

**USB:**

<u>Code Name</u>	<u>Code Pin</u>	<u>FPGA Pin</u>	<u>FPGA Board</u>	<u>Device Pin</u>
usbtxd	usbtxd	PIN_K19	GPIO_0[31]	TxD

**TTL Input:**

<u>Code Name</u>	<u>Code Pin</u>	<u>FPGA Pin</u>	<u>FPGA Board</u>	<u>Device Connection</u>
triggerA	in2	PIN_H18	GPIO_1[13]	BNC Header

**LCD:**

<u>Code Name</u>	<u>Code Pin</u>	<u>FPGA Pin</u>	<u>FPGA Board</u>	<u>Device Pin</u>
lcdcsb	ext[0]	PIN_B13	GPIO_1[6]	P2-1
lcdscl	ext[1]	PIN_B12	GPIO_1[4]	P2-3
lcdsi	ext[2]	PIN_A12	GPIO_1[2]	P2-4

\*Note the LCD board uses 5V logic and must be connected to the FPGA through a Logic Level Converter.

**DDS:**

<u>Code Name</u>	<u>Code Pin</u>	<u>FPGA Pin</u>	<u>FPGA Board</u>	<u>Device Pin</u>
ddscs	out3[6]	PIN_K21	GPIO_0[7]	CS
ddssclk	out3[5]	PIN_M20	GPIO_0[9]	SCK
ddssdio	out3[4]	PIN_N21	GPIO_0[13]	SDIO
ddsiupdate	out3[0]	PIN_L18	GPIO_0[25]	UPD
ddsps0	out3[2]	PIN_N20	GPIO_0[17]	PS0
ddsps1	out3[1]	PIN_P16	GPIO_0[23]	PS1
ddsosk	out3[3]	PIN_R21	GPIO_0[15]	OSK
ddsrst	out3[7]	PIN_D17	GPIO_0[5]	RST

\*Note the IOSY and PWR pins on the D9954 DDS board must be grounded.

### **Power:**

#### **LCD:**

<u>FPGA</u>	<u>Device Pin</u>	
GPIO_0[11]	P1-3	(5 V)
GPIO_1[12]	P1-2	(GND)

#### **DDS:**

<u>FPGA</u>	<u>Device Pin</u>	
GPIO_0[11]	PWR Cord	(5 V)
GPIO_0[12]	PWR Cord	(GND)

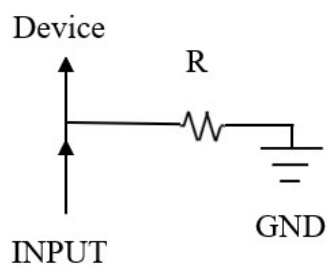
#### **USB:**

<u>FPGA</u>	<u>Device Pin</u>	
GPIO_0[11]	5 V	(5 V)
GPIO_0[12]	GND	(GND)

#### **INPUT:**

<u>FPGA</u>	<u>Device Pin</u>	
GPIO_0[11]	INPUT PWR	(5 V)
GPIO_0[12]	INPUT GND	(GND)

### **Pull Down Board Setup:**



### **Logic Level Converter:** (SparkFun LLC Bi-Directional)

