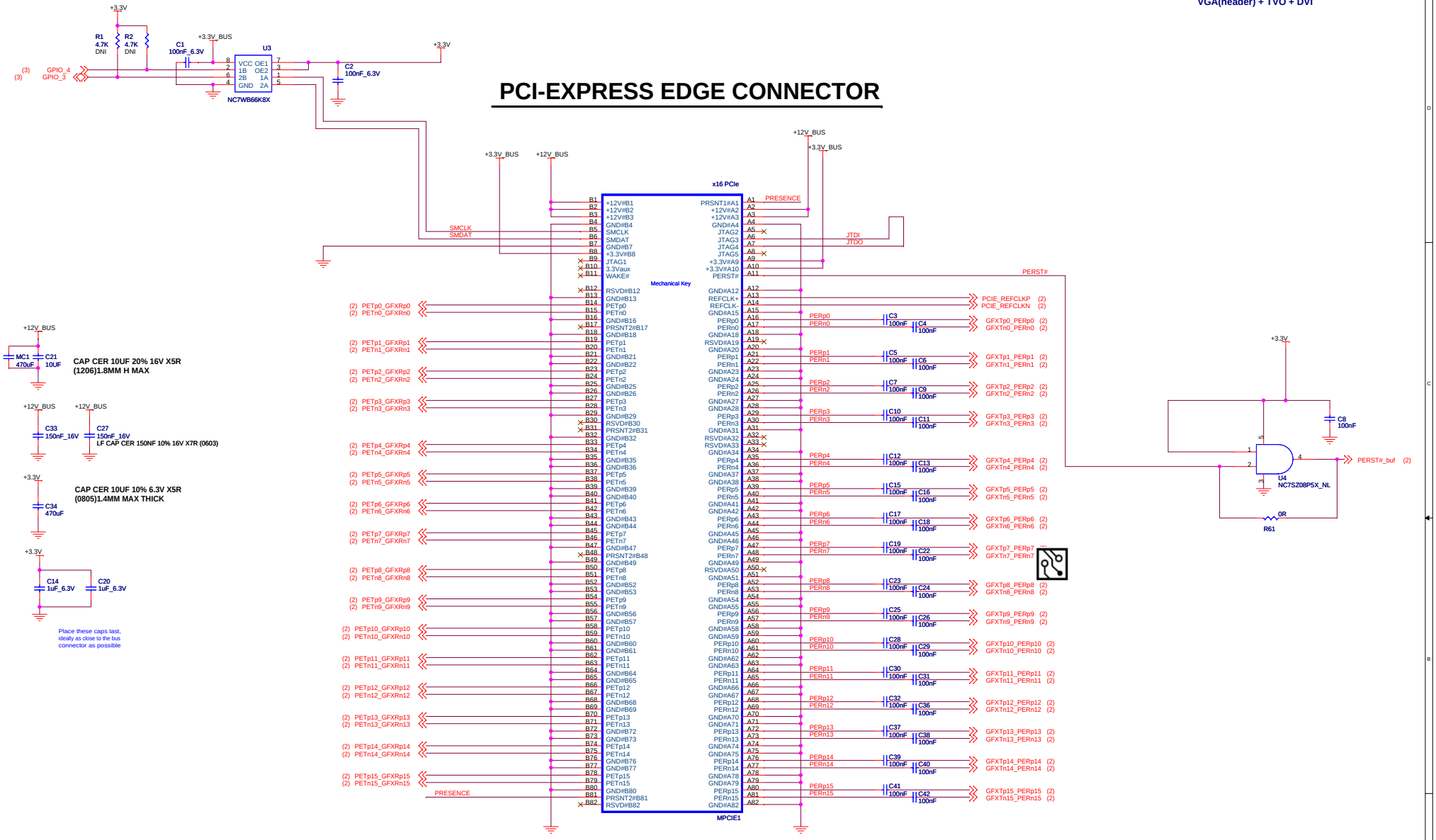
RV710 CUSTOM

VGA(header) + TVO + DVI

PCI-EXPRESS EDGE CONNECTOR

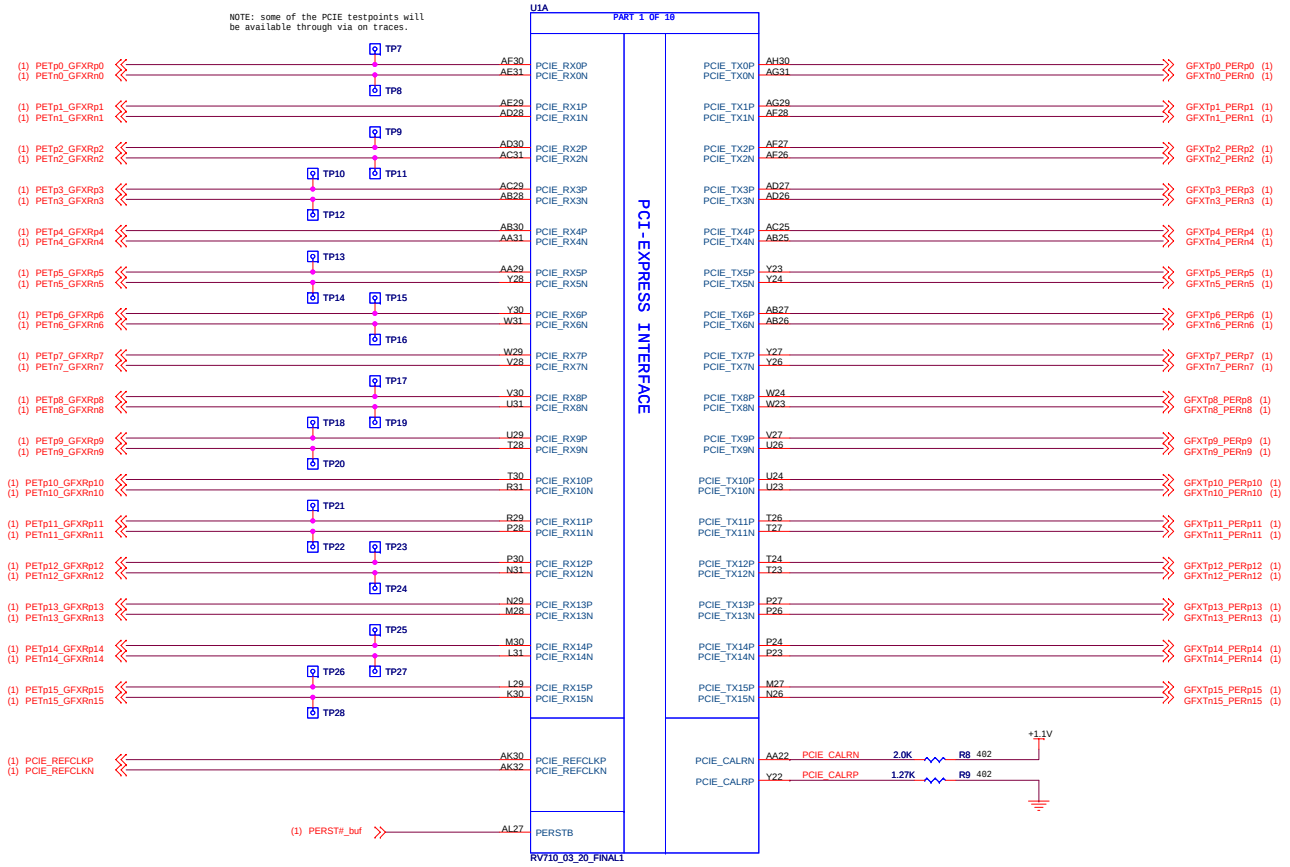


SYMBOL LEGEND

DNI	DO NOT INSTALL
#	ACTIVE LOW
	DIGITAL GROUND
	ANALOG GROUND

Advanced Micro Devices Inc.
1 Commerce Valley Drive East
Markham, Ontario

Date:	Thursday, October 23, 2008
Rev	0
Sheet	1 of 22
Title	RH LP RV710 DDR2 VGA (header) TVO DVI
Doc No.	105-B750XX-00A



