

Full Band Mechanically Tuned Gunn Oscillators

Bulletin No. OGF

FEATURES

- ❖ Up to full waveguide band coverage
- ❖ Single mechanical tuner
- ❖ Bias tuning ability
- ❖ High output power
- ❖ Excellent frequency and power stability
- ❖ Low AM and FM noise

APPLICATIONS

- ❖ Test sources
- ❖ Local oscillators
- ❖ EW systems
- ❖ Radio astronomy systems
- ❖ Frequency extender drivers

DESCRIPTION

OGF series Gunn oscillators are near full waveguide band mechanically tuned Gunn oscillators. The oscillators combine proprietary circuit design capability and experience with either GaAs or InP Gunn diode to cover the frequency range of 18 to 110 GHz in seven waveguide bands. The oscillators are especially designed for high output power, full waveguide band mechanical tuning range, bias tuning ability and low AM/FM noise characteristics. The standard oscillators are equipped with a micrometer driver, which enables convenient frequency tuning and reliable frequency resetting. Unlike many other competitors' products, these oscillators are equipped with a single mechanical tuner, which eases frequency and power control. The oscillator can be converted to an electrical/mechanical-tuned oscillator by replacing micrometer with an electrical driven motor.

The oscillators are ideally suited for test sources, local oscillators of EM and radio astronomy systems and frequency extender drivers. The oscillators can be supplied with optional integrated isolator, voltage regulator and temperature heater. While waveguide is standard interface, the oscillators are available with coaxial interface up to U band as an option.

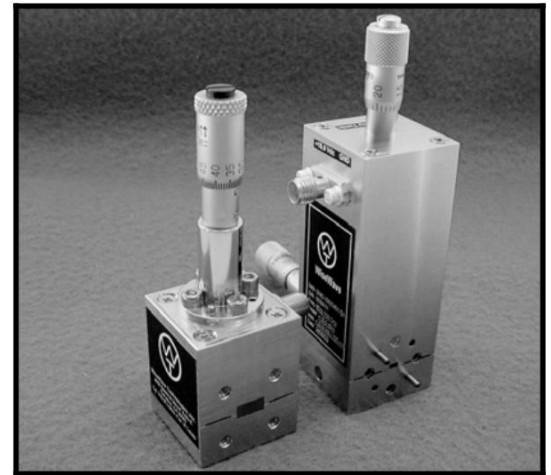
Combined with **OMR** Gunn modulator/regulator (Bulletin number OMR), **OGF** series Gunn oscillators can produce AM or FM modulated signals with internal or external modulation capability. The operating temperature range of the standard unit is 0 to +50°C.

SPECIFICATIONS

Model Number	Frequency (GHz)	Output Power (dBm, Typ.)	Tuning (GHz, Typ.)	Bias Voltage (Volts, Typ.)	Bias Current (Amp, Typ.)	Waveguide Size	Outline Drawing
OGF-4220-01	18-26.5	+20	6.0	7	1.5	WR-42	1
OGF-2820-01	26.5-40	+20	10.0	5	1.5	WR-28	WT-G-4
OGF-2210-01	33-50	+8	10.0	5	1.5	WR-22	WT-G-2
OGF-1910-01	40-60	+8	12.0	5	1.5	WR-19	WT-G-2
OGF-1507-01	50-75	+7	Full Band	5	1.5	WR-15	1
OGF-1205-01	60-90	+5	Full Band	5	1.5	WR-12	1
OGF-1003-01	75-110	+3	Full Band	5	1.5	WR-10	1
Temperature Range		0 to +50 °C					

Note:

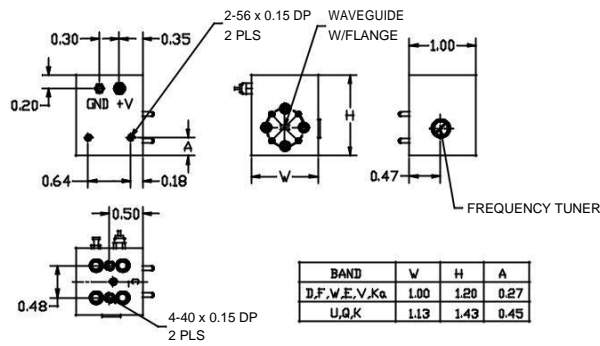
1. Consult factory for outline drawings;
2. Specifications are subject to change without notice.



