



6 GHz Phase Locked Oscillator, 10 MHz External Ref., Phase Noise -95 dBc/Hz, SMA

Phase Locked Oscillators Technical Data Sheet

PE19XC7004

Features

- 6,000 MHz Phase-Locked Oscillator
- External 10 MHz Reference Oscillator
- -95 dBc/Hz @ 10kHz offset
- Pout +7 dBm
- Harmonics -20 dBc
- Designed to meet MIL-STD-202 Environmental Conditions

Applications

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

Description

The PE19XC7004 is a 6,000 MHz Phase-Locked Oscillator with an external 10 MHz Reference Oscillator. This design features exceptional phase noise performance of -95 dBc/Hz @ 10 kHz offset. Supply Voltage is +12V DC. The PCB solder assembly is RoHS compliant and available in a compact coaxial package that's Nickel plated and supports SMA connectors with DC bias pins and a TTL Lock Detect pin available to signal an out-of-lock condition. The reference oscillator has an output power level of +7 dBm +/- 3 dB and 2nd harmonic output of -20 dBc typical. The Reference Oscillator operates over a temperature range of -30°C to +70°C and is designed to meet MIL-STD-202 test conditions for Vibration and Shock.

Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Output Frequency		6		GHz
Output Impedance		50		Ohms
Output Power	+4	+7	+10	dBm
Phase Noise @ 1kHz Offset		-80	-75	dBc/Hz
Phase Noise @ 10kHz Offset		-95	-90	dBc/Hz
Phase Noise @ 100kHz Offset		-115	-110	dBc/Hz
Phase Noise @ 1MHz Offset		-135	-130	dBc/Hz
Reference Frequency		10		MHz
Reference Impedance		50		Ohms
Reference Input Power	+4	+7	+10	dBm
Reference Phase Noise @ 10Hz Offset		-110		dBc/Hz
Reference Phase Noise @ 100Hz Offset		-130		dBc/Hz
Reference Phase Noise @ 1kHz Offset		-145		dBc/Hz
2nd Harmonics		-25	-20	dBc
Spurious		-70	-65	dBc
Lock Detect	5 VDC TTL, High=Lock			
Supply Voltage (DC) 1		12		Vdc

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [6 GHz Phase Locked Oscillator, 10 MHz External Ref., Phase Noise -95 dBc/Hz, SMA PE19XC7004](#)



6 GHz Phase Locked Oscillator, 10 MHz External
Ref., Phase Noise -95 dBc/Hz, SMA

Phase Locked Oscillators Technical Data Sheet

PE19XC7004

Supply Current (DC) 1

150

200

mA

Mechanical Specifications

Size

Length	2 in [50.8 mm]
Width	1.5 in [38.1 mm]
Height	0.6 in [15.24 mm]
Weight	0.111 lbs [50.35 g]

Body Material and Plating

Aluminum

Configuration

Design	Commercial
Reference Type	External
Package Style	Connectorized
Input Connector	SMA Female
Output Connector	SMA Female

Environmental Specifications

Temperature

Operating Range	-30 to +70 deg C
Shock	IAW MIL-STD-202, Method 213, Condition A
Vibration	IAW MIL-STD-202, Method 204, Condition A
ESD Sensitivity	ESD Sensitive Material, Transport material in Approved ESD bags. Handle only in ESD Workstation.



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

Plotted and Other Data

Notes:

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [6 GHz Phase Locked Oscillator, 10 MHz External Ref., Phase Noise -95 dBc/Hz, SMA PE19XC7004](#)

