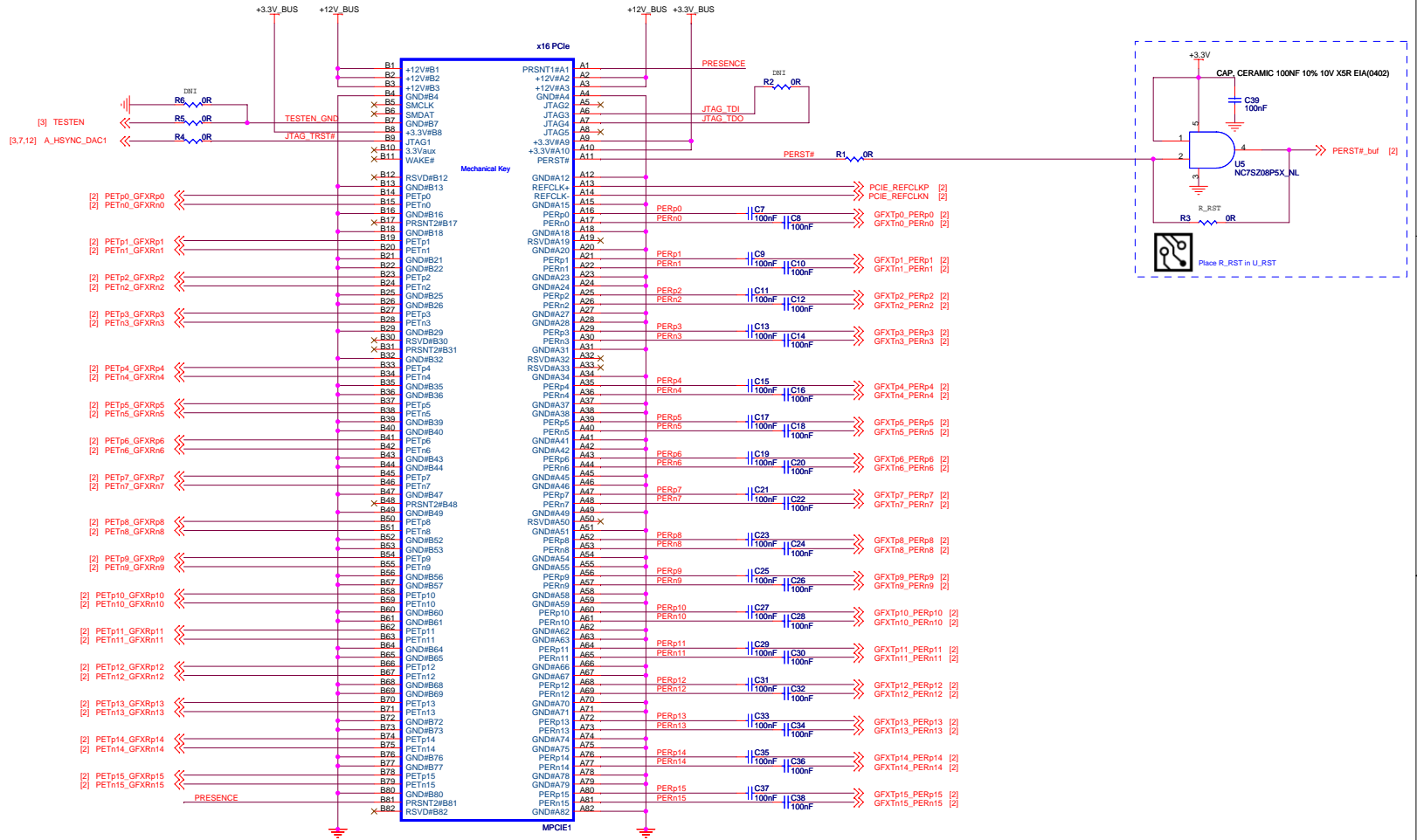
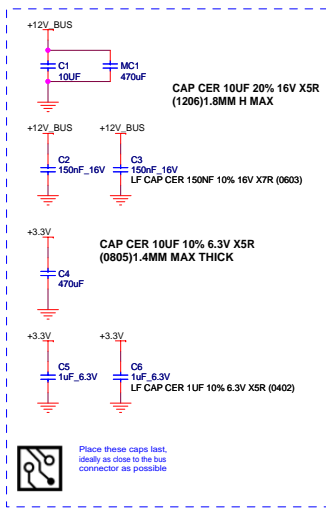


