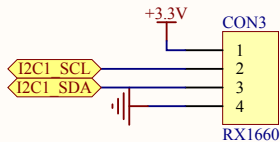


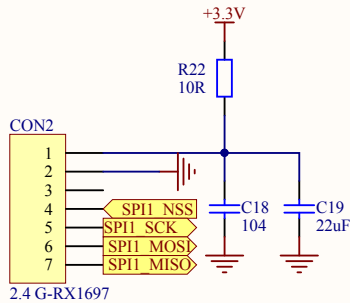
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**Spin Master DongGuan Technical
Consultancy Servicing Co. Ltd**

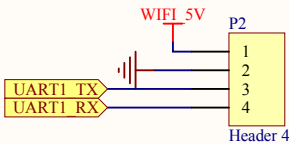
Revision R06



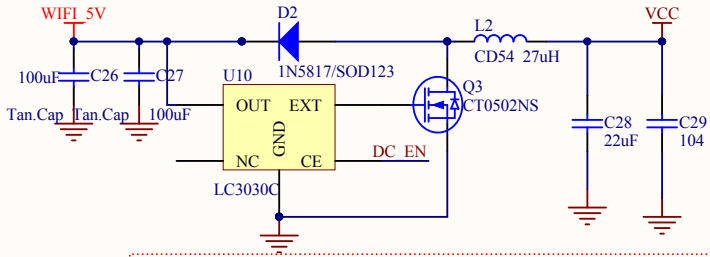
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2.4g RF module

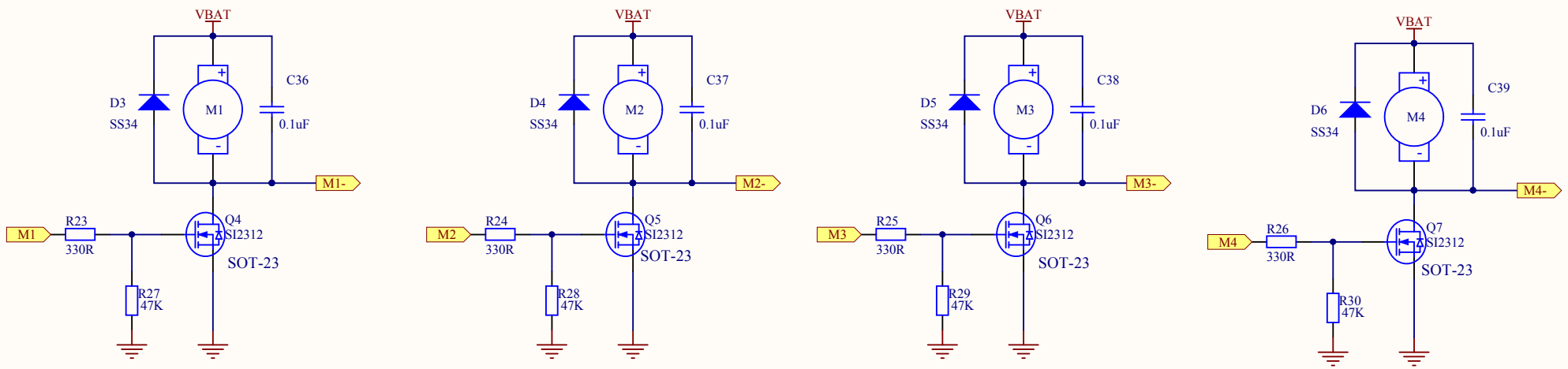


WIFI Power

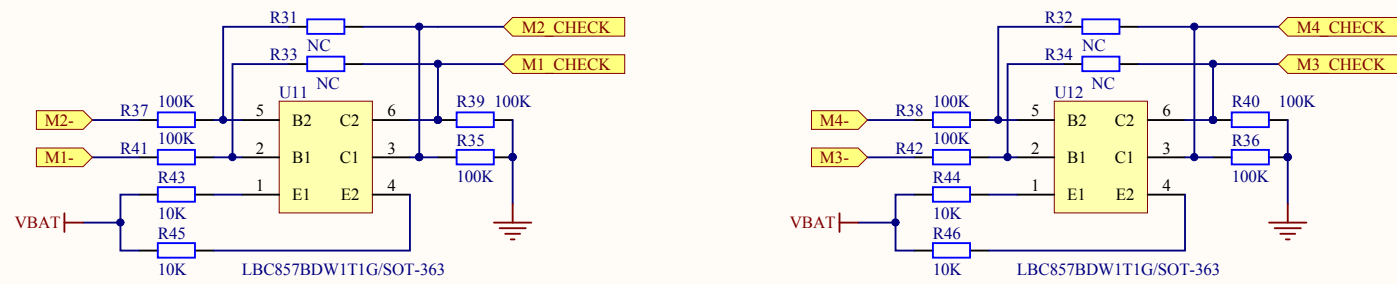


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Spin Master DongGuan Technical Consultancy Servicing Co. Ltd

Drawing By: Owen Lu	Date: 2016-3-19	Title: Helix Sentinel RX		
Checked By:	Date:	Model NO. #44578		
Approved By:	Date:	Size	Sheet 2 of 4	Revision R06



