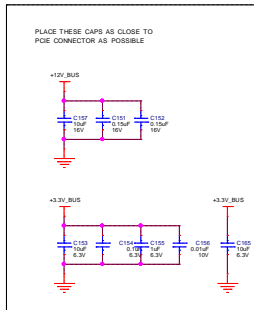
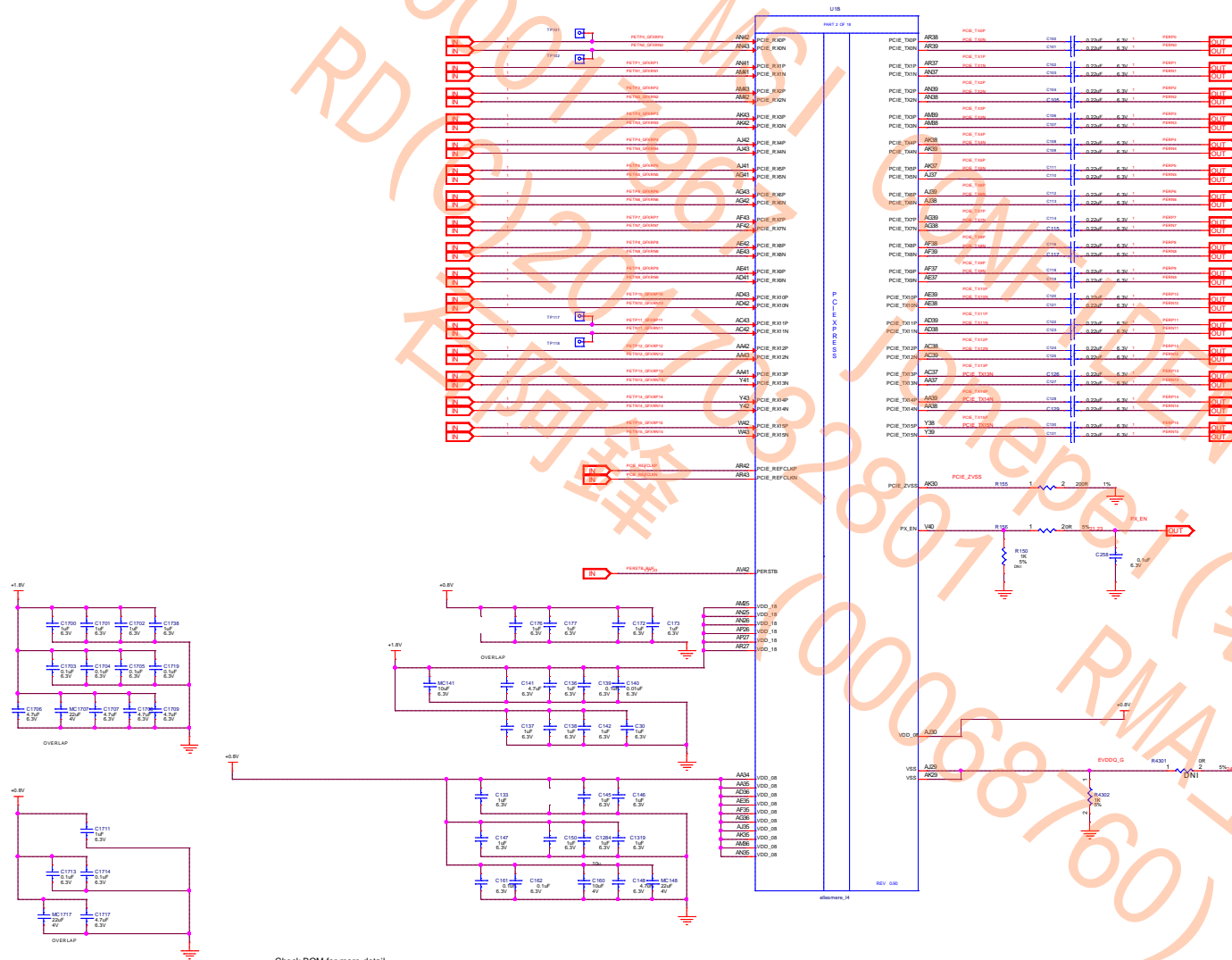


(1) PCI-EXPRESS EDGE CONNECTOR



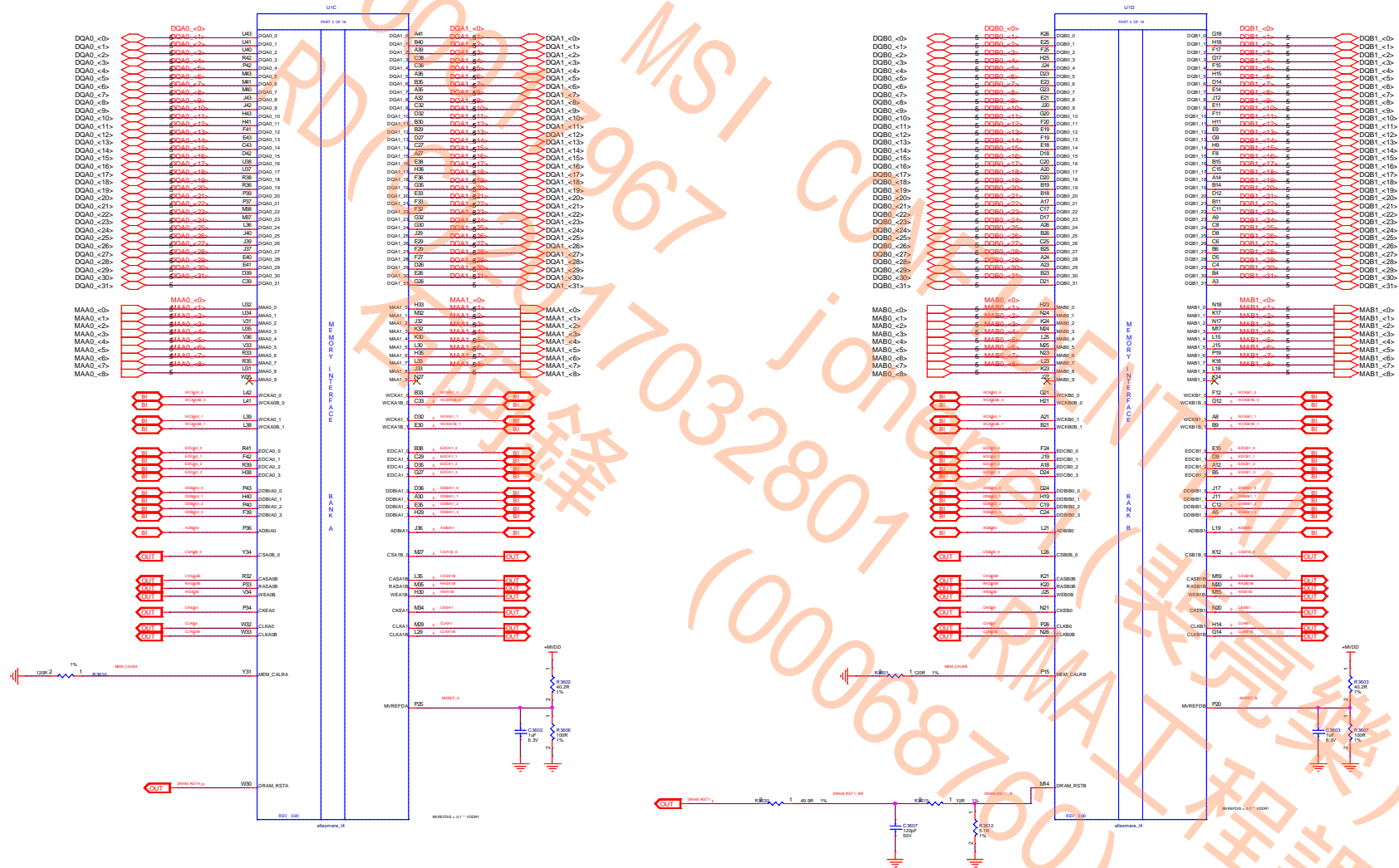
	MICRO-STAR INT'L CO.,LTD			
	MS-V341			
	Size	Document	Description	Rev
Custom			3	
Date: Wednesday, March 04, 2015		Sheet: 4	of 38	