OGF Series

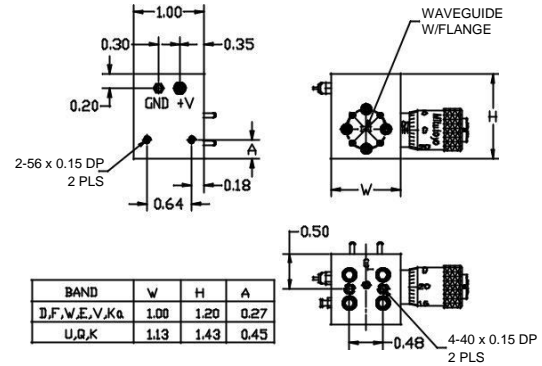
Oscillator Outline Drawings #1

WT-G-1



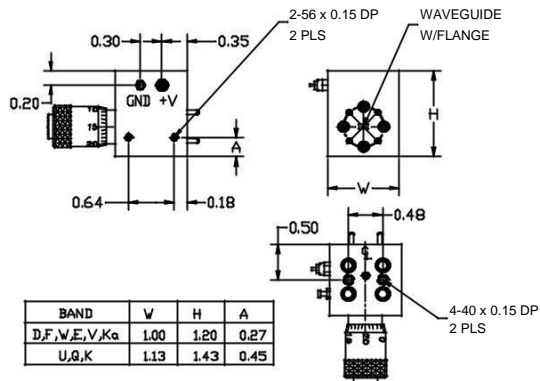
Dimensions are in inches

WT-G-2



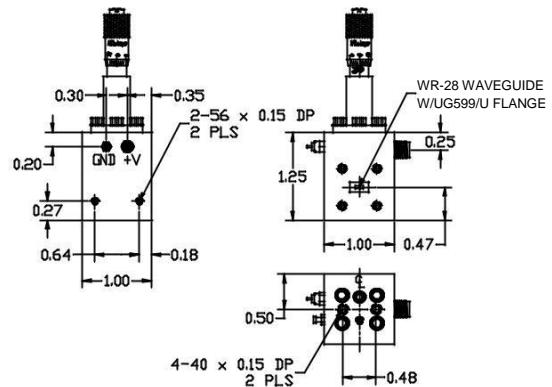
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WT-G-3



