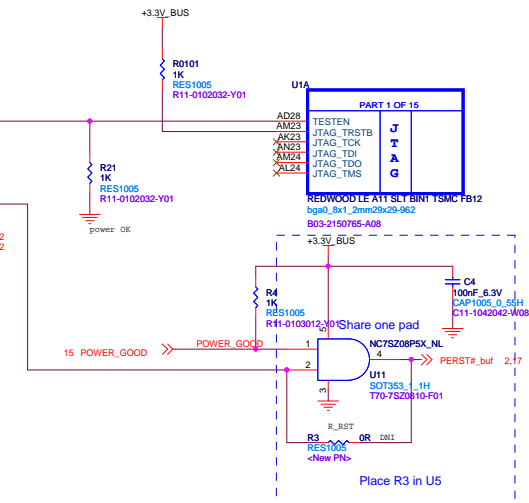
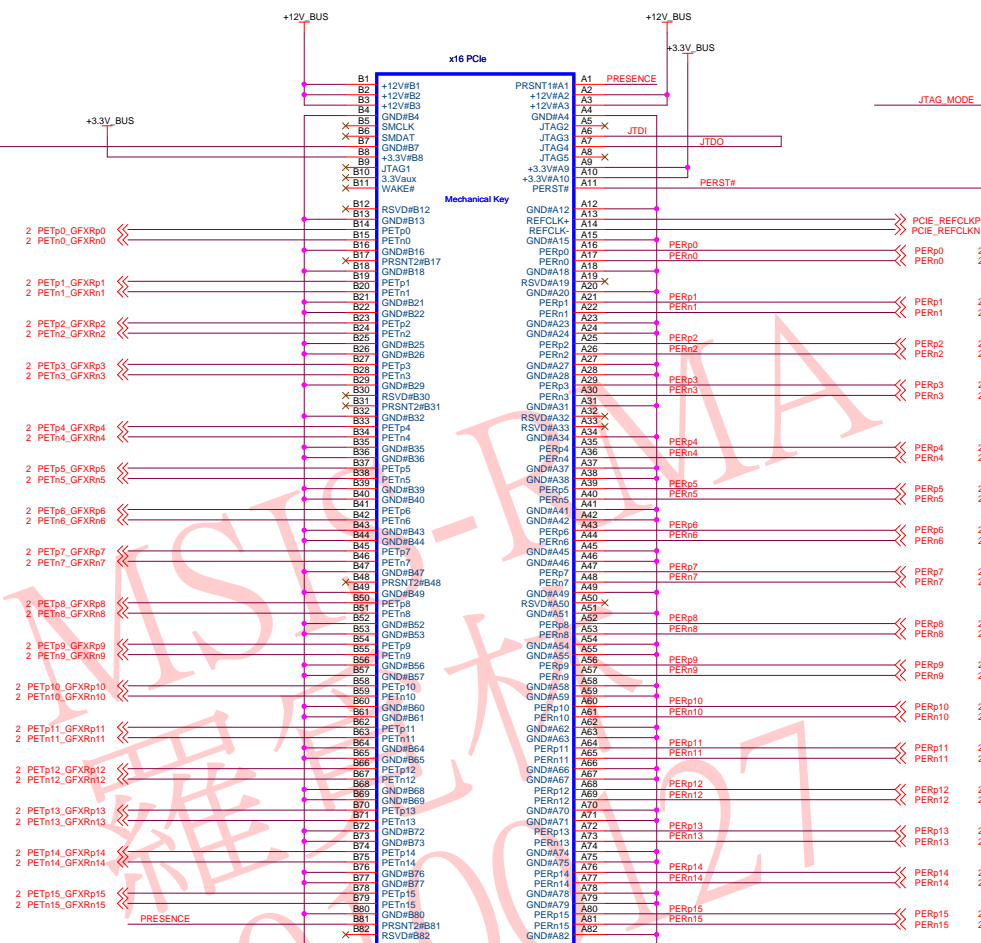
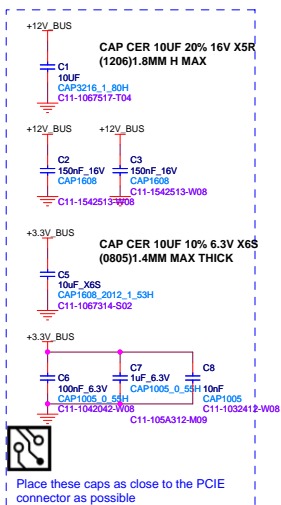




## PCI-EXPRESS EDGE CONNECTOR



SYMBOL LEGEND	
DNI	DO NOT INSTALL
#	ACTIVE LOW
	DIGITAL GROUND
	ANALOG GROUND
BUO	BRING UP ONLY

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Title	RH REDWOOD DDR2 VGA
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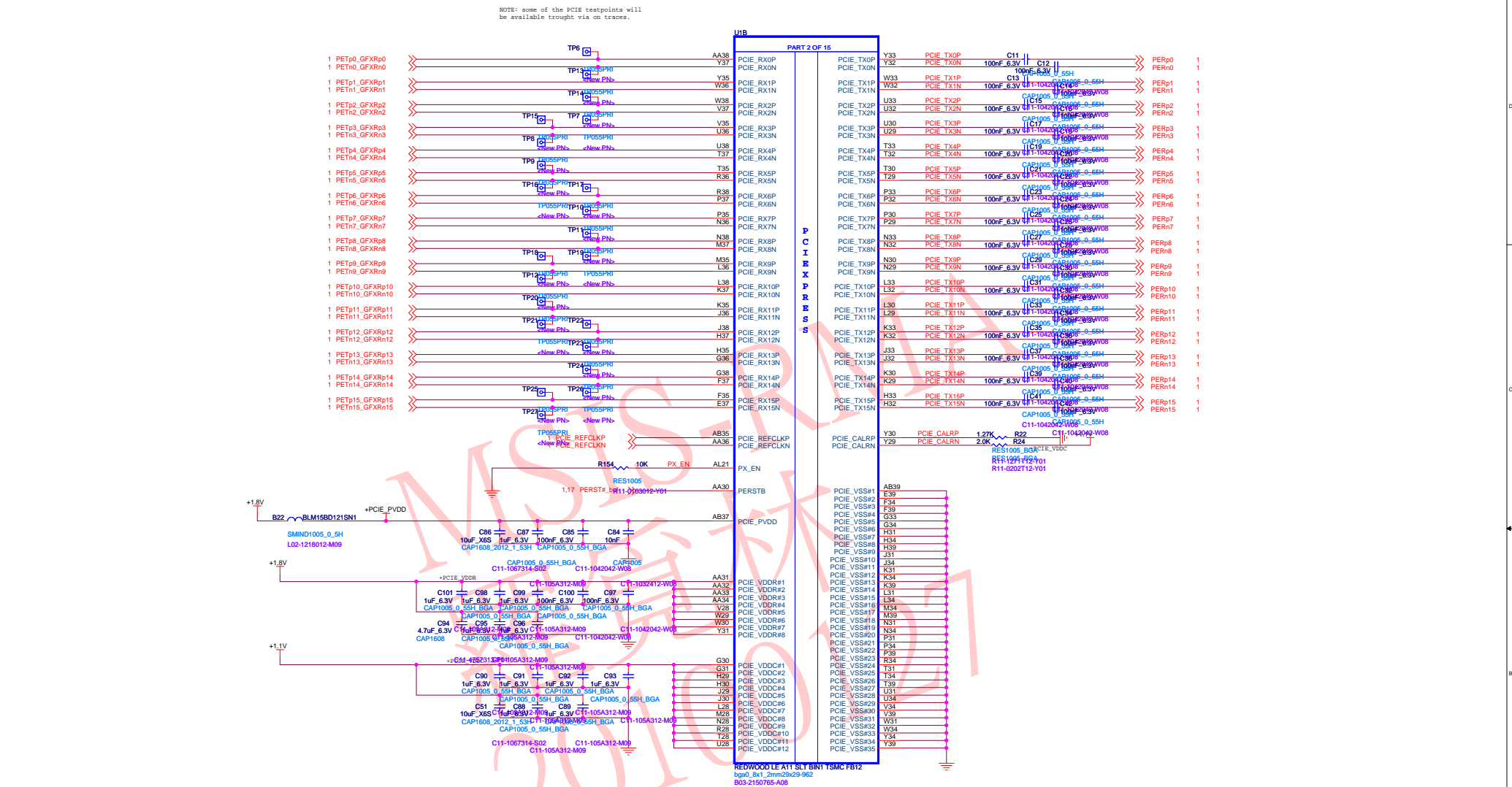
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Markham, Ontario



