

P815-D01: G96 MXM V3.0  
256/512MB 128-BIT GDDR3  
LVDS, QUAD DP

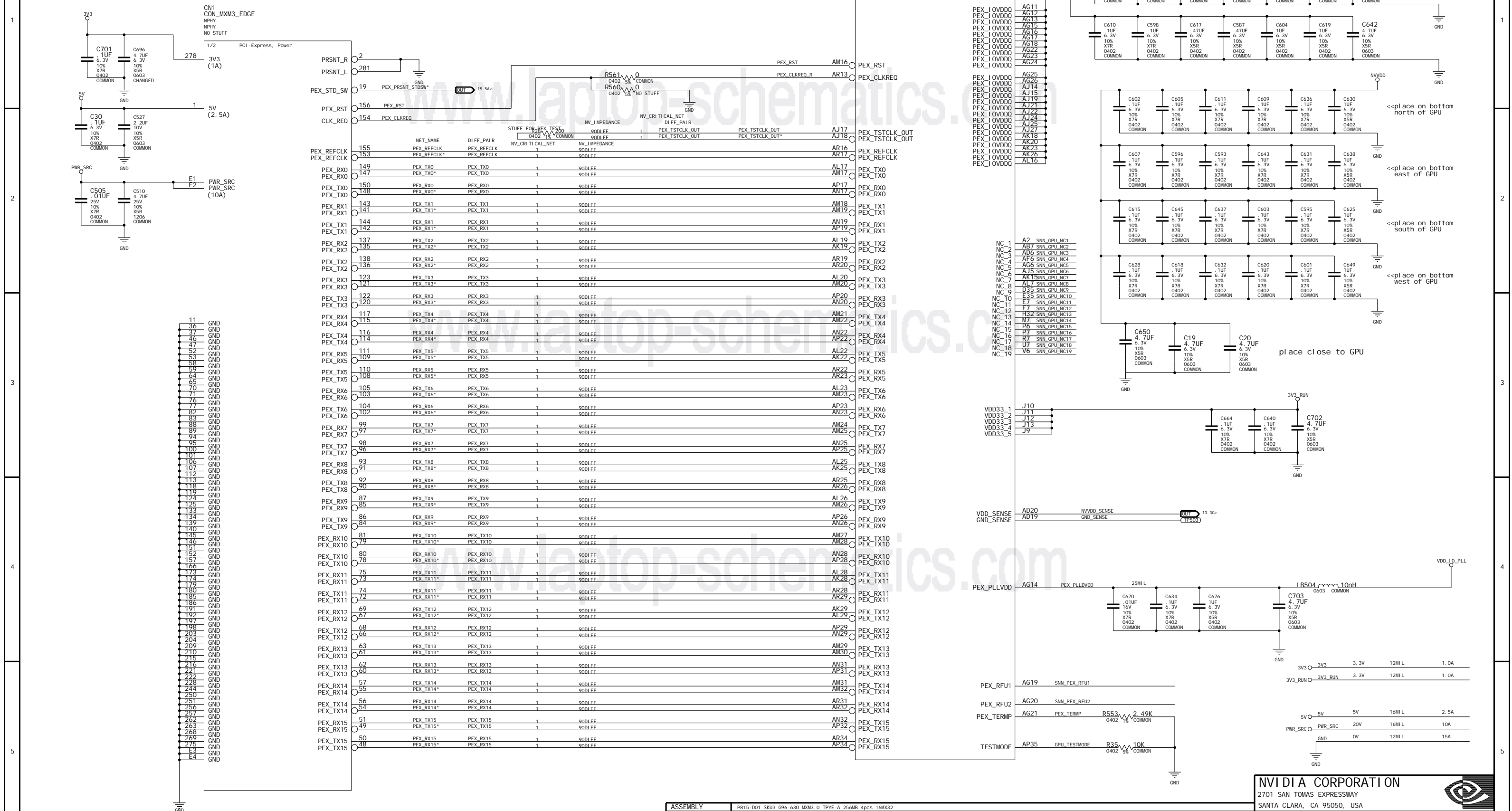
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SKU	VARIANT	NVPN	ASSEMBLY
B	BASE	600-10815-base-400	BASE LEVEL GENERIC SCHEMATIC ONLY. COMMON & NO_STUFF ASSEMBLY NOTES AND BOM NOT FINAL.
1	SKU0000	600-10815-0000-400	G96M 128bit GDDR3 MXM V3.0
2	SKU0001	600-10815-0001-400	P815-D01 SKU1 G96-600 MXM3.0 TYPE-A 512MB 4pcs 32MX32
3	SKU0002	600-10815-0002-400	P815-D01 SKU2 G96-750 MXM3.0 TYPE-A 256MB 4pcs 16MX32
4	SKU0003	600-10815-0003-400	P815-D01 SKU3 G96-630 MXM3.0 TYPE-A 256MB 4pcs 16MX32
5	SKU0004	600-10815-0004-400	P815-D01 SKU4 G96-630 MXM3.0 TYPE-A 256MB 4pcs 16MX32
6	<UNDEFINED>	<UNDEFINED>	<UNDEFINED>
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13	<UNDEFINED>	<UNDEFINED>	<UNDEFINED>
14	<UNDEFINED>	<UNDEFINED>	<UNDEFINED>
15	<UNDEFINED>	<UNDEFINED>	<UNDEFINED>

