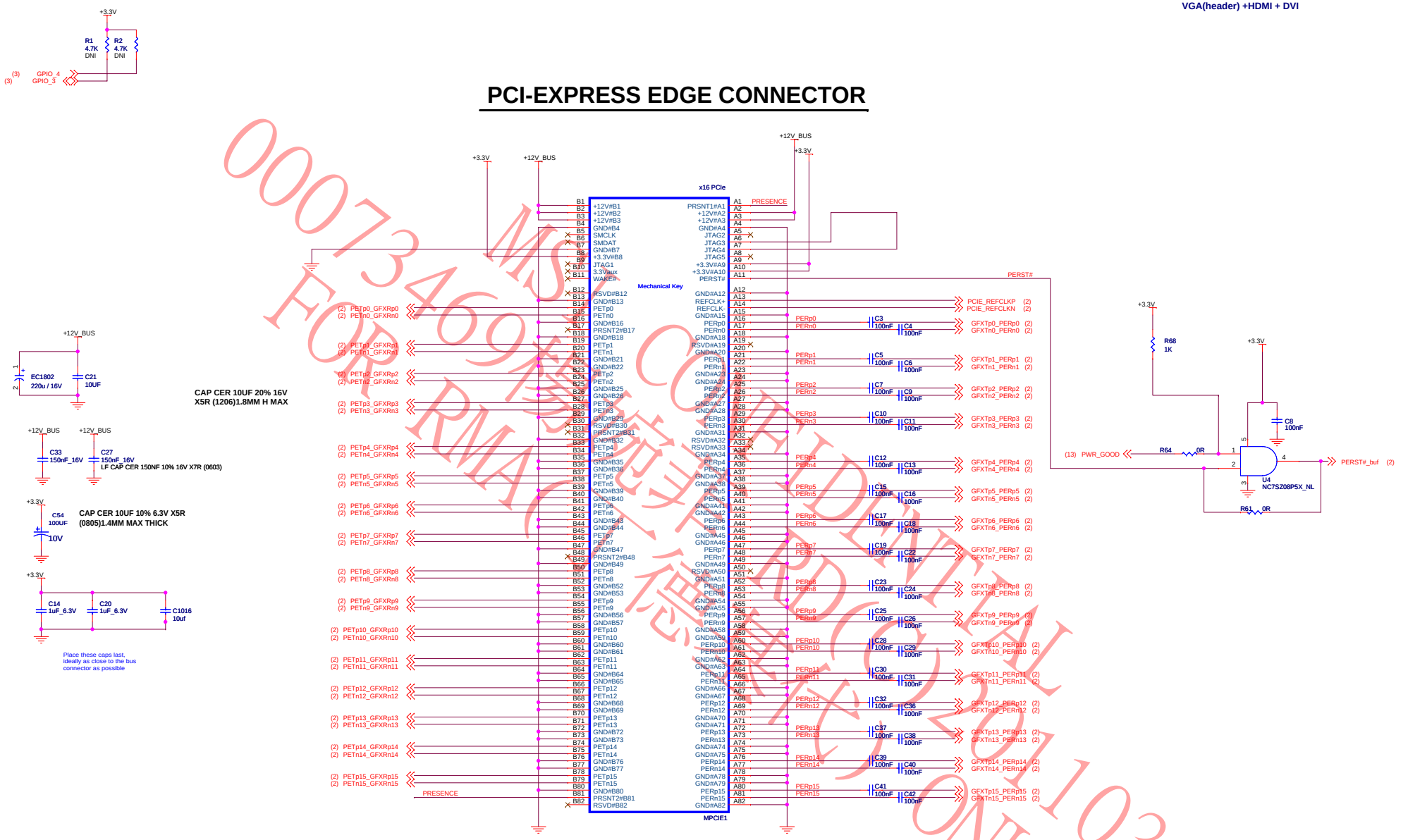
RV710 CLASH

VGA(header) +HDMI + DVI

PCI-EXPRESS EDGE CONNECTOR



SYMBOL LEGEND

DNI	DO NOT INSTALL
#	ACTIVE LOW
	DIGITAL GROUND
	ANALOG GROUND

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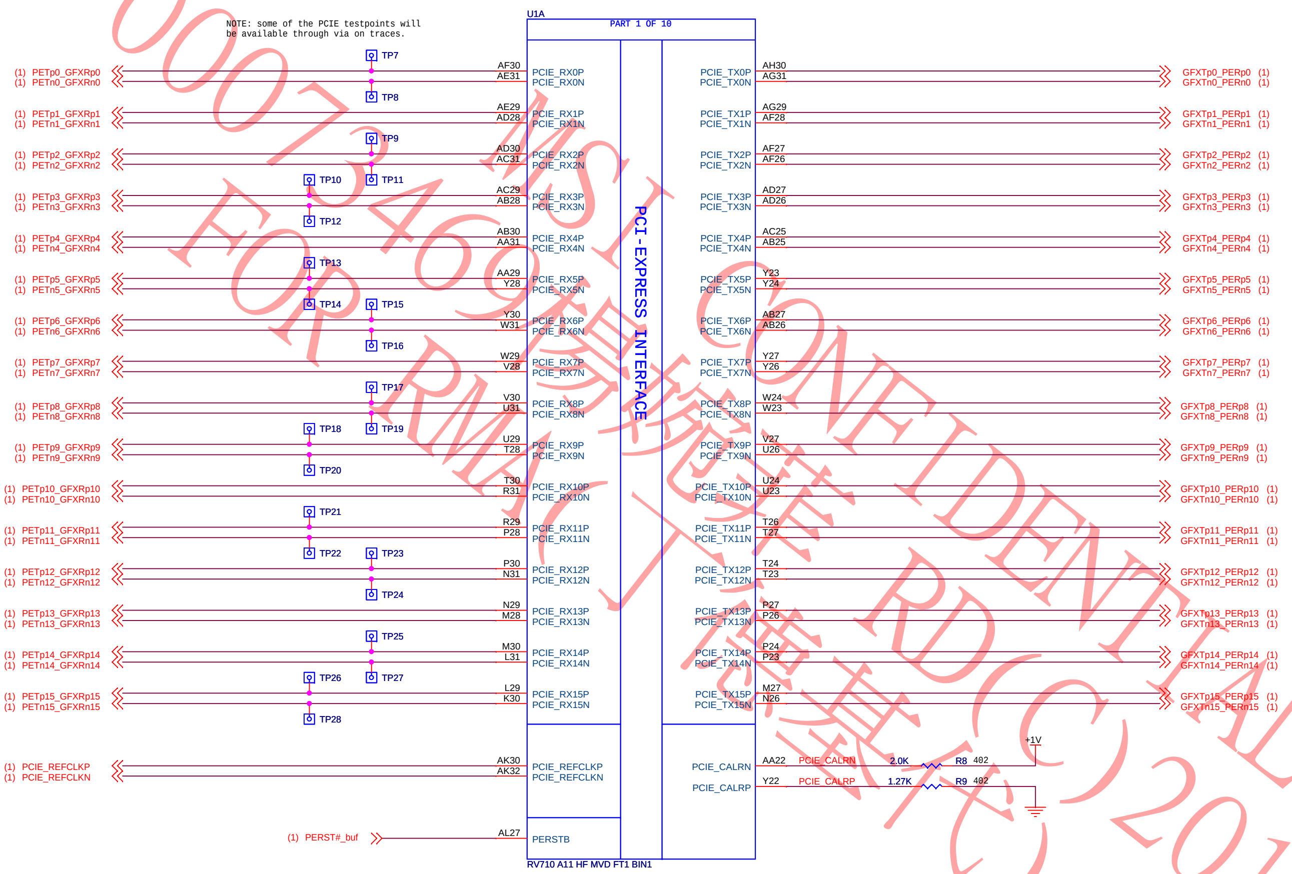
(2) RV710 PCIE Interface



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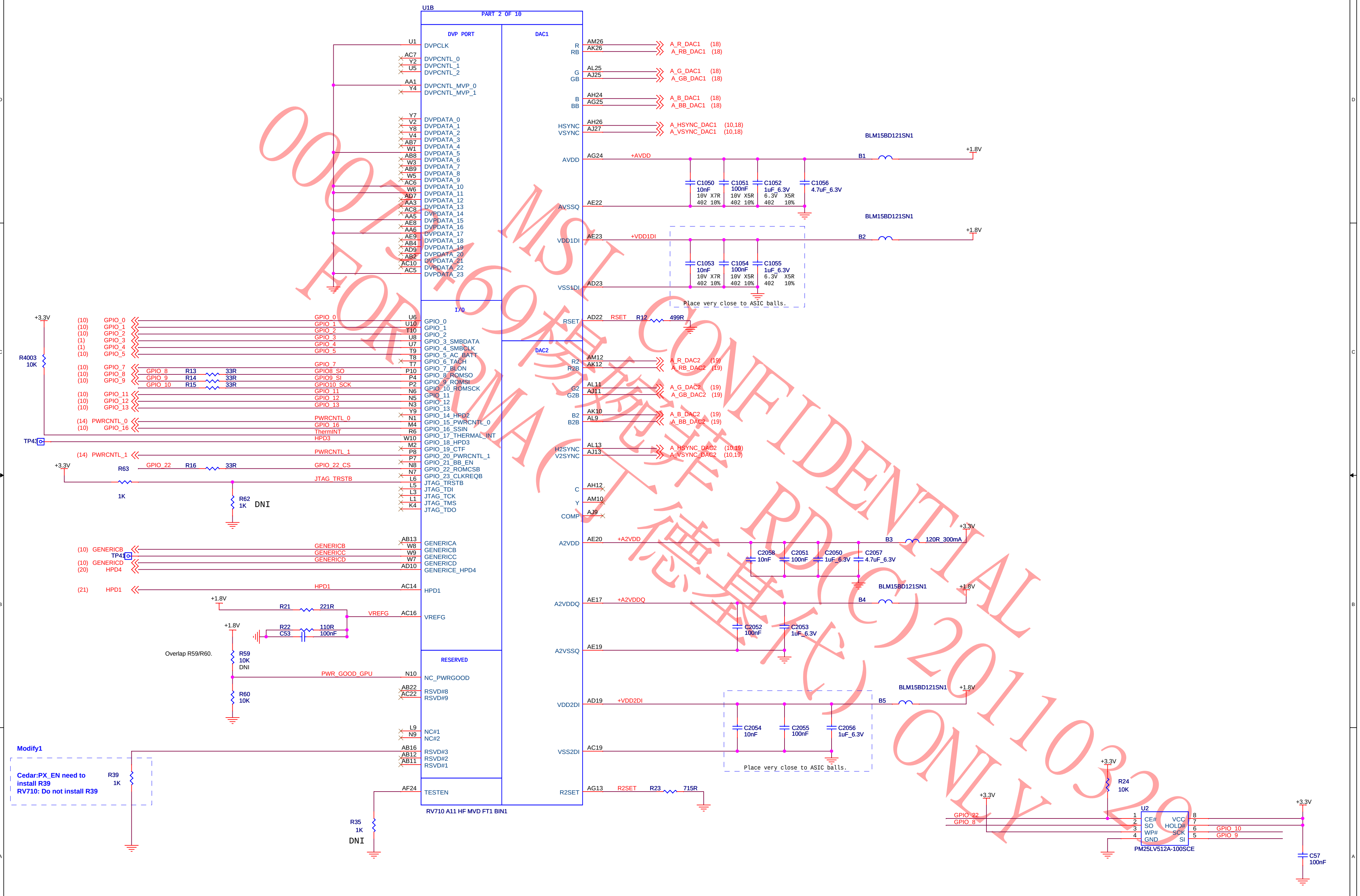
(3) RV710 Main



