

Title Top Level	
Document Name Top Level.SchDoc	
Project Name Skateboard Remote Transceiver v1.1.PrjPCB	Sheet 1 of 6
Client Geo	Revision v1.1
Company Name CladLabs	Modified Date 7/1/2012
Drawn By Geoffrey Hunter	

A

A

B

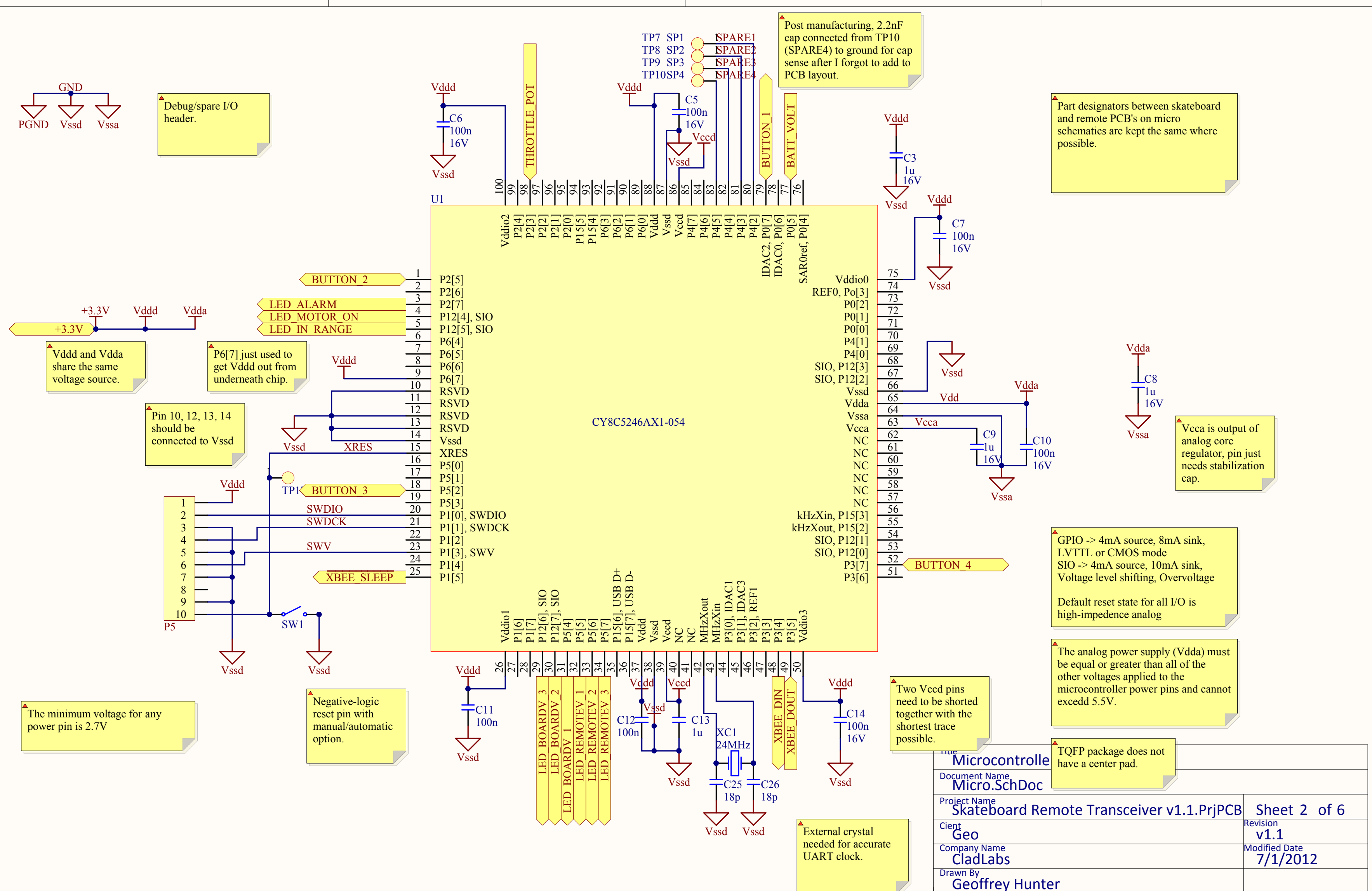
B

C

C

D

D



Debug/spare I/O header.