# PCI-EXPRESS EDGE CONNECTOR



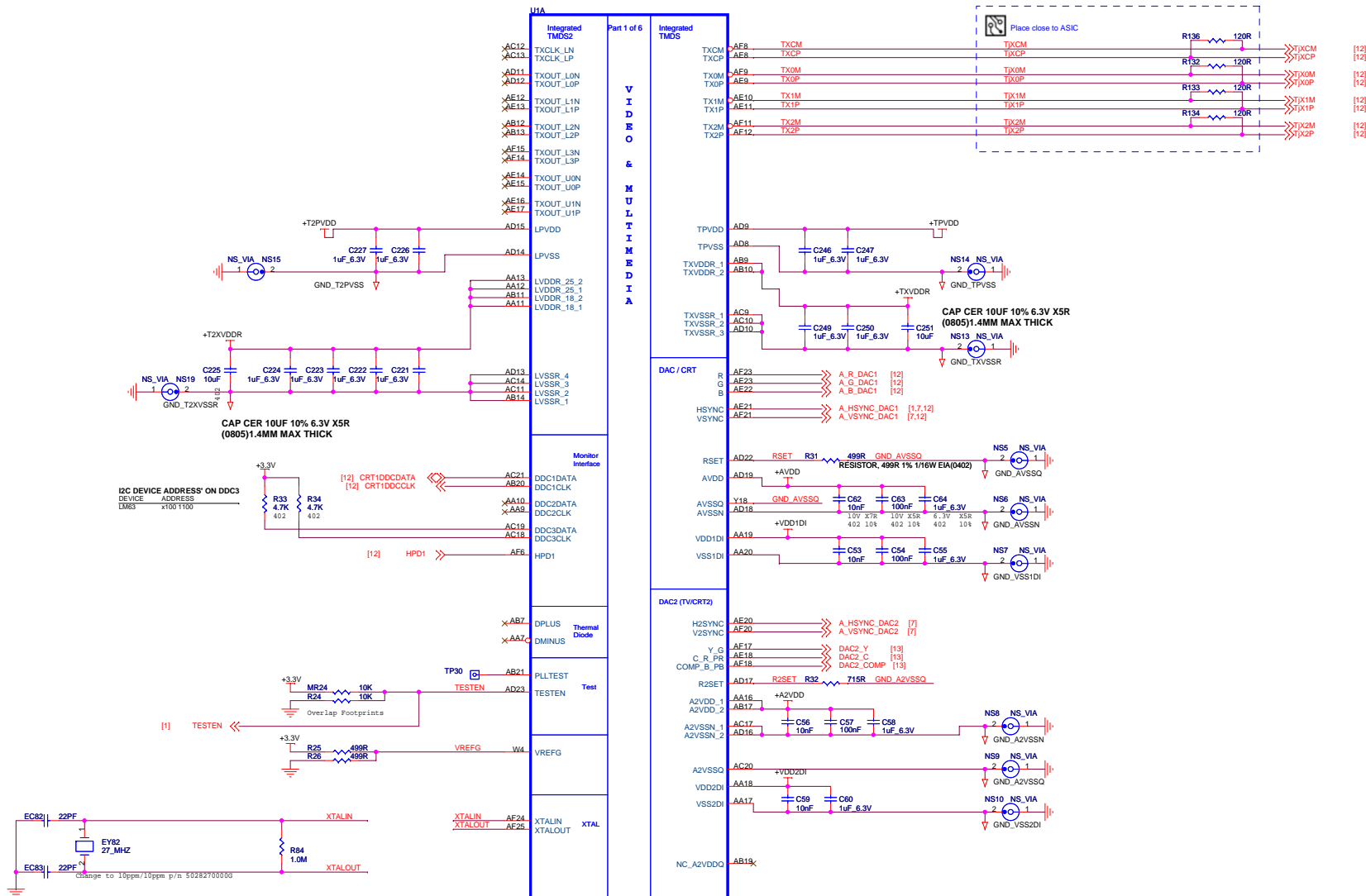
SYMBOL LEGEND	
DNI	DO NOT INSTALL
#	ACTIVE LOW
	DIGITAL GROUND
	ANALOG GROUND



ATI Technologies Inc.  
1 Commerce Valley Drive East  
Markham, Ontario  
Canada, L3T 7X6  
(905) 882-2600

Title		RH RV505CE 256MB DDR2 LP 4L	
Size	Document Number	105-A85831-00A	Rev
C			0
Date:	Tuesday, November 07, 2006	Sheet	1 of 17



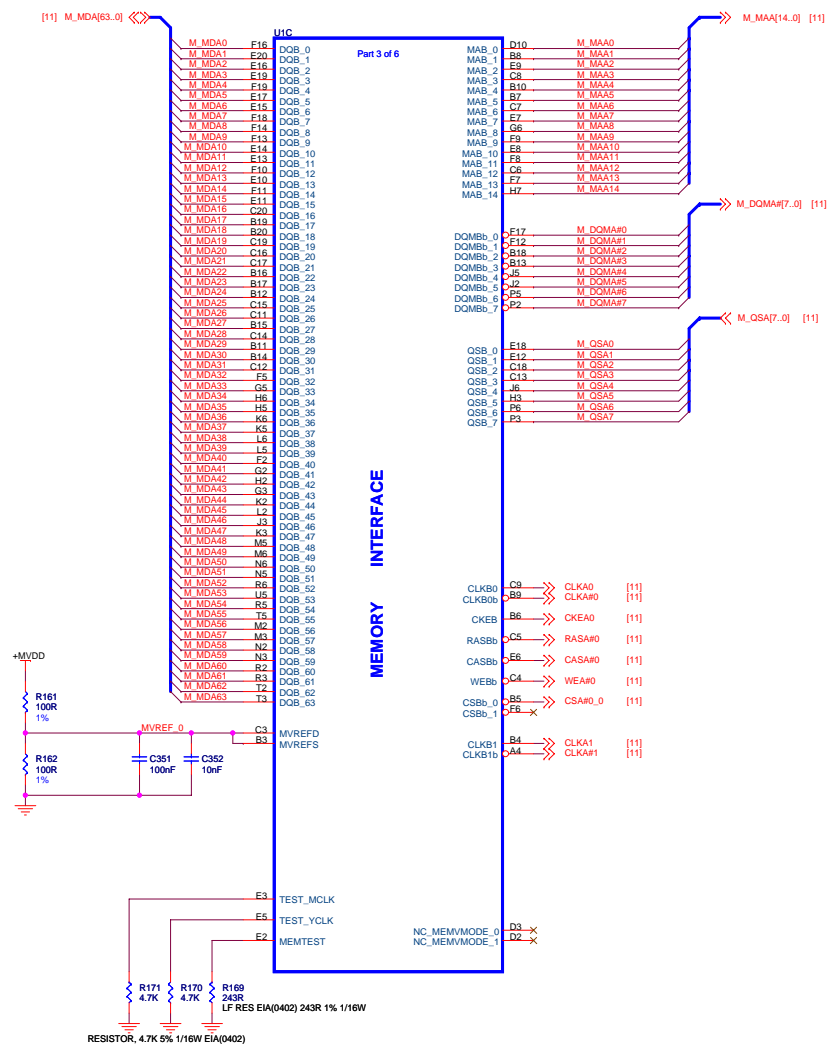


ATI Technologies Inc.  
1 Commerce Valley Drive East  
Markham, Ontario  
Canada, L3T 7X6  
(905) 882-2600



