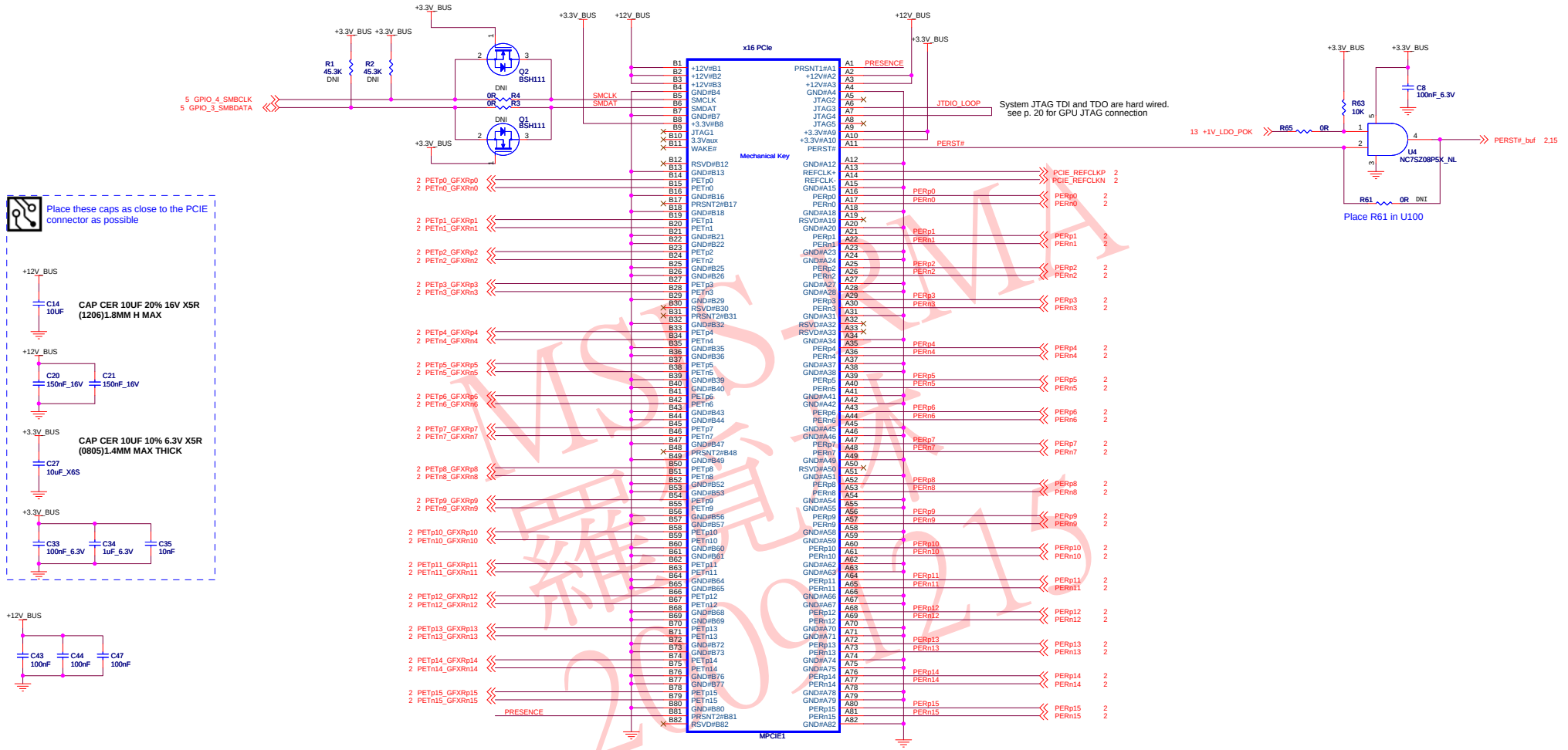
PCI-EXPRESS EDGE CONNECTOR

CEDAR BASS / PERCH



SYMBOL LEGEND

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

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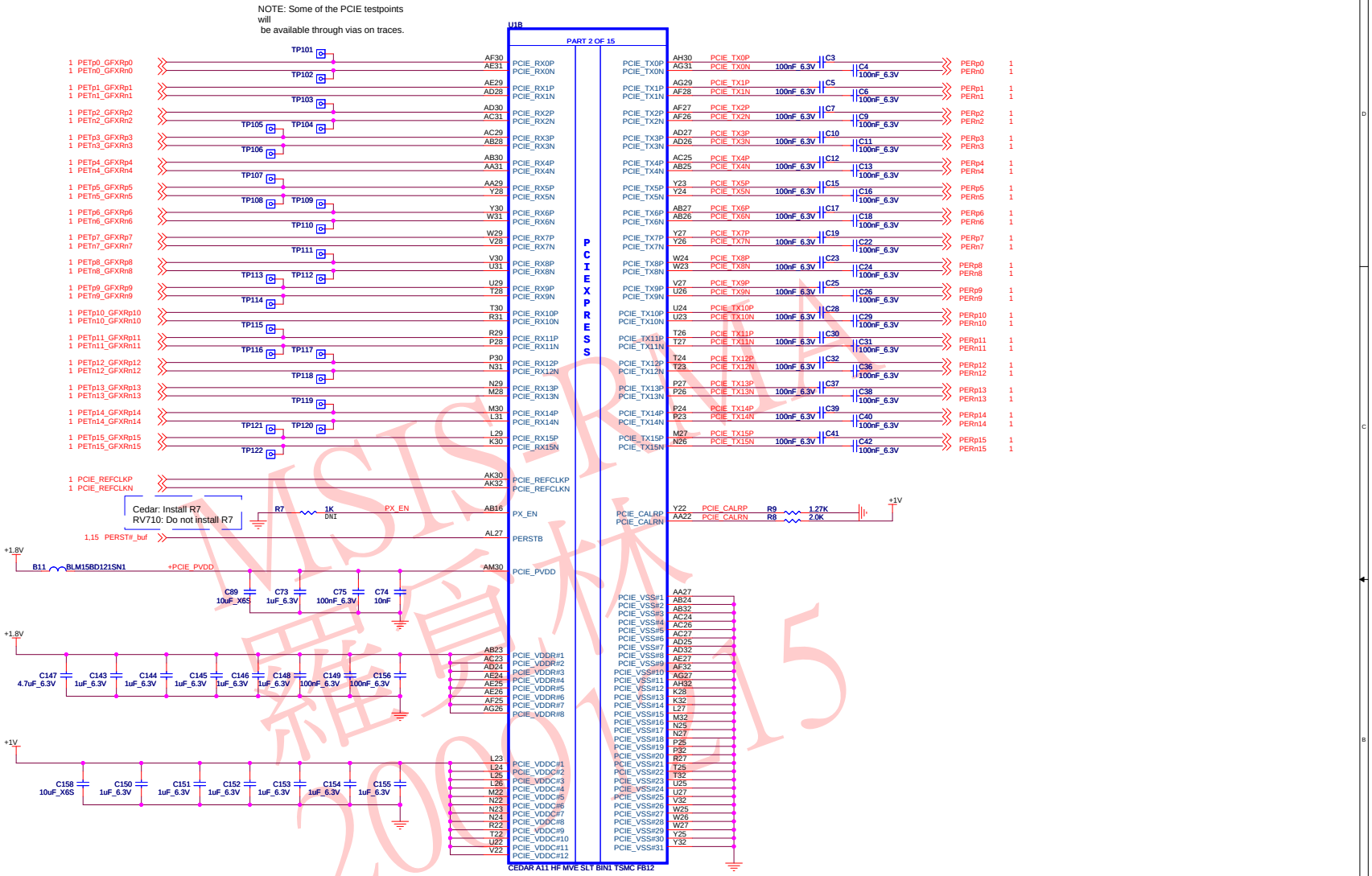
CEDAR PCIe Interface



