

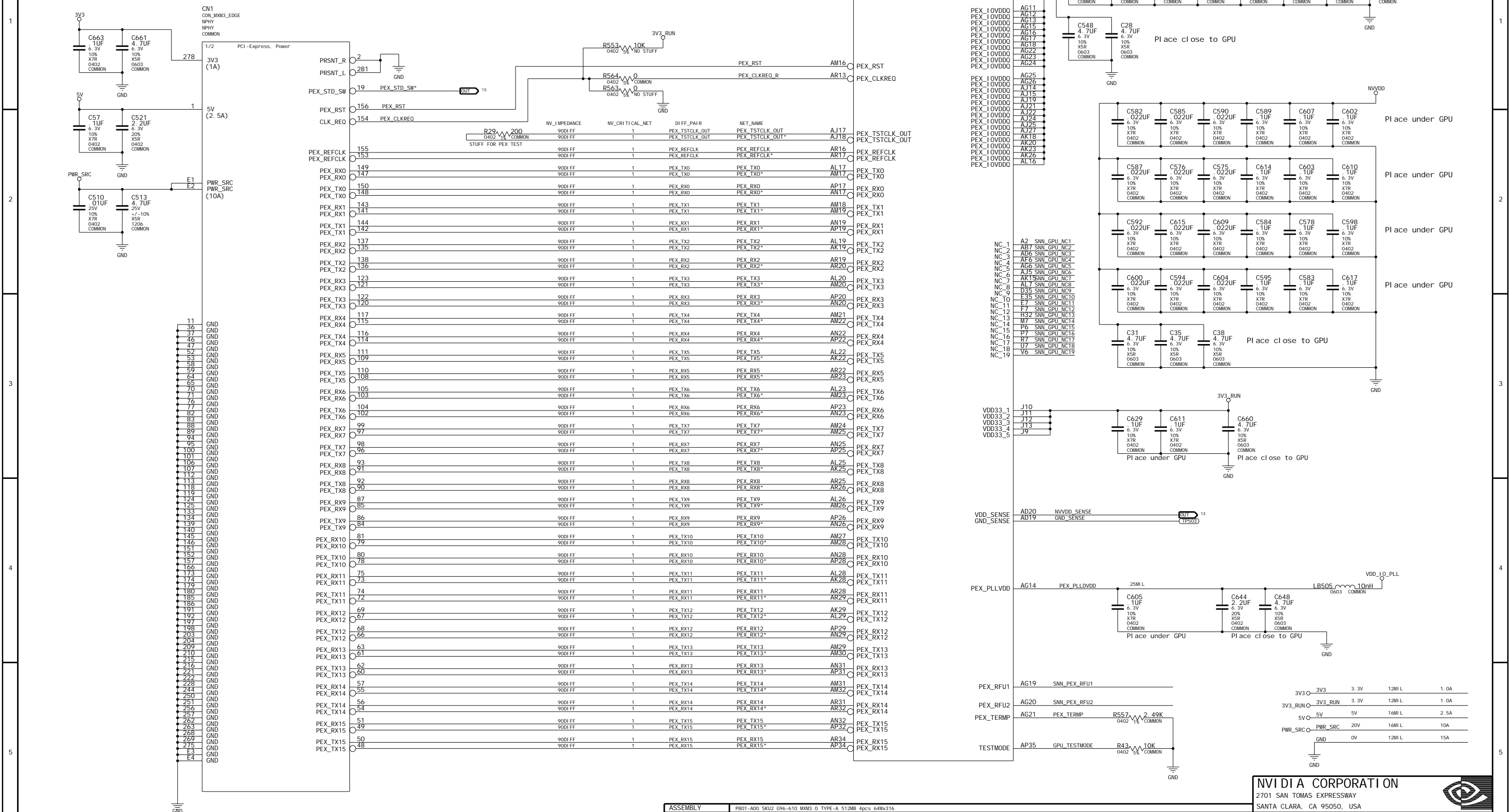
P801-A00: G96/G98 MXM V3.0
512MB/1028MB 128-BIT/64-BIT DDR2
LVDS, QUAD DP

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SKU	VARIANT	NVPN	ASSEMBLY
B	BASE	600-10801-base-000	BASE LEVEL, GENERIC SCHEMATIC ONLY, COMMON & NO-STUFF ASSEMBLY NOTES AND BOM NOT FINAL.
1	SKU0001	600-10801-0001-000	P801-A00 SKU1 G96-710 MXM3.0 TYPE-A 1024MB 8pcs 64MX16
2	SKU0002	600-10801-0002-000	P801-A00 SKU2 G96-610 MXM3.0 TYPE-A 512MB 4pcs 64MX316
3	SKU0003	600-10801-0003-000	P801-A00 SKU3 G98-750 MXM3.0 TYPE-A 512MB 4pcs 64MX16
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PAGE 2) MXM 3.0 GOLD EDGE FINGER PCI EXPRESS INTERFACE



ASSEMBLY	P801-A00 SKU2 G96-610 MXM3.0 TYPE-A 512MB 4pcs 64Mx316
PAGE DETAIL	PCI EXPRESS Interface

