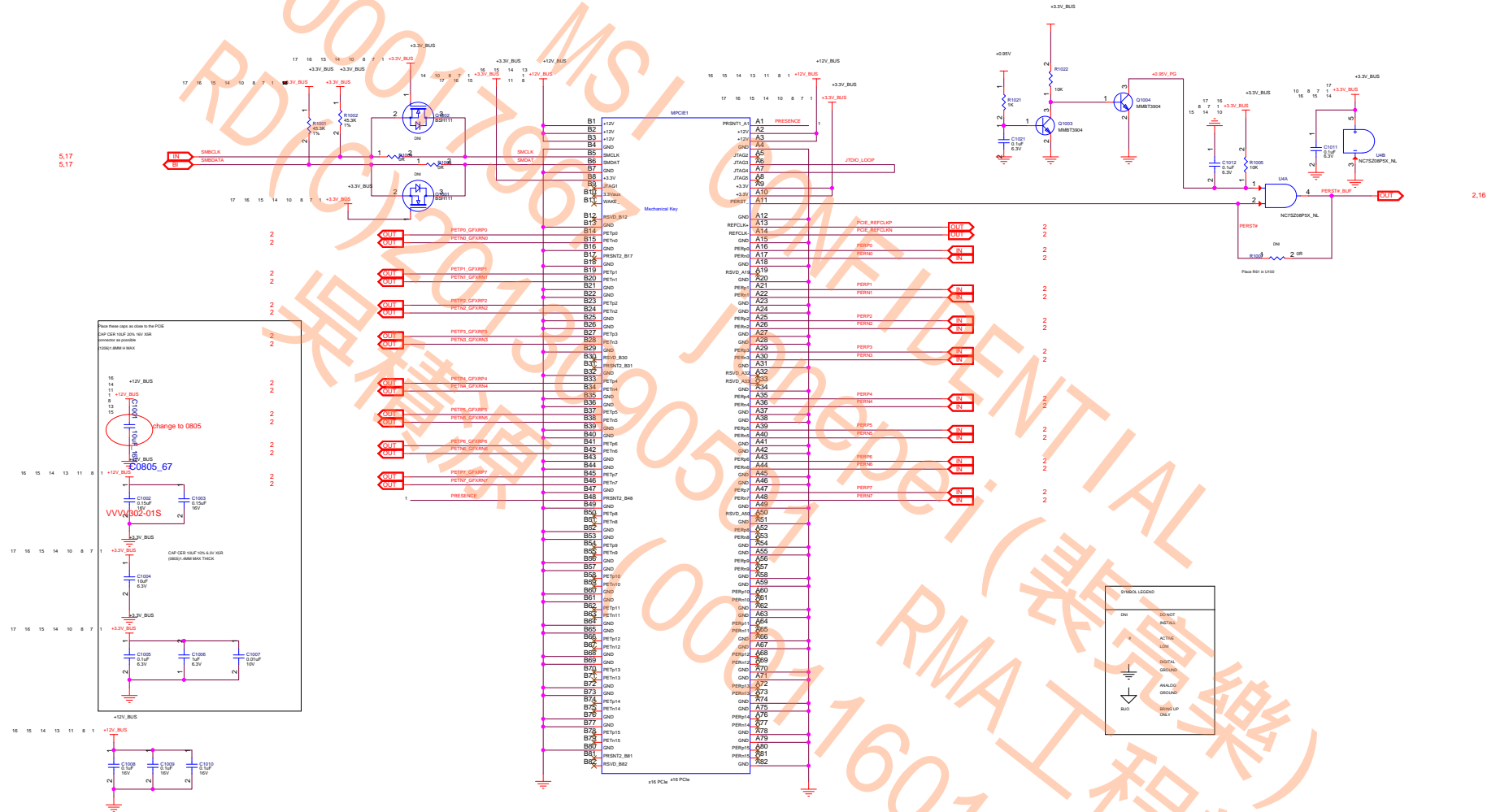
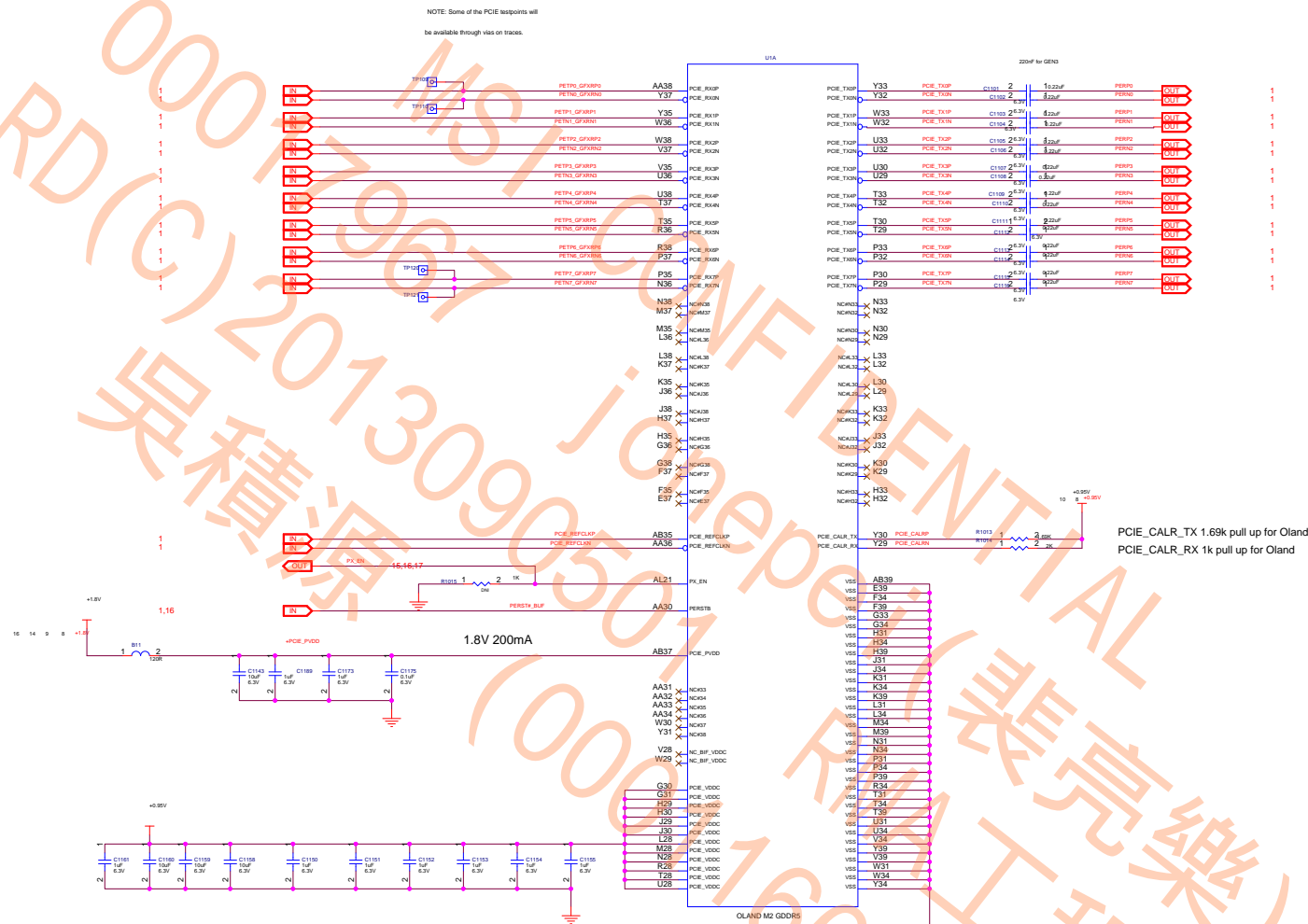
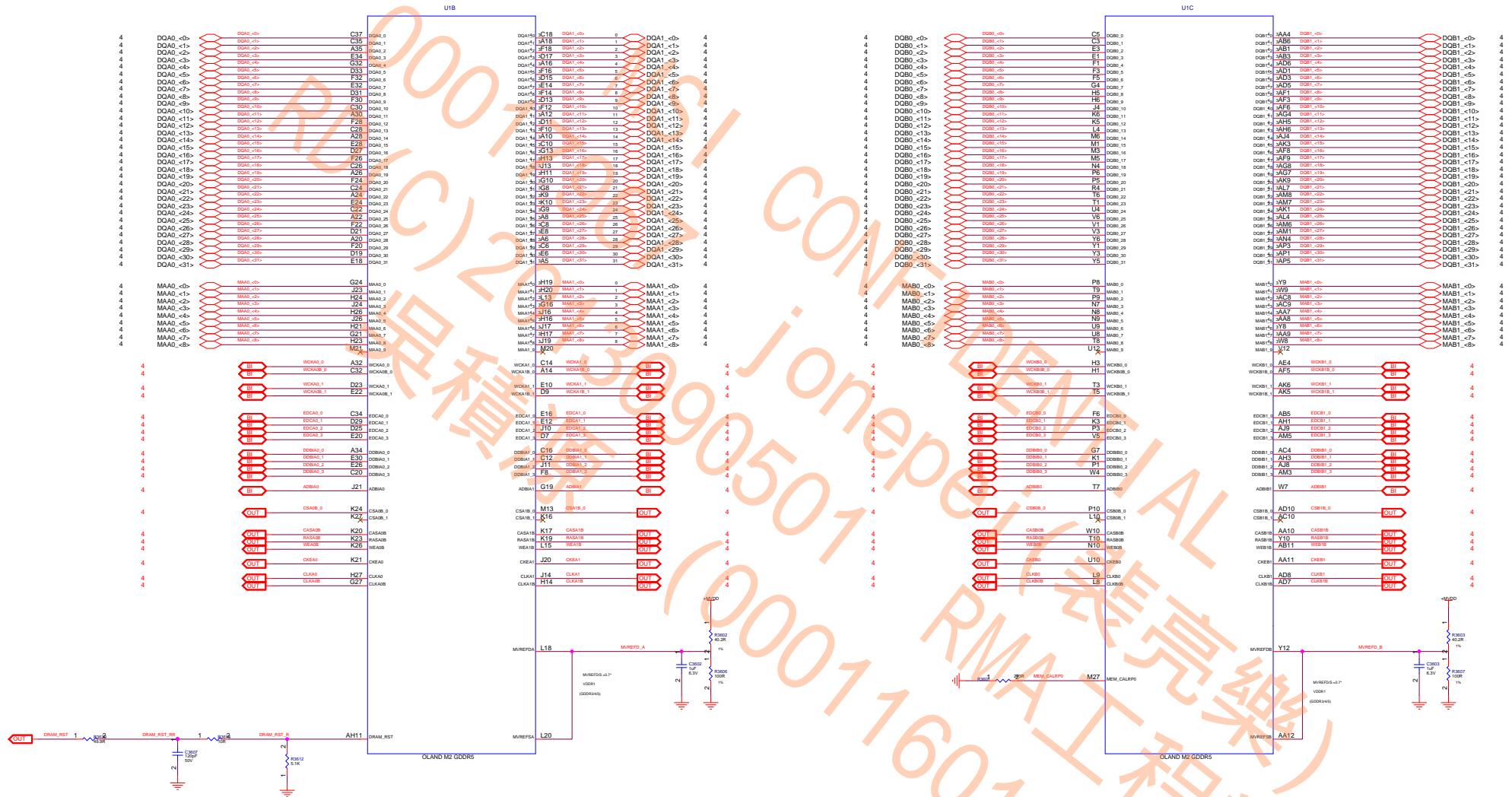


