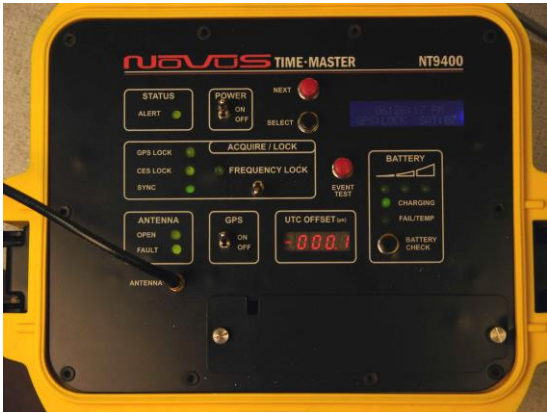


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NT9400-O

TimeMaster Time Stamp

KEY FEATURES



Full performance portable timing platform disciplined to the GNSS with OCXO holdover. Time/Position stamp captures critical events to a 100 ns resolution. Dual input allows differential measurements. Up to 512 events stored in non-volatile memory accessible locally or over the Internet. User defined trip points enable timing alerts locally and through e-mail. PPS monitoring of master timing networks. 10 MHz source locked to GNSS and auxiliary secondary channel programmable from 14KHz to 10MHz NMEA/NTP source that continues to be simulated after loss of GPS using the atomic time base..

Typical Phase Noise - 10MHz Sine

Offset Frequency (Hz)	Typical (dBc / Hz)
10	-130
100	-140
1K	-145

Product Highlights



Master Timing

Precision timing source for GPS denied and unreliable environments.

GPS Locked

PPS accuracy to 30ns RMS

OCXO Holdover

OCXO +/- 5 ppb/day

NMEA Simulator

Continues to generate NMEA even after GPS loss (with Cesium option).

NTP Time Server Option

NTP time code generator with Cesium holdover.

Dual Event Recorder for Time and Position

CMOS input triggers a storing of the current time and position and can be programmed to send an e-mail with the information.

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Technical Specifications

PPS Output	3.3 Volt CMOS (30 ma drive), Pulse width 400 usec, Rise-Fall < 10 ns
PPS Drift (unlocked state)	< 1 ms/day
PPS locked	30 ns rms
Antenna	GPS antenna with LNA and 10 foot cable
10 MHz sine	0.5 ±0.1 Vrms
NMEA	GNSS or OCXO source driven (RS232 and USB)
2x16 LCD	Time, Position, Event
Indicators	Built-in test alert, GNSS lock , OCXO stable
Power	Lithium with "fuel gauge" (> 8 hours), External 12 Vdc @ 2 amp
Event rate	Up to 1 million/second
Event	Leading edge LVCMOS (512 non-volatile) (dual LVCMOS inputs)
Optional NTP Time Server	NTP Protocol Version 3
Drift Display	Displays current drift from UTC in microseconds
External Event Recorder	Time and Position to 100 ns resolution - recorded locally and e-mailed.
PPS Monitor	Monitors external PPS to internal GPS derived with atomic holdover
Height	~5 inches
Width	~12 inches
Depth	~9 inches
Weight	≈8 lbs

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