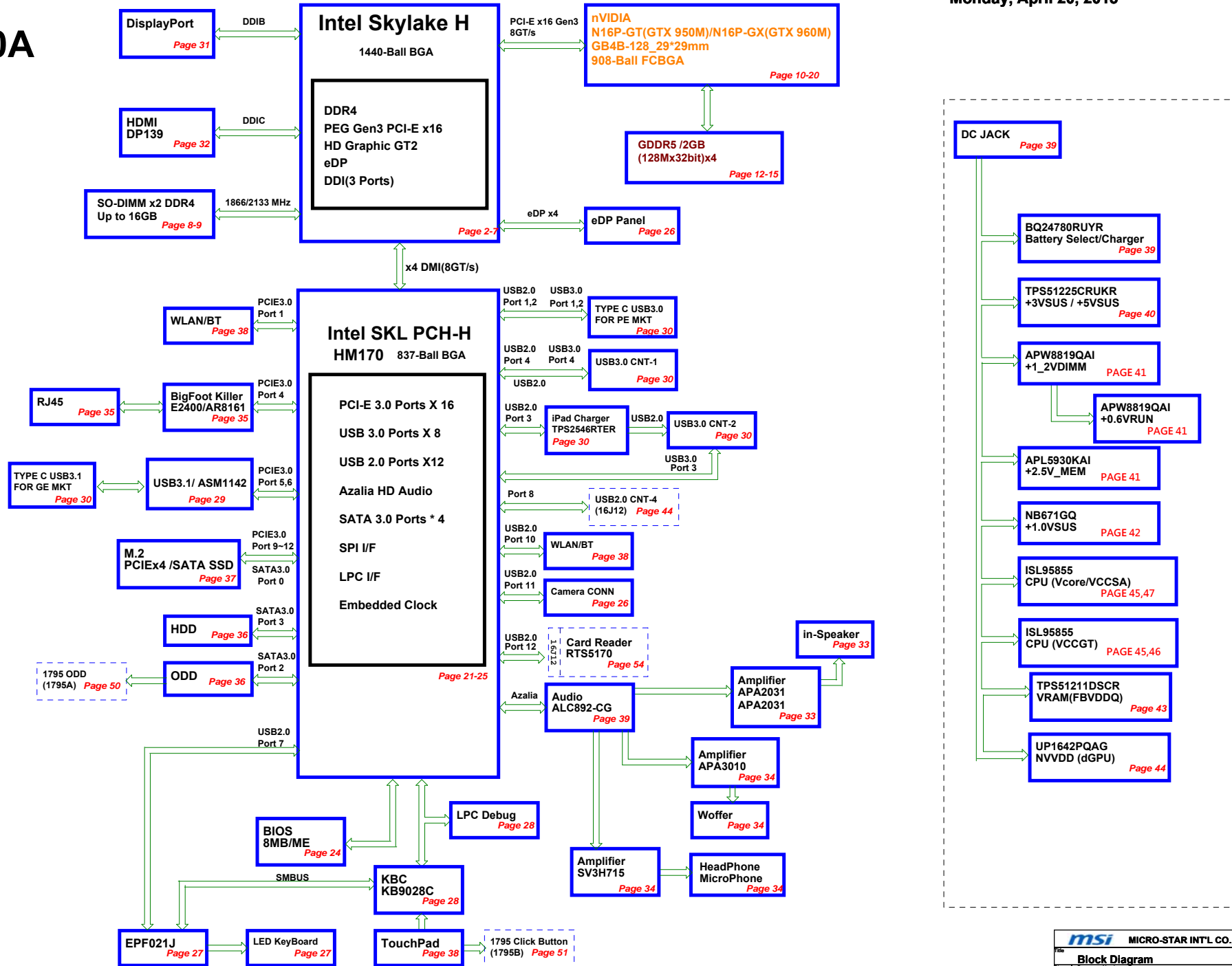


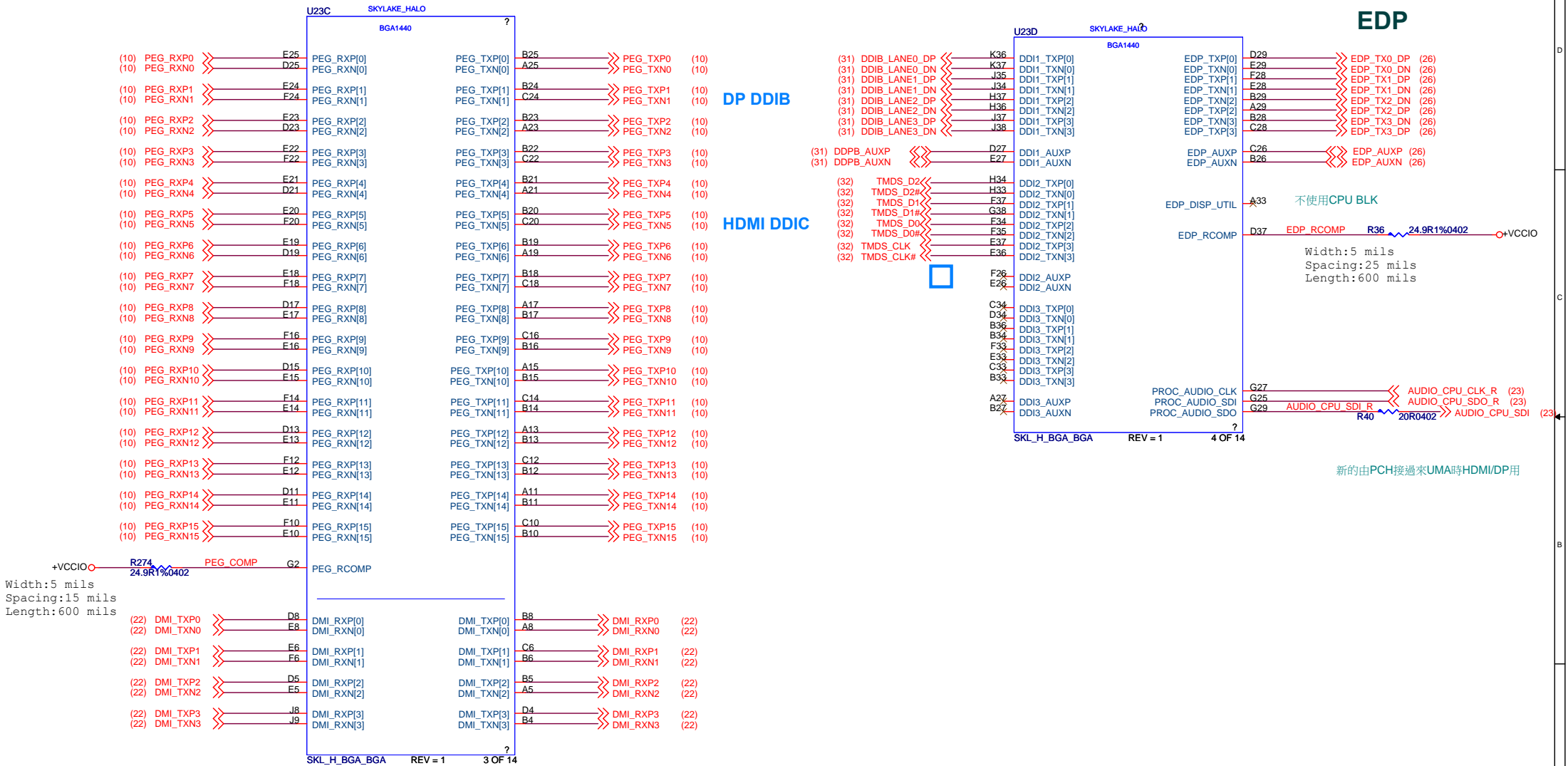
MS-16J5/MS-1795

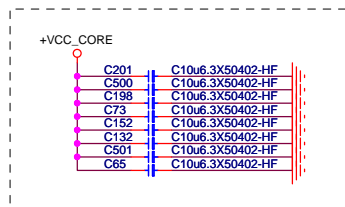
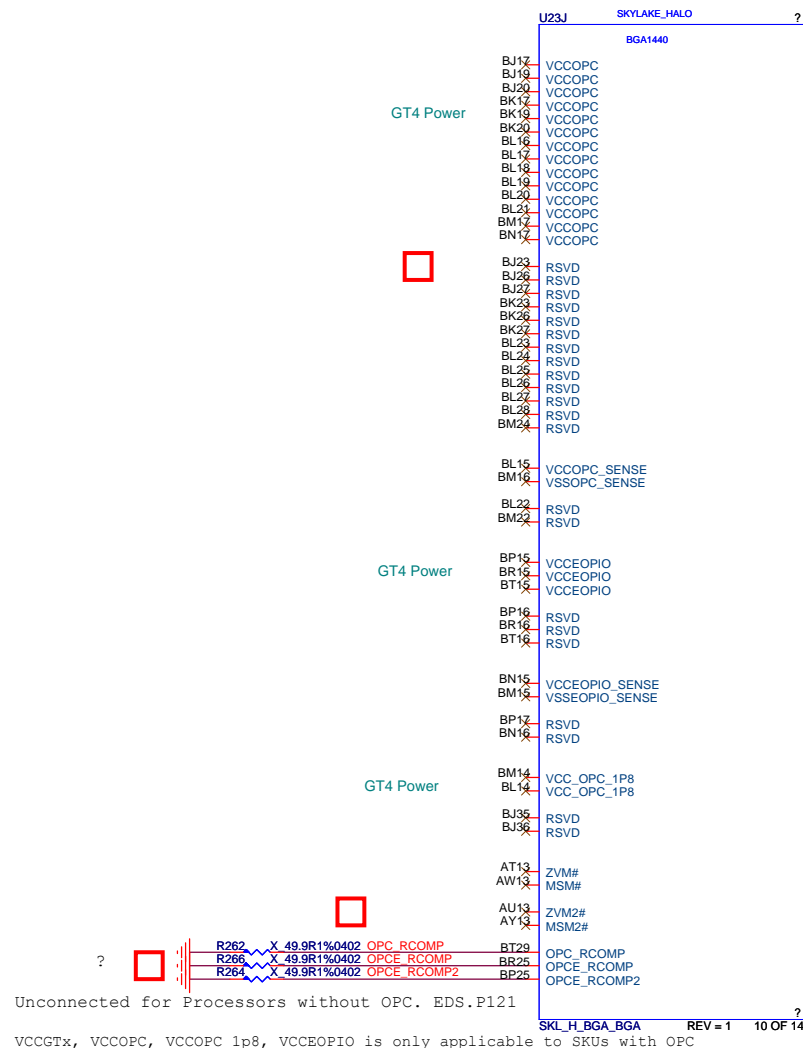
Intel Skylake Mobile

