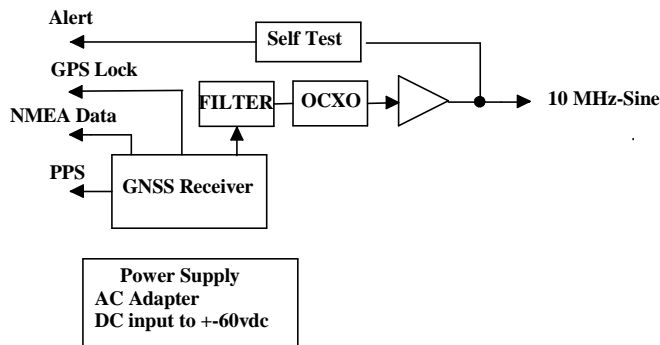


NR3700-CAL- GPSDO

GPS Locked Reference 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 OCXO-controlled crystal oscillator. The output is a 0.4 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 ± 10 ppb. There is extensive built-in test that drives an LED and relay contacts for system integration. 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. Optional PPS and NMEA outputs. Low noise OCXO with unlock aging stability ± 50 ppb/year.

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)
10	--85
100	-115
1k	-140
10k	-145

Auto Cal

Multiple times a day, the unit stores the temperature/time performance of the holdover crystal. If GPS is lost, the unit uses the last best known compensation.

Technical specifications

10 MHz Sine	5 ±1 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)
Receiver sensitivity	-155dBm, antenna power 3.5 Vdc < 30ma
PPS	15ns(1σ) (@-130 dBm) 50ns(1σ) (@-150 dBm) 3.3 volt logic, output impedance CMOS (±20ma)
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 SMA PPS 3.3 Vdc CMOS (optional)
	4 pin terminal block ((Digikey 277-2419-ND (ships with mate (Digikey 277-2418)-ND (reverse polarity operational)
NMEA (optional)	NMEA-0183 at full rs232 levels.

Environmental and Mechanical

Operating temperature	0 to 50C non-condensing (extended temperature range available)
Storage temperature	-40 to 70C
Width	3.5 inch (with flange)
Depth	4 inch
Height	1.2 in
Weight	~8 oz

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