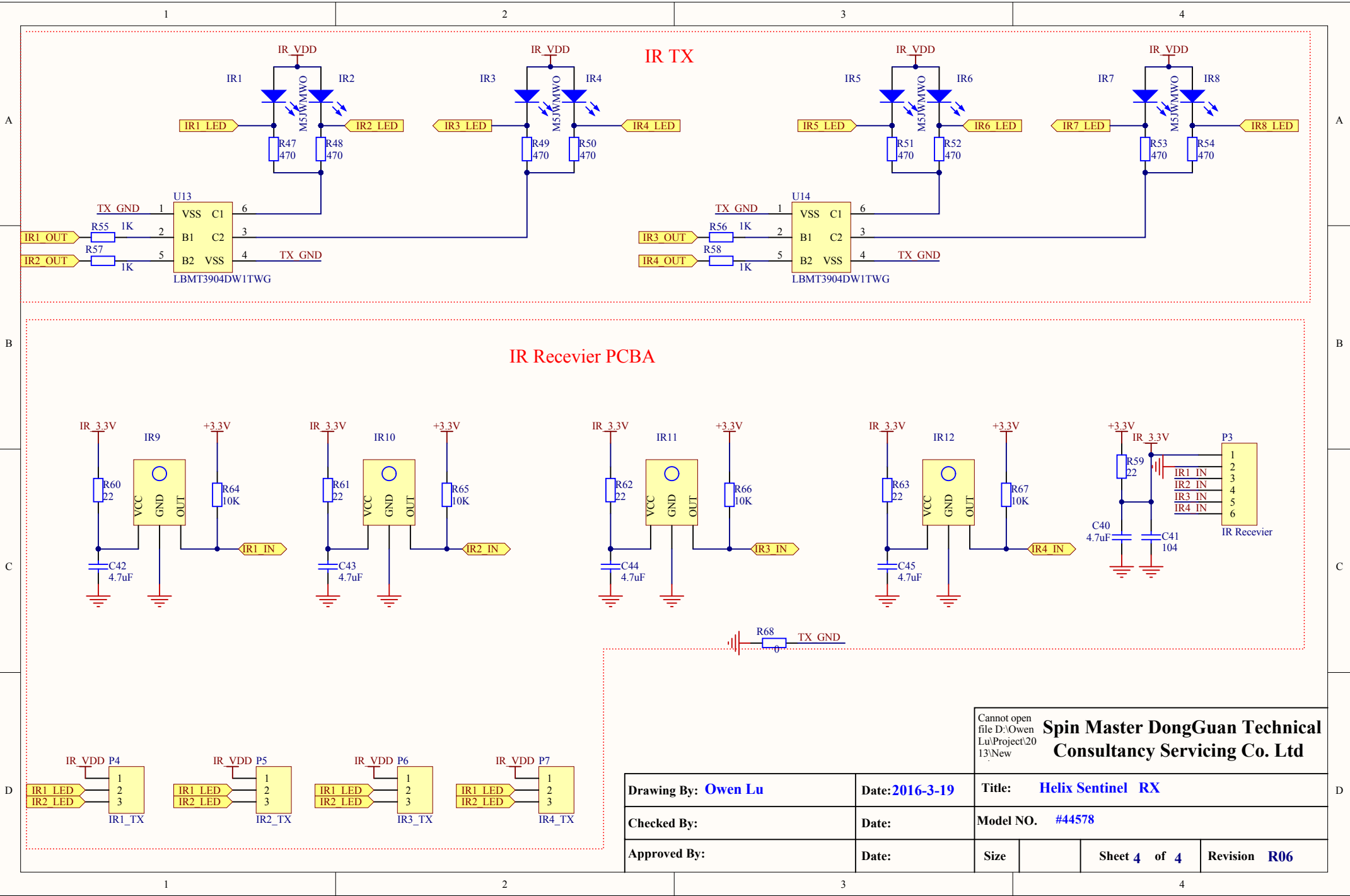
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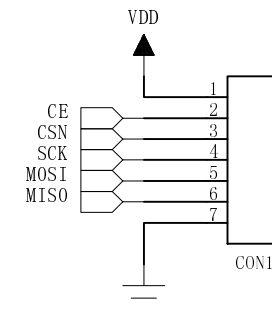
Stall protection

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Spin Master DongGuan Technical Consultancy Servicing Co. Ltd

Drawing By: Owen Lu	Date:2016-3-19	Title: Helix Sentinel RX		
Checked By:	Date:	Model NO. #44578		
Approved By:	Date:	Size	Sheet 3 of 4	Revision R06