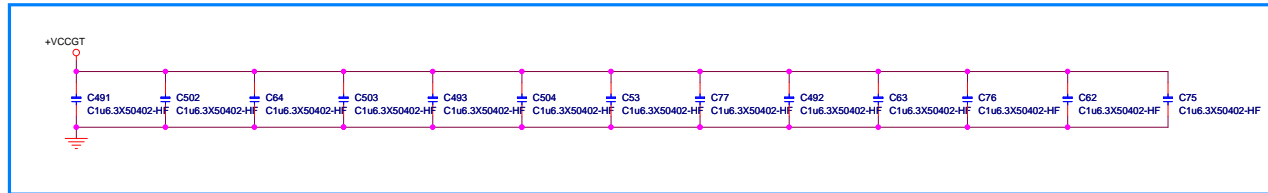
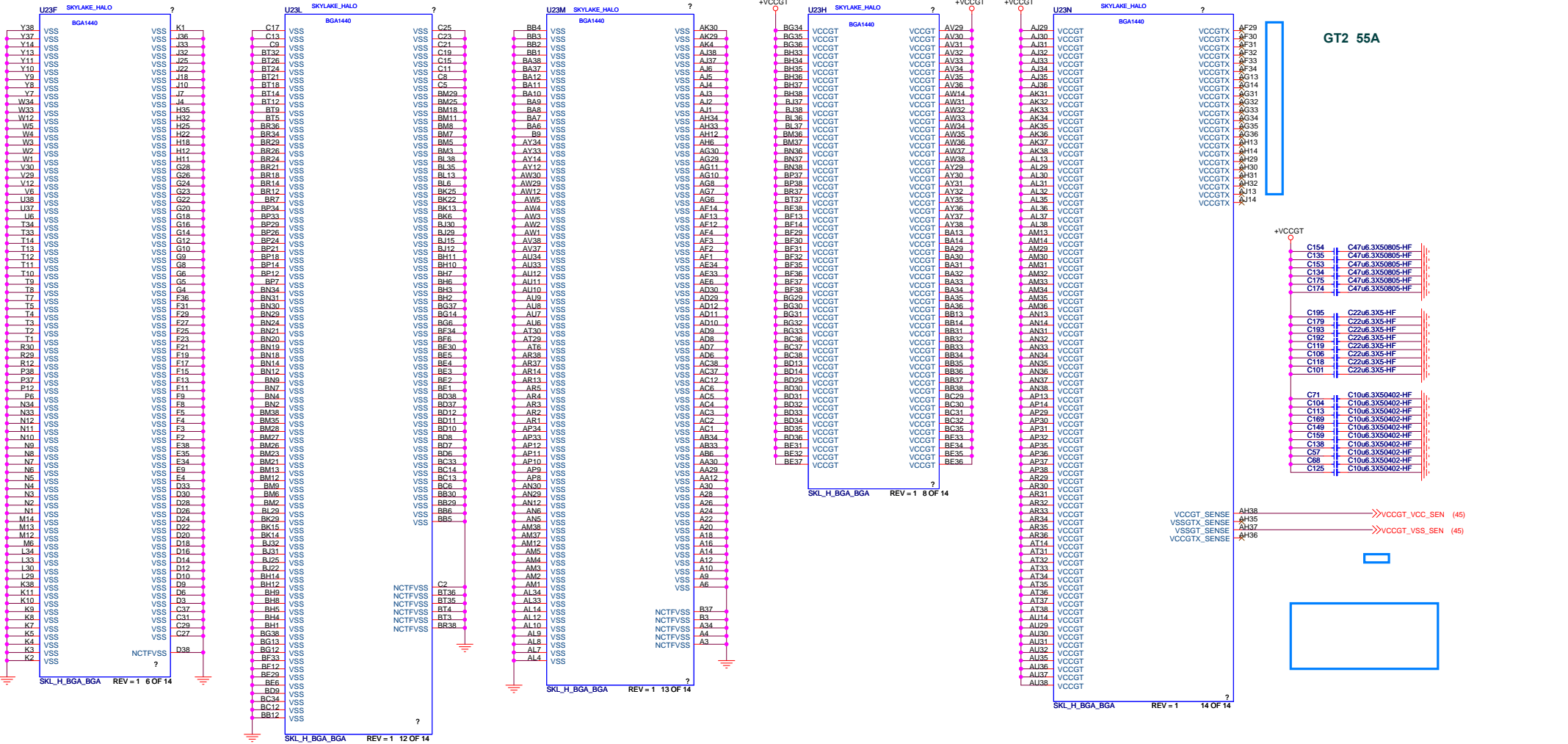
Ver:0A

Monday, April 20, 2015

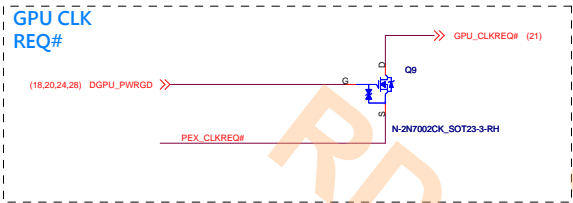








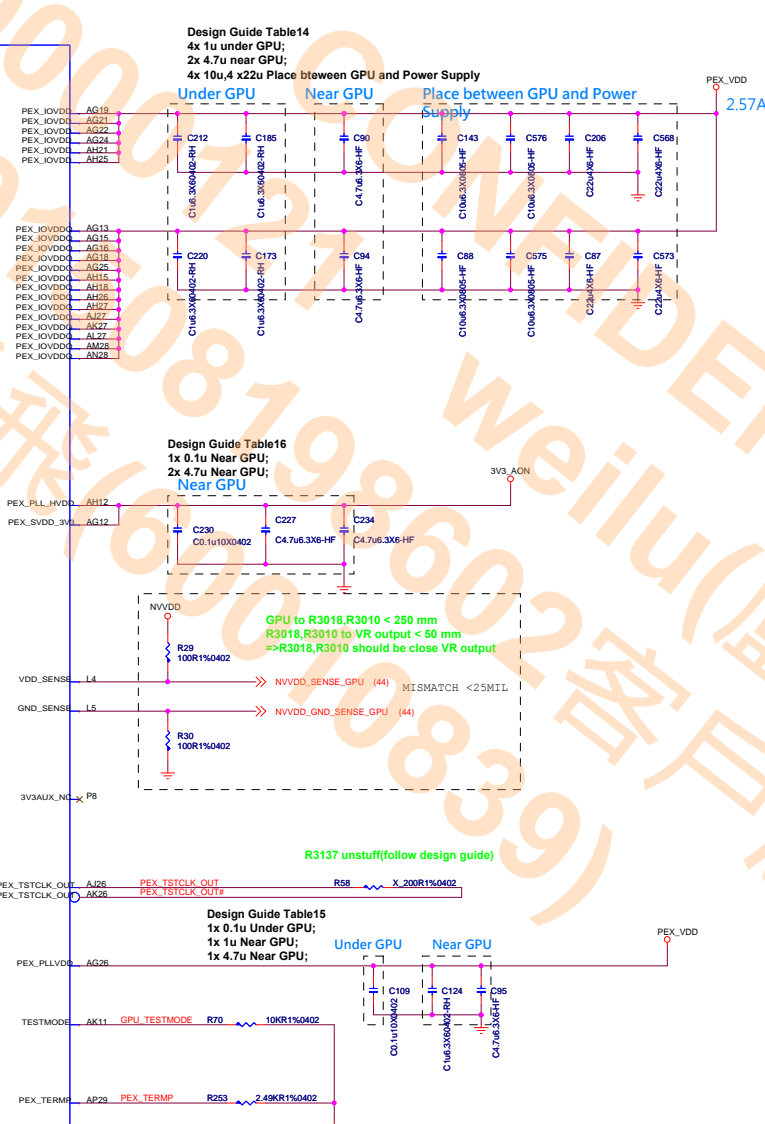
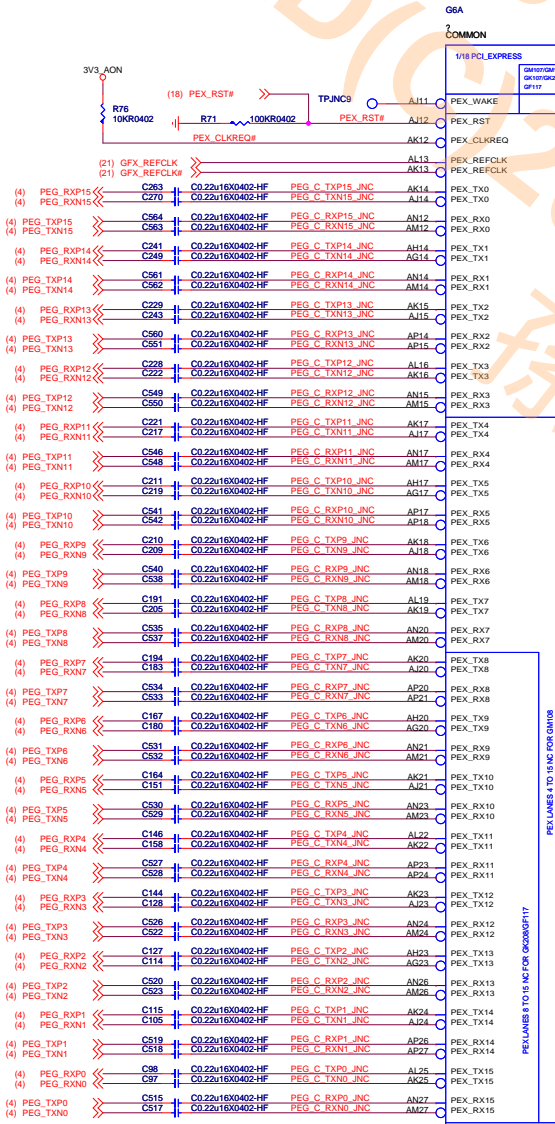
N16P-GX(PCI-Express Gen3 x16 Interface)



