

# P393-A01 Base Design

P393-A01, G92, 8Mx32/16Mx32 GDDR3 (800/1000 MHz),  
DVI-I-DL, DVI-I-DL/DisplayPort, HDTVout/Stereo


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- 1.V117-0C Base on P393
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- 3.page 10 del I2CA\_SCR\_R,I2CA\_SDA\_R link net Page 27
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- 8.page 20 del DP\_POWER circuit
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- 10.page 3/5/6. update FBA\_CMD(25..0)/FBB\_CMD(25..0)
- 11.page 4/7/8. update FBC\_CMD(25..0)/FBD\_CMD(25..0)
- 12.page 17. del GPIO4\_FAN\_PWM\_R net
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- 14.page 12. add EMI

REV	VARIANT	NVPN	ASSEMBLY
0	BASE	600-10393-0000-100	P393 - BASE LEVEL GENERIC SCHEMATIC ONLY, COMMON & NO_STUFF ASSEMBLY NOTES AND BOM NOT FINAL
1	SKUL_DT_0000	600-10393-0000-100	P393 G92-300 512MB GDDR3 16Mx32 DVI-I+DVI-I+HDTV
2	SKUL_DT_0002	600-10393-0002-100	P393 G92-200 512MB GDDR3 16Mx32 DVI-I+DVI-I+HDTV
3	SKUL_WS_0500	600-10393-0500-100	P393 G92-875 512MB GDDR3 16Mx32 DVI-I+HDP+STEREO
4	SKUL_WS_0501	600-10393-0501-100	P393 G92-850 512MB GDDR3 16Mx32 DVI-I+DVI-I+HDTV
5	SKUL_DT_0004	600-10393-0004-100	P393 G92-270 512MB GDDR3 16Mx32 DVI-I+DVI-I+HDTV
6	<UNDEFINED>	<UNDEFINED>	<UNDEFINED>
7	<UNDEFINED>	<UNDEFINED>	<UNDEFINED>
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SUMMARY

Status

Document Number

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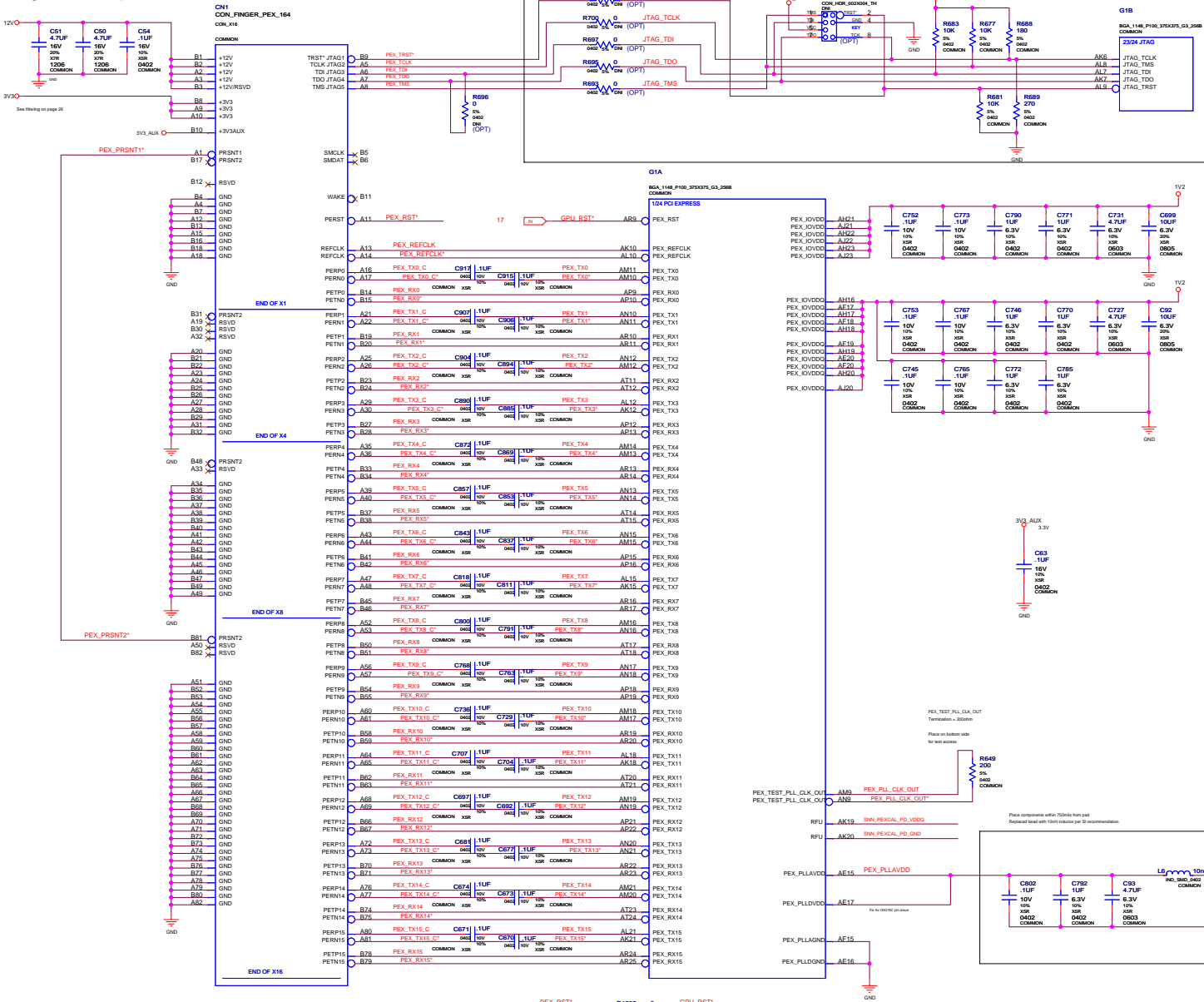
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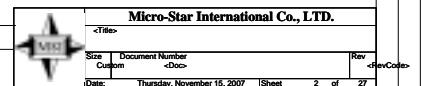
\* PRO2NT® isolation bypass option