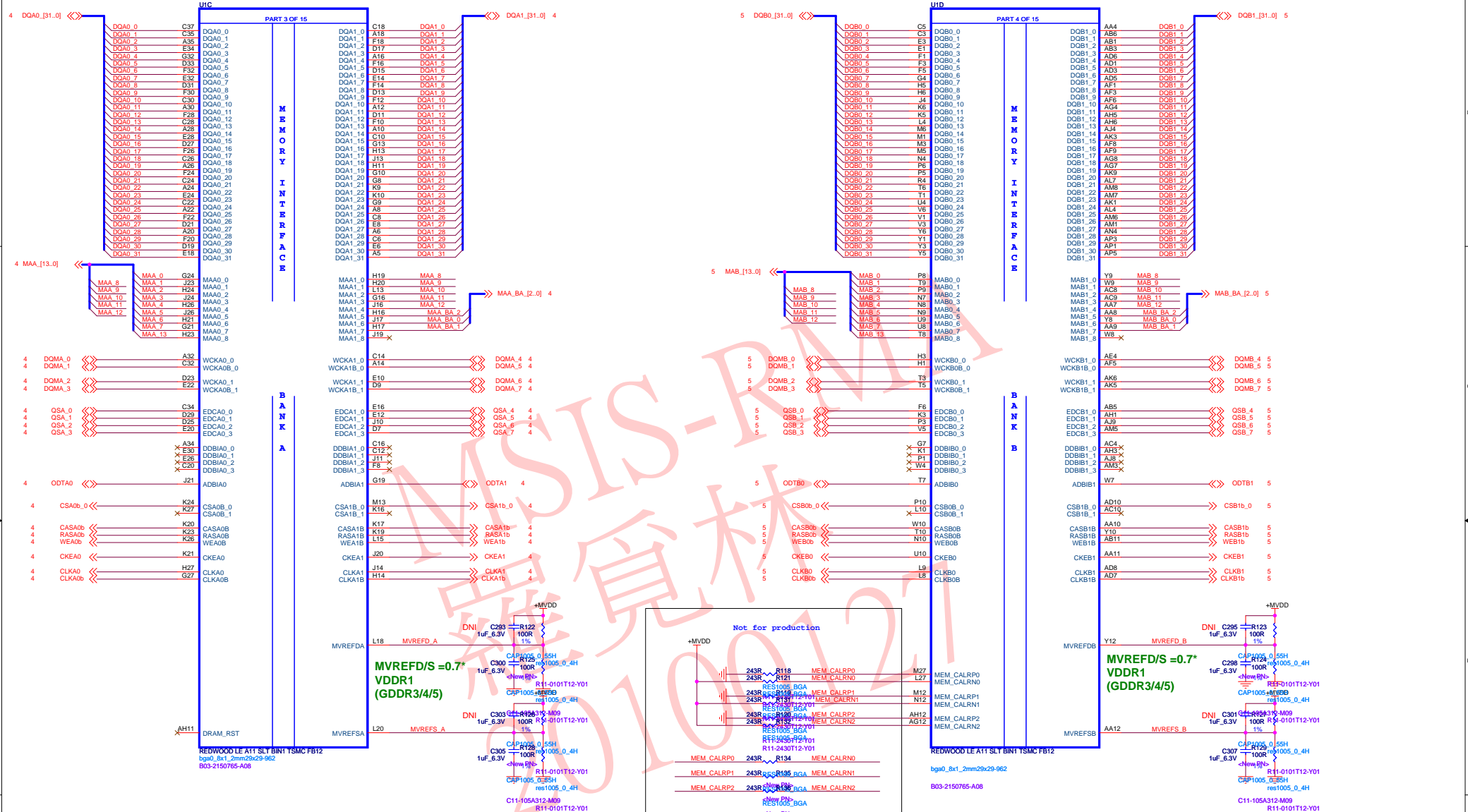
Date: Thursday, December 10, 2009	Rev 1
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Title	RH REDWOOD DDR2 VGA-HDMI/DP-DVII	Doc No.	105-025xx-00B
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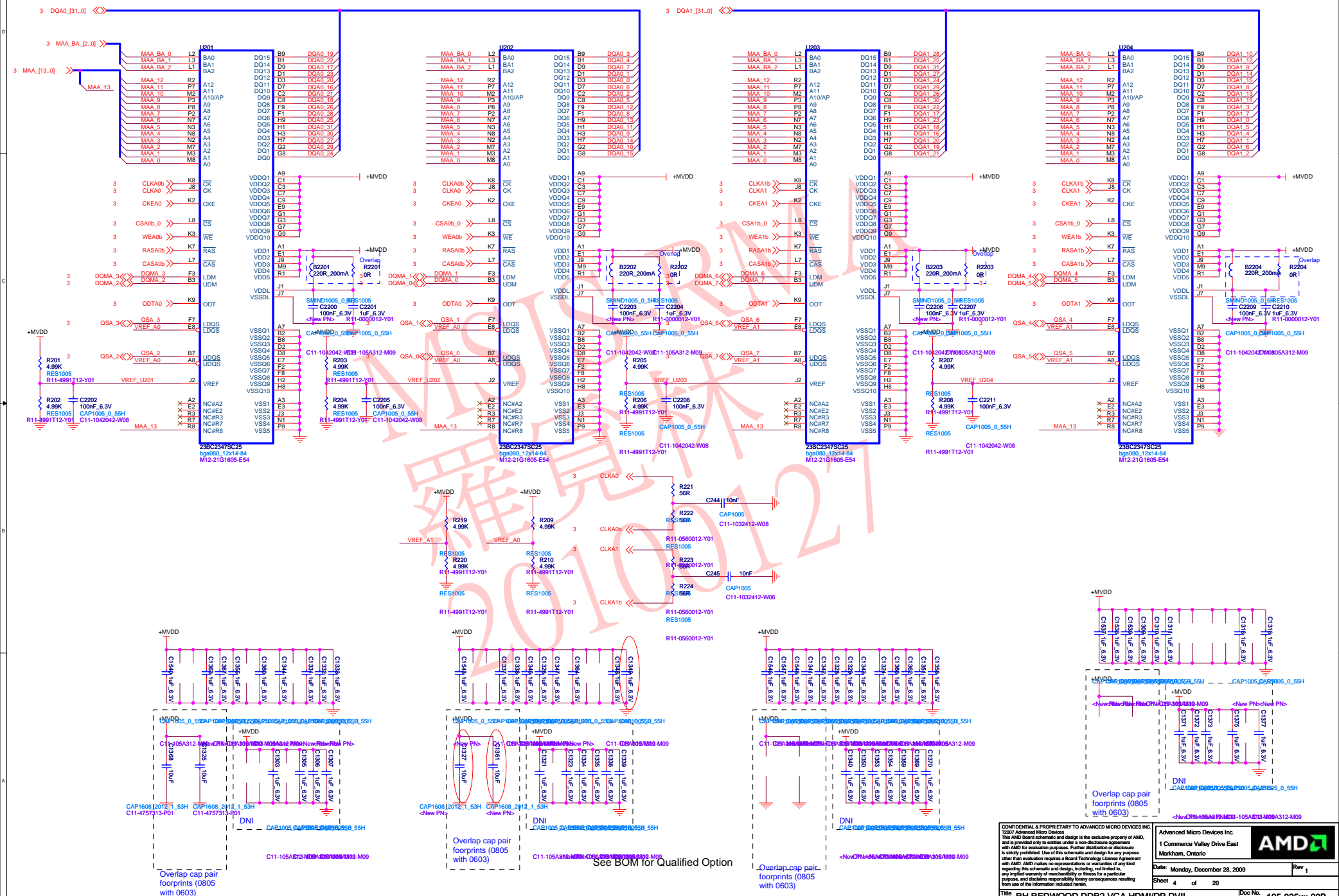
(2) REDWOOD PCIe Interface



