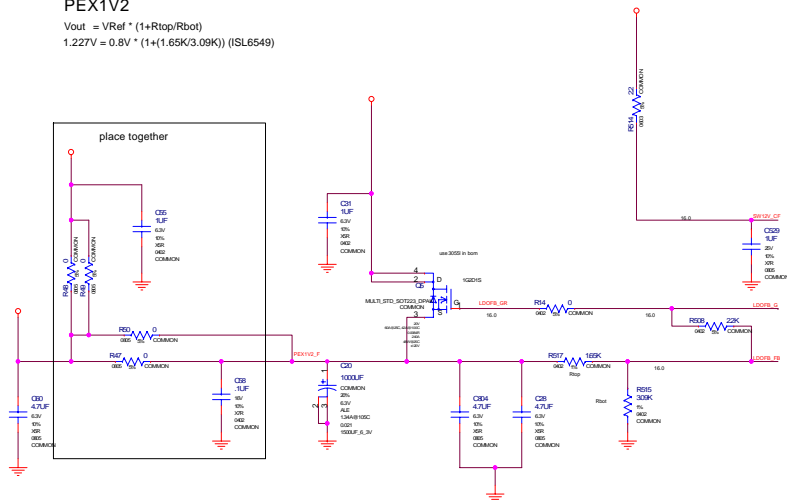


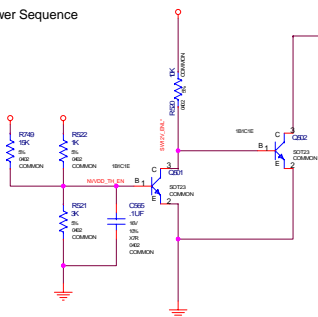
PowerSupplyIII: FBVDDQ, PEX1V2

PEX1V2

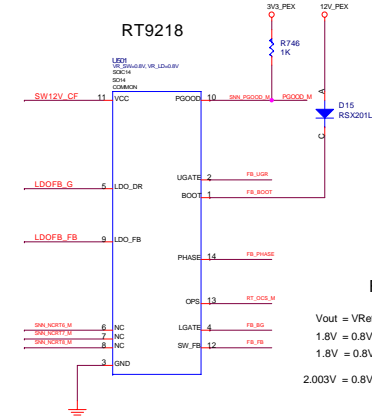
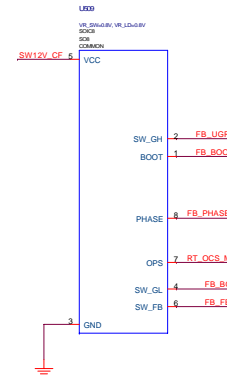
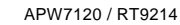
$$V_{out} = V_{Ref} * (1 + R_{top}/R_{bot})$$

$$1.227V = 0.8V * (1 + (1.65K/3.09K)) \text{ (ISL6549)}$$


Power Sequence



Power down option
A3V3 Rtop 15K Rbot 10K
NVVDD Rtop 1K Rbot 3K

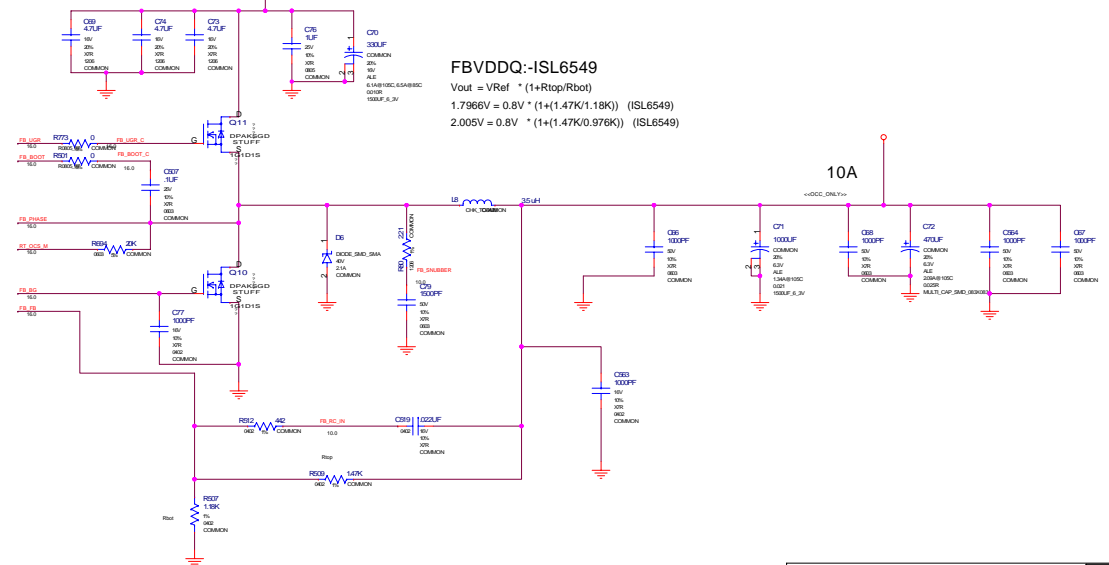


FBVDDQ:-RT9218

$$\begin{aligned} V_{out} &= V_{Ref} * (1 + R_{top}/R_{bot}) \\ 1.8V &= 0.8V * (1 + (5k/4k)) \quad (RT9218) \\ 1.8V &= 0.8V * (1 + (200/160)) \quad (RT9218) \text{ Samsung MEM} \\ 2.003V &= 0.8V * (1 + (200/133)) \quad (RT9218) \text{ Infineon MEM default} \end{aligned}$$

Net Name	LINE_WIDTH	CURRENT	Voltage
FBVDDQ	12MIL		1.8V

FBVDDQ:-ISL6549

$$V_{out} = V_{Ref} * (1 + R_{top}/R_{bot})$$
$$1.7966V = 0.8V * (1 + (1.47K/1.18K)) \quad (ISL6549)$$
$$2.005V = 0.8V * (1 + (1.47K/0.976K)) \quad (ISL6549)$$


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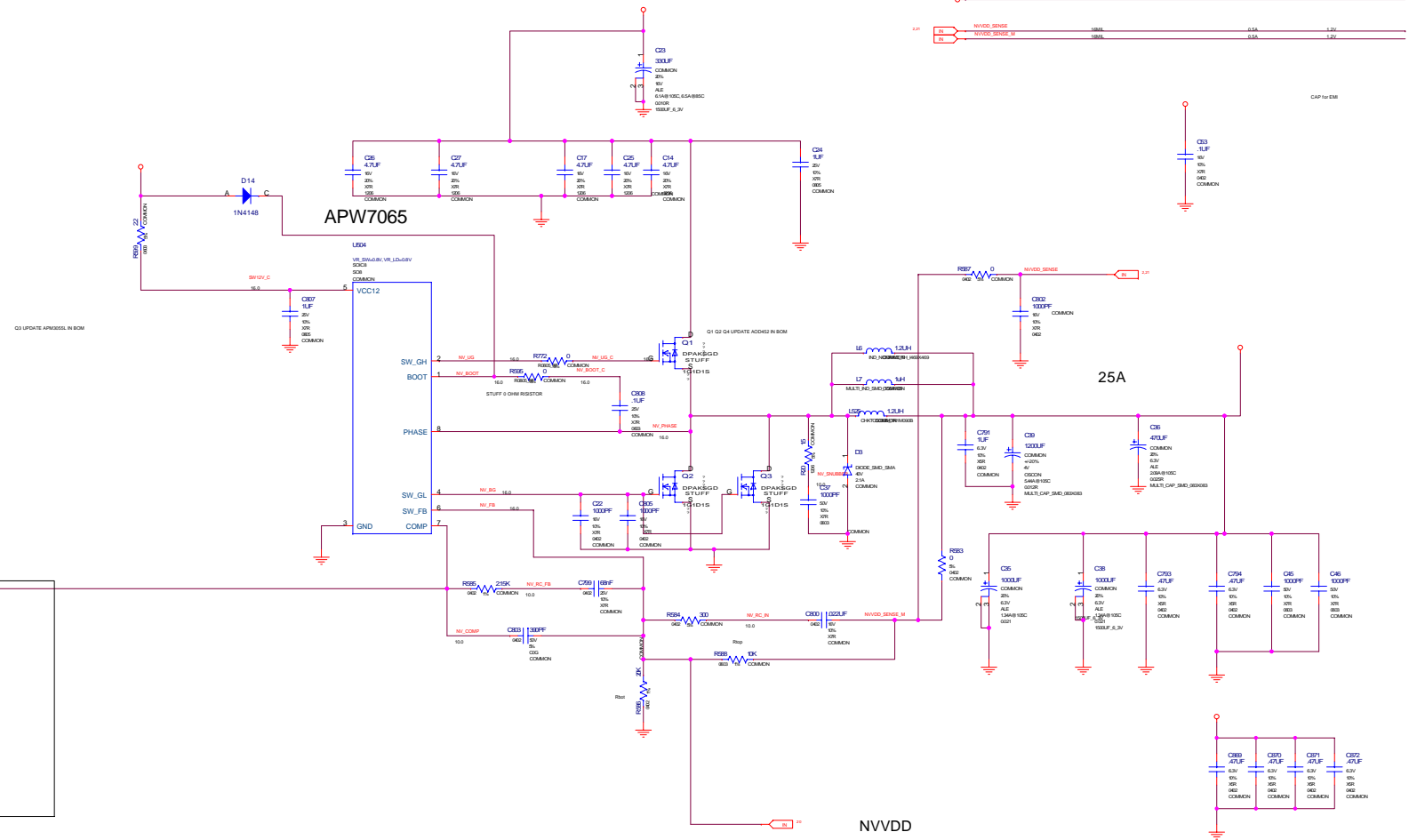
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ASSEMBLY	BASE LEVEL GENERIC SCHEMATIC ONLY, COMMON & NO_STUFF ASSEMBLY NOTES AND BOM NOT FINAL
PAGE DETAIL	PowerSupplyIt: FBVDDQ, PLLVDD