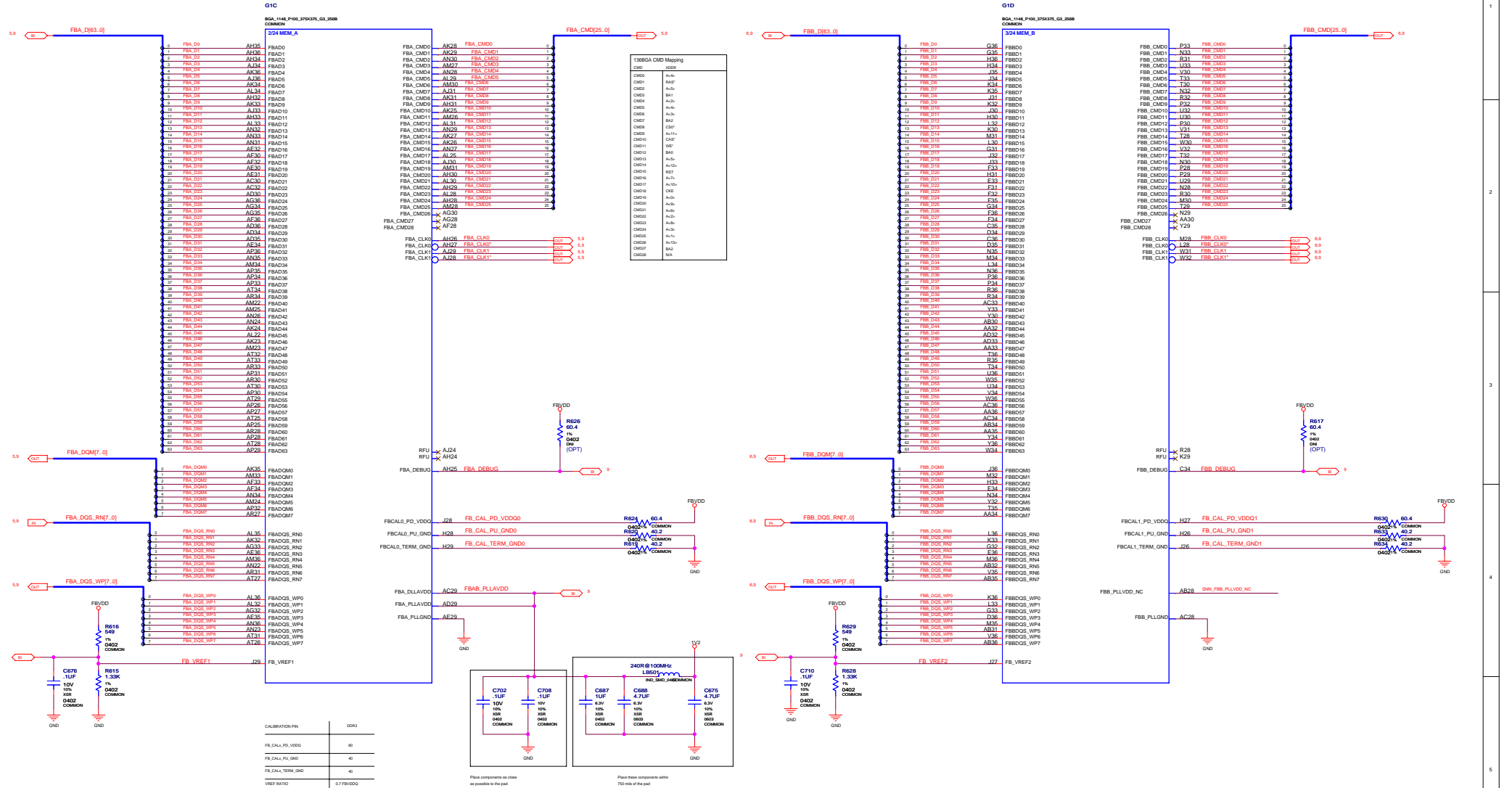
Stuff only to bypass the micro-controller

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PAGE DETAIL

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PCI Express 1.0





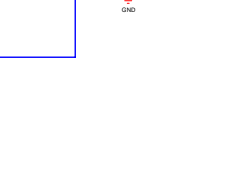
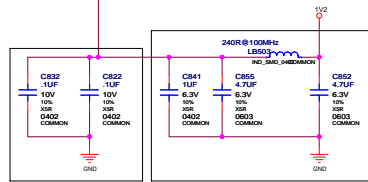
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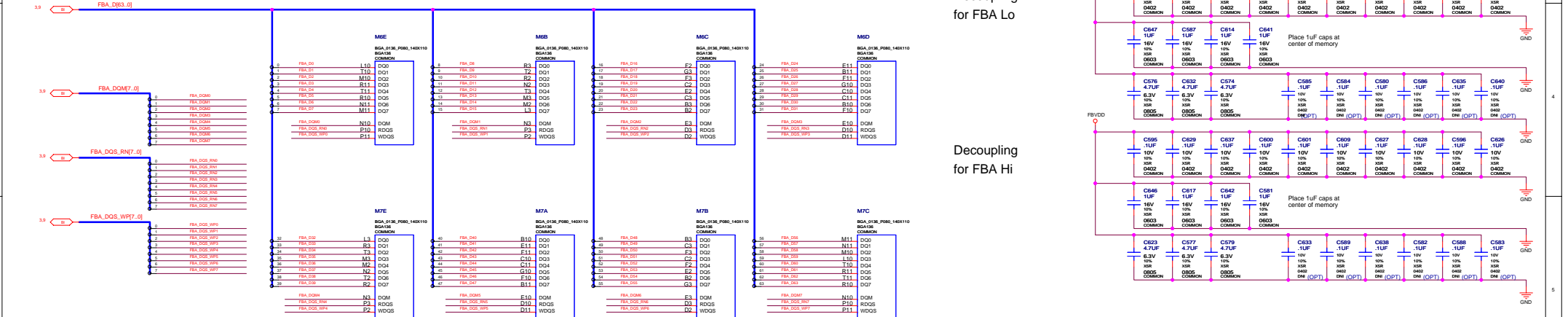
ASSEMBLY PAGE DETAIL P301 - BASE LEVEL GENERIC SCHEMATIC ONLY. COMMON & NO. 31047 ASSEMBLY NOTES AND BOM NOT FINAL MEMORY: GPU Partition AB

