

MS-V046 VER 0A

Base on P295-A00 DESIGN NV43 300/267MHZ 128MB/256MB/512MB DDR2 84-FBGA to modify V046

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Page2: PCI EXPRESS, NVVDD, VDD33
Page3: FB BANK A, FBVTT TERMINATIONS, FBVDDO DECOUPLING
Page4: FB BANK C, FBVTT TERMINATIONS
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Page Changed:

Change FBVDD & NVVDD Power solution for MS11 20050829
Adding DACA, C RSET SETTING 20050829
Adding Bridge & termination resistor for DVI 20050829
Pull 3v3 for GPIO30-33 of GPIO controller 20050831



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MS-V046

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P295

Document Number
P295 Overview

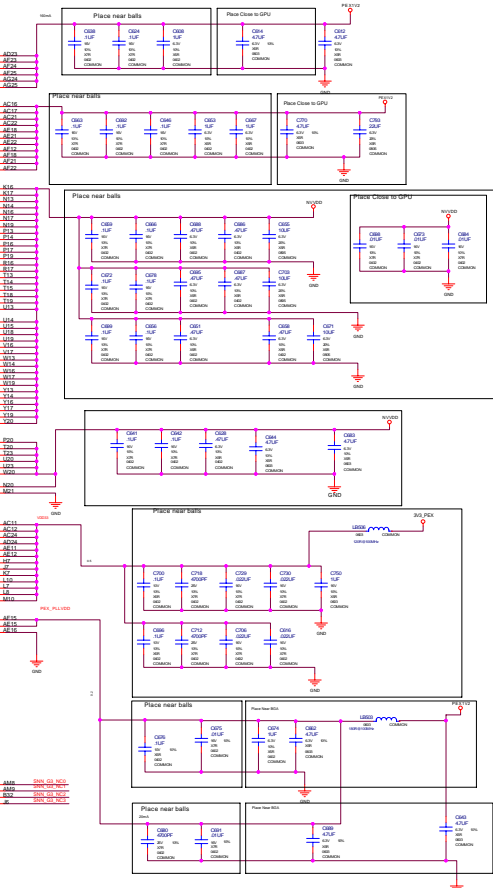
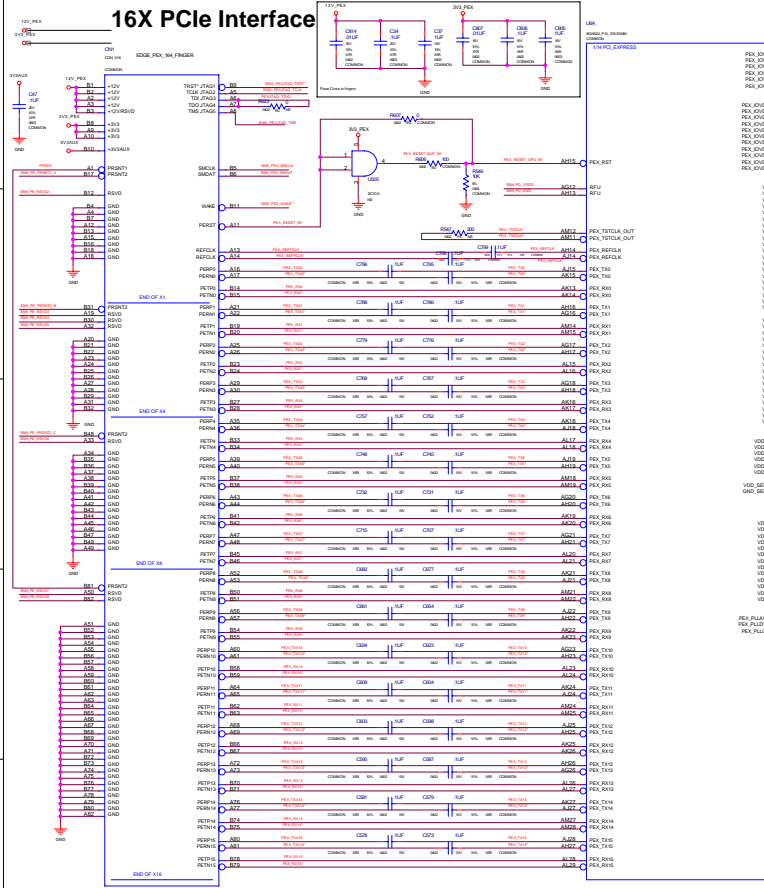
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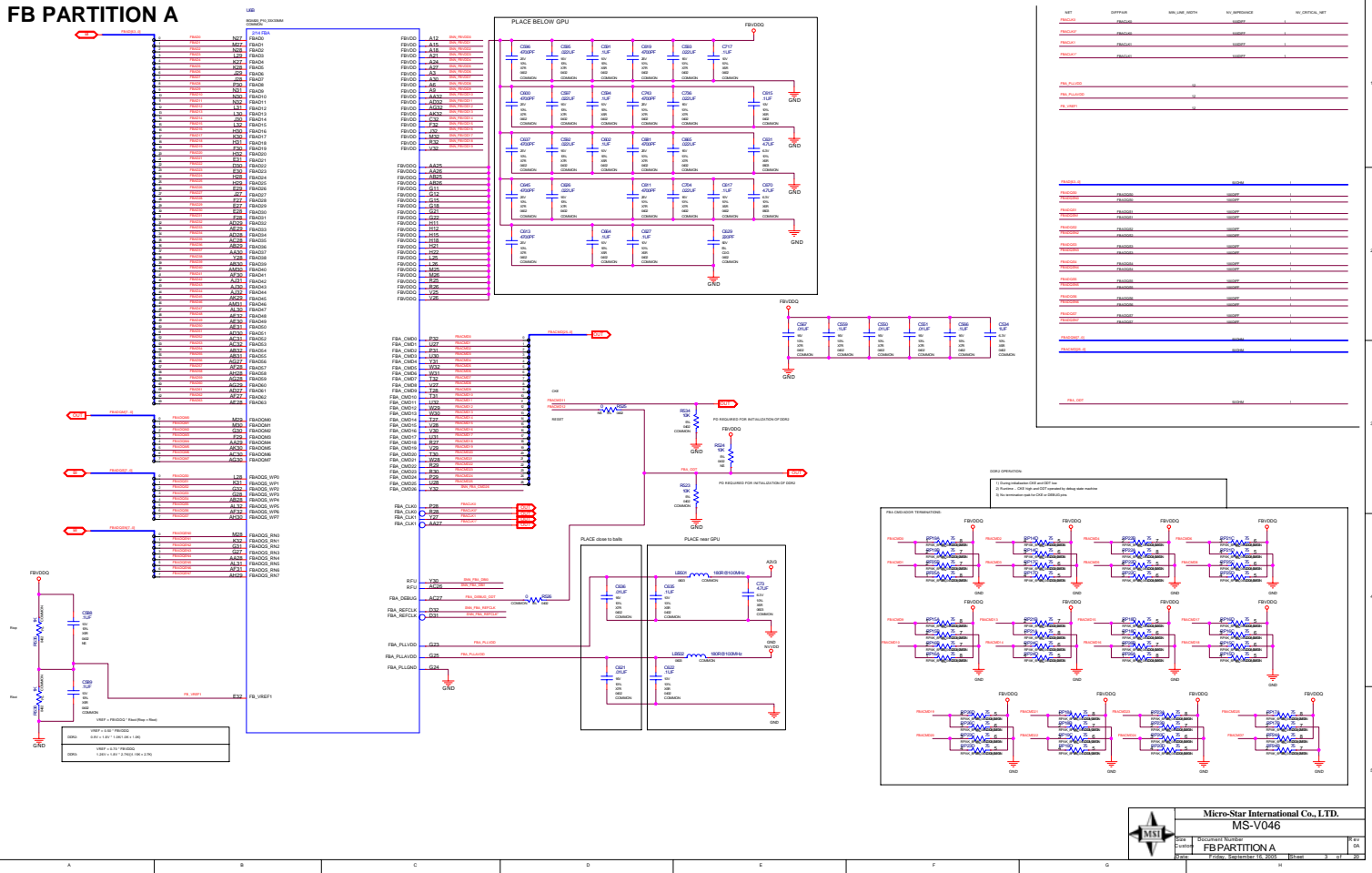
16X PCIe Interface