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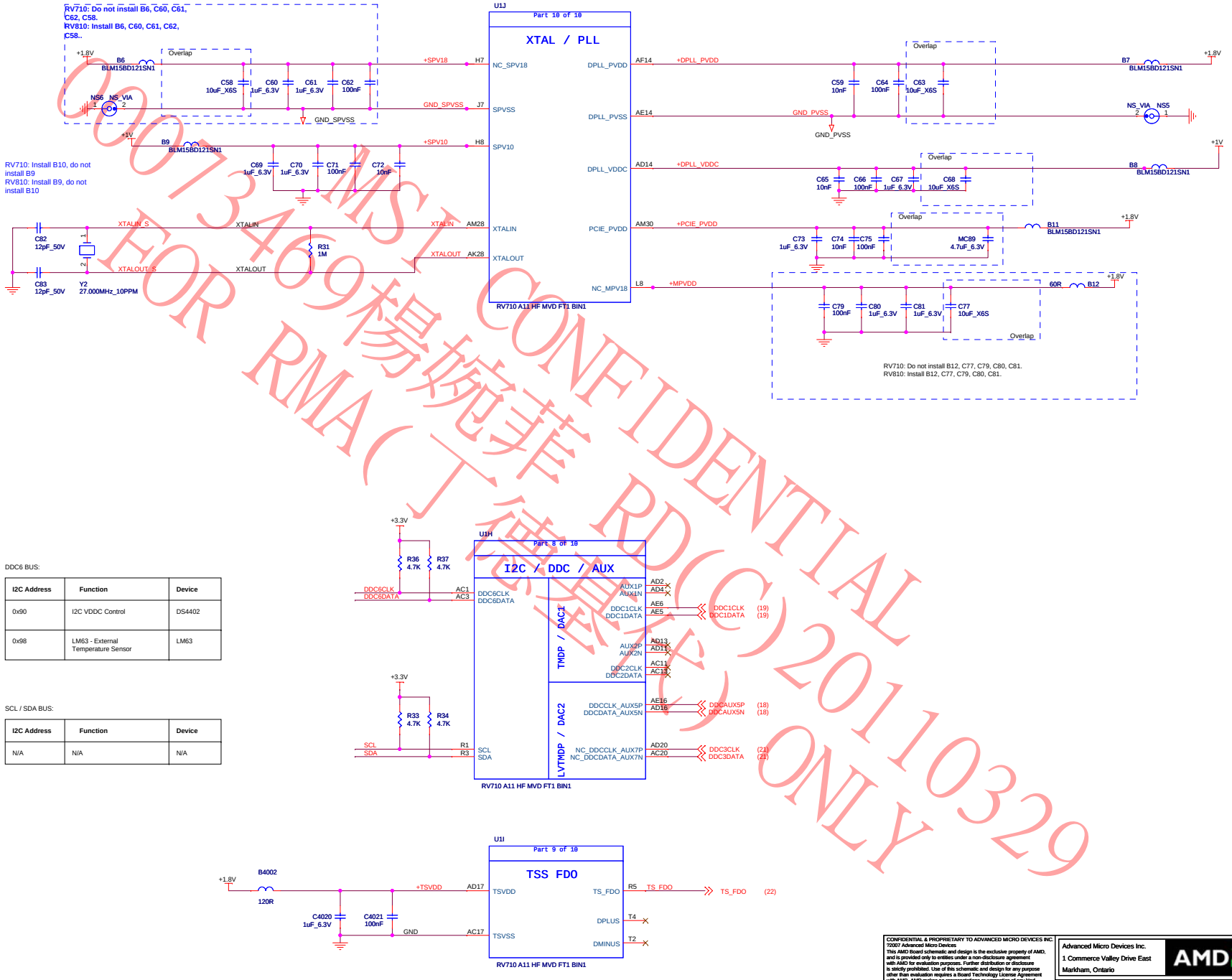
(04) RV710 GPIOs CF XTAL



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

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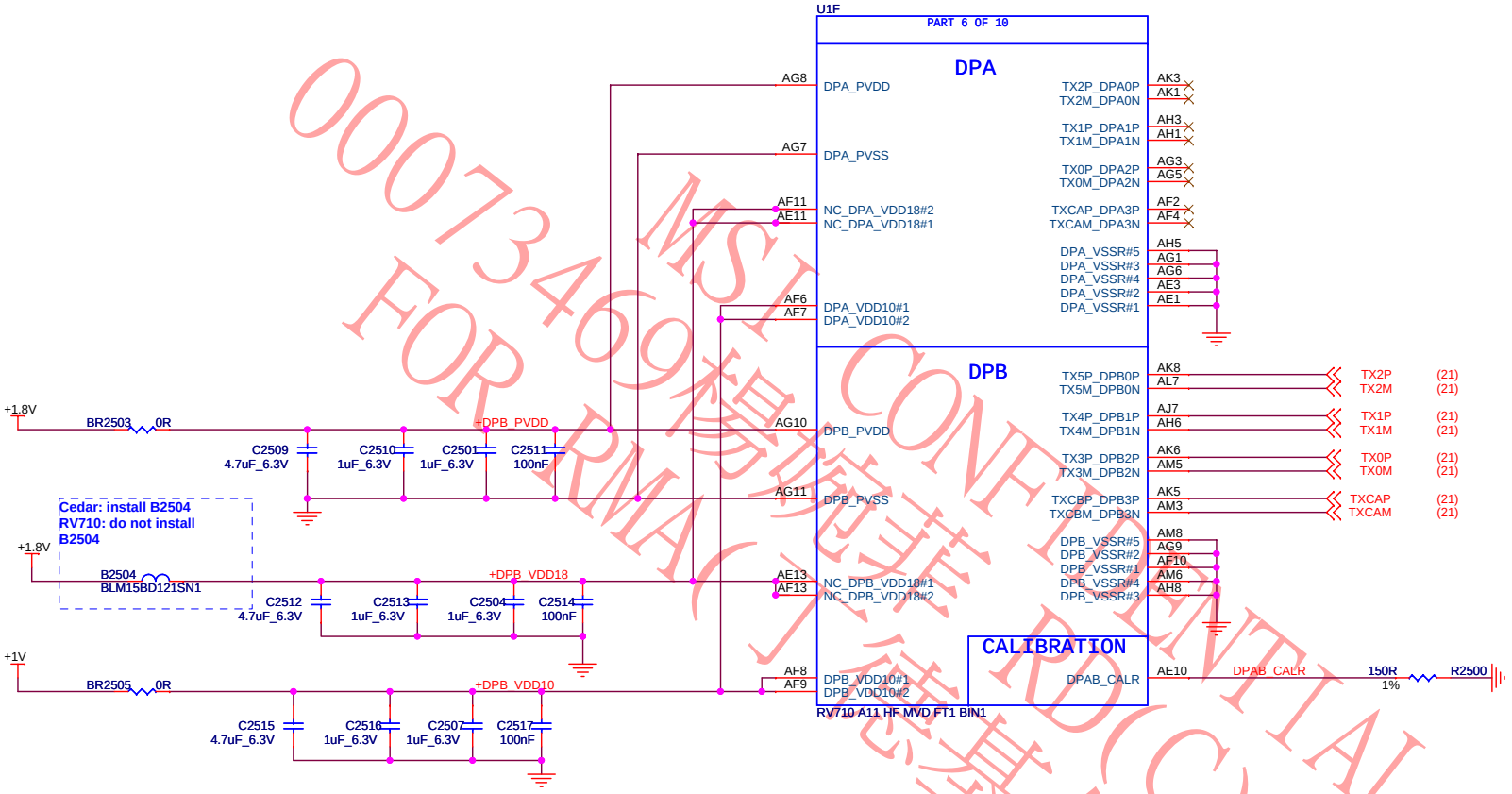
(05) RV710 TMDP A&B