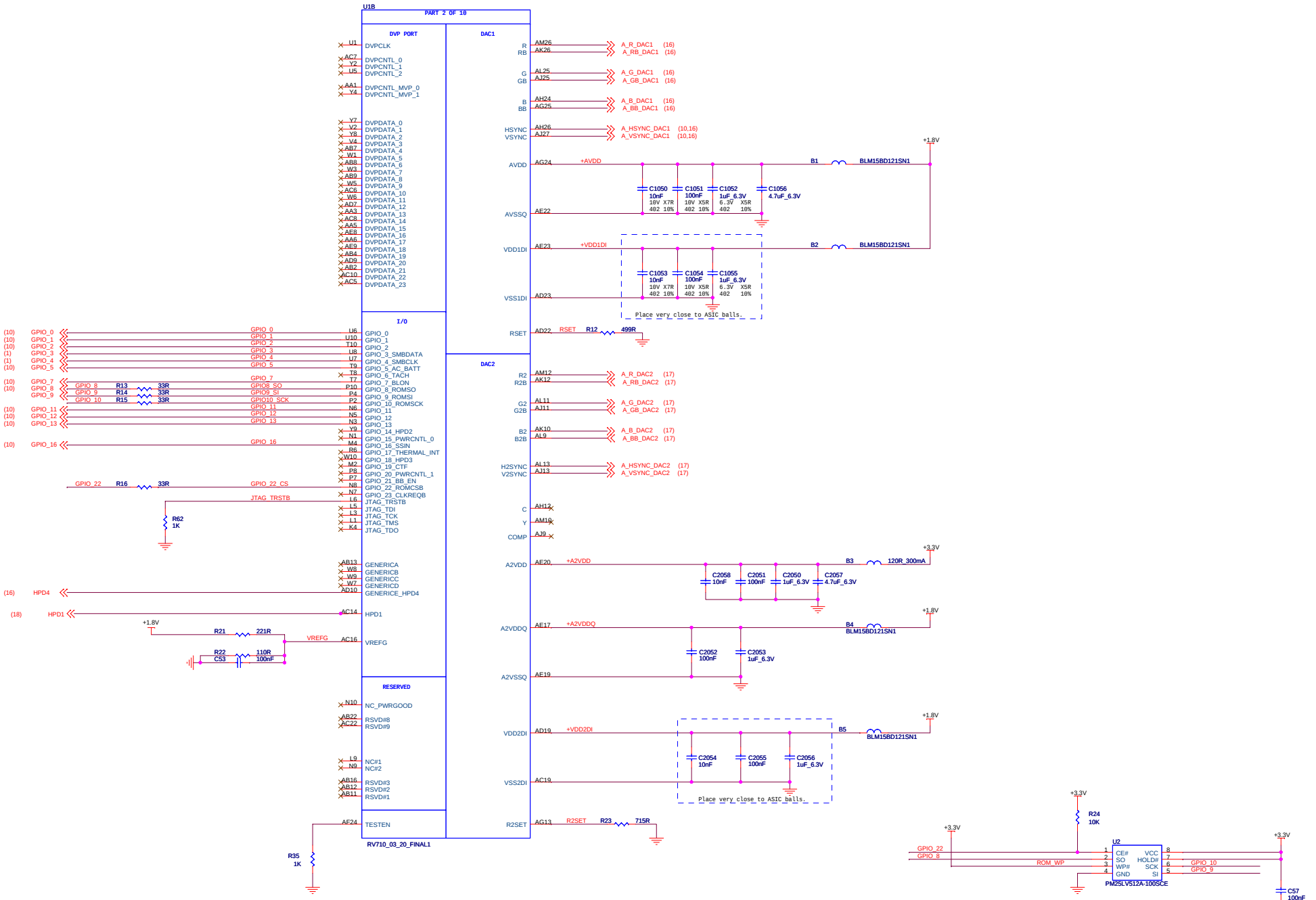
Advanced Micro Devices Inc.
1 Commerce Valley Drive East
Markham, Ontario

Date: Thursday, October 23, 2008 Rev 0

Sheet 2 of 22

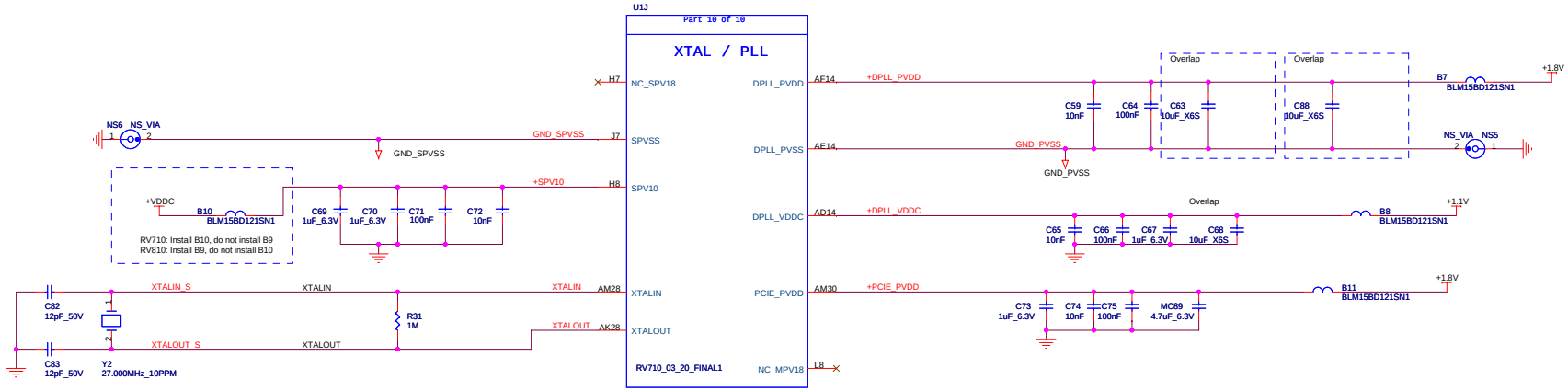
Title RH LP RV710 DDR2 VGA (header) TVO DVI

Doc No. 105-B750XX-00A



Advanced Micro Devices Inc.
1 Commerce Valley Drive East
Markham, Ontario

Date:	Thursday, October 23, 2008
Rev	0
Sheet	3 of 22
Title	RH LP RV710 DDR2 VGA (header) TVO DVI
Doc No.	105-B750XX-00A

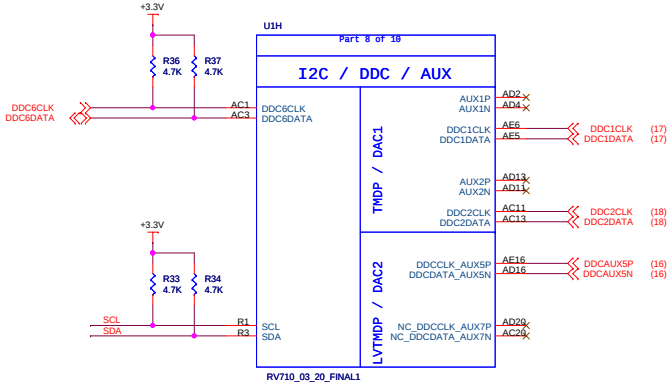


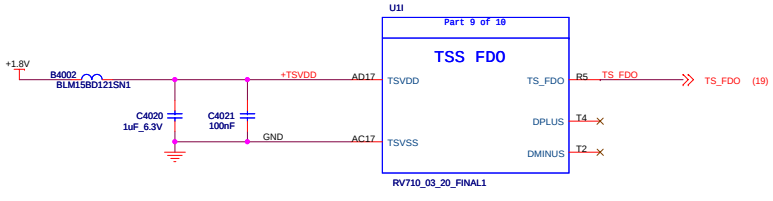
DDC6 BUS:

I2C Address	Function	Device
0x90	I2C VDDC Control	DS4402
0x98	LM63 - External Temperature Sensor	LM63

SCL / SDA BUS:

I2C Address	Function	Device
N/A	N/A	N/A





Advanced Micro Devices Inc.
1 Commerce Valley Drive East
Markham, Ontario

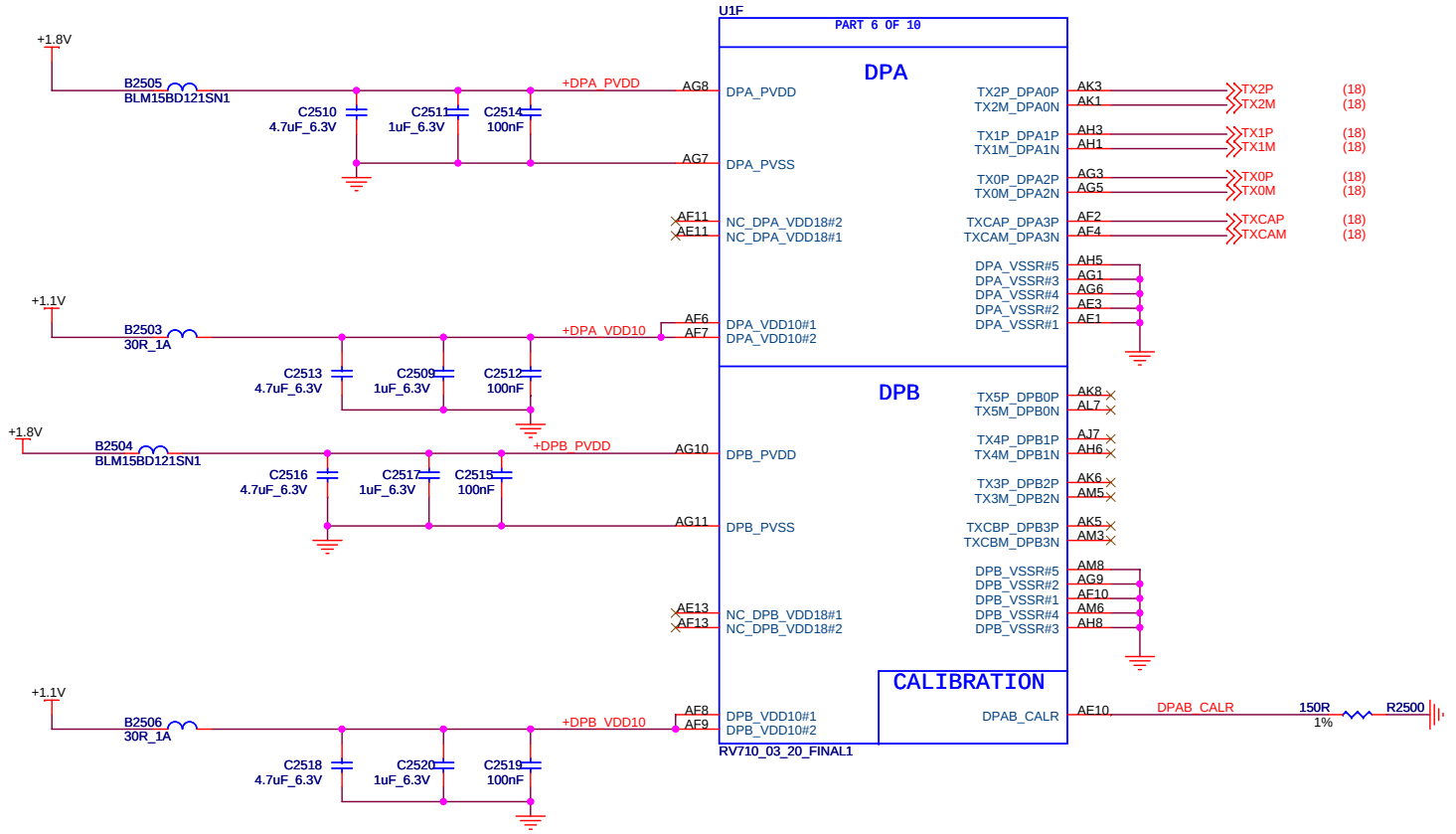
Date: Thursday, October 23, 2008 Rev 0

Sheet 4 of 22

Title RH LP RV710 DDR2 VGA (header) TVO DVI

Doc No. 105-B750XX-00A

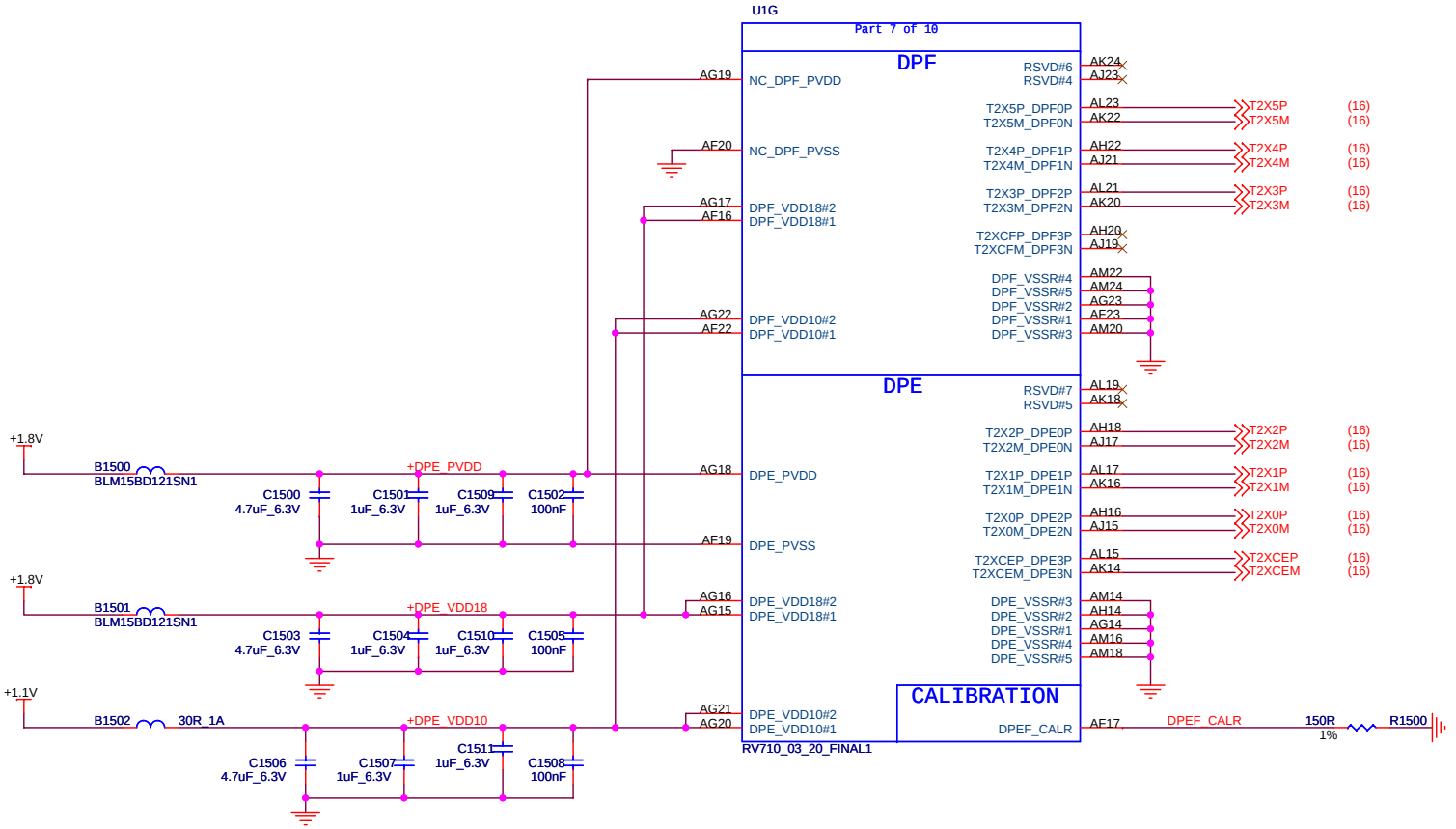
TMDP INTERFACE



Advanced Micro Devices Inc.
1 Commerce Valley Drive East
Markham, Ontario

Date: Thursday, October 23, 2008	Rev 0
Sheet 5 of 22	
Title: RH LP RV710 DDR2 VGA (header) TVO DVI	Doc No. 105-B750XX-00A

