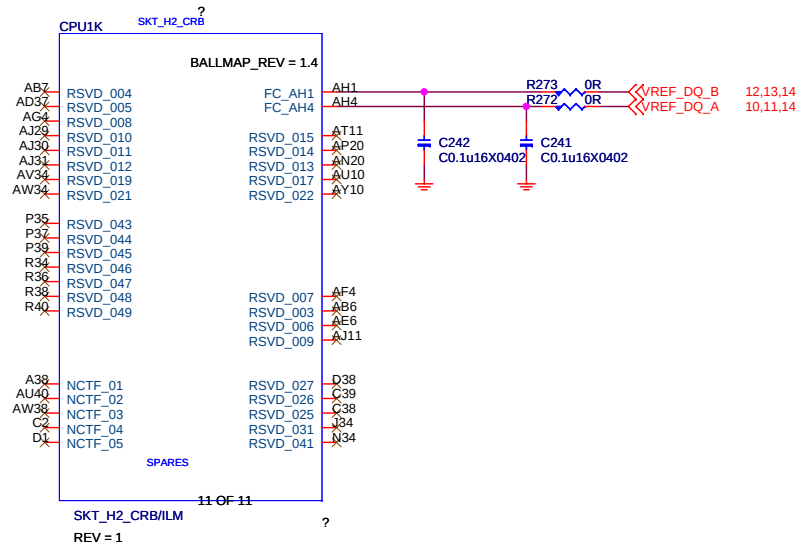
PEG & DMI



FDI





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	MS-7717-10-1105-A	
Size B	Document Description CPU-PEG/DMI	Rev 10
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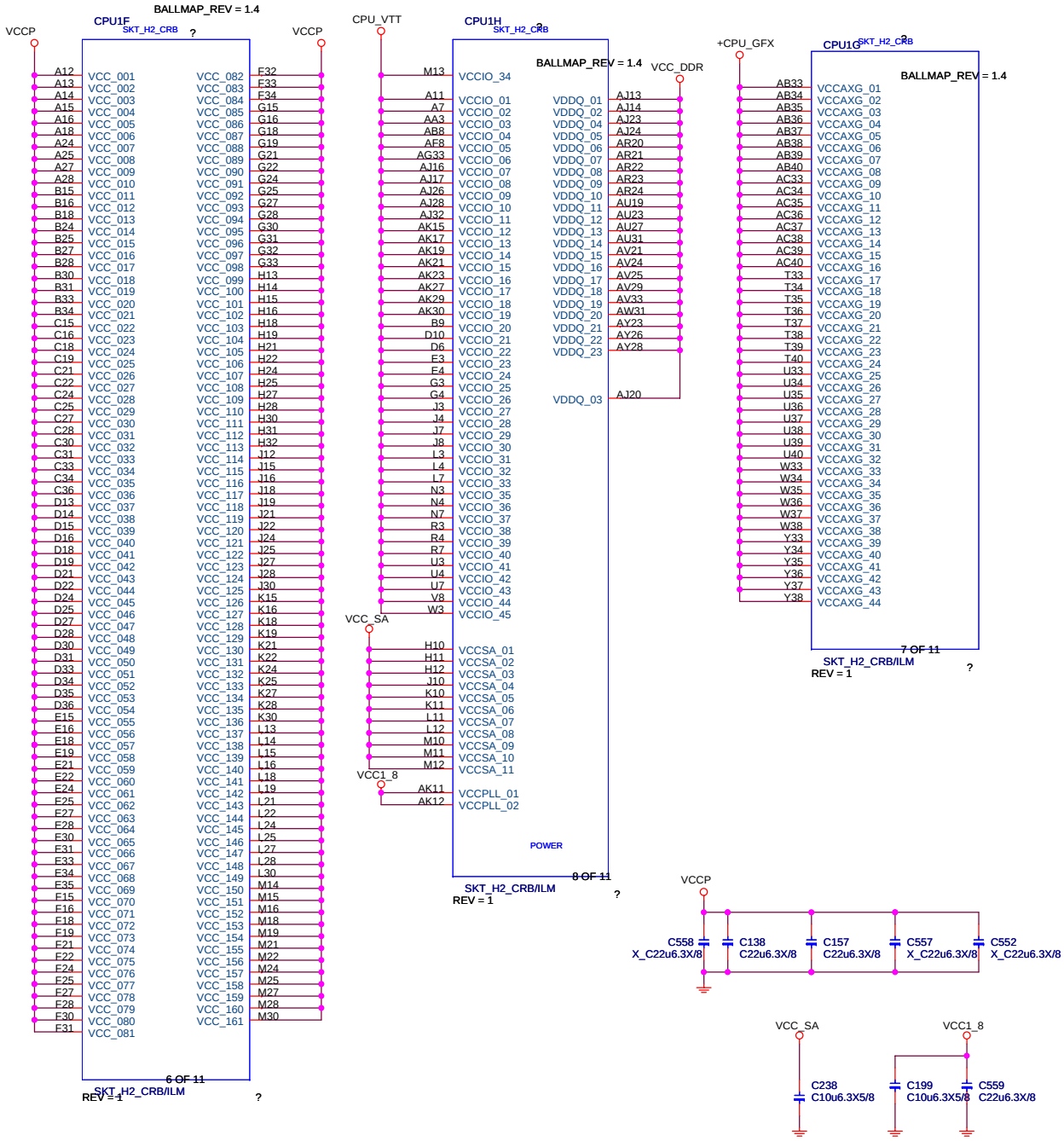
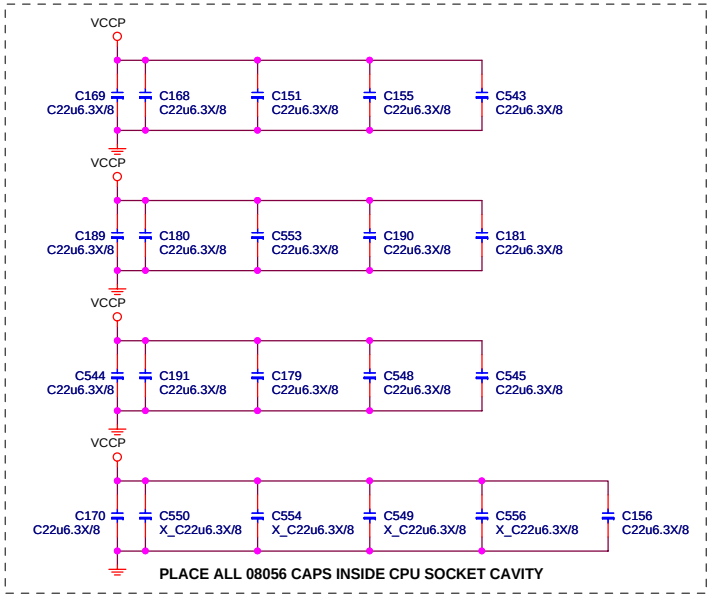
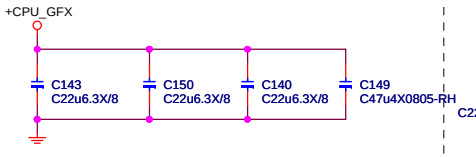


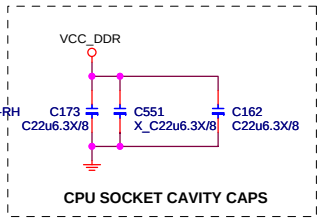
+CPU_VCCP-Decoupling

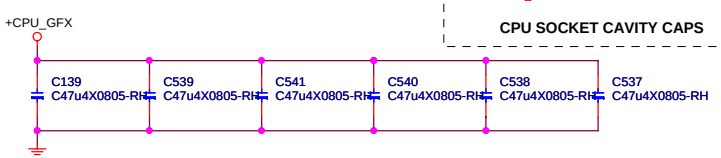


+CPU_GFX Decoupling

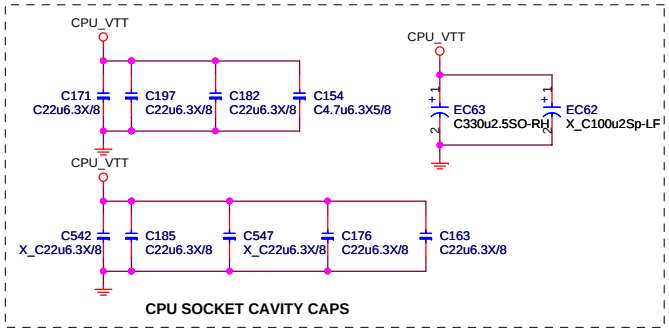


+1.5V_DDR3-Decoupling





+CPU_VTT Decoupling



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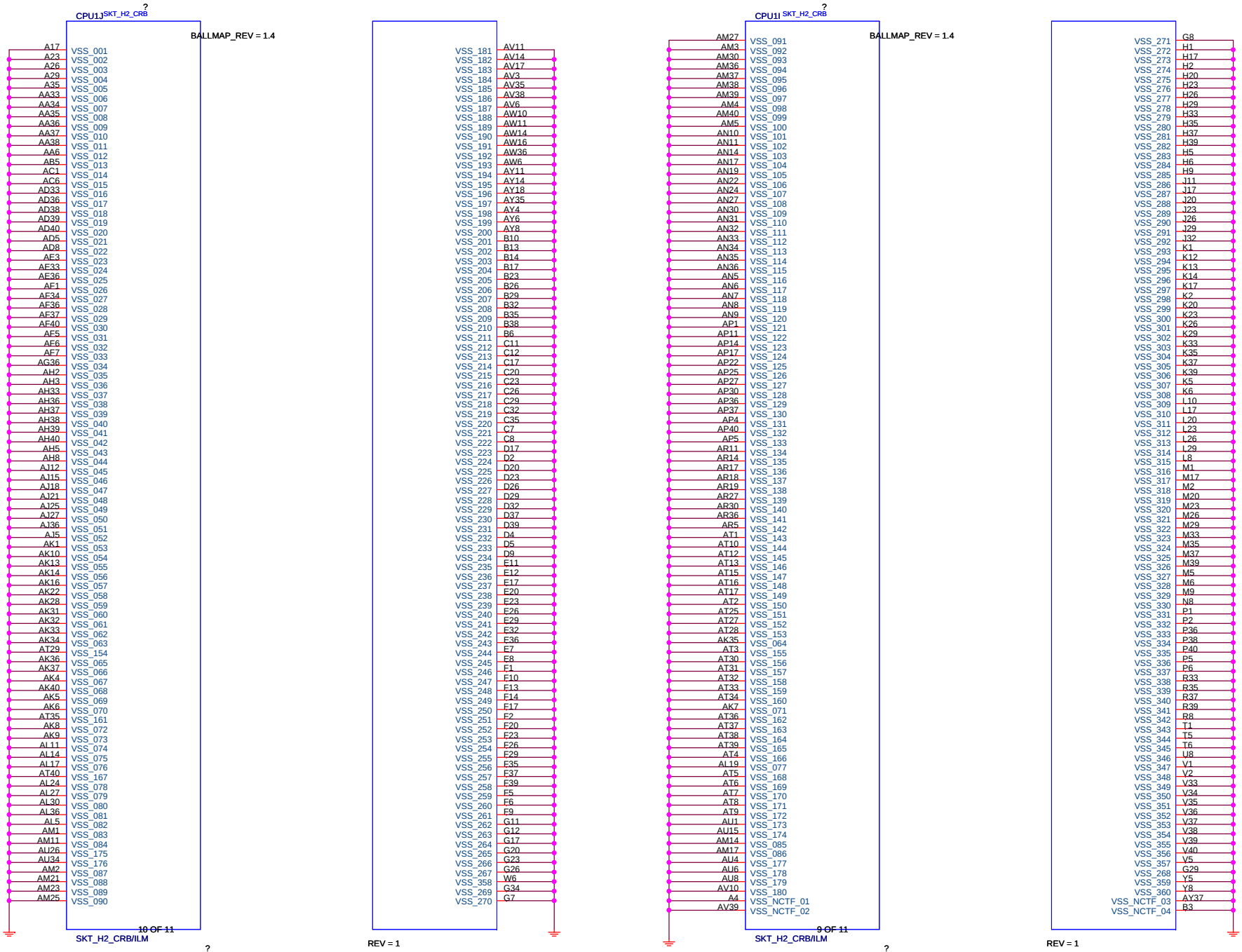

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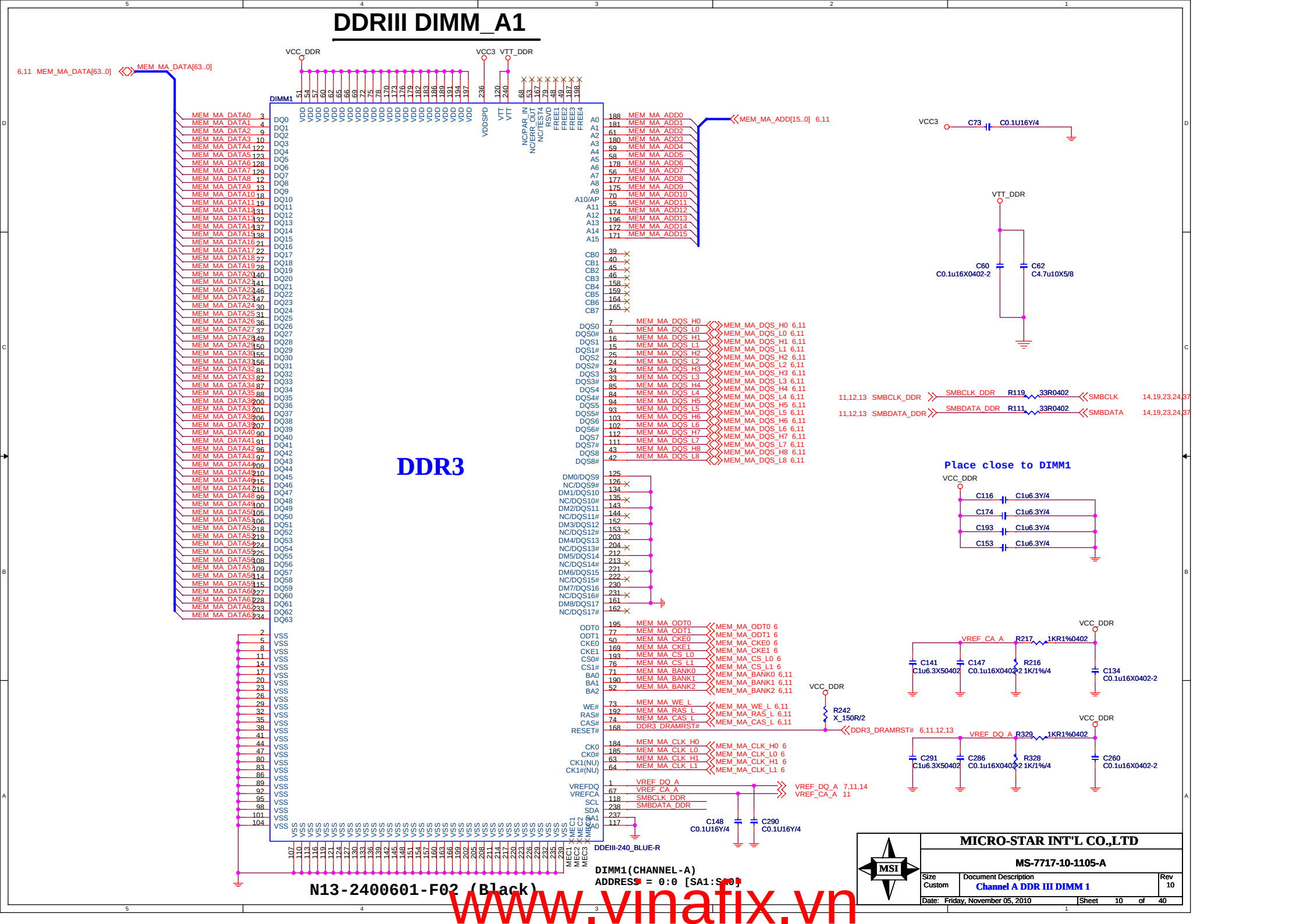
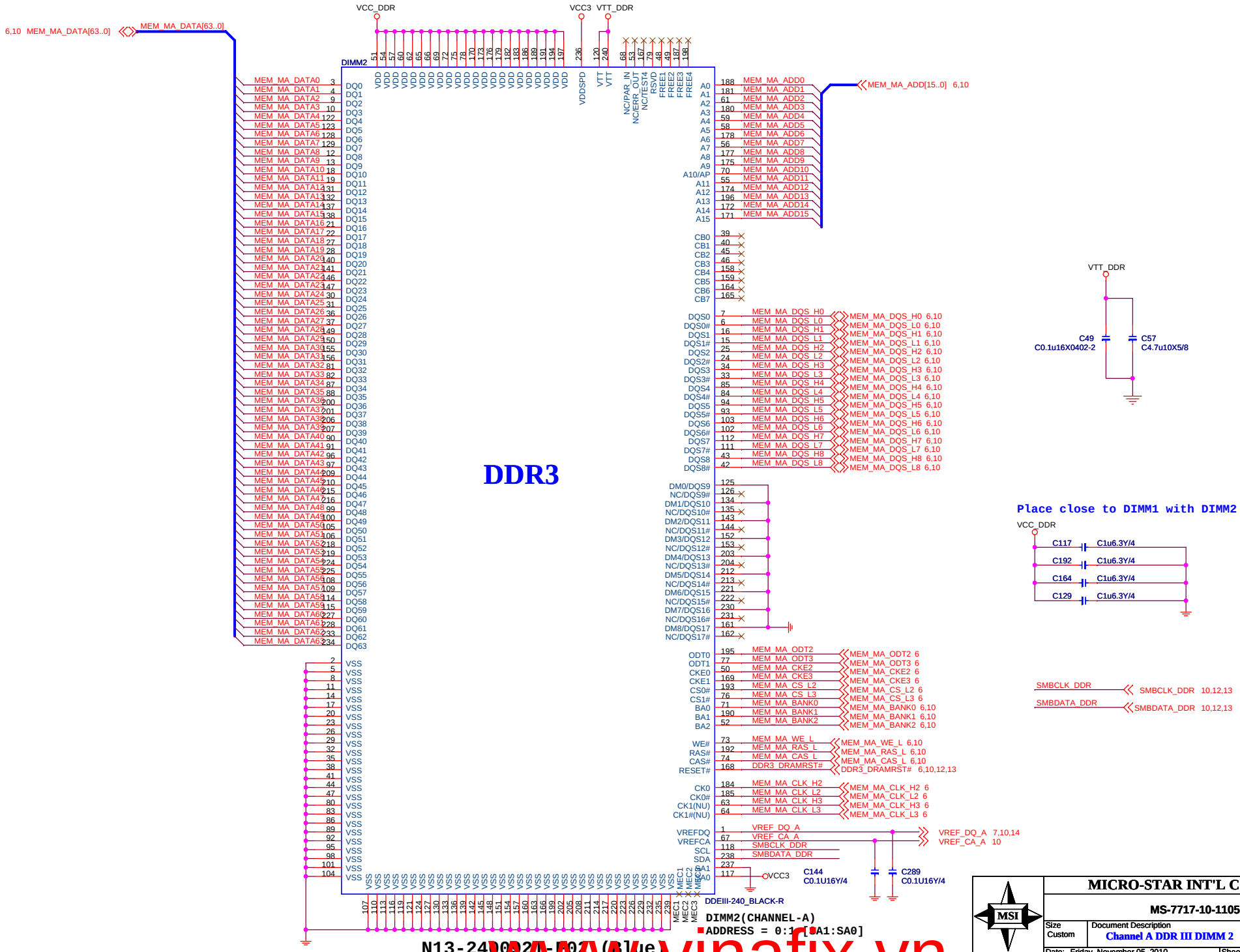
DDRIII DIMM_A1



