

**DIELECTRIC RESONATOR
OSCILLATORS
LOW-COST MINIATURE**

**LOW-COST
MTO SERIES
5.3-16 GHz**

GENERAL SPECIFICATIONS

ACCURACY AND FREQ. STABILITY: ± 50 MHz Max.

MECHANICAL TUNING: ± 10 MHz (optional)

PUSHING: ± 5 MHz Max.

PULLING: ± 5 MHz Max. (2:1)

HARMONICS: -15 dBc

SPURIOUS: -90 dBc

POWER VARIATION: ± 2.0 dB

POWER SUPPLY: +12 VDC, ± 0.2 V, 140 mA Max.

(Includes internal regulator with reverse polarity protection)

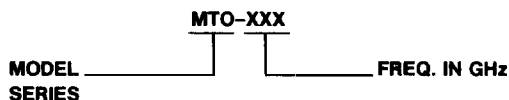
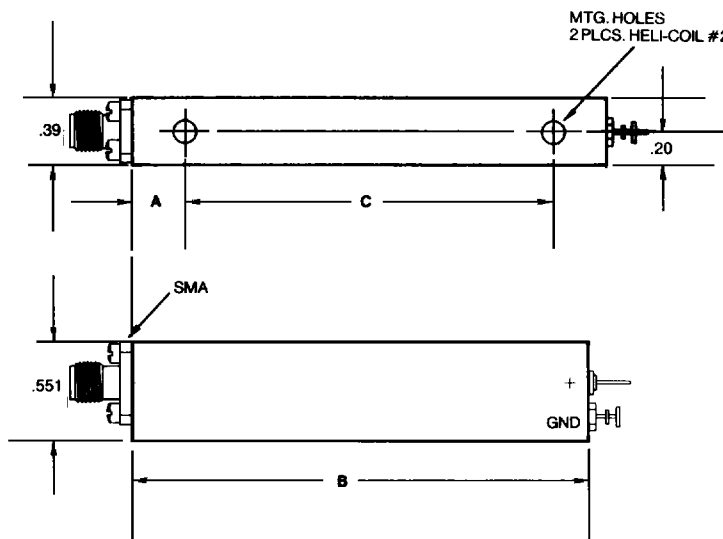
OPERATING TEMPERATURE RANGE: -55°C to +85°C

PHASE NOISE:

@ 5.3 GHz: -85 dBc/Hz @ 20 kHz

@ 16 GHz: -70 dBc/Hz @ 20 kHz

Model No.	Frequency (GHz)	P _{out} (dBm)	Dimensions (inches)		
			A	B	C
MTO-138	5.3	0	.276	3.17	2.20
MTO-150	5.3	0	.276	3.17	2.20
MTO-151	5.5	0	.276	3.17	2.20
MTO-140	6.5	3.0	.315	2.72	2.20
MTO-141	6.7	3.0	.315	2.72	2.20
MTO-137	7.0	3.0	.276	2.57	2.02
MTO-145	7.0	10.0	.276	2.57	2.02
MTO-135	14.1	1.0	.276	1.07	2.02
MTO-136	14.1	4.0	.276	1.07	2.02
MTO-142	15.0	3.0	.276	1.53	1.02
MTO-146	15.0	10.0	.276	1.07	2.02
MTO-147	16.0	10.0	.276	1.07	2.02



NOTE 1: All units are burned in per MIL-STD-810 for 24 hours at min. +85°C operating.

NOTE 2: Additional screening optional.

TYPICAL ENVIRONMENTAL SPECIFICATIONS

TEMPERATURE CYCLING: MIL-STD-202E, Method 102 Cond. C (5 cycles) -65 to +125°C.

VIBRATION: MIL-STD-202E, Method 204C, Cond. B (.06" DA or 15g's, whichever is less; 10 to 2000 HZ)

MECHANICAL SHOCK: MIL-STD-202E, Method 213B, Cond. B (75g, 6 msec, half sine)

HUMIDITY: *MIL-STD-202E, Method 103B, Cond. B (96 Hrs. at 95% RH)

ALTITUDE: MIL-STD-202E, Method 105C, Cond. B (50,000 feet)

* for sealed units

To specify other frequencies, add a dash # to the model.