PCI-EXPRESS EDGE CONNECTOR

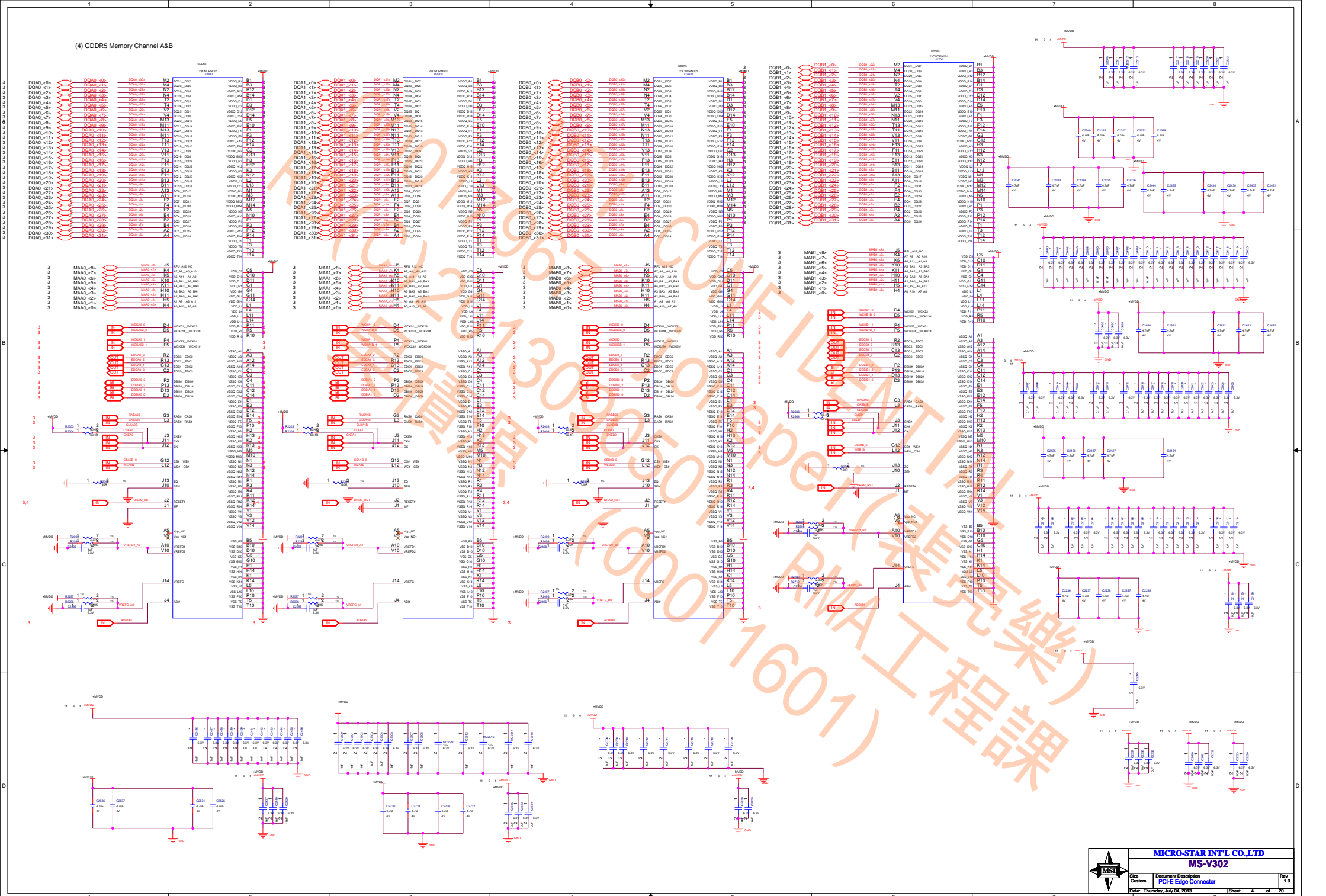


Oland PCIe Interface





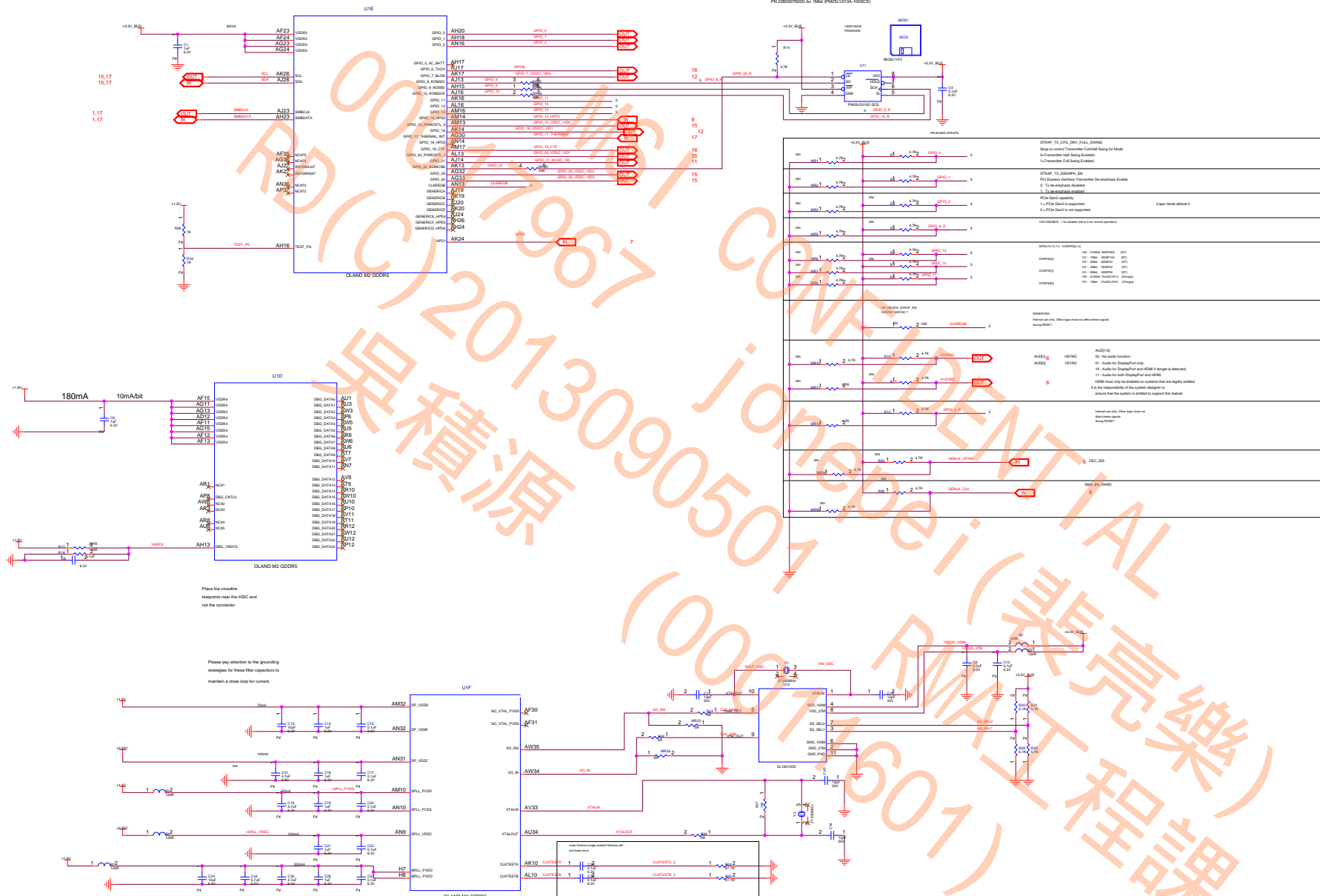
(4) GDDR5 Memory Channel A&B