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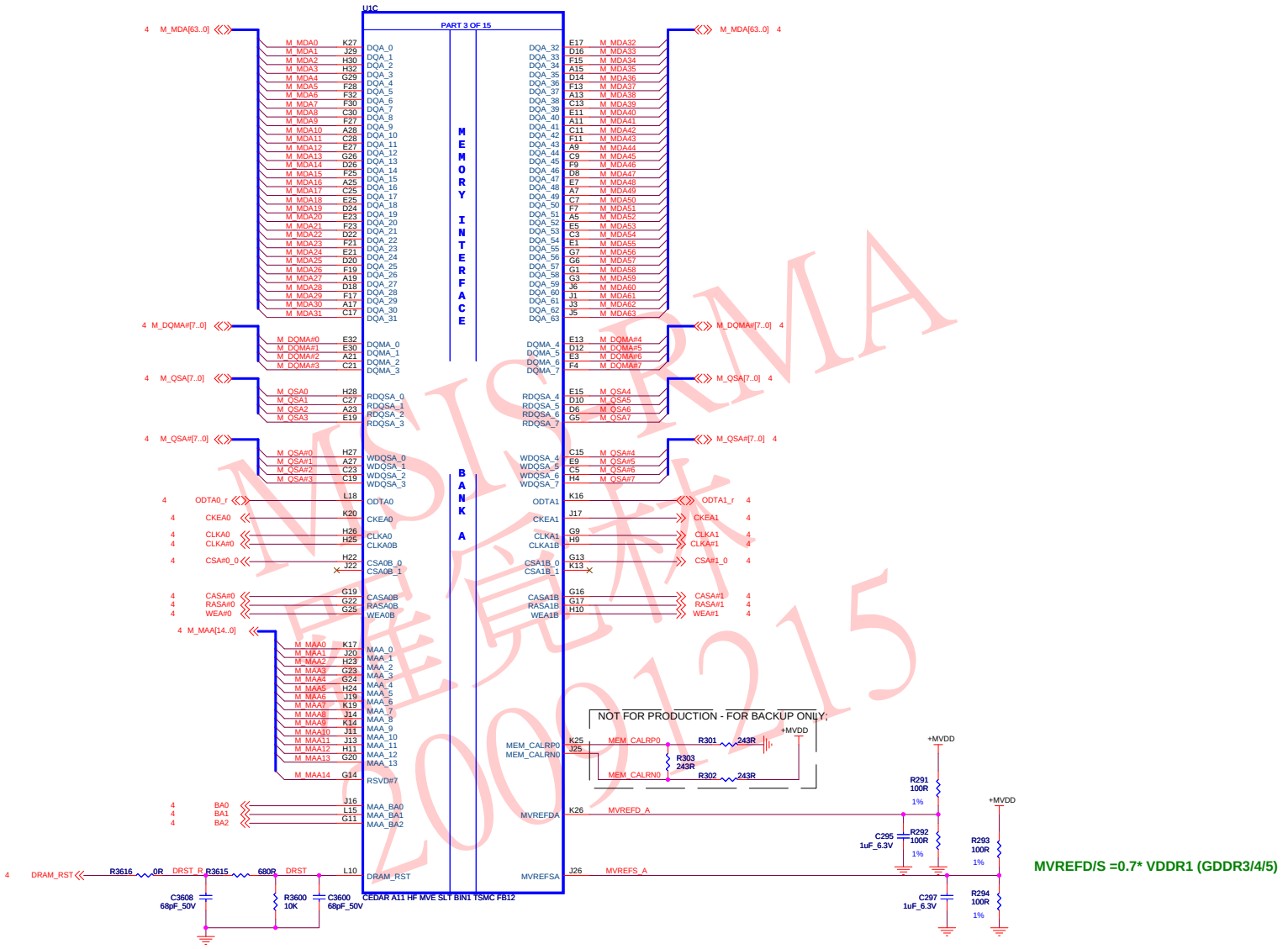
CEDAR MEM Interface Ch A&B



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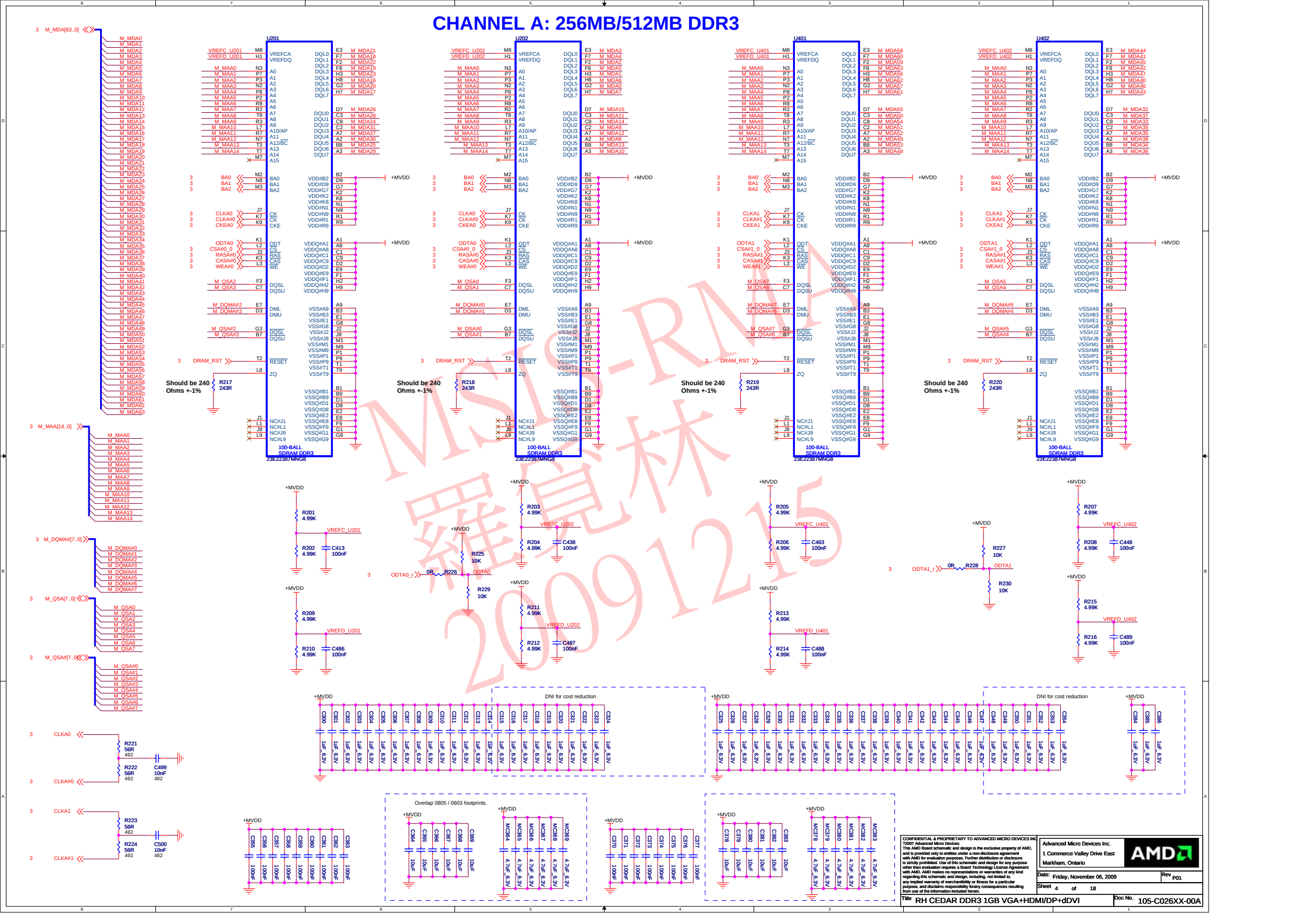
CHANNEL A: 256MB/512MB DDR3