PAGE 2) MXM-11 GOLDEN EDGE, PCI EXPRESS INTERFACE

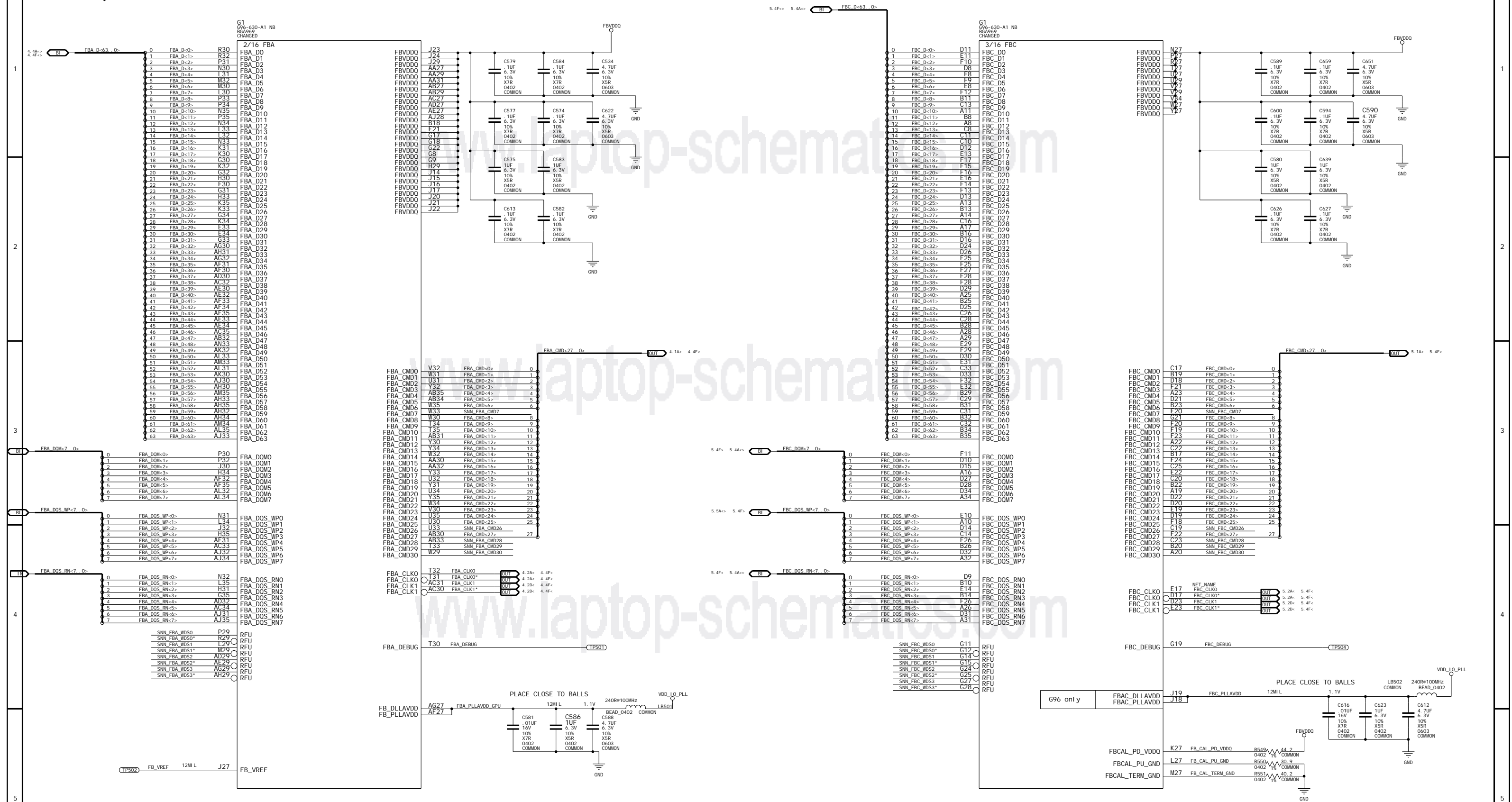


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ASSEMBLY	P815-D01 SKU3 G96-630 MXM3.0 TPYE-A 256MB 4pcs 16MX32
PAGE DETAIL	PCI EXPRESS Interface

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PAGE 3) GPU MEMORY INTERFACE



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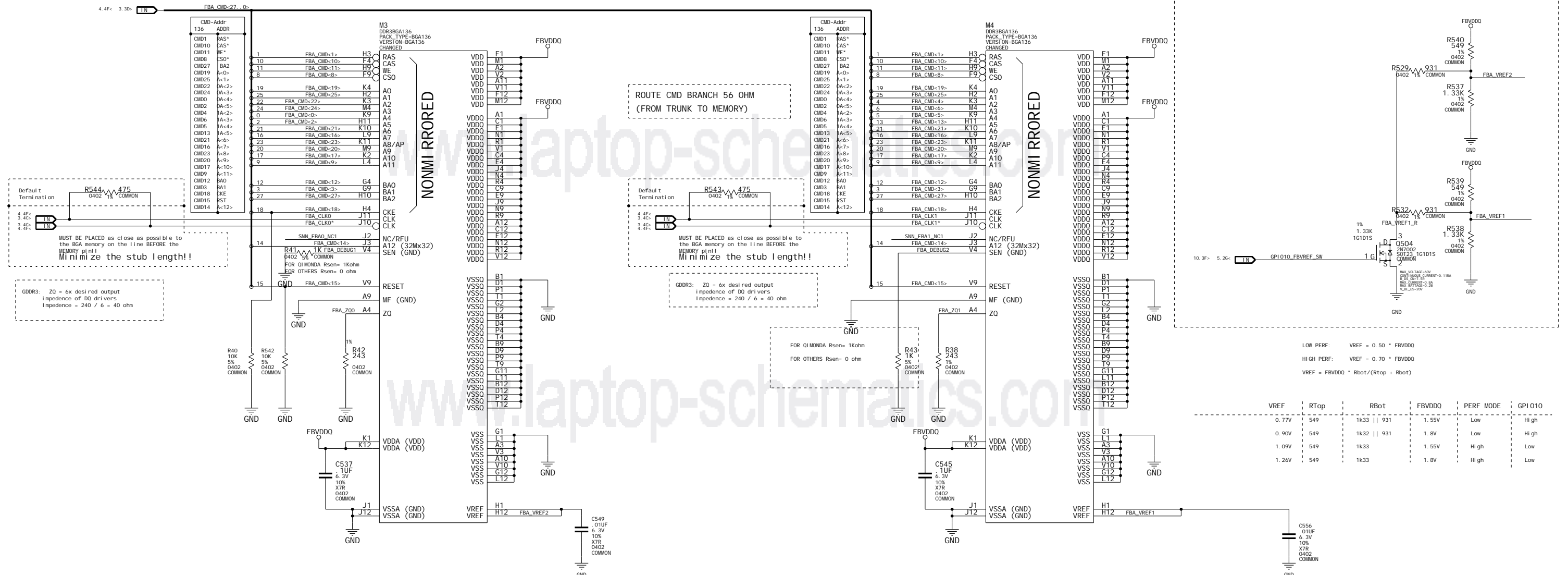
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## FRAME BUFFER PARTITION A



## NET RULES for FrameBuffer A

	NET	NV_CRI TI CAL	NV_I MPEDANCE	DI FFPAI R
4.2A, 3.4C*	FBA_CLK0	1	80DI FF	FBA_CLK0
4.2A, 3.4C*	FBA_CLK0*	1	80DI FF	FBA_CLK0
4.2D, 3.4C*	FBA_CLK1	1	80DI FF	FBA_CLK1
4.2D, 3.4C*	FBA_CLK1*	1	80DI FF	FBA_CLK1

4.5Ac>	3.3Ac>	OUT	FBA DQS WP<7. 0>	1	400HM
4.4Ac>	3.4Ac	IN	FBA DQS RN<7. 0>	1	400HM
4.4Ac>	3.3Ac>	OUT	FBA DOM<7. 0>	1	400HM
4.4Ac>	3.1Ac>	BI	FBA D<63. 0>	1	400HM
4.1Ac	3.3D>	IN	FBA CMD<27. 0>	1	600HM

	NET	VOLTAGE	MAX_CURRENT	MIN_WIDTH
	FBA_VREF0	1.26V	0.02A	12MIL
	FBA_VREF1	1.26V	0.02A	12MIL
	FBA_VREF2	1.26V	0.02A	12MIL
	FBA_VREF3	1.26V	0.02A	12MIL
	FBA_Z00	1.26V	0.02A	12MIL
	FBA_Z01	1.26V	0.02A	12MIL

