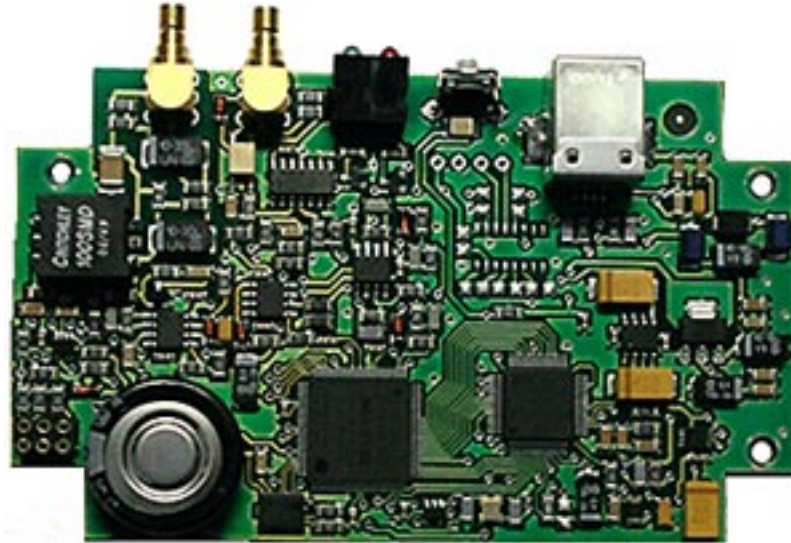


Transduction

Precision Time Sync Option

TR-IRIG-A/B



Features

- ▶ Developed for Transduction panel and rack mount computer systems with USB connection.
- ▶ Receives and decodes modulated (AM) and unmodulated (DC Level Shift) IRIG.
- ▶ Automatic gain control in the receive circuit for modulated codes, allows decoding of IRIG signals with carrier amplitude of 600mV to 8V.
- ▶ Input stage is electrically isolated with an impedance of 50 ohms . It is accessible via the internal SMB connector.
- ▶ Unmodulated time codes must be connected to the second SMB connector. Onboard photocoupler isolates internal receive circuit.
- ▶ Software running on computer can read information regarding date, time and status of the IRIG receiver.
- ▶ Access to board is made via writing to/reading from I/O ports. It's possible but not necessary to let board generate periodic hardware interrupts on the USB Bus.
- ▶ Driver software supplied with board maintains the computer system time synchronous to the board time.
- ▶ Software drivers for Windows NT/2000/XP/Server 2003/Vista, DOS, Windows 3x/9x, Linux, Novel Netware and OS/2.
- ▶ Microprocessor system is equipped with a Bootstrap-Loader and a Flash-EPROM. This enables updating of the onboard software.
- ▶ 3 year warranty.

TR-IRIG-A/B Time Code Reader

TR-IRIG-A/B

Specification

Model

- ▶ TR-IRIG-A/B

Receiver Input

- ▶ AM-input (External BNC, internal SMB)
 - isolated by a transformer
 - impedance settable 50 ohms
 - input signal: 600mV to 8V (Mark)
other ranges on request
- ▶ DC Level Shift input (External BNC, internal SMB)
 - isolated by photocoupler
 - internal series resistance: 220 ohms
 - maximum forward current: 50mA
 - diode forward voltage: 1.0V-1.3V

Decoding Time Standards

- ▶ IRIG-A133/A132/A003/A002
- ▶ IRIG-B123/B122/B003/B002

Accuracy of Time Base

- ▶ ± 5 usec compared to IRIG reference marker

Accuracy of Time Code Source

- ▶ ± 100 ppm

Holdover Mode

- ▶ Automatic switching to crystal time base accuracy approximately $1E-6$ if decoder has been synchronous for more than 1 hour

Backup Battery

- ▶ If power supply fails, onboard realtime clock keeps time and date information. The realtime clock can work with the backup battery for approximately 5 days. Important system parameters are stored in the RAM of system

Reliability of Operation

- ▶ Microprocessor supervisory circuit provides watchdog timer, power supply monitoring and backup battery switchover
- ▶ Software watchdog monitors correct program flow and generates a reset in case of error detection

Initialization

- ▶ Software and realtime clock can be set by USB monitor program

Interface

- ▶ USB connection

Power Requirements

- ▶ +5V, @ 80mA

Dimensions

- ▶ 2.87" (L) X 4.61" (W) X 0.94" (H)

Operating Temperature

- ▶ 0°C ~ 70°C

Humidity

- ▶ Max. 85%