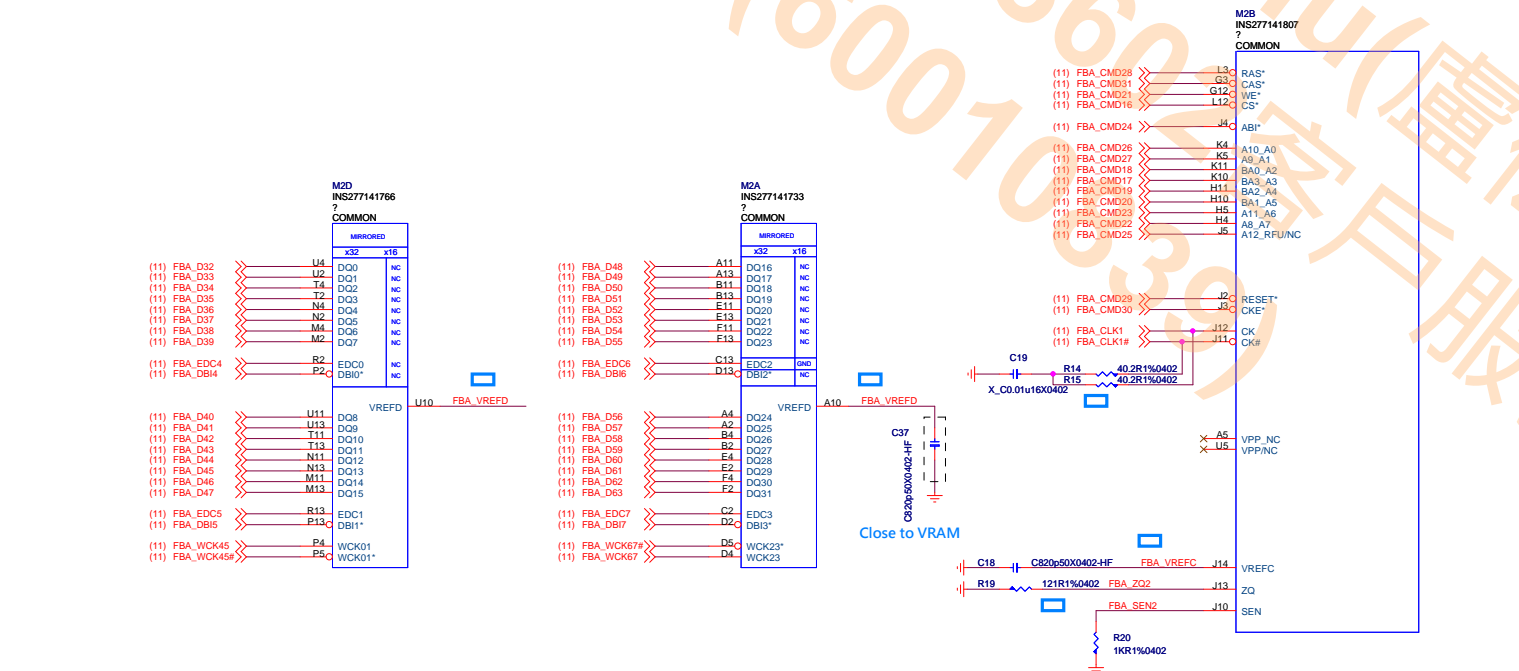
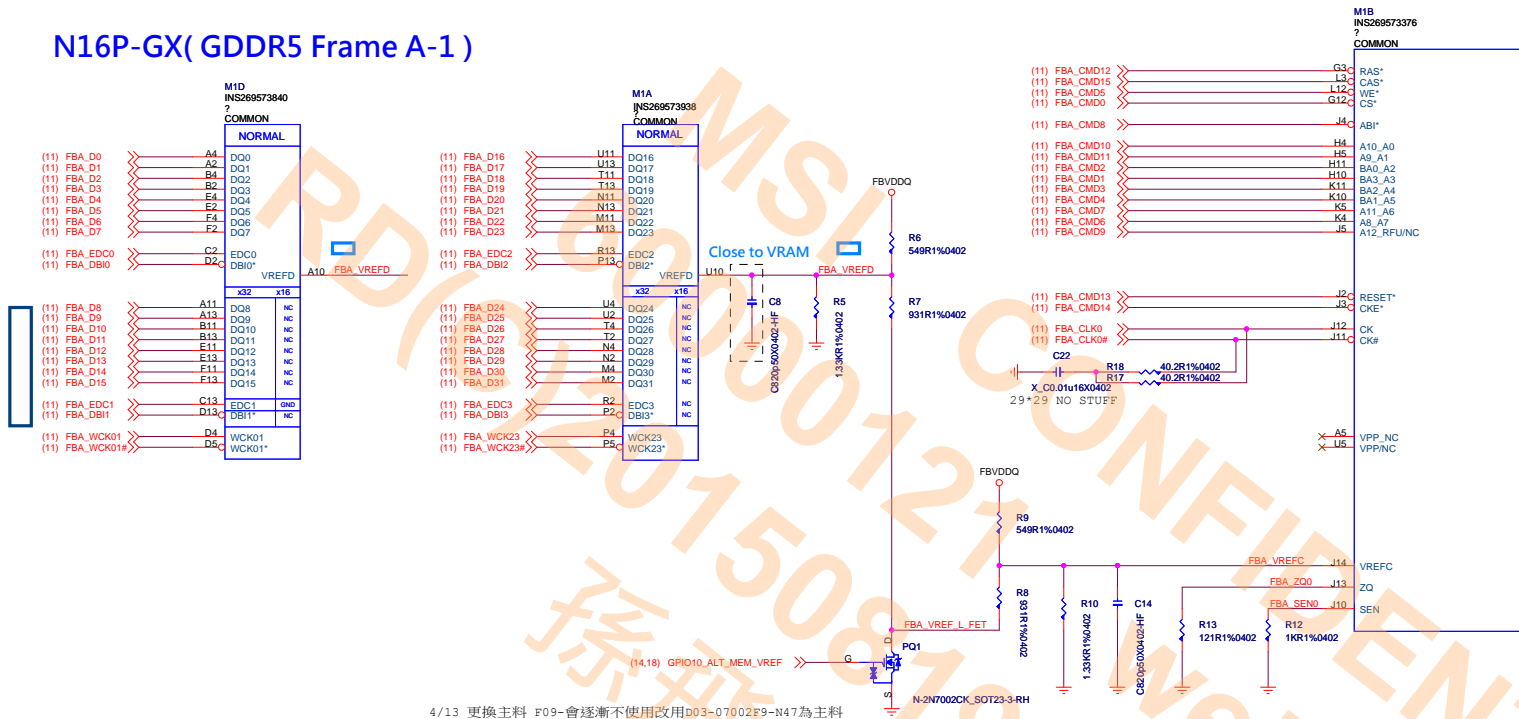
GTx950

