

## WR 15 Bias Tuned Gunn oscillator

### Model G 15 (GN15)

The unit utilises a GaAs Gunn device in a waveguide cavity.

The frequency can be adjusted using the applied bias voltage.

The module provides a convenient way of generating an RF signal using a solid state device.  
A clean and stable DC power supply will enhance performance and spectral purity

#### Applications:-

Educational

Communications

Research

Imaging/ Sensors

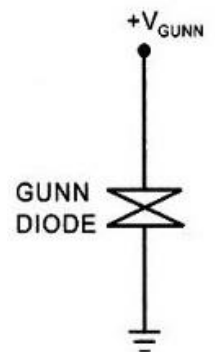
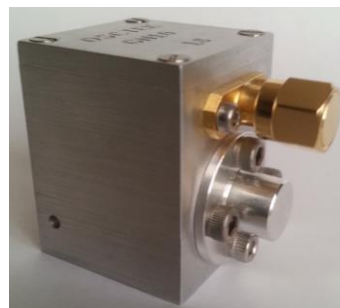
Frequency	Power		Voltage	Min Bandwidth
(GHz)	mW	dBm	volts	( MHz)
70	10	10	+ 5.5	100
70	20	13	+ 5.5	100
70	30	14.8	+ 5.5	100
70	40	16.0	+ 5.5	100
70	50	17.0	+ 5.5	100
70	60	17.8	+ 5.5	100
70	80	19.0	+ 5.5	100

**Alternative centre frequency available.**

Specifications at + 32°C case temperature

DC input : SMA female

RF output : UG-385/U flange compatible



**Note:** Customised performance and outline envelope available e.g. greater bandwidth, smaller outline/ mass

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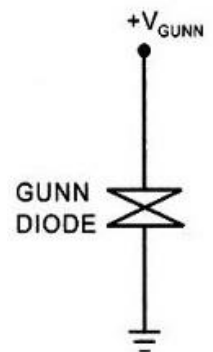
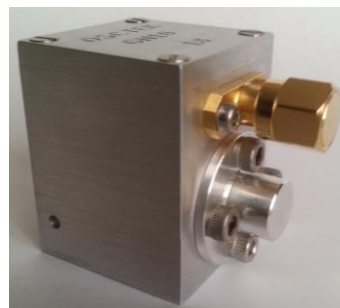
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Frequency (GHz)	Power		Voltage volts	Min Bandwidth ( MHz)
	mW	dBm		
62.5	10	10	+ 5.6	100
62.5	20	13	+ 5.6	100
62.5	30	14.8	+ 5.6	100
62.5	40	16.0	+ 5.6	100
62.5	50	17.0	+ 5.6	100
62.5	60	17.8	+ 5.6	100
62.5	80	19.0	+ 5.6	100

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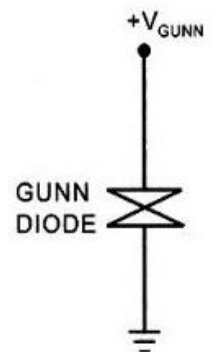
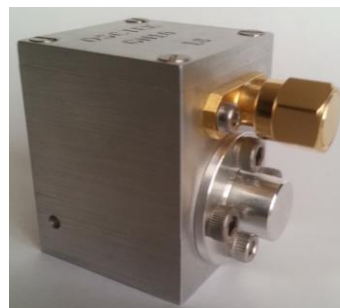
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Frequency	Power		Voltage	Min Bandwidth
(GHz)	mW	dBm	volts	( MHz)
50	10	10	+ 5.7	100
50	20	13	+ 5.7	100
50	30	14.8	+ 5.7	100
50	40	16.0	+ 5.7	100
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## WR 15 Varactor Tuned Gunn oscillator – Grounded Model G VS15 (G NV15S)

The unit utilises a GaAs Gunn device and a GaAs varactor diode in a waveguide cavity. By appropriate selection the frequency can be altered remotely. This is essentially achieved by the application of a DC tuning voltage which effectively perturbs the electric field within the waveguide cavity.

**This circuit is ideal for a robust solution for volume manufacture**

The tuning voltage allows a convenient way to alter the frequency of operation; high modulation schemes can be applied thus enabling frequency agility.