LVTMDP INTERFACE



Advanced Micro Devices Inc.
1 Commerce Valley Drive East
Markham, Ontario

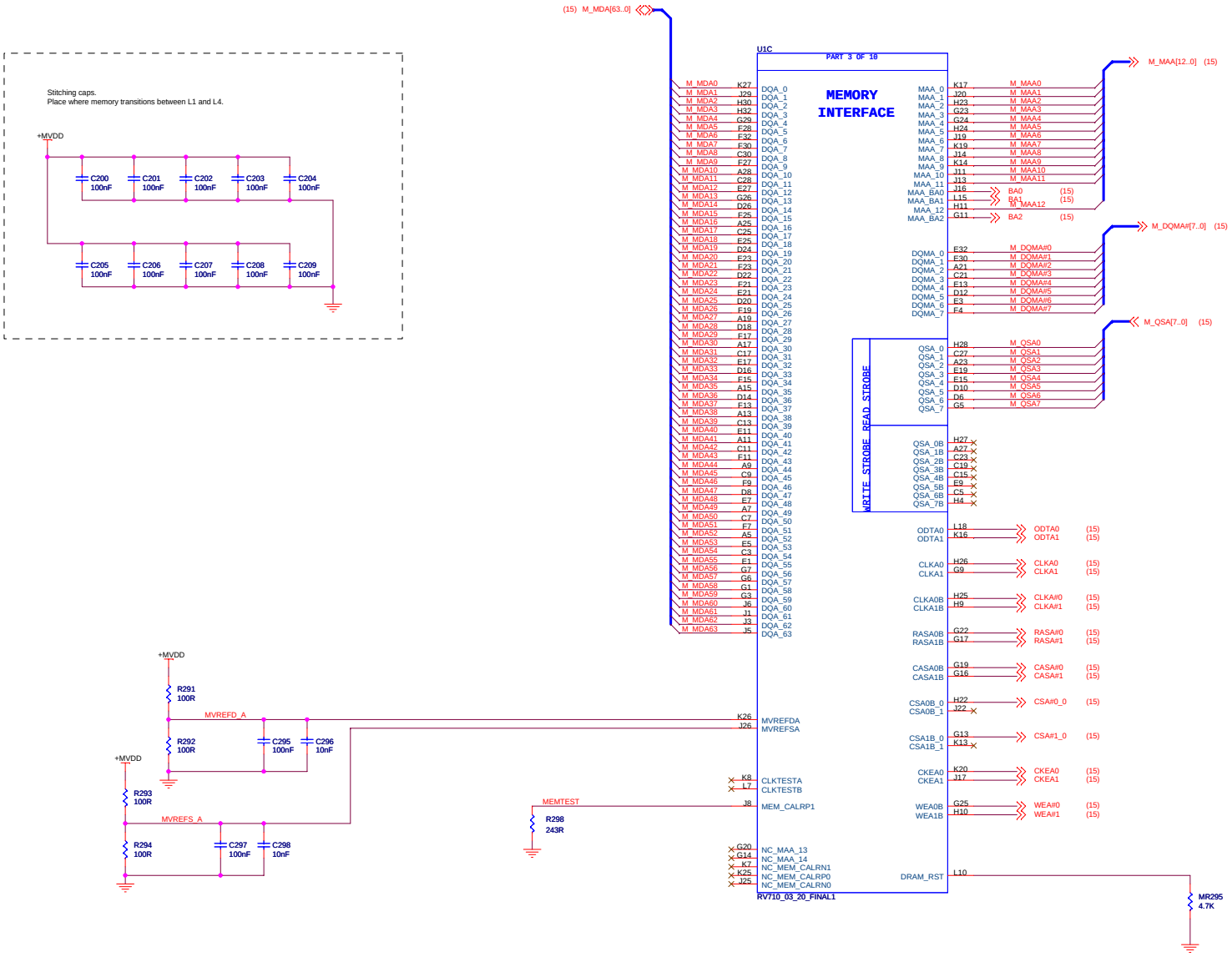
Date: Thursday, October 23, 2008 Rev 0

Sheet 6 of 22

Title RH LP RV710 DDR2 VGA (header) TVO DVI

Doc No. 105-B750XX-00A

MEMORY INTERFACE



DIVIDER RESISTORS	DDR2
MVREF TO 1.8V	100R
MVREF TO GND	100R

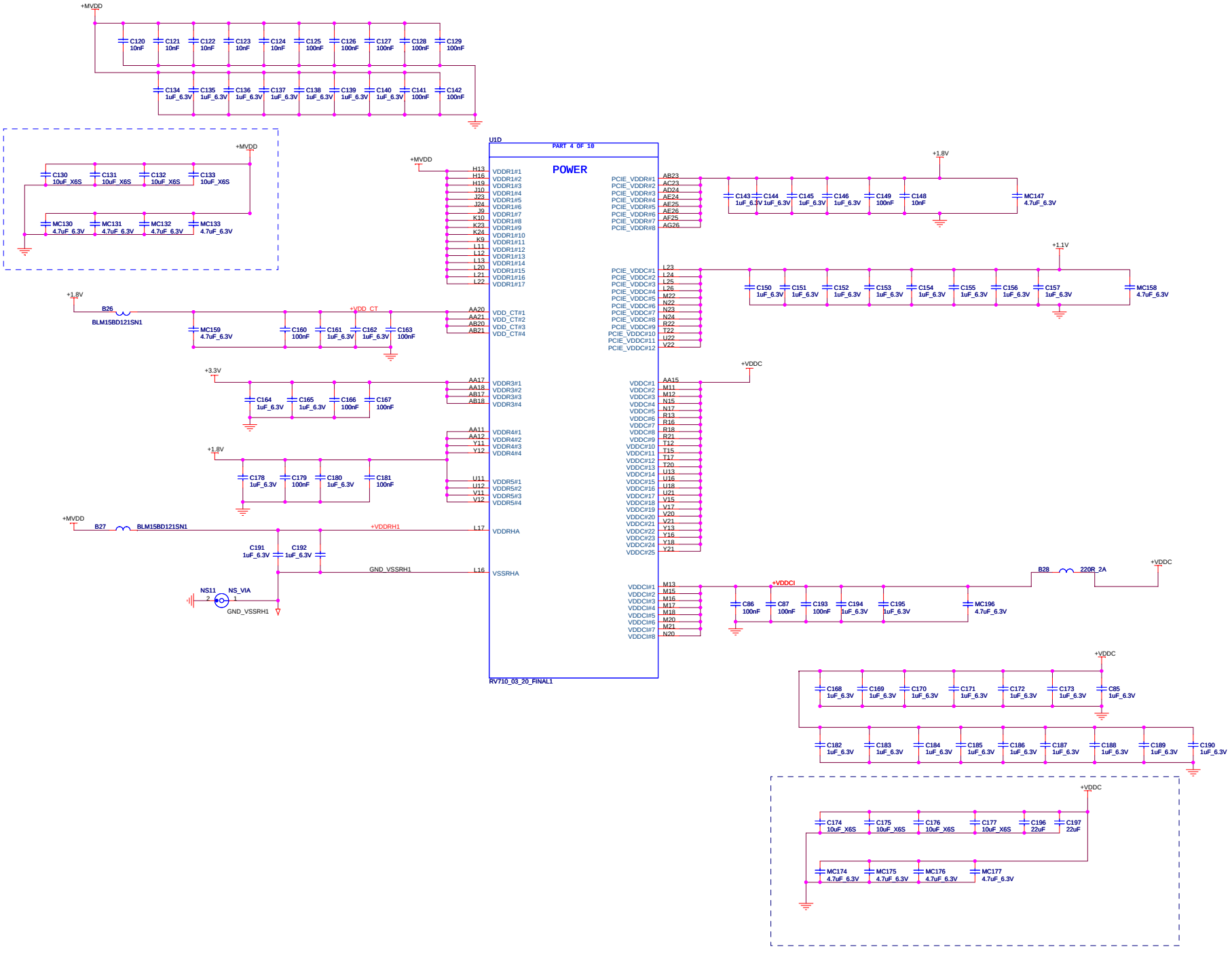
Advanced Micro Devices Inc.
1 Commerce Valley Drive East
Markham, Ontario

Date: Thursday, October 23, 2008 Rev 0

Sheet 7 of 22

Title RH LP RV710 DDR2 VGA (header) TVO DVI

Doc No. 105-B750XX-00A



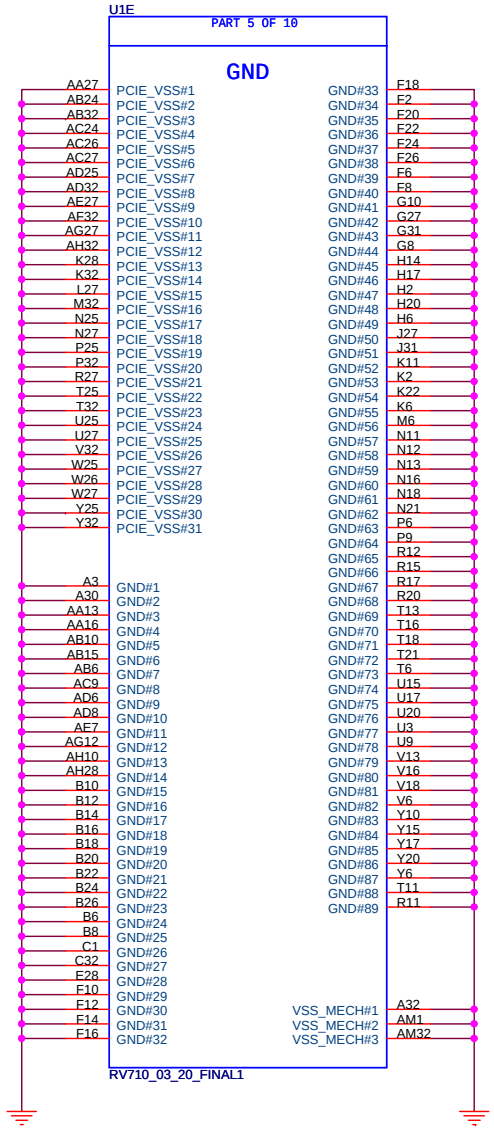
Advanced Micro Devices Inc.
1 Commerce Valley Drive East
Markham, Ontario

Date: Thursday, October 23, 2008 Rev 0

Sheet 8 of 22

Title: RH LP RV710 DDR2 VGA (header) TVO DVI

Doc No. 105-B750XX-00A



Advanced Micro Devices Inc.
1 Commerce Valley Drive East
Markham, Ontario

Date: Thursday, October 23, 2008 Rev 0

Sheet 9 of 22

Title RH LP RV710 DDR2 VGA (header) TVO DVI

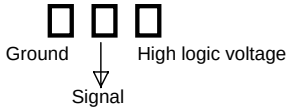
Doc No. 105-B750XX-00A

PIN BASED STRAPS

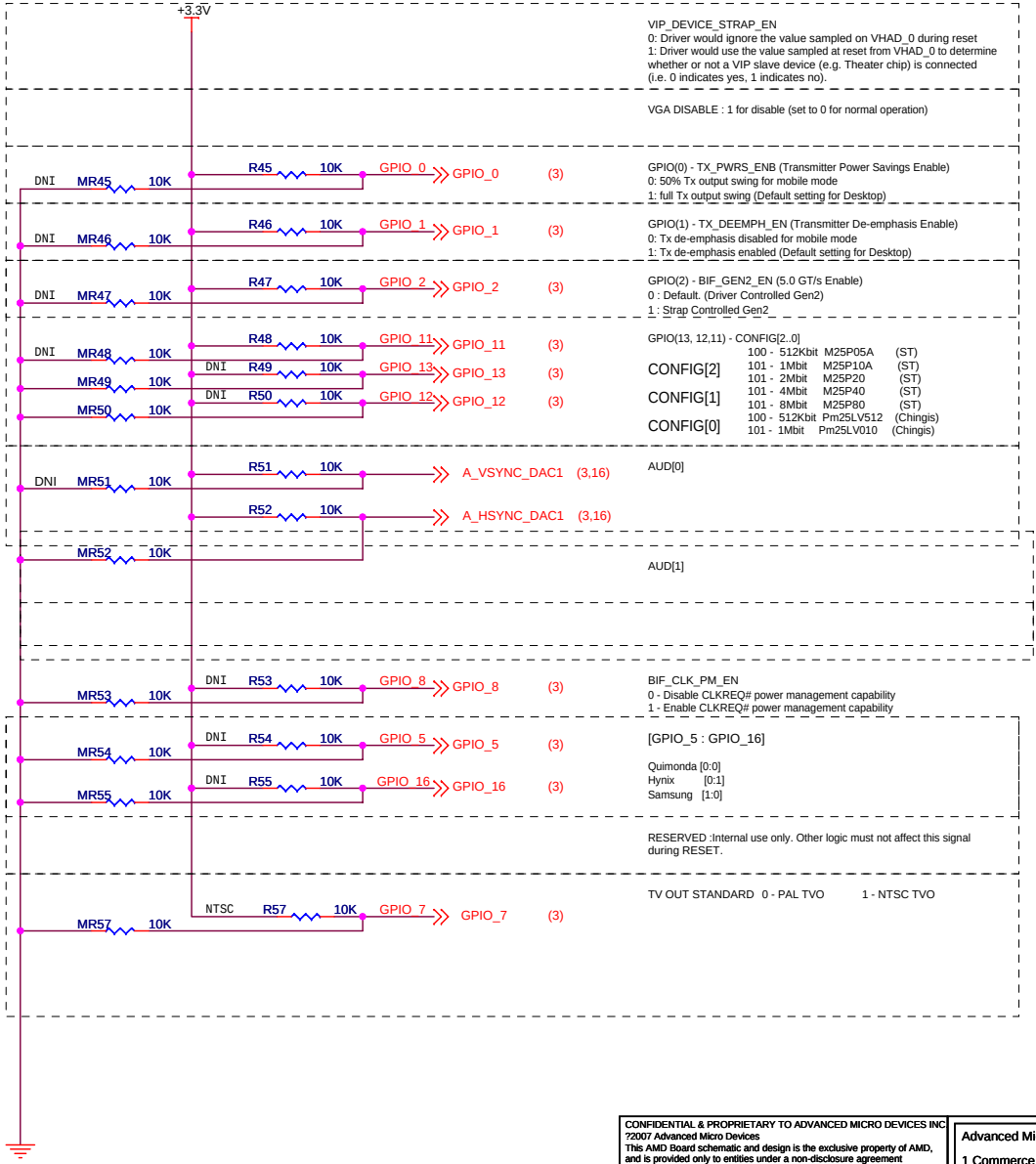
Pull-Down Resistors are for BU until built-in pull-downs are verified.