### Channel A

Register control is from Registers named CHANNEL B although this ASIC package only has 1 channel



AT&amp;T Technologies Inc.

1 Commerce Valley Drive East  
Markham, Ontario  
Canada, L3T 7X6  
(905) 882-2600

Title	RH RV505CE 256MB DDR2 LP 4L
-------	-----------------------------

Size C	Document Number 105-A85831-00A
-----------	-----------------------------------

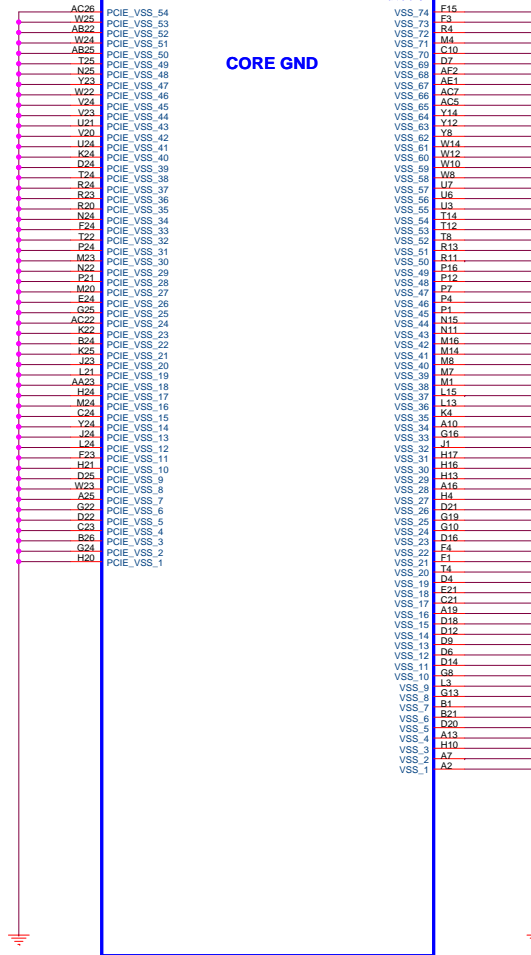
C	105-A63831-00A		
Date:	Tuesday, November 07, 2006	Sheet	5 of 1

1

JHE

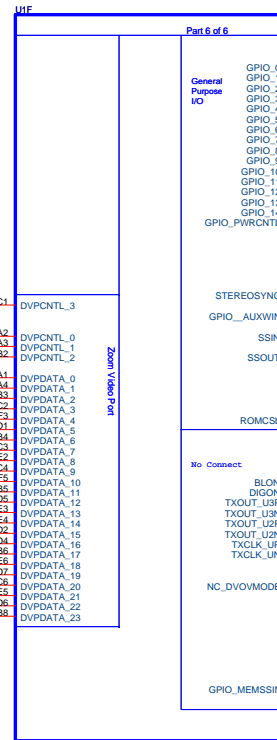
Part 5 of 6

CORE GND



ATI Technologies Inc.  
1 Commerce Valley Drive East  
Markham, Ontario  
Canada, L3T 7X6  
(905) 882-2600

Title			RH RV505CE 256MB DDR2 LP 4L
Size	Document Number	105-A85831-00A	
C	Date:	Tuesday, November 07, 2006	Sheet 6 of 17
			Rev 0



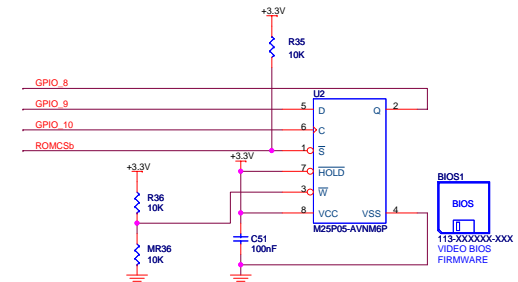
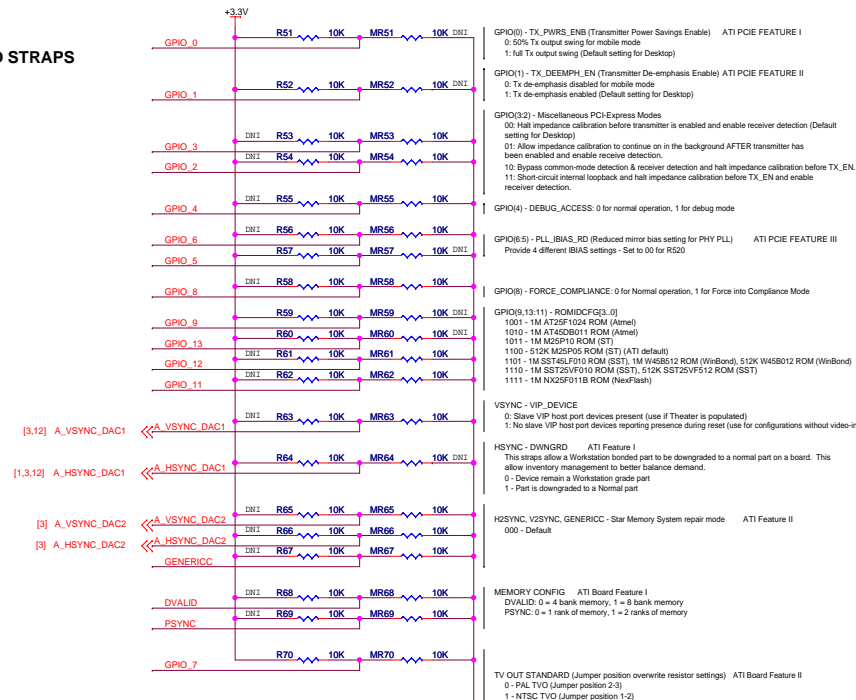
#### DEBUG BUS

