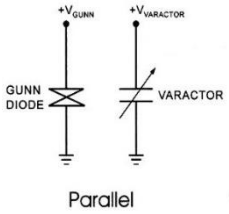
GVS-10-94-B-14.8

W-Band Varactor Tuned Gunn Oscillator, 94 GHz

Description:

Model GVS-10-94-B-14.8 is a W-Band, varactor tuned Gunn oscillator that utilizes a high performance GaAs Gunn diode and proprietary cavity design to deliver 14.8 dBm typical power with low AM/FM noise and harmonic emissions. The oscillator has a center frequency of 94.0 GHz and a electronic tuning range of ± 0.5 GHz. Compared to its multiplier-based counterparts, the Gunn oscillator is a lower cost alternative and a cleaner source.



Parallel

Features:

- Low AM/FM Noise and Harmonics
- Electronic Tuning
- Robust circuit

Applications:

- Test Sources
- Signal Generation
- Lab Test Setups

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Center Frequency		94.0 GHz	
Electronic Tuning Range		±0.5 GHz	
Output Power		+ 14.8 dBm	
Bias Voltage		+4.3 V_{DC}	+4.8 V_{DC}
Bias Current		1.0 A	
Specification Temperature		+30 °C	
Varactor tuner voltage	+0.5 v		+16v
Case Temperature	+10 °C		+50 °C

Mechanical Specifications:

Item	Specification
RF Port	WR-10 Waveguide with UG-387/U-M Flange
Bias Port	Gunn is SMA (F) , Varactor is MCX
Case Material	Aluminum
Finish	Natural
Weight	90 g
Size	25 (W) X 25 (L) x 31.5 (H) mm
Outline	G-1

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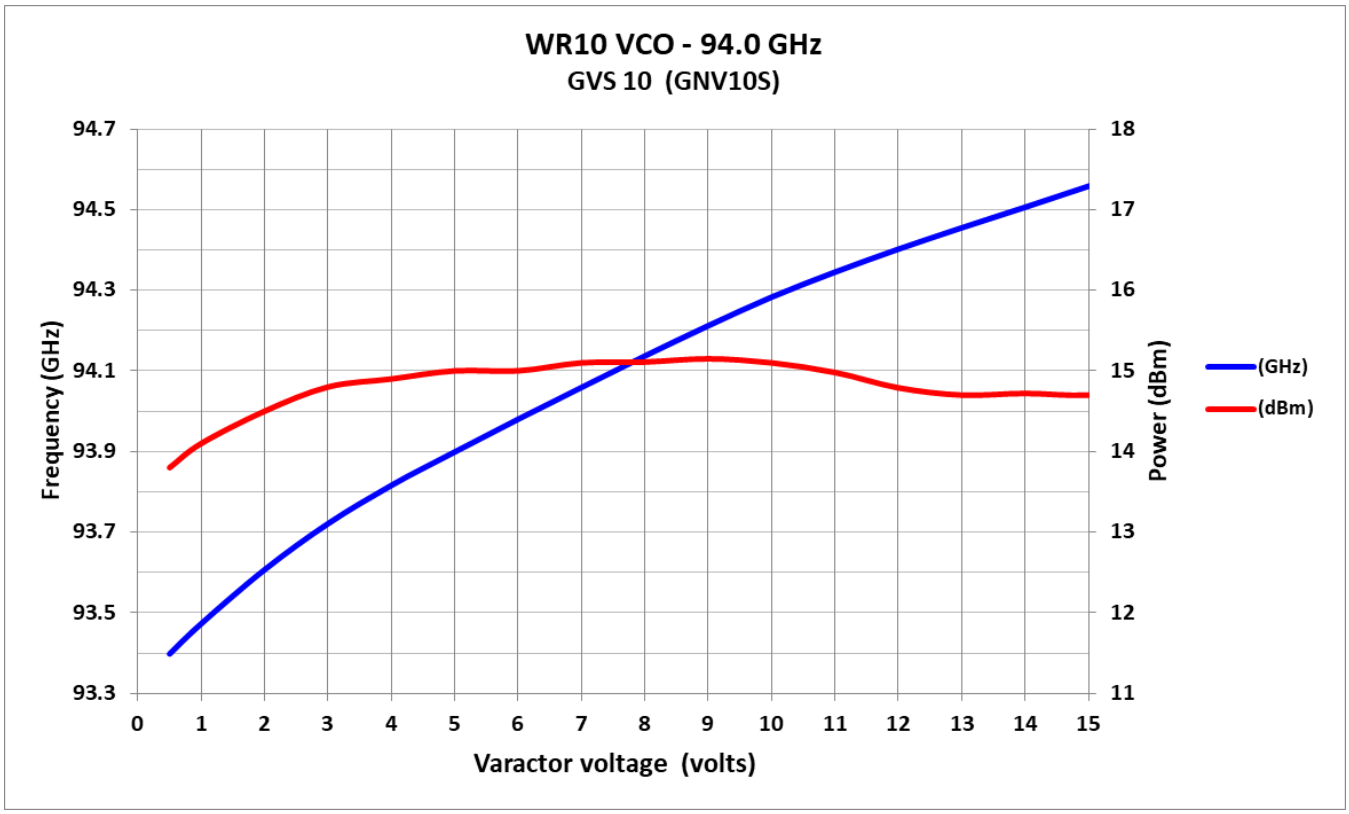

