option measures and removes ionospheric delay that meets or exceeds the performance of L1/L2 solutions.

IRIG-B time code and 1 PPS outputs.

- Modular, plug-and-play design with up to 23 output signals.
- Telecom T1/E1 output option.
- GPS almanac/ephemeris data, YUMA/RINEX formats.
- Free technical support and software upgrades.
- 60-day money-back guarantee.

- Time standard traceable to UTC(USNO).
- Frequency standard with atomic clock stability.
- Ultra low phase noise frequency reference for communication systems.
- Master Clock with time code generator.

A variety of top-quality quartz oscillators are available to handle the full range of holdover, phase noise and short-term stability requirements. We design and manufacture our own OCXO oscillators to achieve performance and quality not found elsewhere. The proprietary design

The Tycho II web interface is designed with security in mind, so its use is restricted to

Tycho II provides a complete suite of time and frequency capabilities with an exceptionally high number and variety of outputs in a standard 1U chassis. The modular, plug-and-play design of Tycho II and wide range of option cards make it easy to tailor the unit to support your applications. The basic Tycho II supports several outputs via the standard CPU module that can also be expanded with options.

The CPU module is standard on all Tycho II units and includes the GPS receiver antenna input, RS-232 console port, and three timing ports for 1 PPS, AM Code and Spare (for options). The 1 PPS reference is a positive pulse with the leading edge exactly on-time. The AM code output provides user-selectable IRIG-B formats as well as NASA-36 and 2137 time codes. The dual-gigabit Ethernet ports support two networks. The following section describes the options available on the CPU Module:

The PPO Option provides user-selectable, on-time pulses at decade rates from 1 PPS to 10 MPPS (1, 10, 100, 1k, 10k, 100k, 1M, 10 MPPS). Other selections are 1PPM (pulse per 60 seconds, on the minute), 1PP2S (pulse per 2 seconds, on the even second), and Inverted 1 PPS (falling edge on-time). The PPO output is provided on the Spare BNC.

Additional 1 PPS outputs can be provided on the Spare BNC. A 1 PPS at RS-422 levels is available via a DB9M connector in lieu of the Spare BNC.

The DDS Option provides user-selectable pulse rates from 1 PPS to 10 MPPS, in 1 PPS steps. The DDS output is provided on the Spare BNC.

The 10 MPPS Rate Output Option provides a fixed on-time pulse rate on the Spare BNC.

The Alarm option provides an open-collector output to indicate a major alarm condition such as loss of GPS system lock. The Alarm output is commonly connected to a switch and distribution chassis and is installed on the Spare BNC or a terminal block.

The Serial Time Output consists of a once-per-second, ASCII time message to sync computer systems or equipment. Format selections are Sysplex, Truetime, EndRun, NENA and NMEA. The output is at RS-232 or RS-422 levels on a DB9M connector.

The Tycho II is equipped with an AC power supply and supports an optional DC supply. For high reliability, dual-redundant power supplies are supported in AC/AC, AC/DC or DC/DC configurations. A dual power supply configuration occupies two option slots.

- AC power supply: 90-132/180-264 VAC.
- DC power supply: 12, 24, 48, or 125 VDC.
- Connector type: IEC 320 (AC), 3 position terminal block (DC).

Tycho IIôs versatile, modular design allows you to custom configure the unit to meet your application requirements. The plug-and-play architecture supports up to 5 option modules and 23 time and frequency outputs. Option modules are normally installed at the factory, but most are available as field upgrades. An important benefit of a modular system is that you can add modules in the field as needed to accommodate future requirements. At power-on/boot time, the Tycho II software performs a system scan, detects the installed