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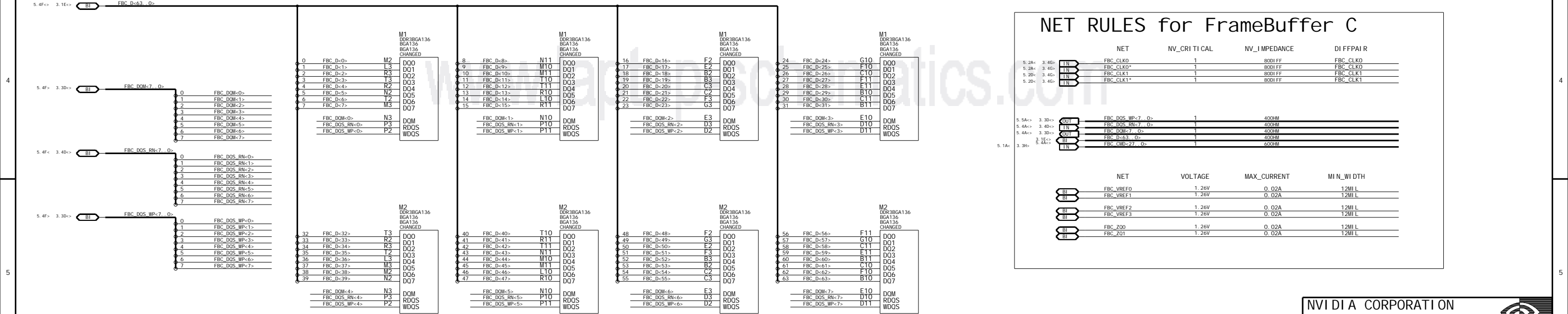
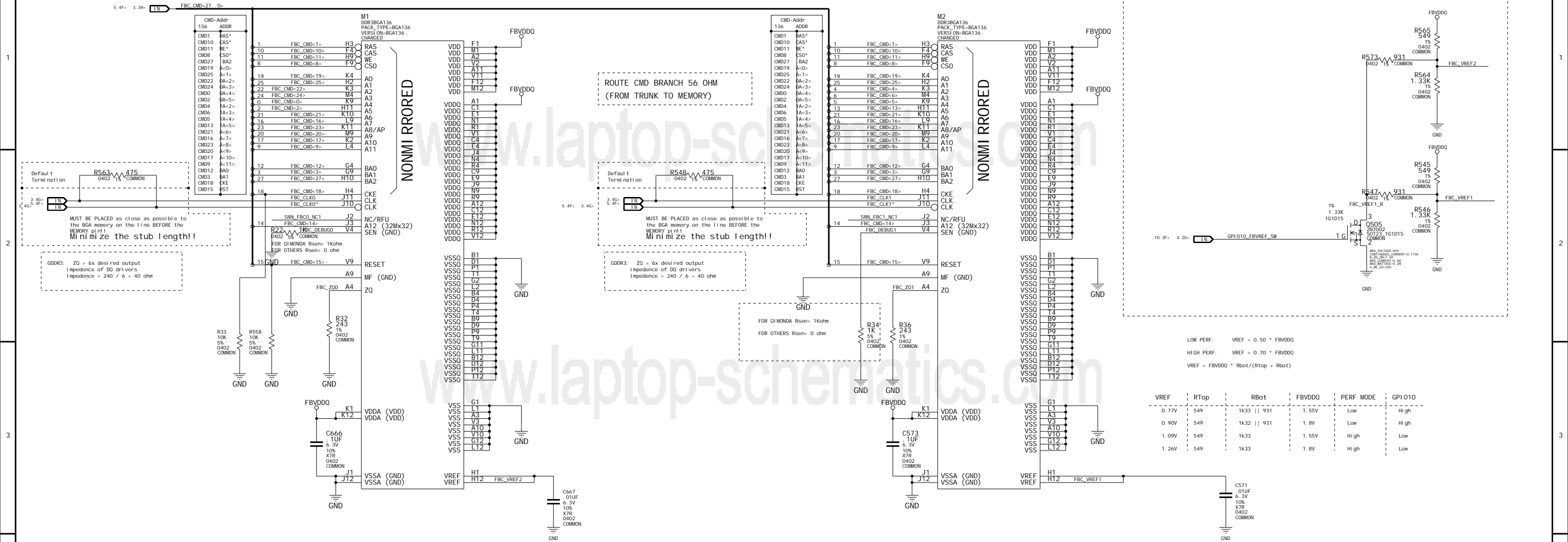


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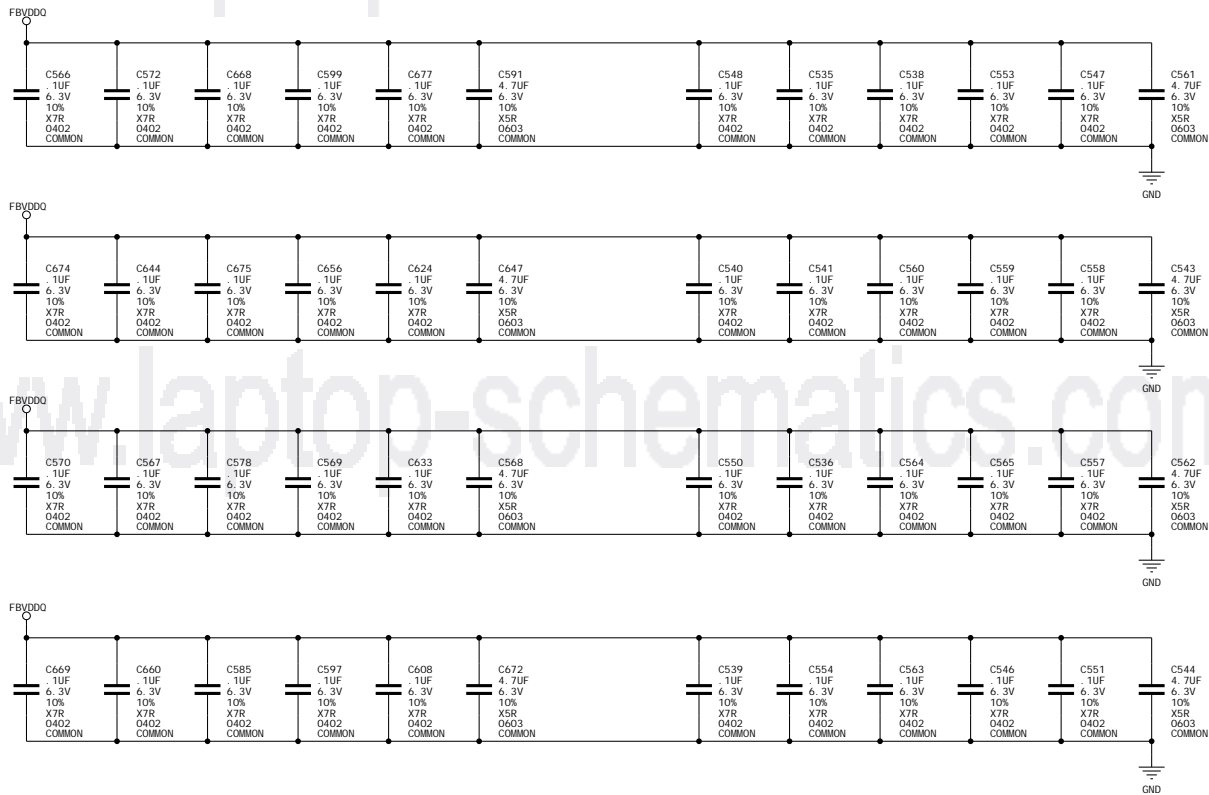
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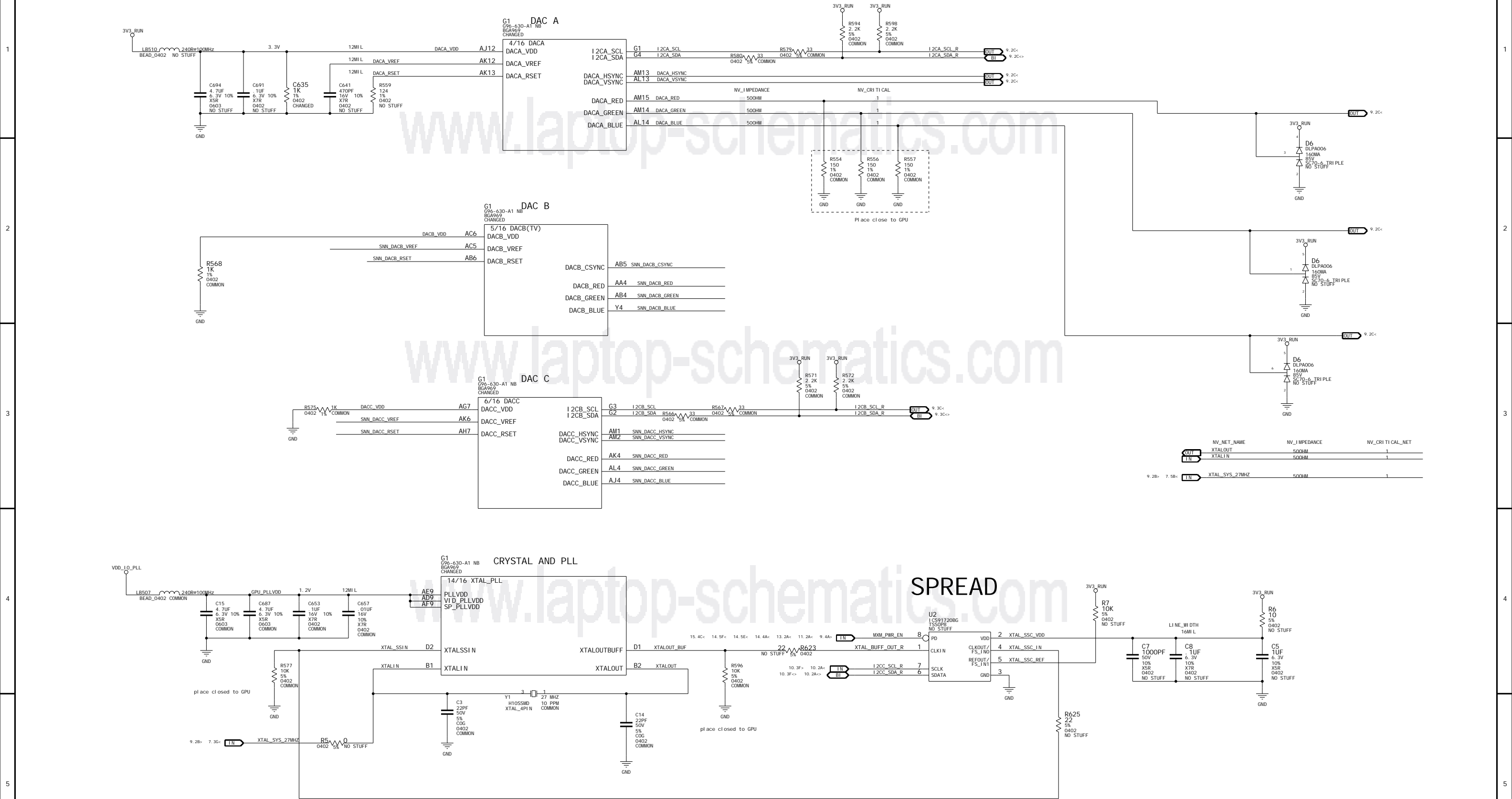
# PAGE 5) MEMORY PARTITION C