PowerSupplyII: NVVDD




NVVD

$V_{out} = V_{ref} * (1 + R_{top}/R_{bot})$

$1.1V = 0.8V * (1 + (1.54k/4.02k))$ (ISL6549)

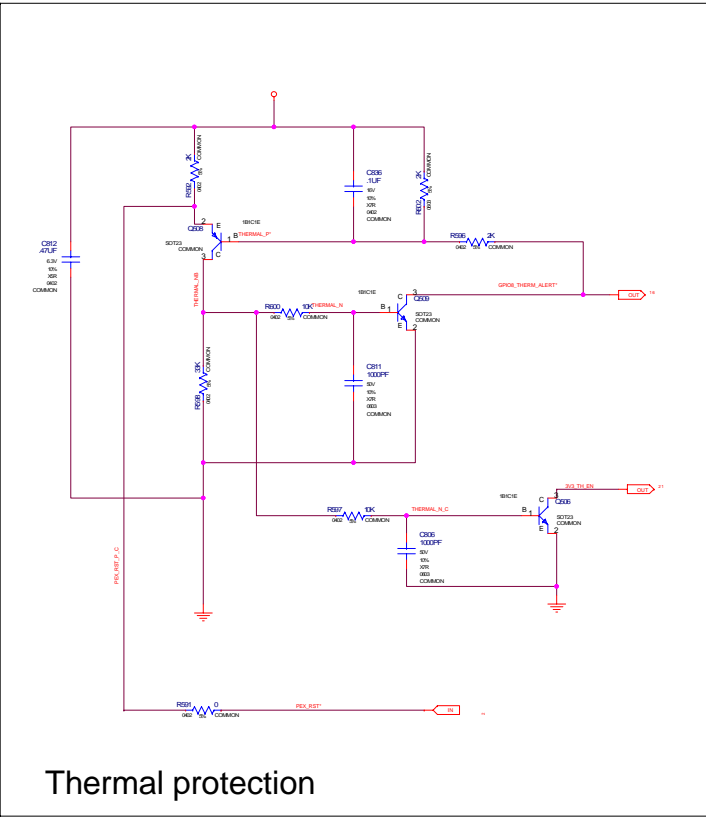
$1.2V = 0.8V * (1 + (1.54k/3.09k))$ (ISL6549)

$1.2V = 0.8V * (1 + (10k/20k))$ (APW7065)

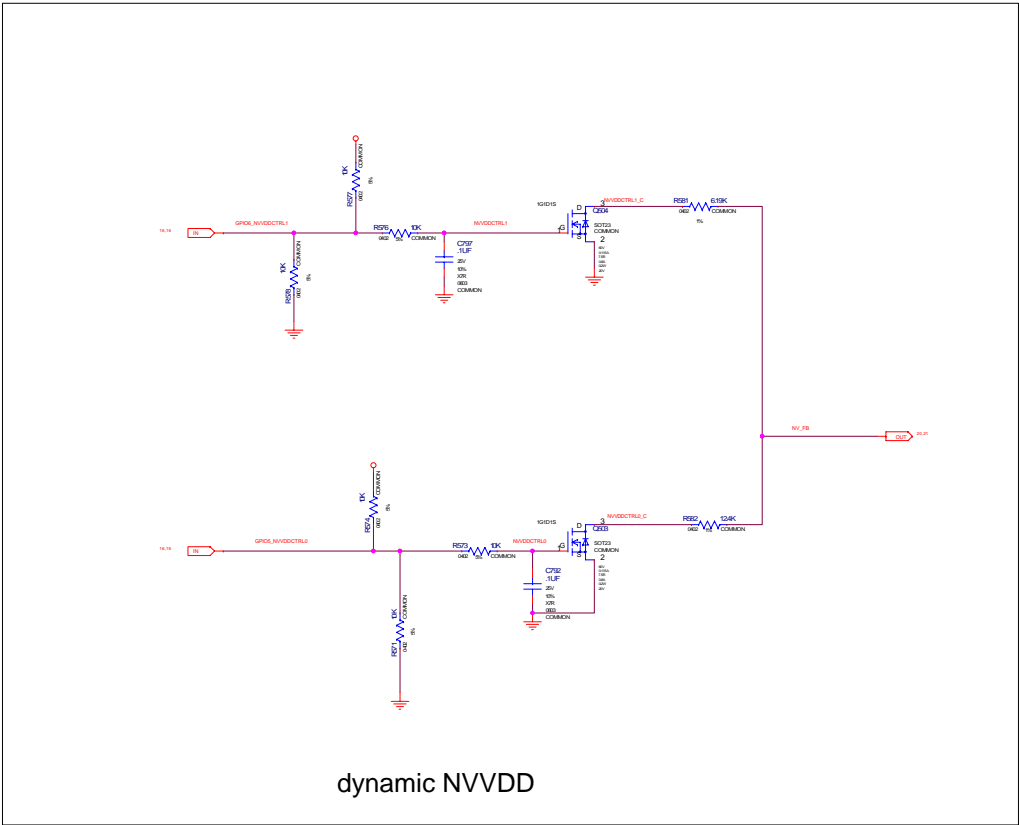
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thermal protection and dynamic NVVDD



Thermal protection



dynamic NVVDD

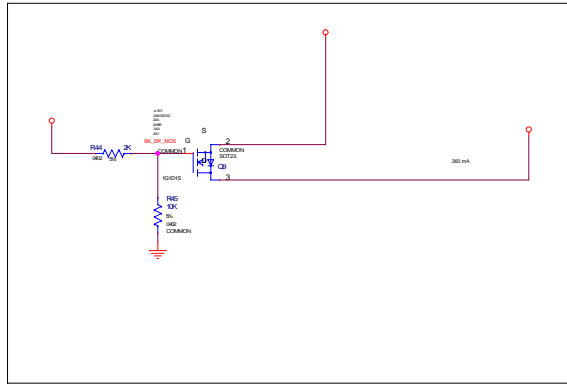
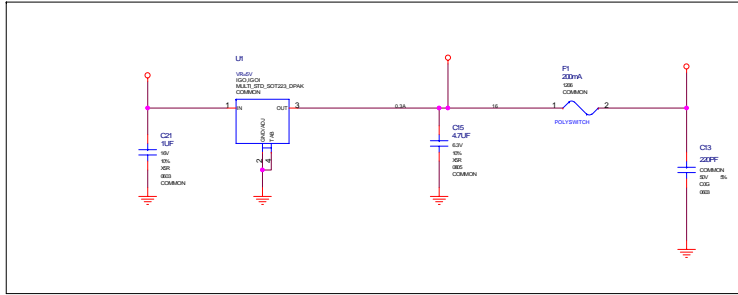
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PAGE DETAIL	Thermal protection and dynamic NVVDD

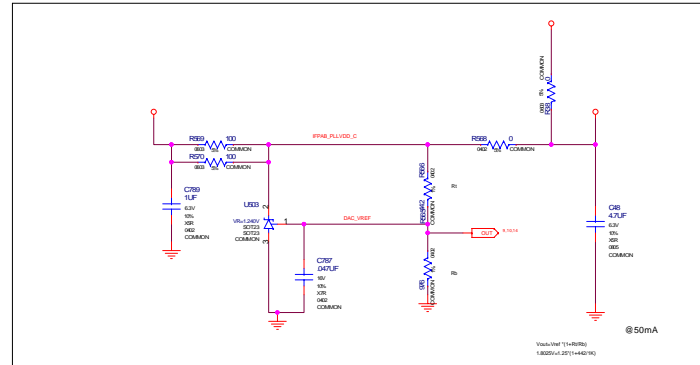
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NETNAME	MAX_CURRENT	MIN_LINE_WIDTH	VOLTAGE
GND_2V	0.1A	12.0	0.00000V
KBIS	1.0A	30.0	0.00000V
IFTHM_CVDD	0.3A	16	0.00000V
GND		30.0	0.00000V
IFP_FUDD	0.3A	16	0.00000V

