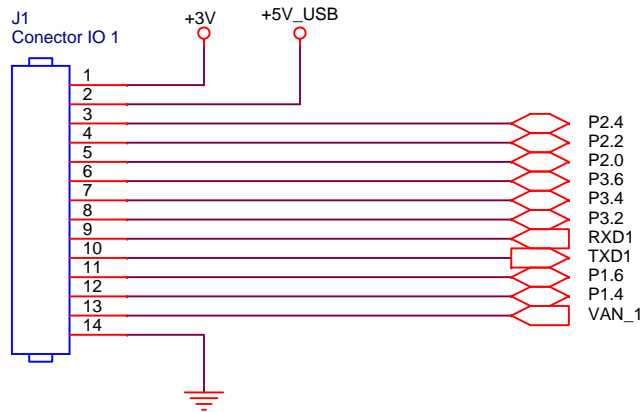
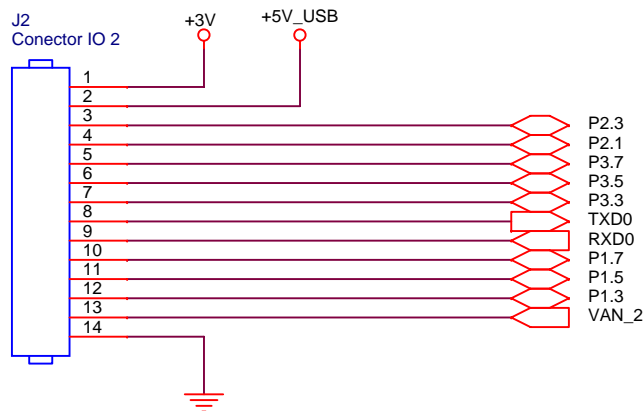
 <b># Project THETA #</b> SIM900 Breakout Board designed by jechavarria ( <a href="http://www.jechavarria.com">www.jechavarria.com</a> )		
<b>Size</b> A4	<b>Document Number</b> TH_1305_01	<b>Rev</b> 1.0
<b>Date:</b> Monday, September 30, 2013		
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### J1 Connector