Overlap pads to save space and to prevent assembly of both resistors.

Layout



PIN BASED STRAPS



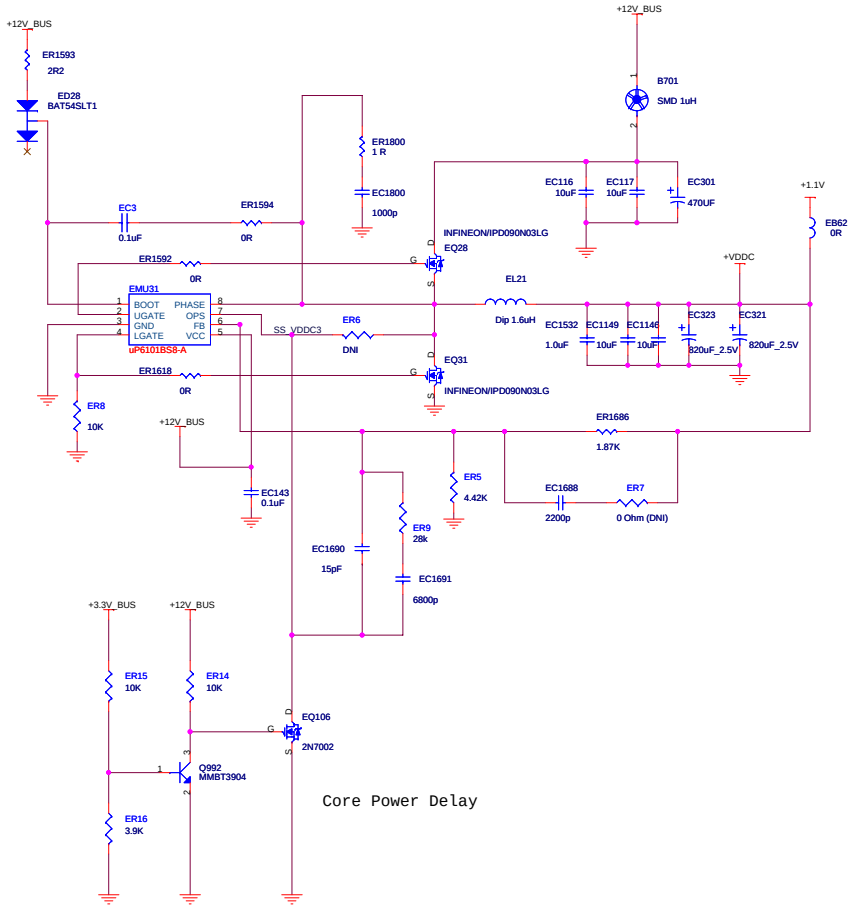
Advanced Micro Devices Inc.
1 Commerce Valley Drive East
Markham, Ontario

Date: Thursday, October 23, 2008 Rev 0

Sheet 10 of 22

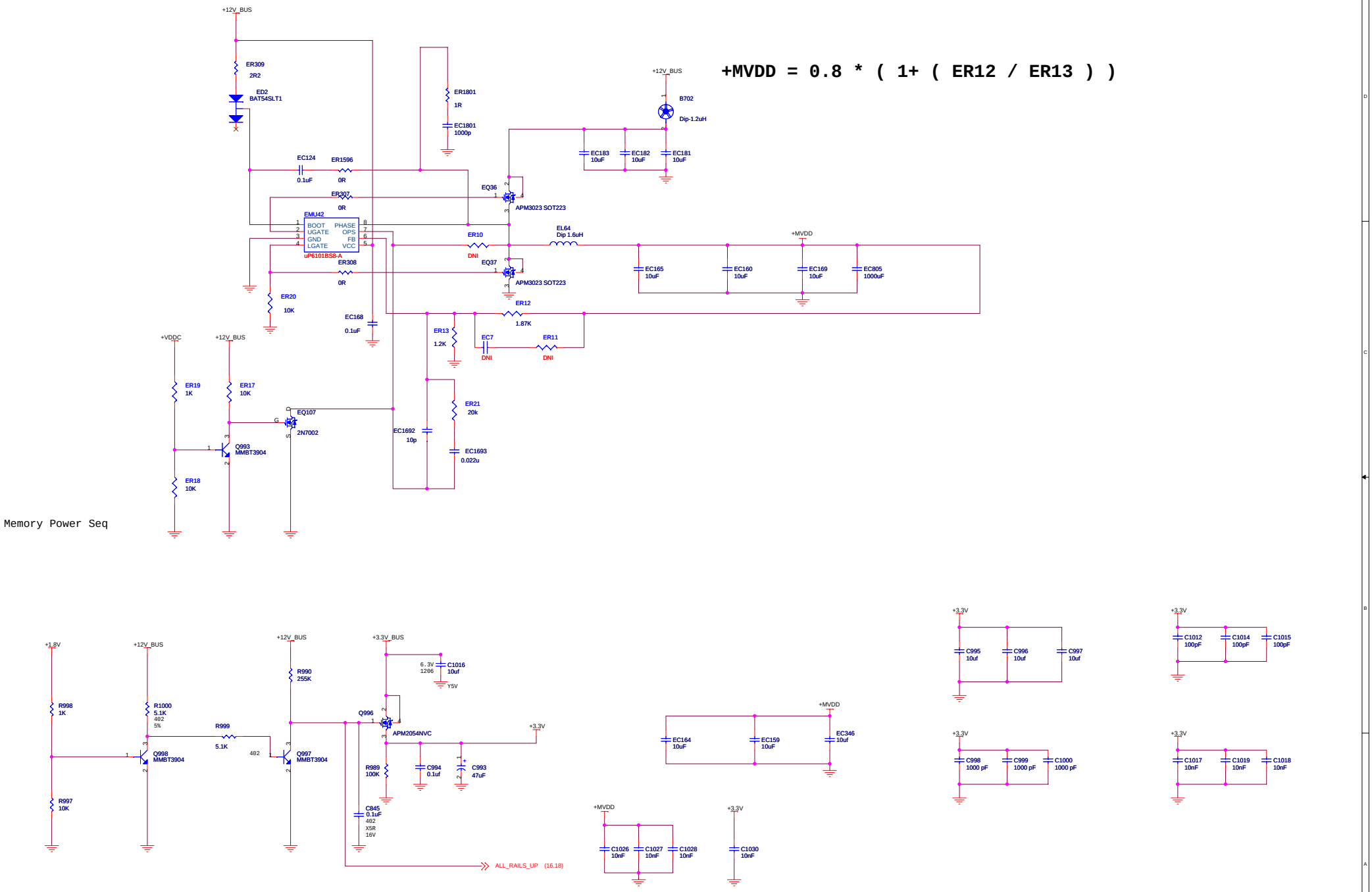
Title RH LP RV710 DDR2 VGA (header) TVO DVI

Doc No. 105-B750XX-00A



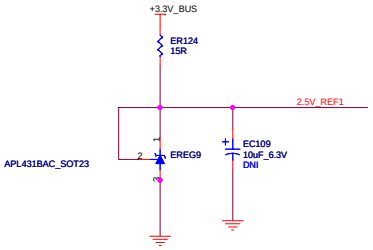
Advanced Micro Devices Inc.
1 Commerce Valley Drive East
Markham, Ontario

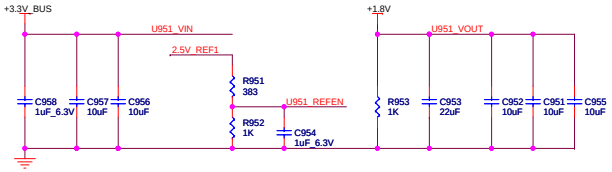
Date:	Thursday, October 23, 2008
Rev	0
Sheet	11 of 22
Title	RH LP RV710 DDR2 VGA (header) TVO DVI
Doc No.	105-B750XX-00A

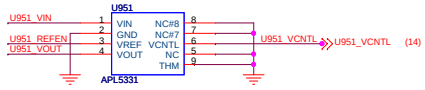


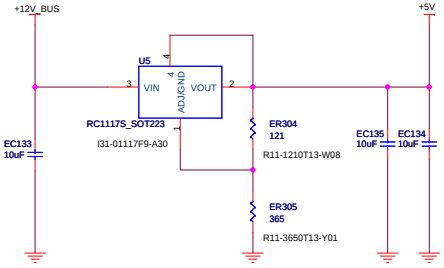
Advanced Micro Devices Inc.
1 Commerce Valley Drive East
Markham, Ontario