DDRIII DIMM_A2



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Size: Custom	Document Description: Channel A DDR III DIMM 2
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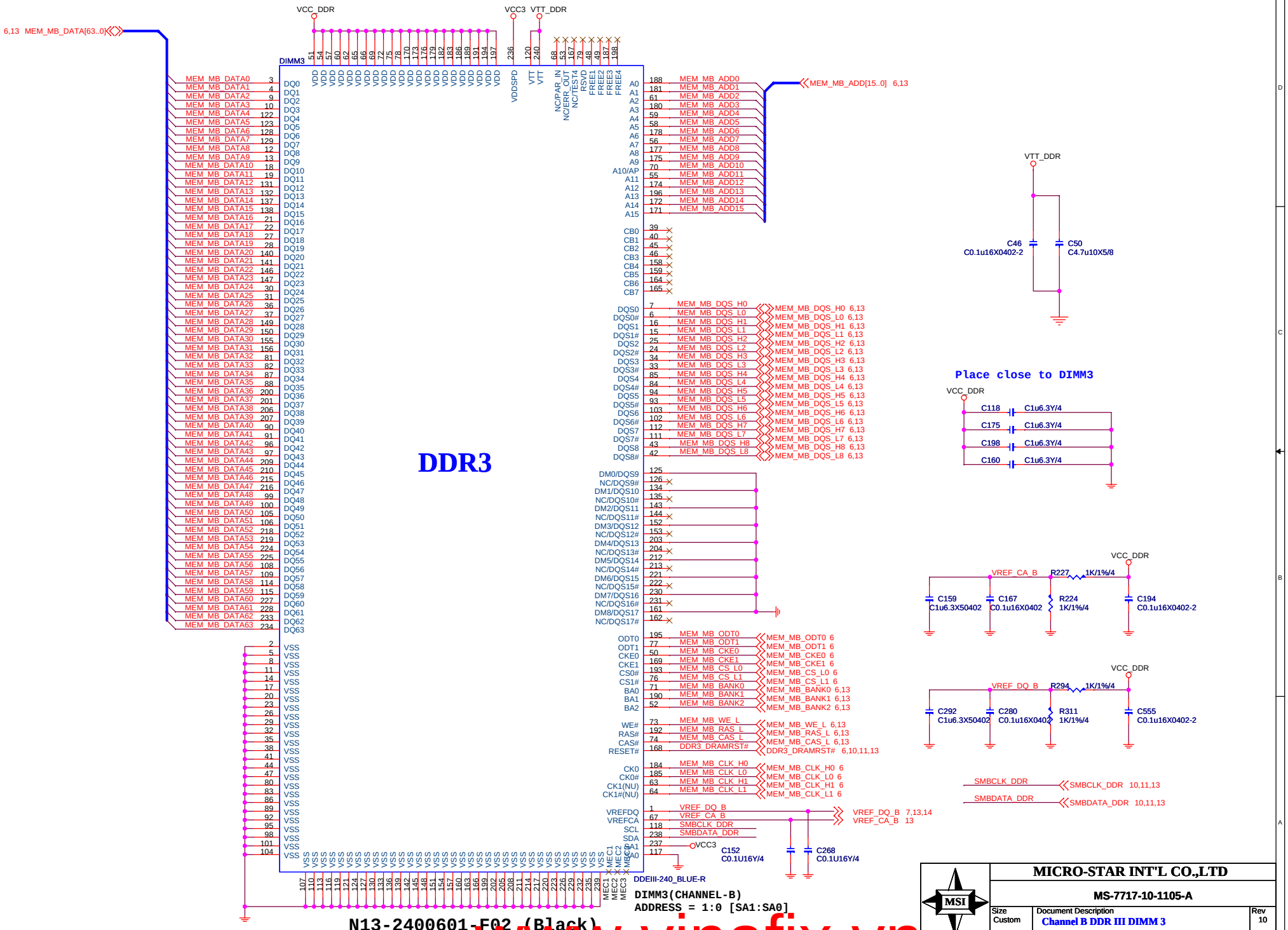
DDRIII DIMM_B1



DIMM3(CHANNEL-B)
ADDRESS = 1:0 [SA1:SA0]

N13-2400601-F02 (Black)

MICRO-STAR INT'L CO.,LTD	
MS-7717-10-1105-A	
Size: Custom	Document Description: Channel B DDR III DIMM 3
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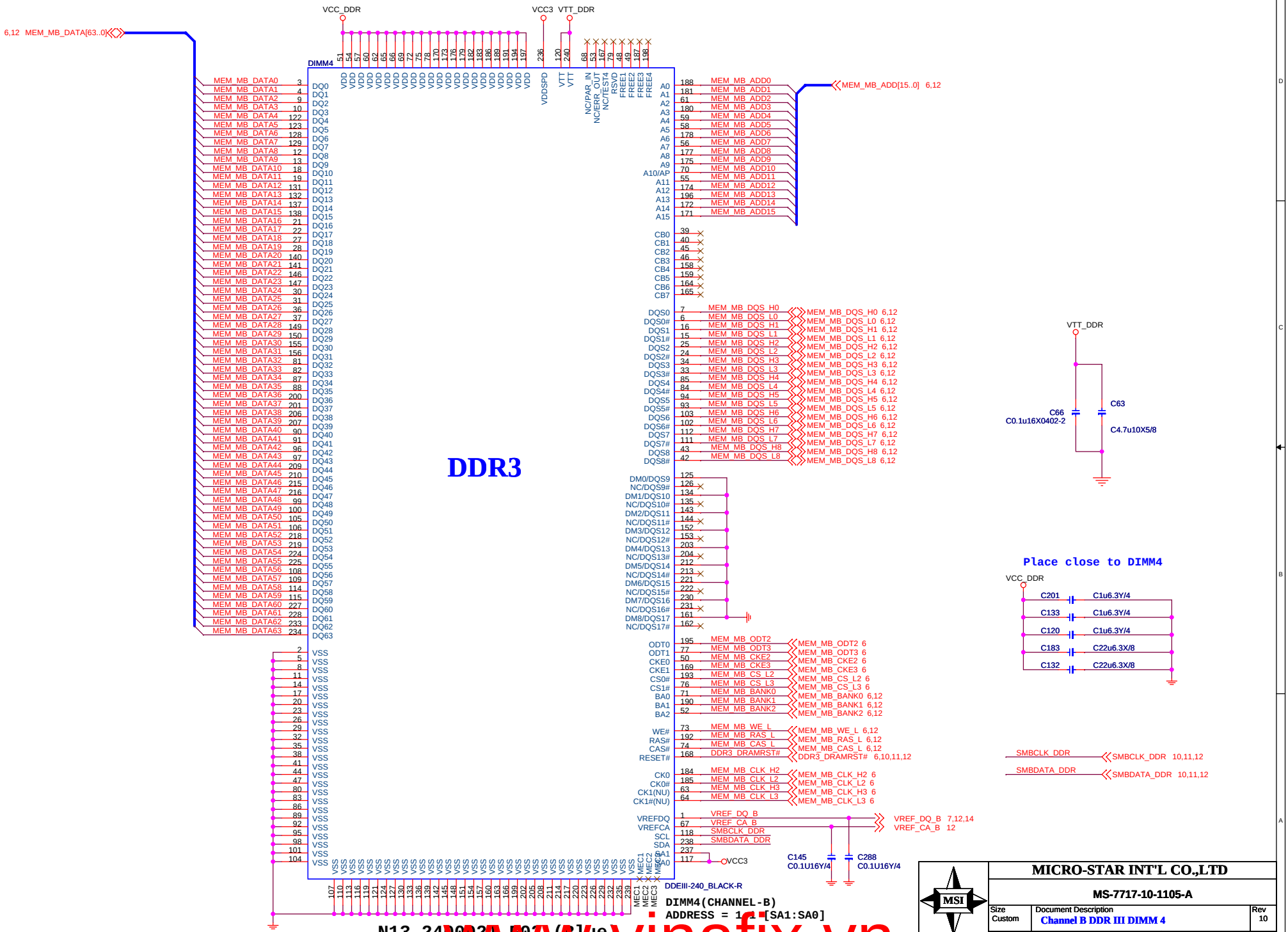
DDRIII DIMM_B2



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Size	Document Description	Rev
Custom	Channel B DDR III DIMM 4	10

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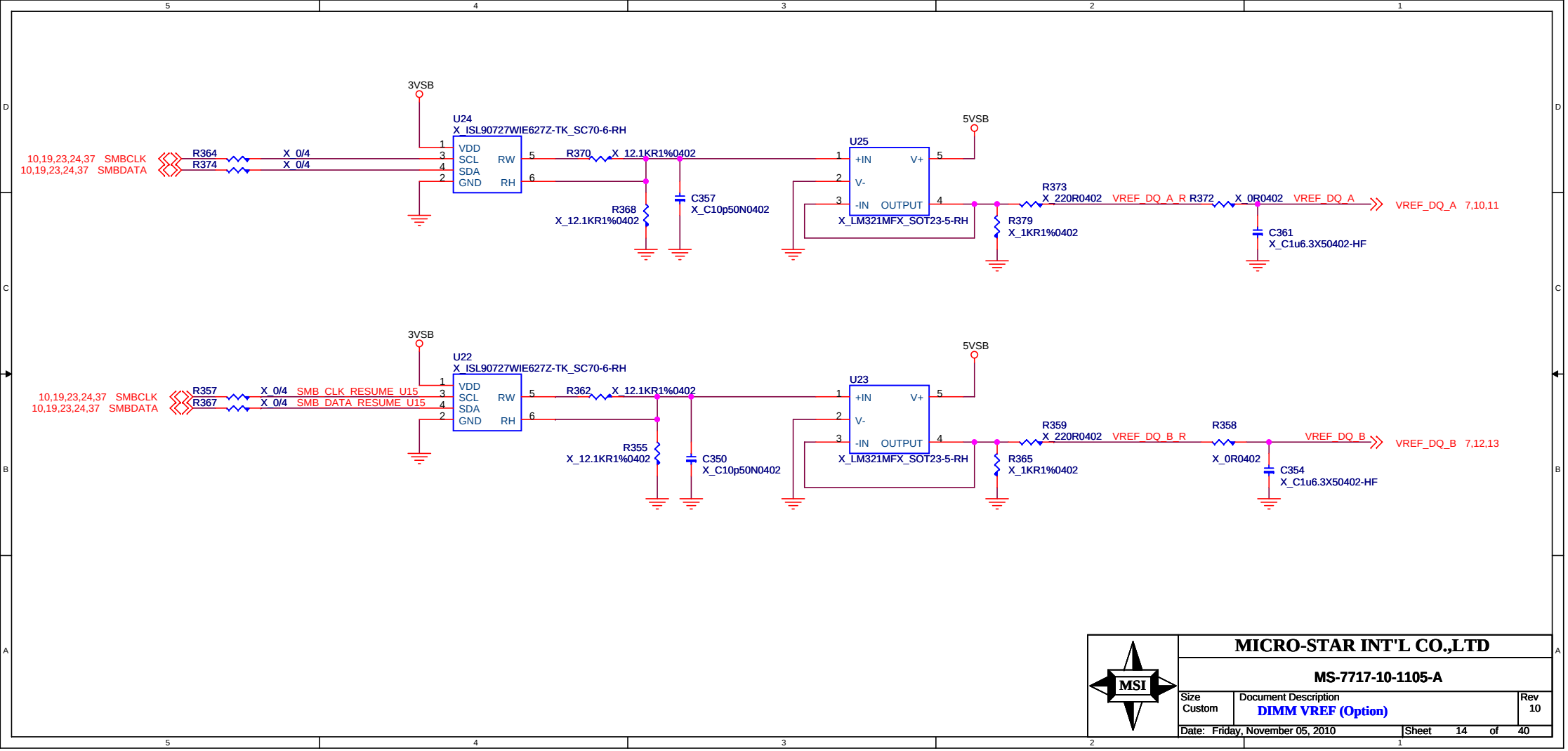

MICRO-STAR INT'L CO.,LTD		
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Size: Custom	Document Description: DIMM VREF (Option)	Rev: 10
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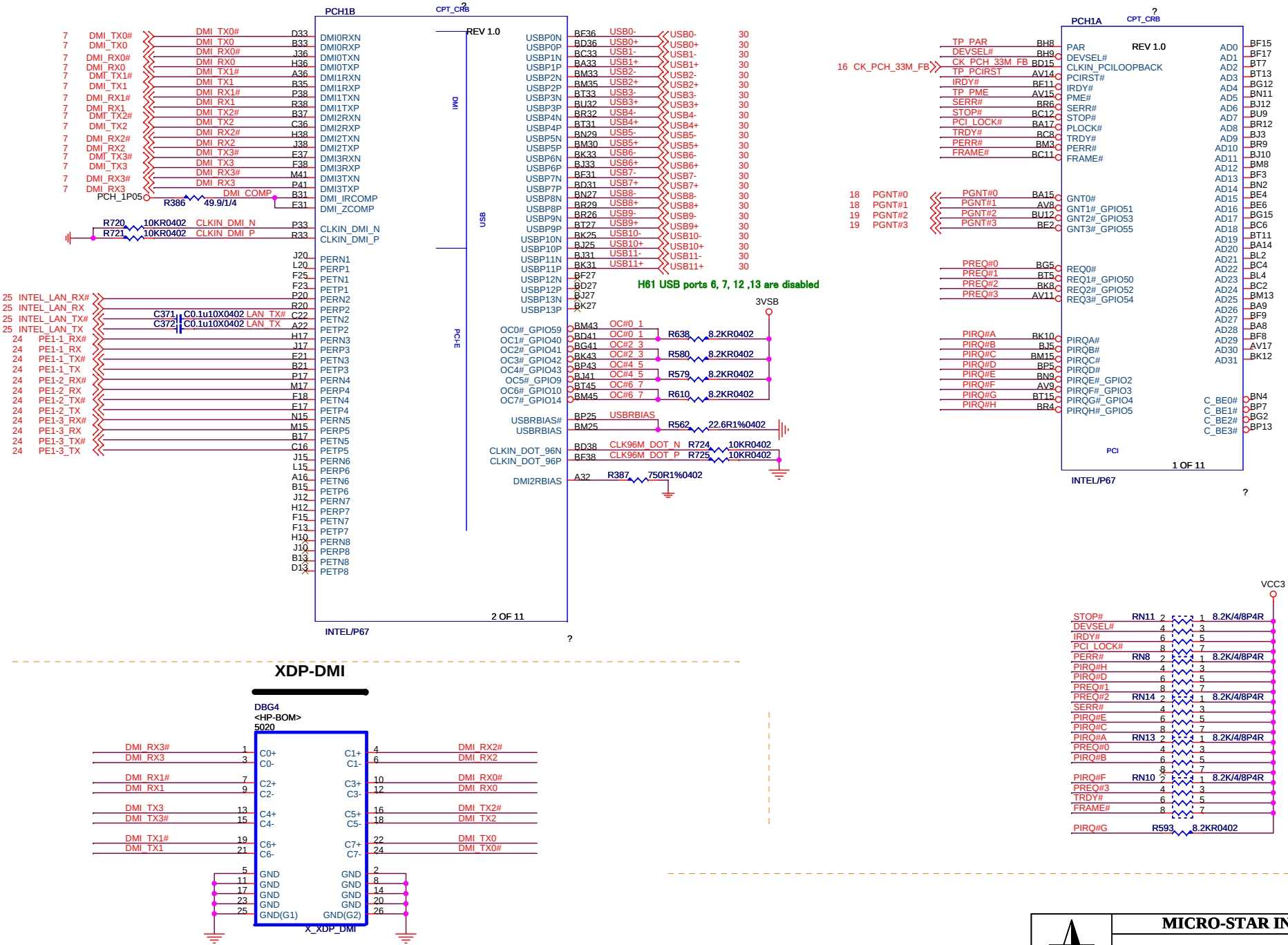