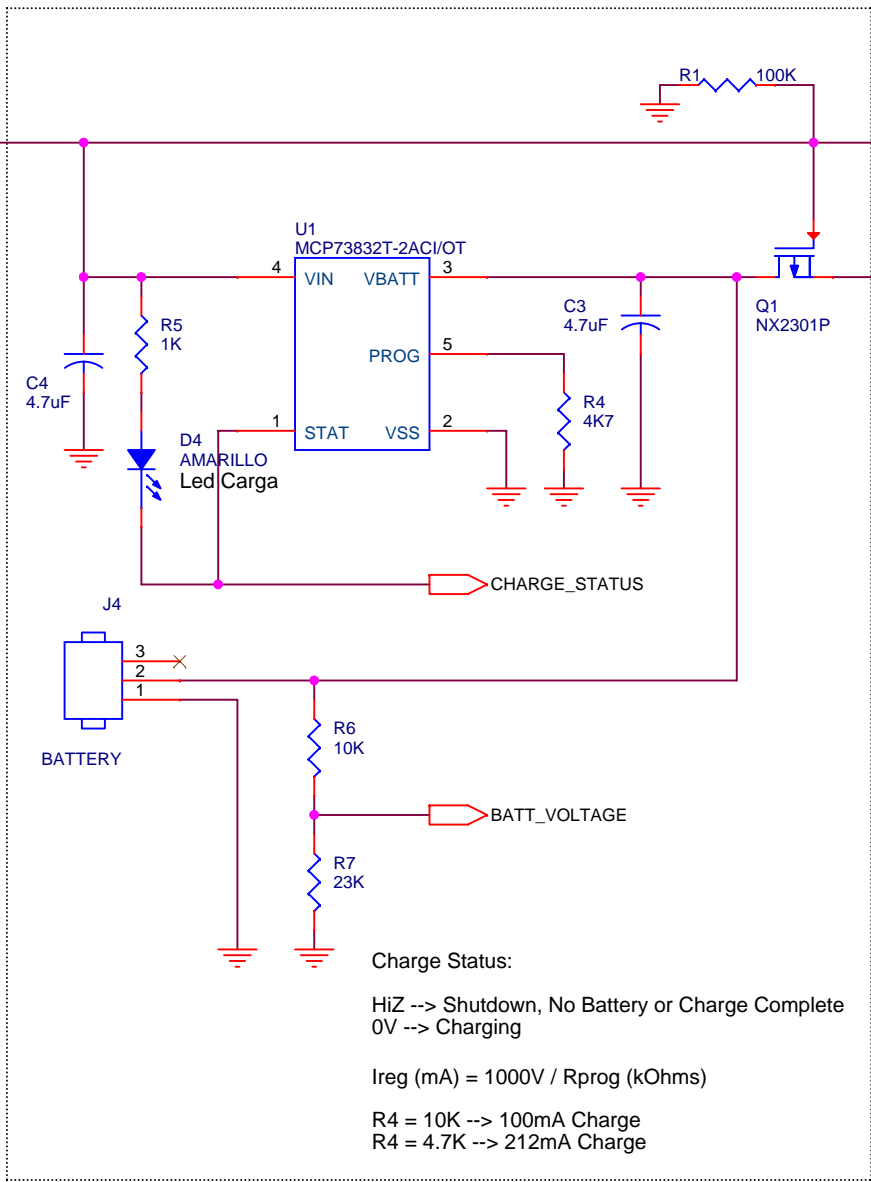
Pin	Signal	Type	Description
1	+3V	P	+3V Power Supply generated in the board (max.300mA)
2	+5V_USB	P	+5V External Power Supply
3	P2.4	I/O	Not Used
4	P2.2	I/O	Not Used
5	P2.0	I/O	Not Used
6	INFO_NETLIGHT	O	Netlight Signal from SIM900 module (3.0V)
7	ST2_VEXT	O	Status_2 of +5V_EXT Power Supply
8	RI_UC	O	RI Signal from SIM900 module (3.0V)
9	RXD1	O	RXD Signal from SIM900 module (3.0V)
10	TXD1	I	TXD to the SIM900 module (3.0V)
11	RST_IN	I	Reset signal to the SIM900 module (3.0V)
12	P1.4	I/O	Not Used
13	BATT_VOLTAGE	O	Analog Tension from Battery
14	GND	P	Ground



### J2 Connector

Pin	Signal	Type	Description
1	+3V	P	+3V Power Supply generated in the board (max.300mA)
2	+5V_USB	P	+5V External Power Supply
3	P2.3	I/O	Not Used
4	P2.1	I/O	Not Used
5	P3.7	I/O	Not Used
6	CHARGE_STATUS	O	Status of the Battery Charging
7	ST1_VEXT	O	Status_1 of +5V_EXT Power Supply
8	TXD0	I	Not Used
9	RXD0	O	Not Used
10	ON_OFF	I	ON/OFF Signal (PWRKEY) to the SIM900 module (3.0V)
11	INFO_STATUS	O	Status Signal from SIM900 module (3.0V)
12	DTR_UC	I	DTR Signal to the SIM900 module (3.0V)
13	STA_VEXT	O	Analog Tension from +5V_EXT power supply
14	GND	P	Ground

	<b># Project THETA #</b>		
	SIM900 Breakout Board designed by jechavarria ( <a href="http://www.jechavarria.com">www.jechavarria.com</a> )		
<b>Title</b>			
<b>IO Connectors</b>			
<b>Size</b>	<b>Document Number</b>	<b>Rev</b>	
A4	TH_1305_01	1.0	
<b>Date:</b>	<b>Monday, September 30, 2013</b>	<b>Sheet</b>	<b>2 of 6</b>

