

# PCI-EXPRESS EDGE CONNECTOR

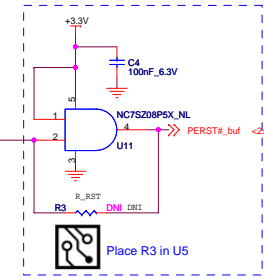
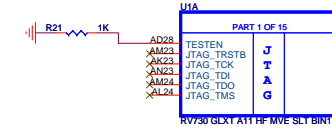
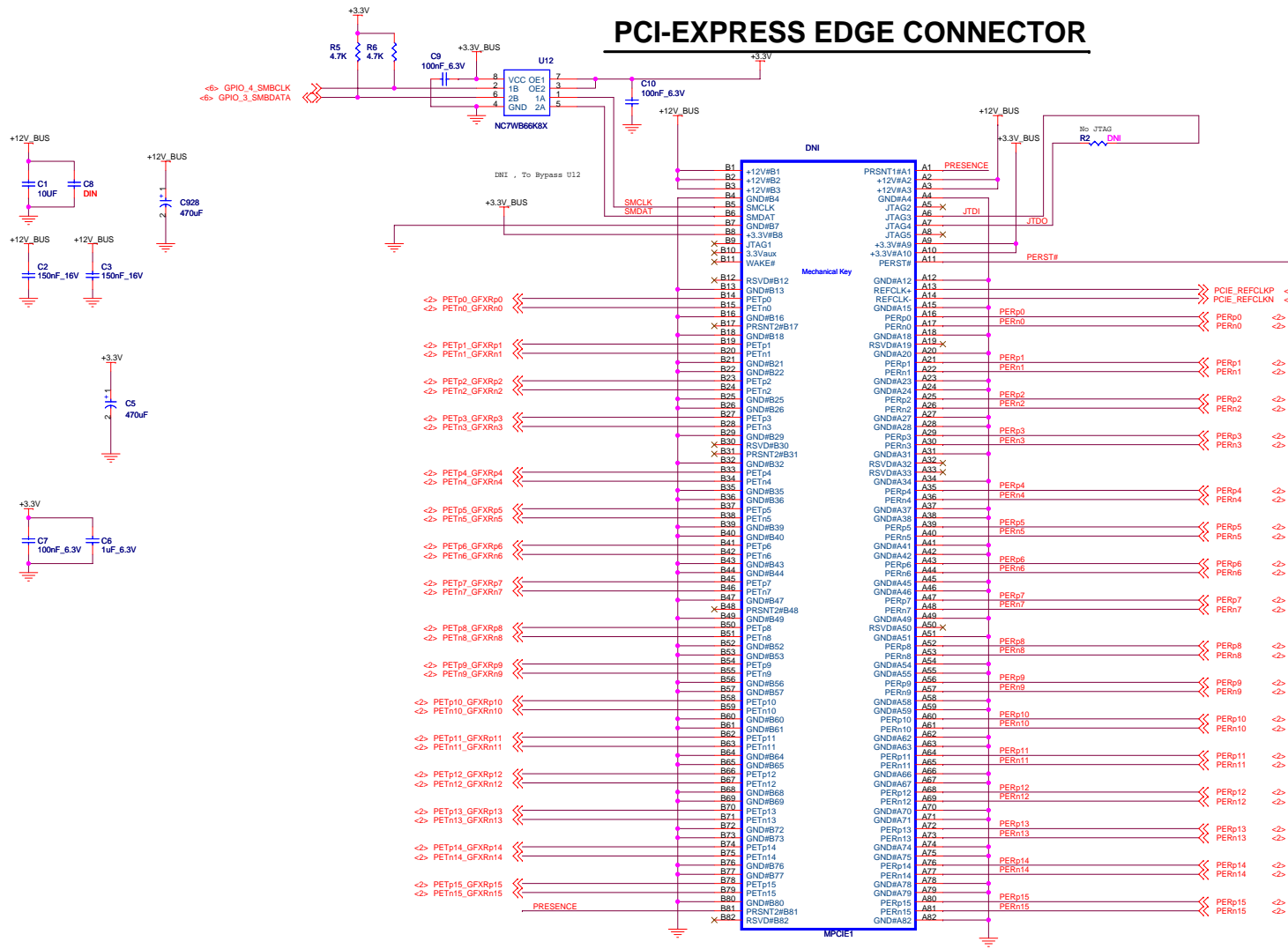


Table 1: Connection for JTAG

| Production<br>(No JTAG) | Install R1, R2 & Don't Install TSW1 |   |
|-------------------------|-------------------------------------|---|
|                         | JTAG                                | TSW1 Switch #1, 2, 3, 4, 5 and 6 closed (ON)<br>#8 and 7 open |
| Internal Use Only       | NO JTAG                             | TSW1 Switch #1, 2, 3, 4, 5 and 6 open<br>#8 & 7 closed (ON)   |

TSW1, R1 & R2 are located on the bottom side of the board close to PCIe connector.