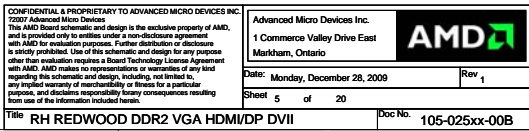
### (3) REDWOOD MEM Interface Ch A&B



## CHANNEL A: 64MX16/128MX16 DDR2

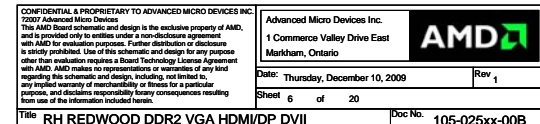


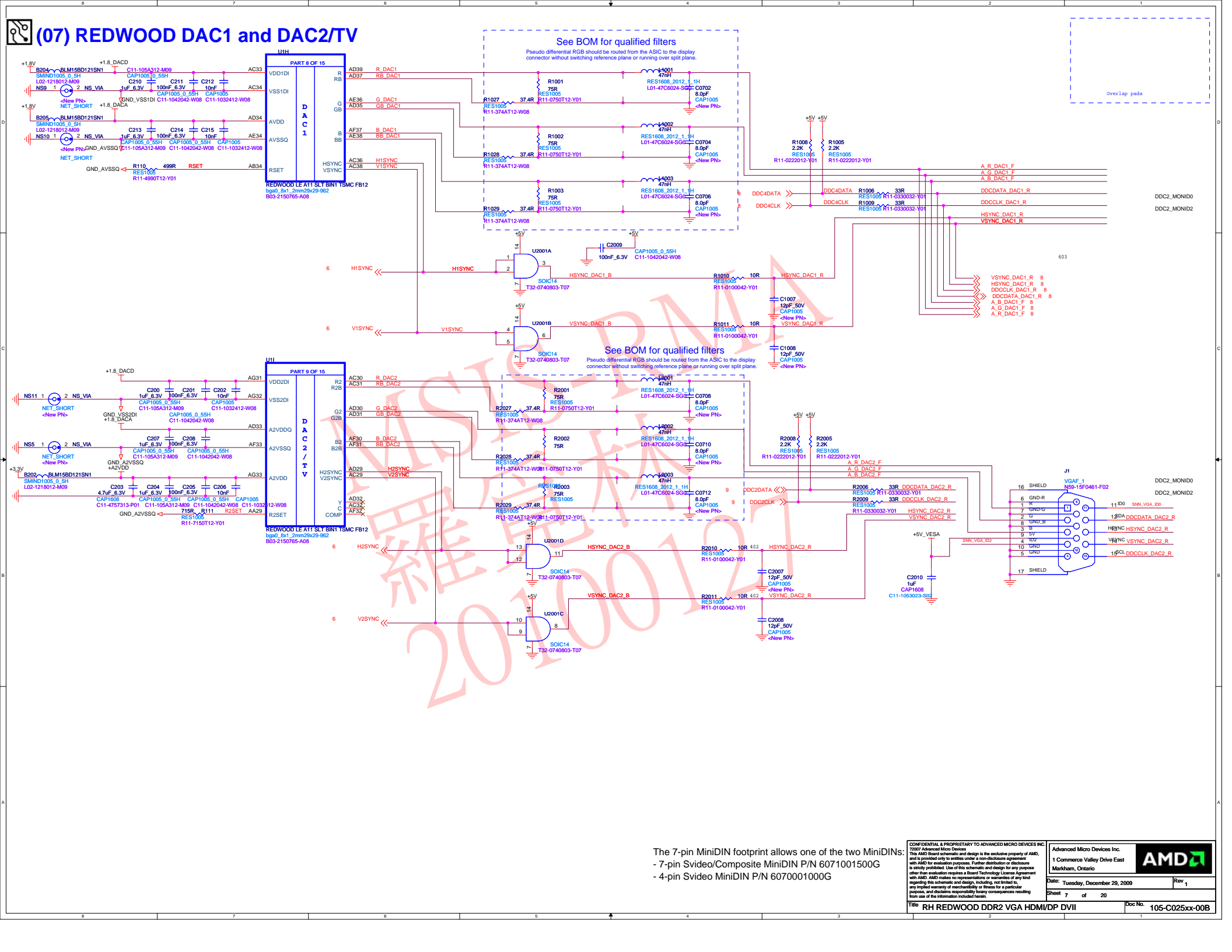
**CHANNEL B: 64MX16/128MX16 DDR2**





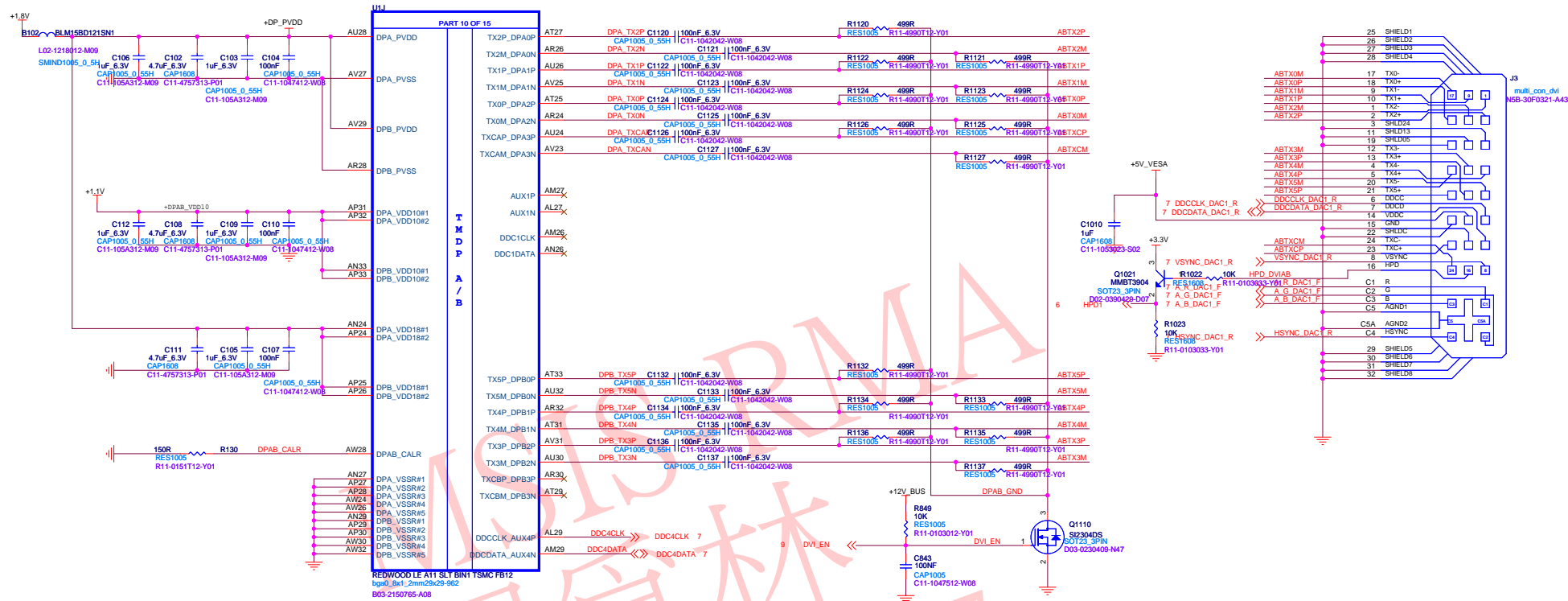