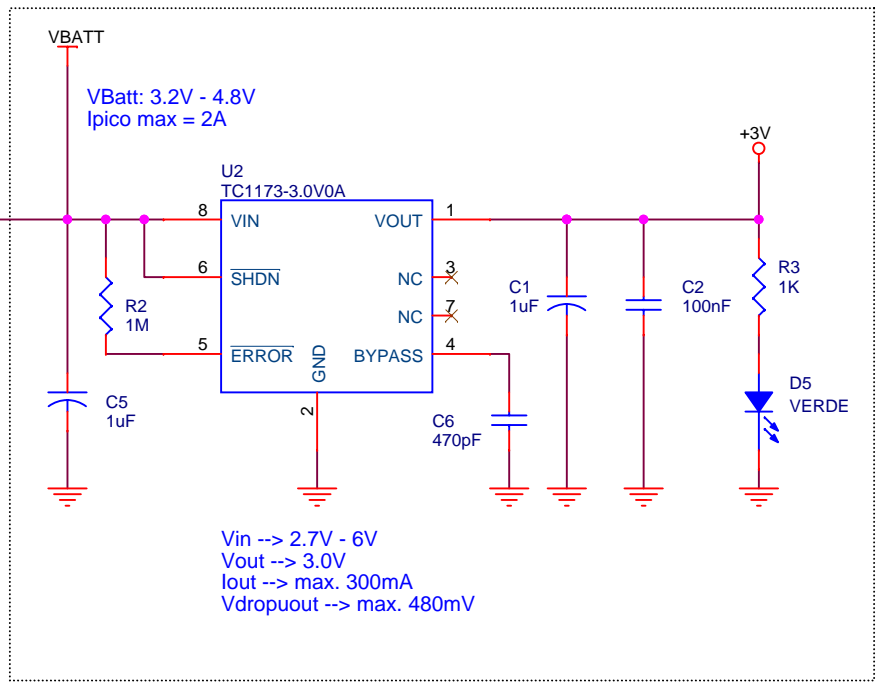


Battery Charger

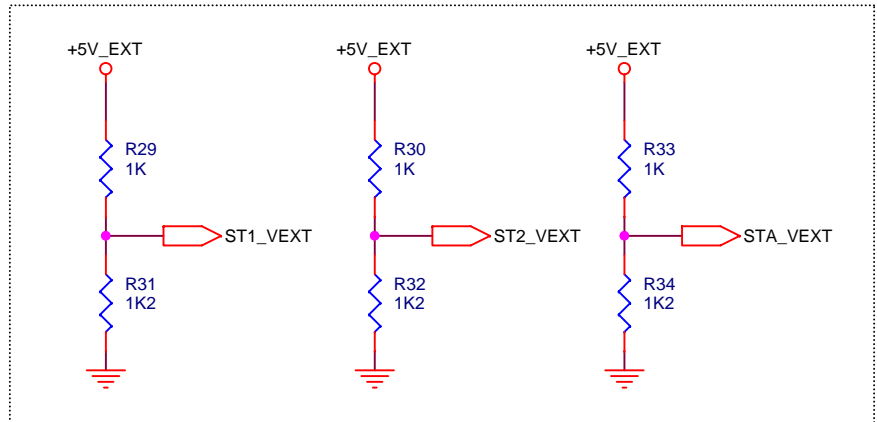
Charge Status:  
 HiZ --> Shutdown, No Battery or Charge Complete  
 0V --> Charging