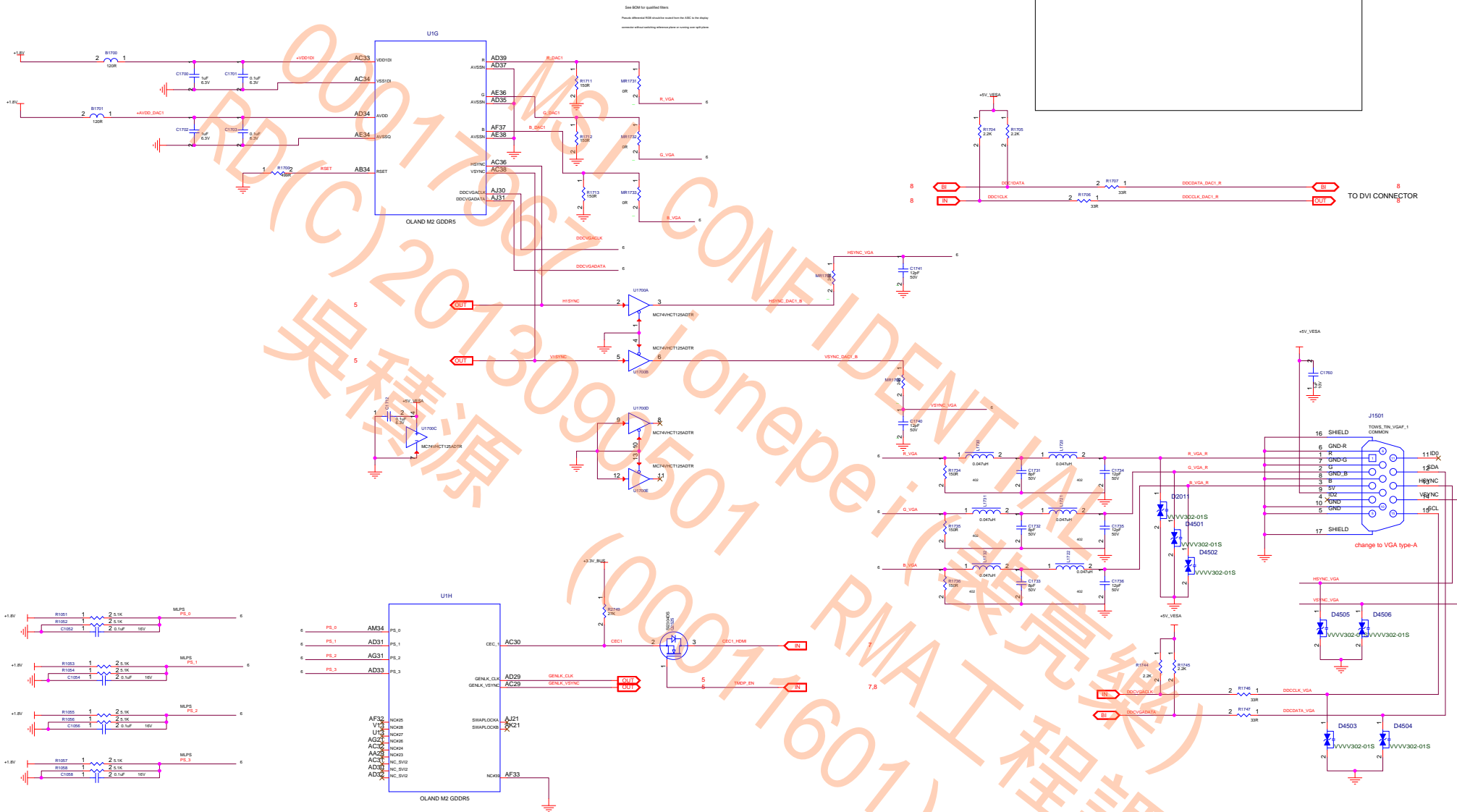


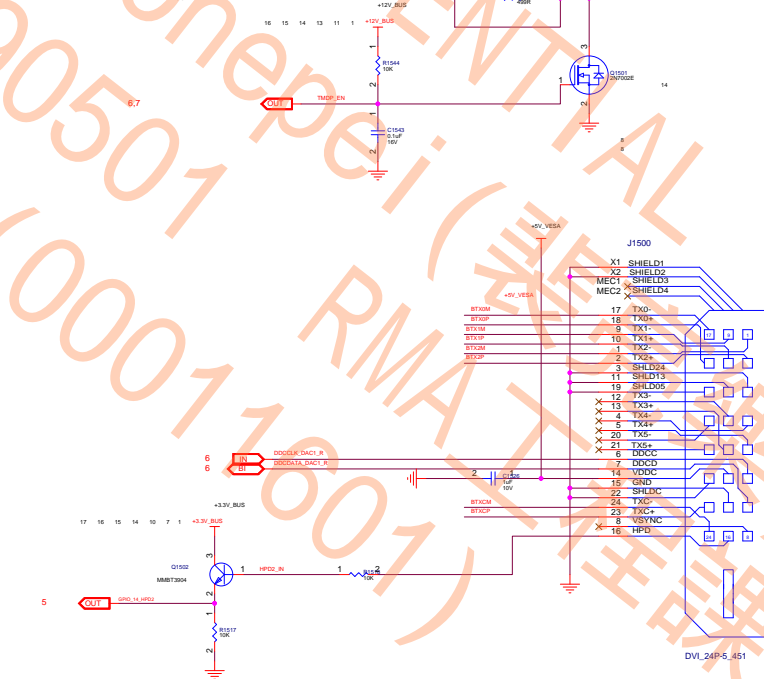
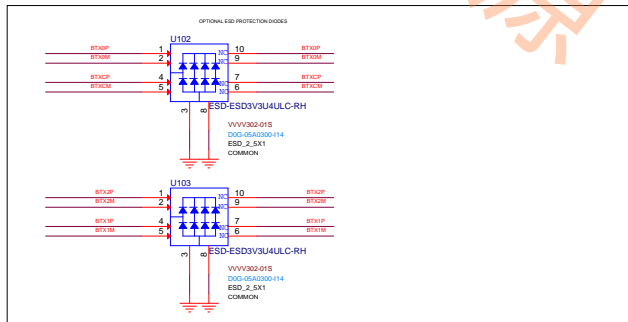
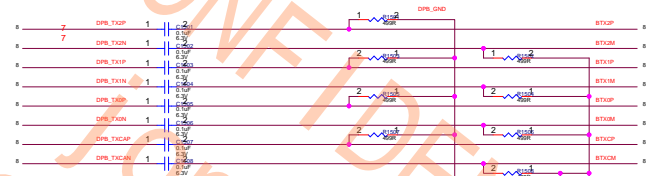
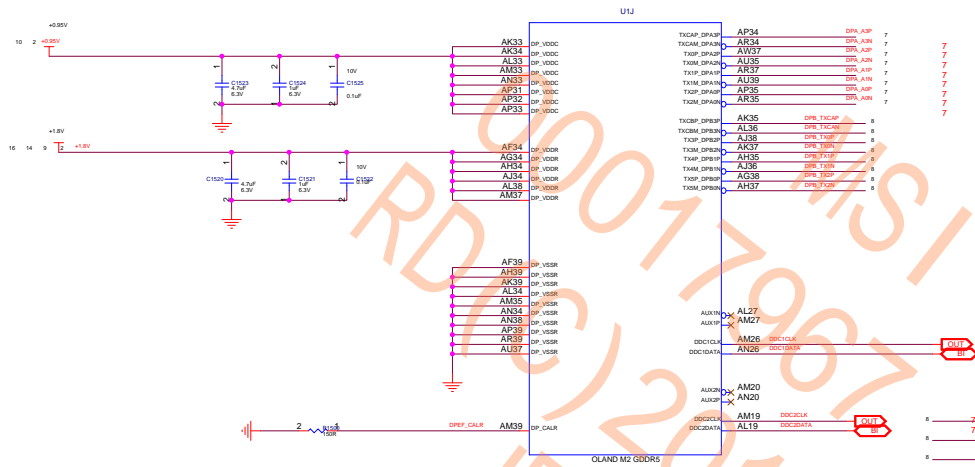