TMD5 IO SUPPLY WITH BACKDRIVE PROTECTION



A3V3 Power Supply



ASSEMBLY	BASE LEVEL GENERIC SCHEMATIC ONLY; COMMON & NO_STUFF ASSEMBLY NOTES AND BOM NOT FINAL
PAGE DETAIL	POWER SUPPLY: TMSD KVDD,5V,A3V3

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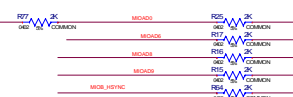
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Straps

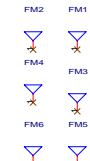


10.PCI_DEV0_0	PCI_DEV0[0]
11.PCI_DEV0_1	
12.PCI_DEV0_2	
13.PCI_DEV0_3	
28.PCI_DEV0_EXT	PCI DevID (32bit)

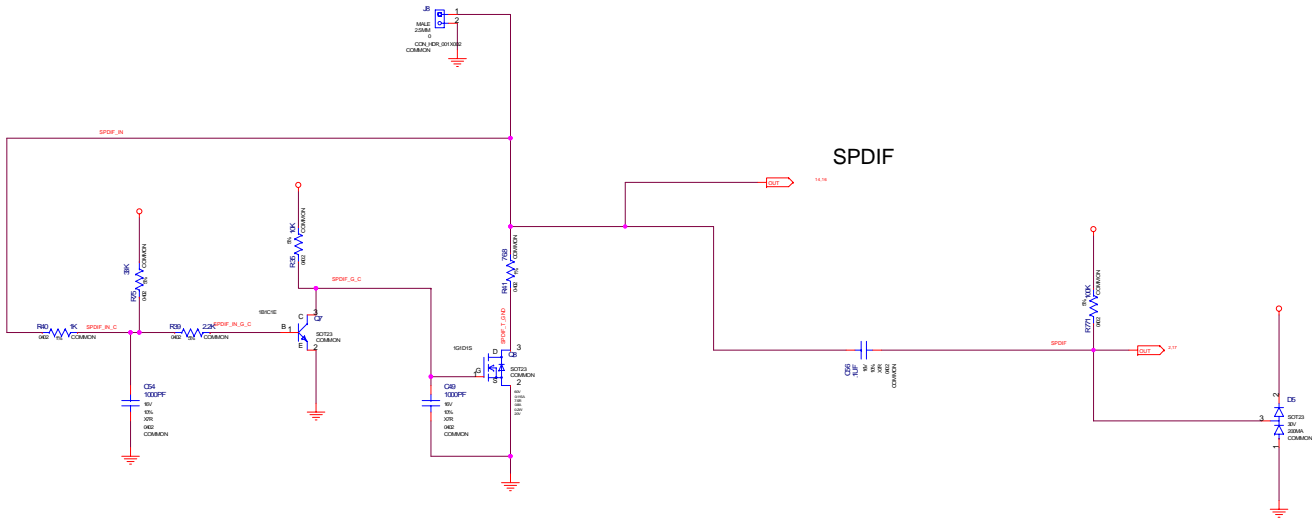
	0 (default - internal team only)	
17 POK_FLL_EN_TERM130	0000-Clearup	1001-Make HTFS LAMP
18 35G0_PAC0G_LUT_ADRQ1	0001-Make	1002-Make HTFS LAMP
19 35G0_PAC0G_LUT_ADRQ1	0011-Make HTFS LAMP	1011-Make HTFS LAMP
20 35G0_PAC0G_LUT_ADRQ2	0010-Make HTFS LAMP	1101-Make HTFS LAMP
21 35G0_PAC0G_LUT_ADRQ2	0111-Make HTFS LAMP	1102-Make HTFS LAMP
21 35G0_PAC0G_LUT_ADRQ2	0110-Make HTFS LAMP	1111-Make HTFS LAMP
	0110-Make HTFS LAMP	1111-Make HTFS LAMP

REG: NV STRAP 1

Bit Signal	VALUE_ID	VALUES
15: 3rd Clock Configuration		0:Disable 1:Enable
12: MIO_EN_32V_0	MIOA_VDDC Voltage	0:2.5V 1:3.3V
13: MIO_EN_32V_1	MIOB_VDDC Voltage	0:2.5V 1:3.3V
16: PCI_IOBAR		0:Disable

[illegible]

SPDIF



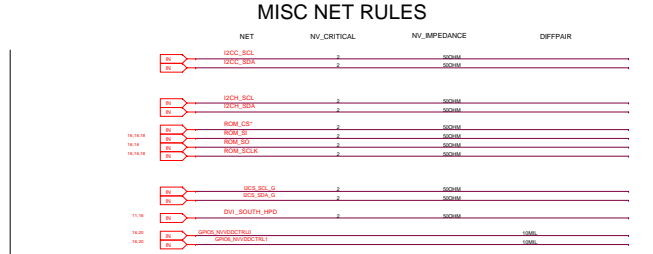
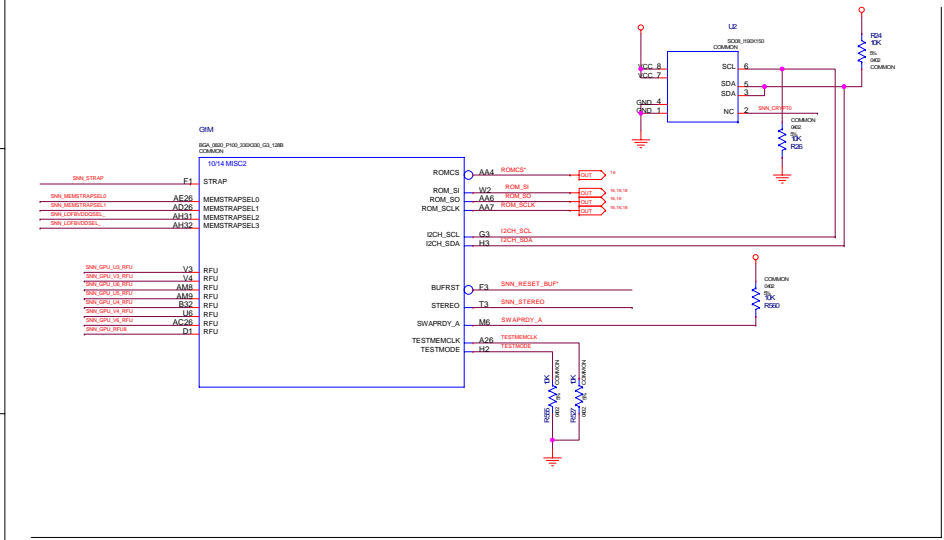
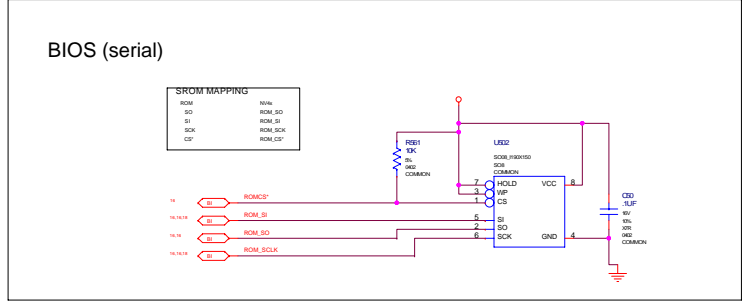
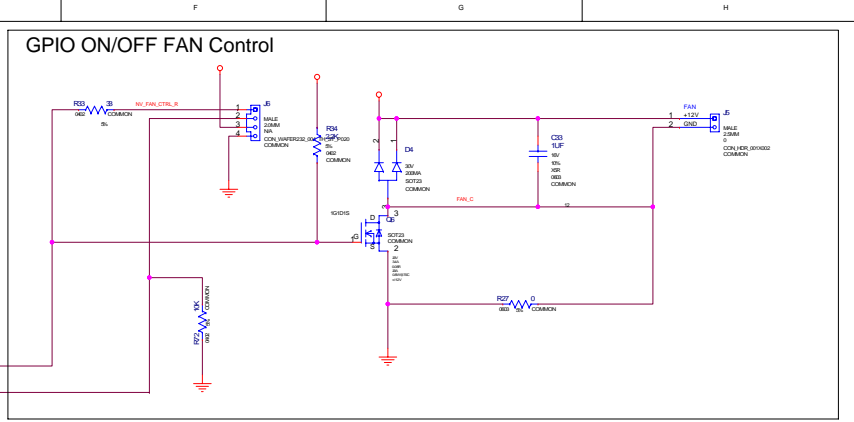
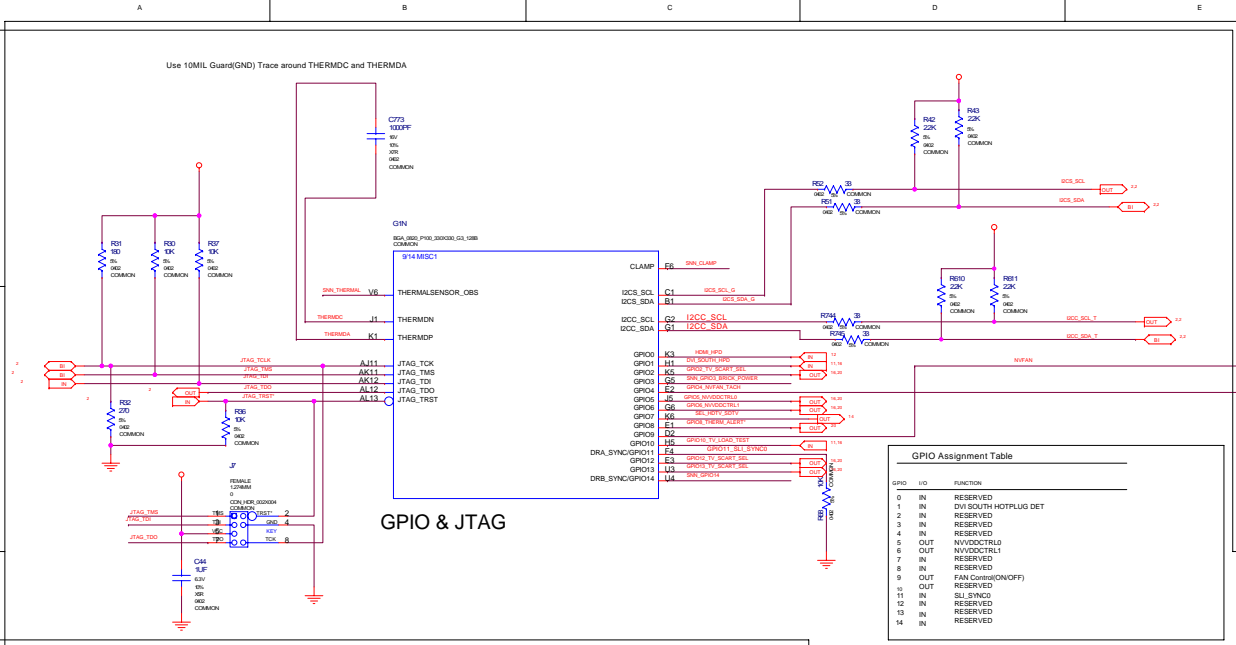
place close to GPU