Date:	Thursday, October 23, 2008
Rev	0
Sheet	12 of 22
Title	RH LP RV710 DDR2 VGA (header) TVO DVI
Doc No.	105-B750XX-00A

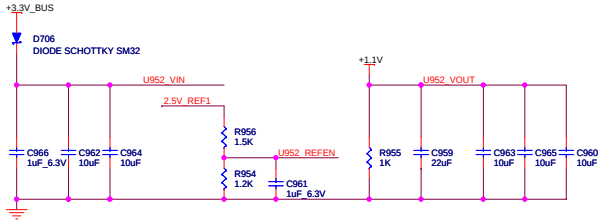


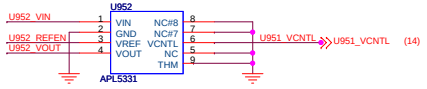






Vout=1.25V* [1+(ER305/ER304)]





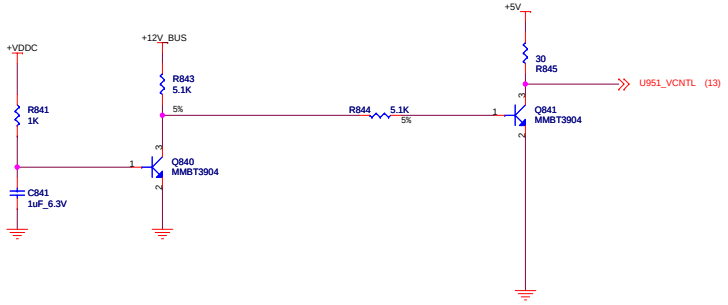
Advanced Micro Devices Inc.
1 Commerce Valley Drive East
Markham, Ontario

Date: Thursday, October 23, 2008 Rev 0

Sheet 13 of 22

Title RH LP RV710 DDR2 VGA (header) TVO DVI

Doc No. 105-B750XX-00A

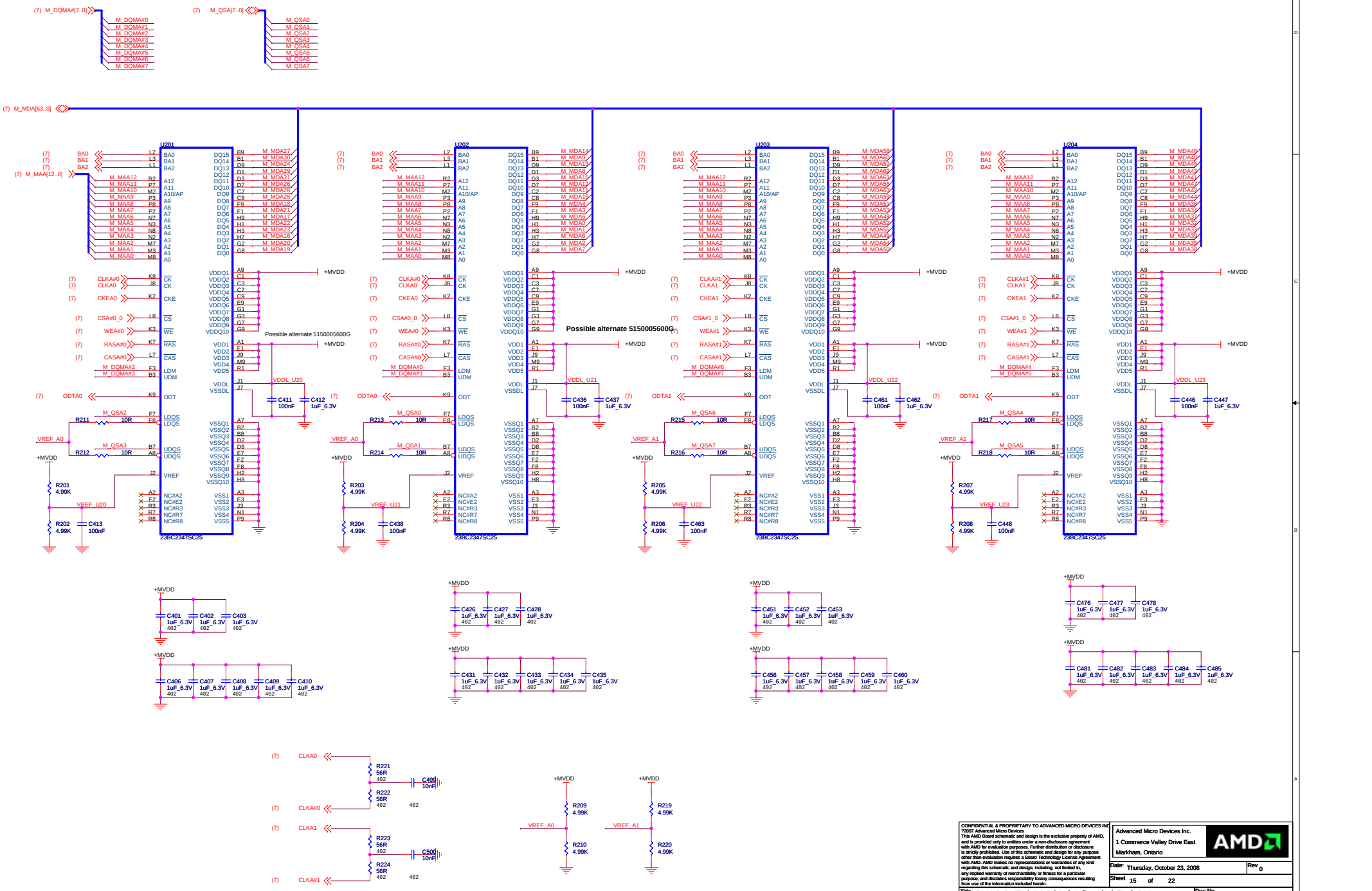


Advanced Micro Devices Inc.
1 Commerce Valley Drive East
Markham, Ontario

Date: Thursday, October 23, 2008	Rev 0
Sheet 14 of 22	
Title RH LP RV710 DDR2 VGA (header) TVO DVI	Doc No. 105-B750XX-00A

CHANNEL A: RANK 0 512MB DDR2

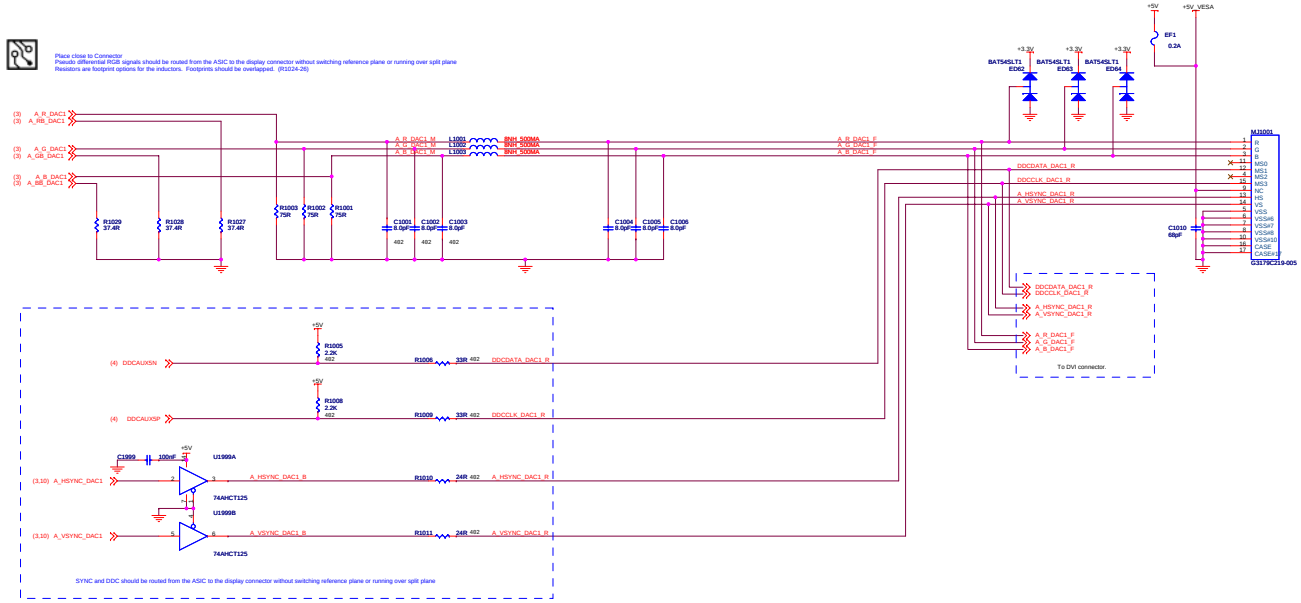
MAX DENSITY: 64Mx16



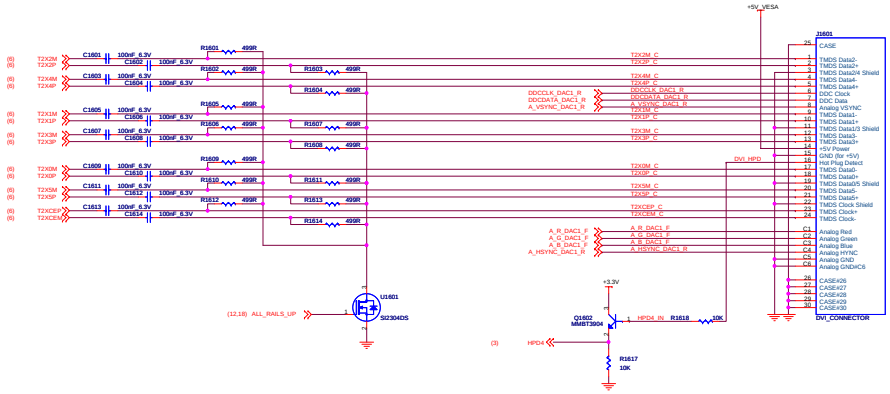
Advanced Micro Devices Inc.
1 Commerce Valley Drive East
Markham, Ontario

