

P191-A01 DESIGN

REVISION HISTORY:

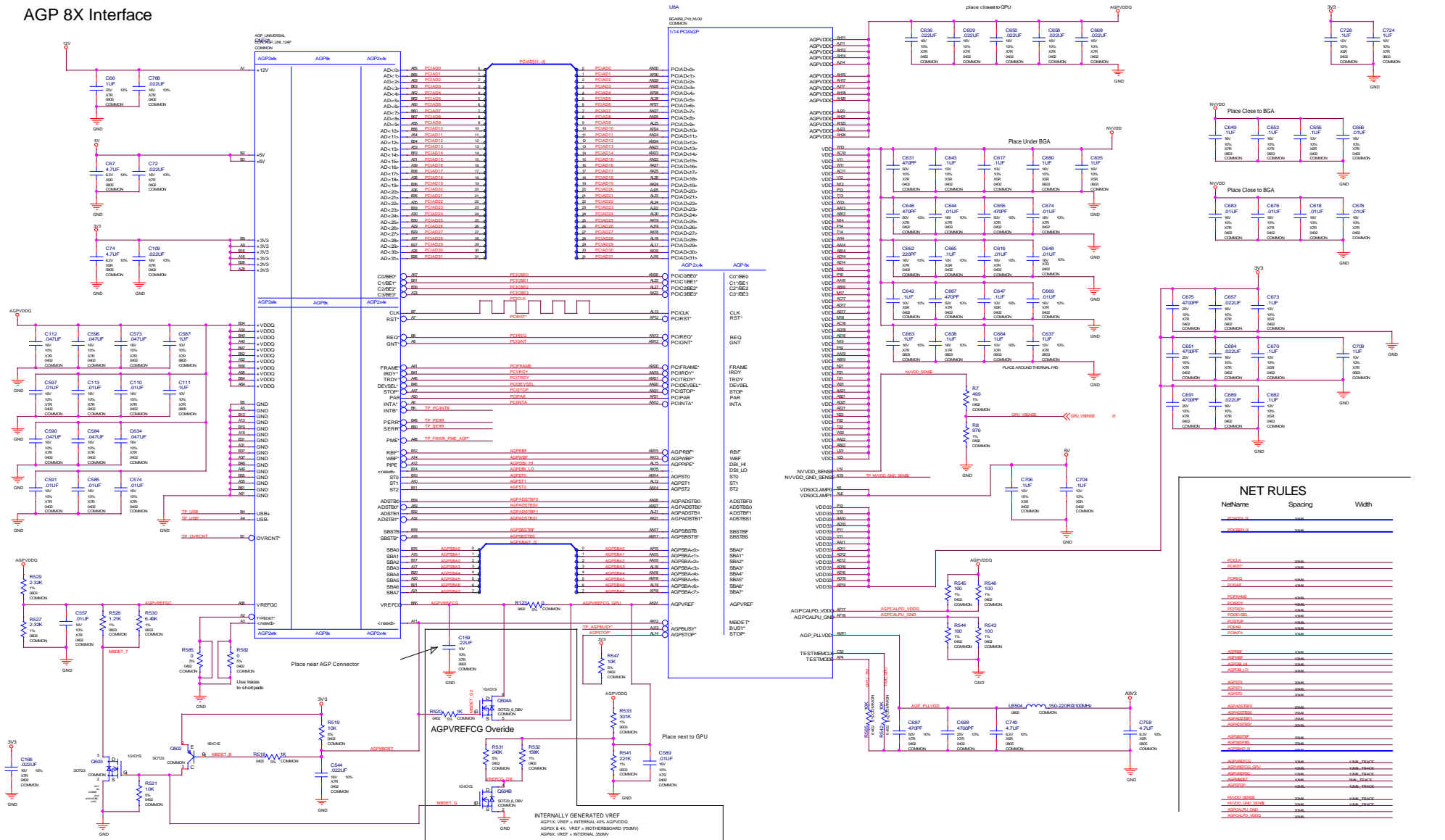
8/22/03: P191 was cloned from P193
8/22/03: Page(S) 4,5,7,8) - Changed Memory termination to FBVTT parrallel and added dec-coupling caps.
8/26/03: Page(S) 22 - FBVDD(Q) power supply was changed from individual (HIP6012) switchers.
8/26/03: to a dual switcher (ISL6225) that generates FBVDD(Q) and FBVTT.
8/26/03: The Linear Sink/Source that generated FVBTT was also removed.
8/26/03: Page 21 - Added 10K pullup to NV_PGOOOD
8/26/03: Page 6 - Added Low pass filter to GPU_VTT
8/27/03: Page 15 - Changed R562 to a 0603 to facilitate routing
8/29/03: Page 21 - Removed C765 and connected U610.12 to U610.17 (NV_SFTSTRT)
9/03/03: Page 21 - Added Schmoos two 10K (NO_STUFF) resistors for NVVDD Schmoos circuit.
9/04/03: Page 21 - Added Silent Running
9/04/08: X-Released
9/18/08: Cloned from P191_A00
9/18/03: Pages 2, 21 - Added two resistors for Droop Compensation
9/18/03: Page 12 - Removed Link-B from design
9/18/03: Page 22 - Added test point for FBVTT

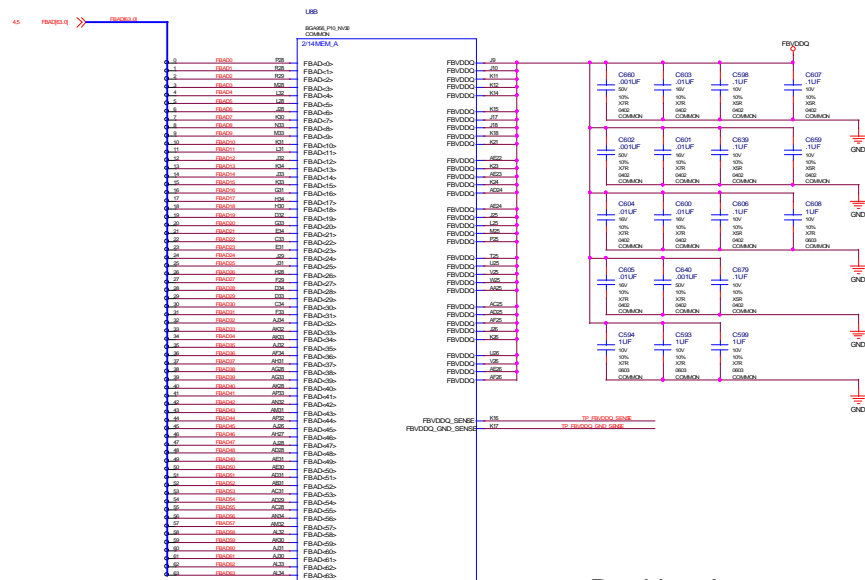
PAGE SUMMARY:

- 1. This page: Page summary, revision history and variant info table
- 2. AGPP/C3
- 3. FBA partition, FBVDDQ decoupling, FBOLLVDD decoupling
- 4. FBA0 qty 2 8Mx16 DDR1 memories,decoupling
- 5. FBA1 qty 2 8Mx16 DDR1 memories,decoupling
- 6. FBC partition, FBVTT, FBICAL
- 7. FBC0 qty 2 8Mx16 DDR1 memories,decoupling
- 8. FBC1 qty 2 8Mx16 DDR1 memories,decoupling
- 9. Ground, Thermal grounds and NCs.
- 10. DACA, DACB, DAC sync buffers, PLL, XTAL
- 11. DACA RGB and EMI filters, DB15 primary slim VGA connector
- 12. Internal TMDS Link A+B, Internal TMDS DVI-I connector
- 13. DACA RGB and EMI filters, DB15 primary slim VGA connector
- 14. Internal TMDS Link C, Internal TMDS DVI-I connector
- 15. NV36 VP, NV36 DVGA
- 16. 7114 video capture
- 17. Mini Din Video In/Out Connector
- 18. 4-pin Video-In, 10-pin Video-In Connector
- 19. BIOS serial ROM, Temperature Sensor, PWM Fan Control.
- 20. Linear Regulators for A3V3, TMSAB_RLVDD, TMSAB_JOVDD
- 21. NVVDD Switcher.
- 22. FBVDDQ Switcher
- 23. FBVDD Switcher
- 24. Strap Configurations

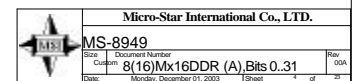
REV	VARIANT	NOTES	ASSEMBLY
0	BASE	602-10191-00000000	BASE LEVEL GENERIC SCHEMATIC ONLY, COMMON & NO STUFF ASSEMBLY NOTES AND ICKA NOT FINAL
1	60019191000000	602-10191-00000000	NV36-LVGA-400X300-128MB-18Mx16-VGA+VCH-DVI
2	60019191000100	602-10191-00010000	NV36-LVGA-400X300-128MB-18Mx16-VGA+VCH-DVI
3	60019191000100	602-10191-00010000	NV36-LVGA-400X300-128MB-18Mx16-VGA+VCH-DVI
4	<UNDEFINED>	<UNDEFINED>	<UNDEFINED>
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AGP 8X Interface

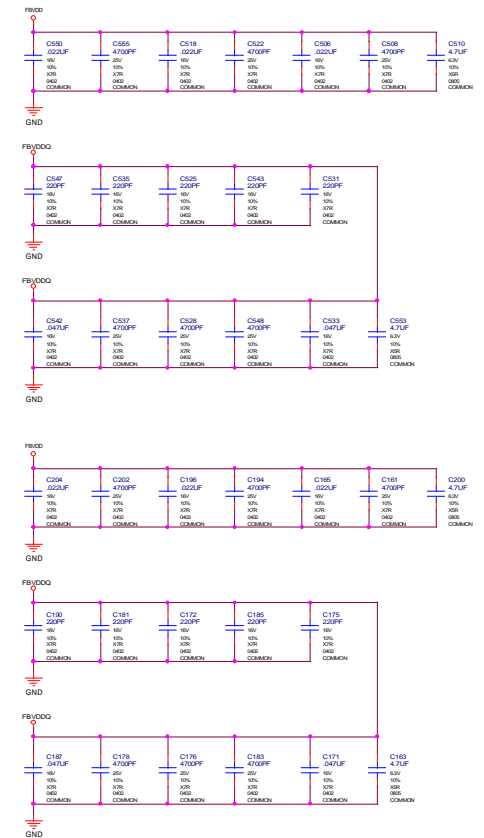
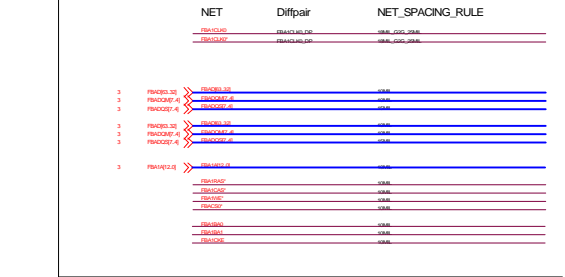
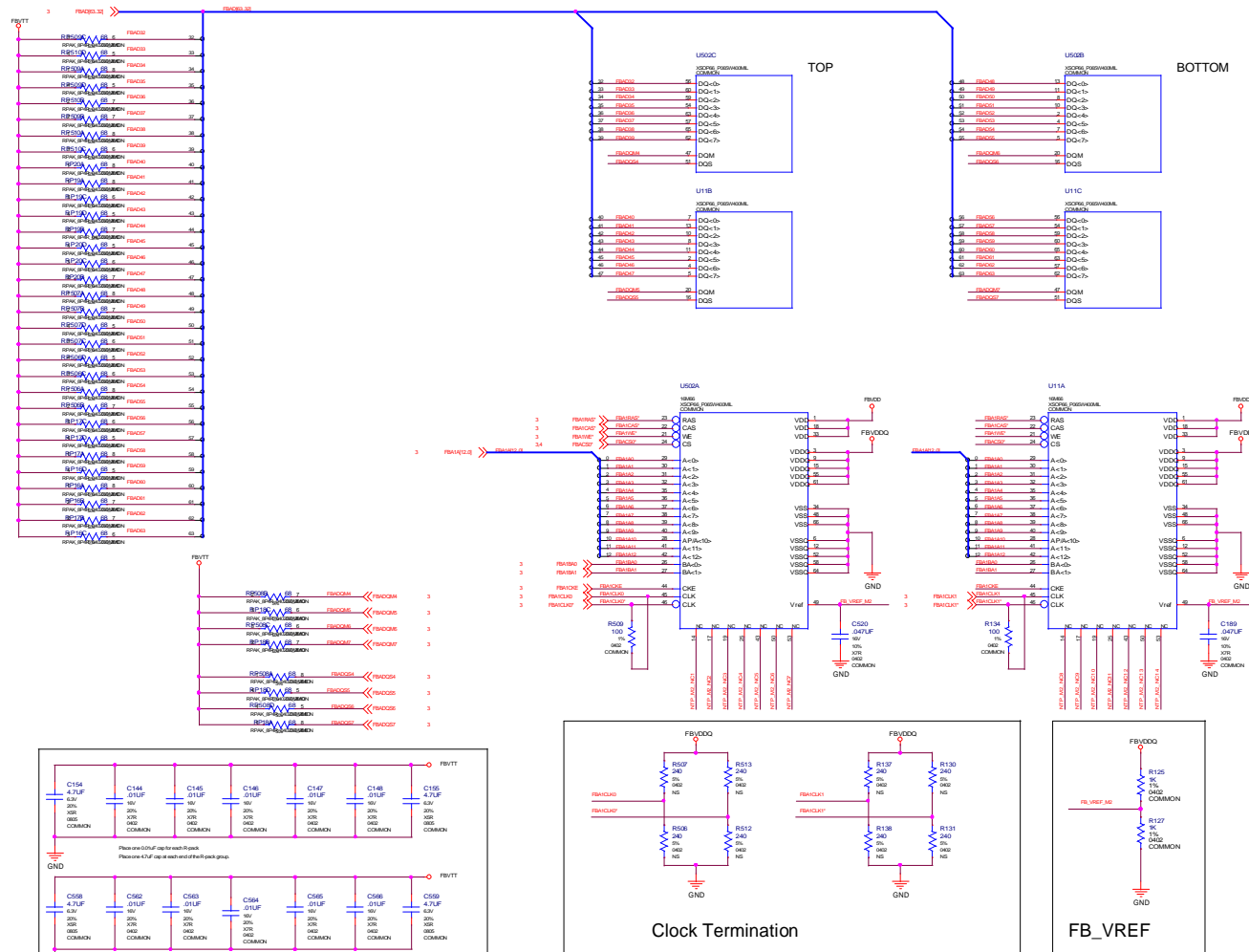