$I_{reg} (mA) = 1000V / R_{prog} (k\Omega)$

R4 = 10K --> 100mA Charge  
 R4 = 4.7K --> 212mA Charge

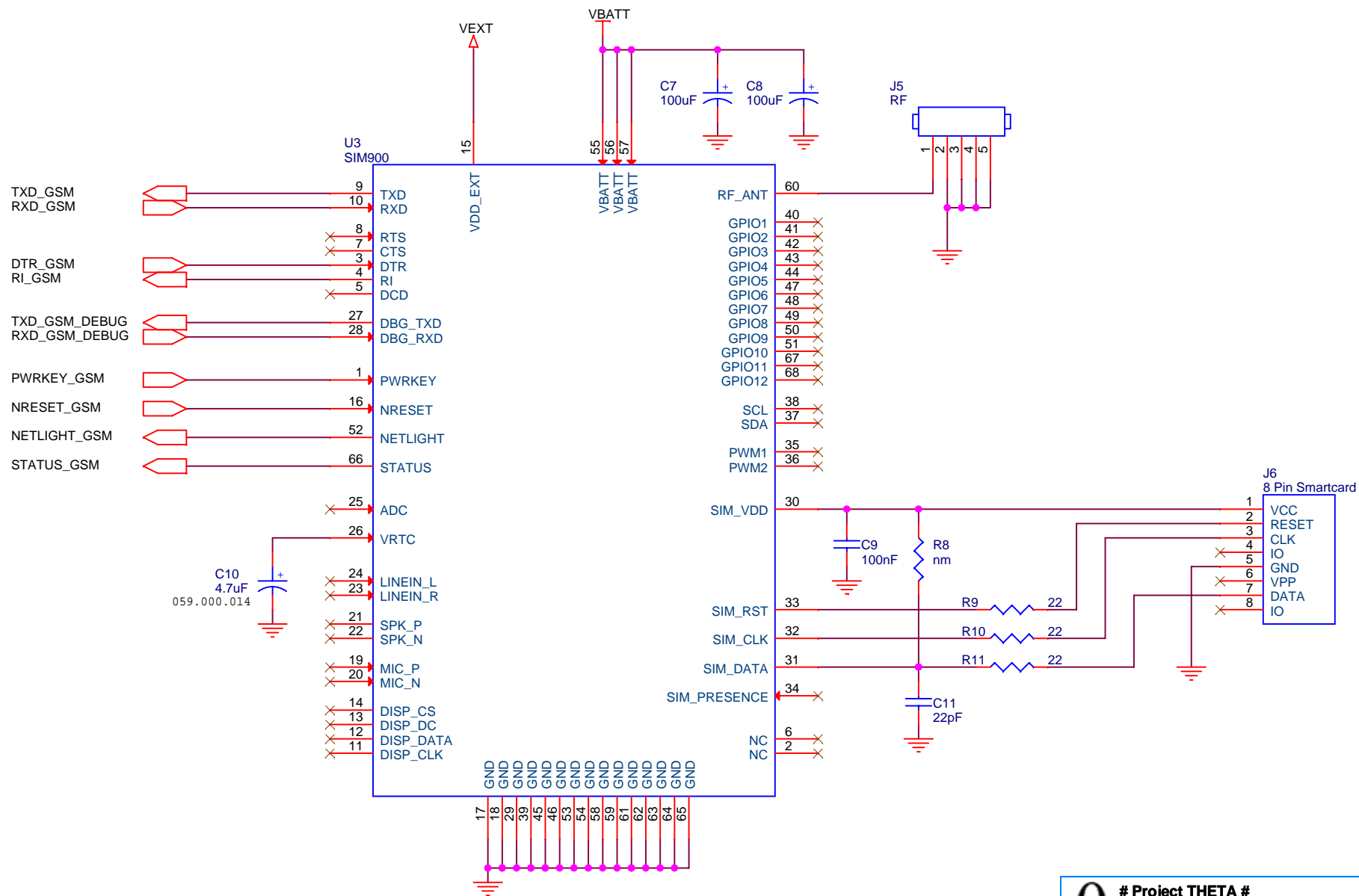



+3.0V LDO Regulator

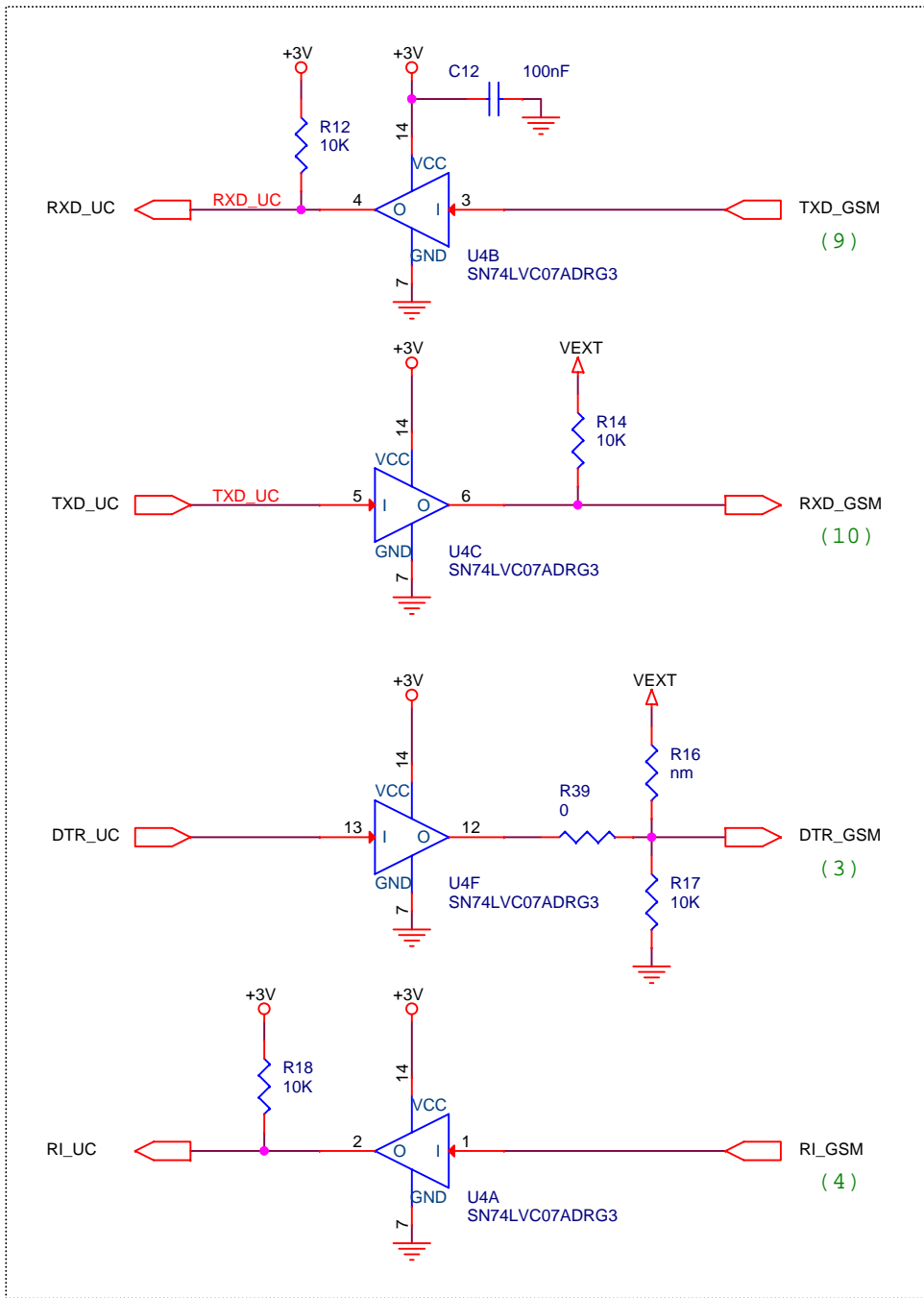


Supervision +5V EXT

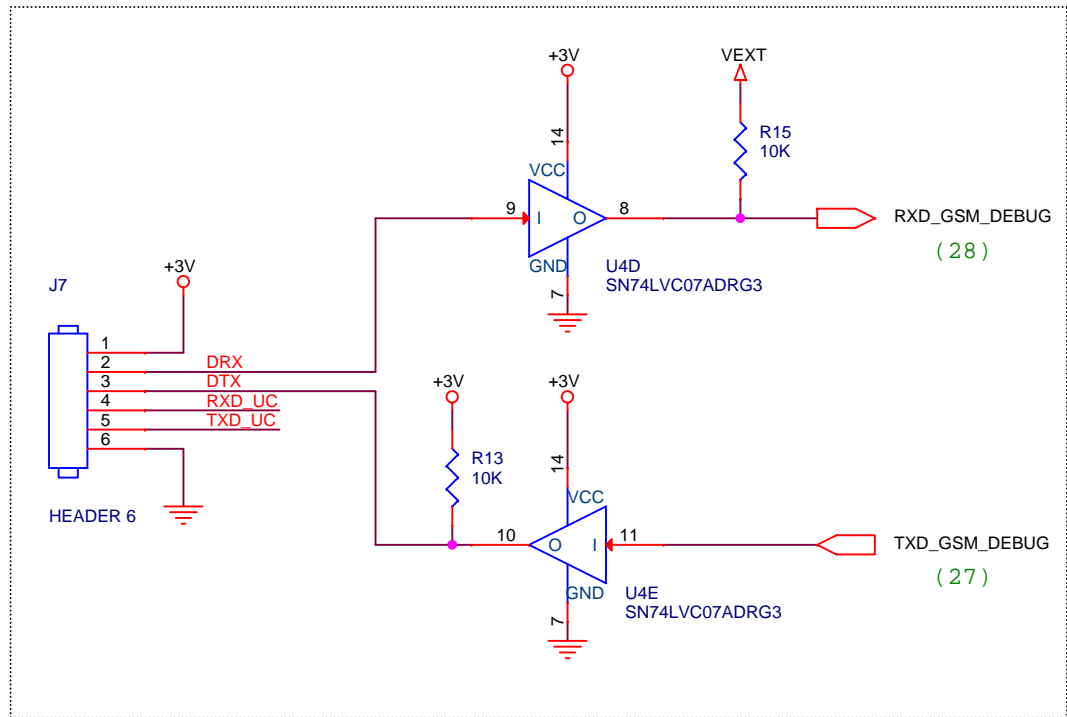
	<b># Project THETA #</b>	
	SIM900 Breakout Board designed by jechavarria ( <a href="http://www.jechavarria.com">www.jechavarria.com</a> )	
Title <b>Power Supply and Battery Charger</b>		
Size <b>A4</b>	Document Number <b>TH_1305_01</b>	Rev <b>1.0</b>
Date: <b>Monday, September 30, 2013</b>	Sheet <b>3</b>	of <b>6</b>