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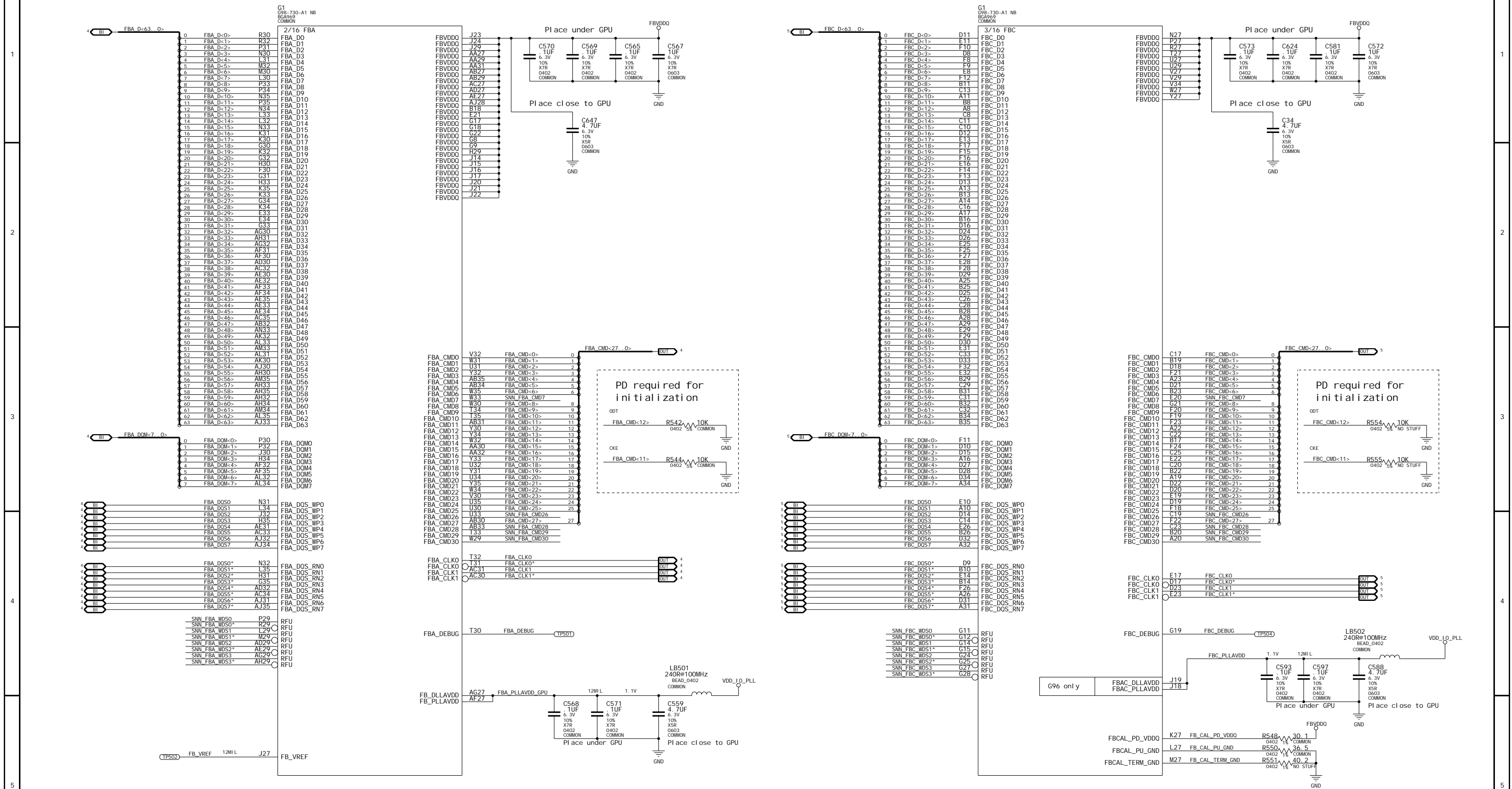
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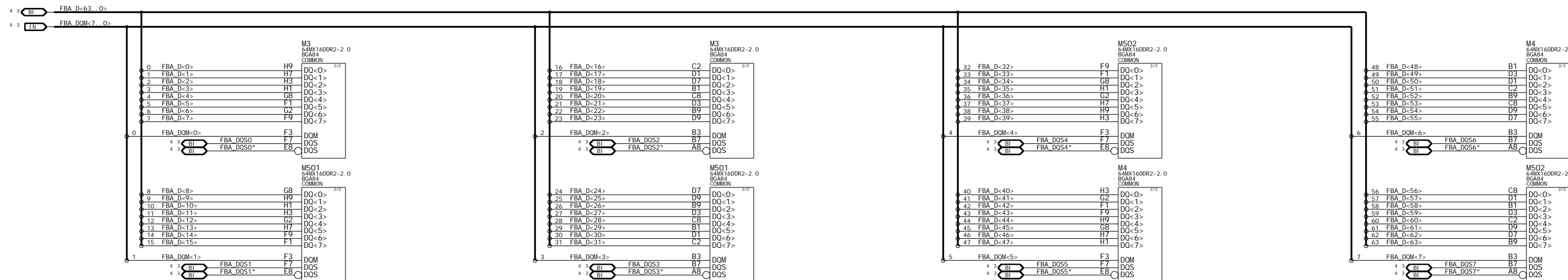
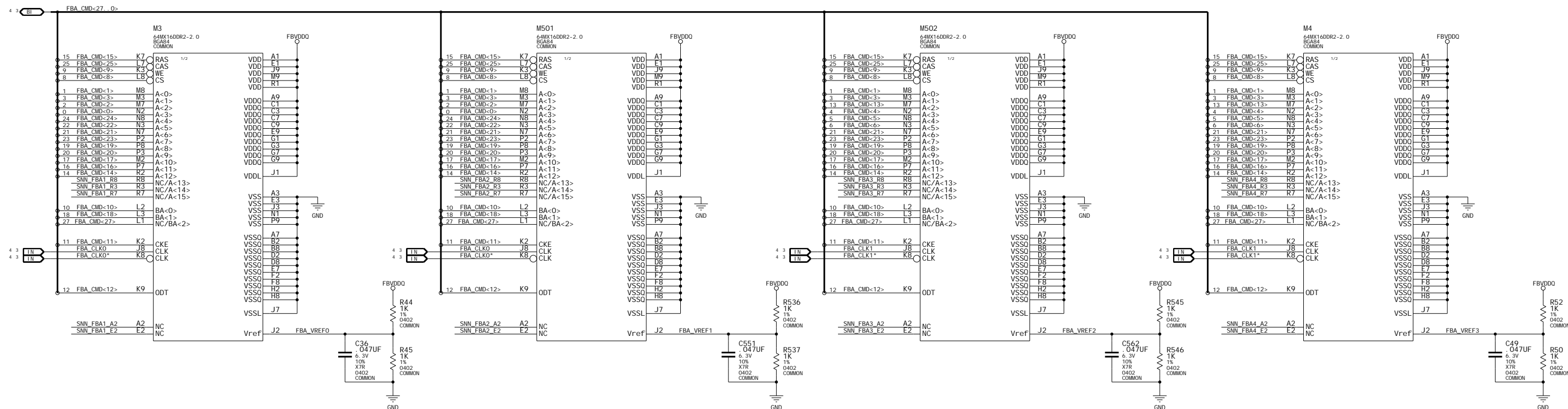
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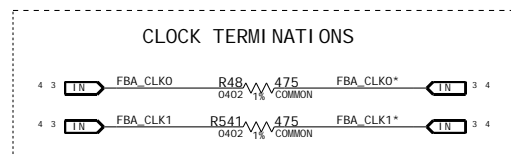
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PAGE 3) GPU MEMORY INTERFACE



















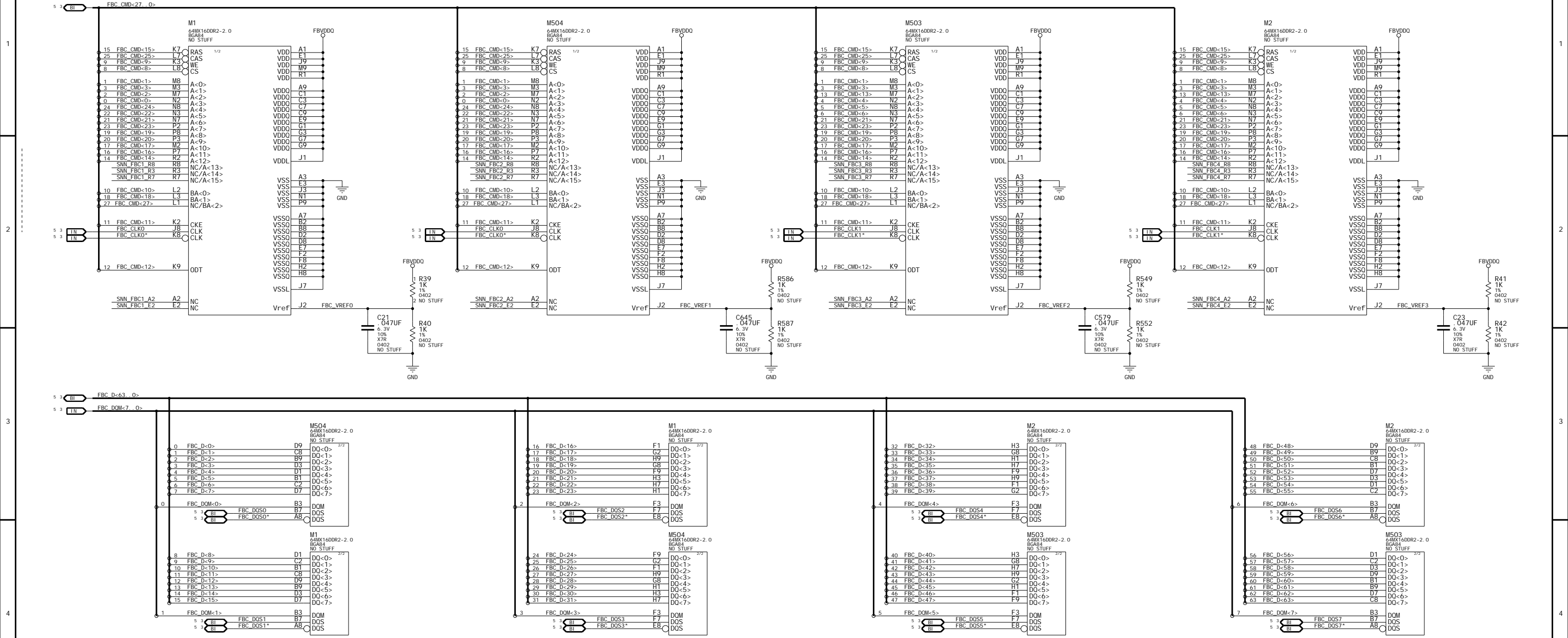


NET RULES for FrameBuffer A

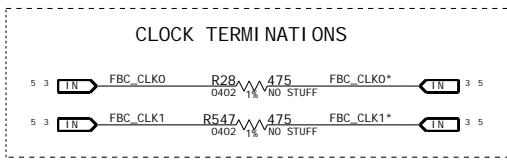


NET		NV_CRI TI CAL	NV_I MPEDANCE	DI FFAPI R
4 3	 FBA_CLK0	1	100DI FF	FBA_CLK0
4 3	 FBA_CLK0*	1	100DI FF	FBA_CLK0
4 3	 FBA_CLK1	1	100DI FF	FBA_CLK1
4 3	 FBA_CLK1*	1	100DI FF	FBA_CLK1
4 3	 FBA_DOM<7..0>	1	500HM	
4 3	 FBA_D<63..0>	1	500HM	
4 3	 FBA_CMD<27..0>	1	500HM	
NET		VOLTAGE	MAX_CURRENT	MI N_WI DTH
	 FBA_VREF1	0.9V	0.02A	12MI L
	 FBA_VREF2	0.9V	0.02A	12MI L
	 FBA_VREF0	0.9V	0.02A	12MI L
	 FBA_VREF3	0.9V	0.02A	12MI L