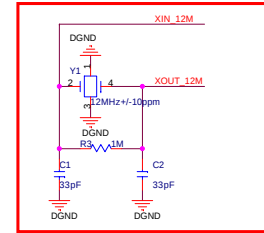
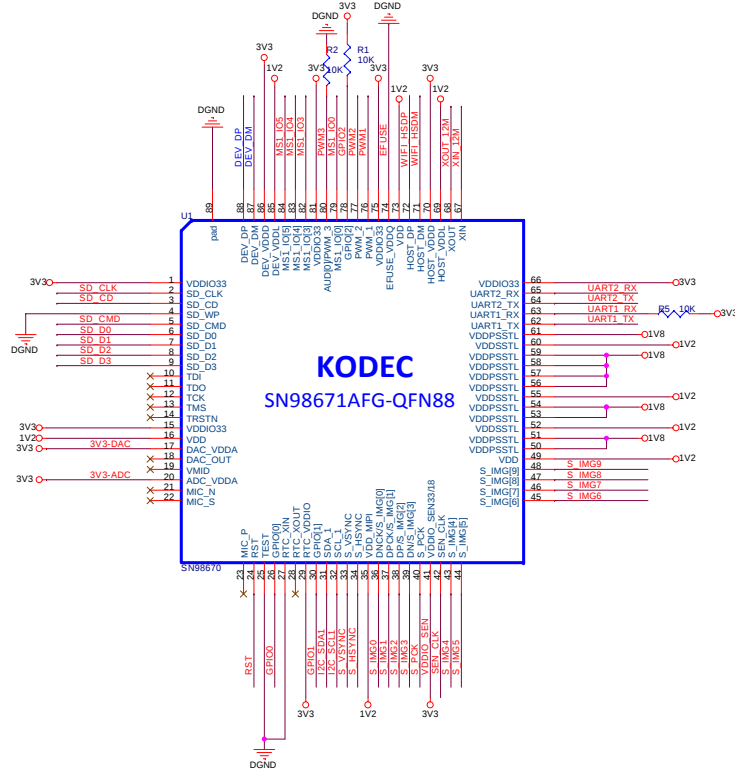
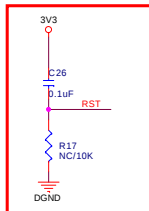
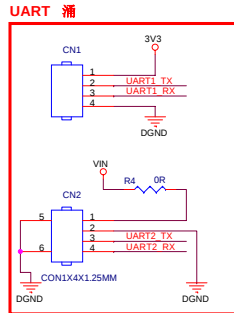
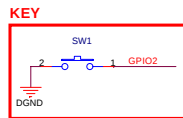
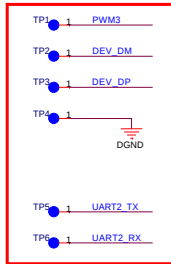
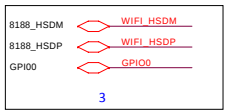
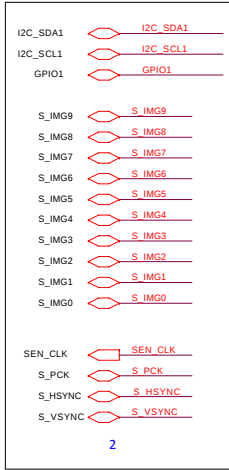


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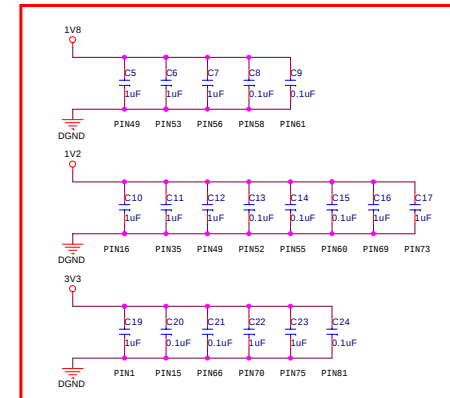


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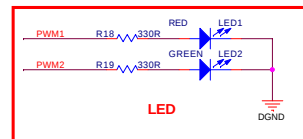
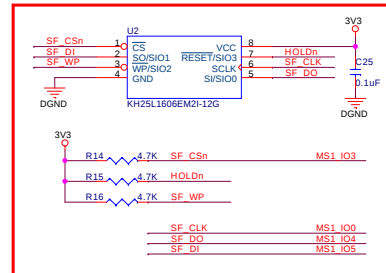
Wifi Portion



Close to IC

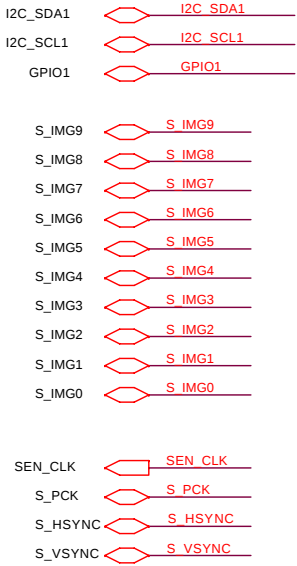
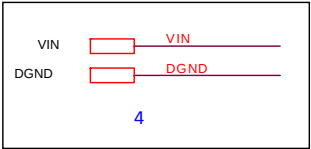


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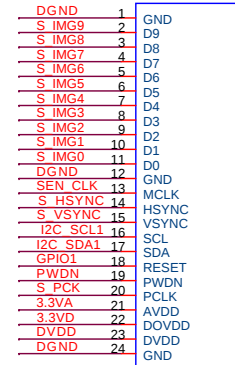
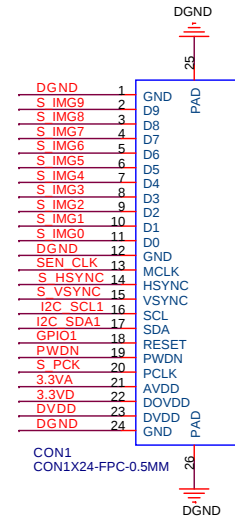
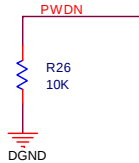
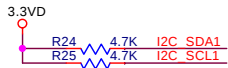
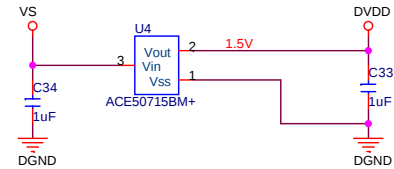
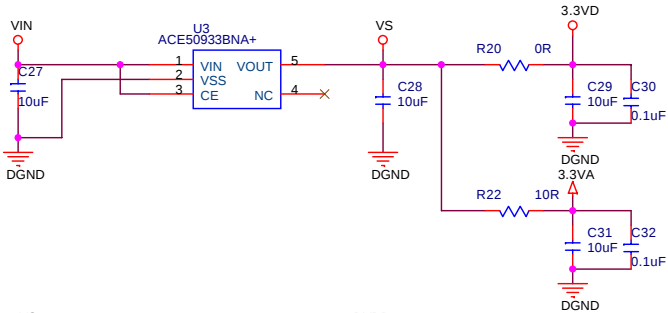


