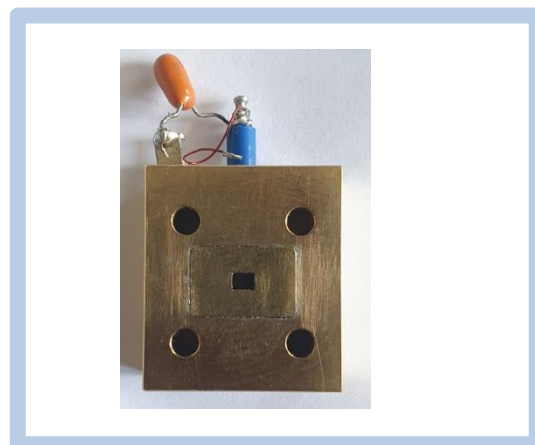


# GI28-34.7-14

## Ka-Band Mechanically Tuned Gunn Oscillator, 34.7 GHz

### Description:

**Model GI28-34.7-14** is a Ka-Band, mechanically tuned Gunn oscillator that utilizes a high performance GaAs Gunn diode and proprietary cavity design to deliver 14.0 dBm typical power with low AM/FM noise and harmonic emissions. The oscillator has a center frequency of 34.7 GHz and a mechanical tuning range of  $\pm 0.30$  GHz. Compared to its multiplier-based counterparts, the Gunn oscillator is a lower cost alternative and a cleaner source.

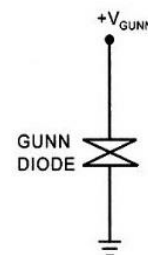


### Features:

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

### Applications:

- Test Sources
- Signal Generation
- Lab Test Setups



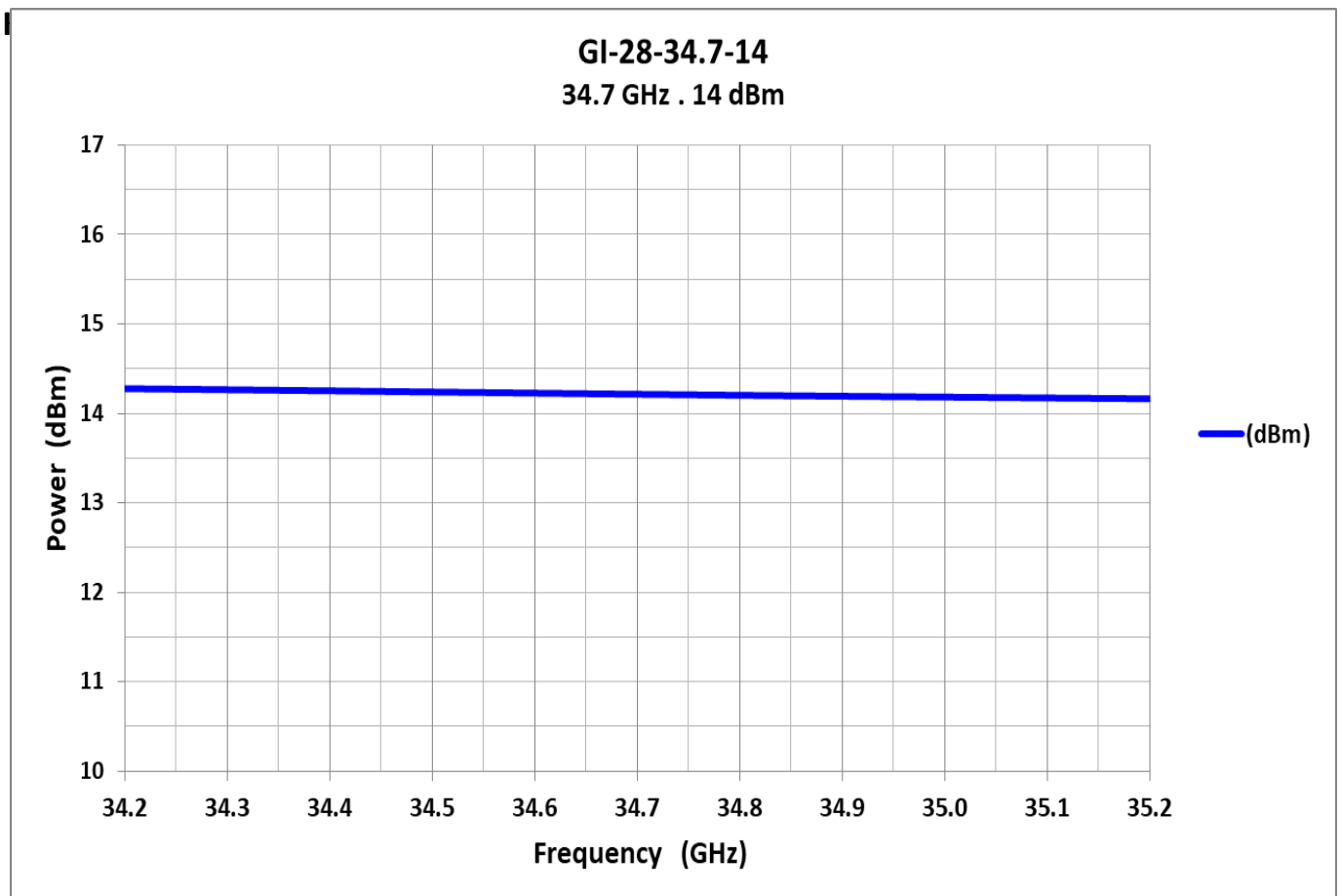
### Electrical Specifications:

| Parameter                 | Minimum   | Typical              | Maximum              |
|---------------------------|-----------|----------------------|----------------------|
| Center Frequency          |           | 34.7 GHz             |                      |
| Mechanical Tuning Range   |           | $\pm 0.3$ GHz        |                      |
| Output Power              | +11.0 dBm | +14.0 dBm            |                      |
| Bias Voltage              |           | +5.0 V <sub>DC</sub> | +6.0 V <sub>DC</sub> |
| Bias Current              |           | 330 mA               |                      |
| Specification Temperature |           | +33 °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 | Brass                                |
| Finish        | Natural                              |
| Weight        | 48 g                                 |
| Size          | 22 (W) X 12 (L) x 25 (H) mm          |
| Outline       |                                      |

# GI28-34.7-14



## 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 **+33 °C**.
- Always set tuning screw to around **34.7 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 **+ 6.0 Volts**.
- The case temperature of the device should not exceed **+60 °C**. Use an additional heatsink or fan if necessary

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