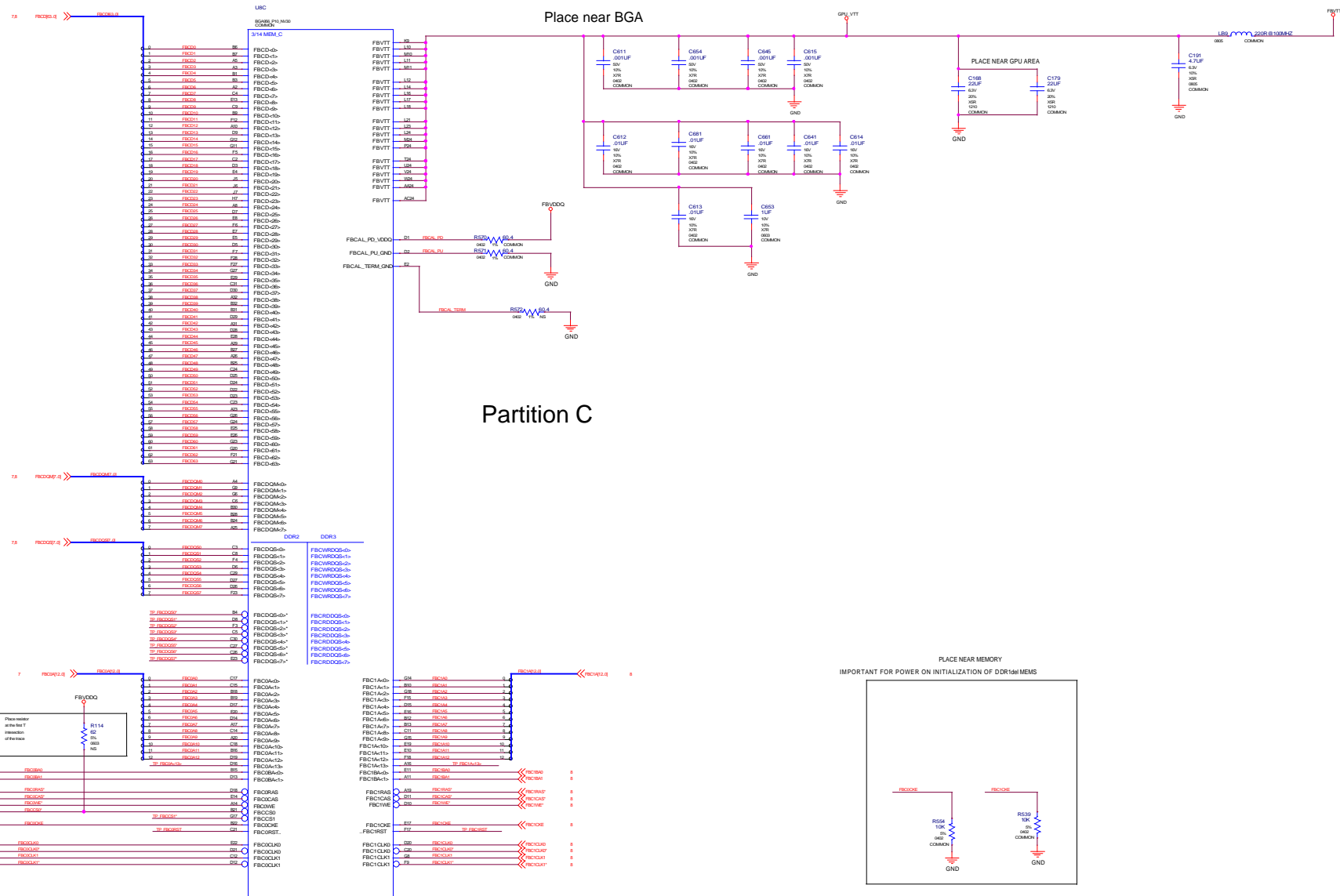


PLACE ALL DISCRETE COMPONENTS AS NEAR AS POSSIBLE TO MEMORY!



PLACE ALL DISCRETE COMPONENTS AS NEAR AS POSSIBLE TO MEMORY!

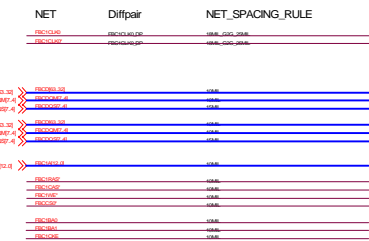


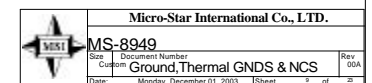
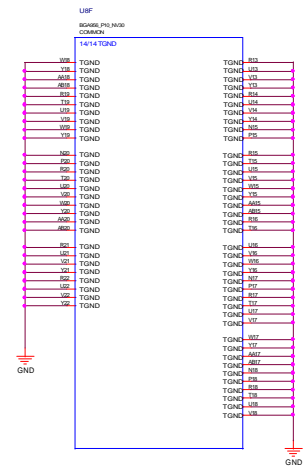


PLACE ALL DISCRETE COMPONENTS AS NEAR AS POSSIBLE TO MEMORY!

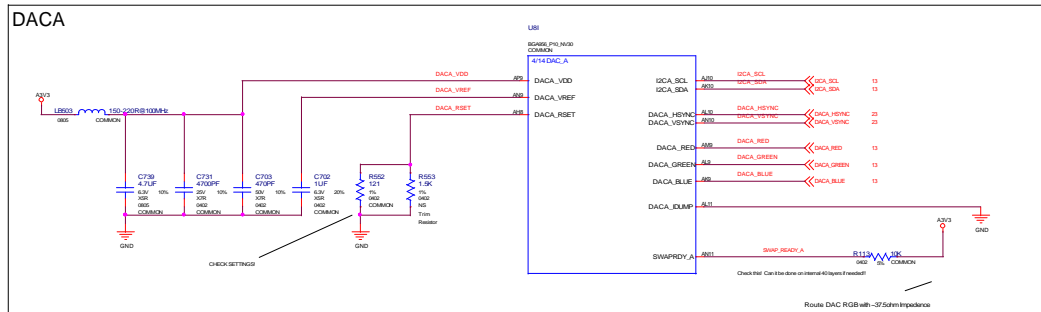


PLACE ALL DISCRETE COMPONENTS AS NEAR AS POSSIBLE TO MEMORY!

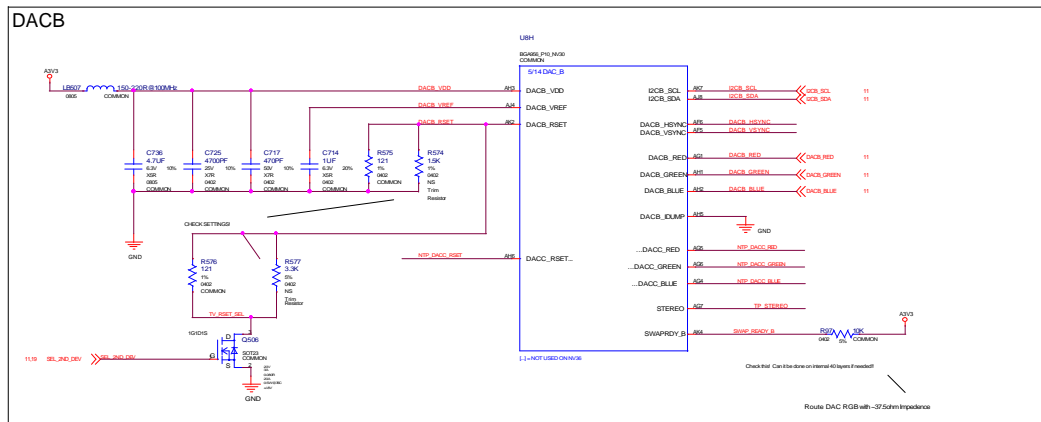




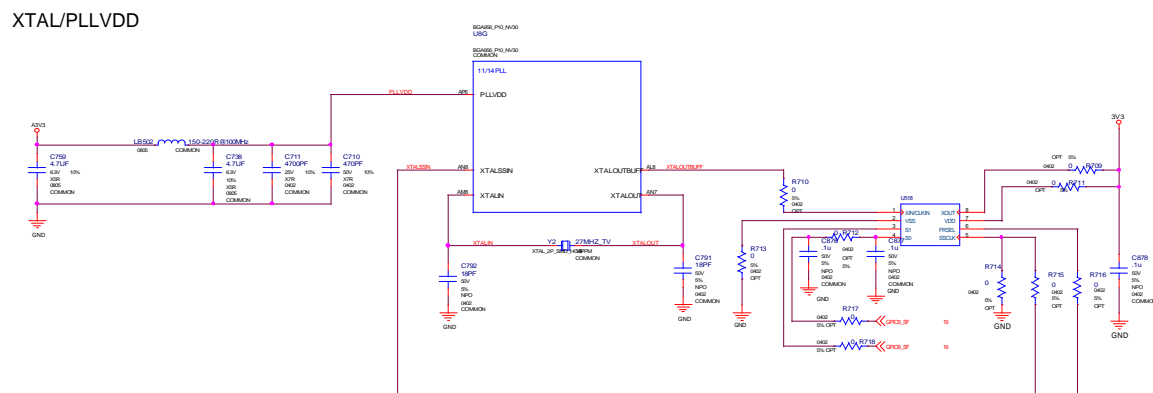
DACA



DACB



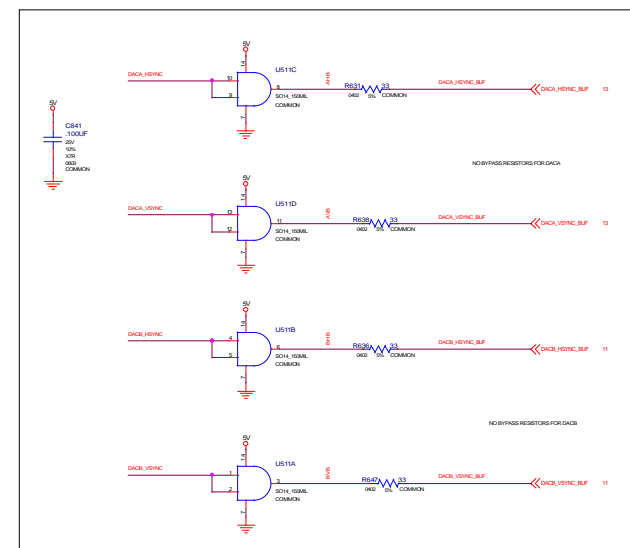
XTAL/PLLVDD



NET RULES

NET_NAME	NET_PHYSICAL_TYPE	NET_SPACING_RULE
<u>WUEN</u>	10M_TRACE	
<u>WUEN2</u>	10M_TRACE	
<u>DACA_VDD</u>	10M_TRACE	
<u>DACA_VDD2</u>	10M_TRACE	
<u>DACA_RST2</u>	10M_TRACE	
<u>DACA_VDD</u>	10M_TRACE	
<u>DACA_VDD2</u>	10M_TRACE	
<u>DACA_RST2</u>	10M_TRACE	
<u>TV_PST_05</u>	10M_TRACE	
<u>FLVDD</u>	10M_TRACE	