DECOUPLING CAPS FOR MEMORYS (PARTION A AND PARTION C)



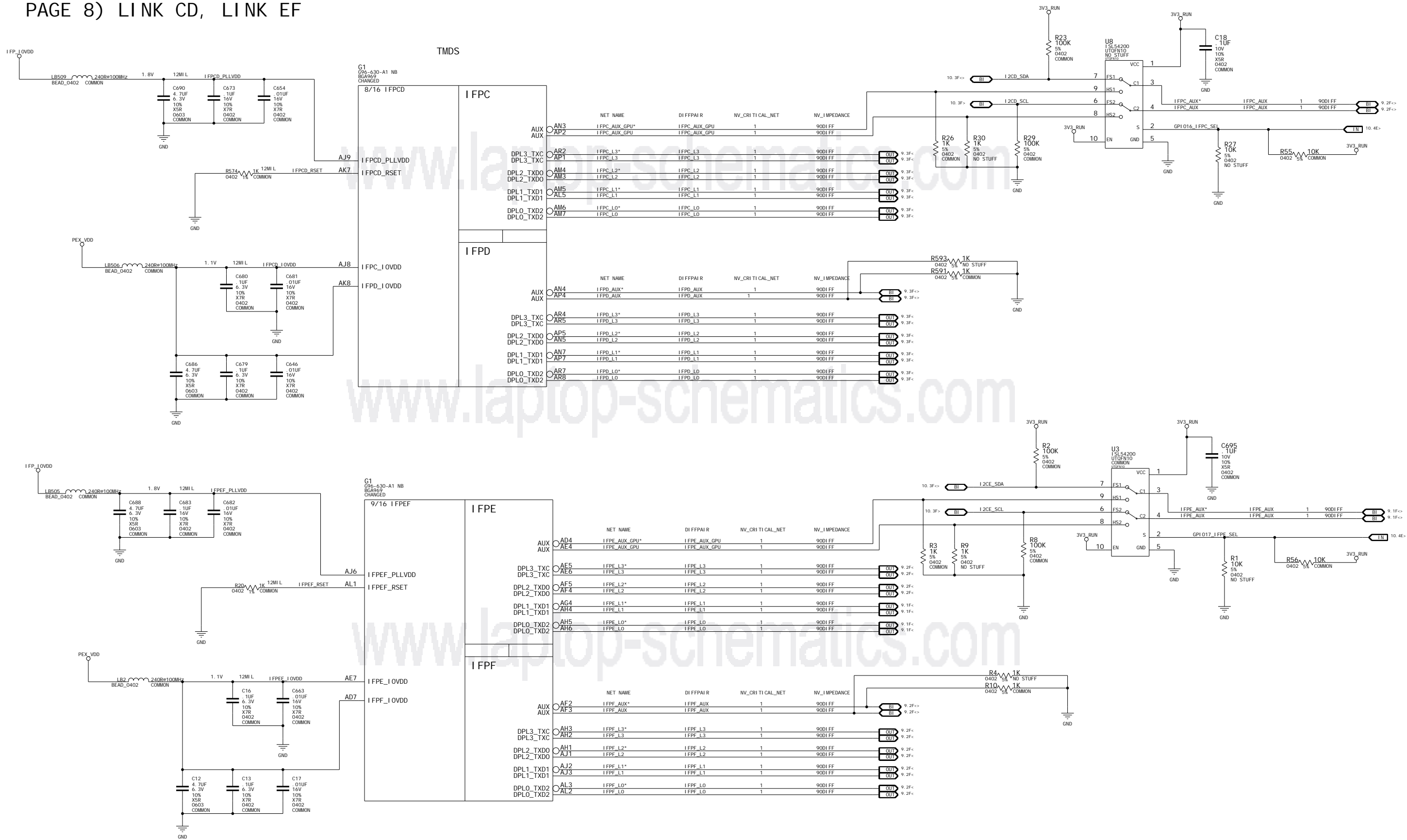
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PAGE 8) LINK CD, LINK EF