	NET	NV_CRI TI CAL	NV_I MPEDANCE	DI FFPAI R
4		1	10001 FF	FBA_D050
4		1	10001 FF	FBA_D050
4		1	10001 FF	FBA_D051
4		1	10001 FF	FBA_D051
4		1	10001 FF	FBA_D052
4		1	10001 FF	FBA_D052
4		1	10001 FF	FBA_D053
4		1	10001 FF	FBA_D053
4		1	10001 FF	FBA_D054
4		1	10001 FF	FBA_D054
4		1	10001 FF	FBA_D055
4		1	10001 FF	FBA_D055
4		1	10001 FF	FBA_D056
4		1	10001 FF	FBA_D056
4		1	10001 FF	FBA_D057
4		1	10001 FF	FBA_D057



NET RULES for FrameBuffer C

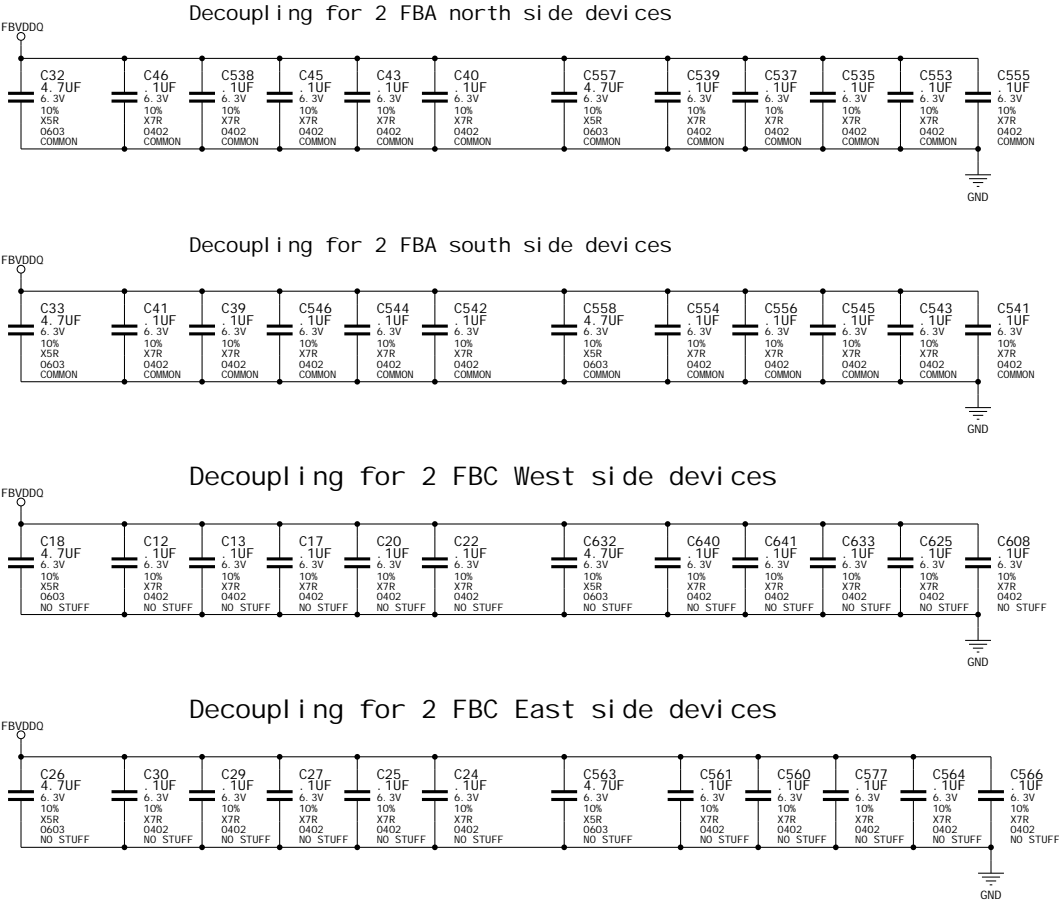


NET	NV_CRI TI CAL	NV_I MPEDANCE	DI FFPAI R
FBC_CLK0	1	100DIF F	FBC_CLK0
FBC_CLK0*	1	100DIF F	FBC_CLK0
FBC_CLK1	1	100DIF F	FBC_CLK1
FBC_CLK1*	1	100DIF F	FBC_CLK1
FBC_DOM<7_0>	1	50OH M	
FBC_D<63_0>	1	50OH M	
FBC_CMD<27_0>	1	50OH M	

NET	VOLTAGE	MAX_ CURRENT	MI NI_WI DTH
FBC_VREF1	0.9V	0.02A	12MI L
FBC_VREF2	0.9V	0.02A	12MI L
FBC_VREF0	0.9V	0.02A	12MI L
FBC_VREF3	0.9V	0.02A	12MI L

NET	NV_CRI TI CAL	NV_I MPEDANCE	DI FFPAI R
FBC_DOS0	1	100DIF F	FBC_DOS0
FBC_DOS0*	1	100DIF F	FBC_DOS0
FBC_DOS1	1	100DIF F	FBC_DOS1
FBC_DOS1*	1	100DIF F	FBC_DOS1
FBC_DOS2	1	100DIF F	FBC_DOS2
FBC_DOS2*	1	100DIF F	FBC_DOS2
FBC_DOS3	1	100DIF F	FBC_DOS3
FBC_DOS3*	1	100DIF F	FBC_DOS3
FBC_DOS4	1	100DIF F	FBC_DOS4
FBC_DOS4*	1	100DIF F	FBC_DOS4
FBC_DOS5	1	100DIF F	FBC_DOS5
FBC_DOS5*	1	100DIF F	FBC_DOS5
FBC_DOS6	1	100DIF F	FBC_DOS6
FBC_DOS6*	1	100DIF F	FBC_DOS6
FBC_DOS7	1	100DIF F	FBC_DOS7
FBC_DOS7*	1	100DIF F	FBC_DOS7

PAGE 6) MEMORY DECOUPLING CAPS



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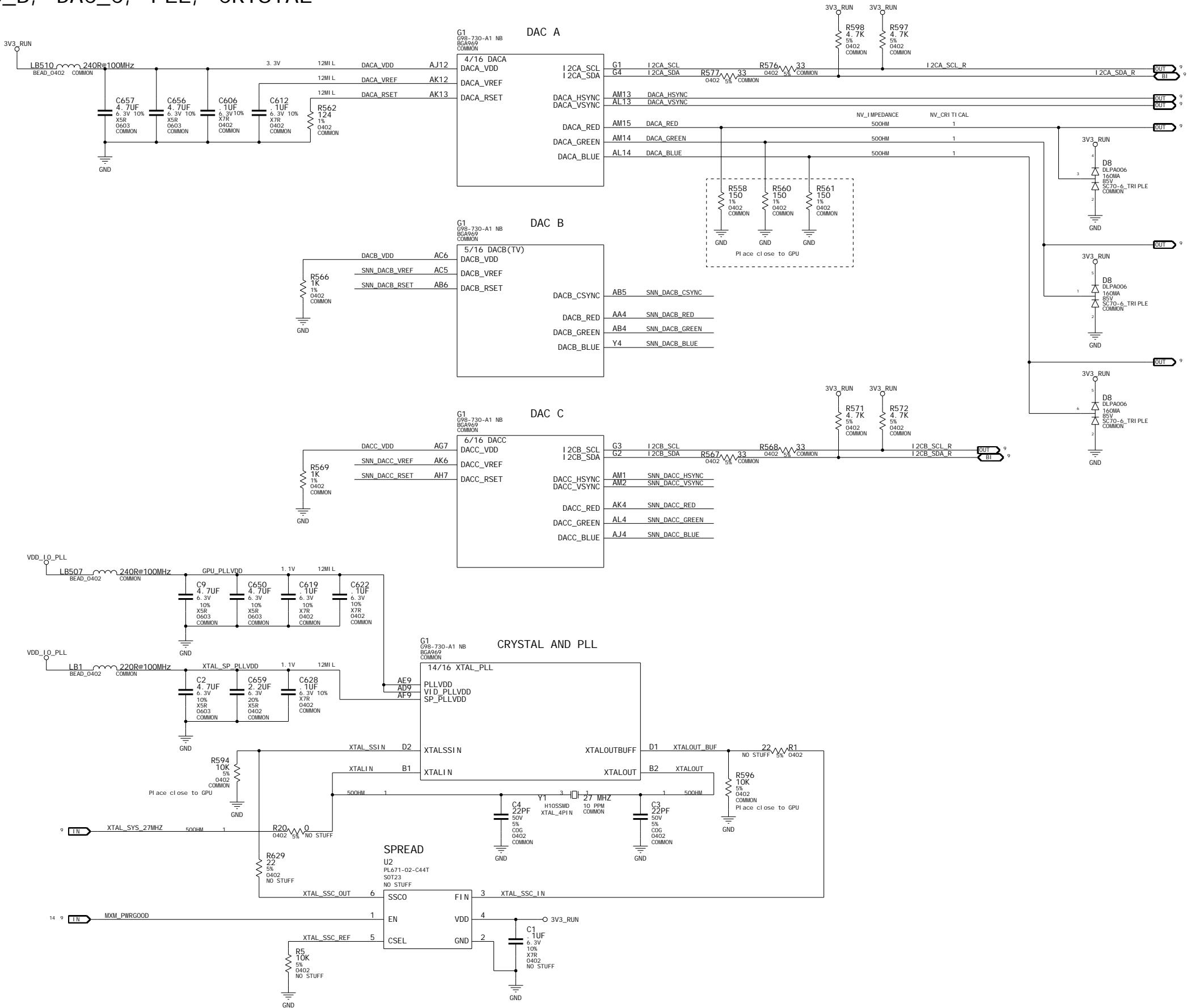
NAME

ctox

DATE

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PAGE 7) DAC_A, DAC_B, DAC_C, PLL, CRYSTAL



