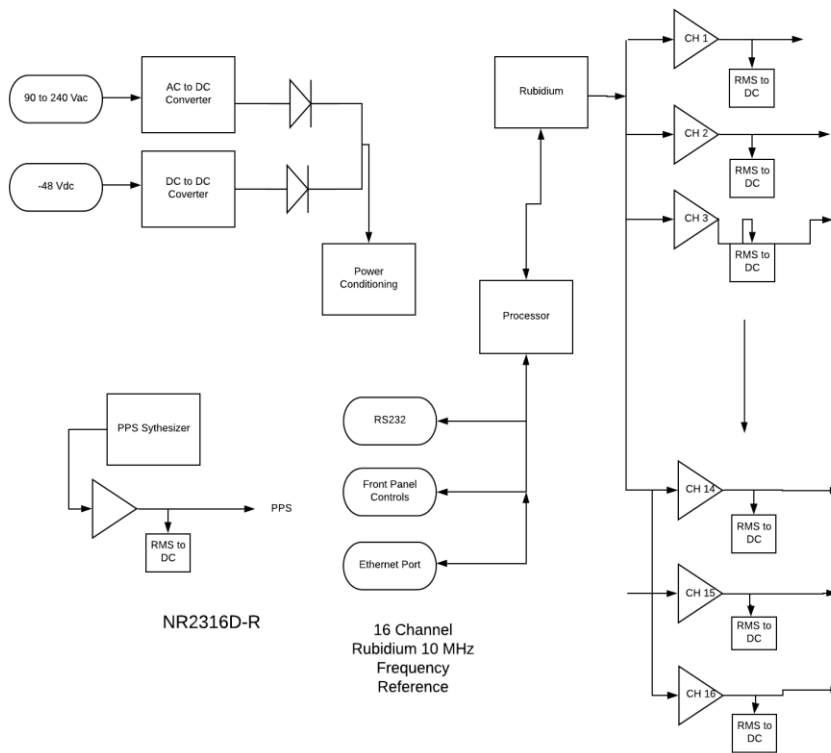


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# NR2316D R

## 10 MHz, 16 Channel, Low Cost Rubidium Reference



### Rubidium

Holdover <  $\pm 5E-11$ /month

### Control

Local and remote control options (RS232- SNMP)

Sixteen channels meet the needs of most applications without requiring a distribution amplifier. Continuous channel monitoring available locally or via RS232/Ethernet/SNMP. Dual power source options for AC and DC power driven systems. Auto-calibration minimizes long-term drift.

## Specifications:

10 MHz Sine	0.5 ±0.1 Vrms, 16 channel, 50 Ohm - BNC
<b>Remote interface &amp; control</b>	
Protocol	RS232
Connector	DB-9
Location	Rear panel
Protocol	Bit plus stop
Standard Baud Rates	Selectable 4800, 9600, 19200, 38400, 57600 or 115200 bps
Parameters monitored Locally – present on remote interface for monitoring	Output amplitude, all power supplies, Built-In test status,
Transaction/decodable commands	English format
Single monitoring command	Updated every second
Connector	DB-9
SNMP (optional)	RJ45
SSB Phase noise for 10Mhz	
	Standard
10Hz	<-85dBc
100Hz	<115dBc
1000Hz	<-135dBc
10000Hz	<-140dBc
<b>Rubidium Atomic</b>	
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
Retrace	<±1.0E-10 after 1 Hour
Temp stability	<1ppb over the 0 to 50C range
Stability: Allan Deviation	
1s	<3E-10
10s	<1E-10
100s	<3E-11
<b>PPS (synthesized)</b>	
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)



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Jitter	< 1ns	
Connector	SMA	
Load Impedance	50 Ohm	
Location	rear	
RS232 Serial Status Port	Status-channel voltages	

## Environmental and Mechanical

Operating Temperature	0 to 50C non-condensing	
Storage Temperature	-40 to 70C	
Height	1RU (~1.73)	
Width	19.0 inch	
Depth	13.0 inch	
AC input	90 to 250 VAC, 50/60Hz, less than 10 watts (DC power options)	
Weight	≈5.5lbs	

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