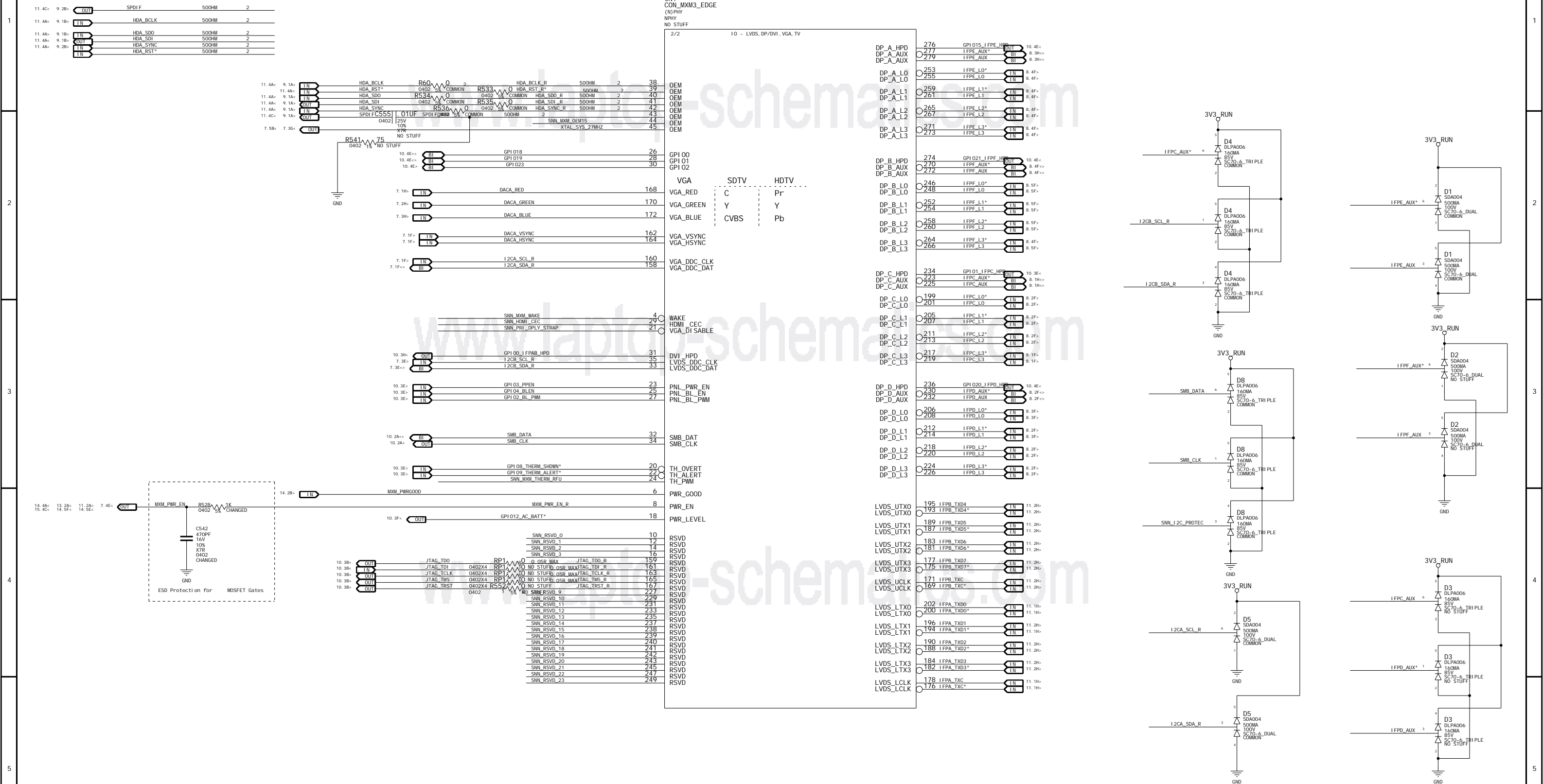


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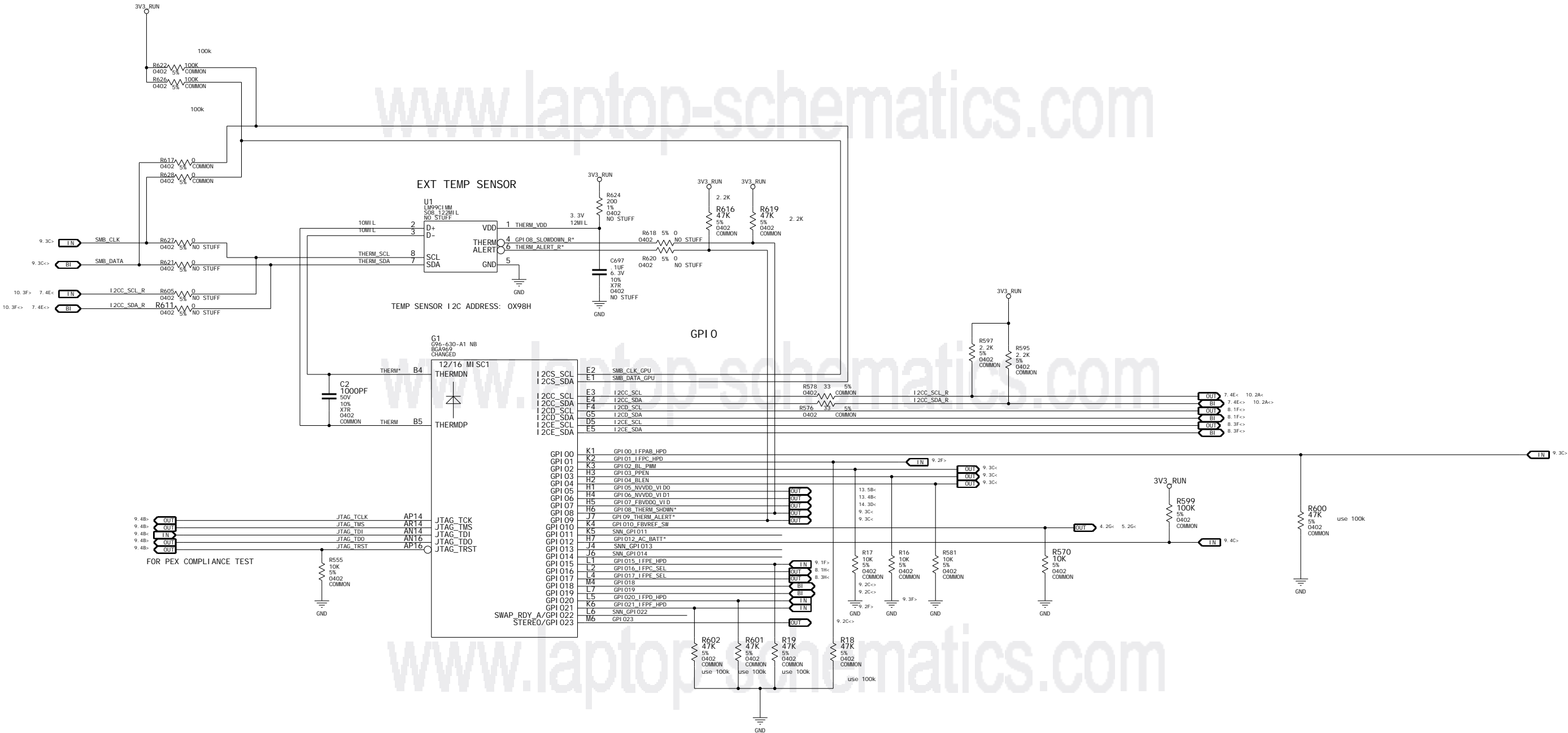