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

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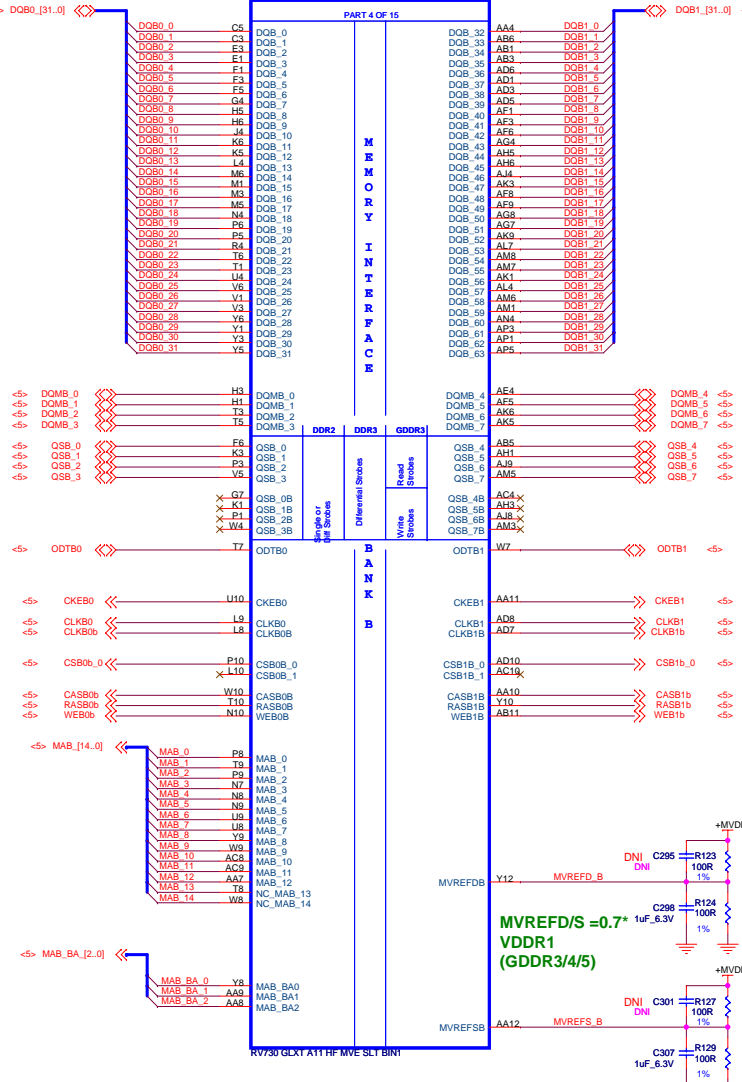
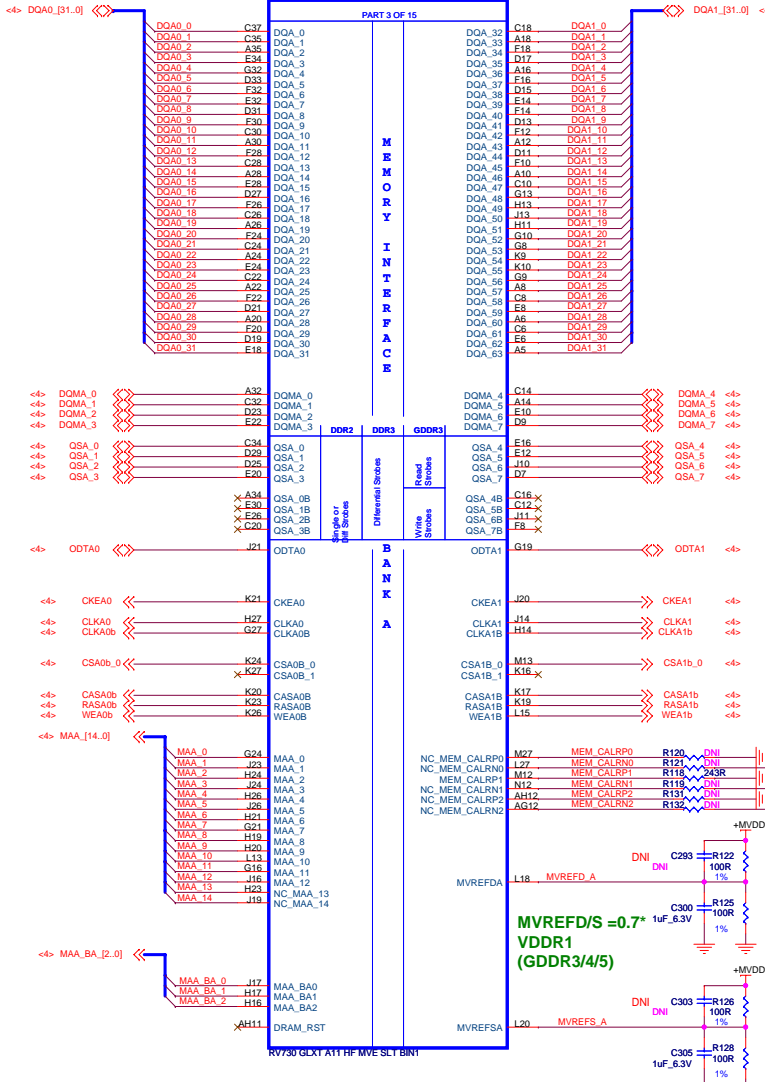
Date: Tuesday, November 18, 2008 Rev 0  
Sheet 1 of 10

Title RH RV730 512MB DDR2 DL-DVI DP HDMI FH 6 Doc No. 105-B665xx-00A



|       |  |         |                |
|-------|--|---------|----------------|
| Title | RH RV730 512MB DDR2 DL-DVI DP HDMI FH 6' | Doc No. | 105-B665xx-00A |
|-------|--|---------|----------------|

### (3) RV730 MEM Interface Ch A&B



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Date: Tuesday, September 09, 20