## PIN BASED STRAPS





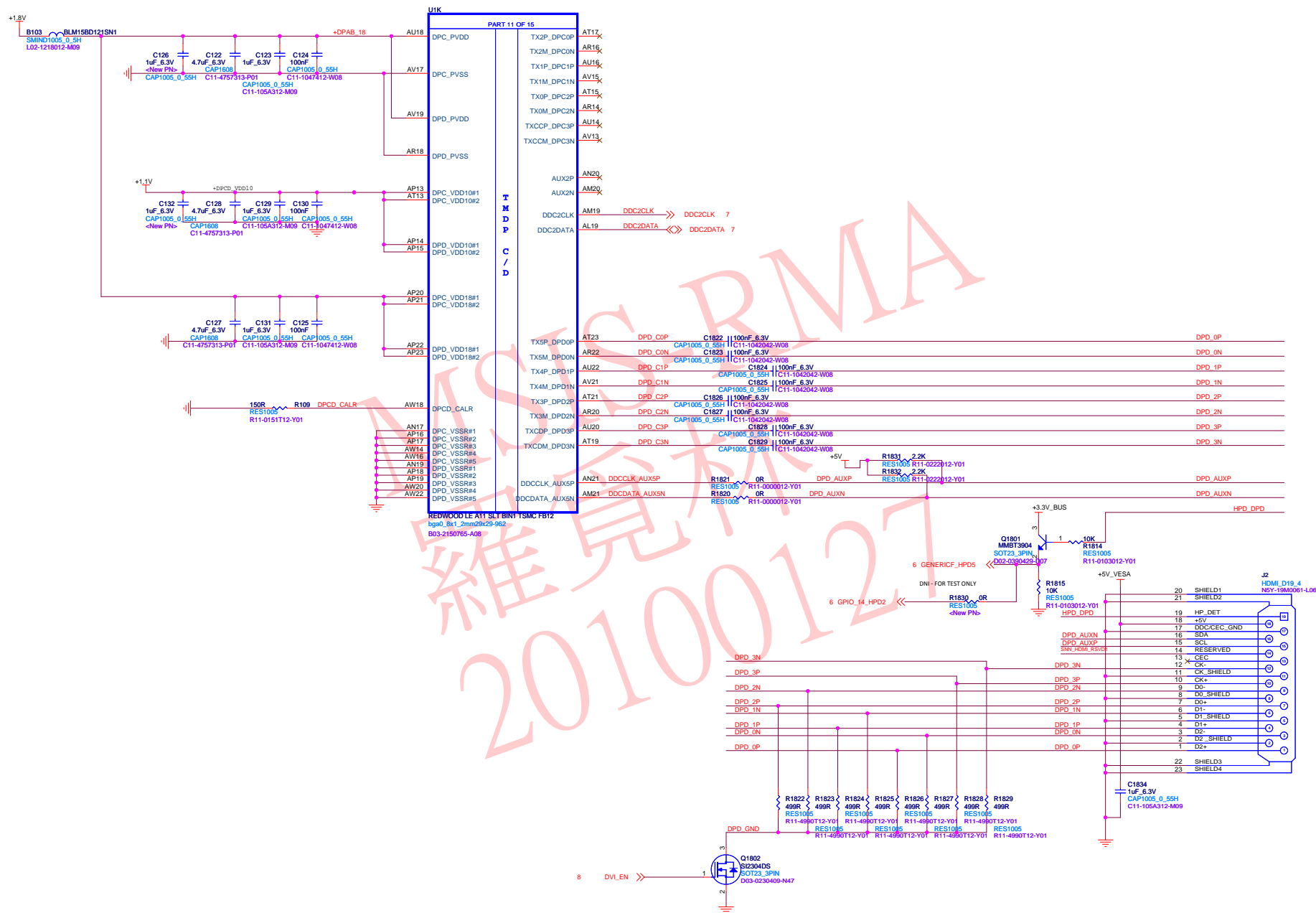
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(08) REDWOOD TMD5 A&B






## (09) REDWOOD TMDS C&D

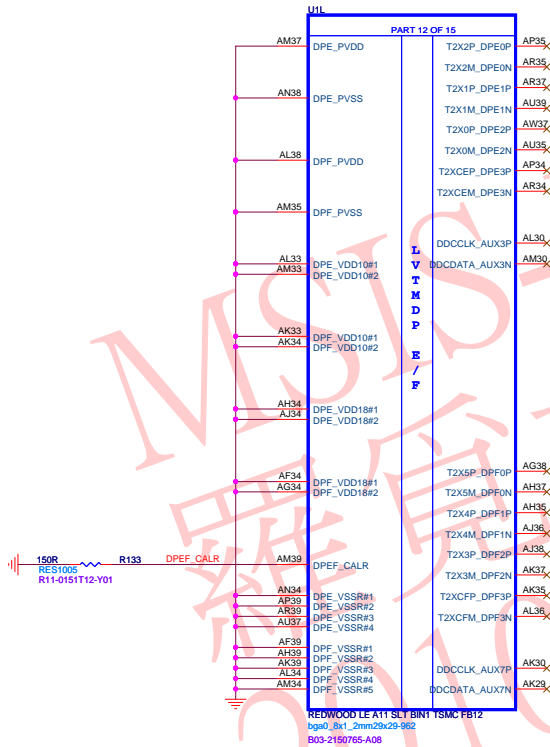


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**Title** RH REDWOOD DDR2 VGA-HDM