## MXM CONNECTOR

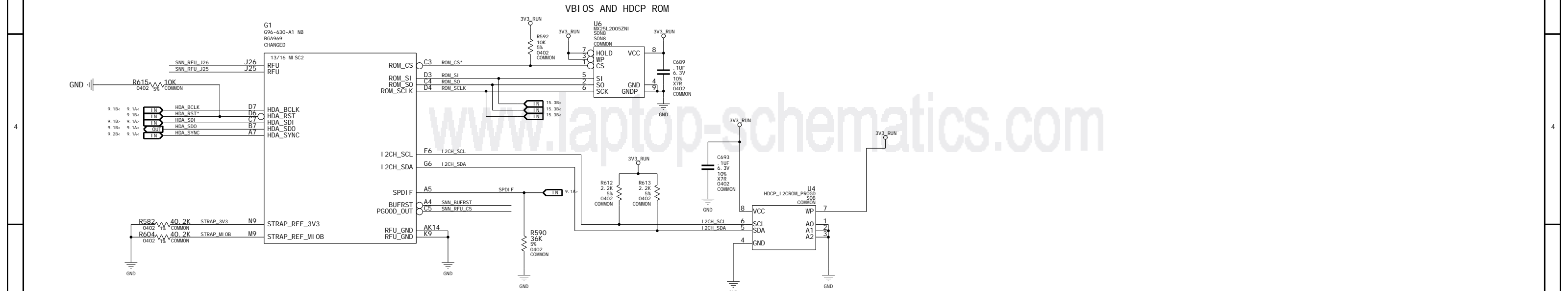
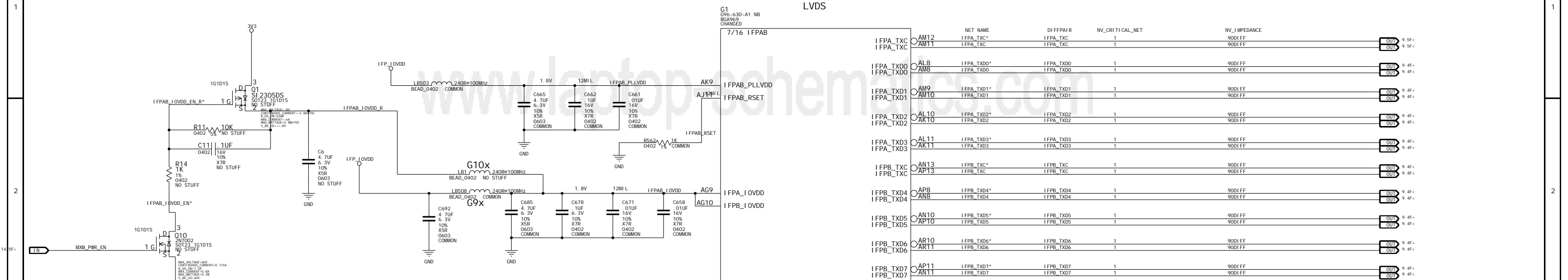


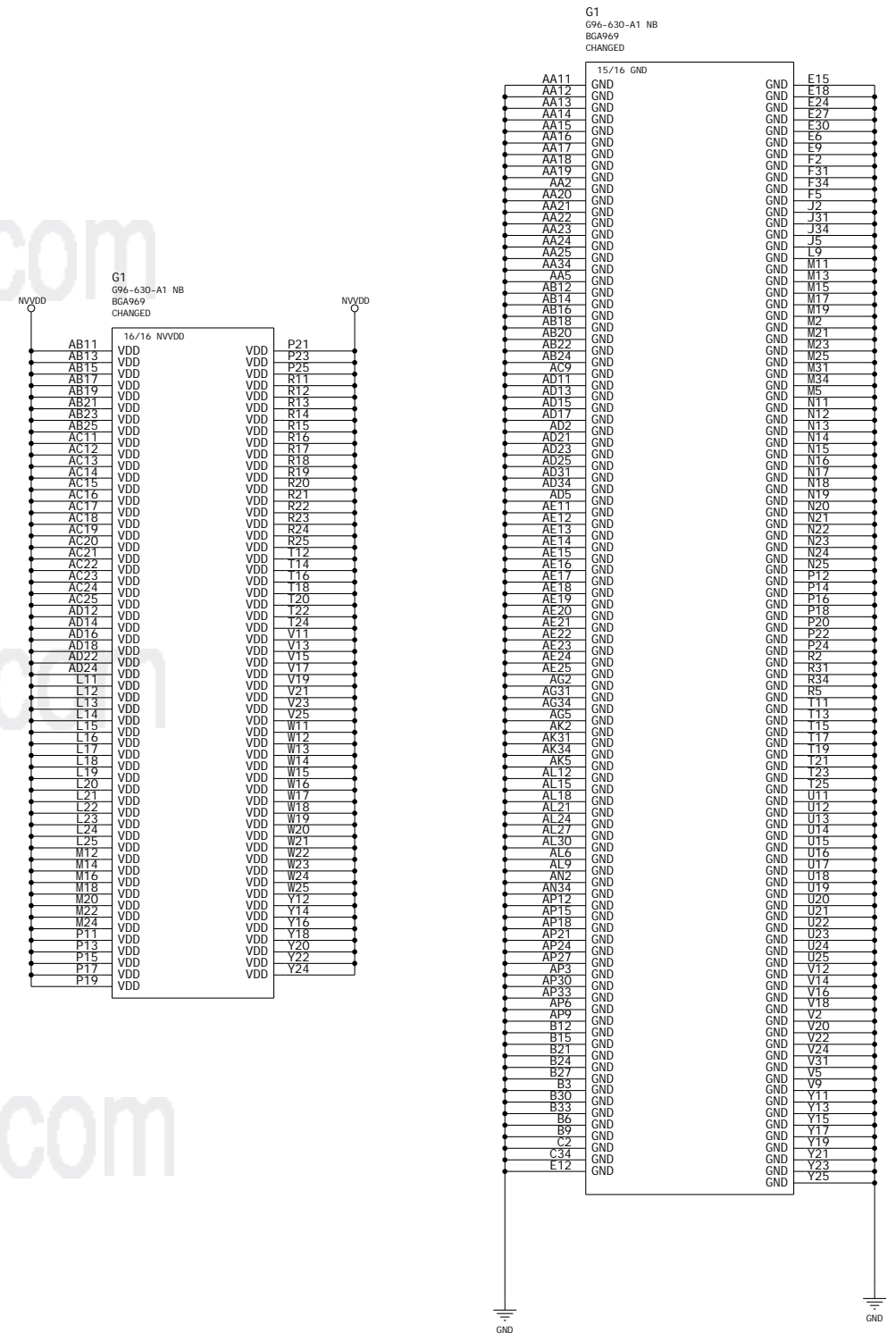
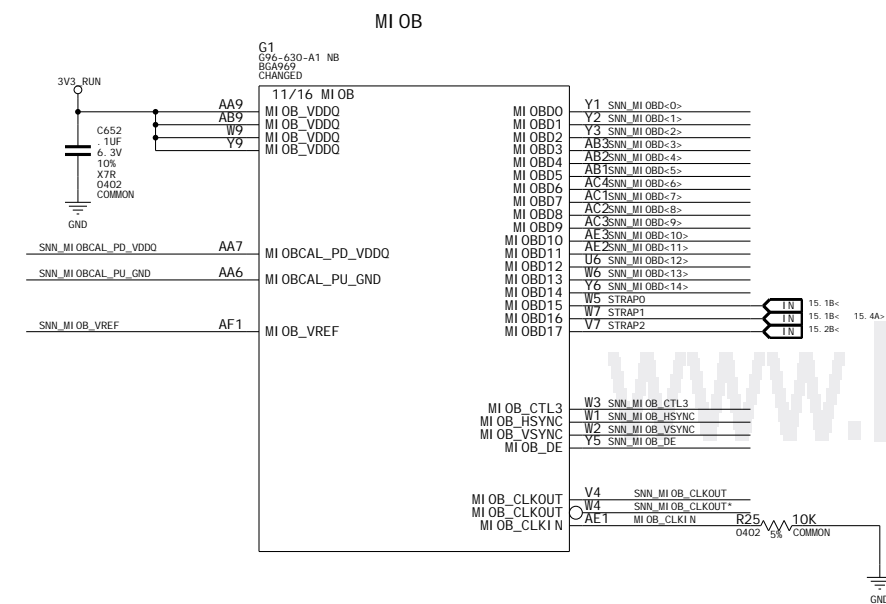
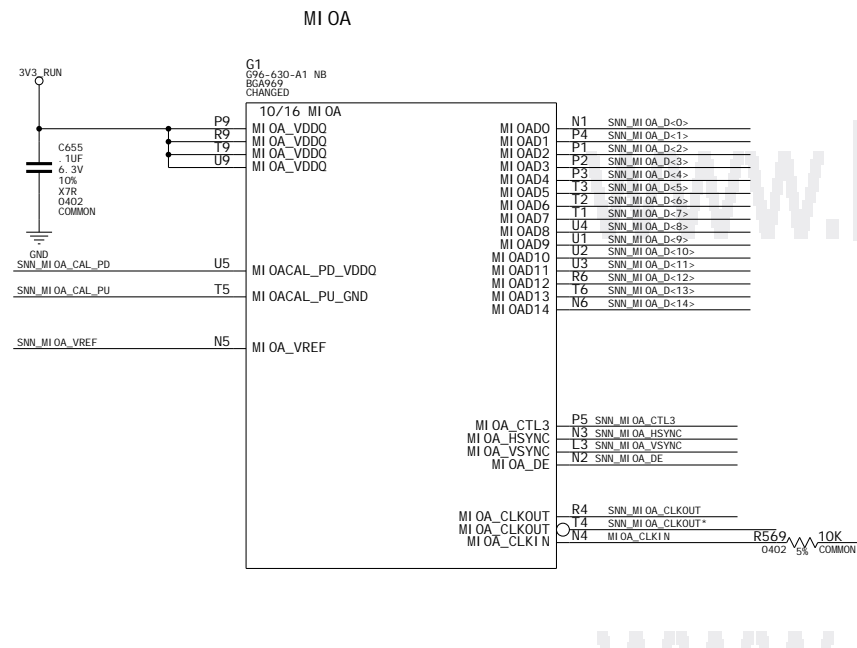
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PAGE DETAIL	MXM Connector, 10-Section

