

Airborne Telemetry

NRT-2124-1 NetDAS

Airborne Data Acquisition Products

DESCRIPTION

The NRT-2124-1 is designed to work with 3 wire RTD's. It contains 2 programmable current sources that track each other. These current sources and the input amplifier are switched to each channel. The input has a single pole 11 kHz filter which requires 140 microseconds to settle to a 12 bit value. If we include time for the current, offset and programmable gain amplifiers to settle we must wait 320 microseconds between switching channels and taking a measurement. After the wait 16 samples are taken by the A/D converter and averaged in the FPGA and stored for recall over the TE Bus. The unit then switches to the next channel and sets up the required current, gain and offset. Several Analog switches and precision resistors are also provided that allow Zcal and current measurement.

RTD Channel	
General	
Number	24
Input Voltage Range	Power On or Off : -40 V to +50 V
Interface	3 wire
Sample Rate	3.125 Ksps
Filter	11 KHz, 1 pole
Current Source	
Type	Dual tracking for 3 wire RTD
Range	1 mA to 10 mA (12 Bit DAC controlled)
Accuracy	± 0.5%
Gain	
Values	1,2,5,10,20,50,100 (Selectable)
Offset	
Capability	+4.95 for Gain = 1 5V for Gains 2 to 10 0.50 for Gains 20 to 100
Accuracy	± 0.5% Full Scale
Full Scale Range	10 V at Gain = 1

RTD Channel Specifications



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