SN98670 IO口说明			
脚 序号	I/O 口	说 明	默认
26	GPIO0	WiFi电源控制	H:Enable L:Disable
30	GPIO1	Sensor Reset	
78	GPIO2	系统参数重置	H:Disable L:Enable
76	PWM1	系 持按键	H:Enable L:Disable
77	PWM2	系 持按键	H:Enable L:Disable
80	PWM3	0 0	
79	MS1_IO0	SF_CLK	
82	MS1_IO3	SF_CSn	
83	MS1_IO4	SF_DO	
84	MS1_IO5	SF_DI	

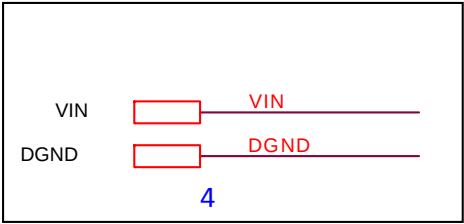
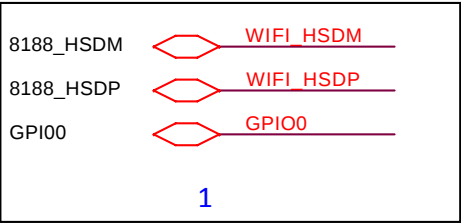
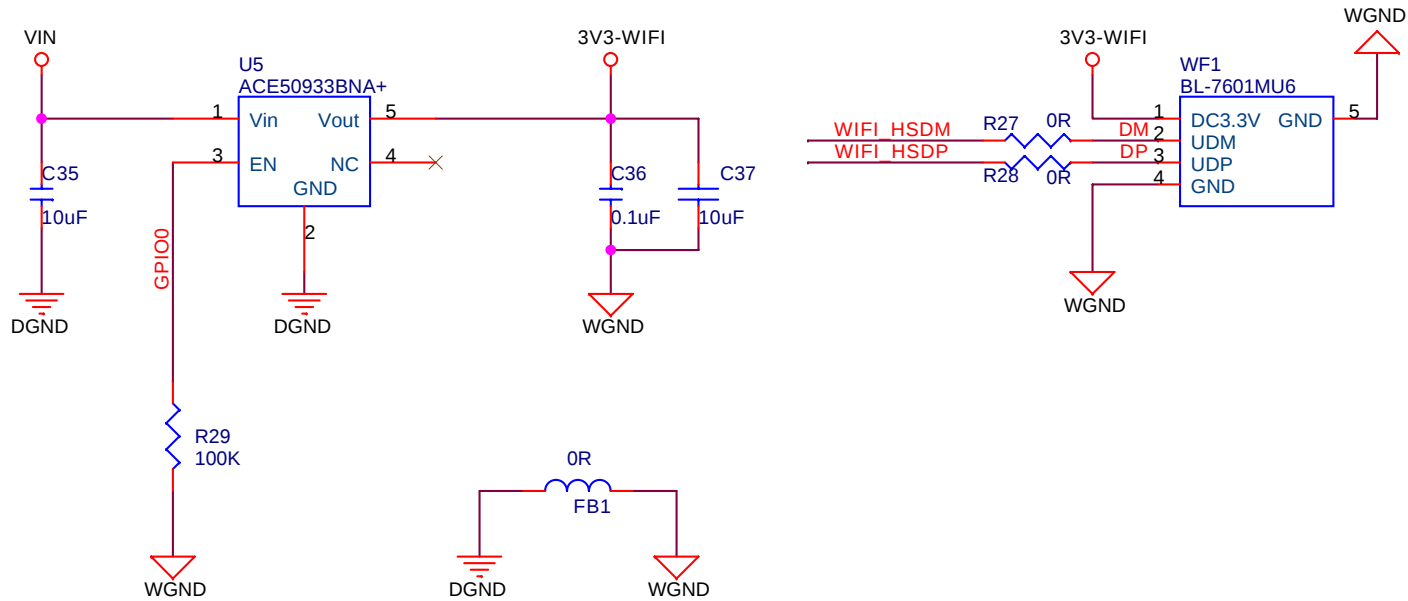
Wifi Portion



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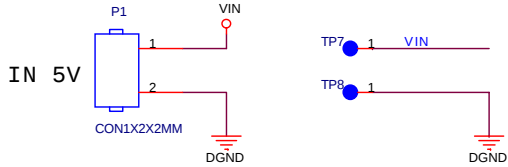
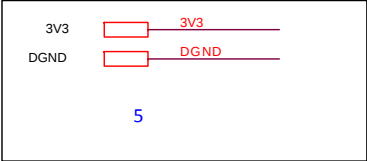
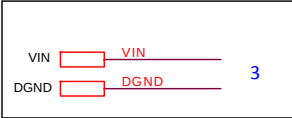
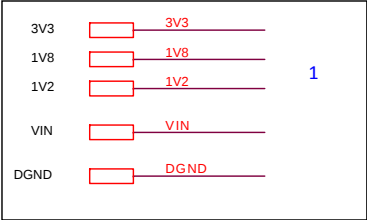


