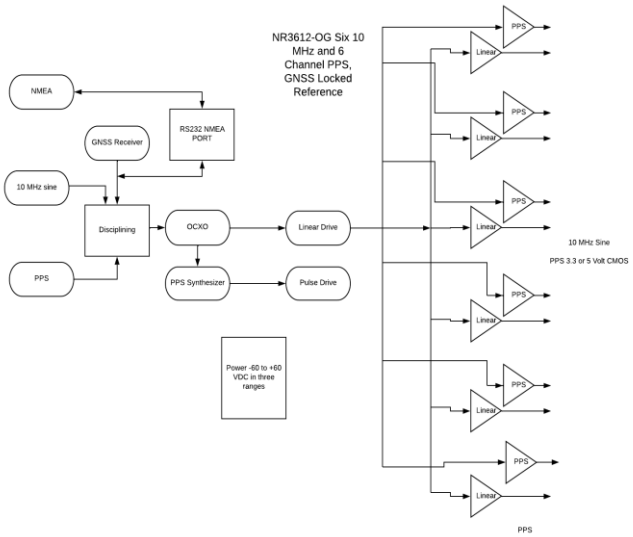
DATA SHEET	NR3612-OG
REVISION	A
DATE	111822

NR3612-O/G

10 MHz Frequency Reference, OCXO, GNSS-Locked, 6- Channel 10 MHz , 6-channels of PPS

With External Synchronization capability to PPS or 10 MHz

KEY FEATURES



The NR3612-O/G is a high performance 10 MHz GNSS locked, OCXO based frequency reference that features 6 channels of 10 MHz and 6 channels PPS

The 10 MHz outputs are 13 dBm while the PPS outputs can be 5 or 3.3 Volt logic levels with the capability of driving a 50 Ohm load. The unit may be optionally synced to an external 10 MHz or PPS signal. The priority for each timing source is user settable.

Product Highlights

Six Channels 10 MHz 6 channels of PPS

Transient and fault protected channels.

Versatile Power

-60 to +60 Vdc in three ranges

Low Phase Noise

- 155 dBc/Hz @ 10kHz

External Synchronization

Locks to GNSS or an external 10 MHz or PPS. User selectable priorities.

Technical Specifications

10MHz sine	13 ±2 dBm,50 Ohm BNC- 6 channels front
Harmonics	Less than -30 dBc
First year frequency stability	±50 ppb (unlocked)
Temperature stability	±10 ppb (unlocked)
Phase noise	
1 Hz	-100
10 Hz	-130
100 Hz	-145
1000 Hz	-150
10k Hz	-155
Typical Allan Deviation	
0.1 secs	1.5 E-12
1 sec	7.5E-12
10 sec	2.0E-11
100 sec	7.0 E-11
500 sec	2.5 E-11
PPS	
Amplitude for 1PPS	3.3 Vdc CMOS (5 Vdc option) ±100 mA
Pulse width for 1PPS	Programmable 1 to 500ms in 1 ms steps
Rise time for 1PPS	<5 ns (faster edge available)
Jitter	GNSS-PPS < 10ns SYTH-PPS <250 psec
Connector	SMA
Load impedance	50 Ohm
Location	front

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	26 channel receiver
Antenna power	3.5 Vdc, < 20 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	Standard configuration is 12Vdc (9 to 15Vdc) Options- ±24Vdc (20 to 30Vdc), ±48Vdc (40 to 60Vdc) AC adapter available 100 to 240Vac, 50/60Hz
Connectors	SMA 10 MHz output
	BNC 10 MHz input (5 to 15 dBm)
	SMA PPS (3.3 Vdc CMOS)
RS232	DB9 female standard (male option available)
Power connector	4-pin power connector - power in. Mates with On-Shore Tech OSTTJ0411530.

Environmental and Mechanical

Operating temperature	0 to 50°C non-condensing (extended temperature range available)
Storage temperature	-40 to 70°C
Width	6.0”
Depth	6.0” (exclusive of connectors)
Height	1.58 “
Weight	~16 oz.