DACA & DACB Sync Buffers



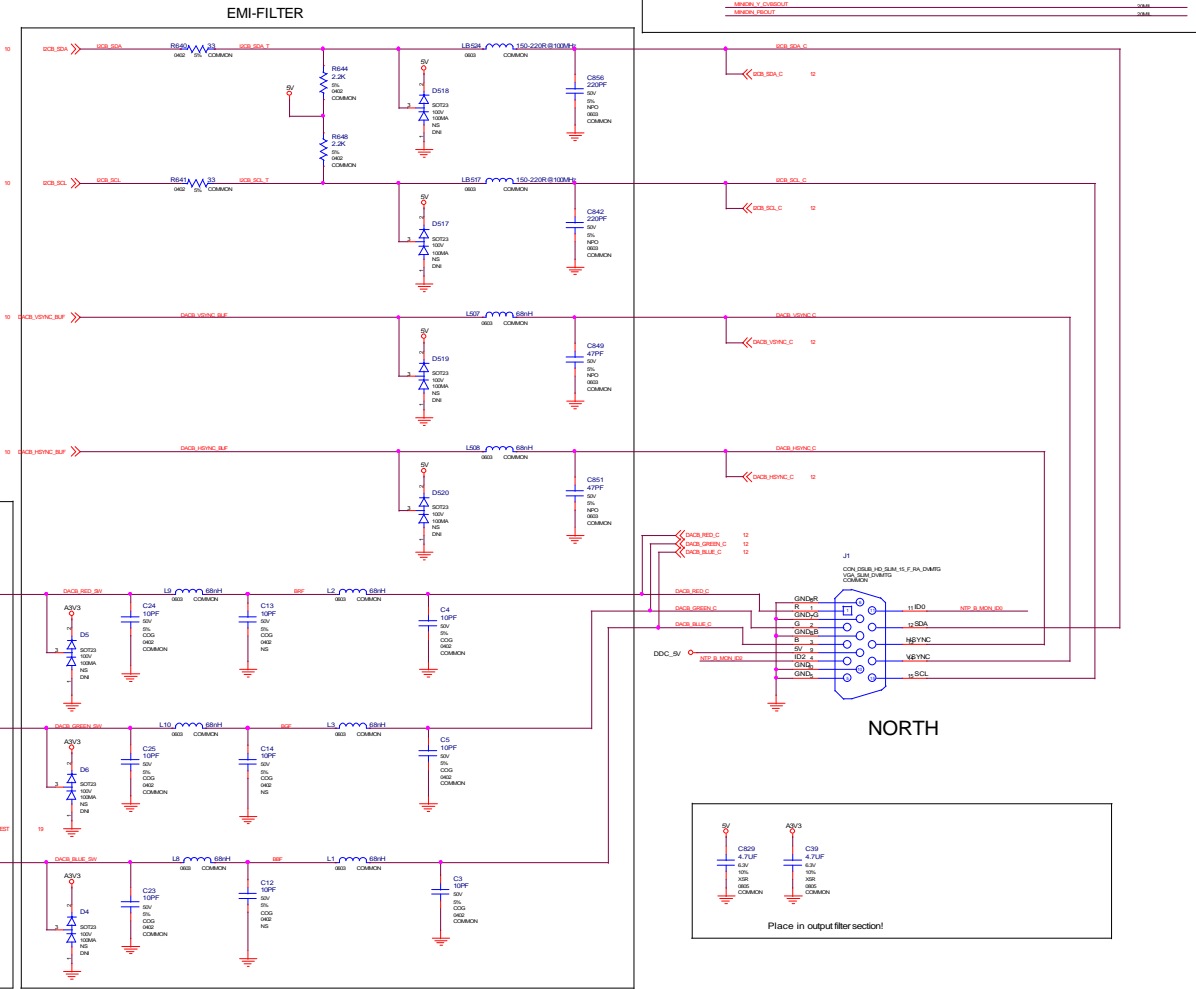
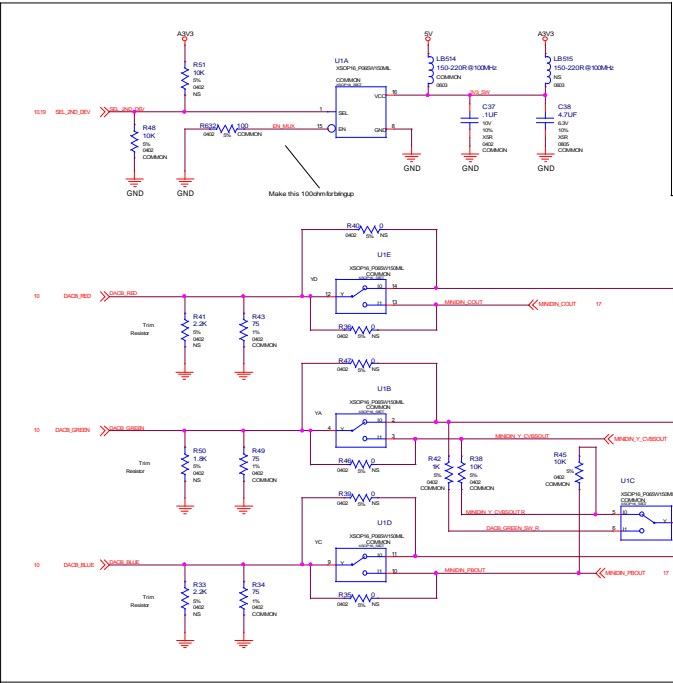
Secondary Display (DACB), Slim DB15

Place all filter components
on the side nearest to the
reference GND plane!

Route all signals only on
layers referenced to GND!

Don't split the reference
GND plane beneath
an RGB signal!

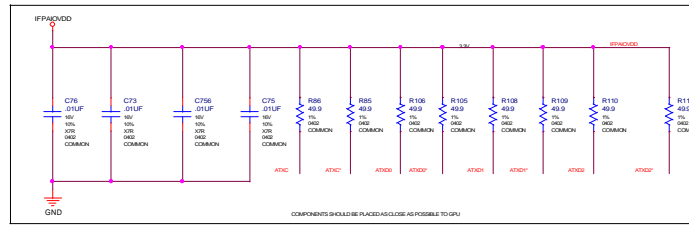
DACB Multiplexer



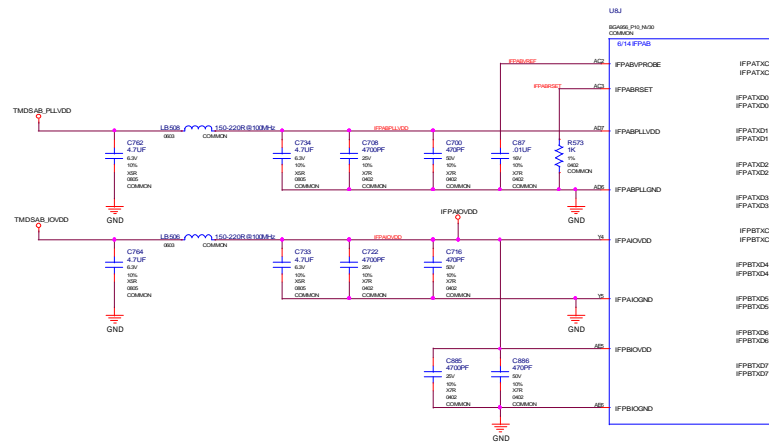
NET_NAME	NET_PHYSICAL_TYPE	IMPEDANCE_RULE	NET_SPACING_RULE
RED			30MIL
RED			30MIL
DACB_RED_C			30MIL
DACB_RED_C			30MIL
DACB_RED_5V			30MIL
DACB_GREEN_5V			30MIL
DACB_BLUE_5V			30MIL
DACB_RED			30MIL
DACB_GREEN			30MIL
DACB_BLUE			30MIL
RED_5V			30MIL
RED_5V			30MIL
RED_5V			30MIL

NORTH

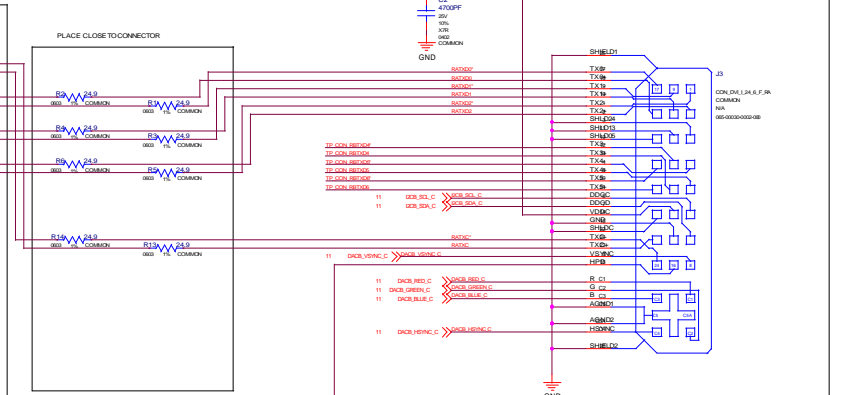
INTERNAL TMDS ..LINK A/B



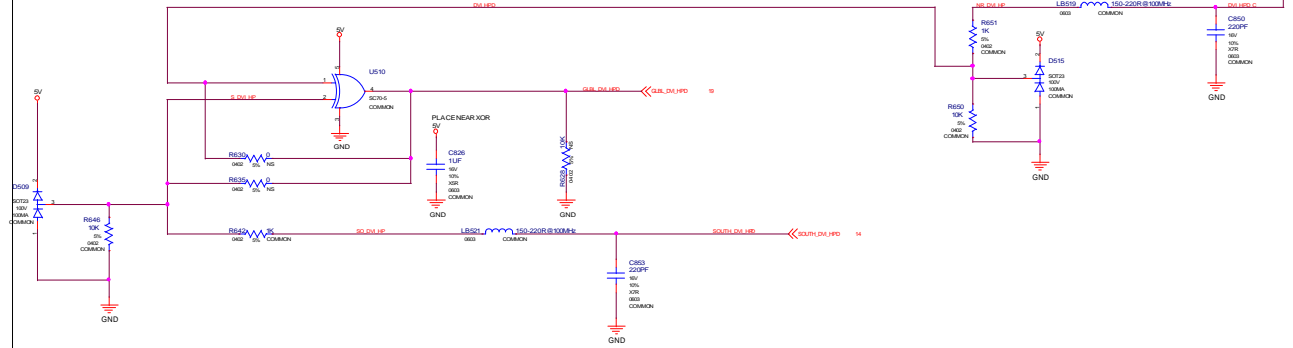
NOTE: NV36 HAS ON DIE PULL UPS ON TMDSLINES. EXTERNAL PULLUPS ADDED(FOR CVA) IN CASE ON DIE CURRENT DRAW IS EXCESSIVE



NETNAME	DEF_PAIR	NET_PHYSICAL_TYPE	SPACING RULE
IFPATX0C	IFPATX0C	TMDSLINK	20MIL_CSD_20MIL
IFPATX0D	IFPATX0D	TMDSLINK	20MIL_CSD_20MIL
IFPATX0E	IFPATX0E	TMDSLINK	20MIL_CSD_20MIL
IFPATX0F	IFPATX0F	TMDSLINK	20MIL_CSD_20MIL
IFPATX0G	IFPATX0G	TMDSLINK	20MIL_CSD_20MIL
IFPATX0H	IFPATX0H	TMDSLINK	20MIL_CSD_20MIL
IFPATX0I	IFPATX0I	TMDSLINK	20MIL_CSD_20MIL
IFPATX0J	IFPATX0J	TMDSLINK	20MIL_CSD_20MIL
IFPATX0K	IFPATX0K	TMDSLINK	20MIL_CSD_20MIL
IFPATX0L	IFPATX0L	TMDSLINK	20MIL_CSD_20MIL
IFPATX0M	IFPATX0M	TMDSLINK	20MIL_CSD_20MIL
IFPATX0N	IFPATX0N	TMDSLINK	20MIL_CSD_20MIL
IFPATX0O	IFPATX0O	TMDSLINK	20MIL_CSD_20MIL
IFPATX0P	IFPATX0P	TMDSLINK	20MIL_CSD_20MIL
IFPATX0Q	IFPATX0Q	TMDSLINK	20MIL_CSD_20MIL
IFPATX0R	IFPATX0R	TMDSLINK	20MIL_CSD_20MIL
IFPATX0S	IFPATX0S	TMDSLINK	20MIL_CSD_20MIL
IFPATX0T	IFPATX0T	TMDSLINK	20MIL_CSD_20MIL
IFPATX0U	IFPATX0U	TMDSLINK	20MIL_CSD_20MIL
IFPATX0V	IFPATX0V	TMDSLINK	20MIL_CSD_20MIL
IFPATX0W	IFPATX0W	TMDSLINK	20MIL_CSD_20MIL
IFPATX0X	IFPATX0X	TMDSLINK	20MIL_CSD_20MIL
IFPATX0Y	IFPATX0Y	TMDSLINK	20MIL_CSD_20MIL
IFPATX0Z	IFPATX0Z	TMDSLINK	20MIL_CSD_20MIL



