

PLO6G10MH Technical Data Sheet (SMA Female connectors)

Case PN: 6UGG4W6H41SMA2

Features:

- * 6 GHz Phase Locked Oscillator
- * External 10 MHz Reference Oscillator
- * -90 dBc/Hz @ 10kHz Offset
- * High Pout +14 dBm (Lower Level can be customized)
- * Harmonics -20 dBc
- * Single DC Voltage supply: +5V
- * Operating Current: 190mA
- * Operating Temperature: -40°C to +85°C
- * REF_IN and RF_OUT are AC-Coupled Internally
- * ROHS Compliant

General Description:

PLO6G10MH is a 6 GHz Phase Locked Oscillator with an external 10 MHz reference oscillator. The PLO features excellent phase noise performance of -90 dBc/Hz @ 10kHz offset. Supply Voltage is +5V DC with low power consumption (<1 watt). This PLO is RoHS compliant with compact coaxial package (1.5"x1.5"x0.48") and Nickel plated. It supports SMA connector and DC Bias Pins and 3.3V Lock Detect pin to indicate out-of-lock condition. The reference oscillator has an high output power level of +14 dBm and 2nd harmonic output of -20dBc typical. It only weights 1.5 Oz (42g).

Applications:

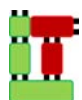
- * Test Instrumentation
- * Phase Locked Loop
- * Frequency Synthesizer
- * Local Oscillator
- * Wireless and Optical Communication



Electrical Specifications:

Item	Parameter	Conditions	Min	Typ	Max	Units
1	Output Frequency			6		GHz
2	Output Impedance			50		Ohms
3	Output Power Level		+13	+14	+15	dBm
4	Phase Noise @ 1kHz Offset			-85	-80	dBc/Hz
5	Phase Noise @ 10kHz Offset			-90	-85	dBc/Hz
6	Phase Noise @ 100kHz Offset			-105	-100	dBc/Hz
7	Phase Noise @ 1MHz Offset			-128	-123	dBc/Hz
8	External Reference Frequency			10		MHz
9	Reference Impedance			50		Ohms
10	Reference Phase Noise @ 10Hz Offset			-100		dBc/Hz
11	Reference Phase Noise @ 100Hz Offset			-127		dBc/Hz
12	Reference Phase Noise @ 1kHz Offset			-147		dBc/Hz
13	2 nd Harmonics			-25	-20	dBc
14	Spurs			-80	-70	dBc
15	Lock Detect			+3.3 VDC High = Lock		
16	Single Power Supply			5		Vdc
8	Current, I _{DD}			190		mA

Test Conditions: V_{DD}=+5V, I_{dd} = 190 mA (typ.) Temp = +25 °C, 50Ω system.



Absolute Maximum Ratings

Item	Parameter	Rating	UNITS
1	Max Device Voltage	+7	V
2	Operating Temperature	-40 to +85	°C
3	Max Storage Temperature	-65 to +150	°C

Note: ESD Sensitive Material, Transport material in ESD bags and handle only in ESD Workstation.

Mechanical Specifications

Size:

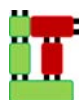
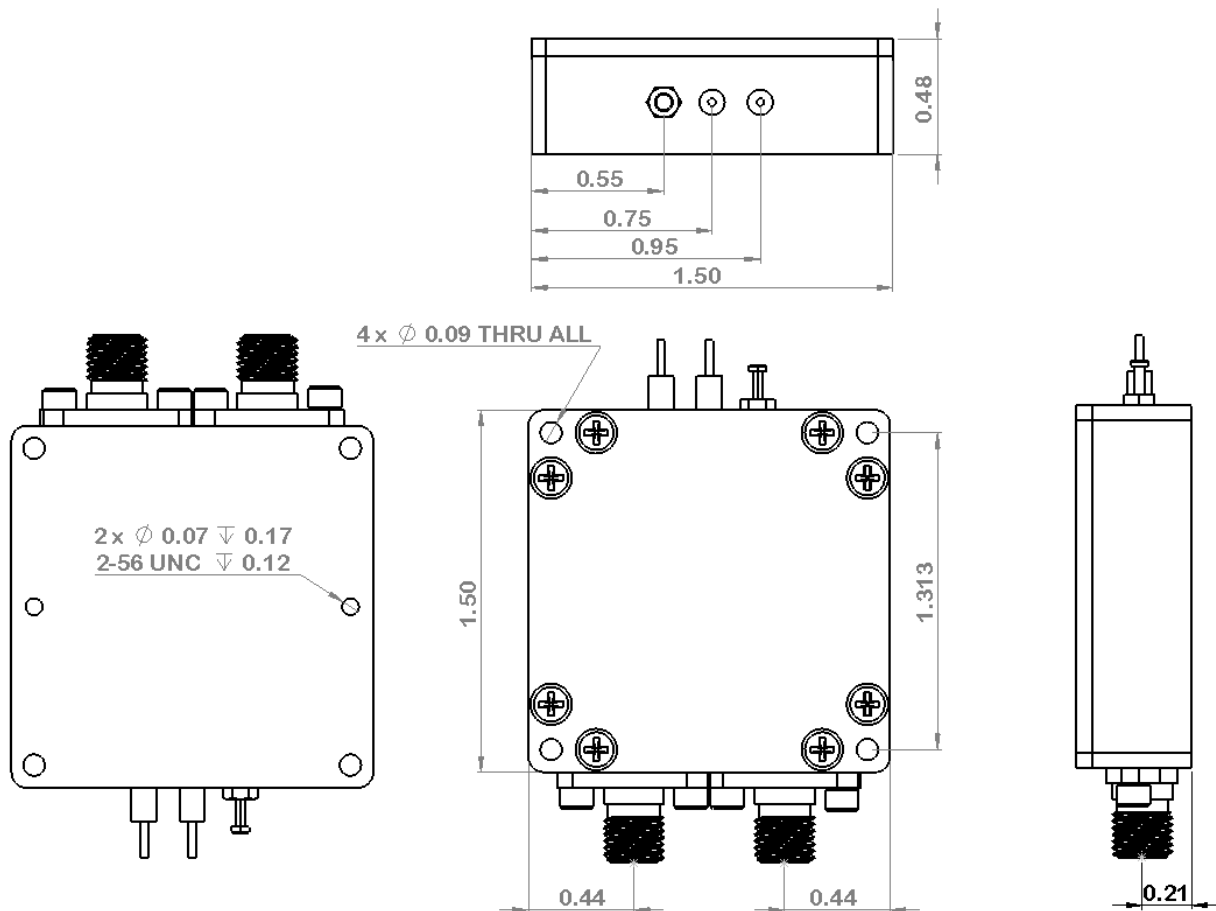
Length: 1.5 in

Width: 1.5 in

Height: 0.48 in

Weight: 1.5 Oz (42 g)

Body Material and Plating: Aluminum with Electroless Nickel Plating



Typical Phase Noise Performance Date