B03-0N16P05-N08

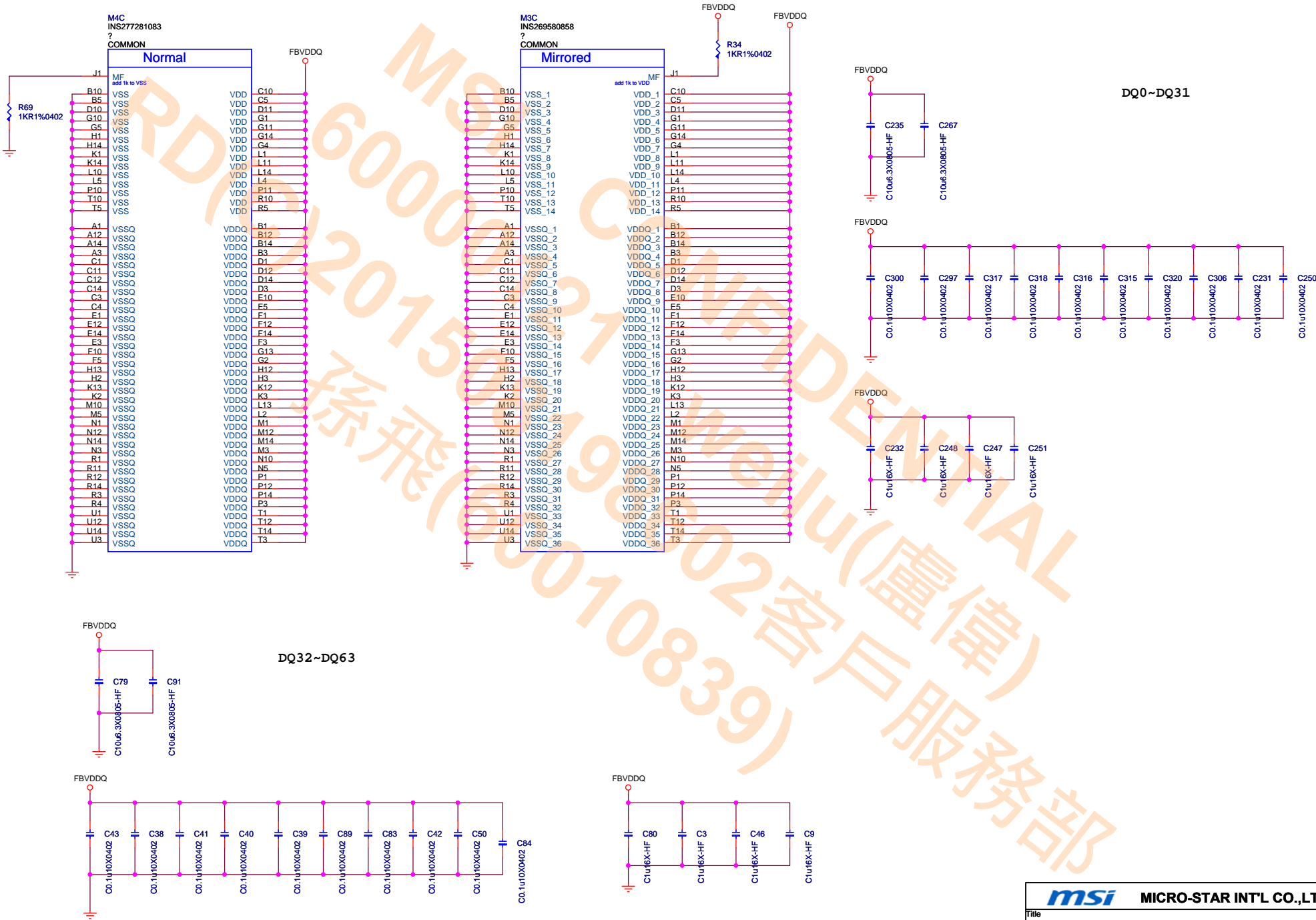
X_N16P-GT-A2



N16P-GX (GDDR5 Frame A-1)



N16P-GX(GDDR5 Frame B-2)

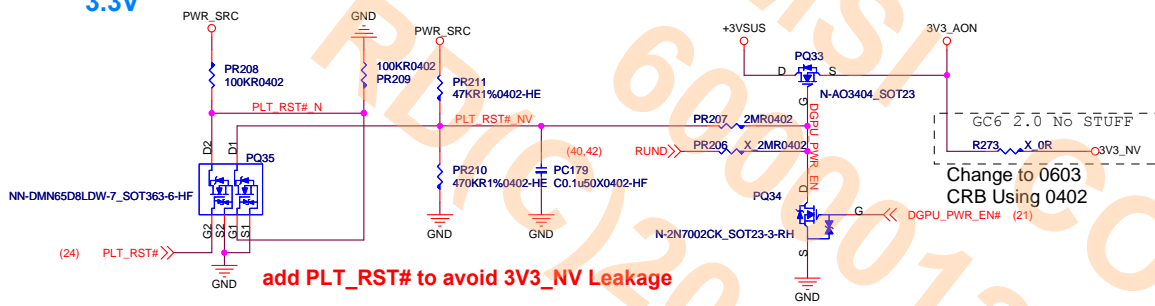


N16P-GX(Power Control)

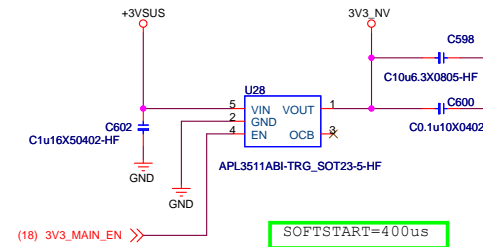
nVIDIA Power Sequence Control

3V3_AON -> 3V3_NV -> NVVDD -> PEX_VDD -> FBVDDQ -> DGPUPWRGD

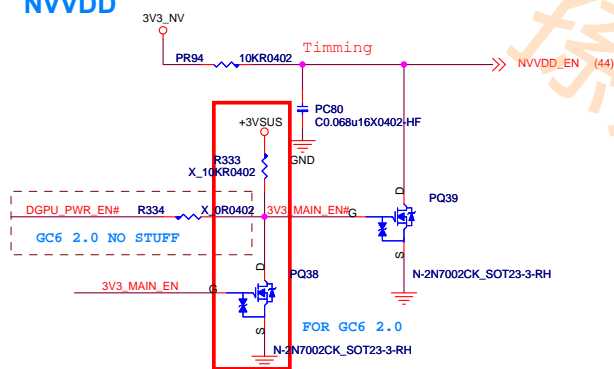
3.3V



GC6 2.0 STUFF



NVVDD

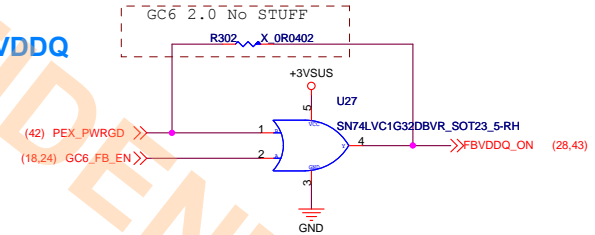


PEX_VDD

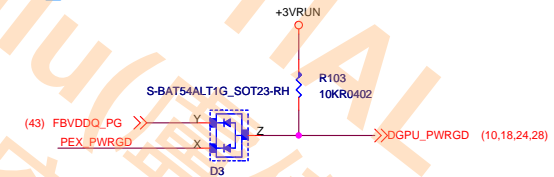
EDP Design Guide:
N16P-GX
NVVDD : 51.1A ; Peak 87A
3.3VRUN : 0.34A
PEX_VDD : 2.57A
FBVDDQ : 8.75A

EDP Design Guide:
N16P-GT
NVVDD : 30.2A ; Peak 53A
3.3VRUN : 0.34A
PEX_VDD : 2.57A
FBVDDQ : 8.75A

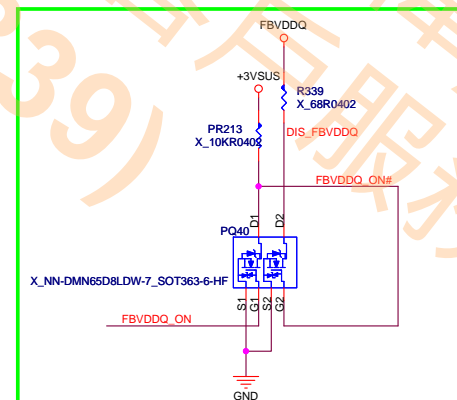
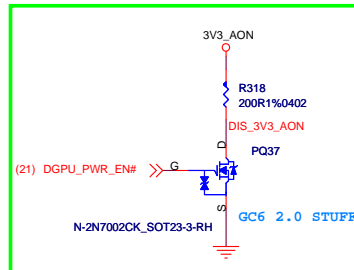
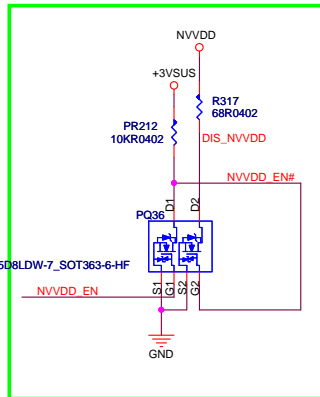
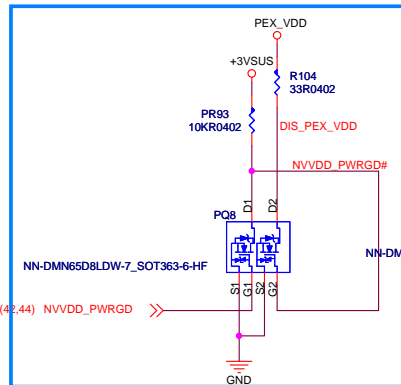
FBVDDQ

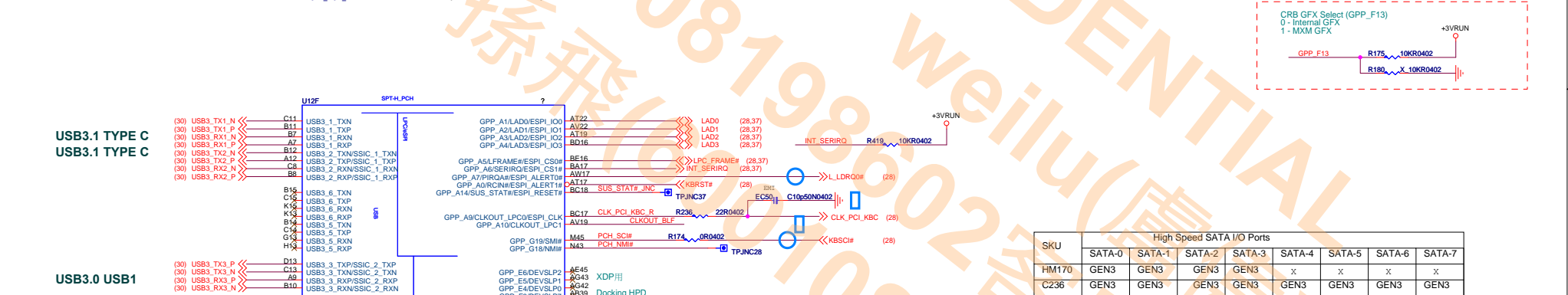
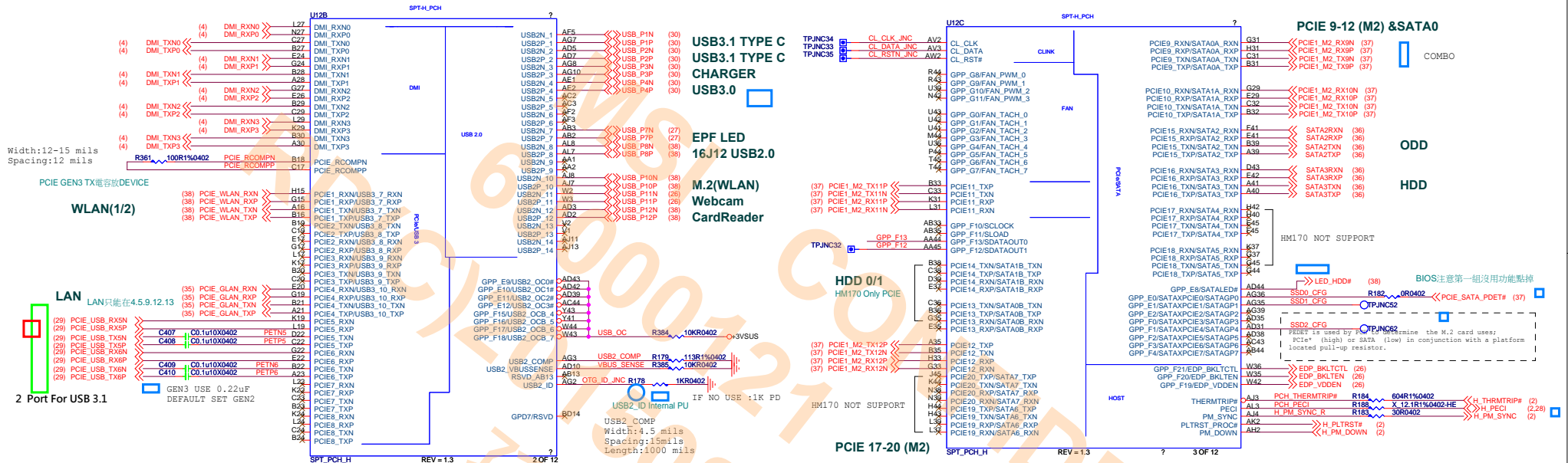