TMDP INTERFACE



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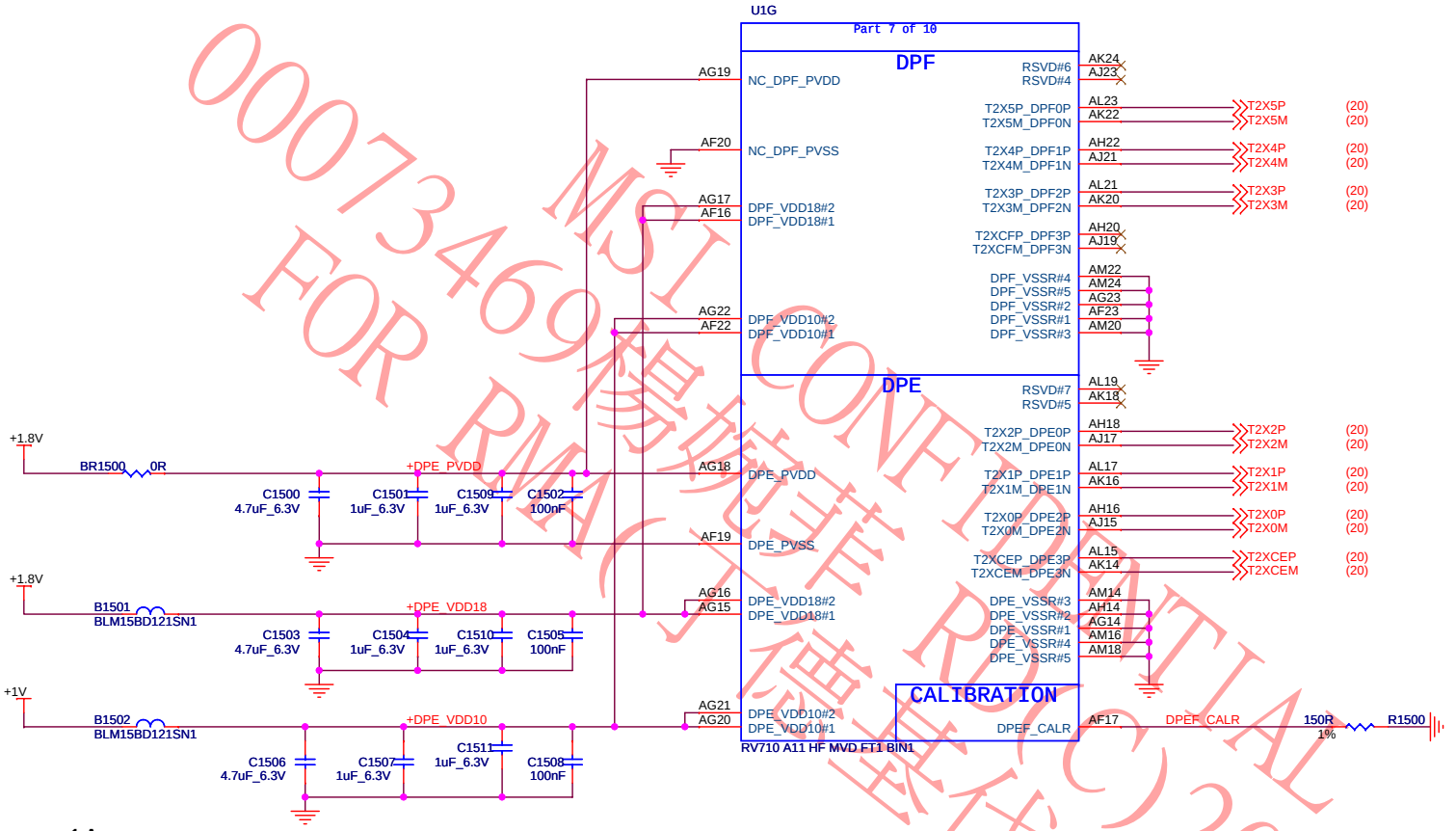
(06) RV710 TMDP E&F

LVTMDP INTERFACE



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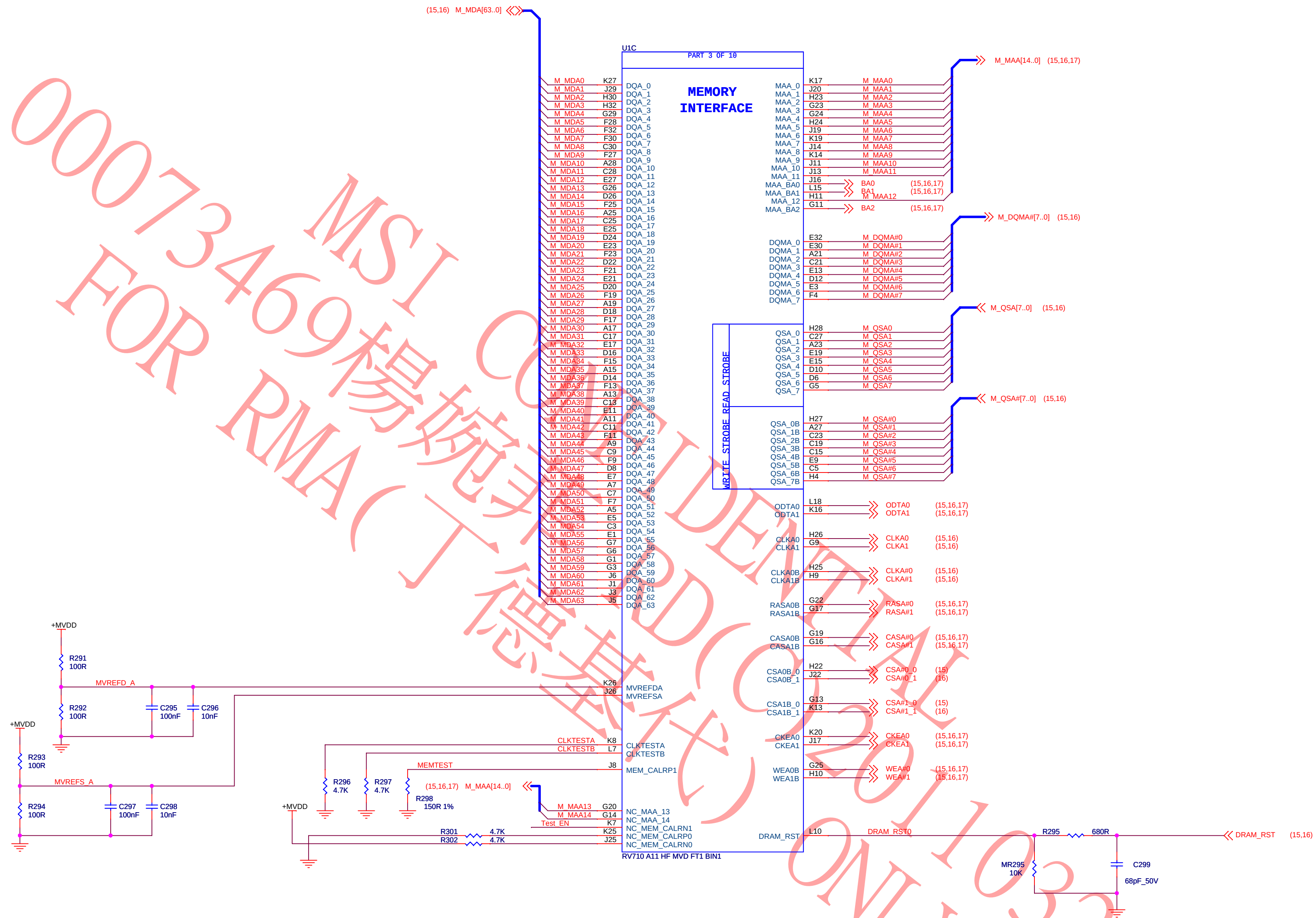
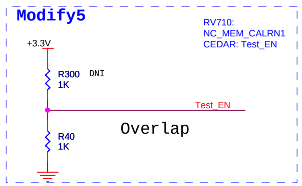
(07) RV710 MEM Interface Ch A

MEMORY INTERFACE





DIVIDER RESISTORS	DDR3
MVREF TO 1.8V	100R
MVREF TO GND	100R

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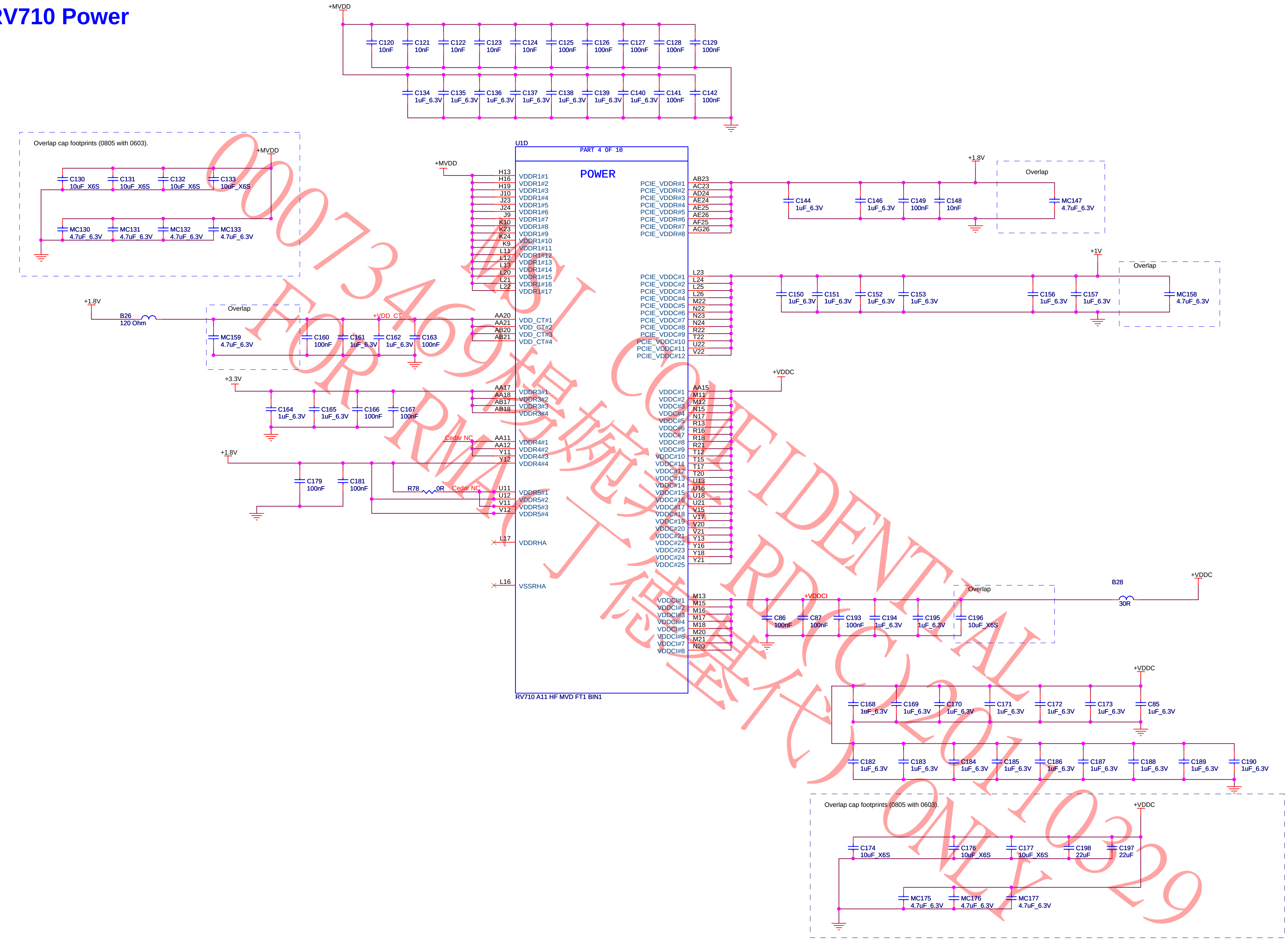
(08) RV710 Power