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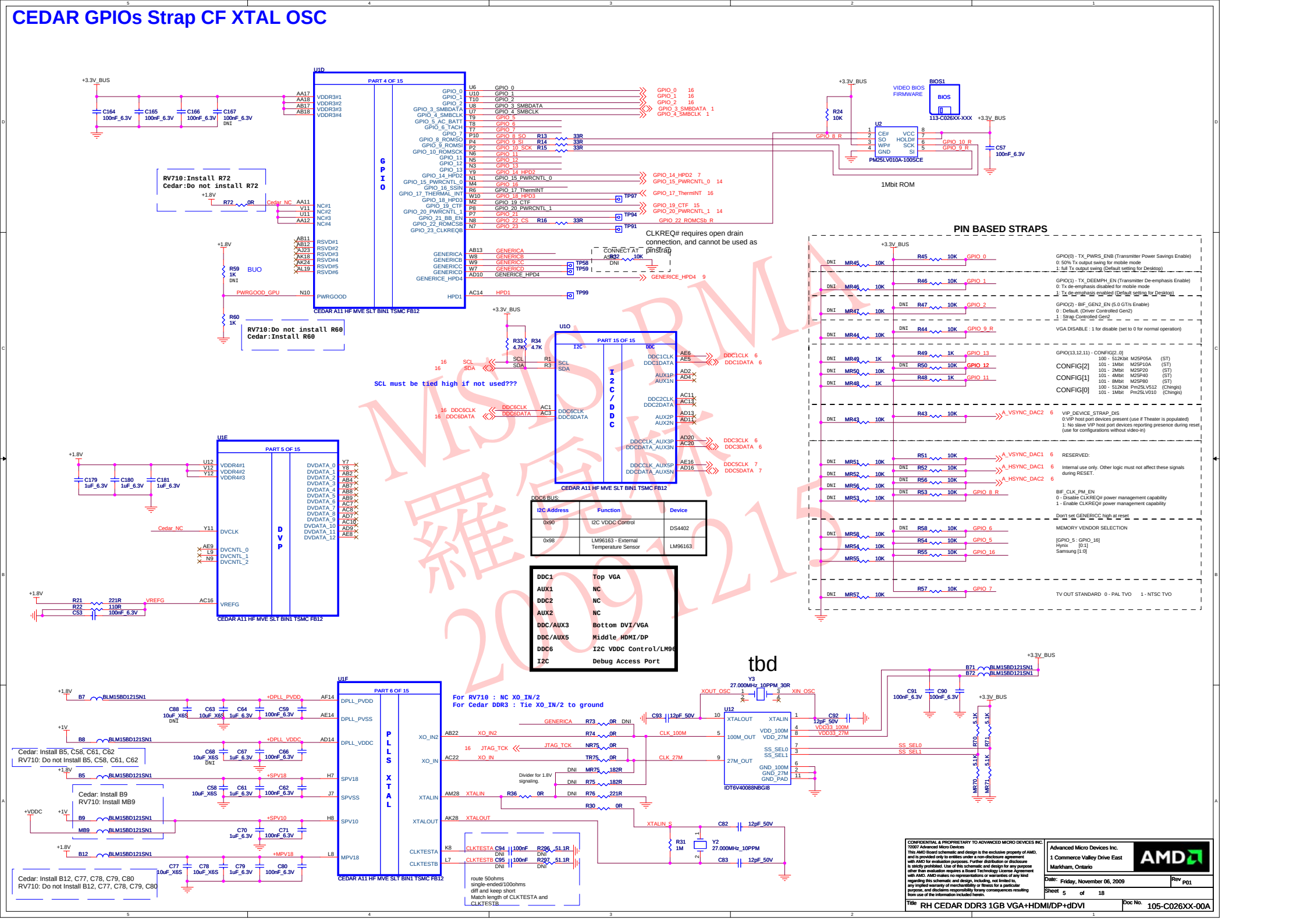
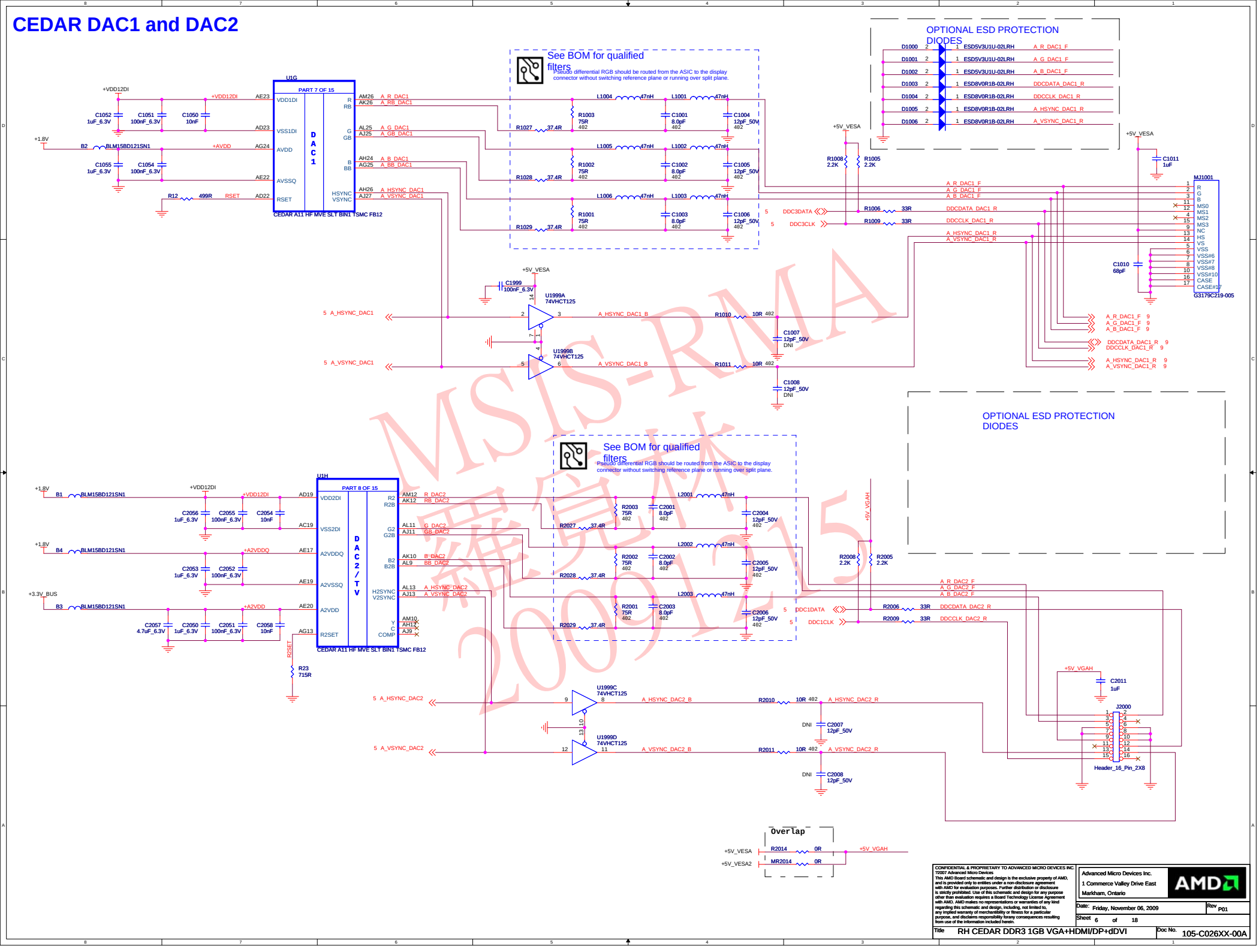
CEDAR GPIOs Strap CF XTAL OSC



