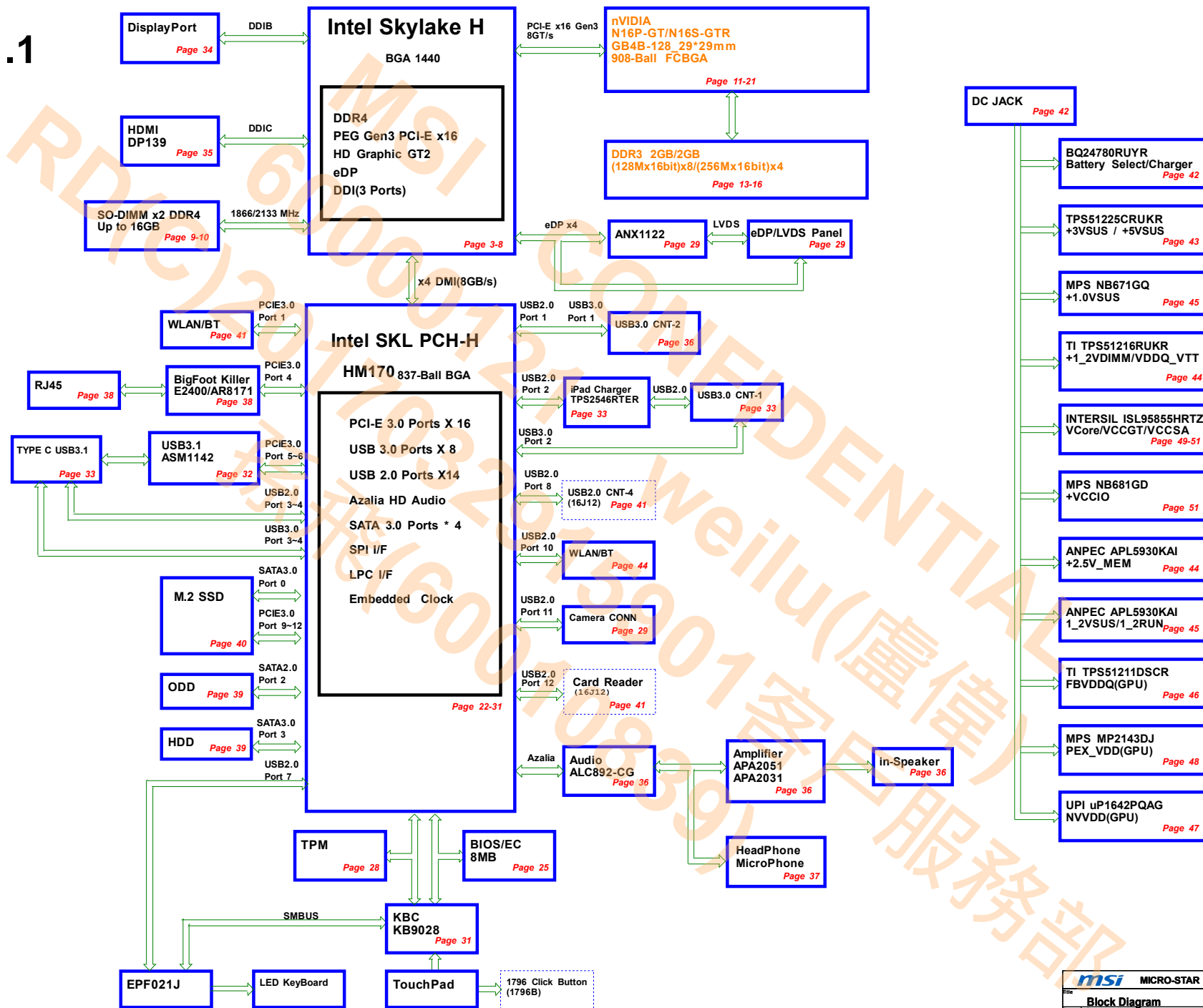
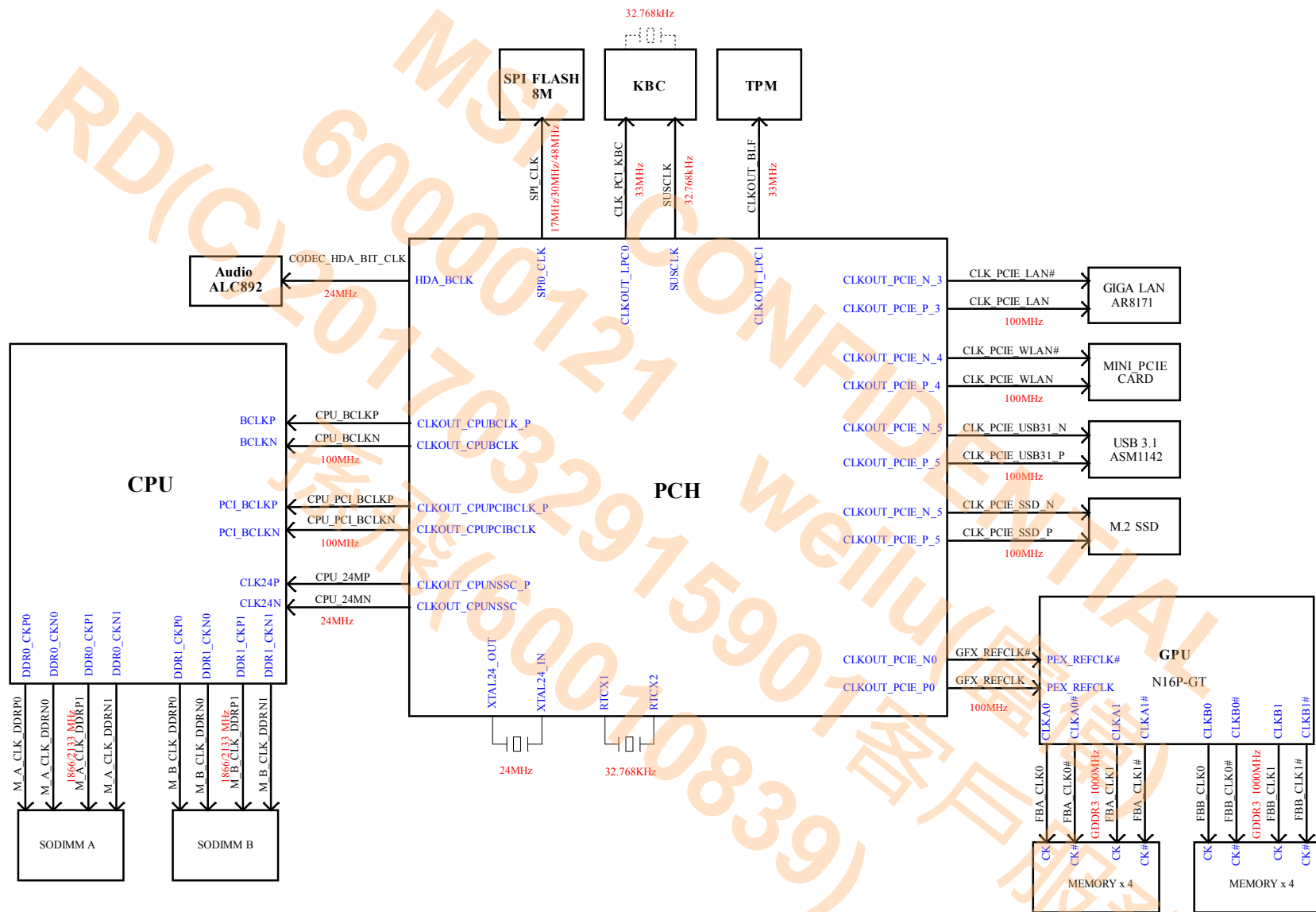


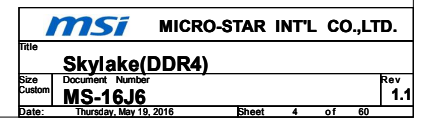
Ver:1.1







## DDR Channel B

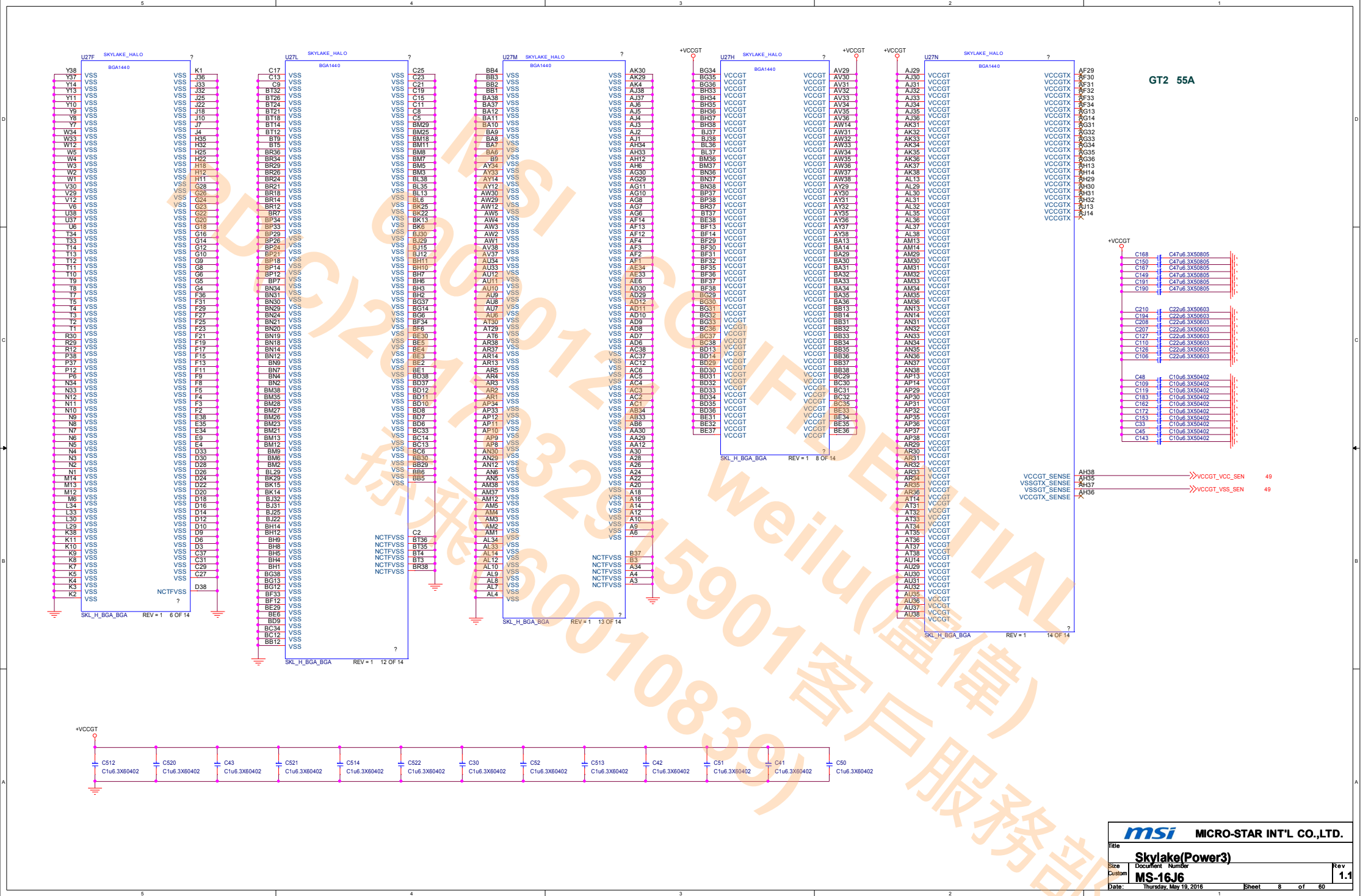






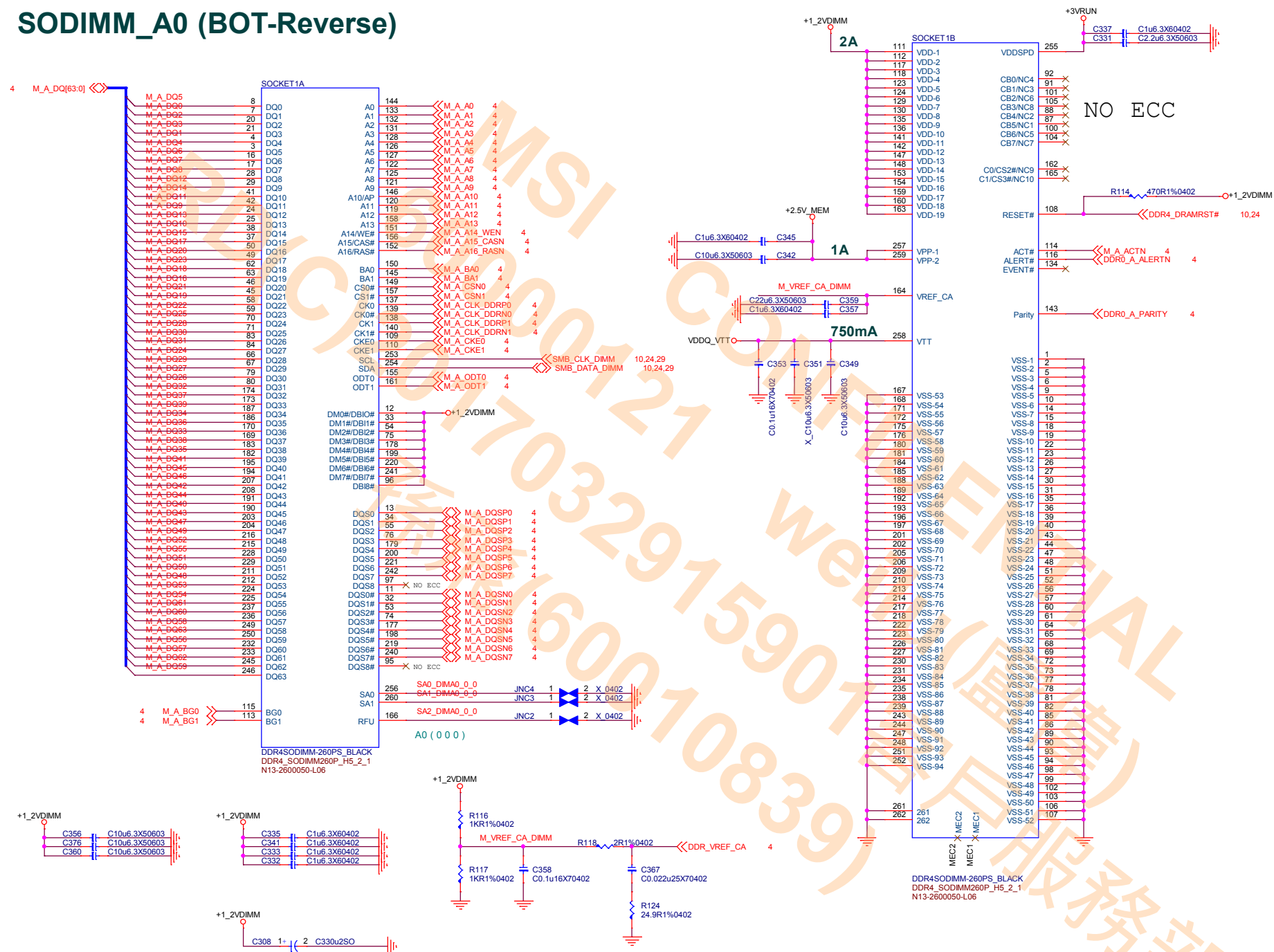




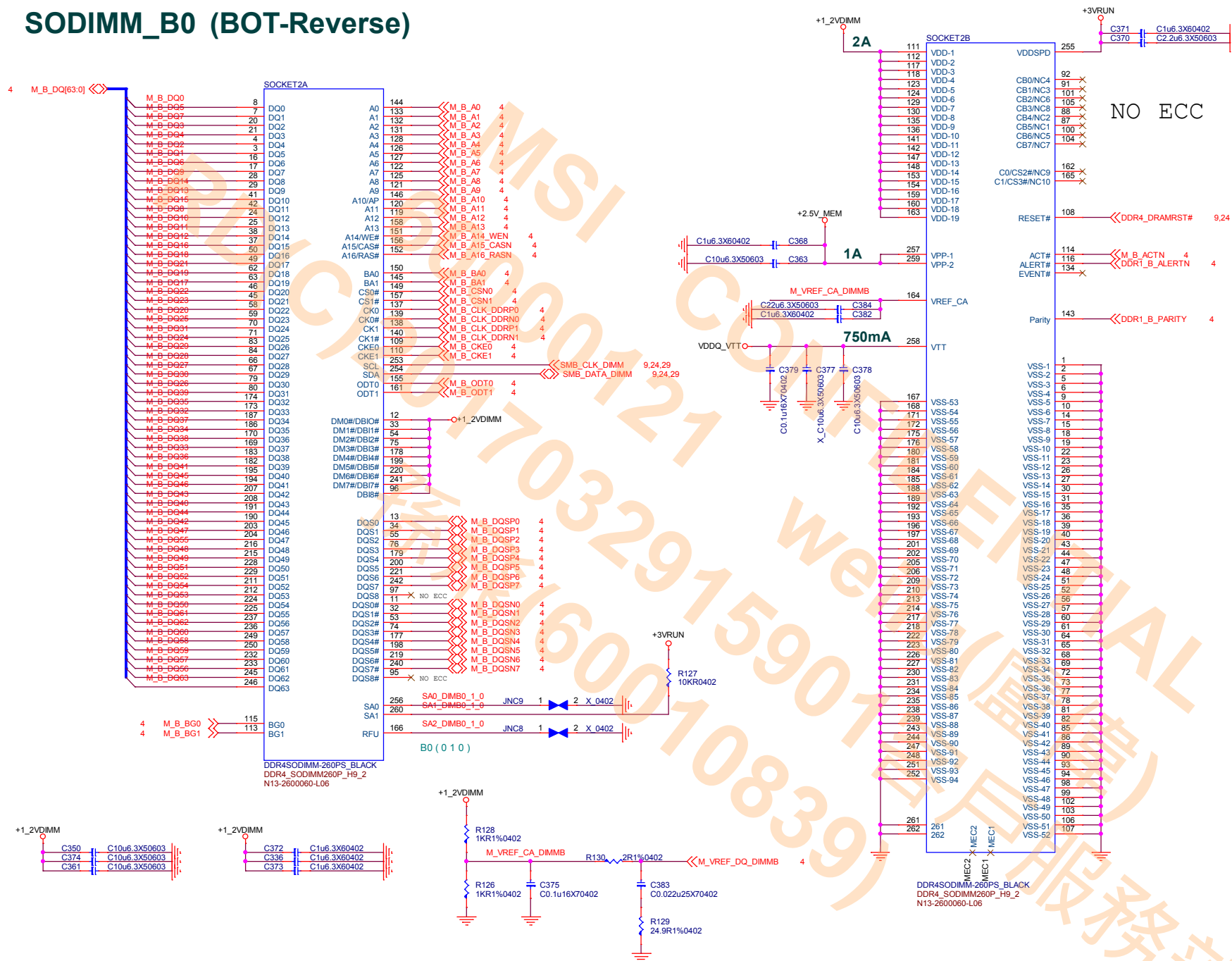




## SODIMM\_A0 (BOT-Reverse)



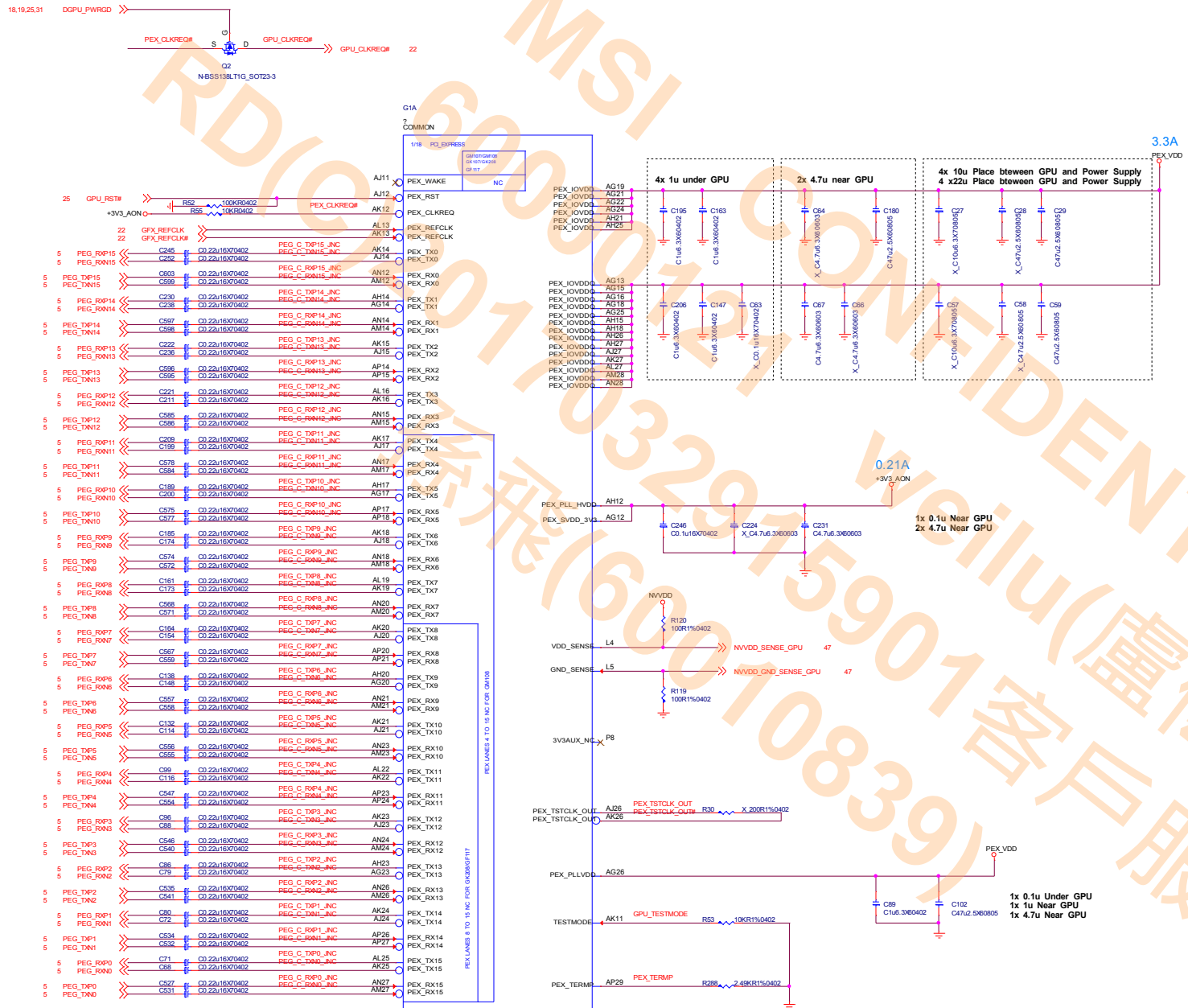
# SODIMM\_B0 (BOT-Reverse)



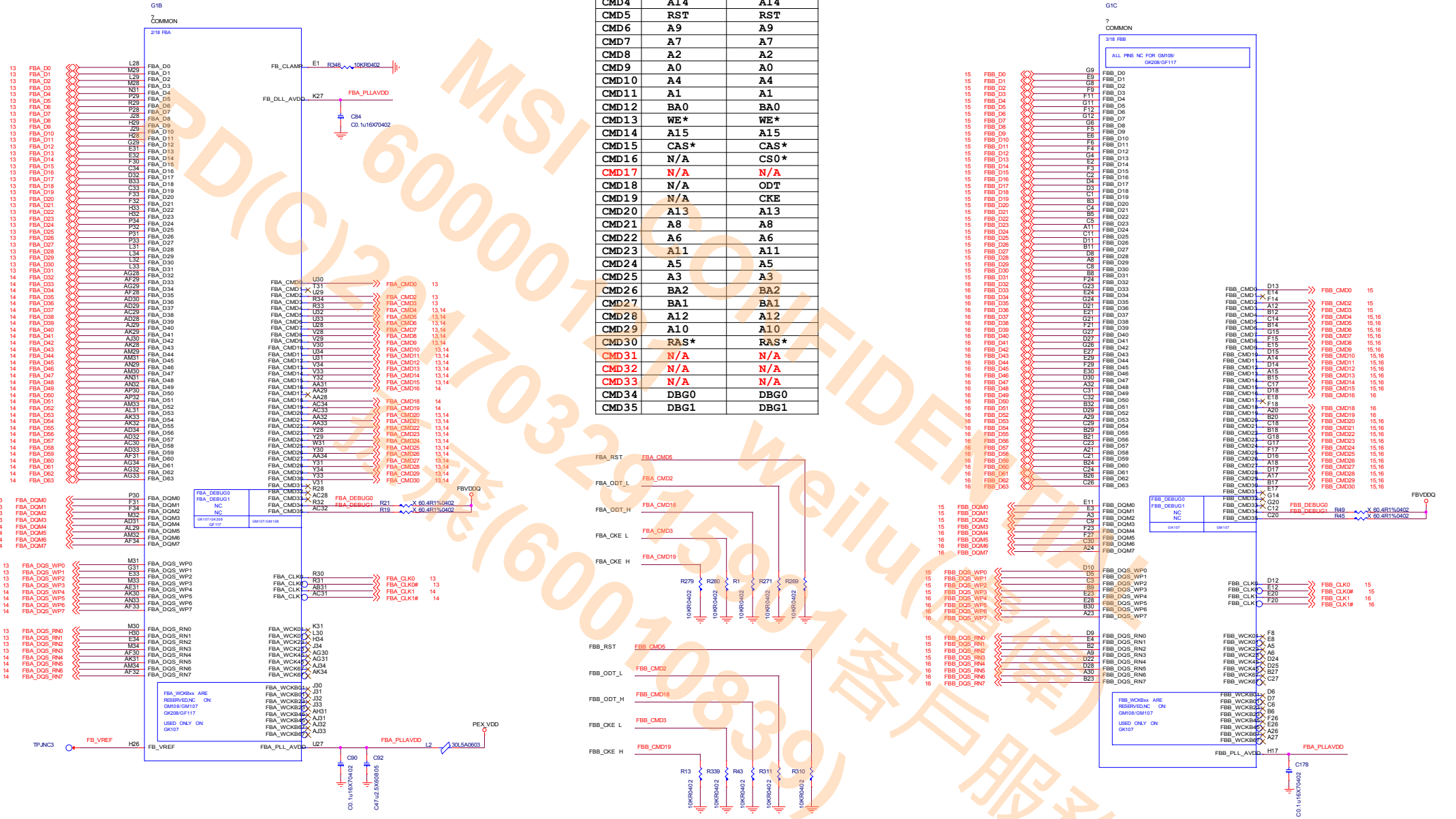
**msi** MICRO-STAR INT'L CO.,LTD.

