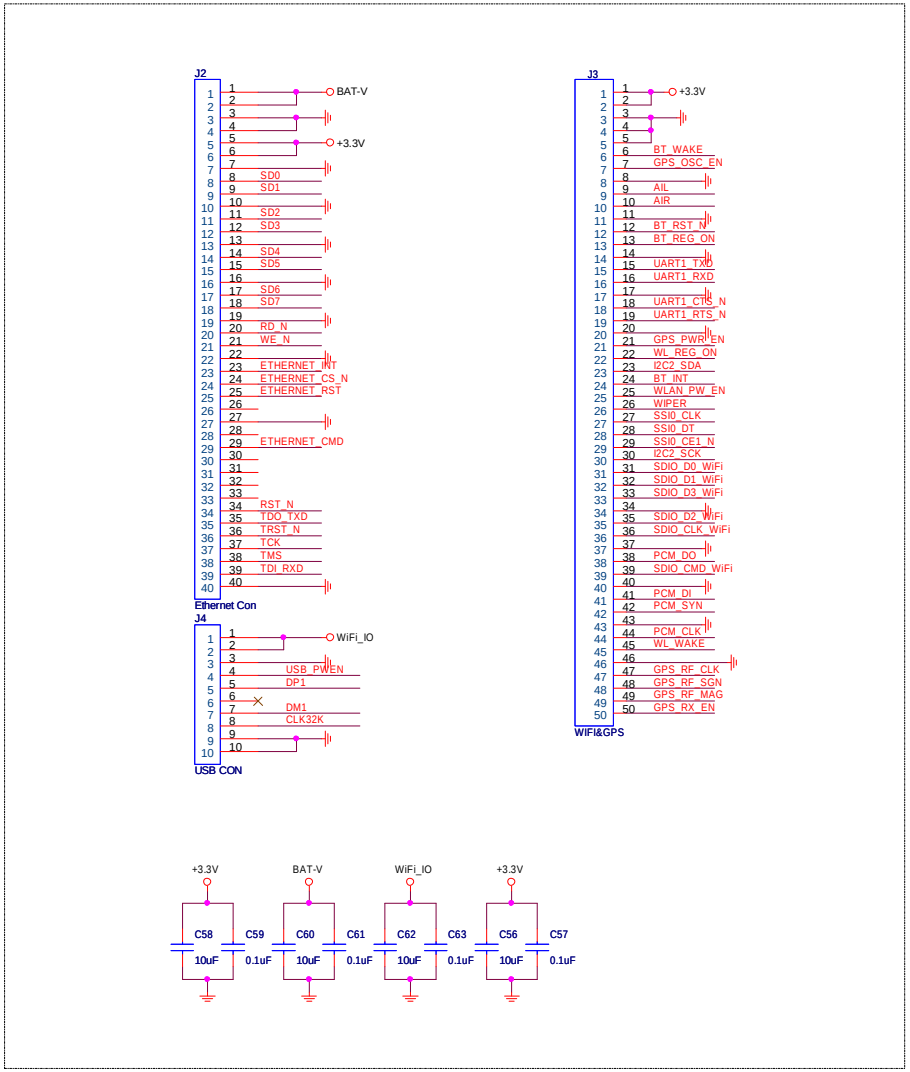

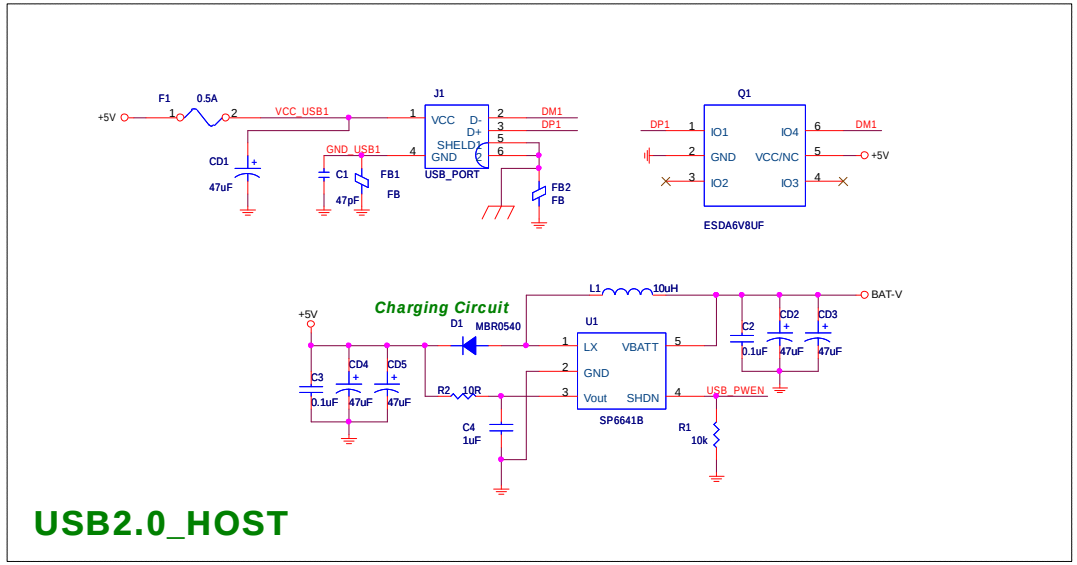

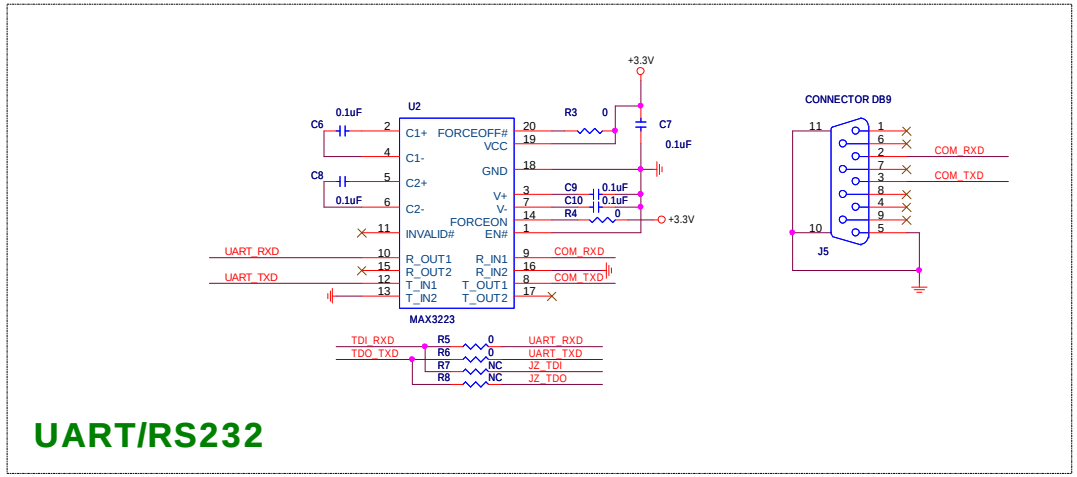

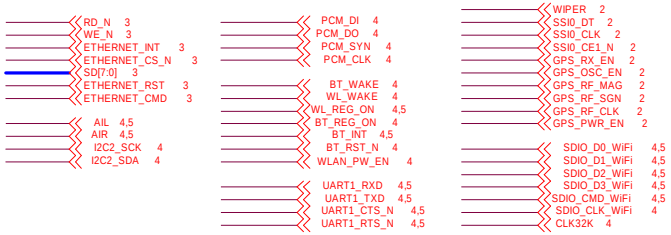

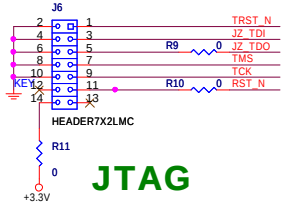

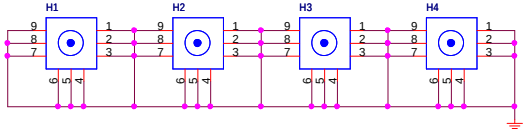

INGENIC SEMICONDUCTOR CO.,LTD		
Title: RD4780_GRUS_DEBUG		
Size: A3	Document Number: USB2.0_HOST/UART/JTAG	Rev: 1.1
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GPS RF Receiver core

Must be placed into RF shielding case

For good grounding, put 9 vias under RF IC die ground pad Pin25.