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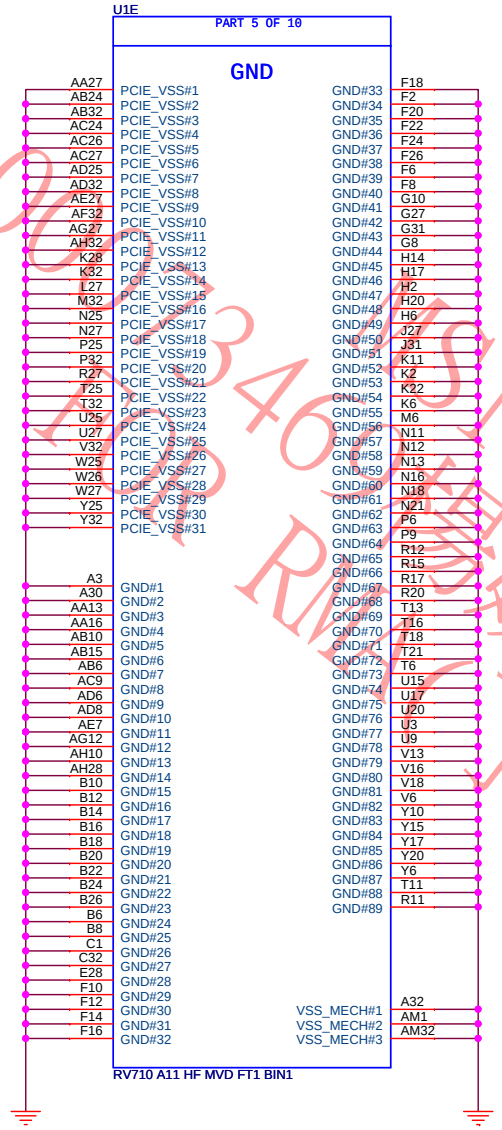
(09) RV710 GND



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(10) RV710 STRAPS

PIN BASED STRAPS

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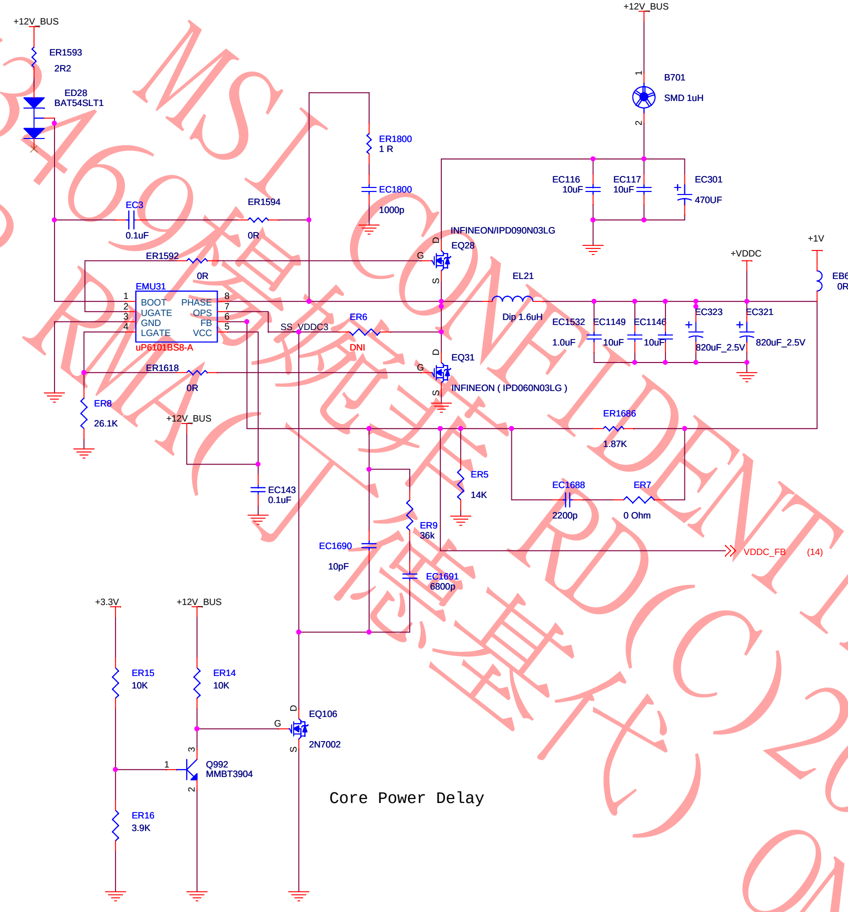
(11) VDDC



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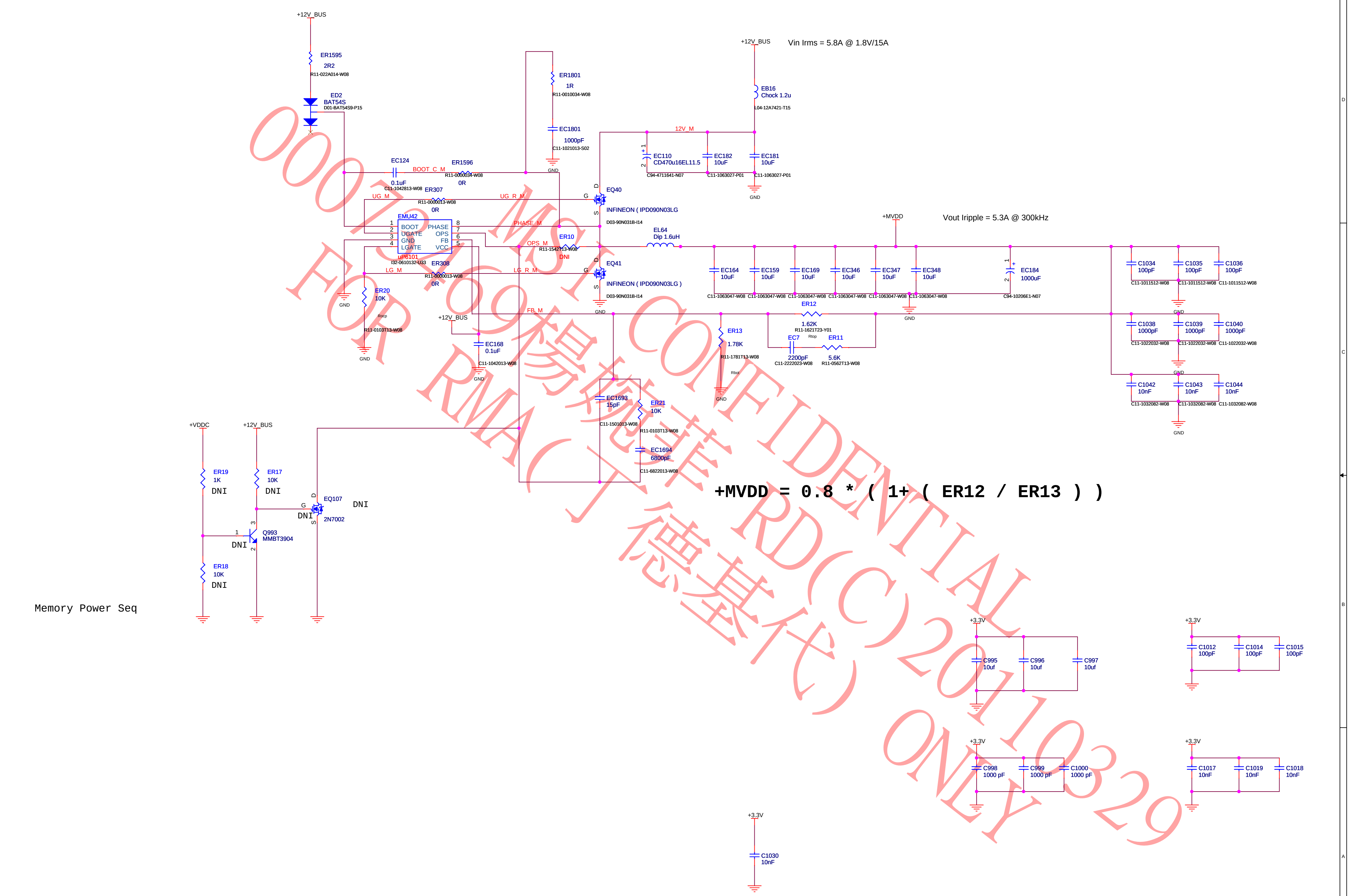
(12) MVDD



