

# GIL-28-36-B 12

## Ka-Band Mechanically Tuned Gunn Oscillator, 36 GHz

### Description:

**Model GIL-28-36-B-12** is a Ka-Band, mechanically tuned Gunn oscillator that utilizes a high performance GaAs Gunn diode and proprietary cavity design to deliver 12.0 dBm typical power with low AM/FM noise and harmonic emissions. The oscillator has a center frequency of 36.0 GHz and a mechanical tuning range of  $\pm 0.25$  GHz. Compared to its multiplier-based counterparts, the Gunn oscillator is a lower cost alternative and a cleaner source.

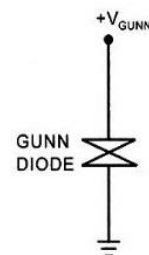


### Features:

- Low AM/FM Noise and Harmonics
- Mechanical Tuning Bandwidth
- Friction locked tuning screw

### Applications:

- Test Sources
- Signal Generation
- Lab Test Setups



### Electrical Specifications:

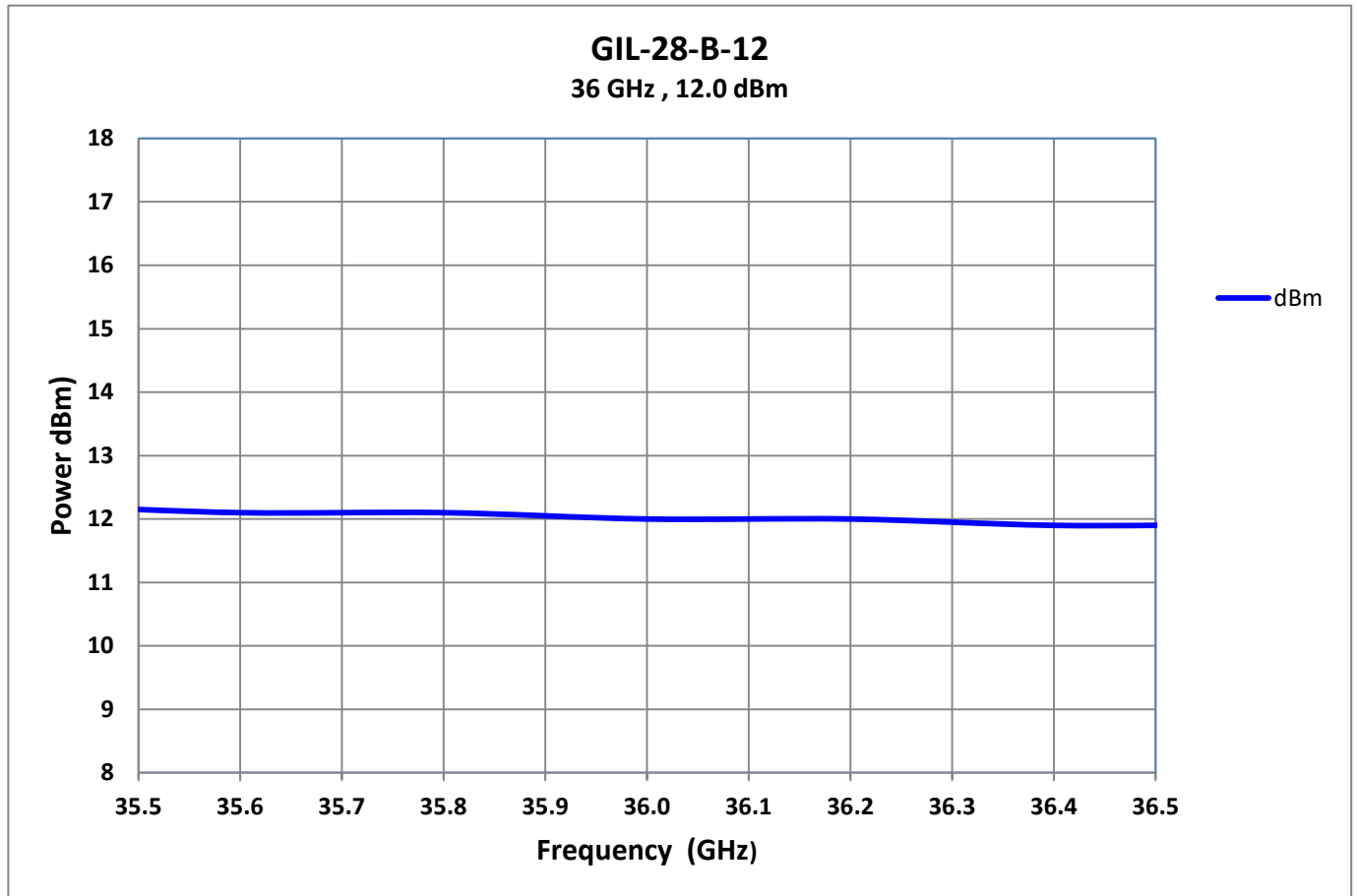
Parameter	Minimum	Typical	Maximum
Center Frequency		36.0 GHz	
Mechanical Tuning Range		$\pm 0.5$ GHz	
Output Power	+10.0 dBm	+12.0 dBm	
Bias Voltage		+5.5 V <sub>DC</sub>	+6.2 V <sub>DC</sub>
Bias Current		330 mA	
Specification Temperature		+30 °C	
Case Temperature	+10 °C		+60 °C

### Mechanical Specifications:

Item	Specification
RF Port	WR-28 Waveguide with UG-599/U Flange
Bias Port	Gunn is solder terminal
Case Material	Aluminum
Finish	Natural
Weight	20 g
Size	20 (W) X 16 (L) x 22 (H) mm
Outline	G-4

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### Note:

- All data presented is collected from a sample lot. It is for illustration only. Actual data varies unit to unit.
- The data given above was tested under case temperature **+30 °C**.
- Always set tuning screw to around **36.0 GHz** when turning on the oscillator to ensure correct mode operation.
- Reserves the right to change the information presented without notice.

### Caution:

- Reversing polarity will destroy the device.
- Bias voltage should not exceed **+ 6.2 Volts**.
- The case temperature of the device should not exceed **+60 °C**. Use an additional heatsink or fan if necessary

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**Mechanical Outline:** (Unless otherwise specified, all dimensions are in millimeters)

