

PG600-B02 NIGHTHAWK

GB3B-384, 6GB GDDR5 128Mx32


DP + HDMI/DP + DP + DP + DVI-I

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04-18 Remove Jtag
21 ADD DQG-0500500-005
22 Remove Jtag
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27 Remove Jtag
28 Remove Jtag
29 Remove Jtag
30 Remove Jtag
31-35 Remove Jtag
36 REMOVE NO STUFF FOR GEFORCE SKUS ONLY / 更input choke
39 更input choke
40 Remove Bypass filter option
41 Remove MCU

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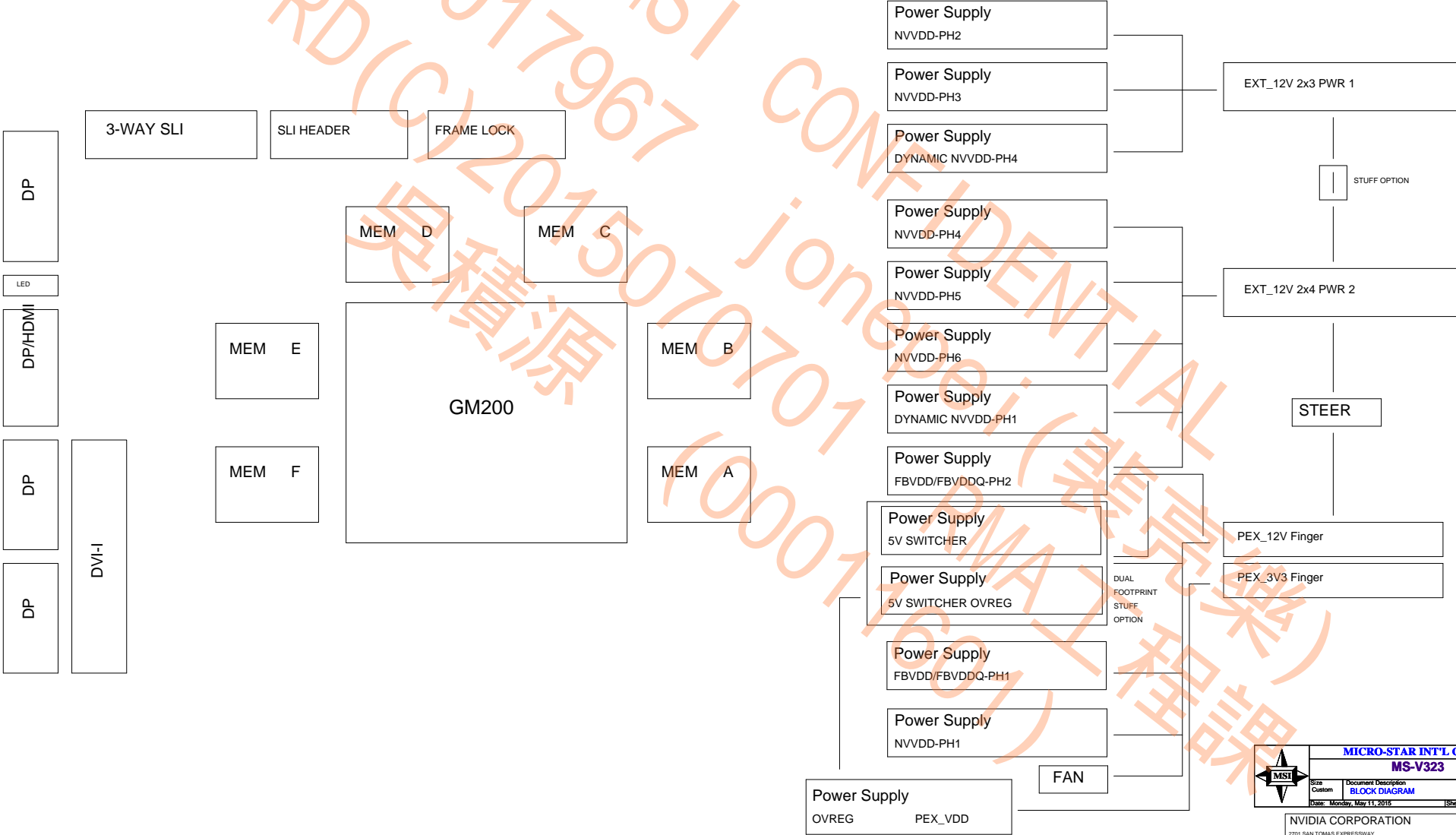
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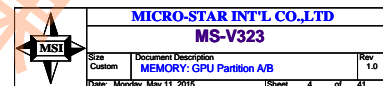
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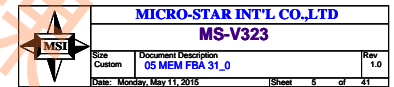
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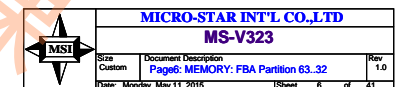


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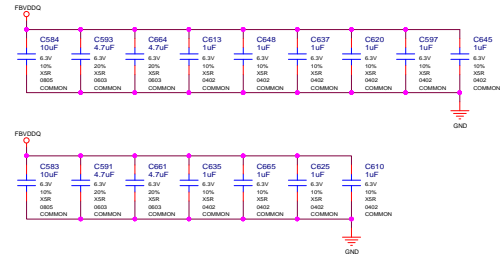


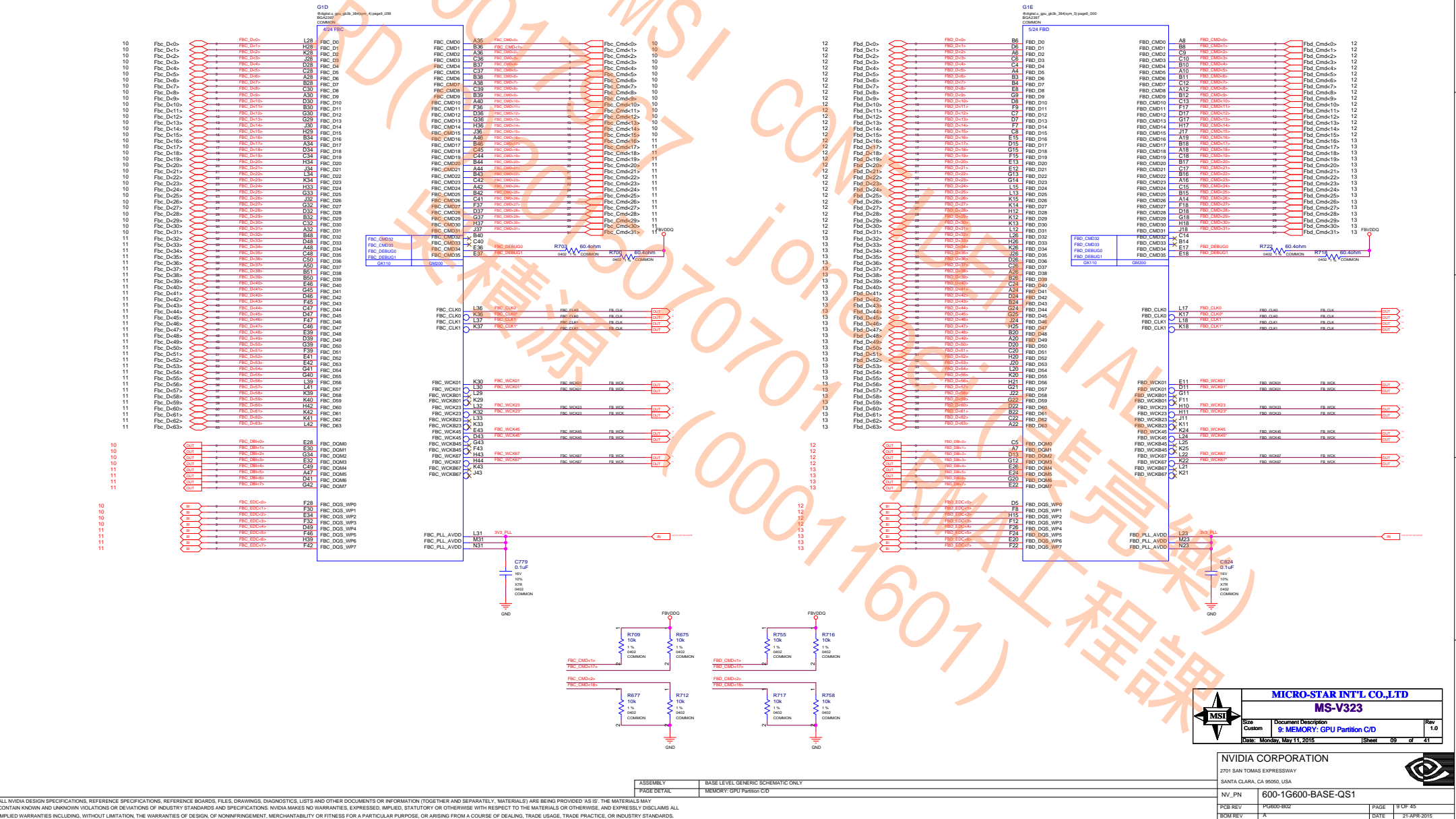
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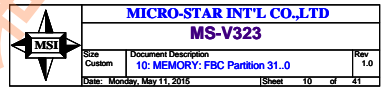
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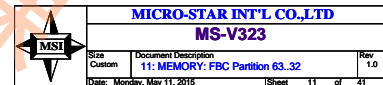
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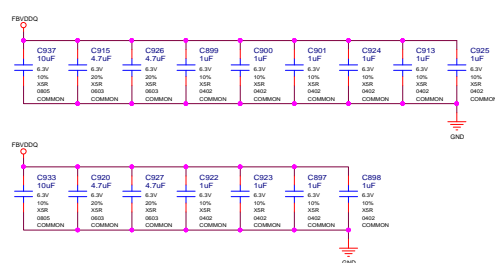