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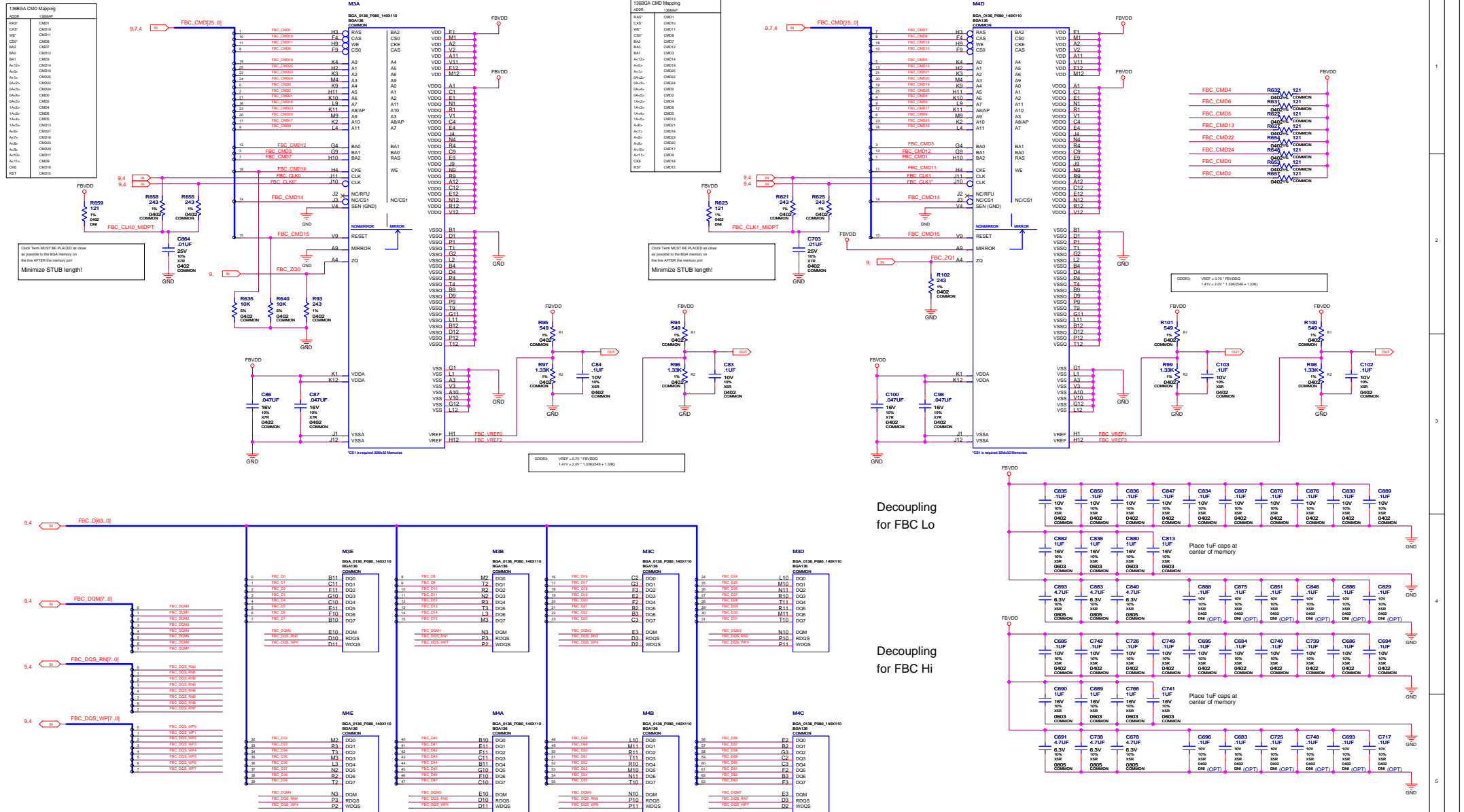
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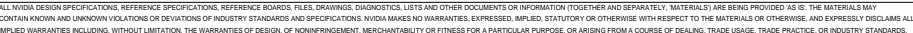


ASSEMBLY	P393 - BASE LEVEL GENERIC SCHEMATIC ONLY, COMMON & NO_STUFF ASSEMBLY NOTES AND BOM NOT FINAL
PAGE DETAIL	FBA Partition

1386GA CMD Mapping	1386AF
RAP	CM01
CAP	CM02
WE	CM03
CSP	CM04
BA2	CM07
BA1	CM08
BA4	CM09
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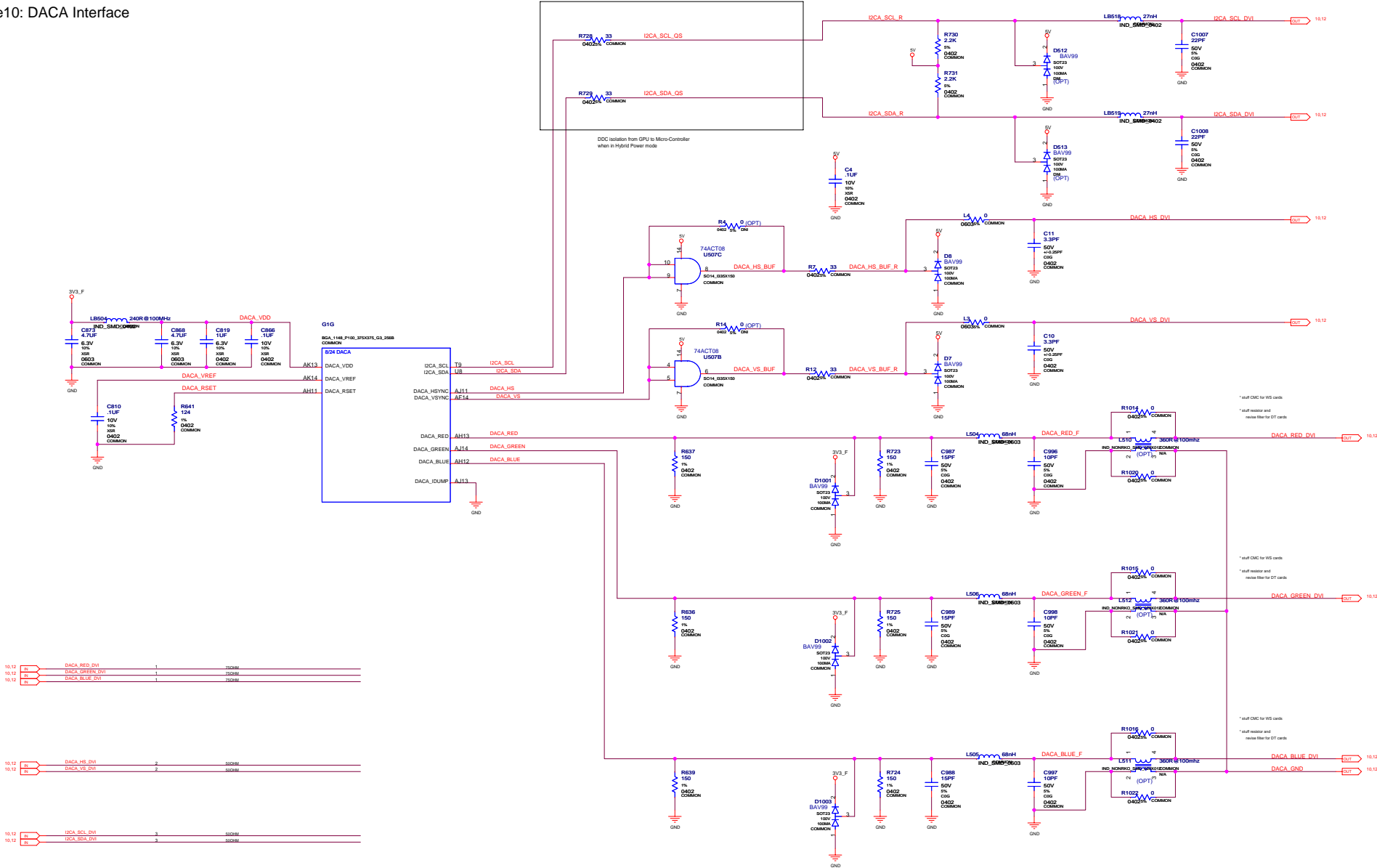