DGPU_PWRGD

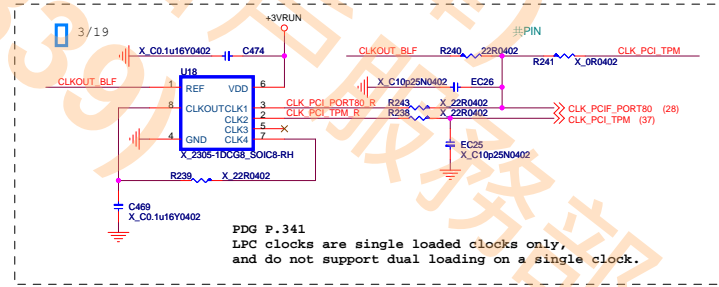


Discharge Circuit

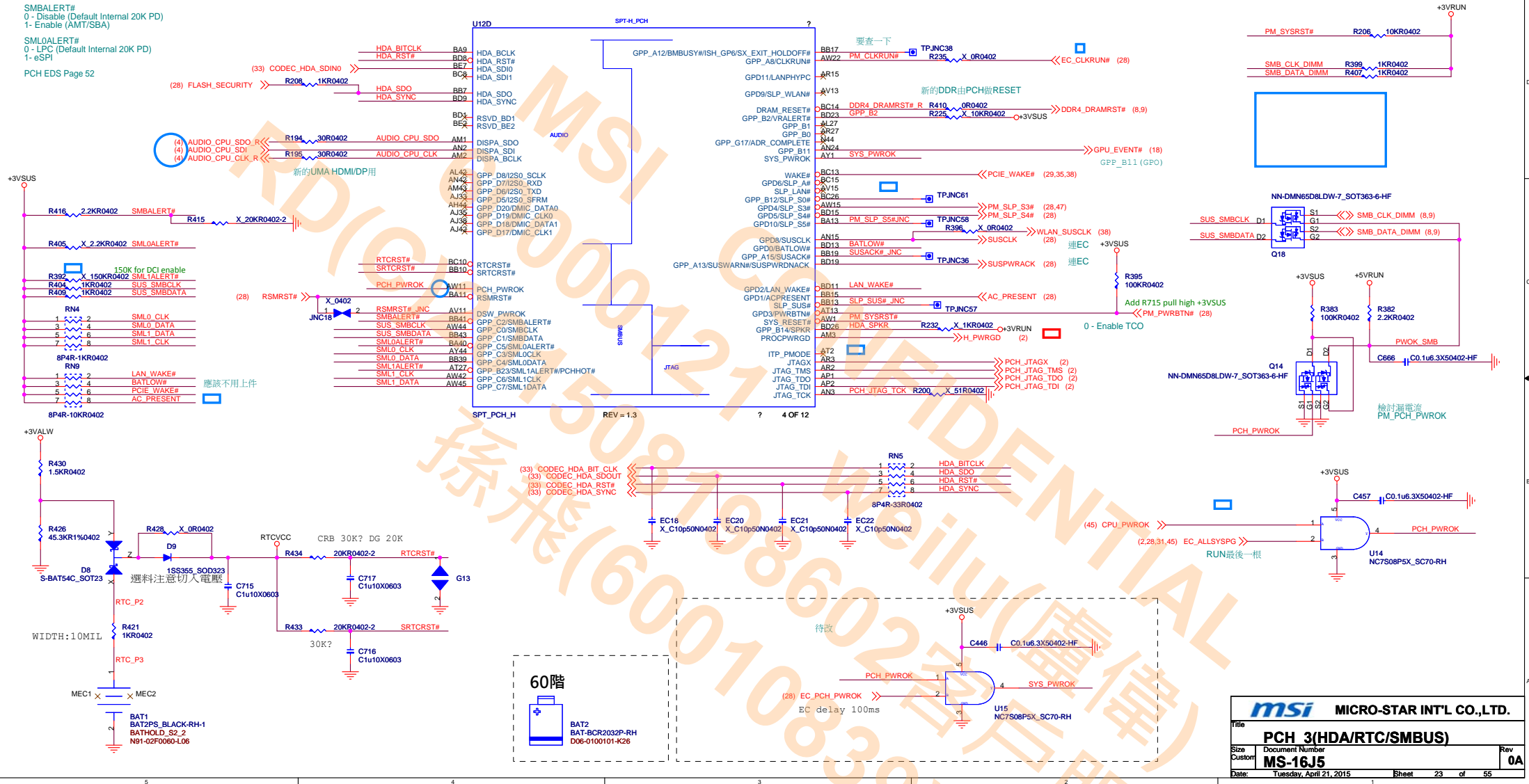




SKU	SATA-0	SATA-1	SATA-2	SATA-3	SATA-4	SATA-5	SATA-6	SATA-7
HM170	GEN3	GEN3	GEN3	GEN3	X	X	X	X
C236	GEN3	GEN3	GEN3	GEN3	GEN3	GEN3	GEN3	GEN3



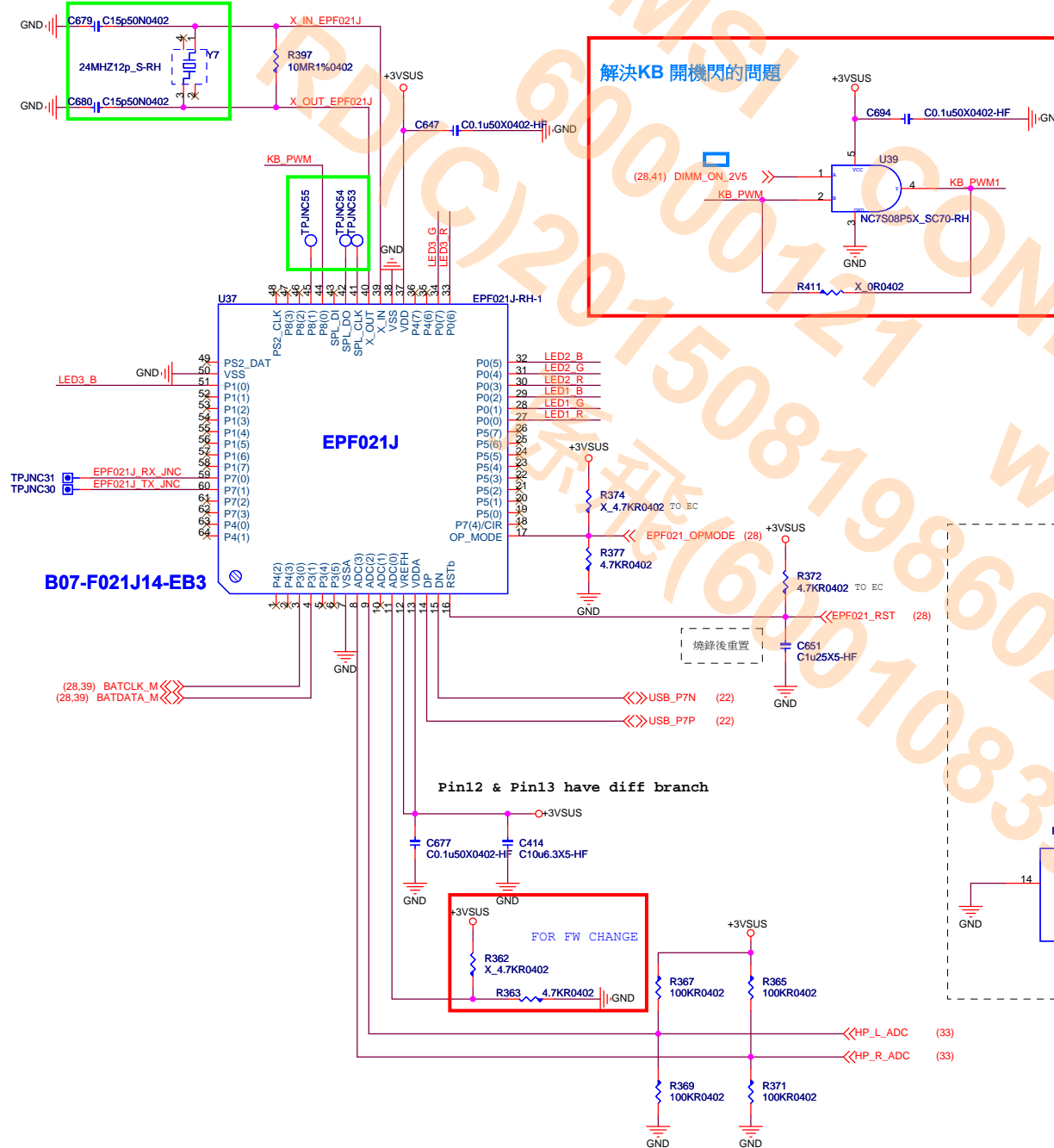
SMBALERT#
0 - Disable (Default Internal 20K PD)
1 - Enable (AMT/SBA)
SML0ALERT#
0 - LPC (Default Internal 20K PD)
1 - eSPI
PCH EDS Page 52