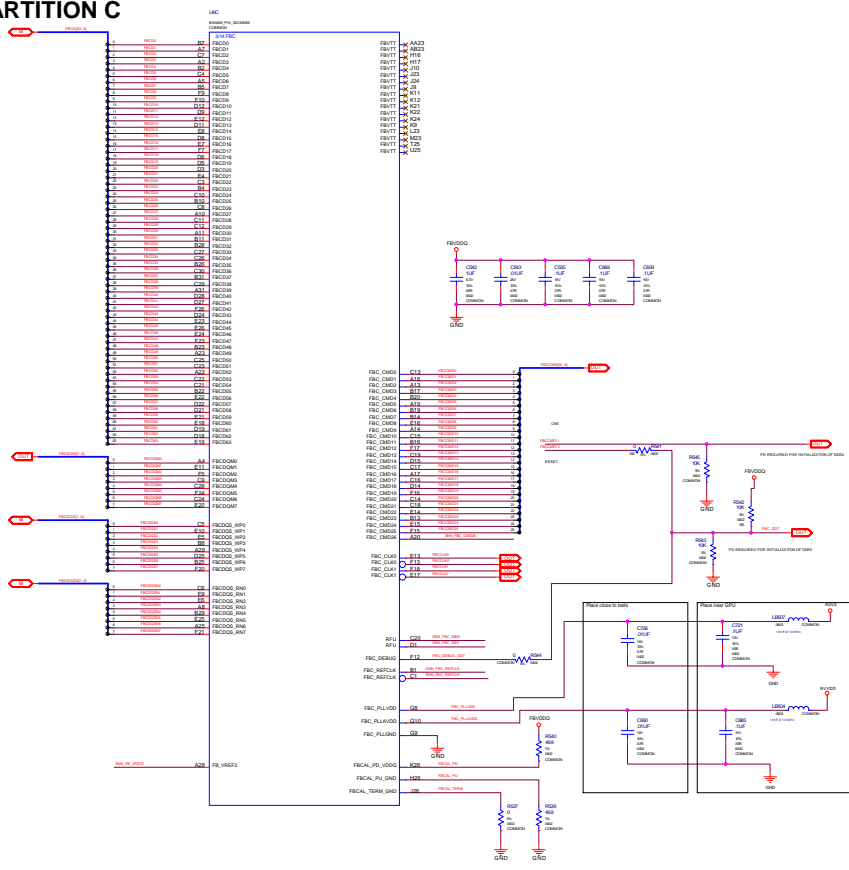
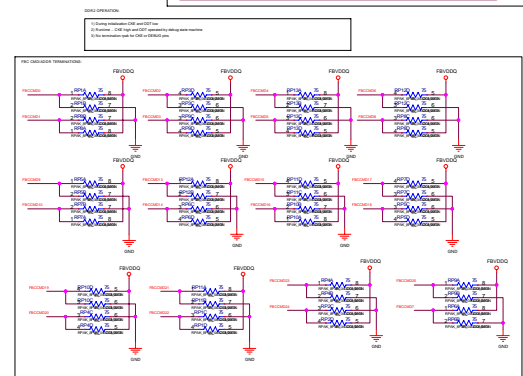
NET RULES

NET	SYMBOL	NO. APPROVED	NO. CANCELLED
12V_PEX	12V_PEX	1	0
3.3V_PEX	3.3V_PEX	1	0
1.8V_PEX	1.8V_PEX	1	0
0.9V_PEX	0.9V_PEX	1	0
PEX_RST	PEX_RST	1	0
PEX_TEST0A_OUT	PEX_TEST0A_OUT	1	0
PEX_TEST0A_IN	PEX_TEST0A_IN	1	0
PEX_TEST0B_OUT	PEX_TEST0B_OUT	1	0
PEX_TEST0B_IN	PEX_TEST0B_IN	1	0
PEX_TEST0C_OUT	PEX_TEST0C_OUT	1	0
PEX_TEST0C_IN	PEX_TEST0C_IN	1	0
PEX_TEST0D_OUT	PEX_TEST0D_OUT	1	0
PEX_TEST0D_IN	PEX_TEST0D_IN	1	0
PEX_TEST0E_OUT	PEX_TEST0E_OUT	1	0
PEX_TEST0E_IN	PEX_TEST0E_IN	1	0
PEX_TEST0F_OUT	PEX_TEST0F_OUT	1	0
PEX_TEST0F_IN	PEX_TEST0F_IN	1	0
PEX_TEST0G_OUT	PEX_TEST0G_OUT	1	0
PEX_TEST0G_IN	PEX_TEST0G_IN	1	0
PEX_TEST0H_OUT	PEX_TEST0H_OUT	1	0
PEX_TEST0H_IN	PEX_TEST0H_IN	1	0
PEX_TEST0I_OUT	PEX_TEST0I_OUT	1	0
PEX_TEST0I_IN	PEX_TEST0I_IN	1	0
PEX_TEST0J_OUT	PEX_TEST0J_OUT	1	0
PEX_TEST0J_IN	PEX_TEST0J_IN	1	0
PEX_TEST0K_OUT	PEX_TEST0K_OUT	1	0
PEX_TEST0K_IN	PEX_TEST0K_IN	1	0
PEX_TEST0L_OUT	PEX_TEST0L_OUT	1	0
PEX_TEST0L_IN	PEX_TEST0L_IN	1	0
PEX_TEST0M_OUT	PEX_TEST0M_OUT	1	0
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PEX_TEST0T_IN	PEX_TEST0T_IN	1	0
PEX_TEST0U_OUT	PEX_TEST0U_OUT	1	0
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PEX_TEST0N_IN	PEX_TEST0N_IN	1	0
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PEX_TEST0O_IN	PEX_TEST0O_IN	1	0
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PEX_TEST0P_IN	PEX_TEST0P_IN	1	0
PEX_TEST0Q_OUT	PEX_TEST0Q_OUT	1	0
PEX_TEST0Q_IN	PEX_TEST0Q_IN	1	0
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PEX_TEST0A_IN	PEX_TEST0A_IN	1	0
PEX_TEST0B_OUT	PEX_TEST0B_OUT	1	0
PEX_TEST0B_IN	PEX_TEST0B_IN	1	0
PEX_TEST0C_OUT	PEX_TEST0C_OUT	1	0
PEX_TEST0C_IN	PEX_TEST0C_IN	1	0
PEX_TEST0D_OUT	PEX_TEST0D_OUT	1	0
PEX_TEST0D_IN	PEX_TEST0D_IN	1	0
PEX_TEST0E_OUT	PEX_TEST0E_OUT	1	0
PEX_TEST0E_IN	PEX_TEST0E_IN	1	0
PEX_TEST0F_OUT	PEX_TEST0F_OUT	1	0
PEX_TEST0F_IN	PEX_TEST0F_IN	1	0
PEX_TEST0G_OUT	PEX_TEST0G_OUT	1	0
PEX_TEST0G_IN	PEX_TEST0G_IN	1	0
PEX_TEST0H_OUT	PEX_TEST0H_OUT	1	0
PEX_TEST0H_IN	PEX_TEST0H_IN	1	0
PEX_TEST0I_OUT	PEX_TEST0I_OUT	1	0
PEX_TEST0I_IN	PEX_TEST0I_IN	1	0
PEX_TEST0J_OUT	PEX_TEST0J_OUT	1	0
PEX_TEST0J_IN	PEX_TEST0J_IN	1	0
PEX_TEST0K_OUT	PEX_TEST0K_OUT	1	0
PEX_TEST0K_IN	PEX_TEST0K_IN	1	0
PEX_TEST0L_OUT	PEX_TEST0L_OUT	1	0
PEX_TEST0L_IN	PEX_TEST0L_IN	1	0
PEX_TEST0M_OUT	PEX_TEST0M_OUT	1	0
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PEX_TEST0N_OUT	PEX_TEST0N_OUT	1	0
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PEX_TEST0P_OUT	PEX_TEST0P_OUT	1	0
PEX_TEST0P_IN	PEX_TEST0P_IN	1	0
PEX_TEST0Q_OUT	PEX_TEST0Q_OUT	1	0
PEX_TEST0Q_IN	PEX_TEST0Q_IN	1	0
PEX_TEST0R_OUT	PEX_TEST0R_OUT	1	0
PEX_TEST0R_IN	PEX_TEST0R_IN	1	0
PEX_TEST0S_OUT	PEX_TEST0S_OUT	1	0
PEX_TEST0S_IN	PEX_TEST0S_IN	1	0
PEX_TEST0T_OUT	PEX_TEST0T_OUT	1	0
PEX_TEST0T_IN	PEX_TEST0T_IN	1	0
PEX_TEST0U_OUT	PEX_TEST0U_OUT	1	0
PEX_TEST0U_IN	PEX_TEST0U_IN	1	0
PEX_TEST0V_OUT	PEX_TEST0V_OUT	1	0
PEX_TEST0V_IN	PEX_TEST0V_IN	1	0
PEX_TEST0W_OUT	PEX_TEST0W_OUT	1	0
PEX_TEST0W_IN	PEX_TEST0W_IN	1	0
PEX_TEST0X_OUT	PEX_TEST0X_OUT	1	0
PEX_TEST0X_IN	PEX_TEST0X_IN	1	0
PEX_TEST0Y_OUT	PEX_TEST0Y_OUT	1	0
PEX_TEST0Y_IN	PEX_TEST0Y_IN	1	0
PEX_TEST0Z_OUT	PEX_TEST0Z_OUT	1	0
PEX_TEST0Z_IN	PEX_TEST0Z_IN	1	0