MICRO-STAR INT'L CO., LTD

MS-V302

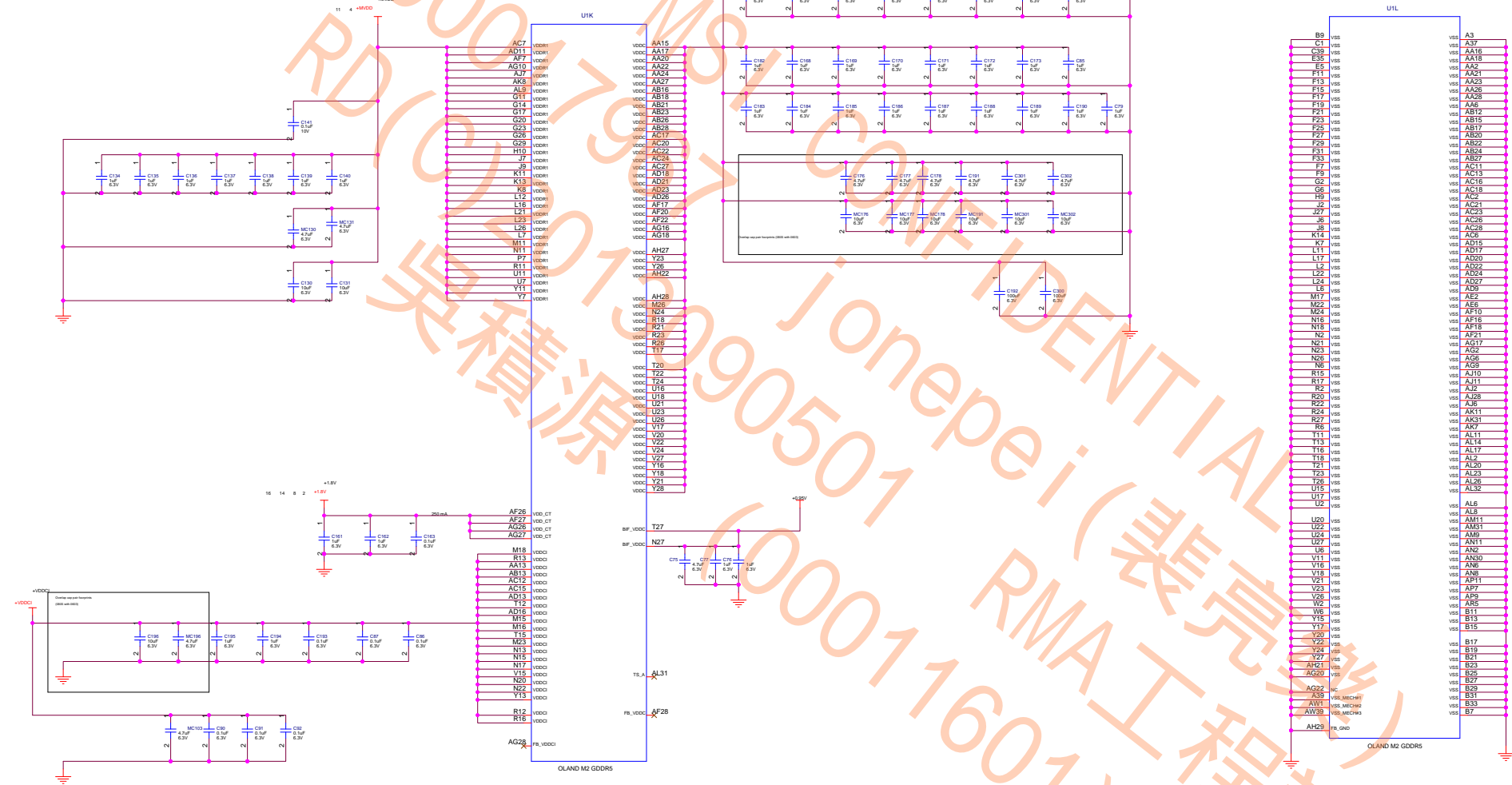
Docu-
ment Description
PCIE Edge Connector
Date: Thursday, May 05, 2016 Sheet 4 of 20