(2) ELLESMERE PCIE INTERFACE

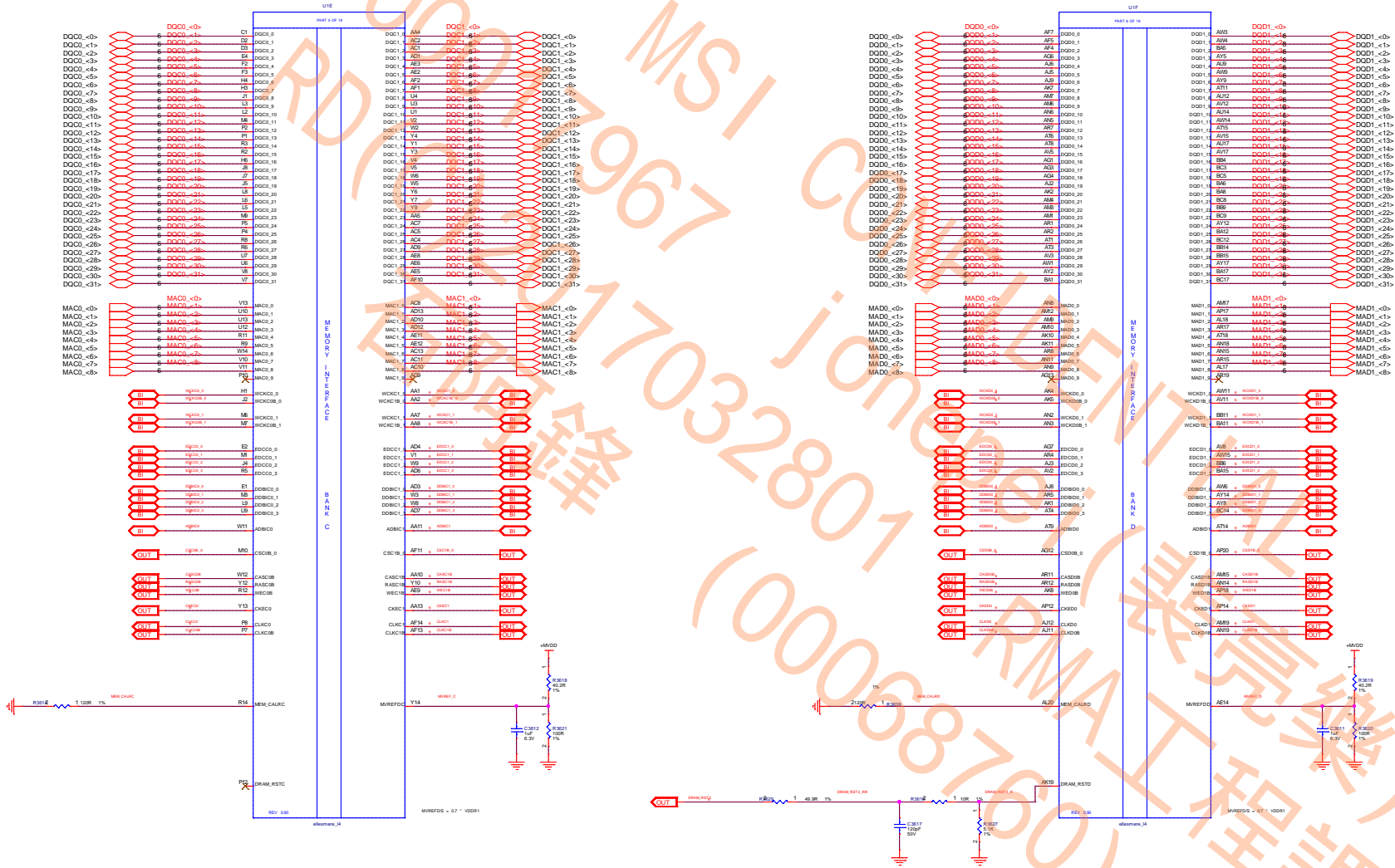


Check BOM for more detail

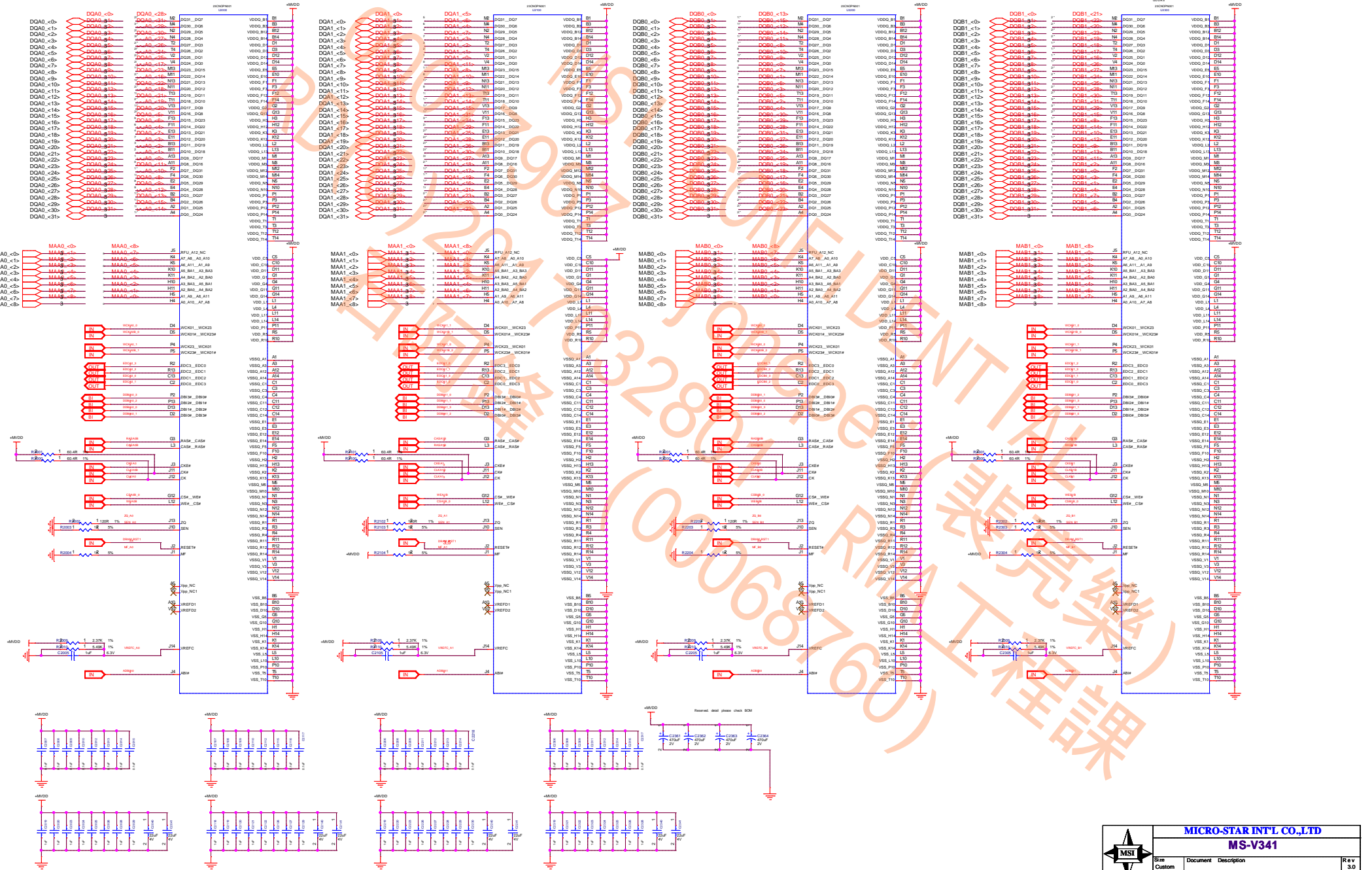
(3) ELLESMERE MEM INTERFACE CH A/B



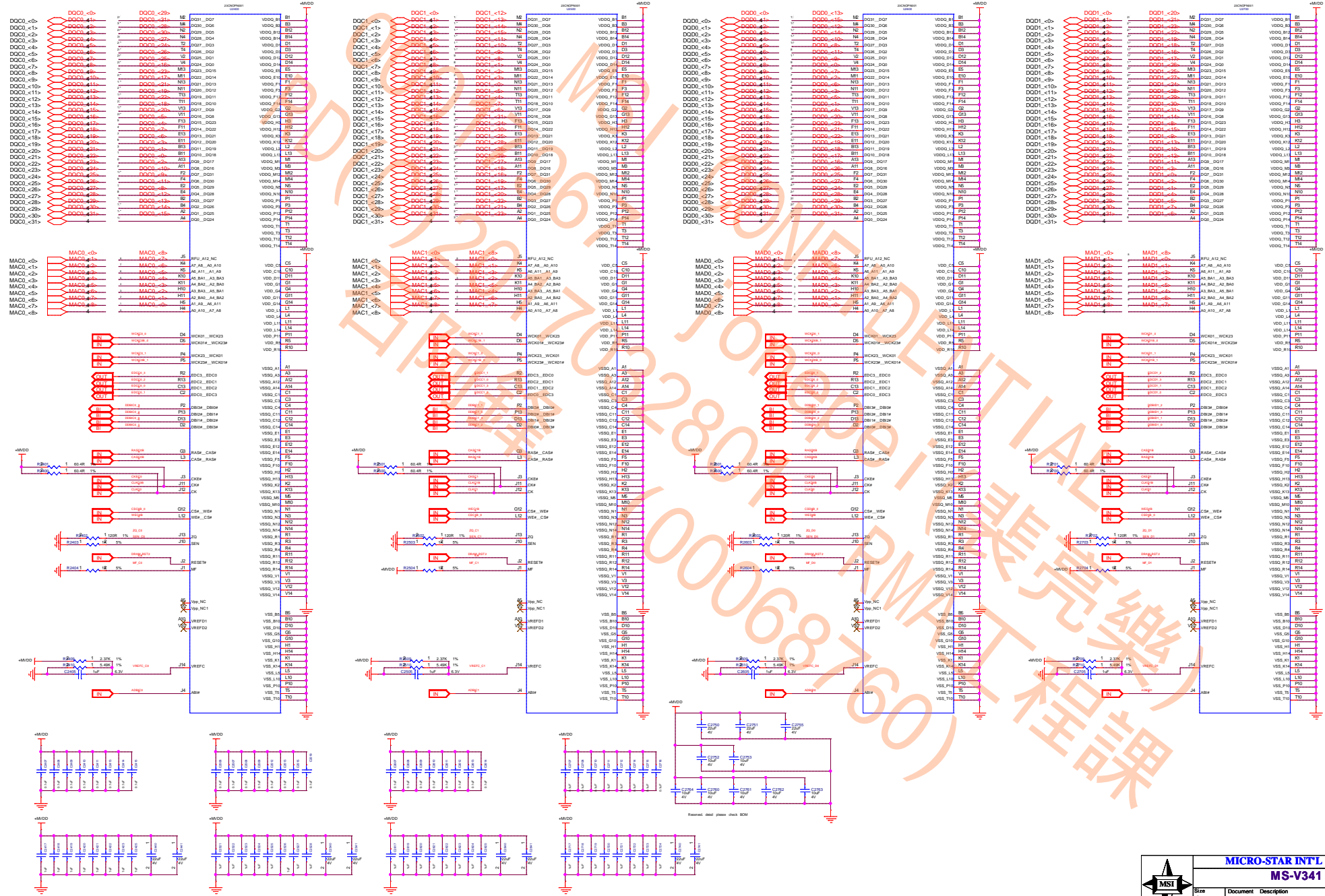