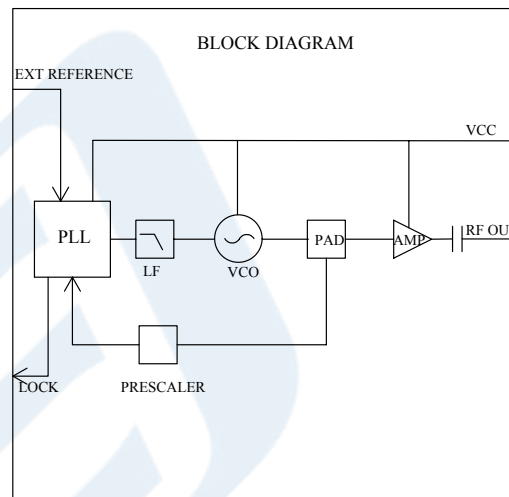
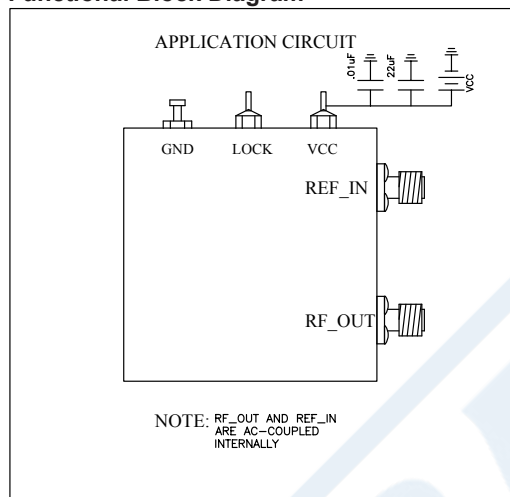


6 GHz Phase Locked Oscillator, 10 MHz External
Ref., Phase Noise -95 dBc/Hz, SMA

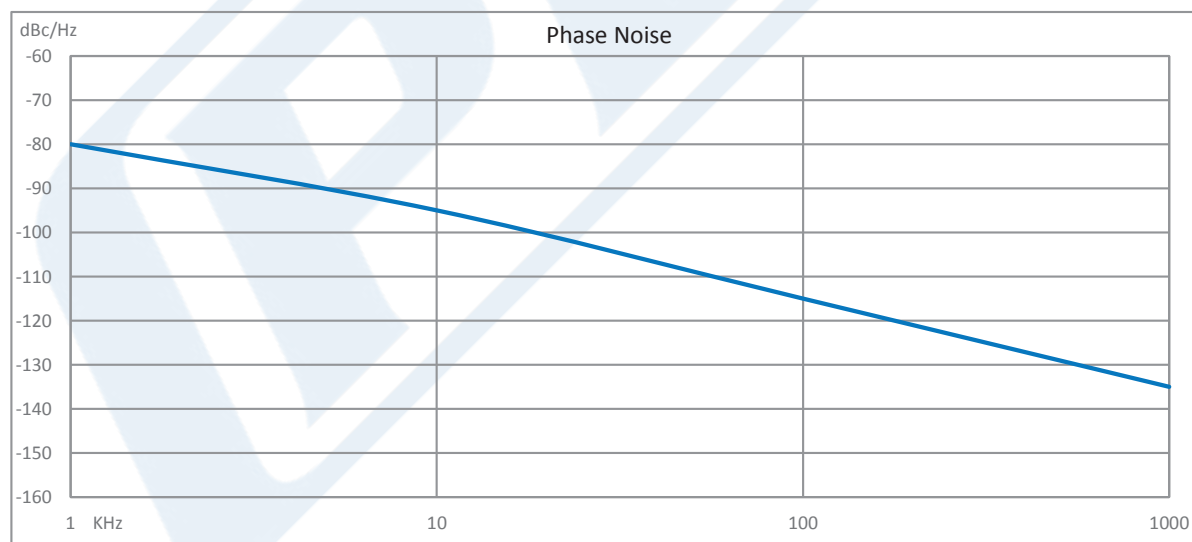
Phase Locked Oscillators Technical Data Sheet

PE19XC7004

Functional Block Diagram



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: [6 GHz Phase Locked Oscillator, 10 MHz External Ref., Phase Noise -95 dBc/Hz, SMA PE19XC7004](#)



6 GHz Phase Locked Oscillator, 10 MHz External
Ref., Phase Noise -95 dBc/Hz, SMA

Phase Locked Oscillators Technical Data Sheet

PE19XC7004

6 GHz Phase Locked Oscillator, 10 MHz External Ref., Phase Noise -95 dBc/Hz, 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.