FB PARTITION A

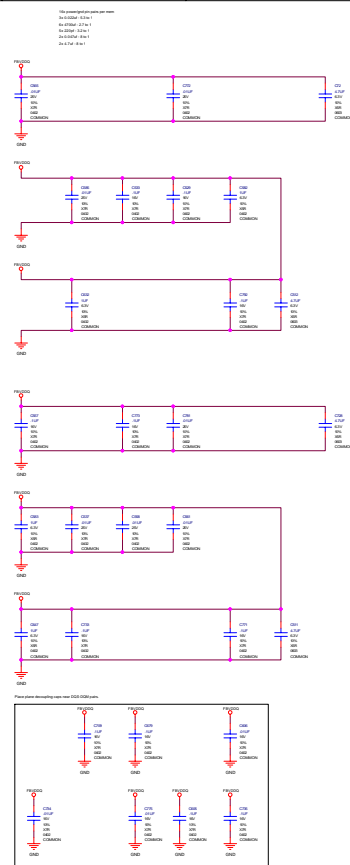
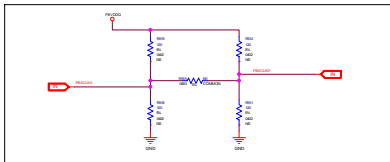
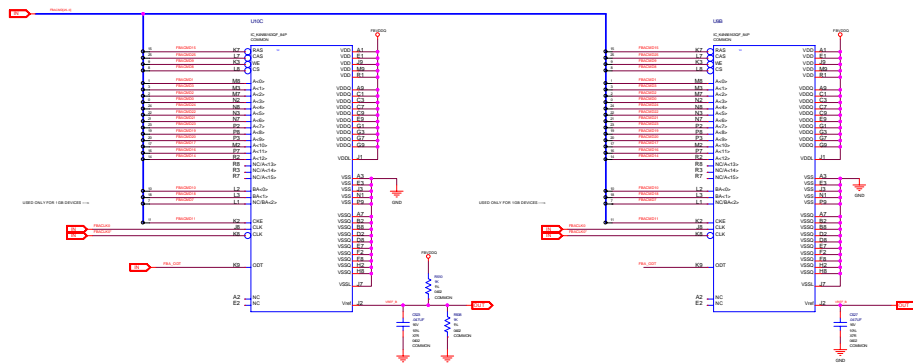


FB PARTITION C

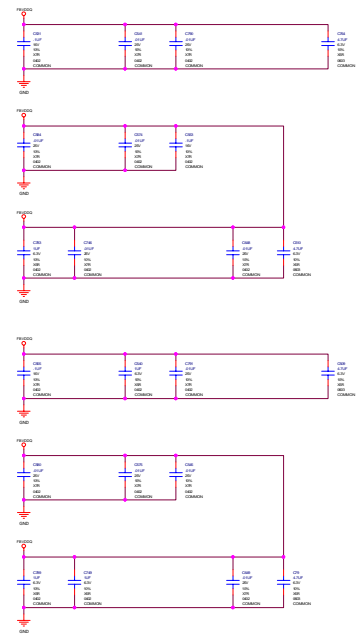
[illegible]

FBA MEMORY 1st bank 0..31

PLACE ALL DISCRETE COMPONENTS AS NEAR AS POSSIBLE TO MEMORY



PLACE ALL DISCRETE COMPONENTS AS NEAR AS POSSIBLE TO MEMORY

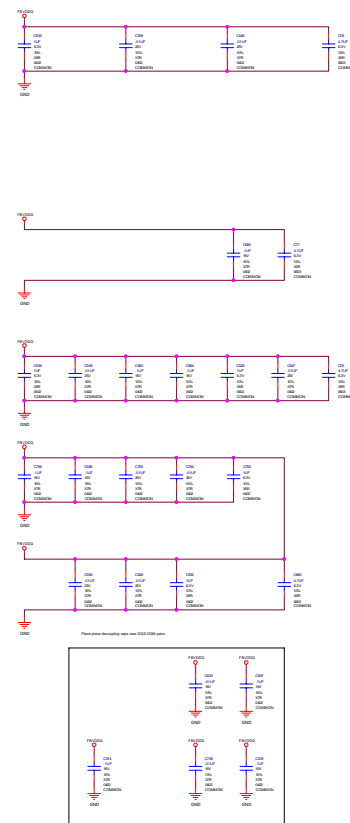
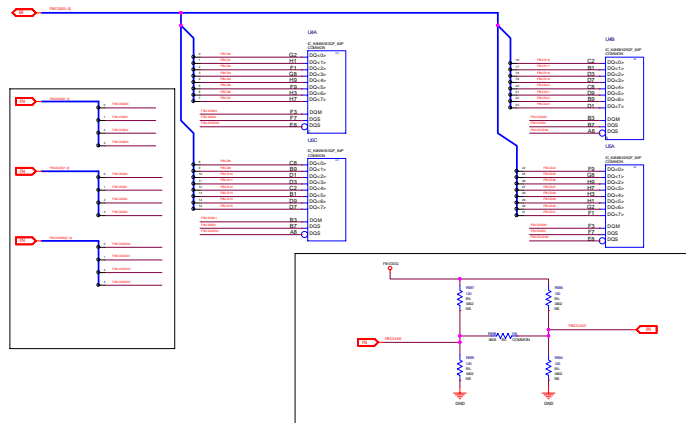
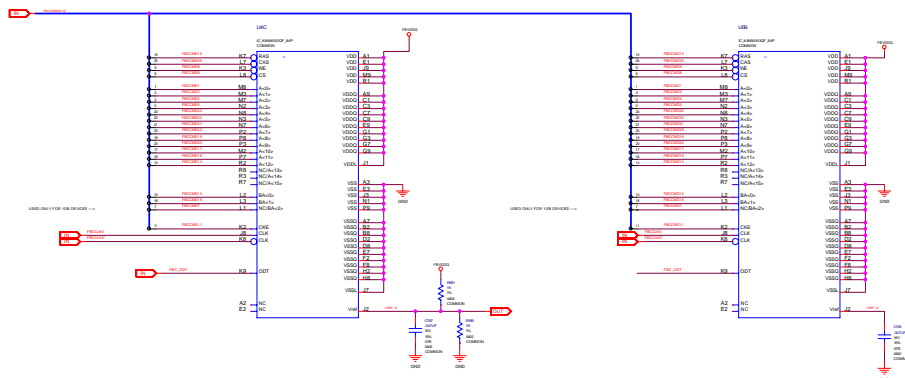