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Size: Custom	Document Description: PCH-PCI/E/DMI/USB
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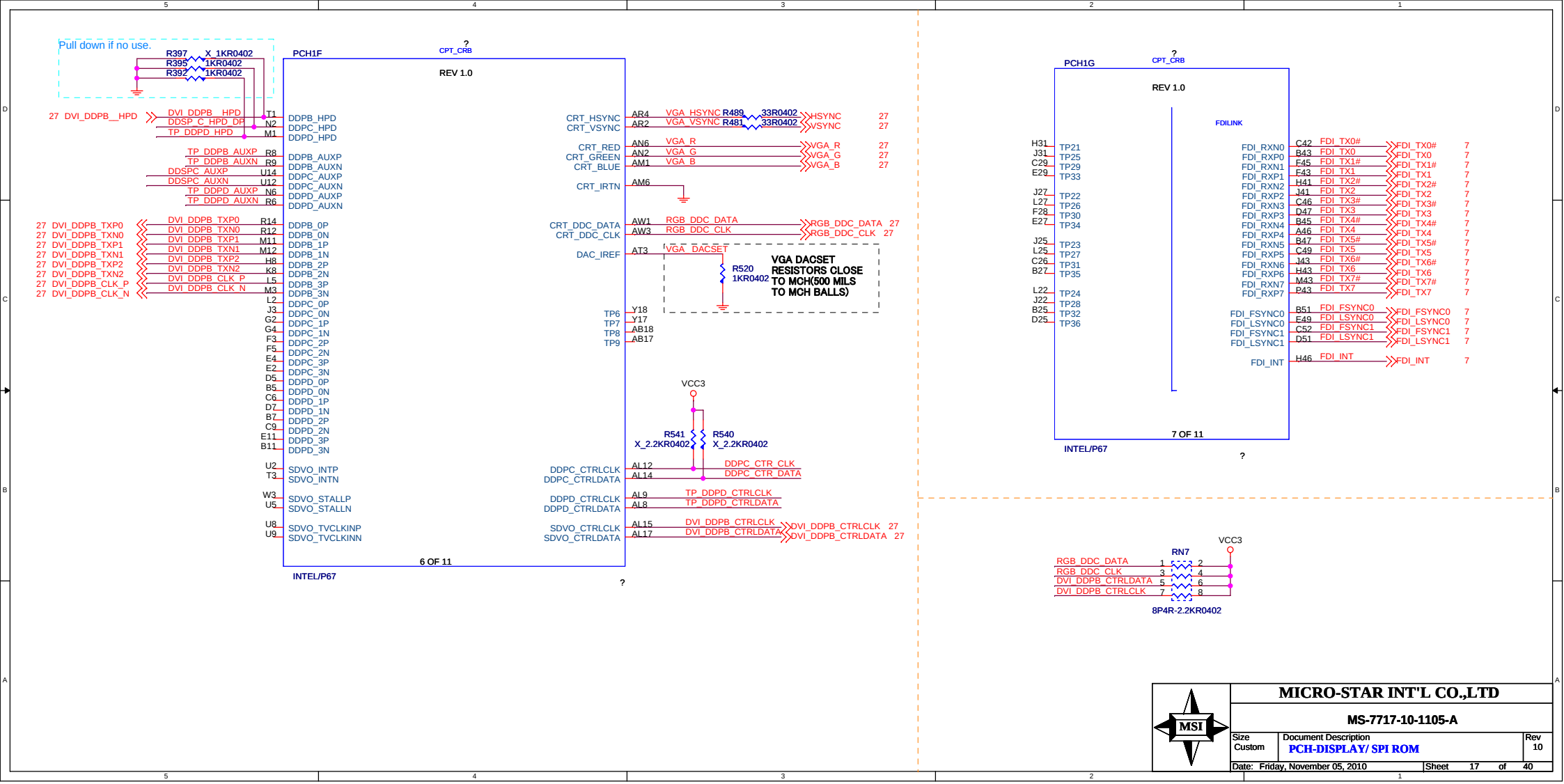
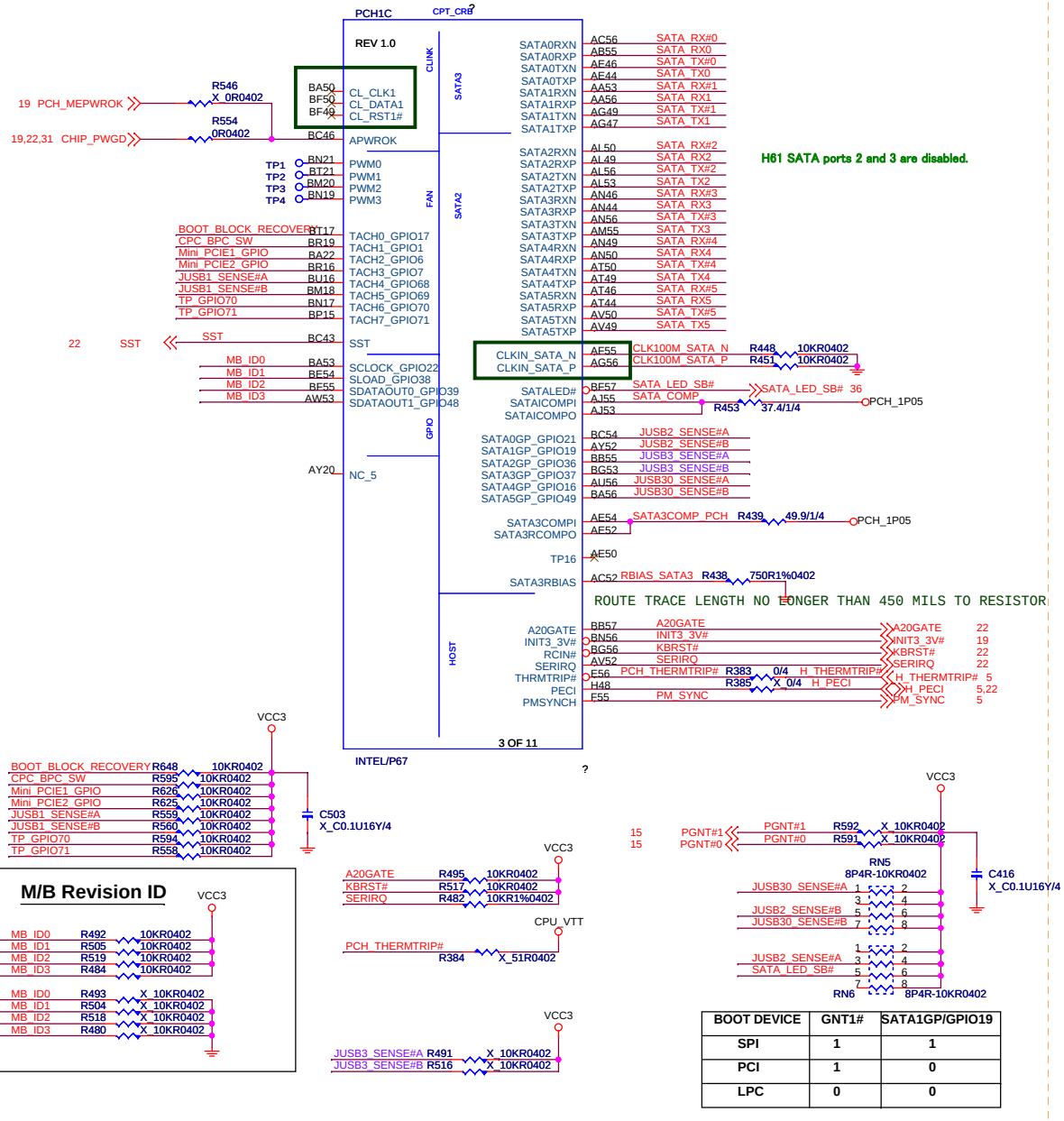
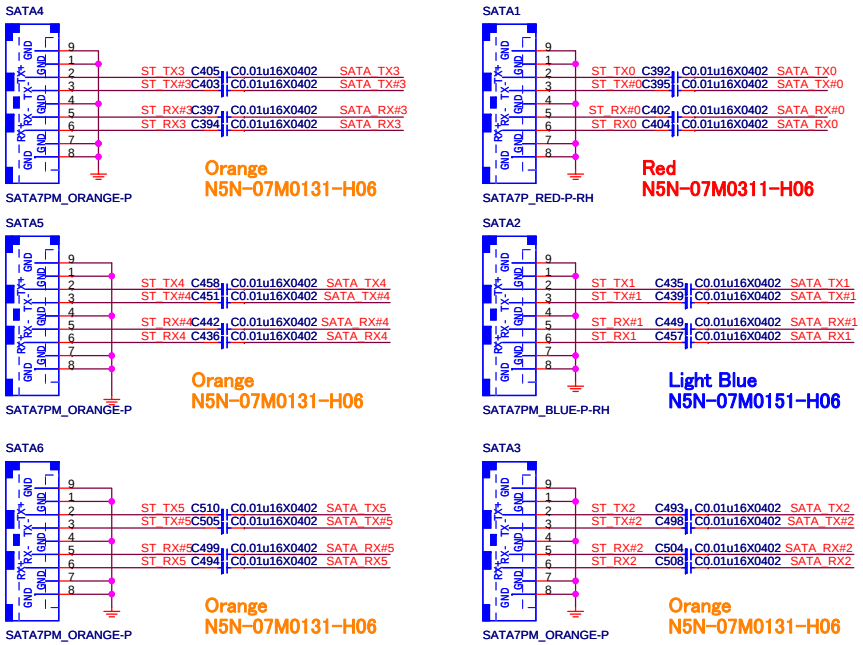




BOOT DEVICE	GNT1#	SATA1GP/GPIO19
SPI	1	1
PCI	1	0
LPC	0	0

SATA connector



SATA Master / Slave CFG	
Orange Secondary Slave (Port 3)	Red Primary Master (Port 0)
Orange Primary Master (Port 4)	Light Blue Secondary Master (Port 1)
Orange Secondary Master (Port 5)	Orange Primary Slave (Port 2)

SATA#0	Primary Master
SATA#1	Secondary Master
SATA#2	Primary Slave
SATA#3	Secondary Slave
SATA#4	Primary Master
SATA#5	Secondary Master

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REQUIRED STRAPS

SPKR R508 X_1KR0402 VCC3 — STUFF TO ENABLE NO-REBOOT OPTION AT POWER-UP (CONFIGURATION STRAPPING)

INIT3_3V R553 X_1KR0402 — INIT3_3# do not Pull low

PGNT#3 R590 X_1KR0402 VCC3 — Default Mode : Internal pull-up. Top Block Swap Mode: 4.7k Ohm weak pull-down resistor.

PCH_INTVRMEM R578 390KR0402 / R589 X_1KR0402 VBAT — INTEGRATED 1.05V SUS VRM ENABLE SUS VRM ENABLE WHEN SAMPLED HIGH

PGNT#2 R624 X_1KR0402 VCC3 — Do not pull low. ESI strap for server platform ONLY

R735 1KR0402 / R649 X_1KR0402 VCC3 3VSB; AZ_SDOUT_R; JBAT2 N31-1030151+N33-1020271 — HDA_SDO need to be pulled high to disable flash security and ME

OD_PLL_VR_EN R530 1KR0402 / R539 X_1KR0402 3VSB — The On-Die PLL voltage regulator is enabled when sampled high. Internal weak pull up. Do not pull low.

AZ_SYNC_R R627 X_1KR0402 3VSB — Internal weak pull down. Do not pull up.

PCH_GPIO15 R551 X_1KR0402 / R552 X_1KR0402 3VSB — Low = Intel ME Crypto Transport Layer Security (TLS) cipher suite with no confidentiality; High = Intel ME Crypto TLS cipher suite with confidentiality; This signal has a weak internal pull-down. NOTE: The weak internal pull-down is disabled after RSMRST# deasserts. NOTE: A strong pull-up may be needed for GPIO functionality

TLS CONFIDENTIALITY DISABLE: DISABLED WHEN SAMPLED LOW; Default (Disable TLS)

DSWODVREN R608 390KR0402 VBAT — If strap is sampled high, the Integrated Deep S4/S5 Well (DSW) On-Die VR mode is enabled

GPIO8 — 3VSB — BTM : Leave floating. Do not pull low. FCIM : Pull low with 1k Ohm to ground.
IGC_EN_N R616 X_10KR0402 / R644 1K/1%/4

SPI_MOSI R474 X_8.2K/4 / R473 X_4.7K/4 VCC3 — Internal weak pull down.Do not pull high DMI RX Termination Voltage PDG Rev1_01 page404

PDG Rev1.01 P397 changed

PCH_MEPWROK

RTC Block

C485 C15p50N; RTCX1; Y3 32.768KHZ12.5p_S-RH-8; RTCX2; R556 10MR/6; C486 C15p50N — Close to PCH

VBAT; R621 20KR0402-2; SRTCRST#; C484 C1u16X5

RTC Block

CMOS CLEAR JUMPER

1 - 2	Normal
2 - 3	Clear CMOS

20mil; R512 20KR1%0402; D24 S-BAT54C; R459 0R0402; R460 X_1KR1%0402; R461 X_2KR1%0402; R462 1K/1%/4; C452 X_C1u10X; C456 C1u10X; BAT1 BAT2P_BLACK-RH; JBAT1 H1X3M_BLACK-RH — Close to PCH

客戶PPT要求問客戶阻值是否可以增加因爲會耗電

SPI DEBUG PROT

Close to SPI ROM

JSPI1; H2X5[1]_BLACK-RH

N31-2051451-H06

SPI FLASH ROM

U29; W25Q32BVSSIG-HF; From South-Bridge GPIO32

N31-25Q3203-W03

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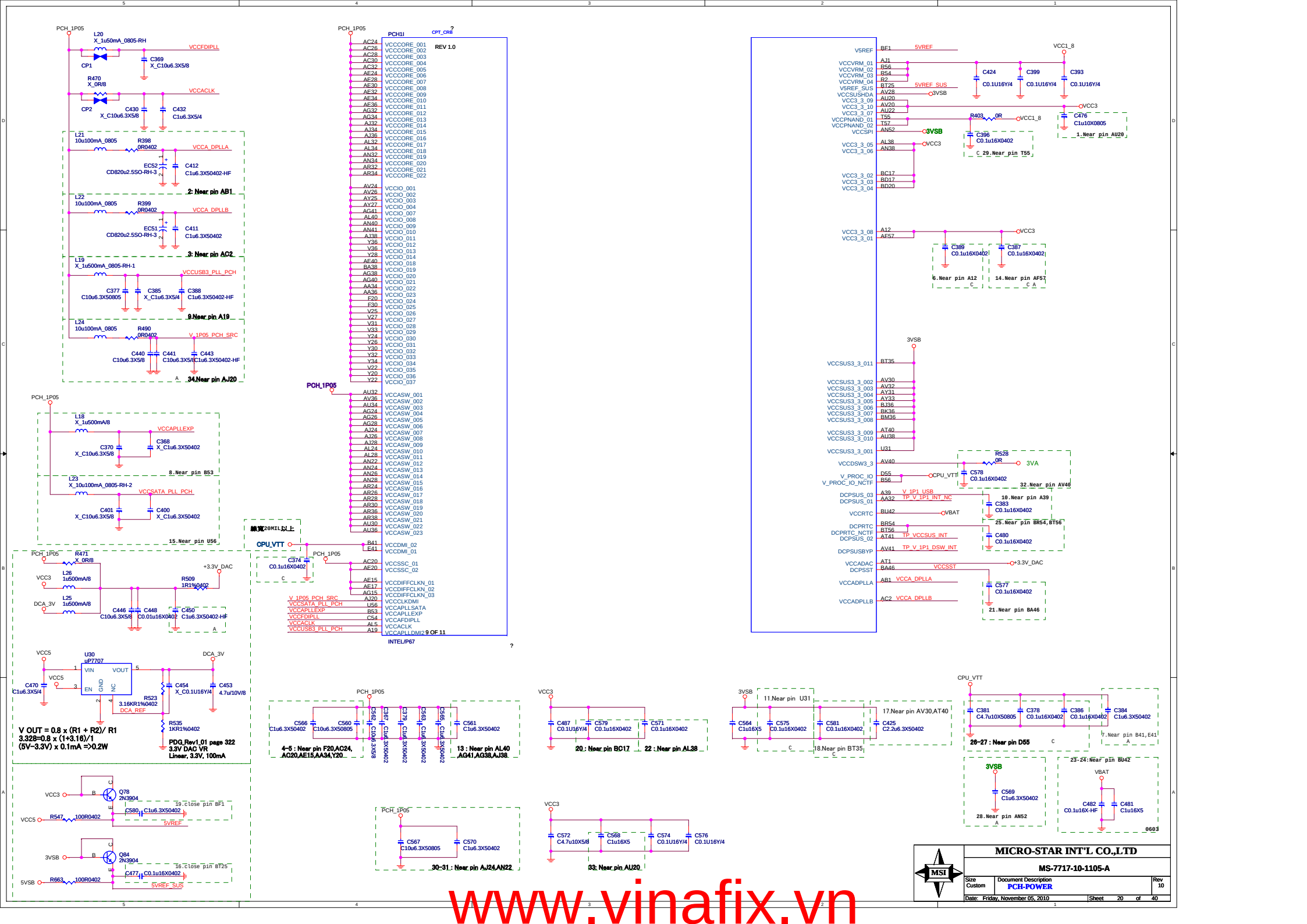

