

## FEATURES

- ❖ High output power
- ❖ Wide bias tuning range
- ❖ Up to 2 MHz tuning rate
- ❖ Excellent frequency stability
- ❖ Low AM and FM noise

## APPLICATIONS

- ❖ Test benches
- ❖ Local oscillators
- ❖ Multiplier drivers
- ❖ Subsystems



**OGB Series**

## DESCRIPTION

**OGB** series bias tuned Gunn oscillators combine proprietary circuit design capability and experience with either GaAs or InP Gunn diode to cover the frequency range of 18 to 150 GHz in nine waveguide bands. The oscillators are especially designed for high output power, fast bias tuning ability and low AM/FM noise characteristics. The standard models are equipped with feedthru pin for bias port, while a SMA(F) connector can be specified at the time of order for better EM shielding. The oscillators can be supplied with optional integrated isolator, **OMR** Gunn oscillator modulator/regulator and temperature heater. Combined with the **OMR** Gunn oscillator modulator/regulator, the bias-tuning characteristic of the oscillator can be enhanced without additional circuitry. The benefit of utilizing bias tuned Gunn oscillator includes better linearity and higher power output compared with its counter part, Varactor Tuned Gunn oscillator (**OGV**). While waveguide is the standard interface, the oscillators are available with coaxial interface as an option. The operating temperature range of the standard unit is 0 to +50°C.

## SPECIFICATIONS

Range (GHz)	Output Power (dBm)	Bias Tuning Bandwidth (MHz/V)	Bias Voltage Range (Volts)	Bias Current Range (A)	Waveguide size	Frequency Stability (MHz/°C)	Power Stability (dB/°C)	Outline Drwing
18-26.5	10-27	10-50	4-12	0.2-2.5	WR-42	-2.0	-0.02	WT-G-1
26.5-40	10-26	10-50	4-12	0.3-2.5	WR-28	-2.5	-0.02	WT-G-1
33-50	10-25	10-200	4-11	0.3-2.0	WR-22	-3.0	-0.03	WT-G-1
40-60	10-24	10-200	3-10	0.3-2.0	WR-19	-4.0	-0.03	WT-G-1
50-75	10-23	100-1000	3-10	0.3-1.0	WR-15	-4.5	-0.03	WT-G-1
60-90	10-20	100-1000	3-10	0.25-1.0	WR-12	-5.0	-0.03	WT-G-1
75-110	10-20	100-1000	4-10	0.25-1.0	WR-10	-6.0	-0.03	WT-G-1
90-140	10-15	100-400	4-10	0.25-1.0	WR-8	-7.0	-0.04	WT-G-1
110-150	5-13	100-400	4-10	0.25-1.0	WR-6	-8.0	-0.04	WT-G-1
Temperature Range		0 to +50 °C						

## HOW TO ORDER

Specify Model Number

OGB-CO CF BW PP - XX ← Factory Reserve

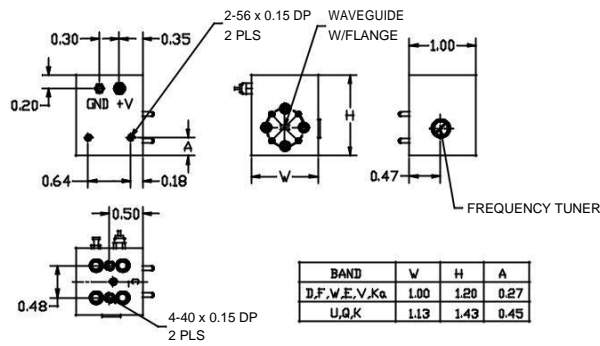
RF Connector Type      ↑      Output Power in dBm

Center Frequency in GHz      ↑      Bandwidth in 1/10 GHz

Example: To order a center frequency 94 GHz bias tuned Gunn oscillator with WR-10 waveguide interface, 0.5 GHz tuning bandwidth 17 dBm output power, specify OGM-10940517-XX.