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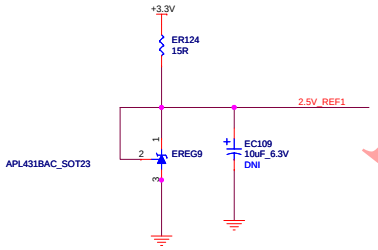
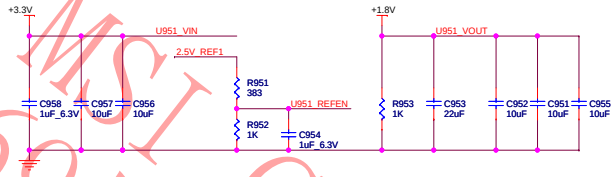
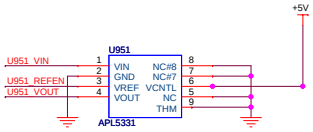
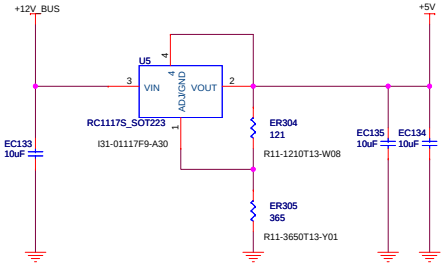
(13) Linear Regulators

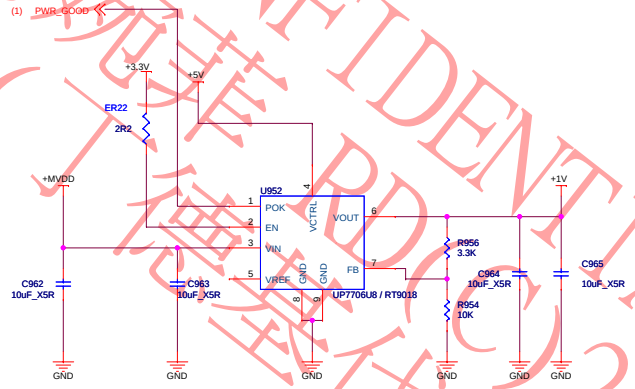








Vout=1.25V* [1+(ER305/ER304)]



Vout=0.8V * (1+ R956 / R954)

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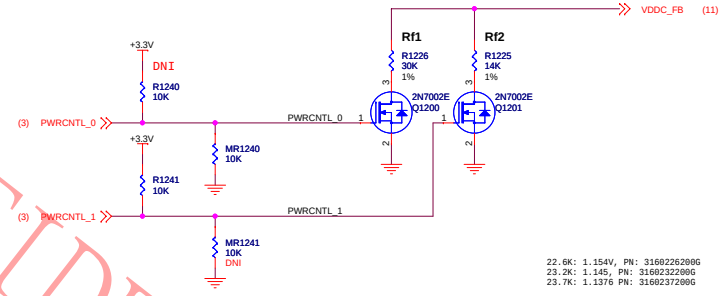
(14) Power Management

Power Play

VDDC Voltage Settings Using GPIOs

PWRCNTL_1 GPIO_20	PWRCNTL_0 GPIO_15	Output Voltage (V) Rf1= Rf2=	Rf1= Rf2=	Rf1= Rf2=		
0	0					
0	1					
1	0					
1	1	1	0	1		Power-up Default



MVDD Voltage Settings Using GPIOs

PWRCNTL_2 GPIO_6	Output Voltage (V) Rf1= Rf2=	Rf1= Rf2=	Rf1= Rf2=		
0					
1	1	0	1		Power-up Default

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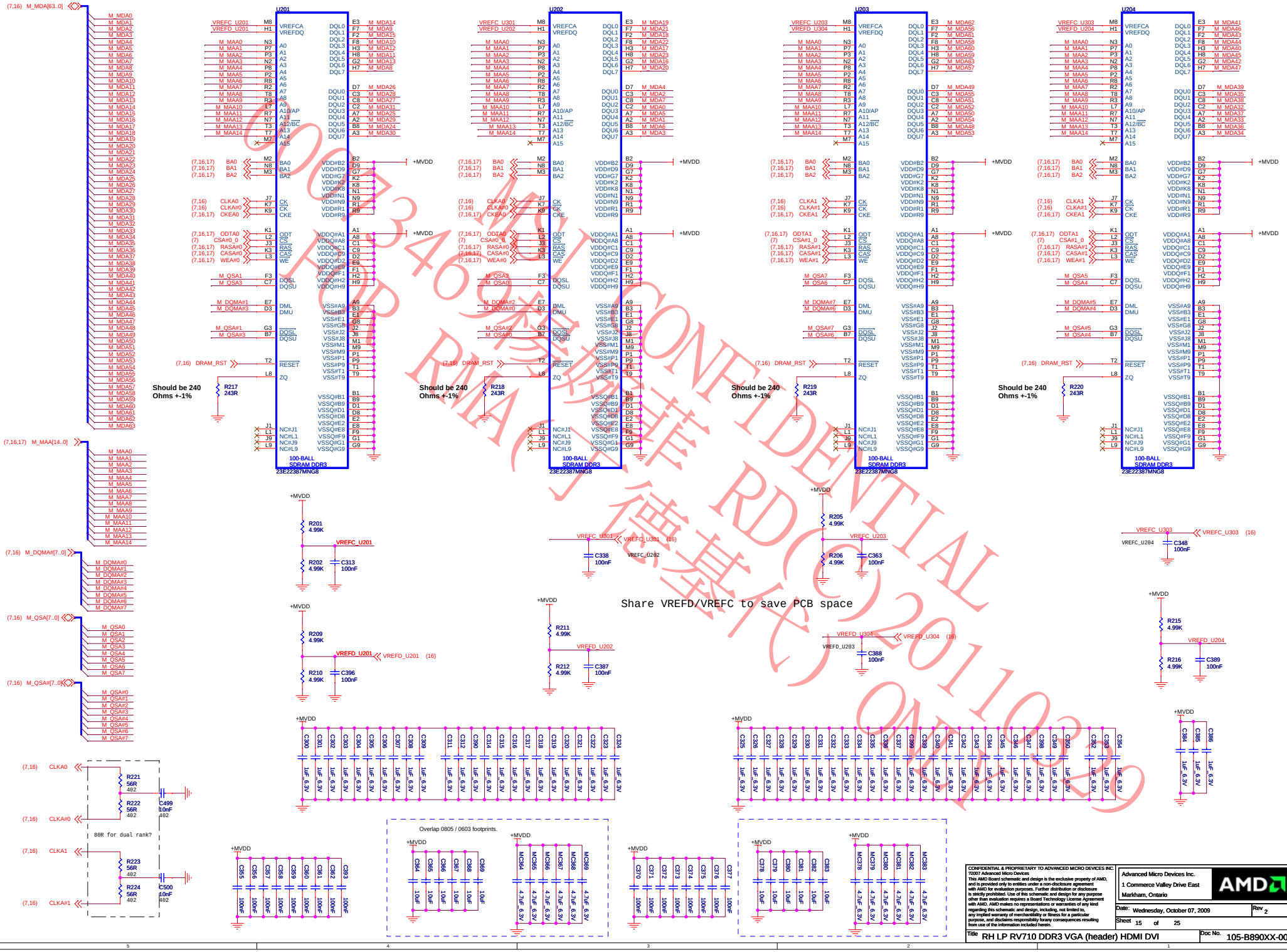
(15) DDR3 RANK1

RANK1: 256MB/512MB DDR3



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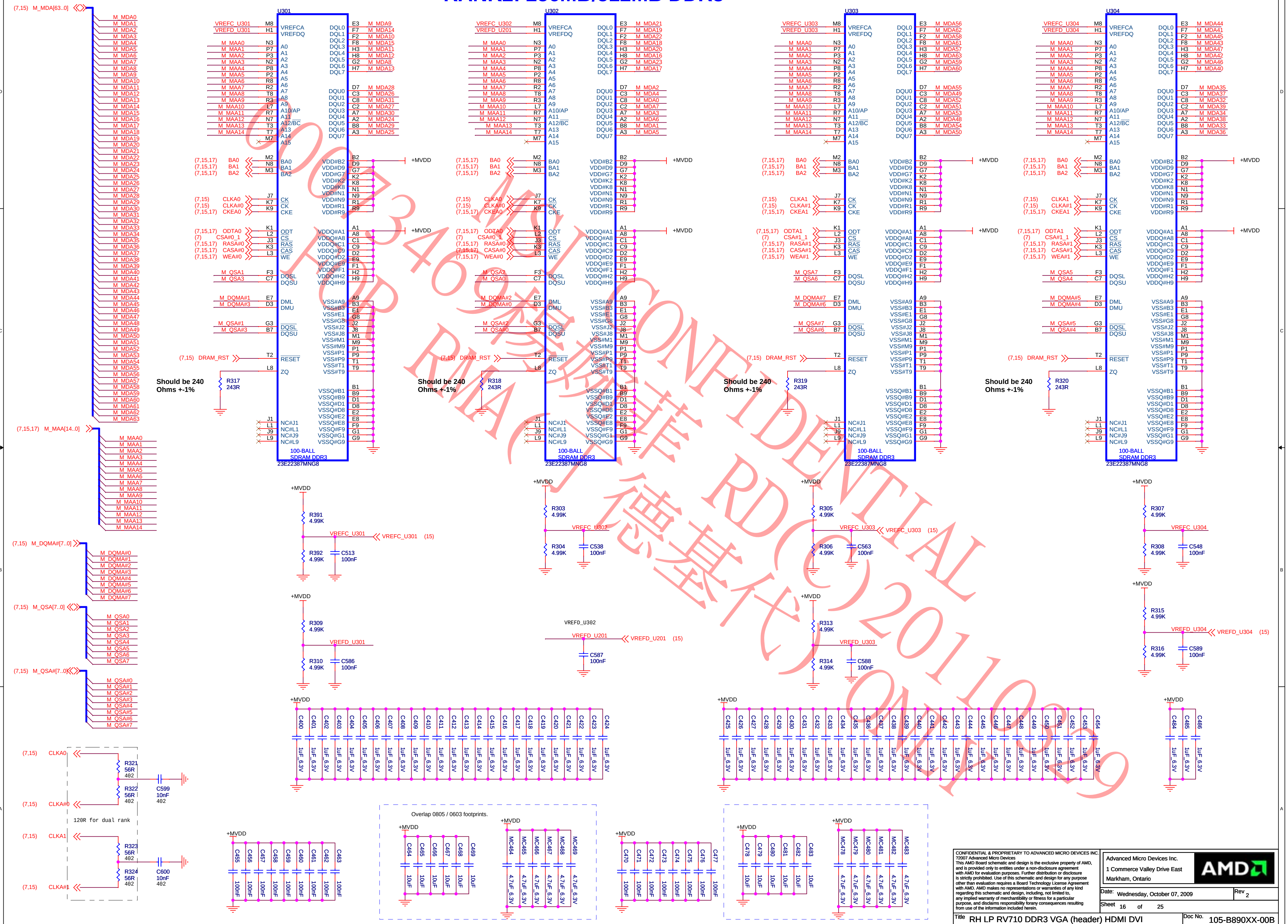
(16) DDR3 RANK2

