

TCXOBE-001-100MHz

Low Noise sine out

13.2 x 20.8 x 10.0 mm DIP package

Features

Stability: ± 1.5 ppm over - 20°C to +70°C

100 MHz: Sine wave: 3 dBm min

Phase Noise :

-135dBc/Hz or better at 1KHz

-145dBc/Hz or better at 10KHz

13.2 mm x 20.8 mm x 10.0 mm

Hermetically Sealed Package

Typical Applications

Synthesizer Reference

Test Instruments

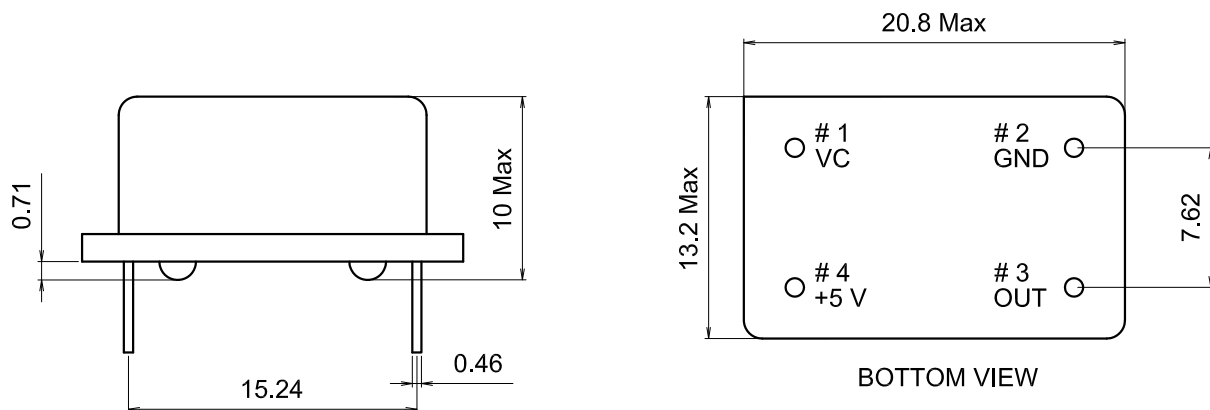
Microwave Communications LO

Weather Radar

Description

The TCXOBE-001-100MHz device offers excellent frequency stability and low phase noise performance based on analog compensation techniques and suitable for harsh environments in a hermetically sealed package.

Mechanical Drawing and PIN Function



Specifications

| # | TCXO Specification | Sym. | Condition | Value | | | Unit | Included in the test data |
|---|--------------------------|------------------|--|------------|------|---------|--------|---------------------------|
| | | | | Min. | Typ. | Max. | | |
| 1.1 | Nominal Frequency | F _o | | 100.000000 | | | MHz | |
| 1.2 | | | +25 °C +/- 5 °C | -250.0 | | +250.0 | ppb | V _c : 2.5V |
| RF output | | | | | | | | |
| 2.1 | Wave form | | | Sine wave | | | | |
| 2.2 | Output Power | | | 3.0 | | | dBm | |
| 2.3 | Harmonics | | Sub harmonics -45 dBc | | | -25 | dBc | harmonics |
| 2.4 | Load | | | | 50 | | Ohms | |
| Frequency control | | | | | | | | |
| 3.1 | | | | | | | | |
| 3.2 | Control voltage range | V _c | | 0.0 | 2.5 | 5.0 | V | |
| 3.3 | | | | | | | | |
| 3.4 | Slope | | | Positive | | | | |
| 3.5 | Pull range | | | +/- 10.0 | | | PPM | |
| 3.6 | | | | | | | | |
| Power supply | | | | | | | | |
| 4.1 | Voltage | V _{cc} | | 4.75 | 5 | 5.25 | V | |
| 4.2 | | | | | | | | |
| 4.3 | DC Current | | | | | 30 | mA | |
| Frequency stability | | | | | | | | |
| 5.1 | vs. temperature | | From -20 °C to +70 °C | -1.500 | | +1.500 | ppm | |
| 5.2 | | | Includes voltage and load variation | | | | | |
| 6 | Aging | per year | after 30 days of operation at time of shipment | | | +/- 1.0 | ppm | |
| 7.1 | SSB Phase Noise | | at 1 Hz offset | | | | dBc/Hz | |
| | | | at 10 Hz offset | | | | | |
| | | | at 100 Hz offset | | | -115 | | |
| | | | at 1 kHz offset | | | -135 | | |
| 7.2 | | | at 10 kHz offset | | | -145 | | |
| Maximum ratings, environmental, mechanical conditions. | | | | | | | | |
| | | | | | | | | |
| Operating temperature range | | -20 °C to +70 °C | | | | | | |
| Storage temperature range | | -55 °C to +95 °C | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
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