RF Microstrip
Z0= 50 ohm

RF interface

J7 To GPS Antenna.

ANTENNA CONNECTOR

U4 BGA715L7

B9444(1575MHz) SAW1 (EPCOS)

U3 HV5820/B-24QFN

Opreation Mode Description:

RX_EN	OSC_EN	Mode
0	0	All stand by
0	1	Oscillator only
1	0	Full active (external reference)
1	1	Full active (internal oscillator)

Y1 16.367667MHz TCXO 0.5ppm

Digital IF Frequency: 4.092MHz

5820:Default
5820B:R195&R196&R197 NC,R192&R193&R194 0R,R186&R187&R188 10K

GPS Power

U5 SGM2019-3.3YN5G/TR

BAT-V

GRVDD 3.3V

GPS_PWR_EN

TP2

WIPER 1
SSI0_DT 1
SSI0_CLK 1
SSI0_CE1_N 1
GPS_RX_EN 1
GPS_OSC_EN 1
GPS_RF_MAG 1
GPS_RF_SGN 1
GPS_RF_CLK 1
GPS_PWR_EN 1

Title	RD4780_GRUS_DEBUG
Size B	Document Number GPS
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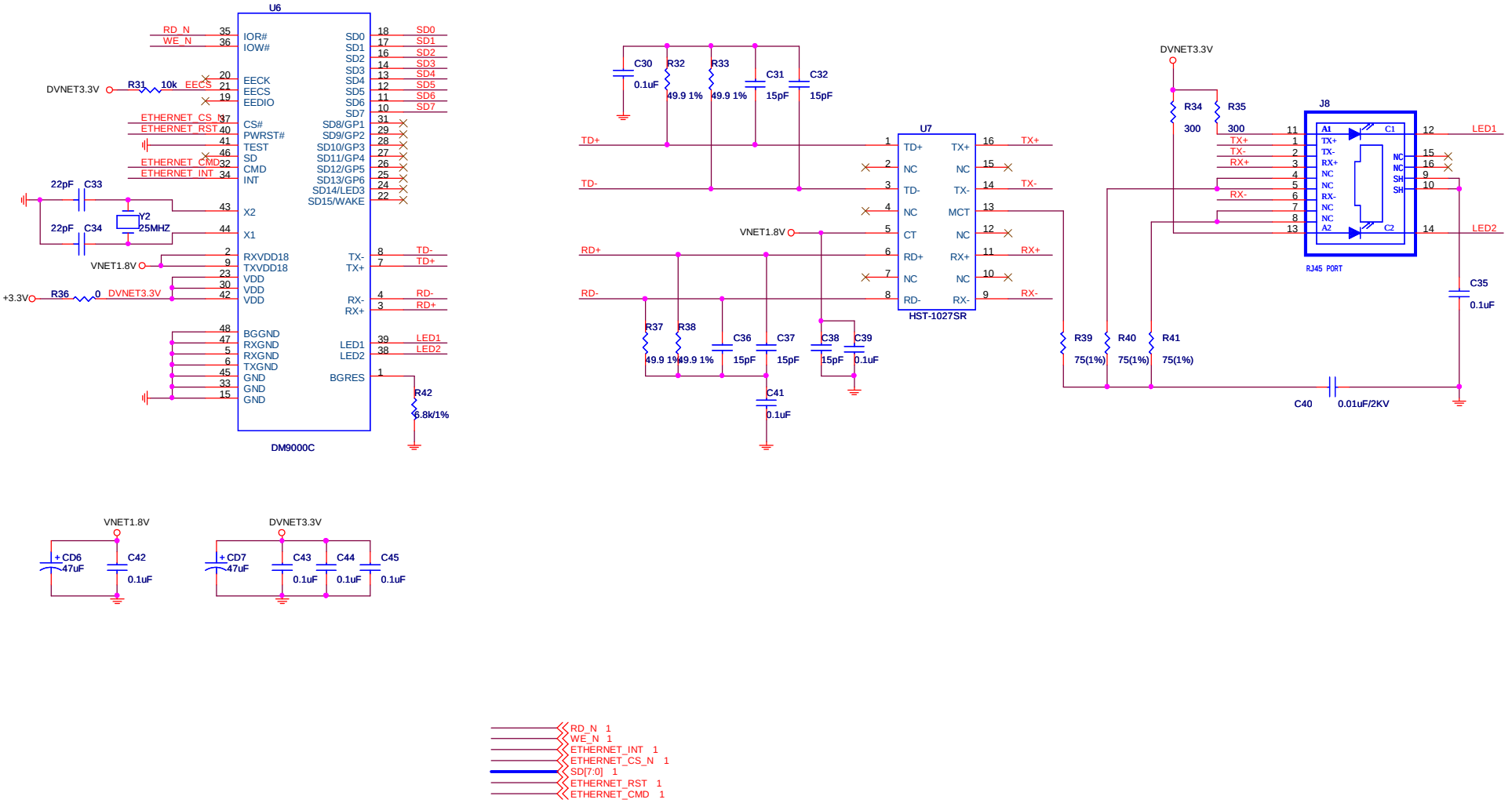
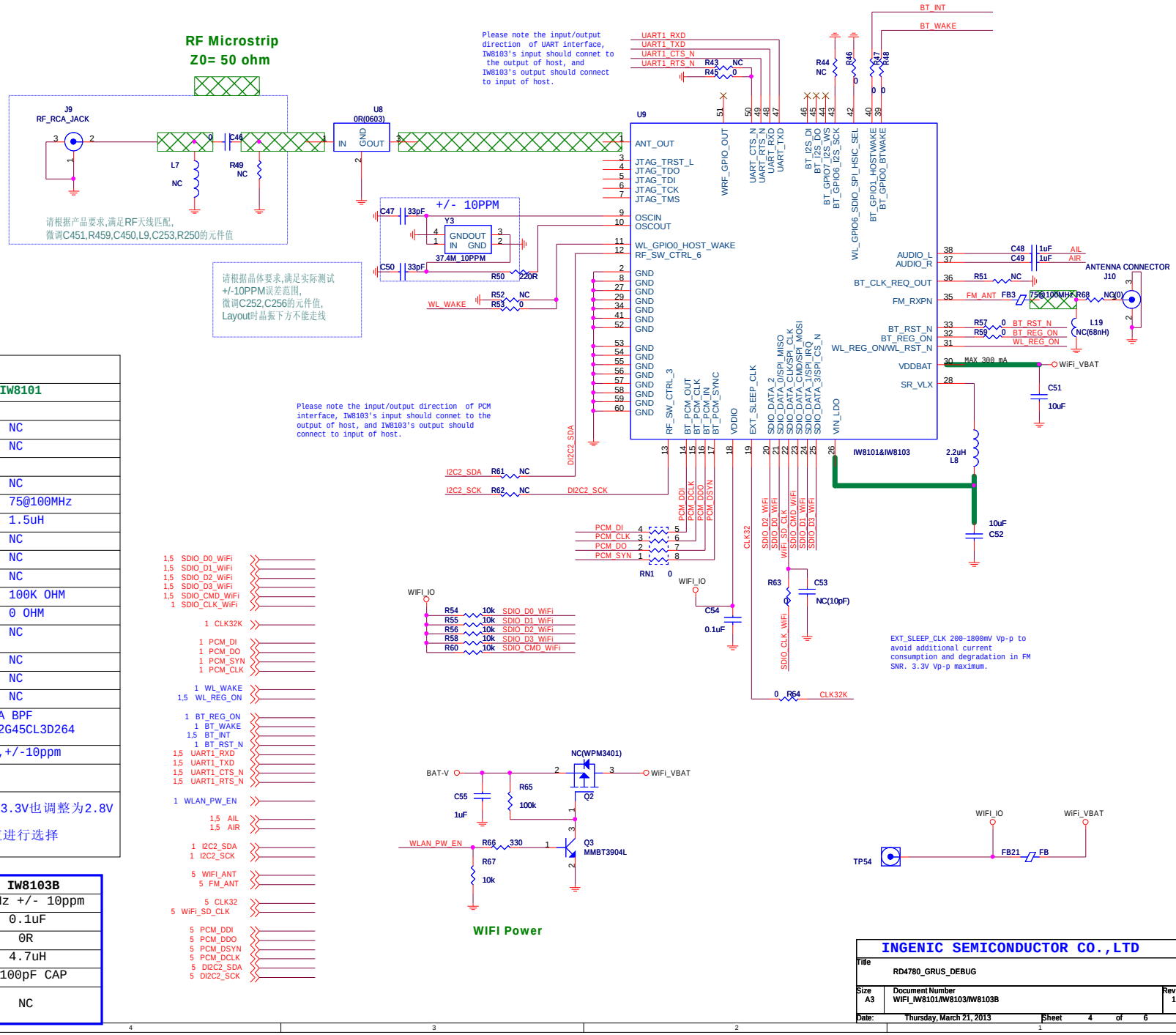