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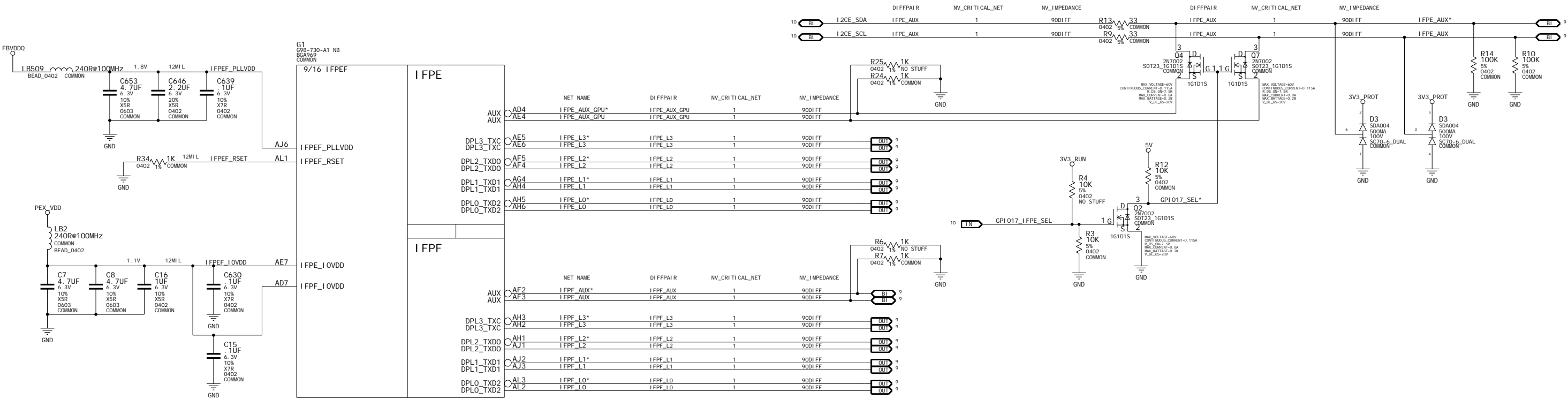
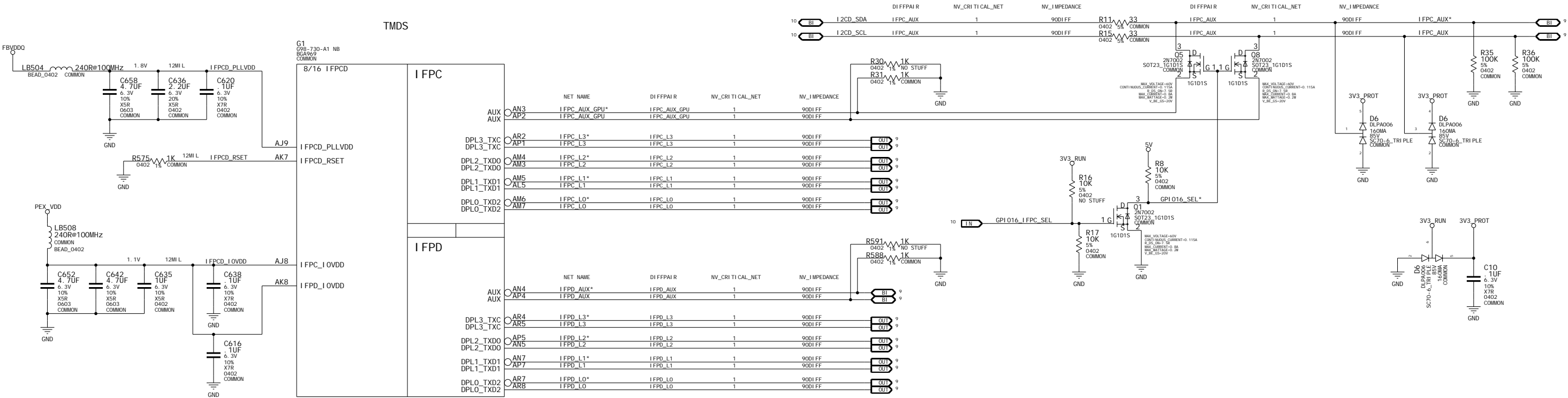