CEDAR DAC1 and DAC2



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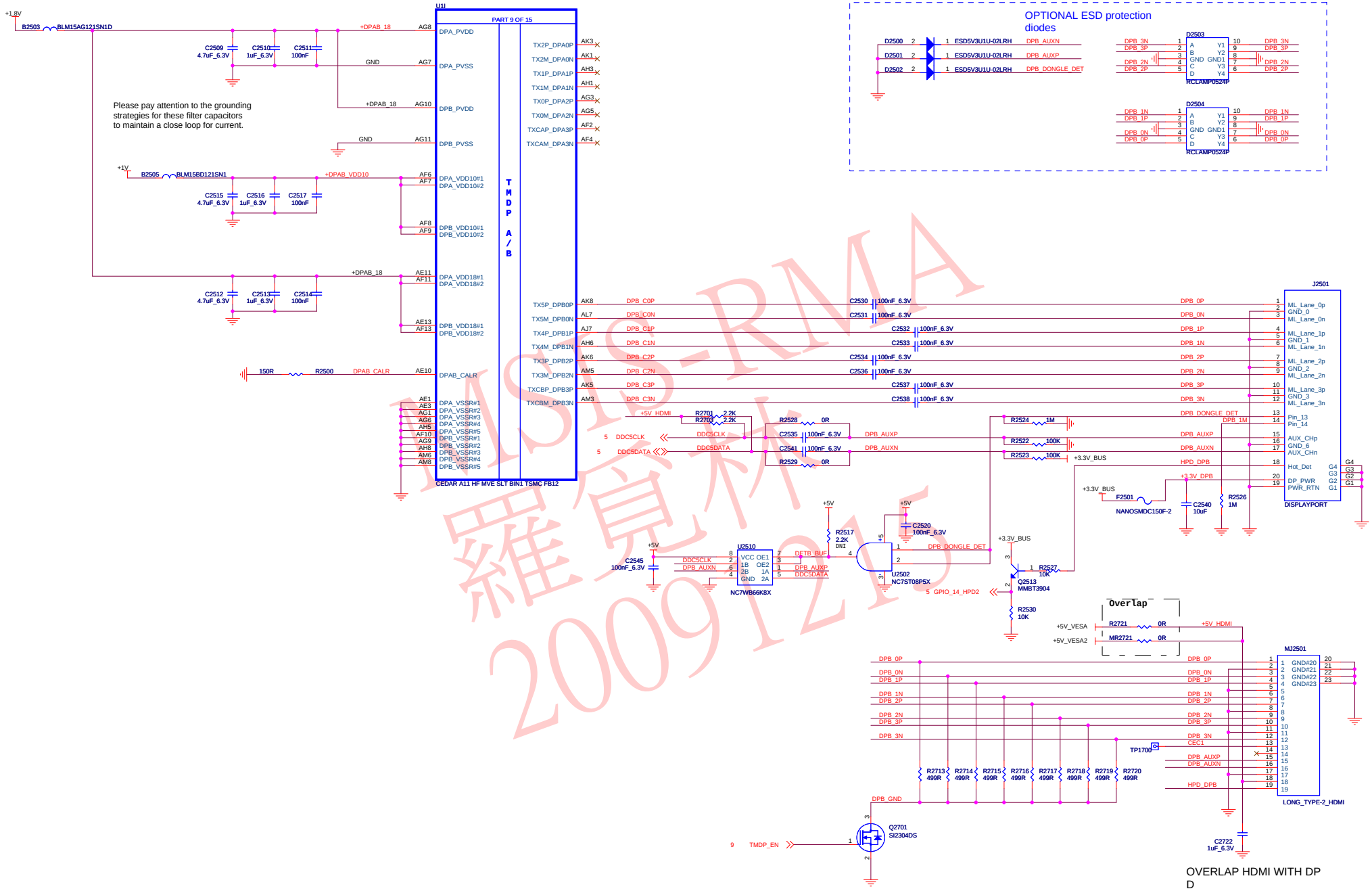
CEDAR TMDP A&B DP/HDMI OVERLAP



OVERLAP HDMI WITH DP D

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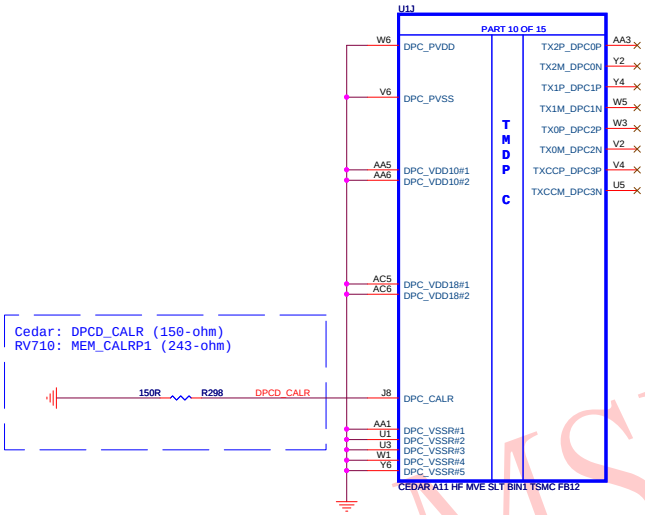
CEDAR Display Port C (Unused)



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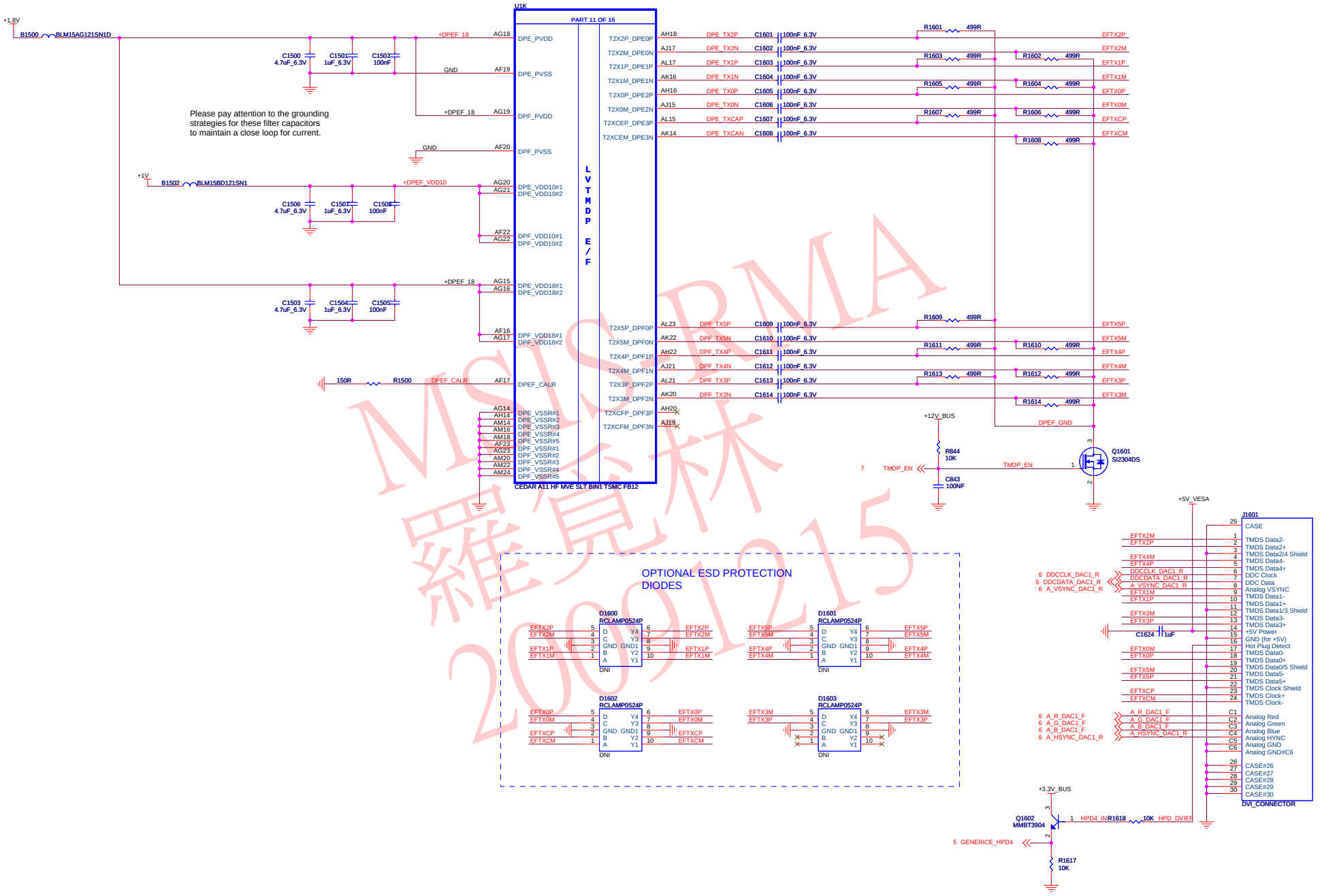
CEDAR LVTMDP E&F dDVI-I