Post manufacturing, 2.2nF cap connected from TP10 (SPARE4) to ground for cap sense after I forgot to add to PCB layout.

Part designators between skateboard and remote PCB's on micro schematics are kept the same where possible.

Vdd and Vdda share the same voltage source.

P6[7] just used to get Vdd out from underneath chip.

Pin 10, 12, 13, 14 should be connected to Vssd

Vcca is output of analog core regulator, pin just needs stabilization cap.

GPIO -> 4mA source, 8mA sink, LVTTTL or CMOS mode
SIO -> 4mA source, 10mA sink, Voltage level shifting, Overvoltage
Default reset state for all I/O is high-impedance analog

The analog power supply (Vdda) must be equal or greater than all of the other voltages applied to the microcontroller power pins and cannot exceed 5.5V.

TQFP package does not have a center pad.

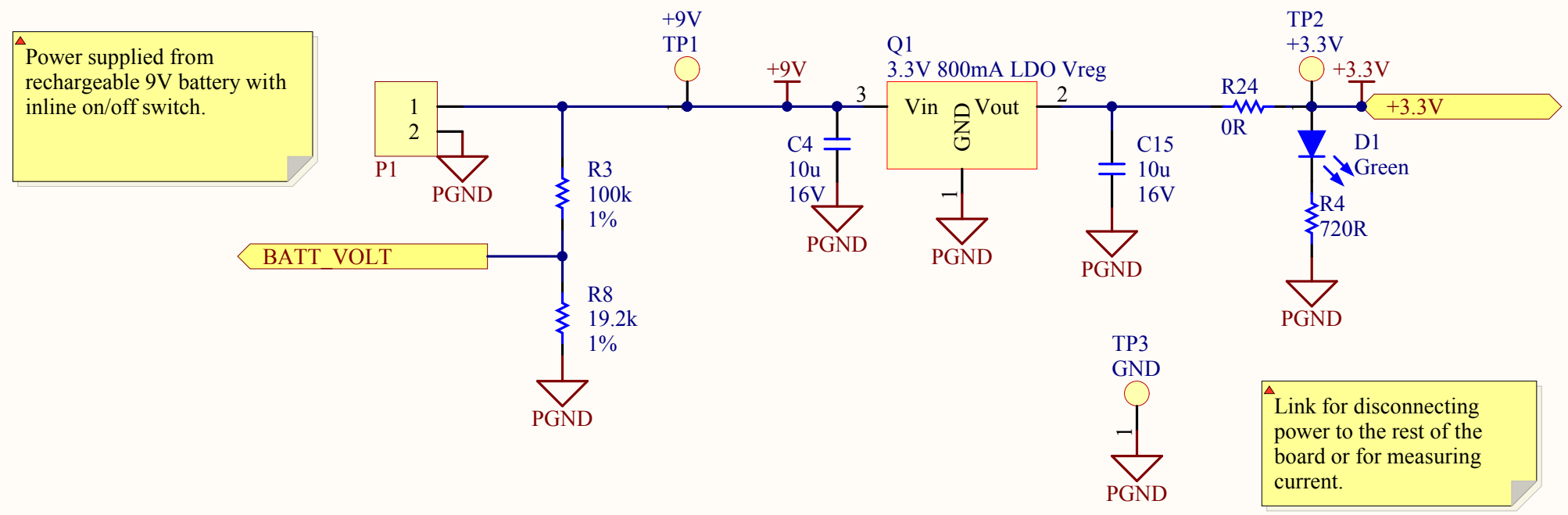
The minimum voltage for any power pin is 2.7V

Negative-logic reset pin with manual/automatic option.