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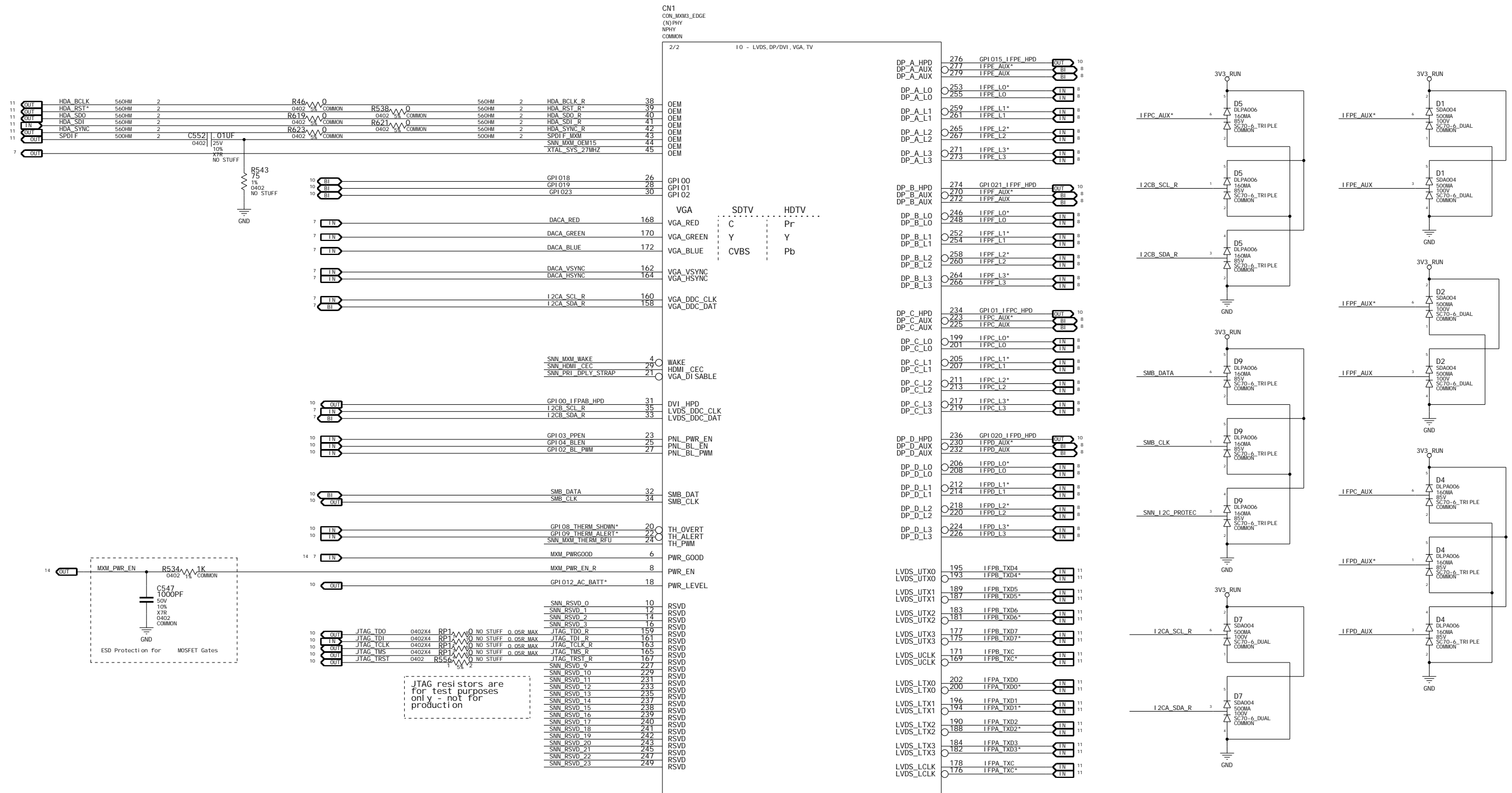
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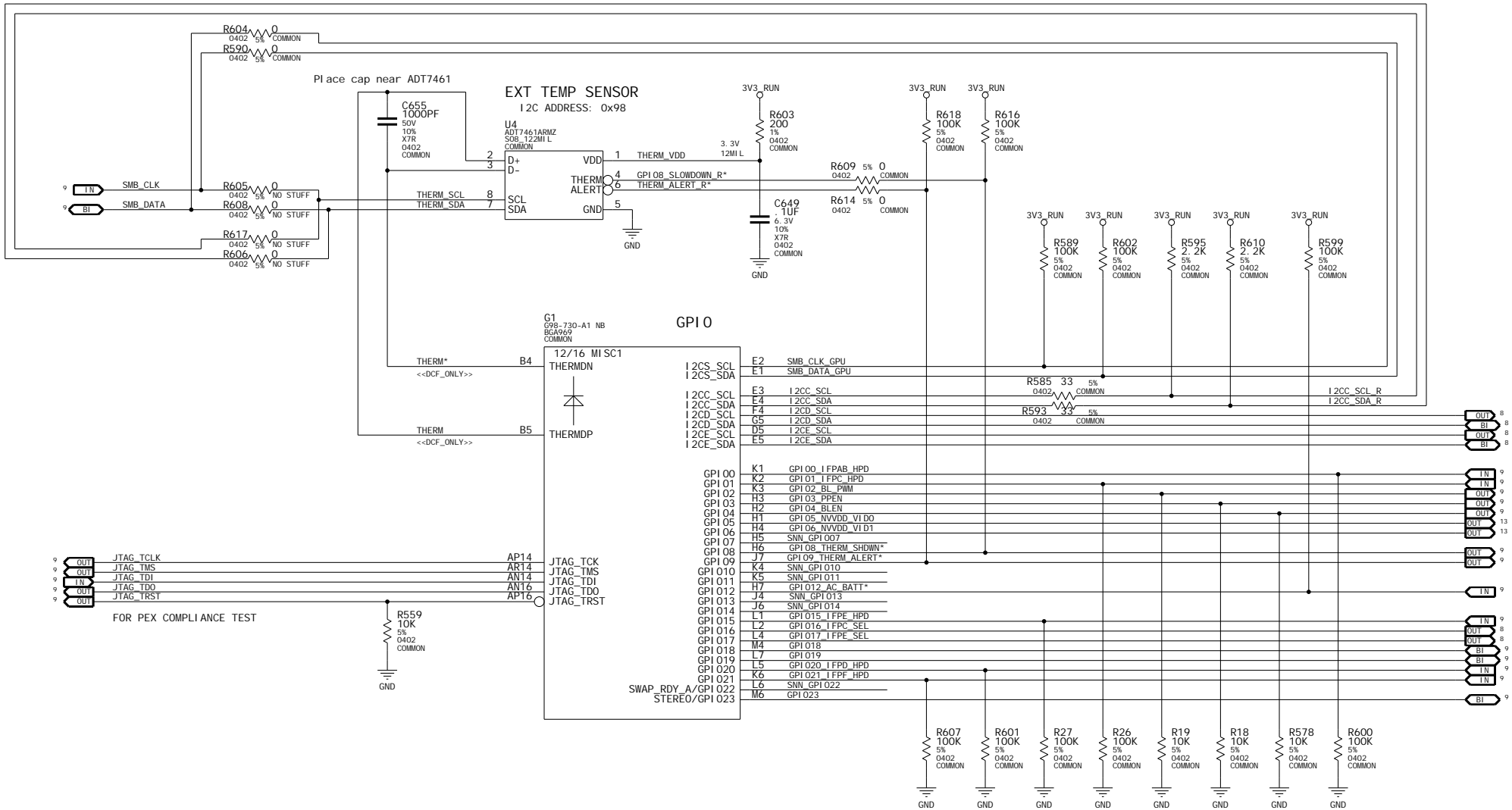
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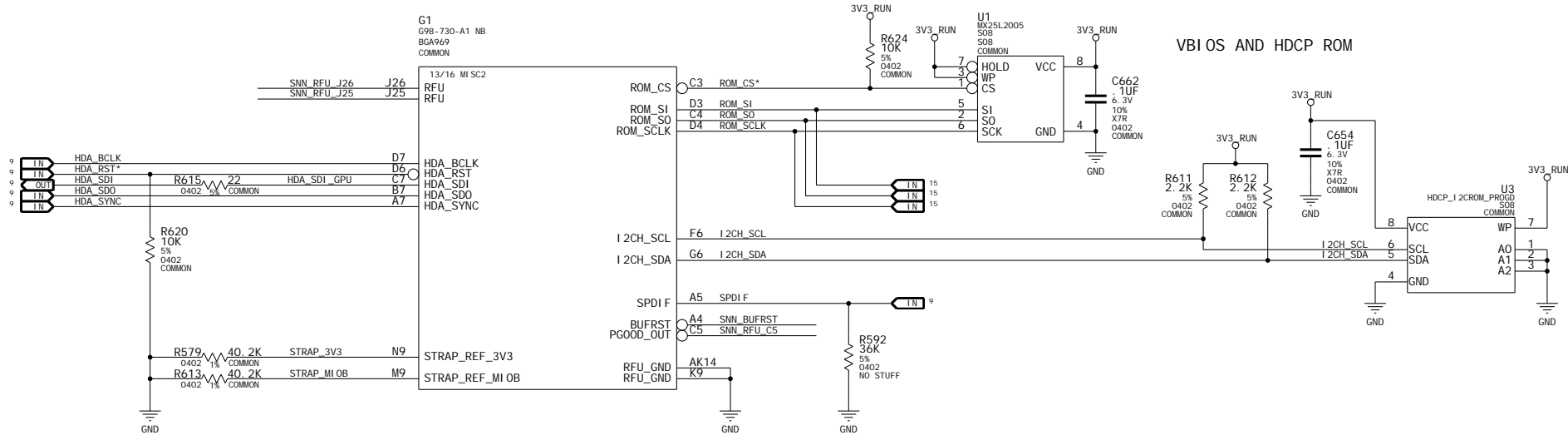
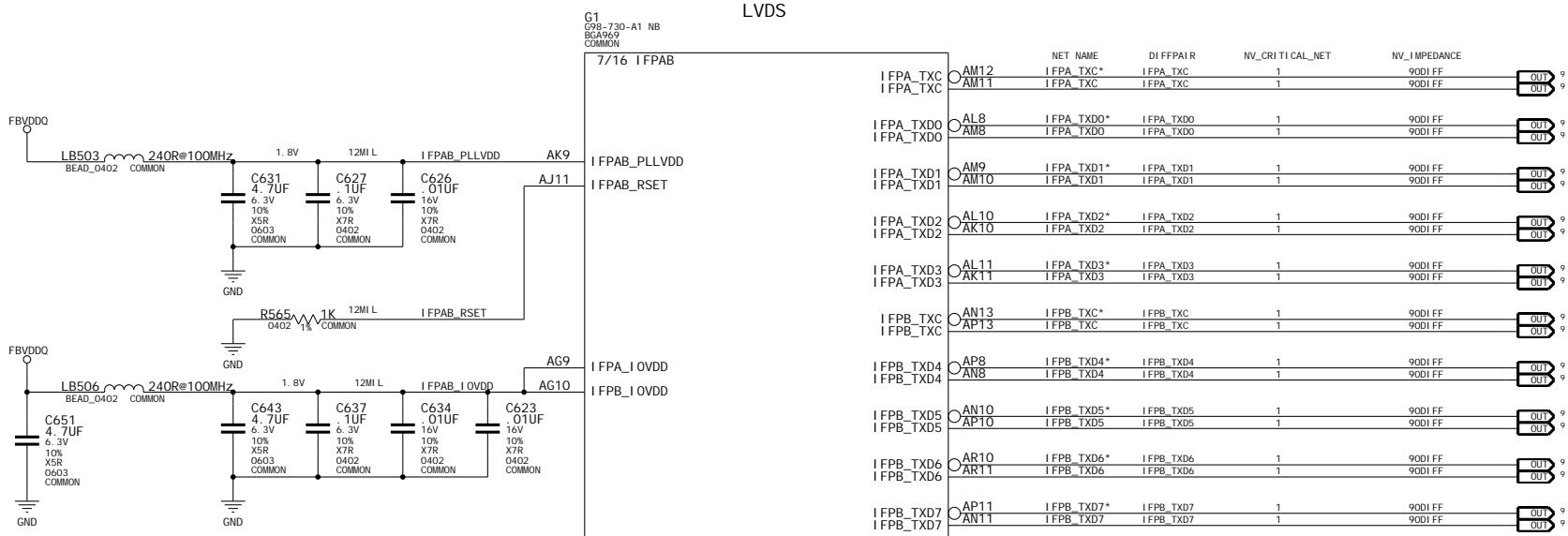