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PAGE DETAIL	SPDIF

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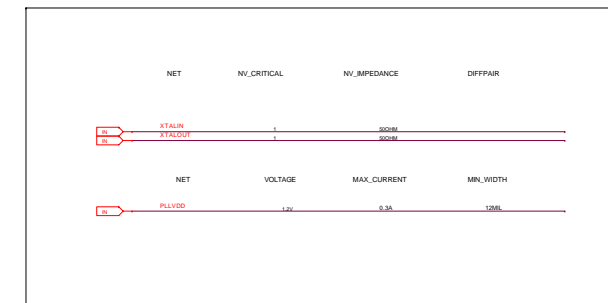
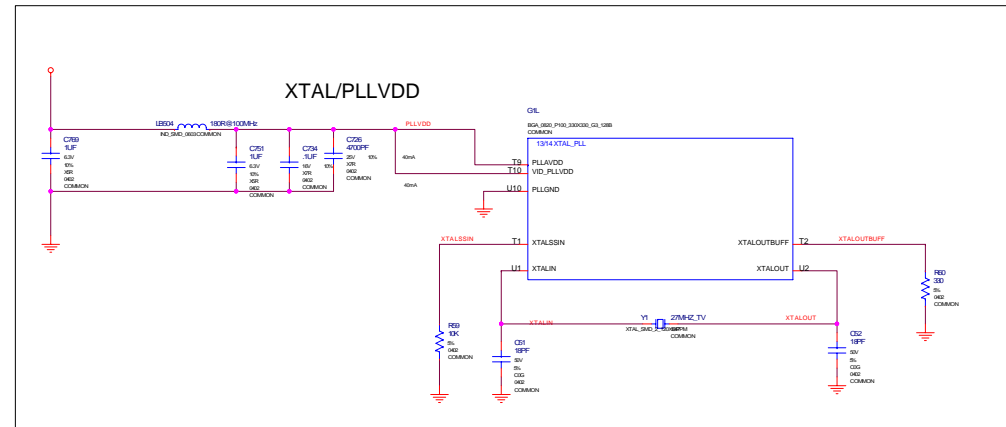
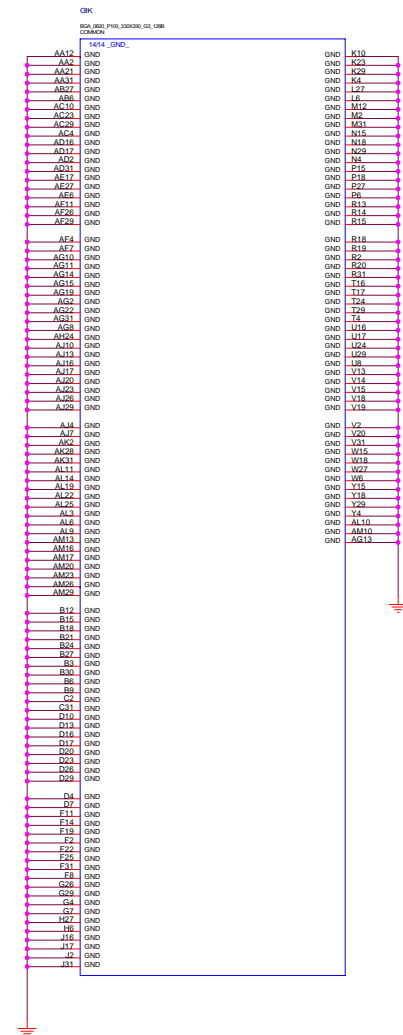
ASSEMBLY: BOARD LEVEL GENERIC SCHEMATIC ONLY; COMMON & NO_STUFF ASSEMBLY NOTES AND BOARD NOT FINAL
PAGE DETAIL: JTAG, BIOS, ROM, HDPCROM, FAN CONTROL, GPIO