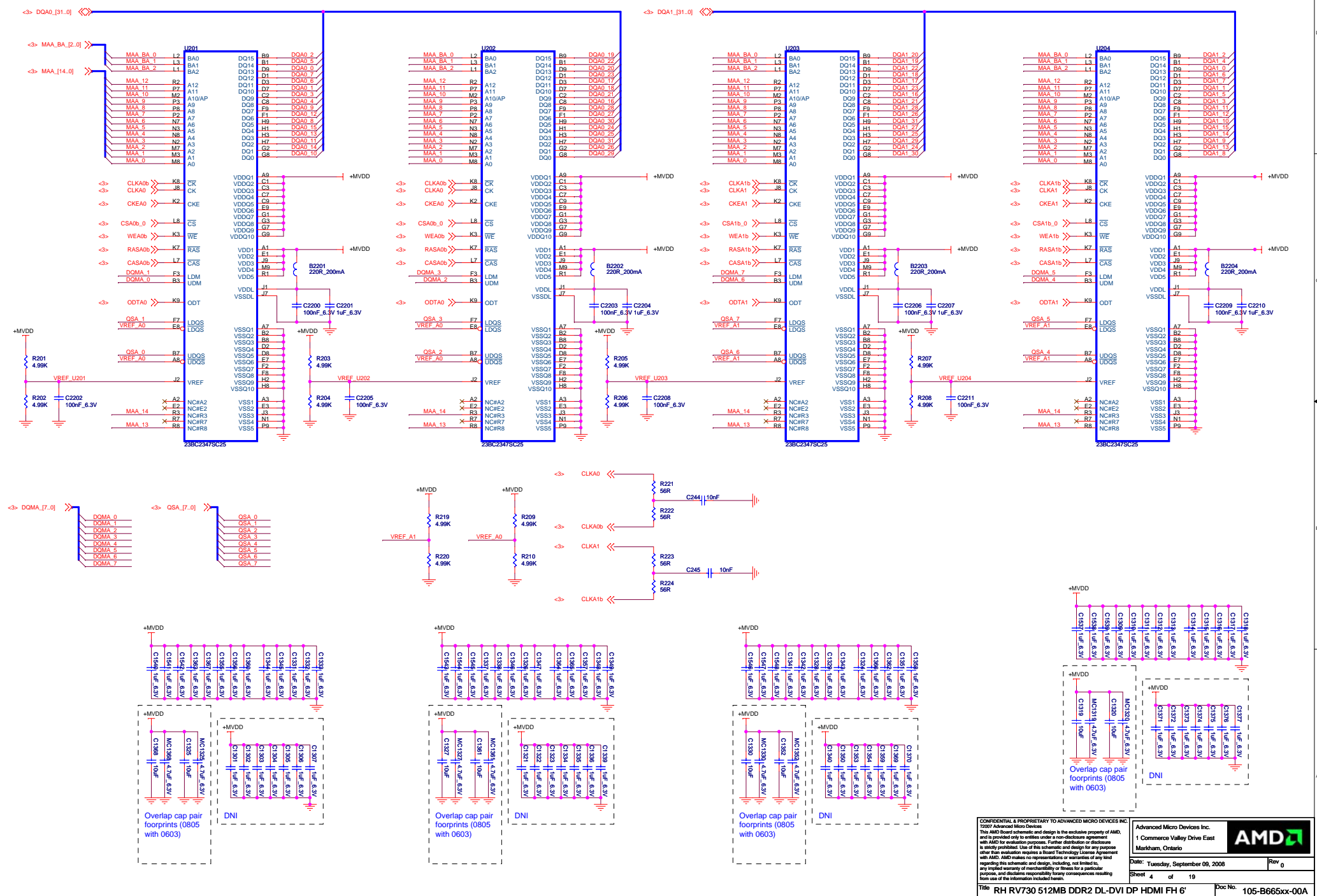
Rev

Title RH RV730 512MB DDR2 DL-DVI DP HDMI FH 6

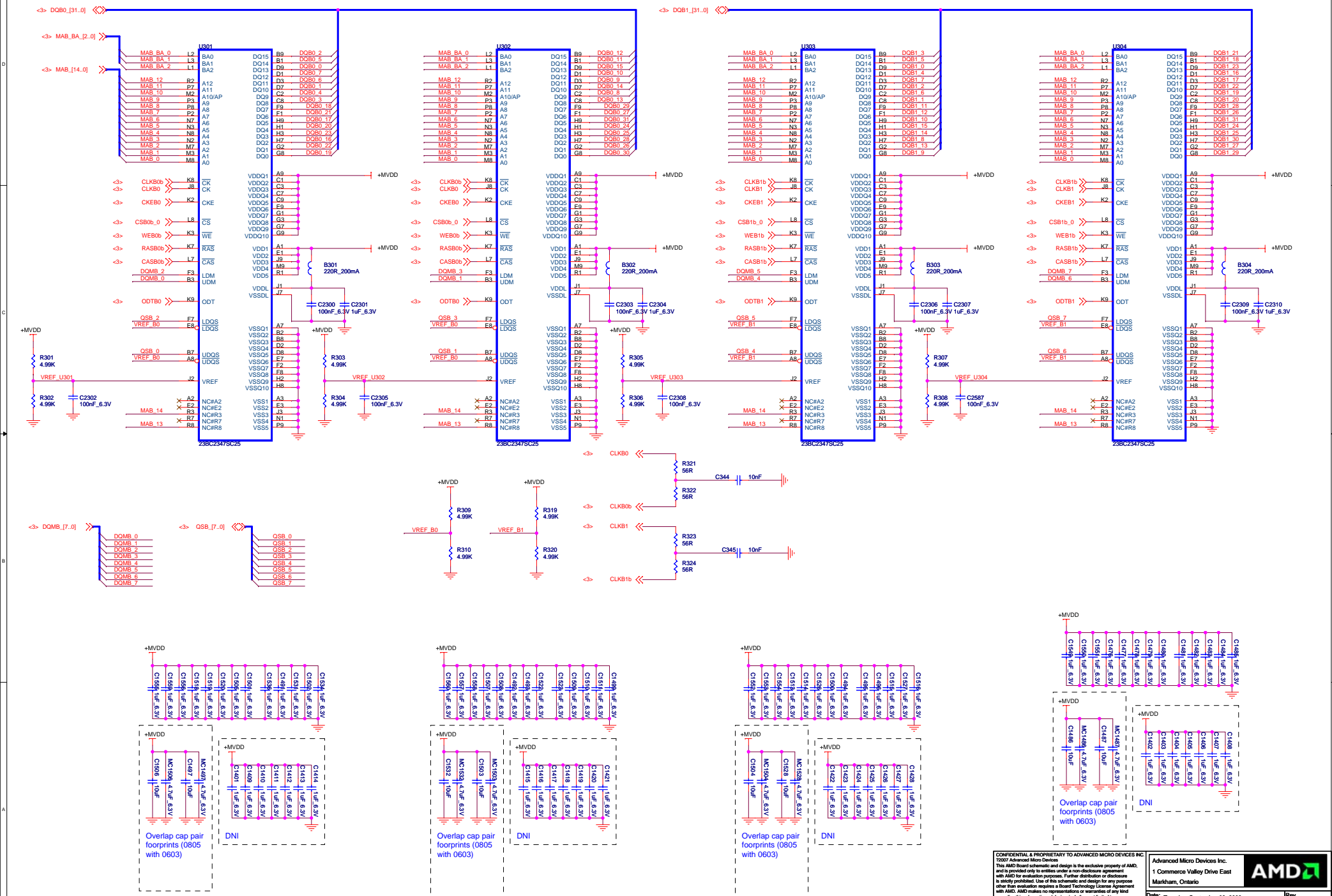
Doc No. 10E-B66Exx-00

(4) DDR2 Ch A

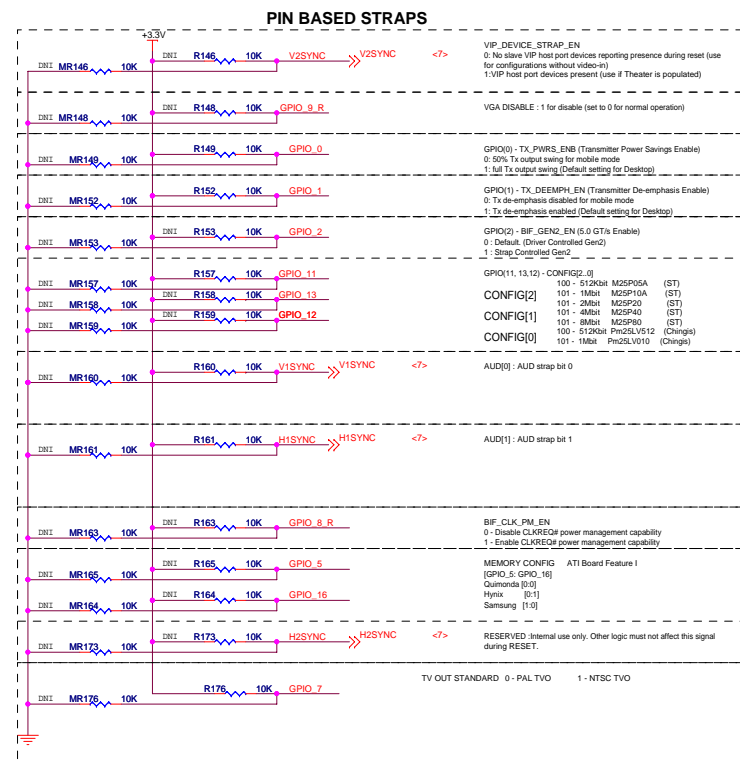
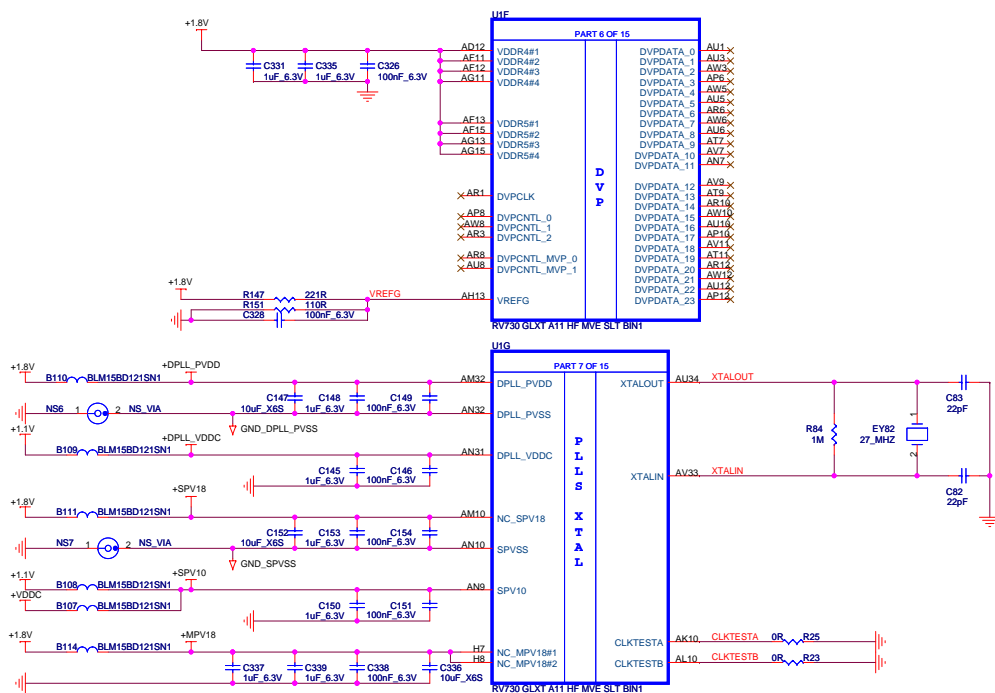
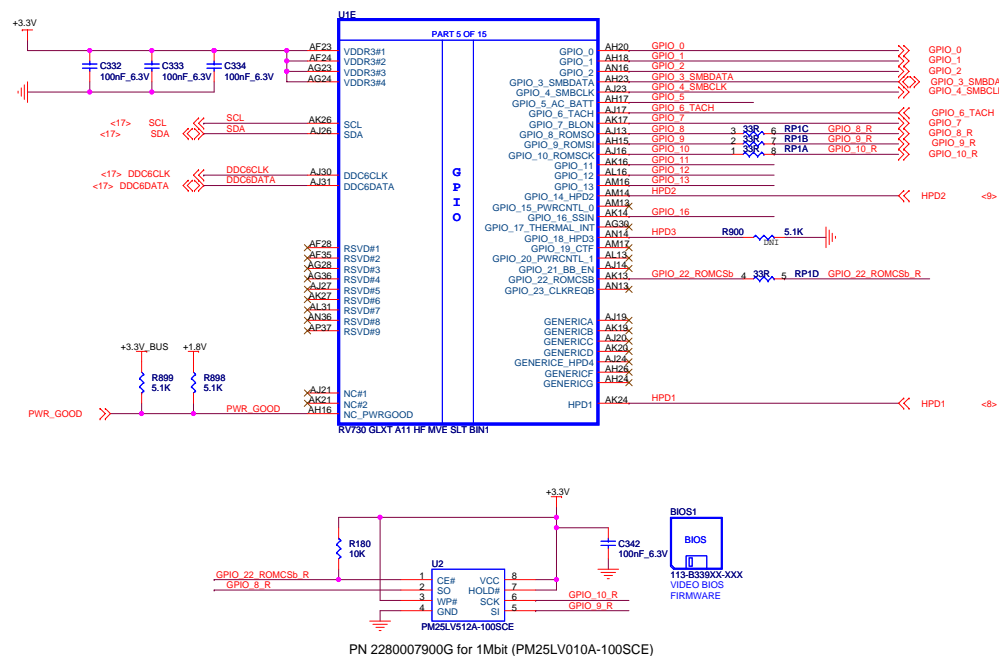
CHANNEL A: 128MB/256MB DDR2



**CHANNEL B: 128MB/256MB DDR2**



## (06) RV730 GPIOs Strap CF XTAL



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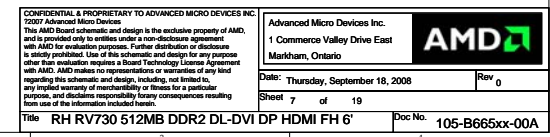


Date: Monday, September 15, 2008

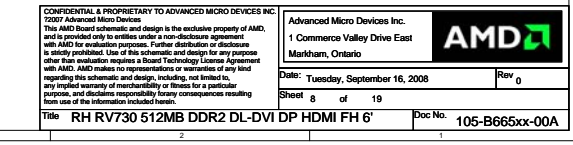
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Rev 0

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| Title                                    |  | Doc No.        |  |
| BH RV730 512MB DDR2 DL-DVI DP HDMI FH 6' |  | 105-B665xx-00A |  |