 <b># Project THETA #</b> SIM900 Breakout Board designed by jechavarria (www.jechavarria.com)		
<b>Title</b> <b>SIM900 GSM Module</b>		
<b>Size</b> A4	<b>Document Number</b> TH_1305_01	<b>Rev</b> 1.0
<b>Date:</b> Monday, September 30, 2013		
<b>Sheet</b> 4 <b>of</b> 6		

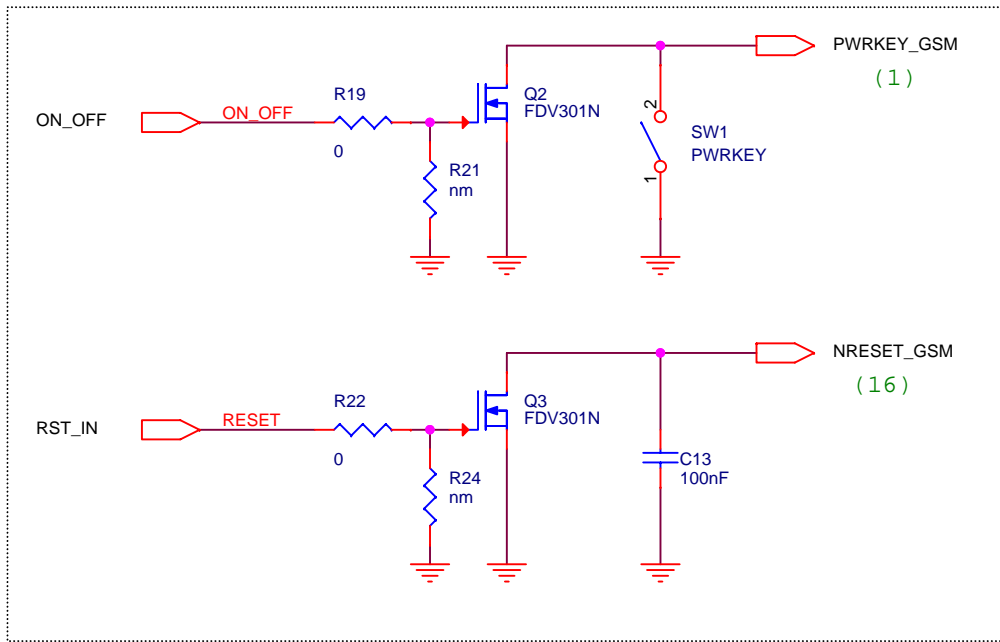


UART Level Translator @ 2,8V

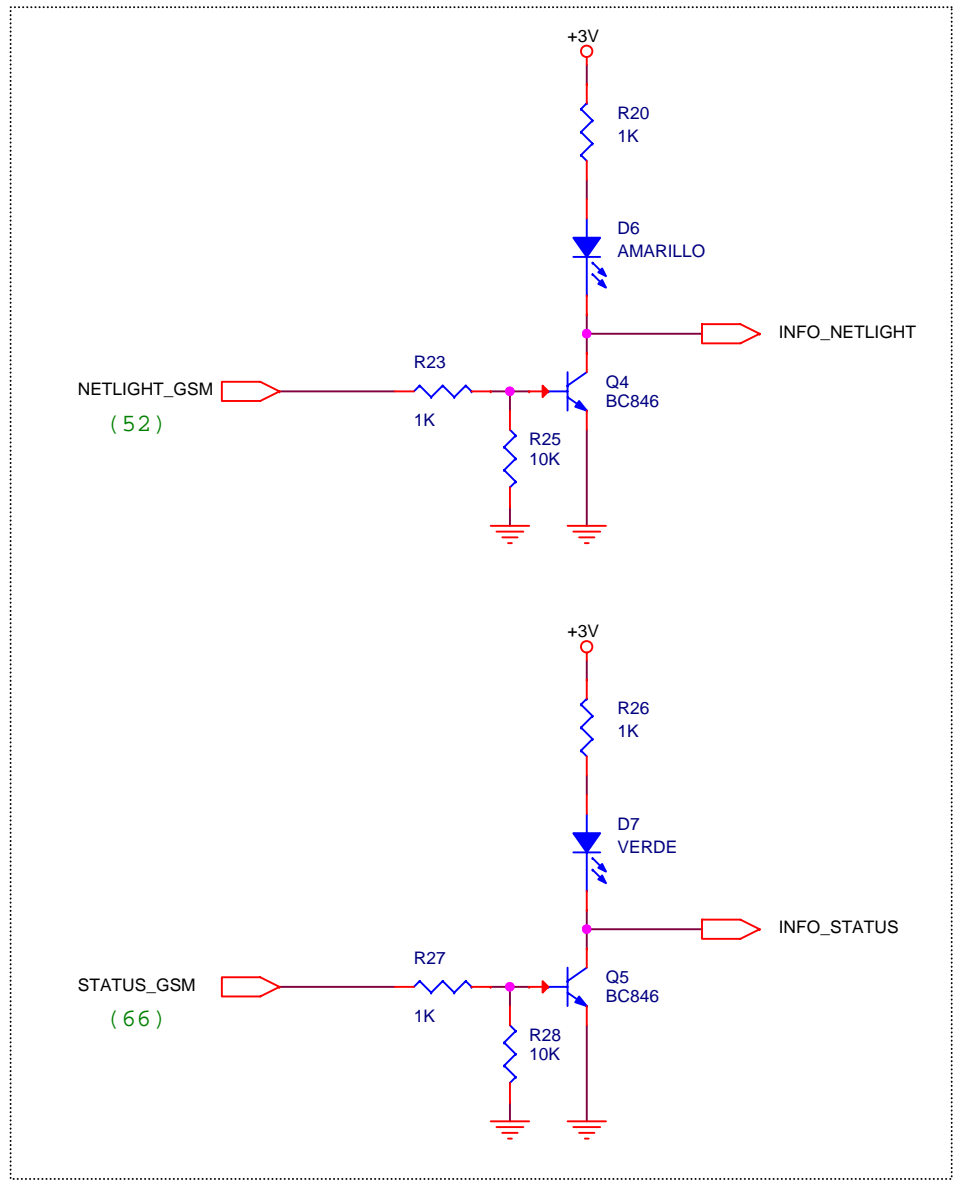


Debug UART Level Translator @ 2,8V

 <b># Project THETA #</b> SIM900 Breakout Board designed by jechavarria (www.jechavarria.com)		
<b>Title</b> Level Translator (2,8V) for Serial Ports		
<b>Size</b> A4	<b>Document Number</b> TH_1305_01	<b>Rev</b> 1.0
<b>Date:</b> Monday, September 30, 2013		
<b>Sheet</b> 5		<b>of</b> 6



Reset and ON/OFF Signals



Local Signaling (Led's)

	<b># Project THETA #</b>		
	SIM900 Breakout Board designed by jechavarria ( <a href="http://www.jechavarria.com">www.jechavarria.com</a> )		
Title			
<b>GSM Signaling</b>			
Size	Document Number		Rev
A4	TH_1305_01		1.0
Date:	Monday, September 30, 2013	Sheet	6 of 6