

Gunn Oscillator Bias Regulators and Modulators

Bulletin No. OGR & OMR

FEATURES

- ❖ Low noise
- ❖ Internal and external AM/FM modulation
- ❖ External modulation rate up to 1 MHz
- ❖ Phase locking capability
- ❖ Over voltage protection

APPLICATIONS

- ❖ Regulator for test bench Gunn oscillators
- ❖ Modulator for test bench Gunn oscillators
- ❖ Phase lock Gunn oscillator to frequency counters
- ❖ Subsystems and instruments



OGR & OMR Series

DESCRIPTION

OGR and OMR series Gunn oscillator bias regulator and regulator/modulator are developed as a low noise DC regulator/modulator for Gunn diode oscillators. The **OGR** regulator and **OMR** regulator/modulator supplies well regulated, low noise DC voltage to Gunn oscillators. This feature enhances Gunn oscillator signal purity and also provides protection against destructive over-voltage to the Gunn diode. The **OMR** regulator/modulator features internal or external AM or FM modulation capabilities. The internal modulation rate is 1 KHz and external modulation rate is from DC and up to 1 MHz. This feature allows phase locking the Gunn oscillator to a microwave source-locking counter via bias voltage.

SPECIFICATIONS

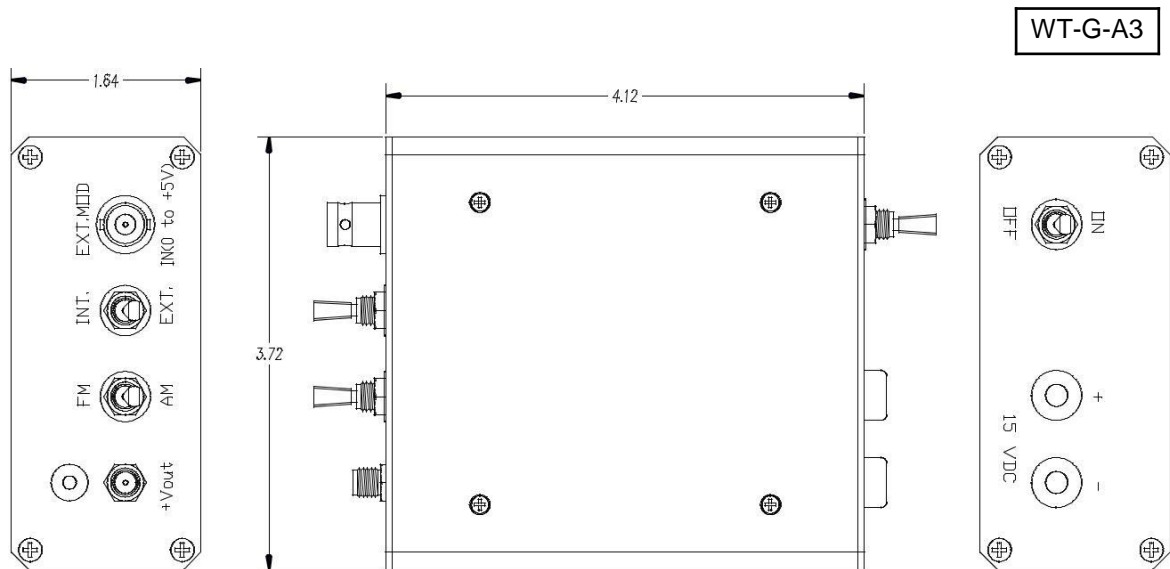
Model Number:	OGR-1
Input Voltage (V)	+15.0 (Typical)
Output Voltage Range (V)	+2.0 to +12.0 (Typical)
Output Current (mA)	0 to 2,000 (Typical)
Noise and Ripple (MV, rms)	100 (Typical)
Dimensions (L" x W" x H")	4.2 X 3.8 X 1.7 (Typical)
Connectors	DC Input: Post; DC Output: SMA(F)

Model Number:	OMR-1
Input Voltage (V)	+15.0 (Typical)
Output Voltage Range (V)	+2.0 to +12.0 (Typical)
Output Current (mA)	0 to 2,000 (Typical)
Noise and Ripple (MV, rms)	1.0 (Typical)
Internal Modulation Rate (KHz)	1.0 (Typical)
External Modulation Rate (KHz)	0 to 1,000 (Max)
External Modulation Amplitude (V)	0 to +5 V
Phase Locking Feature	Yes. Use with EIP Source-Locking Counters, Model # 575 and 578.
Dimensions (L" x W" x H")	4.2 X 3.8 X 1.7 (Typical)
Connectors	DC Input: Post; DC Output: SMA(F); Modulation Input: BNC (F); Phase Locking Input: BNC (F)

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OMR Modulator Outline and Port Designation



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Phase Lock Application Block Diagram