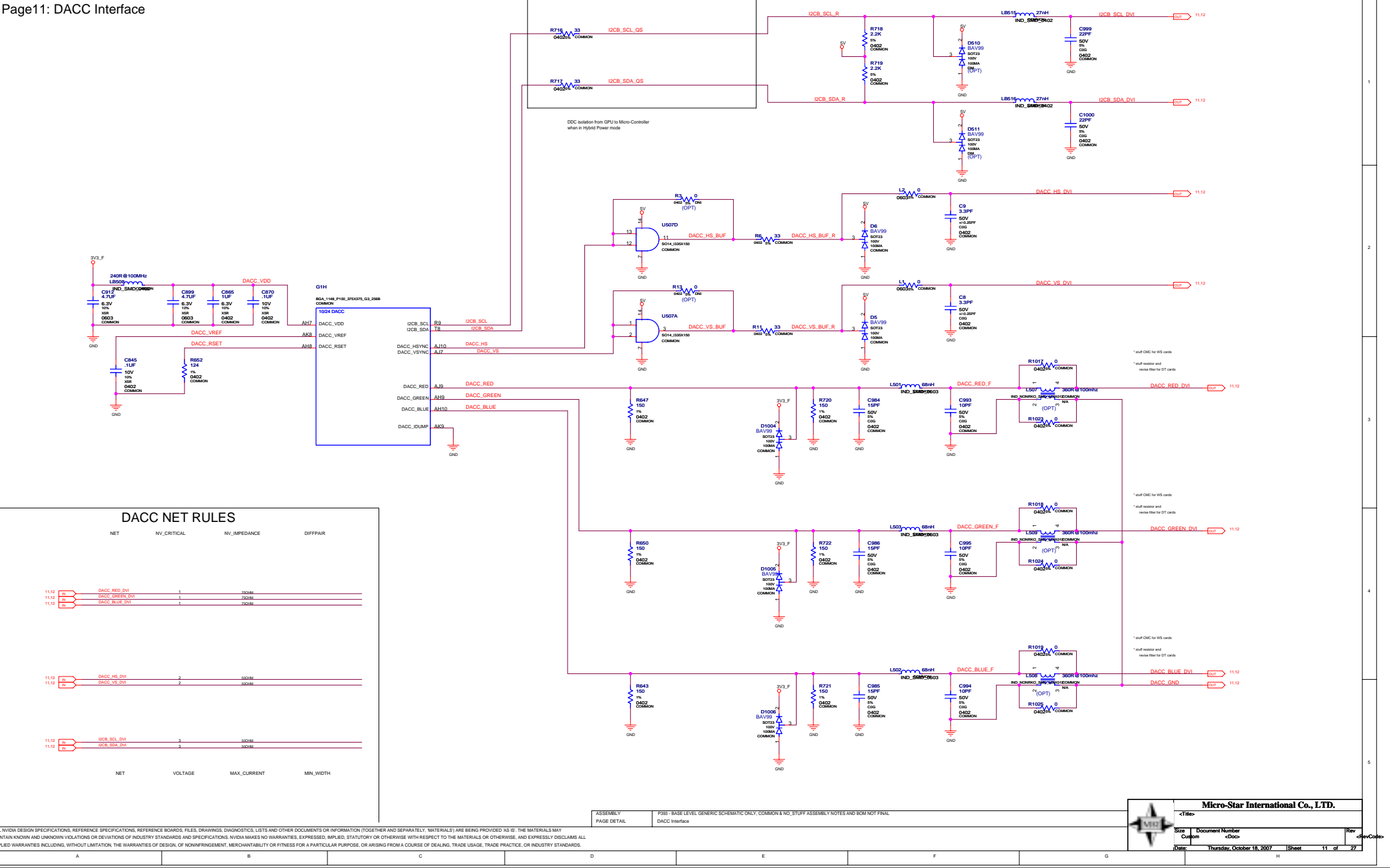


## NET RULES for FrameBuffer C/D

Pin	Symbol	Function	Value	Unit
3	FB_VREF1	Feedback voltage reference 1	1.80V	0.02A 128mV
5	FB_VREF2	Feedback voltage reference 2	1.80V	0.02A 128mV

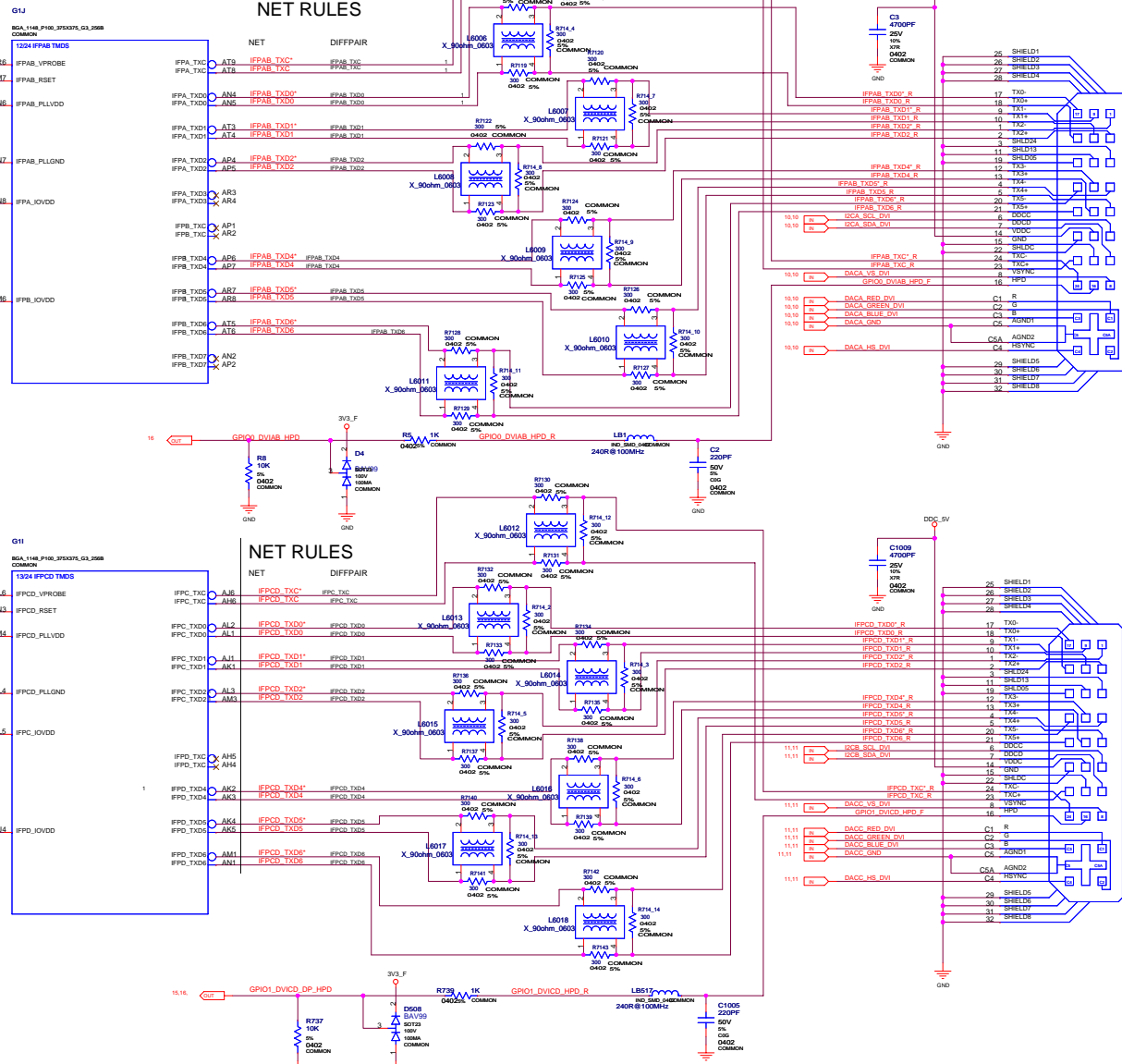
Pin	Symbol	Function	Level	Current	Power
0	IN	FBD_VREF0	1.40V	0.02A	128mW
0	IN	FBD_VREF1	1.40V	0.02A	128mW
0	IN	FBD_VREF2	1.40V	0.02A	128mW
0	IN	FBD_VREF3	1.40V	0.02A	128mW
0	IN	FBD_ZQ0	2.0V	0.02A	128mW
0	IN	FBD_ZQ1	2.0V	0.02A	128mW