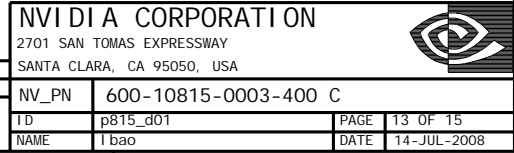
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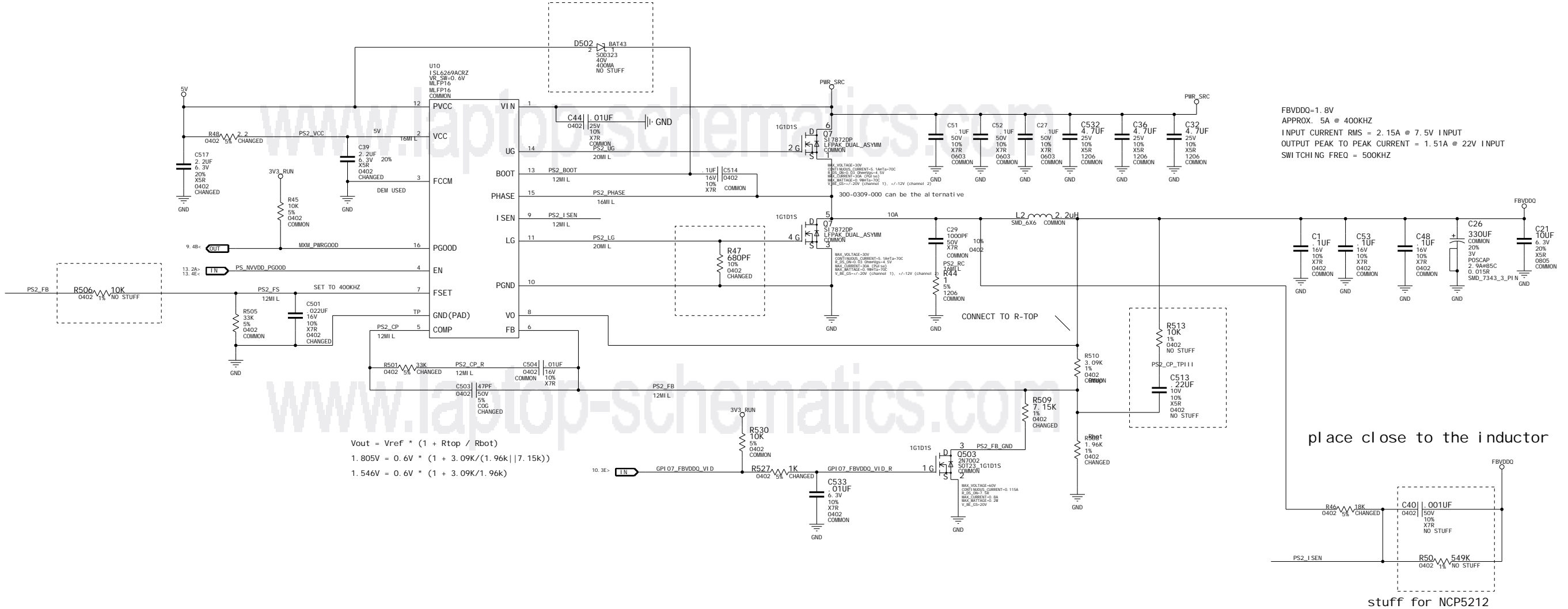




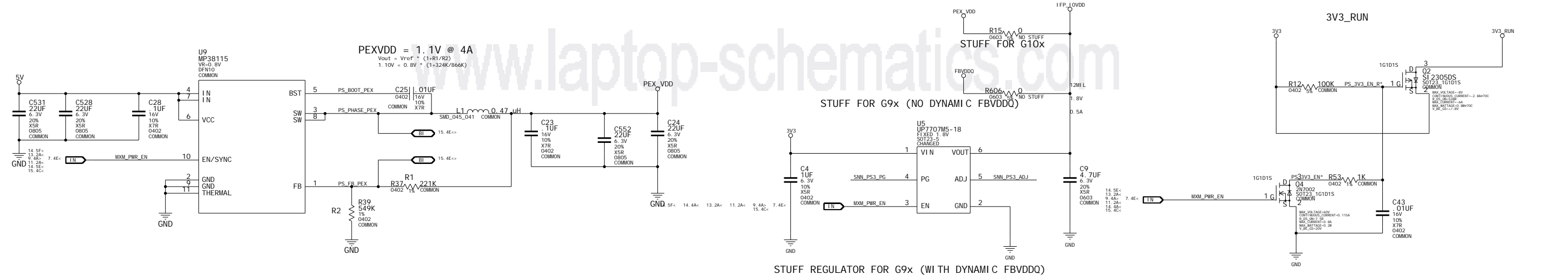




NET	VOLTAGE	MI_N_WI_OTH_LI_NE	NV_NET_MAX_CURRENT
PEX_VDD	PEX_VDD	1.2V	12MI L
FBVDDQ	FBVDDQ	1.8V	12MI L
PS_VI_N_PEX	PS_VI_N_PEX	12MI L	10A