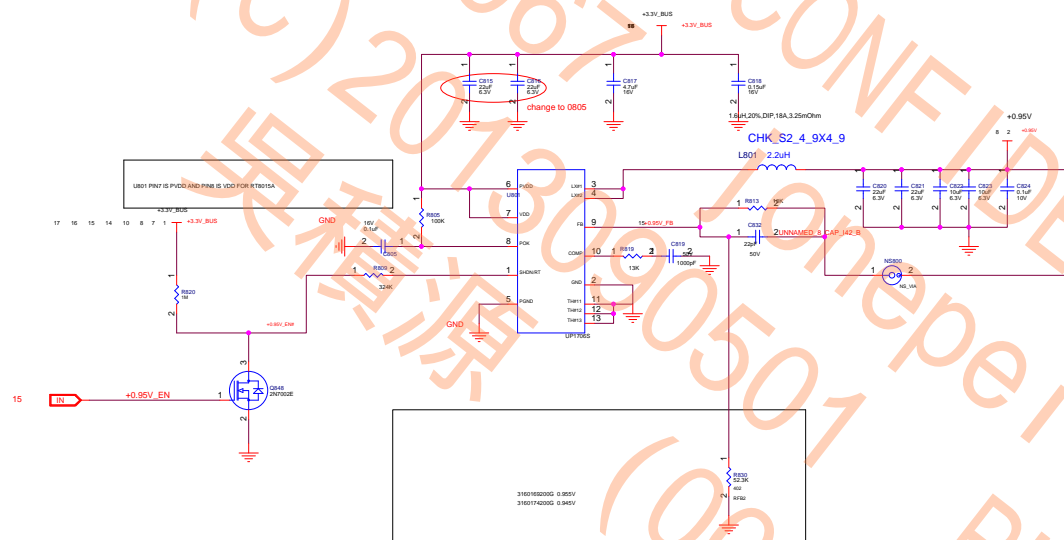




Oland Power & GND

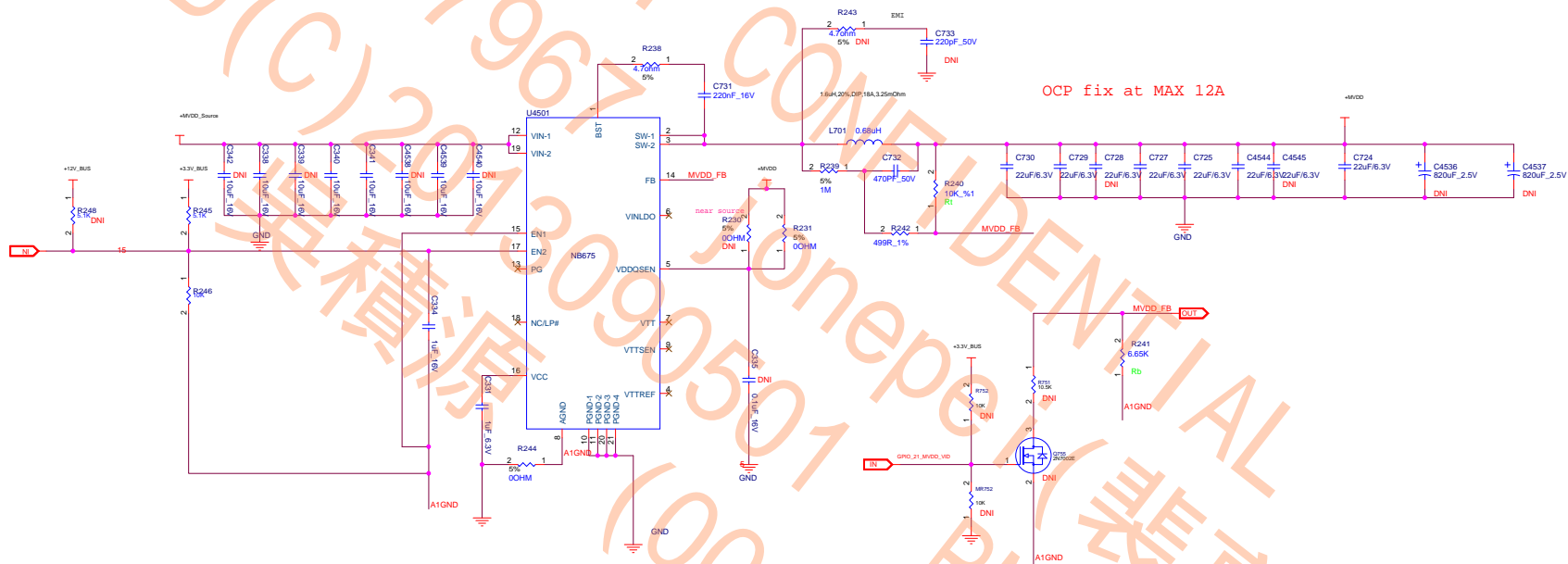


0.95V

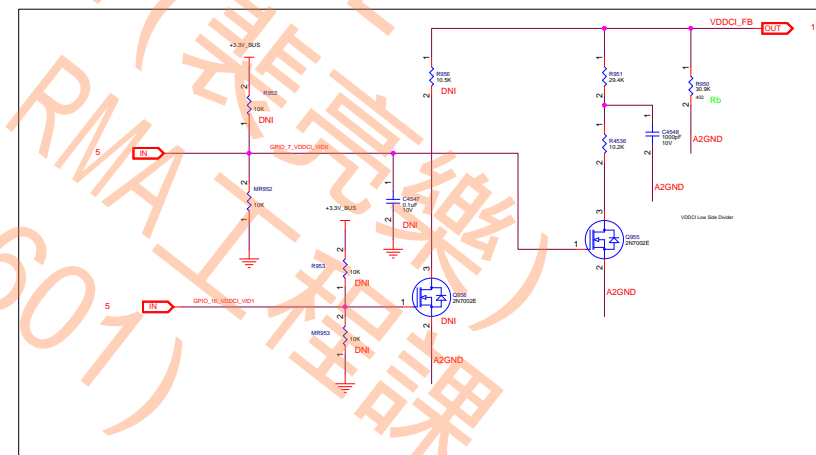
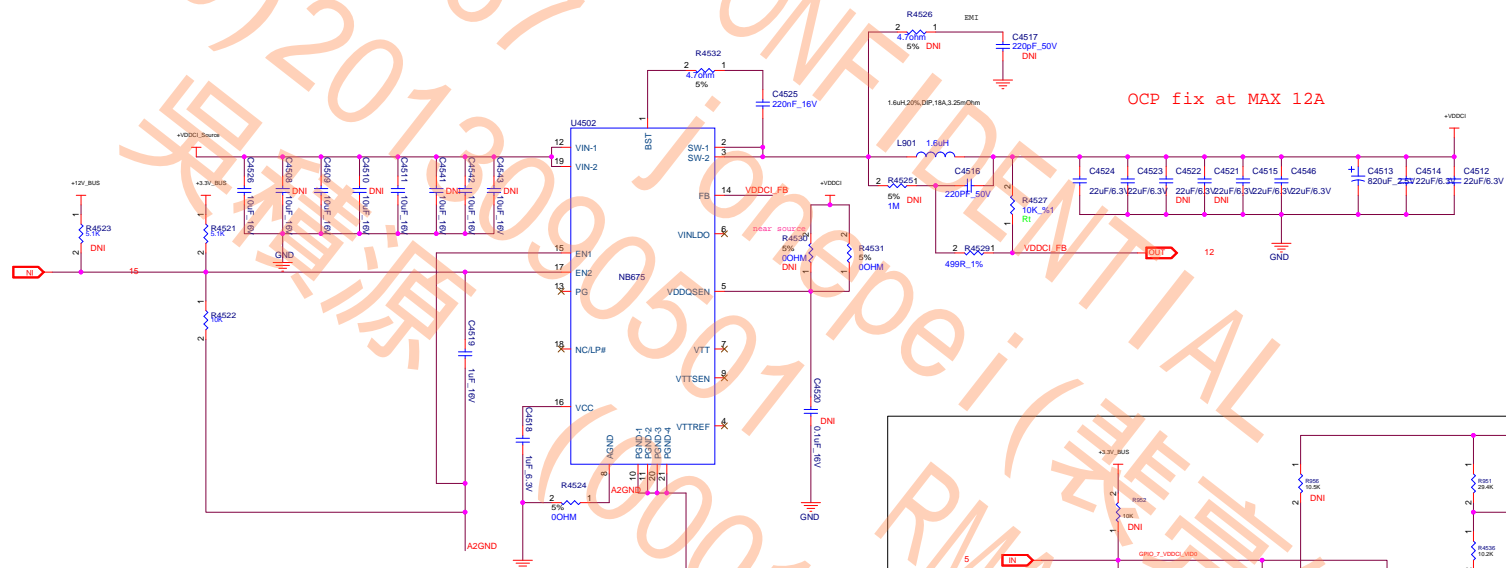




