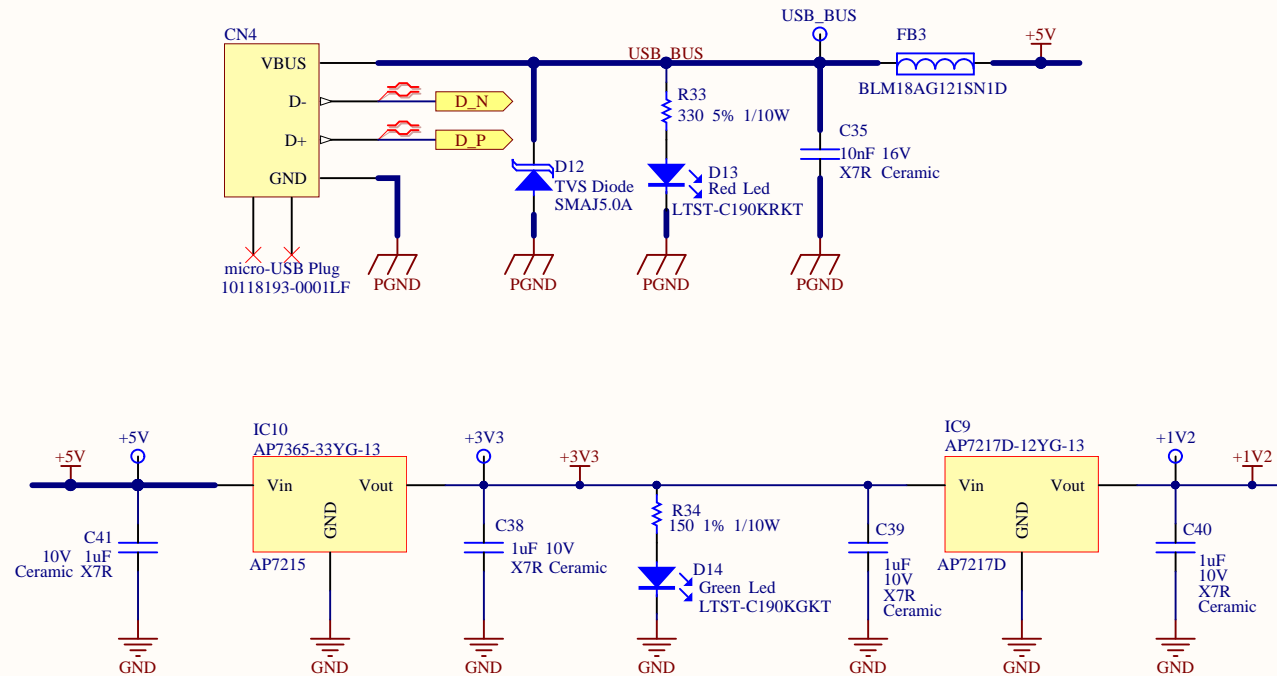


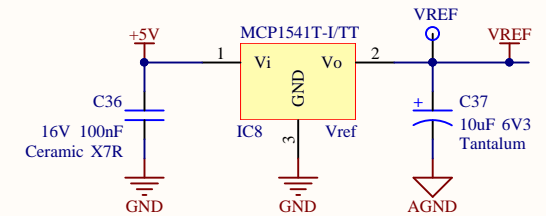
Title		
MercurialSDR - Block Diagram		
Size	Number	Revision
A4		Rev1.1
Date:	03/10/2019	Sheet 1 of 6
File:	C:\Users\...\MercurialSDR_BLK.SchDoc	Drawn By: Andres Hojnadel