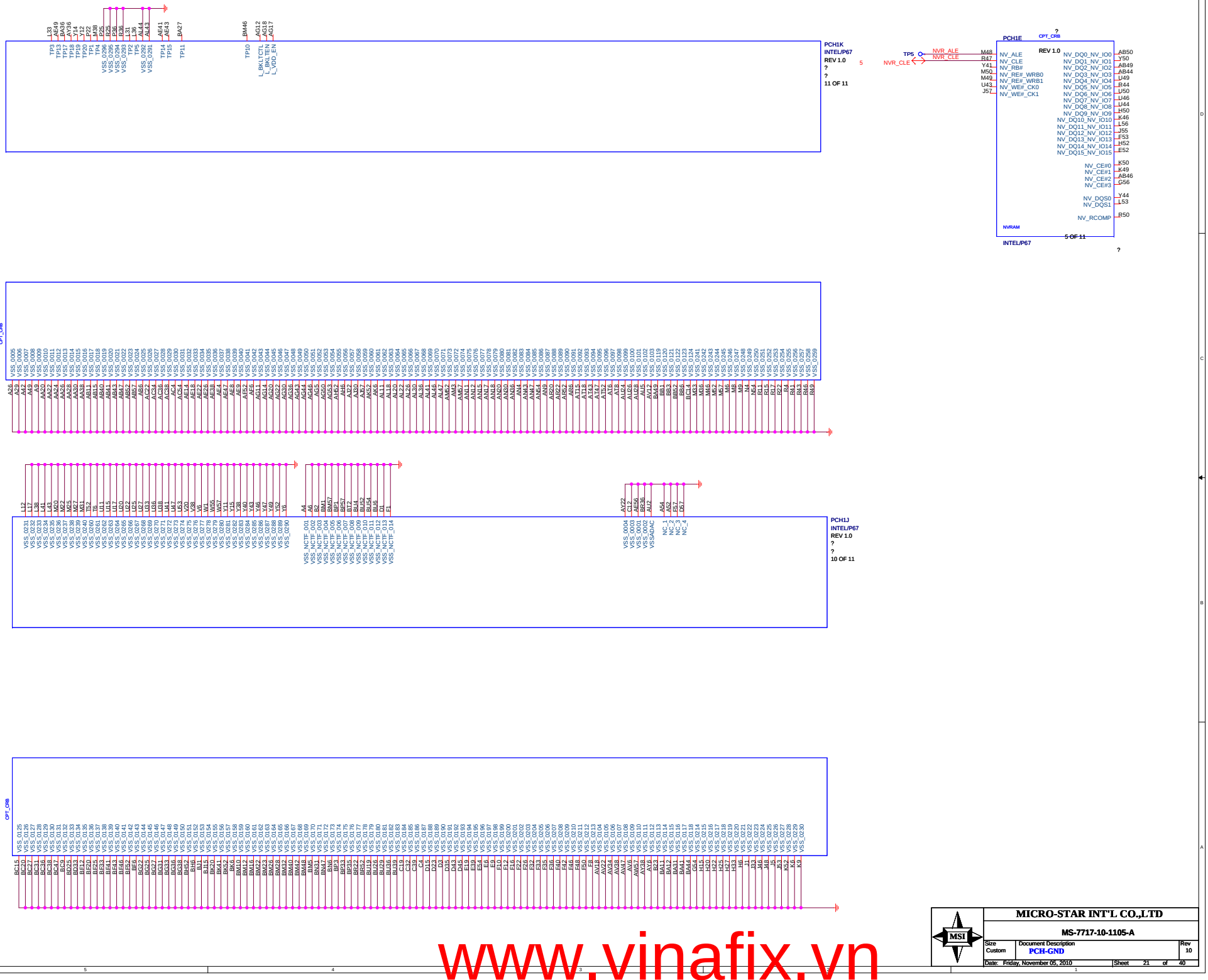

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MS-7717-10-1105-A		
Size: Custom	Document Description: PCH-GND	Rev: 10
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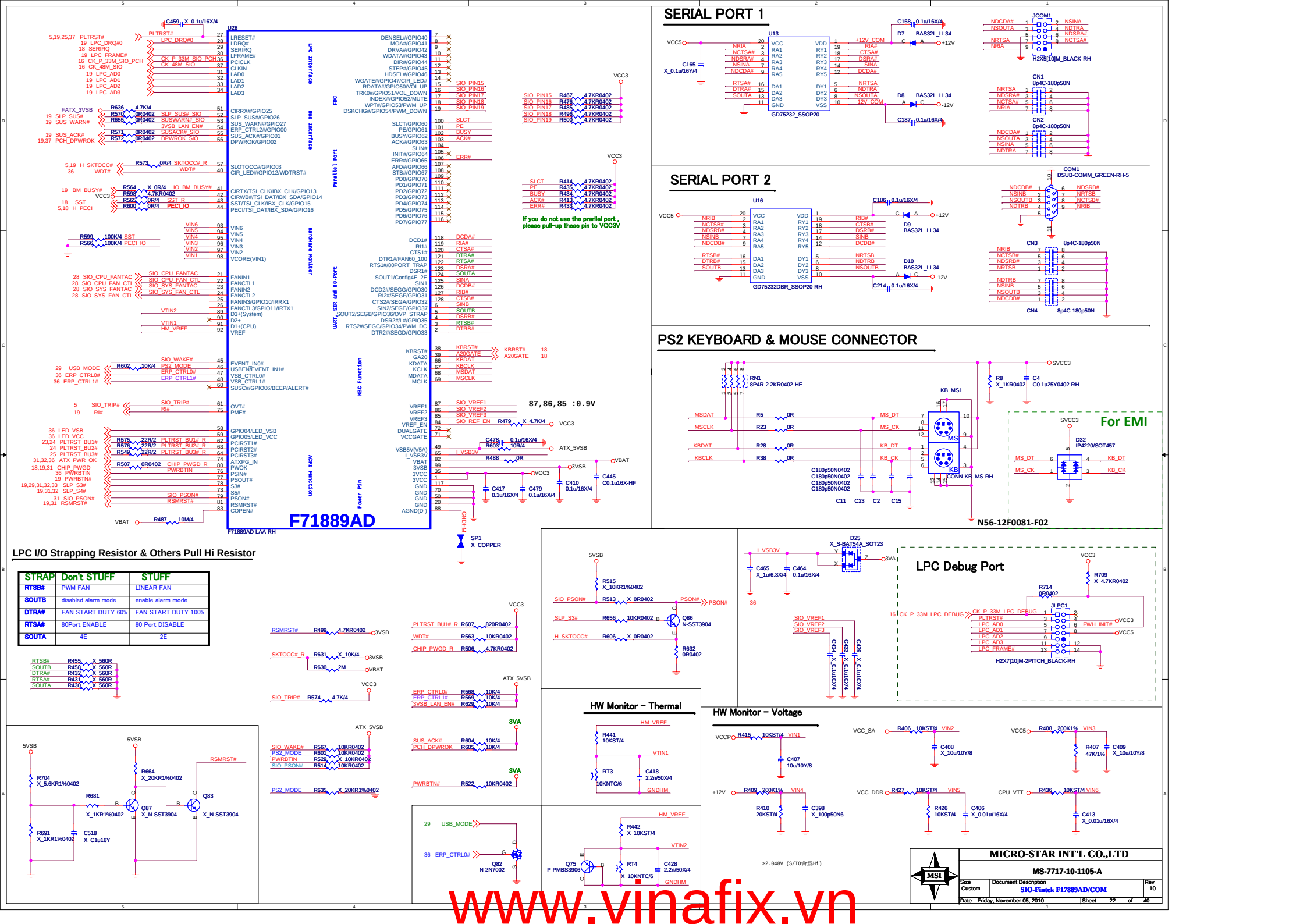
SERIAL PORT 1
SERIAL PORT 2
PS2 KEYBOARD & MOUSE CONNECTOR
F71889AD
F71889AD-LAA-RH
LPC I/O Strapping Resistor & Others Pull Hi Resistor
STRAP | Don't STUFF | STUFF
RTSB# | PWM FAN | LINEAR FAN
SOUTB | disabled alarm mode | enable alarm mode
DTRA# | FAN START DUTY 60% | FAN START DUTY 100%
RTSA# | 80Port ENABLE | 80 Port DISABLE
SOUTA | 4E | 2E
LPC Debug Port
HW Monitor - Thermal
HW Monitor - Voltage
For EMI
N56-12F0081-F02
MICRO-STAR INT'L CO.,LTD
MS-7717-10-1105-A
SIO-Fintek F71889AD/COM
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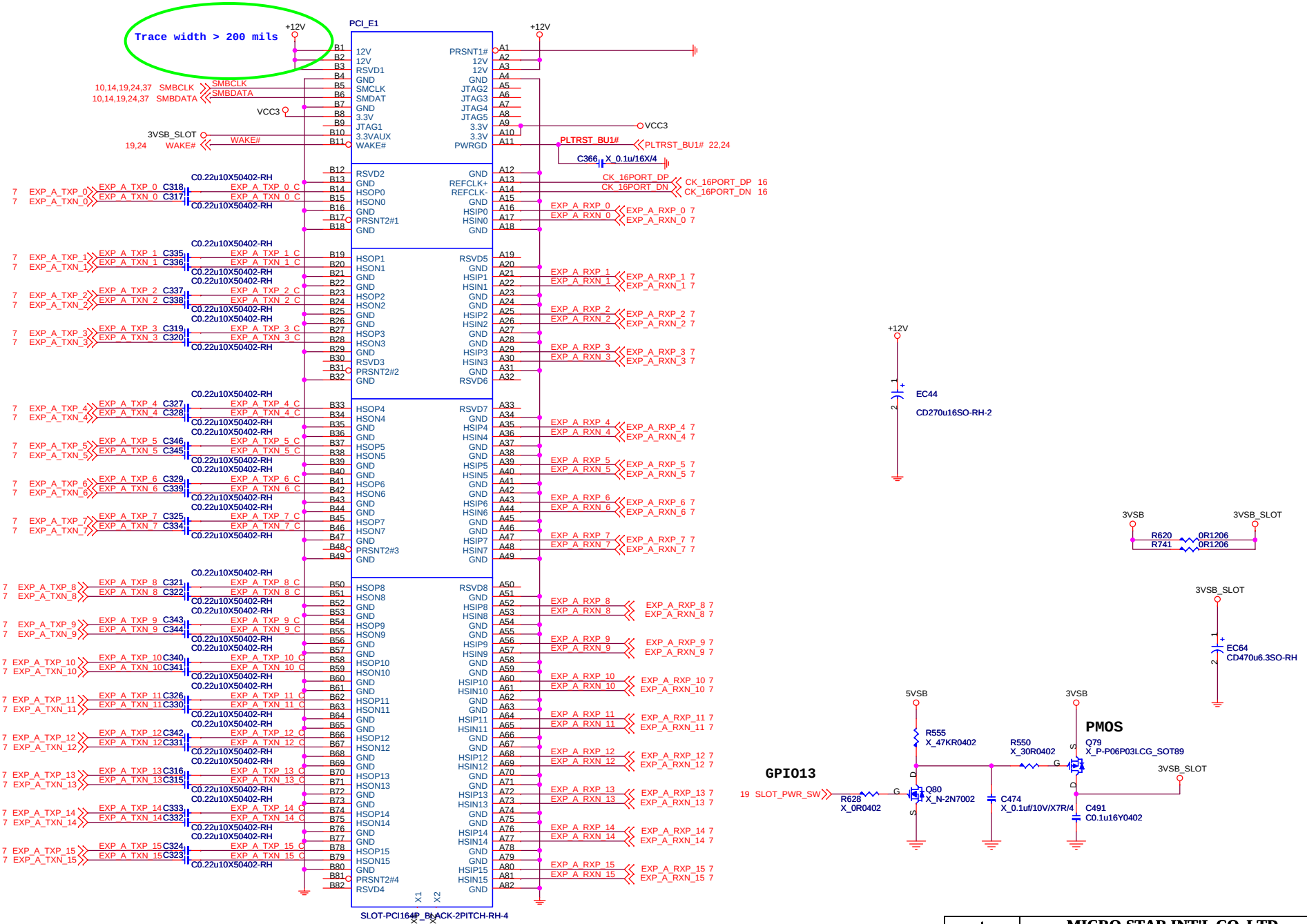
PCI_Express X16 Slot



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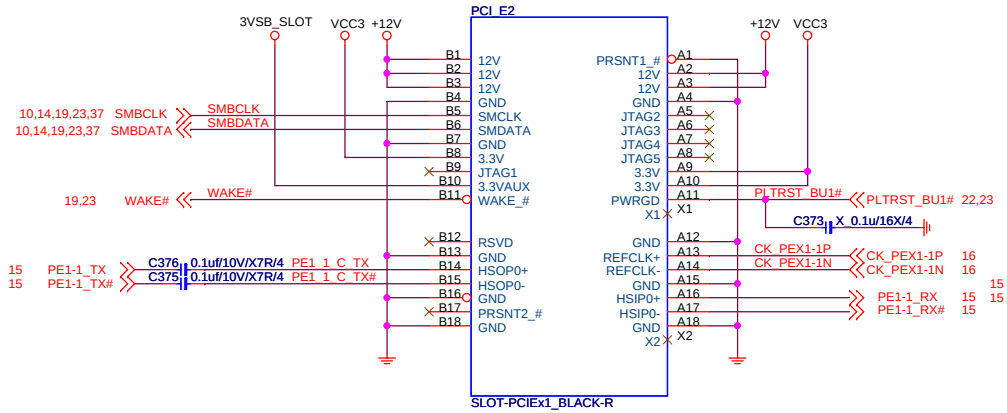
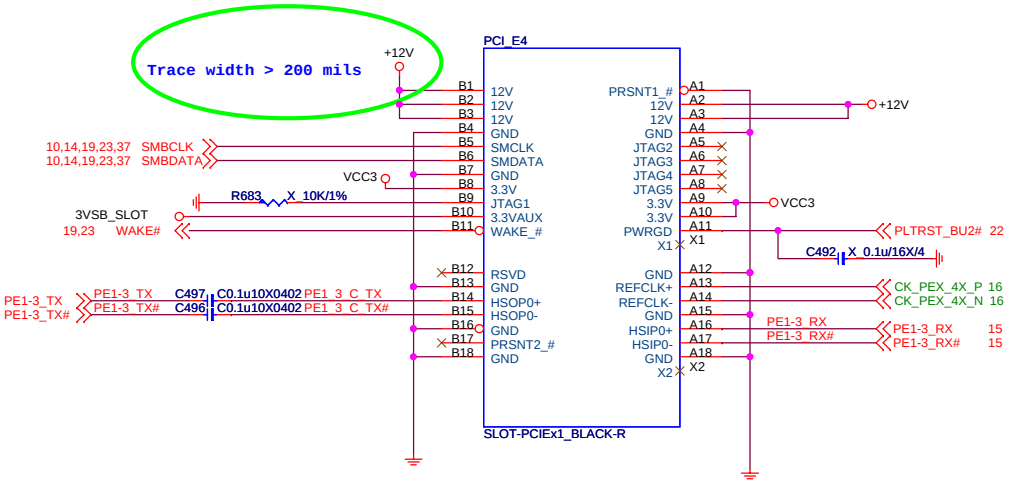
PCI EXPRESS x1-PORT1

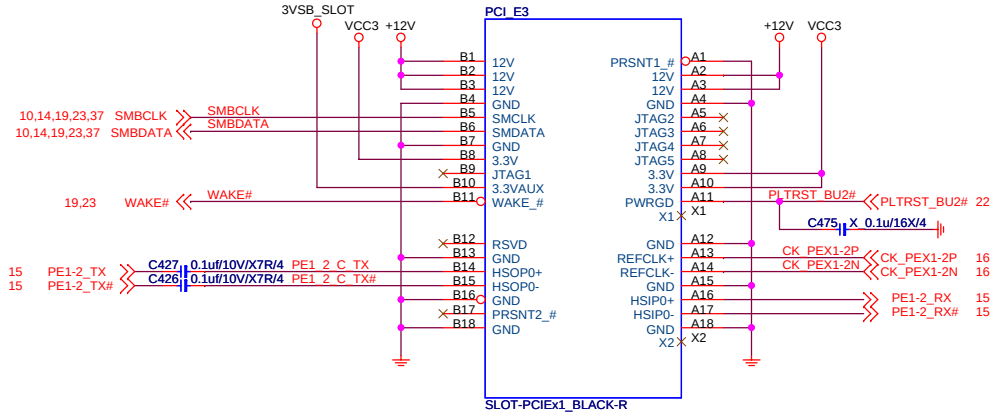


N11-0360281-K06

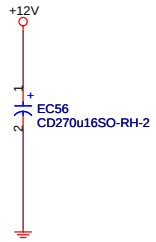
PCI_Express X4 Slot



PCI EXPRESS x1-PORT2



N11-0360281-K06



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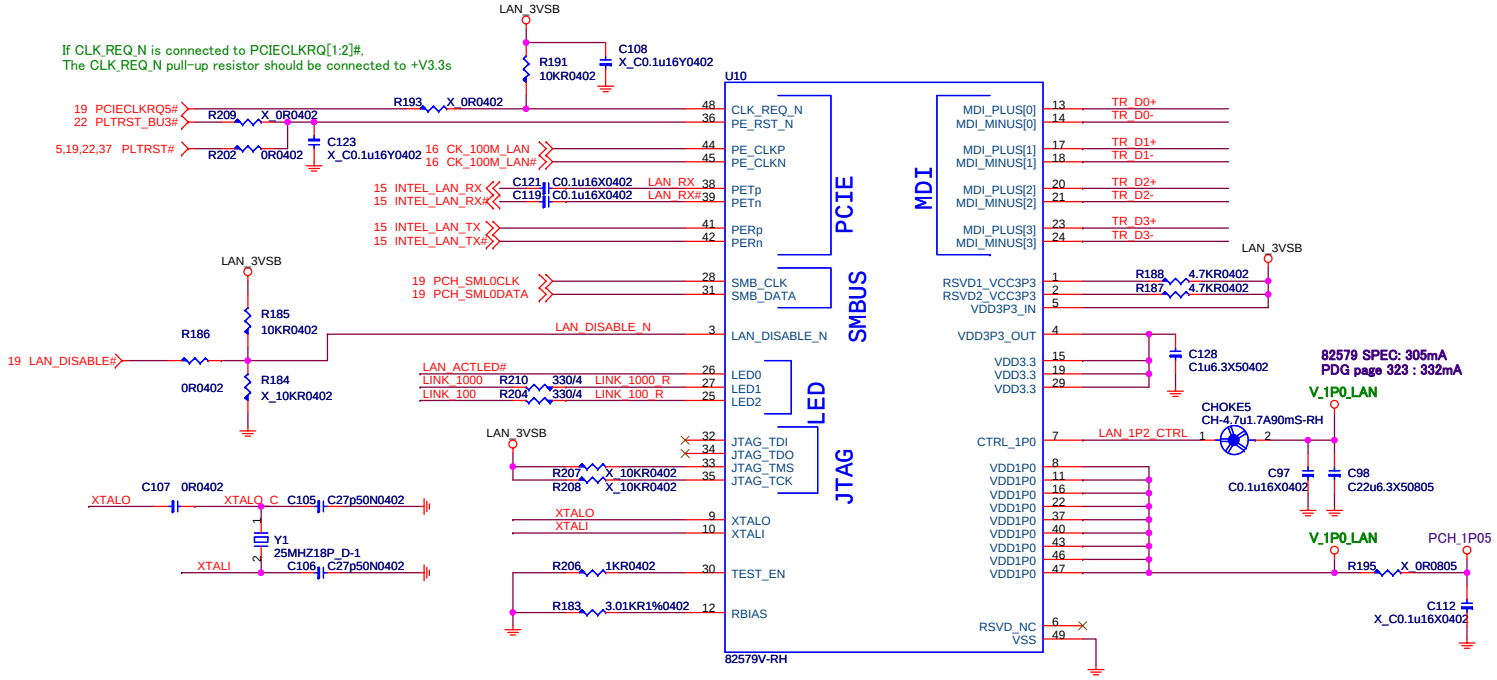
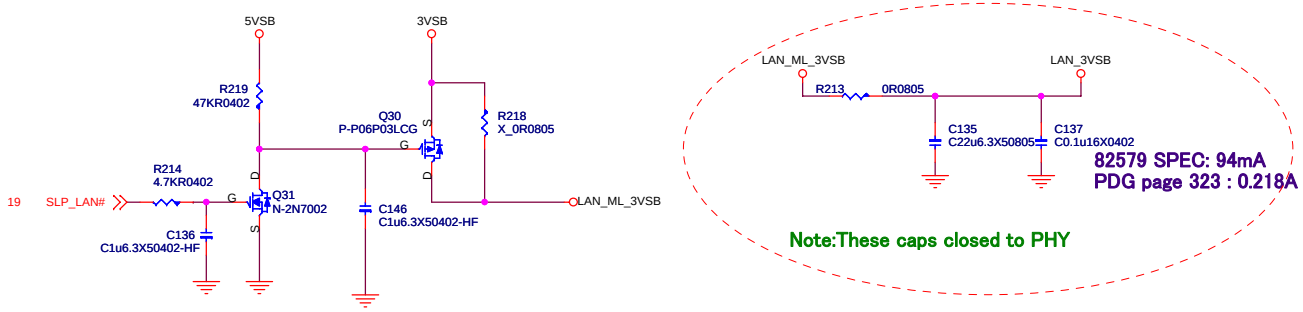
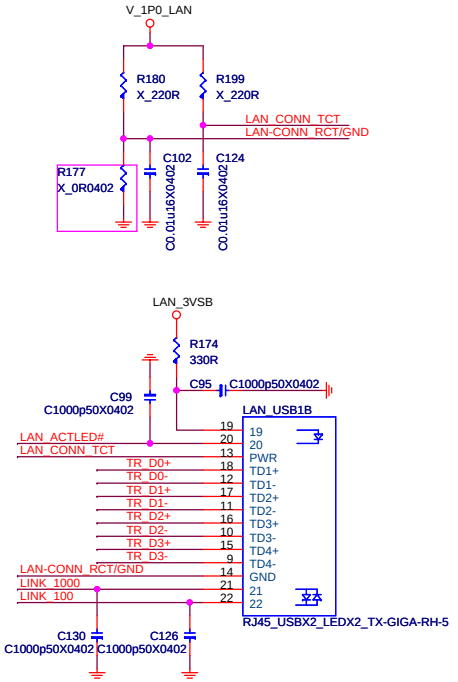
Gigabit LAN INTEL 82579



