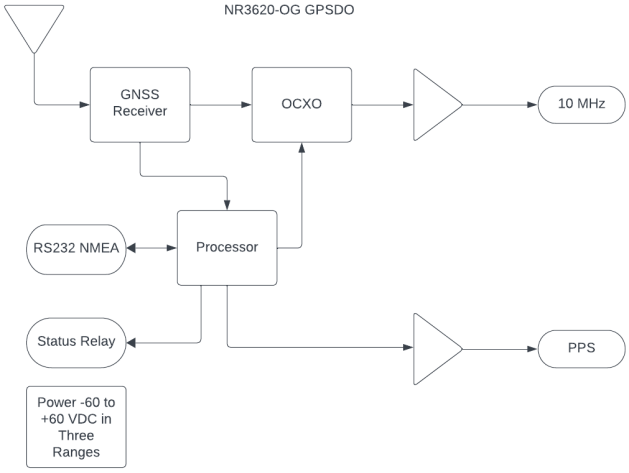
NR3620-OG-50

GNSS Locked Reference Module with OCXO Holdover/AutoCal

KEY FEATURES



The signal source is a GNSS driven, mixed-signal phase lock loop generating a 56 MHz sine output from an intrinsically low jitter voltage-controlled crystal oscillator. 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 unit 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). PPS is programmable in 1ms increments and can be configured for either 3.3 or 5 Volt CMOS into 50 Ohms. 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- 100 MHz Sine

Offset Frequency (Hz)	Typical (dBc / Hz)
10	-125
100	-145
1k	-150
10k	-155

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

50 MHz Sine	0.5Vrms+/-0.2, 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 (unlocked)	
Yearly aging	±50ppb (unlocked)	
PPS	Programmable pulse width (1 ms increments) Nom=200ms	
PPS	3.3 V or 5 V CMOS, output impedance 20 Ohms	
Allan Deviation		
1s	4E-11	
10s	6E-11	
100s	3E-11	
1000s	6E-12	
10,000s	2E-12	
Phase Noise		
10 Hz	-145	
100 Hz	-145	
1000 Hz	-150	
10,000 Hz	-155	
GNSS receiver	GPS L1 C/A, GLONASS L1OF, QZSS L1 C/A, SBAS L1 C/A (Ready): Galileo E1B/E1C, QZSS L1S	
Channels	26 channels (GPS, GLONASS, QZSS, SBAS)	
Sensitivity		
GPS	Tracking: -161 dBm	
	Hot Start: -161 dBm	
	Warm Start: -147 dBm	
	Cold Start: -147 dBm	
	Reacquisition: -161 dBm	
GLONASS		
	Tracking: -157 dBm	
	Hot Start: -157 dBm	
	Warm Start: -143 dBm	
	Cold Start: -143 dBm	
	Reacquisition: -157 dBm	
	With Novus recommended antenna	
Antenna with LNA		
Antenna power	3.5 Vdc, < 35 ma (on center conductor) (factory configurable to 5 Vdc)	
Frequency	1574-1607 MHz	
Nominal Gain	2 dBic	
Amplifier gain	26 dB	
Noise Figure	< 2.0 dB	
Out of Band rejection	Fo±50MHz=60 dBc, Fo±60 MHz	
DC current	<25 ma@3.5 Vdc	

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) < 6 Watts	
Connectors	BNC - 100 MHz output	
	BNC - PPS 3.3 Vdc CMOS	
	Power/Alert mate TE Connectivity- 106527-4	
	Power Connector 1 PWR-, 2 PWR+, 3 Status 1, 4 Status	
	Status relay normally closed	

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	