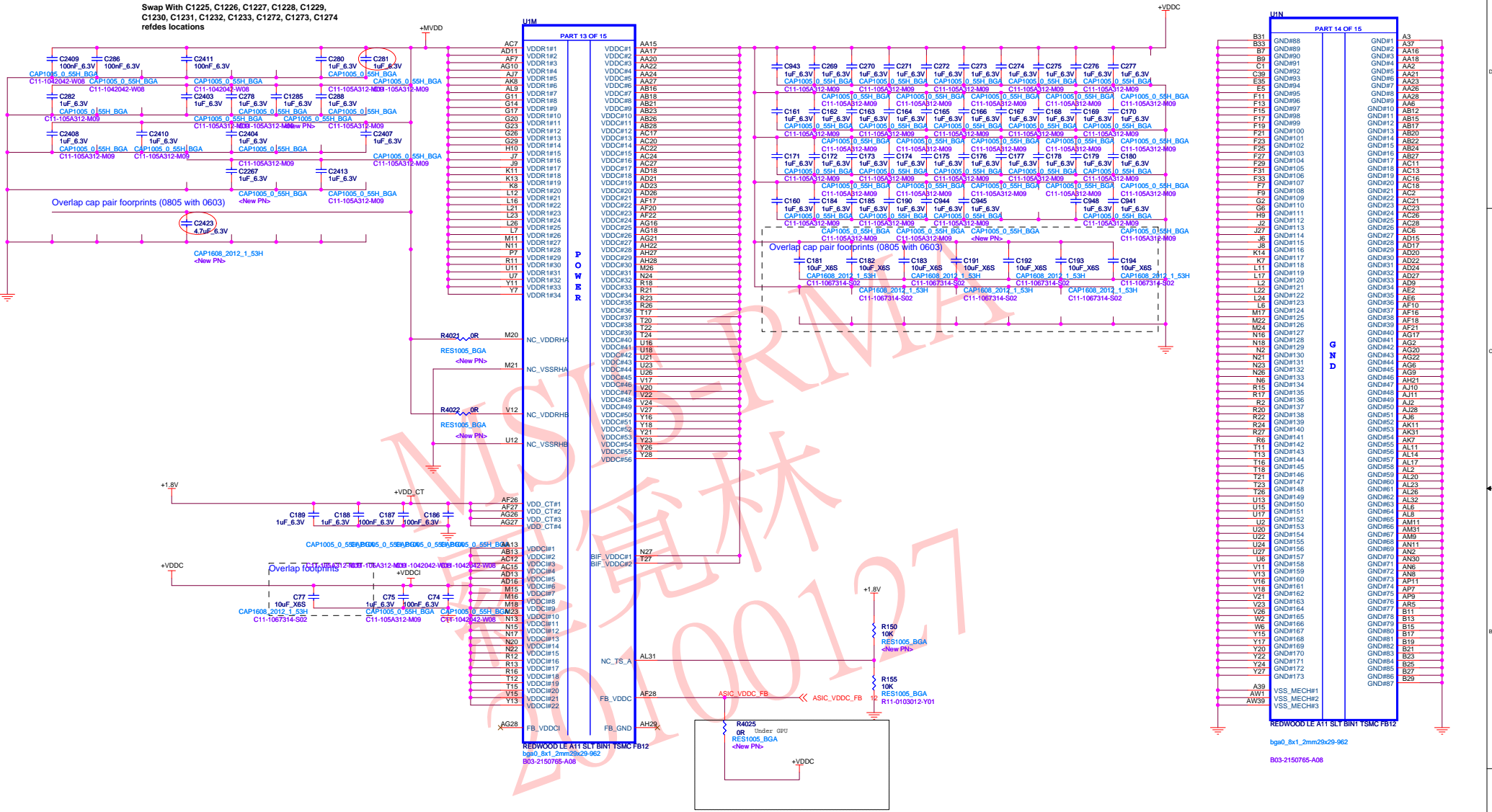
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Date: Monday, December 28, 2009		Rev 1	
Sheet 9 of 20			
M/DP-DVII		Doc No. 105-C025xx-00B	

(10) No Connect E&F

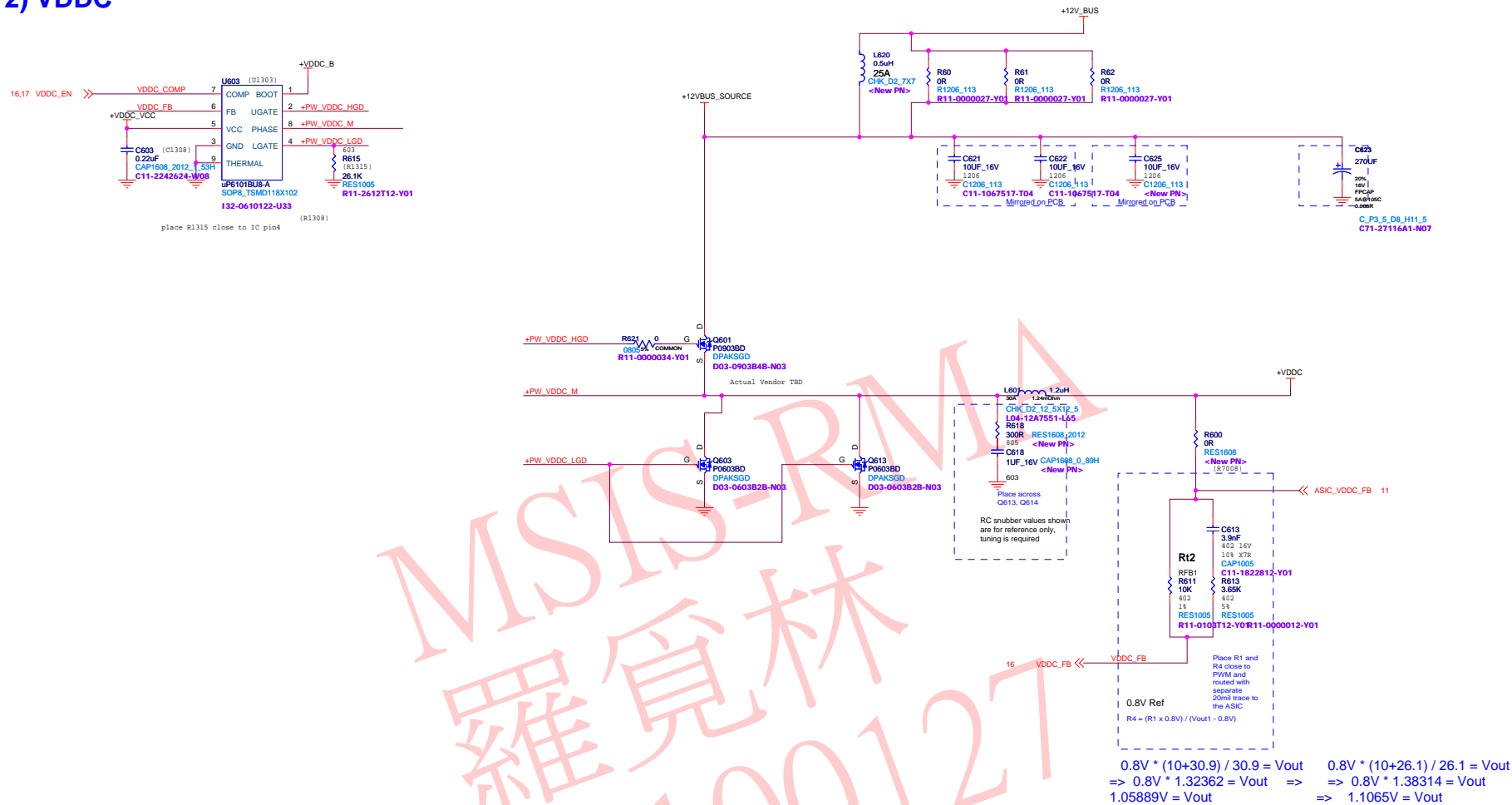


(11) REDWOOD Power & GND

Swap With C1225, C1226, C1227, C1228, C1229, C1230, C1231, C1232, C1233, C1272, C1273, C1274 refiles locations