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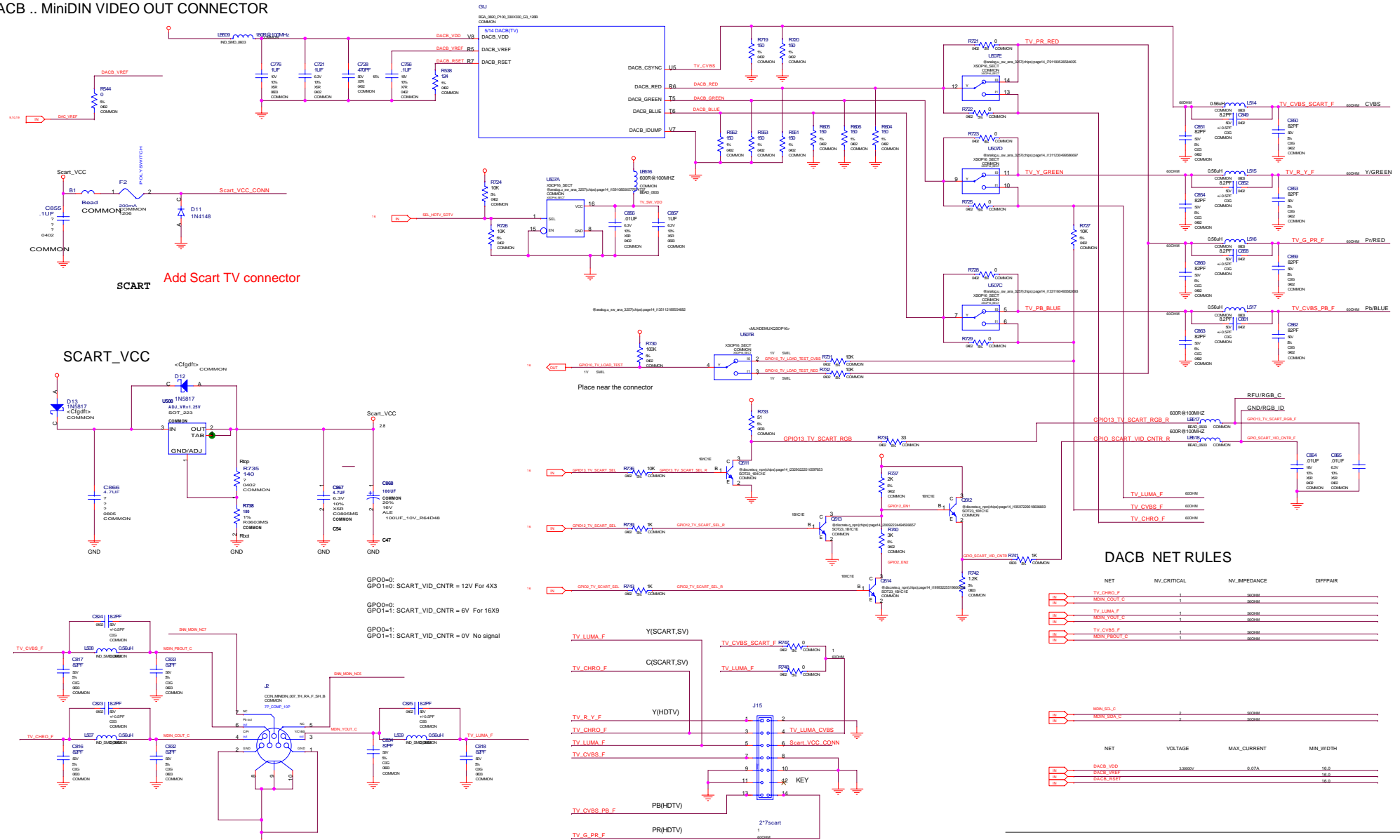
GPU GND CONNECTION, XTAL



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DACB .. MiniDIN VIDEO OUT CONNECTOR



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PAGE DETAIL	DACB FILTERS, SYNC STRIPPER, MINIDIN CONNECTOR NORTH.HDTV HEADER

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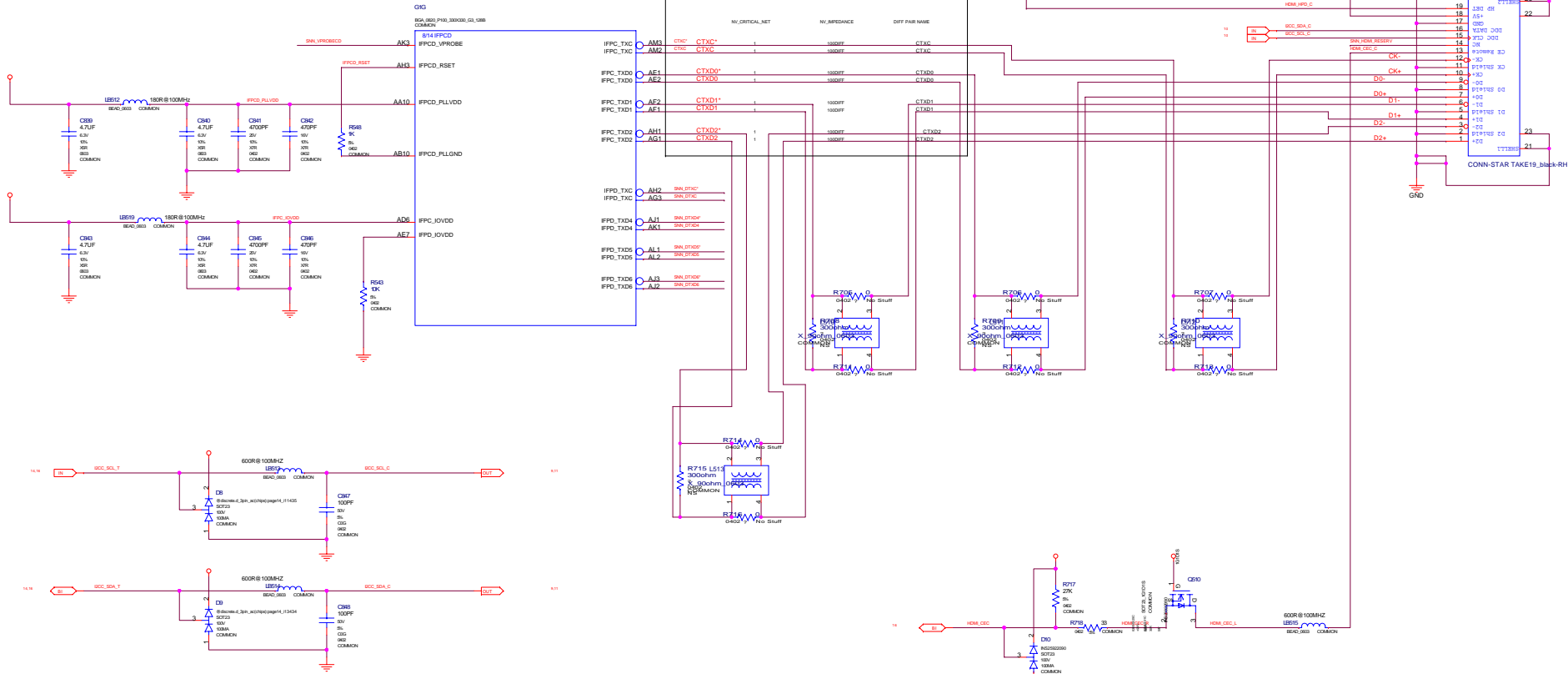
INTERNAL TMD5 .. LINK C

Hotplug Detection

IFPAB NET RULES

NET RULES

NET	VOLTAGE	MAX_CURRENT	MIN_WIDTH
IFPCD_RSTB	1.2V	0.04	16.0
IFPCD_PLLVDD	1.2V	0.04	16.0
IFPCD_P0VDD	1.2V	0.04	16.0
IFPCD_P1VDD	1.2V	0.04	16.0