No testpoint means the net can be accessed from a pad somewhere else

GPIO 10  
GPIO 11  
GPIO 12  
GPIO 13

GPIO	PIN STRAP	ALTERNATE USE
GPIO_0	YES	VID8_0 (OUTPUT)
GPIO_1	YES	VID8_1 (OUTPUT)
GPIO_2	YES	VID8_2 (OUTPUT)
GPIO_3	YES	VID8_3 (OUTPUT)
GPIO_4	YES	VID8_4 (OUTPUT)
GPIO_5	YES	VID8_5 (OUTPUT)
GPIO_6	YES	LINC (OUTPUT)
GPIO_7	NO	PALNTSC TV (INPUT)
GPIO_8	YES	-
GPIO_9	YES	FLOW_CNTL_EN (OUTPUT)
GPIO_10	NO	TESTOUT(8) (OUTPUT)
GPIO_11	YES	TESTOUT(9) (OUTPUT)
GPIO_12	YES	TESTOUT(10) (OUTPUT)
GPIO_13	YES	TESTOUT(11) (OUTPUT)
GPIO_14	NO	HPO_DVI+ (INPUT)
GPIO_15	NO	VIDA#B (OUTPUT)
GPIO_16	NO	12VEXT_DETECT (INPUT)
GPIO_17	NO	T_INT# (INPUT) & 12VEXT_DETECT# (INPUT)

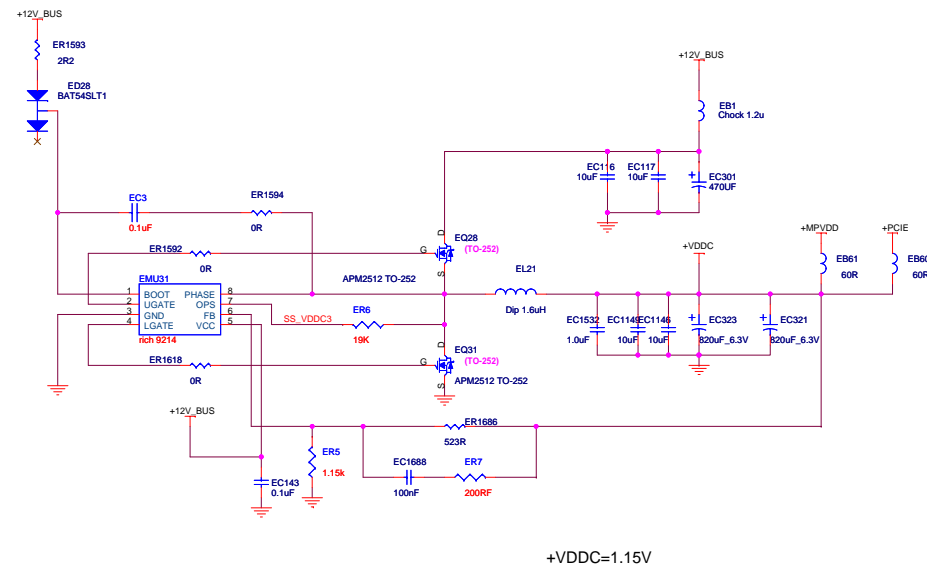
#### PIN BASED STRAPS



**ATI**

ATI Technologies Inc.  
1 Commerce Valley Drive East  
Markham, Ontario  
Canada, L3T 7X6  
(905) 882-2600

Title: RH RV505CE 256MB DDR2 LP 4L  
Size: C  
Document Number: 105-A85831-00A  
Date: Tuesday, November 07, 2006  
Sheet: 7 of 17  
Rev: 0

