

DATA SHEET	NR7000-O
REVISION	A
DATE	040522

## NR7000-O *pico*POD

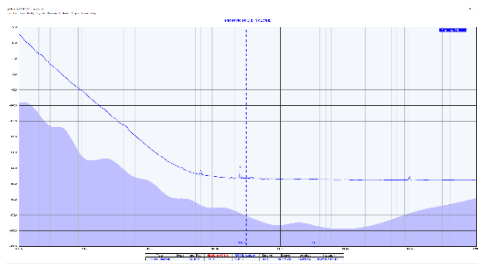
### 10 MHz OCXO Reference with Synthesized PPS



The NR7000-O *pico*POD is a high-performance reference in an ultra-compact package that affords simple system integration.

The *pico*POD is just 2"x2"x0.9" and requires only a 5 Vdc source. Outputs are a 9 dBm sinewave or LVCMOS 10 MHz output. PPS synthesized from the OCXO at 3.3 Vdc.

A low phase noise OCXO at -150dBc/Hz@1000Hz provides a holdover stability of  $\pm 100$  ppb/year.



#### Low Power Consumption

Steady state power < 0.6W. With a single 5V input

#### Synthesized PPS

PPS synthesized from the 10 MHz. Programmable pulse width. Secondary synthesized channel factory programmable from sub 1 Hz to 25 MHz.

#### Programmable Secondary Channel

Secondary synthesized channel factory programmable from sub 1 Hz to 25 MHz.

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## Technical Specifications

10 MHz sine	8 ±2 dBm ,50 Ohm - BNC
Harmonics	Less than -30 dBc
First year frequency stability	±100 ppb
Temperature stability	±300 ppb (10 MHz)
<b>Phase Noise dBc/Hz</b>	
<b>10 MHz</b>	
10 Hz	-120
100 Hz	-130
1 kHz	-140
10 kHz	-150
<b>50 MHz</b>	
10 Hz	-90
100 Hz	-115
1 kHz	-140
10 kHz	-145
<b>100 MHz</b>	
10 Hz	-80
100 Hz	-110
1 kHz	-140
10 kHz	-145
<b>PPS</b>	
Amplitude for 1PPS	3.3 Vdc CMOS (5 Vdc option) 500 Ohms
Pulse width for 1PPS	Programmable 1 to 500ms in 1 ms steps
Rise time for 1PPS	<2ns
Connector	10 Pin 0.1" (Samtec IPL1-105-01-L-D-RA-K)
Load Impedance	500 Ohm
Location	Side Connector
<b>Remote interface &amp; control</b>	
Protocol	RS232 NMEA-0183
Connector	Side connector
Location	side panel
Protocol	Bit plus stop
Standard Baud Rates	Selectable: 9600, 19200, 38400, 57600 or 115200 bps
<b>Secondary Channel</b>	
	Derived from 200 MHz master oscillator locked to 10 MHz. Sub 1 Hz to 25 MHz
	Contact factory for valid synthesis values
	Output impedance is 200 Ohm.
Power	5 -0.1,+0.5 VDC Peak power < 3 watts, steady state < 2 watts
Power connector	On ten pin connector
Mounting	4 -#4-40 threaded mounting holes

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Chassis	Aluminium chassis	

## Environmental and Mechanical

Operating temperature	-20 to 50°C non-condensing (extended temperature range available)	
Storage temperature	-40 to 70°C	
Width	2"	
Depth	2" (exclusive of connectors)	
Height	0.9 (50,100 MHz 1.1) inches	
Weight	<3 oz	

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