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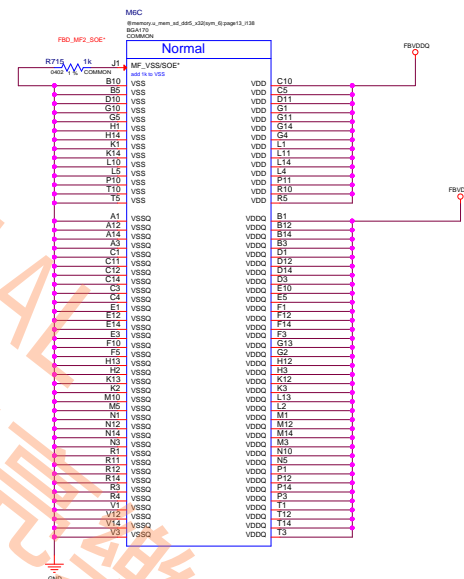
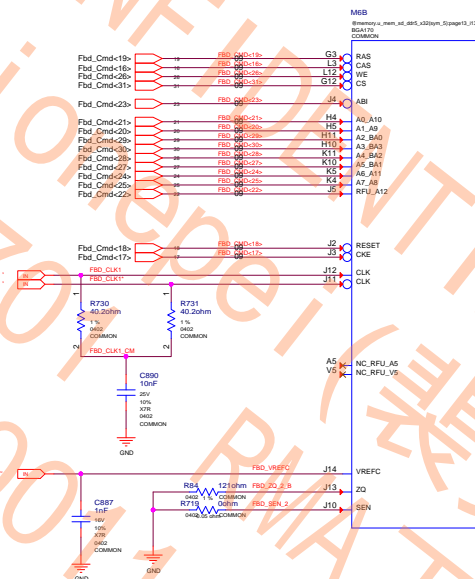
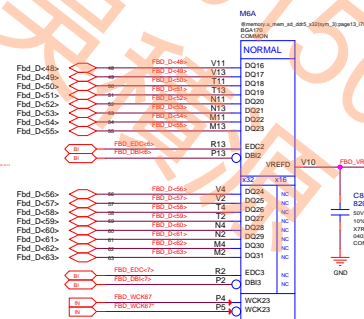
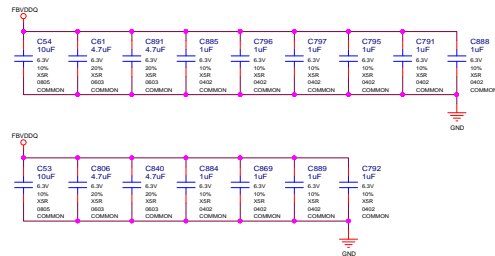
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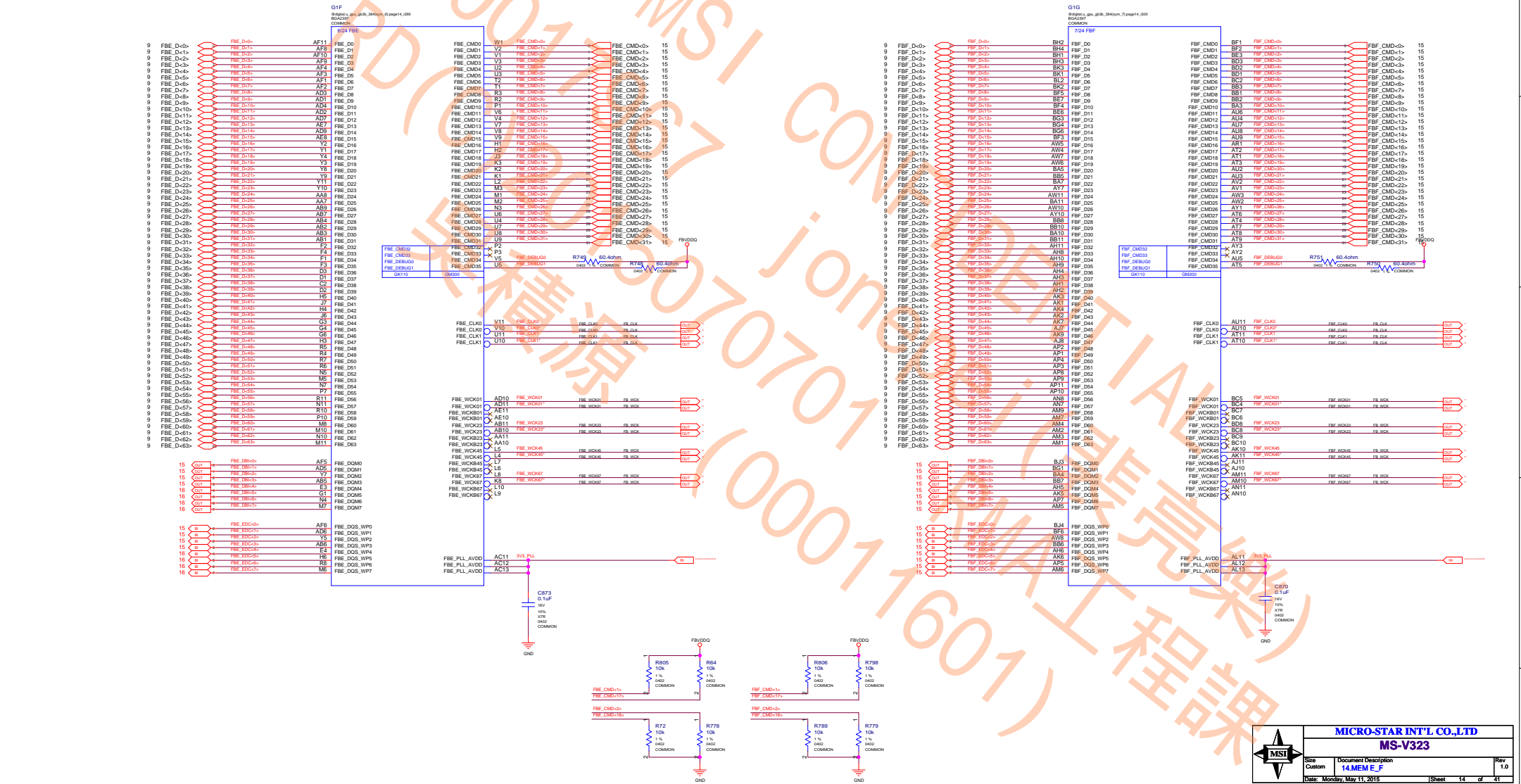


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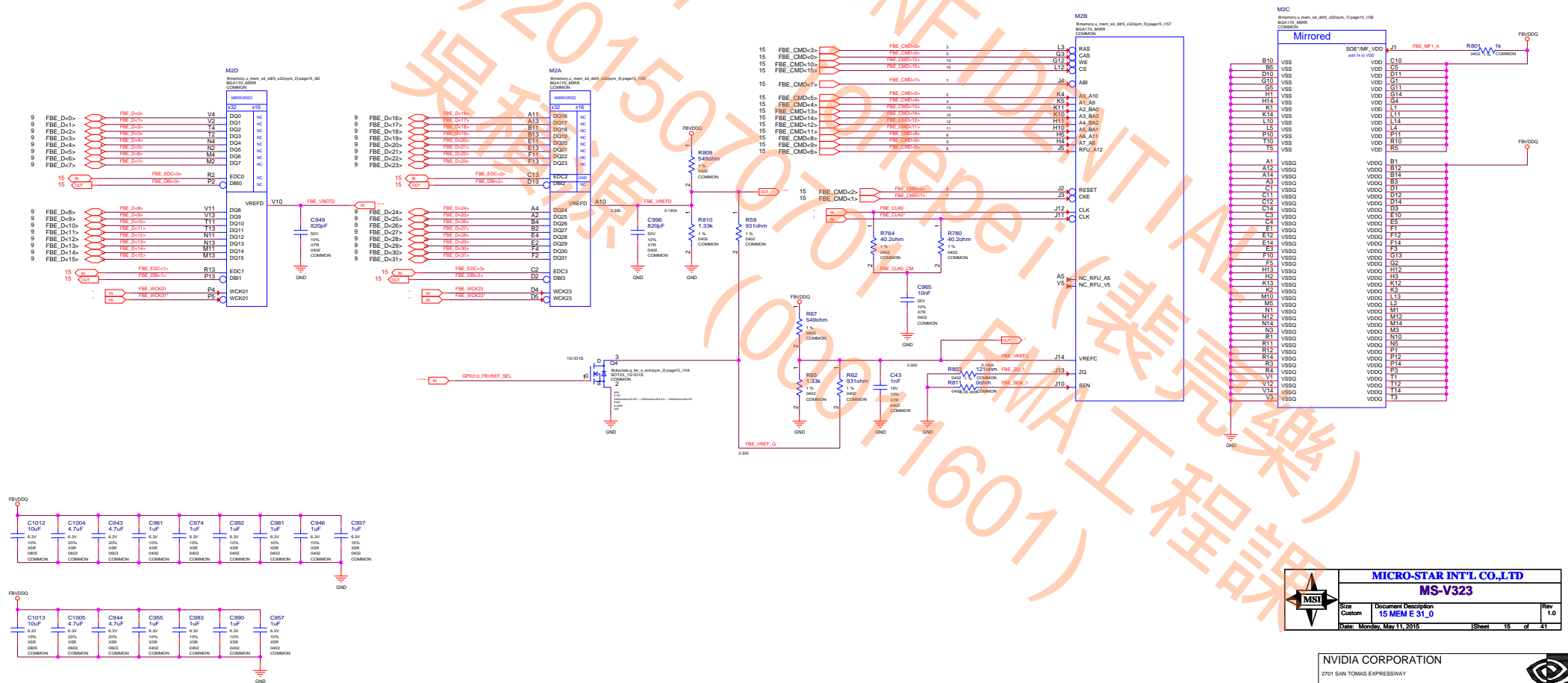


