



20 MHz TCXO Oscillator, ± 2.5 PPM, CMOS Output,
-145 dBc/Hz at 10kHz Offset, +12V, SMA

Temperature Compensated Crystal Oscillators

PE19XL6001

Features

- 20 MHz Temperature Compensated Crystal Oscillator
- Operational Temperature: -30°C to +75°C
- Aging: ± 1 ppm max per year @ 25°C
- Output: CMOS
- Temp Stability: ± 2.5 ppm
- Phase Noise: -145 dBc/Hz @ 10 KHz offset
- SMA Female Output

Applications

- Phase Locked Loop
- Function Generators
- Frequency Synthesizers
- Receivers
- Electronic Jamming Equipment
- Local Oscillator
- Wireless Communications
- SATCOM
- Optical Communications
- Military Electronic Systems

Description

The PE19XL6001 is a Temperature Compensated Crystal Oscillator (TCXO) module that features a highly stable output reference frequency of 20 MHz with a CMOS output. The TCXO oscillator has a temperature stability of ± 2.5 ppm over a temperature range of -30°C to +75°C and aging of 1ppm maximum per year @ 25°C. This design features exceptional phase noise performance of -145 dBc/Hz @ 10 KHz offset. The 50 ohm Oscillator design requires +12 volts with 10 mA, and supports a Female SMA connector. The rugged compact package assembly operates over a -30°C to +75°C temperature range and is designed to meet MIL-STD-202 environmental test conditions for Humidity, Shock, Vibration, and Altitude.

Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Output Frequency		20		MHz
Phase Noise @ 10Hz Offset		-80		dBc/Hz
Phase Noise @ 100Hz Offset		-125		dBc/Hz
Phase Noise @ 1kHz Offset		-145		dBc/Hz
Phase Noise @ 10kHz Offset		-145		dBc/Hz
Phase Noise @ 100kHz Offset		-150		dBc/Hz
Temperature Stability		± 2.5		ppm
Aging Per Year			± 1	ppm
Start-Up Time		10		ms
Output Voltage Swing	4.8	5		Vp-p
Supply Voltage (DC)	9	12	15	Vdc
Supply Current (DC)		10	15	mA

Mechanical Specifications

Size

Weight

0.08 lbs [36.29 g]

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [20 MHz TCXO Oscillator, \$\pm 2.5\$ PPM, CMOS Output, -145 dBc/Hz at 10kHz Offset, +12V, SMA PE19XL6001](#)



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Configuration

Output Format
Package Style
Output Connector

CMOS
Connectorized
SMA Female

Environmental Specifications

Temperature

Operating Range

Humidity

Shock

Vibration

Altitude

-30 to +75 deg C

MIL-STD-202F, Method 103B, Cond. B

MIL-STD-202F, Method 213B, Cond. B

MIL-STD-202F, Method 204D, Cond. B

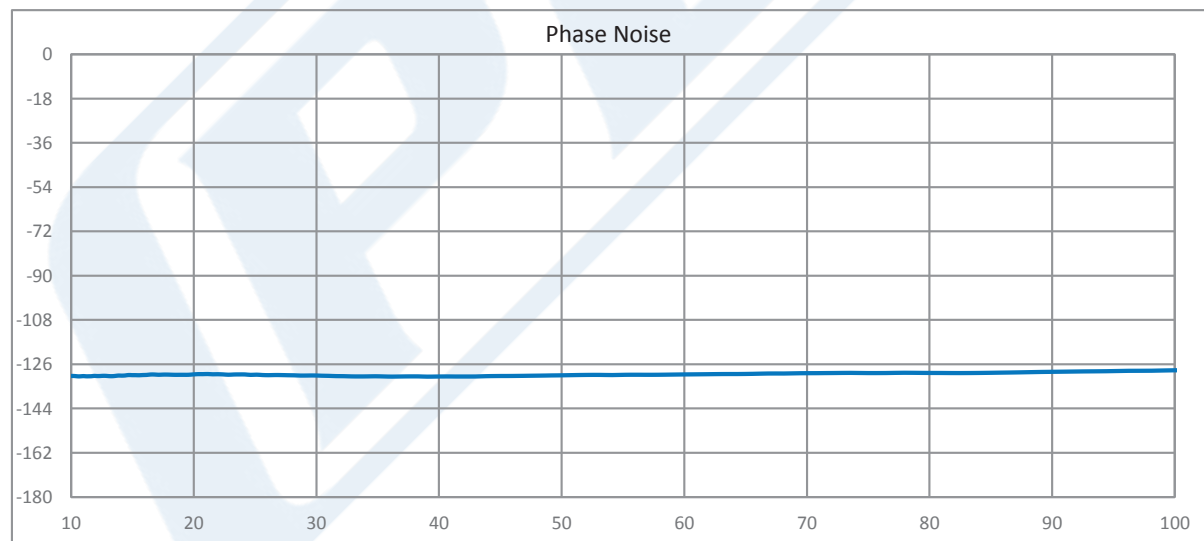
MIL-STD-202F, Method 105C, Cond. B

Compliance Certifications (see [product page](#) for current document)

Plotted and Other Data

Notes:

Typical Performance Data



Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [20 MHz TCXO Oscillator, \$\pm 2.5\$ PPM, CMOS Output, -145 dBc/Hz at 10kHz Offset, +12V, SMA PE19XL6001](#)



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20 MHz TCXO Oscillator, ± 2.5 PPM, CMOS Output, -145 dBc/Hz at 10kHz Offset, +12V, SMA from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the industry.

