

thanks for helping.

My schematic was design for 3 wire RTD sensor as shown in figure 1 and attached to the file.

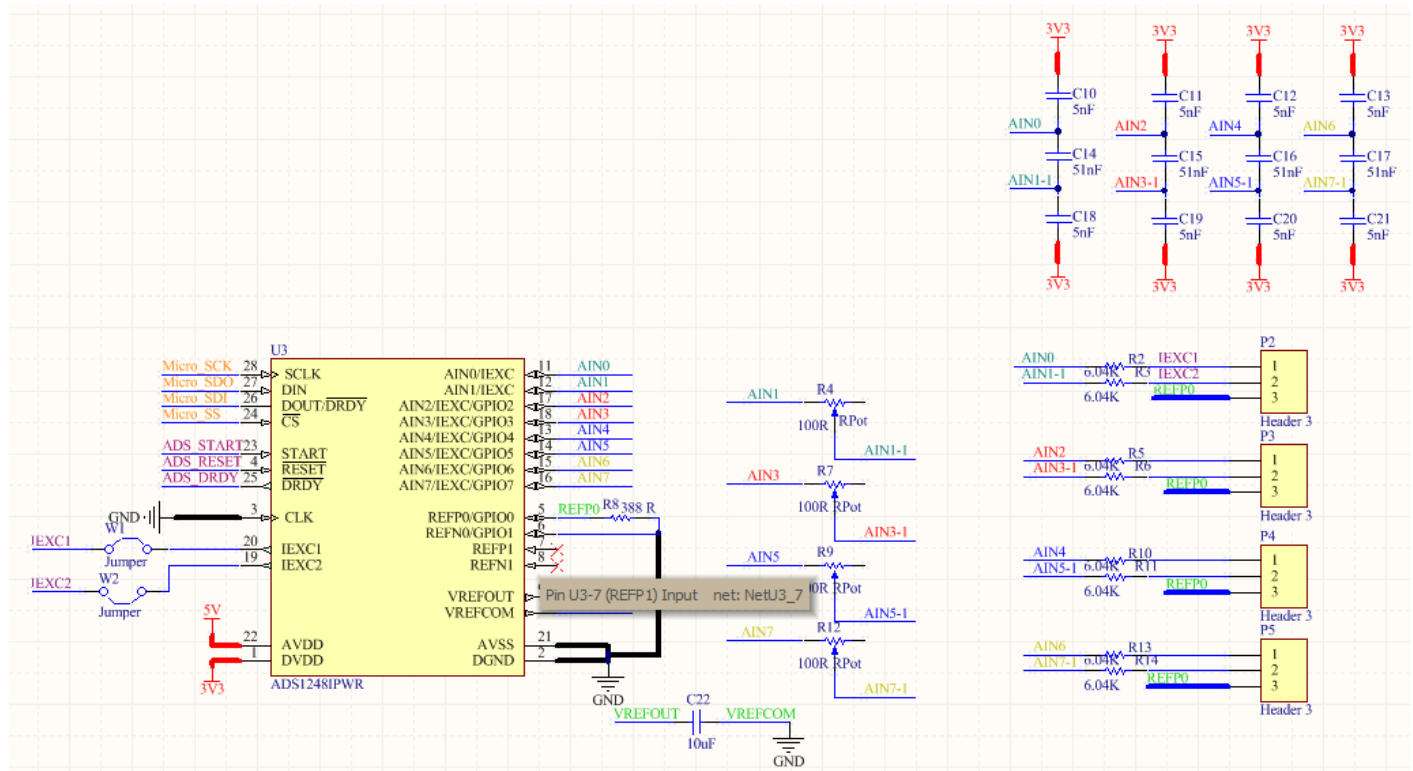


Figure 1

But now I am trying to measure 2 wire RTD sensor. So now I connect Sensor to AIN0 and other connect to AIN7. And connect AIN7 to REFP0. Such as figure 2.