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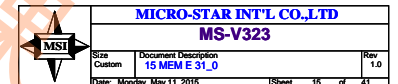
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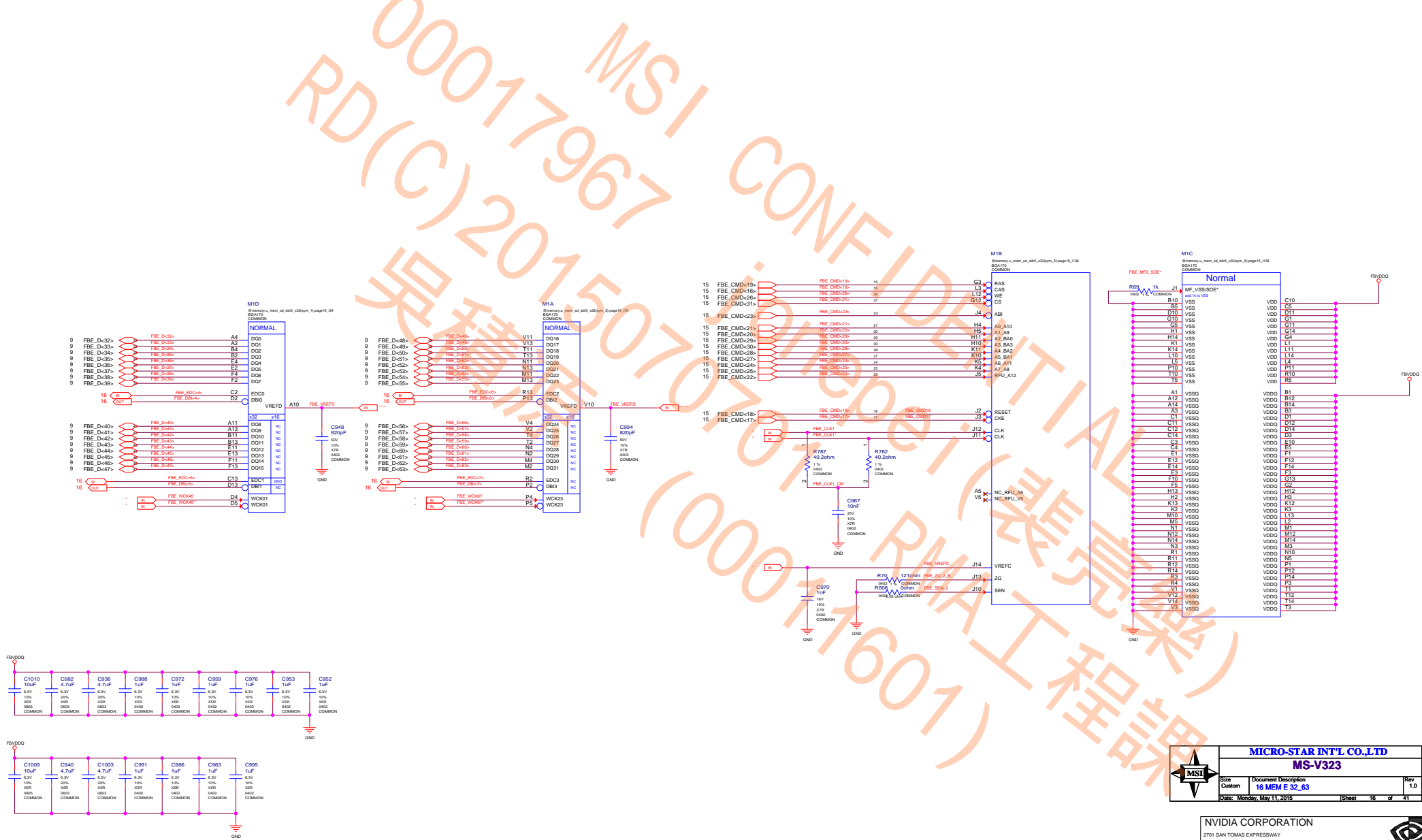
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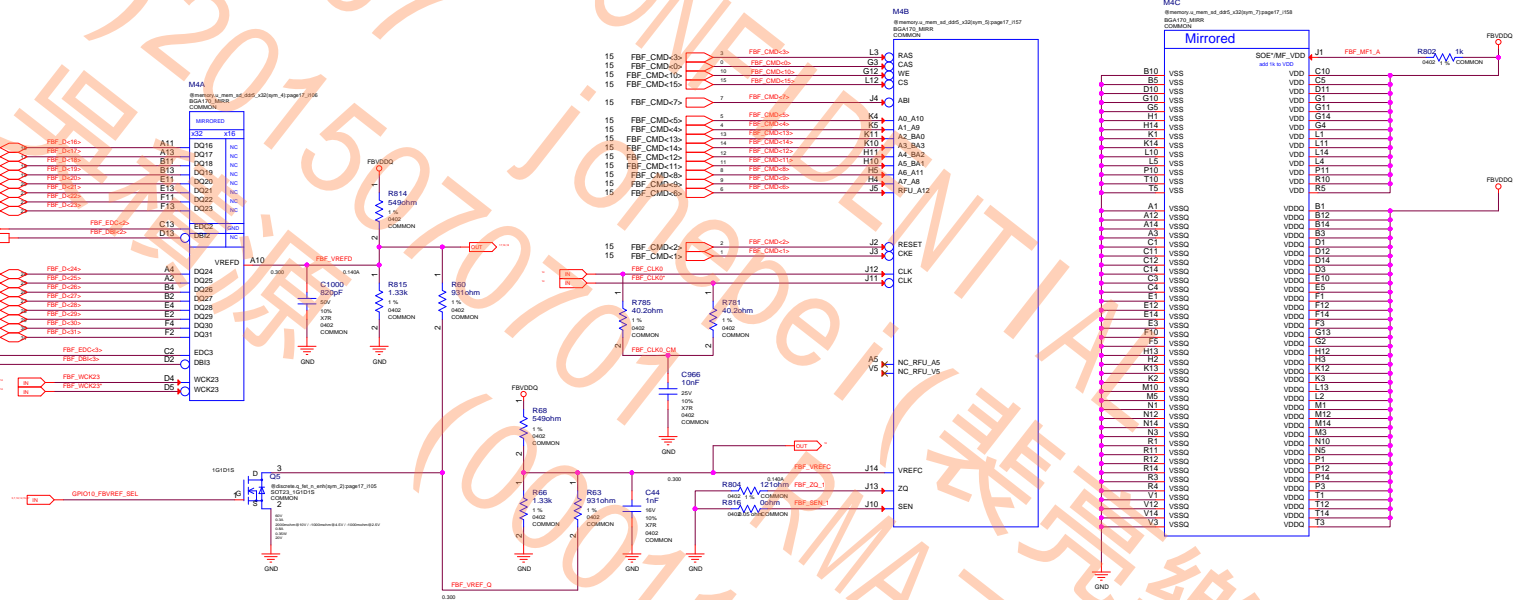
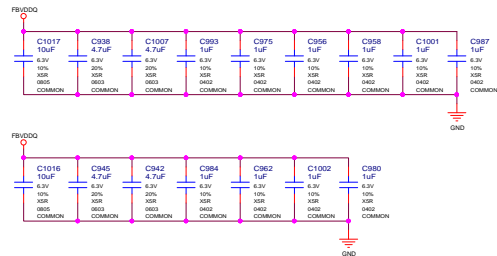
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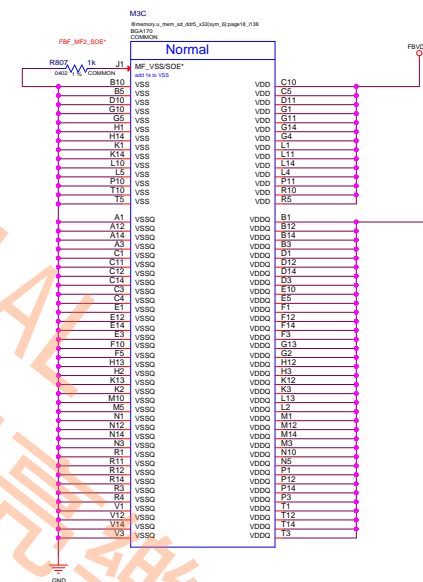
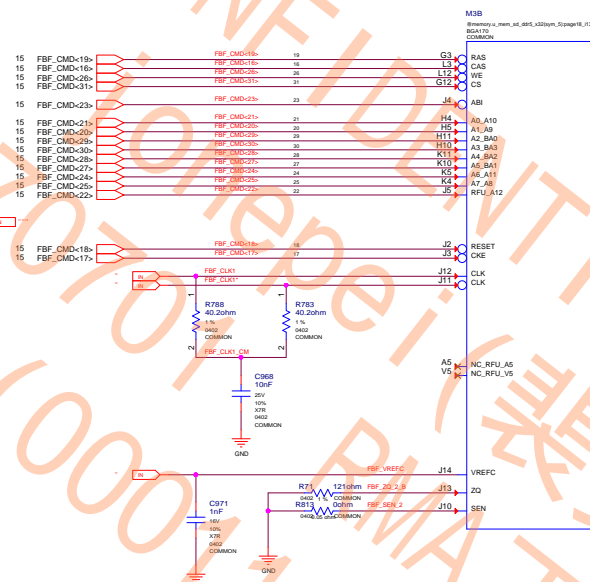
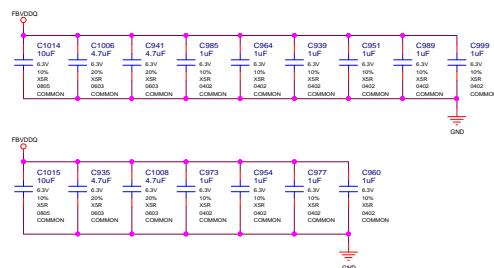
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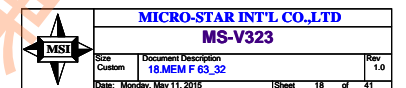
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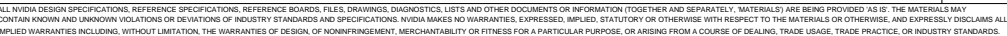
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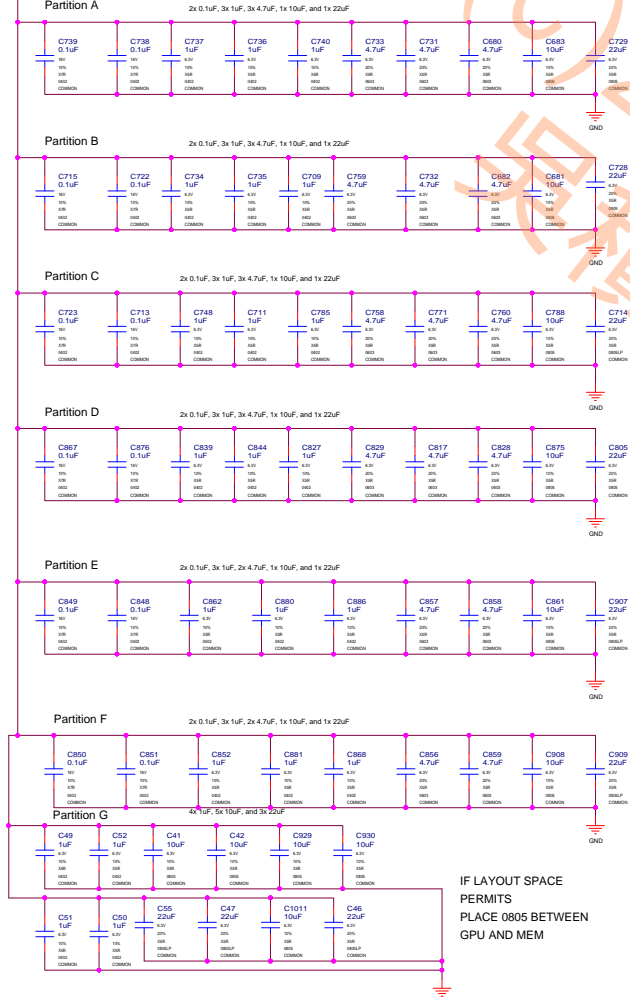