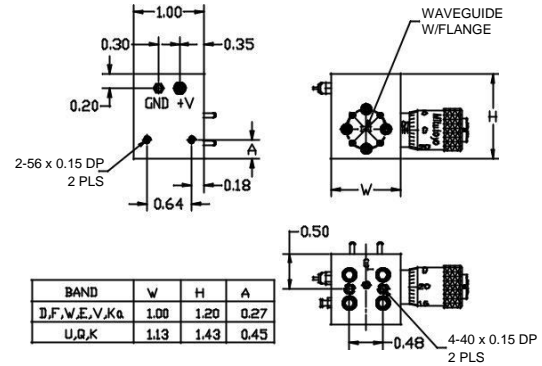
# Oscillator Outline Drawings #1

WT-G-1



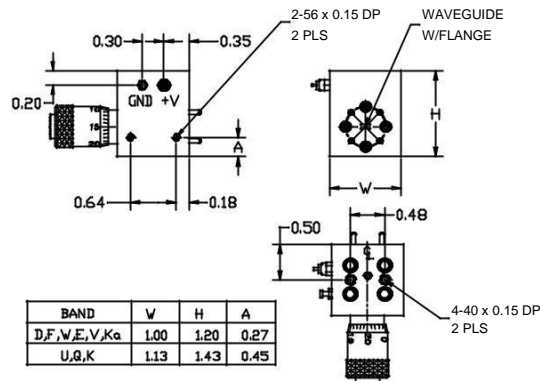
Dimensions are in inches

WT-G-2



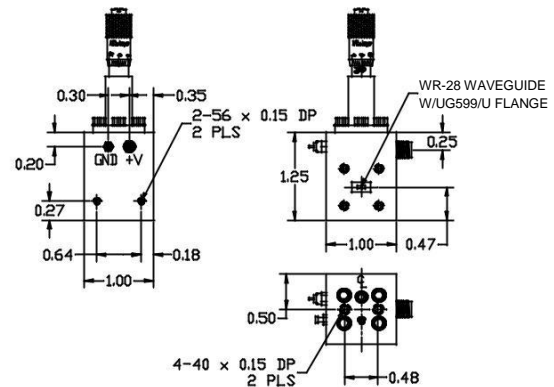
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WT-G-3