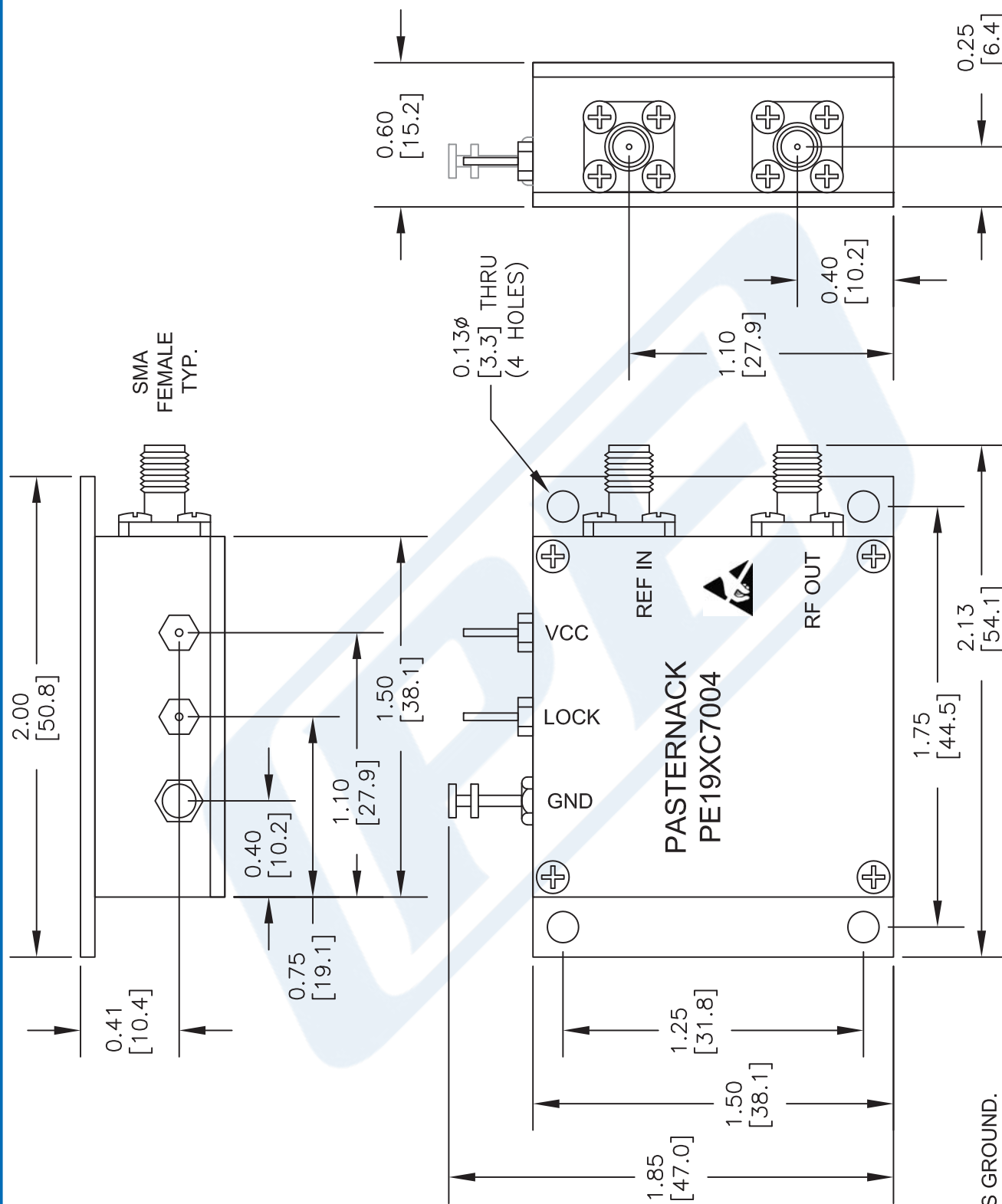
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [6 GHz Phase Locked Oscillator, 10 MHz External Ref., Phase Noise -95 dBc/Hz, SMA PE19XC7004](https://www.pasternack.com/6-ghz-phase-locked-oscillator-external-pe19xc7004-p.aspx)

URL: <https://www.pasternack.com/6-ghz-phase-locked-oscillator-external-pe19xc7004-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.

PE19XC7004 CAD Drawing

6 GHz Phase Locked Oscillator, 10 MHz External Ref., Phase Noise -95 dBc/Hz, SMA



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].

DWG TITLE
PE19XC7004

PE PASTERNAK®
THE ENGINEER'S RF SOURCE
Pasternack Enterprises, Inc.
P.O. Box 16759 | Irvine | CA | 92623
Phone: (949) 261-1920 | Fax: (949) 261-7451
Website: www.pasternack.com | E-Mail: sales@pasternack.com

FSCM NO. 53919

CAD FILE 011216

SCALE N/A

SIZE A

2233