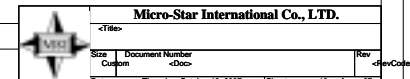


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ASSEMBLY	P393 - BASE LEVEL GENERIC SCHEMATIC ONLY, COMMON & NO. STUFF ASSEMBLY NOTES AND BOM NOT FINAL
PAGE DETAIL	Multi-use IO(MIO) Interface



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Page15: Display Port (Analogix ANX9802/ANX9805)

\* DEC keeper circuit removed

\* ANX9805 support

pin 76 - QP1C3 to DP mode, from pin 13, grounded on ANX9802  
- place QM2 resistor away from ANX device if needed

pin 74 - QP1C3, grounded on ANX9802  
- place QM2 resistor away from ANX device if needed

pin 73 - DEC support via RST and pull-up, grounded on ANX9802  
- place QM2 resistor away from ANX device if needed

pin 71 - SP1D1 - tie to QM2, input select 01 through internal register

pin 70 - SP1D0 - support for Audio input, grounded on ANX9802  
- place QM2 resistor away from ANX device if needed

pin 68 - NC - tie to QM2

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ASSEMBLY  
PAGE DETAIL

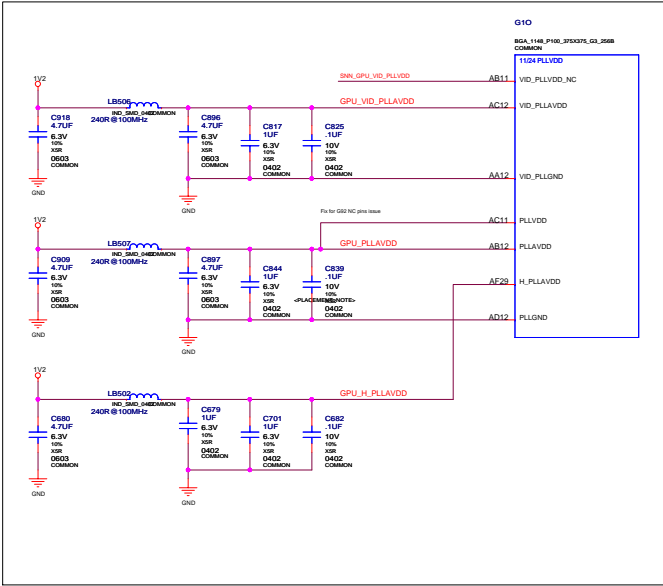
PS15 - BASE LEVEL GENERIC SCHEMATIC ONLY. COMMON & NO. STUFF ASSEMBLY NOTES AND BOM NOT FINAL  
Display Port



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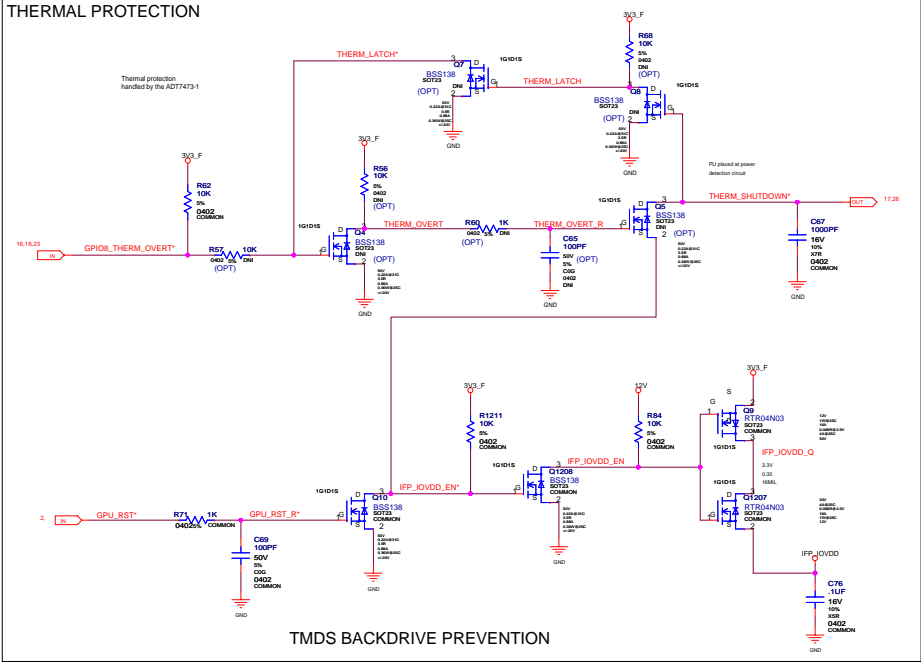
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PLLVD/VID\_PLLVDD



