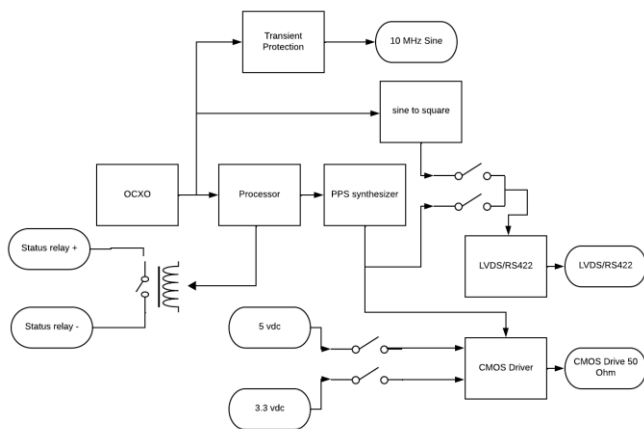


NR3700-O

10MHz Frequency Reference, OCXO, w/Band Gap Reference, Mini Chassis

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 $\sim 10^{\circ}\text{C}$ above the maximum specified temperature.

LVDS can output either the PPS or 10 MHz. Default is 10 MHz.

There is built-in-test that drives an LED and relay contacts for system integration. The unit also has a 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



Oven Stabilized Crystal

The OCXO provides temperature stability of 10 ppb. First year aging stability of 50ppb.

Typical Phase Noise

Offset (Hz)	dBc / Hz
10	-100
100	-125
1K	-135
10K	-150

Low-Cost

Compact size lowers cost.

Frequency Synthesizer

Factory configurable frequency synthesizer

Technical Specifications

Output	10 MHz, 0.4 \pm 0.1 Vrms, into 50 Ohms (LVDS can be 10 MHz or PPS)
Ship frequency accuracy	\pm 20 ppb (24 hours)
First year frequency stability	\pm 50 ppb
Temperature stability	\pm 10 ppb
PPS	Either 3.3 or 5 Volt CMOS
Power requirements	Standard configuration is 12 VDC (9 to 15 VDC) Options- \pm 24VDC (20 to 30 VDC), \pm 48 VDC (40 to 60 VDC) AC Adapter available 100 to 240VAC, 50/60Hz Power 5 W peak during warm-up, 3W normal operating (special crystals may require different power). Power isolation exceeds 200 VAC
Connectors	4-pin power con - power in, status relay connector- Digikey 277-2418-ND (mate provided with unit) For AC adapter use: the adapter comes with a threaded connector LVDS three pin +, -, gnd.
Status relay	\pm 20 VDC, 20 mA max. (normally closed)

Environmental and Mechanical

Operating temperature	0 to 50°C non-condensing (extended temperature range available)
Storage temperature	-40 to 70°C
Width	3.5" (with flange)
Depth	4.0" (exclusive of connectors)
Height	1.2"
Weight	~8 oz

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