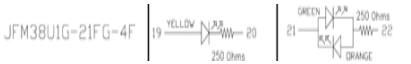
LAN Power



LAN Connector



N58-22F0731-F02



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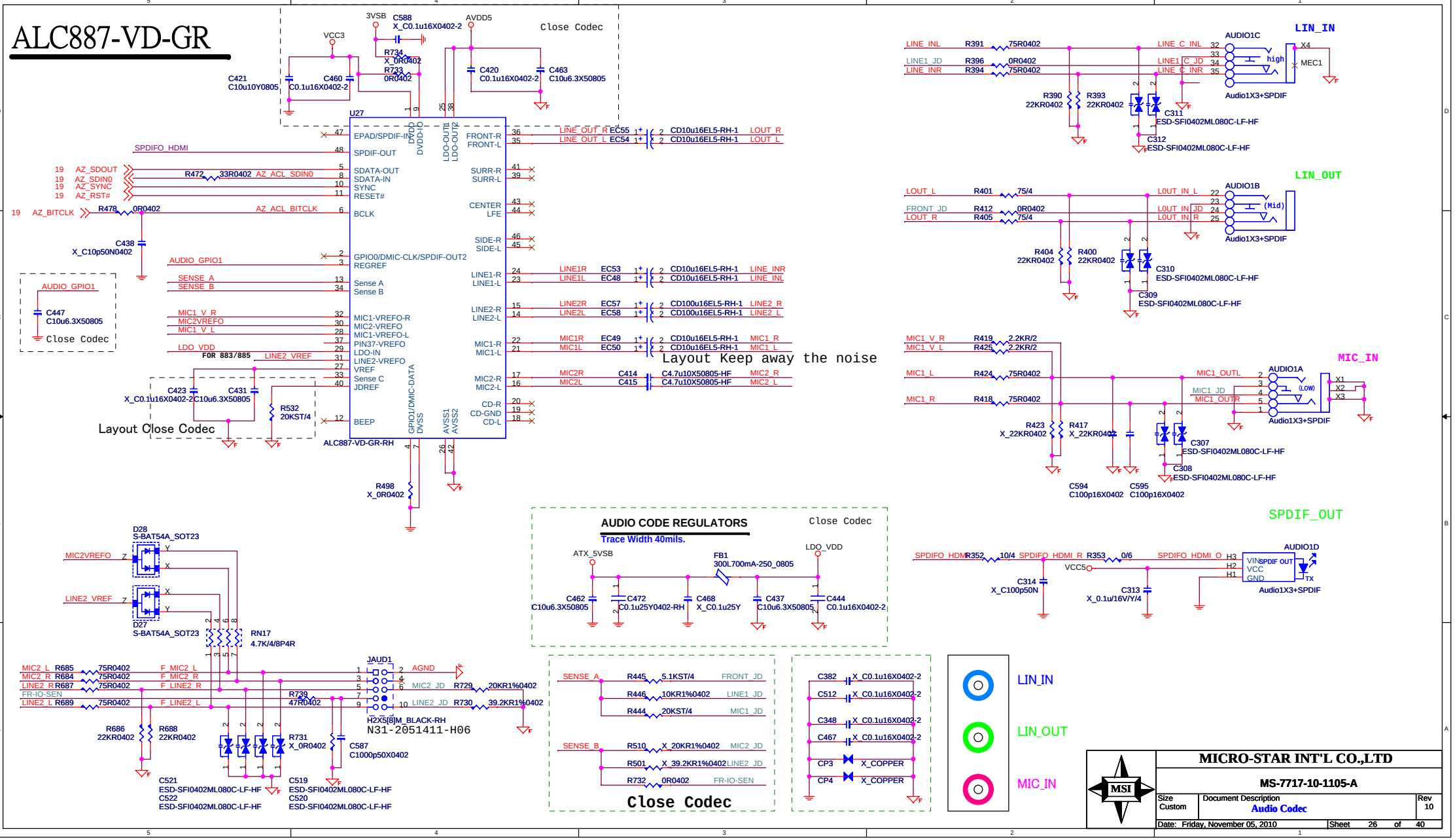
ALC887-VD-GR



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Custom	Audio Codec	10

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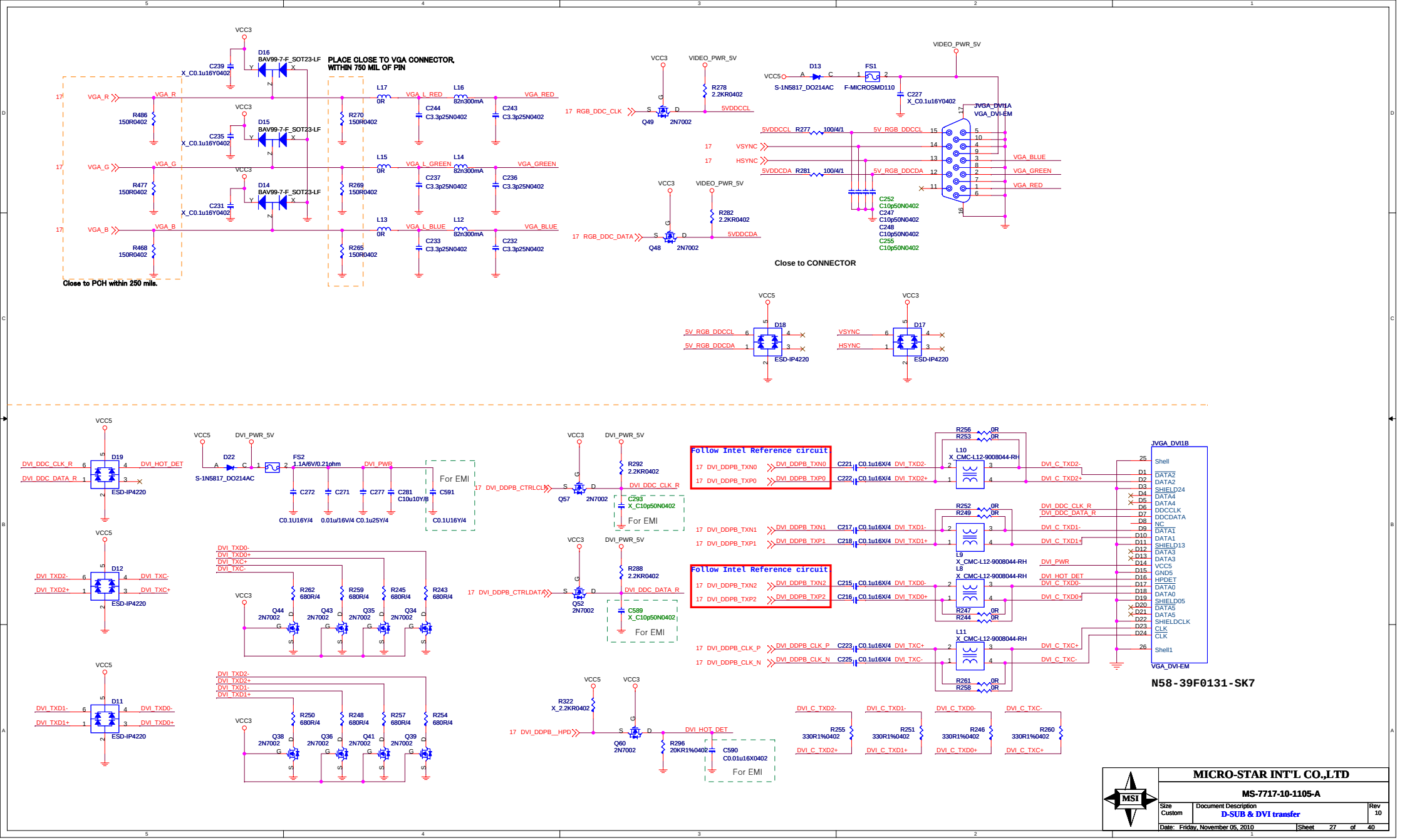

MICRO-STAR INT'L CO.,LTD

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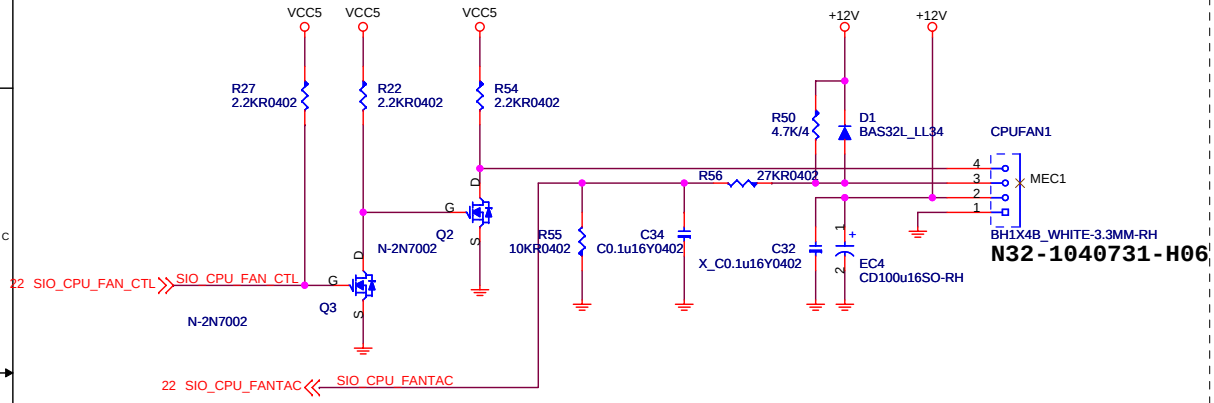
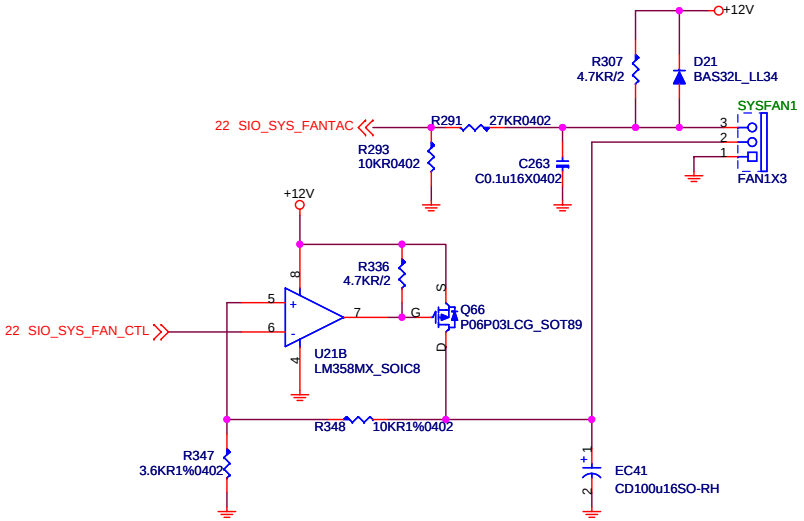
FAN-COUNTROL CIRCUIT





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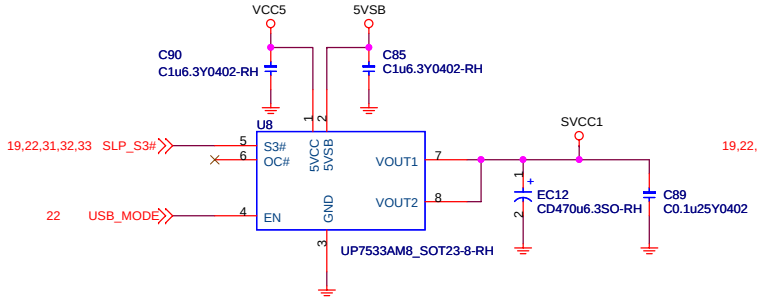
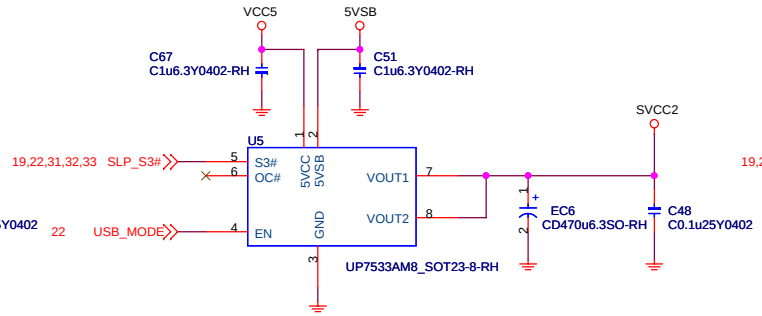
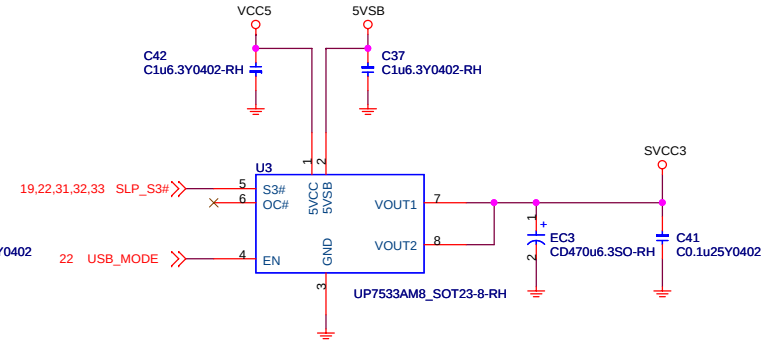
POWER CIRCUIT FOR USB PORT 10, 11



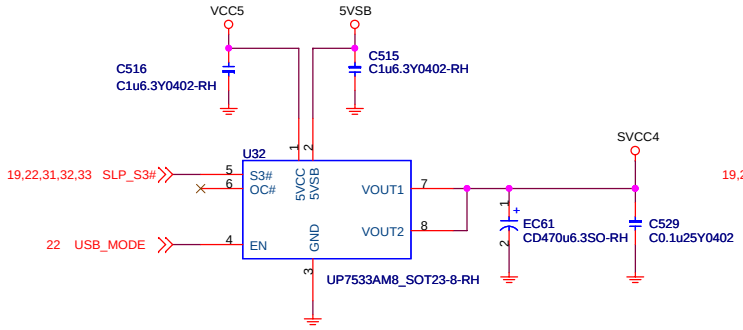
POWER CIRCUIT FOR USB PORT 4, 5



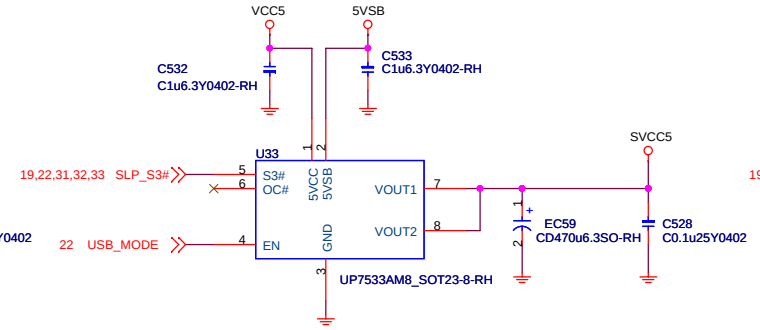
POWER CIRCUIT FOR USB PORT 0, 1



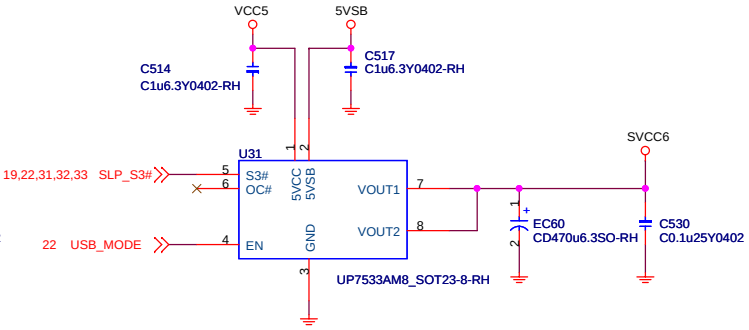
POWER CIRCUIT FOR USB PORT 2, 3

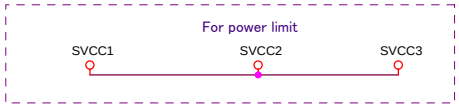


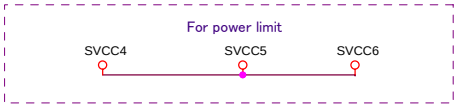
POWER CIRCUIT FOR USB PORT 6, 7



POWER CIRCUIT FOR USB PORT 8, 9







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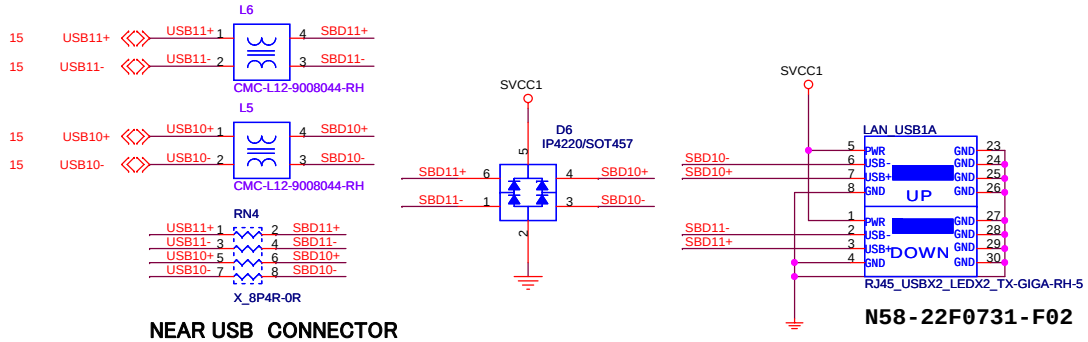
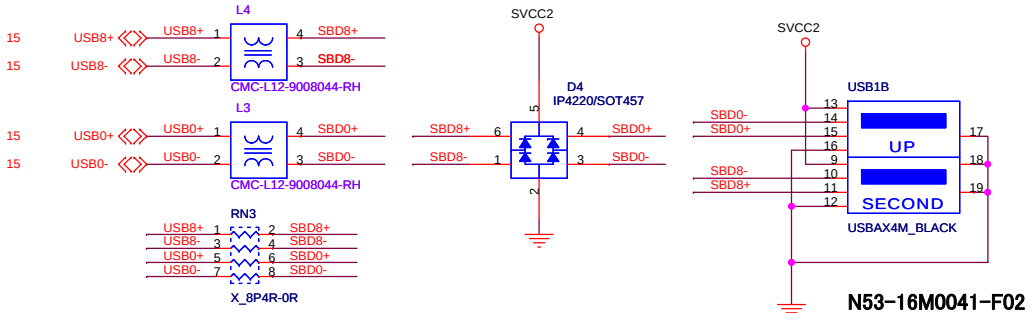
REAR PANEL USB CONNECTOR FOR USB PORT 10,11



NEAR USB CONNECTOR

N58-22F0731-F02

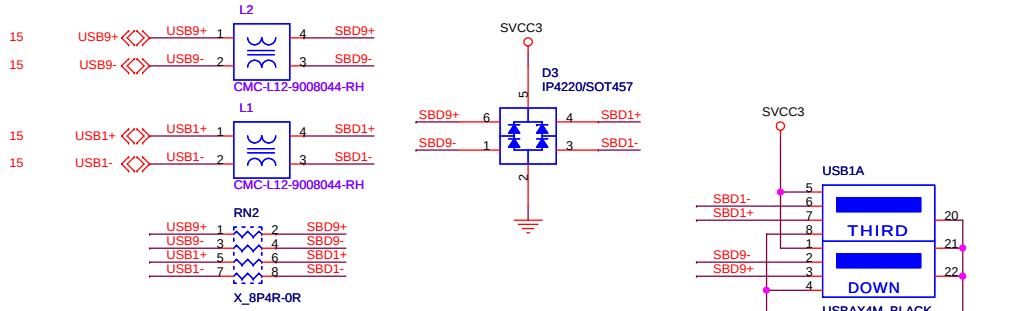
REAR PANEL USB CONNECTOR FOR USB PORT 0,8



NEAR USB CONNECTOR

N53-16M0041-F02

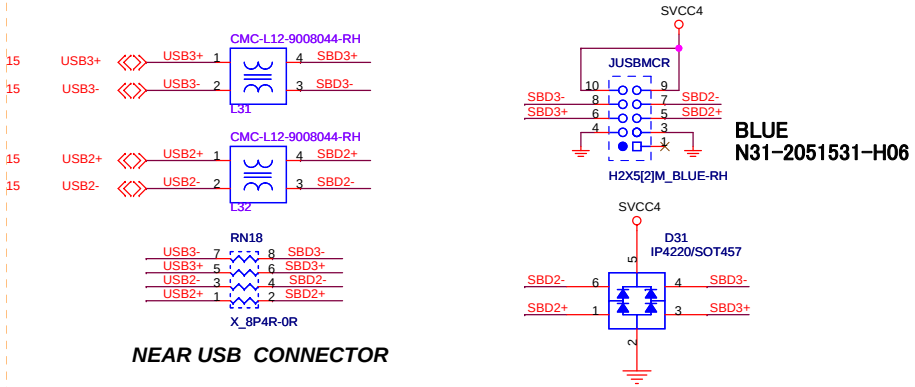
REAR PANEL USB CONNECTOR FOR USB PORT 1,9