Title			
DDR4 SODIMM B			
Size	Document	Number	Rev
Custom	MS-16J6		1.1
Date:	Thursday, May 19, 2016	Sheet	10 of 60

## N16P-GT( PCI-Express Gen3 x16 Interface)



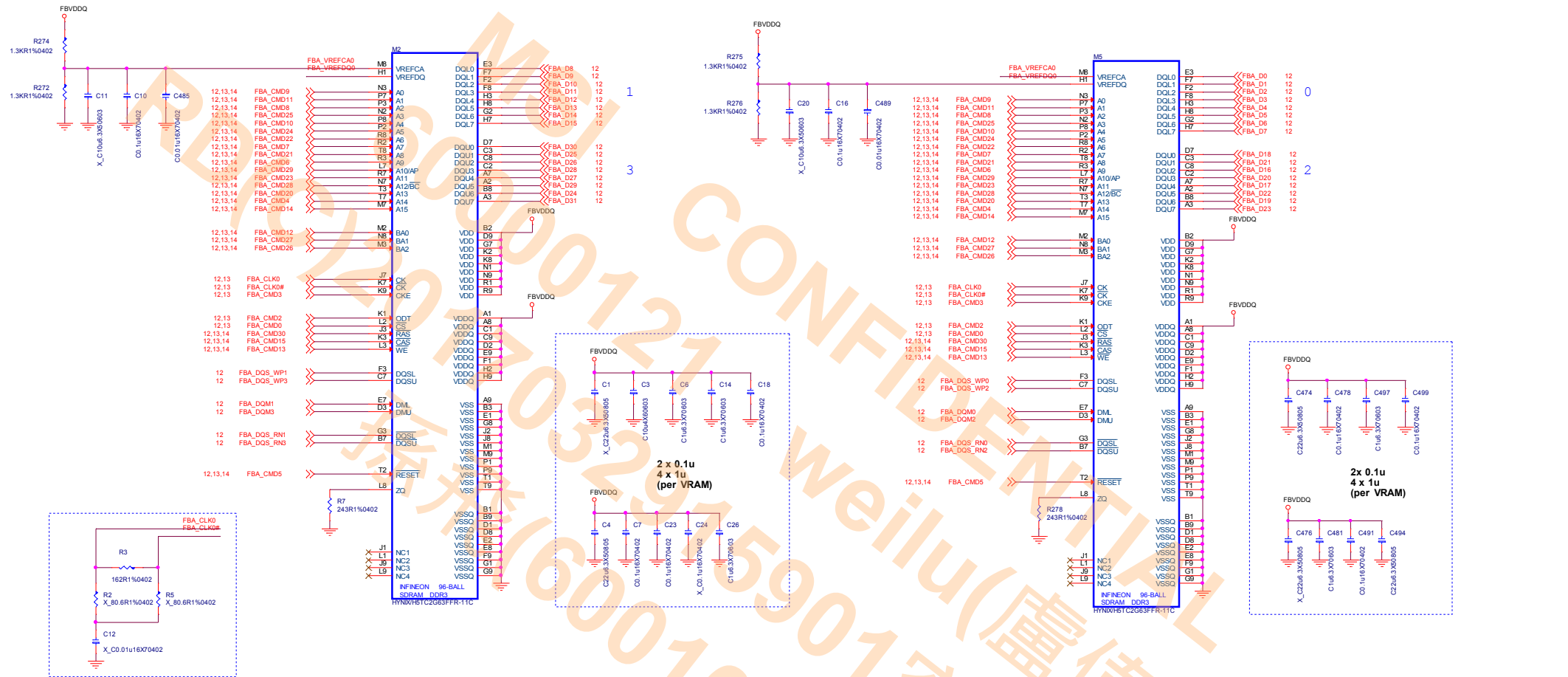
N16P-GT( Frame Buffer Interface )



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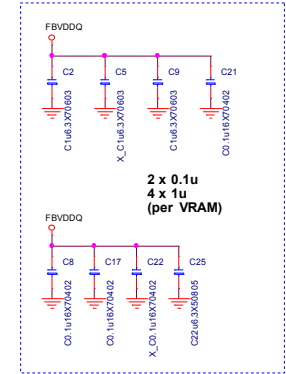
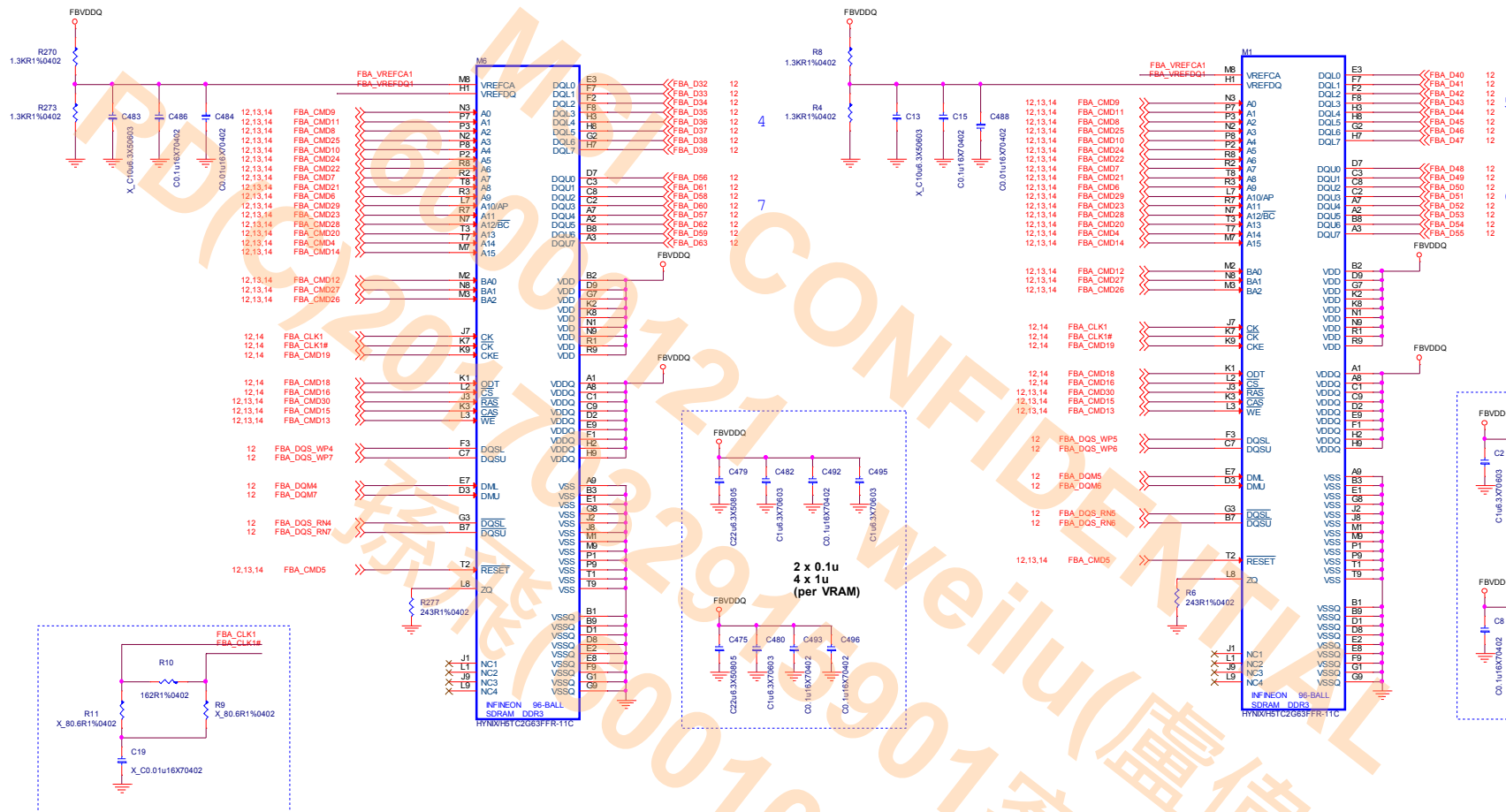
File	Size	Quantity	Document	Number	Rev
N16P-GT MEM IF A/B					1.1
Date	MS-1616	16	16	16	60

**N16P-GT( DDR3 Frame A-1 )**



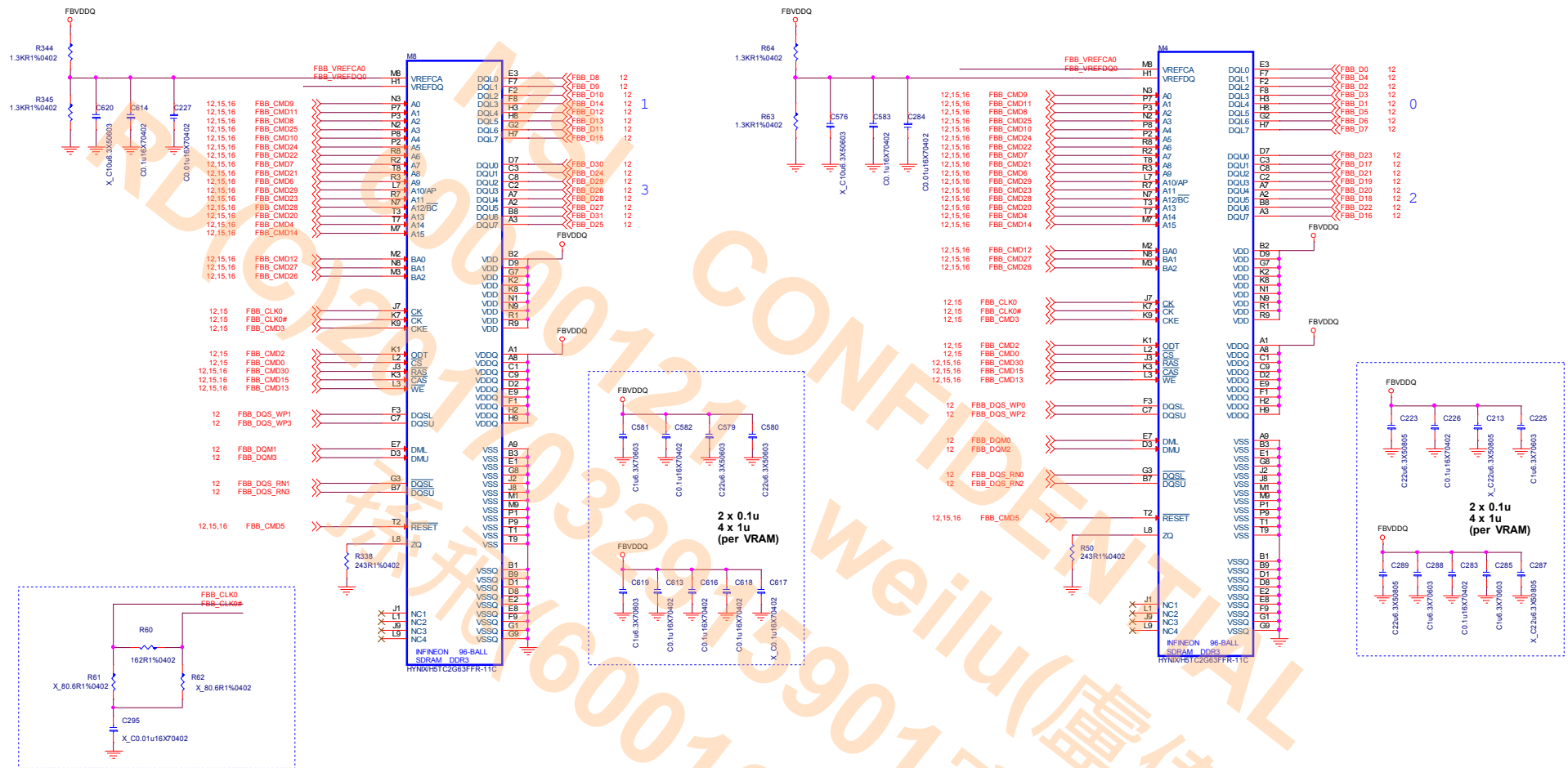


**N16P-GT( DDR3 Frame A-2 )**



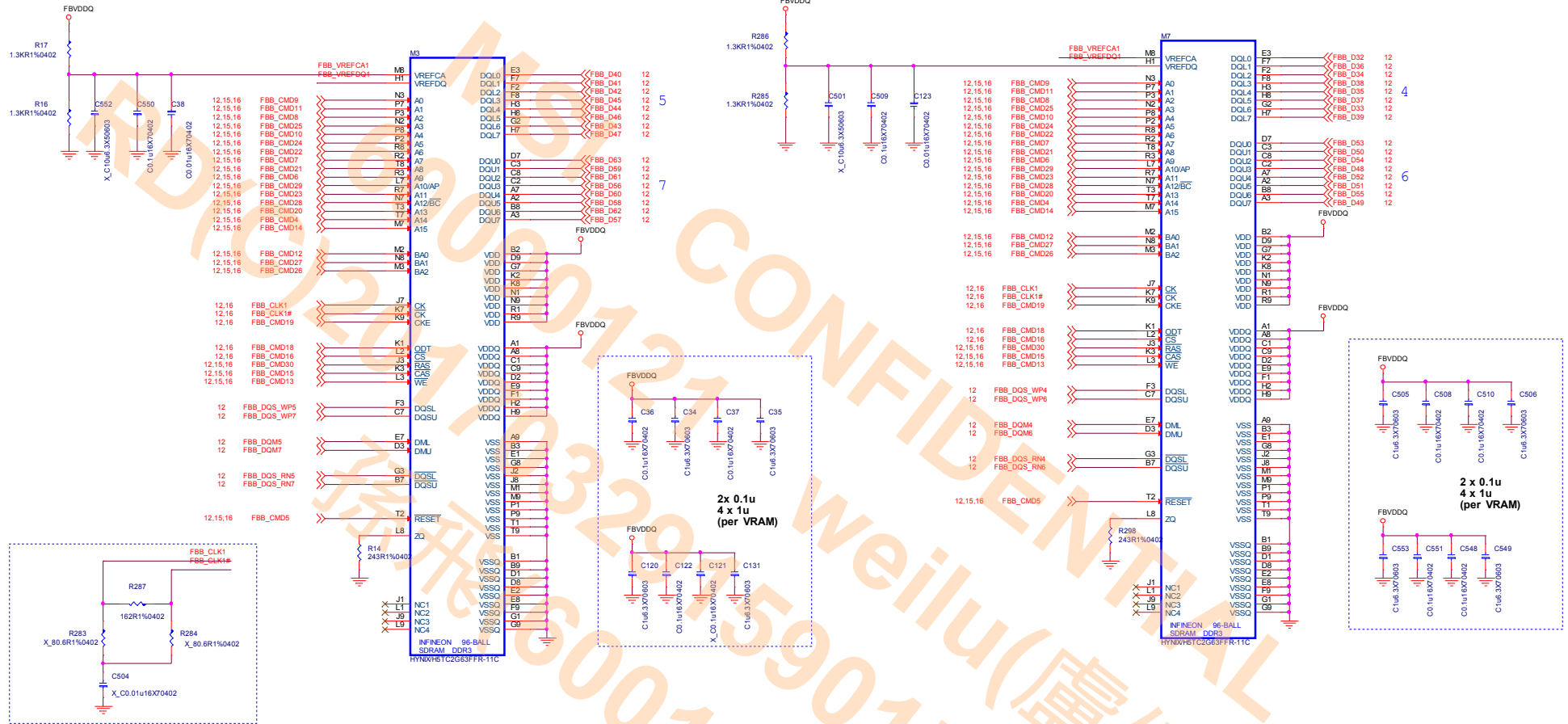


N16P-GT( DDR3 Frame B-1 )



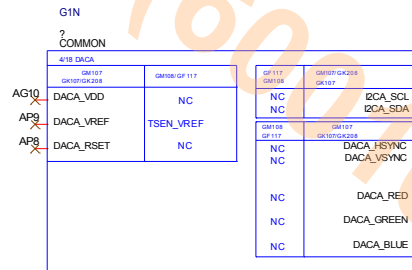
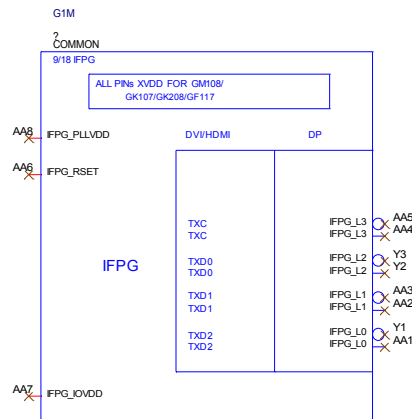
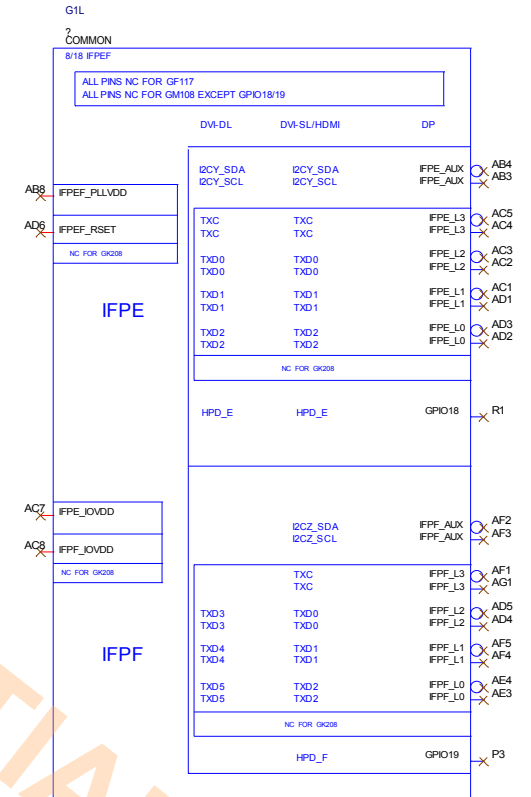
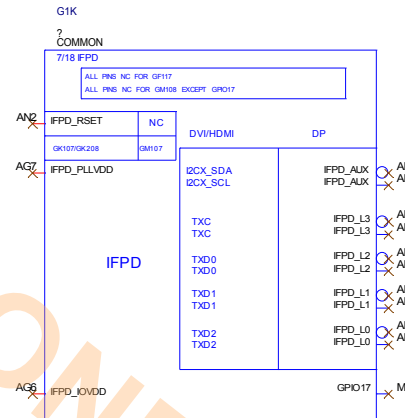
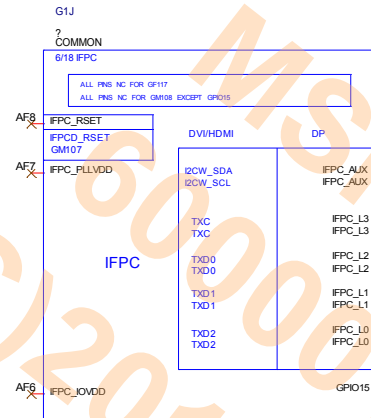
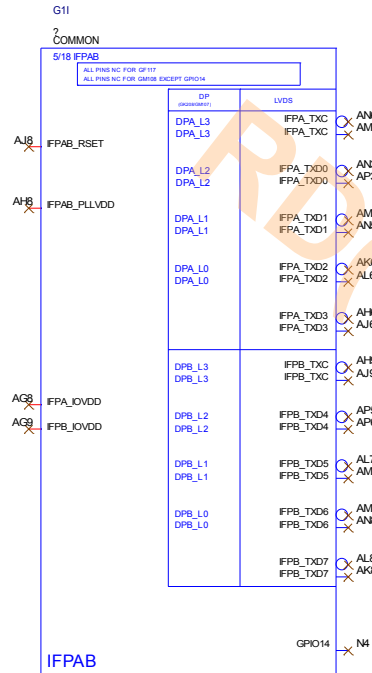
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Size	Document	Number	Rev
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Date:	MS 161619, 2016		Sheet 15 of 60

N16P-GT( DDR3 Frame B-2 )

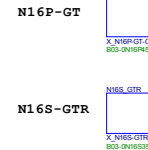
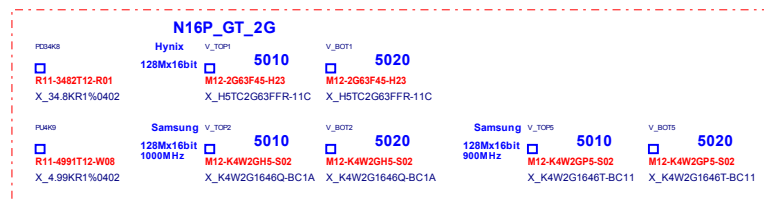
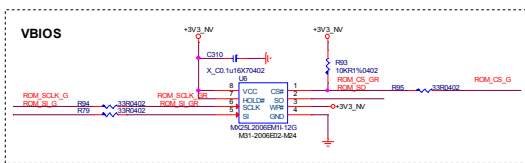
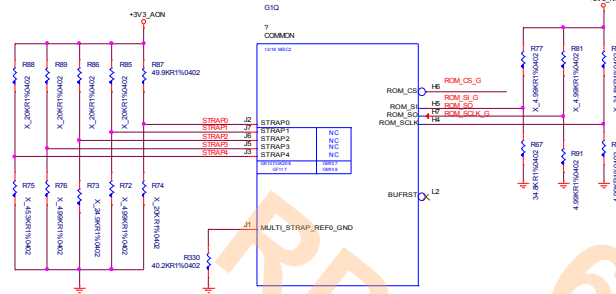


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Size		Document Number						Rev		1.1	
Custom											
Date:		March 19, 2016		Sheet		16		of		60	

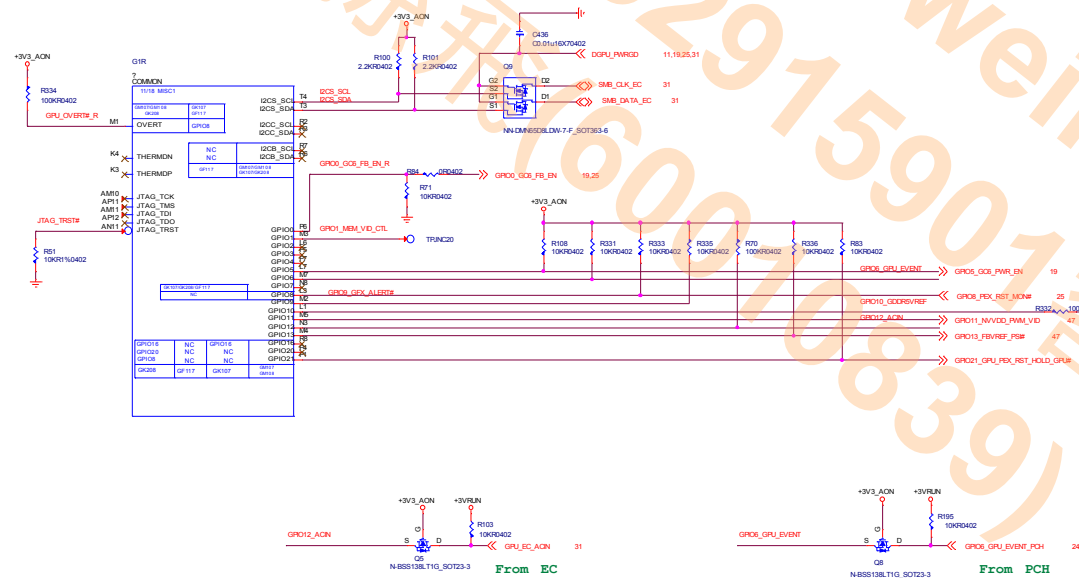
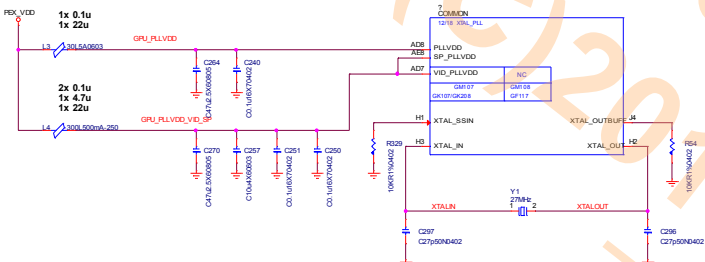
## N16P-GT( Display IF)



## ROM / MULTI-LEVEL STRAPS / GPIO



Item	Location	N16P-GT	N16S-GT	N16S-GTR
Device ID		0x139A	0x1347	0x134D
Package		GB4B-128	GB4B-128	GB4B-128
Memory Type		DDR3	DDR3	DDR3
Device Specific Strap Mode Selection	R330	Multi_Strap_Ref0_GND,40.2K PD to GND	Multi_Strap_Ref0_GND,40.2K PD to GND	Multi_Strap_Ref0_GND,40.2K PD to GND
ROM_S1	R77	0x6, Hynix 2G, 34.8kohm pull down	0x6, Hynix 1G, 34.8kohm pull down	0x6, Hynix 1G, 34.8kohm pull down
	R67	0x8, Samsung 2G, 4.99Kohm pull up	0x8, Samsung 1G, 4.99Kohm pull up	0x8, Samsung 1G, 4.99Kohm pull up
		0x9, Hynix 4G, 30.1kohm pull down	0x9, Hynix 2G, 30.1kohm pull down	0x5, Hynix 2G, 30.1kohm pull down
ROW_S0	R91	0x2, Samsung 4G, 15Kohm pull down	0x2, Samsung 2G, 15Kohm pull down	0x4, Samsung 2G, 24.9Kohm pull down
ROM_SCLK	R90	4.99Kohm pull down	4.99Kohm pull down	4.99Kohm pull down
Strap0	R87	49.9Kohm pull up	49.9Kohm pull up	49.9Kohm pull up
Strap1		NC	NC	NC
Strap2		NC	NC	NC
Strap3		NC	NC	NC
Strap4		NC	NC	NC