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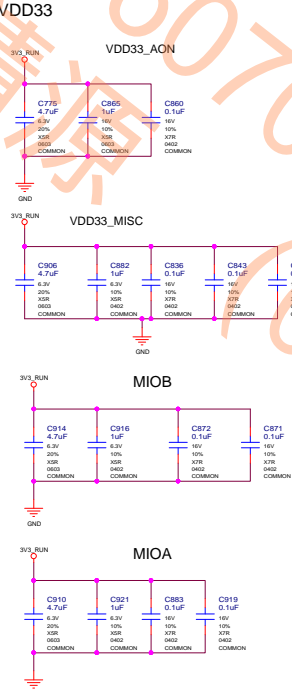
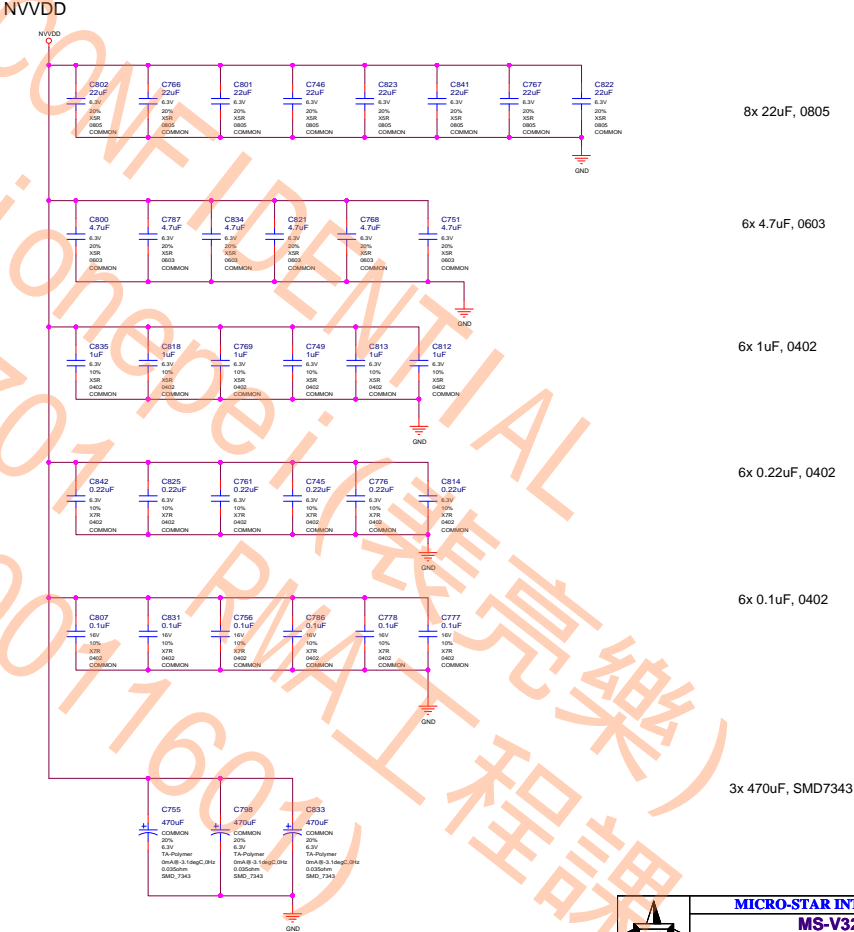


Based on GB3-X GDDR5 FBVDDQ Decap Guideline


FBVDDQ
0.1uF, 1uF, 0402 (Place Under GPU)
4.7uF, 0603 (Place Near GPU)
10uF, 0805 (Place Near GPU)
22uF, 0805 (Place Near GPU)



NVVDD Decoupling caps. Place under GPU.



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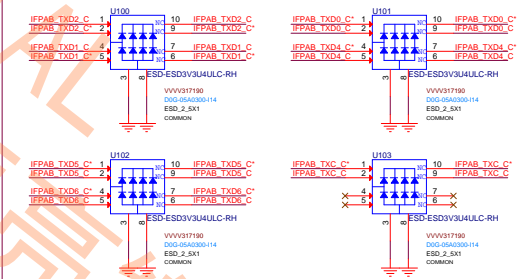


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REPLACE WITH ZERO OHM RESISTORS FOR KEPLER SKUs

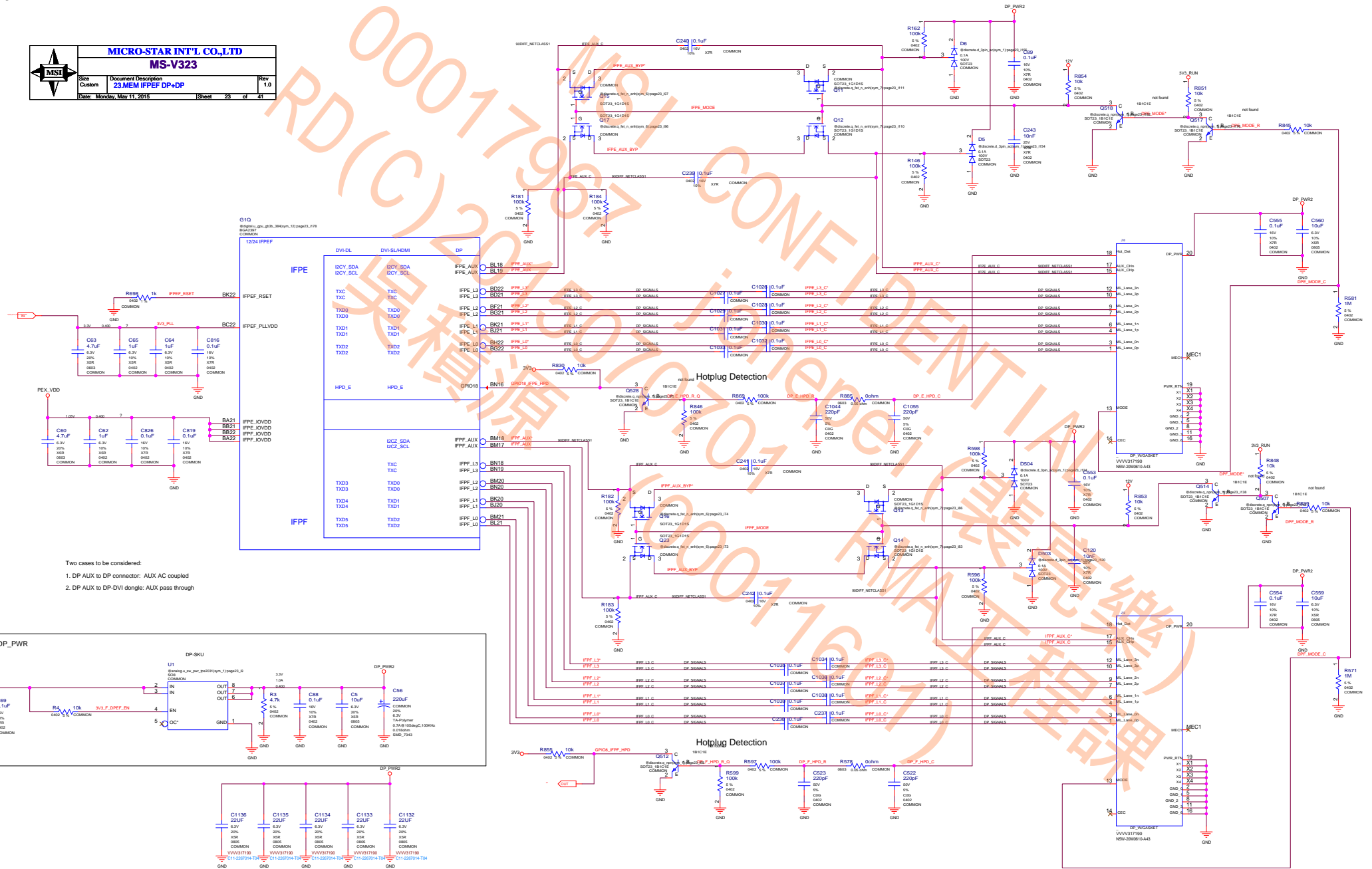
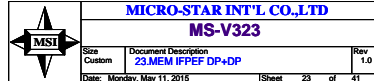