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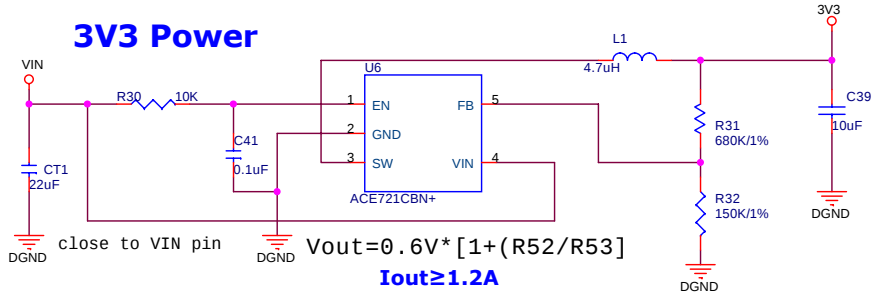


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Date:	Tuesday, May 24, 2016	Sheet 3 of 5

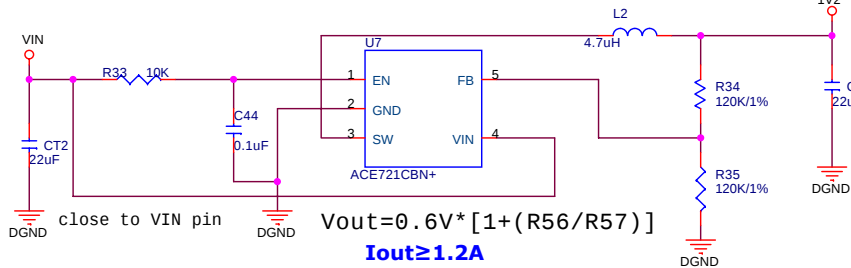
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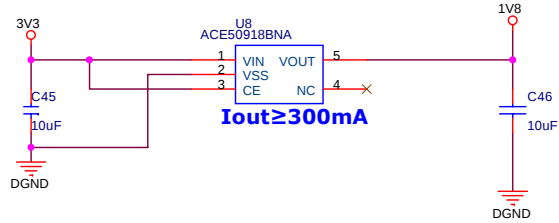
3V3 Power



1V2 Power

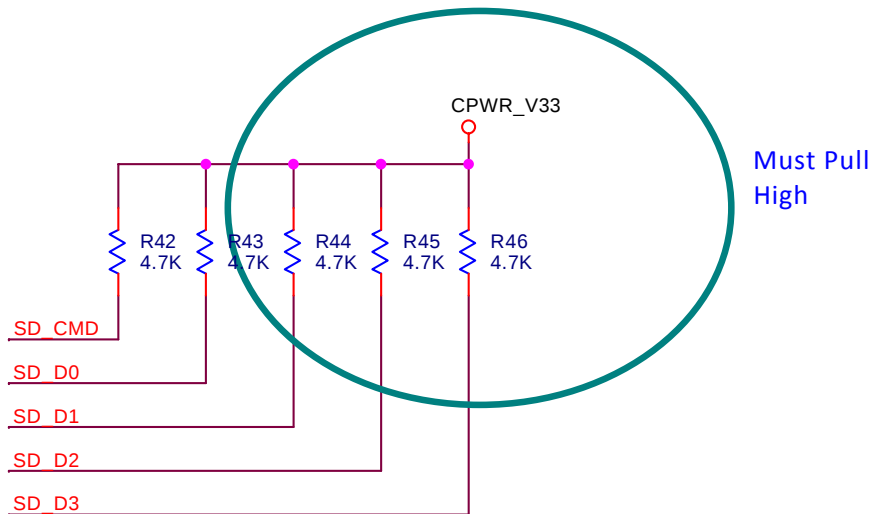
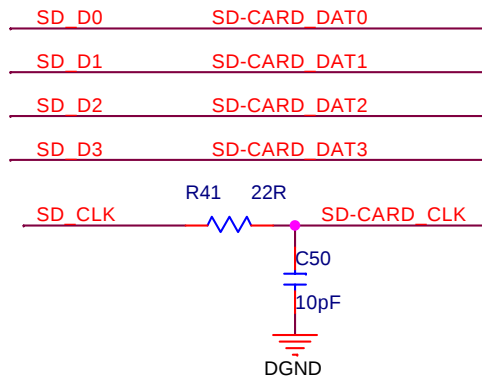
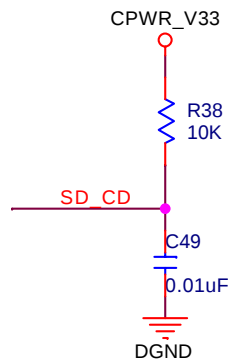
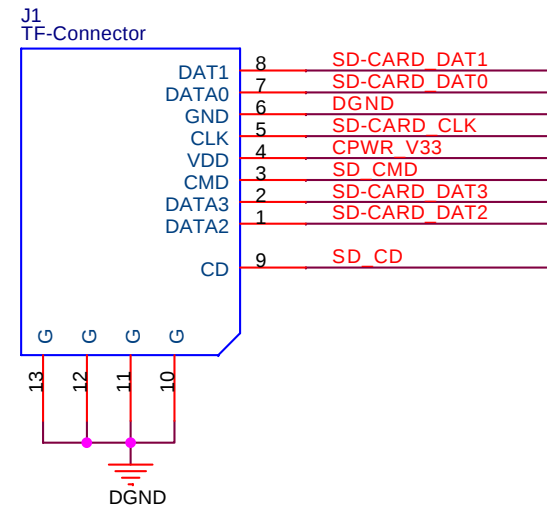
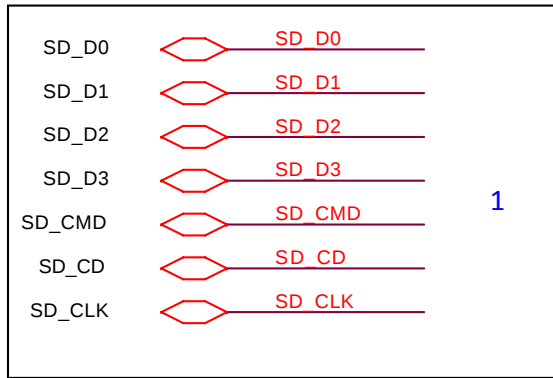
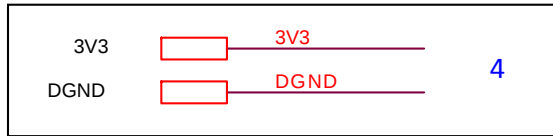