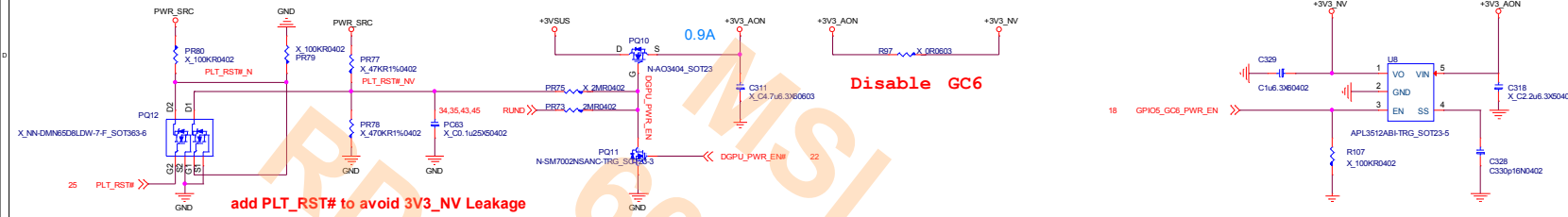


Pin Name	Normal Function	I/O	Functional Description	Recommended Default Pull-up or Pull-down
GPIO0	GC6_FB_EN(GPIO0_GC6_FB_EN)	0	FB Enable for GC6 2.0	10K pull-down
GPIO1	MEM_VDD_CTS(NC)	0	Memory VDD VDD	
GPIO2	LCD_BL_PWM(NC)	0	Panel Backlight PWM Brightness Control	
GPIO3	LCD_VCC(NC)	0	Panel Power Enable	
GPIO4	LCD_BLEIN(NC)	0	Panel Backlight Enable	
GPIO5	3V3_MAIN_EN(GPIO5_GC6_PWR_EN)	0	GPU POWER Sequencing	10K pull-up to 3V3_AON
GPIO6	GPU_EVENT#(GPIO6_GPU_EVENT#)	1	GPU wake signal for GC6 2.0	10K pull-up to 3V3_AON
GPIO7	3DVision_EN	0	3D Vision / LR signal	
GPIO8	SYS_PEX_RST_MON#(GPIO8_PEX_RST_MON#)	1	System side PCI reset Monitor	10K pull-up to 3V3_AON
GPIO9	ALERT#(GPIO9_CPU_ALERT#)	1/0	Active Low Thermal Alert	10K pull-up to 3V3_AON
GPIO10	MEM_VREF_CTL(GPIO10_GDDR5VREF)	0	Memory VREF Control	100K pull-down
GPIO11	PWR_VID(GPIO11_NVDD_PWM_VID)	0	GPU Core VDD PWM control signal	
GPIO12	PWR_LEVEL(GPIO12_ACIN)	1	AC power detect or power supply overdraw input	100K pull-up to 3V3_AON
GPIO13	FS1(GPIO13_FBVREF_FS#)	0	Phase shedding	10K pull-up to 3V3_AON
GPIO14	HPD_A(NC)	1	Hot Plug Detect for IFPA used as DisplayPort or for IFPA when used as Dual Link DVI	
GPIO15	HPD_C(NC)	1	Hot Plug Detect for IFFC	
GPIO16	FRAME_LOCK#(NC)	1	Active Low Frame Lock	
GPIO17	HPD_D(NC)	1	Hot Plug Detect for IFPD	
GPIO18	HPD_E(NC)	1	Hot Plug Detect for IFPE	
GPIO19	HPD_F or HPD_B(NC)	1	Hot Plug Detect for IFPF or for IFPB when used as DisplayPort	
GPIO20	RESERVED			
GPIO21	GPU_FEX_RST_HOLD (GPIO1 GPU_FEX_RST_HOLD_GPU#)	0	GPU PCIe self-reset control	10K pull-up to 3V3_AON
OVRT	OVRT(OVRT#)	0	Active Low Thermal Catastrophic Over Temperature	100K pull-up to 3V3_AON

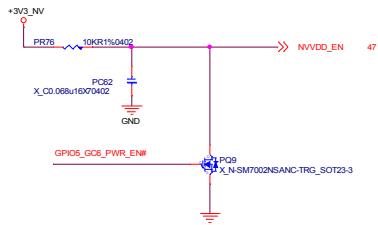
# N16P-GT( Power Control )

+3V3\_AON -> +3V3\_NV -> NVVDD -> PEX\_VDD -> FBVDDQ -> DGPUPWRGD

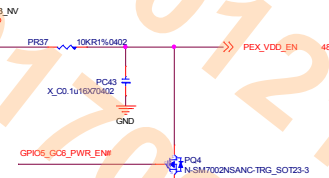
## 3.3V



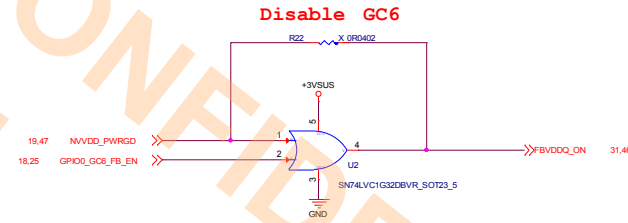
## NVVDD



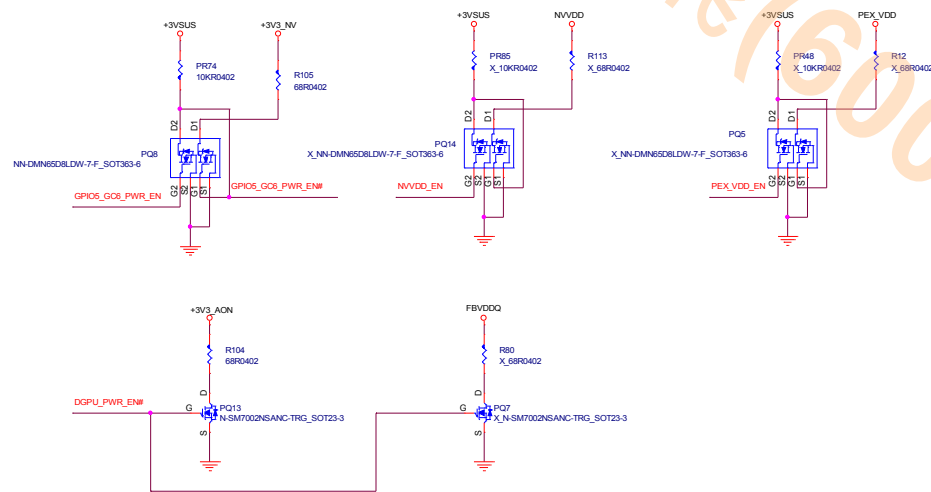
## PEX\_VDD



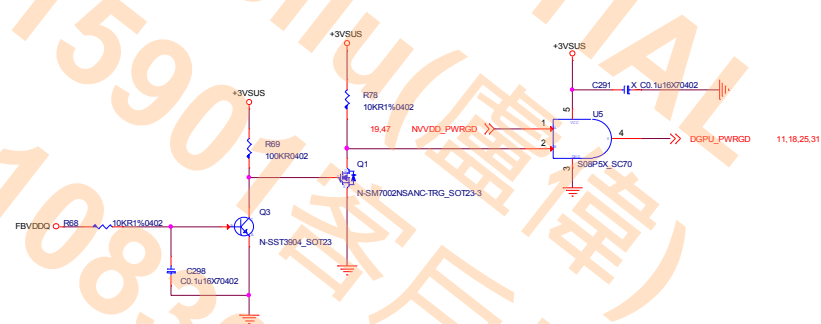
## FBVDDQ



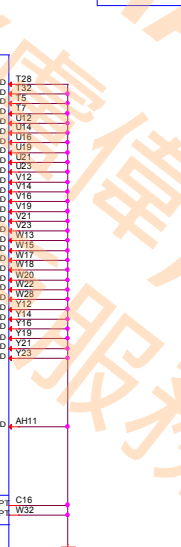
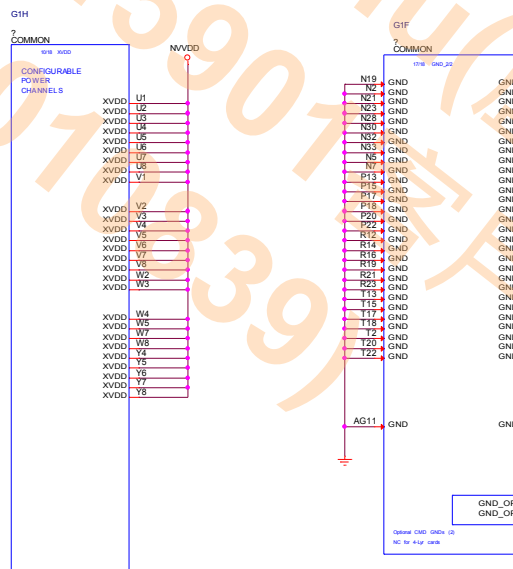
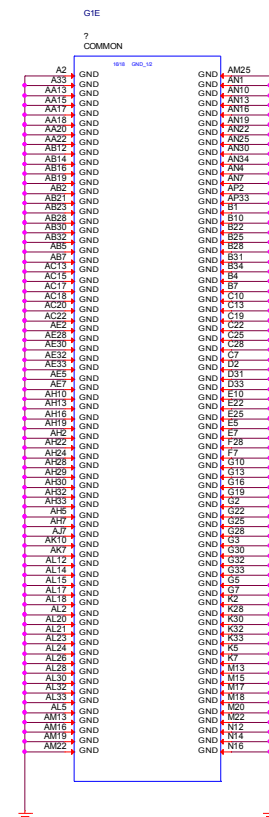
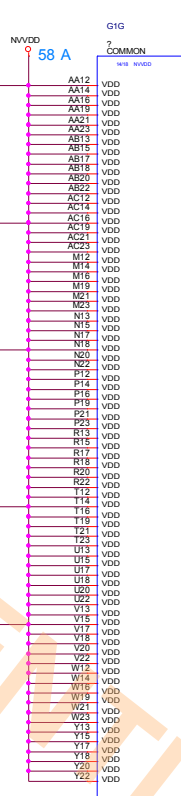
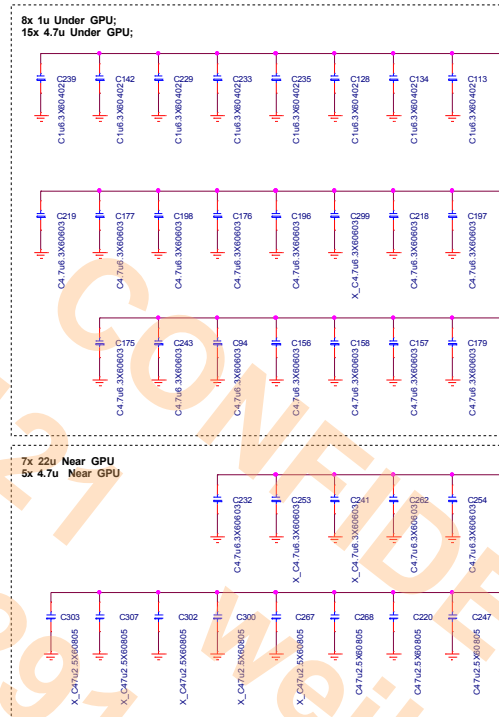
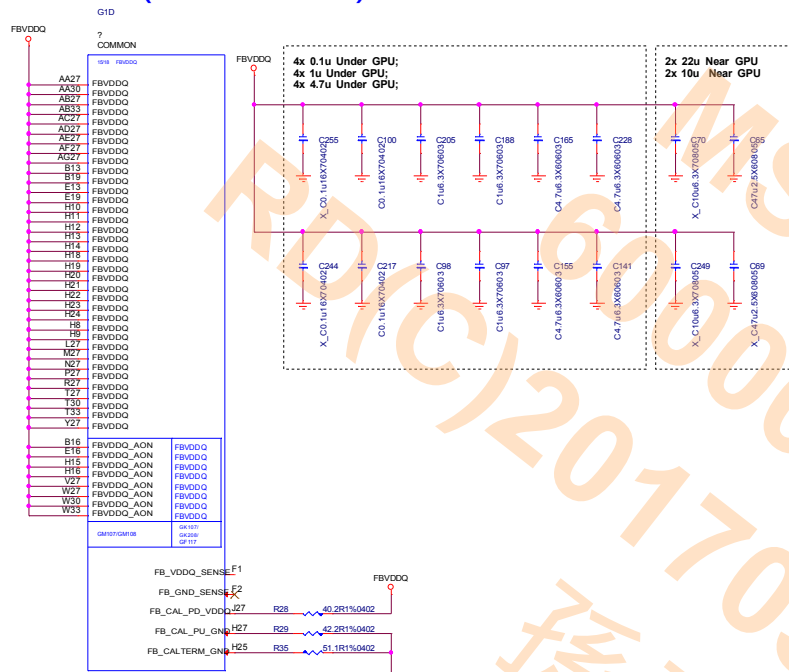
## Discharge Circuit



## DGPU\_PWRGD

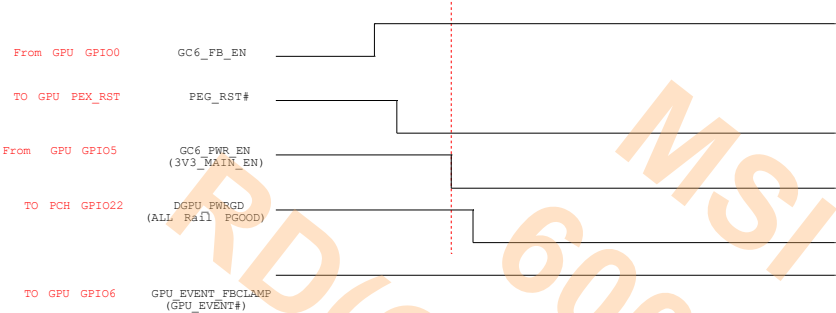


## N16P-GT( Power & GND )

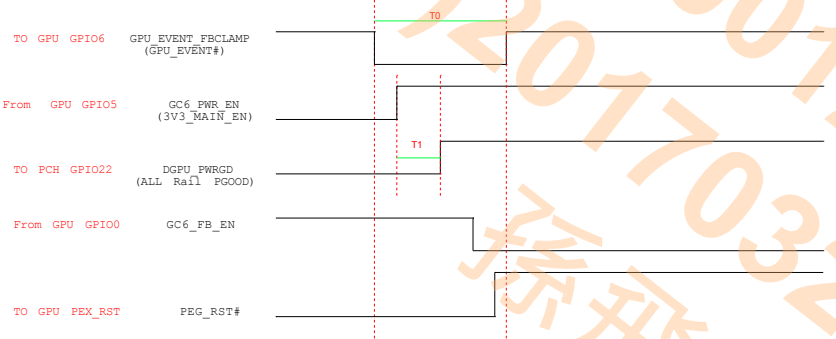




GC6 2.0 ENTRY SEQUENCE



GC6 2.0 EXIT SEQUENCE

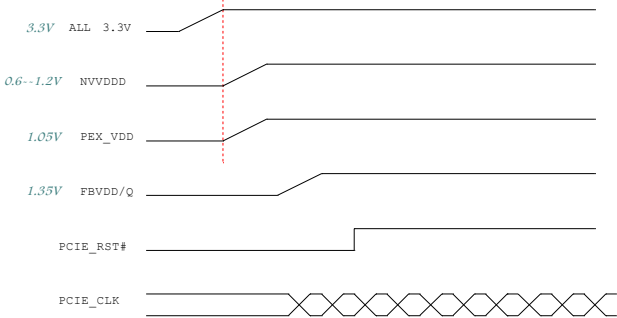


GC6 2.0 TIMING

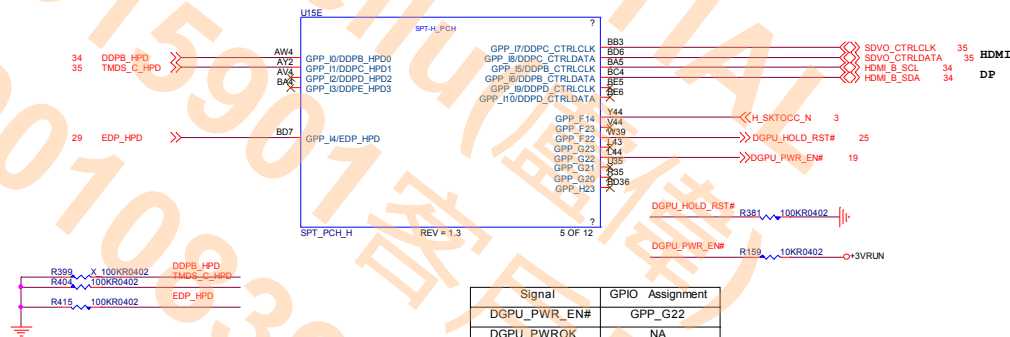
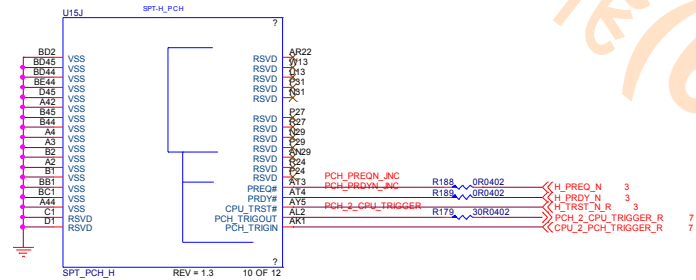
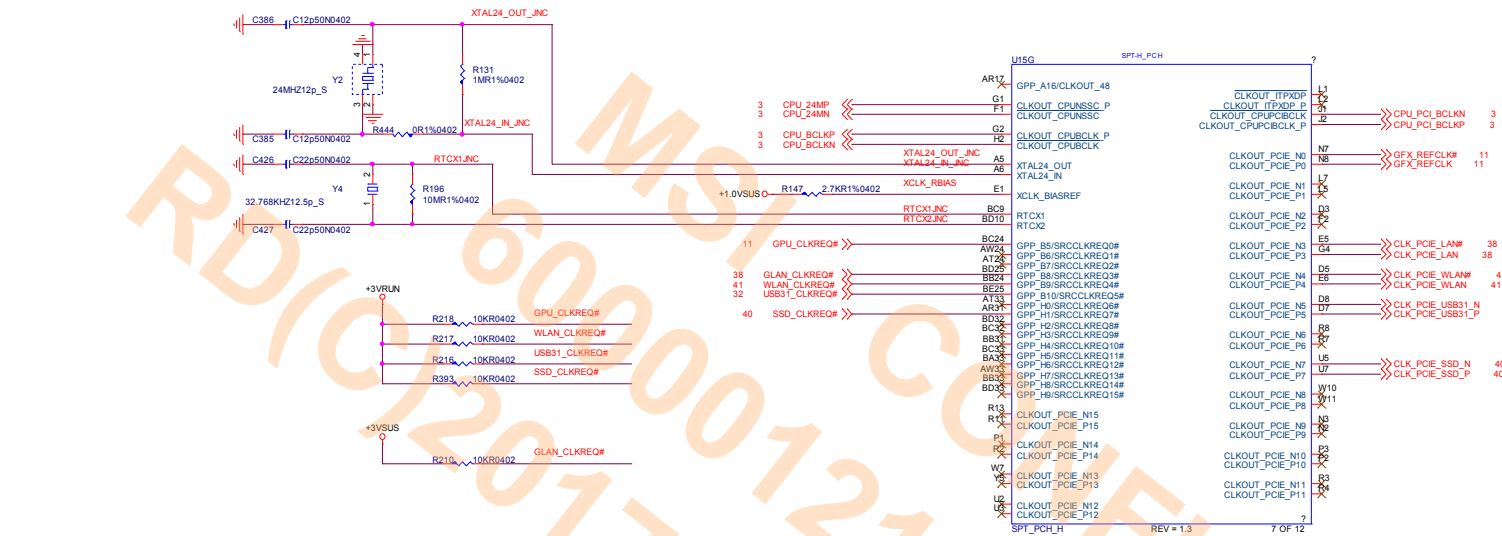
	Min	Max	Unit	Description
T0	0.001	N/A	mS	GPU_EVENT# assertion
T1	0.04	4	mS	3V3_MAIN_EN assertion to all power rails up and stable

- NOTES:
1. ALL RailPGOOD=1 represents all GPU power rails are ramped up and in regulation.  
If any GPU power rail cannot ge guaranteed in regulation this state should equal to 0.
  2. During GC6 exit, the order of power rail ramp-up must follow the Power up sequence described in Chapter 3 with the exception that FBVDD/Q stays on.
  3. All delays should be minimized to increase time spent in GC6 for maximum power saving.
  4. The entire entry and exit sequence must complete within 200 ms.

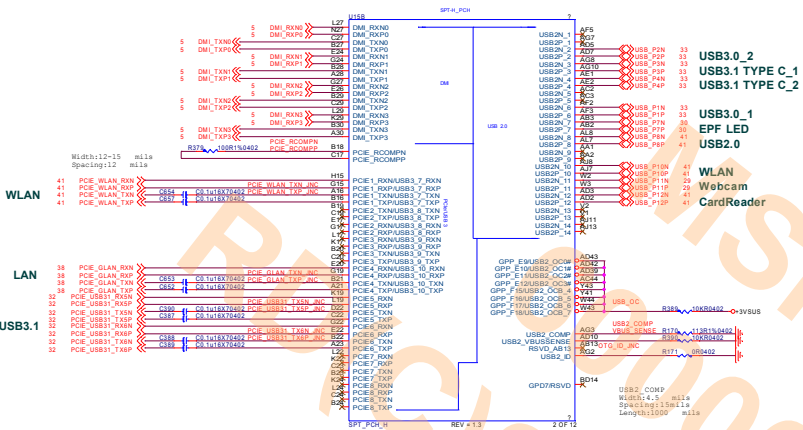
GPU POWER ON SEQUENCE



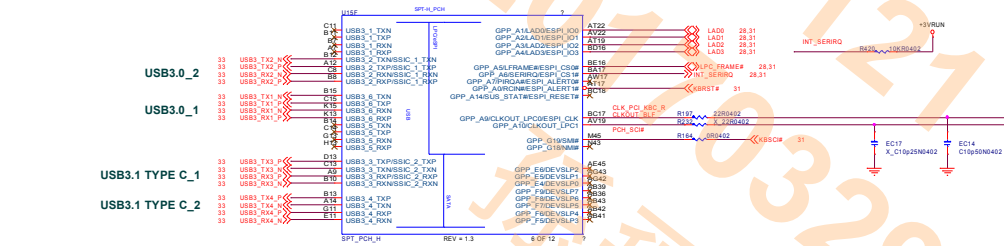
- NOTES:
1. 3.3V includes all rails powered at 3.3V , PEX\_VDD includes all rails that are shared on 1.05V/1.0V.
  2. The ramp time for any rail must be more than 40 us and is recommended to be less than 2ms.
  3. PEX\_VDD can ramp up before,after,or at the same time with NVVDD.
  4. The ramp up overshoot should not exceed the silicon reliability limit voltagr.
  5. A VDD33 must ramp up to 90% before NVVDD and PEX\_VDD in sequence can ramping up.  
NVVDD must ramp up to 90% before FBVDD/Q in sequence can ramping up.
  6. No signal should be applied to the GPU before the power rails are fully ramped.
  7. Refer to JEDEC Memory Specification for memory related power sequencing.