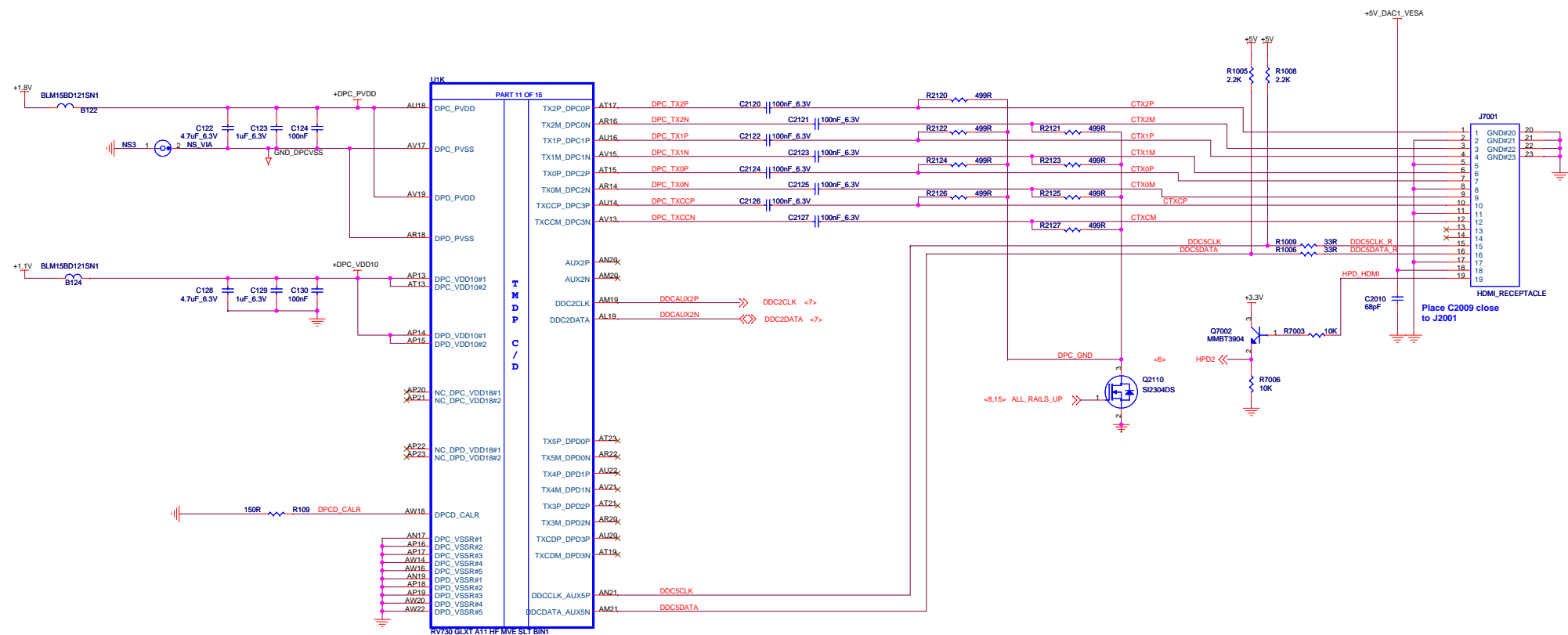




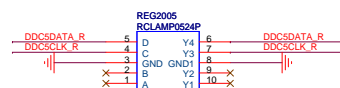
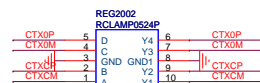
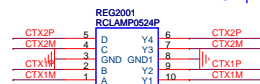




## (09) RV730 HDMI and DisplayPort on C&D



### ESD protection diodes