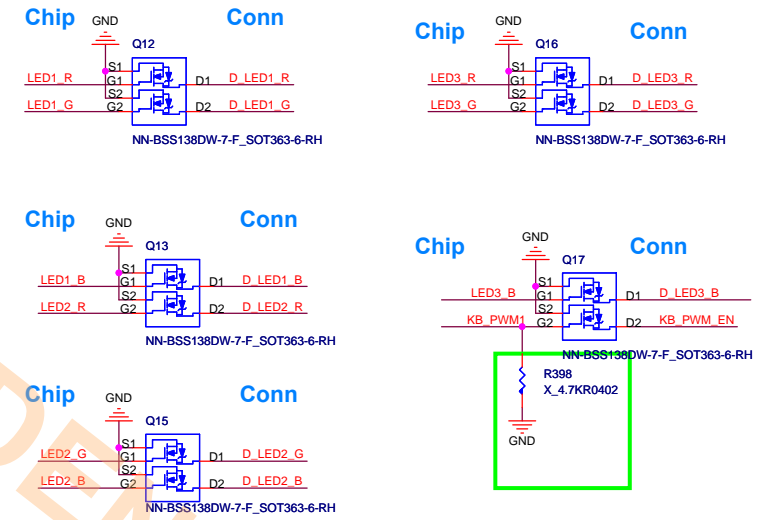
msi MICRO-STAR INT'L CO.,LTD.		
Title	PCH 3(HDA/RTC/SMBUS)	
Size	Document Number	Rev
Custom	MS-16J5	0A
Date:	Tuesday, April 21, 2015	Sheet 23 of 55

LED 8051 Controller

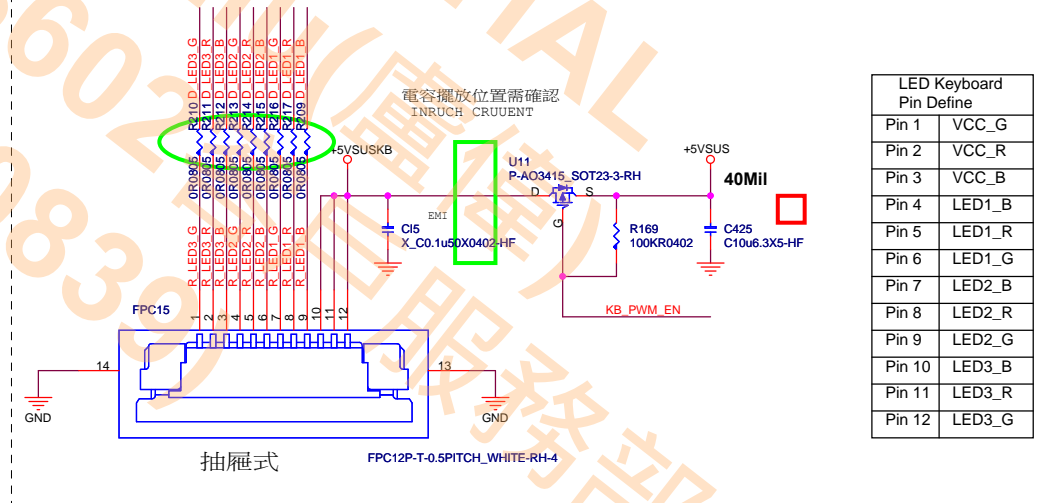
C749 and C750 change to 15pF for SA



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

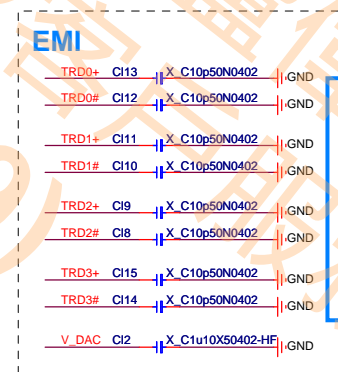
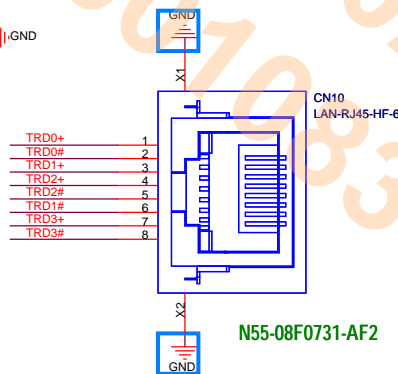
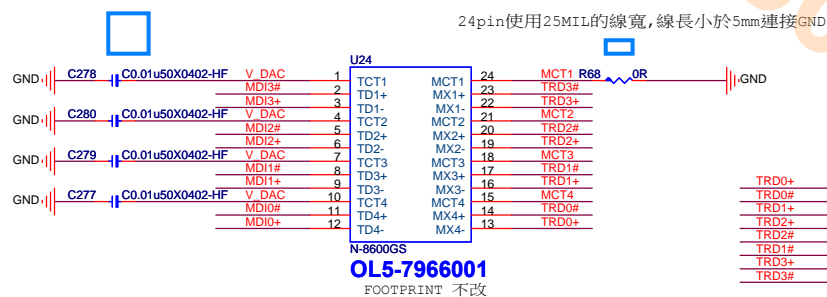
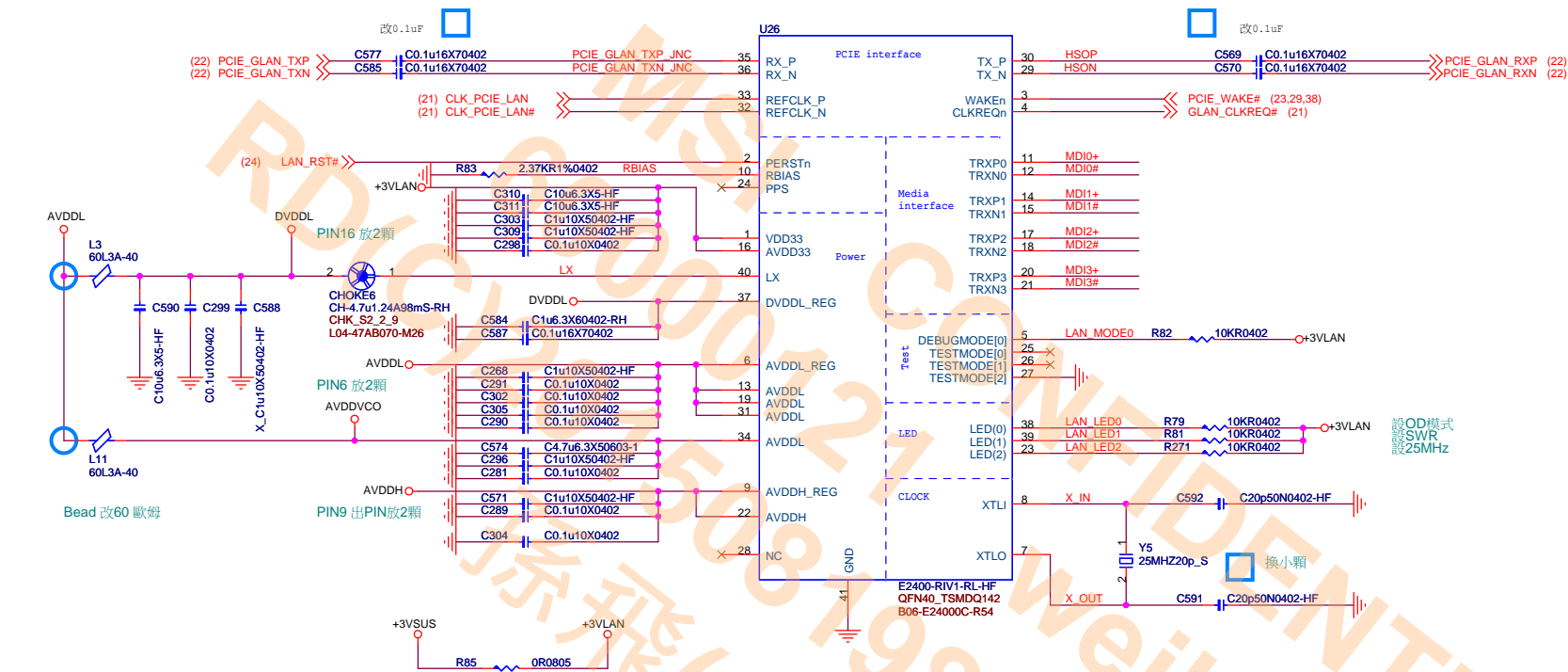