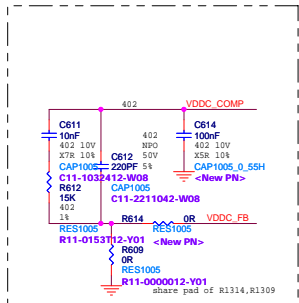


# (12) VDDC

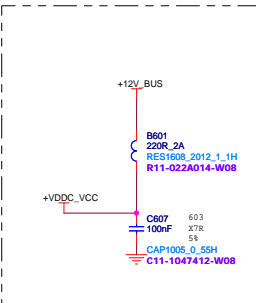


$$\begin{aligned} 0.8V \cdot (10+30.9) / 30.9 &= V_{out} & 0.8V \cdot (10+26.1) / 26.1 &= V_{out} \\ \Rightarrow 0.8V \cdot 1.32362 &= V_{out} & \Rightarrow 0.8V \cdot 1.38314 &= V_{out} \\ 1.05889V &= V_{out} & 1.1065V &= V_{out} \end{aligned}$$

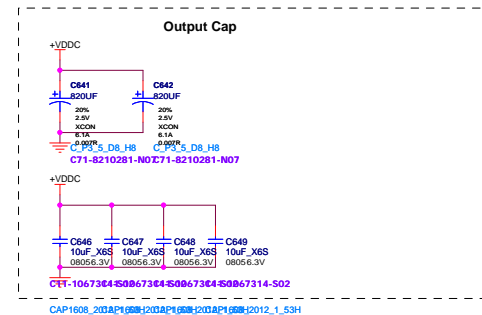
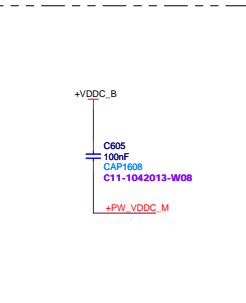
## COMPENSATION CIRCUIT



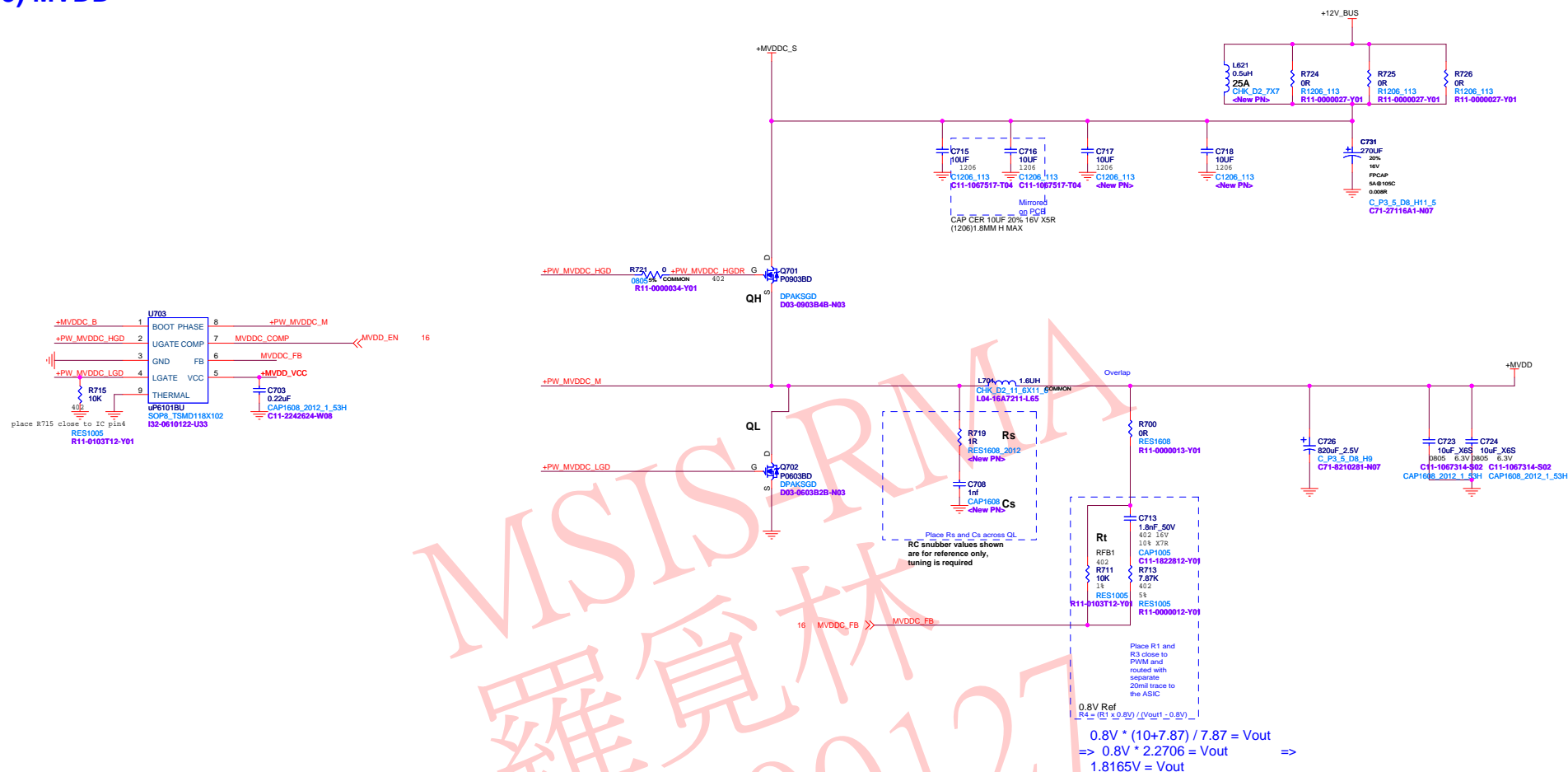
## FILTERED SMPS VCC



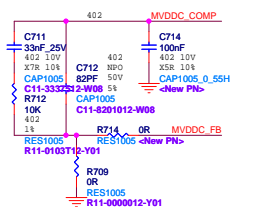
## BOOT CIRCUIT



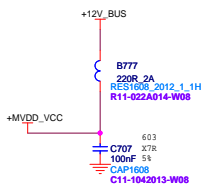
**(13) MVDD**



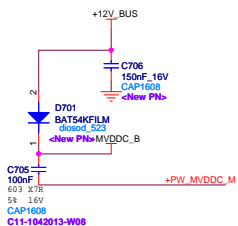
### COMPENSATION CIRCUIT



**FILTERED SMPS VCC**



## BOOT CIRCUIT



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Date: Friday, December 25, 2009