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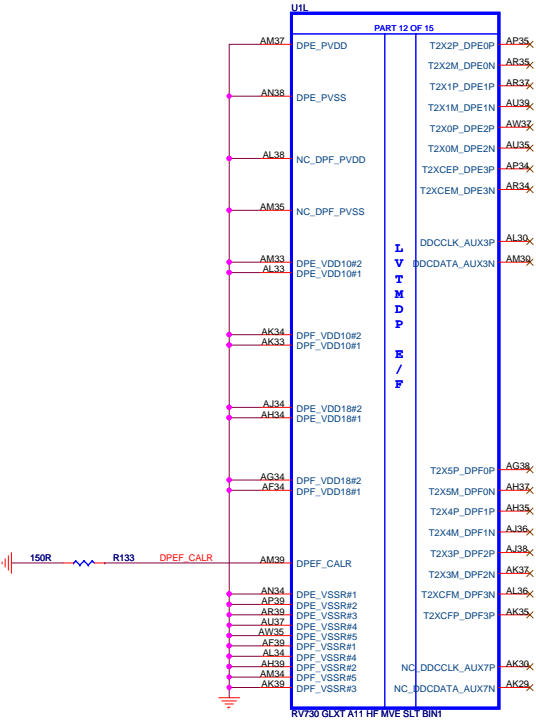
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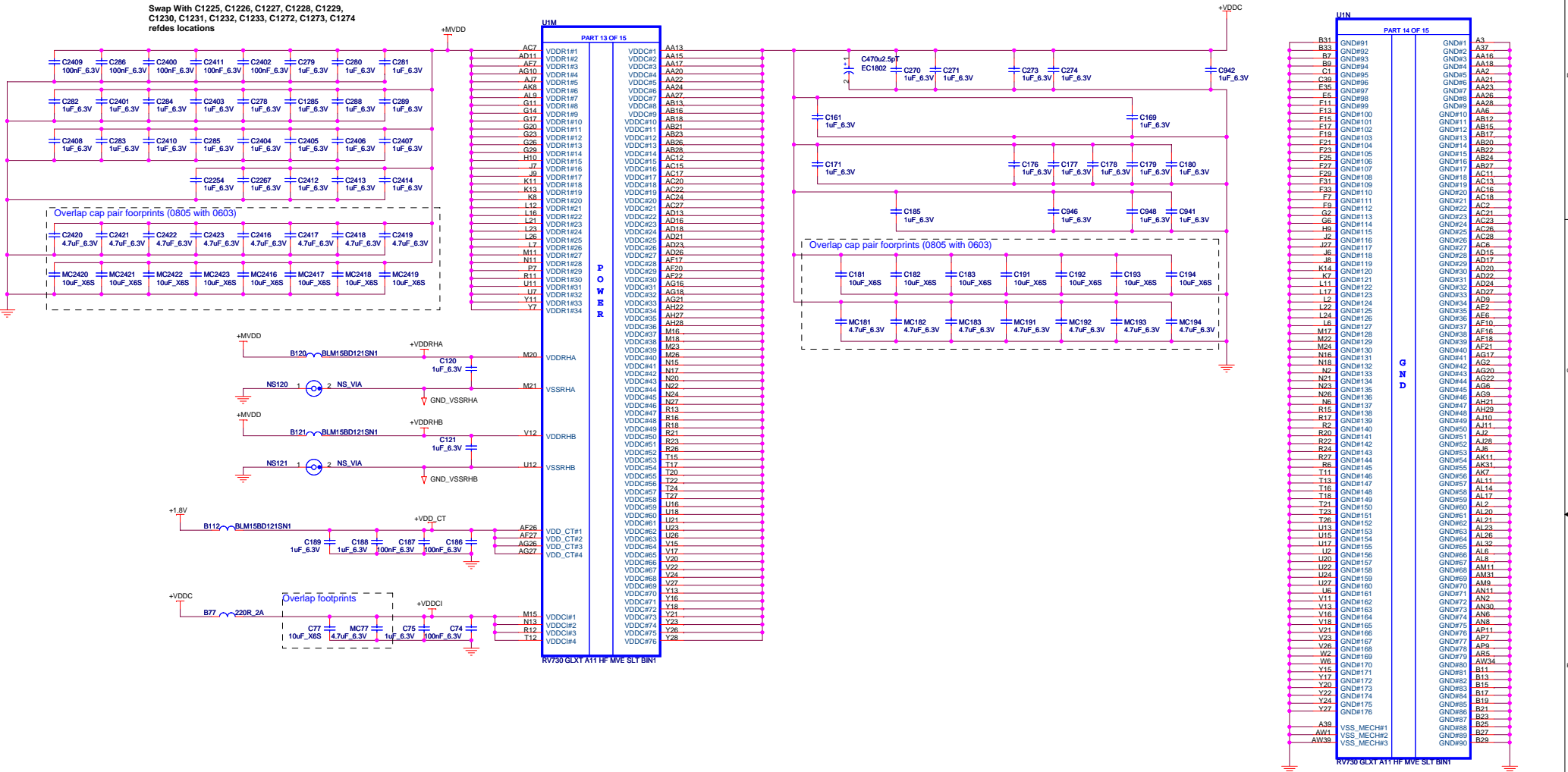
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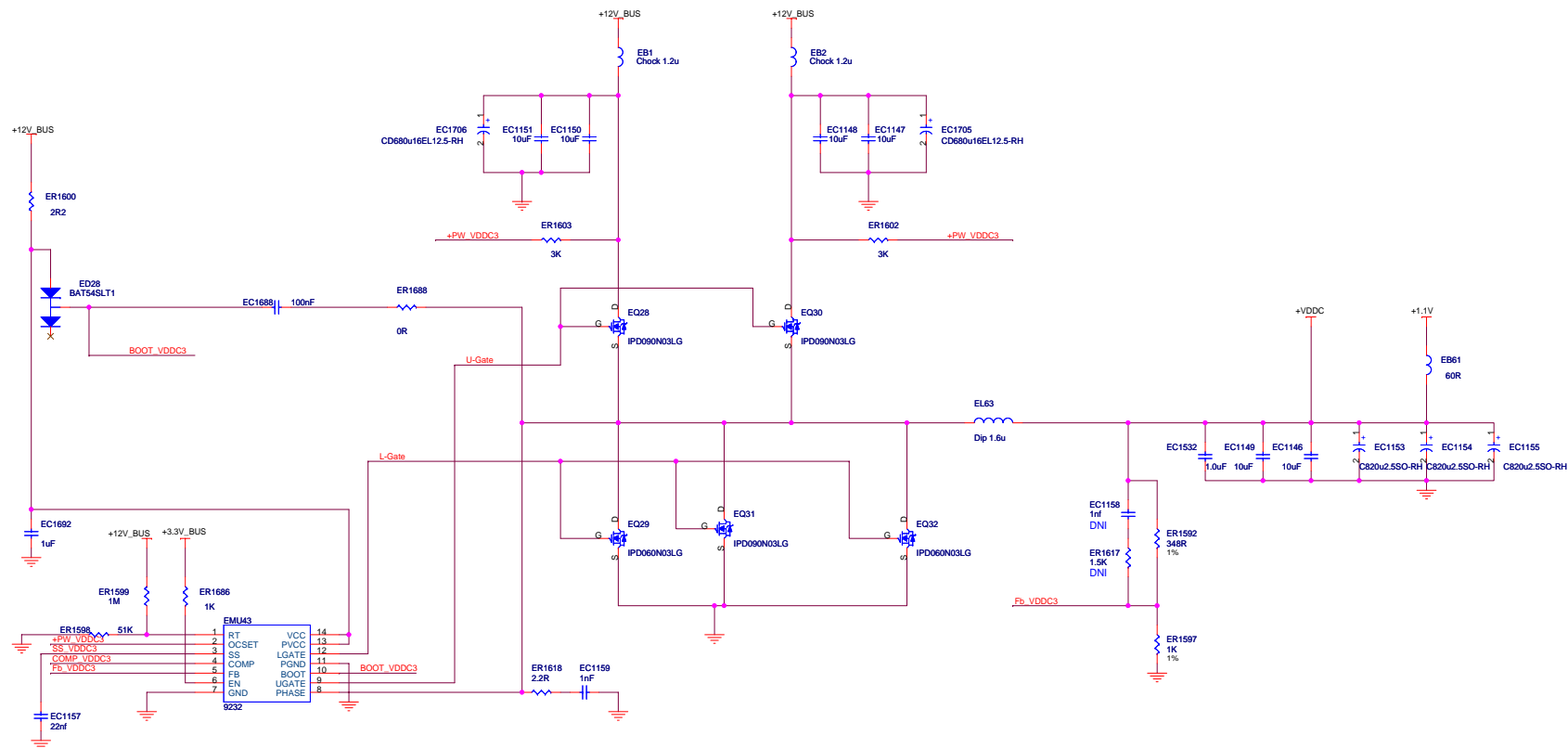
(10) No Connect E&F