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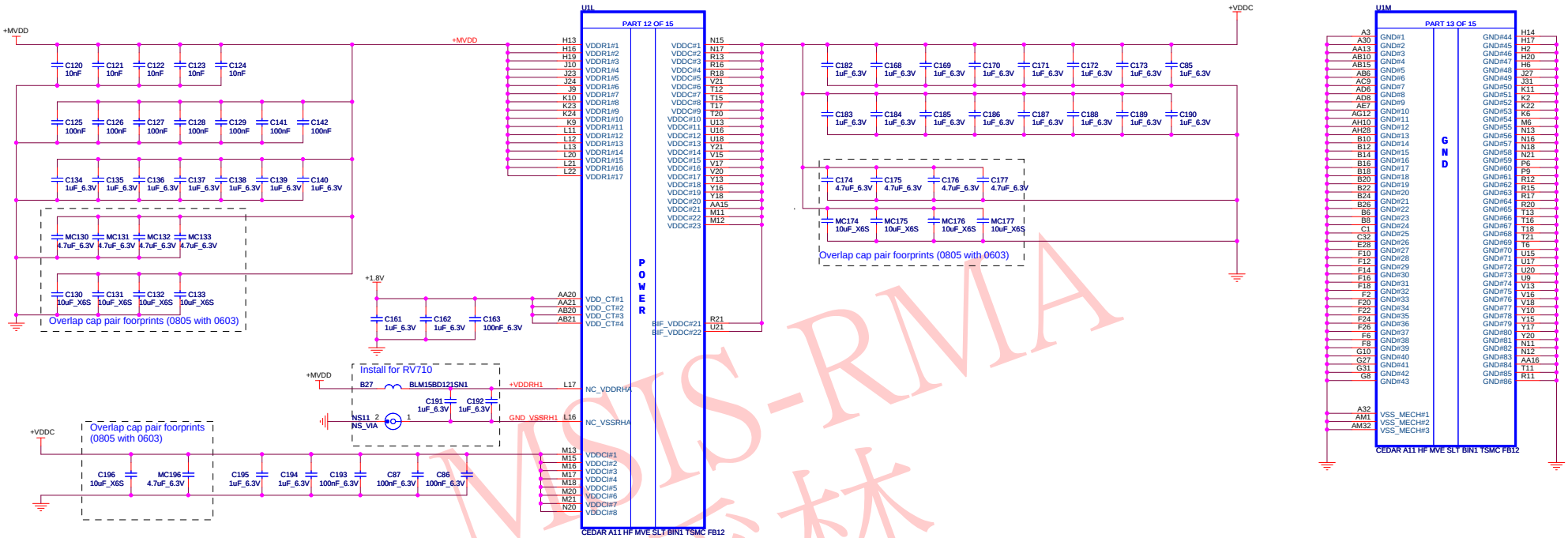
CEDAR Power & GND



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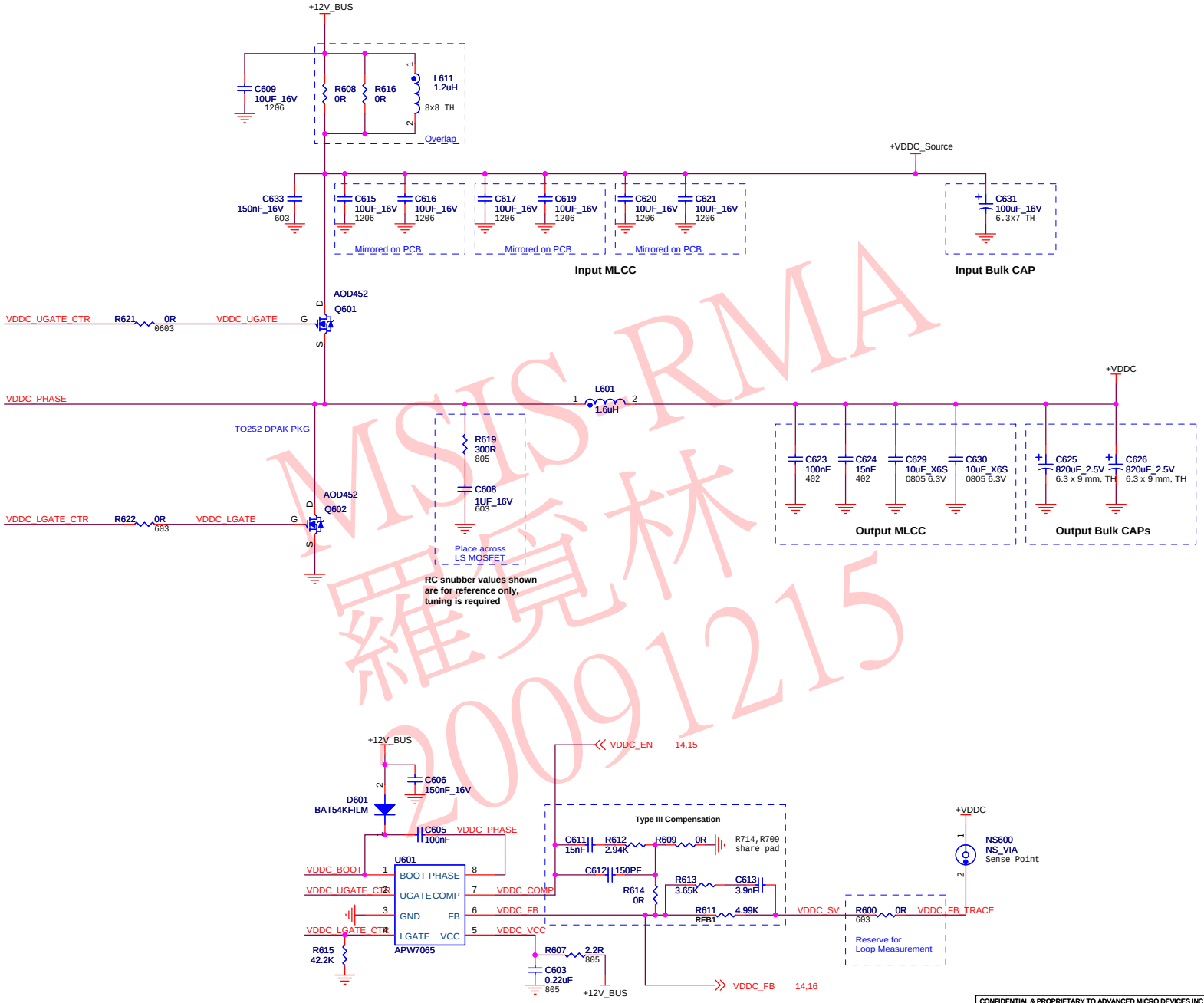

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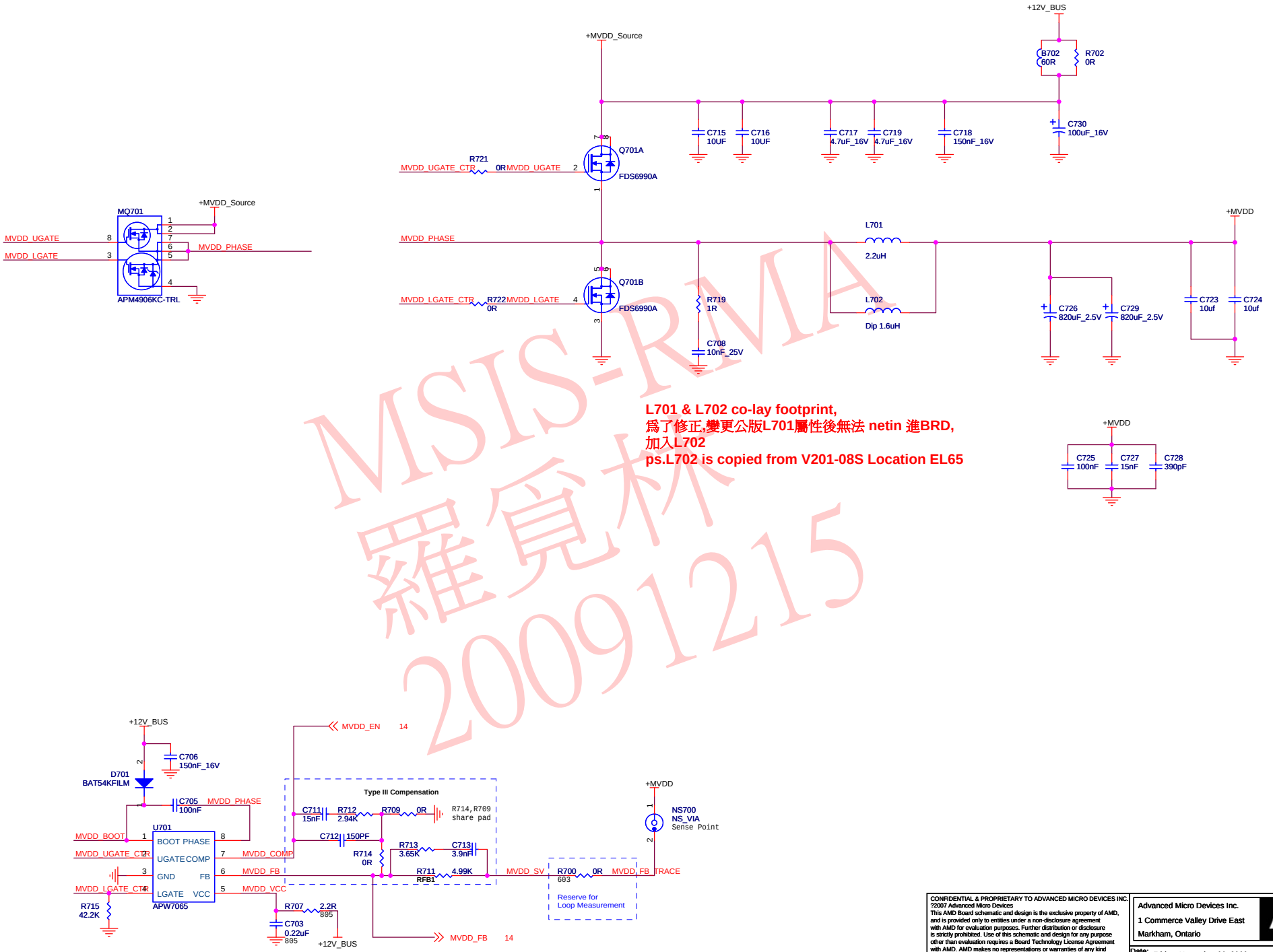