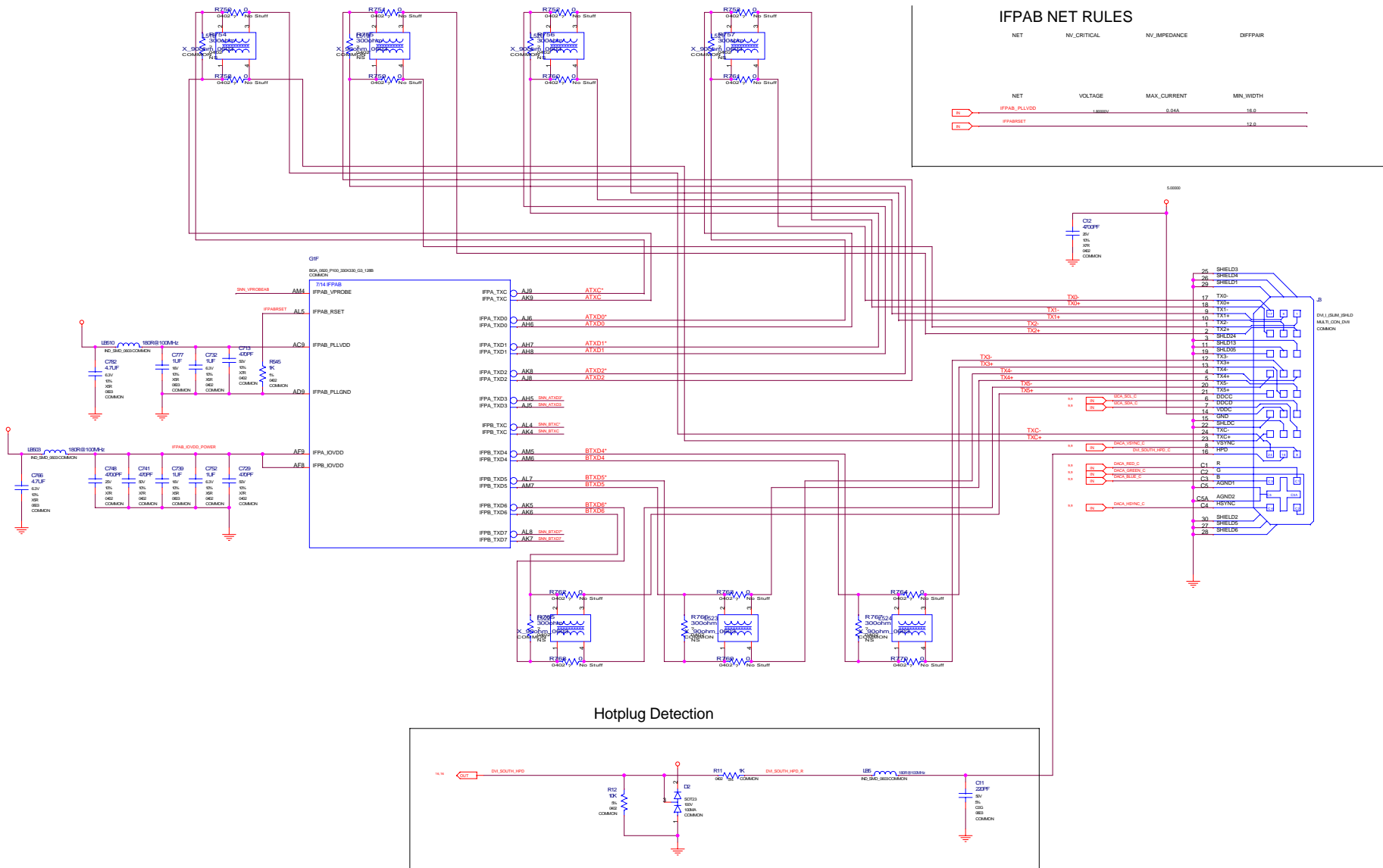


CEC pullup and clamping must be disconnected from HDMI connector when Power down

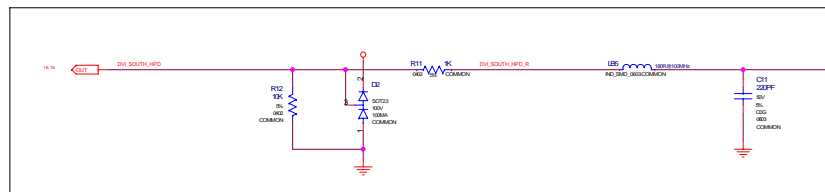
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INTERNAL TMDS .. LINK A & B



Hotplug Detection



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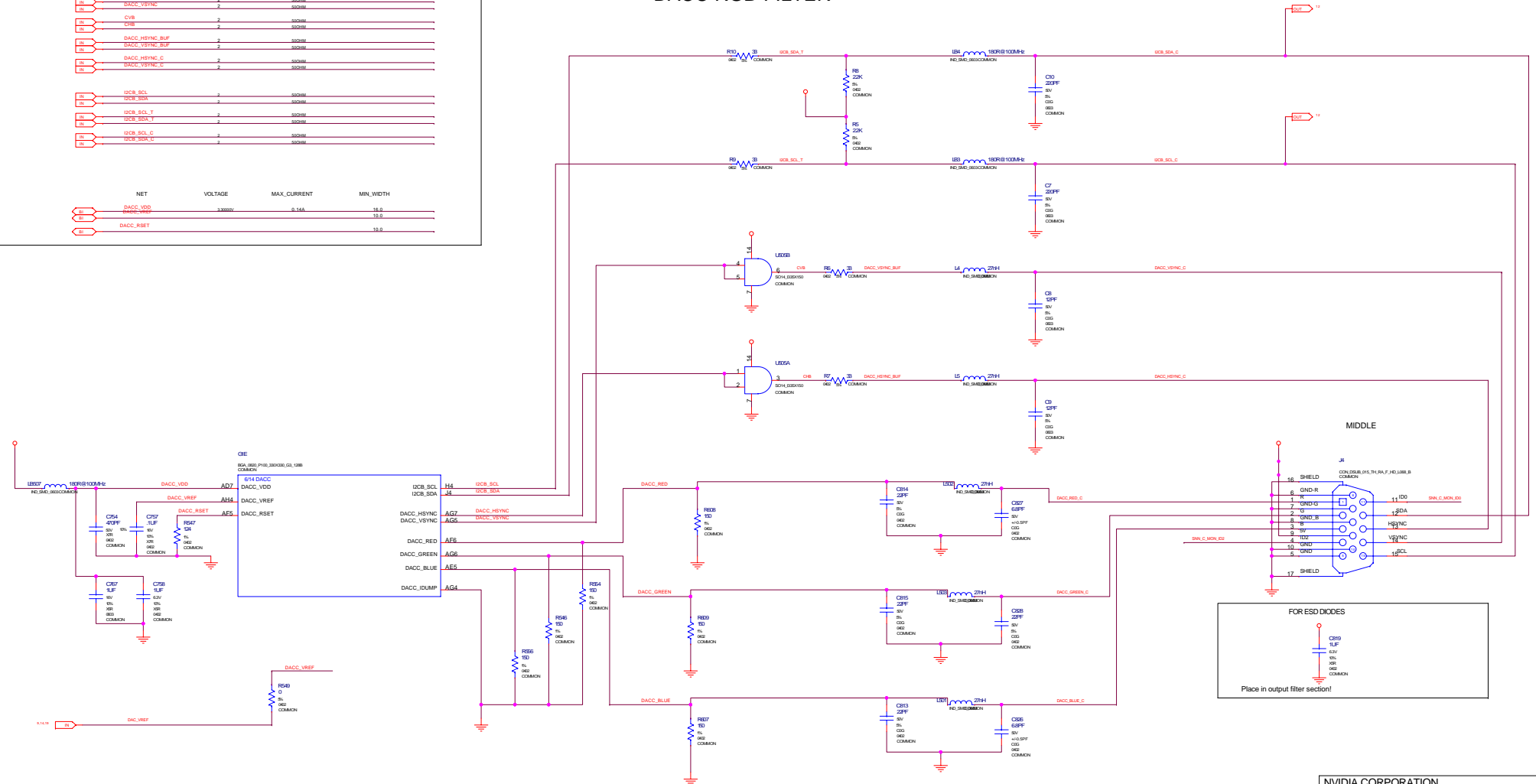
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DACC NET RULES

NET	NV_CRITICAL	NV_IMPEDANCE	DIFFPAIR
DACC_RED	1	50OHM	
DACC_GREEN	1	50OHM	
DACC_BLUE	1	50OHM	
DACC_RED_C	1	50OHM	
DACC_GREEN_C	1	50OHM	
DACC_BLUE_C	1	50OHM	
DACC_HSYNC	2	50OHM	
DACC_VSYNC	2	50OHM	
CVR	2	50OHM	
CVR	2	50OHM	
DACC_HSYNC_BUF	2	50OHM	
DACC_VSYNC_BUF	2	50OHM	
DACC_HSYNC_C	2	50OHM	
DACC_VSYNC_C	2	50OHM	
DCC_SCL	2	50OHM	
DCC_SDA	2	50OHM	
DCC_SCL_T	2	50OHM	
DCC_SDA_T	2	50OHM	
DCC_SCL_C	2	50OHM	
DCC_SDA_C	2	50OHM	
DACC_VDD	3.3000V	0.16A	18.0
DACC_VREF			18.0
DACC_RSET			18.0

Secondary Display (DACC), DB15

DACC RGB-FILTER



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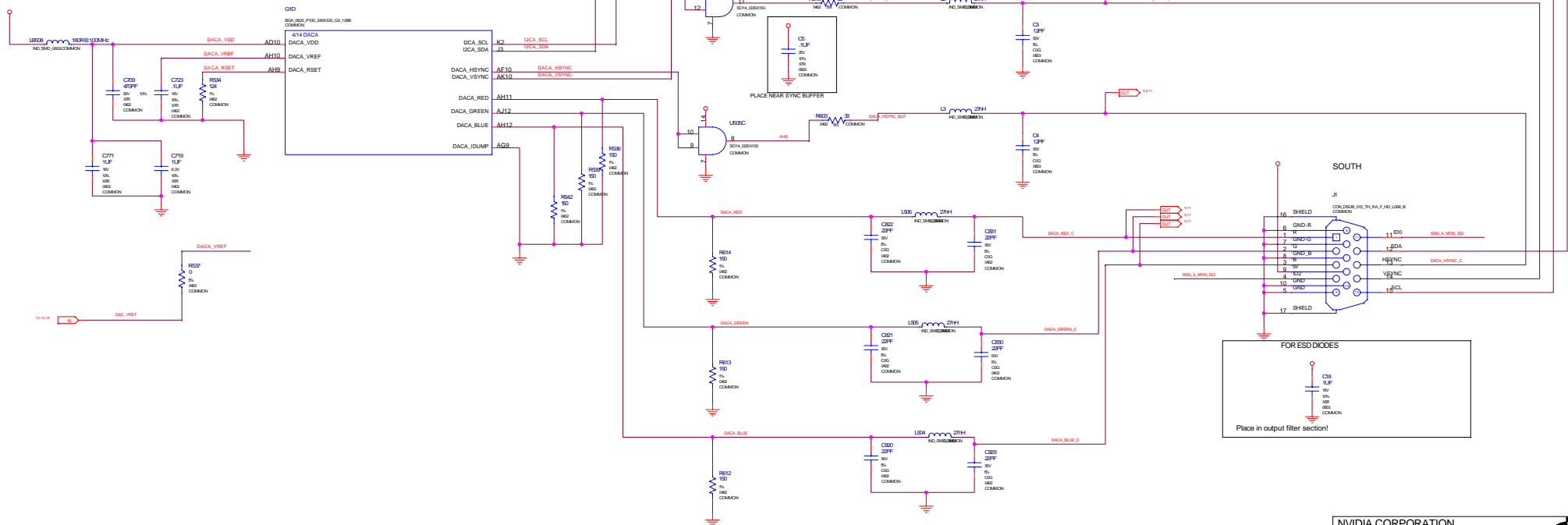
ASSEMBLY	BASE LEVEL GENERIC SCHEMATIC ONLY; COMMON & NO_STUFF ASSEMBLY NOTES AND BOM NOT FINAL
PAGE DETAIL	DACC FILTER, DACC SYNC BUFFERS & DB15 MID