(11) RV730 Power & GND

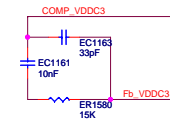


## CORE REGULATOR VDDC

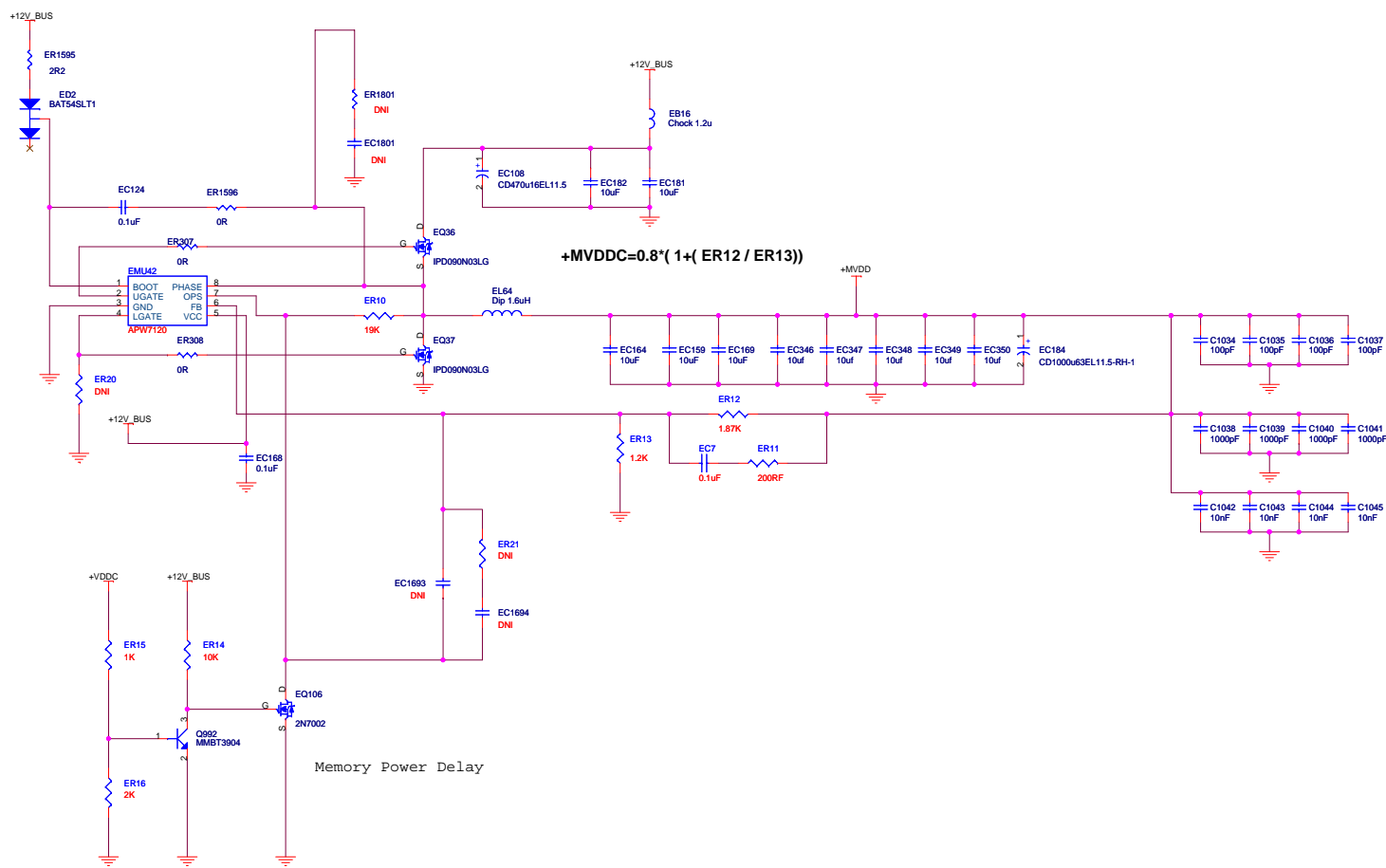


$$+VDDC=0.8*(1+(ER1592/ER1597))$$

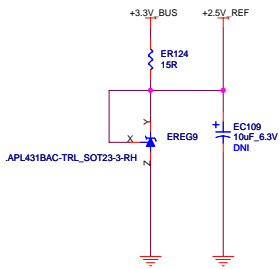
### Compensation Circuit



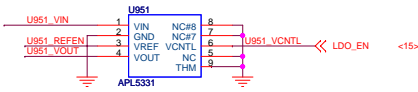
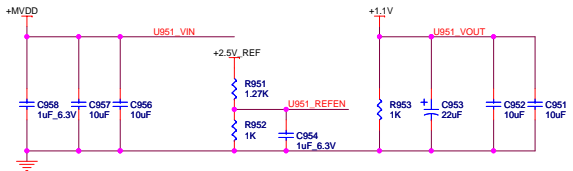
(13) MVDD



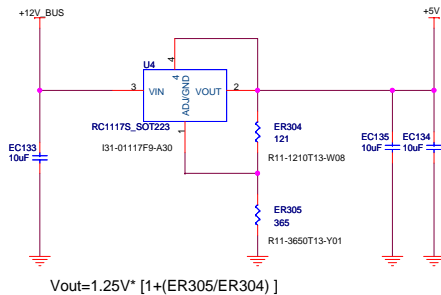
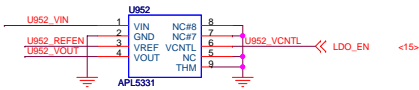
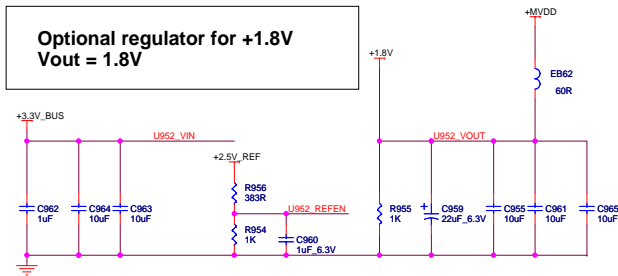
(14) Linear Regulators



Optional regulator for +1.1V  
Vout = 1.1V

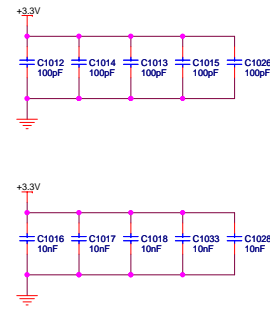
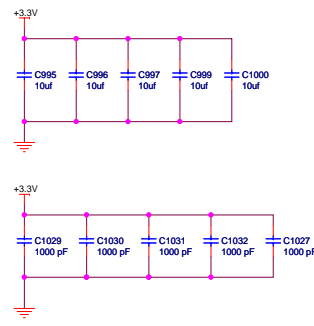
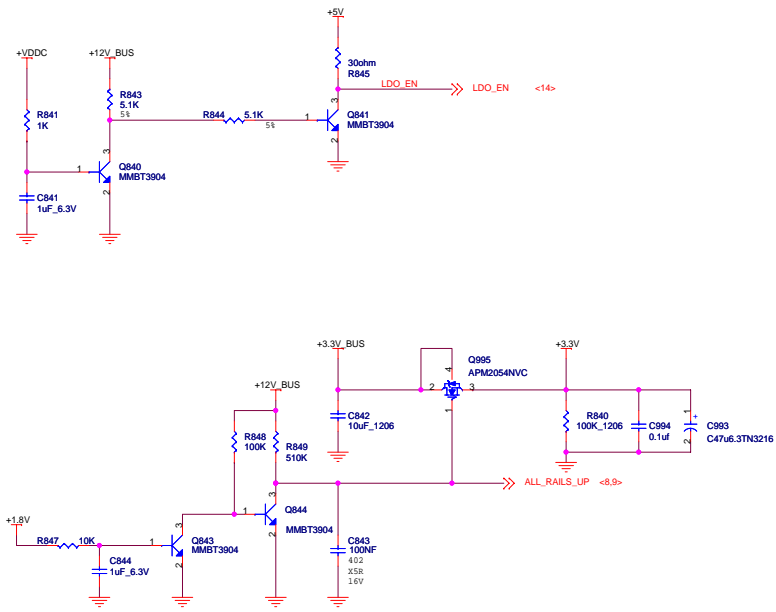


Optional regulator for +1.8V  
Vout = 1.8V



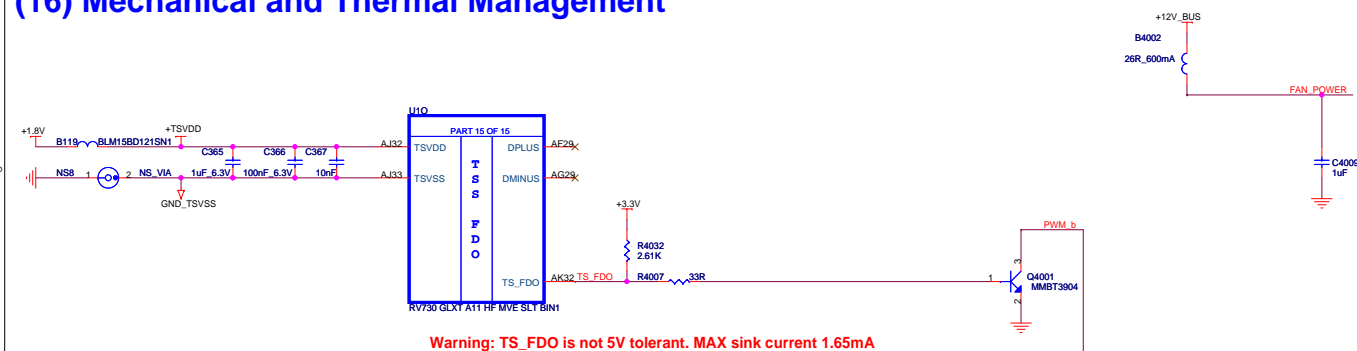
$$V_{out} = 1.25V \cdot \left[ 1 + \left( \frac{R_{305}}{R_{304}} \right) \right]$$

