



# 10GHz Fixed Tuned Oscillator

## FTO-10000-T

### Features

- Operating frequency:  
10 GHz
- Output Power (50  $\Omega$  Load):  
7 dBm Minimum
- Phase Noise:  $\leq -107$   
dBc/Hz@100 KHz
- Low Power Consumption
- Frequency Drift over 0°C  
to +70°C:  $< \pm 5$  MHz
- 0.5 D x 0.18 H inches

### Applications

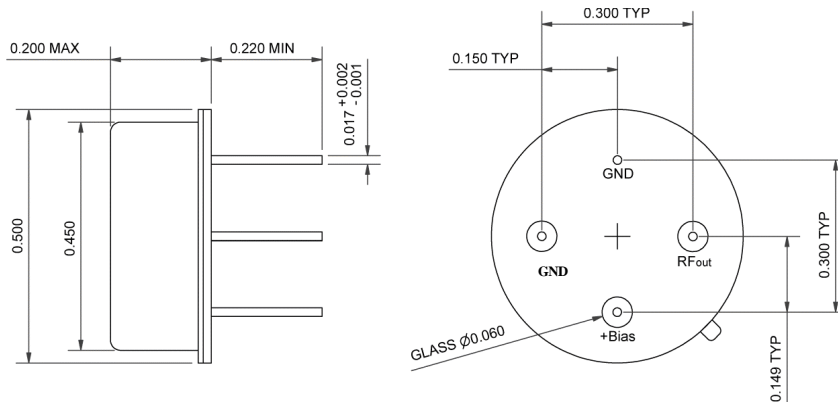
- Low Noise LO for Up and  
Down converters
- Low Noise stable Source



### General Description

The FTO-10000-T provides a fundamental, fixed frequency, low drift and low noise source for applications in military, instrumentation and communications. The oscillator uses a high performance low noise Silicon Bipolar transistor. A GaAs MMIC buffer amplifier is used to achieve necessary power output and load isolation.

### Package Mechanical Dimensions (Inches)



### Absolute Maximum Ratings

Parameter	Units	Ratings
Positive Supply Voltage	V	6
Operating Temperature	°C	-30 to 85
Storage Temperature	°C	-40 to +125

**FTO-10000-T Summary Electrical Specifications, 0° C to 70° C**

Parameter	Units	Min	Typ	Max
Frequency @ 25° C	GHz	9.995	10.000	10.005
Power Output ( 50 $\Omega$ Load)	dBm	7	10	13
Output Return Loss	dB	10	12	
Second Harmonic (Below Carrier)	dBc			-15
Third Harmonic (Below Carrier)	dBc			-15
Spurious Output (Below Carrier)	dBc			-70
Phase Noise @100 KHz from $f_0$	dBc / Hz		-107	-105
Frequency Drift over Temp.	MHz			+/- 5
Pulling Figure (12 dB Return Loss)	MHz			5
Pushing Figure, +/- 0.3V Supply	MHz			5
Positive Supply Voltage	V	4.85	5	5.15
Positive Supply Current	mA			75

**Contact Factory for any changes in specifications or packaging options.**

**Part Number Ordering Information**

<b>Part Number</b>
FTO-10000-T

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