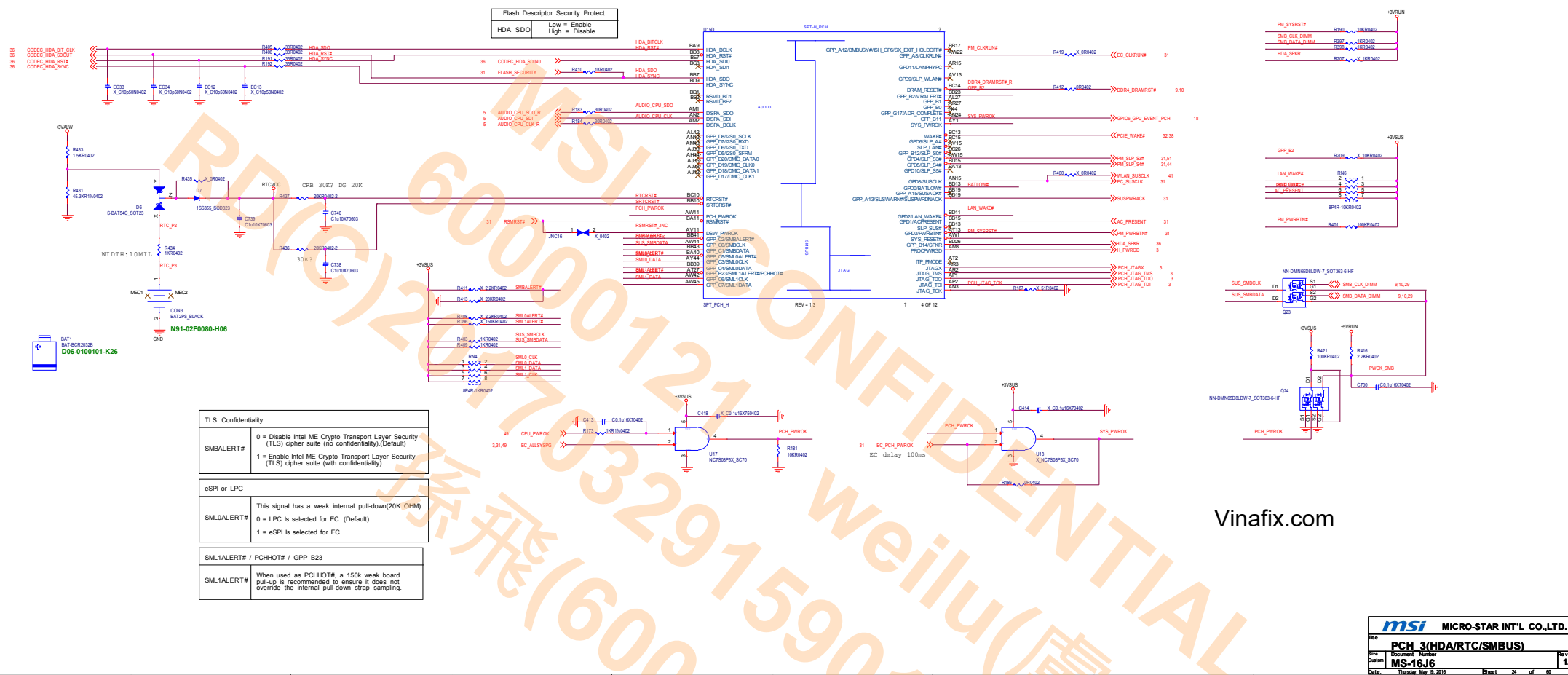
Signal	GPIO Assignment
DGPU_PWR_EN#	GPP_G22
DGPU_PWROK	NA
DGPU_HOLD_RST#	GPP_F22

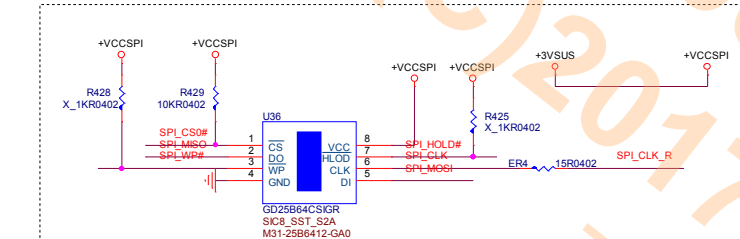
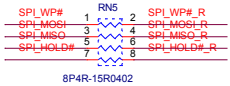


USB			
USB 2.0	USB 3.0	Device	Note
1			NC
2	2	USB 3.0 Port 2	16J61
3	3	USB 3.1 Port 1	16J61
4	4	USB 3.1 Port 2	16J61
5			NC
6	6	USB 3.0 Port 1	16J61
7		EPF 021	16J12
8		USB 2.0	16J12
9			NC
10		WLAN	NC
11		WebCam	NC
12		CARDREADER	16J12
13			NC
14			NC

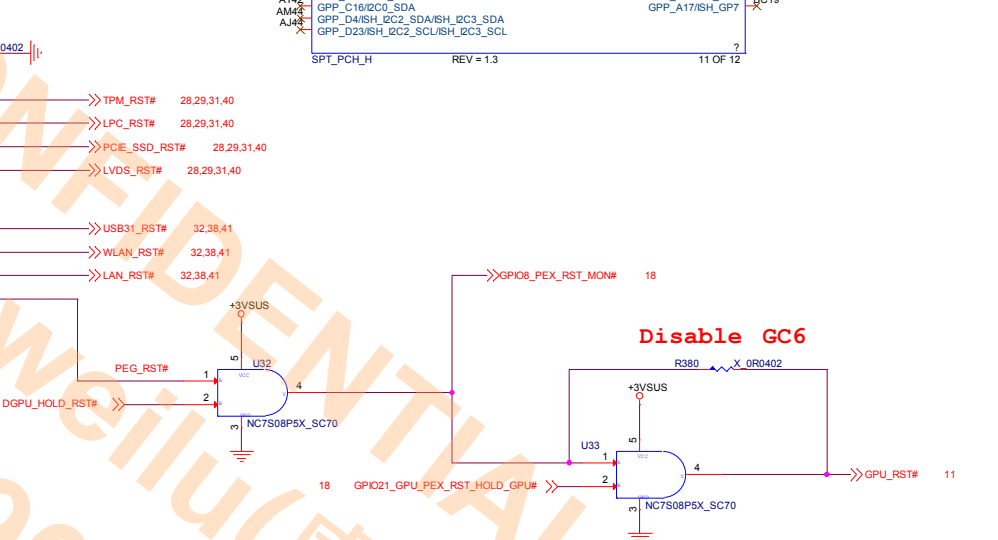
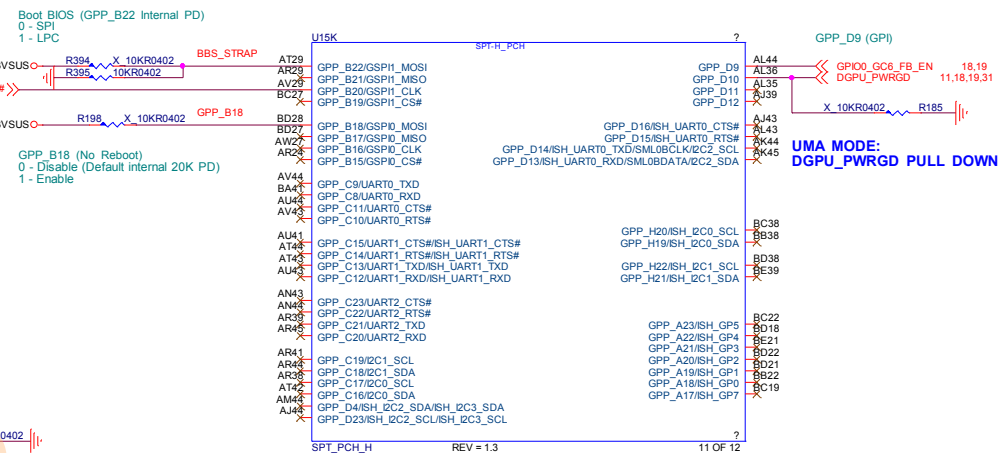
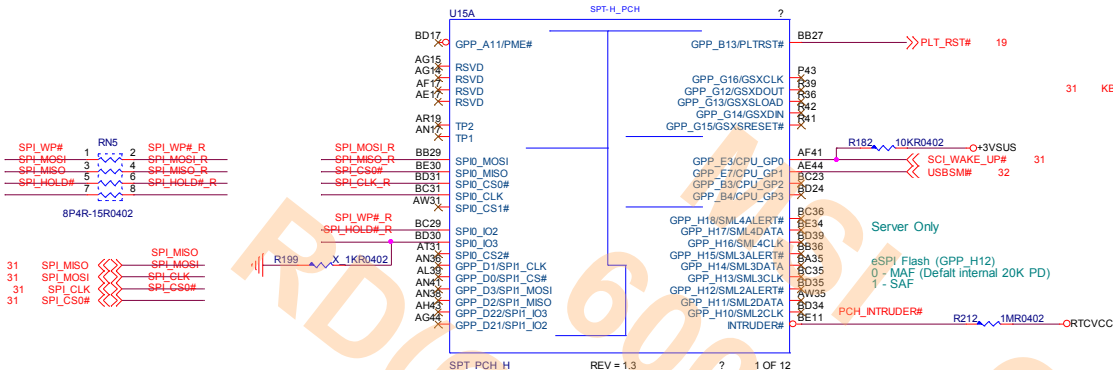


High Speed I/O Ports			
	HM170	C236	Device
1	USB3.0/PCIE	USB3.0/PCIE	WLAN
2	USB3.0/PCIE	USB3.0/PCIE	NC
3	PCIE	USB3.0/PCIE	NC
4	PCIE	PCIE	USB 3.1
5	PCIE	PCIE	NC
6	PCIE	PCIE	NC
7	PCIE	PCIE	NC
8	PCIE	PCIE	NC
9	SATA/PCIE	SATA/PCIE	M.2 SSD
10	SATA/PCIE	SATA/PCIE	NC
11	PCIE	PCIE	NC
12	PCIE	PCIE	NC
13	PCIE	SATA/PCIE	NC
14	PCIE	SATA/PCIE	NC
15	SATA/PCIE	SATA/PCIE	ODD
16	SATA/PCIE	SATA/PCIE	HDD
17	N/A	SATA/PCIE	NC
18	N/A	SATA/PCIE	NC
19	N/A	SATA/PCIE	NC
20	N/A	SATA/PCIE	NC





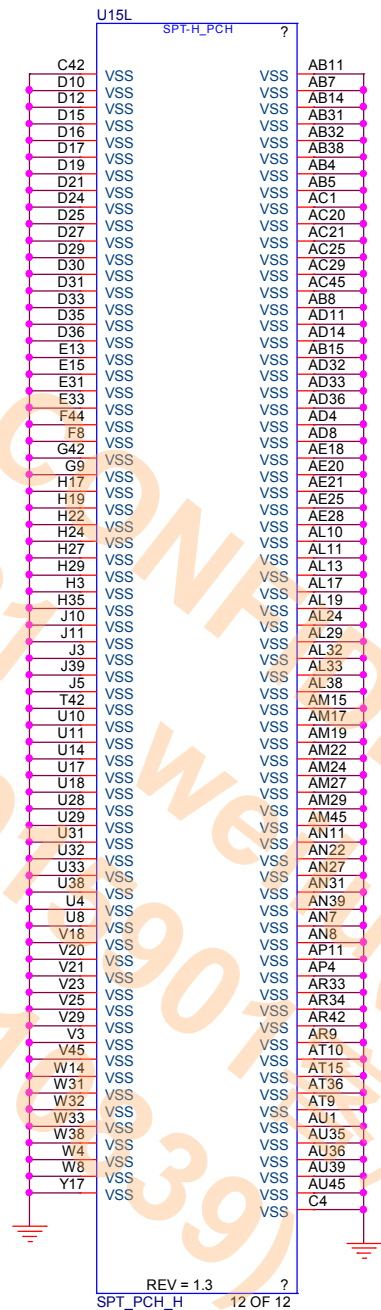
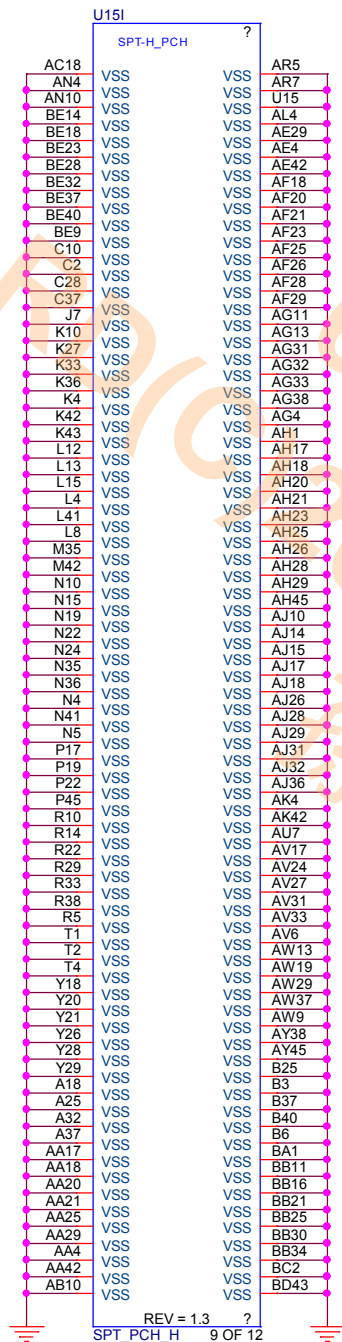
Supported types of Flash Memory  
Command: 0x03 & 0x0B & 0xBB



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Title: PCH 4(SPI/GPIO)		
Size: Custom	Document Number: MS-16J6	Rev: 1.1
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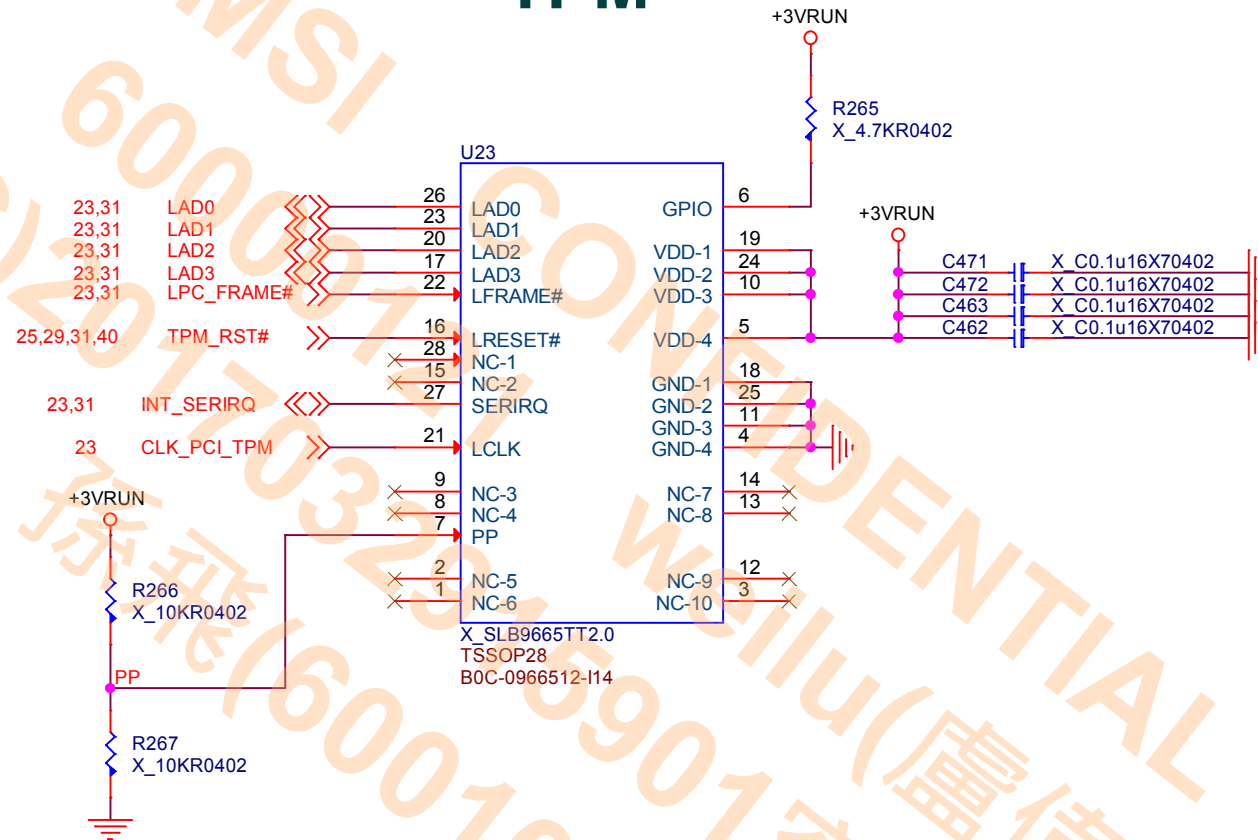






msi MICRO-STAR INT'L CO.,LTD.		
Title		
PCH-6 ( GND )		
Size	Document Number	Rev
	MS-16J6	1.1
Date:	Thursday, May 19, 2016	Sheet 27 of 60

# TPM



MICRO-STAR INT'L CO.,LTD.

Title

TPM

Size

Document Number

MS-16J6

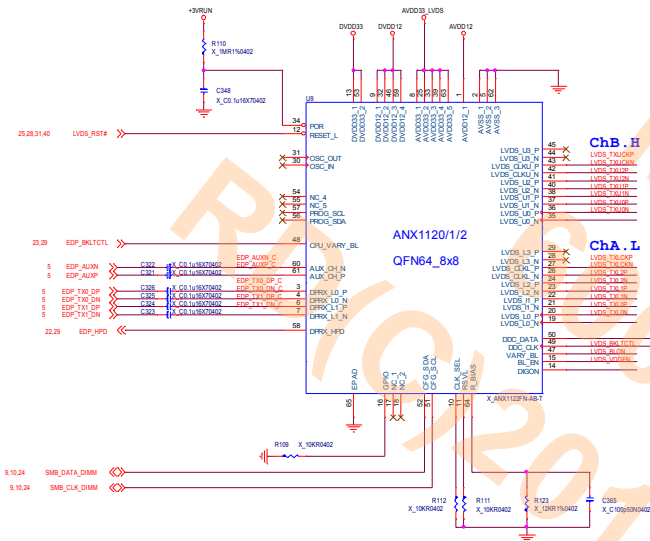
Rev

1.1

Date: Thursday, May 19, 2016

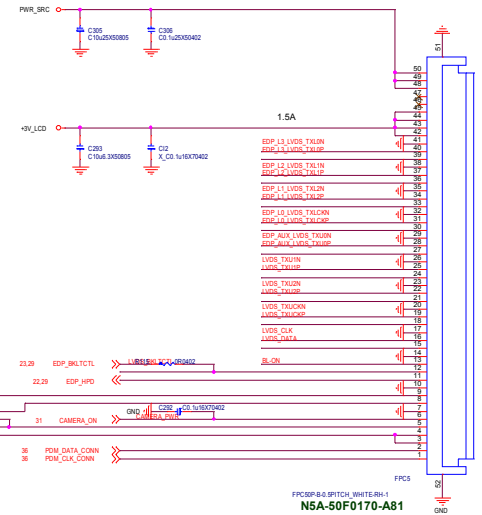
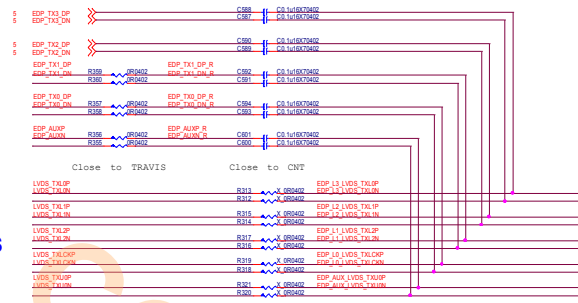
Sheet 28 of 60

# eDP to LVDS

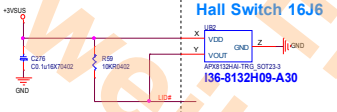


## eDP

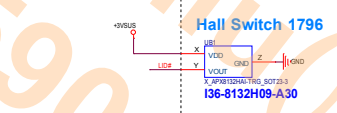
## LVDS



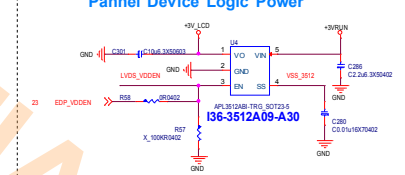
## Hall Switch 16J6



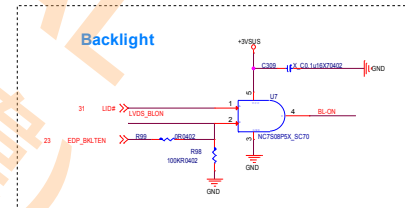
## Hall Switch 1796



## Panel Device Logic Power

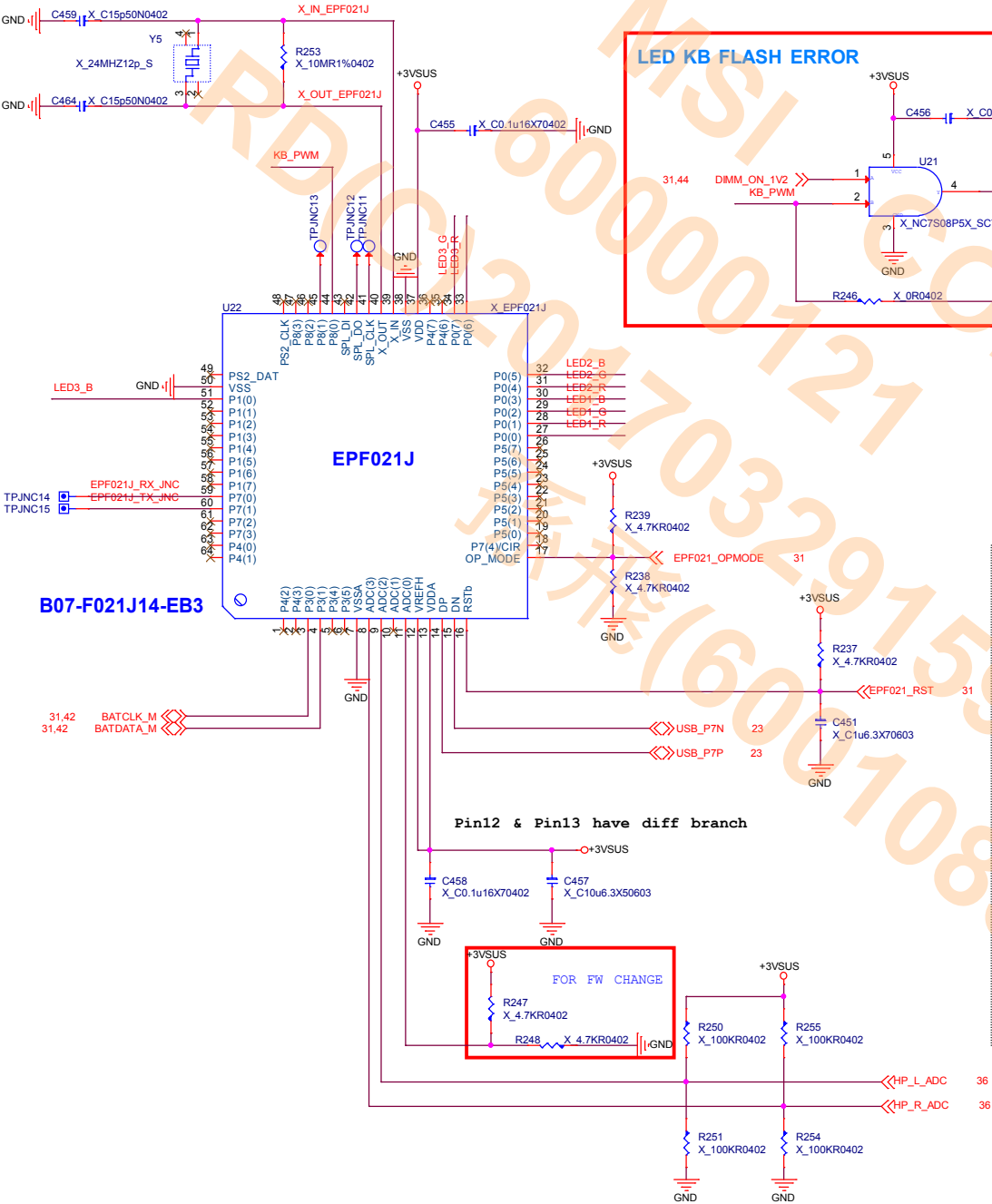


## Backlight

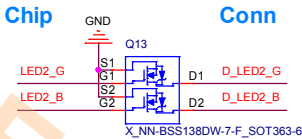
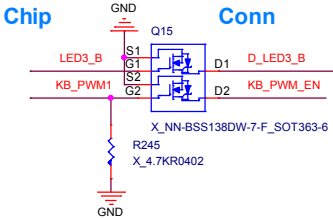
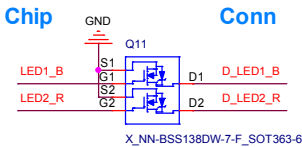
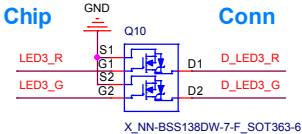
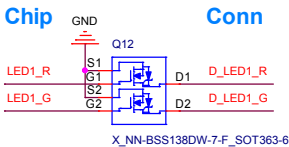


Keyboard LED (EPF021J)

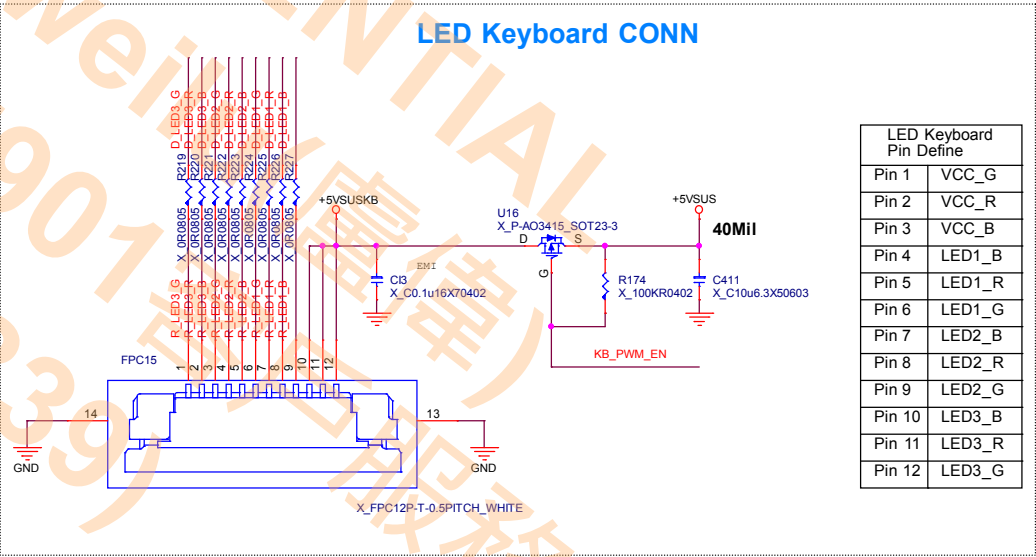
C749 and C750 change to 15pF for SA



EPF021J Sink current not enough, only using BSS138 (0.22A)



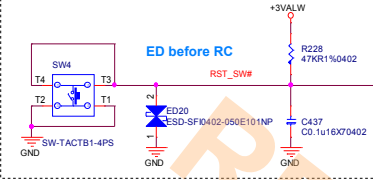
LED Keyboard CONN



LED Keyboard Pin Define	
Pin 1	VCC_G
Pin 2	VCC_R
Pin 3	VCC_B
Pin 4	LED1_B
Pin 5	LED1_R
Pin 6	LED1_G
Pin 7	LED2_B
Pin 8	LED2_R
Pin 9	LED2_G
Pin 10	LED3_B
Pin 11	LED3_R
Pin 12	LED3_G

# EC (ENE9028)

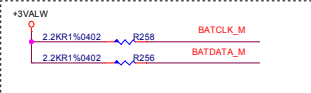
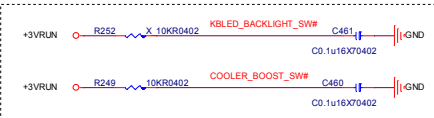
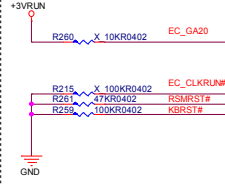
## Hardware Reset



## RC and R Close SW

R229 33R0402

## PU/PD



## ALLSYSPPG

51 VCCIO\_PWRGD

JNC12

EC\_ALLSYSPPG

3.24,49

## MB\_ID

PR140

R236

MB\_ID

100K

NC

N16P-GT

100K

100K

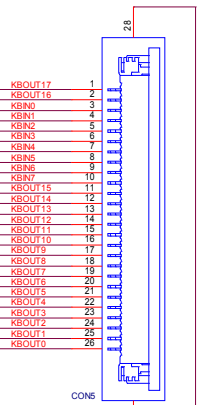
N16S-GTR

NC

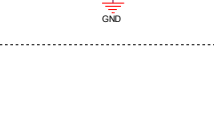
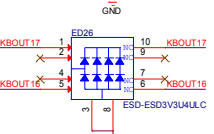
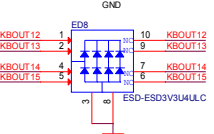
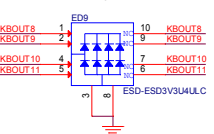
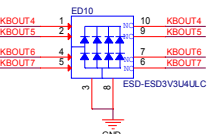
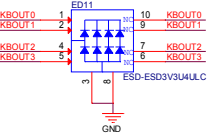
UMA

PR140	R236	MB_ID
100K	NC	N16P-GT
100K	100K	N16S-GTR
NC	100K	UMA

## Keyboard conn



FPC28P-T-1P1CH\_WHITE  
NSA-26F0270-A81



msi MICRO-STAR INT'L CO.,LTD.