Rev	
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Sheet 10 of 20

NORTH OAK CREEK HYPHENATED BUSINESS TRUST Title <b>RH REDWOOD DDR2 VGA-HDMI/DP-DVH</b>	10
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Doc No.	105-C025xx-00B
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Date: Friday, November 27, 2009		Rev 1		
Sheet 14 of 20			Doc No. 105-C025xx-00B	
Title RH REDWOOD DDR2 VGA-HDMI/DP-DVII				

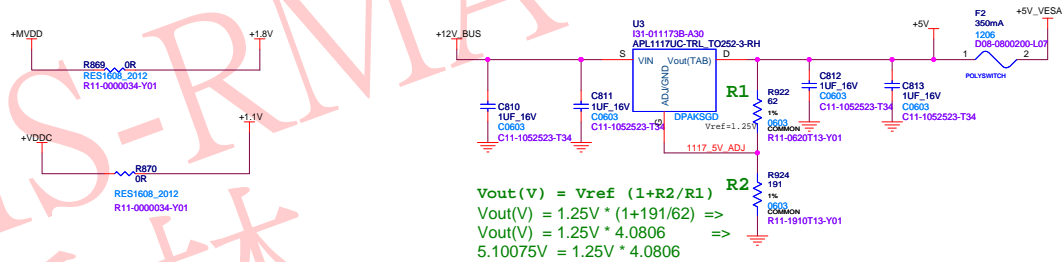


(15) Linear Regulators

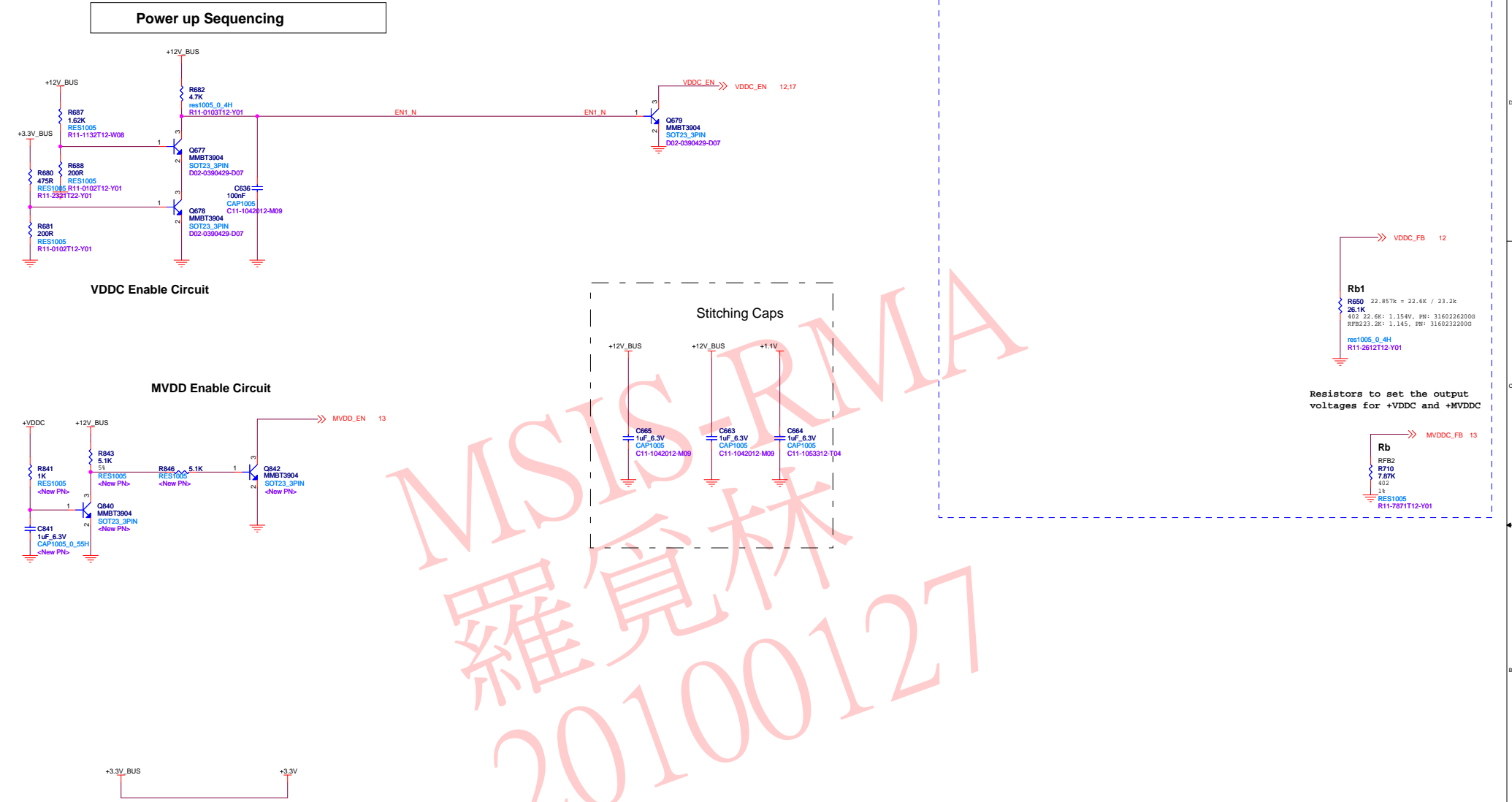
Regulators for +5V, +5V\_VESA and +5V\_VESA2

LDO #1: Vin = 3.0V to 3.6V MAX Vout = +1.8V +/- 2% Iout = 1.6A (TBV) RMS MAX  
PCB: 50 to 70mm sq. copper area for cooling