(4) ELLESMERE MEM INTERFACE CH C/D



(5) GDDR5 MEMORY CH A/B



(6) GDDR5 MEMORY CH C/D

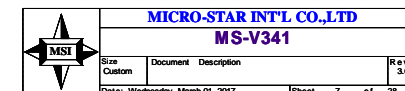
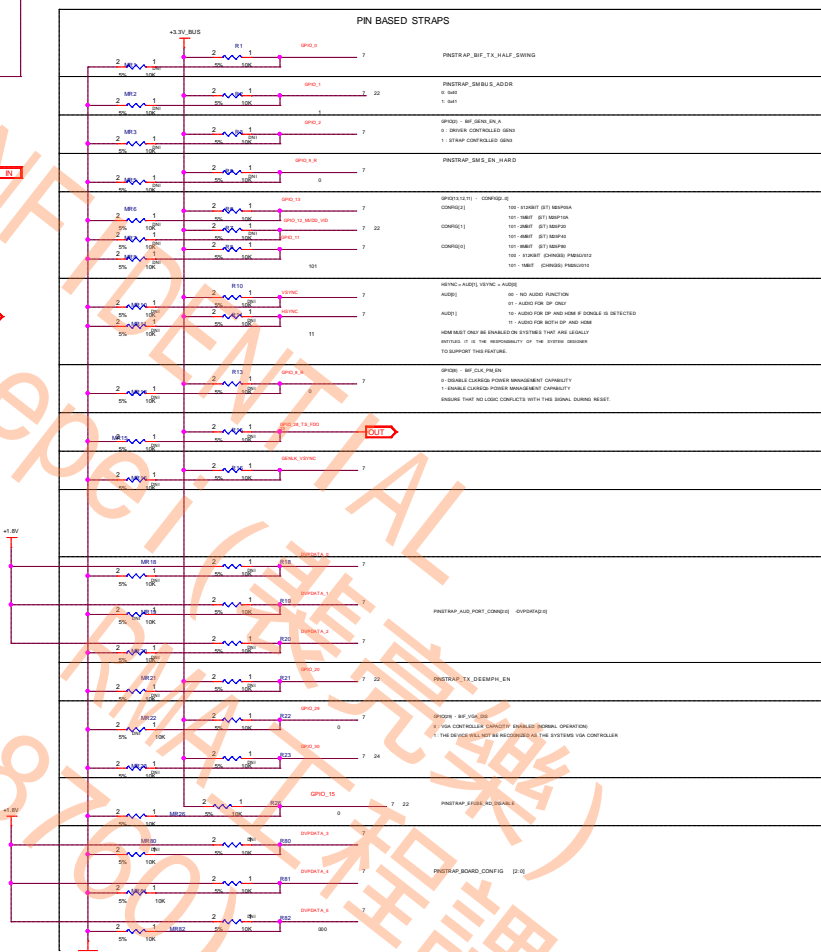
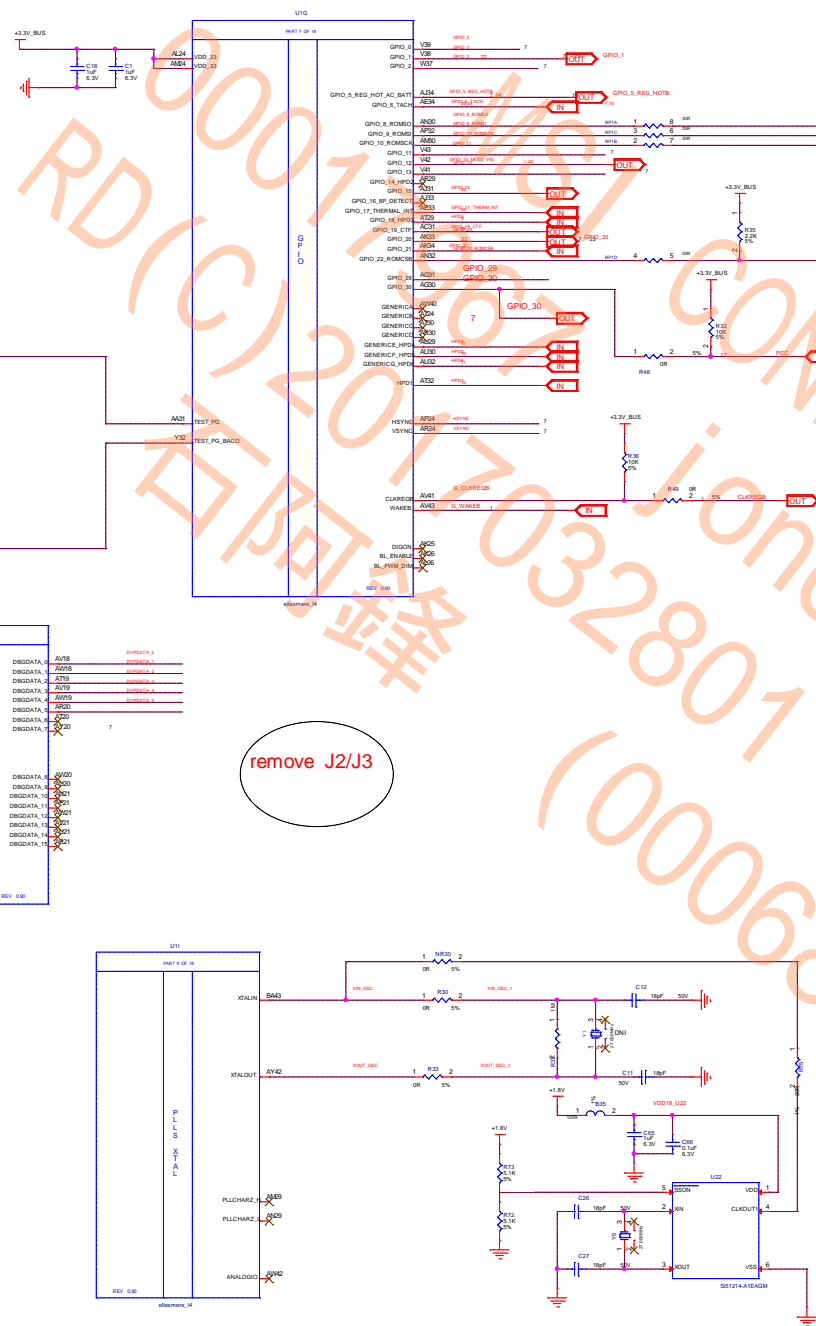
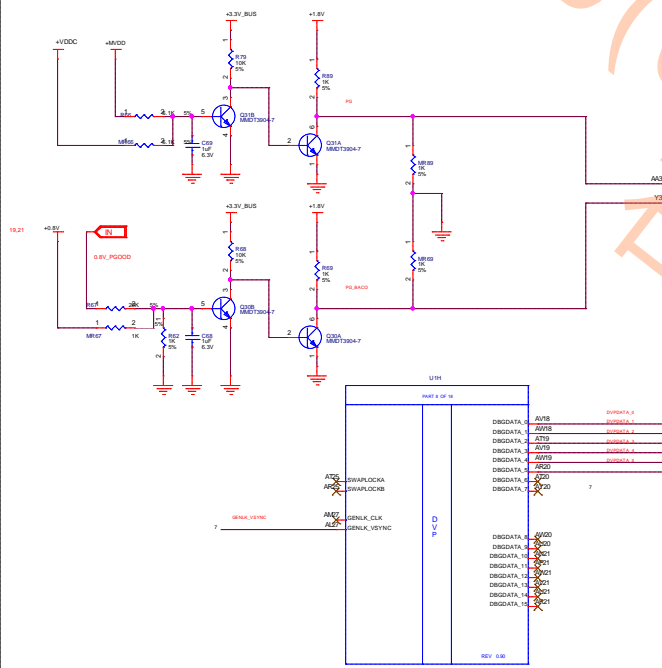