EC (ENE9028)

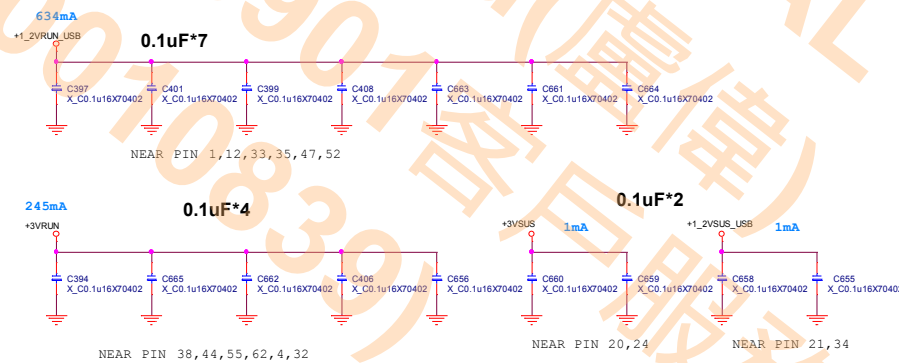
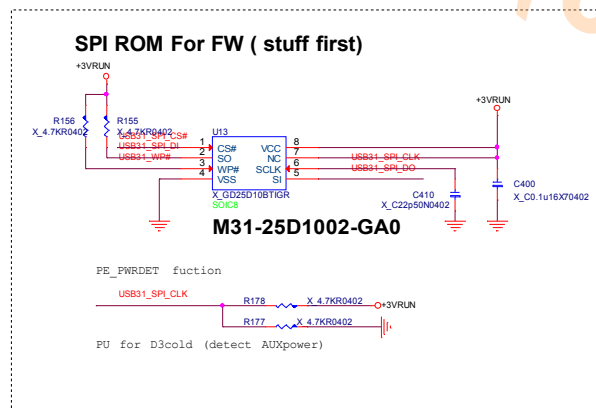
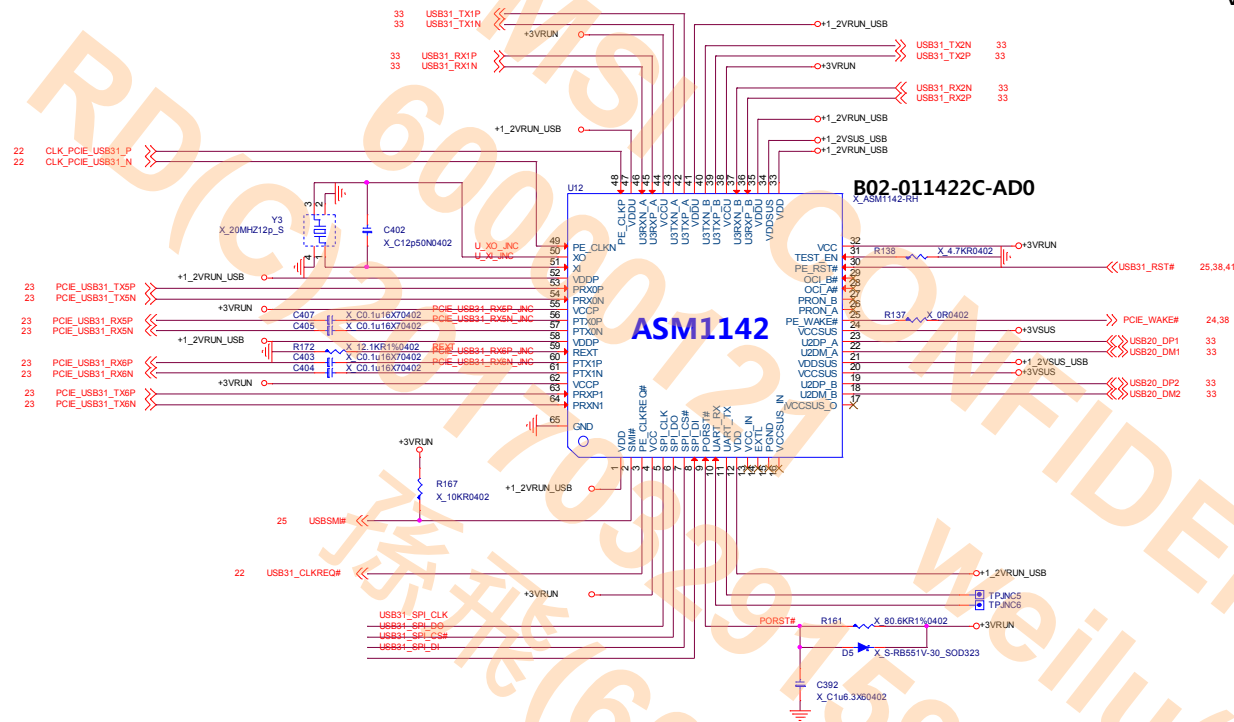
MS-16J6

Thursday, May 19, 2016

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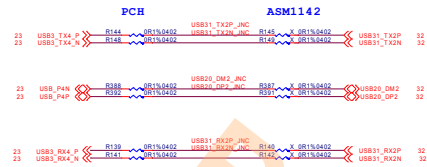
## PCIE to USB 3.1

Vinafix.com

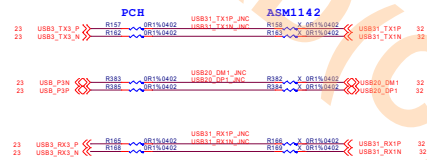




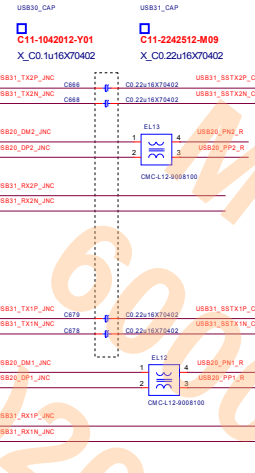
## USB 3.1/3.0 TYPE\_C 2



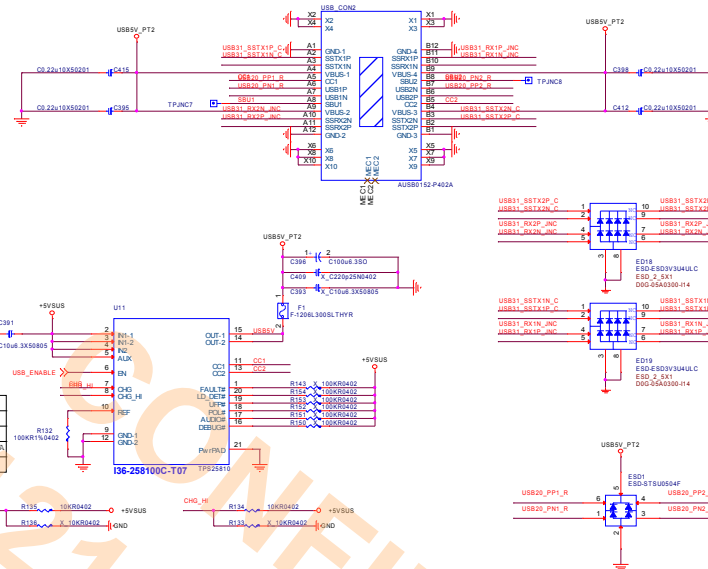
## USB 3.1/3.0 TYPE\_C 1



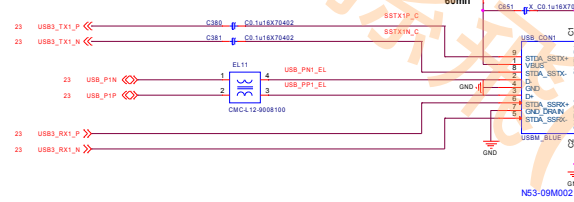
USB3.1 MODE: 0.22uF  
USB3.0 MODE: 0.1uF



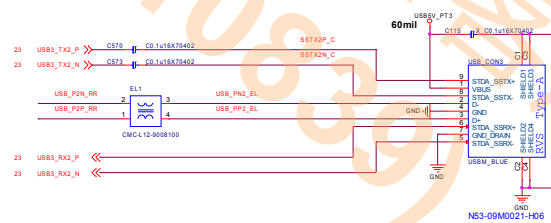
CHG	CHG_RZ	CC
0	0	STD
0	1	STD
1	0	1.5A
1	1	3A



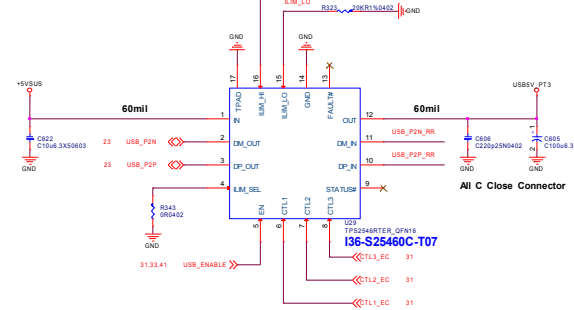
### USB3.0 CNT-1



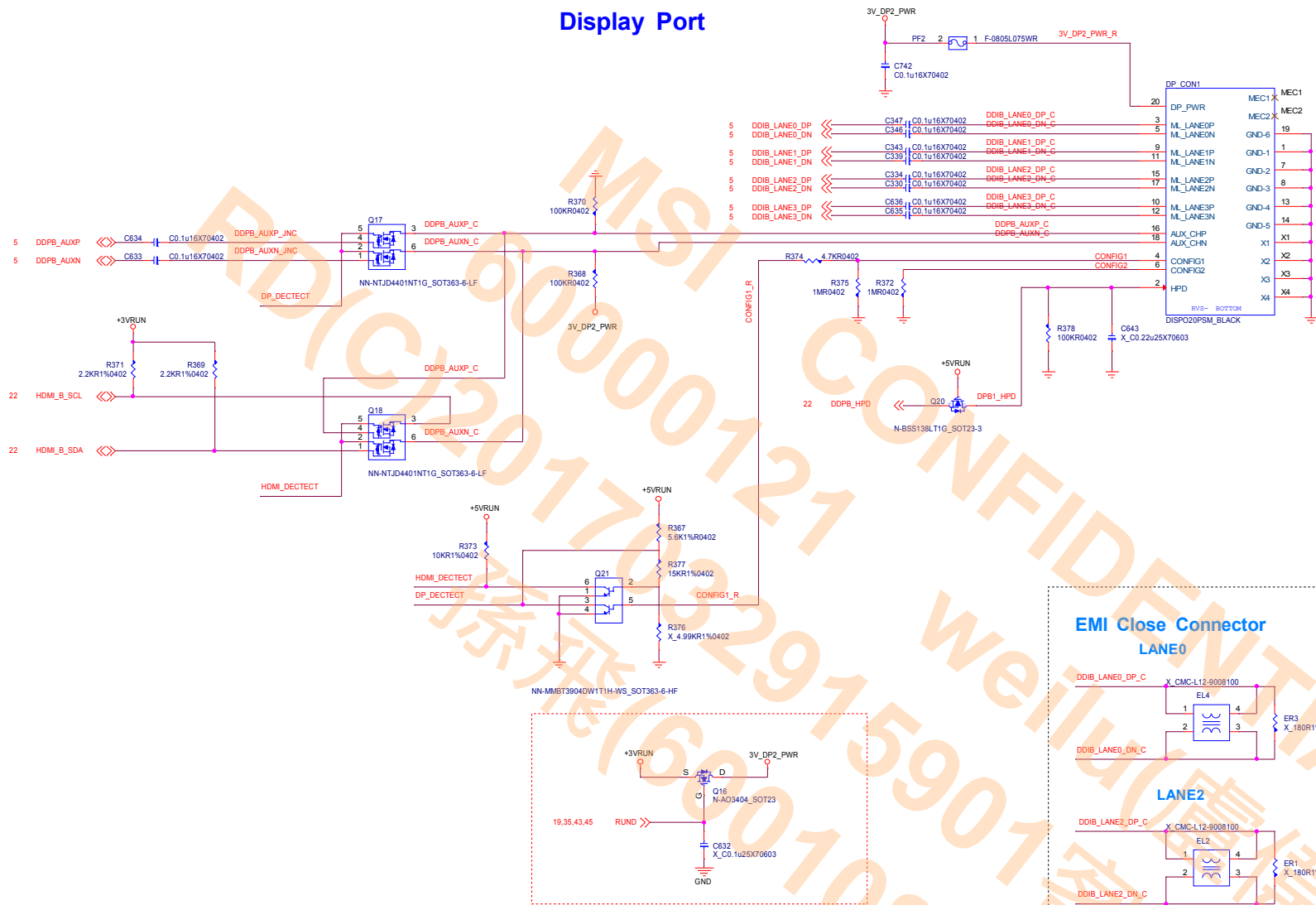
### USB3.0 CNT-3



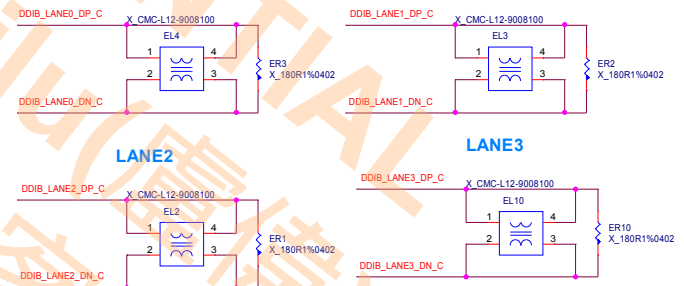
### I-Charger



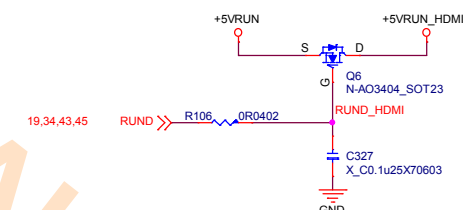
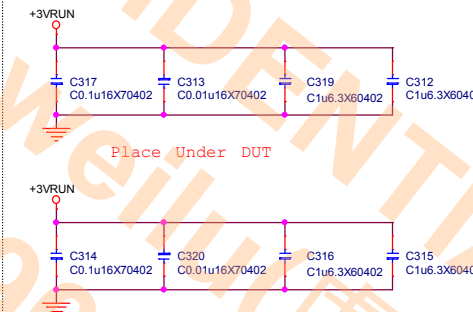
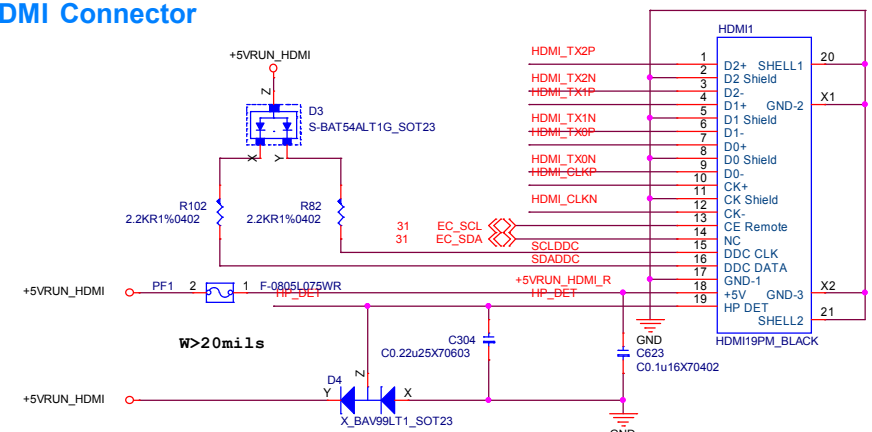
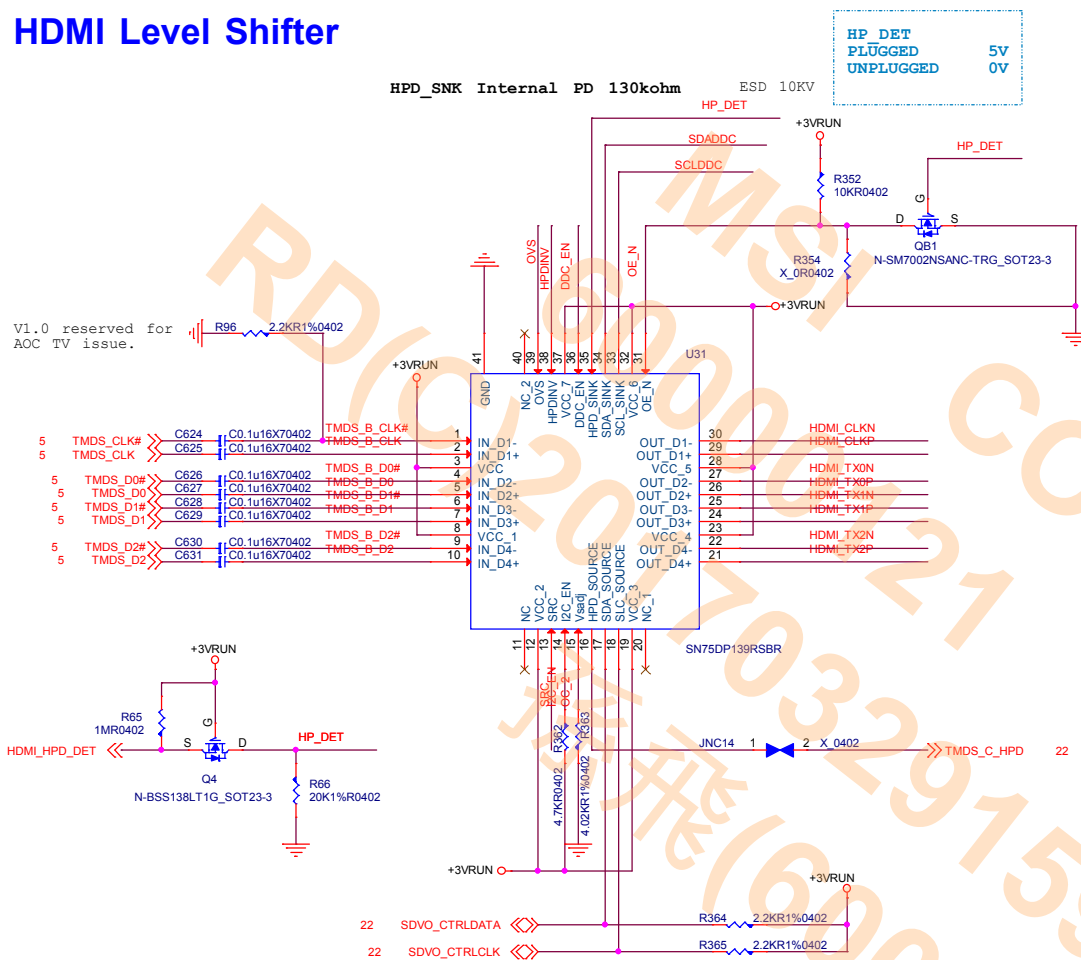
# Display Port



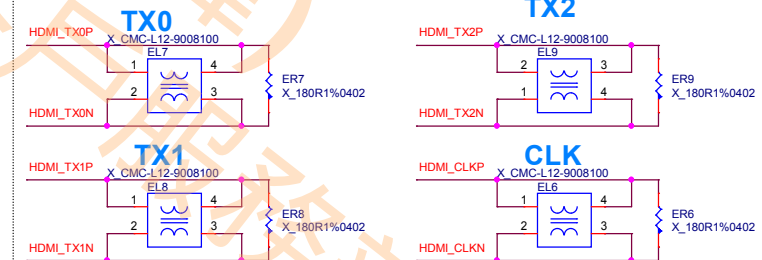
## EMI Close Connector



## HDMI Level Shifter



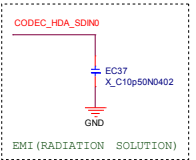
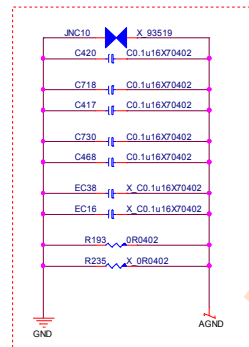
## EMI Close Connector

 MICRO-STAR INT'L CO.,LTD.

## HDMI DP139

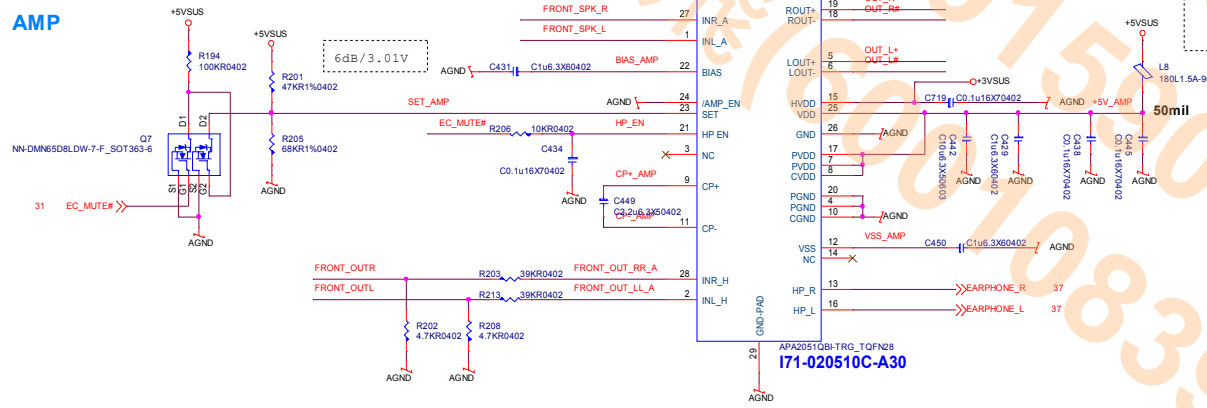
Size	Document Number	Rev
	<b>MS-16J6</b> Vinafix.com	<b>1.1</b>
Date:	Thursday, May 19, 2016	Sheet 35 of 60

# Audio CODEC(ALC898/ALC892)/Audio AMP(APA2031)

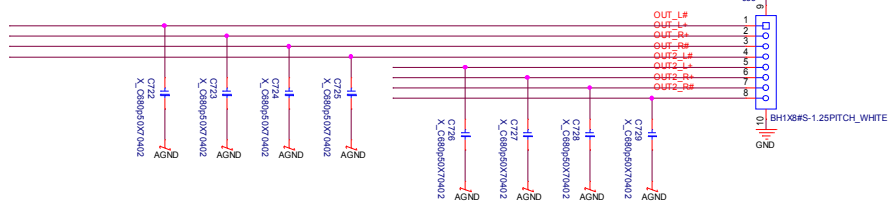


ALC892 Codec Spec max=1.2Vrms  
After SBC the codec output Vpp is 1.38V ,0.488Vrms  
U35(APA2051) Pin23: gain set  
 $5.1V + 39K / (19K + 39K) = 3.489V$   
 $10dB = 3.48V (R469:18K, R466:39K)$   
 $dB = 20 \log(V_o/V_i)$   
 $f_{Rsp} c = 2W/40m$   
 $10dB = 20 \log 3.16, V_{out} = 0.488Vrms * 3.16 = 1.54Vrms$   
 $P_o = (1.54 * 1.54) / 4 = 0.59W$

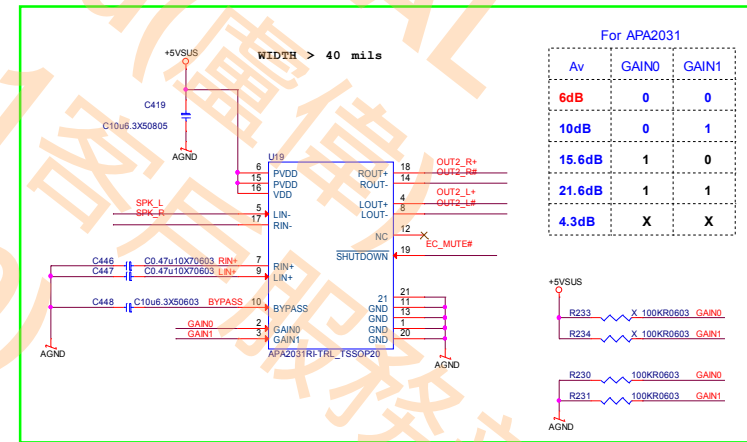
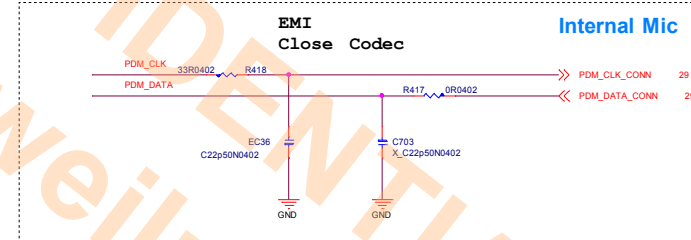
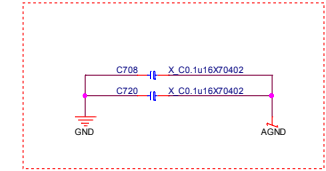
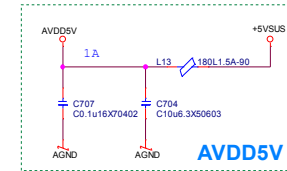
## AMP