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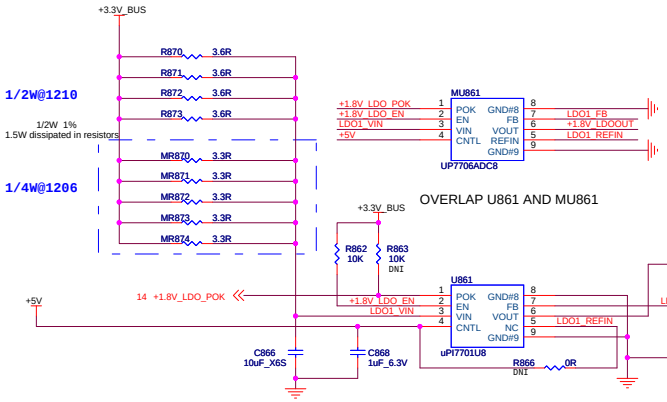
Linear Regulators

Regulators for +5V, +5V_VESA and +5V_VESA2

LDO #1: Vin = 3.00V to 3.60V (3.3V +/- 9%) Vout = +1.8V +/- 2%; Iout = 1.6A (TBV) RMS MAX
PCB: 50 to 70mm sq. copper area for cooling

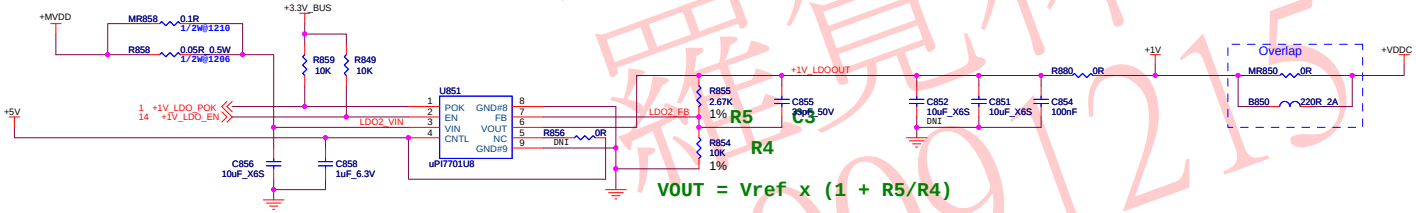


OVERLAP U861 AND MU861

VOUT = Vref x (1 + R5/R4)

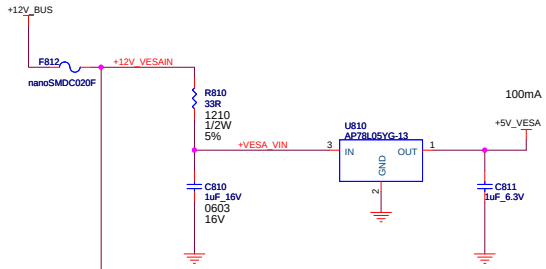
1.8V WORST-CASE REQUIREMENT	
Display Config	Est. Current
DVI+HDMI+DP	1330mA

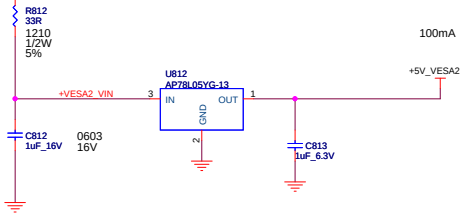
LDO #2: Vin = +1.32V to 1.84VMAX Vout = +1.01V +/- 2% Iout = 1.7A (TBV) RMS MAX
PCB: 50 to 70mm sq. copper area for cooling

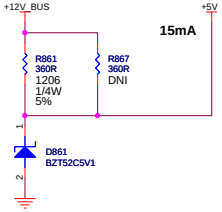


VOUT = Vref x (1 + R5/R4)

1.0V WORST-CASE REQUIREMENT	
Display Config	Est. Current
DVI+HDMI+DP	1560mA







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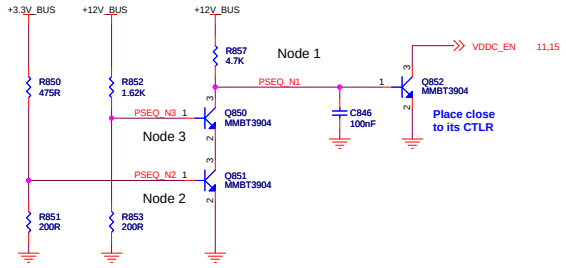
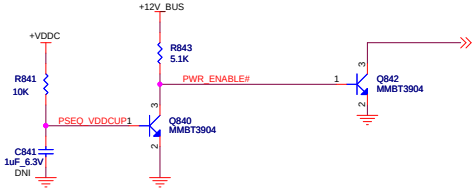
Power Management - Power Gating and Dynamic Voltage Control

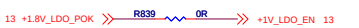
12V_BUS & 3V3_BUS POWER SEQUENCING



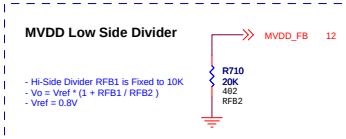
POWER SEQUENCING CIRCUIT



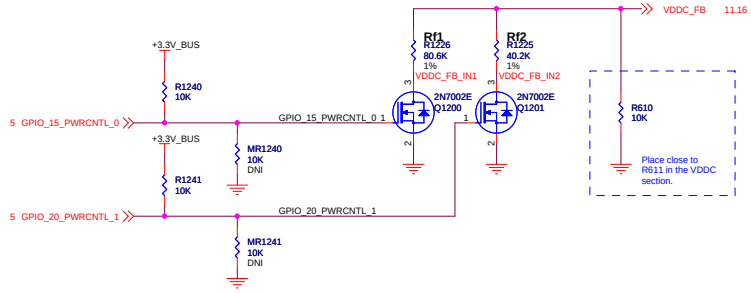
Install R839 to gate 1V LDO with 1.8V LDO.



