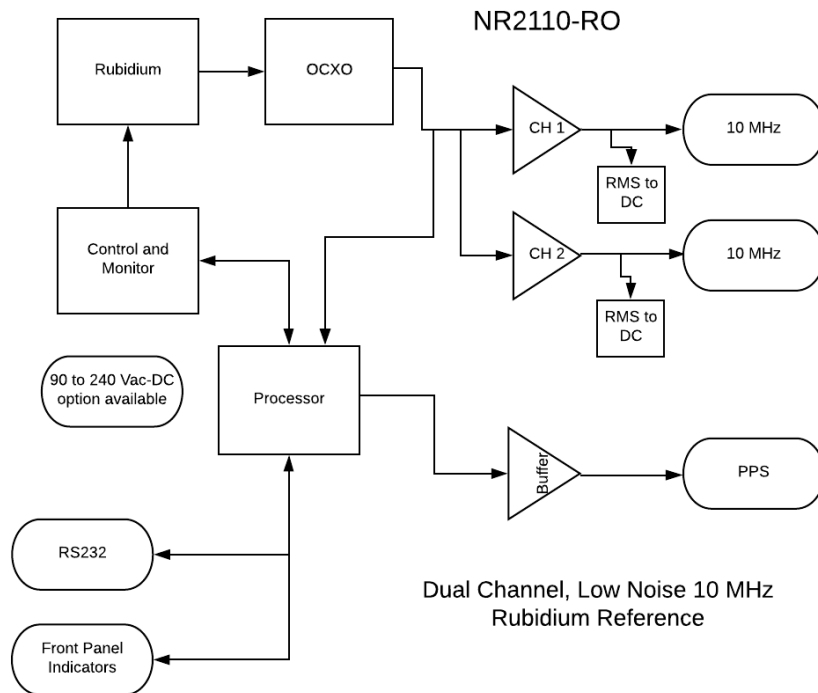


Company Datasheet #	NR2110RO
Revision #:	C
Date:	050423

# NR2110-RO

## 10MHz, Dual Channel, Low Noise Rubidium Frequency Reference



### Rubidium Stability

<±5E-11 Monthly

### Typical Phase Noise

Offset(Hz)	dBc / Hz
10	-125
100	-140
1K	-145
10k	-150

High Performance, Low Noise Rubidium Frequency reference. Dual channels fault and transient protected. Simulated PPS

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Revision #:	C
Date:	050423

## *Technical Specifications*

<b>Output 10 MHz Sine</b>	10 MHz, 0.5 Vrms $\pm$ 0.1, into 50 Ohms, 2 channels, Sine
Harmonic Distortion	< -30 dBc
Connectors	BNC
<b>Output Simulated PPS</b>	200 ms Pulse width, 500 ohm load, 3.3 or 5 Volt CMOS
<b>Remote interface &amp; control</b>	
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
<b>Rubidium Atomic</b>	
Accuracy at shipment	$\pm$ 1.0E-10
Warm-up time	<15 minutes
Time of lock	<5 min -130 dBm
Time to achieve accuracy	< $\pm$ 1E-9 < 20 minutes
Aging - monthly	< $\pm$ 5E-11
Retrace	< $\pm$ 1.0E-10 after 1 hour
Stability: Allan Deviation	
1s	<3E-10
10s	<1E-10
100s	<3E-11
SSB Phase noise for 10Mhz	Standard
10Hz	<-125dBc
100Hz	<-140dBc
1000Hz	<-145dBc
10000Hz	<-150dBc



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## *Environmental and Mechanical*

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

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