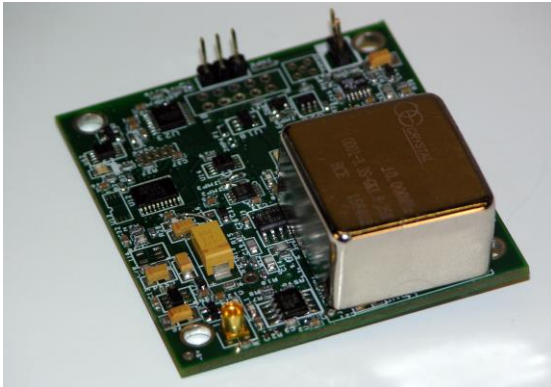


Company Datasheet #	NR-4400-O
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# NR4400-O-G

## GPS Locked Reference Module with OCXO Holdover

**KEY FEATURES**



The signal source is a GPS driven, mixed-signal phase lock loop generating a 10MHz sine output from an intrinsically low jitter voltage controlled crystal oscillator. The output is a 0.4 Vrms sine. There is extensive built- in test that drives an LED and solid relay contacts for system integration. The unit also features an auto-calibration that compensates for long-term crystal drift provide years of precise performance. There is also a GPS lock status signal, PPS and serial port to provide access to NEMA time stamp data. To simplify use, there is only a single power supply voltage of 5 VDC (1 amp) required. All other required power voltages are developed internally.

**Product Highlights**

- Compact easily integrated
- Single 5 VDC supply
- Auto Calibration
- Built-in Test status signal
- GPS lock status signal

**High Sensitivity GPS Receiver**

26 channel high-sensitivity, high-accuracy Multi-GNSS receiver. Supports TRAIM, GPS, GLONASS, QZSS, SBAS, Active Anti-Jamming and Advanced Multipath Mitigation Functions.

**Low Phase Noise- 10 MHz Sine**

Offset Frequency (Hz)	Typical (dBc / Hz)
1	-95
10	-125
100	-150
1k	-152

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### Technical specifications

10MHz Sine	0.4 ±0.1 Vrms, 50 ohms- MCX- Option CMOS out
Harmonics	Less than -30dB
First Year Frequency Stability	± 50 ppb (long-term stability effectively cancelled by auto cal)
Temp Stability	±10 ppb
Daily Aging OCXO	±5 ppb/day (unlocked)
Yearly aging	±50 ppb (without GNSS lock)
Accuracy-Auto cal (24 hrs)	10 MHz-<10ppb (does not include crystal drift if not GPS locked)
Receiver sensitivity	-155dBm
PPS	20ns RMS accuracy, 3.3 volt logic
GPS Lock	3.3 Vdc LVCMOS
Alert	3.3 Vdc LVCMOS
Power Requirements	5 (±0.2)Vdc @ 1.0 amps max
Connectors	MMCX 10 MHz output, sine wave
	MMCX PPS CMOS
	MMCX Antenna connector
	10 Pin 2 row 0.1 pitch
Options:	

### Environmental and Mechanical

Operating temperature	0 to 50C non-condensing (extended temperature range available)
Storage temperature	-40 to 85C
Width	2 inch
Depth	2 inch
Height	0.6 in
Weight	~4 oz

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