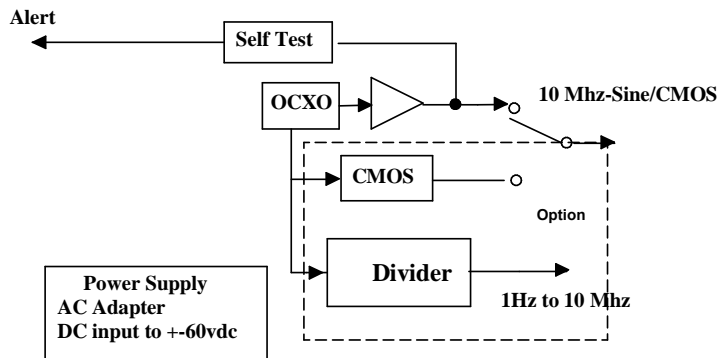


NR3700-O

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 ~10C above the maximum specified temperature. The SC cut has more than a five times improvement in thermal stability and a much lower mechanical sensitivity than an AT cut crystal. There is built-in-test that drives an LED and relay contacts for system integration. The unit also has a frequency divider option that allows seven decades of division from 1 Hz to 10 MHz. 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" 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	-104
100	-135
1K	-145
10K	-149

Lower phase noise options available.

Low Cost

Compact size lowers cost.

Frequency Divider Option

Built-in seven decade counter allows outputs from 1 Hz to 10 MHz.

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Technical specifications

Output	10 MHz, 0.4 ±0.1 Vrms, into 50 Ohms
Ship frequency accuracy	±10 ppb (24 hours)
First year frequency stability	±50 ppb
Temp stability	±10 ppb
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 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
Status relay	Optional output transformer- 200 volt isolation for specific frequencies ±100 VDC, 50 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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