Hotplug Detection



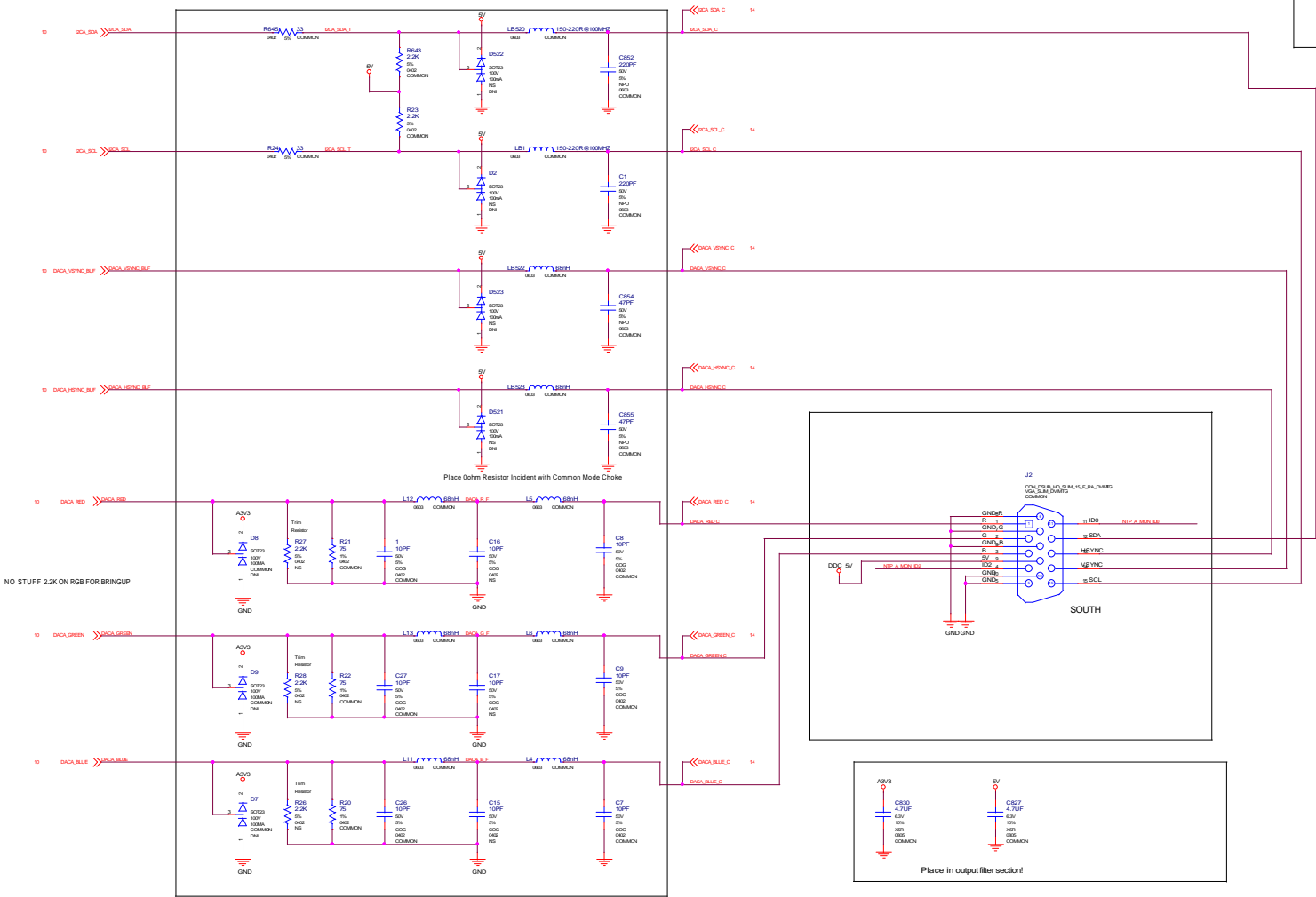
NET	NET_PHYSICAL_TYPE	VOLTAGE
IFPATX0C	TMDSLINK	3.3V
IFPATX0D	TMDSLINK	3.3V
IFPATX0E	TMDSLINK	3.3V
IFPATX0F	TMDSLINK	3.3V
IFPATX0G	TMDSLINK	3.3V
IFPATX0H	TMDSLINK	3.3V
IFPATX0I	TMDSLINK	3.3V
IFPATX0J	TMDSLINK	3.3V
IFPATX0K	TMDSLINK	3.3V
IFPATX0L	TMDSLINK	3.3V
IFPATX0M	TMDSLINK	3.3V
IFPATX0N	TMDSLINK	3.3V
IFPATX0O	TMDSLINK	3.3V
IFPATX0P	TMDSLINK	3.3V
IFPATX0Q	TMDSLINK	3.3V
IFPATX0R	TMDSLINK	3.3V
IFPATX0S	TMDSLINK	3.3V
IFPATX0T	TMDSLINK	3.3V
IFPATX0U	TMDSLINK	3.3V
IFPATX0V	TMDSLINK	3.3V
IFPATX0W	TMDSLINK	3.3V
IFPATX0X	TMDSLINK	3.3V
IFPATX0Y	TMDSLINK	3.3V
IFPATX0Z	TMDSLINK	3.3V

NET	NET_PHYSICAL_TYPE	VOLTAGE
IFPATX0C	TMDSLINK	3.3V
IFPATX0D	TMDSLINK	3.3V
IFPATX0E	TMDSLINK	3.3V
IFPATX0F	TMDSLINK	3.3V
IFPATX0G	TMDSLINK	3.3V
IFPATX0H	TMDSLINK	3.3V
IFPATX0I	TMDSLINK	3.3V
IFPATX0J	TMDSLINK	3.3V
IFPATX0K	TMDSLINK	3.3V
IFPATX0L	TMDSLINK	3.3V
IFPATX0M	TMDSLINK	3.3V
IFPATX0N	TMDSLINK	3.3V
IFPATX0O	TMDSLINK	3.3V
IFPATX0P	TMDSLINK	3.3V
IFPATX0Q	TMDSLINK	3.3V
IFPATX0R	TMDSLINK	3.3V
IFPATX0S	TMDSLINK	3.3V
IFPATX0T	TMDSLINK	3.3V
IFPATX0U	TMDSLINK	3.3V
IFPATX0V	TMDSLINK	3.3V
IFPATX0W	TMDSLINK	3.3V
IFPATX0X	TMDSLINK	3.3V
IFPATX0Y	TMDSLINK	3.3V
IFPATX0Z	TMDSLINK	3.3V

Primary Display (DACA), DB15 SLIM

DACA RGB-FILTER

DACA VGA connector

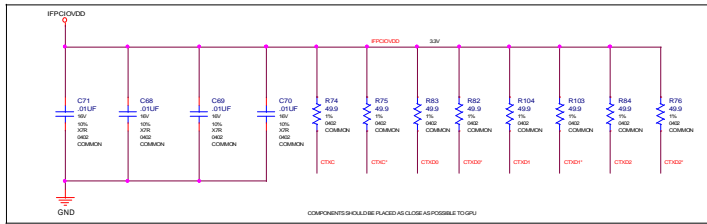


NET_NAME	NET_PHYSICAL_TYPE	IMPEDANCE_RULE	NET_SPACING_RULE
DACA_R.F		200M	
DACA_G.F		200M	
DACA_B.F		200M	
DACA_RED.C		200M	
DACA_GREEN.C		200M	
DACA_BLUE.C		200M	
DACA_RED		200M	
DACA_GREEN		200M	
DACA_BLUE		200M	

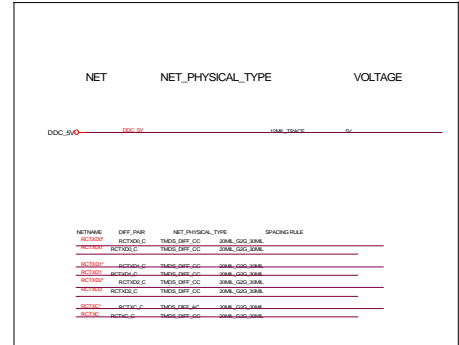
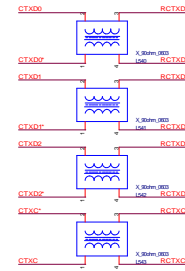
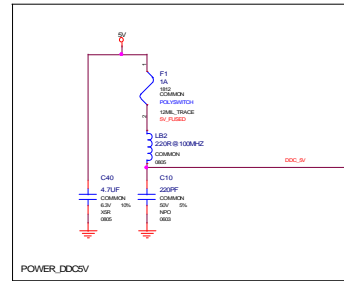
Place all filter components
on the side nearest to the
reference GND plane!

Route all signals only on
layers referenced to GND!

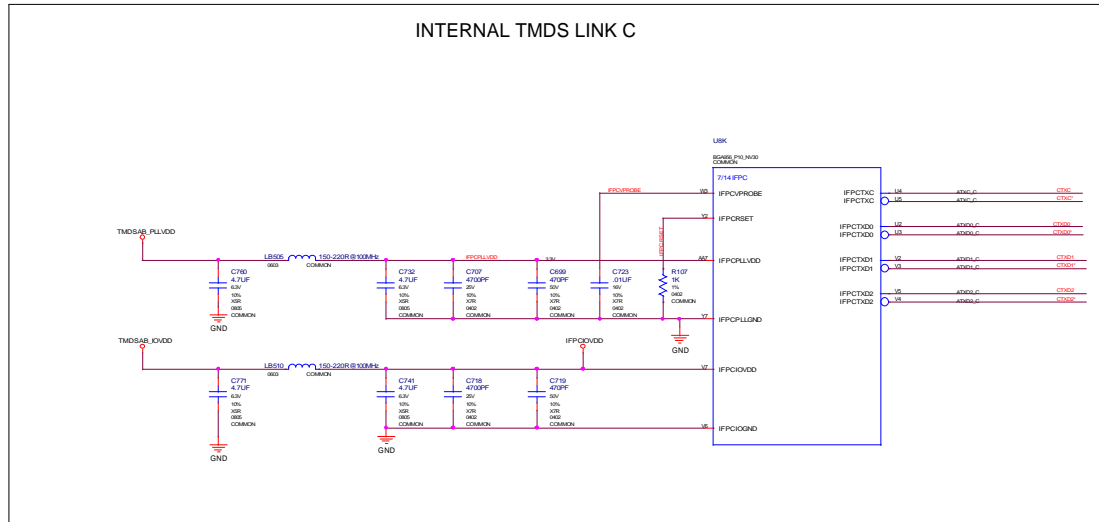
Don't split the reference
GND plane beneath
an RGB signal!