## Internal Speaker Conn



CODEC	序
L	-
L	+
R	+
R	-
L2	-
L2	+
R2	+
R2	-

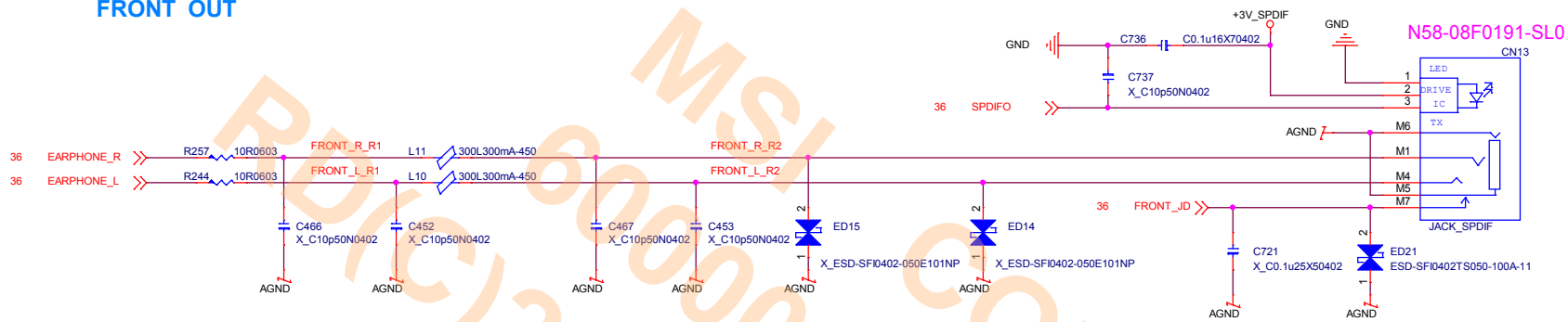


For APA2031

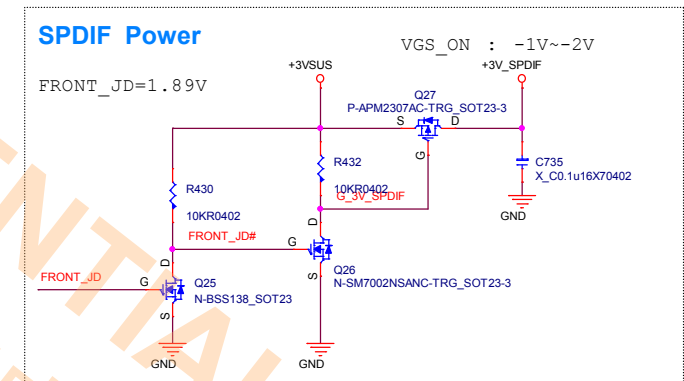
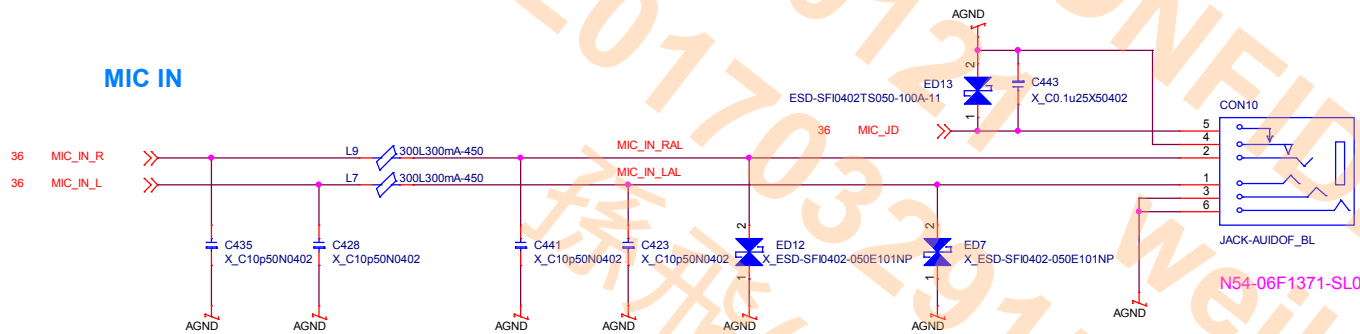
Av	GAIN0	GAIN1
6dB	0	0
10dB	0	1
15.6dB	1	0
21.6dB	1	1
4.3dB	X	X

## Audio CONN

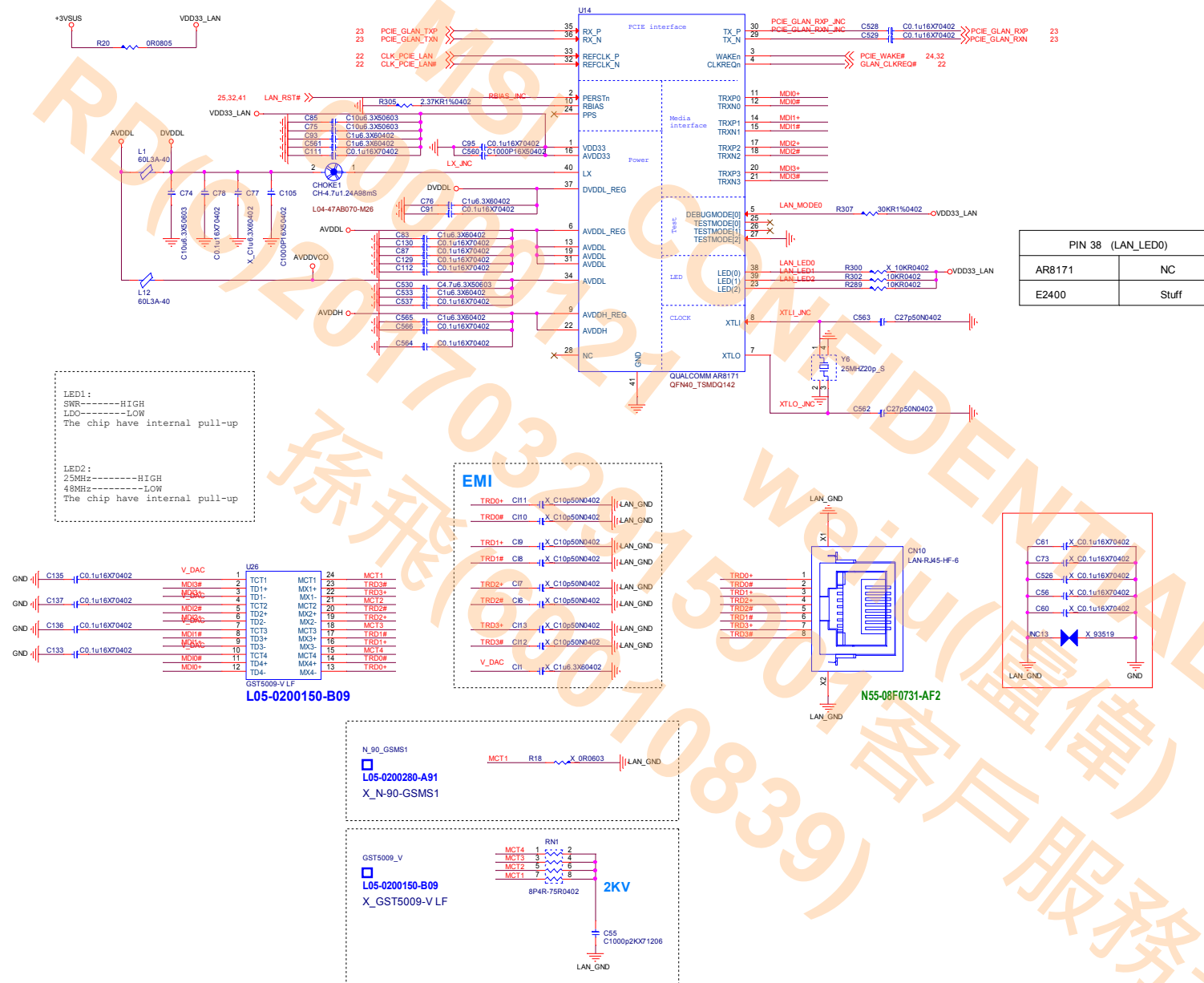
**FRONT OUT**



## MIC IN

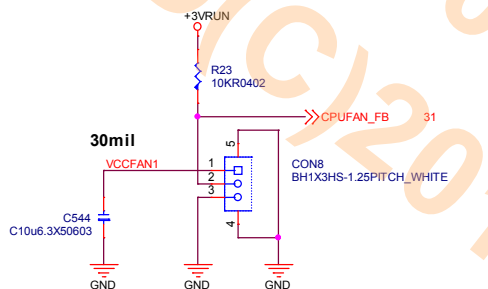
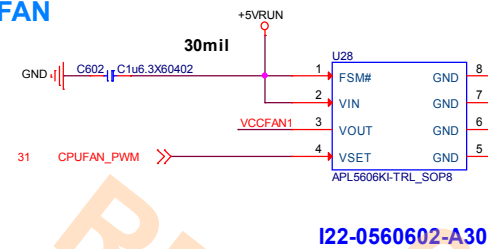


# GIGA LAN(BFN2400/AR8171)

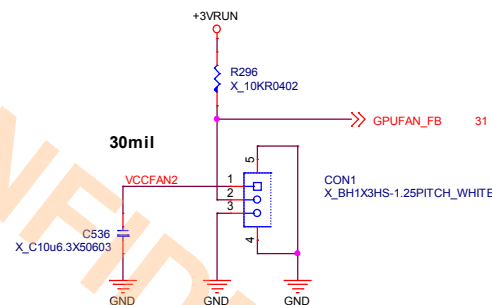
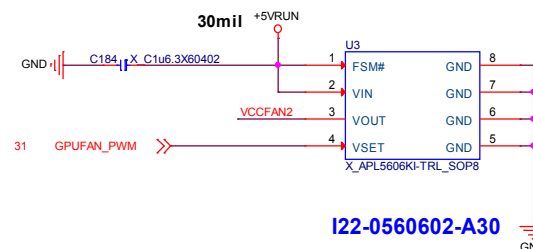




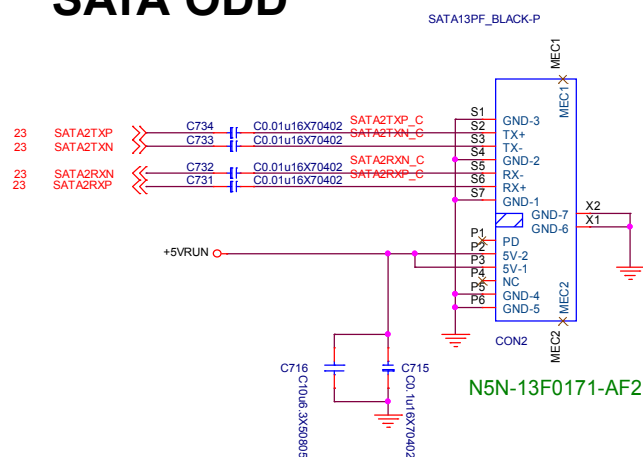
## CPU FAN



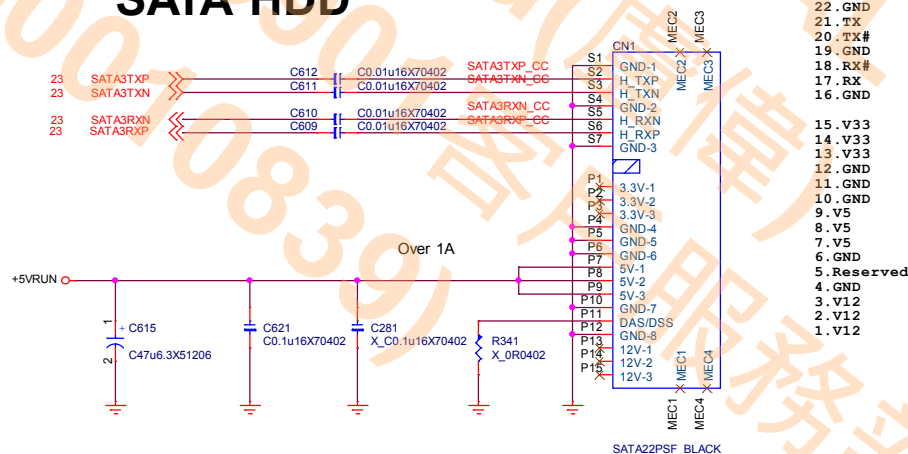
## DGPU FAN



## SATA ODD

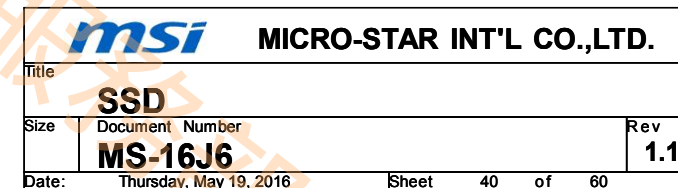


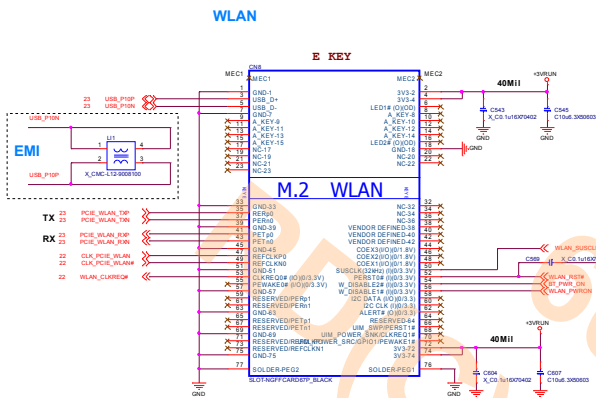
## SATA HDD



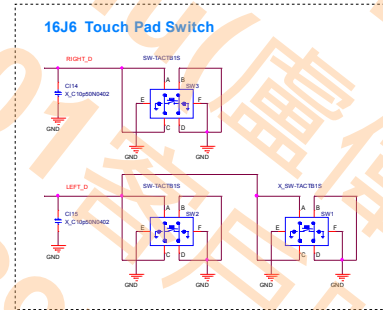
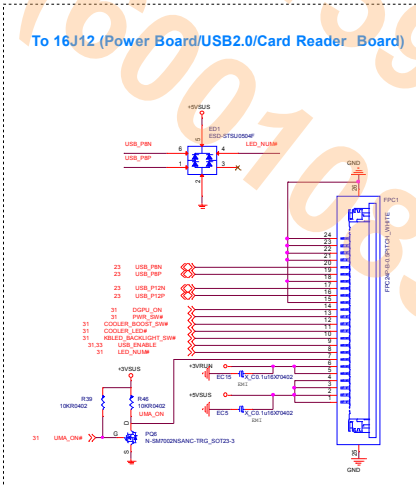
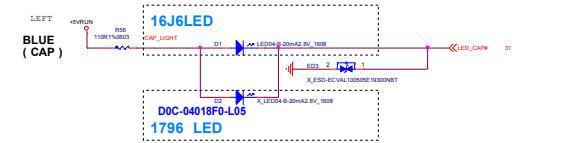
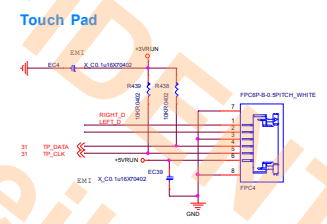
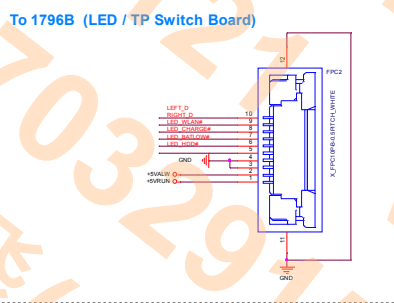
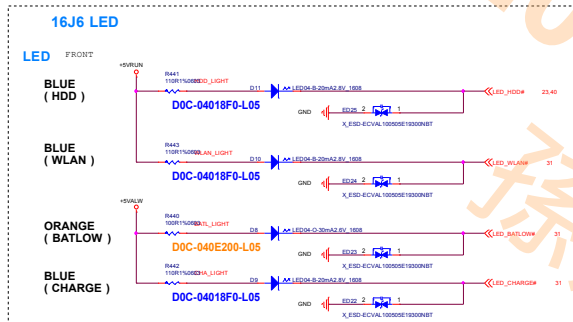
22.GND  
21.TX  
20.TX#  
19.GND  
18.RX#  
17.RX  
16.GND  
  
15.V33  
14.V33  
13.V33  
12.GND  
11.GND  
10.GND  
9.V5  
8.V5  
7.V5  
6.GND  
5.Reserved  
4.GND  
3.V12  
2.V12  
1.V12

**M.2 SSD**  
**PCIEx4 / SATA**

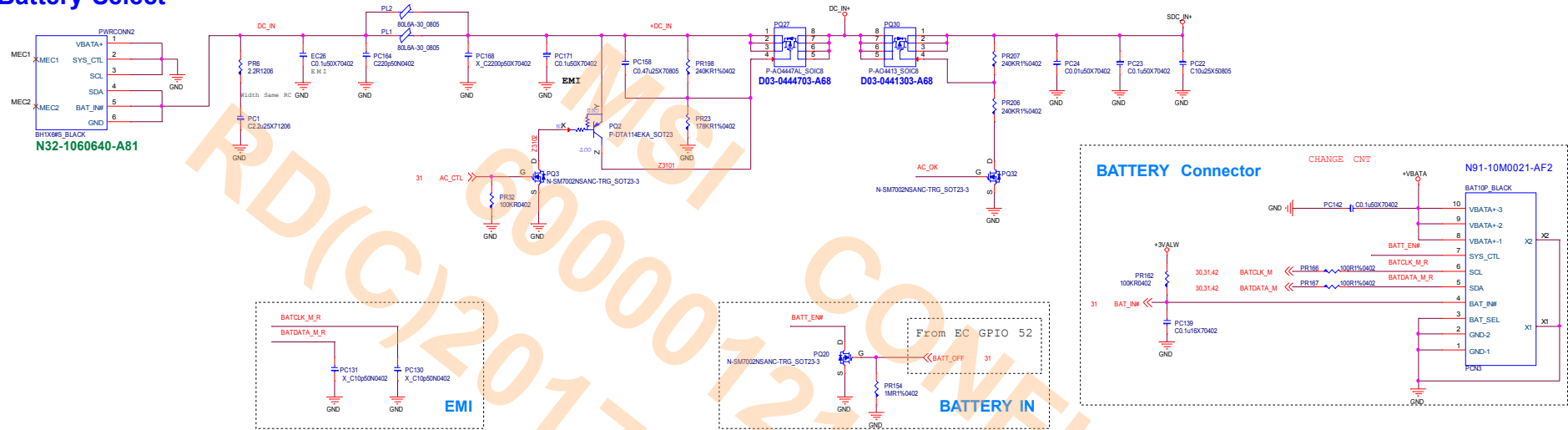




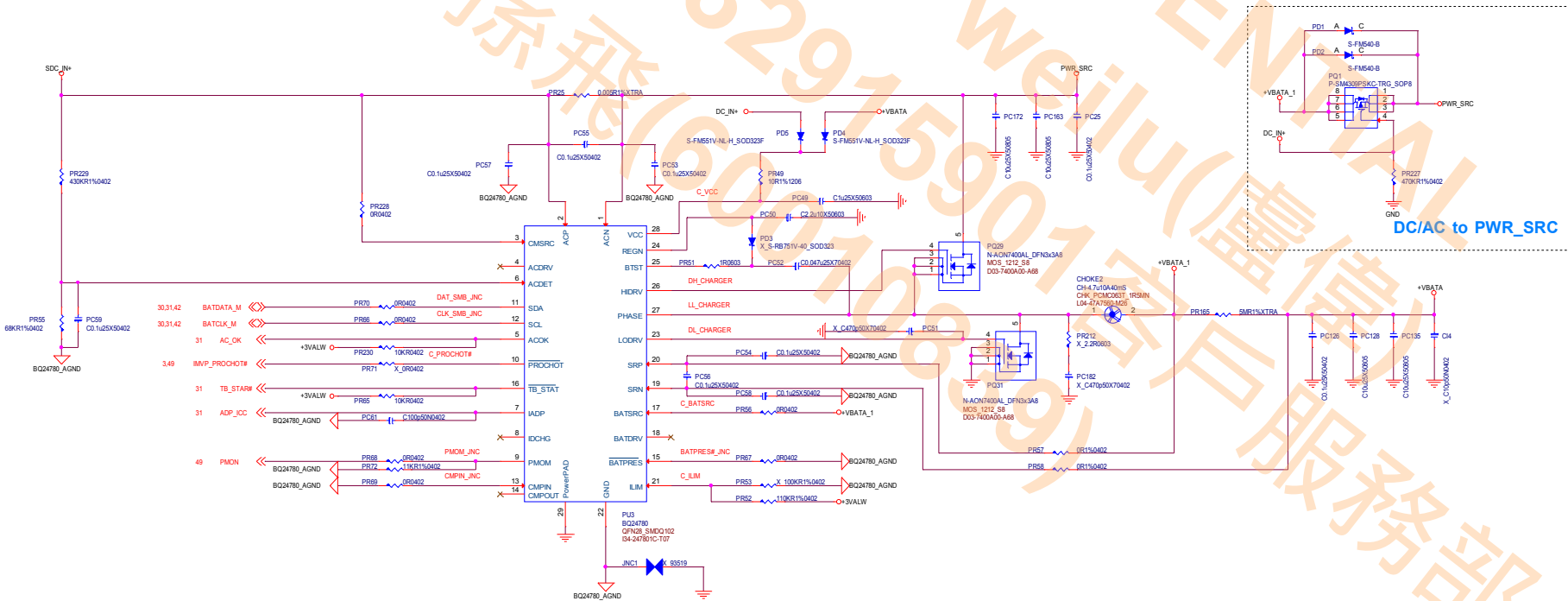
Pin 1	GND	Pin 2	3.3V
Pin 3	USB_D+	Pin 4	3.3V
Pin 5	USB_D-	Pin 6	LED1#
Pin 7	GND	Pin 8	Module Key
Pin 9	Module Key	Pin 10	Module Key
Pin 11	Module Key	Pin 12	Module Key
Pin 13	Module Key	Pin 14	Module Key
Pin 15	Module Key	Pin 16	LED2#
Pin 17	N/C	Pin 18	GND
Pin 19	N/C	Pin 20	N/C
Pin 21	N/C	Pin 22	N/C
Pin 23	N/C	Pin 24	Module Key
Pin 25	Module Key	Pin 26	Module Key
Pin 27	Module Key	Pin 28	Module Key
Pin 29	Module Key	Pin 30	Module Key
Pin 31	Module Key	Pin 32	N/C
Pin 33	GND	Pin 34	N/C
Pin 35	PERP0	Pin 36	N/C
Pin 37	PERN0	Pin 38	Clink Reset (I 3.3V)
Pin 39	GND	Pin 40	N/C
Pin 41	PETP0	Pin 42	N/C
Pin 43	PETN0	Pin 44	N/C
Pin 45	GND	Pin 46	N/C
Pin 47	REFCLKP0	Pin 48	N/C
Pin 49	REFCLKN0	Pin 50	N/C (SUSCLK (32kHz) for DSx)
Pin 51	GND	Pin 52	PERST0#
Pin 53	CLKREQ0#	Pin 54	BT_EN (W_DISABLE#)
Pin 55	PEWAKE0#	Pin 56	WLAN_EN (W_DISABLE#)
Pin 57	GND	Pin 58	N/C
Pin 59	N/C	Pin 60	N/C
Pin 61	N/C	Pin 62	N/C
Pin 63	GND	Pin 64	Resever
Pin 65	N/C	Pin 66	N/C
Pin 67	N/C	Pin 68	N/C
Pin 69	GND	Pin 70	N/C
Pin 71	N/C	Pin 72	3.3V
Pin 73	N/C	Pin 74	3.3V
Pin 75	GND		



