

I2C Bus Monitor - USB

Model JI-216

Jupiter Instruments

Ver 1.0

Electrical Specifications

2/7/2010 Edition

| I2C Interface & GPI | |
|-------------------------------|--|
| Channels | SDA, SCL, CH1, & CH2 |
| 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 = CH2 Pin 4, 5 = GND Pin 6 = SCL Pin 7 = CH1 Pin 2, 8, 9 = No Connection |
| Trigger Output (BNC) | |
| Connector type | BNC |
| Output | TTL/CMOS (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 event pulse 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 Memory (Trigger Mode) | 128K Bytes (equivalent to 2.5k, 8 byte messages) |
| Trigger (Trigger Mode) | Combination: Slave Address, R/W, ACK/NACK, Start/Stop, CH1 & CH2, and Bus Error |
| Signal Timing | |
| Signals Displayed | SDA, SCL, CH1, & CH2 |
| 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 |
| | |