(15) Power Management

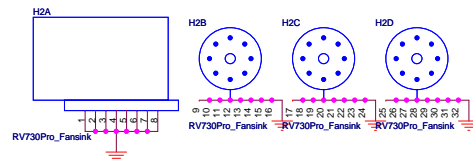
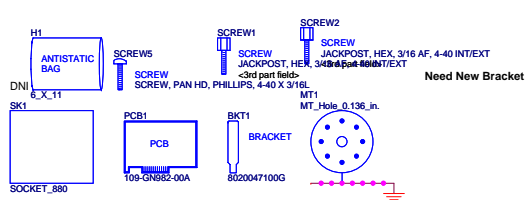
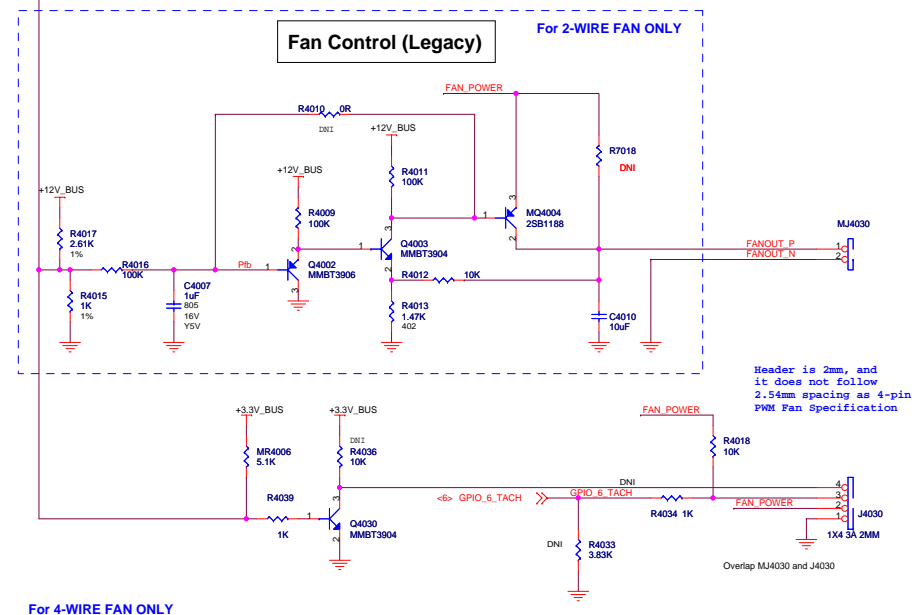




## (16) Mechanical and Thermal Management




**Warning: TS\_FDO is not 5V tolerant. MAX sink current 1.65mA**

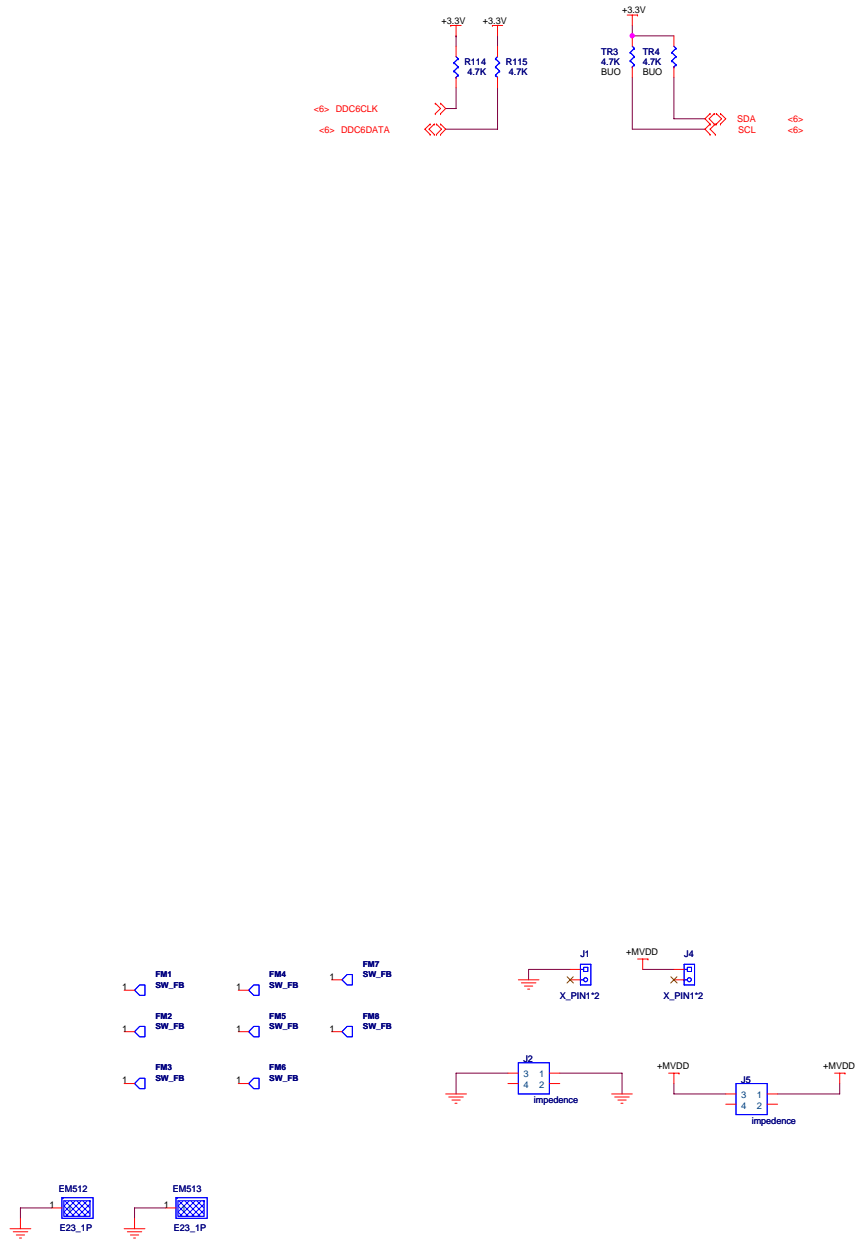


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| Sheet 16 of 19  |  |   |  |
| DP HDMI FH 6'   |  | Doc No. 105-B665xx-00A  |  |

(17) Debug Circuits





|                  |         |          |  |  |                |  |                         |       |
|------------------|---------|----------|--|--|----------------|--|-------------------------|-------|
| <div>AMD</div>   |         |          | Title  |  | Schematic No.  |  | Date:                   |       |
|                  |         |          | RH RV730 512MB DDR2 DL-DVI DP HDMI FH 6'   |  | 105-B665xx-00A |  | Saturday, July 26, 2008 |       |
| REVISION HISTORY |         |          | NOTE: This schematic represents the PCB, it does not represent any specific SKU.<br>For Stuffing options (component values, DNI , ? please consult the product specific BOM.<br>Please contact AMD representative to obtain latest BOM closest to the application desired. |  |                |  |                         | Rev 0 |
|                  |         |          |  |  |                |  |                         |       |
| Sch Rev          | PCB Rev | Date     | REVISION DESCRIPTION   |  |                |  |                         |       |
| 0                | 00A     | 08/04/01 | Initial design for RV730 GDDR3   |  |                |  |                         |       |
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