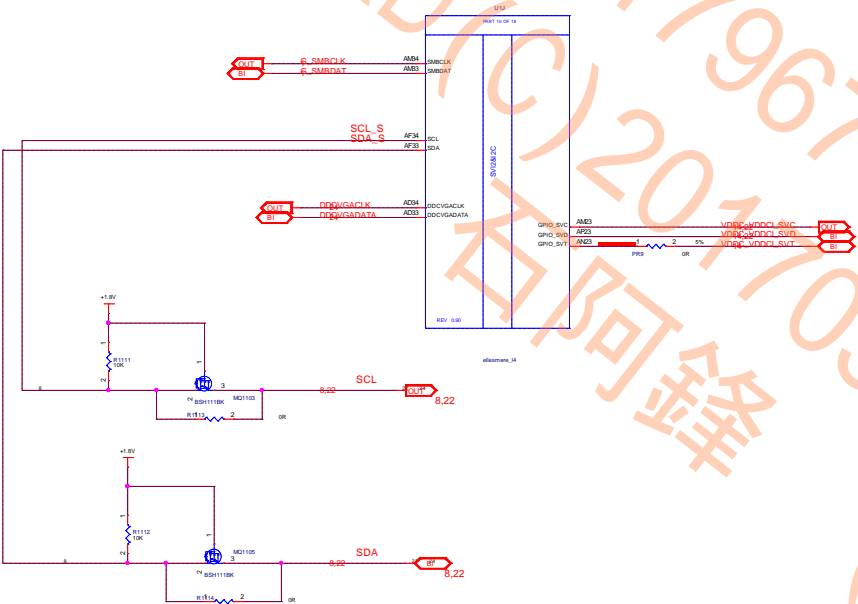
(7) ELLESMERE GPIO STRAP CF XTAL

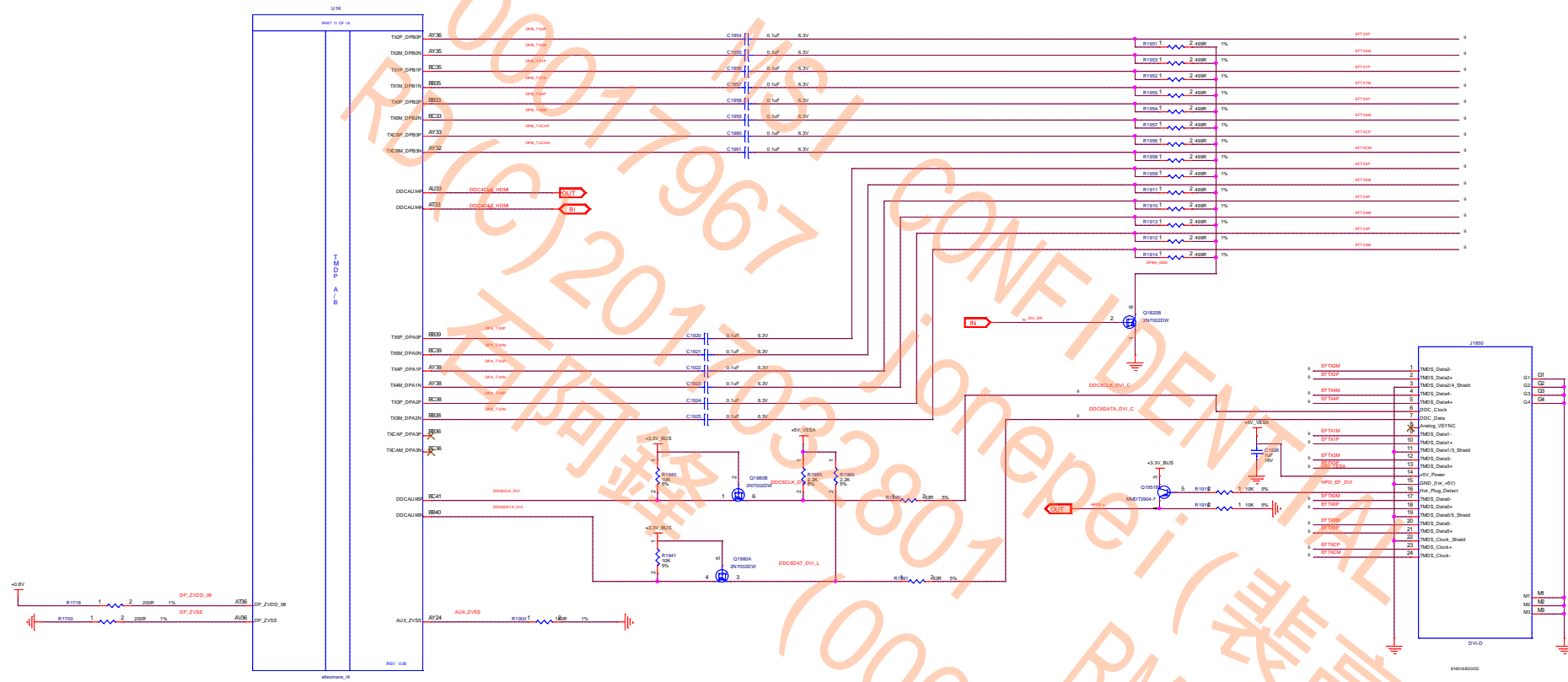
IO ADDRESS	FUNCTION	DEVICE

CC01GA BUS

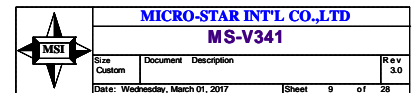
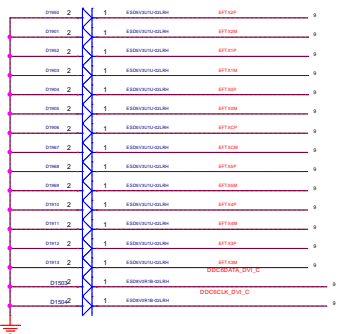
IO ADDRESS	FUNCTION	DEVICE
0x48	EXT TEMP SENSOR	LM80C3

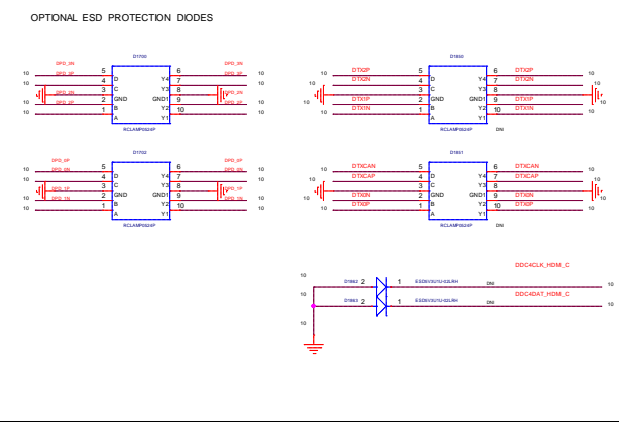
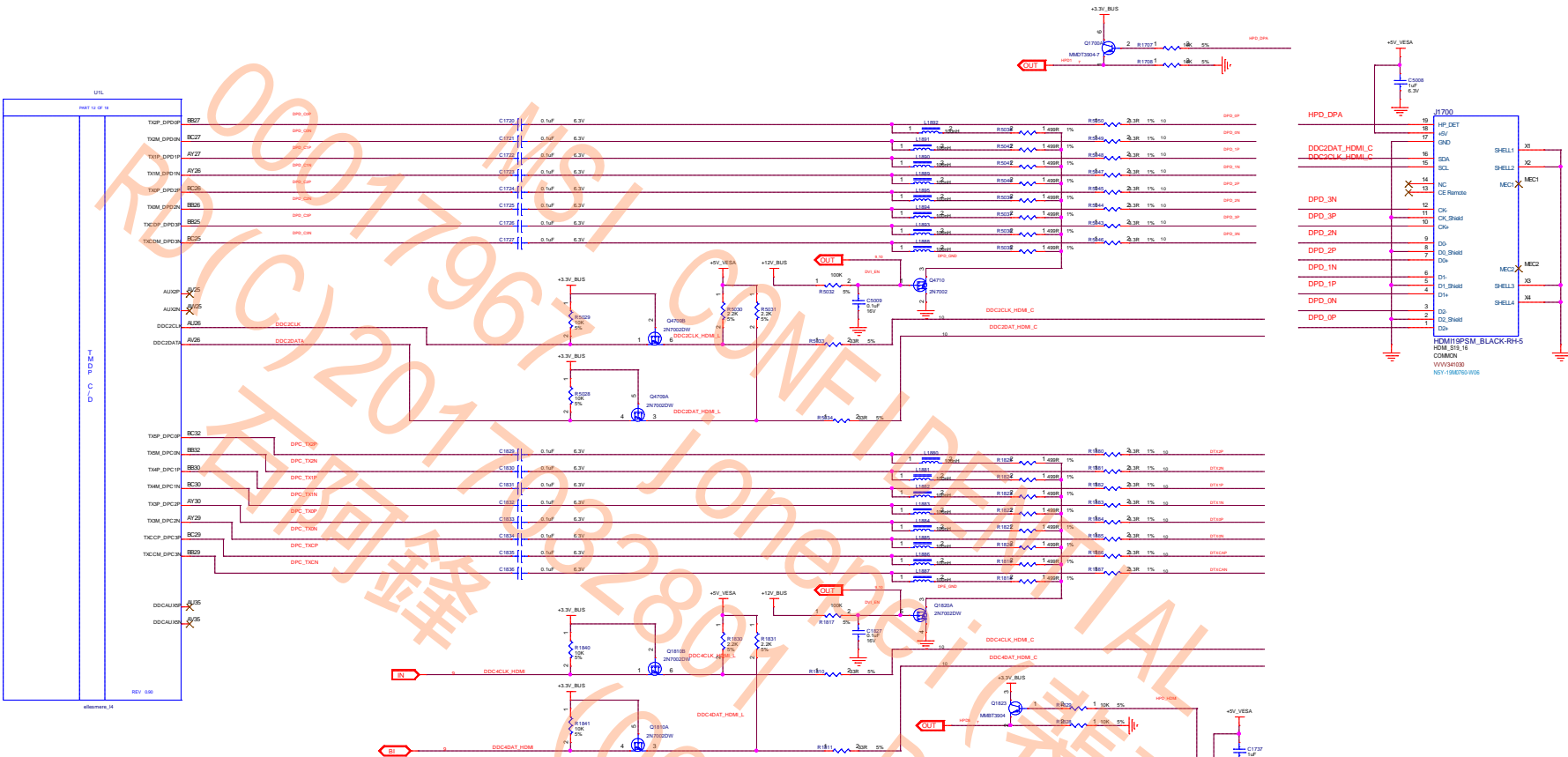