INGENIC SEMICONDUCTOR CO.,LTD			
Title: RD4780_GRUS_DEBUG			
Size: B	Document Number: ETHERNET		Rev: 1.1
Date: Thursday, March 21, 2013	Sheet 3 of 6		



Component select in IW8101 & IW8103

Part Number	IW8103	IW8101
	value	
C48,C49	1uF	NC
C55	1uF	NC
FB3	75@100MHz	NC
FB21	NC	75@100MHz
L8	2.2uH	1.5uH
Q2	MI3401	NC
Q3	MMBT3904L	NC
RN1	0 OHM	NC
R45	NC	100K OHM
R52,R44	NC	0 OHM
R43,R47,R48, R53,R57,R59	0 OHM	NC
R65	100K OHM	NC
R67	10K OHM	NC
R66	330 OHM	NC
U8	0 OHM	MURATA BPF LFB182G45CL3D264
Y3	37.4MHz,+/-10ppm	26MHz,+/-10ppm

备注

使用IW8103，WIFI_IO电压调整为2.8V,同时系统的3.3V也调整为2.8V

清单内无标识的物料为共用料，请按原理图标识值进行选择

器件编号	IW8103	IW8103B
Y3	37.4MHz +/- 10ppm	26MHz +/- 10ppm
C48 C49	1uF	0.1uF
R61, R62	NC	0R
L8	2.2uH	4.7uH
FB3	75@100MHz Bead	100pF CAP
R46, R48	0R	NC