RANK2: 256MB/512MB DDR3



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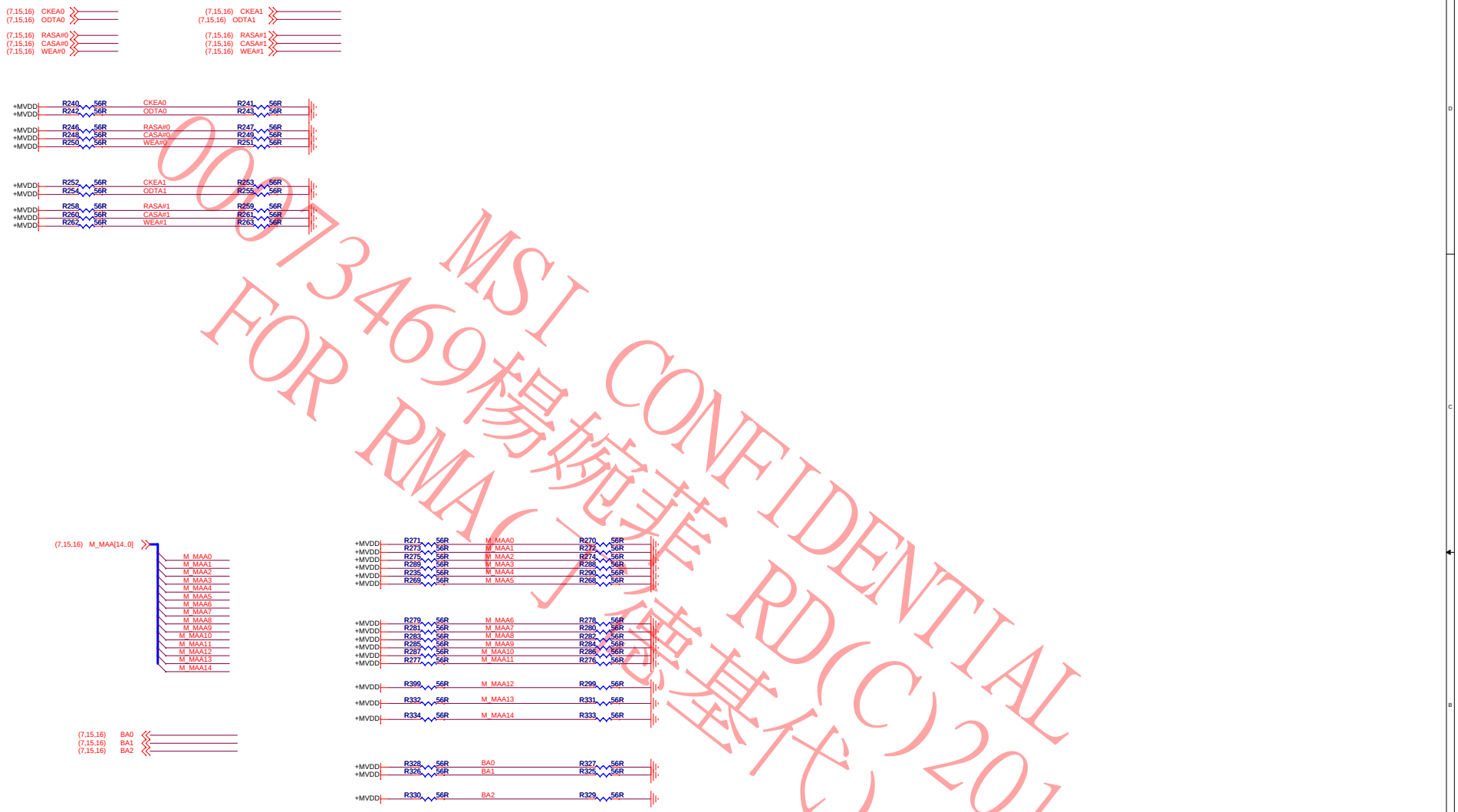
(17) DDR3 Termination



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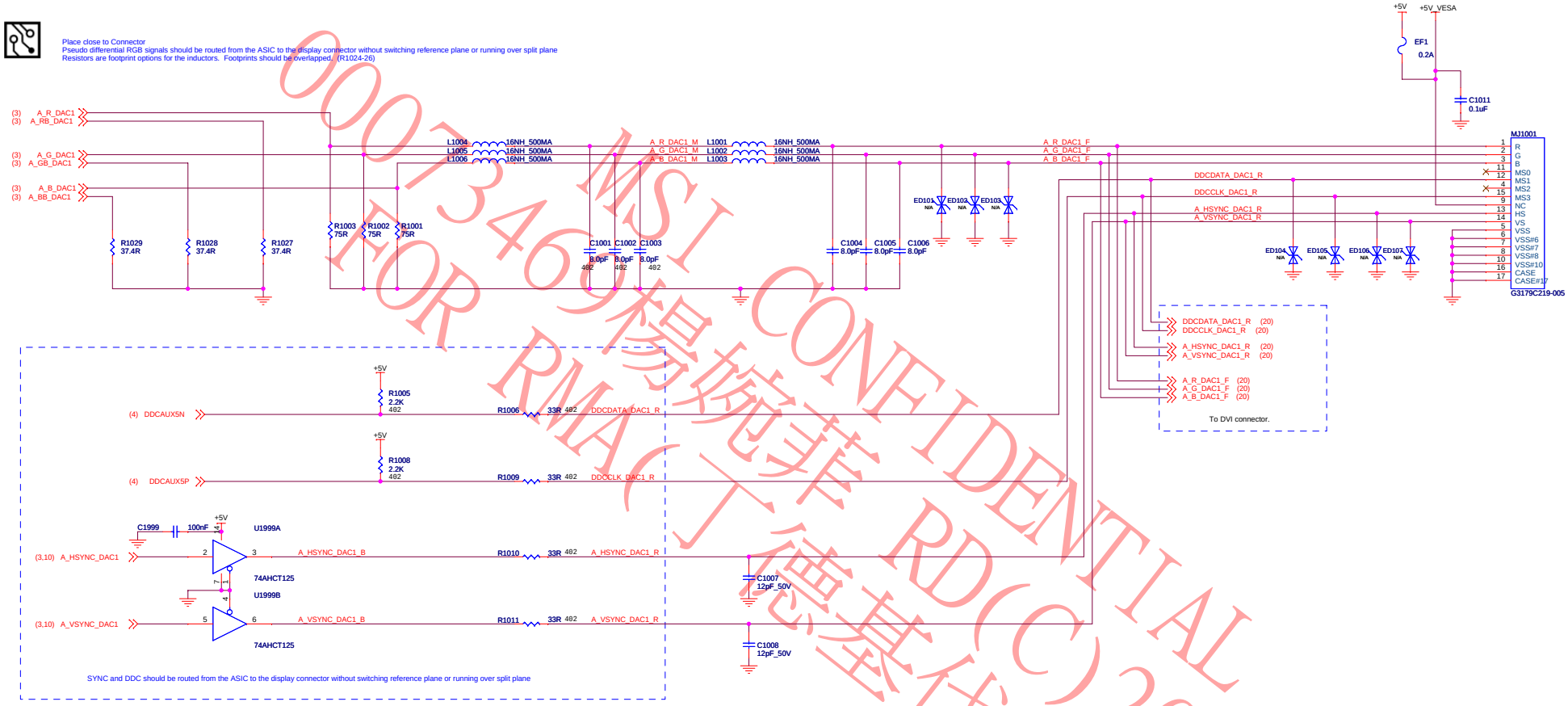
(18) DAC1 OUTPUT