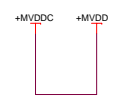
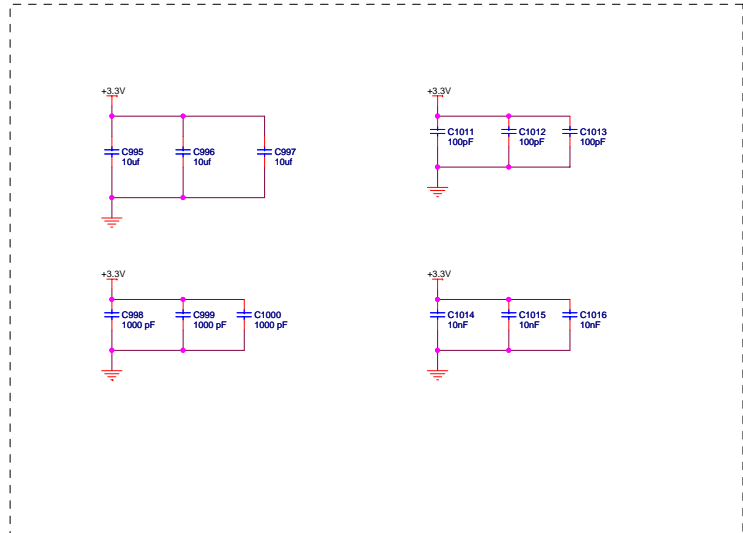
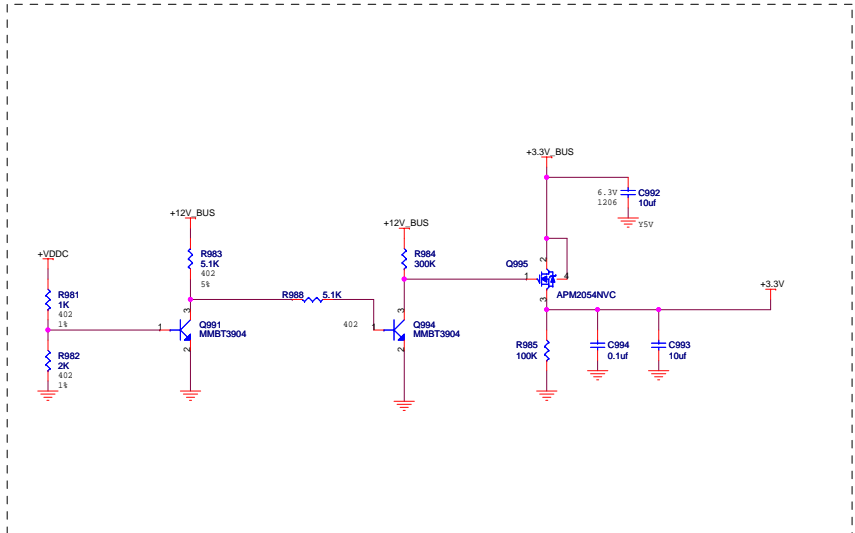


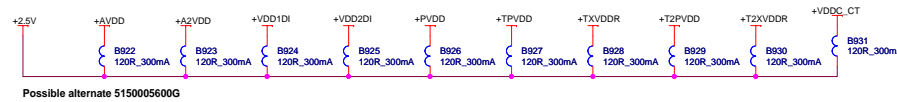
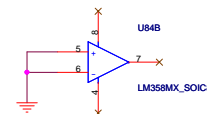
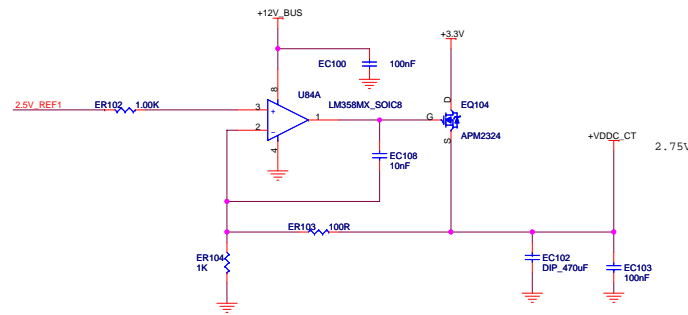
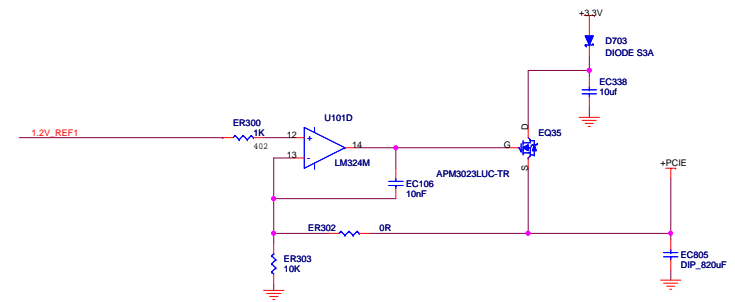
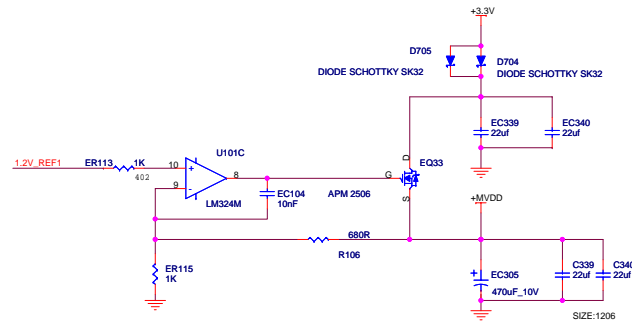
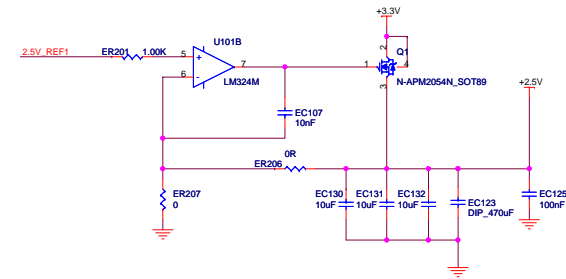
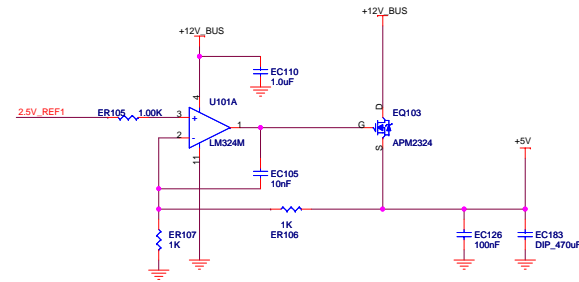
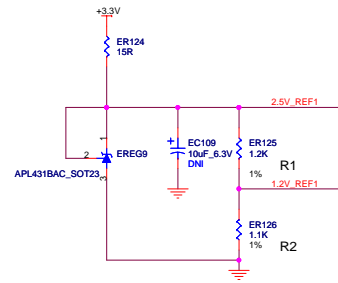
ATI Technologies Inc.  
 1 Commerce Valley Drive East  
 Markham, Ontario  
 Canada, L3T 7X6  
 (905) 882-2800