Note:

- 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 **+33 ° C.**
- Always set varactor voltage to around **94.0 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 **+4.8 Volts.**
- The case temperature of the device should not exceed **+55 ℃**. Use an additional heatsink or fan if necessary.
- When handling coax connectors, proper torque, 8.0 ± 0.4 inch-pounds (0.90 ± 0.02 Nm), should be applied.

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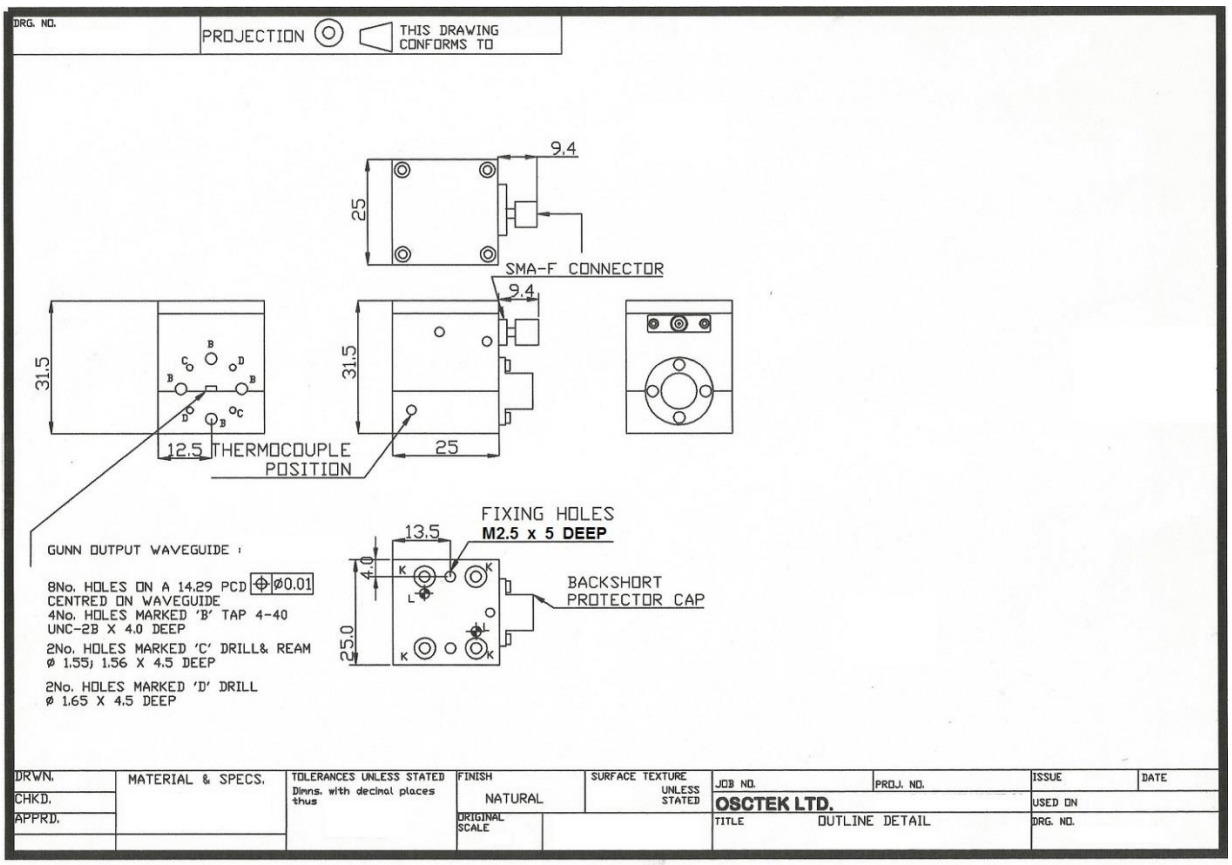
Mechanical Outline: (Unless otherwise specified, all dimensions are in millimeters)