NEAR USB CONNECTOR

N53-16M0041-F02

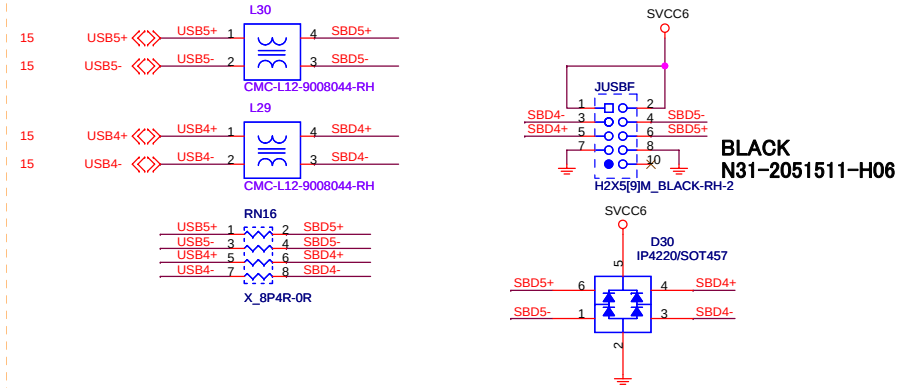
FRONT PANEL USB CONNECTOR FOR USB PORT 2,3



NEAR USB CONNECTOR

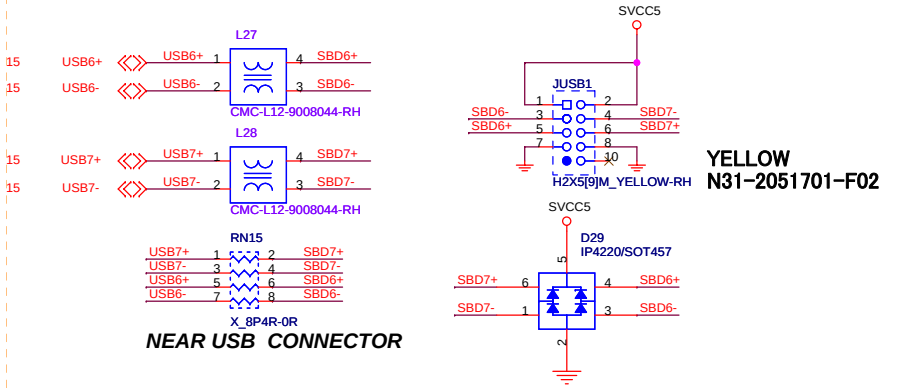
BLUE
N31-2051531-H06

FRONT PANEL USB CONNECTOR FOR USB PORT 12,13



BLACK
N31-2051511-H06

FRONT PANEL USB CONNECTOR FOR USB PORT 6,7



NEAR USB CONNECTOR

YELLOW
N31-2051701-F02

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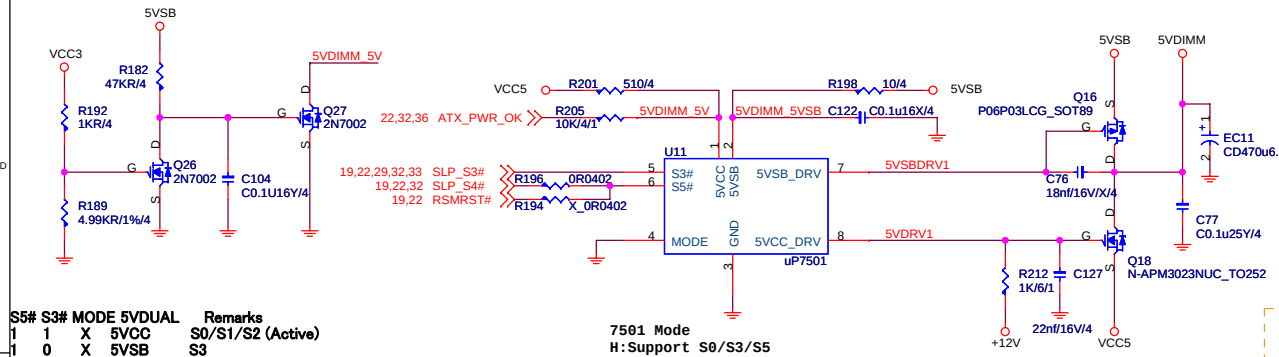
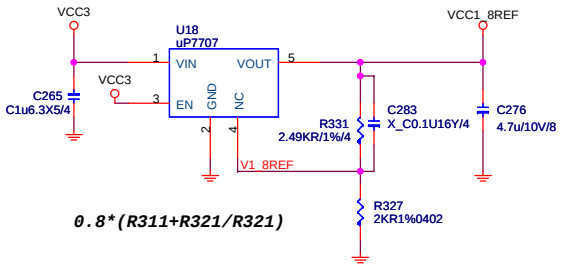
5VDIMM FOR DDR



S5#	S3#	MODE	5VDUAL	Remarks
1	1	X	5VCC	S0/S1/S2 (Active)
1	0	X	5VSB	S3
0	X	1	5VSB	S4/S5
0	X	0	Shutdown	S4/S5

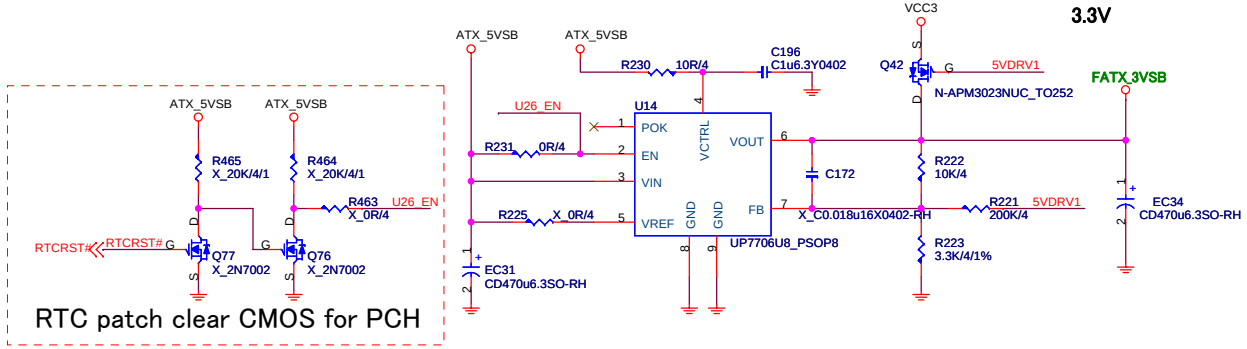
7501 Mode
H:Support S0/S3/S5
L:Support S0/S3

VCC1_8REF

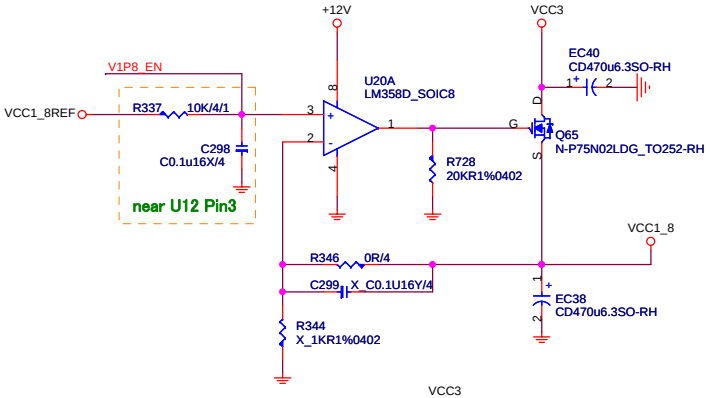


DSW_3VSB

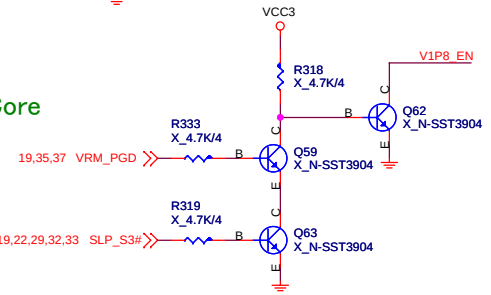
3.3V



1.8 V Power For CPU & PCH

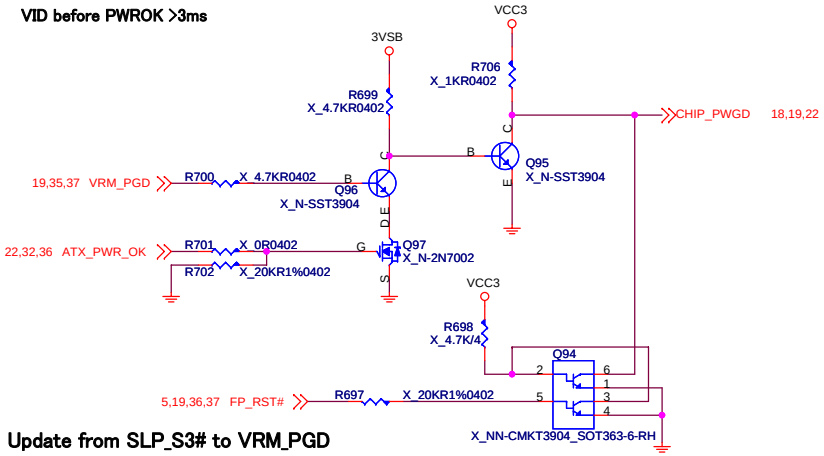


CPUVtt & PCH VCore wait 1.8v

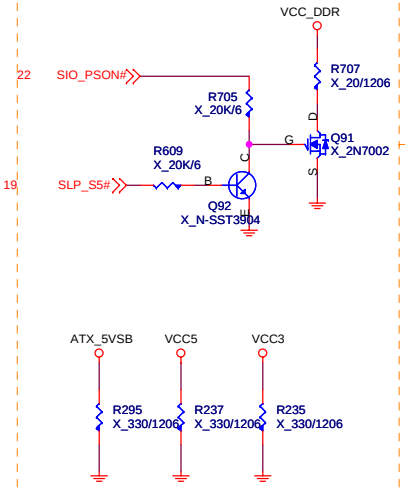


PWROK DELAY

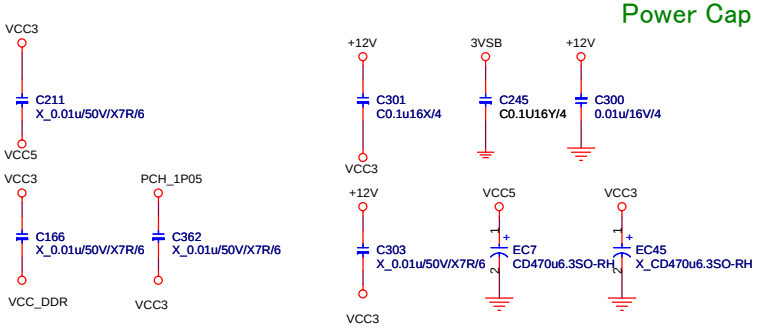
VID before PWROK >3ms



Discharge Circuit



Power Cap



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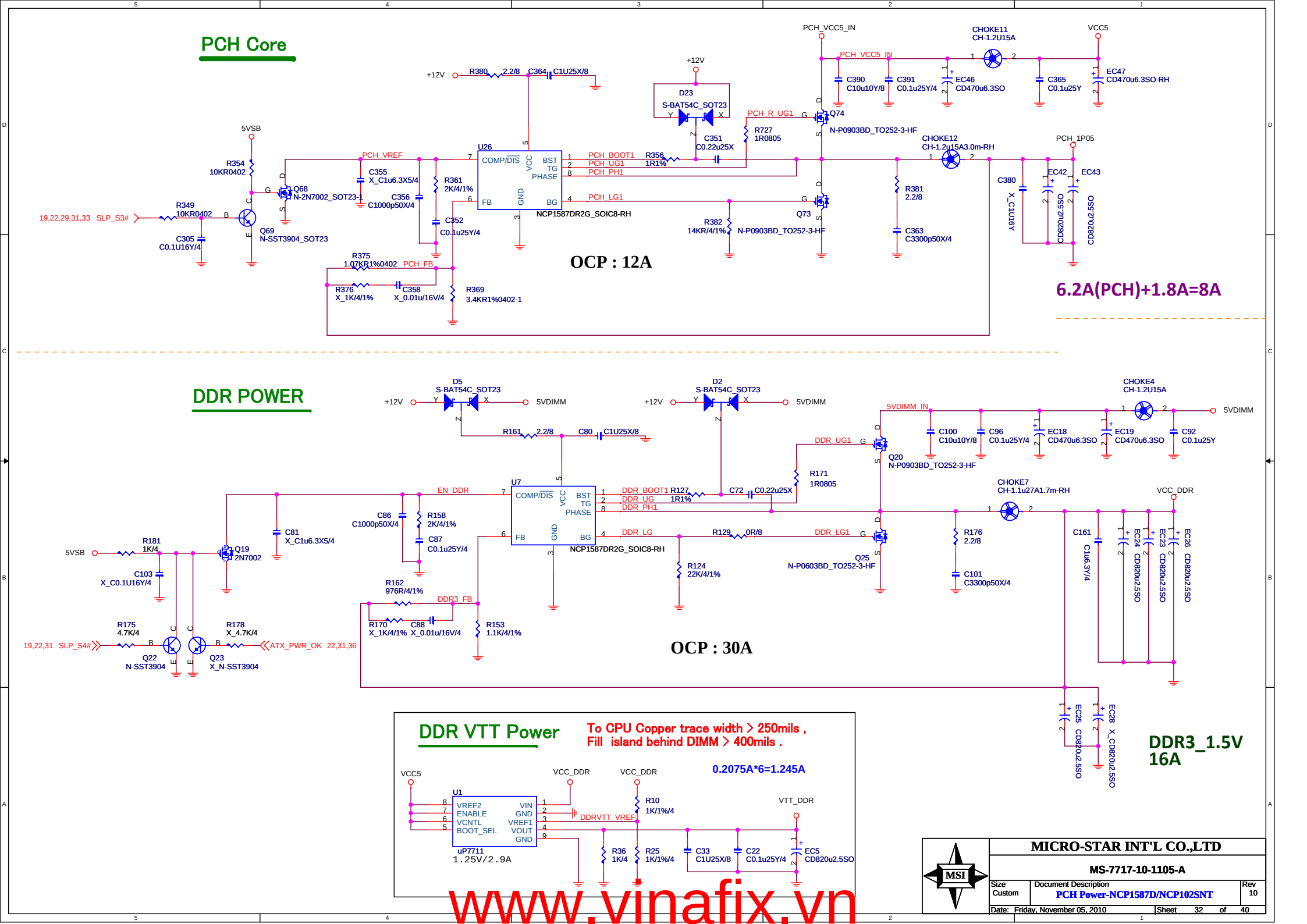
PCH Core
PCH_VCC5_IN
CHOKE11
CH-1.2U15A
VCC5
+12V
R380 2.2/8
C364 C1U25X/8
D23
S-BAT54C_SOT23
C390 C10u10Y/8
C391 C0.1u25Y/4
EC46 CD470u6.3SO
C365 C0.1u25Y
EC47 CD470u6.3SO-RH
PCH_R_UG1
Q74
N-P0903BD_TO252-3-HF
R727 1R0805
C351 C0.22u25X
5VSB
R354 10KR0402
PCH_VREF
C355 X_C1u6.3X5/4
C356 C1000p50X/4
R361 2K/4/1%
C352 C0.1u25Y/4
U26
COMP/DIS
VCC
BST
TG
PHASE
FB
GND
BG
PCH_BOOT1
PCH_UG1
PCH_PH1
PCH_LG1
R356 1R1%
NCP1587DR2G_SOIC8-RH
CHOKE12
CH-1.2u15A3.0m-RH
PCH_1P05
R381 2.2/8
C363 C3300p50X/4
C380 X_C1U16Y
EC42
EC43
CD820u2.5SO
R382 14KR/4/1%
N-P0903BD_TO252-3-HF
Q73
Q68 N-2N7002_SOT23-1
Q69 N-SST3904_SOT23
R349 10KR0402
19,22,29,31,33 SLP_S3#
C305 C0.1U16Y/4
R375 1.07KR1%0402
PCH_FB
R376 X_1K/4/1%
C358 X_0.01u/16V/4
R369 3.4KR1%0402-1
OCP : 12A
6.2A(PCH)+1.8A=8A
DDR POWER
D5
S-BAT54C_SOT23
D2
S-BAT54C_SOT23
5VDIMM
R161 2.2/8
C80 C1U25X/8
CHOKE4
CH-1.2U15A
5VDIMM_IN
C100 C10u10Y/8
C96 C0.1u25Y/4
EC18 CD470u6.3SO
EC19 CD470u6.3SO
C92 C0.1u25Y
DDR_UG1
Q20
N-P0903BD_TO252-3-HF
R171 1R0805
U7
EN_DDR
DDR_BOOT1
DDR_UG
DDR_PH1
DDR_LG
R127 1R1%
C72 C0.22u25X
NCP1587DR2G_SOIC8-RH
CHOKE7
CH-1.1u27A1.7m-RH
VCC_DDR
R129 0R/8
DDR_LG1
Q25
N-P0603BD_TO252-3-HF
R176 2.2/8
C101 C3300p50X/4
C161 C1u6.3Y/4
EC23
EC24
EC26
CD820u2.5SO
C86 C1000p50X/4
R158 2K/4/1%
C87 C0.1u25Y/4
C81 X_C1u6.3X5/4
R181 1K/4
Q19 2N7002
C103 X_C0.1U16Y/4
R162 976R/4/1%
DDR3_FB
R170 X_1K/4/1%
C88 X_0.01u/16V/4
R153 1.1K/4/1%
R124 22K/4/1%
R175 4.7K/4
R178 X_4.7K/4
19,22,31 SLP_S4#
ATX_PWR_OK 22,31,36
Q22 N-SST3904
Q23 X_N-SST3904
OCP : 30A
DDR3_1.5V
16A
EC25
EC28 X_CD820u2.5SO
DDR VTT Power
To CPU Copper trace width > 250mils ,
Fill island behind DIMM > 400mils .
0.2075A*6=1.245A
VCC5
VCC_DDR
VCC_DDR
U1
VREF2
ENABLE
VCNTL
BOOT_SEL
VIN
GND
VREF1
VOUT
GND
uP7711
1.25V/2.9A
DDRVTT_VREF
R10 1K/1%/4
VTT_DDR
R36 1K/4
R25 1K/1%/4
C33 C1U25X/8
C22 C0.1u25Y/4
EC5 CD820u2.5SO
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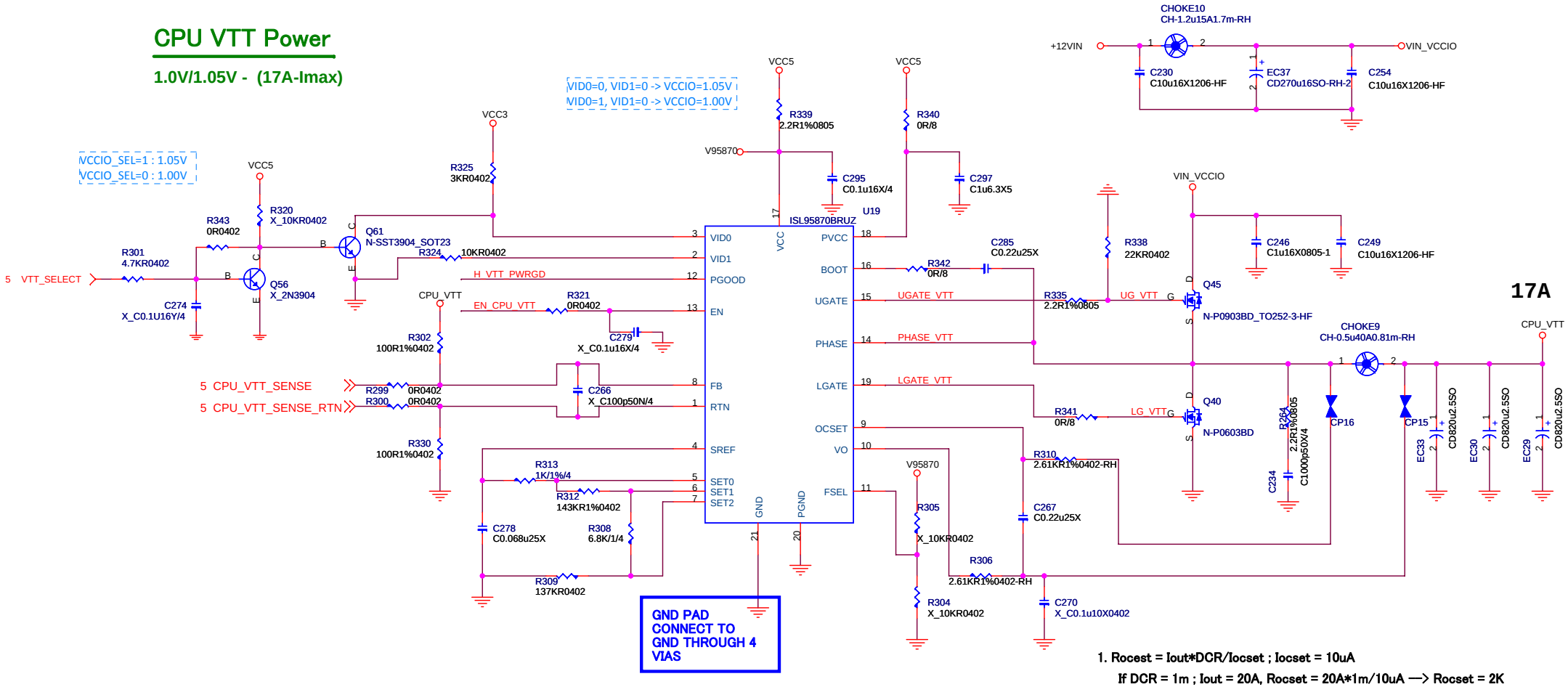
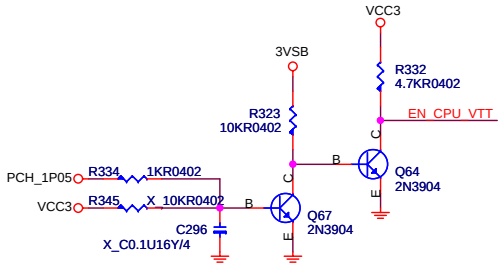
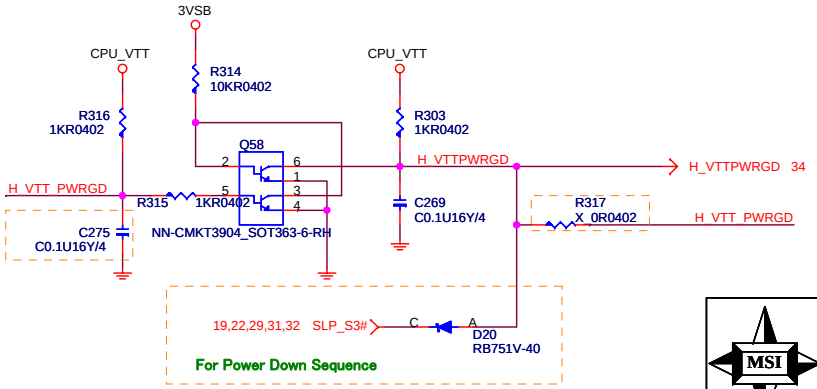
CPU VTT Power