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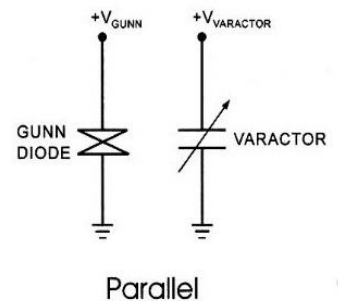
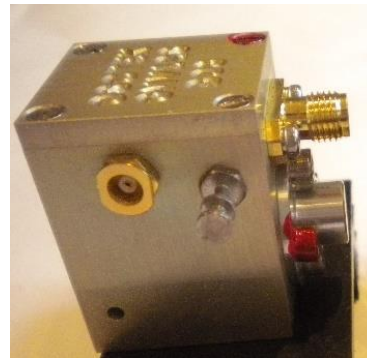
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Frequency	Power		Voltage	Bandwidth		Tuning voltage
(GHz)	mW	dBm	volts	( MHz)		(volts)
70	10	10	+ 5.5	500	1250	0 to +13 / 15
70	20	13	+ 5.5	500	1000	0 to +13 / 15
70	30	14.8	+ 5.5	500	800	0 to +13 / 15
70	40	16.0	+ 5.5	500	750	0 to +13 / 15
70	50	17.0	+ 5.5	400	650	0 to +13 / 15

**Alternative centre frequency available.**

Specifications at + 32°C case temperature

DC input : SMA female  
RF output : UG-385/U flange compatible



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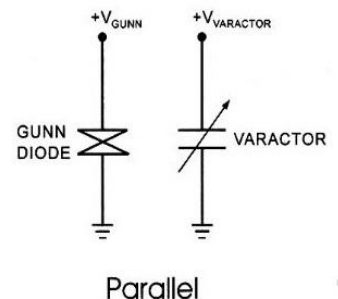
Frequency (GHz)	Power		Voltage volts	Bandwidth ( MHz)		Tuning voltage (volts)
	mW	dBm				
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62.5	30	14.8	+ 5.6	500	800	0 to +13 / 15
62.5	40	16.0	+ 5.6	500	750	0 to +13 / 15
62.5	50	17.0	+ 5.6	400	650	0 to +13 / 15

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Specifications at + 32°C case temperature

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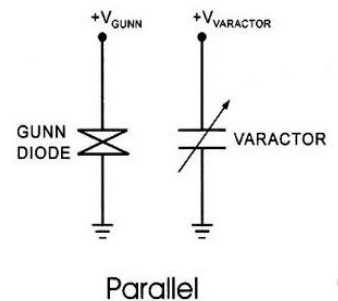
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## WR 15 Varactor Tuned Gunn oscillator – **Relative Model G V15 (G NV15)**

The unit utilises a GaAs Gunn device and a GaAs varactor diode in a waveguide cavity. By appropriate selection the frequency can be altered remotely. This is essentially achieved by the application of a DC tuning voltage which effectively perturbs the electric field within the waveguide cavity.

**This circuit offers a versatile solution where wide bandwidths are required e.g. 3 GHz**

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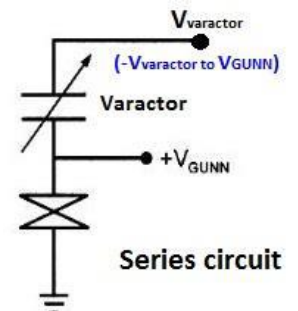
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Frequency (GHz)	Power		Voltage volts	Bandwidth ( MHz)		Tuning voltage Relative (volts)
	mW	dBm				
70	10	10	+ 5.5	1000	3000	0 to -25
70	20	13	+ 5.5	800	2000	0 to - 25
70	30	14.8	+ 5.5	750	1500	0 to -25
70	40	16.0	+ 5.5	500	1250	0 to - 25
70	50	17.0	+ 5.5	500	750	0 to -25

**Alternative centre frequency available.**

Specifications at + 32°C case temperature

DC input : SMA female  
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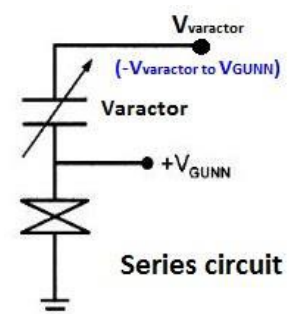
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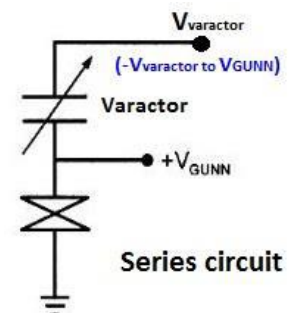
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