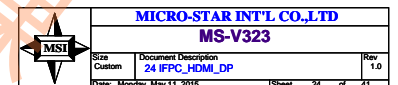
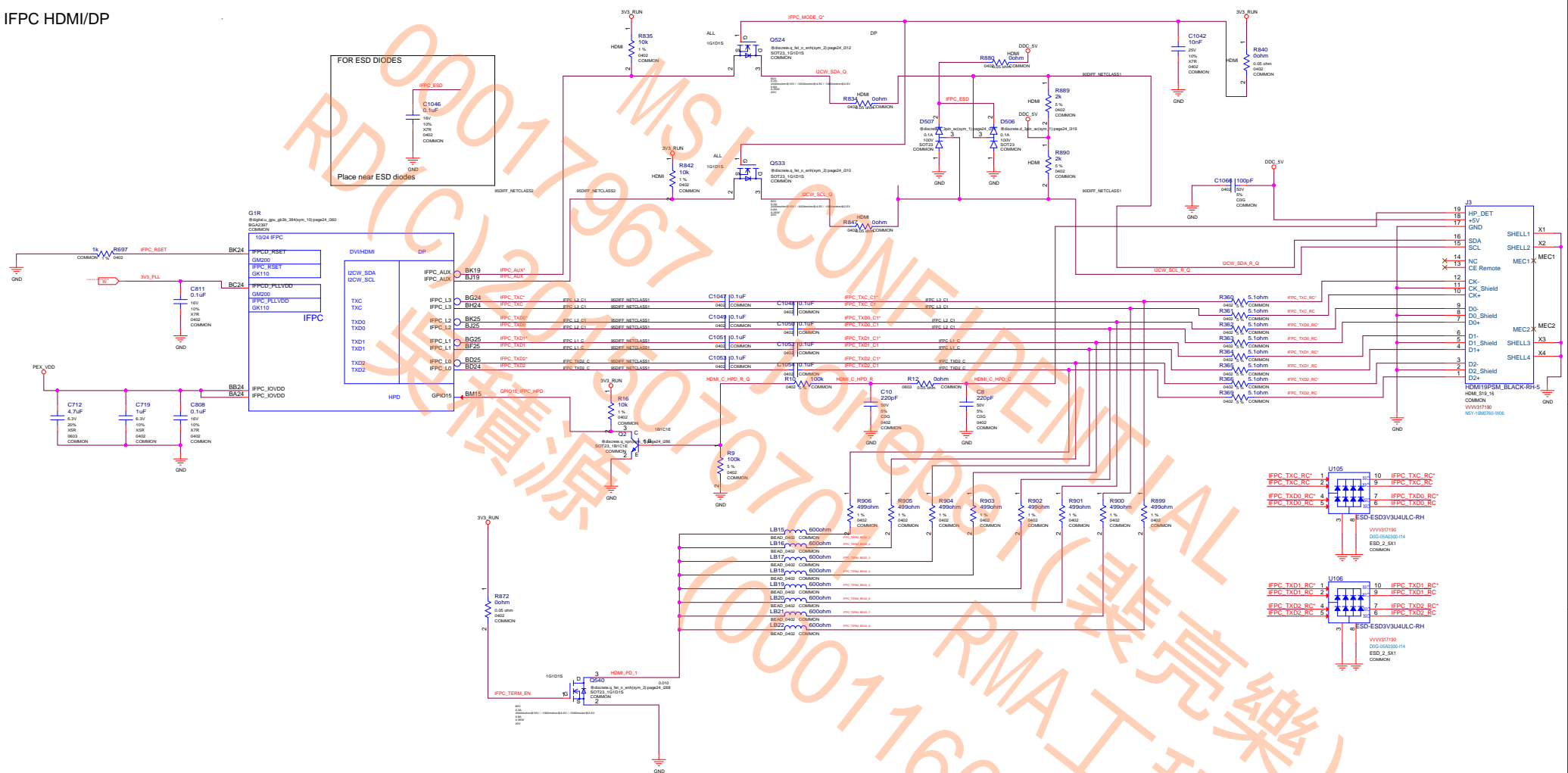
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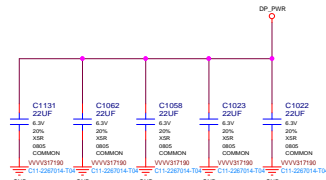
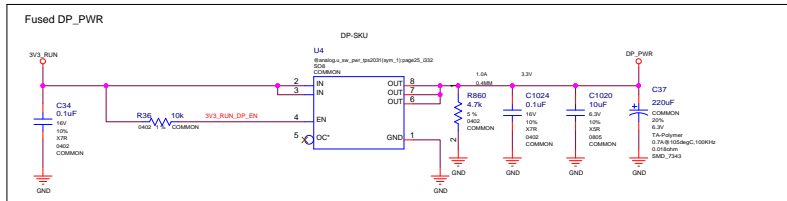
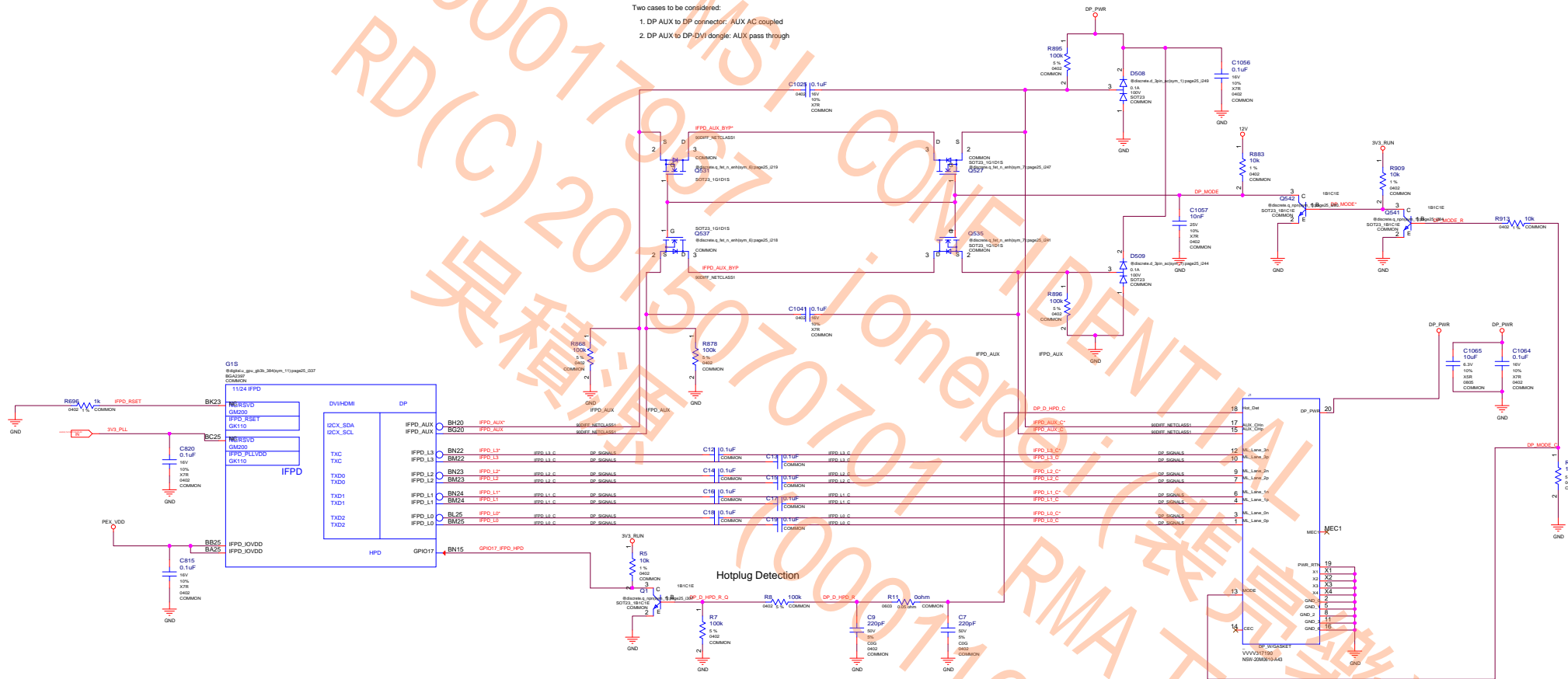


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- Two cases to be considered:
1. DP AUX to DP connector: AUX AC coupled
 2. DP AUX to DP-DVI dongle: AUX pass through



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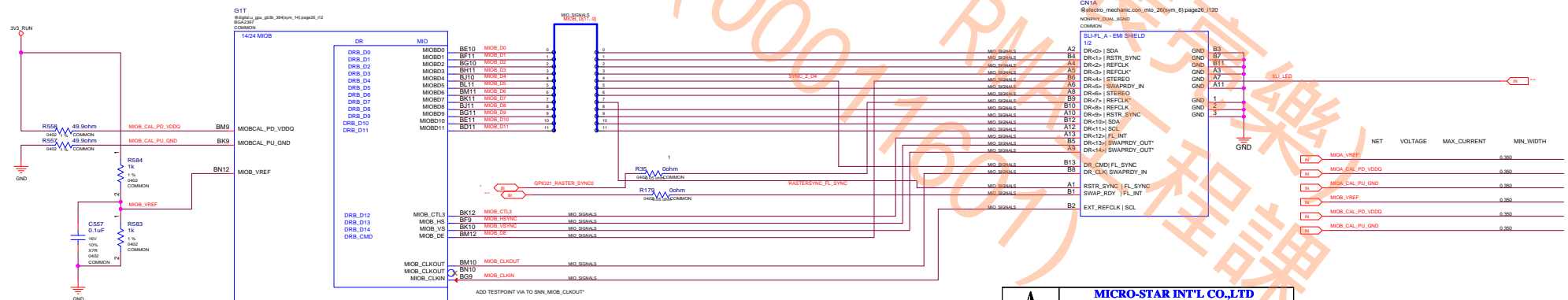
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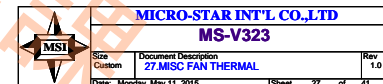
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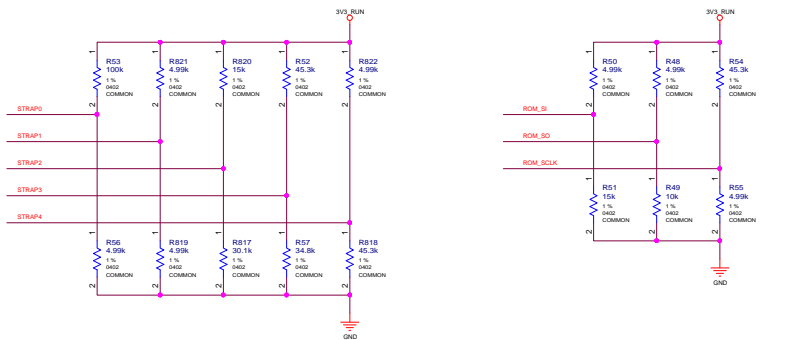


