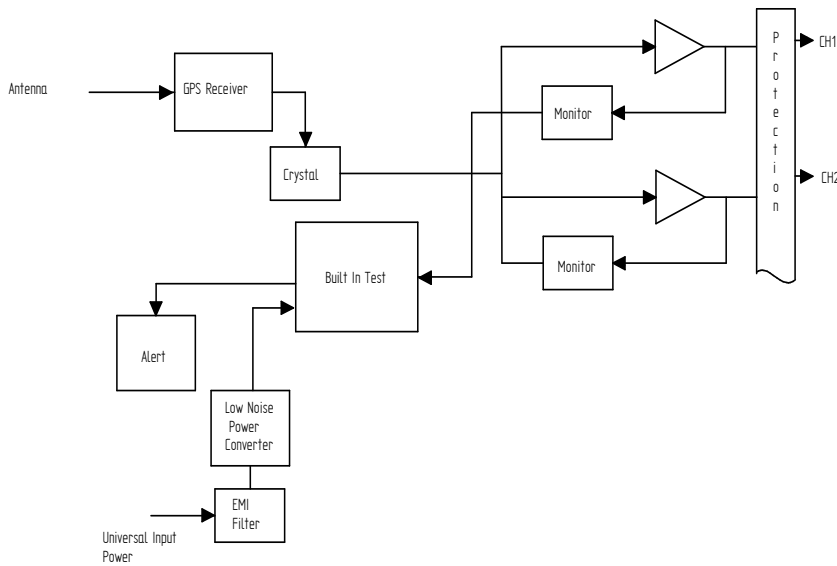


DATA SHEET	NR2310-O/G
REVISION	G
DATE	5/31/19

NR2310-O/G

10 MHz Frequency Reference, GNSS-Locked, OCXO, Ten Channel



Crystal

Excellent aging is achieved by using a low jitter overtone SC cut crystal in a temperature controlled oven.

High Sensitivity GPS

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

OffsetHz)	(dBc / Hz)
Typical	
10	-130
100	-145
1K	-150
10K	-151

The signal source is a GNSS driven, mixed-signal phase lock loop generating a 10MHz sine output from an intrinsically low jitter, voltage-controlled crystal oscillator. The crystal oscillator output drives ten independent output channels that are fault protected and monitored continuously.

There is built in test circuitry throughout the design. All power supplies, signal present are monitored and are used to drive a status relay as well as indicators on the front panel. Auto-Calibration minimizes long-term drift.

Technical Specifications

10MHz Sine	1 Vrms±0.1 10 channel, 50 Ohm - BNC (PPS and square wave options)
Harmonics	Less than -30dB
First Year Freq Stability	± 50 ppb (long-term stability effectively cancelled by Auto-Cal)
Temperature Stability	± 10ppb unlocked
Daily Aging OCXO	± 5 ppb/day unlocked
Yearly Aging	± 30ppb unlocked
Accuracy – Auto-Cal (24 hrs.)	10 MHz <10ppb (does not include crystal drift if not GNSS locked)
Receiver Sensitivity	-155dBm
Antenna Power	3.5 Vdc < 45 mA (other voltages available)
Antenna LNA	Gain > 22dB
Antenna Center Frequency	1575.42 MHz ± 10MHz
PPS	15ns(1σ) (@-130 dBm) 50ns(1σ) (@-150 dBm)RMS accuracy, 3.3 volt logic into 1 KOhm SMA rear panel connector
GNSS Lock	Solid state relay contact status, BNC
Power	90 to 250 Vac, 50/60Hz, IEC 320-C14
Alert	20Vdc/Vac, 0.1 Amp relay contacts - relay closed for normal condition, BNC

Environmental and Mechanical

Operating Temperature	0 to 50°C non-condensing
Storage Temperature	-40 to 70°C
Height	1RU (~1.73 inches)
Width	19.0 inches
Depth	12.0 inches
Weight	5.5 lbs.
AC input	90 to 250 Vac, 50/60Hz, less than 10 Watts

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