Date:	Thursday, October 23, 2008
Rev	0
Sheet	15 of 22
Title	RH LP RV710 DDR2 VGA (header) TVO DVI
Doc No.	105-B750XX-00A

DAC 1 OUTPUT



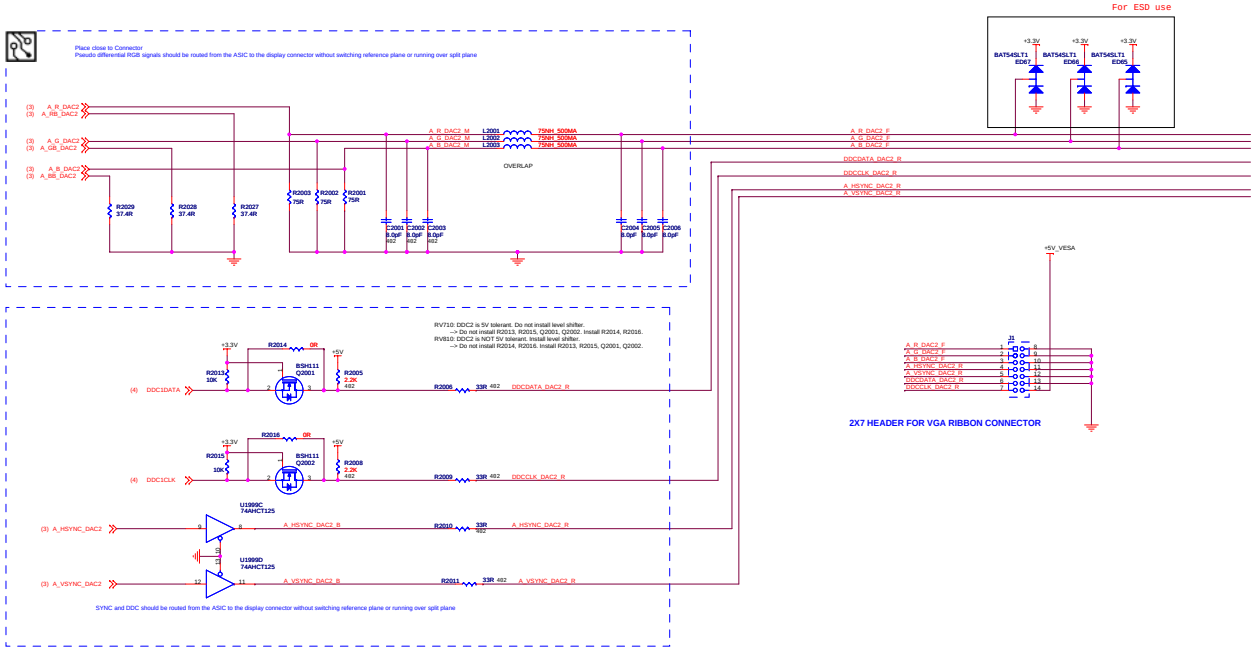
DPE / DPF OUTPUT



Advanced Micro Devices Inc.
1 Commerce Valley Drive East
Markham, Ontario

Date:	Thursday, October 23, 2008
Rev	0
Sheet	16 of 22
Title	RH LP RV710 DDR2 VGA (header) TVO DVI
Doc No.	105-B750XX-00A

DAC 2 OUTPUT



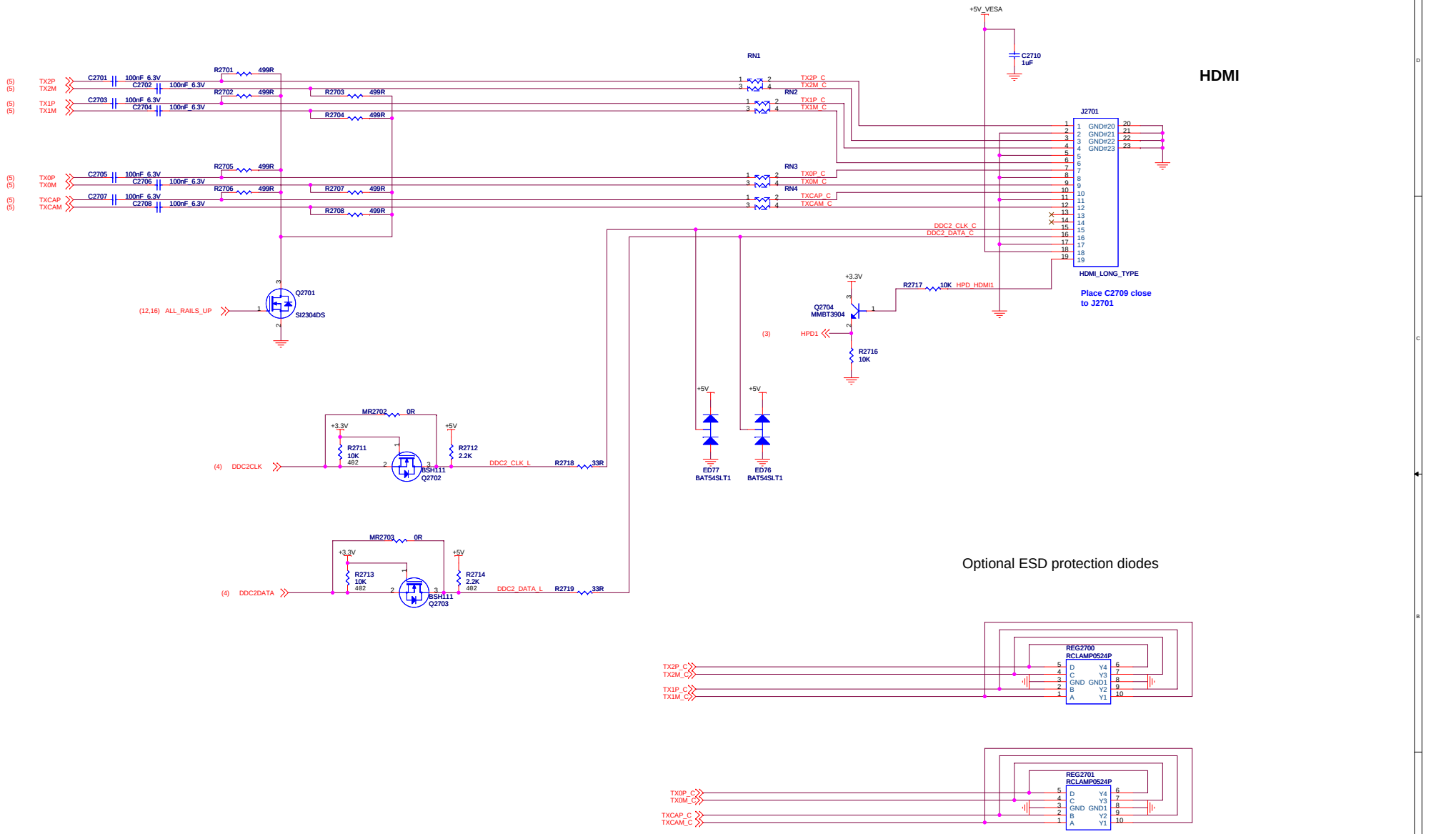
Advanced Micro Devices Inc.
1 Commerce Valley Drive East
Markham, Ontario