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Size	Document Number	Rev
Custom	FBA MEMORY 1st bank 32..63	0A
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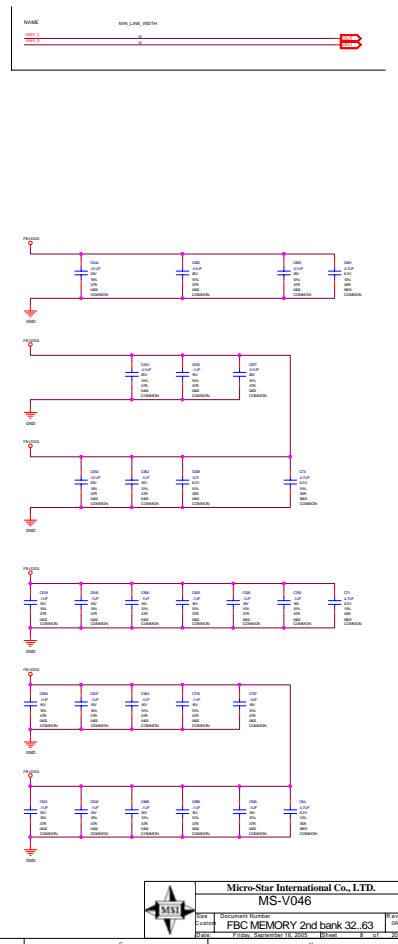
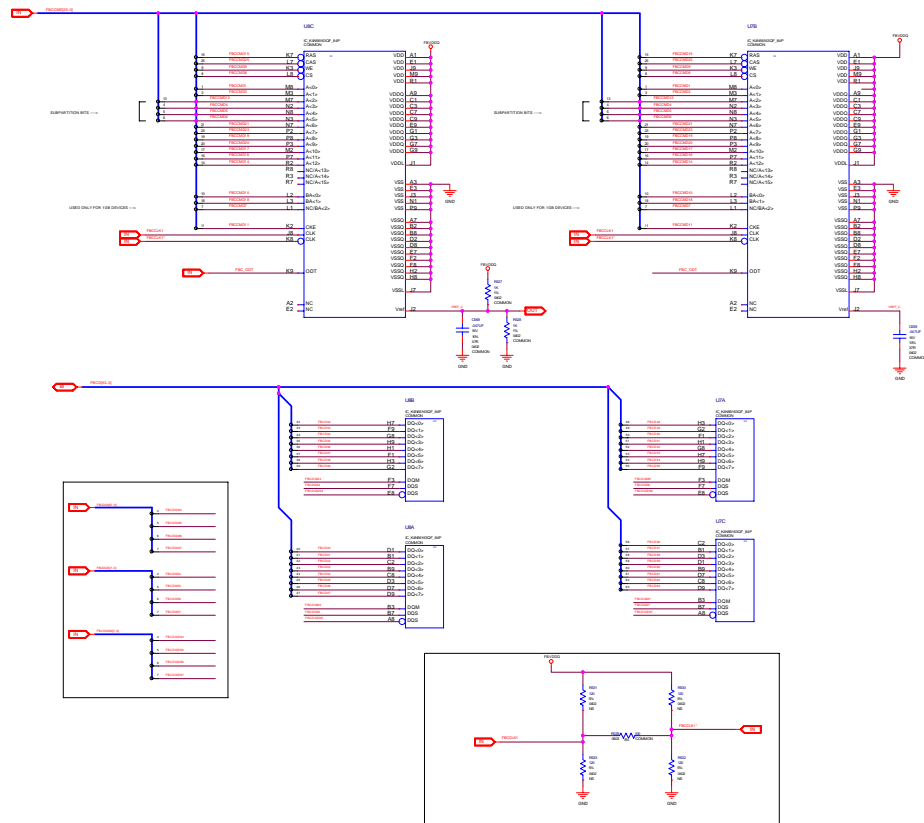
FBC MEMORY 2nd bank 0..31

