

## WR 42 Bias Tuned Gunn oscillator G42I-T21 - F

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

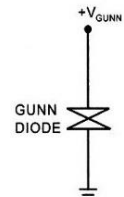
Frequency (GHz)	Power (dBm)	Voltage (Volts)	Bandwidth (MHz)
21	10	~ 5.0	10
21	13	~ 5.0	10
21	15	~ 5.0	10
21	17	~ 5.0	10
21	20	~5.0	10
21	22	~ 5.0	10
21	23	~5.0	10



### Alternative centre frequency available

Specifications at + 32°C case temperature

**DC input** : Pin or solder pad  
**RF output** : UBR-220 flange compatible  
**Fixing** : Through Holes  
**Material** : Brass



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

### WR 42 Mechanically Tuned Gunn oscillator – G42I-T21 -M

The unit utilises a GaAs Gunn device and a friction locked tuning screw located in a waveguide cavity. The tuning screw allows adjustment of the frequency by altering the electrical length of the waveguide cavity.

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

The bias 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:-

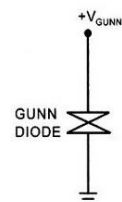
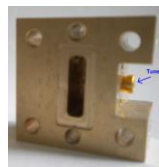
Educational  
Communications  
Research  
Imaging/sensors

Frequency (GHz)	Power (dBm)	Voltage (Volts)	Bandwidth (MHz)				
			Mechanical				Bias
21	10	~ 5.0	50	100	200	500	10
21	13	~ 5.0	50	100	200	500	10
21	15	~5.0	50	100	200	500	10
21	17	~ 5.0	50	100	200	500	10
21	20	~ 5.0	50	100	200	500	10
21	22	~ 5.0	50	100	200	500	10
21	23	~5.0	50	100	200	500	10

### Alternative centre frequency available

Specifications at + 32°C case temperature

**DC input** : Pin or solder pad  
**RF output** : UBR-220 flange compatible  
**Fixing** : Through Holes  
**Material** : Brass



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

### WR 42 Varactor Tuned Gunn oscillator – G42I-T21 -V

The unit utilises a GaAs Gunn device, a GaAs varactor diode and a friction locked tuning screw.

The varactor diode provides fine frequency adjustment remotely by the application of a DC tuning voltage

The friction locked tuning screw allows coarse adjustment of the frequency

**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

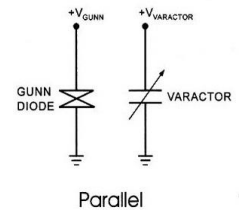


Frequency (GHz)	Power (dBm)	Voltage (Volts)	Bandwidth (MHz)				Tuning voltage
			Electronic		Mechanical		(Volts)
21	10	~ 5.0	50	100	50	100	1 to +13 / 15
21	13	~ 5.0	50	100	50	100	1 to + 13 / 15
21	15	~ 5.0	50	100	50	100	1 to +13 / 15
21	17	~ 5.0	50	100	50	100	1 to +13 / 15
21	20	~ 5.0	50	100	50	100	1 to +13 / 15
21	22	~ 5.0	50	100	50	100	1 to +13 / 15
21	23	~5.0	50	100	50	100	1 to +13 / 15

### Alternative centre frequency available

Specifications at + 32°C case temperature

- DC input : Pin or solder pad
- DC tuning : Pin or solder pad
- RF output : UBR-220 flange compatible
- Fixing : Through Holes
- Material : Brass



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