1V8 Power



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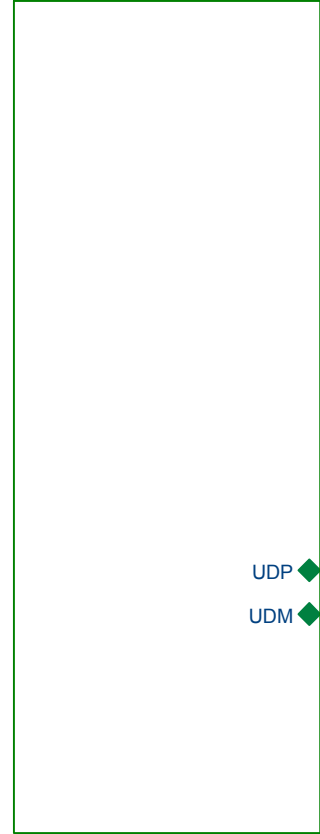
Wifi Portion



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Date:	Tuesday, May 24, 2016	Sheet 5 of 5

Wifi Portion

3-USB



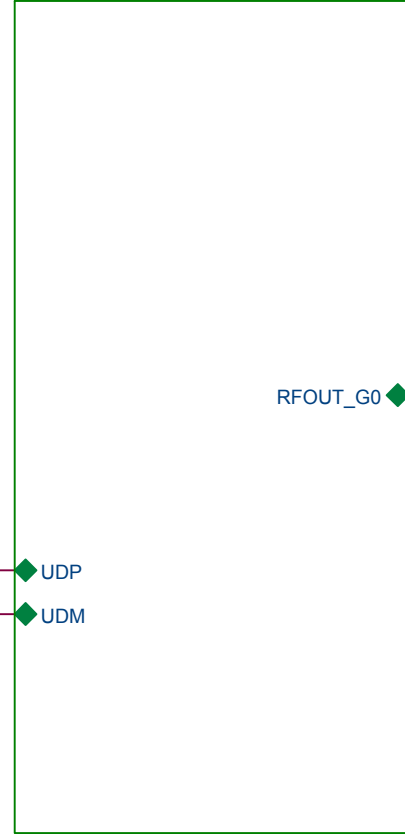
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4-BLOCK-1X1-24G



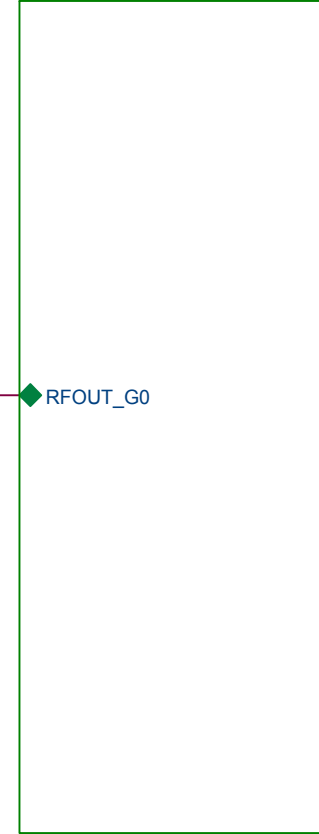
4-BLOCK-1X1-24G

2-MT7601-WLAN



2-MT7601-WLAN

1-FrontEnd



1-FrontEnd



Filename :

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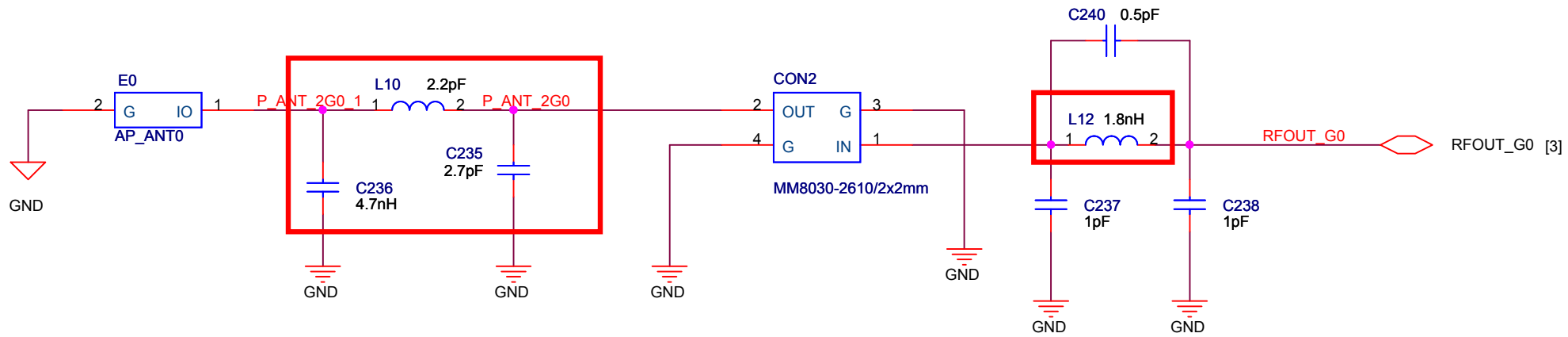
MediaTek Inc.