PLACE ALL DISCRETE COMPONENTS AS NEAR AS POSSIBLE TO MEMORY

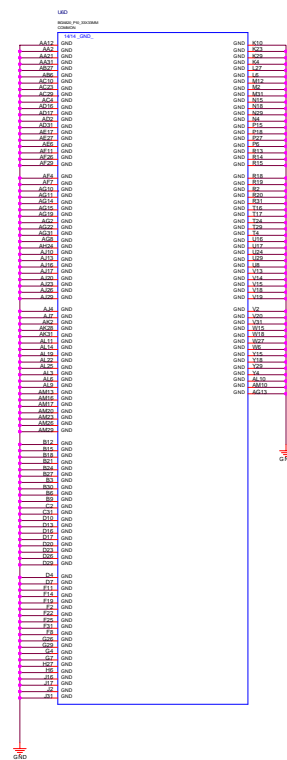


FBC MEMORY 2nd bank 32.63

PLACE ALL DISCRETE COMPONENTS AS NEAR AS POSSIBLE TO MEMORY



GND



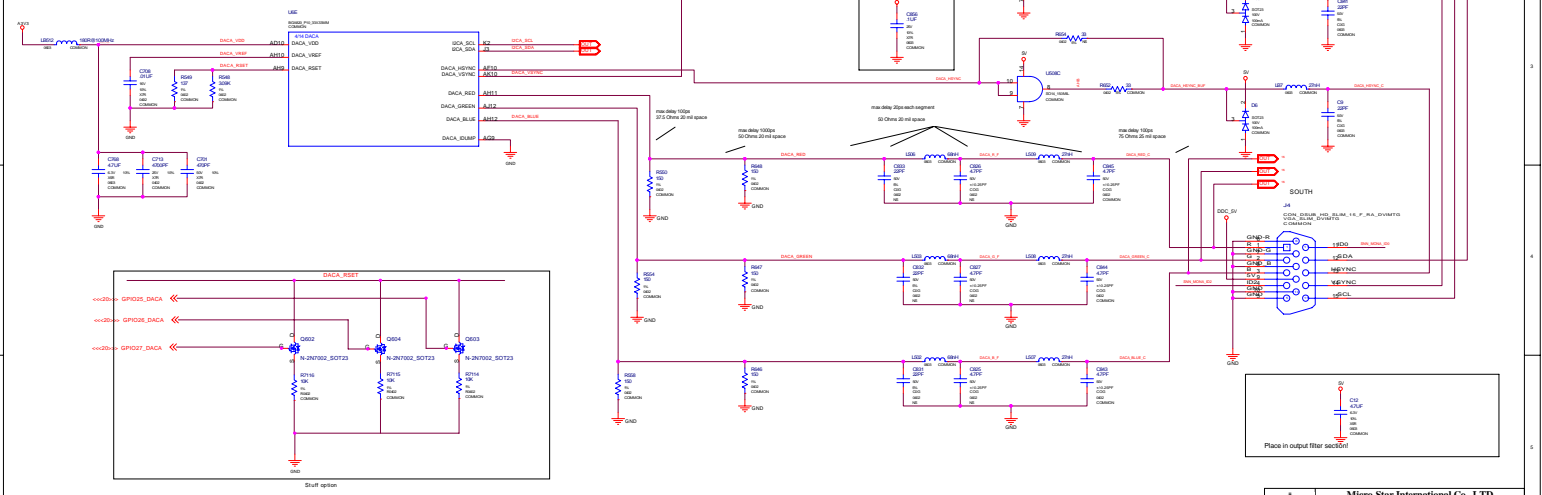
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MS-V046

Size	Document Number	Rev
Custom	GND	01
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DACA VGA

NET	VALUE	MIN_LENGTH	NO_CRITICAL_NET	NO_IMPEDANCE
DACA_R01	10000000000			
DACA_R02	10000000000			
DACA_R03	10000000000			
DACA_R04	10000000000			
DACA_R05	10000000000			
DACA_R06	10000000000			
DACA_R07	10000000000			
DACA_R08	10000000000			
DACA_R09	10000000000			
DACA_R10	10000000000			
DACA_R11	10000000000			
DACA_R12	10000000000			
DACA_R13	10000000000			
DACA_R14	10000000000			
DACA_R15	10000000000			
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DACA_R25	10000000000			
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DACA_R27	10000000000			
DACA_R28	10000000000			
DACA_R29	10000000000			
DACA_R30	10000000000			
DACA_R31	10000000000			
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DACA_R93	10000000000			
DACA_R94	10000000000			
DACA_R95	10000000000			
DACA_R96	10000000000			
DACA_R97	10000000000			
DACA_R98	10000000000			
DACA_R99	10000000000			
DACA_R100	10000000000			

Note that this impedance is the highest one on this unit for a 4-finger design

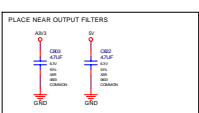
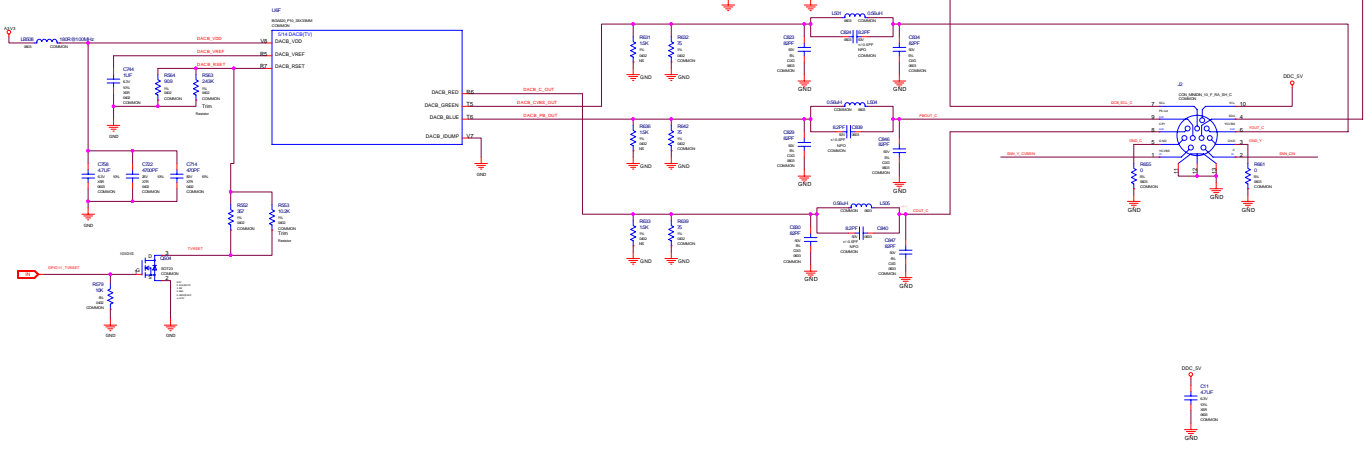


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DACA VGA
Rev. 1.0
Date: 2011-11-15

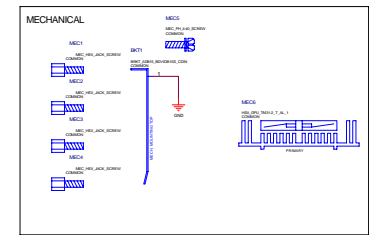
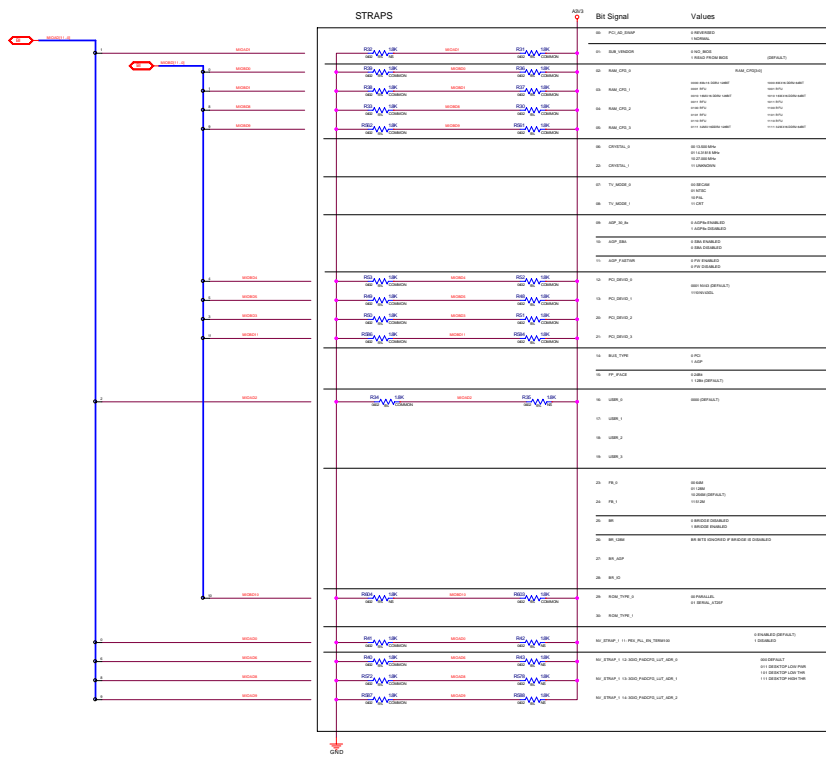
DACB TVOUT