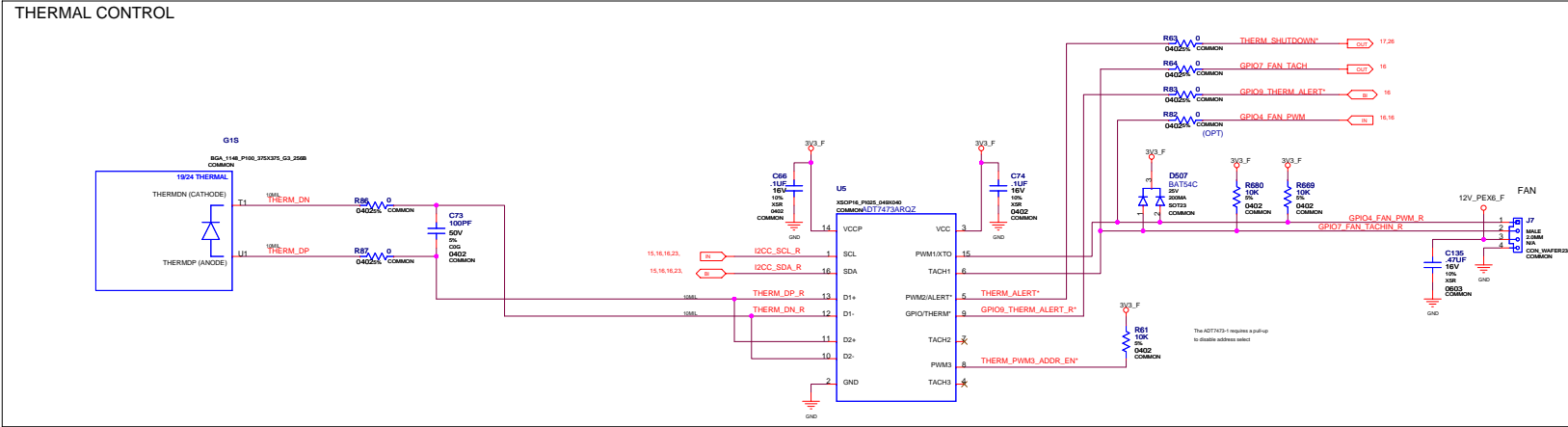


THERMAL PROTECTION

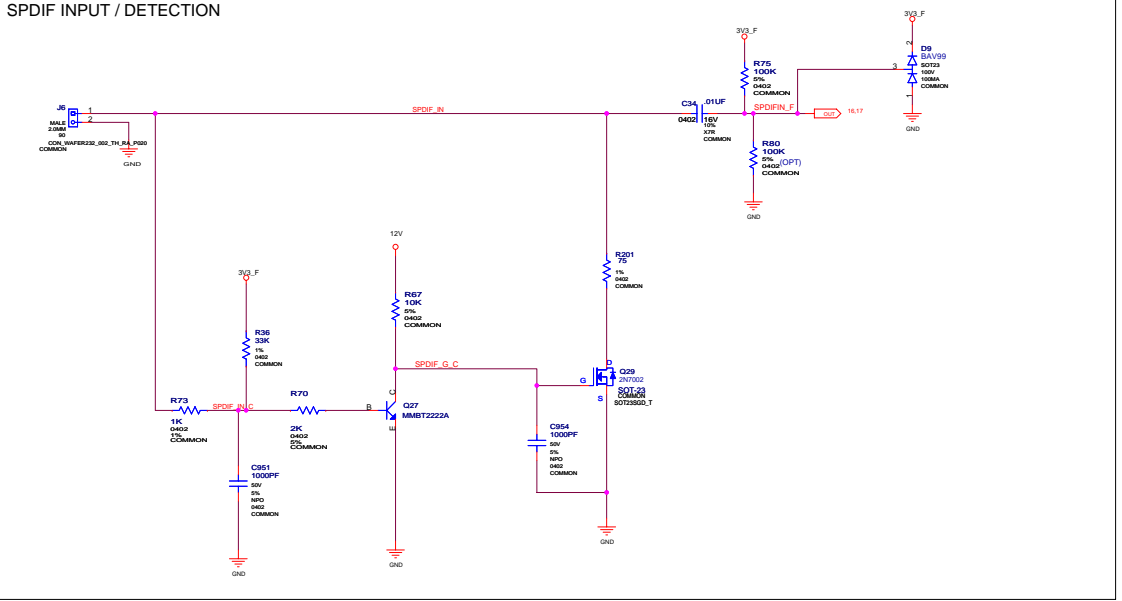


TMD5 BACKDRIVE PREVENTION

THERMAL CONTROL



SPDIF INPUT / DETECTION



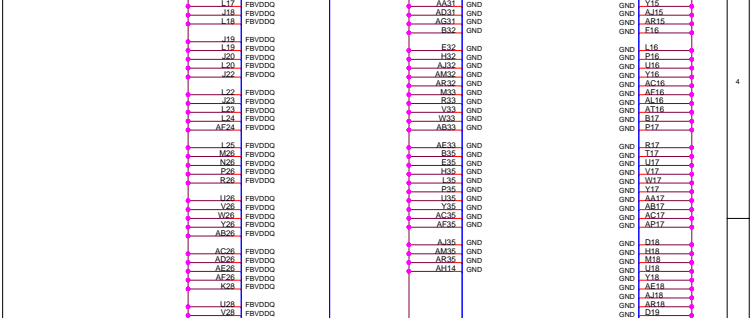
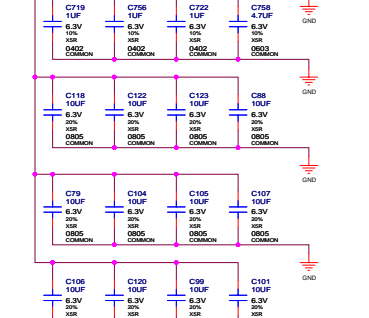
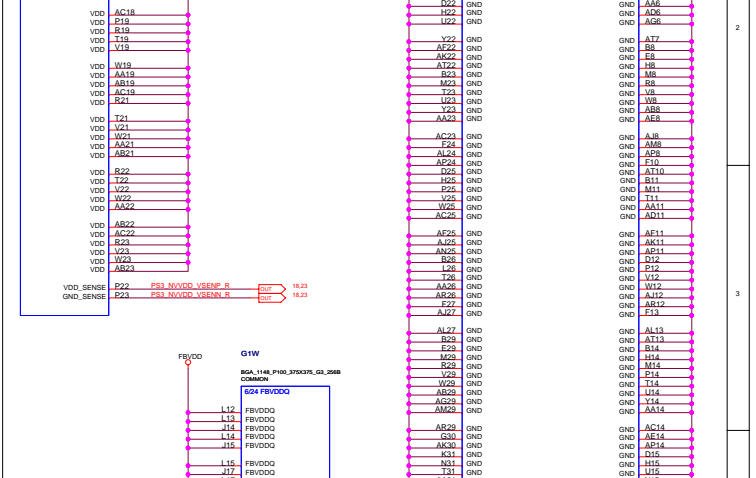
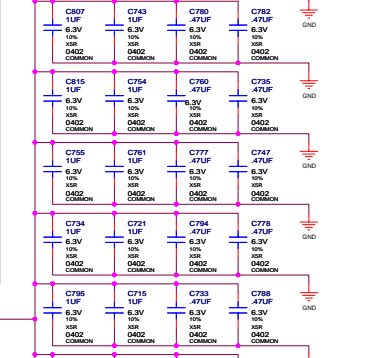
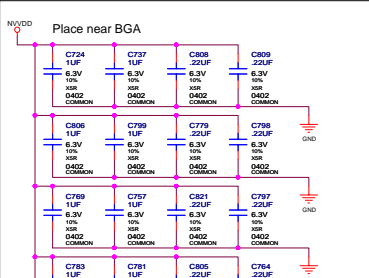
The FAN connector needs to move as follows for mechanical / ID support:  
\* move +43mils in Y  
\* move +33mils in X

