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# **Phase Locked Oscillators**

**Bulletin No. OPL** 

#### **FEATURES**

- High output power
- Low phase noise
- Internal or external reference
- Frequency up to 110 GHz

#### **APPLICATIONS**

- Instrumentation
- Local oscillators
- Subsystems



**OPL Series** 

#### **DESCRIPTION**

**OPL** series phase-locked oscillators are offered to cover frequency range up to 110 GHz by utilizing high performance FET oscillators, Gunn oscillators or multiplier/amplifier chain to produce desired frequency and power output. The phase locked oscillators are offered with either internal or external referenced version. The phase noise of an externally referenced phase locked oscillator is depended on the quality of the reference signal.

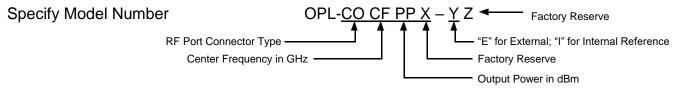
## **SPECIFICATIONS**

FREQUENCY RANGE <sup>1</sup>	5 to 40 GHz	40 to 60 GHz	60 to 110 GHz
Output Power	10 to 30 dBm	10 to 20 dBm	10 to 20 dBm
Frequency Stability <sup>2</sup>	±5 PPM		
Phase Noise (Typ)	Consult Factory		
Harmonics (Max)	- 20 dBc		
Spurious (Max)	- 60 dBc		
External Reference <sup>3</sup>	100 MHz, - 3 to + 3 dBm		
Lock Alarm	Locked = TTL High; Unlocked = TTL Low		
Temperature Range	0 to +50°C		

#### Note:

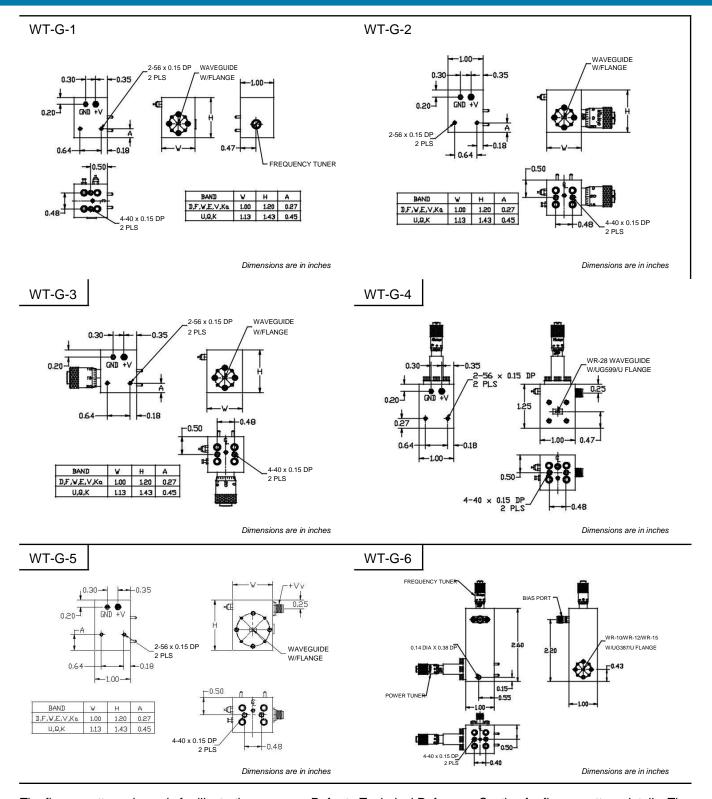
- 1. Consult factory for the frequency other than listed;
- 2. Frequency stability is with internal reference;
- 3. 100 MHz external reference is for standard model. Consult factory for the frequency other than 100 MHz.

## **HOW TO ORDER**



Example: To order an output frequency 94 GHz, 17 dBm output power phase locked oscillator with WR-10 waveguide interface and externally referenced specify OPL-109417X-EZ.

# **Oscillator Outline Drawings #1**



The flange pattern shown is for illustration purpose. Refer to Technical Reference Section for flange pattern details. The outline drawings shown are standard versions. Contact factory for your specific package requirements