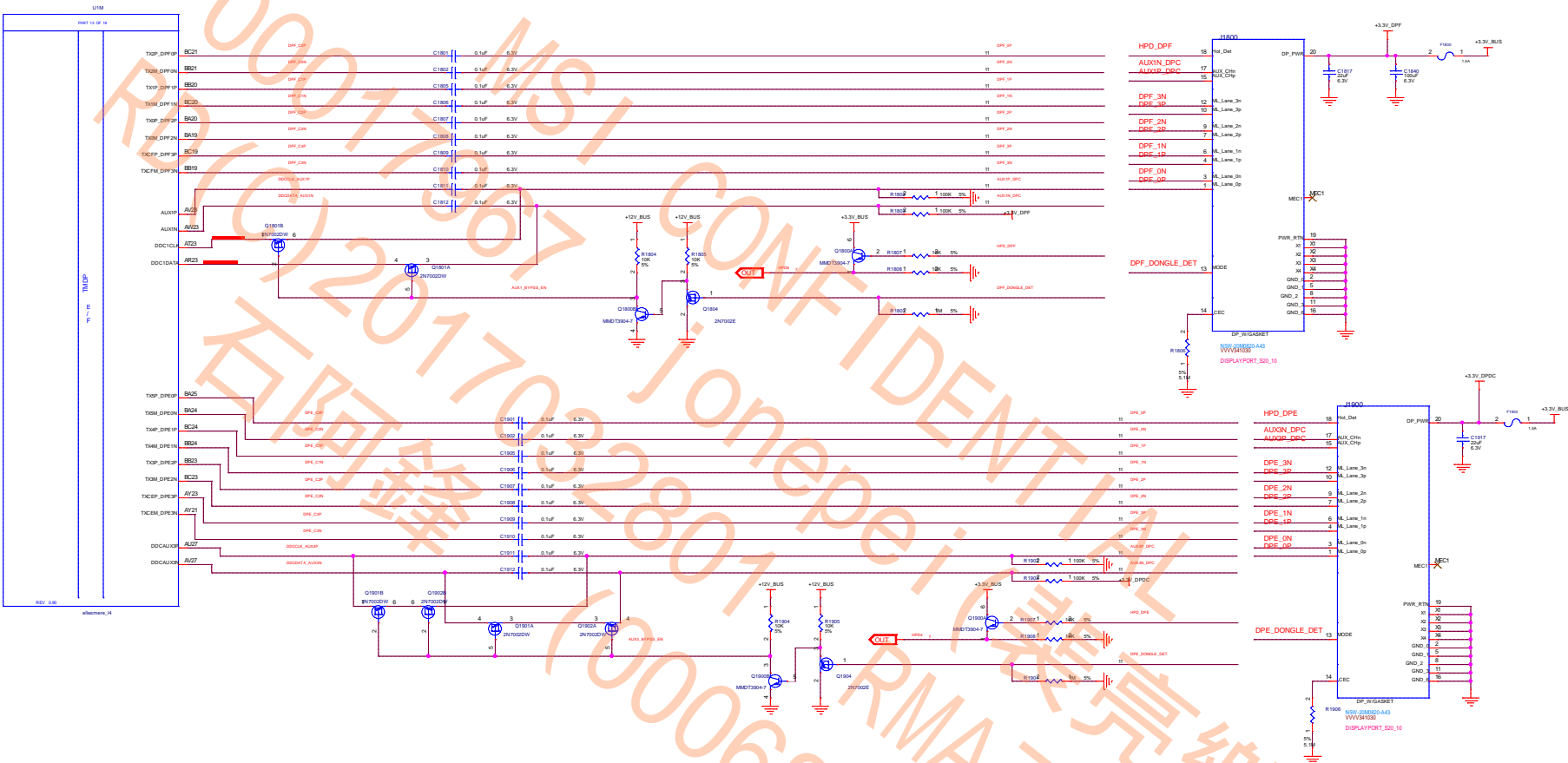




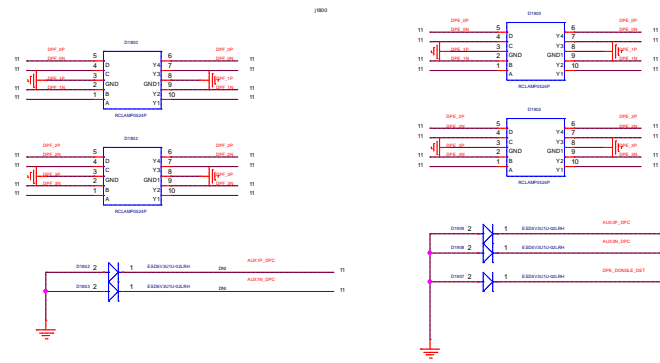
OPTIONAL ESD PROTECTION DIODES



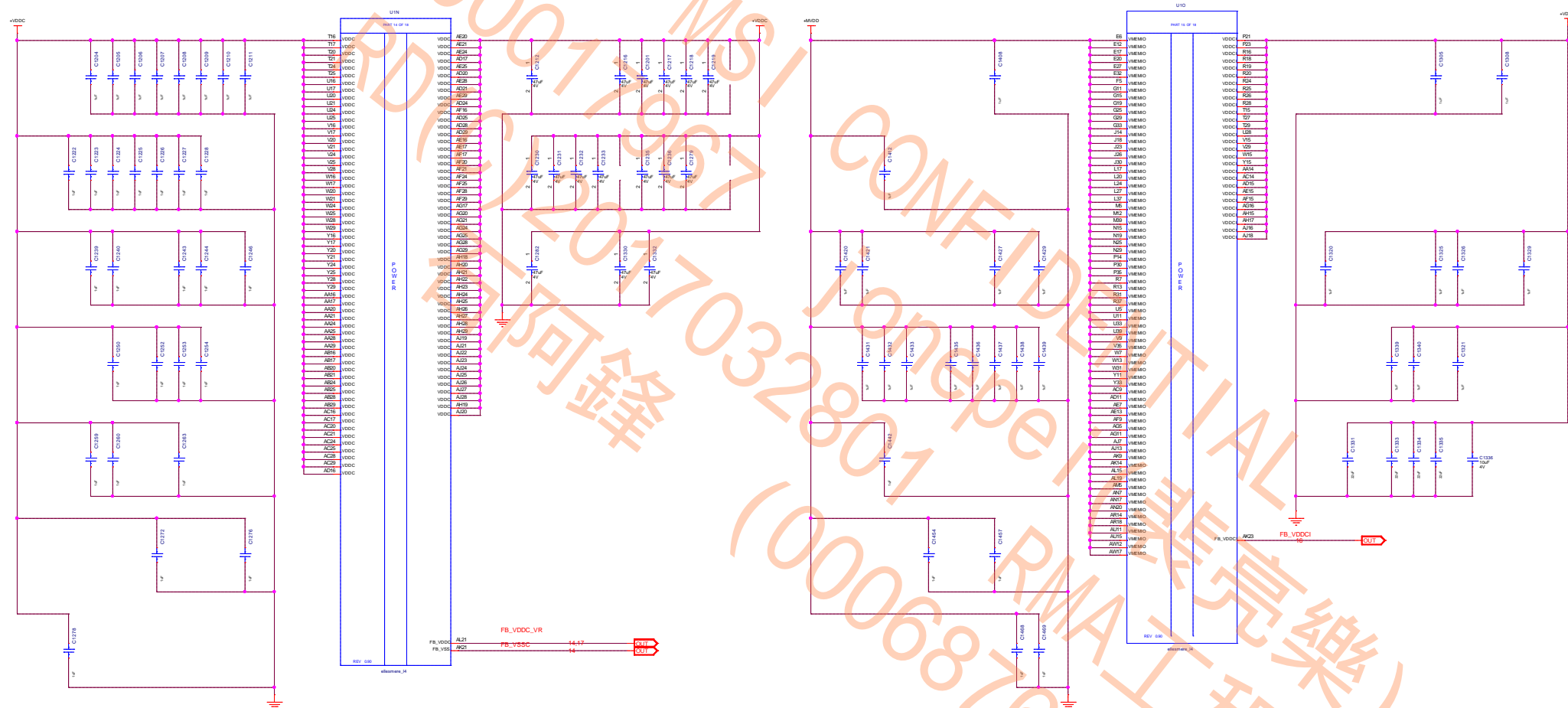


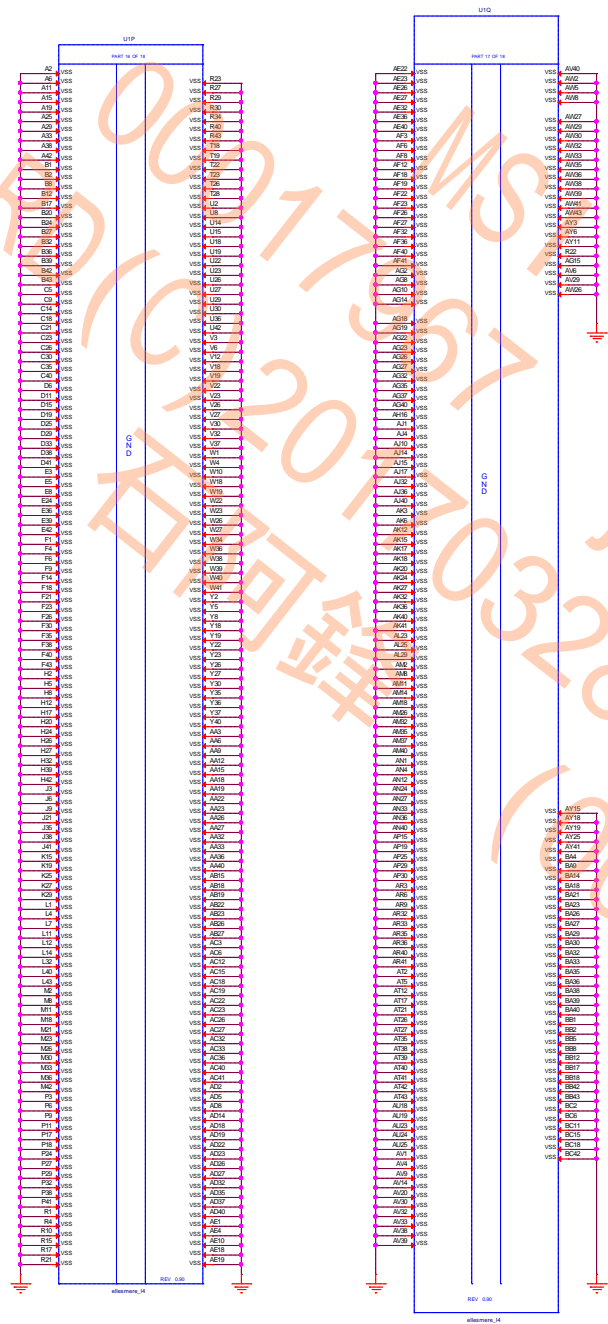


OPTIONAL ESD PROTECTION DIODES

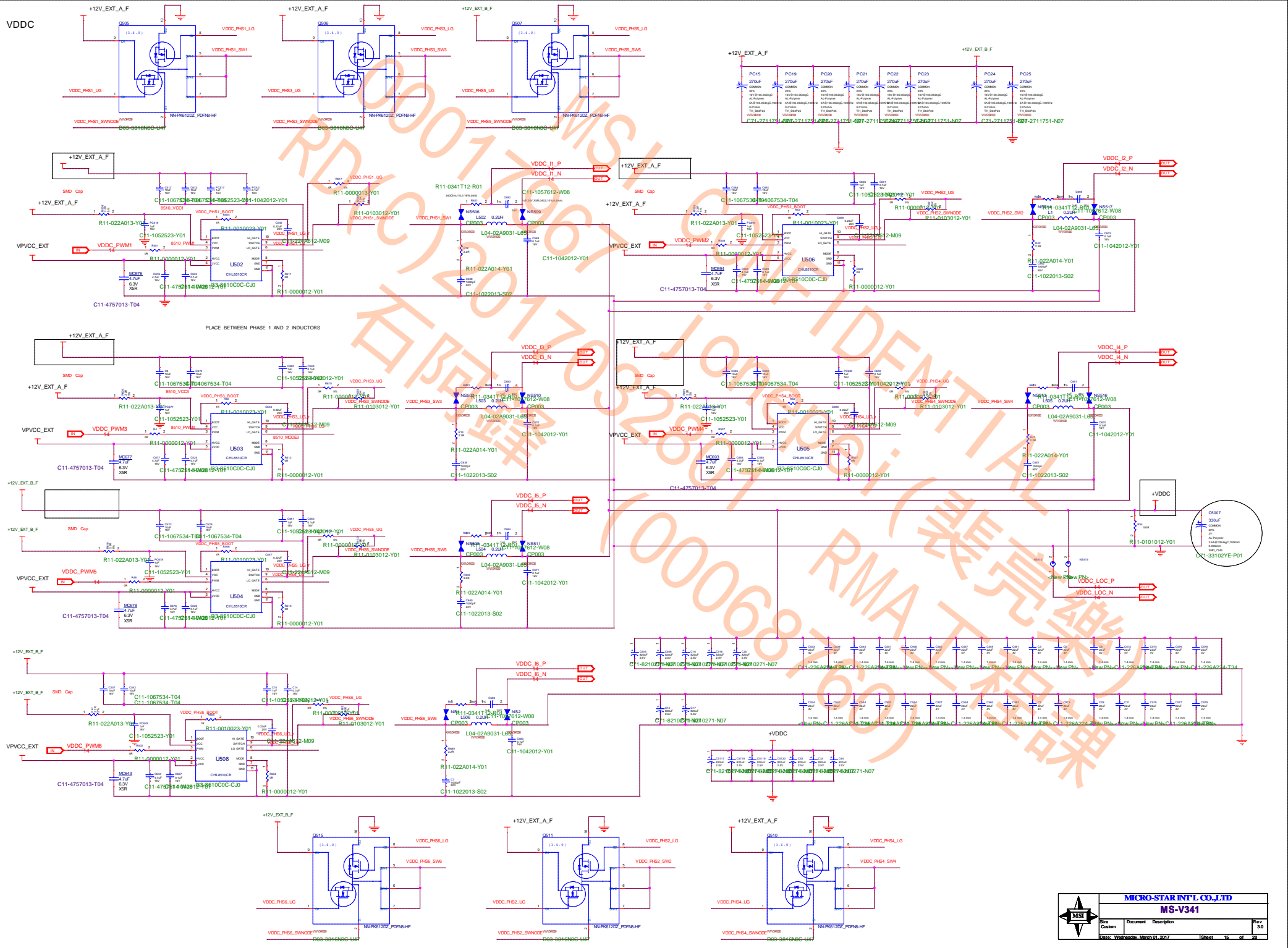


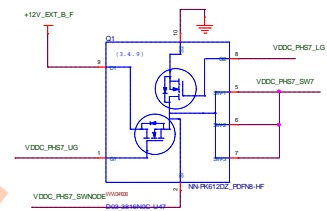
