Fixed Tuned Oscillator

Phase Matrix, Inc.™
Technology You Can Count On

FTO-025-TD
FTO-020-TD

Features

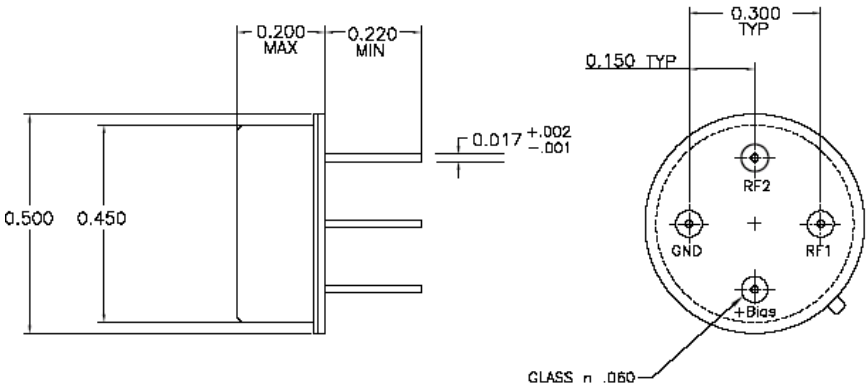
- **2.488 GHz Differential Sine Wave output.**
- **Output Power (50 Ω Load) each port: -2 dBm Min**
- **Low Jitter (Less than 50 femto seconds from 50 KHz to 80 MHz)**
- **Low Power Consumption**
- **Frequency Drift over 0°C to +70°C: < +/- 1%**
- **0.5 D x 0.18 H inches**

Applications

- **Transmitter and Receiver Subsystems for high-speed data communications.**
- **Low Noise stable Source**

The FTO-025-TD and FTO-020-TD provide a fundamental, low jitter differential sine wave source for the data re-timing in the transmitter subsystem and clock and data recovery in the receiver of the high-speed fiber optic systems. The oscillator uses a high performance low noise Silicon Bipolar transistor. A Bipolar buffer amplifier is used to achieve necessary power output and load isolation. A splitter is used in the output to provide differential clock output.

Package Mechanical Dimensions (Inches)



Absolute Maximum Ratings

Parameter	Units	Ratings
Positive Supply Voltage	V	4
Operating Temperature	°C	-10 to 95
Storage Temperature	°C	-40 to +125

FTO-025-TD and FTO-020-TD Summary Electrical Specifications, 0° C to 70° C

Parameter	Units	Min	Typ	Max
Frequency FTO-025-TD FTO-020-TD	 GHz GHz		 2.488 2.000	
Power Output (50 Ω Load) each port	dBm	-2		4
Power Balance	dB			1
Phase Balance	Deg			15
Output Return Loss	dB	12	15	
Second Harmonic (Below Carrier)	dBc			-20
Third Harmonic (Below Carrier)	dBc			-20
Spurious Output (Below Carrier)	dBc			-60
Phase Noise @ 100 KHz from F_o	dBc / Hz		-108	-103
Frequency Drift over Temperature, bias & load(12 dBr) variations and aging	%			+/- 1
Positive Supply Voltage	V	3.2	3.3	3.4
Positive Supply Current	mA			100

Contact Factory for any changes in specifications.

Part Number Ordering Information

Part Number
FTO-025-TD for 2.4888 GHz
FTO-020-TD for 2.0 GHz

For more information:
Phase Matrix Inc.
109 Bonaventura Dr.
San Jose, California
95134 - 2106 USA
TEL: +1 (408) 428.1000
sales@phasematrix.com

Data subject to change

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