



Owl™ IRIG-B Reader/Generator Card for PCI Bus

This feature-rich module from the premier provider of NTDS technologies reads and generates IRIG-B time signals with remarkable precision. Its sophisticated crystal oscillator not only contributes to the device's accuracy, but also can serve as a backup, providing time even when no time source is available. Its powerful field-programmable and on-site test capabilities make the Owl ideal for high mobility applications. In addition, all of its features are designed into an industry-standard PCI card that weighs only three ounces.

Sabtech's highly-accurate Owl provides time down to 62.5 ns resolution in UNIX format. Its time-sourced, disciplined, voltage-controlled crystal oscillator (VCXO) not only allows it to provide sub-second resolution, but also to "flywheel" during the absence or loss of carrier. The module has a status LED that indicates when the internal time is synchronized with the input time code. The Owl provides a programmable offset on its internal time from the input time source. The Owl-generated IRIG-B output can be configured to be synchronous to the input time source

This advanced module from Sabtech offers remarkable reliability and flexibility in the field as well. Connecting the Owl's input and output channels enables it to perform "loop-back" tests. Also, an internal loop-back path makes it possible to test the Owl without disconnecting cables. Field upgrades are easy, too. By running utilities, the user can update the onboard Field Programmable Gate Array (FPGA) configuration, or update the firmware.

The Owl includes a driver for any one of the supported operating systems, a loop-back cable for testing, an excellent documentation package and sample C language code that can be freely used in application software. For precision, reliability and flexibility, the Owl is unmatched.



Owl IRIG-B Reader/Generator Card

General Product Features

Time Codes

- IRIG serial time code format B reader/generator

IRIG-B Reader

- 0.35-7V(rms) sine wave, amplitude modulated, 1 kHz carrier detect
- 3:1 to 6:1 mark-to-space ratio
- 10 millisecond maximum carrier failure detect time
- 10 kOhm input impedance
- 62.5 nanosecond timing accuracy

IRIG-B Generator

- Sine wave, amplitude modulated, 1 kHz carrier
- 3:1 mark-to-space, 2.1 V(rms) mark, 0.707 V(rms) space
- 50 ohm output impedance

PCI Bus Features

- PCI 2.2 compliant (supports Plug & Play)
- 32-bit, 33 MHz or 66 MHz frequency
- +5V or +3.3V signaling (Universal card)

Other Features

- Field Programmable Gate Array (FPGA) technology
- External/internal loop-back test
- Flywheel operation
- Alarm clock
- Programmable reference source for generator
- Programmable interrupts

Software Support

- Windows® 2000/XP, Linux®, Solaris™, *LynxOS®

**Check with factory for availability*

Owl IRIG-B Reader/Generator Card Technical Specs

Time code interface	IRIG serial time code format B (IRIG STD 200-98)
PCI bus interface	PCI 2.2 compliant universal (+3.3V or +5V I/O) 32 bit
Time code connector	Two coaxial RF (Amphenol P/N 31-10-75)
Form factor	Single wide, non-extended PMC (Per IEEE P1386.1, draft 2.0)
Weight	3.0oz
Relative humidity	0% to +90% (non-condensing)
Operating temperature	0°C to +55°C
Power consumption	+5V @ 0.51A, -12V @ -54mA, VIO@7mA
Supported IRIG-B formats	B120, B121, B122, B123