Power Stage

USB to +3V3 and +1V2

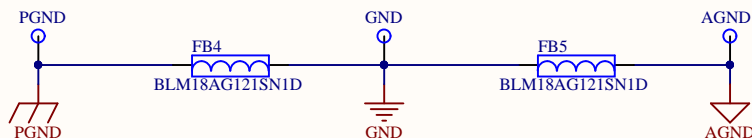


Reference Voltage



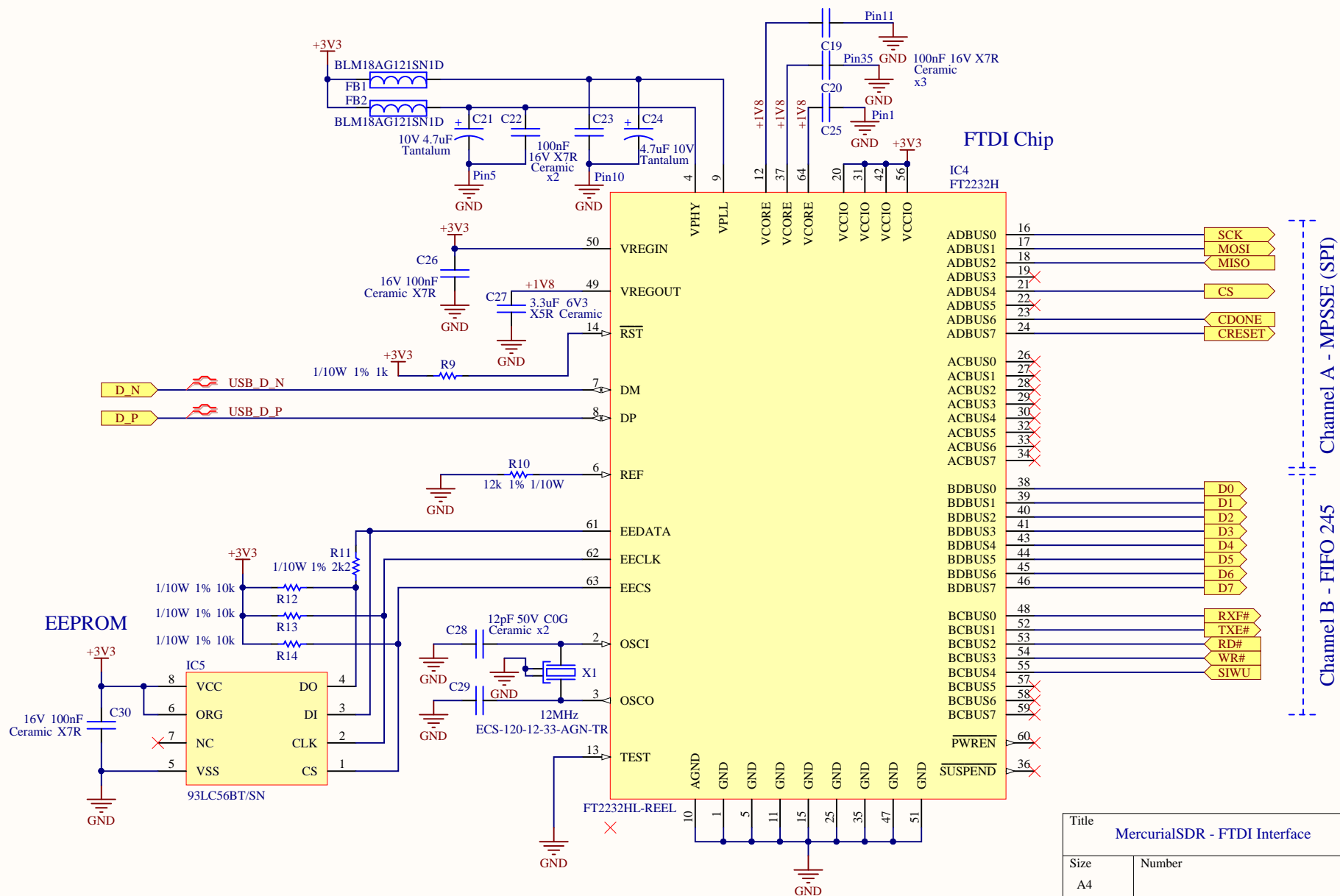
This is a precision voltage reference for DAC (IC1).
Them must be close.