MVDD Low Side Divider



VDDC Low Side Divider



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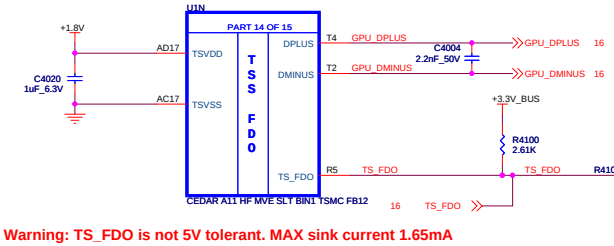
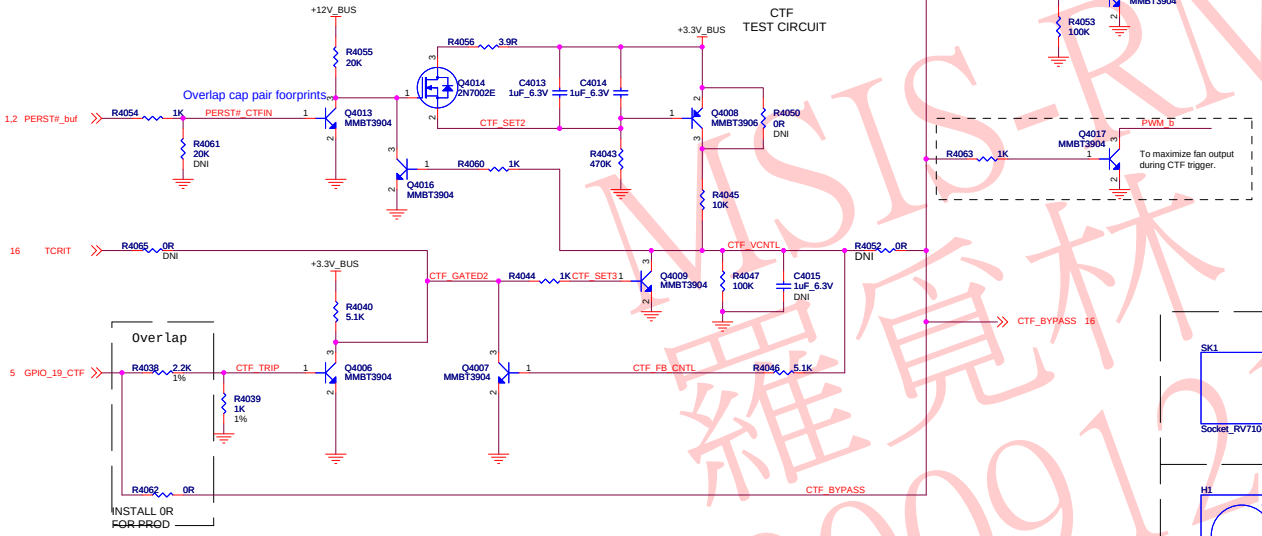
Mechanical and Thermal Management



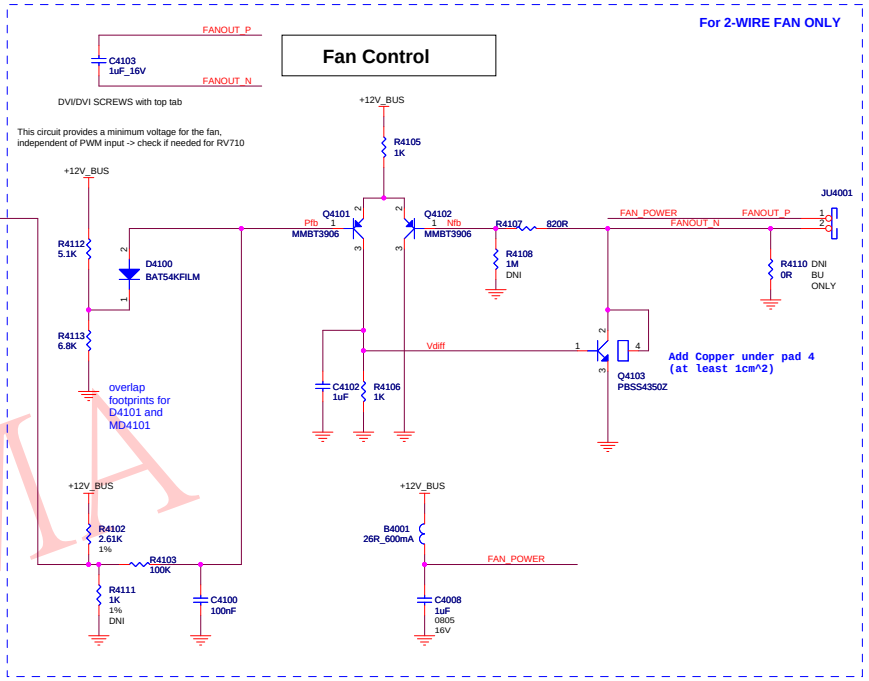
Warning: TS_FDO is not 5V tolerant. MAX sink current 1.65mA

If Critical Temperature is reached this will force the fan to run at full speed while power is removed from GPU & rest of the board.
This is an open collector signal. Active level is hard pull down to ground.

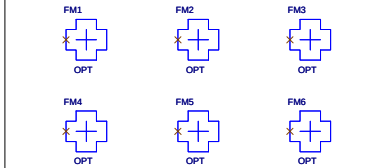
Critial Temperature Fault



Fan Control

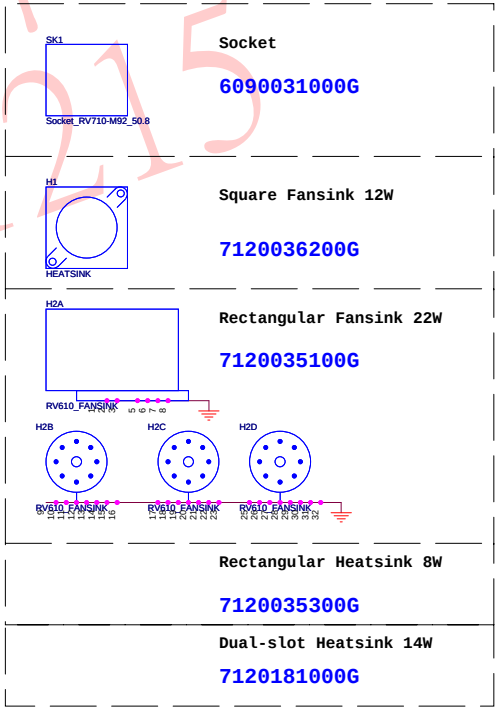


optical cross point



TOP & BOT layer set each 3 points

SKU		P/N	CONFIGURATION	Form Factor
	PERCH	8020051300G	DVI + DP + VGA	FH / SS
BASS		8020051400G	DVI +HDMI+ VGA	FH / SS
	PERCH	8020051600G	DVI + DP	LP / SS
BASS		80200516A0G	DVI +HDMI	LP / SS
	PERCH	8020051700G	DVI + DP + VGA	FH / DS
BASS		80200517A0G	DVI +HDMI+ VGA	FH / DS



For HDMI Connector

SCREW205
SCREW
JACKPOST, HEX, 3/16 AF, 4-40 INT/EXT
<3rd part field>

For VGA Connector

SCREW203
SCREW
JACKPOST, HEX, 3/16 AF, 4-40 INT/EXT
<3rd part field>

SCREW204
SCREW
JACKPOST, HEX, 3/16 AF, 4-40 INT/EXT
<3rd part field>

70200008006

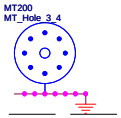
For DVI Connector

SCREW200
SCREW
JACKPOST, HEX, 3/16 AF, 4-40 INT/EXT
<3rd part field>

SCREW201
SCREW
JACKPOST, HEX, 3/16 AF, 4-40 INT/EXT
<3rd part field>

70200008006

Bracket Components



SCREW202
SCREW
SCREW, PAN HD, PHILLIPS, 4-40 X 3/16L

70200052006

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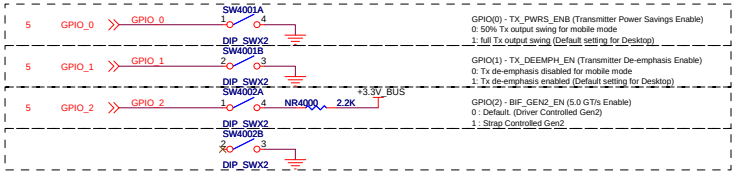
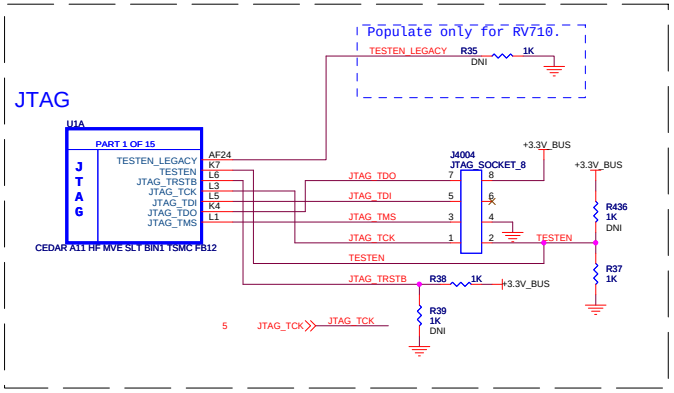
(19) Debug Circuits

