

## Voltage-controlled Oscillator

**RF:8-16 GHz/Output Power: 12dBm**

**Model: TLVCO8G16G-12-S**

TLVCO8G16G-12-S is a wideband MMIC voltage controlled oscillator with output frequency from 8 GHz to 16 GHz. Output power and phase noise performance are excellent over temperature. The vtune port accepts an analog tuning voltage from 0 to +23V. TLVCO8G16G-12-S operates from a single +12V supply.

### Features:

- Output Frequency: 8-16 GHz
- Output Power: 12dBm Typ
- Low power consumption
- 50 Ohm Matched Output

### Applications:

- Industrial/Medical Equipment
- Test & Measurement Equipment
- Satcom
- Military Radar, EW, & ECM

### Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Output Frequency	8		16	GHz
Output Power		12		GHz
SSB Phase Noise @10 kHz Offset		-66		dBm
SSB Phase Noise @100 kHz Offset		-92		GHz
SSB Phase Noise @1 MHz Offset		-116		dBc
Tune Voltage (VT)	0		23	V
Tuning Sensitivity	100	450	900	MHz/V
DC Voltage		12		V
DC Supply Current		100		mA
Impedance		50		Ohms

### Mechanical Specifications:

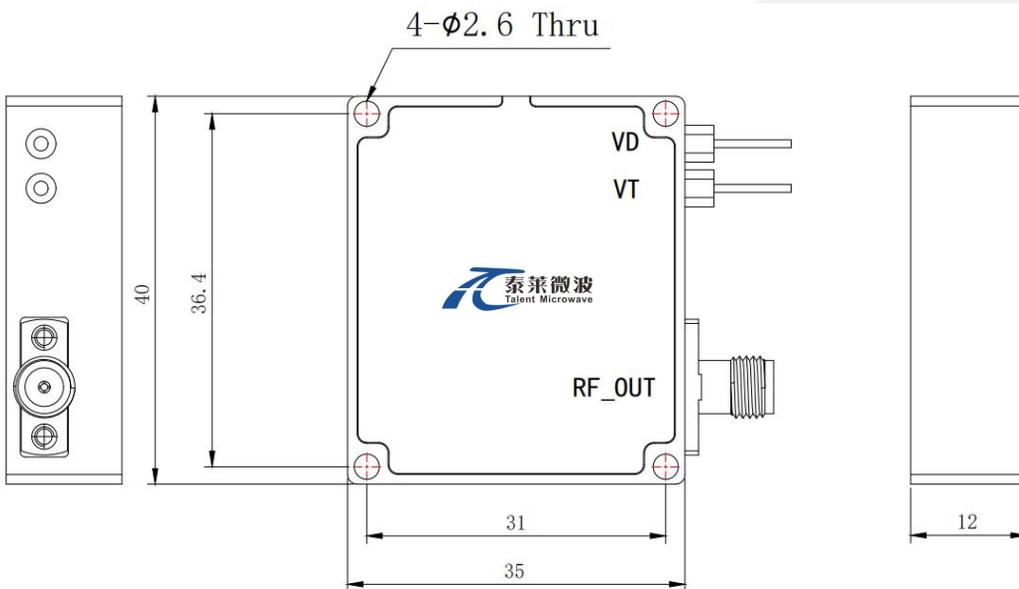
Parameter	Value	Units
RF Connector	SMA Female	
Size	40*35*12(Without Connector)	mm

### Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+15V
ESD sensitivity (HBm)	Class 0, passed 150V

### Outline Drawing:

Unit:mm



**\*\*\*Heat Sink Required During Operation**



ESD Protection: Strictly adhere to ESD precautions to prevent electrostatic damage.

### Environmental Conditions:

Parameter	Min	Typ	Max	Units
Operating Temperature	-45		+85	°C
Non-operating Temperature	-55		+100	°C
Relative humidity		95		%
Altitude	10,000			feet
Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

### Ordering Information:

Base Number	Description	Revision
TLVCO8G16G-12-S	Voltage-controlled Oscillator RF:8-16 GHz; Output Power: 12dBm	Rev.1.0