Ground Connections



Title MercurialSDR - Power Stage		
Size A4	Number	Revision Rev1.1
Date:	03/10/2019	Sheet 2 of 6
File:	C:\Users\...\MercurialSDR_PWR.SchDoc	Drawn By: Andres Hojnadel

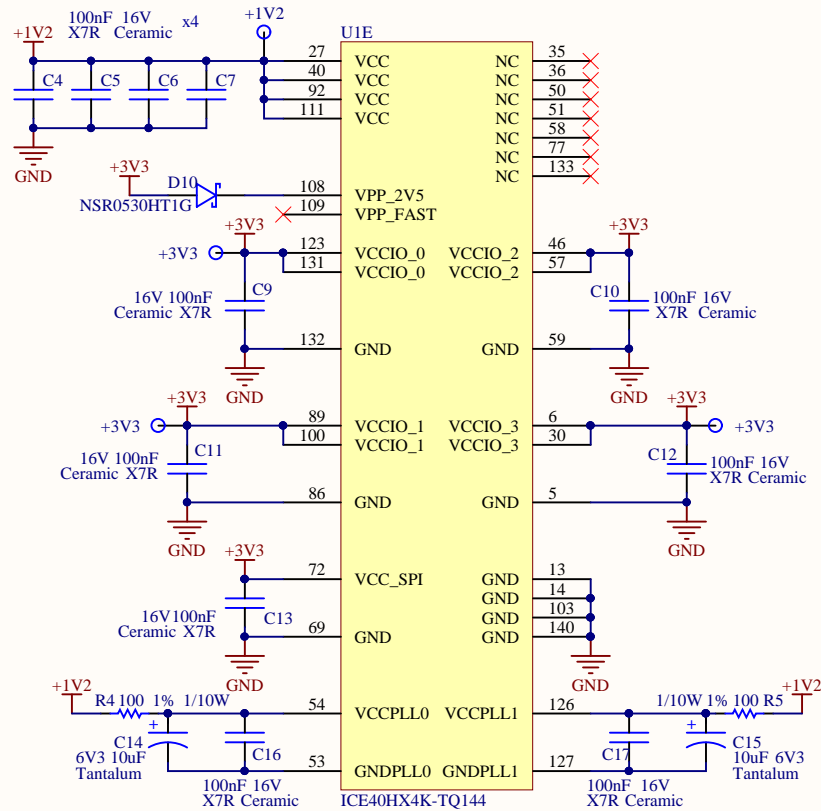
FTDI Interface



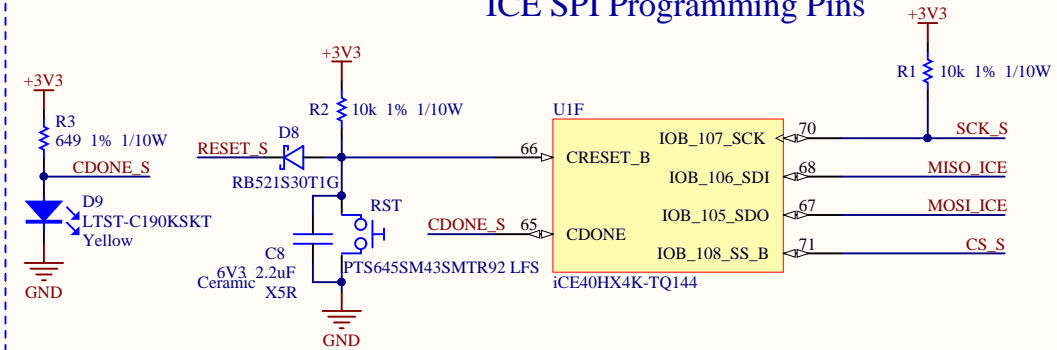
Title			MercurialSDR - FTDI Interface		
Size	Number			Revision	
A4				Rev1.1	
Date:	03/10/2019		Sheet 3 of 6		
File:	C:\Users\...\MercurialSDR_FTDI\SchDoc		Drawn By:	Andres Hojnadel	