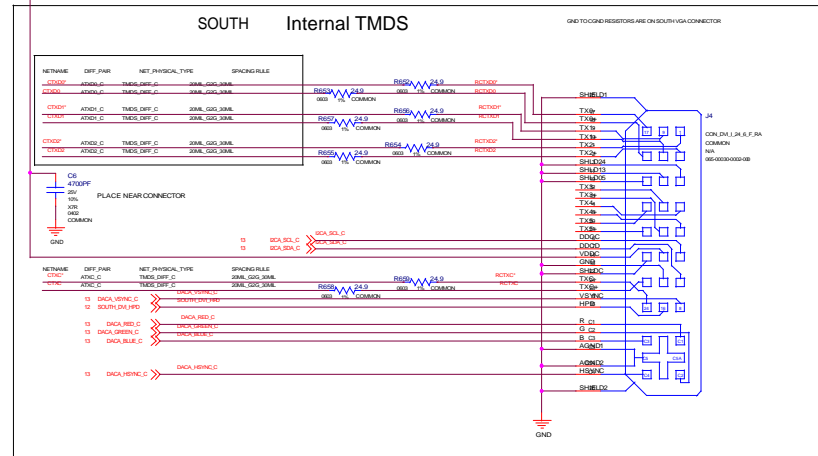
DDC 5V



INTERNAL TMDS LINK C

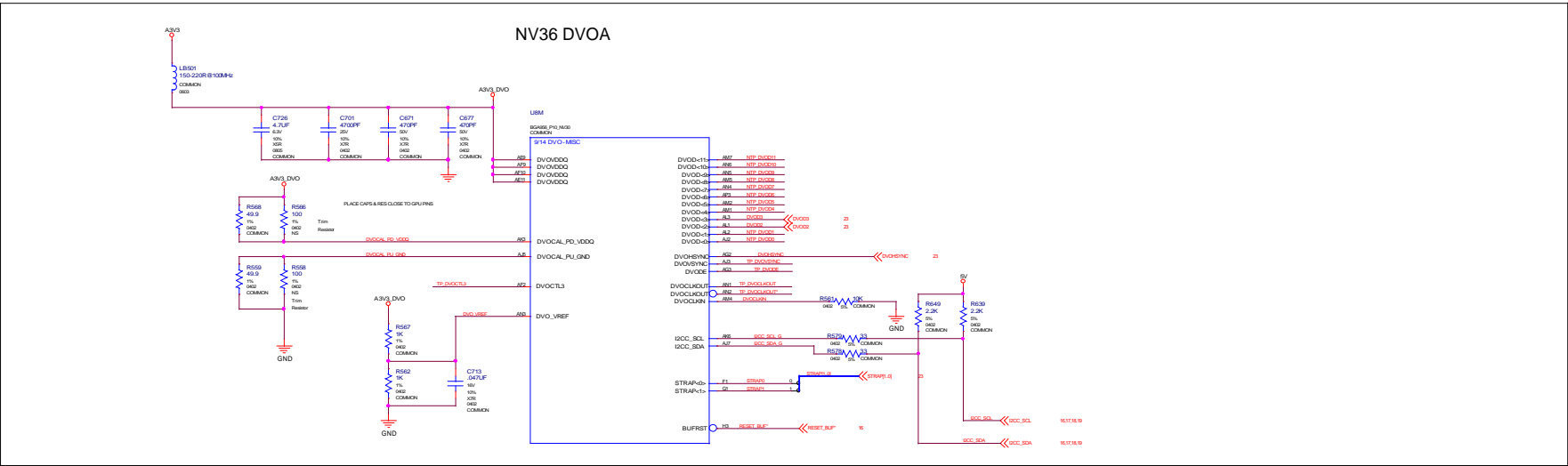


SOUTH Internal TMDS

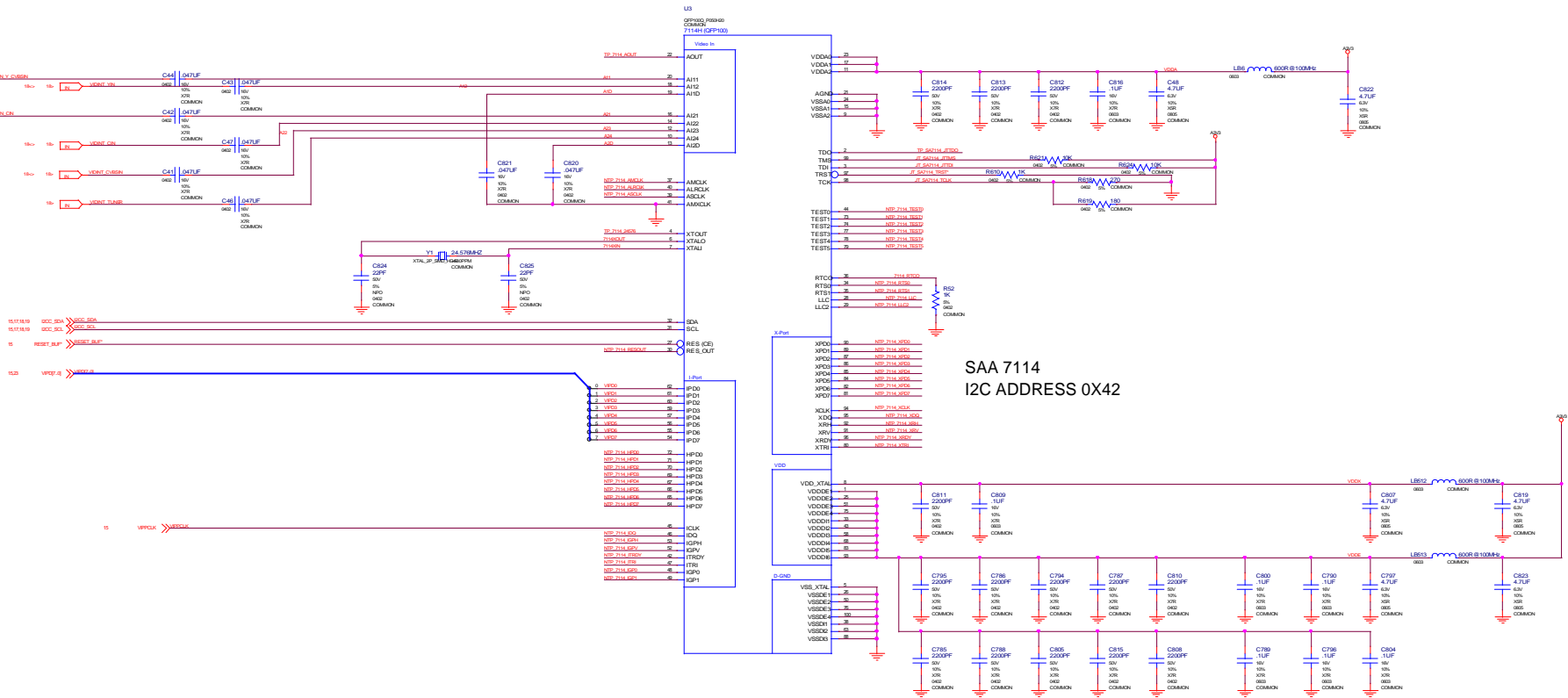


[illegible]

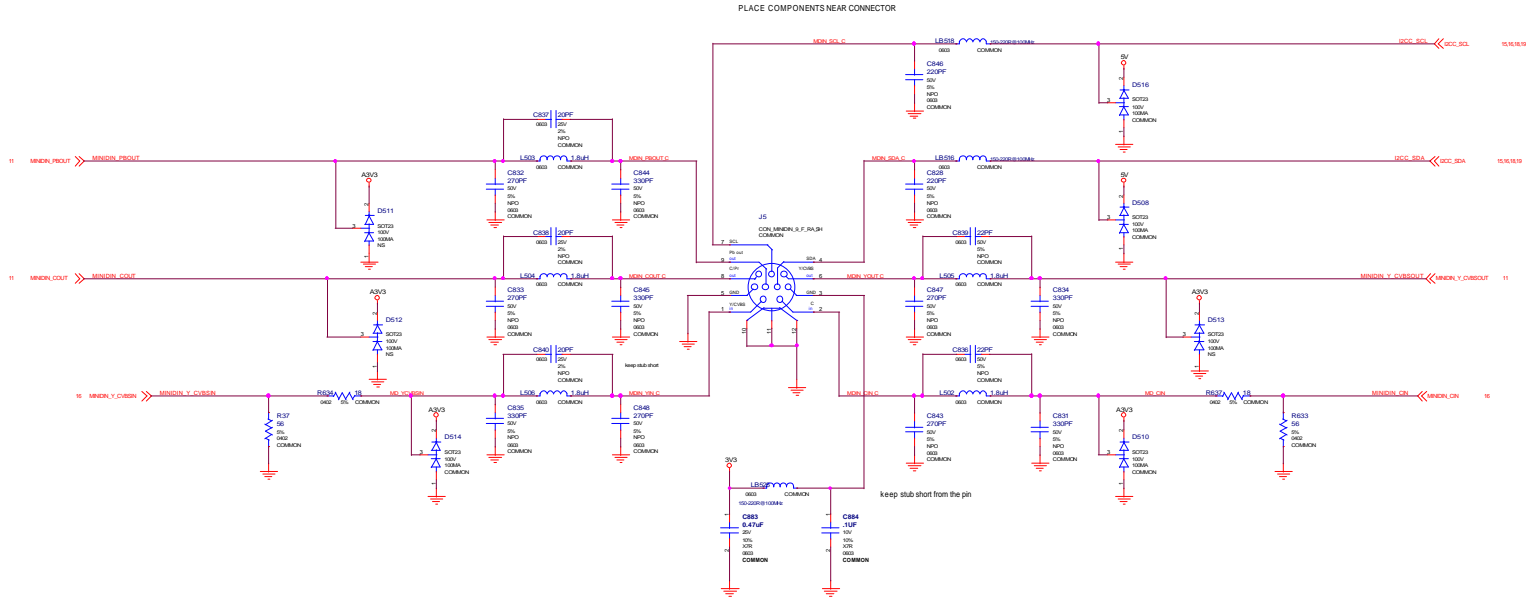
NET	NET_SPACING_RULE
BRIDGE	200k, 600, 100k
SWITCH	200k, 600, 100k
OVERLAPOUT	200k, 600, 100k
OVERLAPIN	200k, 600, 100k



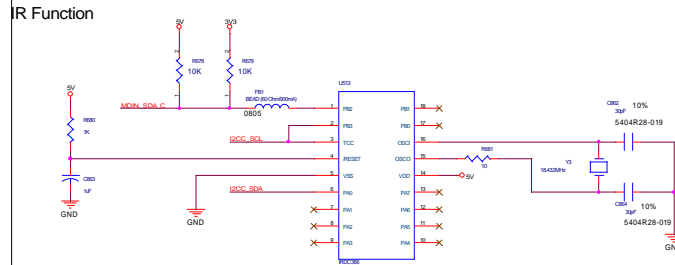
VIDEO CAPTURE

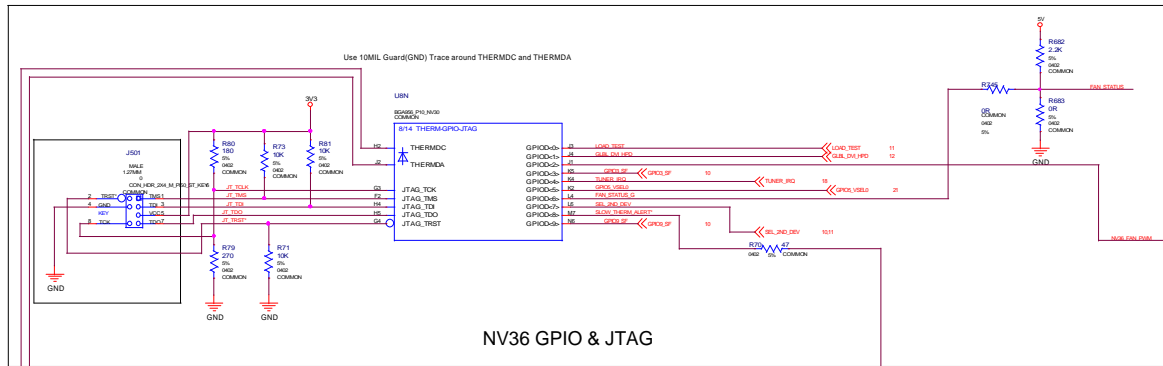


MiniDIN VIDEO IN/OUT CONNECTOR

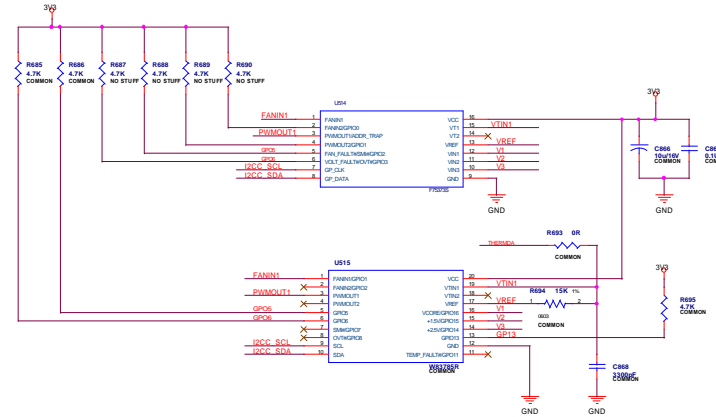
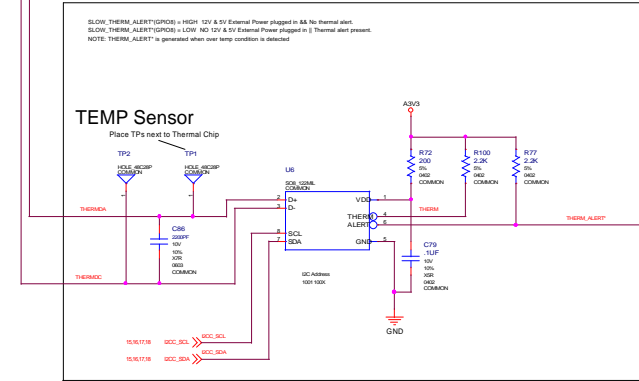
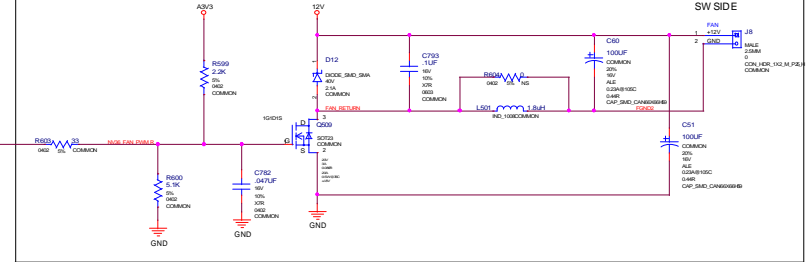


NET_NAME	NET_PHYSICAL_TYPE	IMPEDANCE_RULE	NET_SPACING_RULE
ADDITION_1_CUBES			200M
ADDITION_2_CUBES			200M
ADDITION_3_CUBES			200M
ADDITION_4_CUBES			200M
ADDITION_5_CUBES			200M
ADDITION_6_CUBES			200M
ADDITION_7_CUBES			200M
ADDITION_8_CUBES			200M
ADDITION_9_CUBES			200M
ADDITION_10_CUBES			200M
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ADDITION_102_CUBES			200M
ADDITION_103_CUBES			200M
ADDITION_104_CUBES			200M
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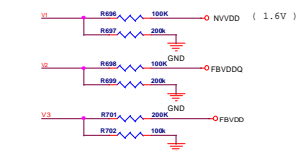




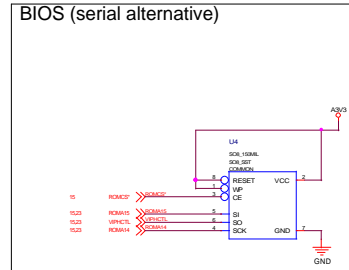
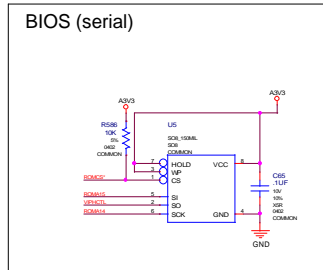
GPIO PWM FAN Control



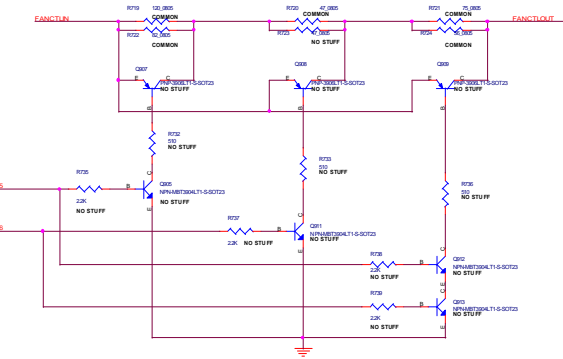
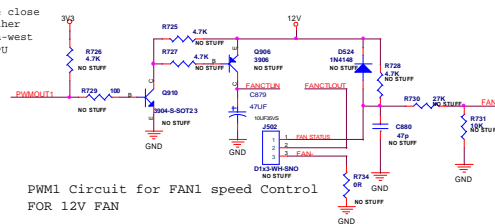
TEMPERATURE SENSING CIRCUIT