(12) ELLESMERE POWER

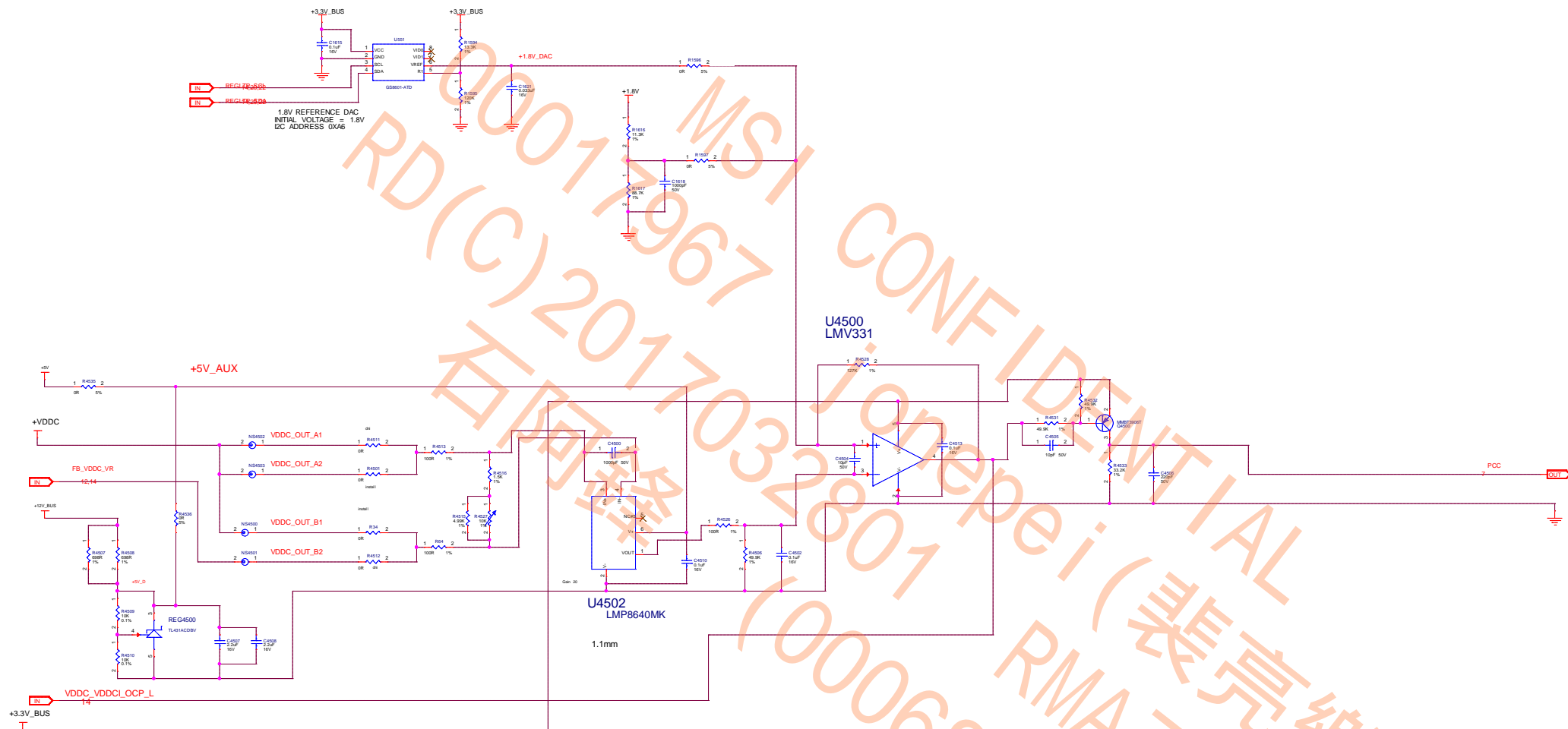


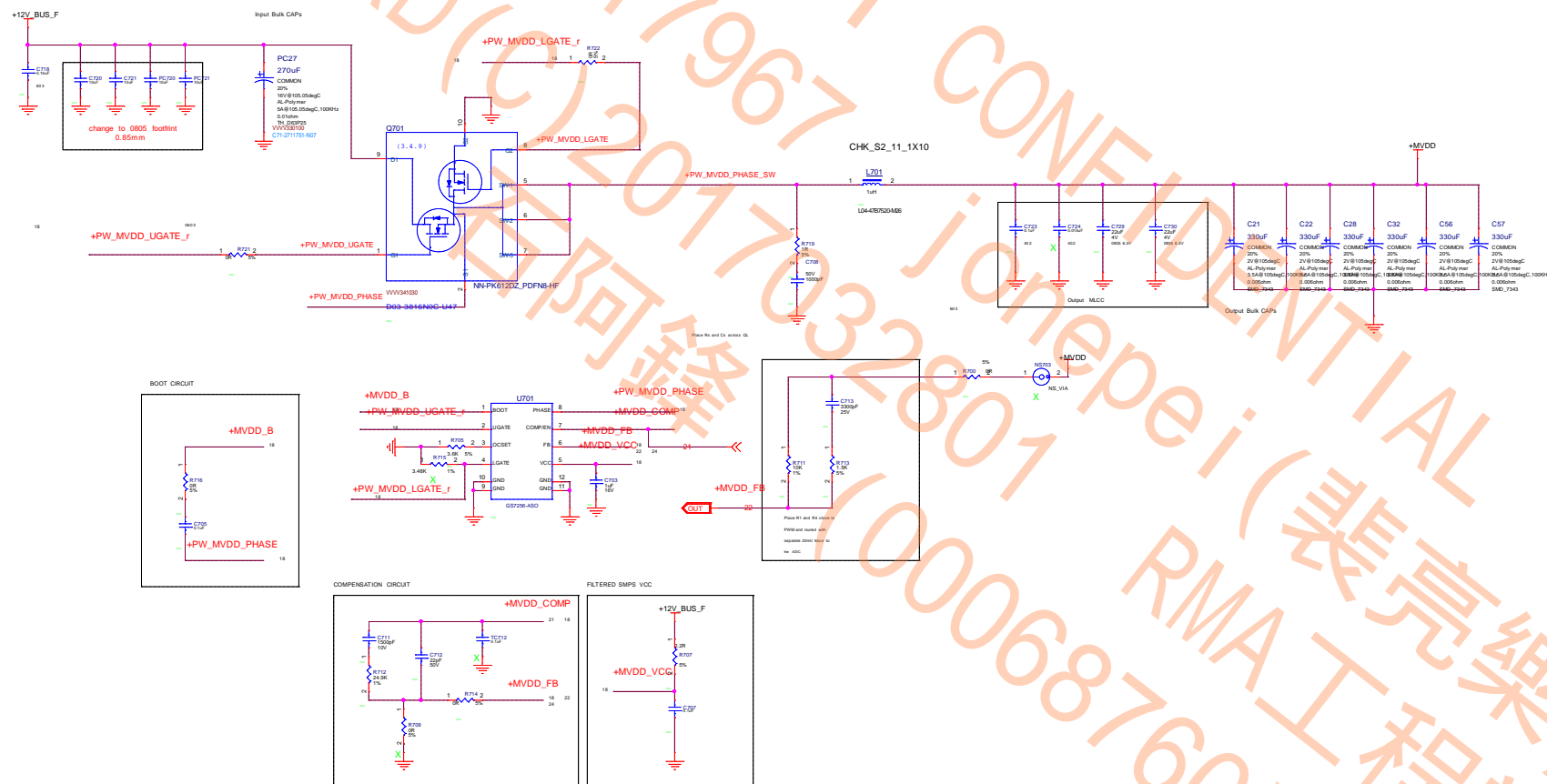


VDDC

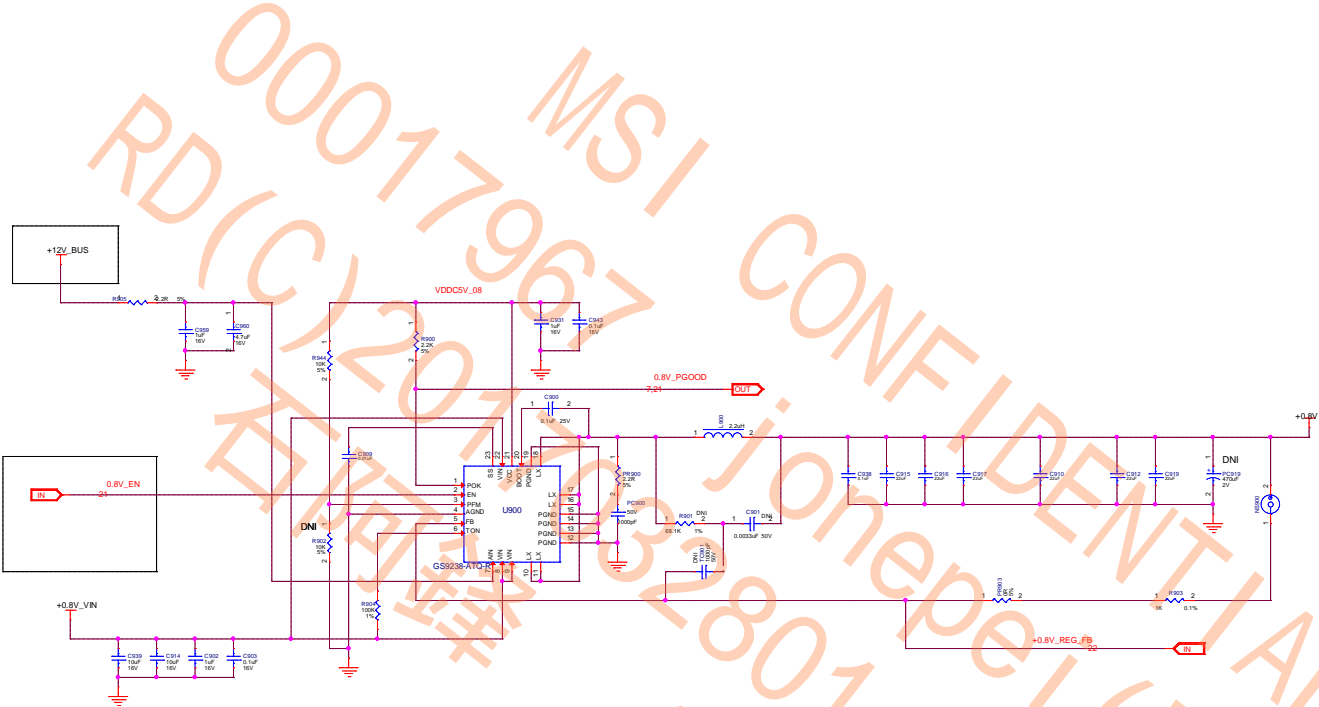








(17) 0.95V

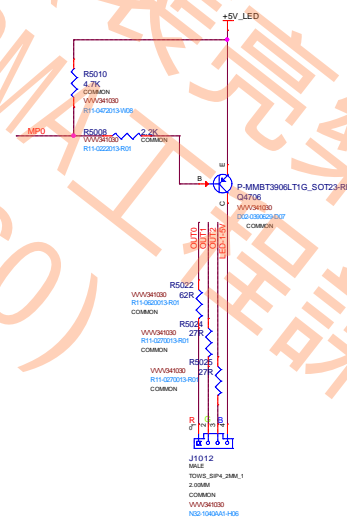
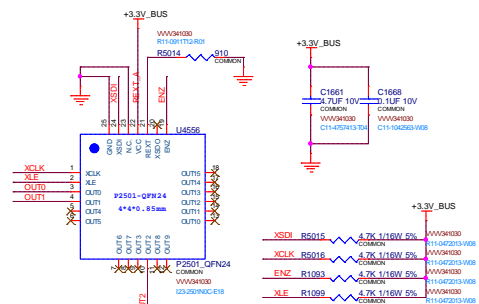
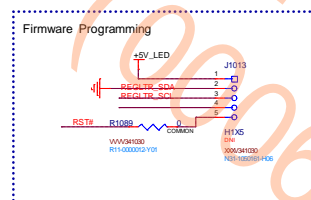
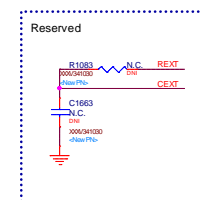