DACA NET RULES

NET	INV_CRITICAL	INV_IMPEDANCE	DIFFPAIR
DACA_RED	1	50OHM	
DACA_GREEN	1	50OHM	
DACA_BLUE	1	50OHM	
DACA_RED_C	1	50OHM	
DACA_GREEN_C	1	50OHM	
DACA_BLUE_C	1	50OHM	
DACA_HSYNC	2	50OHM	
DACA_VSYNC	2	50OHM	
AVS	2	50OHM	
RES	2	50OHM	
DACA_HSYNC_BUF	2	50OHM	
DACA_VSYNC_BUF	2	50OHM	
DACA_HSYNC_C	2	50OHM	
DACA_VSYNC_C	2	50OHM	
DACA_SCL	2	50OHM	
DACA_SDA	2	50OHM	
DACA_SCL_T	2	50OHM	
DACA_SDA_T	2	50OHM	
DACA_SCL_C	2	50OHM	
DACA_SDA_C	2	50OHM	
DACA_VDD	3.3000V	0.02A	18.0
DACA_VREF			18.0
DACA_RESET			18.0

Primary Display (DACA), Slim DB15

DACA RGB-FILTER



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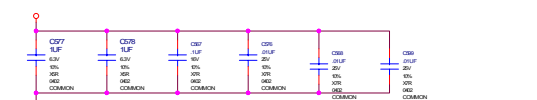
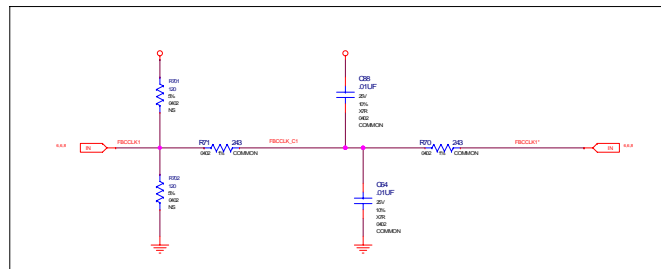
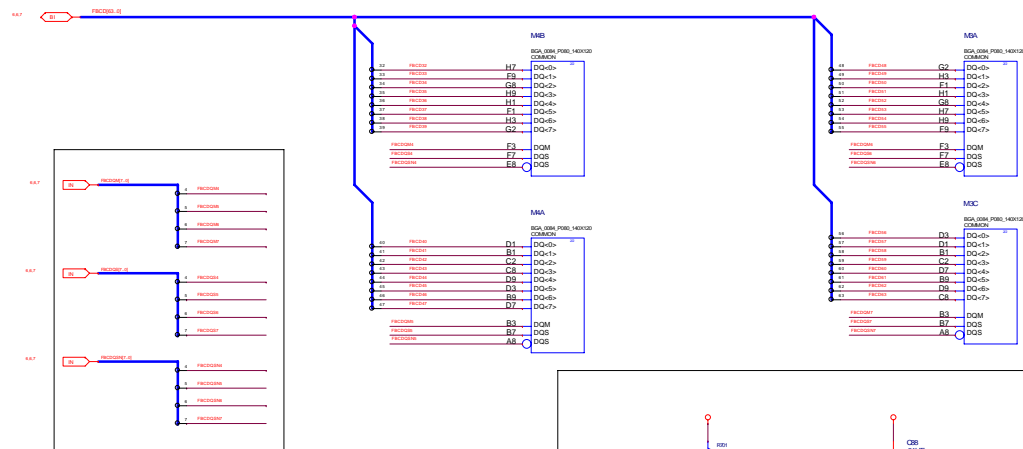
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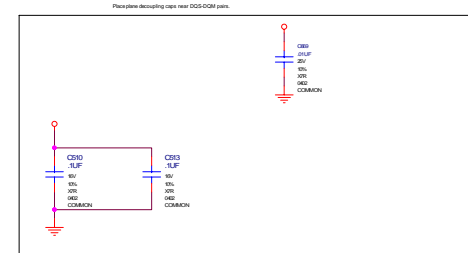
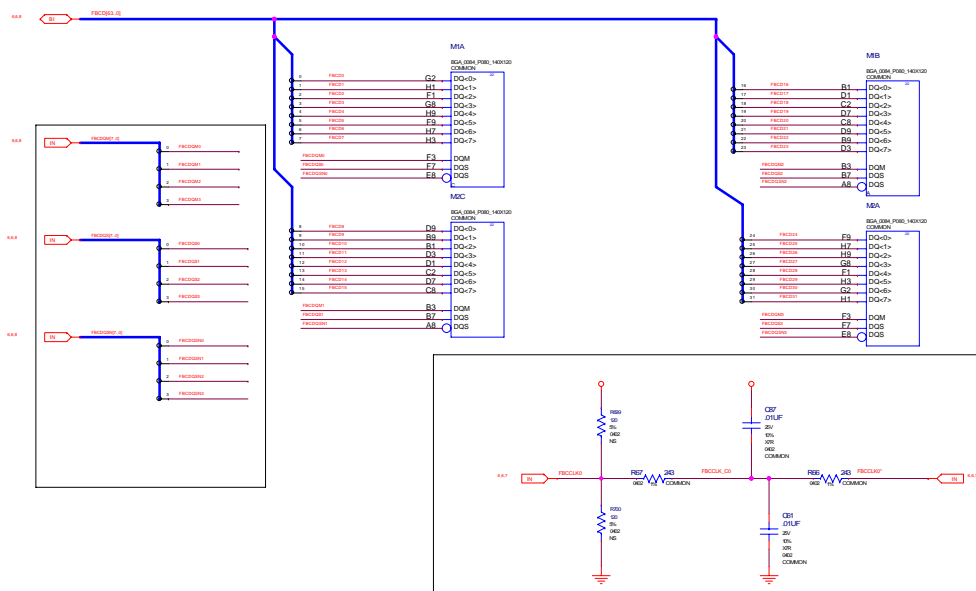
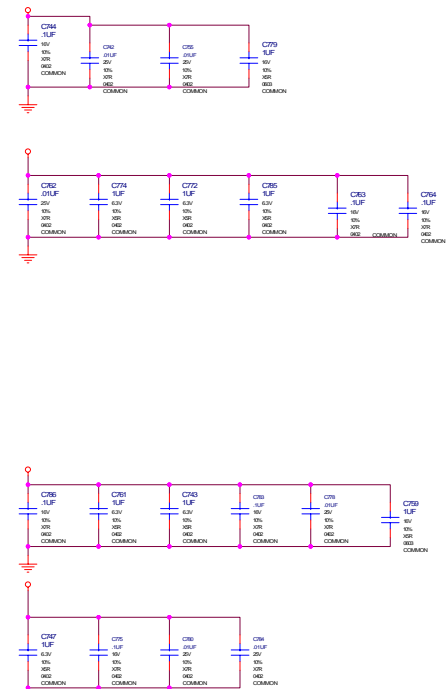
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ASSEMBLY	BASE LEVEL GENERIC SCHEMATIC ONLY; COMMON & NO_STUFF ASSEMBLY NOTES AND BOARD NOT FINAL
PAGE DETAIL	DACA FILTERS, DACA SYNC BUFFERS & DB15 SOUTH