VOLTAGE SENSING CIRCUIT



place close
together
south-west
of GPU

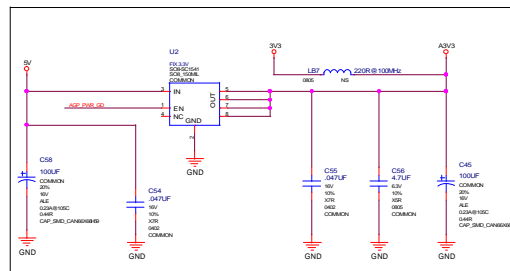


NET NET_PHYSICAL_TYPE VOLTAGE

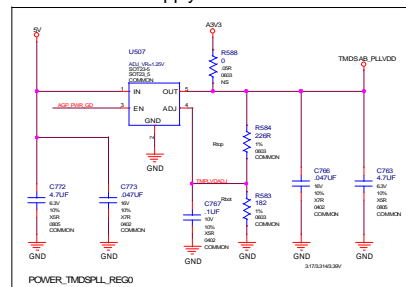
NET NET_PHYSICAL_TYPE

Power Supply ... TMDS/A3V3/FBVDD

ANALOG 3V3



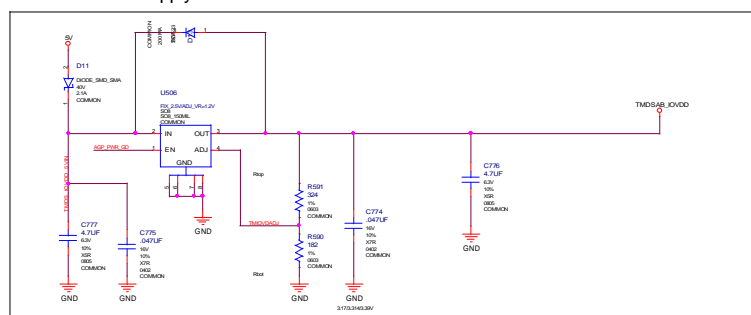
TMDS AB PLL Supply



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

$$2.8V = 1.25V * (1 + (226/182))$$

TMDS AB IO Supply



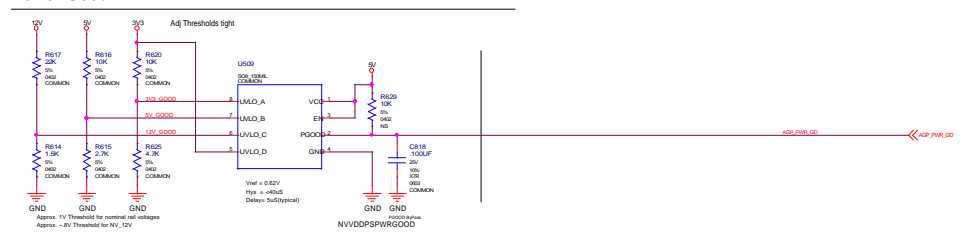
$$V_{out} = V_{Ref} * (1 + R_{top}/R_{bot})$$

$$3.31V = 1.20V * (1 + (324/182))$$

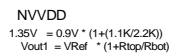
NET RULES

	NET	PHYSICAL	VOLTAGE
A3V0	3V0	GND_TRACE	3.3V
FBVTT0	FBVTT	GND_TRACE	3.3V
FBVDD0	FBVDD	GND_TRACE	1.8V
NVVDD	NVDD	GND_TRACE	1.2V
5V	5V	GND_TRACE	5V
12V	12V	GND_TRACE	12V
3V5	3V5	GND_TRACE	3.3V
AGP_VDD0	AGP_VDDQ	GND_TRACE	3.3V
	GND	GND_TRACE	0V
TMS0AB_PLLVDD	TMS0AB_PLLVDD	GND_TRACE	2.8V
TMS0AB_KVDD0	TMS0AB_KVDD0	GND_TRACE	3.3V
TMS0ABPLL_A0U	TMS0ABPLL_A0U	GND_TRACE	3.3V
TMS0ABPLL_A0V	TMS0ABPLL_A0V	GND_TRACE	3.3V
650V_5V_0V	650V_5V_0V	GND_TRACE	0V
5V1_5V1	5V1_5V1	GND_TRACE	3.3V
5V1_5V1	5V1_5V1	GND_TRACE	3.3V
5V1_5V1	5V1_5V1	GND_TRACE	3.3V
550V_5V1_000P_F0	550V_5V1_000P_F0	GND_TRACE	3.3V
550V_5V1_000P_F0	550V_5V1_000P_F0	GND_TRACE	3.3V
550V_5V1_000P_F0	550V_5V1_000P_F0	GND_TRACE	3.3V
550V_5V1_000P_F0	550V_5V1_000P_F0	GND_TRACE	3.3V
650V_5V1_200P	650V_5V1_200P	GND_TRACE	12V
550V_5V1_000P_F0	550V_5V1_000P_F0	GND_TRACE	12V
550V_5V1_000P_F0	550V_5V1_000P_F0	GND_TRACE	12V
550V_5V1_000P_F0	550V_5V1_000P_F0	GND_TRACE	12V
550V_5V1_000P_F0	550V_5V1_000P_F0	GND_TRACE	12V
650V_5V1_000P_F0	650V_5V1_000P_F0	GND_TRACE	3.3V
550V_5V1_000P_F0	550V_5V1_000P_F0	GND_TRACE	3.3V
550V_5V1_000P_F0	550V_5V1_000P_F0	GND_TRACE	3.3V
550V_5V1_000P_F0	550V_5V1_000P_F0	GND_TRACE	3.3V
650V_5V1_000P_F0	650V_5V1_000P_F0	GND_TRACE	3.3V
550V_5V1_000P_F0	550V_5V1_000P_F0	GND_TRACE	3.3V
550V_5V1_000P_F0	550V_5V1_000P_F0	GND_TRACE	3.3V
550V_5V1_000P_F0	550V_5V1_000P_F0	GND_TRACE	3.3V
650V_5V1_000P_F0	650V_5V1_000P_F0	GND_TRACE	3.3V
550V_5V1_000P_F0	550V_5V1_000P_F0	GND_TRACE	3.3V
550V_5V1_000P_F0	550V_5V1_000P_F0	GND_TRACE	3.3V
550V_5V1_000P_F0	550V_5V1_000P_F0	GND_TRACE	3.3V
650V_5V1_000P_F0	650V_5V1_000P_F0	GND_TRACE	3.3V
550V_5V1_000P_F0	550V_5V1_000P_F0	GND_TRACE	3.3V
550V_5V1_000P_F0	550V_5V1_000P_F0	GND_TRACE	3.3V
550V_5V1_000P_F0	550V_5V1_000P_F0	GND_TRACE	3.3V
650V_5V1_000P_F0	650V_5V1_000P_F0	GND_TRACE	3.3V
550V_5V1_000P_F0	550V_5V1_000P_F0	GND_TRACE	3.3V
550V_5V1_000P_F0	550V_5V1_000P_F0	GND_TRACE	3.3V
550V_5V1_000P_F0	550V_5V1_000P_F0	GND_TRACE	3.3V
650V_5V1_000P_F0	650V_5V1_000P_F0	GND_TRACE	3.3V
550V_5V1_000P_F0	550V_5V1_000P_F0	GND_TRACE	3.3V
550V_5V1_000P_F0	550V_5V1_000P_F0	GND_TRACE	3.3V
550V_5V1_000P_F0	550V_5V1_000P_F0	GND_TRACE	3.3V
650V_5V1_000P_F0	650V_5V1_000P_F0	GND_TRACE	3.3V
550V_5V1_000P_F0	550V_5V1_000P_F0	GND_TRACE	3.3V
550V_5V1_000P_F0	550V_5V1_000P_F0	GND_TRACE	3.3V
550V_5V1_000P_F0	550V_5V1_000P_F0	GND_TRACE	3.3V
650V_5V1_000P_F0	650V_5V1_000P_F0	GND_TRACE	3.3V
550V_5V1_000P_F0	550V_5V1_000P_F0	GND_TRACE	3.3V
550V_5V1_000P_F0	550V_5V1_000P_F0	GND_TRACE	3.3V
550V_5V1_000P_F0	550V_5V1_000P_F0	GND_TRACE	3.3V
650V_5V1_000P_F0	650V_5V1_000P_F0	GND_TRACE	3.3V
550V_5V1_000P_F0	550V_5V1_000P_F0	GND_TRACE	3.3V
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550V_5V1_000P_F0	550V_5V1_000P_F0	GND_TRACE	3.3V
550V_5V1_000P_F0	550V_5V1_000P_F0	GND_TRACE	3.3V
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650V_5V1_000P_F0	650V_5V1_000P_F0	GND_TRACE	3.3V
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650V_5V1_000P_F0	650V_5V1_000P_F0	GND_TRACE	3.3V
550V_5V1_000P_F0	550V_5V1_000P_F0	GND_TRACE	3.3V
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550V_5V1_000P_F0	550V_5V1_000P_F0	GND_TRACE	3.3V
650V_5V1_000P_F0	650V_5V1_000P_F0	GND_TRACE	3.3V
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550V_5V1_000P_F0	550V_5V1_000P_F0	GND_TRACE	3.3V
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550V_5V1_000P_F0	550V_5V1_000P_F0	GND_TRACE	3.3V
650V_5V1_000P_F0	650V_5V1_000P_F0	GND_TRACE	3.3V
550V_5V1_000P_F0	550V_5V1_000P_F0	GND_TRACE	3.3V
550V_5V1_000P_F0	550V_5V1_000P_F0	GND_TRACE	3.3V
550V_5V1_000P_F0	550V_5V1_000P_F0	GND_TRACE	3.3V
650V_5V1_000P_F0	650V_5V1_000P_F0	GND_TRACE	3.3V
550V_5V1_000P_F0	550V_5V1_000P_F0	GND_TRACE	3.3V
550V_5V1_000P_F0	550V_5V1_000P_F0	GND_TRACE	3.3V
550V_5V1_000P_F0	550V_5V1_000P_F0	GND_TRACE	3.3V
650V_5V1_000P_F0	650V_5V1_000P_F0	GND_TRACE	3.3V
550V_5V1_000P_F0	550V_5V1_000P_F0	GND_TRACE	3.3V
550V_5V1_000P_F0	550V_5V1_000P_F0	GND_TRACE	3.3V
550V_5V1_000P_F0	550V_5V1_000P_F0	GND_TRACE	3.3V
650V_5V1_000P_F0	650V_5V1_000P_F0	GND_TRACE	3.3V
550V_5V1_000P_F0	550V_5V1_000P_F0	GND_TRACE	3.3V
550V_5V1_000P_F0	550V_5V1_000P_F0	GND_TRACE	3.3V
550V_5V1_000P_F0	550V_5V1_000P_F0	GND_TRACE	3.3V
650V_5V1_000P_F0	650V_5V1_000P_F0	GND_TRACE	3.3V
550V_5V1_000P_F0	550V_5V1_000P_F0	GND_TRACE	3.3V
550V_5V1_000P_F0	550V_5V1_000P_F0	GND_TRACE	3.3V
550V_5V1_000P_F0	550V_5V1_000P_F0	GND_TRACE	3.3V
650V_5V1_000P_F0	650V_5V1_000P_F0	GND_TRACE	3.3V
550V_5V1_000P_F0	550V_5V1_000P_F0	GND_TRACE	3.3V
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550V_5V1_000P_F0	550V_5V1_000P_F0	GND_TRACE	3.3V
550V_5V1_000P_F0	550V_5V1_000P_F0	GND_TRACE	3.3V
550V_5V1_000P_F0	550V_5V1_000P_F0	GND_TRACE	3.3V
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550V_5V1_000P_F0	550V_5V1_000P_F0	GND_TRACE	3.3V
650V_5V1_000P_F0	650V_5V1_000P_F0	GND_TRACE	3.3V
550V_5V1_000P_F0	550V_5V1_000P_F0	GND_TRACE	3.3V
550V_5V1_000P_F0	550V_5V1_000P_F0	GND_TRACE	3.3V
550V_5V1_000P_F0	550V_5V1_000P_F0	GND_TRACE	3.3V
650V_5V1_000P_F0	650V_5V1_000P_F0	GND_TRACE	3.3V
550V_5V1_000P_F0	550V_5V1_000P_F0	GND_TRACE	3.3V
550V_5V1_000P_F0	550V_5V1_000P_F0	GND_TRACE	3.3V
550V_5V1_000P_F0	550V_5V1_000P_F0	GND_TRACE	3.3V
650V_5V1_000P_F0	650V_5V1_000P_F0	GND_TRACE	3.3V
550V_5V1_000P_F0	550V_5V1_000P_F0	GND_TRACE	3.3V
550V_5V1_000P_F0	550V_5V1_000P_F0	GND_TRACE	3.3V
550V_5V1_000P_F0	550V_5V1_000P_F0	GND_TRACE	3.3V
650V_5V1_000P_F0	650V_5V1_000P_F0	GND_TRACE	3.3V
550V_5V1_000P_F0	550V_5V1_000P_F0	GND_TRACE	3.3V
550V_5V1_000P_F0	550V_5V1_000P_F0	GND_TRACE	3.3V
550V_5V1_000P_F0	550V_5V1_000P_F0	GND_TRACE	3.3V
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550V_5V1_000P_F0	550V_5V1_000P_F0	GND_TRACE	3.3V
650V_5V1_000P_F0	650V_5V1_000P_F0	GND_TRACE	3.3V
550V_5V1_000P_F0	550V_5V1_000P_F0	GND_TRACE	3.3V
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650V_5V1_000P_F0	650V_5V1_000P_F0	GND_TRACE	3.3V
550V_5V1_000P_F0	550V_5V1_000P_F0	GND_TRACE	3.3V
550V_5V1_000P_F0	550V_5V1_000P_F0	GND_TRACE	3.3V
550V_5V1_000P_F0	550V_5V1_000P_F0	GND_TRACE	3.3V
650V_5V1_000P_F0	650V_5V1_000P_F0	GND_TRACE	3.3V
550V_5V1_000P_F0	550V_5V1_000P_F0	GND_TRACE	3.3V
550V_5V1_000P_F0	550V_5V1_000P_F0	GND_TRACE	3.3V
550V_5V1_000P_F0	550V_5V1_000P_F0	GND_TRACE	3.3V
650V_5V1_000P_F0	650V_5V1_000P_F0	GND_TRACE	3.3V
550V_5V1_000P_F0	550V_5V1_000P_F0	GND_TRACE	3.3V
550V_5V1_000P_F0	550V_5V1_000P_F0	GND_TRACE	3.3V
550V_5V1_000P_F0	550V_5V1_000P_F0	GND_TRACE	3.3V
650V_5V1_000P_F0	650V_5V1_000P_F0	GND_TRACE	3.3V
550V_5V1_000P_F0	550V_5V1_000P_F0	GND_TRACE	3.3V
550V_5V1_000P_F0	550V_5V1_000P_F0	GND_TRACE	3.3V
550V_5V1_000P_F0	550V_5V1_000P_F0	GND_TRACE	3.3V
650V_5V1_000P_F0	650V_5V1_000P_F0	GND_TRACE	3.3V
550V_5V1_000P_F0	550V_5V1_		

