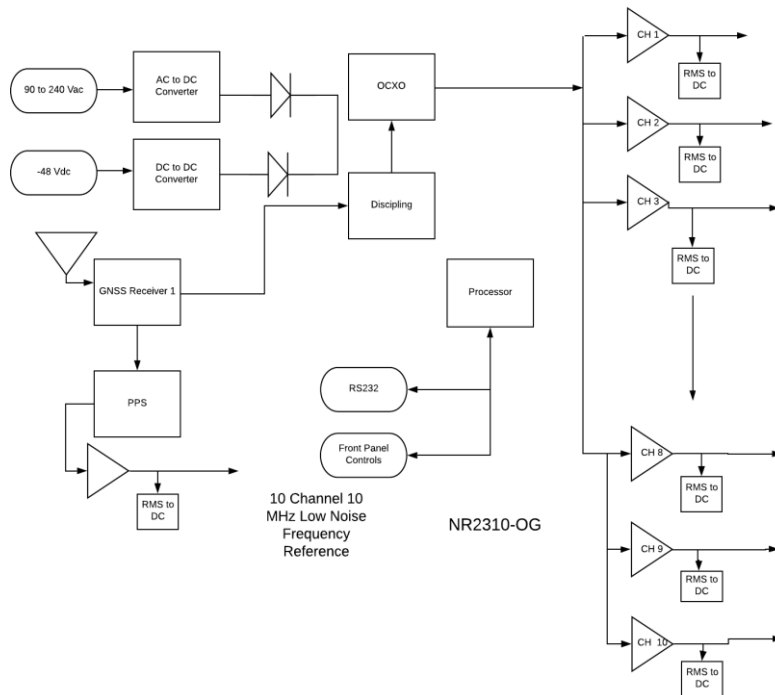


Company Datasheet #	NR2310-O-G
Revision #:	A
Date:	07202020

NR2310-O-G

10 Channel, 10MHz GNSS Locked Reference



10 Channels

Frequently eliminates the need for a distribution amplifier. Transient and fault protected.

Phase Noise

Offset Frequency (Hz)	Typical (dBc / Hz)
10	-120
100	-145
1K	-145
10k	-150

All channels are monitored for a fault condition and built in test monitors critical circuits which drives panel indicators as well as alarm relay that can be wired into an alarm panel.

Company Datasheet #	NR2310-O-G
Revision #:	A
Date:	07202020

Technical Specifications

Output	10 MHz, 1.0 Vrms ± 0.2 , into 50 Ohms, 10 channels, Sine, BNC
Harmonic Distortion	< -30 dBc
First Year Freq Stability	± 50 ppb (unlocked)
Temperature Stability	± 10 ppb unlocked
Daily Aging OCXO	± 5 ppb/day unlocked
Yearly Aging	± 50 ppb unlocked
Allan Deviation	< $1E-11$ @300 seconds
Phase noise	
1 Hz	-95 dBc/Hz
10 Hz	-120 dBc/Hz
100 Hz	-145 dBc/Hz
1 kHz	-150 dBc Hz
PPS	
Amplitude for 1PPS	3.3 Vdc CMOS (5 Vdc option)
Pulse width for 1PPS	Programmable 1 to 500ms in 1 ms steps
Rise time for 1PPS	<10 ns (faster edge available)
Jitter	GNSS-PPS < 10ns
Connector	SMA
Load Impedance	50 Ohm
Location	rear
Remote interface & control	
Protocol	RS232 NMEA-0183
Connector	DB-9
Location	Rear panel
Protocol	Bit plus stop
Standard Baud Rates	Selectable 4800, 9600, 19200, 38400, 57600 or 115200 bps
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 Required		
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	

Environmental and Mechanical

Operating temperature	0 to 50C non-condensing	
Storage temperature	-40 to 70C	
Height	1RU (~1.73)	
Width	19 inch	
Depth	12 inch	
AC input	90 to 250 VAC, 50/60hz, less than 10 watts	
Weight	≈5.5lbs	

This document is copyright © July 20, 2020 Novus Power Products LLC. All rights reserved. This document is provided for information purposes only; contents are subject to change without notice. It is not warranted to be error-free, nor subject to any other warranties or conditions including implied warranties and conditions of merchantability or fitness for a particular purpose.