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MXM CONNECTOR







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ASSEMBLY P801-A00 SKU2 G96-610 MXM3.0 TYPE-A 512MB 4pcs 64Mx316

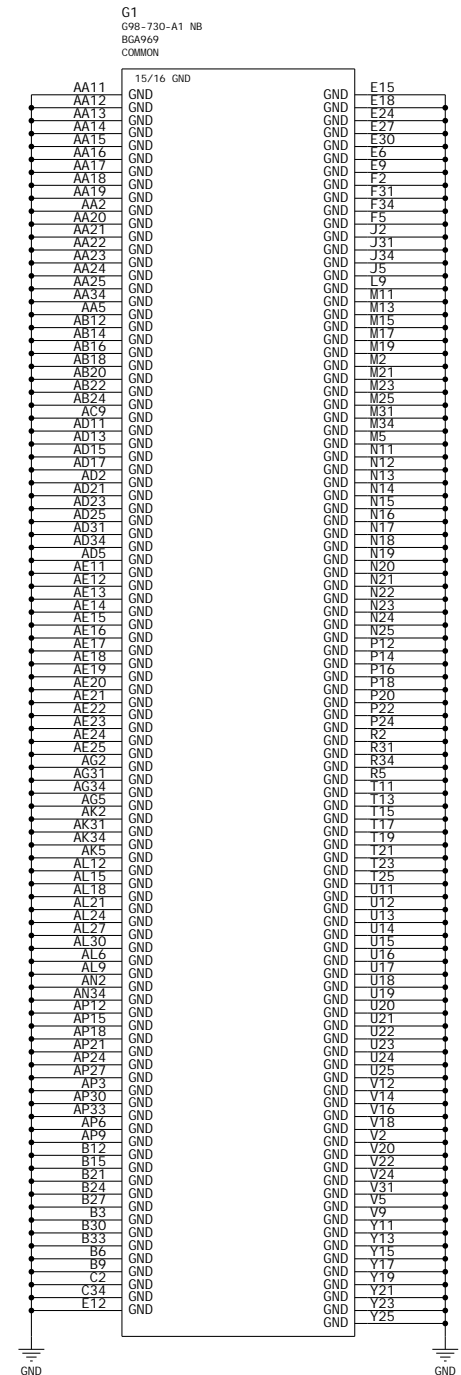
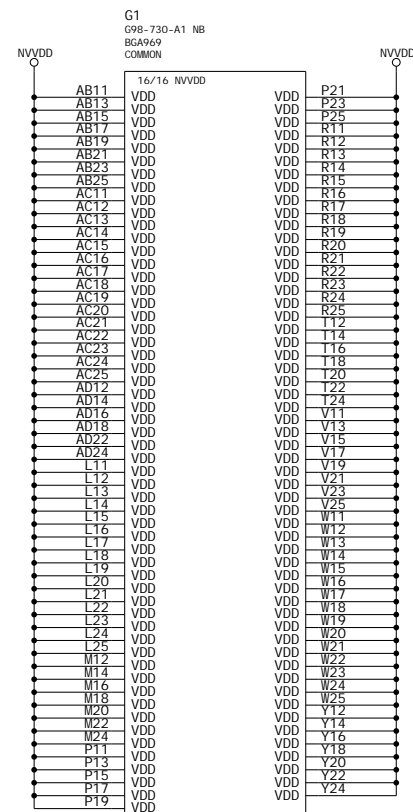
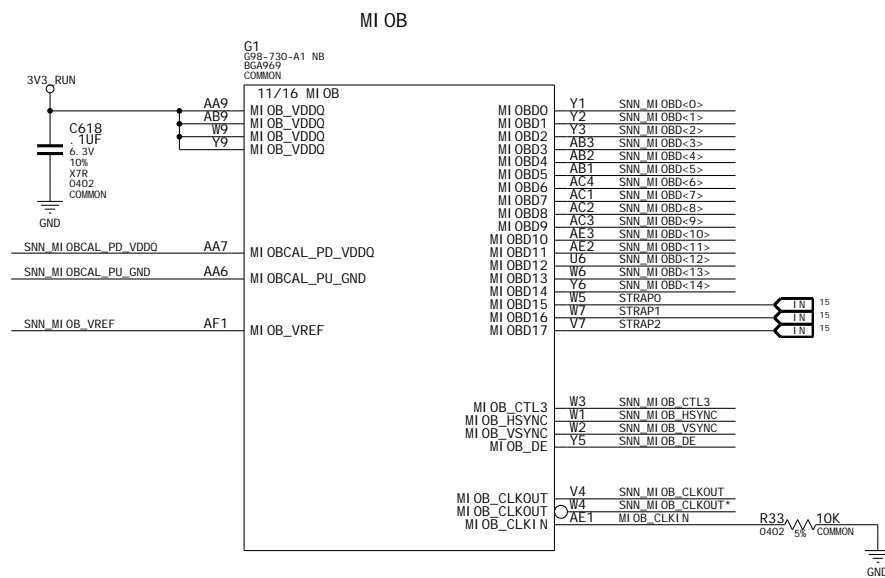
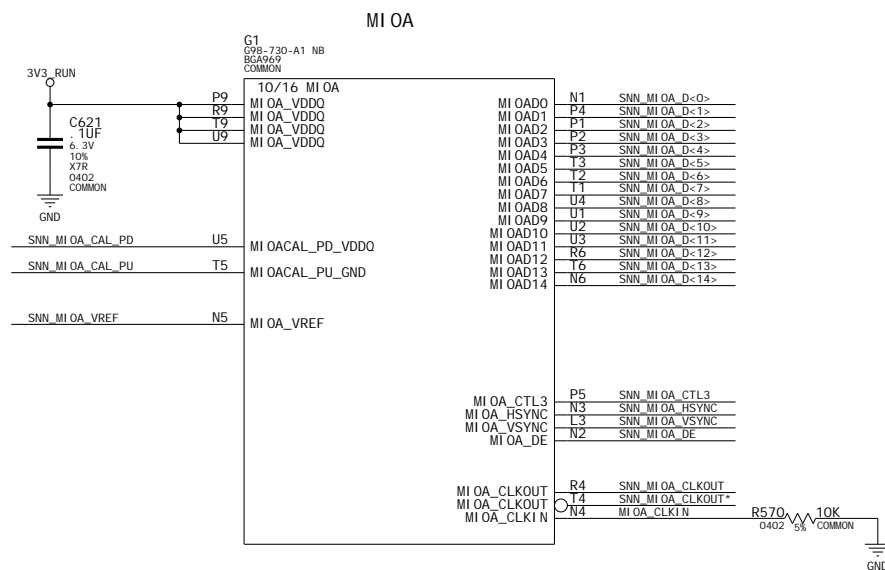
PAGE DETAIL LVDS, VBIOS, and HDCP ROM

