PACIFIC INSTRUMENTS
A VPG Brand

The 6047 IRIG Time Code Reader provides precision time references for measurement data acquired by the 6000 data acquisition system. Time is acquired from time code signals, IRIG A, B or G, applied to the BNC input. Time data is captured by the 6000's sample clock and can be selectively output in the multiplexed data stream with measurement data at any available sample rate. It enables data processing or export software to determine the measurement time of each data point. The 6047 occupies one slot in a 6000 series mainframe or slave enclosure.

The IRIG Time Code Reader derives a 1 MHz clock from the IRIG signal that is accumulated to provide current time with 1 microsecond resolution. Current time is loaded into binary and BCD output registers (days, minutes, seconds, milliseconds and microseconds) by the 6000's sample rate clock assuring that the time recorded matches data sampled by all series 6000 input and output cards.

A stabilized oscillator is disciplined to the IRIG time source. If the time source is lost, the time reader continues to maintain and output time, however time accuracy will be limited by the stability of the local clock.

Using the 6000 digital I/O cards provides a means of recording the time of event inputs or the time an event is output.

FEATURES

- IRIG A, B and G
- 1 Microsecond resolution
- 100 mV to 10 Volt peak-to-peak input
- Days, hours, minutes, seconds, milliseconds and microseconds
- Simultaneous BCD and binary outputs
- Time kept by disciplined clock if IRIG signal is lost

SPECIFICATIONS

TIME CODE INPUTS

Formats ....IRIG A, IRIG B, IRIG G.
Input ....Amplitude Modulated.
Carrier Range ....1 kHz to 100 kHz.
Direction ....Forward.
Modulation Ratio ..3:1.
Input Amplitude ...100 mV to 10 Volts peak to peak.
Input Impedance ..5k Ohms.

OUTPUTS

Format ....Binary and BCD simultaneously available.
Time....................Hours, minutes, seconds, milliseconds and microseconds.
Resolution ....1 microsecond.
Accuracy ....5 microseconds for IRIG A and G.
               10 microseconds for IRIG B.
Status ....Status word and LEDs

STATUS

First Lock.............Indicates that lock was achieved and flywheel clock is disciplined (synchronized).
Carrier ....Indicates IRIG signal is present.
Lock....................Indicates time output locked to IRIG input.
Lost Lock ....Indicates the number of times lock is lost, counter cycles after 256.
LEDs....................Front mounted LEDs for Carrier, Lock and First Lock.

DISCIPLINED CLOCK (FLYWHEEL)

Stability................2.5 ppm.
Aging ....1 ppm/year

GENERAL

Mounting.............Occupies one slot in Series 6000 enclosures.
Connector............BNC connector for IRIG input.
Temperature ....0ºC to +50ºC

ORDERING INFORMATION

6047 ....IRIG Time Code Reader.