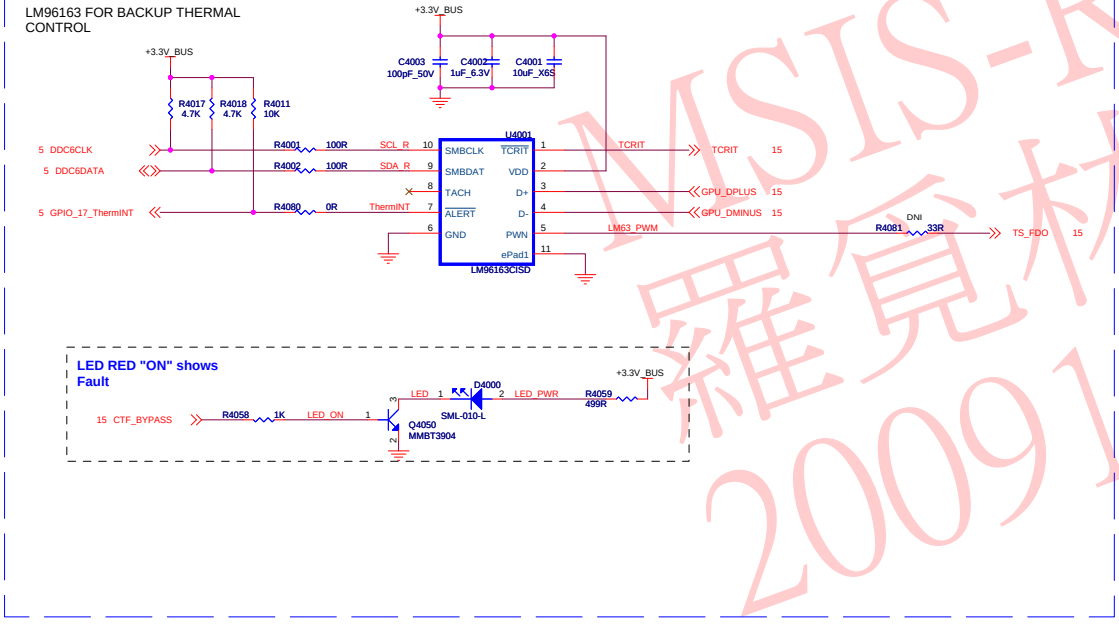
SWITCH CONNECTIONS TO PINSTRAPS



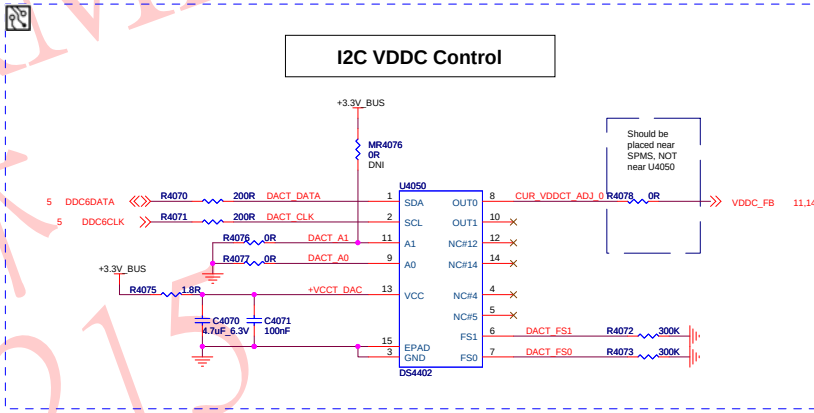
JTAG



LM96163 FOR BACKUP THERMAL CONTROL

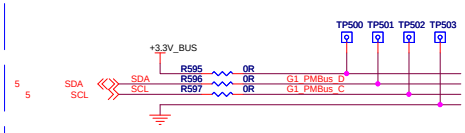


I2C VDDC Control



SCL/SDA PORT DEBUG ACCESS

Place connector on the back side
(easily accessible and not blocked by the heatsink).



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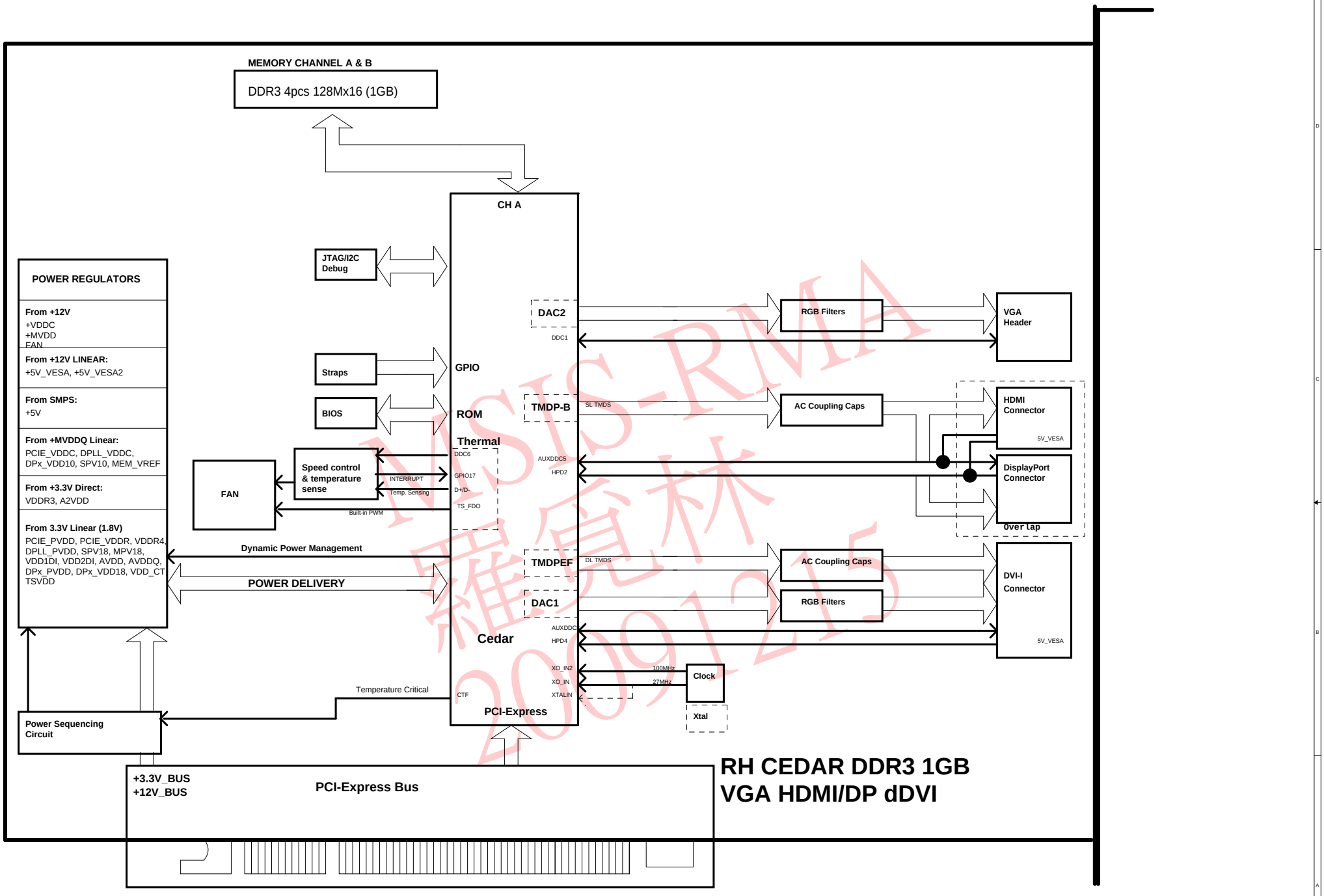

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Markham, Ontario
Canada, L3T 7X6
(905) 882-2600

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Title	Schematic No.	Date:
RH CEDAR DDR3 1GB VGA+HDMI/DP+dDVI	105-C026XX-00	Friday, November 06, 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 P03

Sch Rev	PCB Rev	Date	REVISION DESCRIPTION
00	00A	2009/03/23	
01	00B	2009/07/3	
02	00C	2009/08/12	Initial Cedar schematic
03	00D	2009/09/24	Change DDC line configuration
V212	5.0	2009/10/30	Page 11 : changed L601 & L611 & C631 & C626 & change R621 footprint from 0402 to 0603 Page 12 : changed L701 & C730 & C726 Add L702 & change R721 footprint from 0402 to 0603 Page 15 : add optical cross point
V212	5.0	2009/11/3	Page 15 : add Q4017 & R4063 to maximize fan output during CTF trigger. remove MT201