

FEATURES

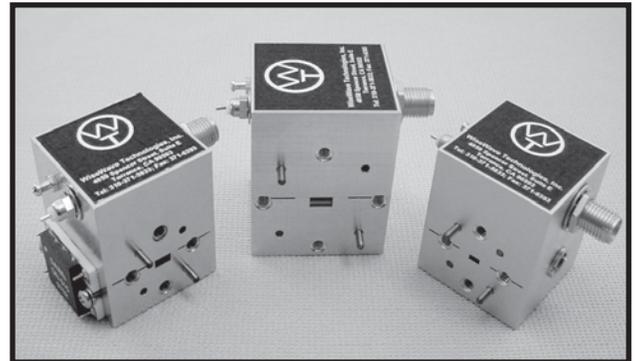
- ❖ High output power
- ❖ Wide varactor tuning range
- ❖ Mechanical tuning ability
- ❖ Excellent frequency stability
- ❖ Low AM and FM noise

APPLICATIONS

- ❖ FMCW transceivers
- ❖ Phase locked oscillators
- ❖ AFC loops

DESCRIPTION

OGV series varactor 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 110 GHz in seven waveguide bands. The oscillators are especially designed for high output power, wide varactor tuning range, mechanical tuning ability and low AM/FM noise characteristics. The DC power is applied via a low pass EMI filter, while a female SMA connector is utilized for the varactor tuning voltage. The tuning rate can be as high as 50 MHz. The oscillators are ideally suited for FMCW transceivers, AFC loops and phase locked systems. The oscillators can be supplied with an optional integrated isolator, voltage regulator and temperature heater. While waveguide is standard interface, the oscillators are available with coaxial interface as an option. The operating temperature range is 0 to +50°C.



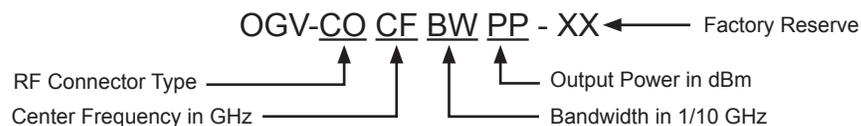
OGV Series

SPECIFICATIONS

Frequency Range (GHz)	Output Power (dBm)	Varactor Tuning Range (GHz)	Bias Voltage Range (Volts)	Bias Current Range (A)	Waveguide size	Frequency Stability (MHz/°C)	Power Stability (dB/°C)	Outline Drawing
18-26.5	10-25	0.05-0.25	4-12	0.2-2.5	WR-42	-2.0	-0.03	WT-G-5
26.5-40	10-24	0.05-0.50	4-12	0.3-2.5	WR-28	-2.5	-0.03	WT-G-5
33-50	10-23	0.05-0.50	4-11	0.3-2.0	WR-22	-3.0	-0.03	WT-G-5
40-60	10-22	0.05-0.50	3-10	0.3-2.0	WR-19	-4.0	-0.04	WT-G-5
50-75	10-21	0.05-0.50	3-10	0.3-1.5	WR-15	-4.5	-0.04	WT-G-5
60-90	10-19	0.05-0.50	3-10	0.25-1.5	WR-12	-5.0	-0.04	WT-G-5
75-110	10-17	0.05-0.50	4-10	0.25-1.5	WR-10	-6.0	-0.04	WT-G-5
Temperature Range		0 to +50 °C						