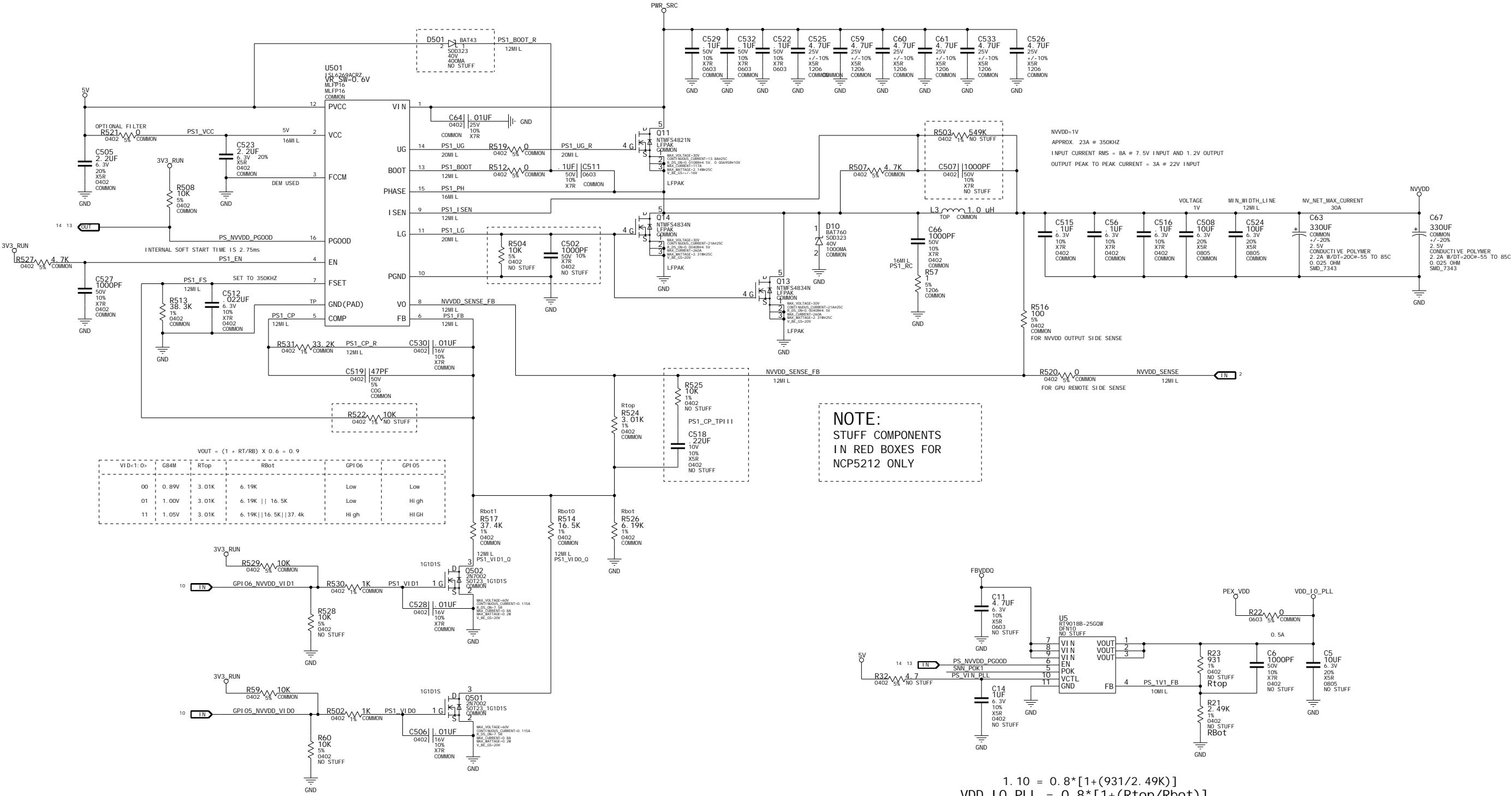
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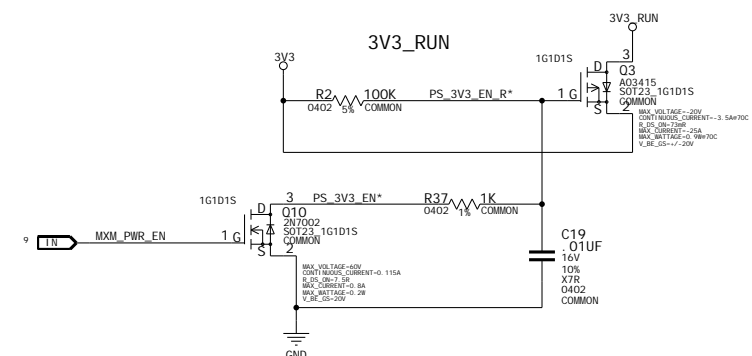
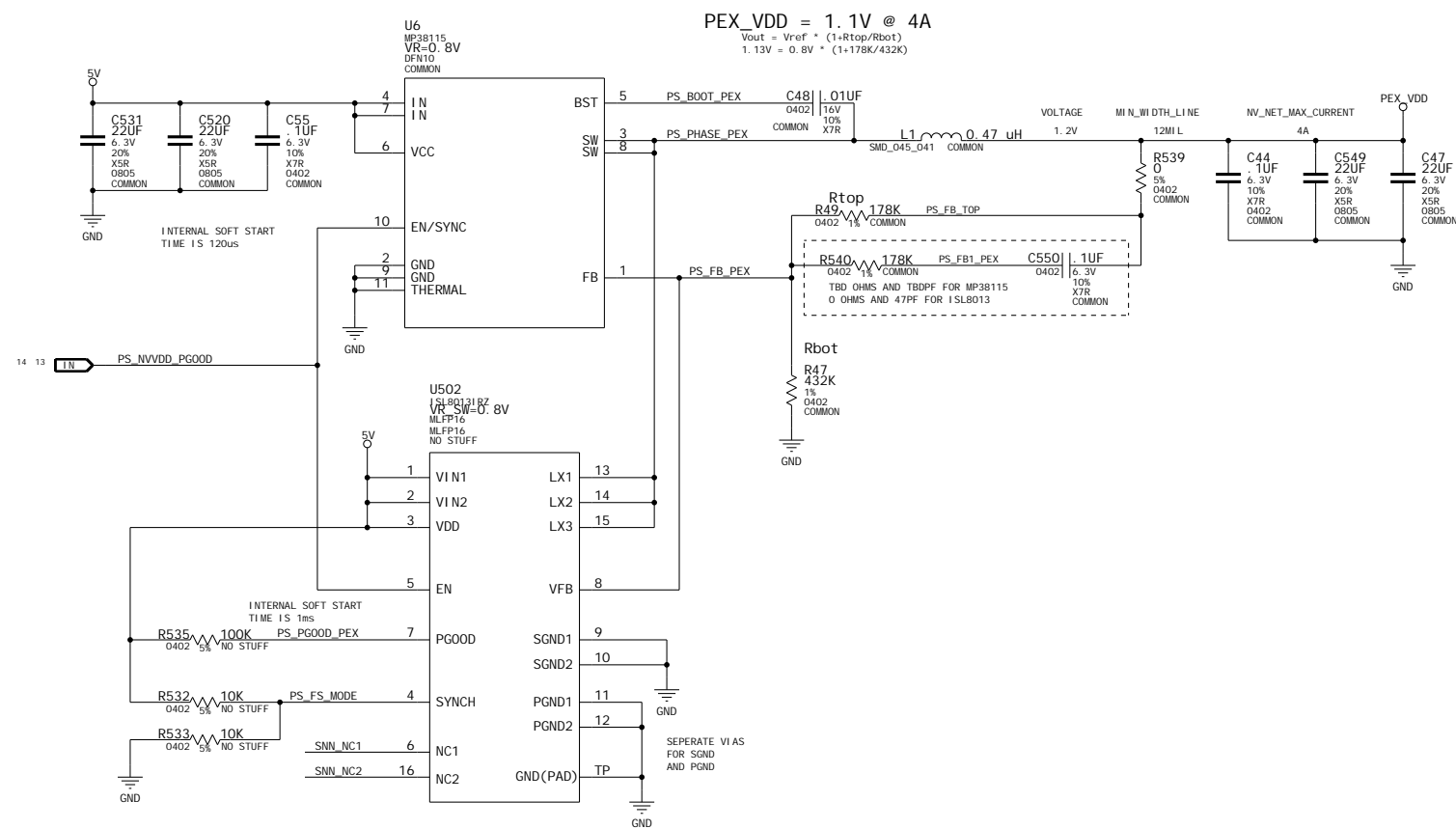
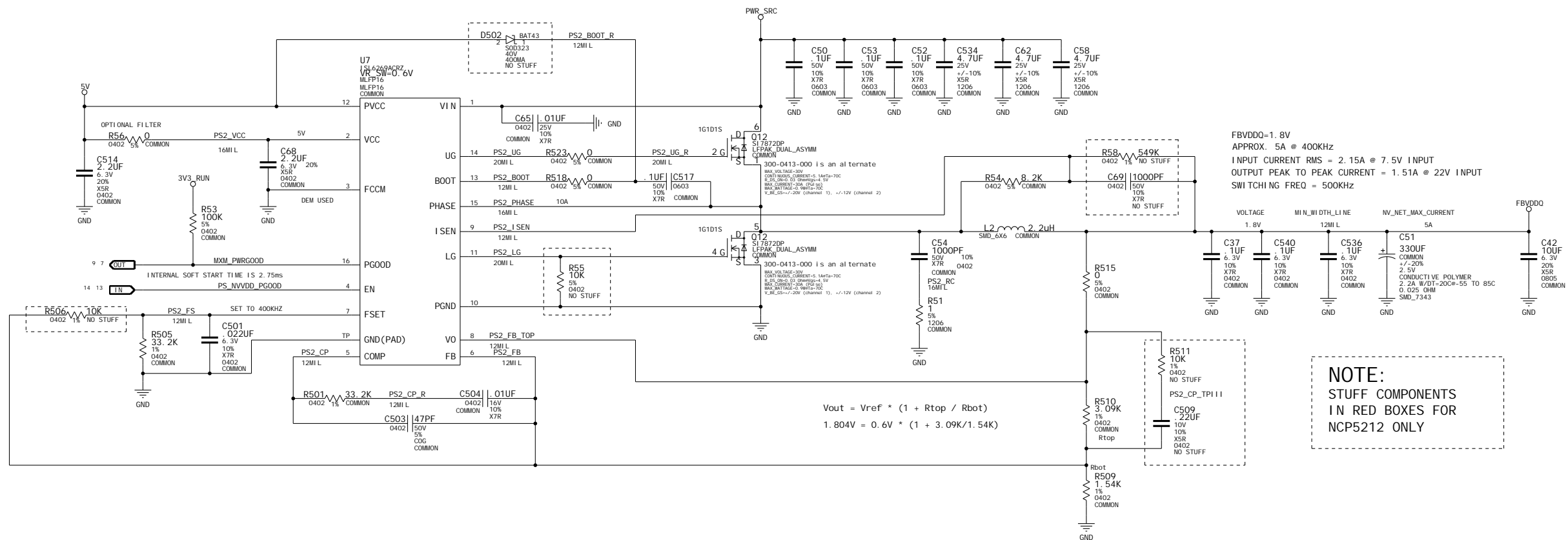