NET_NAME	WIRE_LABEL	WIRE_CATALOG_NAME	WIRE_REFERENCE
DACB_V1_OUT	DACB_V1_OUT	1	10000
DACB_V2_OUT	DACB_V2_OUT	1	10000
DACB_V3_OUT	DACB_V3_OUT	1	10000
DACB_V4_OUT	DACB_V4_OUT	1	10000
DACB_V5_OUT	DACB_V5_OUT	1	10000
DACB_V6_OUT	DACB_V6_OUT	1	10000
DACB_V7_OUT	DACB_V7_OUT	1	10000
DACB_V8_OUT	DACB_V8_OUT	1	10000
DACB_V9_OUT	DACB_V9_OUT	1	10000
DACB_V10_OUT	DACB_V10_OUT	1	10000
DACB_V11_OUT	DACB_V11_OUT	1	10000
DACB_V12_OUT	DACB_V12_OUT	1	10000
DACB_V13_OUT	DACB_V13_OUT	1	10000
DACB_V14_OUT	DACB_V14_OUT	1	10000
DACB_V15_OUT	DACB_V15_OUT	1	10000
DACB_V16_OUT	DACB_V16_OUT	1	10000
DACB_V17_OUT	DACB_V17_OUT	1	10000
DACB_V18_OUT	DACB_V18_OUT	1	10000
DACB_V19_OUT	DACB_V19_OUT	1	10000
DACB_V20_OUT	DACB_V20_OUT	1	10000
DACB_V21_OUT	DACB_V21_OUT	1	10000
DACB_V22_OUT	DACB_V22_OUT	1	10000
DACB_V23_OUT	DACB_V23_OUT	1	10000
DACB_V24_OUT	DACB_V24_OUT	1	10000
DACB_V25_OUT	DACB_V25_OUT	1	10000
DACB_V26_OUT	DACB_V26_OUT	1	10000
DACB_V27_OUT	DACB_V27_OUT	1	10000
DACB_V28_OUT	DACB_V28_OUT	1	10000
DACB_V29_OUT	DACB_V29_OUT	1	10000
DACB_V30_OUT	DACB_V30_OUT	1	10000
DACB_V31_OUT	DACB_V31_OUT	1	10000
DACB_V32_OUT	DACB_V32_OUT	1	10000
DACB_V33_OUT	DACB_V33_OUT	1	10000
DACB_V34_OUT	DACB_V34_OUT	1	10000
DACB_V35_OUT	DACB_V35_OUT	1	10000
DACB_V36_OUT	DACB_V36_OUT	1	10000
DACB_V37_OUT	DACB_V37_OUT	1	10000
DACB_V38_OUT	DACB_V38_OUT	1	10000
DACB_V39_OUT	DACB_V39_OUT	1	10000
DACB_V40_OUT	DACB_V40_OUT	1	10000
DACB_V41_OUT	DACB_V41_OUT	1	10000
DACB_V42_OUT	DACB_V42_OUT	1	10000
DACB_V43_OUT	DACB_V43_OUT	1	10000
DACB_V44_OUT	DACB_V44_OUT	1	10000
DACB_V45_OUT	DACB_V45_OUT	1	10000
DACB_V46_OUT	DACB_V46_OUT	1	10000
DACB_V47_OUT	DACB_V47_OUT	1	10000
DACB_V48_OUT	DACB_V48_OUT	1	10000
DACB_V49_OUT	DACB_V49_OUT	1	10000
DACB_V50_OUT	DACB_V50_OUT	1	10000
DACB_V51_OUT	DACB_V51_OUT	1	10000
DACB_V52_OUT	DACB_V52_OUT	1	10000
DACB_V53_OUT	DACB_V53_OUT	1	10000
DACB_V54_OUT	DACB_V54_OUT	1	10000
DACB_V55_OUT	DACB_V55_OUT	1	10000
DACB_V56_OUT	DACB_V56_OUT	1	10000
DACB_V57_OUT	DACB_V57_OUT	1	10000
DACB_V58_OUT	DACB_V58_OUT	1	10000
DACB_V59_OUT	DACB_V59_OUT	1	10000
DACB_V60_OUT	DACB_V60_OUT	1	10000
DACB_V61_OUT	DACB_V61_OUT	1	10000
DACB_V62_OUT	DACB_V62_OUT	1	10000
DACB_V63_OUT	DACB_V63_OUT	1	10000
DACB_V64_OUT	DACB_V64_OUT	1	10000
DACB_V65_OUT	DACB_V65_OUT	1	10000
DACB_V66_OUT	DACB_V66_OUT	1	10000
DACB_V67_OUT	DACB_V67_OUT	1	10000
DACB_V68_OUT	DACB_V68_OUT	1	10000
DACB_V69_OUT	DACB_V69_OUT	1	10000
DACB_V70_OUT	DACB_V70_OUT	1	10000
DACB_V71_OUT	DACB_V71_OUT	1	10000
DACB_V72_OUT	DACB_V72_OUT	1	10000
DACB_V73_OUT	DACB_V73_OUT	1	10000
DACB_V74_OUT	DACB_V74_OUT	1	10000
DACB_V75_OUT	DACB_V75_OUT	1	10000
DACB_V76_OUT	DACB_V76_OUT	1	10000
DACB_V77_OUT	DACB_V77_OUT	1	10000
DACB_V78_OUT	DACB_V78_OUT	1	10000
DACB_V79_OUT	DACB_V79_OUT	1	10000
DACB_V80_OUT	DACB_V80_OUT	1	10000
DACB_V81_OUT	DACB_V81_OUT	1	10000
DACB_V82_OUT	DACB_V82_OUT	1	10000
DACB_V83_OUT	DACB_V83_OUT	1	10000
DACB_V84_OUT	DACB_V84_OUT	1	10000
DACB_V85_OUT	DACB_V85_OUT	1	10000
DACB_V86_OUT	DACB_V86_OUT	1	10000
DACB_V87_OUT	DACB_V87_OUT	1	10000
DACB_V88_OUT	DACB_V88_OUT	1	10000
DACB_V89_OUT	DACB_V89_OUT	1	10000
DACB_V90_OUT	DACB_V90_OUT	1	10000
DACB_V91_OUT	DACB_V91_OUT	1	10000
DACB_V92_OUT	DACB_V92_OUT	1	10000
DACB_V93_OUT	DACB_V93_OUT	1	10000
DACB_V94_OUT	DACB_V94_OUT	1	10000
DACB_V95_OUT	DACB_V95_OUT	1	10000
DACB_V96_OUT	DACB_V96_OUT	1	10000
DACB_V97_OUT	DACB_V97_OUT	1	10000
DACB_V98_OUT	DACB_V98_OUT	1	10000
DACB_V99_OUT	DACB_V99_OUT	1	10000
DACB_V100_OUT	DACB_V100_OUT	1	10000

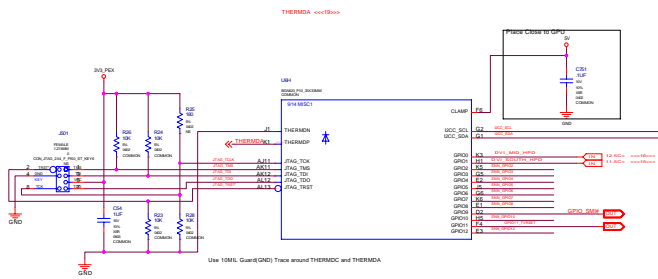
Note that this is the highest impedance on the unit