No.1, Dusing Rd. 1, Hsinchu Science Park
Hsinchu, Taiwan 300, R.O.C.

TEL: +886-3-567-0766
Fax: +886-3-578-7610

	Title PEN-MT7601U			
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	Date:	Friday, March 22, 2013	Sheet 1 of	5

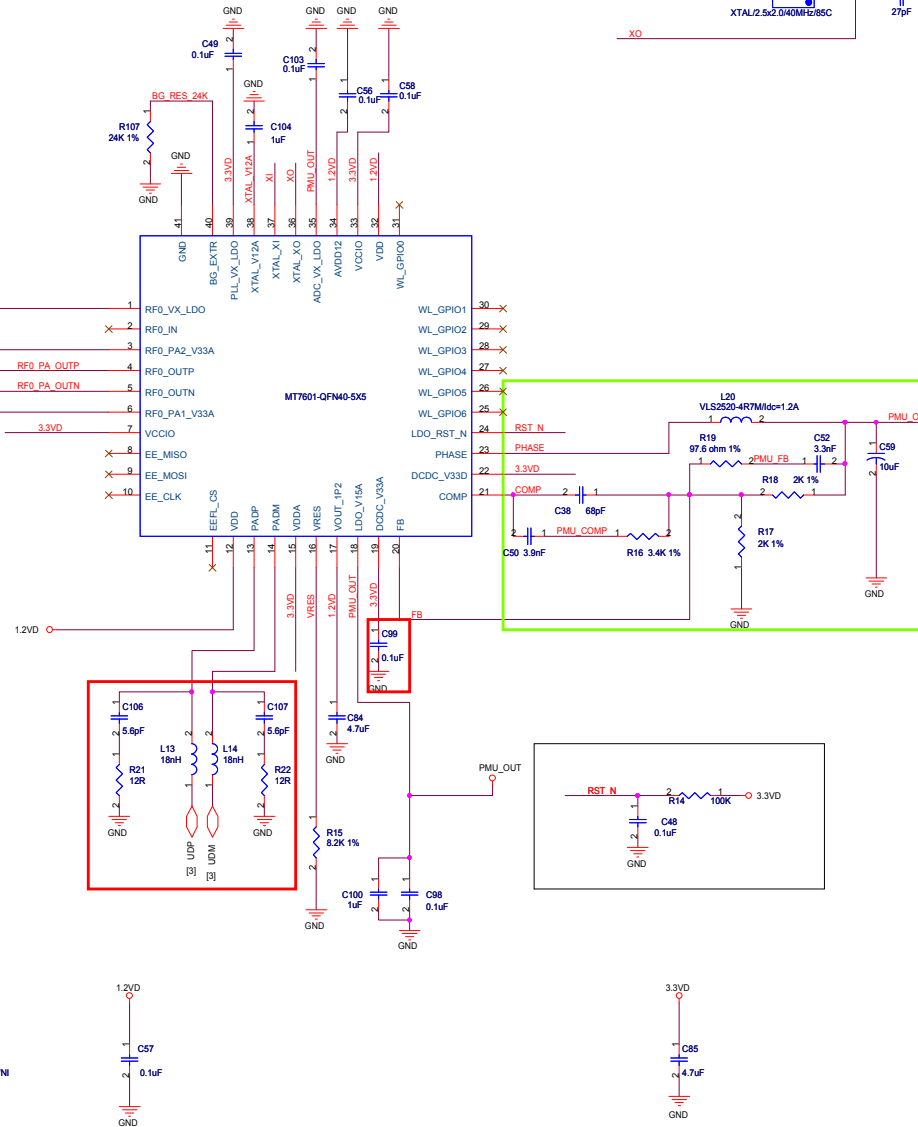
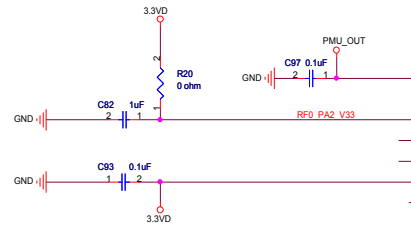
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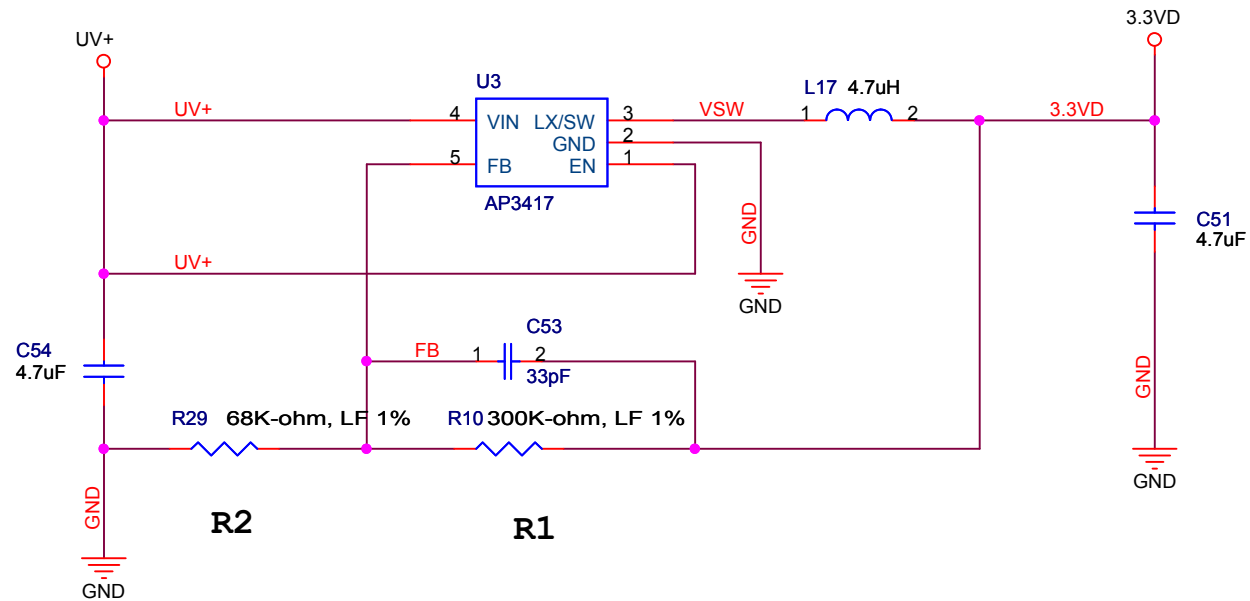
MediaTek Inc.		<i>No.1, Dusing Rd. 1, Hsinchu Science Park Hsinchu,Taiwan 300, R.O.C.</i>		<i>TEL:+886-3-567-0766 Fax:+886-3-578-7610</i>	
	Title				
	Mini MT7601U				
	Size A	Document Number 1-Front_End.SCH		Drawn <i>Alex</i>	Rev 3.2
Date:		Friday, March 22, 2013		Sheet 2 of 5	