Size Custom	Document Description PCI-E Edge Connector	Revision 1
Date: Thursday, July 11, 2013		Sheet 11 of 20



VDDCI



MICRO-STAR INT'L CO., LTD

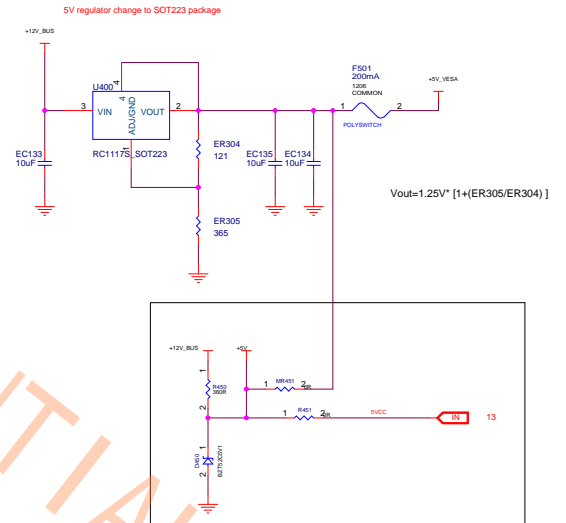
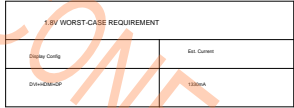
MS-V302

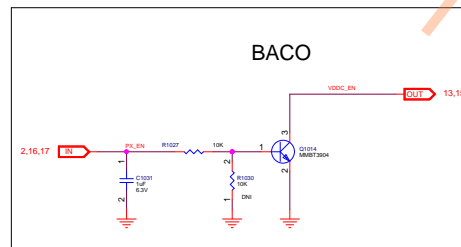
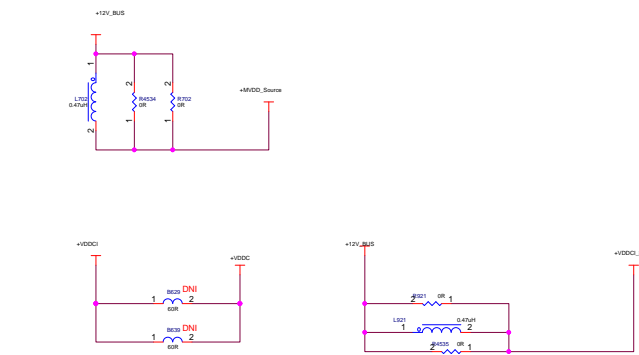
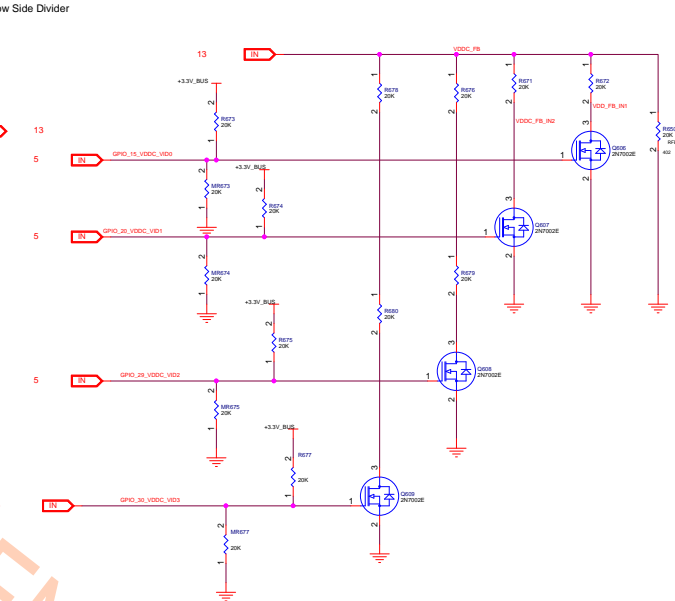
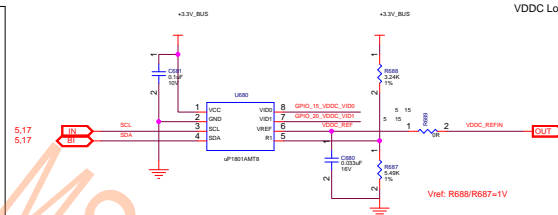
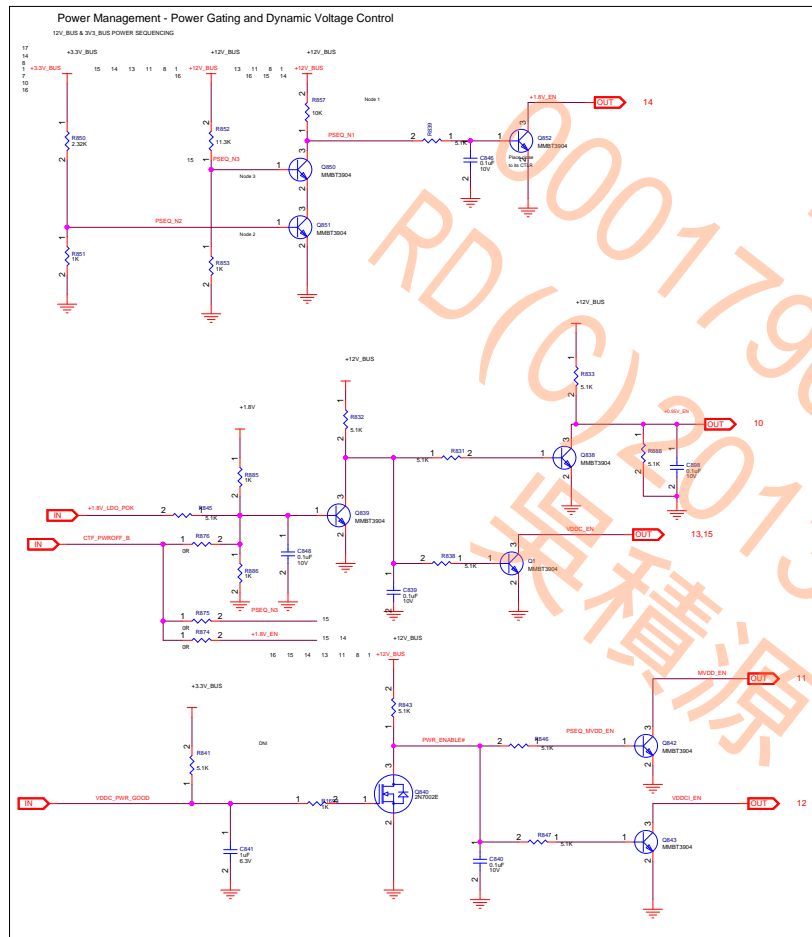
Size Custom	Document Description PCI-E Edge Connector	Rev 1.0
Date: Thursday, July 11, 2013		Sheet 12 of 20