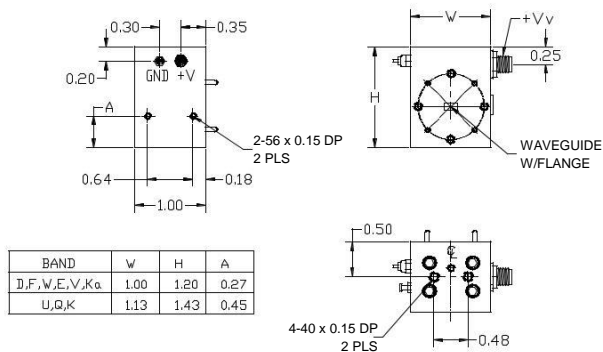
Dimensions are in inches

WT-G-4



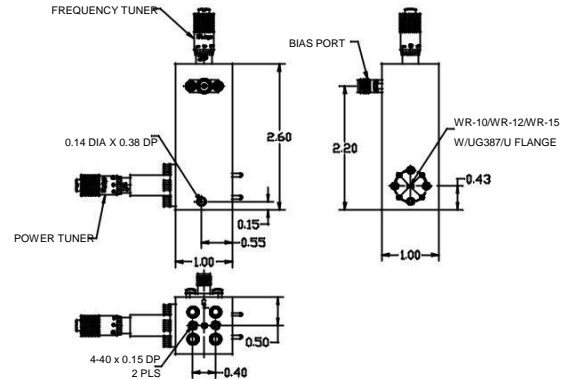
Dimensions are in inches

WT-G-5



Dimensions are in inches

WT-G-6

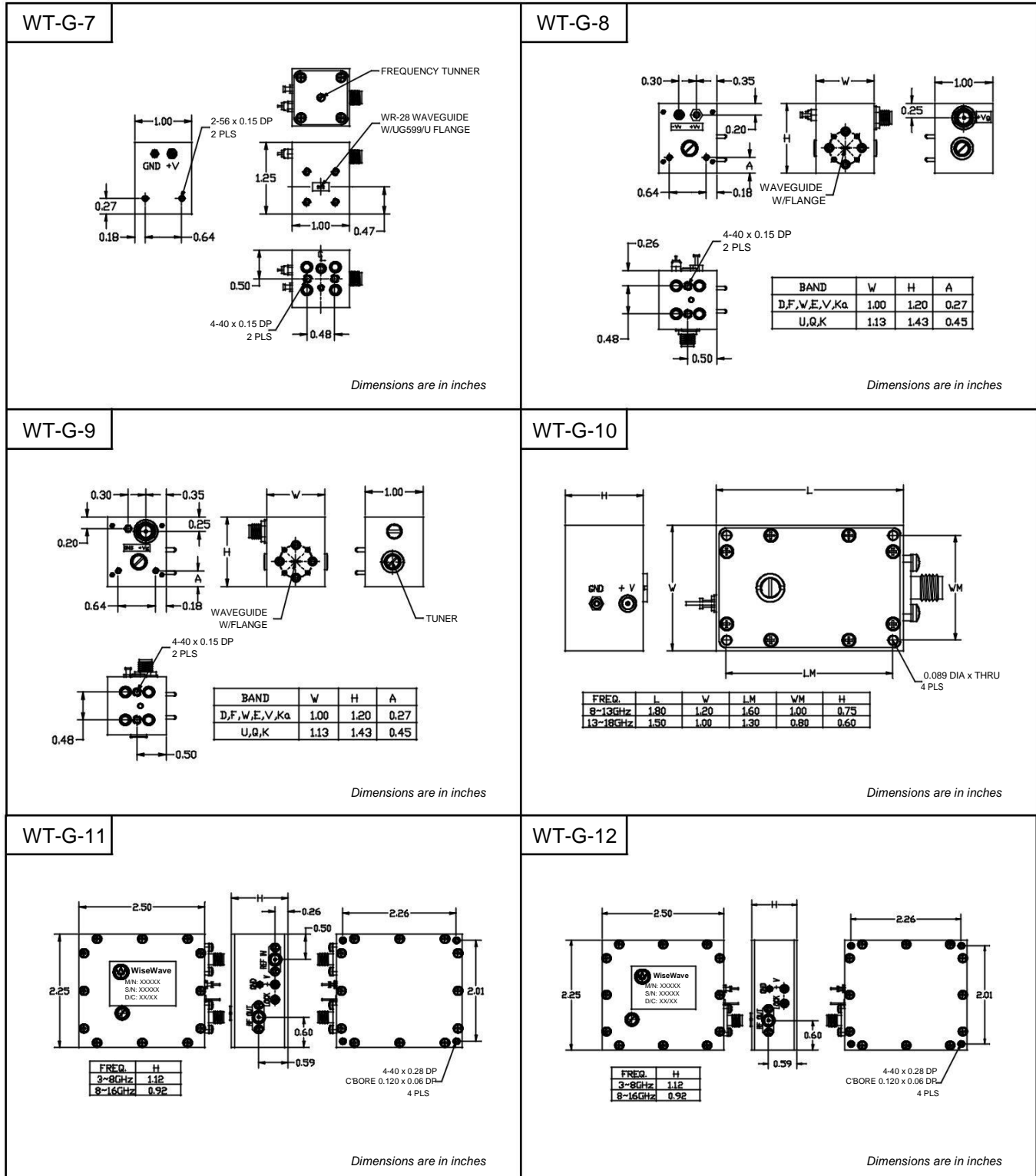


Dimensions are in inches

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.