The diagram shows an RF circuit for part matching. It starts with a differential input labeled [2] RFOUT_G0, which is connected to a balun (L11, 2.7nH). The balun's secondary is connected to a matching network consisting of a series capacitor C96 (1.2pF) and a shunt inductor L9 (2.7nH) to GND. This network is followed by a differential pair of transistors (C101, 1.2pF/NM). The gates of the transistors are connected to a common-mode feedback network consisting of a series capacitor C95 (22pF) and a shunt capacitor C102 (22pF) to GND. The drains of the transistors are connected to a common-mode feedback network consisting of a series capacitor C105 (1.2pF) and a shunt capacitor C215 (1pF) to GND. The output of the circuit is a differential signal labeled RF0_PA_OUTP and RF0_PA_OUTN.



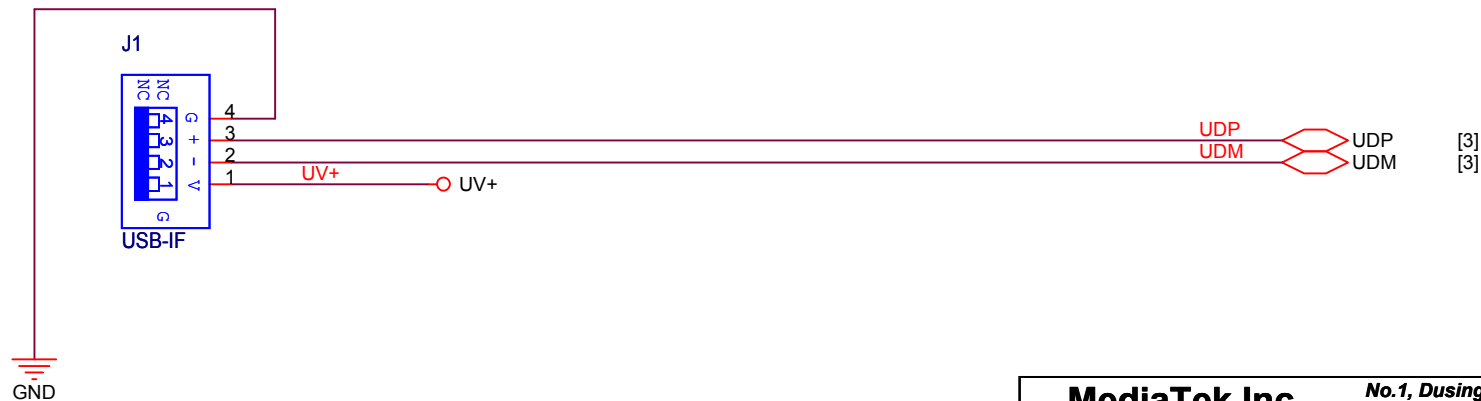
EE_MISO	0 : 40MHz Xtal 1 : 20MHz Xtal
WL_GPIO4	0 : E-fuse 1 : EEPROM
WL_GPIO6 EE_CLK EE_MOSI	USB Mode 001:Normal Boot from ROM 010:Normal Boot from Serial Flash 011:Normal Boot from Serial EEPROM 100:SPI mode Boot from RAM 101: Scan mode + bypass PLL 110: Test mode 111: Test mode + bypass PLL

Wifi Portion



$$V_o = 0.6 * (1 + R_1/R_2) = 0.6 * (1 + 300K/68K) = 3.3V$$

Step-Down Regulator, $V_{fb}=0.6V$, 1A, 1.8MHz, ADJ, LF



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	MT7601U				
	Size A	Document Number 3-USB.SCH	Drawn <i>Alex</i>	Rev 3.2	
Date:		Fridav. March 22, 2013	Sheet	4	of 5