STRAPS

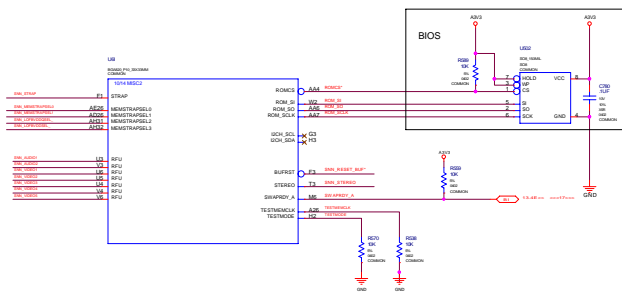


JTAG, GPIO, BIOS ROM



SFID	UD	FUNCTION
0	IN	DVI MD HOTPLUG DET
1	IN	RESERVED
2	IN	RESERVED
3	IN	RESERVED
4	IN	RESERVED
5	IN	RESERVED
6	IN	RESERVED
7	IN	RESERVED
8	IN	THERM ALERTSLOW
9	OUT	FAN CONTROL
10	IN	RESERVED
11	OUT	HOT/VIDTV SELECT
12		RESERVED

NET	MIN_LANE_WIDTH
ROADWAY WIDTH	30
TRUCK LANE	30
TRUCK LANE 2	30
TRUCK LANE 3	30
TRUCK LANE 4	30
TRUCK LANE 5	30
TRUCK LANE 6	30



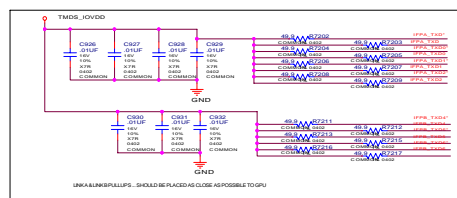
Remove HDCI



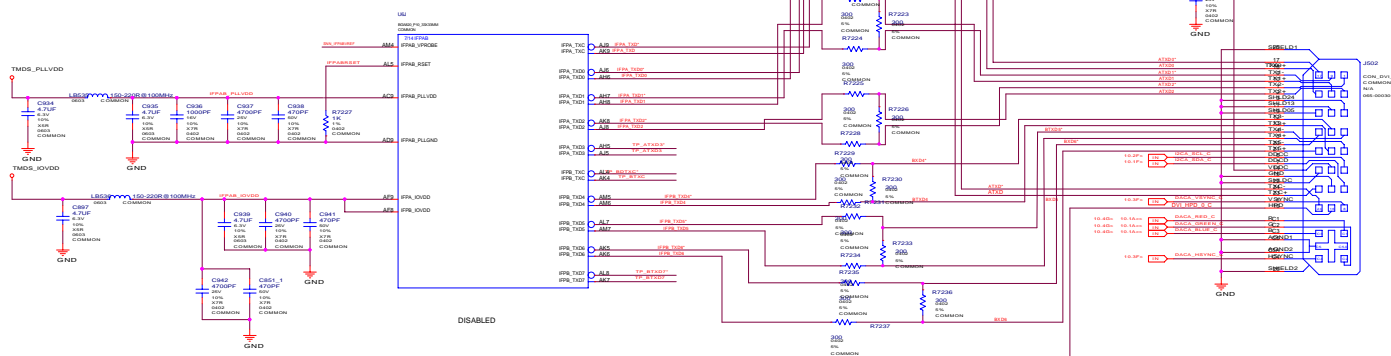
Micro-Star International Co., LTD.
MS-V046

Size	Document Number	Rev
Custom	JTAG, GPIO, BIOS ROM	GA
Date	Friday, September 16, 2005	14:07

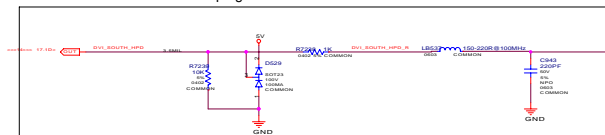
INTERNAL TMDS LINK A/B



INTERNAL TMDS ..LINK A/B



Hotplug Detection



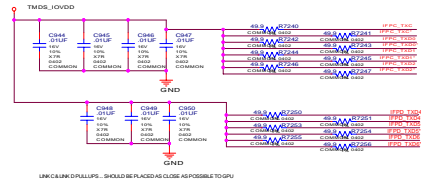
Micro-Star International Co., LTD.
MS-V046

Size	Document Number
Custom	INTERNAL TMD5 LINK A/B

Date:	Friday, September 16, 2005	Sheet:
	H	

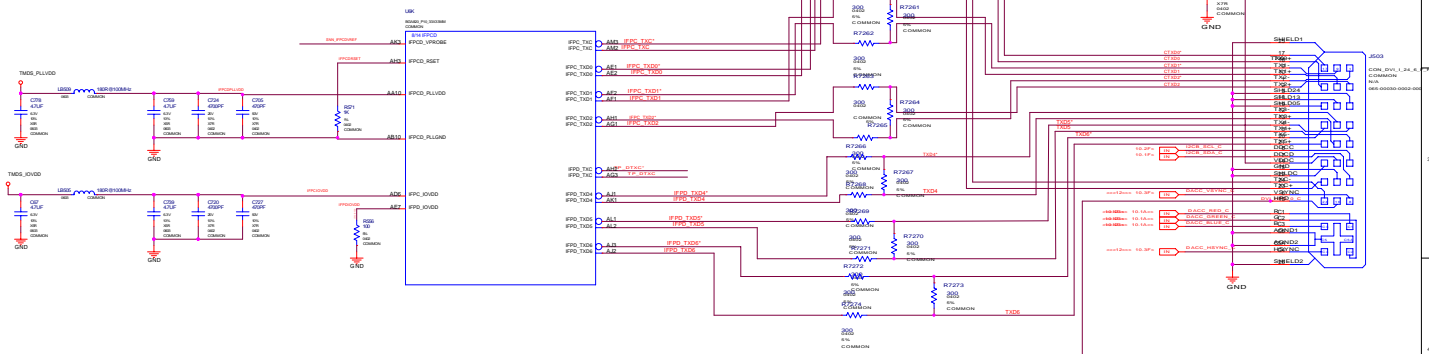
INTERNAL TMDS LINK C/D

INTERNAL TMDS .. LINK C & D

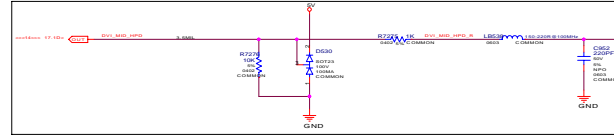


LINK C & LINK D PULLUPS ... SHOULD BE PLACED AS CLOSE AS POSSIBLE TO GPM

NET	MIN_LINE_WIDTH	VOLTAGE
IFPCOVERP	52	3.3V
IFPCOPLANE	52	3.3V
IFPCVSSP	52	3.3V
IFPCVSS	52	3.3V
IFPCGNET	52	



Hotplug Detection



Micro-Star International Co., LTD.
MS-V046
Document Number
INTERNAL TMD5 LINK C/D
Friday, September 16, 2005 Sheet 16 of 17

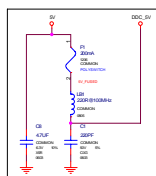
MIOA



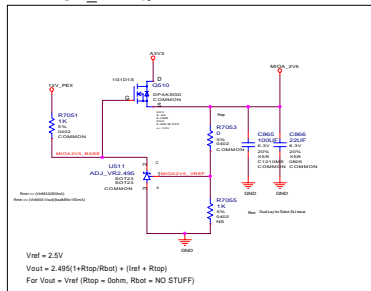
MIOB



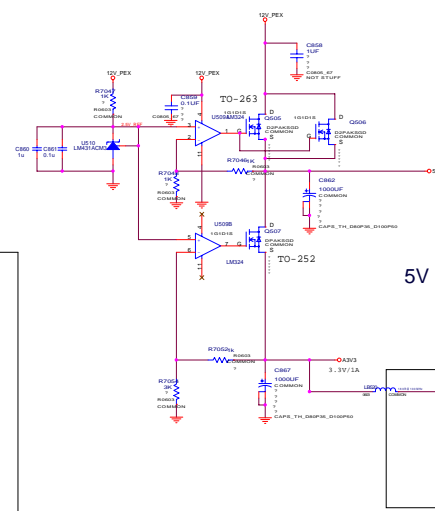
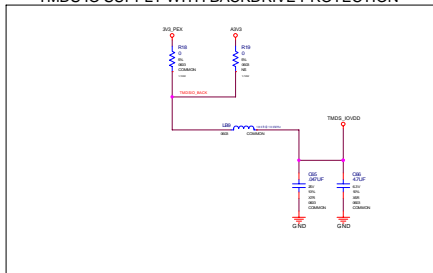
DDC 5V