NOTE:
STUFF COMPONENTS
IN RED BOXES FOR
NCP5212 ONLY

VOUT = (1 + RT/RB) X 0.6 = 0.9					
VID-1: 0:	G84M	Rtop	Rbot	GPI 06	GPI 05
00	0.89V	3.01K	6.19K	Low	Low
01	1.00V	3.01K	6.19K 16.5K	Low	Hi gh
11	1.05V	3.01K	6.19K 16.5K 37.4k	Hi gh	Hi GH

$$1.10 = 0.8 * [1 + (931 / 2.49K)]$$
$$VDD_IO_PLL = 0.8 * [1 + (Rtop / Rbot)]$$

PAGE 14) FBVDDQ, PEX_VDD, AND IFP_IOVDD POWER SUPPLIES



NOTE:
STUFF COMPONENTS
IN RED BOXES FOR
NCP5212 ONLY

FBVDDQ=1.8V
APPROX. 5A @ 400KHz
INPUT CURRENT RMS = 2.15A @ 7.5V INPUT
OUTPUT PEAK TO PEAK CURRENT = 1.51A @ 22V INPUT
SWITCHING FREQ = 500KHz

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

$$1.804V = 0.6V * (1 + 3.09K/1.54K)$$

ASSEMBLY	P801-A00 SKU2 G96-610 MXM3.0 TYPE-A 512MB 4pcs 64Mx316
PAGE DETAIL	FBVDDQ, PEX_VDD, and IPE_VIOVDD Power Supplies

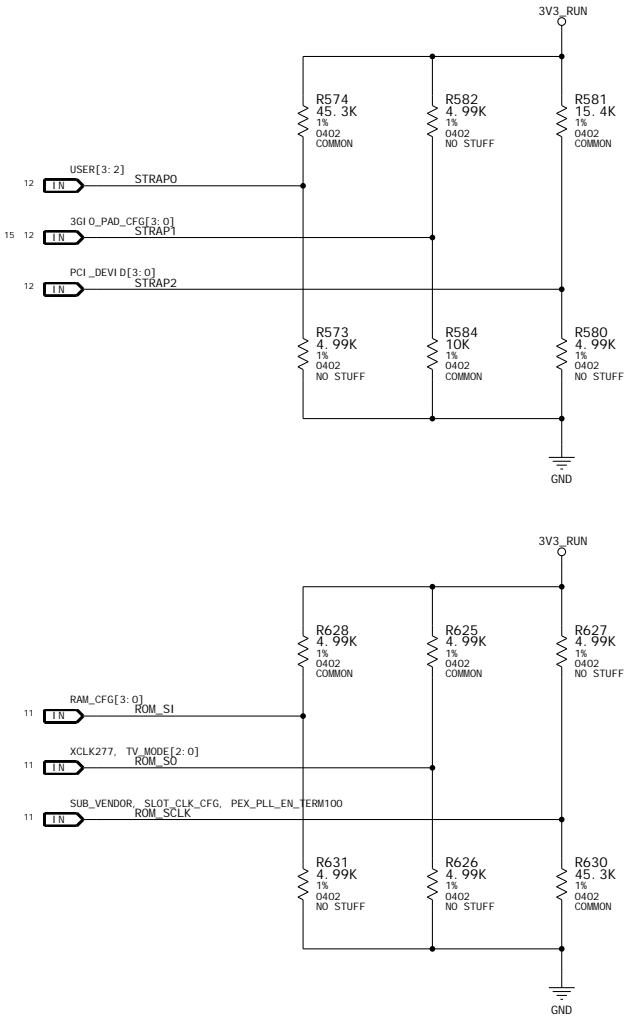
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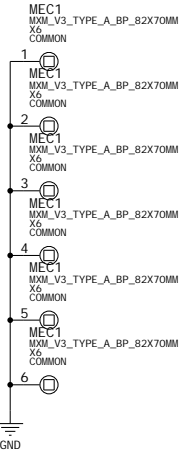
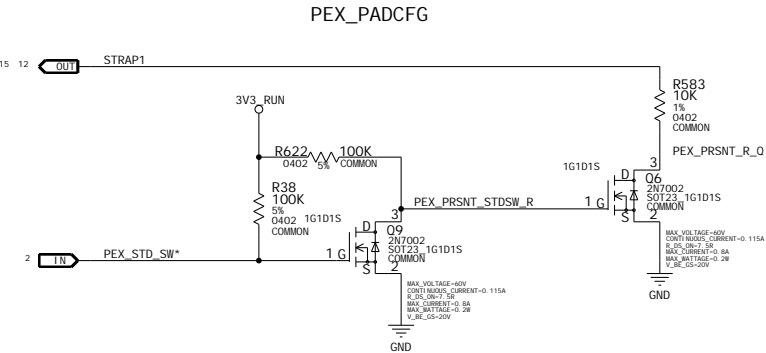
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	3V3	GND
5K	1000	0000
10K	1001	0001
15K	1010	0010
20K	1011	0011
25K	1100	0100
30K	1101	0101
35K	1110	0110
45K	1111	0111



PEX_PRSTNT_R*	R_STRAP1	3_GI_O_PADCFG_LUT<3..0>
FLOAT	10k	0x1 MOBILE_DEFAULT
GND	5k (10k 10k)	0x0 DESKTOP_DEFAULT

STRAP0	USER_BI T0	0xF: 45K PU (unused)
	USER_BI T1	
	USER_BI T2	
	USER_BI T3	
	3GI O_PADCFG_LUT_ADR0	
	3GI O_PADCFG_LUT_ADR1	0x0: Desktop default (normal swing) - 5k PD
	3GI O_PADCFG_LUT_ADR2	0x1: Mobile default (low swing) - 10k PD
	3GI O_PADCFG_LUT_ADR3	acc. to //hw/tesla_g98b/manual s/dev_ext_devices.ref
	PCI_DEVI D_0	all 4 bits set by HW strapping
	PCI_DEVI D_1	0x064A: 15K PU (NB9E-GE)
	PCI_DEVI D_2	
	PCI_DEVI D_3	
	TV_MODE_BI T0	0x0: NTSC-M
	TV_MODE_BI T1	5K PU
	TV_MODE_BI T2	
	XCLK_277	1: PCI -E GEN2
	RAM_CFG_0	1024 MB (8pcs. 64Mx16)
	RAM_CFG_1	RAM_CFG[3:0] Defi ni ti ons
	RAM_CFG_2	0000 Hyni x
	RAM_CFG_3	0001 Samsung
		0010 Qimonda
		0011 Reserved
		01xx Reserved
	PCI_DEVI D_EXT	0:
	SUB_VENDOR	1: SUB_VENDOR BIOS
	SLOT_CLK_CONFIG	1:
	PEX_PLL_EN_TERM100	1: TERM100 ENABLED