

## WR 12 Bias Tuned Gunn oscillator

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:-

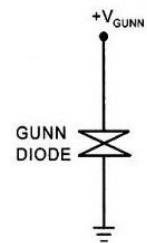
Educational  
Communications  
Research  
Imaging/sensors

Frequency (GHz)	Power (dBm)	Voltage (Volts)	Min Bandwidth (MHz)
76.5	10	5.2	100
76.5	13	5.2	100
76.5	15	5.2	100
76.5	17	5.2	100
76.5	18	5.2	100

### Alternative centre frequency available

Specifications at + 32°C case temperature

DC input : SMA female  
RF output : UG-387/U flange compatible



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

## WR 12 Varactor Tuned Gunn oscillator - **Grounded**

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 fields within the 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.

A clean and stable DC power supply will enhance performance and spectral purity

### Applications:-

Educational  
Communications  
Research  
Imaging/sensors

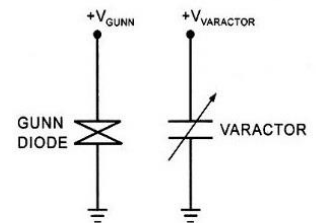


Frequency (GHz)	Power (dBm)	Voltage (Volts)	Bandwidth (MHz)		Tuning voltage (Volts)
76.5	10	5.2	500	1500	0 to +13 / 15
76.5	13	5.2	500	1250	0 to +13 / 15
76.5	15	5.2	500	1000	0 to +13 / 15
76.5	16	5.2	500	750	0 to +13 / 15
76.5	17	5.2	400		0 to +13 / 15

### Alternative centre frequency available

Specifications at + 32°C case temperature

DC Gunn input : Filtercon Solder pin  
DC Varactor input : SMA female  
RF output : UG-387/U flange compatible



Parallel

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

## WR 12 Varactor Tuned Gunn oscillator - Relative

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 fields within the cavity.

**This circuit offers a versatile solution where wide bandwidths are required e.g. 6 GHz**

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

A clean and stable DC power supply will enhance performance and spectral purity

### Applications:-

Educational  
Communications  
Research  
Imaging/sensors

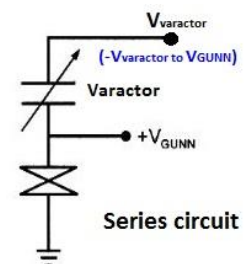


Frequency (GHz)	Power (dBm)	Voltage (Volts)	Bandwidth (MHz)		Tuning voltage (Volts)
76.5	10	5.2	1000	3000	0 to -25
76.5	13	5.2	1000	2500	0 to -25
76.5	15	5.2	1000	2000	0 to -25
76.5	16	5.2	500	1500	0 to -25
76.5	17	5.2	500	1000	0 to -25

### Alternative centre frequency available

Specifications at + 32°C case temperature

DC Gunn input : Filtercon Solder pin  
DC Varactor input : SMA female  
RF output : UG-387/U flange compatible



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