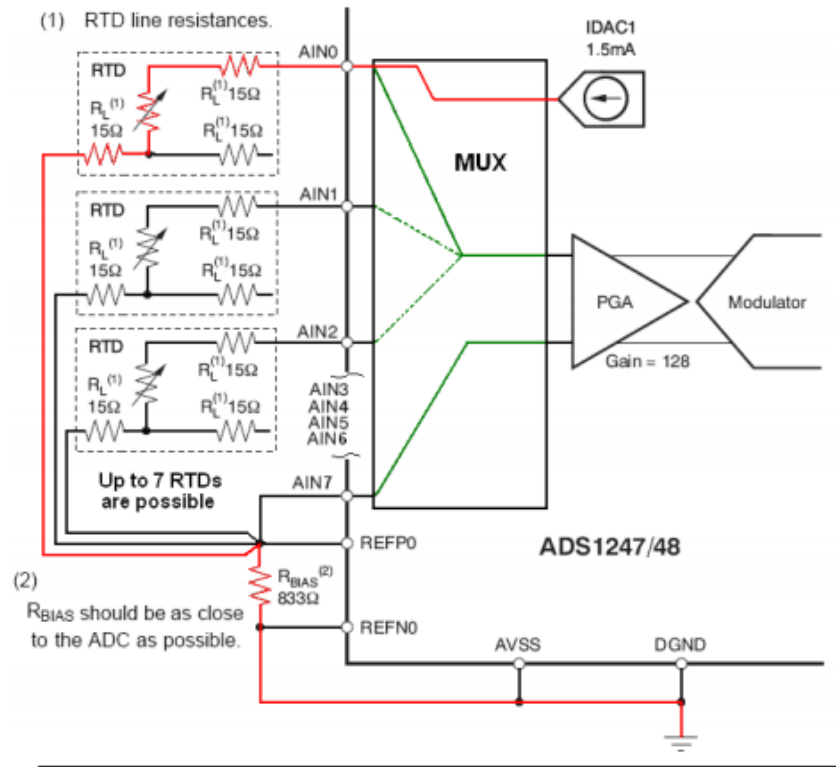


Figure 2

My code for the ADS1248 is:

```
unsigned char Mux0=0xC7;
unsigned char VBias=0x00;
unsigned char Mux1=0x40;
unsigned char Sys0=0x0f;
unsigned char IDAC0=0x0F;
unsigned char IDAC1=0x0F;
```

```
Reeseet =0;
Start=0;
Delay10KTCYx(100);
Delay10KTCYx(100);
```

```
Reeseet =1;
Start=1;
SPI_CS=1;
Delay100TCYx(10);
```

```
SPI_CS=0;
D1=SPIWrite(0x40);
D1=SPIWrite(0x03);
D1=SPIWrite(Mux0);//Mux0
D1=SPIWrite(VBias);//Vbias
D1=SPIWrite(Mux1);
D1=SPIWrite(Sys0);
```

```
D1=SPIWrite(0x4A);
D1=SPIWrite(0x01);
D1=SPIWrite(IDAC0);
D1=SPIWrite(IDAC1);
```

```
SPI_CS=1;
Delay100TCYx(10);
SPI_CS=0;
D1=SPIWrite(0x20);
D1=SPIWrite(0x03);
D2=SPIWrite(0xFF);//Mux0
D3=SPIWrite(0xFF);//Vbias
D4=SPIWrite(0xFF);//mux1
D5=SPIWrite(0xFF);//sys0
```

```
D1=SPIWrite(0x2A);
D1=SPIWrite(0x01);
D6=SPIWrite(0xFF);//IDAC0
D7=SPIWrite(0xFF);//IDAC1
```

When I read the D2-D7 all the registers are configured.

For read the data I use this command:

```
SPI_CS=1;
Delay100TCYx(10);
SPI_CS=0;

SPIWrite(0x12);
```

```
DATA1=SPIWrite(0xFF);  
DATA2=SPIWrite(0xFF);  
DATA3=SPIWrite(0xFF);  
SPI_CS=1;
```

In my schematic I use 2 jumper for IEXC1&2 that I can connect other side to GND for measuring the current of current source.

My DRDY signal is such as figure 2 in datasheet and I understand it .