Date: Thursday, July 11, 2013 Sheet 12 of 20

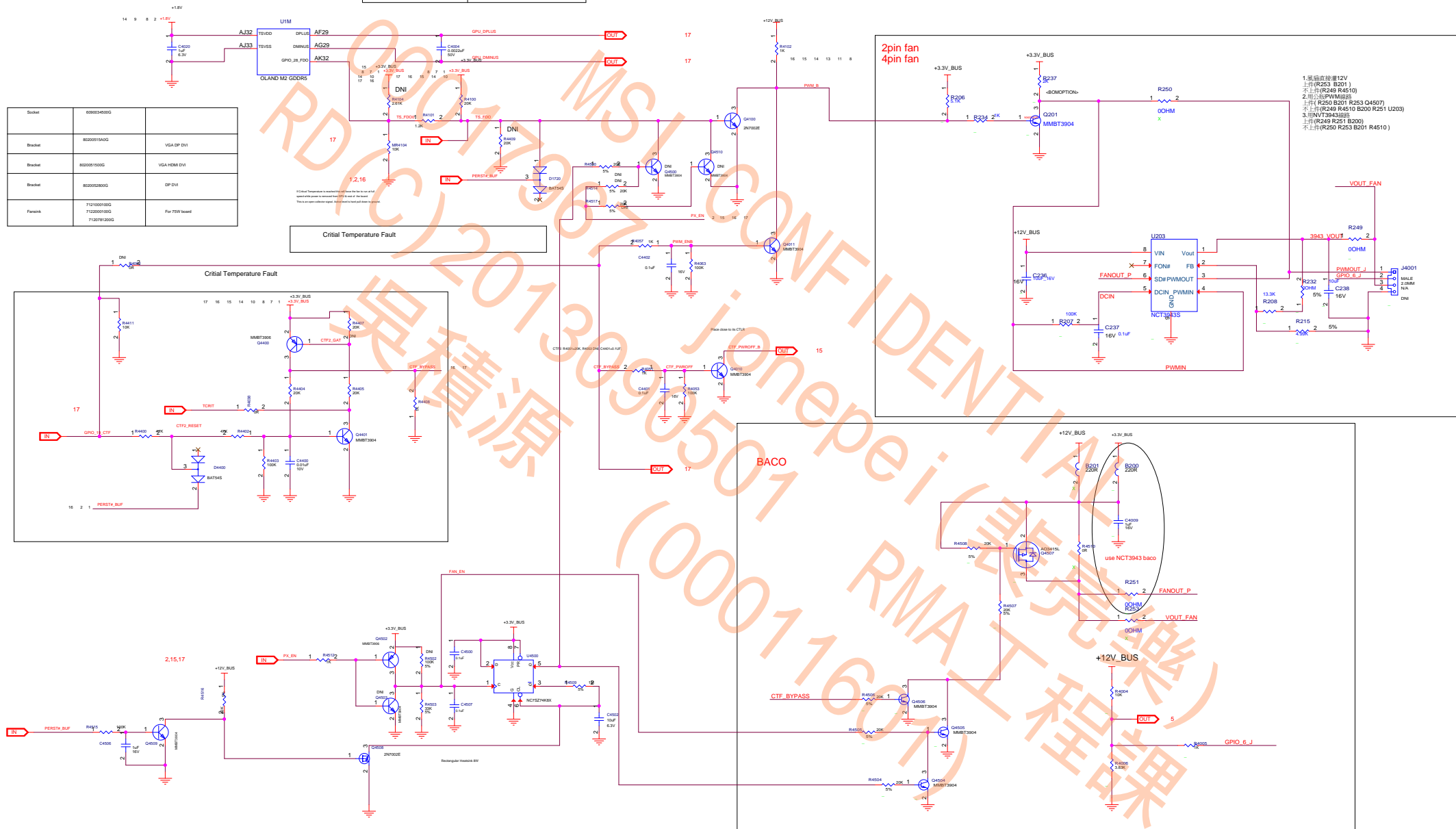
LDO #1:	$V_{in} = 3.00V \text{ to } 3.60V \text{ (} 3.3V \pm 9\%)$	$V_{out} = +1.8V \pm 2\%$	$I_{out} = 1.6A \text{ (} 1.7V \text{) RMS MAX}$
PCB: 50 to 70mm sq. copper area for cooling			

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



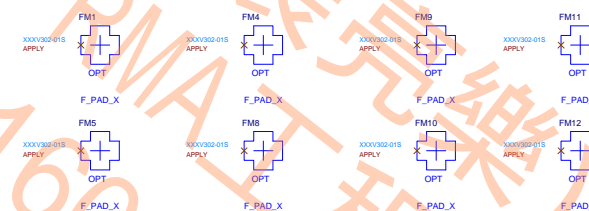
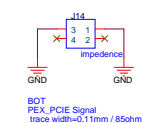
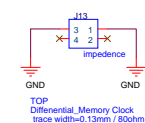
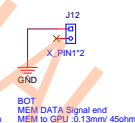
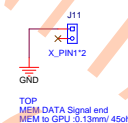
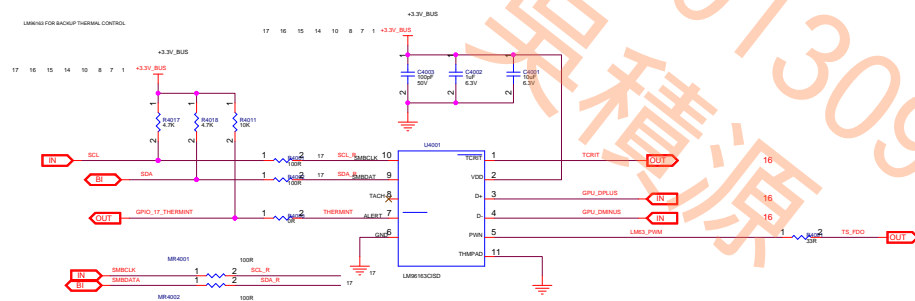
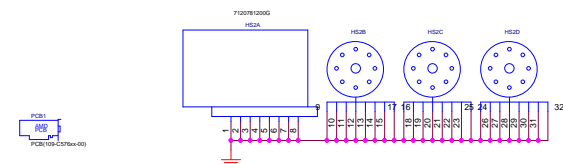
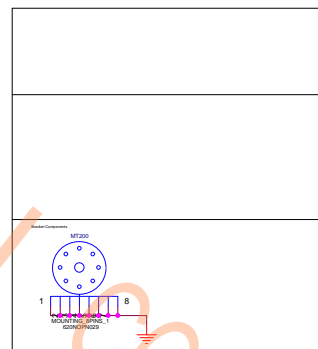
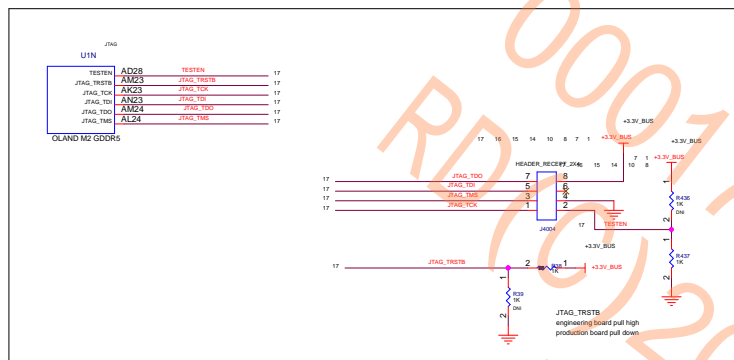


Install R4520	GPIO6 is 0: Fan stop GPIO6 is PWM: Fan running
Install R4515 Q4511, R4519	GPIO6 is 1: Fan stop GPIO6 is PWM: Fan running



U1N		TESTEN		
TESTEN	AD28	TESTEN		17
JTAG_TRSTB	AK23	JTAG_TRSTB		17
JTAG_TCK	AK23	JTAG_TCK		17
JTAG_TDI	AK23	JTAG_TDI		17
JTAG_TDO	AK24	JTAG_TDO		17
JTAG_TMS	AL24	JTAG_TMS		17