ICE Programming & Power

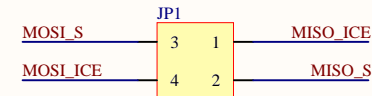
iCE Power



ICE SPI Programming Pins

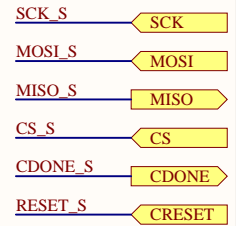


ICE/Flash programming selection

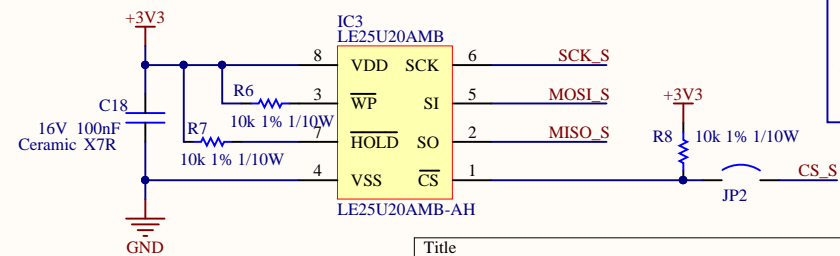


For programming Flash: shunt 1-3 & 2-4
For programming ICE: shunt 1-2 & 3-4

FTDI Ports



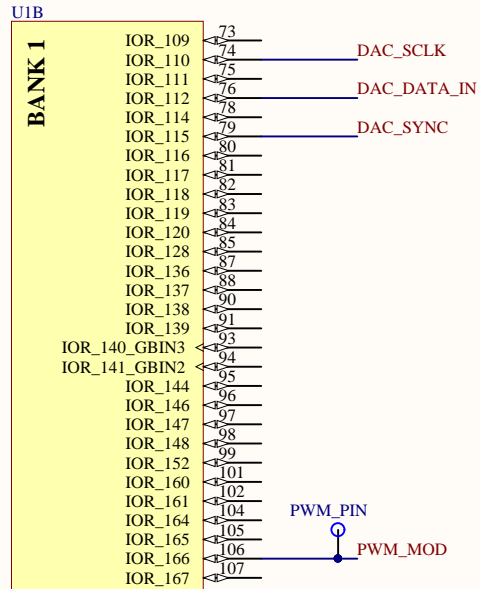
Flash Memory



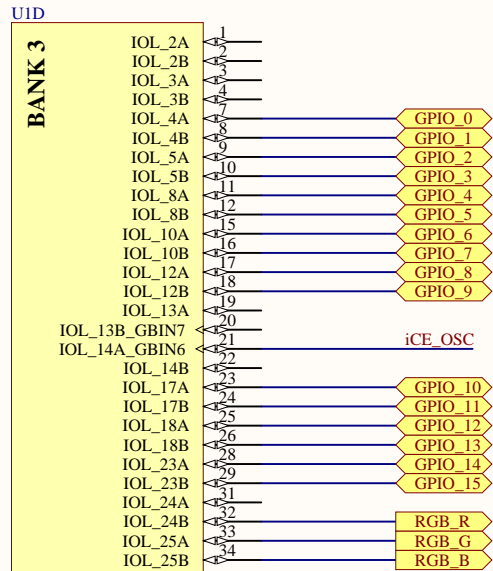
Remove JP2 only for programming ICE
Shunt JP2 for Flash programming or normal operation

Title MercurialSDR - iCE Power & Program.		
Size A4	Number	Revision Rev1.1
Date:	03/10/2019	Sheet 4 of 6
File:	C:\Users\...\MercurialSDR_FPGA_P&P_SchDown By:	Andres Hojnadel

