

### Output Frequency

Frequency:	10 MHz	
Frequency stability and accuracy		
External reference unit	Same as input	
Internal reference unit	±0.5 PPM (over temp range)	
Aging (After 2 months):	±1 PPM max per year @ 25°C	
Adjustability (typ.):	10 years	
Phase noise in dBc/Hz:	Typ.	Max.
	L(1 Hz)	-75
	L(10 Hz)	-100
	L(100 Hz)	-115
	L(1 kHz)	-150
	L(10 kHz)	-165
	L(100 kHz)	-165
	L(1 MHz)	-165
Spurious (max.):	-60 dBc	
Harmonics (max.):	-40 dBc	
Power out (nom. / min.) @ 25°C:	+15 / +13 dBm	
Power variation (freq. & temp.) (max.):	±2 dB	
Load VSWR (max.):	2:1	
Phase-lock indicator (LD), High = lock:	Open collector (note 4)	

### Reference Frequency

Input reference frequency:	10 MHz
Input level:	0 dBm ±3 dB

### DC Power

+5.5 Vdc ±0.5 Vdc	200 mA
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### Mechanical

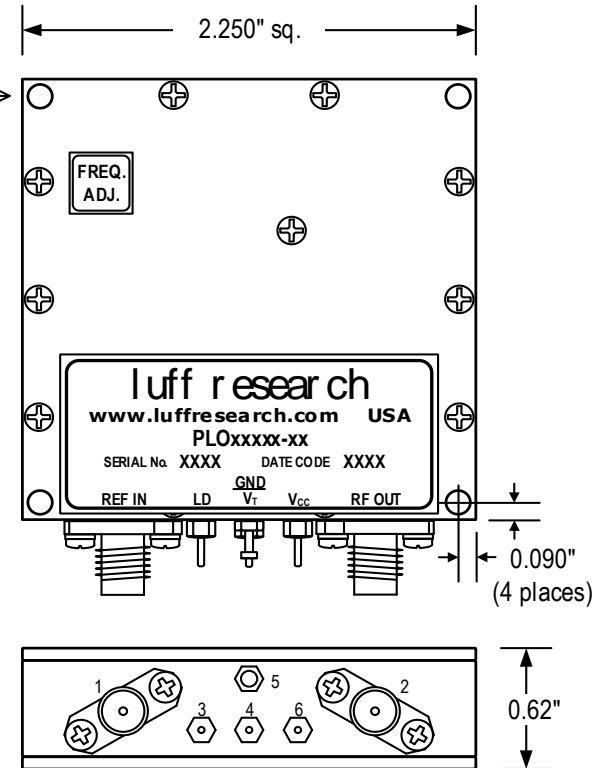
RF connectors:	SMA (F)
DC connections:	Filtered Feedthroughs

### Environment

Operating temperature range (surface):	-5°C to 65°C
Storage temperature range:	-40°C to 85°C
Relative humidity (non-condensing):	90%RH @ 40°
Shock:	30 G / 10msec
Vibration:	4 G / 20 Hz - 20 kHz
Specifications @:	+25°C



Tapped 4-40 UNC  
0.25" Deep from  
Top & Bottom  
(4 places)



1. Reference Input
2. RF Output
3. Lock Detector
4.  $V_T$  (Test Point)
5. Ground Lug
6. DC Power ( $V_{cc}$ )

### NOTES:

1. This phase-locked crystal oscillator has the feature that when the external reference is removed, the internal TCXO reference is automatically switched in as the reference.
2. The internal reference is a TCXO. This unit is also available with an optional OCXO. For the internal OCXO reference, please order model PLOX-xxx-OX. ( $\pm 50$  PPB typ.)
3. Phase noise at offsets of 1 Hz, 10 Hz and 100 Hz is determined by the phase noise of the 10 MHz reference.
4. For TTL compatible lock detector output, add -T at the end of the model number.

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PRODUCT DATA SHEET

Digital Phase-Locked Oscillator

Model: PLOX010-10

Rev. E

06/15/20