1.0V/1.05V - (17A-Imax)



1. Rocest = Iout*DCR/Iocset ; Iocset = 10uA
   If DCR = 1m ; Iout = 20A, Rocset = 20A*1m/10uA —> Rocset = 2K
2. Csen = L/Rocset*DCR
   If DCR = 1m ; L = 1U, Csen = 1U/2K*1m —> Csen = 0.5U





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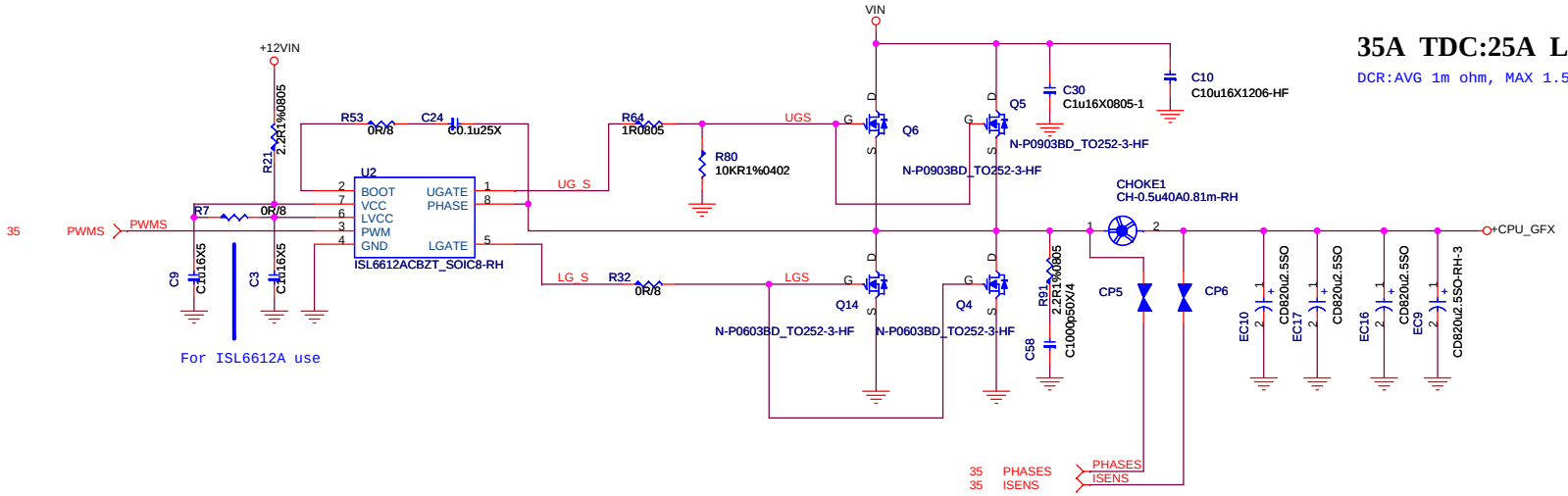
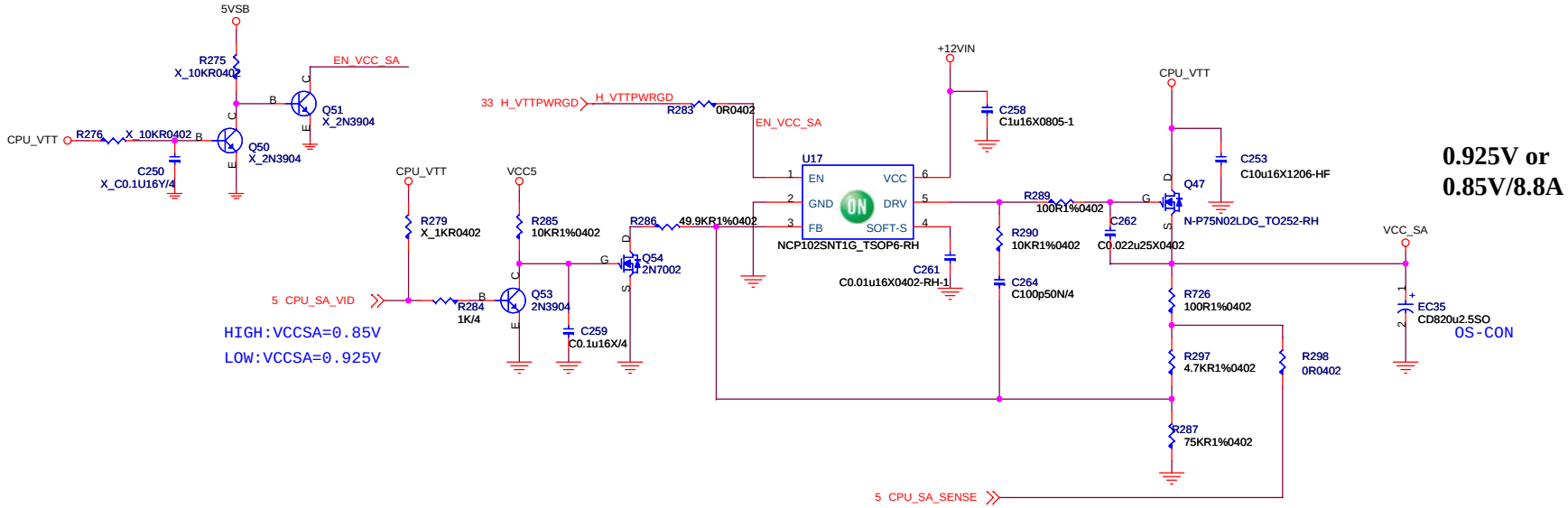
GPU POWER



VCCSA



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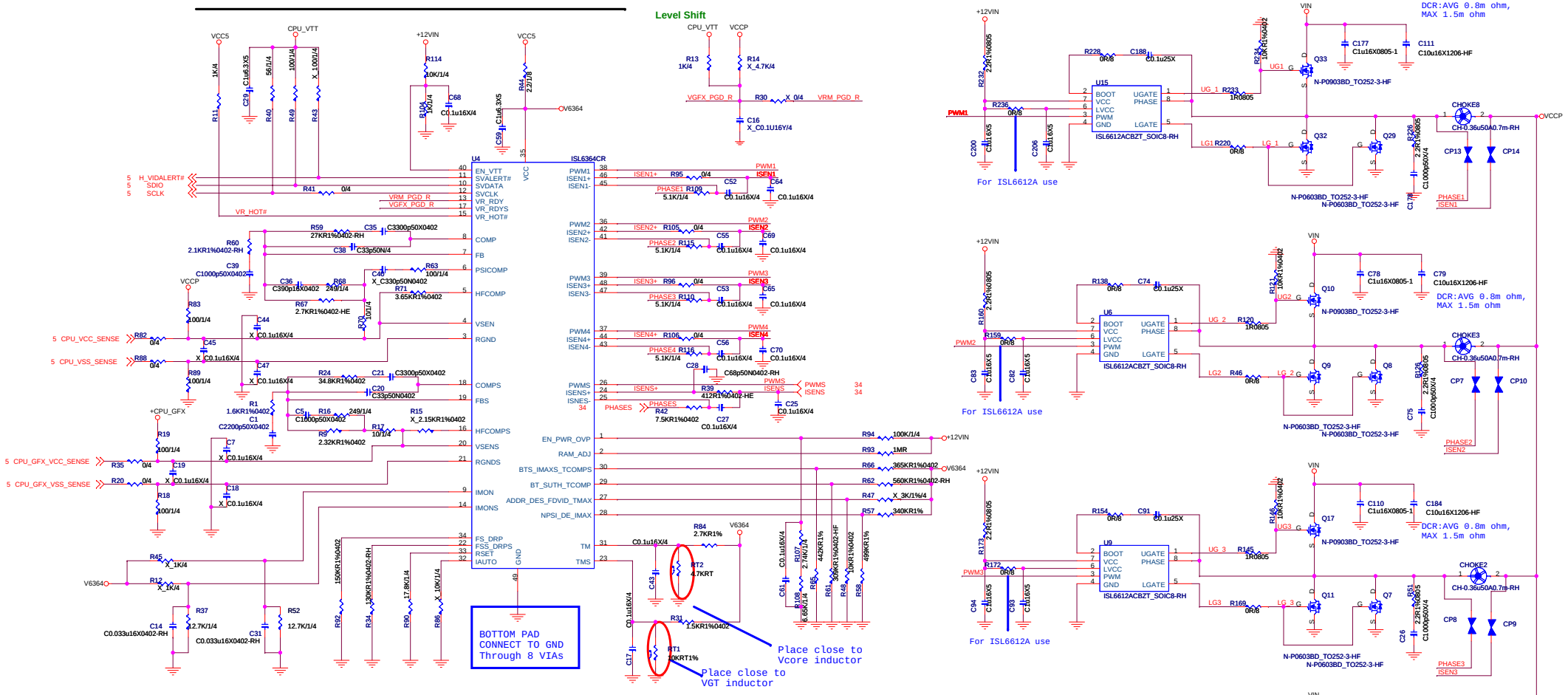
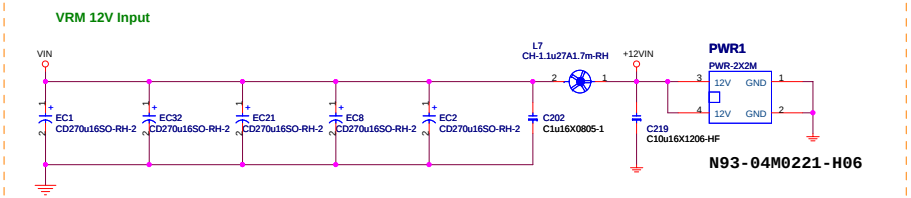
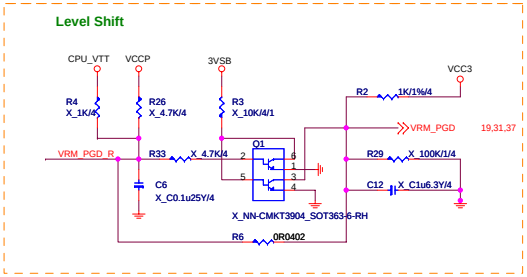
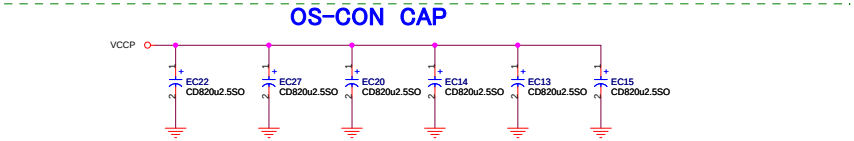
Voltage Regular Module (VRD12)

112A TDC:85A
LL:1.7m
DCR:AVG 0.8m ohm,
MAX 1.5m ohm









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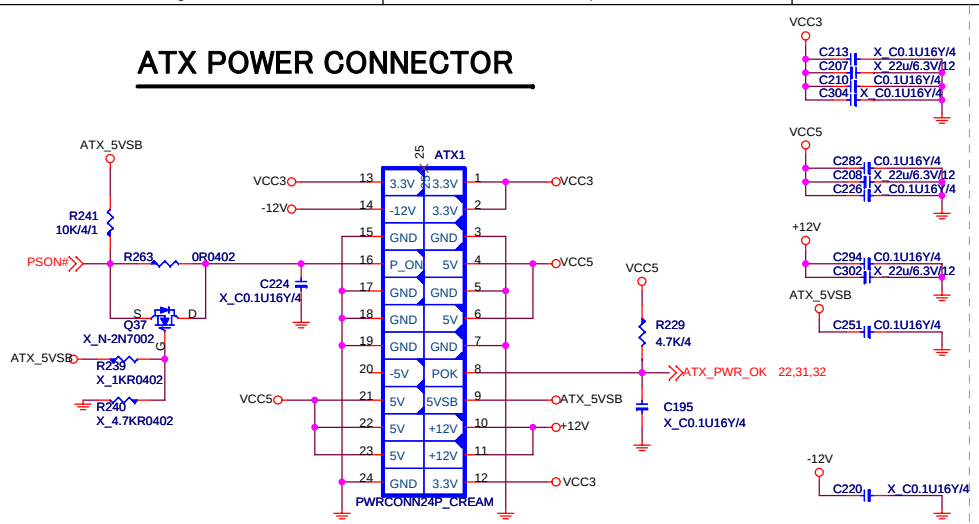
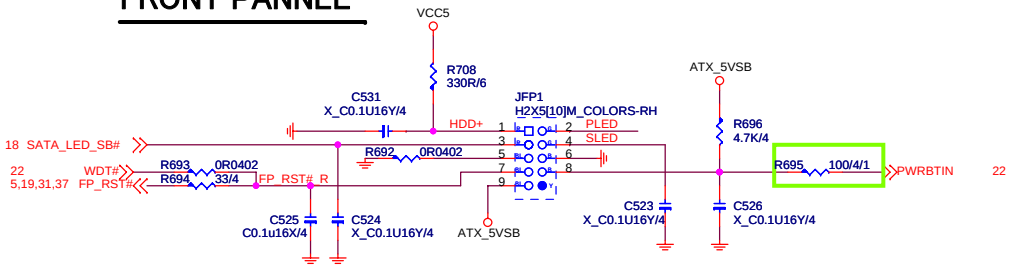
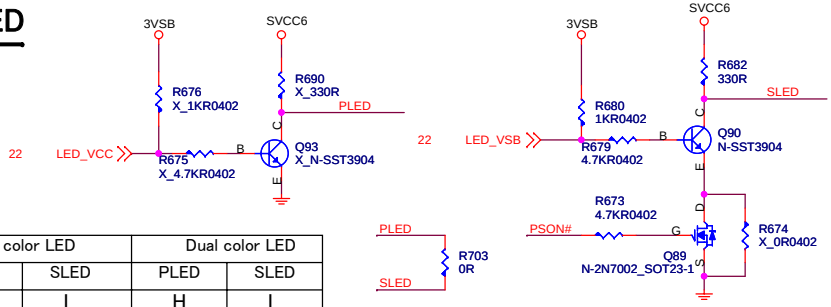
ATX POWER CONNECTOR



