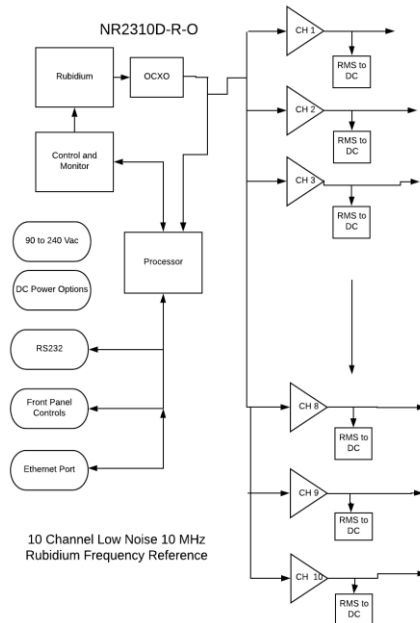


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NR2310D-R-O

10MHz, Low Noise, 10 Channel Rubidium Reference with Networking Capability



Networking

SNMP option

Phase Noise

Offset Frequency (Hz)	Typical (dBc / Hz)
10	-130
100	-140
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. Low noise OCXO dominates phase noise performance.



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Technical Specifications

Output	10 MHz, 1.0 Vrms \pm 0.2, into 50 Ohms, 10 channels, Sine
Harmonic Distortion	< -30 dBc
Yearly Aging	\pm 1 ppb
Connectors	Available with either BNC or SMA connectors
PPS	
Amplitude for 1PPS	3.3 Vdc CMOS (5 Vdc option)
Pulse width for 1PPS	Programmable 1 to 500ms in 1 usec steps
Rise time for 1PPS	<10 ns
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
SNMP (option)	
Remote monitoring & control	Internet
Parameters monitored Locally – present on remote interface for monitoring	Output amplitude, all power supplies, GNSS lock status, number of satellites, Built-In test status,
Transaction/decodable commands	English format
Single monitoring command	Updated every second
Connector	RJ-45

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Rubidium Atomic		
Accuracy at shipment	+/-5.0E-11	
Warm-up time	<15 minutes	
Time of lock	<5 min -130 dBm	
Time to achieve accuracy	<±1E-9<20 minutes	
Aging - monthly	<±5E-11	
Aging - yearly	<±1.0E-9	
Stability: Allan Deviation		
1s	<3E-10	
10s	<1E-10	
100s	<3E-11	
SSB Phase noise for 10Mhz		
	Standard	Low Noise Option
10Hz	< -95	<-125dBc
100Hz	<-125	<155dBc
1000Hz	<-135	<-160dBc
10000Hz	←135	<-160dBc

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 (DC power options available)
Weight	≈5.5lbs

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