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ASSEMBLY PAGE DETAIL  
P301 - BASE LEVEL GENERIC SCHEMATIC ONLY. COMMON & NO. STUFF ASSEMBLY NOTES AND BOM NOT FINAL  
Thermal Control/Protection and SPDIF Input

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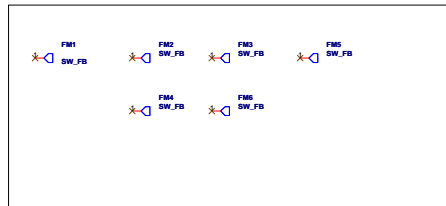
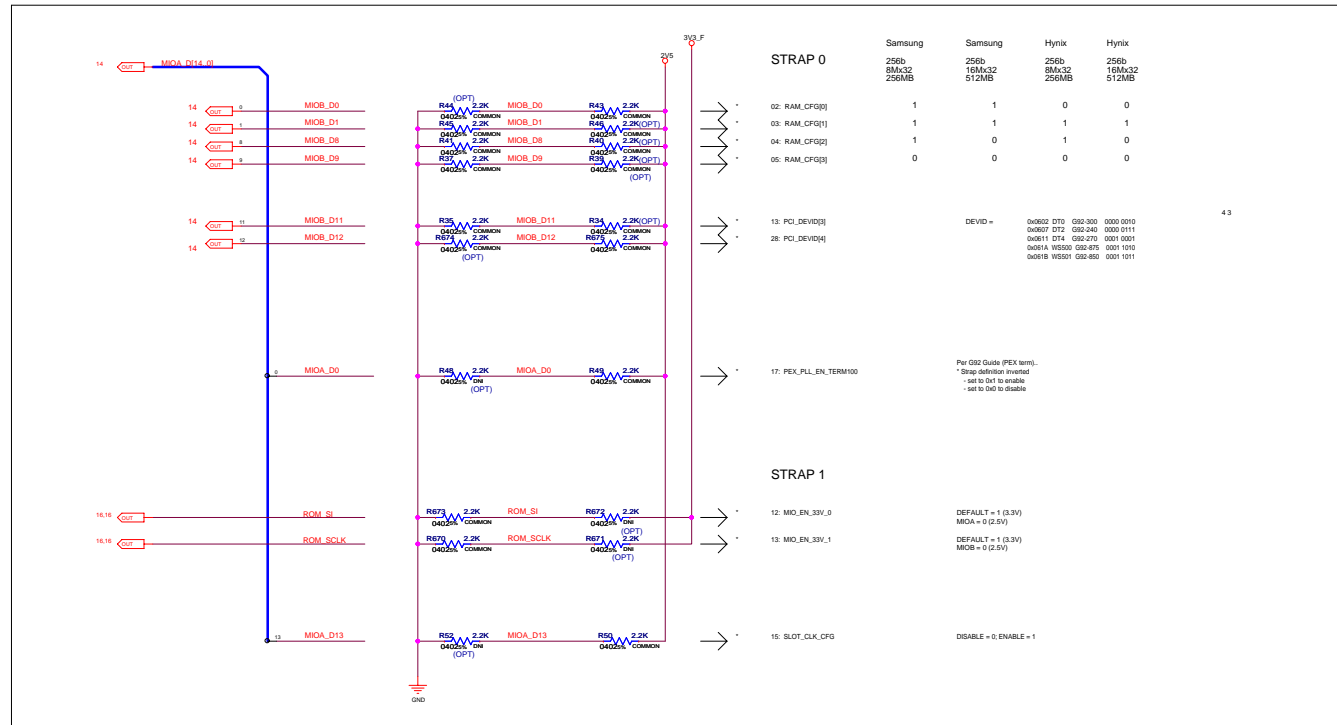
## NVVDD



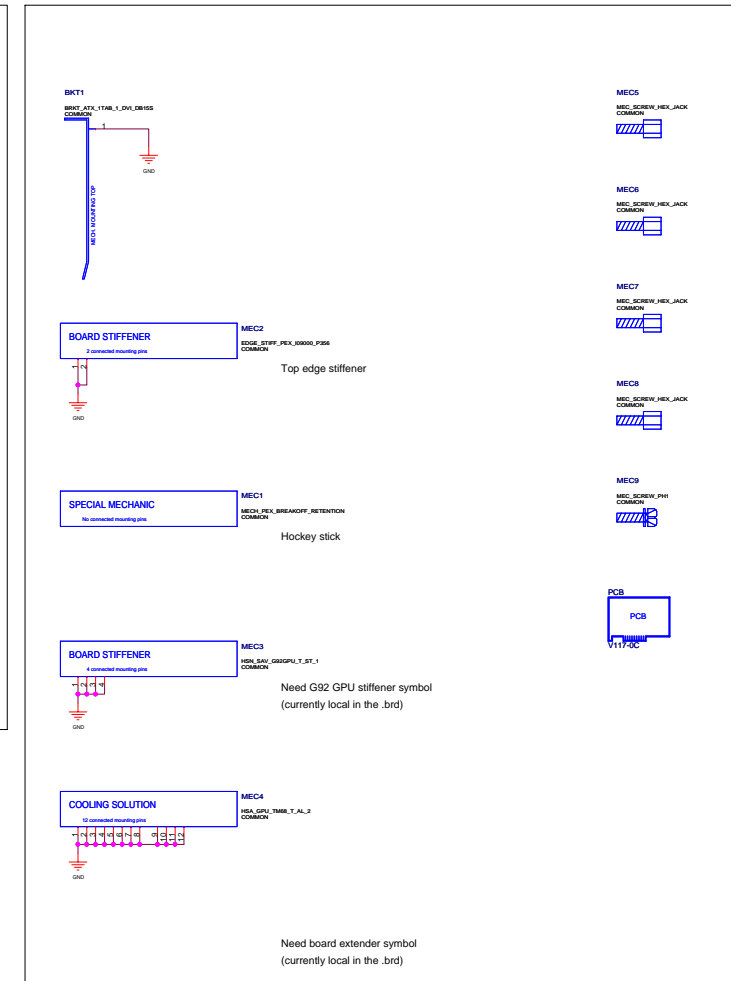
ASSEMBLY	P303 - BASE LEVEL GENERIC SCHEMATIC ONLY, COMMON & NO_STUFF ASSEMBLY NOTES AND BOM NOT FINAL
PAGE DETAIL	Power/GND and Decoupling