## Battery Select



## Battery Charger



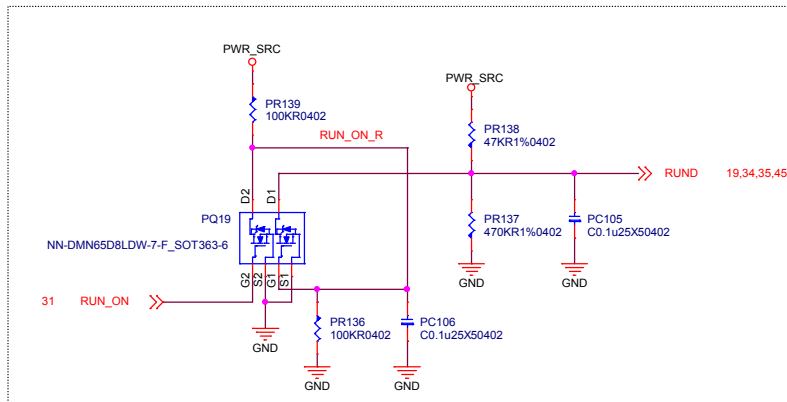
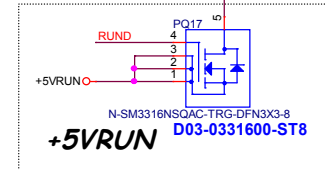
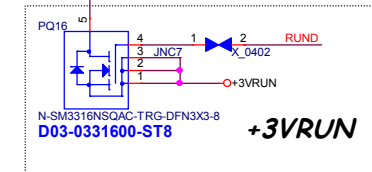
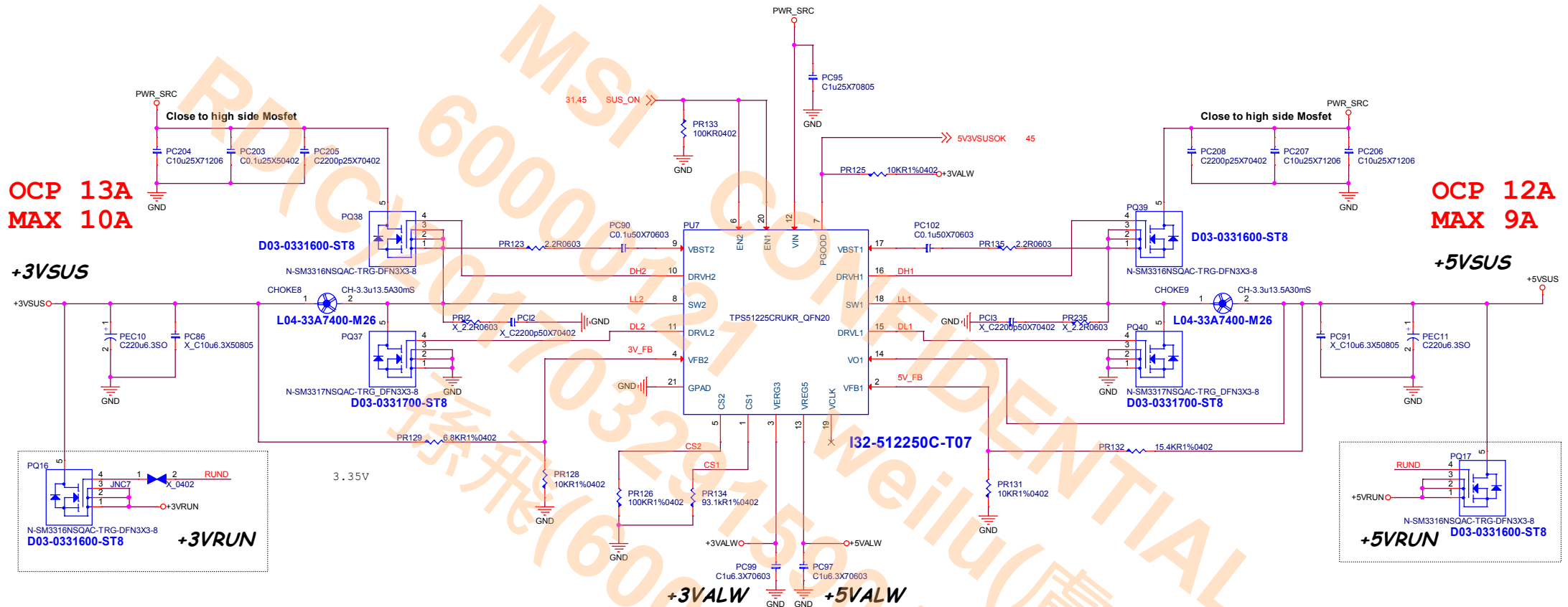
# System Power

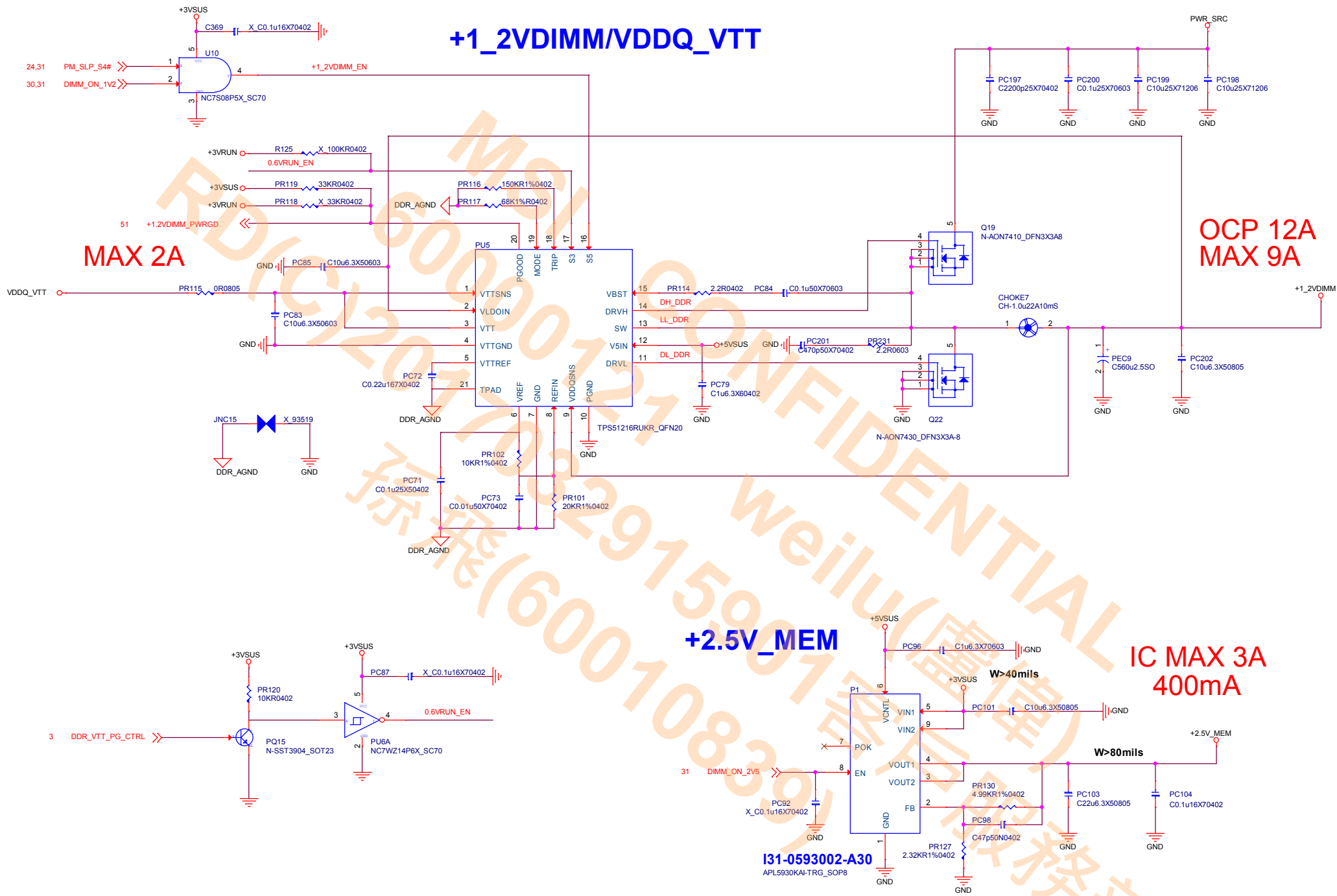
**OCF 13A  
MAX 10A**

**+3VSUS**

**OCF 12A  
MAX 9A**

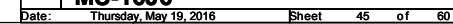
**+5VSUS**





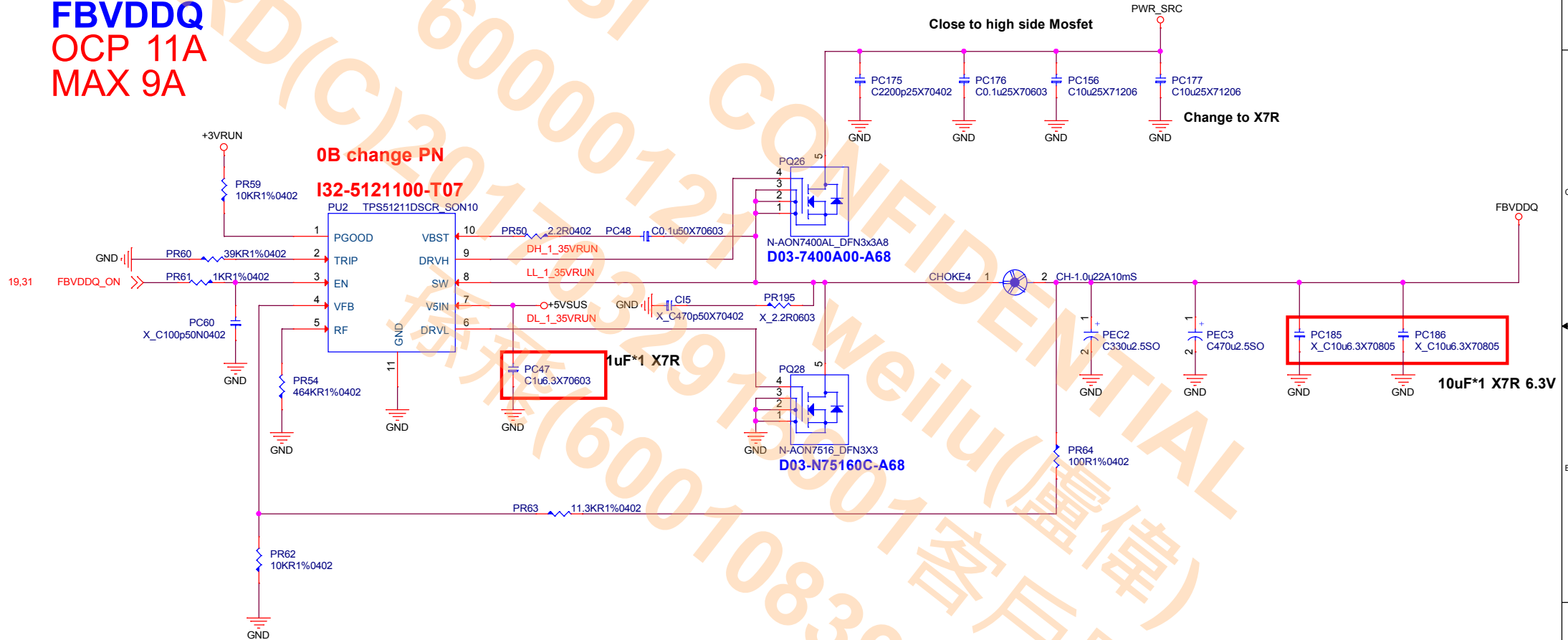


Voltage = 1V  
Current = 5A  
OCP (typi) = 8A



# DGPU POWER FBVDDQ

**FBVDDQ**  
**OCP 11A**  
**MAX 9A**



# DGPU POWER / UP1642PQAG

EDP-Peak 70A

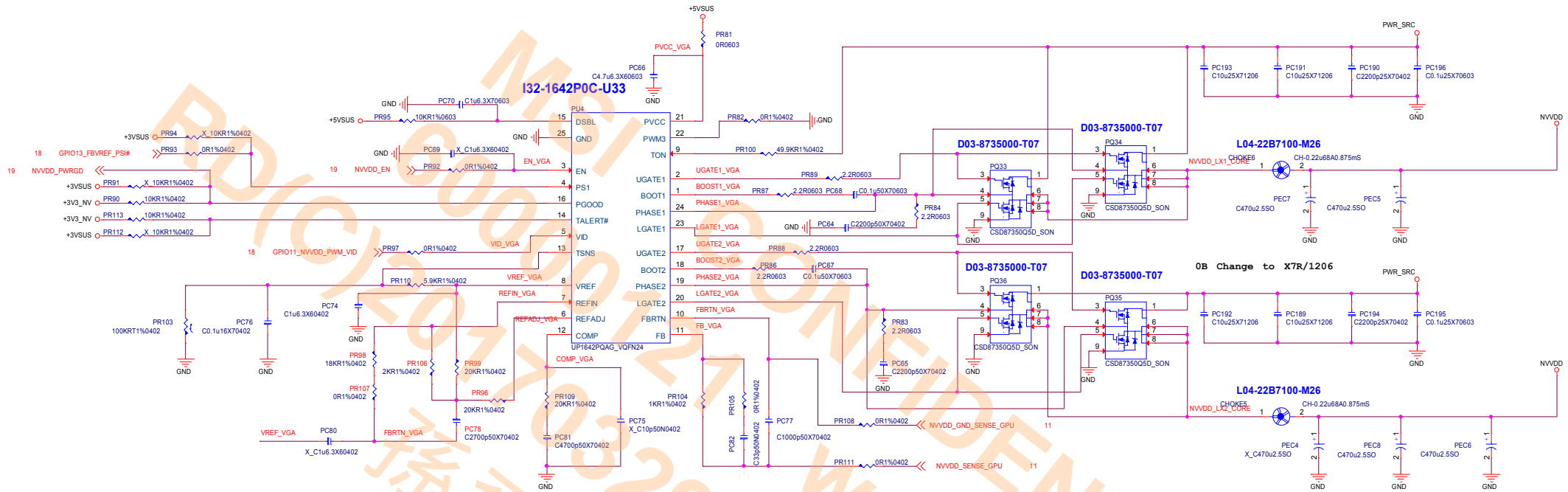
EDP-Con 50A

# DGPU POWER NVVDD

CONFIG A

VBoot:0.875V

Vmin:0.6V / Vmax:1.2V



	PR56	PR52	PR53	PR54	PR121	PC45
CONFIG	R1	R2	R3	R4	R5	C
N16E-GT	20K	20K	2K	18K	0	2.7nF
N16P-GX-B	20K	20K	2K	18K	0	2.7nF

20141029 power modify for GPU power setting


PR52,PR56: 39K ohm to 20K ohm

PR53: 1.5K ohm to 2K ohm

PR54: 30K ohm to 18K ohm

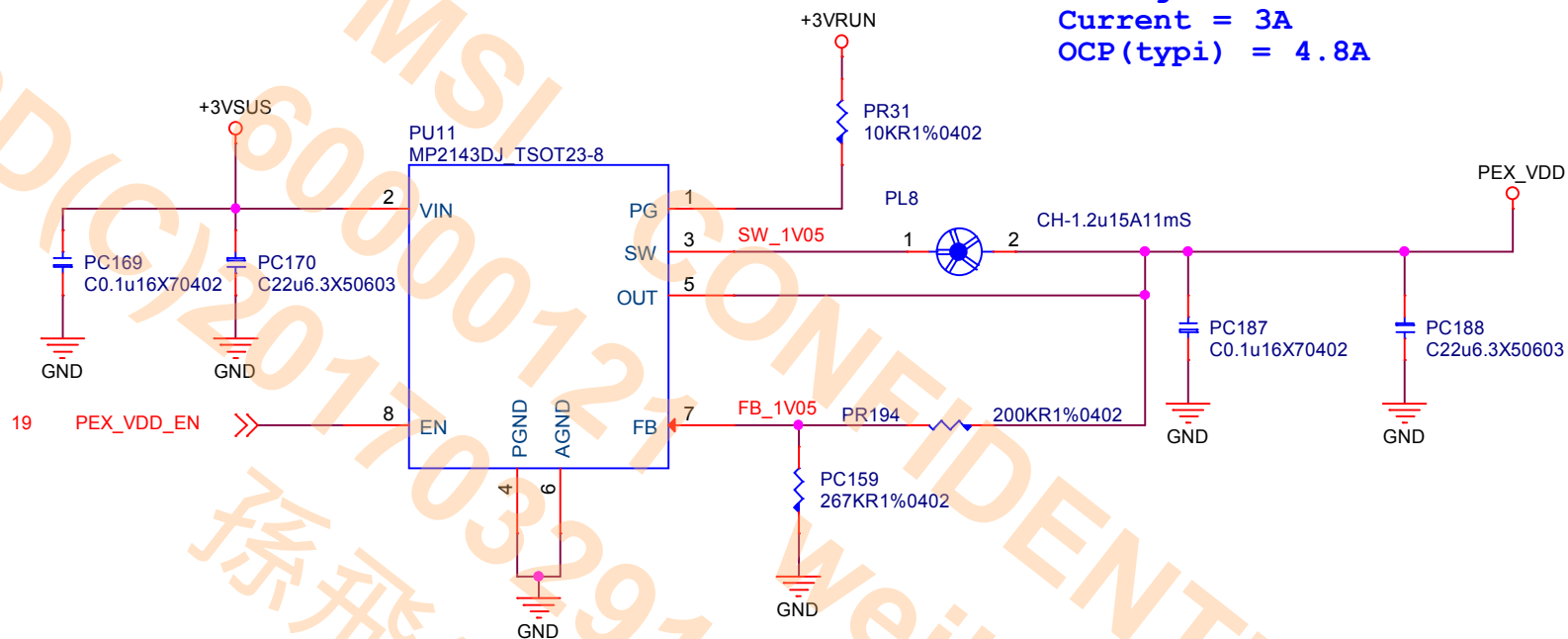
PR121: 1.5K ohm to 0 ohm

PC45: 1.5nF to 2.7nF

		MICRO-STAR INT'L CO.,LTD.	
Title			
DGPU POWER NVVDD			
Size	Document Number		Rev
	MS-16J6		1.1
Date:	Thursday, May 19, 2016	Sheet	47 of 60

# PEX\_VDD

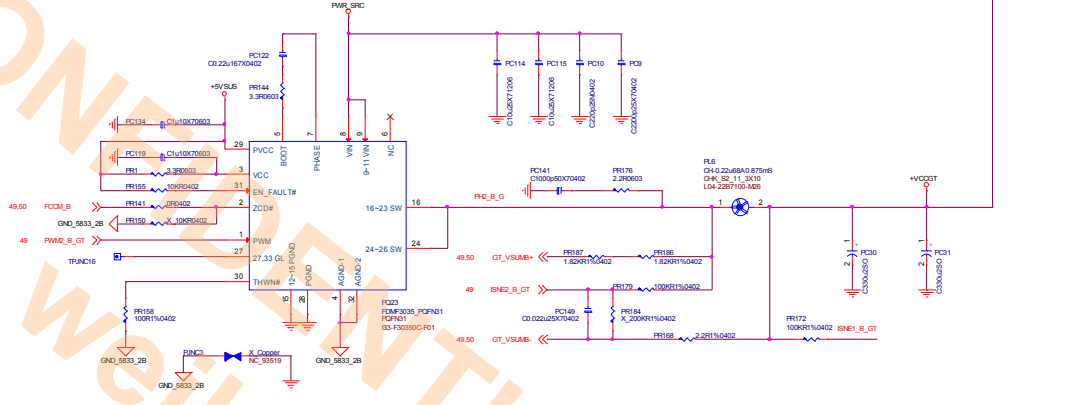
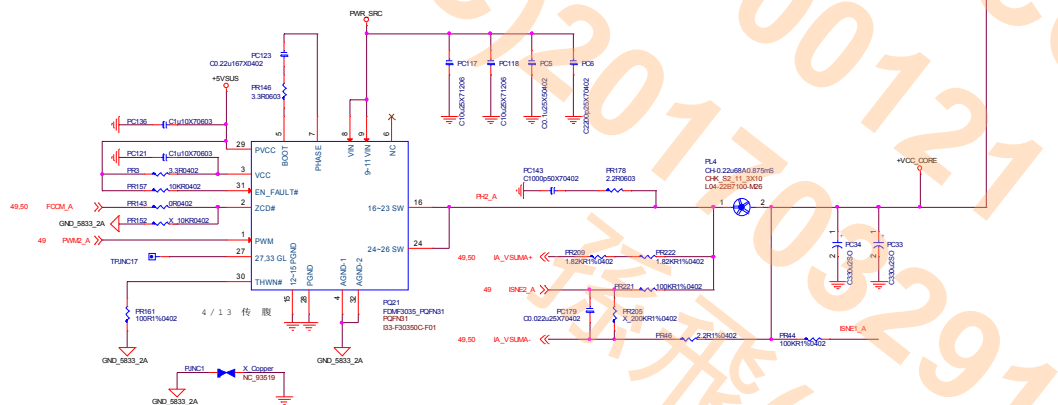
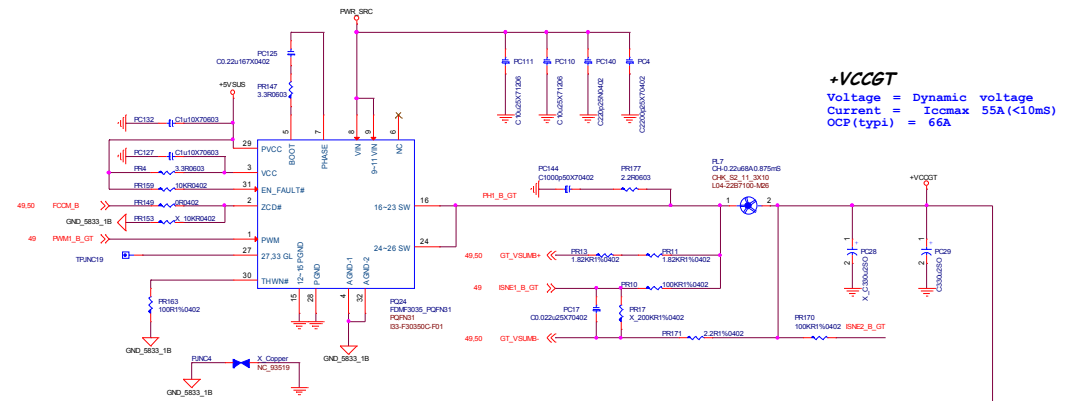
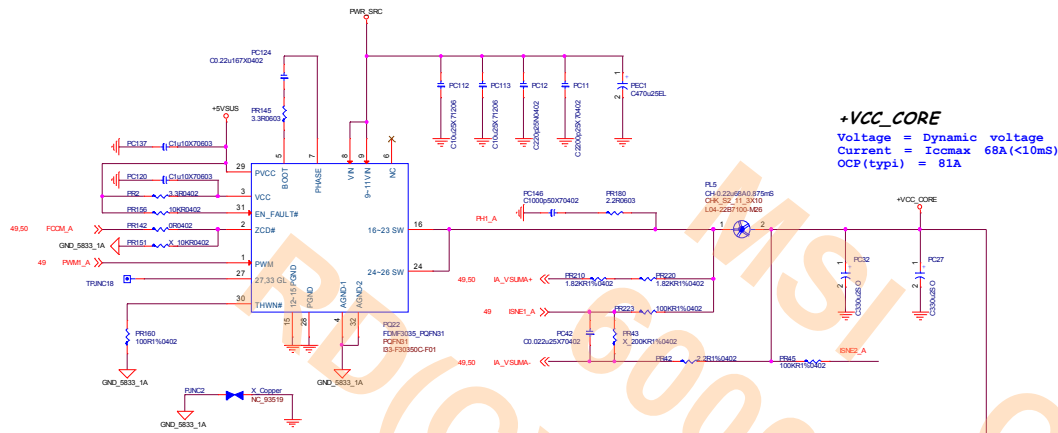
Voltage = 1.05V  
Current = 3A  
OCP(typi) = 4.8A



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<b>DGPU POWER PEX_VDD</b>		
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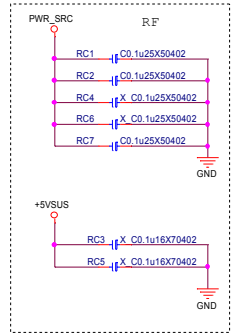
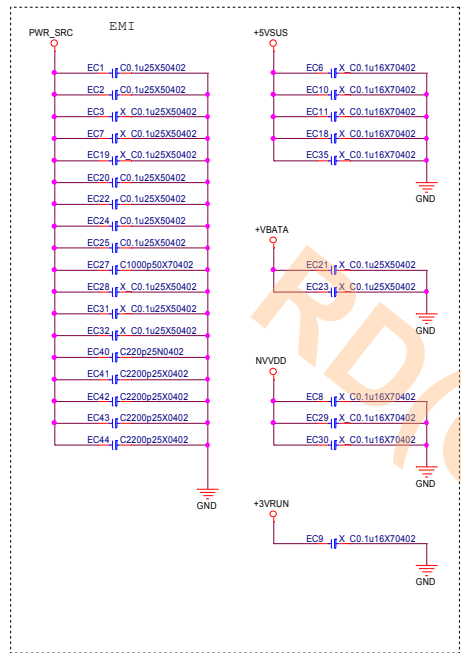
SKL-H (4+2)

PROG1	110KR	/boot=0V, Selw rate=30mV/us, VR_A=IA, VR_B=GT, VR_C=SA
PROG2	150KR	IMAX VR_A=70A, VR_A PS1I=1PH
PROG3	20.5KR	IMAX VR_B=60A, DROOP VR_B Active
PROG4	182KR	DROOP VR_A Active, DROOP VR_C Active, VR_A VR_B Frequency=750kHz
PROG5	48.7KR	IMAX VR_C=12A, Frequency=450kHz

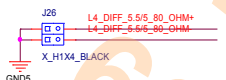
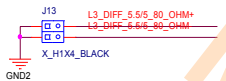
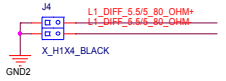




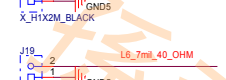
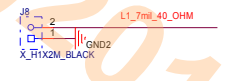




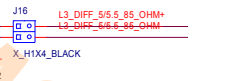
80 OHM Differential



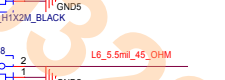
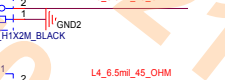
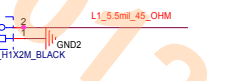
40 OHM Single-End



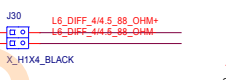
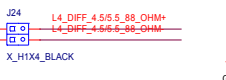
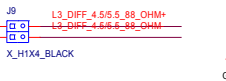
85 OHM Differential



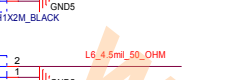
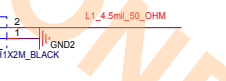
45 OHM Single-End



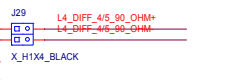
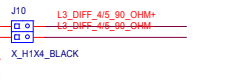
88 OHM Differential



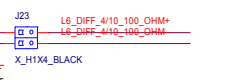
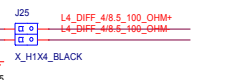
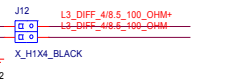
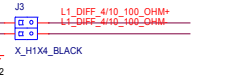
50 OHM Single-End