Title		RH RV505CE 256MB DDR2 LP 4L	
Size	Document Number	105-A85831-00A	Rev
Customer			0
Date	Tuesday, November 07, 2006	Sheet	8 of 17



power  
sequence





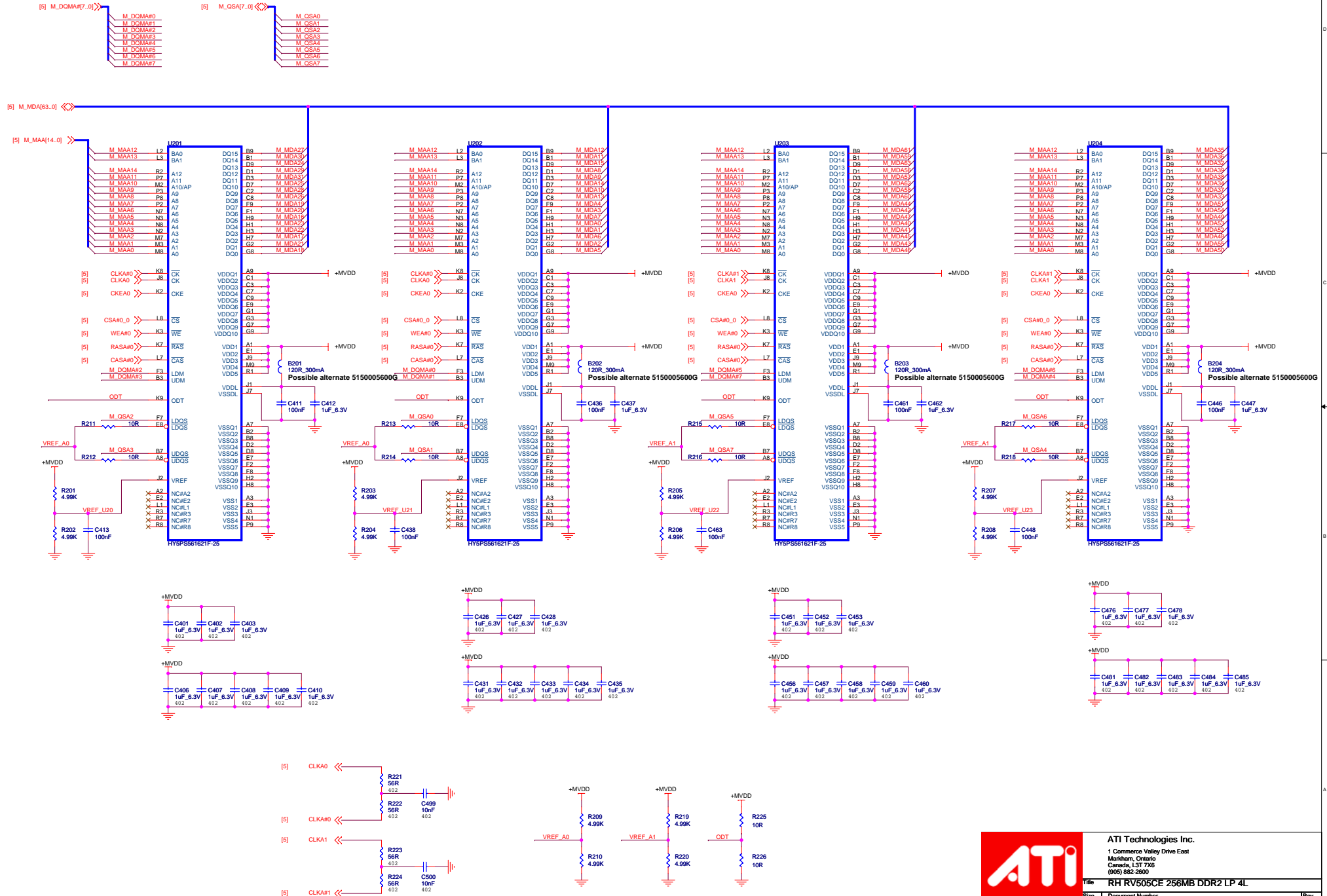
Possible alternate 5150005600G



ATI Technologies Inc.  
1 Commerce Valley Drive East  
Markham, Ontario  
Canada, L3T 7X6  
(905) 947-2600

Title	RH RV505CE 256MB DDR2 LP 4L		
Size	Document Number	105-A85831-00A	Rev
Date	Tuesday, November 07, 2006	Sheet	10 of 17

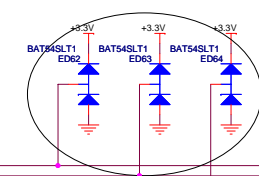
# CHANNEL A: RANK 0 128MB DDR2



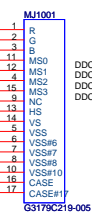
[3] A\_R\_DAC1  
[3] A\_G\_DAC1  
[3] A\_B\_DAC1



RGB should be routed from the ASIC to the display connector without switching reference plane or running over split plane



