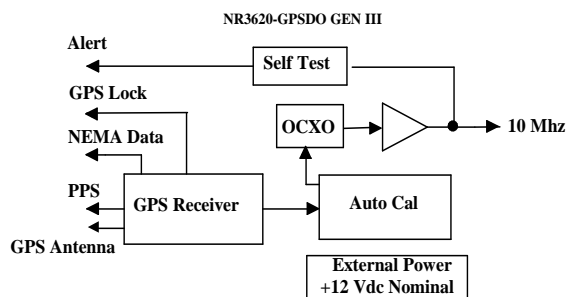


# NR3620-CAL

## GNSS Locked Reference Module with OCXO Holdover/AutoCal

### KEY FEATURES



The signal source is a GNSS driven, mixed-signal phase lock loop generating a 10 MHz sine output from an intrinsically low jitter voltage-controlled crystal oscillator. The output is a 1 Vrms sine. The unit also features Auto Cal. The unit continually monitors temperature and aging such that when the unit goes into holdover, the output frequency is at the last frequency  $\pm 10$  ppb. LN version offers low phase noise. There is extensive built-in test that drives an LED and relay contacts for system integration. There is also a GPS lock status signal (and LED), PPS and a serial port to provide access to NMEA time stamp data. The can operate from DC power from -60 Vdc to +60 Vdc- in three ranges. Power converter provides electrical isolation from the power source to the output (configuration option). Unit is available in a kit that includes the unit, antenna, power supply and cable to connect the antenna to the unit.

### Product Highlights



### High Sensitivity GPS Receiver

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

### Typical Phase Noise- 10 MHz Sine

Offset Frequency (Hz)	Typical (dBc / Hz)	
	STD	LN
10	-125	-130
100	-140	-150
1k	-145	-158
10k	-150	-160

### Auto Cal

Multiple times a day, the unit stores the temperature/time performance of the holdover crystal.

## Technical specifications

10Mhz Sine	13 ±2 dBm ,50 ohm- BNC
Harmonics	Less than -30 dBc
Locked Stability	<~E-11 after 100 seconds
First Year Frequency Stability	±50 ppb (long-term unlocked)
Temp Stability	±10 ppb
Holdover offset	±10ppb (frequency offset after loss of GPS)
Yearly aging	±30ppb
Receiver sensitivity	-155dBm
Antenna	Frequency Band 1574 – 1607 MHz, 26 dB gain, 3.5 Vdc 25 ma max
PPS	3.3 volt logic, output impedance CMOS (±20ma) ±10ns(1σ) (@-130 dBm) ±50ns(1σ) (@-150 dBm)
Power Requirements	Three ranges ± (9 to 18, 18 to 36, 36 to 65) Vdc (ac adapter available) Power converter can be configured to provide > 500 volts isolation)
Connectors	BNC-1 10 MHz output BNC-2 PPS 3.3 Vdc CMOS 4 pin terminal block ((Digikey 277-2419-ND (ships with mate (Digikey 277-2418)-ND (reverse polarity operational)

## Environmental and Mechanical

Operating temperature	0 to 50C non-condensing ( extended temperature range available)
Storage temperature	-40 to 70C
Width	4 inch ( exclusive of connectors)
Depth	5 inch
Height	1.5 in
Weight	~16 oz

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