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STRAP0	USER_BIT [3:0]*	0000*	GC6_ENABLE(3.3V) PU
STRAP1	3GIO_PADCFG_LUT_ADR*	0000*	N/A
STRAP2	PCI_DEVID [3:0]*	100A*	N/A
STRAP3	SOR_EXPOSED [3:0]*	1111*	N/A
STRAP4	DP_PLL_VDD_33V*	1* FOR 3_3V*	N/A
	PEX_MAX_SPEED*	1* FOR GEN2/3*	N/A
	PEX_SPD_CHANGE_GEN3*	1* ENABLED*	N/A
	RESERVED	0*	N/A
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	RAMCFG[2]*	1*	RAMCFG[2]*
	RAMCFG[3]*	0*	RAMCFG[3]*
ROM_SO	VGA_DEVICE*	1*	VGA_DEVICE* 1* For Enable
	SMB_ALT_ADDR*	0*	SMB_ALT_ADDR 0* For Disable
	FB[0]_APERTURE_SIZE*	1* For 128MB*	PCIE_CFG 0* For Desktop
	FB[1]_APERTURE_SIZE*	0*	DEVID_SEL 0* For DEVID A
	PEX_PLL_EN_TERM100*	0* DISABLED*	SOR0_EXPOSED
	PCI_DEVID_EXT[5]*	0*	SOR1_EXPOSED
ROM_SCLK	SUB_VENDOR*	1* Dedicated BIOS*	SOR2_EXPOSED
	PCI_DEVID_EXT[4]*	0*	SOR3_EXPOSED

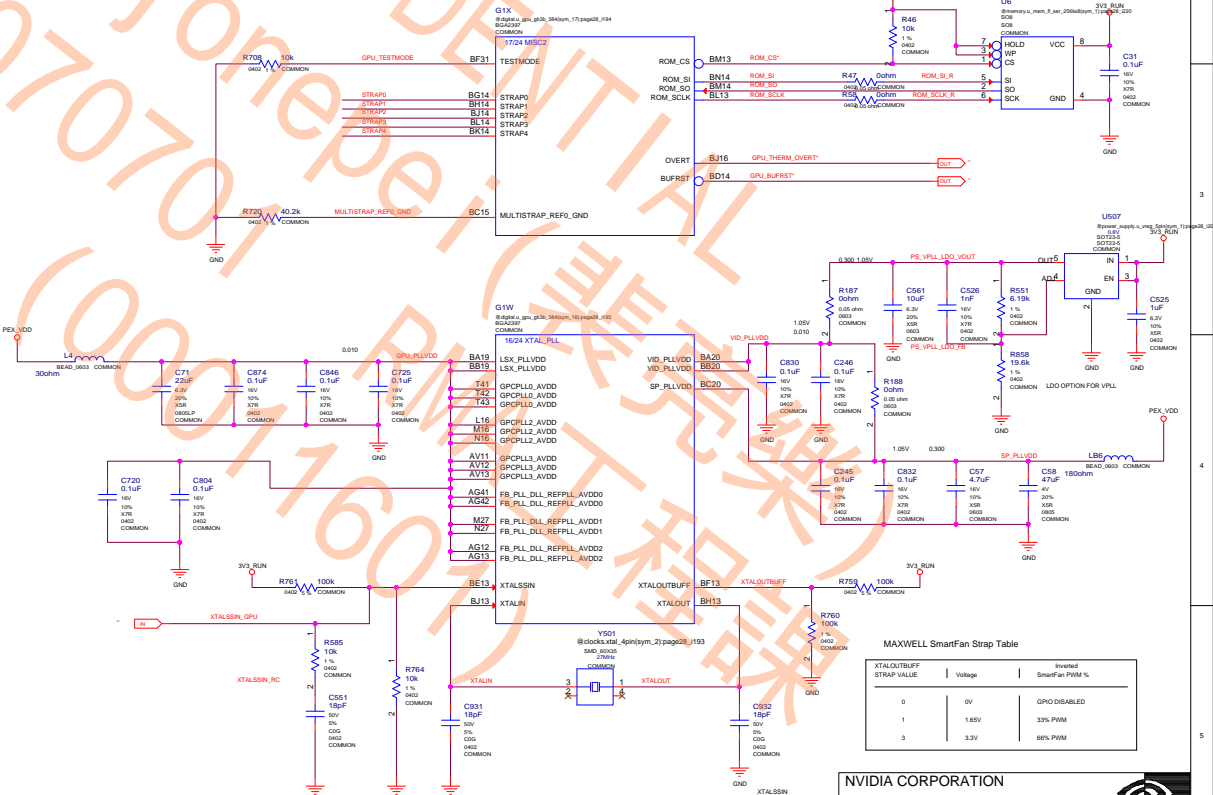
	MULTI_STRAP_REFQ_GND
BINARY PRODUCTION	NC
BINARY BRINGUP	NC
MULTI-LEVEL	40.2% 1% TO GND



	GND	3V3
5k	0000	1000
10k	0001	1001
15k	0010	1010
20k	0011	1011
25k	0100	1100
30k	0101	1101
35k	0110	1110
45k	0111	1111

x32 DENSITY MODE STRAPS
CFG[3:0] Config Width Vendor
0000 Reserved
0001 128Mx32 384-bit Elpida
0010 128Mx32 384-bit Hynix
0011 128Mx32 384-bit Samsung
0100 64Mx32 384-bit Hynix B
0101 64Mx32 384-bit Elpida
0110 64Mx32 384-bit Hynix
0111 64Mx32 384-bit Samsung
1000 Reserved
1001 128Mx32 320-bit Elpida
1010 128Mx32 320-bit Hynix
1011 128Mx32 320-bit Samsung
1100 64Mx32 320-bit Hynix B
1101 64Mx32 320-bit Elpida
1110 64Mx32 320-bit Hynix
1111 64Mx32 320-bit Samsung

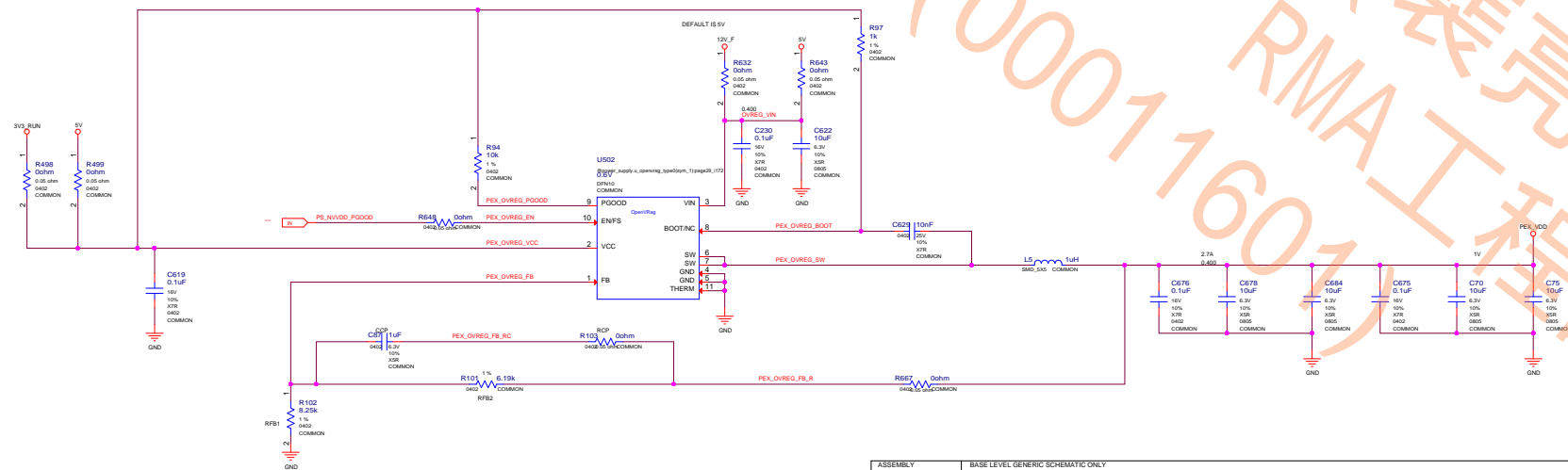
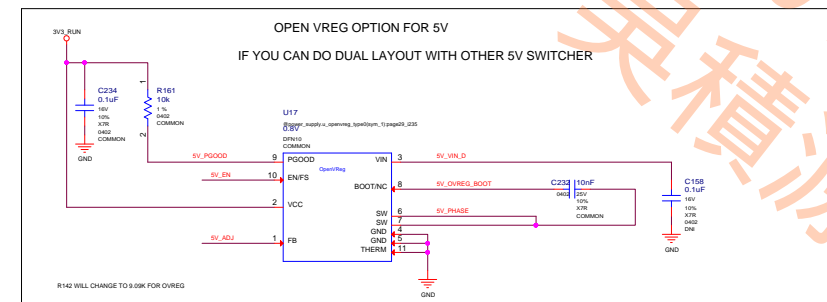
x16 DENSITY MODE STRAPS
CFG[3:0] Config Width Vendor
0000 Reserved
0001 256Mx16 384-bit Elpida
0010 256Mx16 384-bit Hynix
0011 256Mx16 384-bit Samsung
0100 128Mx16 384-bit Hynix B
0101 128Mx16 384-bit Elpida
0110 128Mx16 384-bit Hynix
0111 128Mx16 384-bit Samsung
1000 Reserved
1001 256Mx16 320-bit Elpida
1010 256Mx16 320-bit Hynix
1011 256Mx16 320-bit Samsung
1100 128Mx16 320-bit Hynix B
1101 128Mx16 320-bit Elpida
1110 128Mx16 320-bit Hynix
1111 128Mx16 320-bit Samsung




MAXWELL SmartFan Strap Table		
XTALOUTBUFF STRAP VALUE	Voltage	Inverted SmartFan PWM %
0	0V	GPO DISABLED
1	1.65V	32% PWM
3	3.3V	60% PWM

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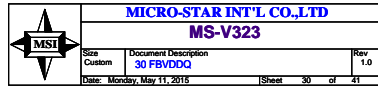


