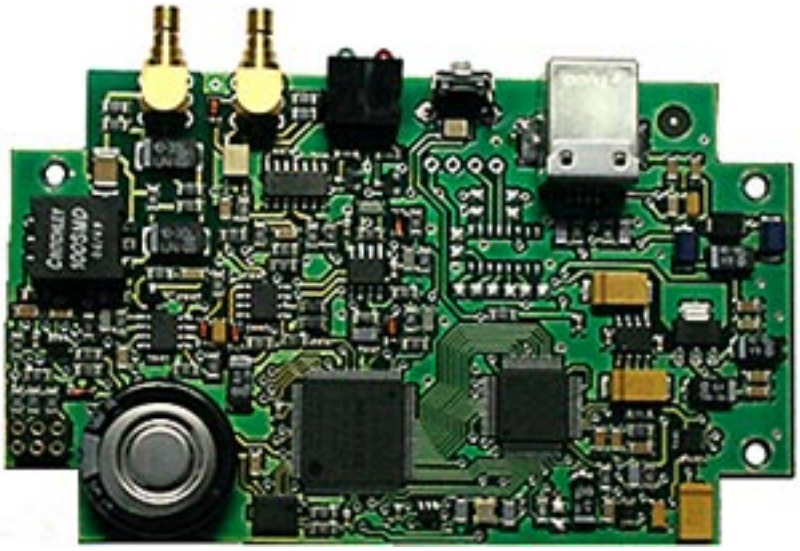
Transduction

Precision Time Sync Option

TR-IRIG-A/B



TR-IRIG-A/B Time Code Reader

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.

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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
- ±100ppm

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 apporoximately 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%

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