90 OHM Differential

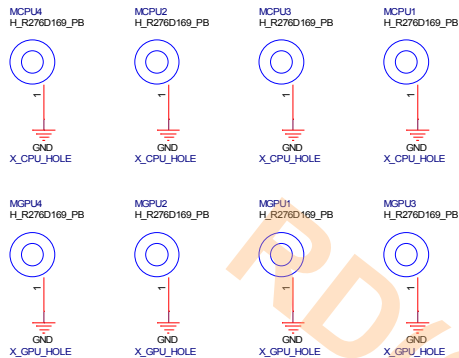


100 OHM Differential

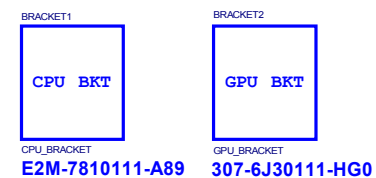


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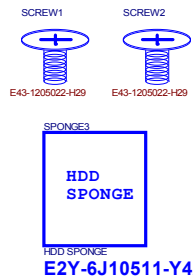
## CPU/GPU Holes



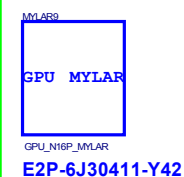
## CPU/GPU BRACKET



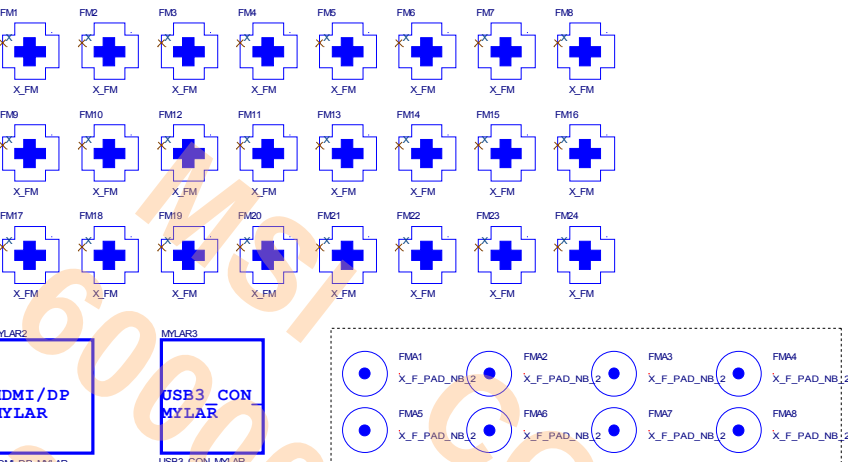
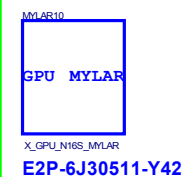
## HDD



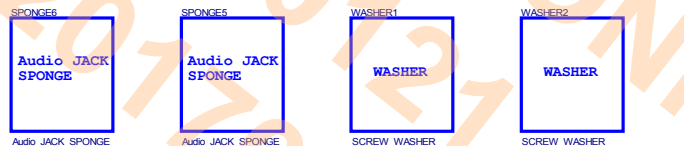
## Only N16P\_GT GPU



## Only N16S\_GTR GPU

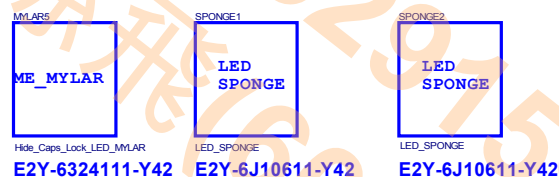


E2M-3570611-Y42 E2M-3570611-Y42

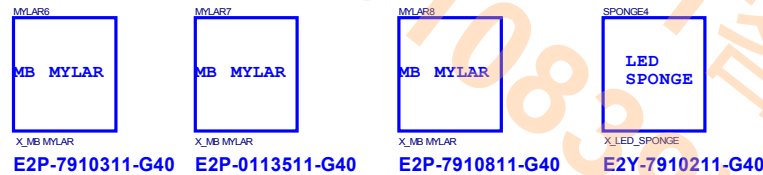


E2Y-X047411-CA7 E2Y-X047411-CA7 E2Y-Z001711-G40 E2Y-Z001711-G40

## Only 16J6

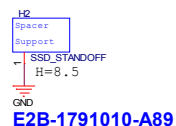


## Only 1796

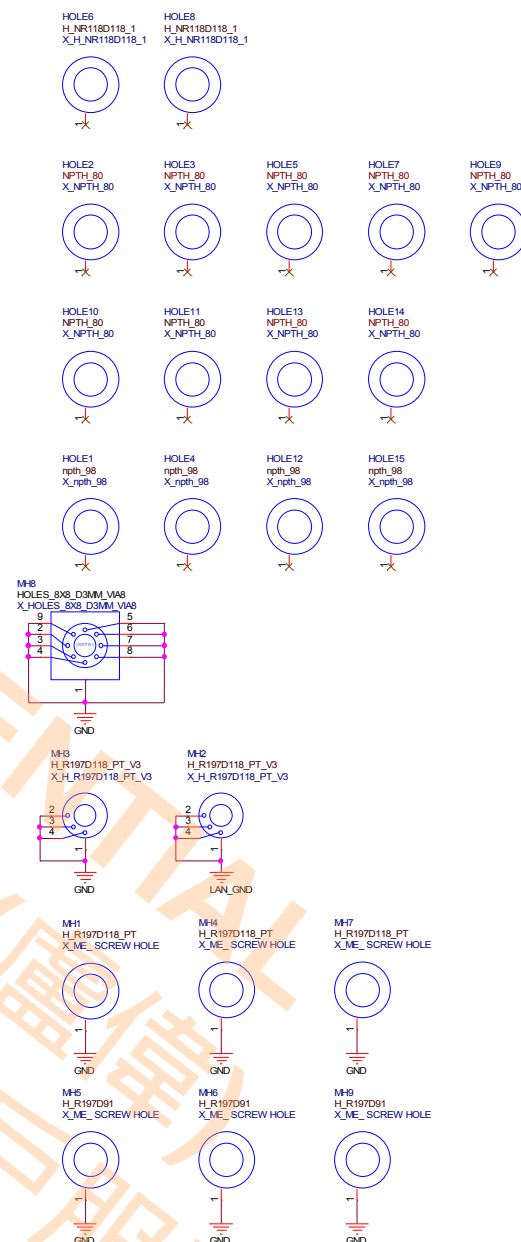
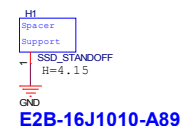


E2P-7910311-G40 E2P-0113511-G40 E2P-7910811-G40 E2Y-7910211-G40

## mSATA SSD 1 STAND OFF

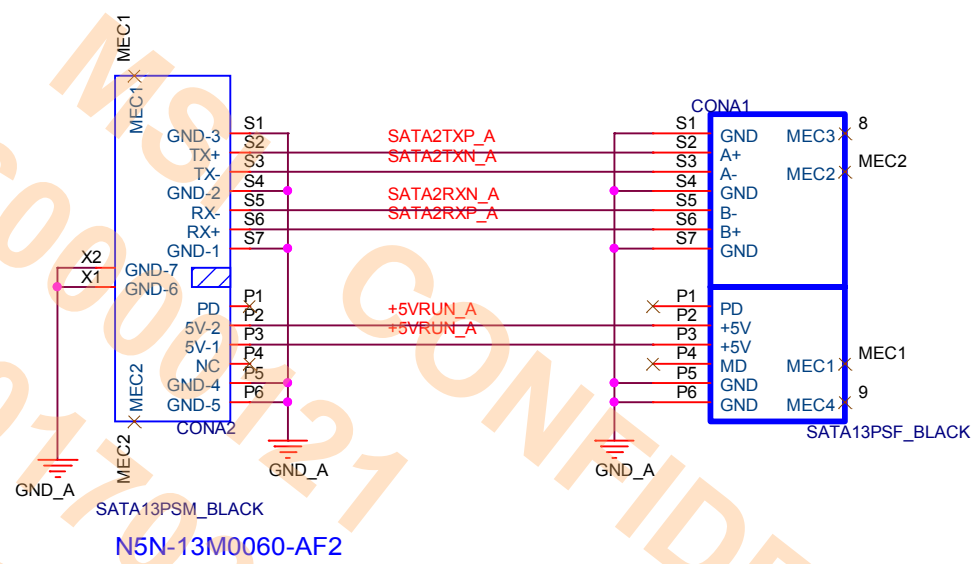


## WLAN STAND OFF



Hannstar: P30-16J6111-H73  
TRIPOD: P30-16J6111-T53

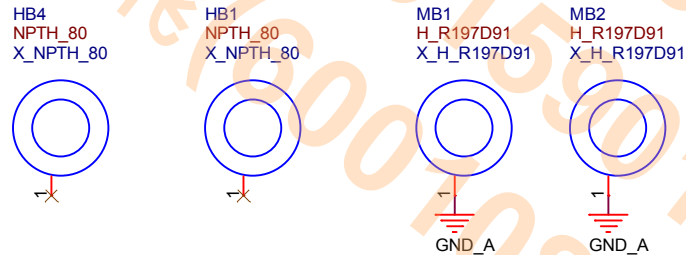
1796-A Board (ODD)



**PCBA1**

P30-16J6A11-H73  
**P30-16J6A11-H73**

Hannstar: P30-16J6A11-H73  
TRIPOD: P30-16J6A11-T53



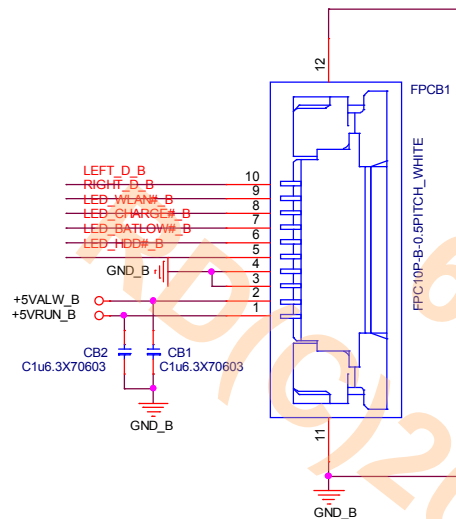
SCREWA2

**E43-1205003-H29**

SCREWA1

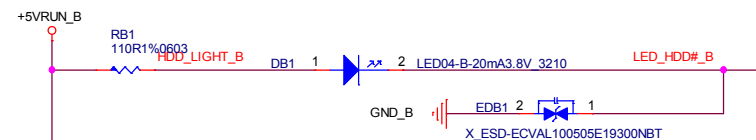
**E43-1205003-H29**

# 1796-B Board (LED / TP)

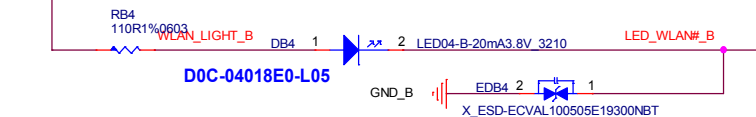


LED FRONT

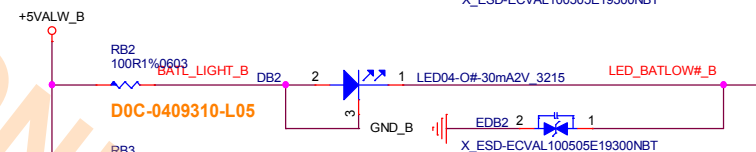
BLUE  
(HDD)



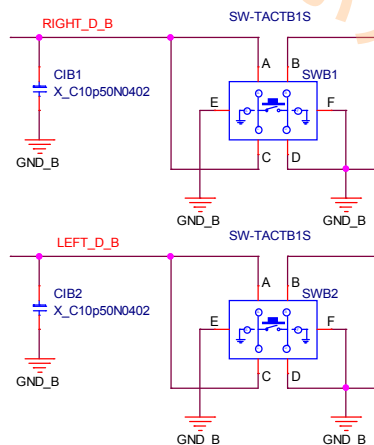
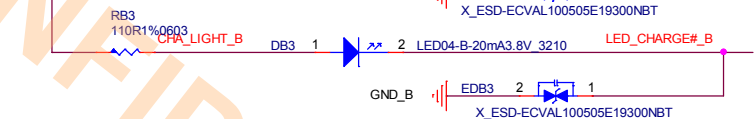
BLUE  
(WLAN)



ORANGE  
(BATLOW)

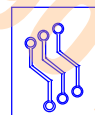


BLUE  
(CHARGE)



H=1.5mm

PCBB1



P30-16J6B11-H73

P30-16J6B11-H73

Hannstar: P30-16J6B11-H73  
TRIPOD: P30-16J6B11-T53



HB3  
NPTH\_80  
X\_NPTH\_80



HB2  
NPTH\_80  
X\_NPTH\_80

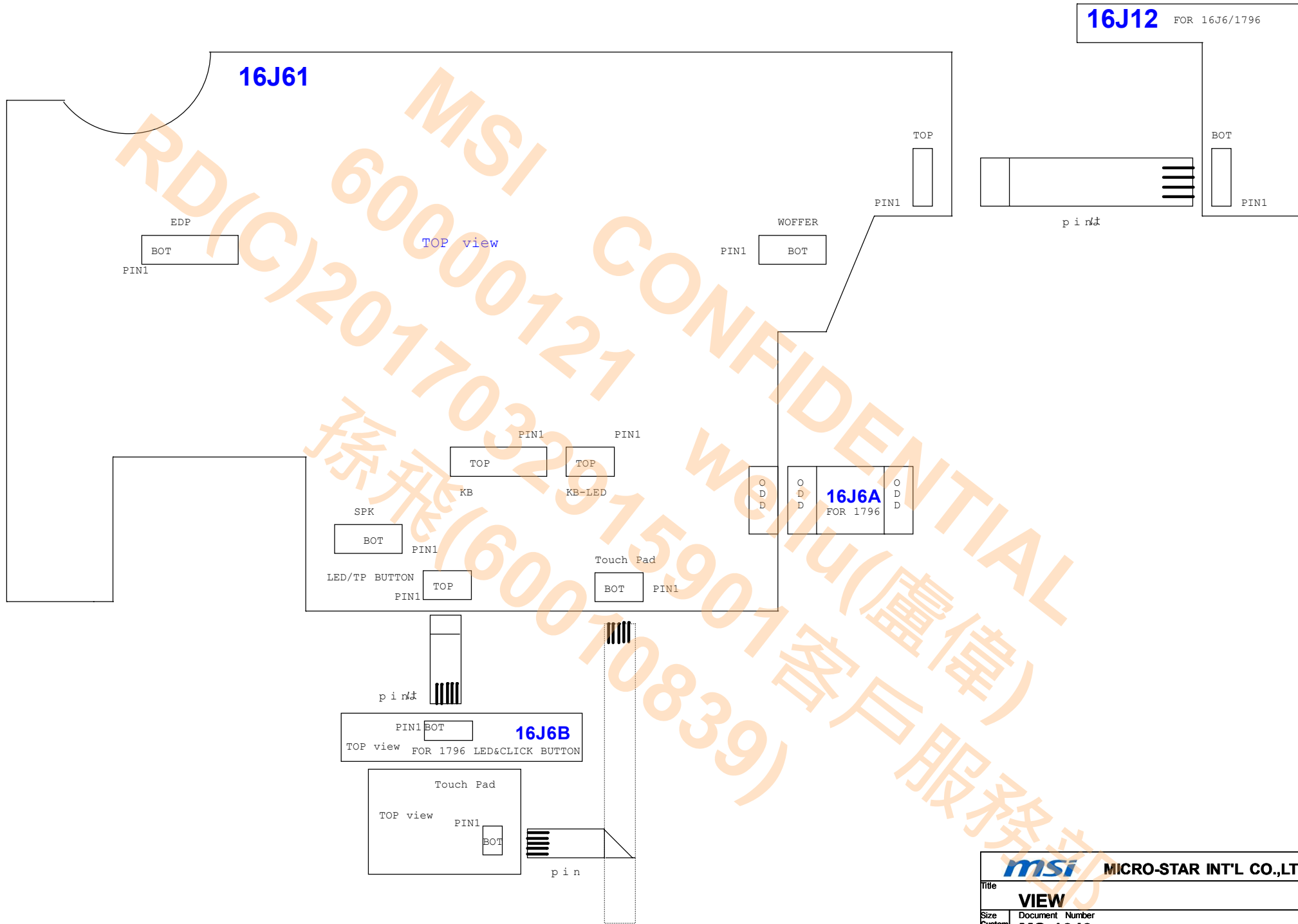


MB4  
H\_R276D118\_PT  
X\_H\_R276D118\_PT



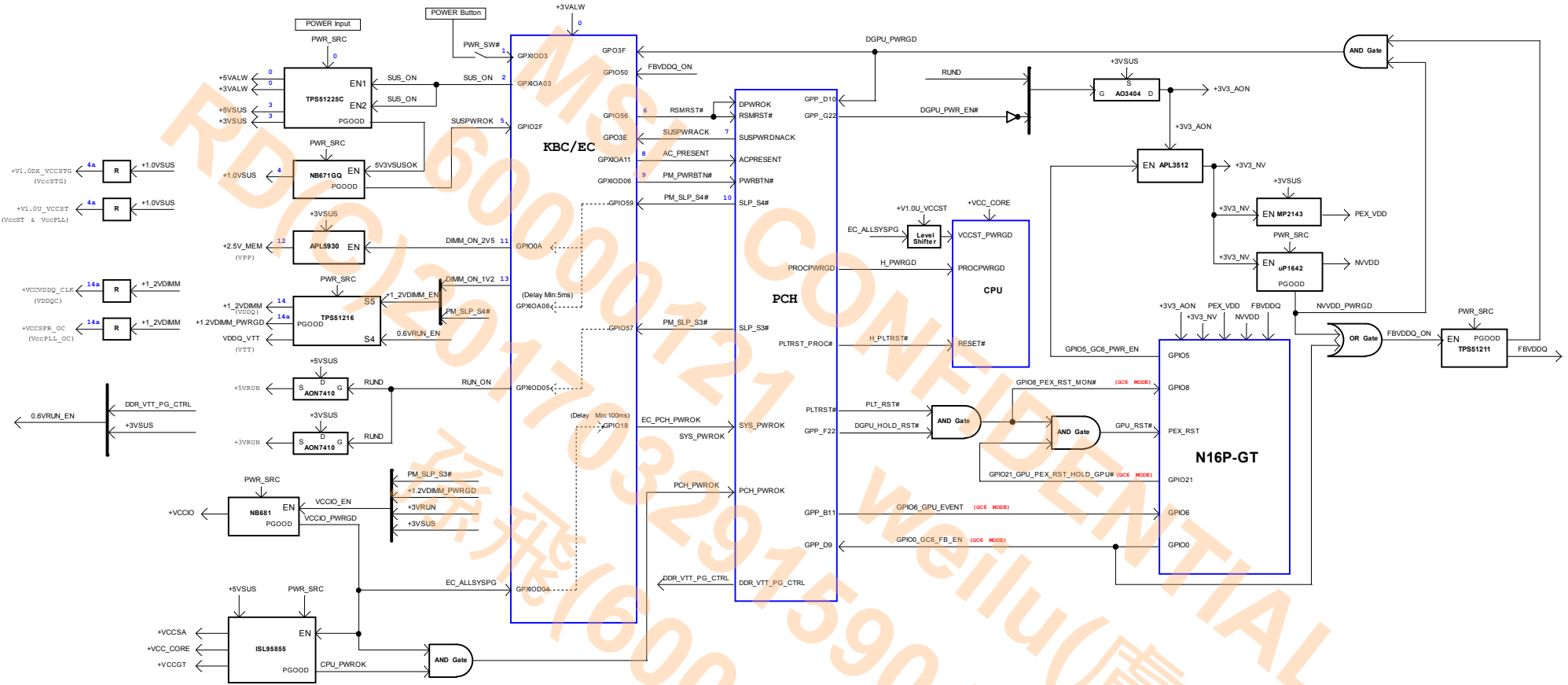
MB3  
H\_R197D91  
X\_H\_R197D91

msi		MICRO-STAR INT'L CO.,LTD.	
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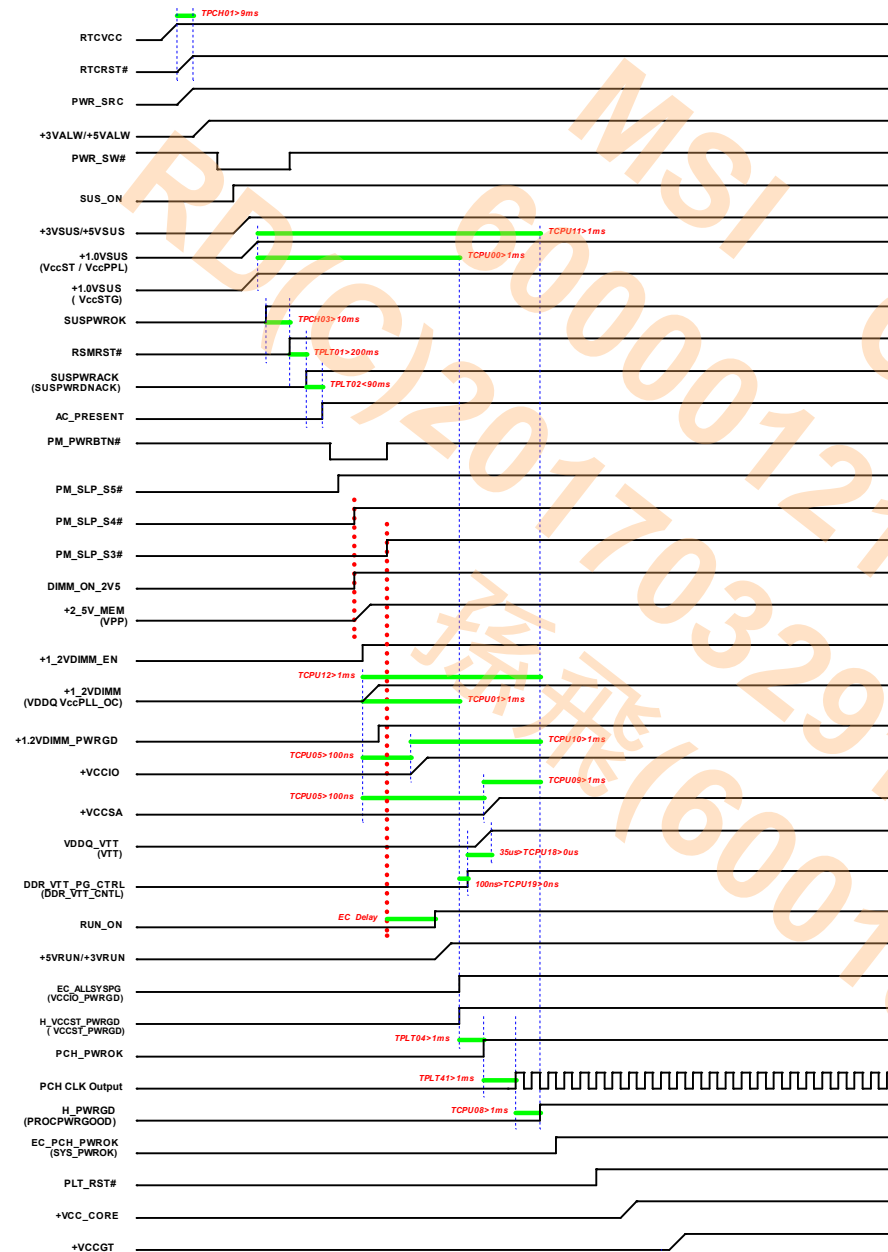


# MS-16J6 Power on Block Diagram



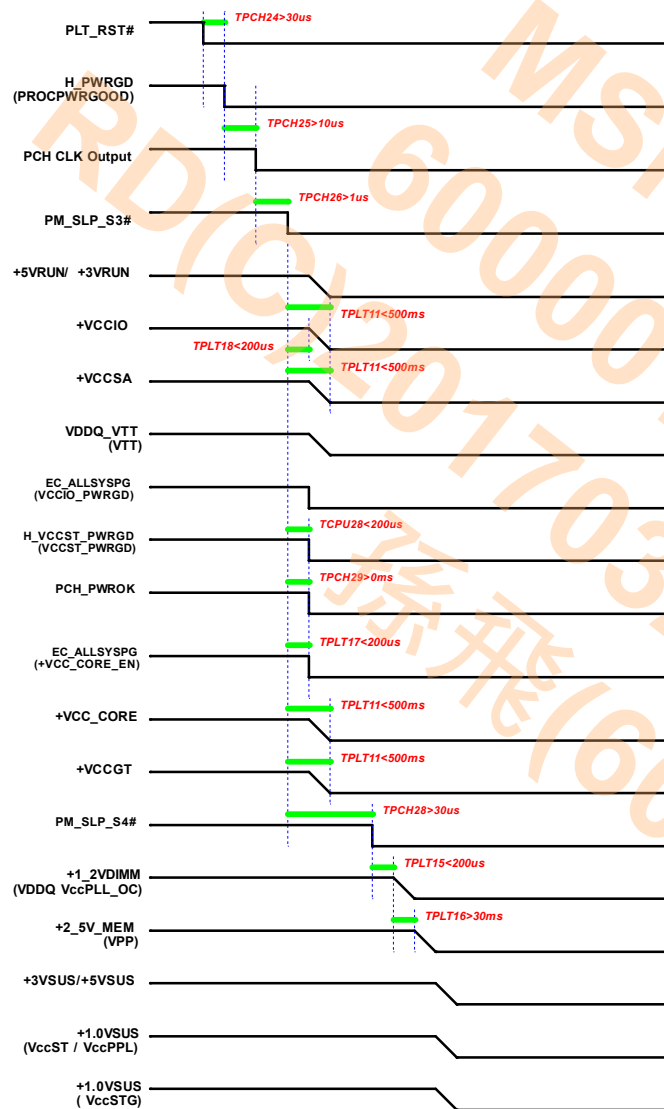
# Power on Sequence

G3 -> S0



## Power Down Sequence

S0 -> G3



Vinafix.com

History

1.0: 2015/11/05

- 01. P22 ADD R444
- 02. P23 USB2\_1---->USB2\_6  
USB3\_1---->USB3\_6
- 03. P29 FPC5 PIN 47 ----NC  
PIN 3 ----+3VRUN
- 04. P35 ADD C742

2015/11/11

- 01. P31 ADD ED26 ED27 ED28  
DEL ED5 ED6
- 02. P34 ADD PF2
- 02. P52 ADD EC40 EC41 EC42 EC43 EC44

1.1: 2016/05/19

- 01. P53 ADD FMA1~FMA8