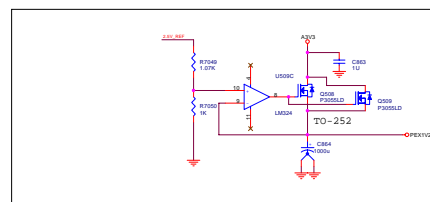
MIOA_VDDQ



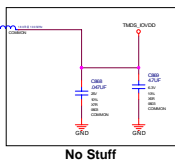
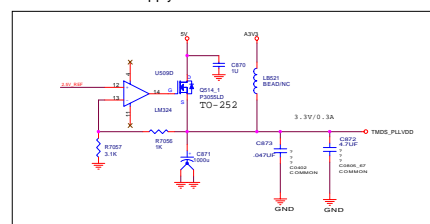
TMDS IO SUPPLY WITH BACKDRIVE PROTECTION



PEX1V2



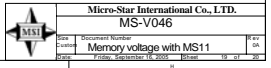
TMDS AB/CD PLL Supply



Micro-Star International Co., LTD.
MS-V046

Size	Document Number	Rev
Custom	5V/PEX1V2/PLLVDV/OVDD	0A

Pattern	area	area2	area3	area4	area5	area6	area7
1-1-1-1-1-1-1-1	1-1-1-1-1-1-1-1	1	1	1	1	1	1
1-1-1-1-1-1-1-2	1-1-1-1-1-1-1-2	1	1	1	1	1	2
1-1-1-1-1-1-1-3	1-1-1-1-1-1-1-3	1	1	1	1	1	3
1-1-1-1-1-1-1-4	1-1-1-1-1-1-1-4	1	1	1	1	1	4
1-1-1-1-1-1-1-5	1-1-1-1-1-1-1-5	1	1	1	1	1	5
1-1-1-1-1-1-1-6	1-1-1-1-1-1-1-6	1	1	1	1	1	6
1-1-1-1-1-1-1-7	1-1-1-1-1-1-1-7	1	1	1	1	1	7
1-1-1-1-1-1-1-8	1-1-1-1-1-1-1-8	1	1	1	1	1	8
1-1-1-1-1-1-1-9	1-1-1-1-1-1-1-9	1	1	1	1	1	9
1-1-1-1-1-1-1-10	1-1-1-1-1-1-1-10	1	1	1	1	1	10
1-1-1-1-1-1-1-11	1-1-1-1-1-1-1-11	1	1	1	1	1	11
1-1-1-1-1-1-1-12	1-1-1-1-1-1-1-12	1	1	1	1	1	12
1-1-1-1-1-1-1-13	1-1-1-1-1-1-1-13	1	1	1	1	1	13
1-1-1-1-1-1-1-14	1-1-1-1-1-1-1-14	1	1	1	1	1	14
1-1-1-1-1-1-1-15	1-1-1-1-1-1-1-15	1	1	1	1	1	15
1-1-1-1-1-1-1-16	1-1-1-1-1-1-1-16	1	1	1	1	1	16
1-1-1-1-1-1-1-17	1-1-1-1-1-1-1-17	1	1	1	1	1	17
1-1-1-1-1-1-1-18	1-1-1-1-1-1-1-18	1	1	1	1	1	18
1-1-1-1-1-1-1-19	1-1-1-1-1-1-1-19	1	1	1	1	1	19
1-1-1-1-1-1-1-20	1-1-1-1-1-1-1-20	1	1	1	1	1	20
1-1-1-1-1-1-1-21	1-1-1-1-1-1-1-21	1	1	1	1	1	21
1-1-1-1-1-1-1-22	1-1-1-1-1-1-1-22	1	1	1	1	1	22
1-1-1-1-1-1-1-23	1-1-1-1-1-1-1-23	1	1	1	1	1	23
1-1-1-1-1-1-1-24	1-1-1-1-1-1-1-24	1	1	1	1	1	24
1-1-1-1-1-1-1-25	1-1-1-1-1-1-1-25	1	1	1	1	1	25
1-1-1-1-1-1-1-26	1-1-1-1-1-1-1-26	1	1	1	1	1	26
1-1-1-1-1-1-1-27	1-1-1-1-1-1-1-27	1	1	1	1	1	27
1-1-1-1-1-1-1-28	1-1-1-1-1-1-1-28	1	1	1	1	1	28
1-1-1-1-1-1-1-29	1-1-1-1-1-1-1-29	1	1	1	1	1	29
1-1-1-1-1-1-1-30	1-1-1-1-1-1-1-30	1	1	1	1	1	30
1-1-1-1-1-1-1-31	1-1-1-1-1-1-1-31	1	1	1	1	1	31
1-1-1-1-1-1-1-32	1-1-1-1-1-1-1-32	1	1	1	1	1	32
1-1-1-1-1-1-1-33	1-1-1-1-1-1-1-33	1	1	1	1	1	33
1-1-1-1-1-1-1-34	1-1-1-1-1-1-1-34	1	1	1	1	1	34
1-1-1-1-1-1-1-35	1-1-1-1-1-1-1-35	1	1	1	1	1	35
1-1-1-1-1-1-1-36	1-1-1-1-1-1-1-36	1	1	1	1	1	36
1-1-1-1-1-1-1-37	1-1-1-1-1-1-1-37	1	1	1	1	1	37
1-1-1-1-1-1-1-38	1-1-1-1-1-1-1-38	1	1	1	1	1	38
1-1-1-1-1-1-1-39	1-1-1-1-1-1-1-39	1	1	1	1	1	39
1-1-1-1-1-1-1-40	1-1-1-1-1-1-1-40	1	1	1	1	1	40
1-1-1-1-1-1-1-41	1-1-1-1-1-1-1-41	1	1	1	1	1	41
1-1-1-1-1-1-1-42	1-1-1-1-1-1-1-42	1	1	1	1	1	42
1-1-1-1-1-1-1-43	1-1-1-1-1-1-1-43	1	1	1	1	1	43
1-1-1-1-1-1-1-44	1-1-1-1-1-1-1-44	1	1	1	1	1	44
1-1-1-1-1-1-1-45	1-1-1-1-1-1-1-45	1	1	1	1	1	45
1-1-1-1-1-1-1-46	1-1-1-1-1-1-1-46	1	1	1	1	1	46
1-1-1-1-1-1-1-47	1-1-1-1-1-1-1-47	1	1	1	1	1	47
1-1-1-1-1-1-1-48	1-1-1-1-1-1-1-48	1	1	1	1	1	48
1-1-1-1-1-1							



```
Rcsn= DCR*Icop/80uA =
1mohm*40Amp/80uA=499 ohm

I_ind= (Icop*DCR/Rcsn)*4
= (40A*1mohm/499ohm)*4=80uA

R_ind=V_ind/I_ind= 1V/80uA=
3.3K
```

[illegible]

```
NVDD_ GPIO:10~15
FBVDDQ_ GPIO:20~24
DACA_ RESET---GPIO:25~28
DACC_ RESET---GPIO:30~32
```