DAC 1 OUTPUT



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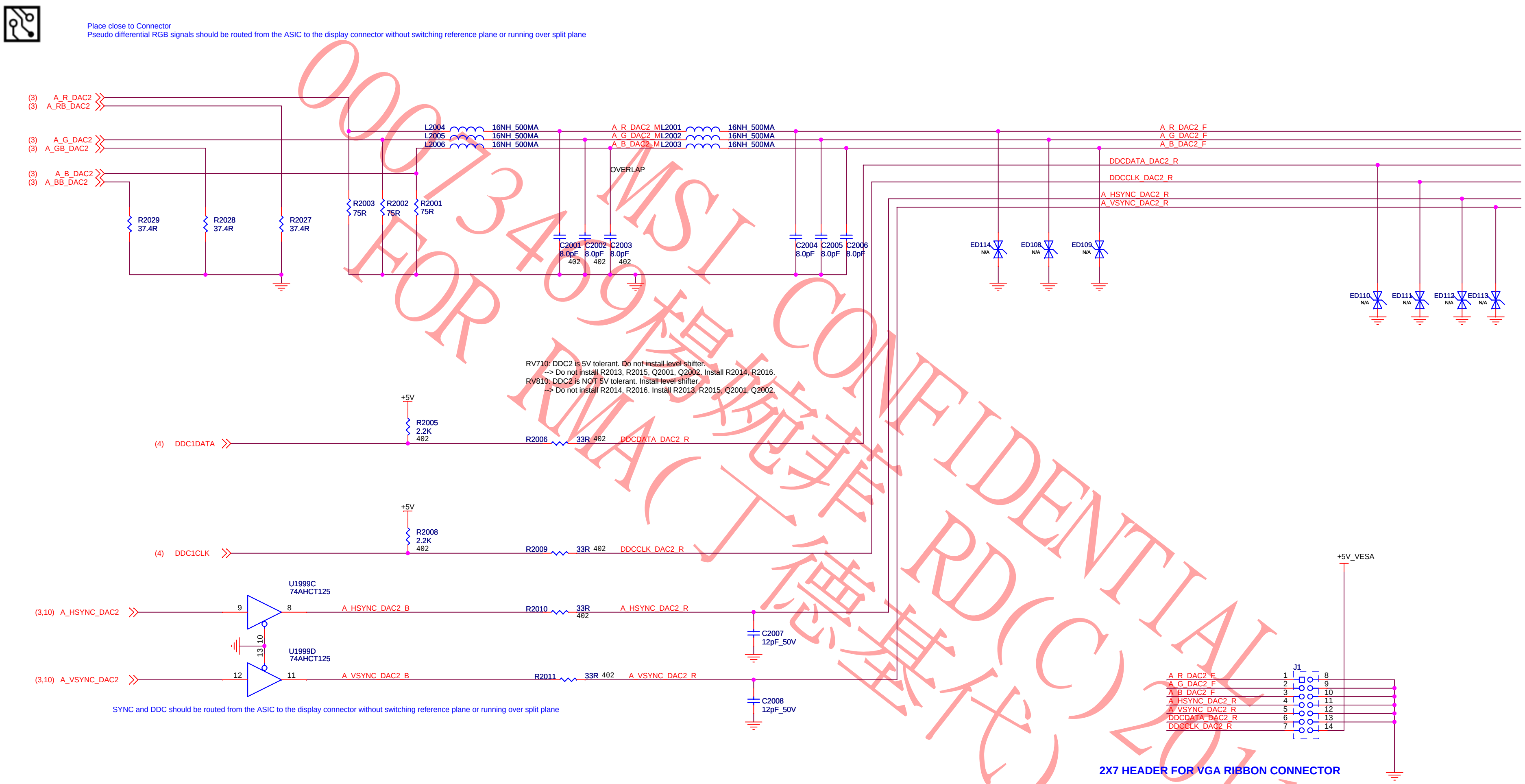
(19) DAC2 OUTPUT

DAC 2 OUTPUT

Optional ESD Protection Diods

Place near D2002, D2003, D2004, D2005

Place close to Connector
Pseudo differential RGB signals should be routed from the ASIC to the display connector without switching reference plane or running over split plane



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

2X7 HEADER FOR VGA RIBBON CONNECTOR

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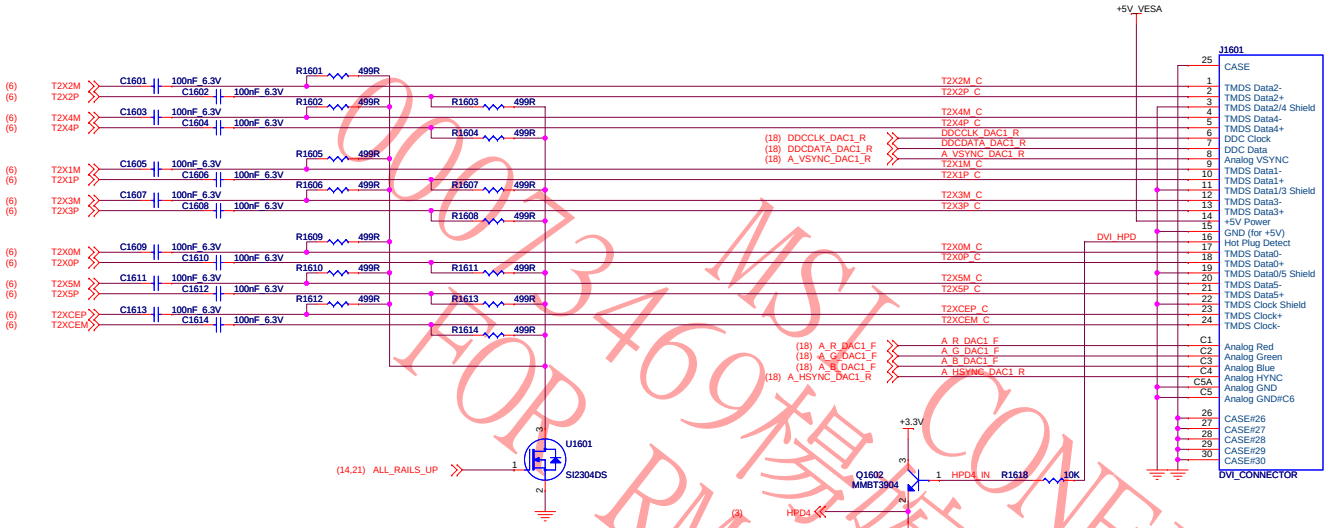
(20) DVI OUTPUT

DPE / DPF OUTPUT



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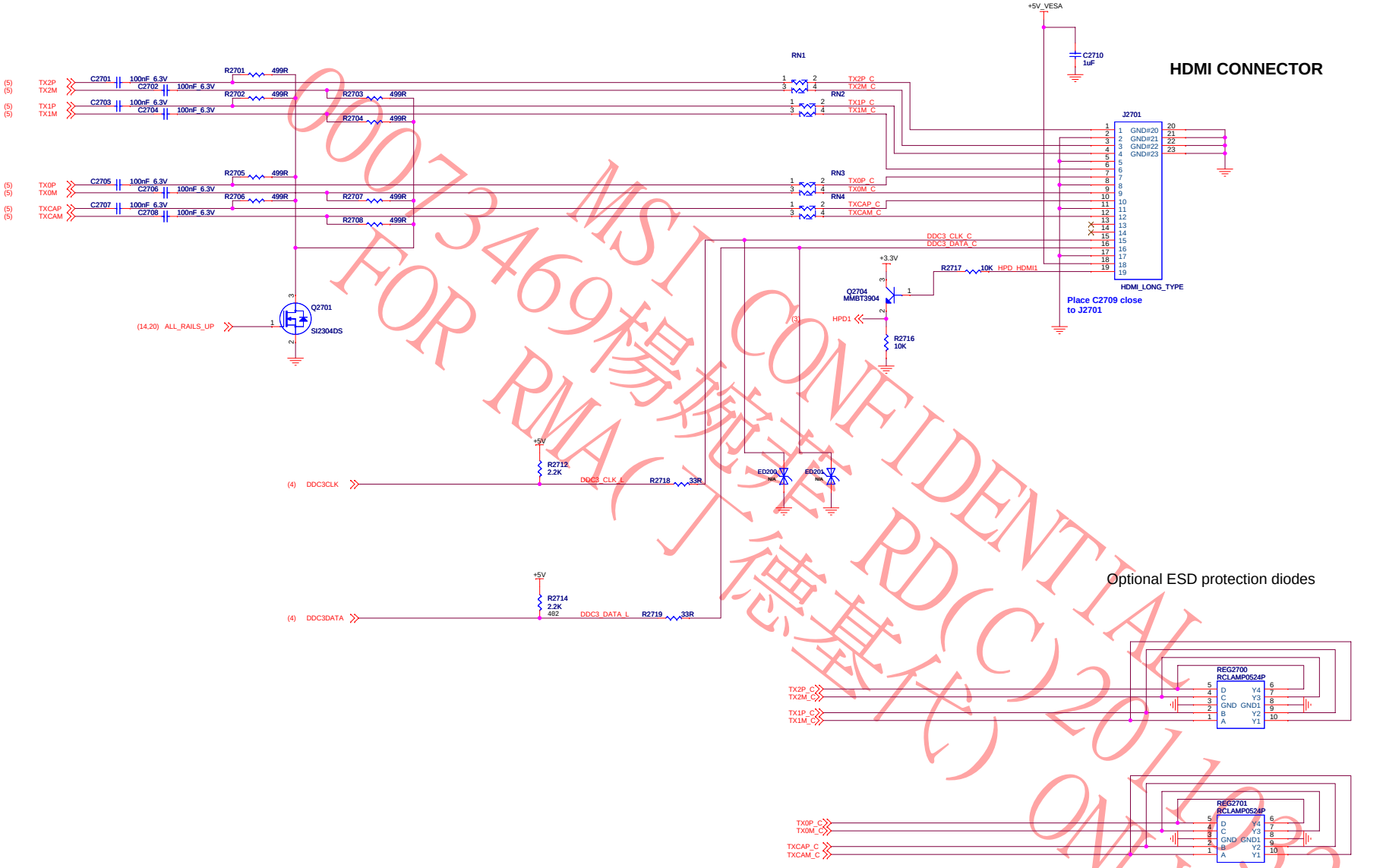
(21) HDMI OUTPUT