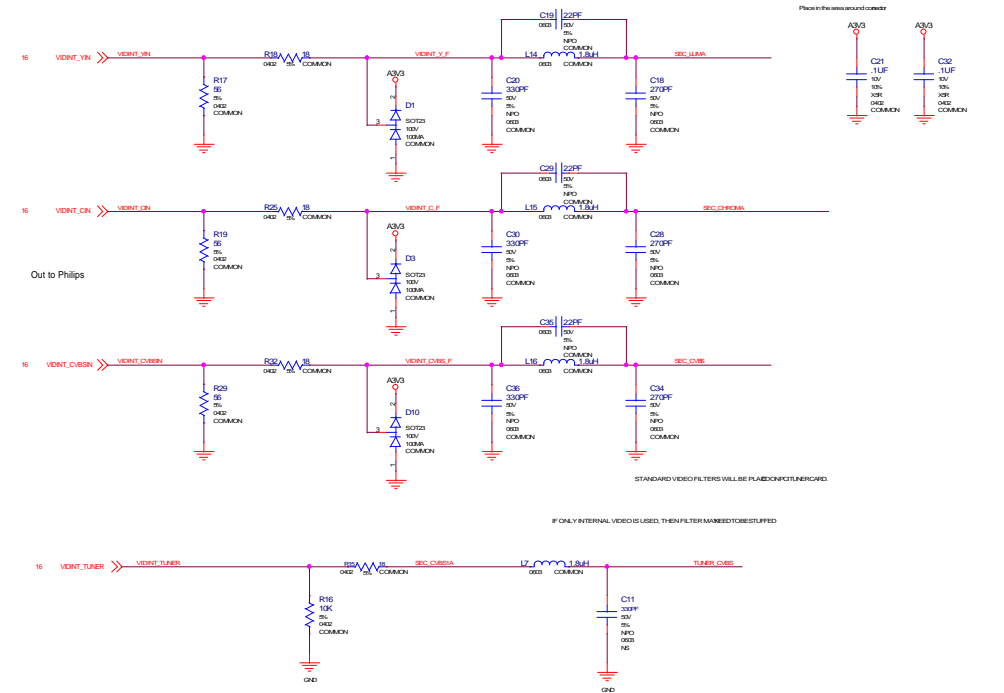
Power Good



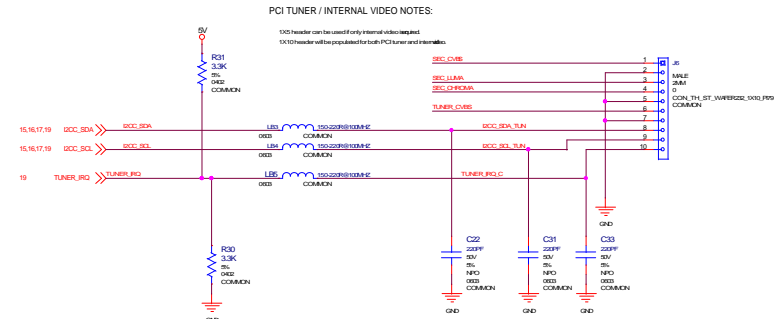
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HW_P005E2	UART_TRACE
HW_P005E3	UART_TRACE
HW_P005E4	UART_TRACE
HW_P005E5	UART_TRACE
HW_P005E6	UART_TRACE
HW_P005E7	UART_TRACE
HW_P005E8	UART_TRACE
HW_P005E9	UART_TRACE
HW_P005EA	UART_TRACE
HW_P005EB	UART_TRACE
HW_P005EC	UART_TRACE
HW_P005ED	UART_TRACE
HW_P005EE	UART_TRACE
HW_P005EF	UART_TRACE
HW_P005F0	UART_TRACE
HW_P005F1	UART_TRACE
HW_P005F2	UART_TRACE
HW_P005F3	UART_TRACE
HW_P005F4	UART_TRACE
HW_P005F5	UART_TRACE
HW_P005F6	UART_TRACE
HW_P005F7	UART_TRACE
HW_P005F8	UART_TRACE
HW_P005F9	UART_TRACE
HW_P005FA	UART_TRACE
HW_P005FB	UART_TRACE
HW_P005FC	UART_TRACE
HW_P005FD	UART_TRACE
HW_P005FE	UART_TRACE
HW_P005FF	UART_TRACE
HW_P00600	UART_TRACE
HW_P00601	UART_TRACE
HW_P00602	UART_TRACE
HW_P00603	UART_TRACE
HW_P00604	UART_TRACE
HW_P00605	UART_TRACE
HW_P00606	UART_TRACE
HW_P00607	UART_TRACE
HW_P00608	UART_TRACE
HW_P00609	UART_TRACE
HW_P0060A	UART_TRACE
HW_P0060B	UART_TRACE
HW_P0060C	UART_TRACE
HW_P0060D	UART_TRACE
HW_P0060E	UART_TRACE
HW_P0060F	UART_TRACE
HW_P00610	UART_TRACE
HW_P00611	UART_TRACE
HW_P00612	UART_TRACE
HW_P00613	UART_TRACE
HW_P00614	UART_TRACE
HW_P00615	UART_TRACE
HW_P00616	UART_TRACE
HW_P00617	UART_TRACE
HW_P00618	UART_TRACE
HW_P00619	UART_TRACE
HW_P0061A	UART_TRACE
HW_P0061B	UART_TRACE
HW_P0061C	UART_TRACE
HW_P0061D	UART_TRACE
HW_P0061E	UART_TRACE
HW_P0061F	UART_TRACE
HW_P00620	UART_TRACE
HW_P00621	UART_TRACE
HW_P00622	UART_TRACE
HW_P00623	UART_TRACE
HW_P00624	UART_TRACE
HW_P00625	UART_TRACE
HW_P00626	UART_TRACE
HW_P00627	UART_TRACE
HW_P00628	UART_TRACE
HW_P00629	UART_TRACE
HW_P0062A	UART_TRACE
HW_P0062B	UART_TRACE
HW_P0062C	UART_TRACE
HW_P0062D	UART_TRACE
HW_P0062E	UART_TRACE
HW_P0062F	UART_TRACE
HW_P00630	UART_TRACE
HW_P00631	UART_TRACE
HW_P00632	UART_TRACE
HW_P00633	UART_TRACE
HW_P00634	UART_TRACE
HW_P00635	UART_TRACE
HW_P00636	UART_TRACE
HW_P00637	UART_TRACE
HW_P00638	UART_TRACE
HW_P00639	UART_TRACE
HW_P0063A	UART_TRACE
HW_P0063B	UART_TRACE
HW_P0063C	UART_TRACE
HW_P0063D	UART_TRACE
HW_P0063E	UART_TRACE
HW_P0063F	UART_TRACE
HW_P00640	UART_TRACE
HW_P00641	UART_TRACE
HW_P00642	UART_TRACE
HW_P00643	UART_TRACE
HW_P00644	UART_TRACE
HW_P00645	UART_TRACE
HW_P00646	UART_TRACE
HW_P00647	UART_TRACE
HW_P00648	UART_TRACE
HW_P00649	UART_TRACE
HW_P0064A	UART_TRACE
HW_P0064B	UART_TRACE
HW_P0064C	UART_TRACE
HW_P0064D	UART_TRACE
HW_P0064E	UART_TRACE
HW_P0064F	UART_TRACE
HW_P00650	UART_TRACE
HW_P00651	UART_TRACE
HW_P00652	UART_TRACE
HW_P00653	UART_TRACE
HW_P00654	UART_TRACE
HW_P00655	UART_TRACE
HW_P00656	UART_TRACE
HW_P00657	UART_TRACE
HW_P00658	UART_TRACE
HW_P00659	UART_TRACE
HW_P0065A	UART_TRACE
HW_P0065B	UART_TRACE
HW_P0065C	UART_TRACE
HW_P0065D	UART_TRACE
HW_P0065E	UART_TRACE
HW_P0065F	UART_TRACE
HW_P00660	UART_TRACE
HW_P00661	UART_TRACE
HW_P00662	UART_TRACE
HW_P00663	UART_TRACE
HW_P00664	UART_TRACE
HW_P00665	UART_TRACE
HW_P00666	UART_TRACE
HW_P00667	UART_TRACE
HW_P00668	UART_TRACE
HW_P00669	UART_TRACE
HW_P0066A	UART_TRACE
HW_P0066B	UART_TRACE
HW_P0066C	UART_TRACE
HW_P0066D	UART_TRACE
HW_P0066E	UART_TRACE
HW_P0066F	UART_TRACE
HW_P00670	UART_TRACE
HW_P00671	UART_TRACE
HW_P00672	UART_TRACE
HW_P0067	



10-pin Video In connectors



EXTERNAL 10-PIN VIDEO IN CONNECTOR



NET	NET_PHYSICAL_TYPE	NET_SPACING_RULE
VERT_VIN	100mil	100mil
VERT_CN	100mil	100mil
VERT_CVBS	100mil	100mil
VERT_TUNER	100mil	100mil
VERT_V_F	100mil	100mil
VERT_G_F	100mil	100mil
VERT_CVBS_F	100mil	100mil
VERT_CVBS_G	100mil	100mil
VERT_CVBS_H	100mil	100mil
VERT_CVBS_I	100mil	100mil
VERT_CVBS_J	100mil	100mil
VERT_CVBS_K	100mil	100mil
VERT_CVBS_L	100mil	100mil
VERT_CVBS_M	100mil	100mil
VERT_CVBS_N	100mil	100mil
VERT_CVBS_O	100mil	100mil
VERT_CVBS_P	100mil	100mil
VERT_CVBS_Q	100mil	100mil
VERT_CVBS_R	100mil	100mil
VERT_CVBS_S	100mil	100mil
VERT_CVBS_T	100mil	100mil
VERT_CVBS_U	100mil	100mil
VERT_CVBS_V	100mil	100mil
VERT_CVBS_W	100mil	100mil
VERT_CVBS_X	100mil	100mil
VERT_CVBS_Y	100mil	100mil
VERT_CVBS_Z	100mil	100mil

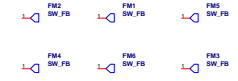
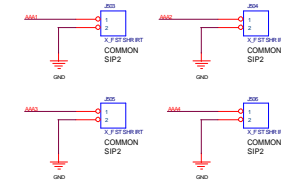
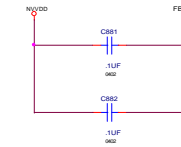
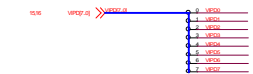
FBVDD(Q) and FBVTT Supplies