LED Keyboard CONN

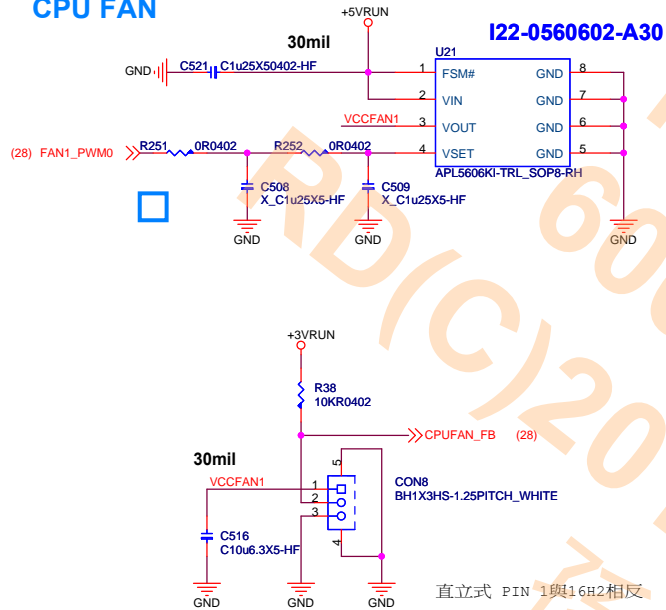


LED Keyboard Pin Define	
Pin 1	VCC_G
Pin 2	VCC_R
Pin 3	VCC_B
Pin 4	LED1_B
Pin 5	LED1_R
Pin 6	LED1_G
Pin 7	LED2_B
Pin 8	LED2_R
Pin 9	LED2_G
Pin 10	LED3_B
Pin 11	LED3_R
Pin 12	LED3_G

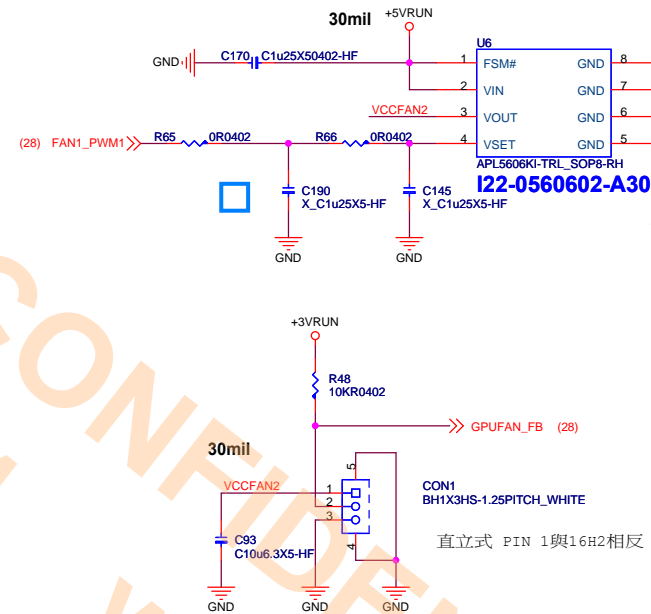
GIGA LAN(BigFoot BFN2400B)



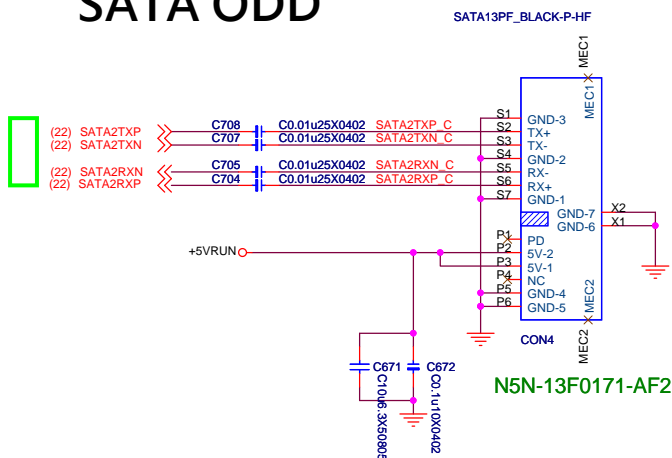
CPU FAN



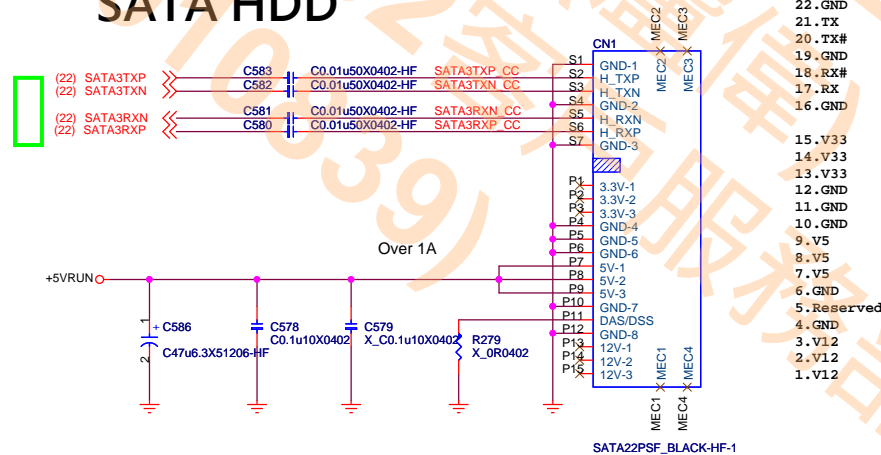
DGPU FAN



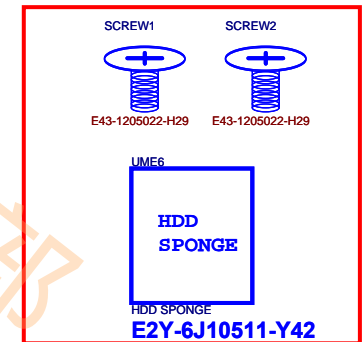
SATA ODD



SATA HDD



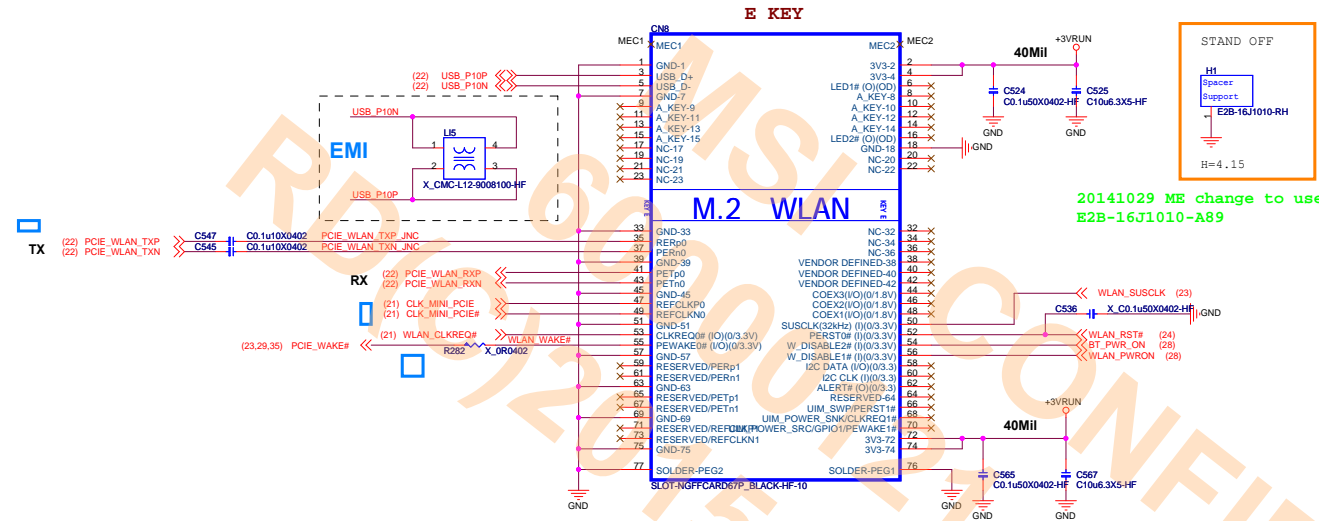
- 22. GND
- 21. TX
- 20. TX#
- 19. GND
- 18. RX#
- 17. RX
- 16. GND
- 15. V33
- 14. V33
- 13. V33
- 12. GND
- 11. GND
- 10. GND
- 9. V5
- 8. V5
- 7. V5
- 6. GND
- 5. Reserved
- 4. GND
- 3. V12
- 2. V12
- 1. V12



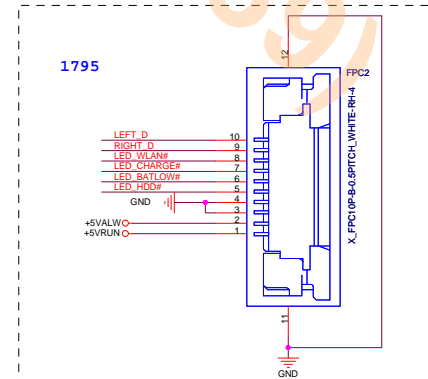
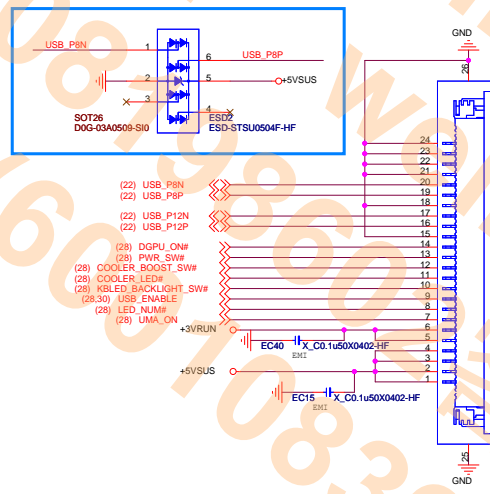
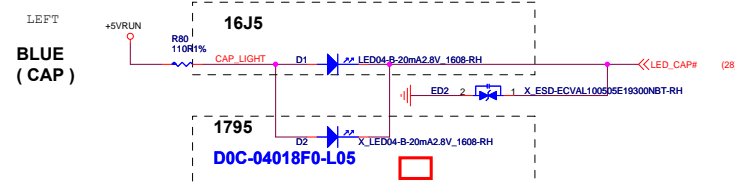
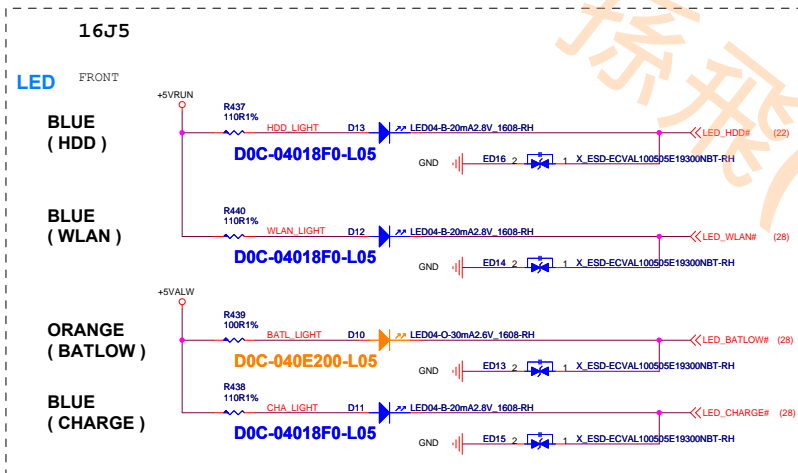
WLAN