FPGA Banks

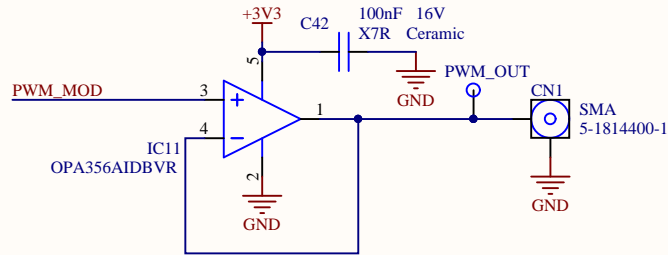


iCE40HX4K-TQ144

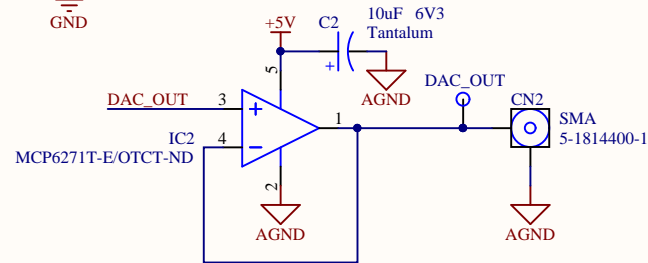
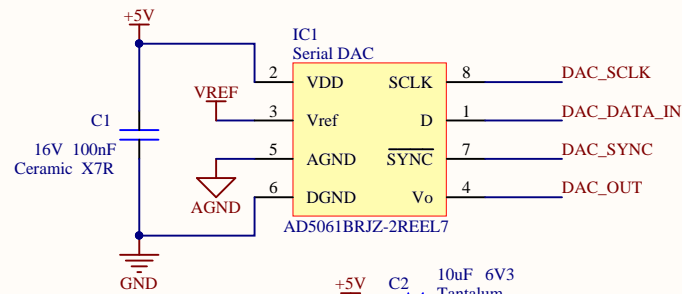


iCE40HX4K-TQ144

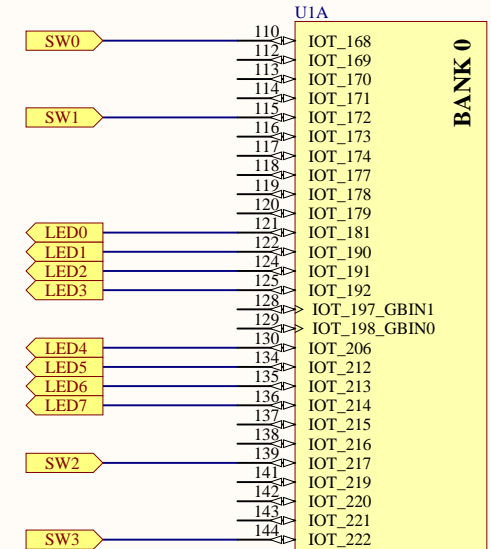
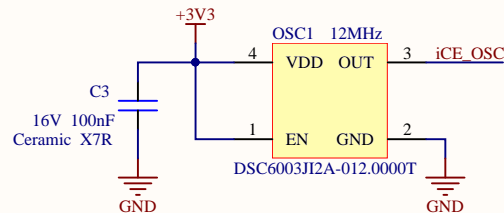
One-Pin-RF Output