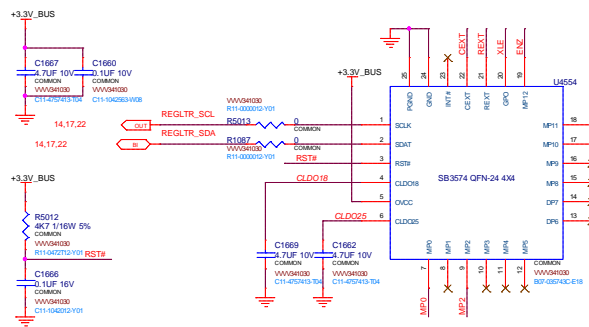
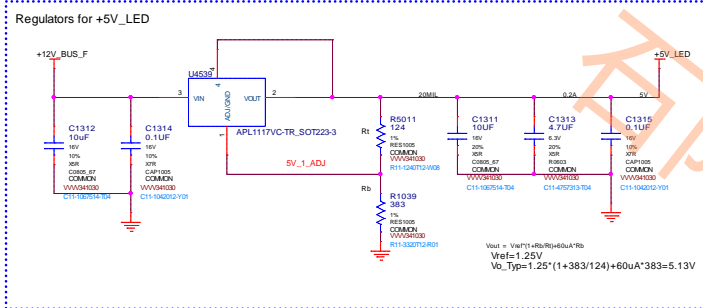
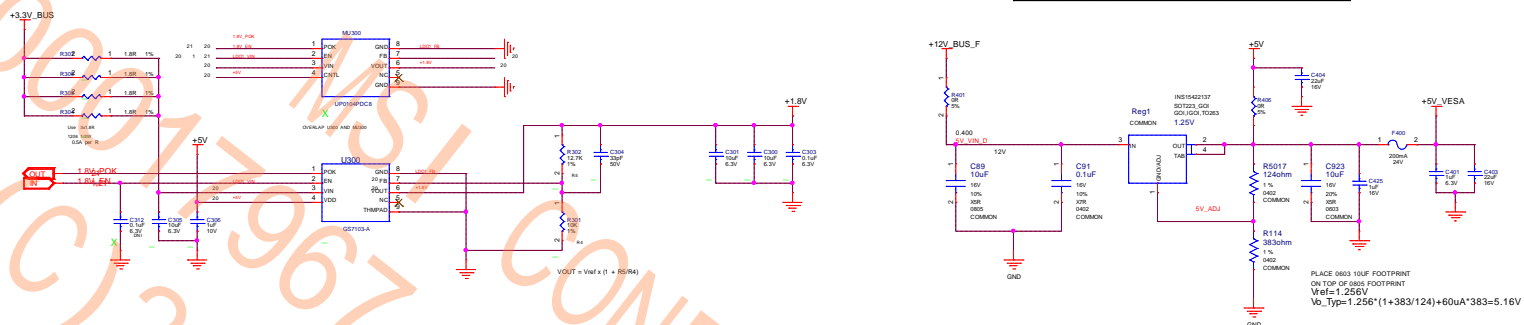


(18) SMALL RAIL REGULATORS , LED_CONTROLLER_ENE3574

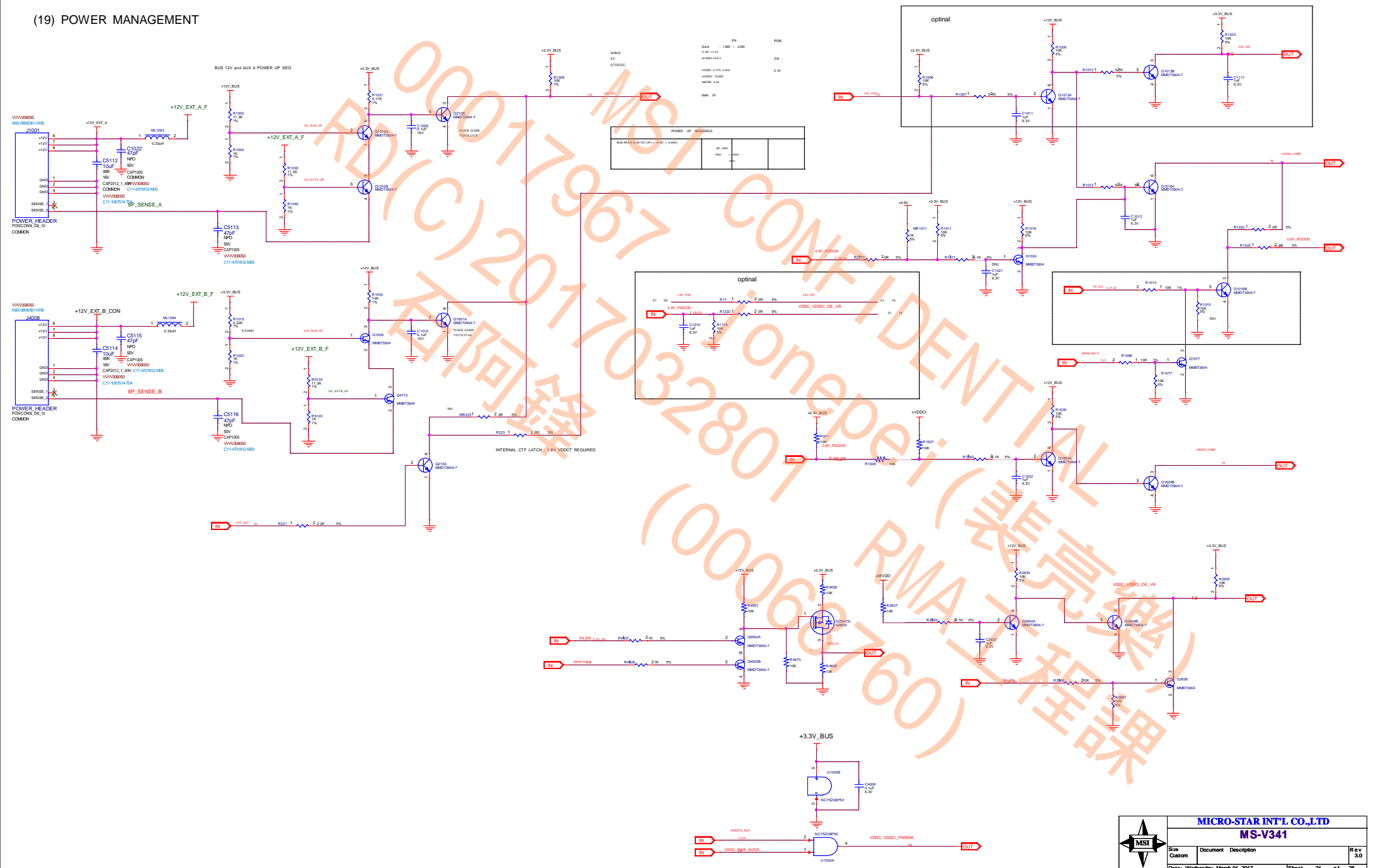
LDO #1: VIN = 3.0V TO 3.6V MAX VOUT = +1.8V +/- 2% IOUT = 1.3A RMS MAX
PCB: 50 TO 70mm SQ. COPPER AREA FOR COOLING