TMDP-B OUTPUT



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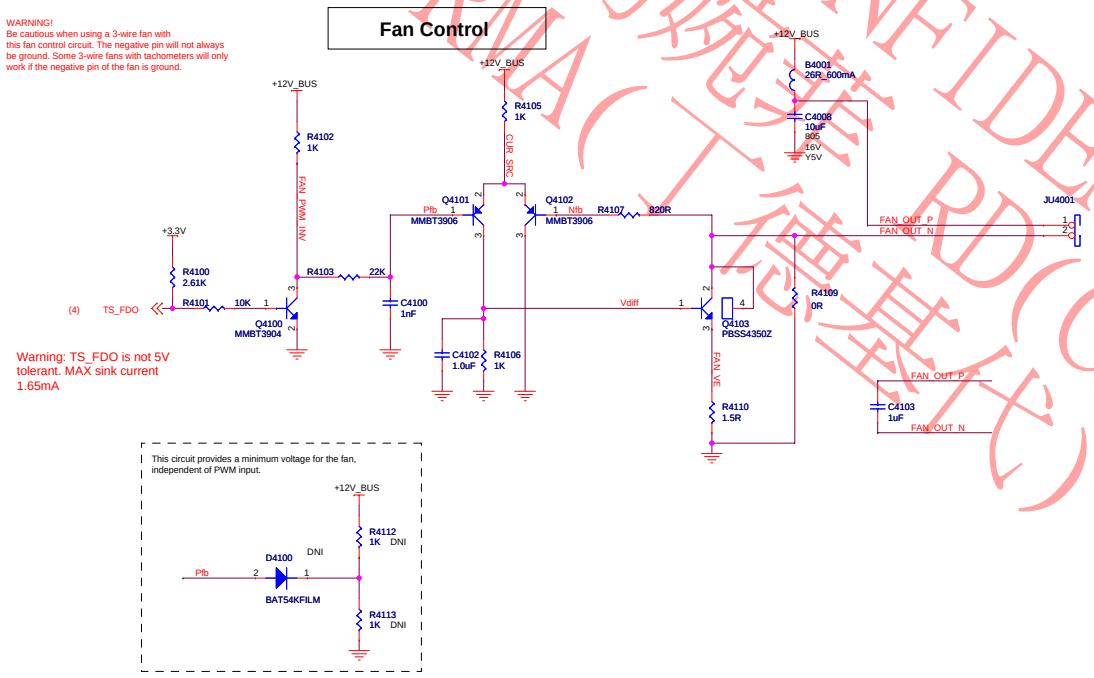
(22) Thermal Management



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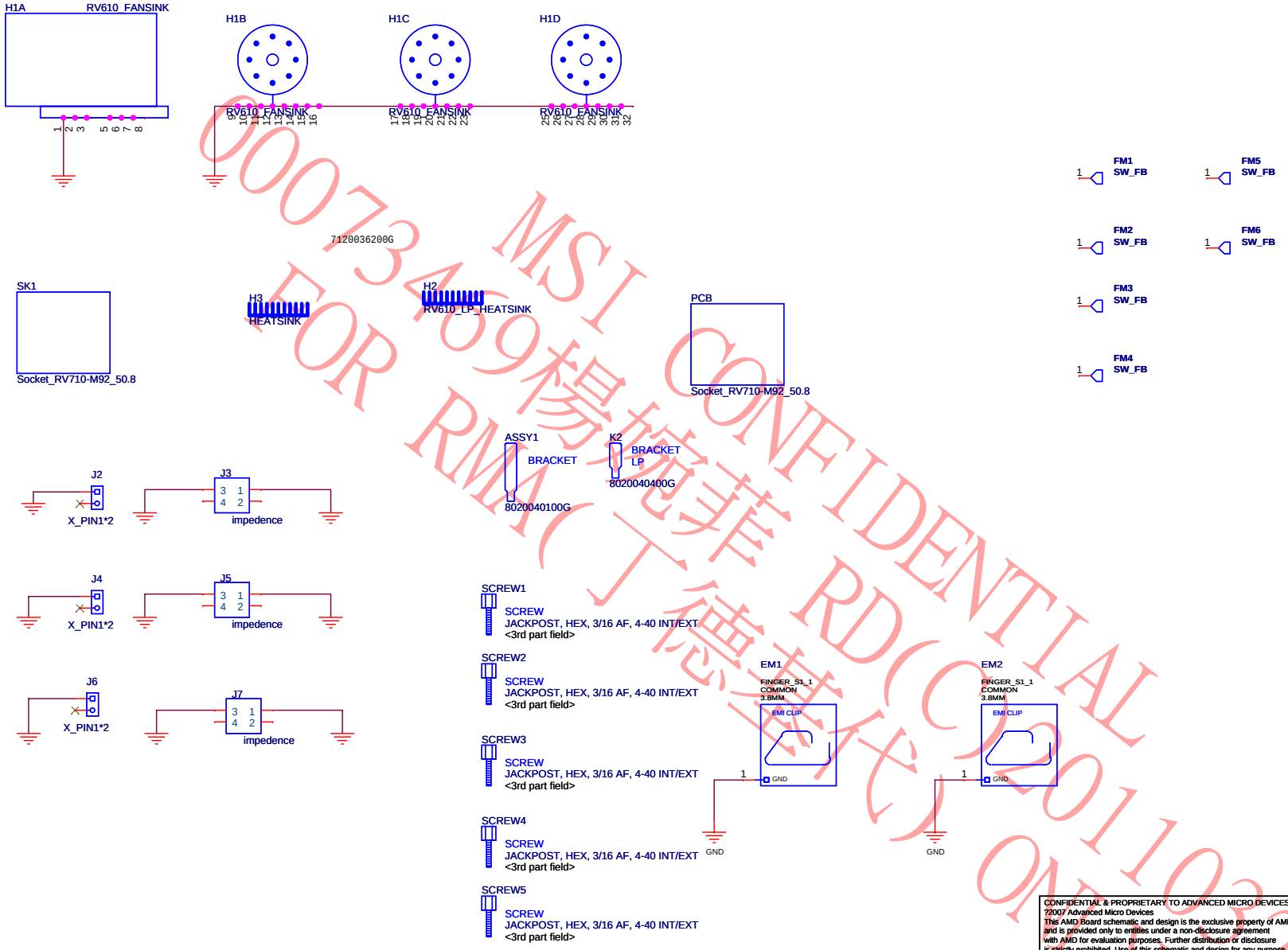

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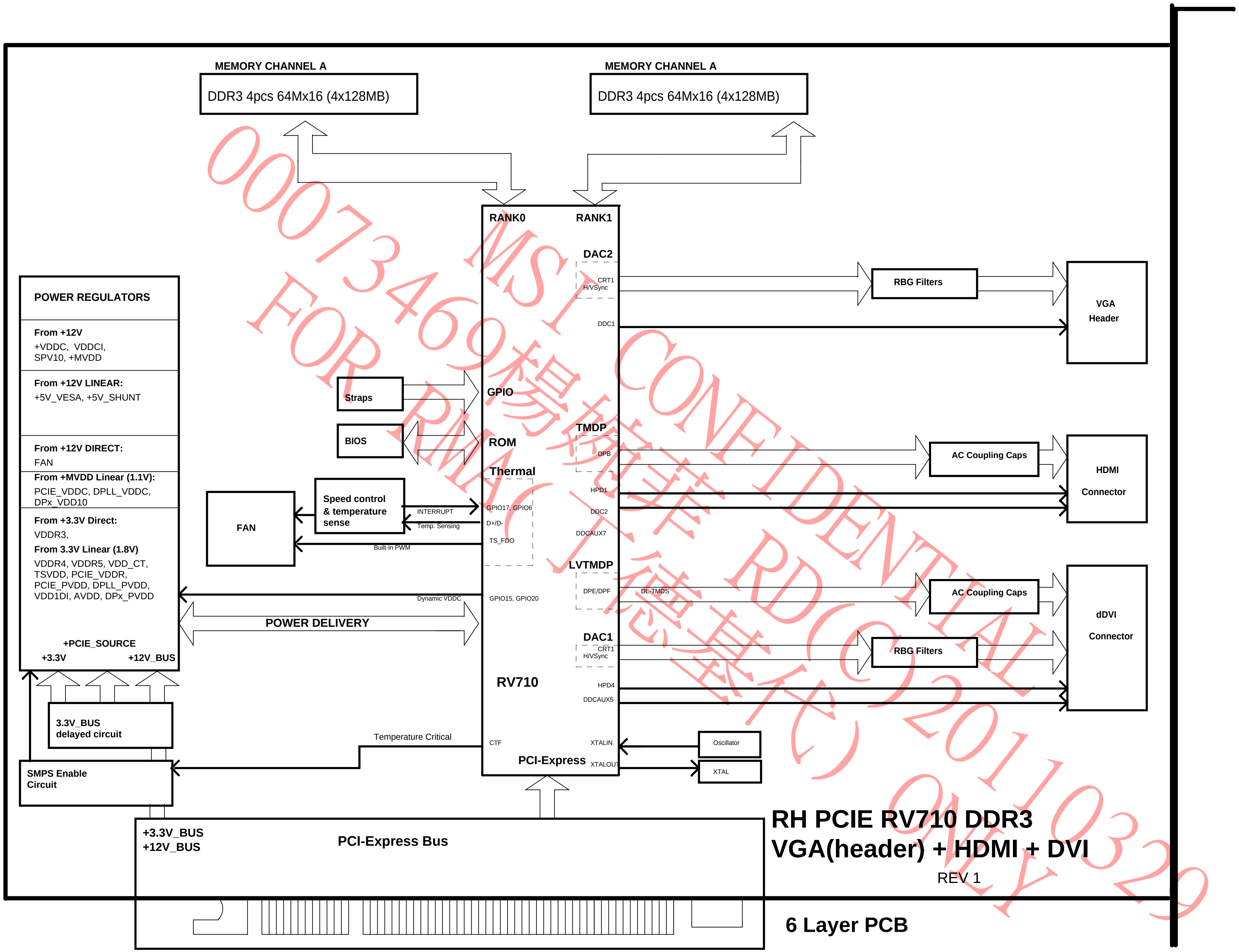

RH PCIE RV710 DDR3
VGA(header) + HDMI + DVI

REV 1

6 Layer PCB

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Title	Schematic No.	Date:
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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 2

RV710 ENGINEERING BOARD

Sch Rev	PCB Rev	Date	REVISION DESCRIPTION
0	00A	2008.12.30	INITIAL RELEASE OF CUSTOM-WIDE BOARD. BASED ON B625 REV06.
1	00B	2009.01.22	Sch no change. just modify HDMI connecro location on PCB