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	MS-V323		
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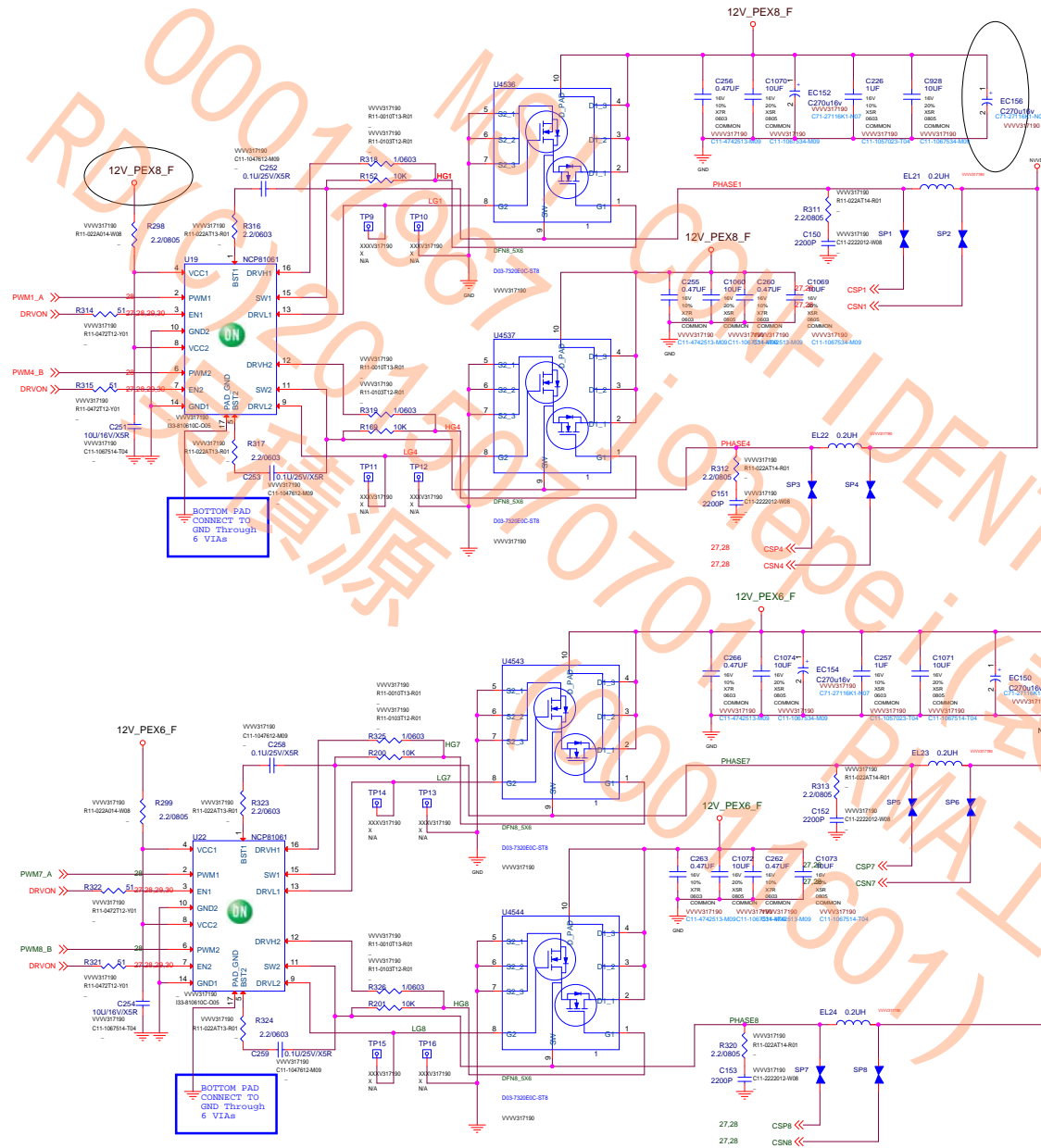


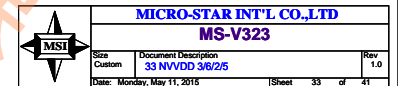
NV_PN	600-1G600-BASE-QS1		
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ASSEMBLY	BASE LEVEL GENERIC SCHEMATIC ONLY
PAGE DETAIL	PS: FBVDD/Q

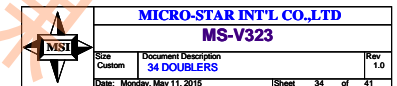
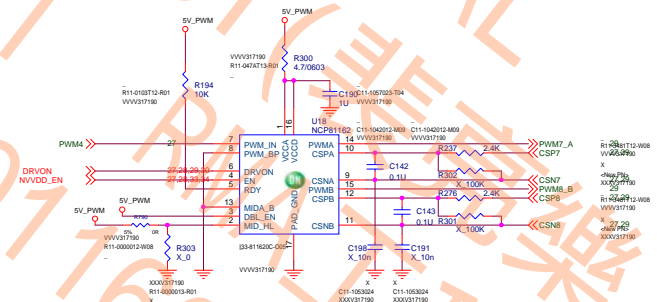
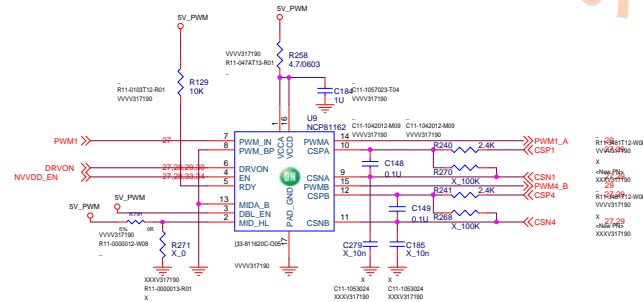
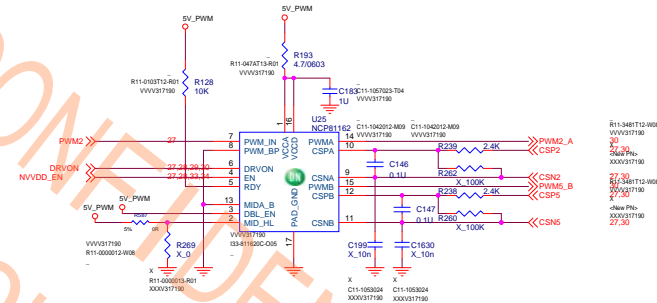
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ASSEMBLY	BASE LEVEL GENERIC SCHEMATIC ONLY
PAGE DETAIL	PS: NVDD Phase 3,4

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ASSEMBLY	BASE LEVEL GENERIC SCHEMATIC ONLY
PAGE DETAIL	PS: NVVDD Phase 5,6

VID Table

GPI04 VID_5	GPI03 VID_4	GPI02 VID_3	GPI01 VID_2	GPI00 VID_1	VOUT
0	0	0	0	0	1.2125V
0	0	0	0	1	1.2000V
0	0	0	1	0	1.1875V
0	0	0	1	1	1.1750V
0	0	1	0	0	1.1625V
0	0	1	0	1	1.1500V
0	0	1	1	0	1.1375V
0	0	1	1	1	1.1250V
0	1	0	0	0	1.1125V
0	1	0	0	1	1.1000V
0	1	0	1	0	1.0875V
0	1	0	1	1	1.0750V
0	1	1	0	0	1.0625V
0	1	1	0	1	1.0500V
0	1	1	1	0	1.0375V
0	1	1	1	1	1.0250V
1	0	0	0	0	1.0125V
1	0	0	0	1	1.0000V
1	0	0	1	0	0.9875V
1	0	0	1	1	0.9750V
1	0	1	0	0	0.9625V
1	0	1	0	1	0.9500V
1	0	1	1	0	0.9375V
1	0	1	1	1	0.9250V
1	1	0	0	0	0.9125V
1	1	0	0	1	0.9000V
1	1	1	0	1	0.8875V
1	1	0	1	1	0.8750V
1	1	1	1	0	0.8625V
1	1	1	0	1	0.8500V
1	1	1	1	0	0.8375V
1	1	1	1	1	0.8250V






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Page36: PS: Inputs, Filtering, and Monitoring

REMOVE NO STUFF FOR GEFORCE SKUS ONLY

PEX 3V3 INPUT - 10W

DEFAULT STUFFING IS THE BEAD.
IN CASE INDUCTOR NEEDS TO BE
STUFFED YOU NEED TO NAME
SURE THAT ITS LOWER HEIGHT THAN 2.7MM

3V3_FILTER CONNECTS to 3V3_RUN.
VIA CIRCUITRY FOUND ON THE MCU PAGE.
USING EITHER THE FET LABELED Qx OR
RESISTORS LABELED Rj and Rk

PEX 12V INPUT - 66W

Alternate

CHK_D2_TX7


L04-05A732T-LB5

PEX8 INPUT 2 - 2x4 PCIe CON 150W

L162 CO LAYOUT

L1 STUFFED FOR DESKTOP

L1 STUFFED FOR 24x EAST CONNECTOR STUFFED

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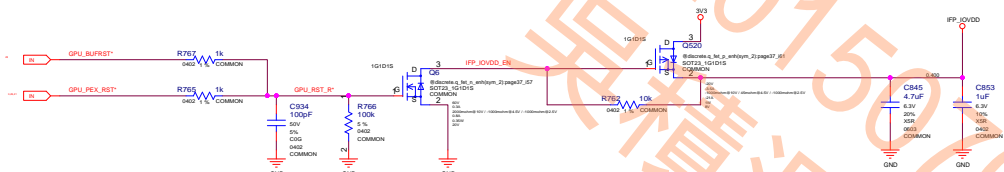


NV_PN 600-1G600-BASE-QS1

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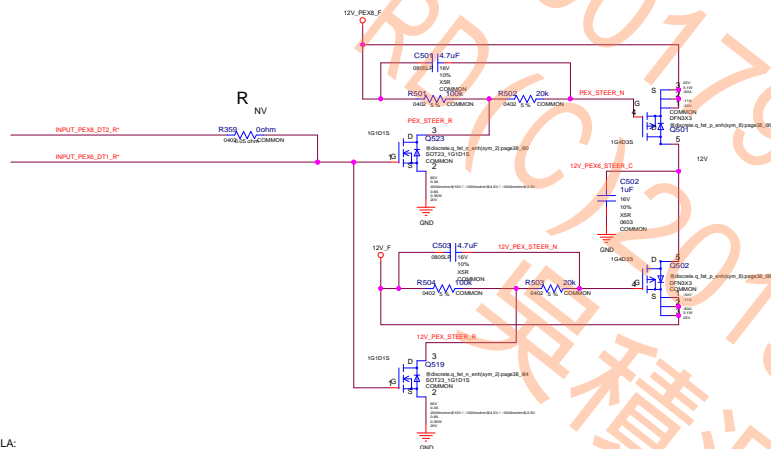
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IFP_IOVDD (backdrive prevention)