HOW TO ORDER

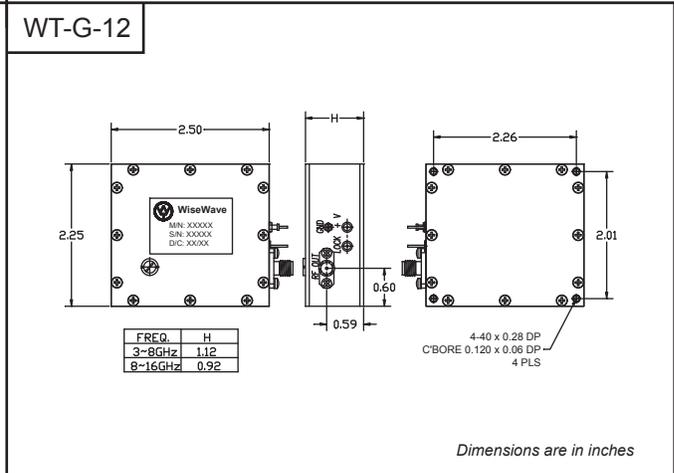
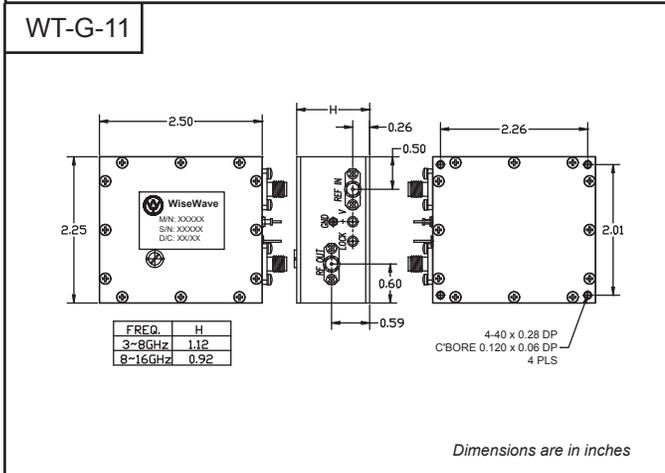
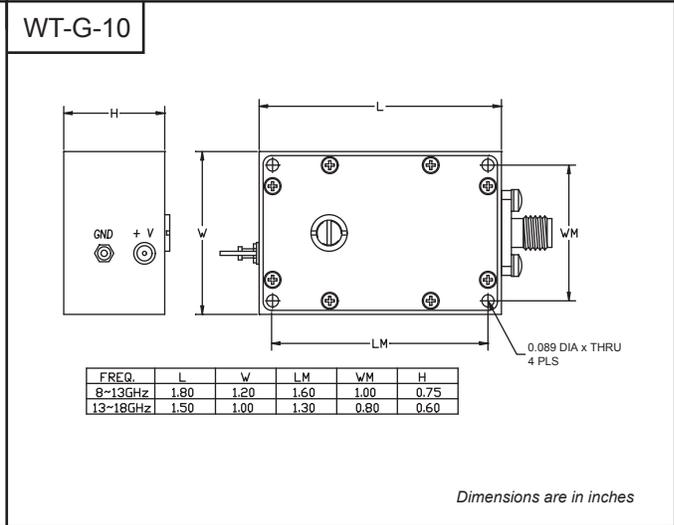
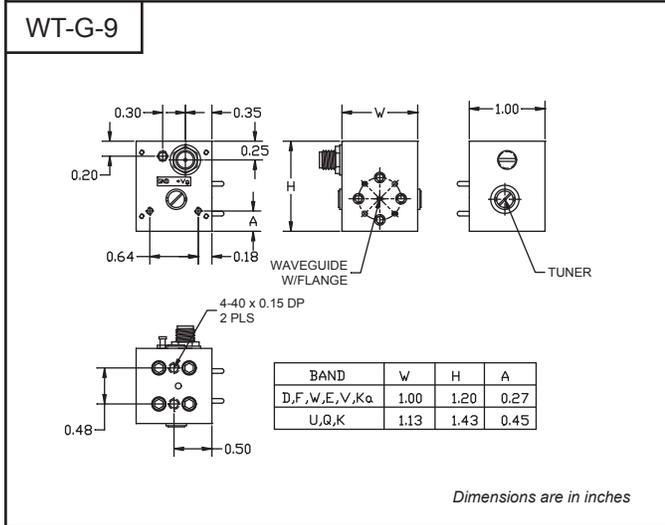
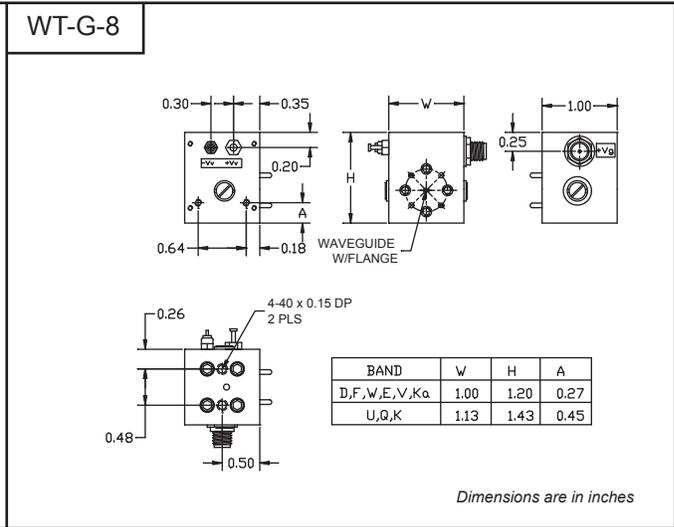
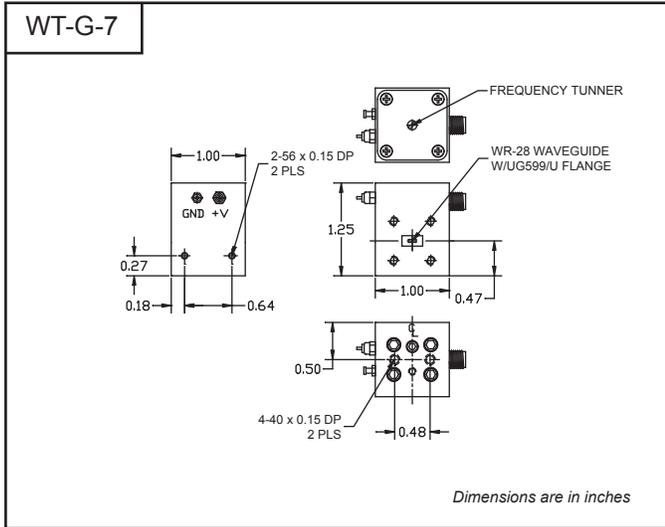
Specify Model Number