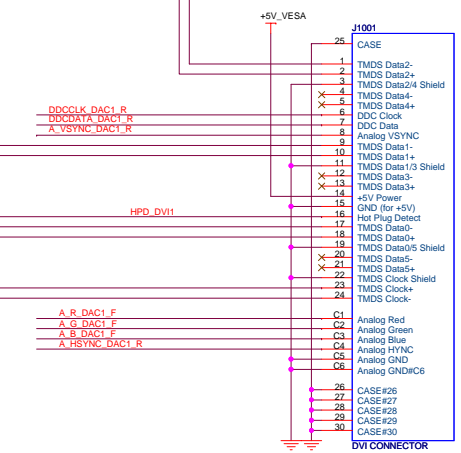
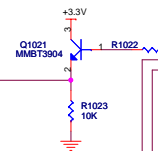
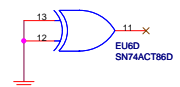
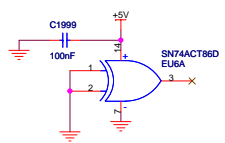
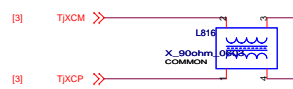
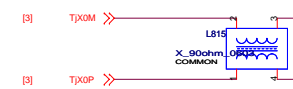
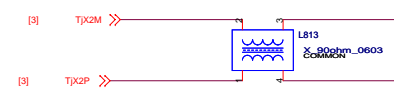
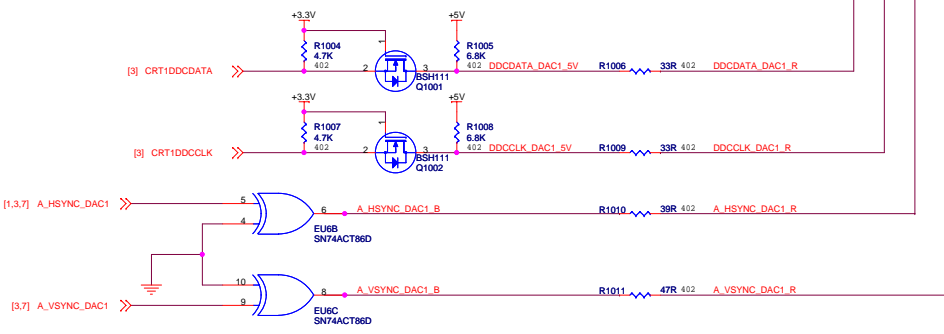
+5V\_VESA  
EF1  
1.5A



DDC2\_MONID0  
DDC2\_MONID1(SDA)  
DDC2\_MONID2  
DDC2\_MONID3(SCL)

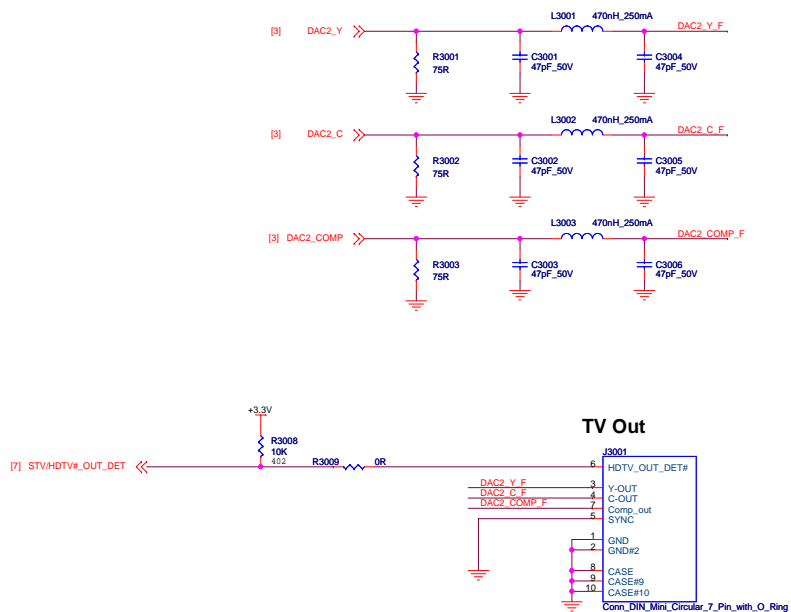
DB15 pin	Standard VGA	DDC1 Host	DDC2B or DDC2B Host	DDC2AB Host	DDC1/2 Display
11	Monitor ID bit 0	Monitor ID bit 0	Monitor ID bit 0	Monitor ID bit 0	Optional
12	Monitor ID bit 1	Monitor ID bit 1	Monitor ID bit 1	Monitor ID bit 1	Optional
4	Monitor ID bit 2	Monitor ID bit 2	Monitor ID bit 2	Monitor ID bit 2	Optional
15	Monitor ID bit 3	Open	Open	Open	Optional
9	N/C	+5V	+5V	+5V	Optional
Hardware Support	No	Yes	Yes	No	Yes

Based on VESA Display Data Channel (DDC) Standard Ver. 3 Dec. 15, 1997



ATI Technologies Inc.  
1 Commerce Valley Drive East  
Markham, Ontario  
Canada, L3T 7X6  
(905) 882-2600

Rev 0



ATI Technologies Inc.  
1 Commerce Valley Drive East  
Markham, Ontario  
Canada L3T 7X6  
(905) 882-2600

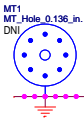
Title		RH RV505CE 256MB DDR2 LP 4L	
Size	Document Number	105-A85831-00A	Rev
C			0
Date:	Tuesday, November 07, 2006	Sheet	13 of 17



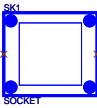
DVI/VGA SCREWS

ASSY-SCREW1  
SCREW  
JACKSCREW  
ASSY  
7020000800

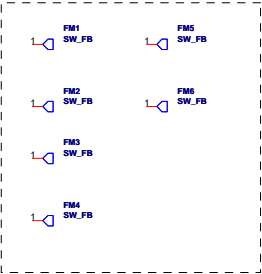
ASSY-SCREW2  
SCREW  
JACKSCREW  
ASSY  
7020000800



DNI



PCB DESIGN NOTE:  
ASIC REQUIREMENTS  
FOR THIS SOCKET:  
1. USE ALTERNATE ASIC DECAL  
WITH SQUARE VIA PADS.  
2. SOCKET & ASIC PADS  
REQUIRED GOLD PLATING.  
SEE SPEC. FOR DETAILS.