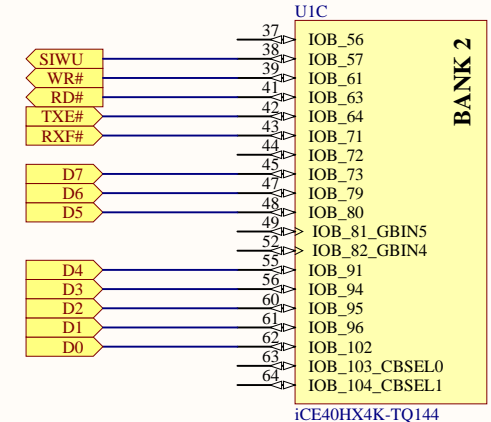
PAM Output



iCE Oscillator



iCE40HX4K-TQ144



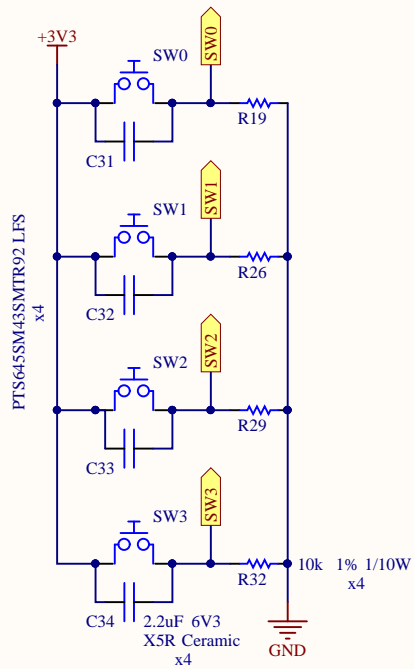
iCE40HX4K-TQ144

FIFO 245

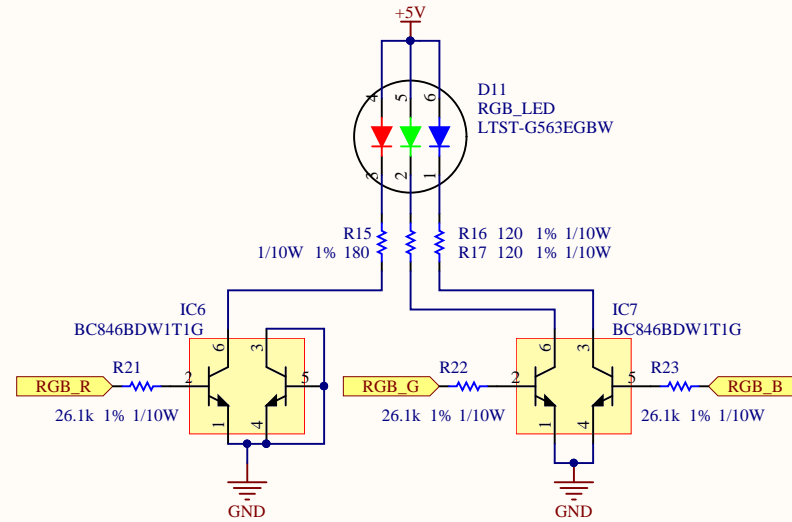
Title MercurialSDR - iCE Banks		
Size A4	Number	Revision Rev1.1
Date: 03/10/2019	Sheet 5 of 6	Drawn By: Andres Hojnadel
File: C:\Users\...\MercurialSDR_FPGA_BNK_SchDoc		

Miscellaneous

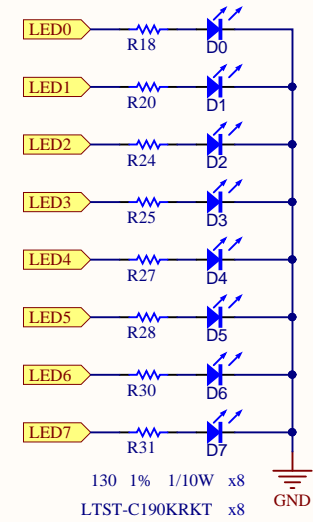
Buttons



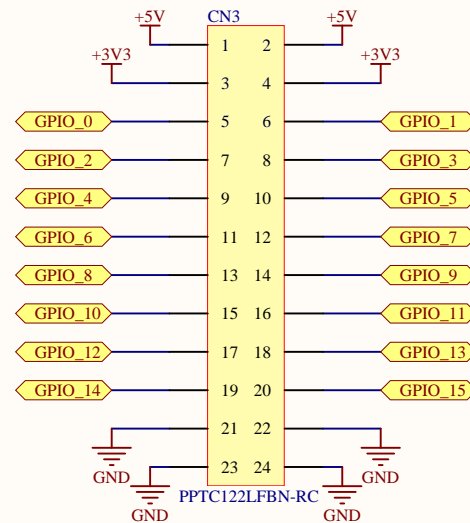
RGB Led



8-Led Array



GPIO Ports



Title MercurialSDR - Miscellaneous		
Size A4	Number	Revision Rev1.1
Date: 03/10/2019	Sheet6 of 6	
File: C:\Users\...\MercurialSDR_MISC.SchDoc	Drawn By: Andres Hojnadel	