OLAND M2 GDOR5



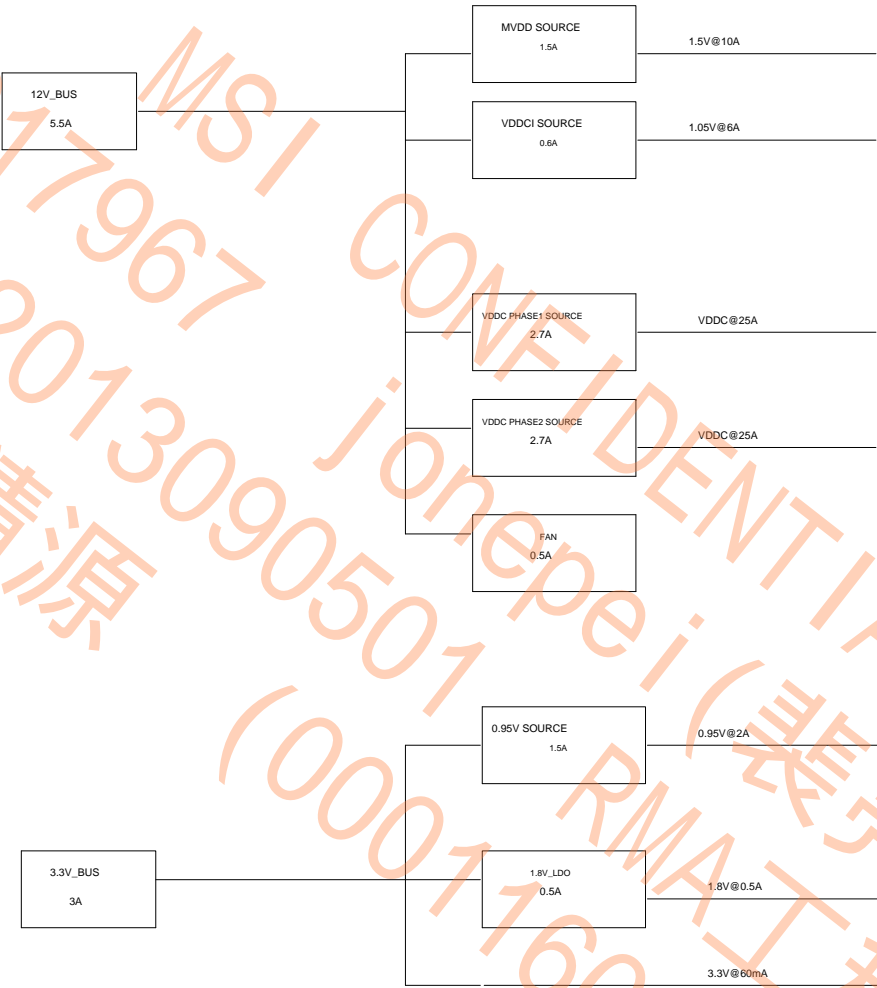
MS-V302

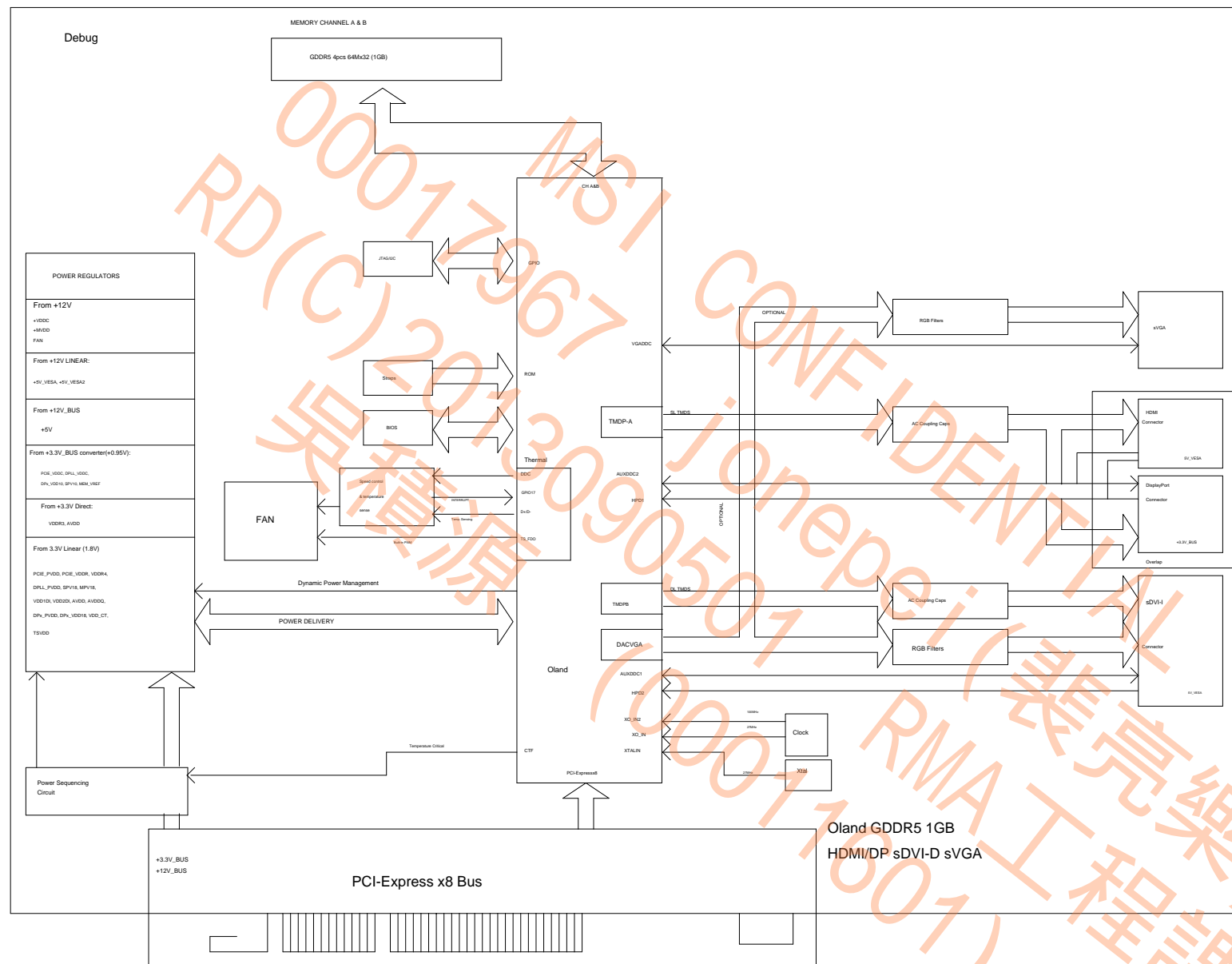
Size Custom	Document Description PCI-E Edge Connector	Re 1
Date: Thursday, July 11, 2013		Sheet 17 of 20

	Re
--	----

MD11	HPD4	DDC1
HEM00P	HPD2	DDC1AUX2
VGA		DDC1GA

GP015	VDDC_VD0	
GP030	VDDC_VD1	
GP039	VDDC_VD2	
GP030	VDDC_VD3	
GP007	VDDC_VD0	DEFAULT 1
GP016	VDDC_VD1	
GP021	MVDD_VD	





			TITLE Grand XT DDR3 1GB 40Pin HBMSP-VGA	SCHEMATIC NO 1GB-CT50KA-00	DATE
			REVISION HISTORY	NOTE: <small>THIS SCHEMATIC IS PRELIMINARY IN NATURE. IT DOES NOT REPRESENT ANY SPECIFIC BOM. THIS SCHEMATIC IS FOR REFERENCE ONLY. PLEASE DO NOT USE THIS SCHEMATIC FOR ANY OTHER PURPOSE. PLEASE CONTACT MICRO-STAR INTERNATIONAL FOR ANY CHANGES TO THE APPLICATIONS BOM.</small>	REV POD
SCM REV	PCB REV	DATE	REVISION DESCRIPTION		
01	01	20130905			
			Page6.change J1501 to type-A and add ESD Page7.remove DP and add ESD Page8.add ESD Page10.change 0.95V converter and change L801 Page11.change MVDD PWM IC to converter and change L701 Page12.change VDDCI PWM IC to converter and change L901 Page13.change L601/L612 Page14.change 5V Regulator Page16.add Fan IC + 4pin Fan		