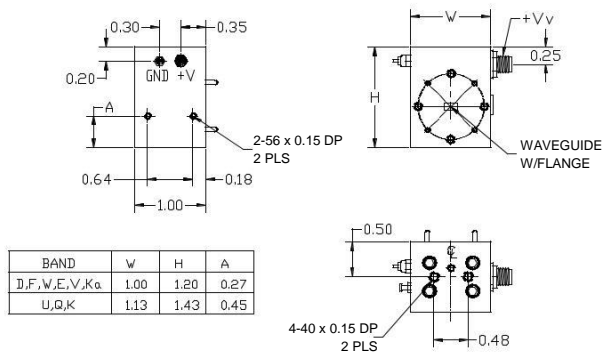
Dimensions are in inches

WT-G-4



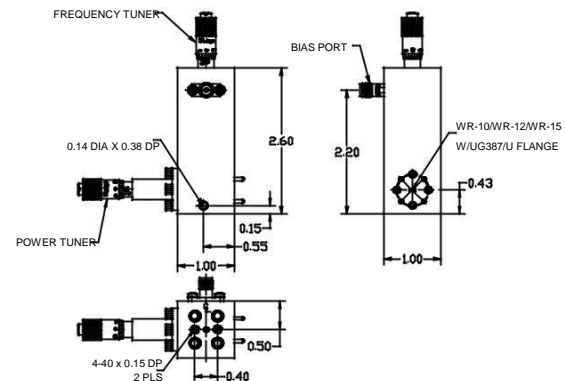
Dimensions are in inches

WT-G-5



Dimensions are in inches

WT-G-6

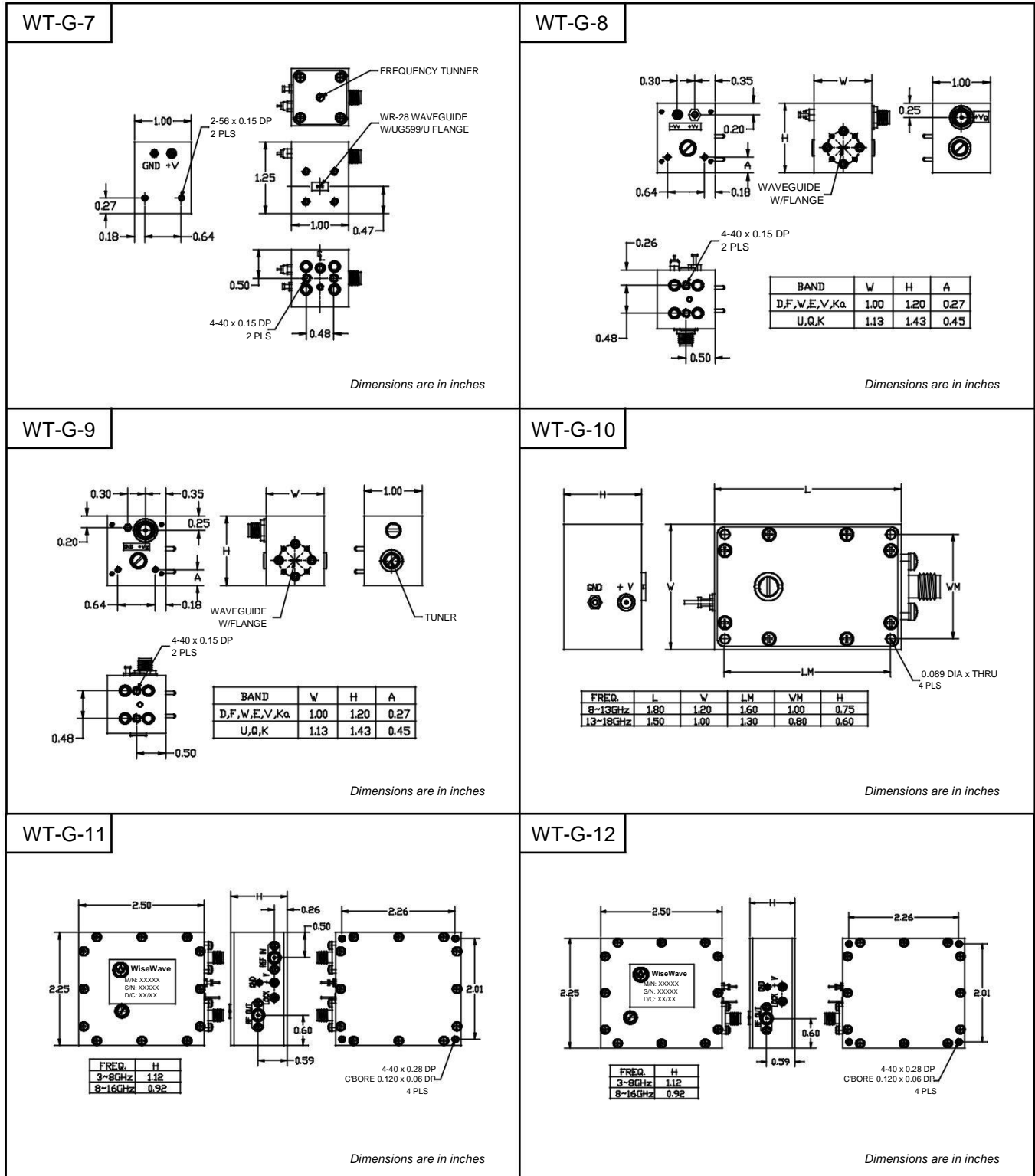


Dimensions are in inches

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.

# Oscillator Outline Drawings #2

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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.