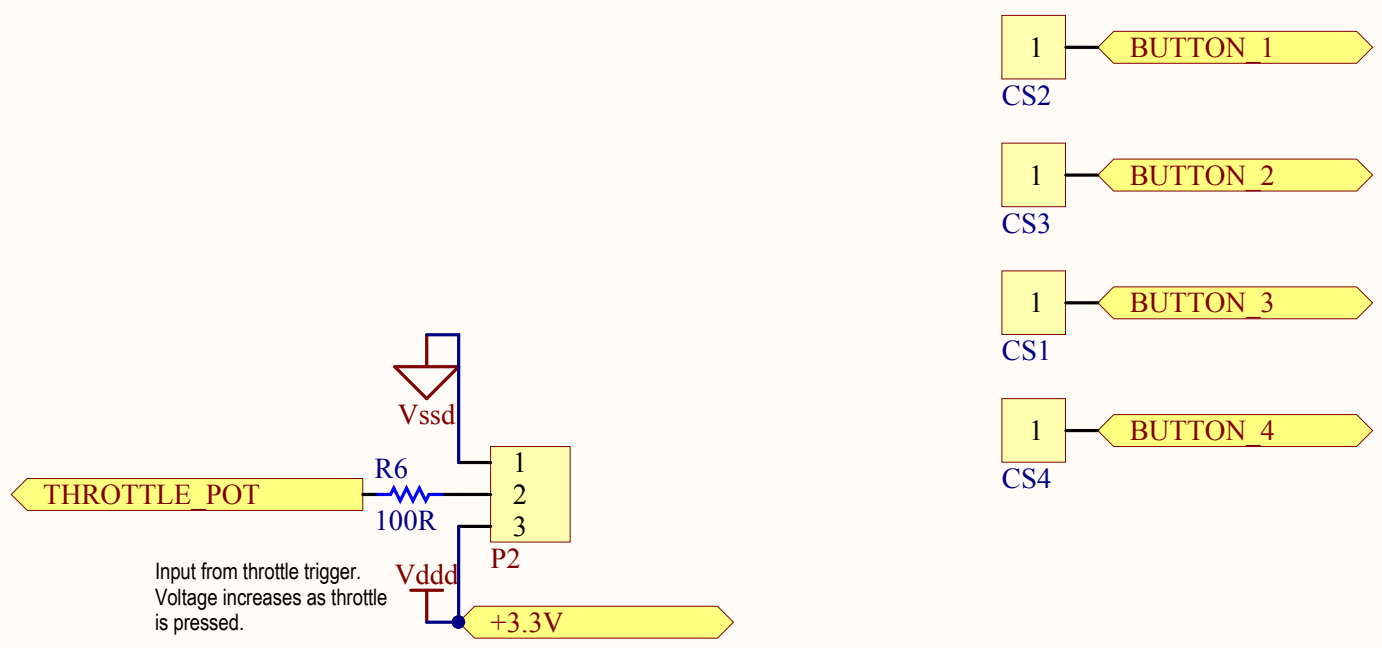
Two Vccd pins need to be shorted together with the shortest trace possible.

External crystal needed for accurate UART clock.

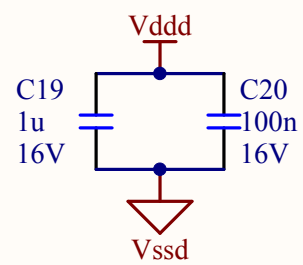
Microcontroller	
Document Name	Micro.SchDoc
Project Name	Skateboard Remote Transceiver v1.1.PrjPCB
Client	Geo
Company Name	CladLabs
Drawn By	Geoffrey Hunter
Revision	v1.1
Modified Date	7/1/2012
Sheet 2 of 6	



Title Power Supply	
Document Name PSU.SchDoc	
Project Name Skateboard Remote Transceiver v1.1.PrjPCB	Sheet 3 of 6
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Drawn By Geoffrey Hunter	