FRONT PANNEL

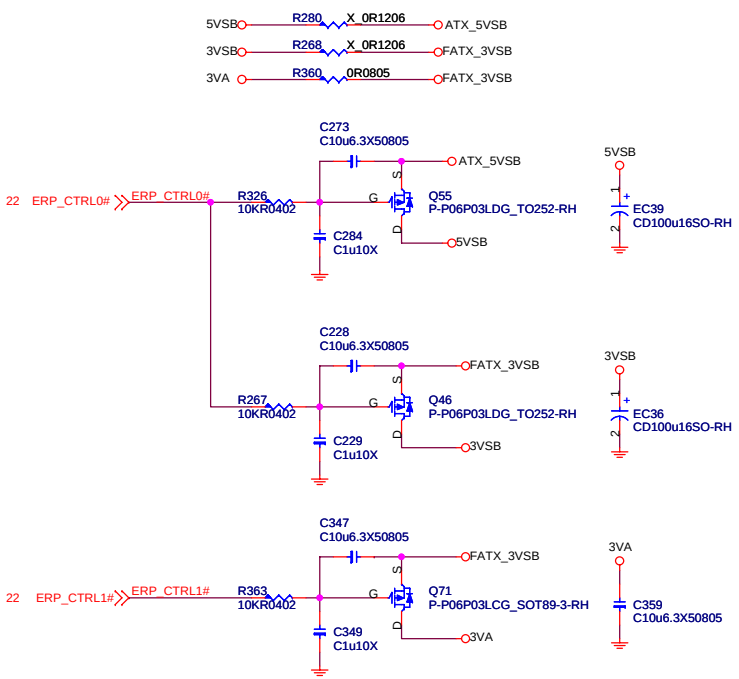


LED

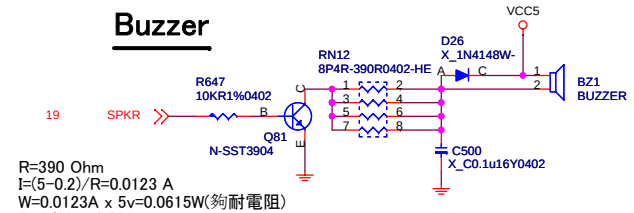


	Single color LED		Dual color LED	
	PLED	SLED	PLED	SLED
S0	H	L	H	L
S1/S3	Blinking	Blinking	L	H
S4/S5	L	L	L	L

DSW POWER CONTROL

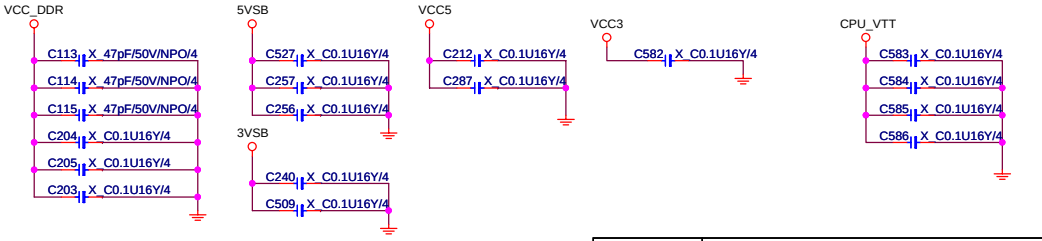


Buzzer



CP17 X_COPPER

For EMI



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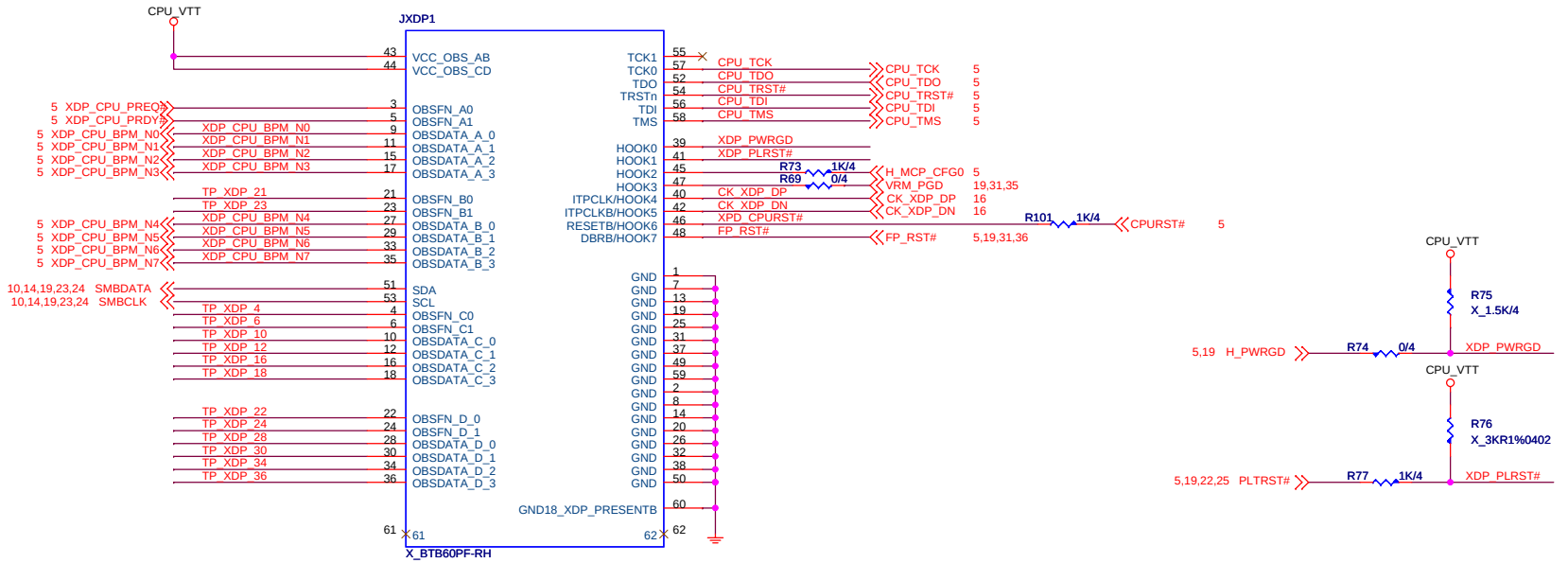
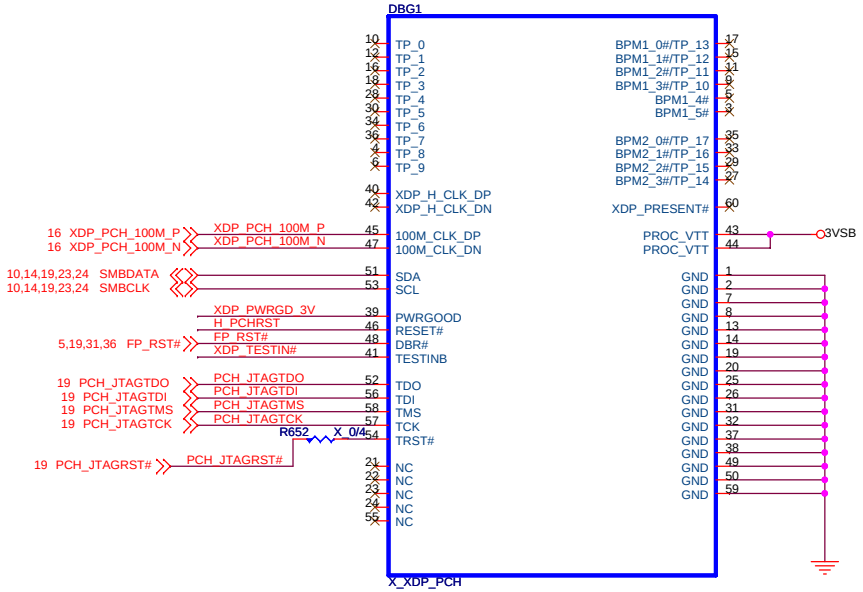
CPU XDP



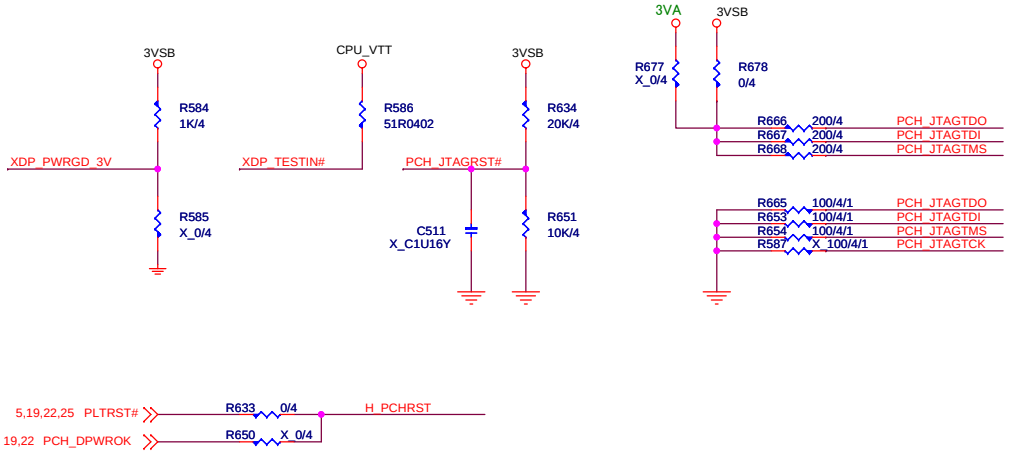
N5C-60F0040-S88

PCH XDP



N5C-60F0040-S88

PCH XDP PWRGD/RESET



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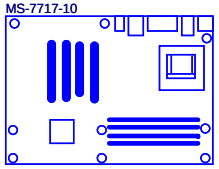
PCB

PCB1
MS-7717-10



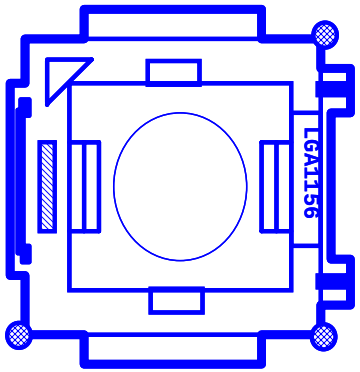
PCB : P30-0771710-G37

BAT1_X1

BAT-BCR2032P-RH

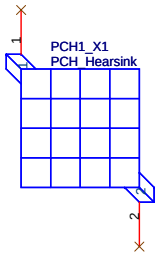
CPU SOCKET

CPU1_X1
CPU SOCKET



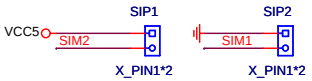
E21-7557010-F02

PCH1_X1
PCH_Hearsink

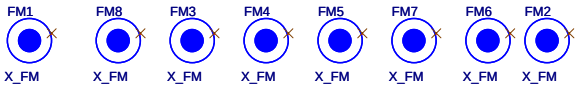


E31-0401634-K08

Simulation

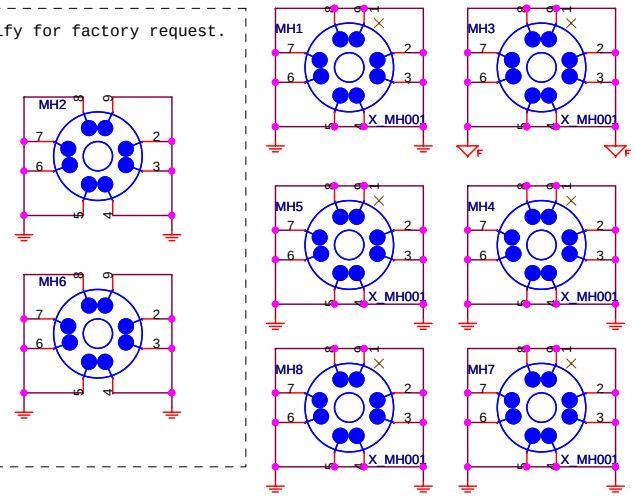


Optical Fiducial Marks-120



Mounting Holes

Modify for factory request.



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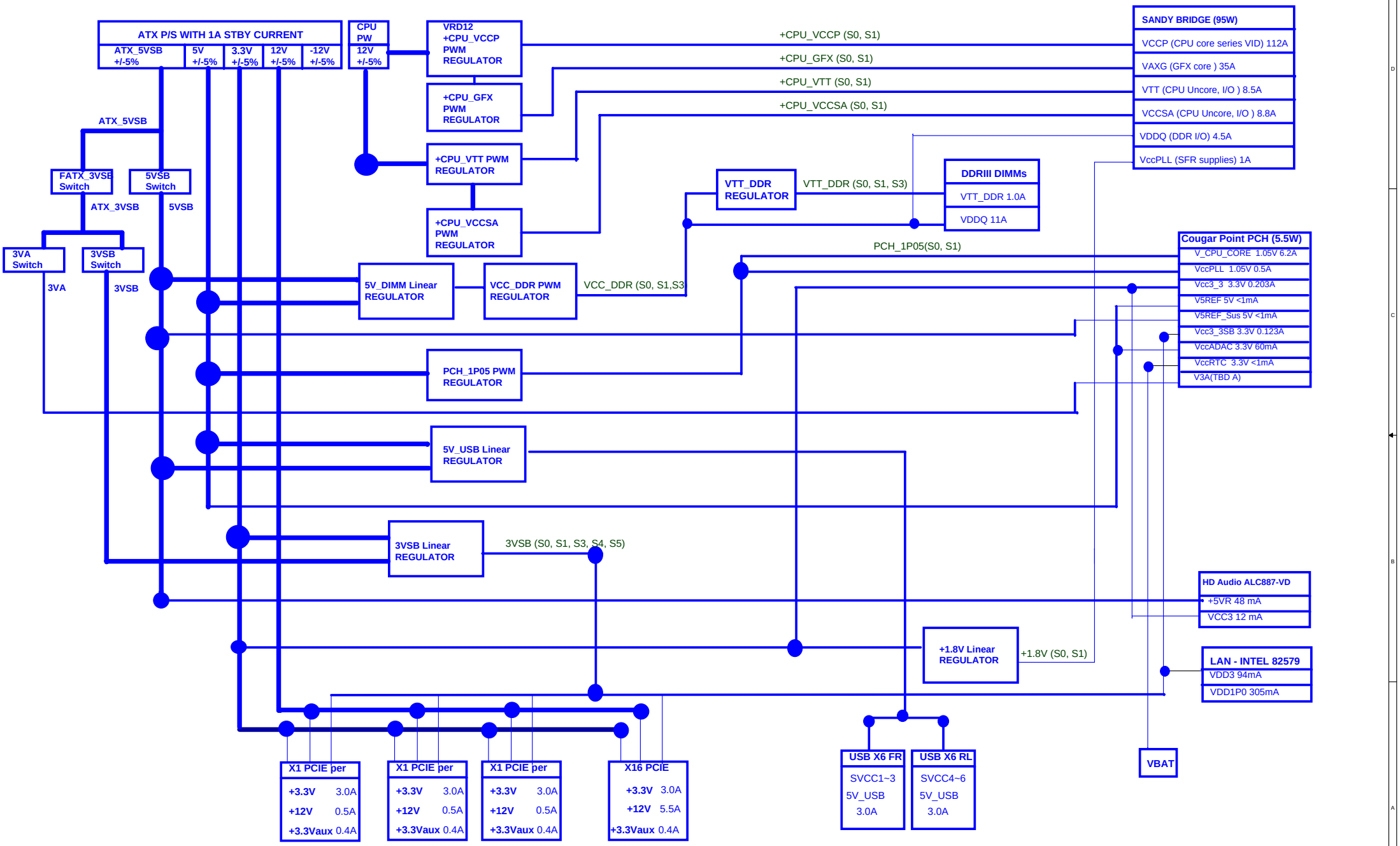

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1.EC63 change to 330uF C71-33102YE-P01 For power solution
2.CHOKE1 change to 0.5uH L04-05A7211-L65 For power solution
3.R42 change to 6.2K Ohm R11-0622T12-W08 For power solution
4.R39 change to 412 Ohm R11-4120T12-W08 For power solution
5.R9 change to 2.05K Ohm R11-2051T12-W08 For power solution
6.R84 change to 2.7K Ohm R11-0272T13-W08 For power solution
7.R92 change to 180K Ohm R11-0184T12-W08 For power solution
8.R34 change to 180K Ohm R11-0184T12-W08 For power solution
9.R67 change to 2.7K Ohm R11-0272T12-W08 For power solution
10.R24 change to 10K Ohm R11-0103T12-W08 For power solution
11.C21 Keep 2.2nF C11-2222022-W08 For power solution
12.C20 change to 68pF C11-6801812-W08 For power solution
13.R15 change to 2.15K Ohm R11-2151T12-W08 For power solution
14.C5 Keep 1nF C11-1022012-W08 For power solution
15.R71 change to 3.65K Ohm R11-3651T12-W08 For power solution
16.C35 change to 3.3nF C11-3322012-W08 For power solution
17.R59 change to 10K Ohm R11-0103T12-W08 For power solution
18.C40 Keep 330pF C11-3311812-W08 For power solution
19.EC9 change to 820uF C71-8210271-N07 For power solution
20.C139 change to 47uF C11-4767224-M09 For power solution
21.C537 change to 47uF C11-4767224-M09 For power solution
22.C538 change to 47uF C11-4767224-M09 For power solution
23.C539 change to 47uF C11-4767224-M09 For power solution
24.C540 change to 47uF C11-4767224-M09 For power solution
25.C541 change to 47uF C11-4767224-M09 For power solution
26.c1 change to 2.2nF C11-2222022-W08 For power solution
27.Add Q100 Q101 R742 R737 R740 for HAD_SDO(JBAT2) jumper change
28.Add R733 R735 Not Stuff R734 R649 C588 for HAD_SDO Reserved
29.Add R728 For U20.G driving pin loading
30.Not Stuff R515 R529 For double pull-up
31.Not Stuff R280,R268 For Deep Sleep
32.Add R730 R732 R739 C587 R729 Not Stuff R501 R731 R510 For Audio jack detection change
33.Not Stuff R692 For Touch switc
34.C105 C106 change to 27pF For made Y1 more close 25MHz
35.R375 change to 1.07k ohm For adjust PCH_1P05 more close 1.05V
36. Add C293 C589 C591 C590For EMI
37.R246 R251 R255 R260 change to180 ohm For EMI
38.Reserve C592 For EMI
39.change PCIE X16 SLOT remove JP1
40.change D7 D8 footprint the same with D9D10
41.Change the power source from ATX_5VSB
42.Add C594 C595 For Rear Mic port circuit
43.Add CP17 For EMI
44. R65 change to 442k Ohm For power solution
45. R66 change to 365k Ohm For power solution
46. R31 change to 1.5k Ohm For power solution
47. RT1 change to 10k Ohm For power solution
48. R92 change to 150k Ohm For power solution
49. R34 change to 130k Ohm For power solution
50. R42 change to 7.5k Ohm For power solution
51. R9 change to 2.32k Ohm For power solution
52. R24 change to 34.8k Ohm For power solution
53. R93 change to 1m Ohm For power solution
54. R59 change to 27k Ohm For power solution
55. C20 change to 33pF For power solution
56. C21 change to 3.3nF For power solution
57. C149 change to 47uF For power solution
58. C40 change to NC For power solution
59. R15 change to NC For power solution
60. Add R343 and Q61 change to 3904 Reserve R320.Q56 For power solution
61. PCIE _E1 Chang Footprint to SLOT_PCIEXP164_3
62. 3VDual Disable circuit Q76,Q77,R463,R464,R465 change to reserve
63. R740 pull to VCC5,R738 pull to 5VSB
64. Add D32 ,C4 ,CP18 For EMI
65 R246 R251 R255 R260 change to 330ohm
66 Add PECI sot 3VSB CAP EC64 R741 page 23
67.REmove CP18 For EMI requests

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