PLACE ALL DISCRETE COMPONENTS AS NEAR AS POSSIBLE TO MEMORY



PLACE ALL DISCRETE COMPONENTS AS NEAR AS POSSIBLE TO MEMORY

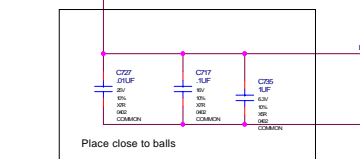
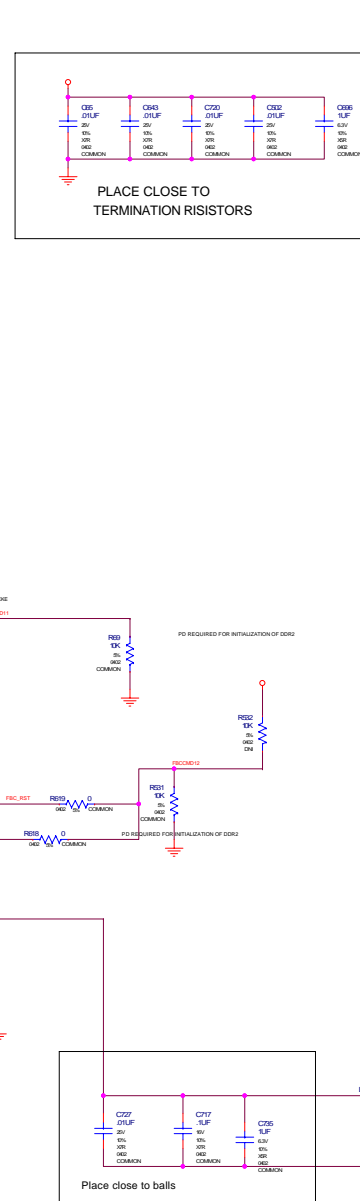


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PAGE DETAIL	FBC 16MX16 DDR2 MEMORIES, 2ND BANK 0.31

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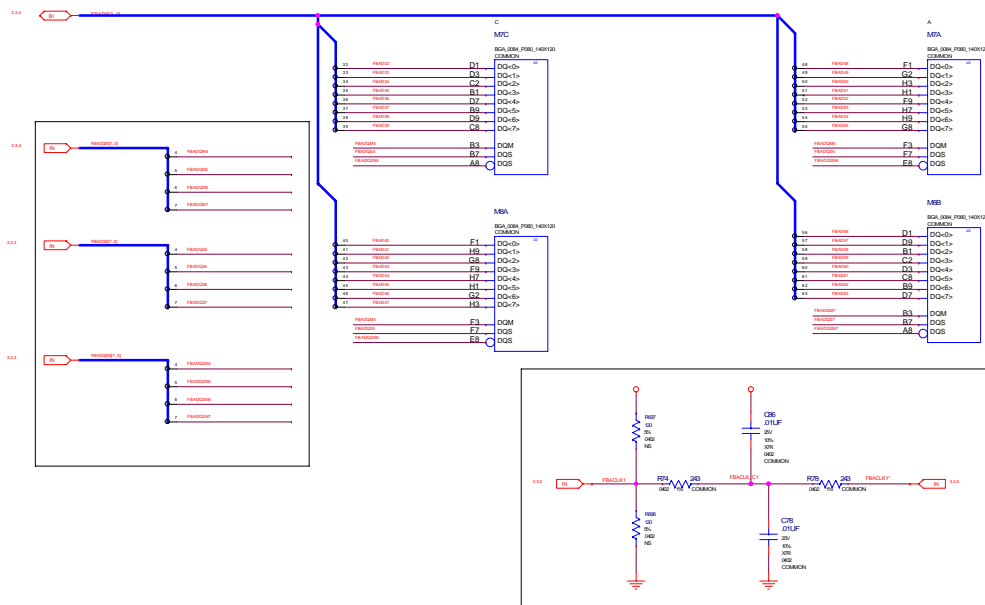
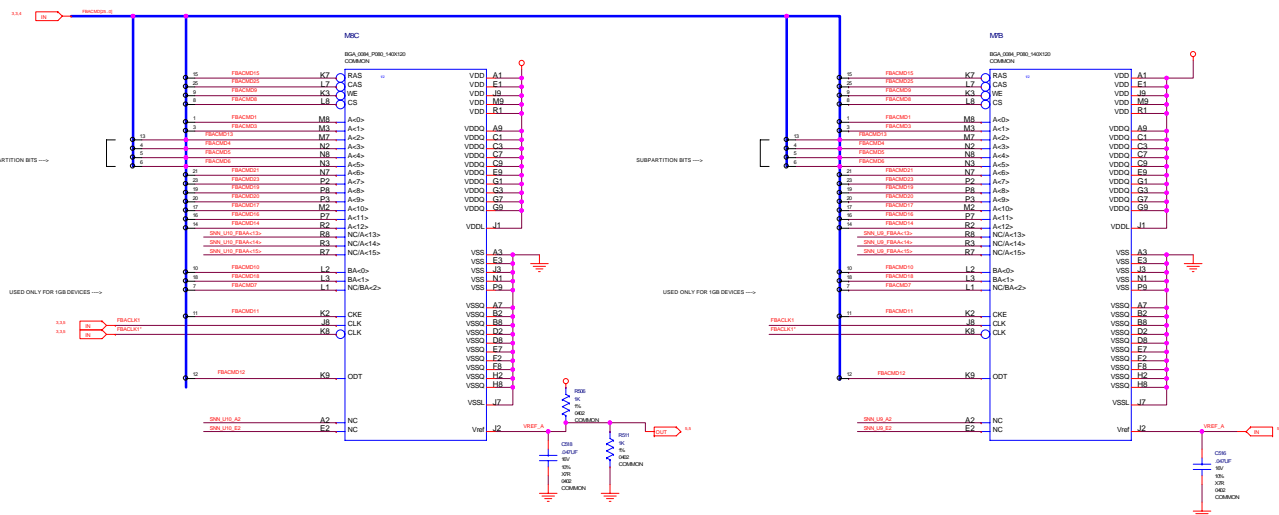
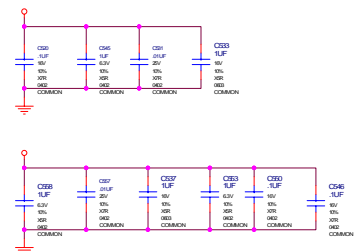
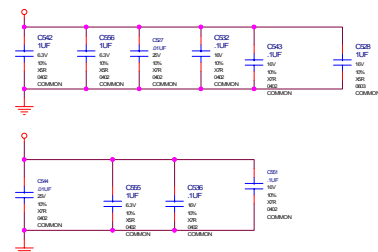
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ASSEMBLY	BASE LEVEL GENERIC SCHEMATIC ONLY, COMMON & NO_STUFF ASSEMBLY NOTES AND BOM NOT FINAL
PAGE DETAIL	FBA 16Mx16 DDR2 MEMORIES, 1ST BANK 32..63

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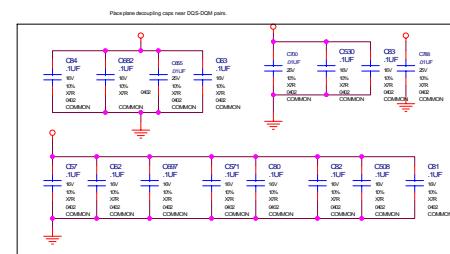
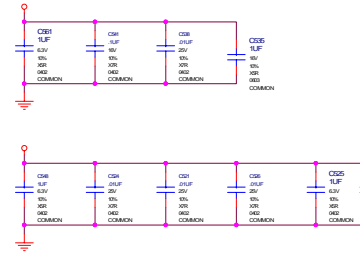
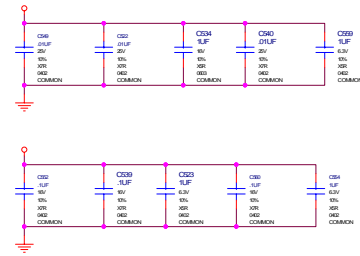


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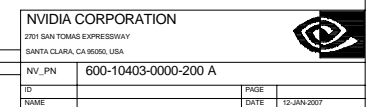
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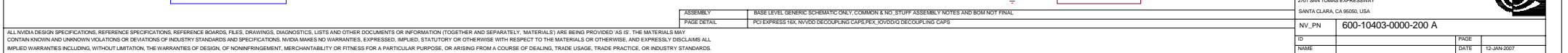
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NET	VOLTAGE	MIN. LINE WIDTH
PEX_PLL_VDD	1.20000V	50.0
INV_PLLAVDD	1.20000V	50.0
NET	MAX. VOLTAGE POWER	VOLTAGE
		MAX. CURRENT
		MIN. WIDTH

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INV. PN		600-10403-0000-200 A	
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P403-B00 DESIGN -- G84-200, 256 MB DDR2,DVI-I, VGA, HDTV

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REV	VARIANT	NVPN	ASSEMBLY
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