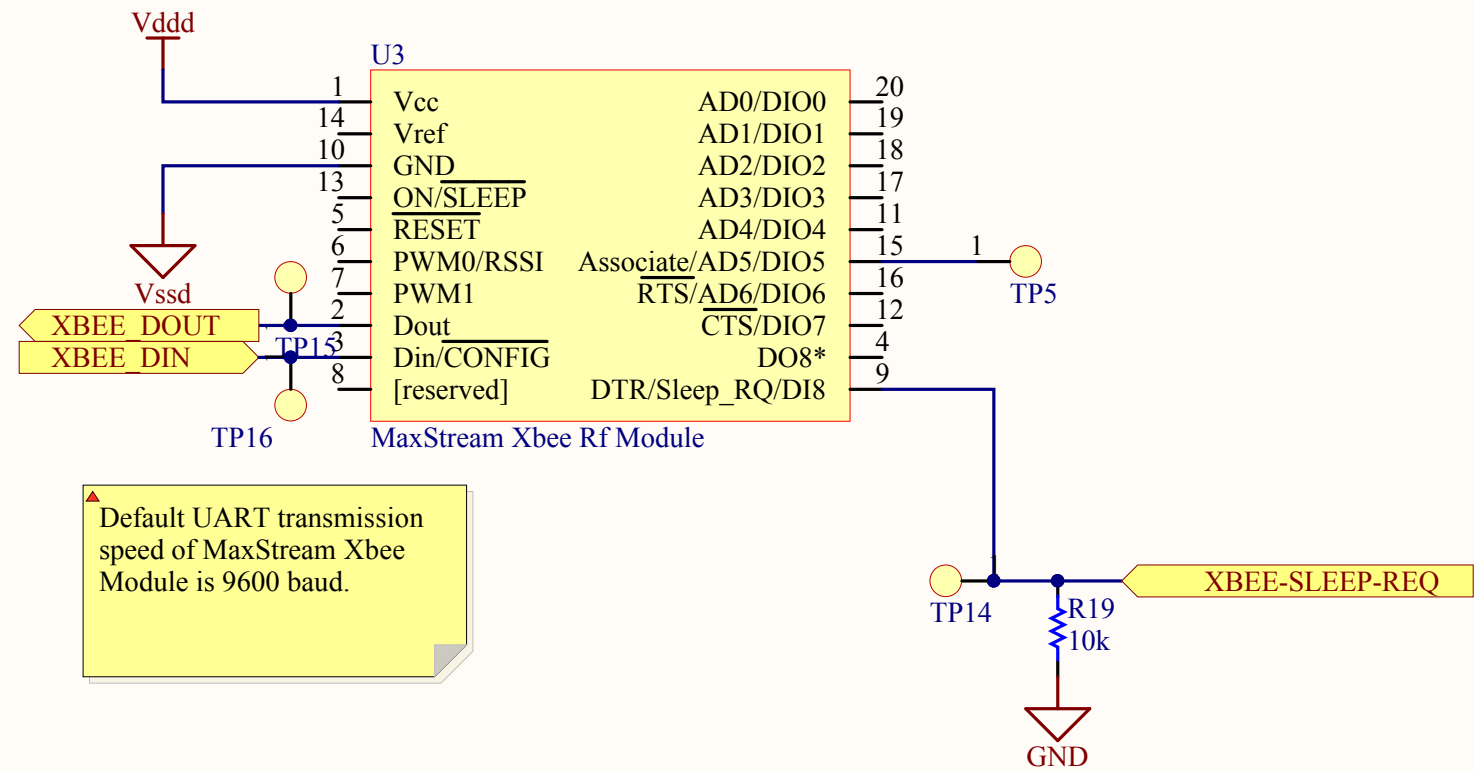


Title User Interface	
Document Name UI.SchDoc	
Project Name Skateboard Remote Transceiver v1.1.PrjPCB	Sheet 4 of 6
Client Geo	Revision *
Company Name CladLabs	Modified Date 7/1/2012
Drawn By Geoffrey Hunter	



Xbee module decoupling caps.

Part designators between skateboard and remote PCB's on Xbee schematics are kept the same where possible.