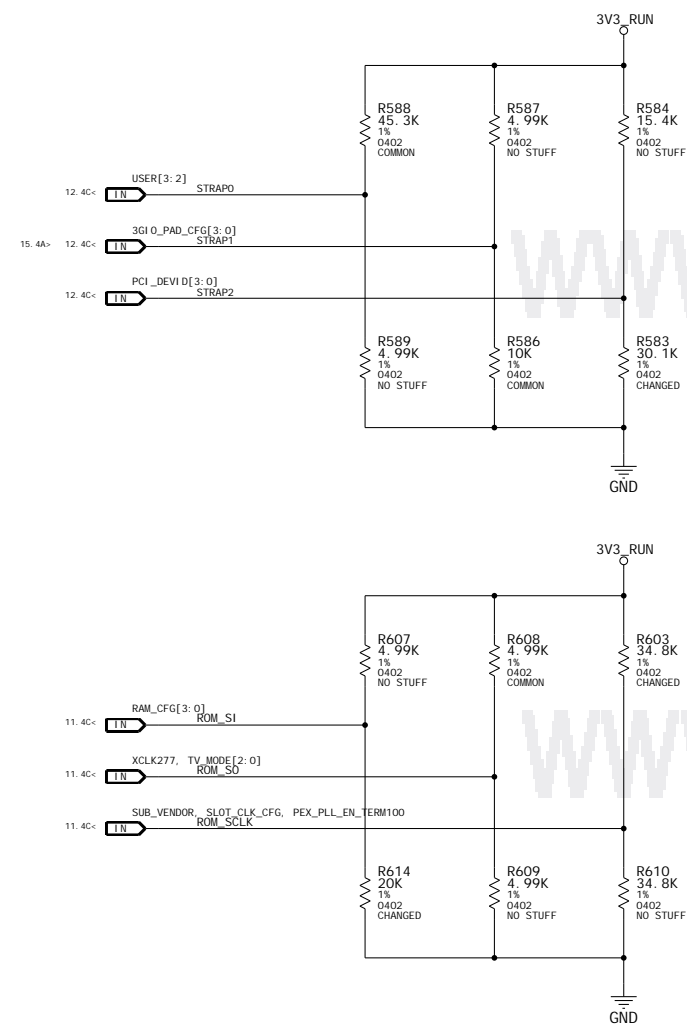


$$V_{out} = V_{ref} * (1 + R_{top} / R_{bot})$$
$$1.805V = 0.6V * (1 + 3.09K / (1.96K || 7.15K))$$
$$1.546V = 0.6V * (1 + 3.09K / 1.96K)$$



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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

STRAP0

STRAP1

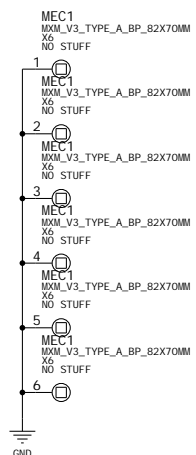
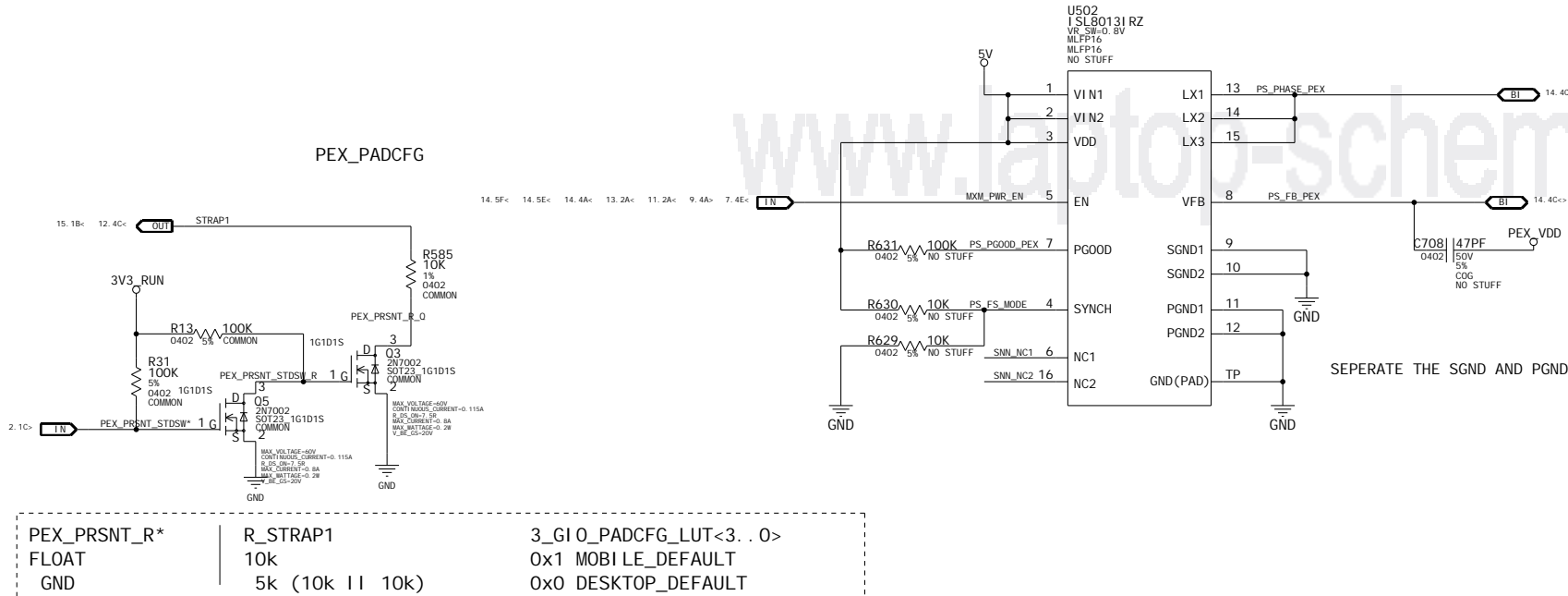
STRAP2

ROM\_SO

ROM\_SI

ROM\_SCLK

USER_BIT0	0xF: 45K PU (unused)
USER_BIT1	
USER_BIT2	
USER_BIT3	
-----	
3GIO_PADCFG_LUT_ADR0	
3GIO_PADCFG_LUT_ADR1	0x0: Desktop default (normal swing) - 5k PD
3GIO_PADCFG_LUT_ADR2	0x1: Mobile default (low swing) - 10k PD
3GIO_PADCFG_LUT_ADR3	acc. to //hw/tesla_g98b/manuals/dev_ext_devices.ref
-----	
PCI_DEVICE_0	all 4 bits set by HW strapping
PCI_DEVICE_1	0x064A: 15K PU (NB9E-GE)
PCI_DEVICE_2	
PCI_DEVICE_3	
-----	
TV_MODE_BIT0	0x0: NTSC-M
TV_MODE_BIT1	5K PU
TV_MODE_BIT2	
XCLK_277	1: PCI-E GEN2
-----	
RAM_CFG_0	256 MB (4pcs. 16Mx32) 512 MB (4pcs. 32Mx32)
RAM_CFG_1	RAM_CFG[3:0] Definitions
RAM_CFG_2	0000 Reserved 0100 25k PD Qimonda 0010 30k PD Qimonda 0011 35k PD Hynix 0110 45k PD Hynix 0111 Samsung
RAM_CFG_3	
-----	
PCI_DEVICE_EXT	0:
SUB_VENDOR	1: SUB_VENDOR BIOS 30K PD
SLOT_CLK_CONFIG	1:
PEX_PLL_EN_TERM100	1: TERM100 ENABLED



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