<Variant Name>



ATI Technologies Inc.

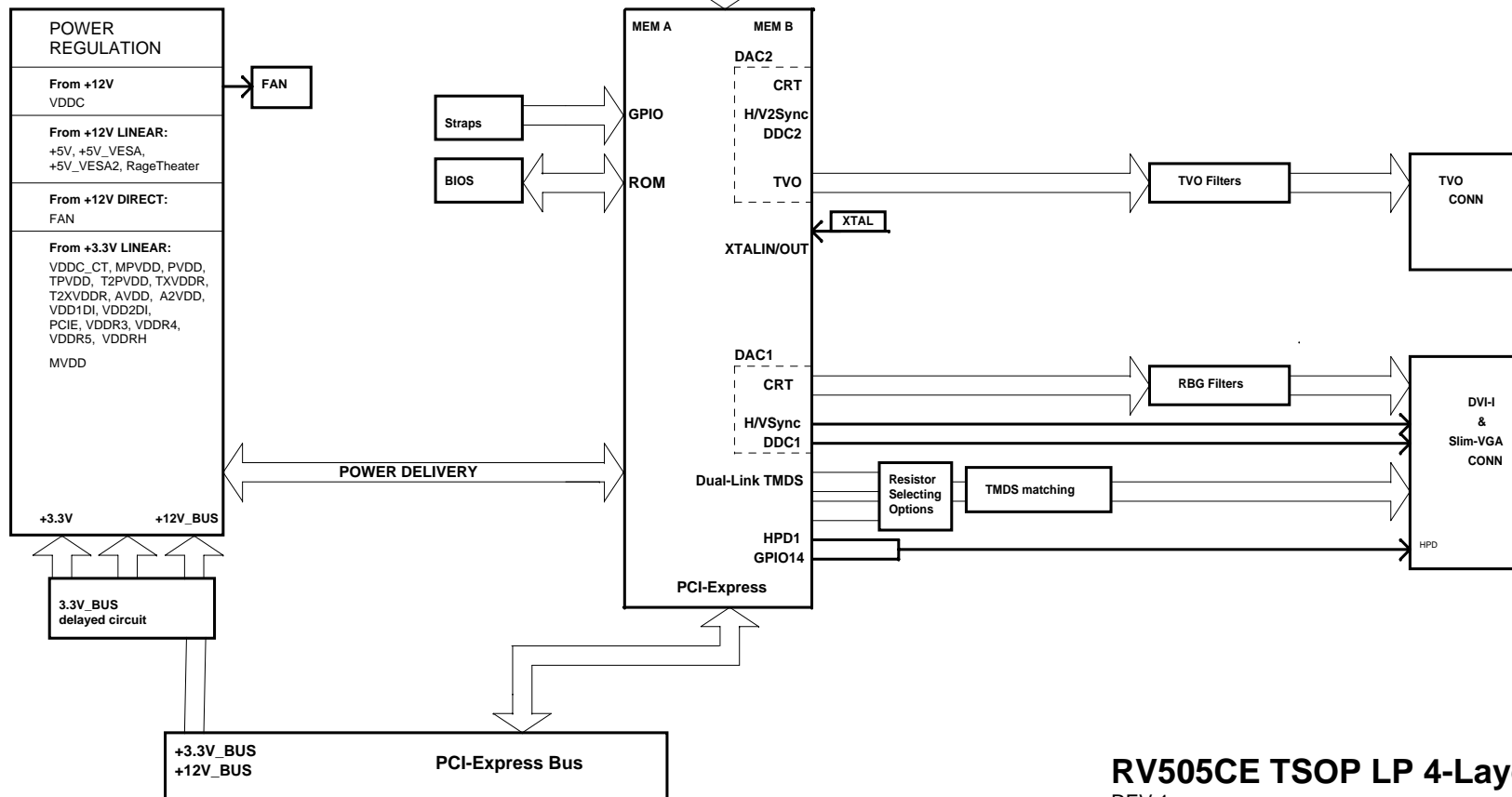
1 Commerce Valley Drive East  
Markham, Ontario  
Canada L3T 7X6  
(905) 882-2600

Title			RH RV505CE 256MB DDR2 LP 4L
Size	Document Number	Rev	
C	105-A85831-00A	0	
Date:	Tuesday, November 07, 2006	Sheet	15 of 17

# RV505CE

## MEMORY CHANNEL A

DDR2 16M/32Mx16



**RV505CE TSOP LP 4-Layer**  
REV 1



ATI Technologies Inc.

1 Commerce Valley Drive East  
Markham, Ontario  
Canada, L3T 7X6  
(905) 882-2600

Title	RH RV505CE 256MB DDR2 LP 4L		
Size	Document Number	105-A85831-00A	Rev 0
Date:	Tuesday, November 07, 2006	Sheet 16 of 17	