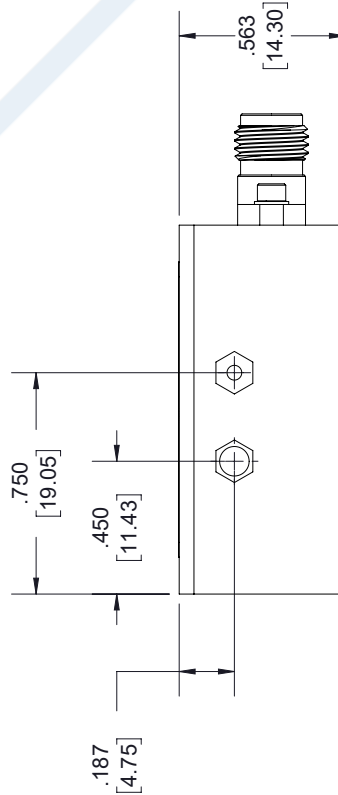
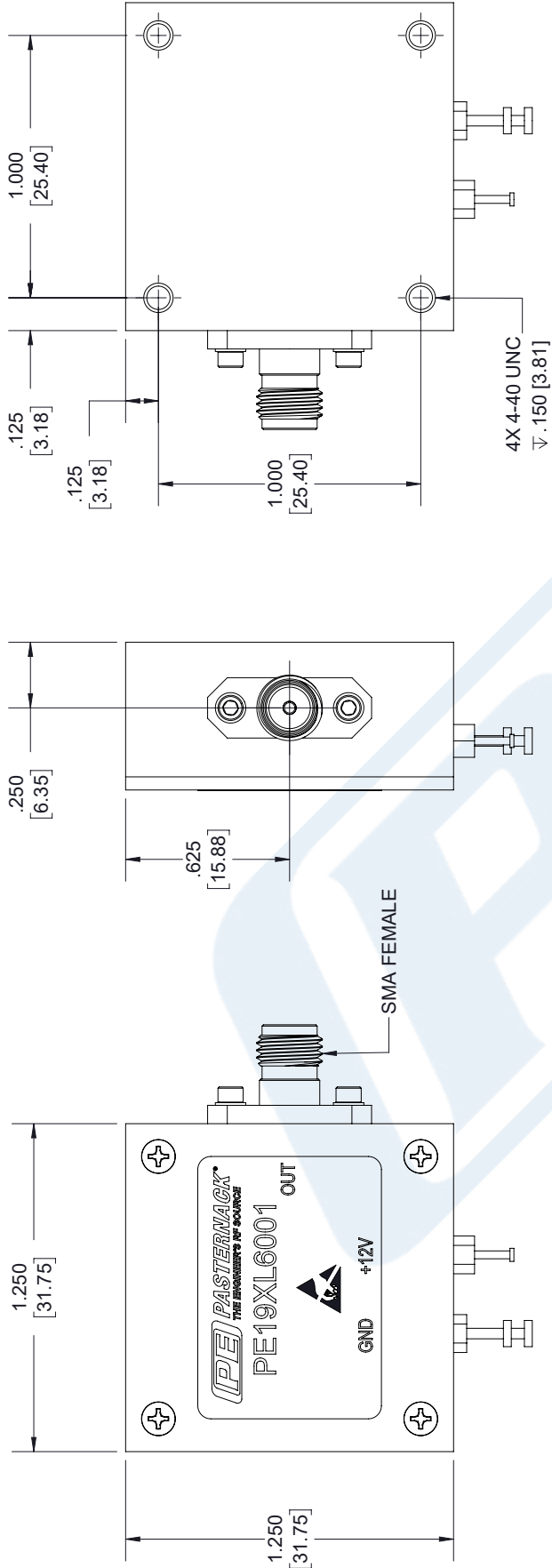
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [20 MHz TCXO Oscillator, \$\pm 2.5\$ PPM, CMOS Output, -145 dBc/Hz at 10kHz Offset, +12V, SMA PE19XL6001](https://www.pasternack.com/20-mhz-tcxo-oscillator-2.5ppm-cmos-145-dbc-hz-12v-sma-pe19xl6001-p.aspx)

URL: <https://www.pasternack.com/20-mhz-tcxo-oscillator-2.5ppm-cmos-145-dbc-hz-12v-sma-pe19xl6001-p.aspx>

The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements. Pasternack reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Pasternack does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Pasternack does not assume any liability arising out of the use of any part or documentation.

PE19XL6001 CAD Drawing

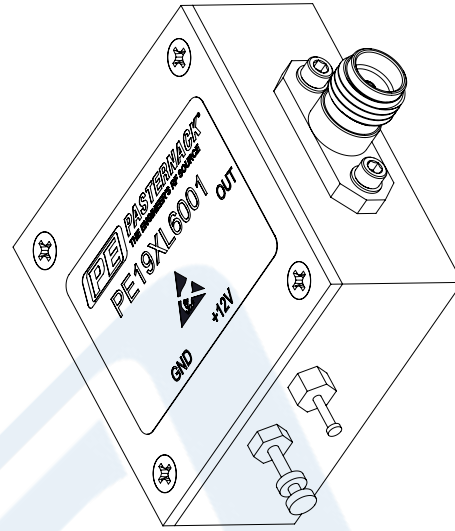
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STANDARD TOLERANCES

.X ± 0.2
.XX ± 0.01
.XXX ± 0.005

*STANDARD TOLERANCES APPLY
ONLY TO DIMENSIONS IN INCHES



DWG TITLE

PE19XL6001

NOTES:
1. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE NOMINAL.
2. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME.
3. DIMENSIONS ARE IN INCHES [mm].

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CAGE CODE 53919

CAD FILE 04/23/18

SCALE N/A

SIZE A

7361