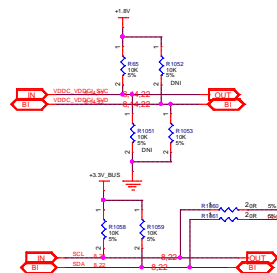
REGULATOR FOR +5V RAILS

IOUT MAX = 150mA

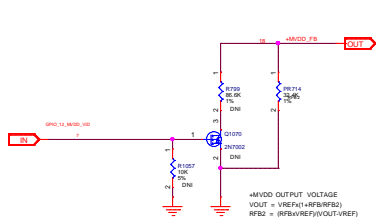
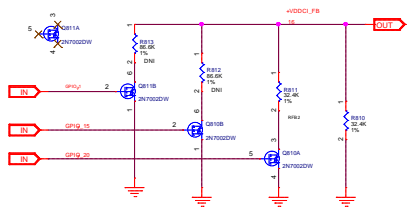
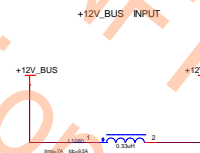


(19) POWER MANAGEMENT





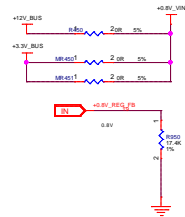
SV12 BOOT UP VOLTAGE (VDDCI/VDDCI)		
SV12	SV12	VOLTAGE
0	0	1.1V
0	1	5.0V
1	0	0.8V
1	1	0.8V

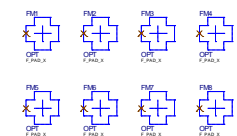
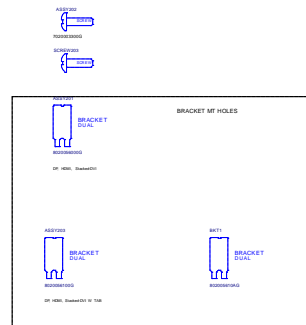
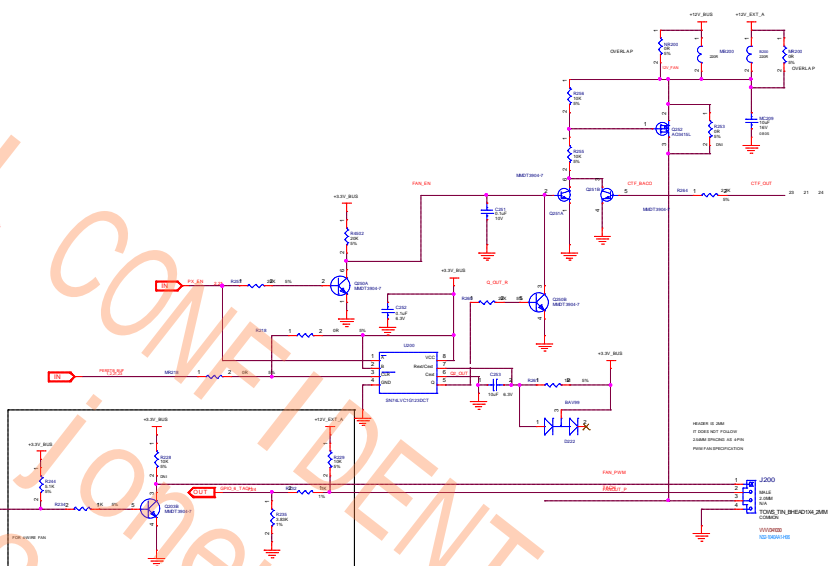


$$+M/OD \text{ OUTPUT VOLTAGE}$$

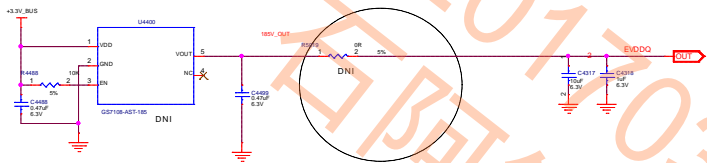
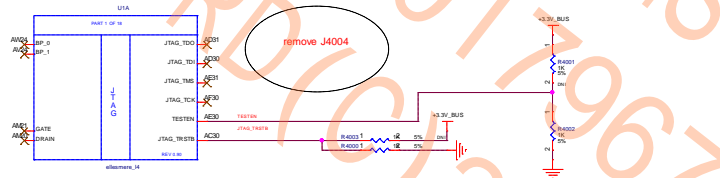
$$VOUT = VREF(1 + RFB/RFB2)$$

$$RFB2 = (RFB/VREF)(VOUT - VREF)$$



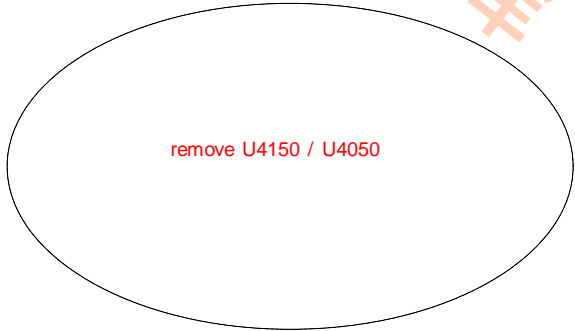


JTAG

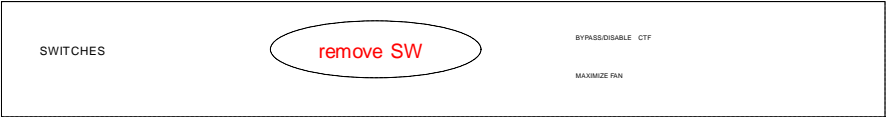


E-FUSE CAPABILITY
DEFAULT = GPIO-CONTROLLED
(MANUAL OPTION AS BACK-UP)

DIGITAL POTS

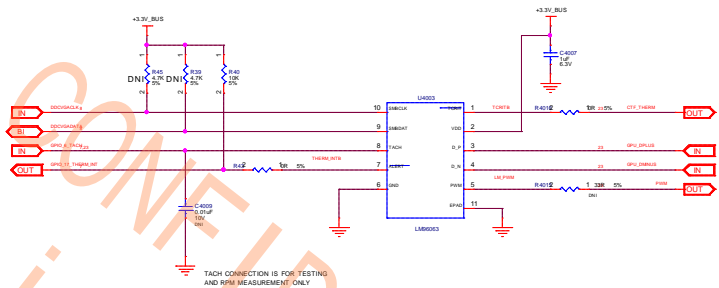


DIGITAL POTS



BYPASS/ENABLE CTF
MAXIMIZE FAN

LM86163 FOR BACKUP THERMAL CONTROL



LED LIGHTS

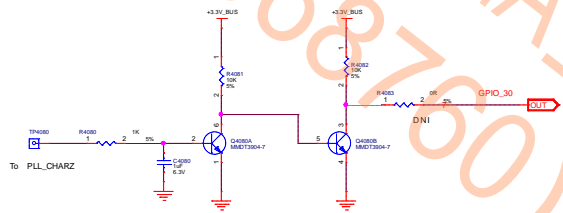


LED RED 'ON' INDICATES CTF FAULT

LED GREEN 'ON' INDICATES BACO MODE

LED ORANGE 'ON' INDICATES MACO MODE

VTMM - TEST CONNECTOR FOR VOLTAGE MEASUREMENTS



0	MSI	MSI-001	1. Add EP07 for backup VDD2 2. Update VDDC clock sequence
1	MSI	MSI-002	
2	MSI	MSI-003	MSI-001 - add backup indicator R1802 -> R1807 - add pad backup indicator L1802 -> L1807 - remove C405, C406, VDDC2CHARGE

Page7: remove J2,J3
Page9: enable DVI
Page10: DP change to HDMI
Page15: change dual-N MOS
Page16: change dual-N MOS
Page18: change dual-N MOS
Page20: Add LED circuit
Page21: colay 8pin power connector
Page24: remove debug circuit

V341-3.0 I an
14. VDDC change IR35201
15.更改 S M D 電 容 改 D I P 電 容
16.配合高度更換 output S M D 電 感 及 電 容
18.配合高度更換 output S M D 電 感 及 電 容
20.背板 LED 移 除
27.增加 7 / 8 相

MSI CONFIDENTIAL
00017967 jonepei (裴亮樂)
RD(C)2017032801 RMA工程課
石阿鋒 (00068760)