WLAN/LED

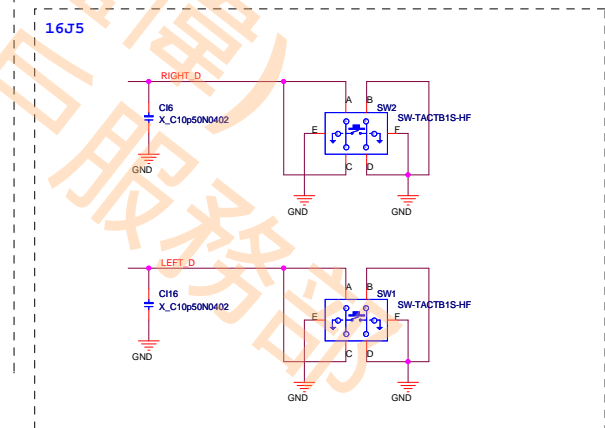
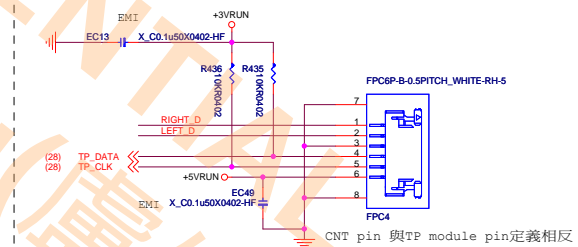
E KEY



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	Module Key	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	PERNO	Pin 38	Clink Reset (1 3.3V)
Pin 39	GND	Pin 40	N/C
Pin 41	PETP0	Pin 42	N/C
Pin 43	PETNO	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_DISABLE2#)
Pin 55	PEWAKE0#	Pin 56	WLAN_EN (W_DISABLE2#)
Pin 57	N/C	Pin 58	N/C
Pin 59	N/C	Pin 60	N/C
Pin 61	N/C	Pin 62	N/C
Pin 63	N/C	Pin 64	N/C
Pin 65	N/C	Pin 66	N/C
Pin 67	N/C	Pin 68	N/C
Pin 69	N/C	Pin 70	N/C
Pin 71	N/C	Pin 72	3.3V
Pin 73	N/C	Pin 74	3.3V
Pin 75	GND		



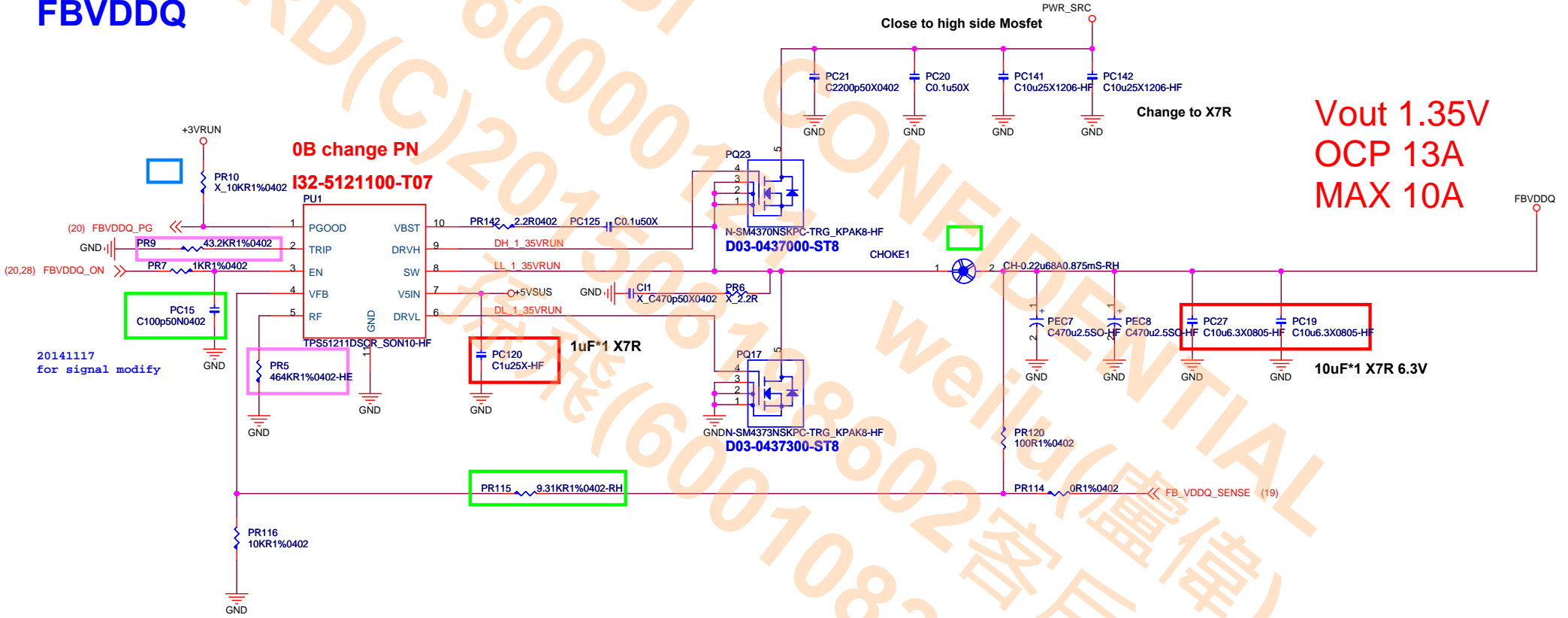
Touch Pad



DGPU POWER FBVDDQ

FBVDDQ

0B change PN
I32-5121100-T07



msi MICRO-STAR INT'L CO.,LTD.	
Title DGPU POWER FBVDDQ	
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DGPU POWER / UP1642PQAG

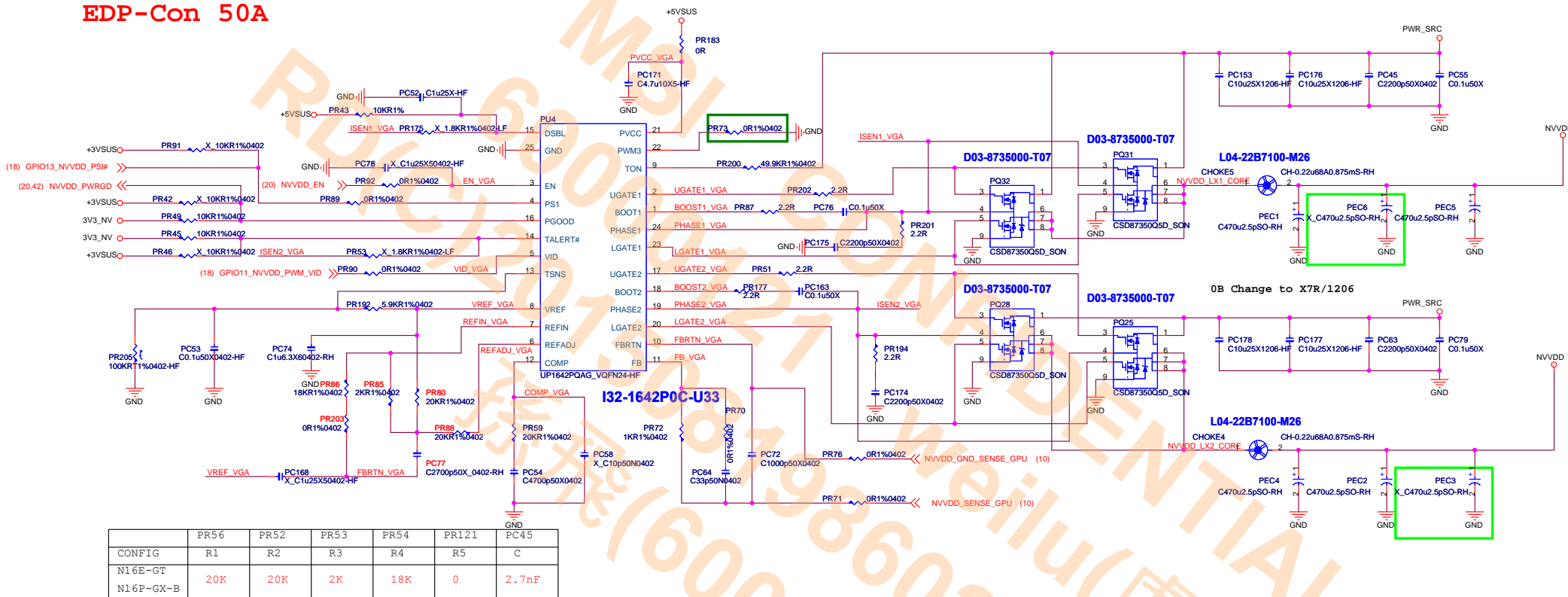
EDP-Peak 87A
EDP-Con 50A

DGPU POWER NVVDD

CONFIG A

VBoot:0.875V

Vmin:0.6V / Vmax:1.2V



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

Skylake H-line 42 45W ISL95855