Example: To order a center frequency 35 GHz varactor tuned Gunn oscillator with WR-28 waveguide interface, 0.2 GHz tuning bandwidth and 17 dBm output power, specify OGV-28350217-XX.

<p>WT-G-1</p> <table border="1"> <thead> <tr> <th>BAND</th> <th>W</th> <th>H</th> <th>A</th> </tr> </thead> <tbody> <tr> <td>D,F,W,E,V,Kα</td> <td>1.00</td> <td>1.20</td> <td>0.27</td> </tr> <tr> <td>U,Q,K</td> <td>1.13</td> <td>1.43</td> <td>0.45</td> </tr> </tbody> </table> <p><i>Dimensions are in inches</i></p>	BAND	W	H	A	D,F,W,E,V,Kα	1.00	1.20	0.27	U,Q,K	1.13	1.43	0.45	<p>WT-G-2</p> <table border="1"> <thead> <tr> <th>BAND</th> <th>W</th> <th>H</th> <th>A</th> </tr> </thead> <tbody> <tr> <td>D,F,W,E,V,Kα</td> <td>1.00</td> <td>1.20</td> <td>0.27</td> </tr> <tr> <td>U,Q,K</td> <td>1.13</td> <td>1.43</td> <td>0.45</td> </tr> </tbody> </table> <p><i>Dimensions are in inches</i></p>	BAND	W	H	A	D,F,W,E,V,Kα	1.00	1.20	0.27	U,Q,K	1.13	1.43	0.45
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<p>WT-G-3</p> <table border="1"> <thead> <tr> <th>BAND</th> <th>W</th> <th>H</th> <th>A</th> </tr> </thead> <tbody> <tr> <td>D,F,W,E,V,Kα</td> <td>1.00</td> <td>1.20</td> <td>0.27</td> </tr> <tr> <td>U,Q,K</td> <td>1.13</td> <td>1.43</td> <td>0.45</td> </tr> </tbody> </table> <p><i>Dimensions are in inches</i></p>	BAND	W	H	A	D,F,W,E,V,Kα	1.00	1.20	0.27	U,Q,K	1.13	1.43	0.45	<p>WT-G-4</p> <p><i>Dimensions are in inches</i></p>												
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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.



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