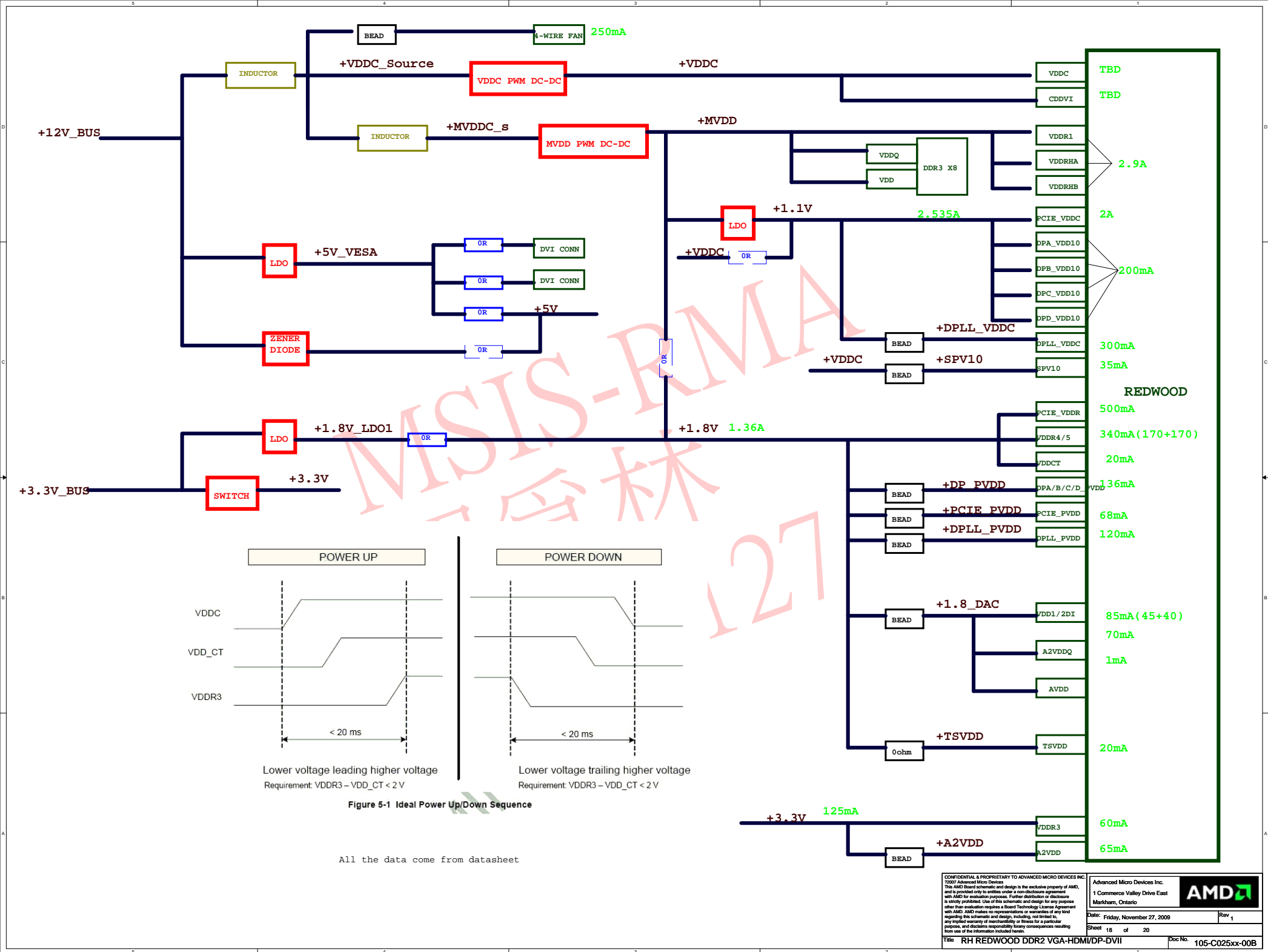
LDO #2: Vin = +1.5V to 2.0VMAX Vout = +1.0V +/- 2% Iout = 1.7A (TBV) RMS MAX  
PCB: 50 to 70mm sq. copper area for cooling

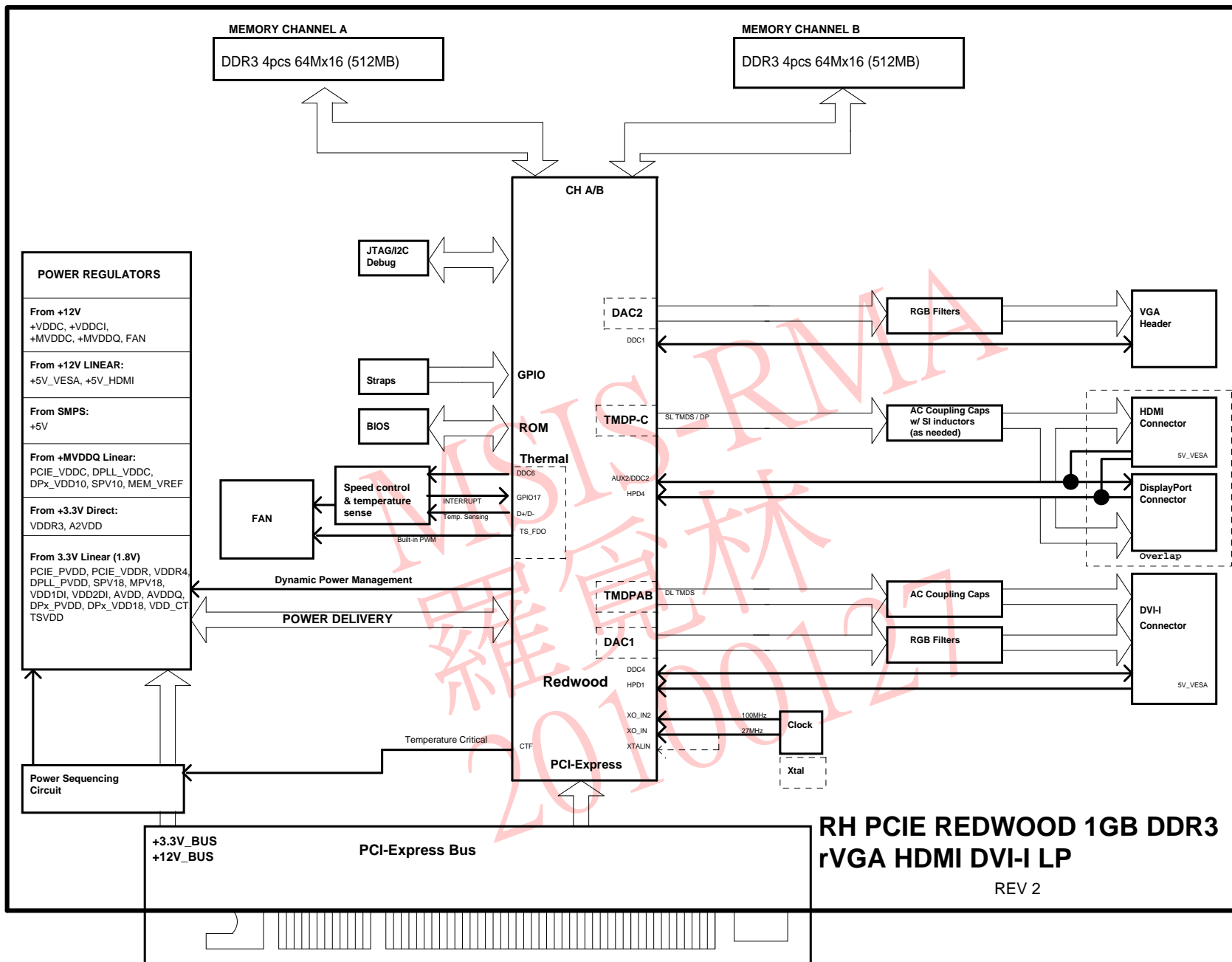


(16) Power Management

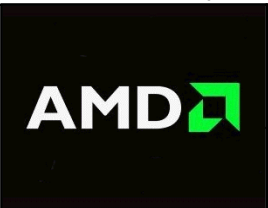








**RH PCIE REDWOOD 1GB DDR3  
rVGA HDMI DVI-I LP**  
REV 2



## RH REDWOOD DDR2 VGA-HDMI-DVI

105-025xx-00B

Friday, November 27, 2009

**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 1

PCB  
Rev

Date \_\_\_\_\_

## REVISION DESCRIPTION

0

00A

09/07/30

Q

00B

09/09/25

Initial design for Redwood DDR2, VGA/DP HDMI/DP DVI/VGA

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