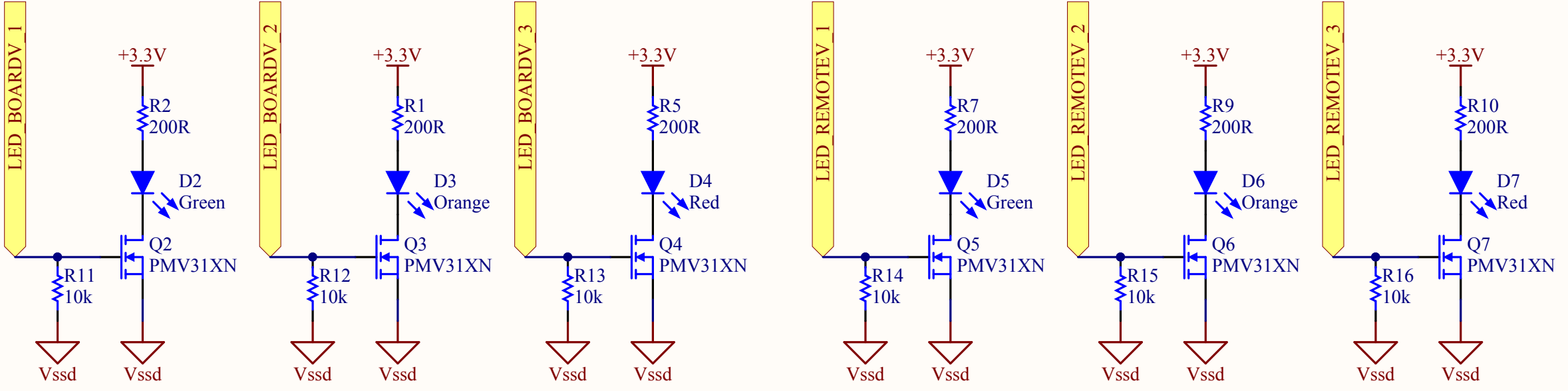


Default UART transmission speed of MaxStream Xbee Module is 9600 baud.

Title Xbee Communications	
Document Name Xbee.SchDoc	
Project Name Skateboard Remote Transceiver v1.1.PrjPCB	Sheet 5 of 6
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Drawn By Geoffrey Hunter	

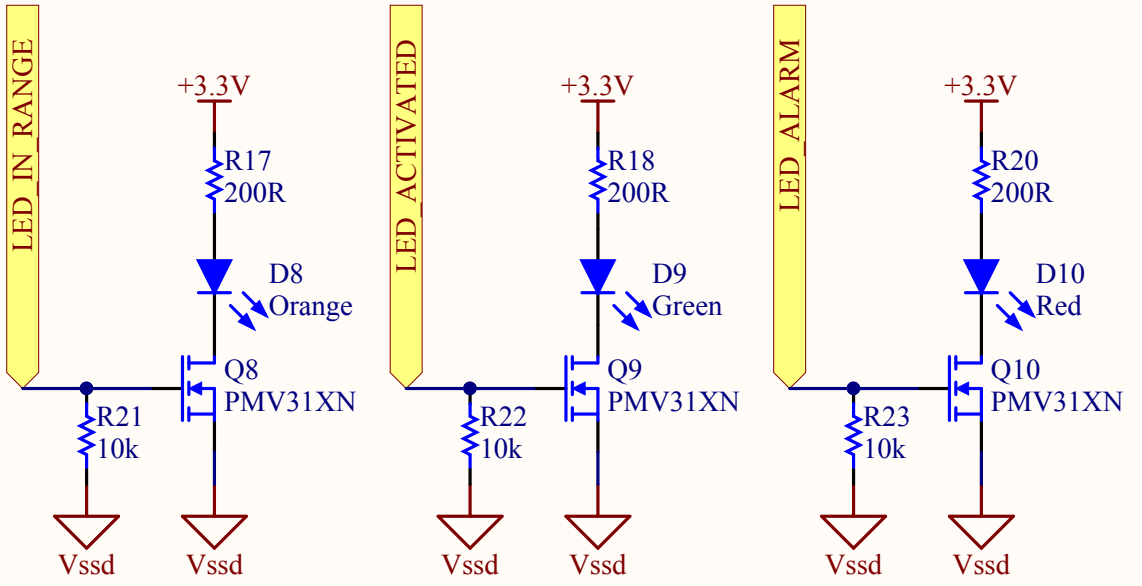
A

A



B

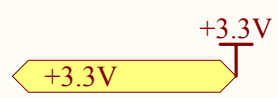
B



PCB LED's
Micro directly
sinks the LED
current (up to 8mA
allowed per pin).

C

C



D

D

Title LED's	
Document Name LEDs.SchDoc	
Project Name Skateboard Remote Transceiver v1.1.PrjPCB	Sheet 6 of 6
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