NET	PHYSICAL	VOLTAGE
B2S1_NG0	WAL:TRACE	0V
B2S2_PHASE1	WAL:TRACE	0V
B2S3_PHASE2	WAL:TRACE	0V
B2S4_PHASE3	WAL:TRACE	0V
B2S5_PHASE4	WAL:TRACE	0V
B2S6_PHASE5	WAL:TRACE	0V
B2S7_PHASE6	WAL:TRACE	0V
B2S8_PHASE7	WAL:TRACE	0V
B2S9_PHASE8	WAL:TRACE	0V
B2S10_PHASE9	WAL:TRACE	0V
B2S11_PHASE10	WAL:TRACE	0V
B2S12_PHASE11	WAL:TRACE	0V
B2S13_PHASE12	WAL:TRACE	0V
B2S14_PHASE13	WAL:TRACE	0V
B2S15_PHASE14	WAL:TRACE	0V
B2S16_PHASE15	WAL:TRACE	0V
B2S17_PHASE16	WAL:TRACE	0V
B2S18_PHASE17	WAL:TRACE	0V
B2S19_PHASE18	WAL:TRACE	0V
B2S20_PHASE19	WAL:TRACE	0V
B2S21_PHASE20	WAL:TRACE	0V
B2S22_PHASE21	WAL:TRACE	0V
B2S23_PHASE22	WAL:TRACE	0V
B2S24_PHASE23	WAL:TRACE	0V
B2S25_PHASE24	WAL:TRACE	0V
B2S26_PHASE25	WAL:TRACE	0V
B2S27_PHASE26	WAL:TRACE	0V
B2S28_PHASE27	WAL:TRACE	0V
B2S29_PHASE28	WAL:TRACE	0V
B2S30_PHASE29	WAL:TRACE	0V
B2S31_PHASE30	WAL:TRACE	0V
B2S32_PHASE31	WAL:TRACE	0V
B2S33_PHASE32	WAL:TRACE	0V
B2S34_PHASE33	WAL:TRACE	0V
B2S35_PHASE34	WAL:TRACE	0V
B2S36_PHASE35	WAL:TRACE	0V
B2S37_PHASE36	WAL:TRACE	0V
B2S38_PHASE37	WAL:TRACE	0V
B2S39_PHASE38	WAL:TRACE	0V
B2S40_PHASE39	WAL:TRACE	0V
B2S41_PHASE40	WAL:TRACE	0V
B2S42_PHASE41	WAL:TRACE	0V
B2S43_PHASE42	WAL:TRACE	0V
B2S44_PHASE43	WAL:TRACE	0V
B2S45_PHASE44	WAL:TRACE	0V
B2S46_PHASE45	WAL:TRACE	0V
B2S47_PHASE46	WAL:TRACE	0V
B2S48_PHASE47	WAL:TRACE	0V
B2S49_PHASE48	WAL:TRACE	0V
B2S50_PHASE49	WAL:TRACE	0V
B2S51_PHASE50	WAL:TRACE	0V
B2S52_PHASE51	WAL:TRACE	0V
B2S53_PHASE52	WAL:TRACE	0V
B2S54_PHASE53	WAL:TRACE	0V
B2S55_PHASE54	WAL:TRACE	0V
B2S56_PHASE55	WAL:TRACE	0V
B2S57_PHASE56	WAL:TRACE	0V
B2S58_PHASE57	WAL:TRACE	0V
B2S59_PHASE58	WAL:TRACE	0V
B2S60_PHASE59	WAL:TRACE	0V
B2S61_PHASE60	WAL:TRACE	0V
B2S62_PHASE61	WAL:TRACE	0V
B2S63_PHASE62	WAL:TRACE	0V
B2S64_PHASE63	WAL:TRACE	0V
B2S65_PHASE64	WAL:TRACE	0V
B2S66_PHASE65	WAL:TRACE	0V
B2S67_PHASE66	WAL:TRACE	0V
B2S68_PHASE67	WAL:TRACE	0V
B2S69_PHASE68	WAL:TRACE	0V
B2S70_PHASE69	WAL:TRACE	0V
B2S71_PHASE70	WAL:TRACE	0V
B2S72_PHASE71	WAL:TRACE	0V
B2S73_PHASE72	WAL:TRACE	0V
B2S74_PHASE73	WAL:TRACE	0V
B2S75_PHASE74	WAL:TRACE	0V
B2S76_PHASE75	WAL:TRACE	0V
B2S77_PHASE76	WAL:TRACE	0V
B2S78_PHASE77	WAL:TRACE	0V
B2S79_PHASE78	WAL:TRACE	0V
B2S80_PHASE79	WAL:TRACE	0V
B2S81_PHASE80	WAL:TRACE	0V
B2S82_PHASE81	WAL:TRACE	0V
B2S83_PHASE82	WAL:TRACE	0V
B2S84_PHASE83	WAL:TRACE	0V
B2S85_PHASE84	WAL:TRACE	0V
B2S86_PHASE85	WAL:TRACE	0V
B2S87_PHASE86	WAL:TRACE	0V
B2S88_PHASE87	WAL:TRACE	0V
B2S89_PHASE88	WAL:TRACE	0V
B2S90_PHASE89	WAL:TRACE	0V
B2S91_PHASE90	WAL:TRACE	0V
B2S92_PHASE91	WAL:TRACE	0V
B2S93_PHASE92	WAL:TRACE	0V
B2S94_PHASE93	WAL:TRACE	0V
B2S95_PHASE94	WAL:TRACE	0V
B2S96_PHASE95	WAL:TRACE	0V
B2S97_PHASE96	WAL:TRACE	0V
B2S98_PHASE97	WAL:TRACE	0V
B2S99_PHASE98	WAL:TRACE	0V
B2S100_PHASE99	WAL:TRACE	0V
B2S101_PHASE100	WAL:TRACE	0V
B2S102_PHASE101	WAL:TRACE	0V
B2S103_PHASE102	WAL:TRACE	0V
B2S104_PHASE103	WAL:TRACE	0V
B2S105_PHASE104	WAL:TRACE	0V
B2S106_PHASE105	WAL:TRACE	0V
B2S107_PHASE106	WAL:TRACE	0V
B2S108_PHASE107	WAL:TRACE	0V
B2S109_PHASE108	WAL:TRACE	0V
B2S110_PHASE109	WAL:TRACE	0V
B2S111_PHASE110	WAL:TRACE	0V
B2S112_PHASE111	WAL:TRACE	0V
B2S113_PHASE112	WAL:TRACE	0V
B2S114_PHASE113	WAL:TRACE	0V
B2S115_PHASE114	WAL:TRACE	0V
B2S116_PHASE115	WAL:TRACE	0V
B2S117_PHASE116	WAL:TRACE	0V
B2S118_PHASE117	WAL:TRACE	0V
B2S119_PHASE118	WAL:TRACE	0V
B2S120_PHASE119	WAL:TRACE	0V
B2S121_PHASE120	WAL:TRACE	0V
B2S122_PHASE121	WAL:TRACE	0V
B2S123_PHASE122	WAL:TRACE	0V
B2S124_PHASE123	WAL:TRACE	0V
B2S125_PHASE124	WAL:TRACE	0V
B2S126_PHASE125	WAL:TRACE	0V
B2S127_PHASE126	WAL:TRACE	0V
B2S128_PHASE127	WAL:TRACE	0V
B2S129_PHASE128	WAL:TRACE	0V
B2S130_PHASE129	WAL:TRACE	0V
B2S131_PHASE130	WAL:TRACE	0V
B2S132_PHASE131	WAL:TRACE	0V
B2S133_PHASE132	WAL:TRACE	0V
B2S134_PHASE133	WAL:TRACE	0V
B2S135_PHASE134	WAL:TRACE	0V
B2S136_PHASE135	WAL:TRACE	0V
B2S137_PHASE136	WAL:TRACE	0V
B2S138_PHASE137	WAL:TRACE	0V
B2S139_PHASE138	WAL:TRACE	0V
B2S140_PHASE139	WAL:TRACE	0V
B2S141_PHASE140	WAL:TRACE	0V
B2S142_PHASE141	WAL:TRACE	0V
B2S143_PHASE142	WAL:TRACE	0V
B2S144_PHASE143	WAL:TRACE	0V
B2S145_PHASE144	WAL:TRACE	0V
B2S146_PHASE145	WAL:TRACE	0V
B2S147_PHASE146	WAL:TRACE	0V
B2S148_PHASE147	WAL:TRACE	0V
B2S149_PHASE148	WAL:TRACE	0V
B2S150_PHASE149	WAL:TRACE	0V
B2S151_PHASE150	WAL:TRACE	0V
B2S152_PHASE151	WAL:TRACE	0V
B2S153_PHASE152	WAL:TRACE	0V
B2S154_PHASE153	WAL:TRACE	0V
B2S155_PHASE154	WAL:TRACE	0V
B2S156_PHASE155	WAL:TRACE	0V
B2S157_PHASE156	WAL:TRACE	0V
B2S158_PHASE157	WAL:TRACE	0V
B2S159_PHASE158	WAL:TRACE	0V
B2S160_PHASE159	WAL:TRACE	0V
B2S161_PHASE160	WAL:TRACE	0V
B2S162_PHASE161	WAL:TRACE	0V
B2S163_PHASE162	WAL:TRACE	0V
B2S164_PHASE163	WAL:TRACE	0V
B2S165_PHASE164	WAL:TRACE	0V
B2S166_PHASE165	WAL:TRACE	0V
B2S167_PHASE166	WAL:TRACE	0V
B2S168_PHASE167	WAL:TRACE	0V
B2S169_PHASE168	WAL:TRACE	0V
B2S170_PHASE169	WAL:TRACE	0V
B2S171_PHASE170	WAL:TRACE	0V
B2S172_PHASE171	WAL:TRACE	0V
B2S173_PHASE172	WAL:TRACE	0V
B2S174_PHASE173	WAL:TRACE	0V
B2S175_PHASE174	WAL:TRACE	0V
B2S176_PHASE175	WAL:TRACE	0V
B2S177_PHASE176	WAL:TRACE	0V
B2S178_PHASE177	WAL:TRACE	0V
B2S179_PHASE178	WAL:TRACE	0V
B2S180_PHASE179	WAL:TRACE	0V
B2S181_PHASE180	WAL:TRACE	0V
B2S182_PHASE181	WAL:TRACE	0V
B2S183_PHASE182	WAL:TRACE	0V
B2S184_PHASE183	WAL:TRACE	0V
B2S185_PHASE184	WAL:TRACE	0V
B2S186_PHASE185	WAL:TRACE	0V
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B2S214_PHASE213	WAL:TRACE	0V
B2S215_PHASE214	WAL:TRACE	0V
B2S216_PHASE215	WAL:TRACE	0V
B2S217_PHASE216	WAL:TRACE	0V
B2S218_PHASE217	WAL:TRACE	0V
B2S219_PHASE218	WAL:TRACE	0V
B2S220_PHASE219	WAL:TRACE	0V
B2S221_PHASE220	WAL:TRACE	0V
B2S222_PHASE221	WAL:TRACE	0V
B2S223_PHASE222	WAL:TRACE	0V
B2S224_PHASE223	WAL:TRACE	0V
B2S225_PHASE224	WAL:TRACE	0V
B2S226_PHASE225	WAL:TRACE	0V
B2S227_PHASE226	WAL:TRACE	0V
B2S228_PHASE227	WAL:TRACE	0V
B2S229_PHASE228	WAL:TRACE	0V
B2S230_PHASE229	WAL:TRACE	0V
B2S231_PHASE230	WAL:TRACE	0V
B2S232_PHASE231	WAL:TRACE	0V
B2S233_PHASE232	WAL:TRACE	0V
B2S234_PHASE233	WAL:TRACE	0V
B2S235_PHASE234	WAL:TRACE	0V
B2S236_PHASE235	WAL:TRACE	0V
B2S237_PHASE236	WAL:TRACE	0V
B2S238_PHASE237	WAL:TRACE	0V
B2S239_PHASE238	WAL:TRACE	0V
B2S240_PHASE239	WAL:TRACE	0V
B2S241_PHASE240	WAL:TRACE	0V
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B2S243_PHASE242	WAL:TRACE	0V
B2S244_PHASE243	WAL:TRACE	0V
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B2S247_PHASE246	WAL:TRACE	0V
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B2S250_PHASE249	WAL:TRACE	0V
B2S251_PHASE250	WAL:TRACE	0V
B2S252_PHASE251	WAL:TRACE	0V
B2S253_PHASE252	WAL:TRACE	0V
B2S254_PHASE253	WAL:TRACE	0V
B2S255_PHASE254	WAL:TRACE	0V
B2S256_PHASE255	WAL:TRACE	0V
B2S257_PHASE256	WAL:TRACE	0V
B2S258_PHASE257	WAL:TRACE	0V
B2S259_PHASE258	WAL:TRACE	0V
B2S260_PHASE259	WAL:TRACE	0V
B2S261_PHASE260	WAL:TRACE	0V
B2S262_PHASE261	WAL:TRACE	0V
B2S263_PHASE262	WAL:TRACE	0V
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B2S299_PHASE298	WAL:TRACE	0V
B2S300_PHASE299	WAL:TRACE	0V
B2S301_PHASE300	WAL:TRACE	0V
B2S302_PHASE301	WAL:TRACE	0V
B2S303_PHASE302	WAL:TRACE	0V
B2S304_PHASE303	WAL:TRACE	0V
B2S305_PHASE304	WAL:TRACE	0V
B2S306_PHASE305	WAL:TRACE	0V
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B2S321_PHASE320	WAL:TRACE	0V
B2S322_PHASE321	WAL:TRACE	0V
B2S323_PHASE322	WAL:TRACE	0V
B2S324_PHASE323	WAL:TRACE	0V
B2S325_PHASE324	WAL:TRACE	0V
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B2S331_PHASE330	WAL:TRACE	0V
B2S332_PHASE331	WAL:TRACE	0V
B2S333_PHASE332	WAL:TRACE	0V
B2S334_PHASE333	WAL:TRACE	0V
B2S335_PHASE334	WAL:TRACE	0V
B2S336_PHASE335	WAL:TRACE	0V
B2S337_PHASE336	WAL:TRACE	0V
B2S338_PHASE337	WAL:TRACE	0V
B2S339_PHASE338	WAL:TRACE	0V
B2S340_PHASE339	WAL:TRACE	0V
B2S341_PHASE340	WAL:TRACE	0V
B2S342_PHASE341	WAL:TRACE	0V
B2S343_PHASE342	WAL:TRACE	0V
B2S344_PHASE343	WAL:TRACE	0V
B2S345_PHASE344	WAL:TRACE	0V
B2S346_PHASE345	WAL:TRACE	0V
B2S347_PHASE346	WAL:TRACE	0V
B		

BIOS, Straps, Misc

Straps

Assembly: BIOS



Mechanical parts

Bracket will be corrected when it becomes available in Agile (Tab-3) and in the PTF file
SKU 600-10191-0000-000 will use bracket 151-10000-0054-0000
VGA-MiniDin-DVI-I (north-to-south)

