

Electrical Specifications

3/17/2010 Edition

I2C Interface & GPI	
Channels	SDA, SCL, D1, & D0
Input Threshold	V _{IH} : 0.01 to 7.20 V (variable, 10mV steps) V _{IL} : 0.00 to 7.19 V (variable, 10mV steps)
Voltage Range	-0.5 to 15V (operational) -30 to 30V (maximum rating)
Bus Speed	DC to 3.7M bits/s
Input Filter (SDA & SCL only)	Selectable: 0, 40ns, or 80ns pulse suppression
Input Resistance	250K
Input Capacitance	< 40pF
Connector Type and Pin-outs	Standard 9-Pin, D-sub, Female Pin 1 = SDA Pin 3 = D1 Pin 4, 5 = GND Pin 6 = SCL Pin 7 = D0 Pin 2, 8, 9 = No Connection
Trigger Output (BNC)	
Connector type	BNC
Output	3.3V (V _{OH} = 2.4V min, V _{OL} = 0.45V min.)
Pulse Width	Selectable: 1uS or 10uS
Pulse Polarity	Selectable: Positive or Negative
Behavior	Selectable: Single occurrence or pulse each trigger event
I2C Message Monitoring	
Mode	Selectable: Real-Time Streaming or Trigger
Time Stamp	Format: Day Hr/Min/Sec/Millisecond 10ms resolution
Message Duration Timer	Range: 0 to 1024ms, 20ns resolution
Message Log Depth (Streaming Mode)	100K, 16-byte messages
Message Memory (Trigger Mode)	128K Bytes (equivalent to 2.5k, 8 byte messages)
Trigger (Trigger Mode)	Combination: Slave Address, R/W, ACK/NACK, Start/Stop, D1 & D0, and Bus Error
Signal Timing	
Signals Displayed	SDA, SCL, D1, & D0
Sampling Rates	Selectable: 20ns, 50ns, 100ns, 200ns, 500ns, 1us, 2us 5us, 10us, 20us, 50us, 100us, 200us, 500us
Sampling Capacity	4K/channel

Electrical Specifications (continued)

LEDs	
Power	Power-On
SDA	Bus Activity - Data
SCL	Bus Activity - Clock
PC Interface	
Communication	USB 2.0 Full Speed
Connector	Standard type B socket
Power	5V @ 300mA (max), USB supplied

Mechanical and Environmental Specifications

Mechanical	
Dimension	4.1" x 1.1" x 5.5" (WxHxL)
Weight	0.9lbs
Environmental	
Operating Temperature	0C to 50C
Storage Temperature	-20C to 70C
