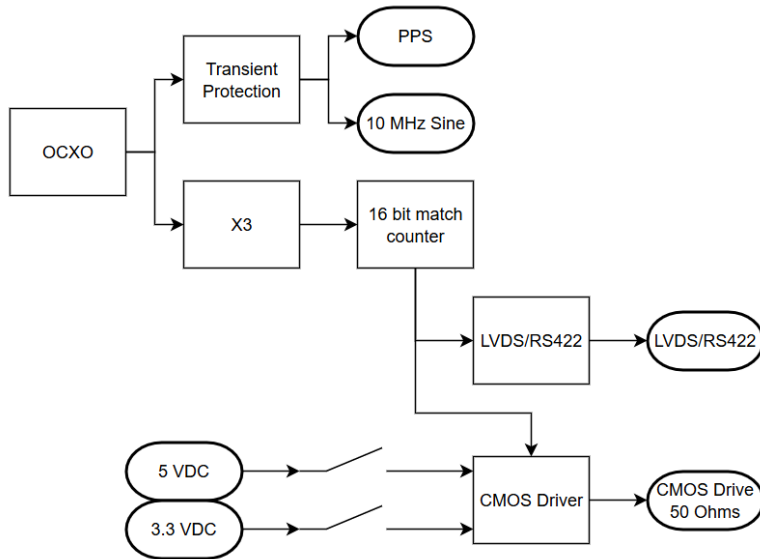


## NR3700-O

### 10 MHz Sine with PPS

#### KEY FEATURES



The heart of the unit is a low phase noise SC cut crystal. The OCXO is a SC (stress compensated) crystal placed in an oven that is operated at ~10°C above the maximum specified temperature.

10 MHz and PPS outputs.

There is built-in-test that drives an LED and relay contacts for system integration. The unit also has a PPS frequency synthesizer that is factory-configurable from sub 1 Hz to 10MHz. Default is 1 Hz or PPS.

The NR3700-O is nominally powered from 12 VDC but can operate from -60 to +60 VDC in three power ranges (range specified at ordering). There is also an AC power adapter available. Compact package of 4.0" x 1.2" x 2.75" (3.5" with mounting flanges). Optional transformer coupling for Galvanic-isolation available.

#### Product Highlights



#### Programmable Pulse Width

Programmable to 500ms in 1 usec steps.

#### CMOS Level PPS drives 50 Ohm loads

#### Typical Phase Noise

Offset (Hz)	dBc / Hz
10	-128
100	-143
1K	-156
10K	-158

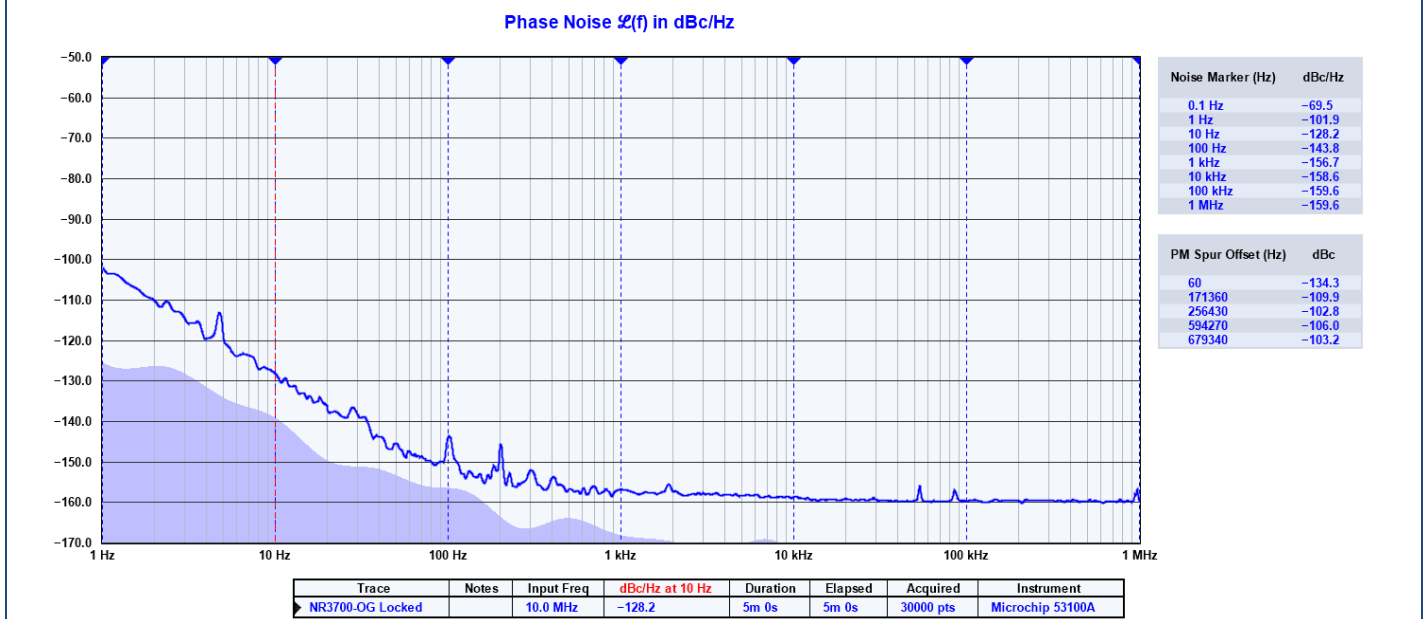
#### Operates from -60 to +60 Vdc

Three ranges or an AC power adapter

## Technical specifications

Output	1 Hz, 5 or 3.3 Volt CMOS Levels into 50 Ohms (other frequencies available)
	10 MHz, 0.4 ±0.1 Vrms, into 50 Ohms
Output RS-232	RS-232 D-sub connection
Accuracy	Factory ship +/-10ppb Factory set
Pulse width	20 usec (factory configurable)
Stability aging	±5 ppb/day
	±50 ppb/year
Temperature Stability	
	±200 ppb
Connectors	BNC 1 PPS CMOS
Stability aging	±5 ppb/day
	+/- 50 ppb/year
Standard Phase Noise	dBc/ Hz
0.1 Hz	-69
1 Hz	-101
10 Hz	-128
100 Hz	-143
1 kHz	-156
10 kHz	-158
100 kHz	-159
1 MHz	-159

### Representative Phase Noise Plot





PRECISION TIMING PRODUCTS

Company Datasheet #	NR3700-O
Date:	260420

	3 pin RS422 connector, +,-, gnd , mates with ON Shore OSTTJ0311530	
Power requirements	Standard configuration is 12 VDC (9 to 15 VDC) Options- ±24VDC (20 to 30 VDC), ±48 VDC (40 to 60 VDC) AC Adapter available 100 to 240VAC, 50/60Hz Power 3W normal operating (5W peak) Power isolation exceeds 200 VAC	
Connectors	2-pin power con - (mate provided with unit) Antenna port is plugged on non-GNSS units	
Status relay	±20 VDC, 20 mA max. (normally closed)	

***Environmental and Mechanical***

Operating temperature	0 to 50C non-condensing (extended temperature range available)	
Storage temperature	-40 to 70C	
Width	3.5" (with flange)	
Depth	4" (exclusive of connectors)	
Height	1.2"	
Weight	~8 oz	

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