INGENIC SEMICONDUCTOR CO.,LTD

Title: RD4780_GRUS_DEBUG

Size: A3 | Document Number: WIFI_IW8101/IW8103/IW8103B | Rev: 1.1

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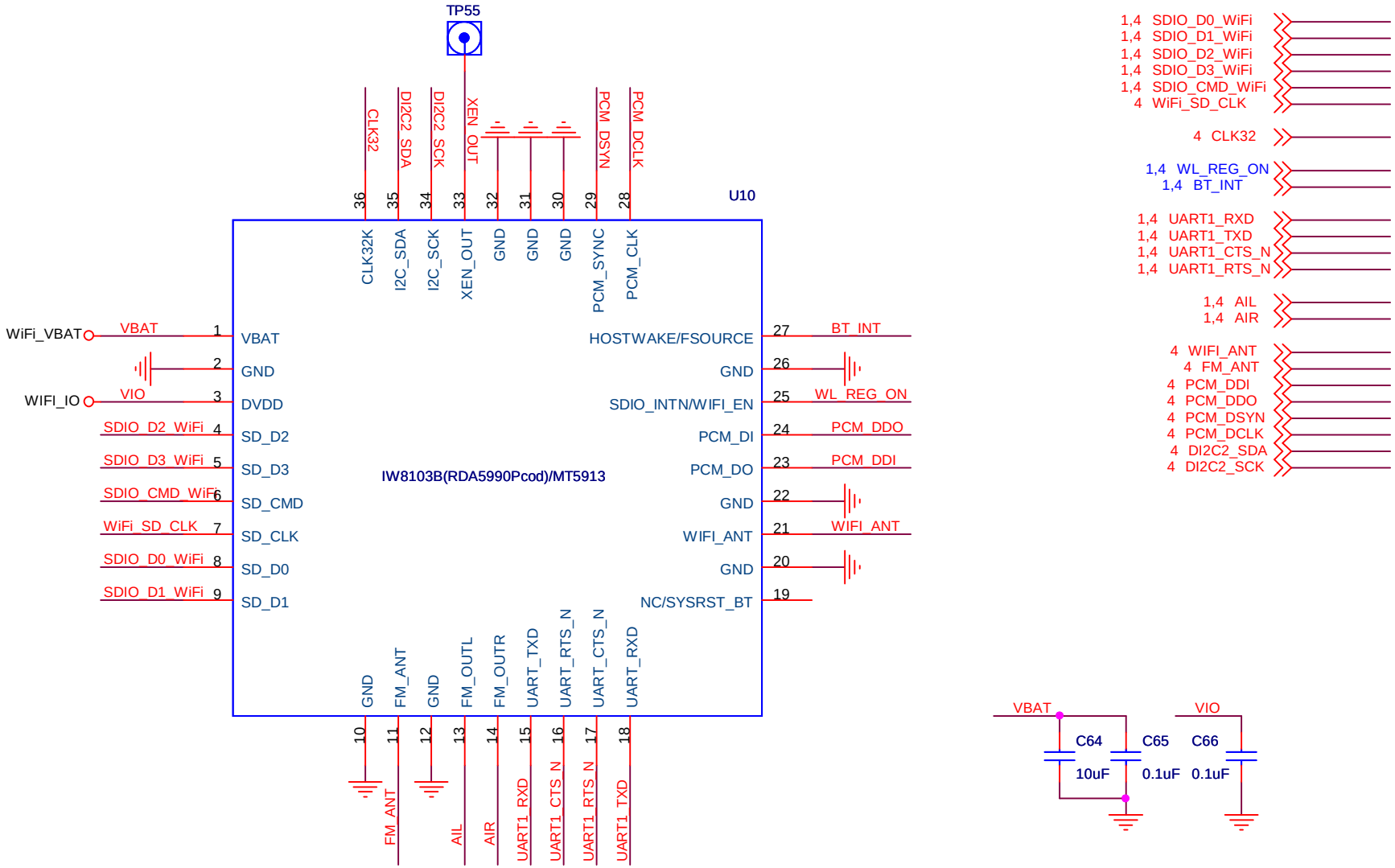

INGENIC SEMICONDUCTOR CO.,LTD		
Title: RD4780_GRUS_DEBUG		
Size: A	Document Number: WIFI_IW8103B/MT5913	Rev: 1.1
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Data	Revision	Change
Sep 25 2012	Rev1.0	1. First released Revision
Mar 21 2013	Rev1.1	1. Change the net ETHERNET_CMD from pin26 to pin29 on PAGE01 2. Change R43 to NC and R45 to 0 ohm on PAGE04

INGENIC SEMICONDUCTOR CO.,LTD		
Title: RD4780_GRUS_DEBUG		
Size: B	Document Number: REVISION_HISTORY	Rev: 1.1
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