12V CURRENT STEERING (UNDER POWER BOOT): GUIDES CURRENT FROM PEX EDGE TO PEX 6 PIN INPUT AREA

For Open/Reg Type4 + Phase Doubler, 2 phase PSI mode



QUADRO/TESLA:

PEX 6 INPUT CONNECTOR IS NOT LOADED

PEX 6 INPUT DETECT MUST BE DISABLED

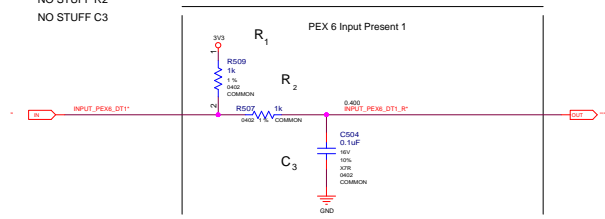
PEX 8 INPUT DETECT MUST BE USED TO CONTROL STEERING

STUFF Rnv IN STEERING CIRCUIT

NO STUFF R1

NO STUFF R2

NO STUFF C3



GeFORCE:

PEX 6 INPUT CONNECTOR IS LOADED

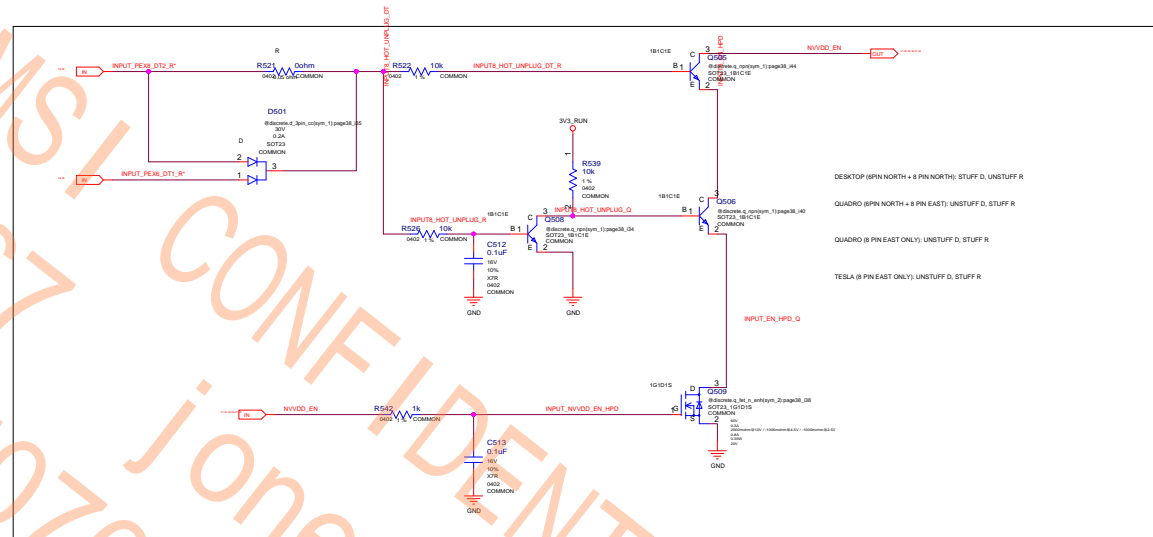
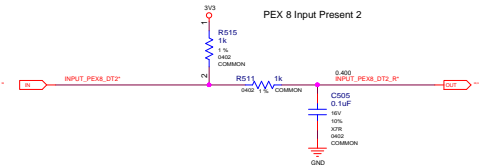
PEX 6 INPUT DETECT MUST BE USED TO CONTROL STEERING

NO STUFF Rnv IN STEERING CIRCUIT

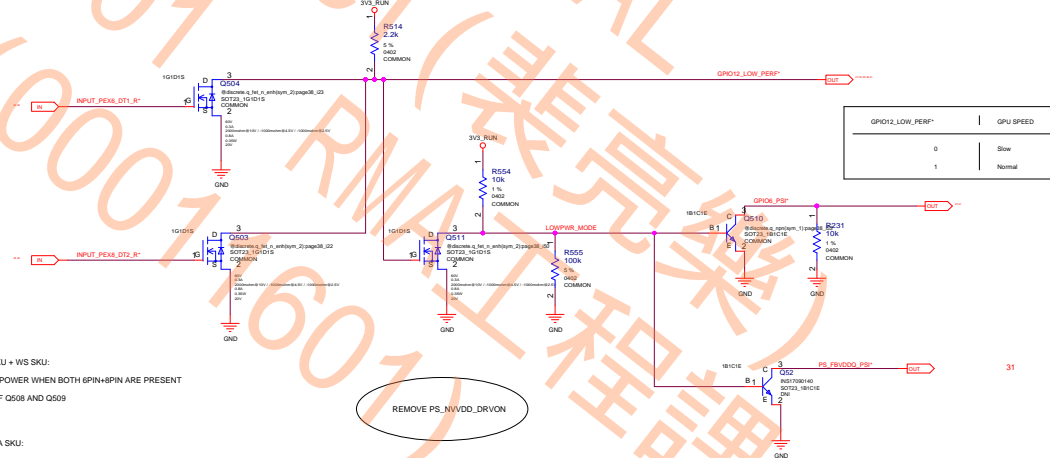
STUFF R1

STUFF R2

STUFF C3



PEX Input - Under Power Boot Controls



DT SKU + WS SKU:

FULL POWER WHEN BOTH 6PIN+8PIN ARE PRESENT

STUFF Q508 AND Q509

TESLA SKU:

FULL POWER WHEN 6PIN+8PIN OR 8PIN ONLY ARE PRESENT

STUFF Q508 ONLY



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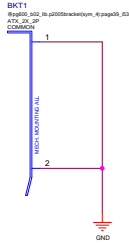
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Brackets:
DVIDVL_HDMI_DP: 151-10001-0441-092



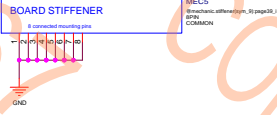
Bracket Screw



GPU SOCKET



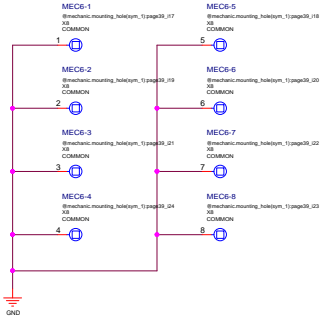
GPU Stiffener (BRING-UP COOLER)



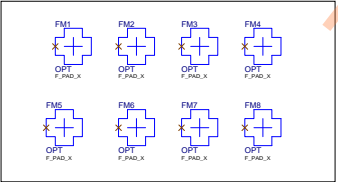
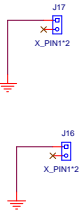
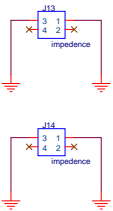
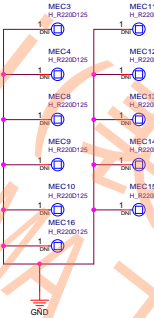
Stiffener



Bring Up Cooler



Mechanical Holes Symbol



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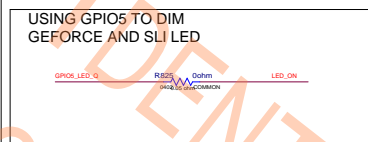
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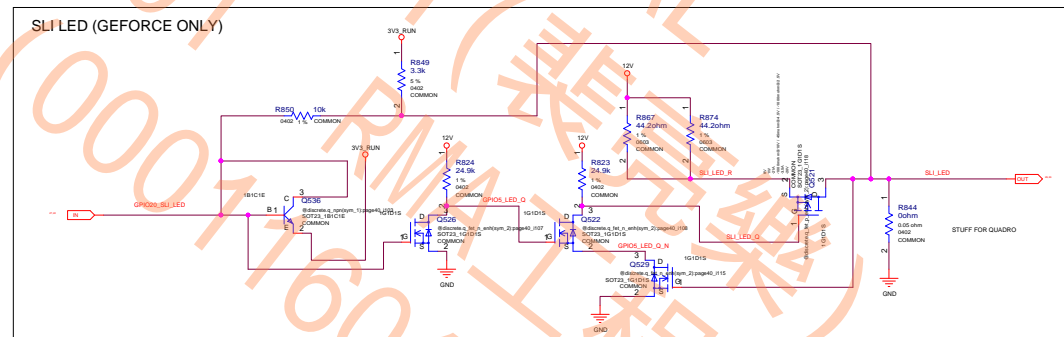
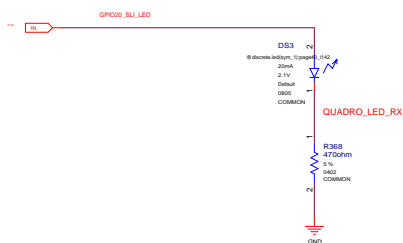
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LED FOR QUADRO
PLACE BETWEEN DP Connectors
CONNECTORS



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MS-V323					
Size Custom	Document Description 40. LED				Rev 1
Drawing: Micro-Star, Model # MS-V323 Date: 08/09/07 Drawn by: JHJ Checked by: JHJ					

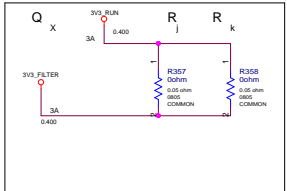
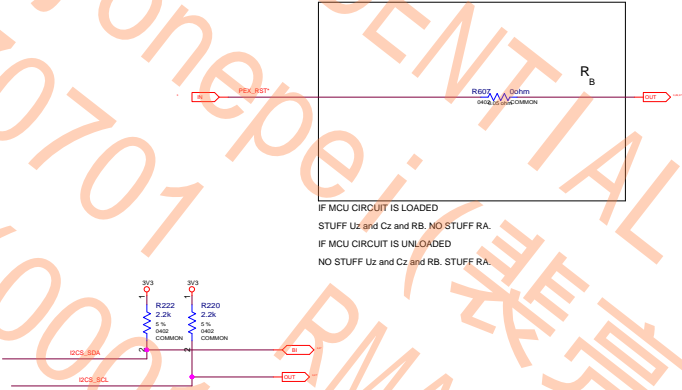
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ASSEMBLY	BASE LEVEL GENERIC SCHEMATIC ONLY
PAGE DETAIL	POWER BRAKE AND LED

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吳積源 RMA工程課



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