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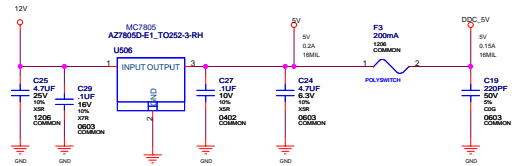
## STRAPS



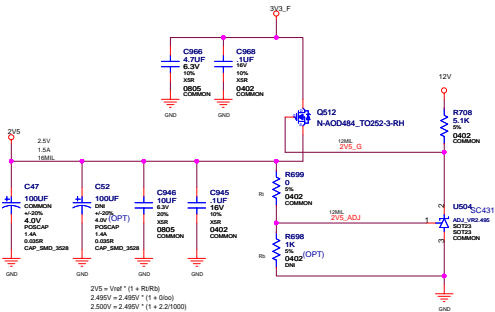
## MECHANICAL



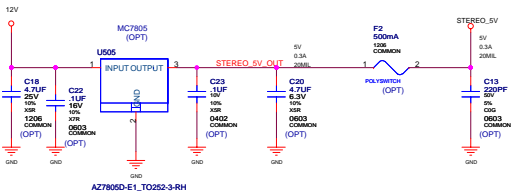
5V and DDC5V Supply



2V5 Supply



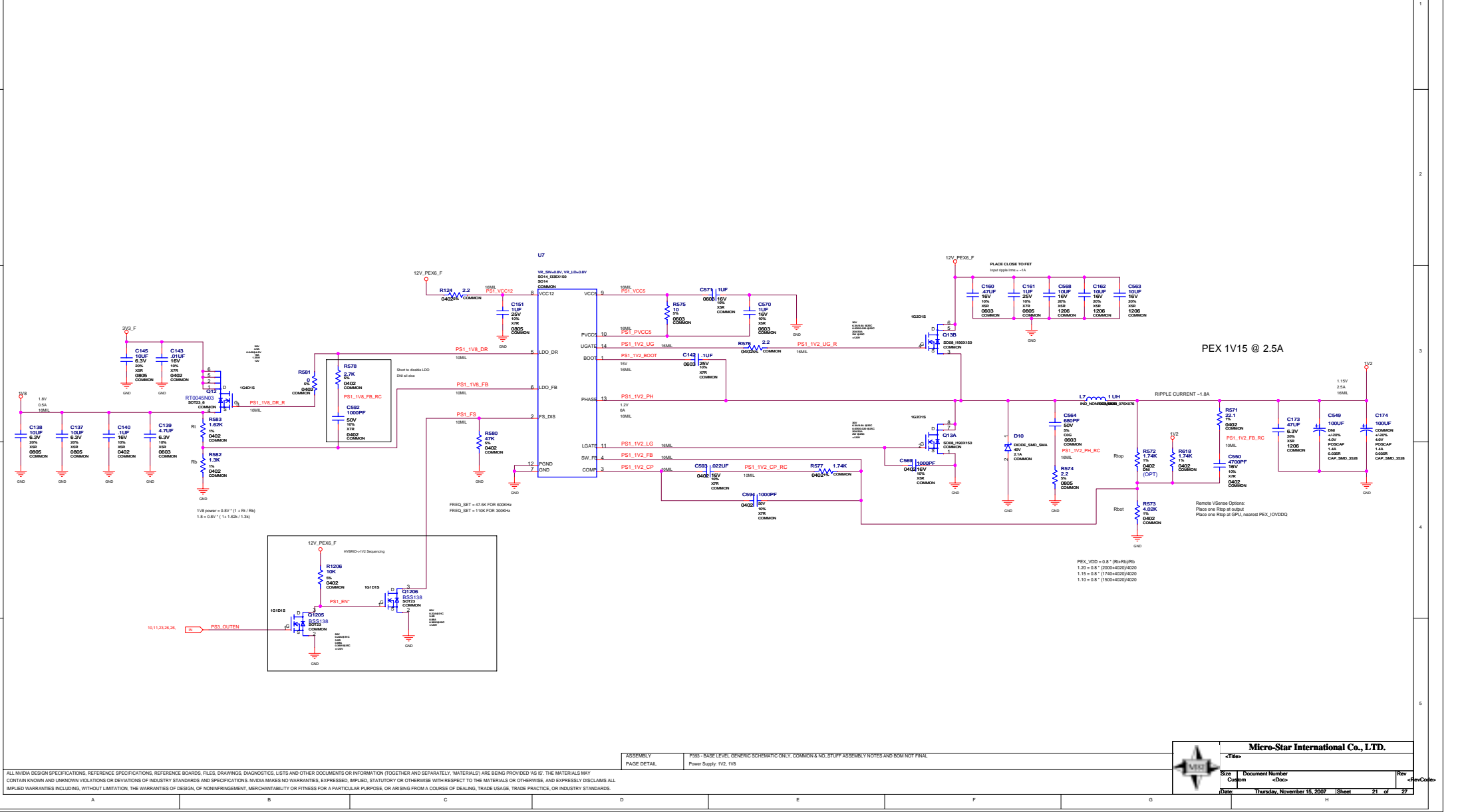
5V STEREO Supply



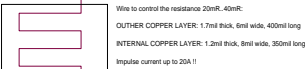
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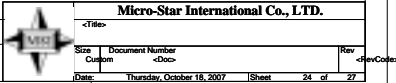
ASSEMBLY PAGE DETAIL P010 - BASE LEVEL GENERIC SCHEMATIC ONLY, COMMON & NO STOP ASSEMBLY NOTES AND BOM NOT FINAL Power Supply 5V, STEREO\_5V, 2V5, DP\_PWR

Micro-Star International Co., LTD.			
Title			
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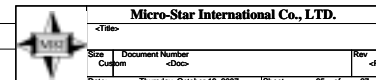


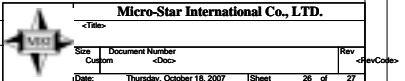




A	B	C	D	E	F	G	H

ASSEMBLY	P393 - BASE LEVEL GENERIC SCHEMATIC ONLY, COMMON & NO_STUFF ASSEMBLY NOTES AND BOM NOT FINAL		MICRO-Star International Co., Ltd.
PAGE DETAIL	Power Supply: NVDD Phase 3		<Title>





Weak pull-ups needed for DCS:  
\* if SMBus is isolated from the GPU  
\* if MB does not support SMBus  
\* if MB does not support 3V3AUX

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ASSEMBLY	PSB - BASE LEVEL GENERIC SCHEMATIC ONLY. COMMON & NO. STUFF ASSEMBLY NOTES AND BOM NOT FINAL
PAGE DETAIL	Power Supply Hybrid Power

Micro-Star International Co., LTD.			
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