Date: Thursday, October 23, 2008 Rev: 0

Sheet 17 of 22

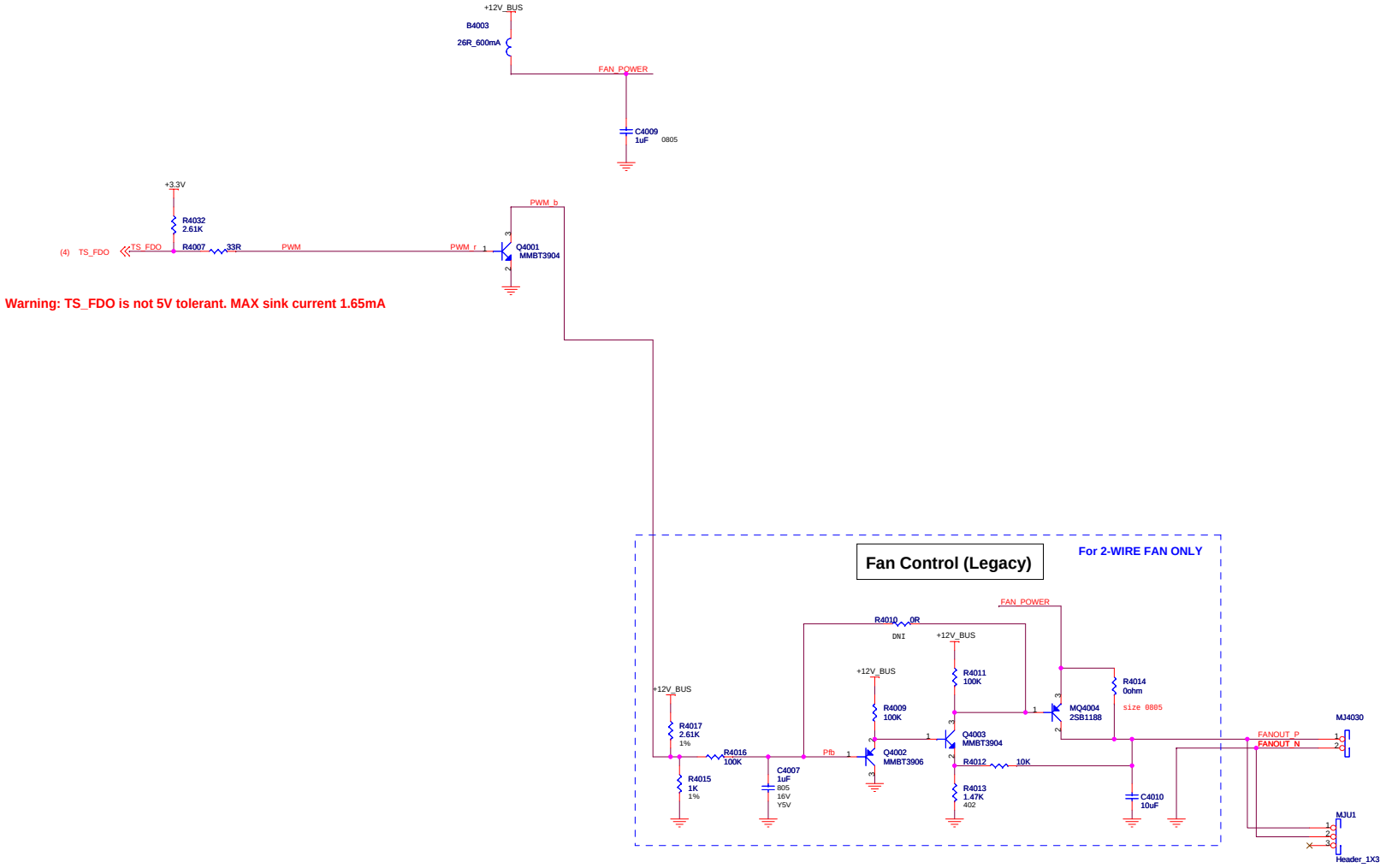
Title: RH LP RV710 DDR2 VGA (header) TVO DVI

Doc No. 105-B750XX-00A



Advanced Micro Devices Inc.
1 Commerce Valley Drive East
Markham, Ontario

Date:	Thursday, October 23, 2008
Rev	0
Sheet	18 of 22
Title	RH LP RV710 DDR2 VGA (header) TVO DVI
Doc No.	105-B750XX-00A



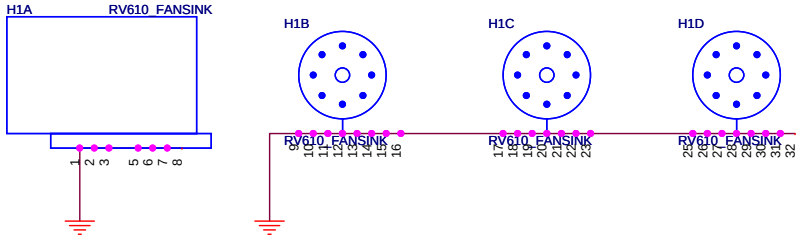
Advanced Micro Devices Inc.
1 Commerce Valley Drive East
Markham, Ontario

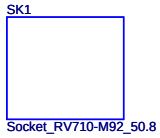
Date: Thursday, October 23, 2008 Rev 0

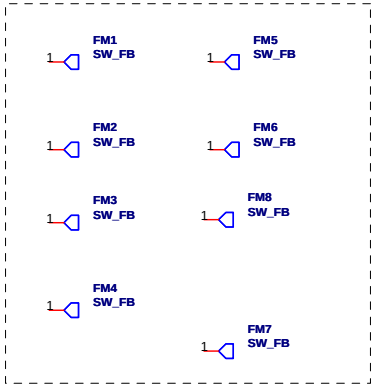
Sheet 19 of 22

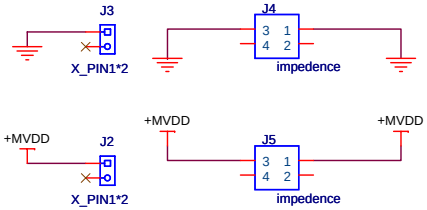
Title RH LP RV710 DDR2 VGA (header) TVO DVI

Doc No. 105-B750XX-00A









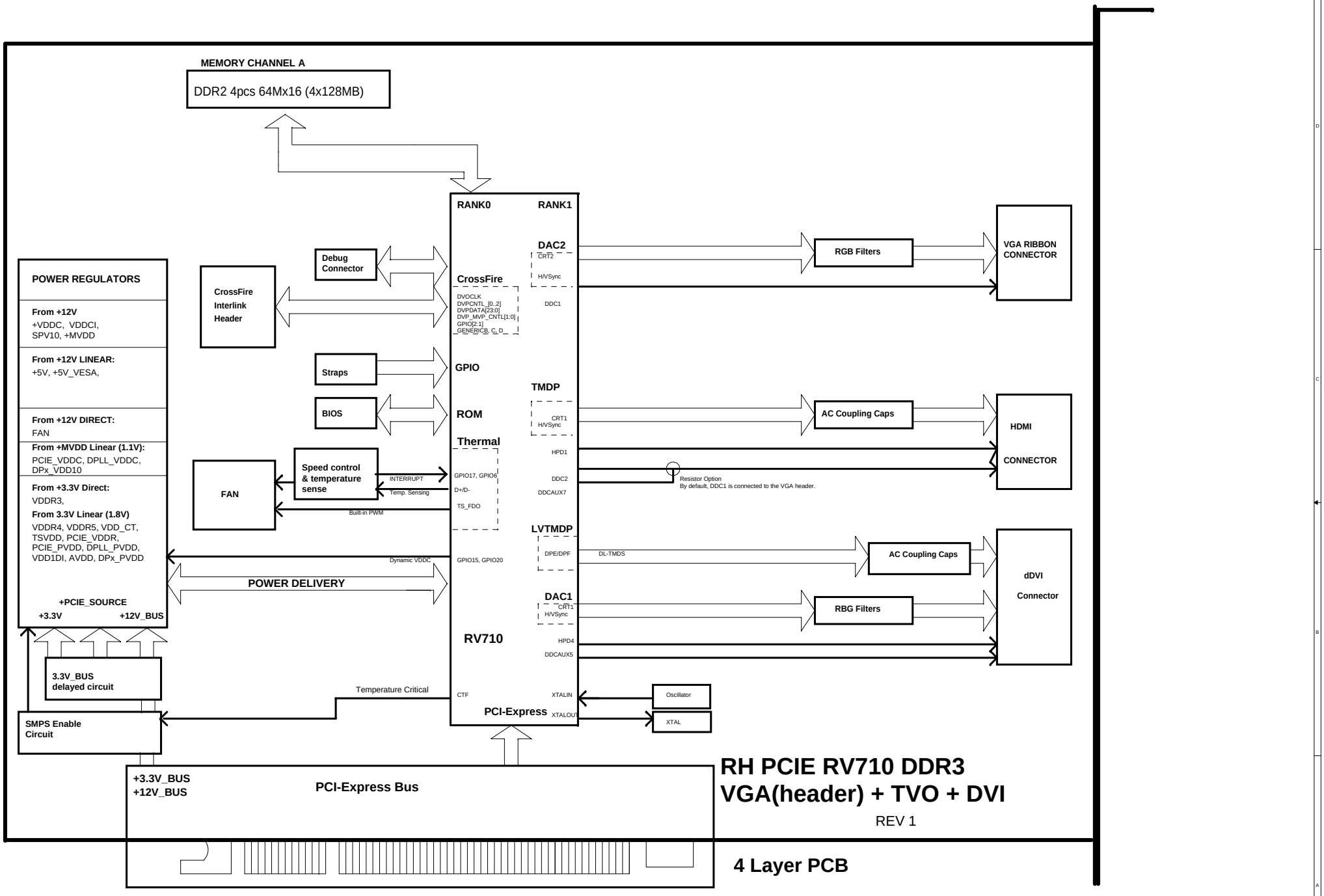
Advanced Micro Devices Inc.
1 Commerce Valley Drive East
Markham, Ontario

Date: Thursday, October 23, 2008 Rev 0

Sheet 20 of 22

Title RH LP RV710 DDR2 VGA (header) TVO DVI

Doc No. 105-B750XX-00A



Advanced Micro Devices Inc.
1 Commerce Valley Drive East
Markham, Ontario

Date:	Thursday, October 23, 2008
Rev	0
Sheet	21 of 22
Title	RH LP RV710 DDR3 VGA (header) TVO DVI
Doc No.	105-B750XX-00A

Title	Schematic No.	Date:
RH LP RV710 DDR2 VGA (header) TVO DVI	105-B750XX-00A	Thursday, October 23, 2008

REVISION HISTORY

NOTE: **This schematic represents the PCB, it does not represent any specific SKU.
For Stuffing options (component values, DNI , ? please consult the product specific BOM.
Please contact AMD representative to obtain latest BOM closest to the application desired.**

Rev 0

RV710 ENGINEERING BOARD

Sch Rev	PCB Rev	Date	REVISION DESCRIPTION
01	00A	2008.04.02	INITIAL RELEASE OF CUSTOM-WIDE BOARD. BASED ON B625 REV06.