LINWAVE TECHNOLOGY

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Gunn Oscillator Module Fc 78.5 ±7.5 GHz Pout 30 mW.

Description

Linwave Technology offer a range of Gunn Oscillator modules from 30 GHz to 110 GHz which can be customised to meet specific requirements.

Figure 1. Dual Tuner Gunn Oscillator Module

Parameter	Value	Comments
Model	LW22-793497	Dual Tuner
Waveguide	WR12	
RF Output Interface	UG-387/U	Compatible
Centre Frequency	78.5 GHz	
Output Power	30 mW	Minimum
Bandwidth	± 7.5 GHz	Typ
Gunn Voltage	+5.5 V	**Abs. Max +5.8 V**
Gunn Current	880 mA	Typ
Nominal Operating Temp.	32 Degs C	

For price, delivery and to place orders please contact
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Operating Instructions

The oscillator unit is a precision part, but careful usage should ensure a long service life. Before use it is recommended to bear in mind the following points:

- Observe standard ESD precautions.
- Connect the power supply leads to the appropriate Gunn terminals. To avoid turn on transients we recommend that the bias leads be connected to a power supply that has previously been turned on and set to zero voltage.
- To power up the oscillator, slowly and continuously increase the supply voltage to the value specified value (Vg= + 5.60v). To power down the oscillator reverse the above process.
- In order for the device to function correctly, sufficient current must be available from the supply. This will be greater than the quiescent bias current, typically 1100-1300 mA at 1.3-1.5 V. Once this threshold has been passed the bias current will settle to the quiescent level.
- A table of results (example below) is provided with each unit; it indicates the micrometre settings required for a specific frequency and power. These micrometres should be adjusted slowly and smoothly and not beyond the ranges indicated in the results.

Figure 2. Example Information Table.

Bias Voltage (V)	Bias Current (mA)	Power Micrometer (mm)	Frequency Micrometer (mm)	Frequency (GHz)	Power (dBm)
5.6	~760	3.9	1.5	69.52	15.5
5.6	~760	3.8	1.4	70.50	15.6

- If the frequency is varied outside the specified range mode changes may occur. The oscillator may then be returned to its normal operation by powering –down and re-setting the frequency micrometre within the specified range and then powering – up the oscillator once again.
- Operation outside the range indicated in the results table is NOT recommended or in any way guaranteed.
- A cooling fan or heatsink is recommended to maintain an optimum operating temperature.
- A stable thermal environment will enhance frequency stability, preferably within ± 3 Degs C to keep within the results for the unit.

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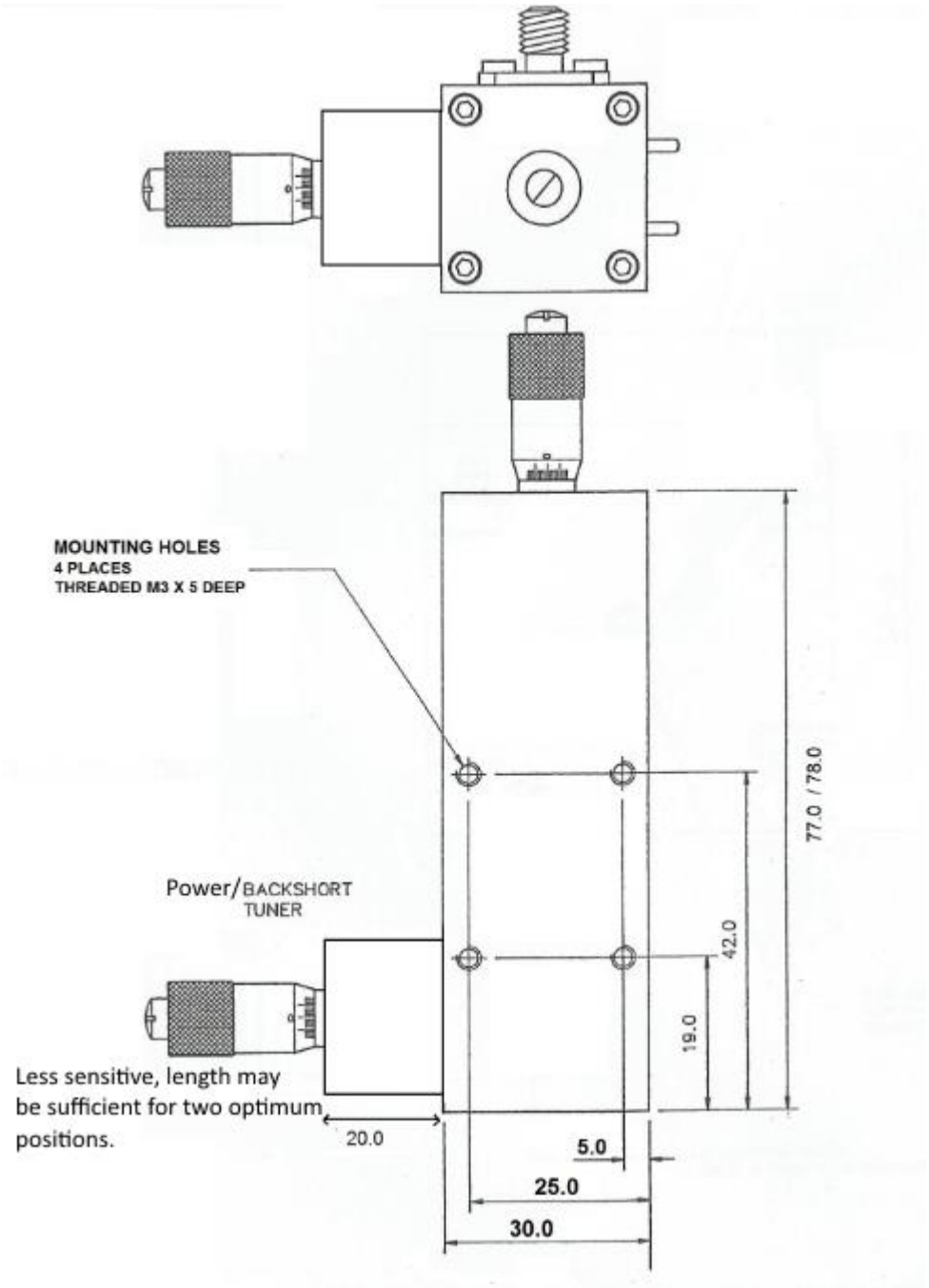
Mechanical Outline



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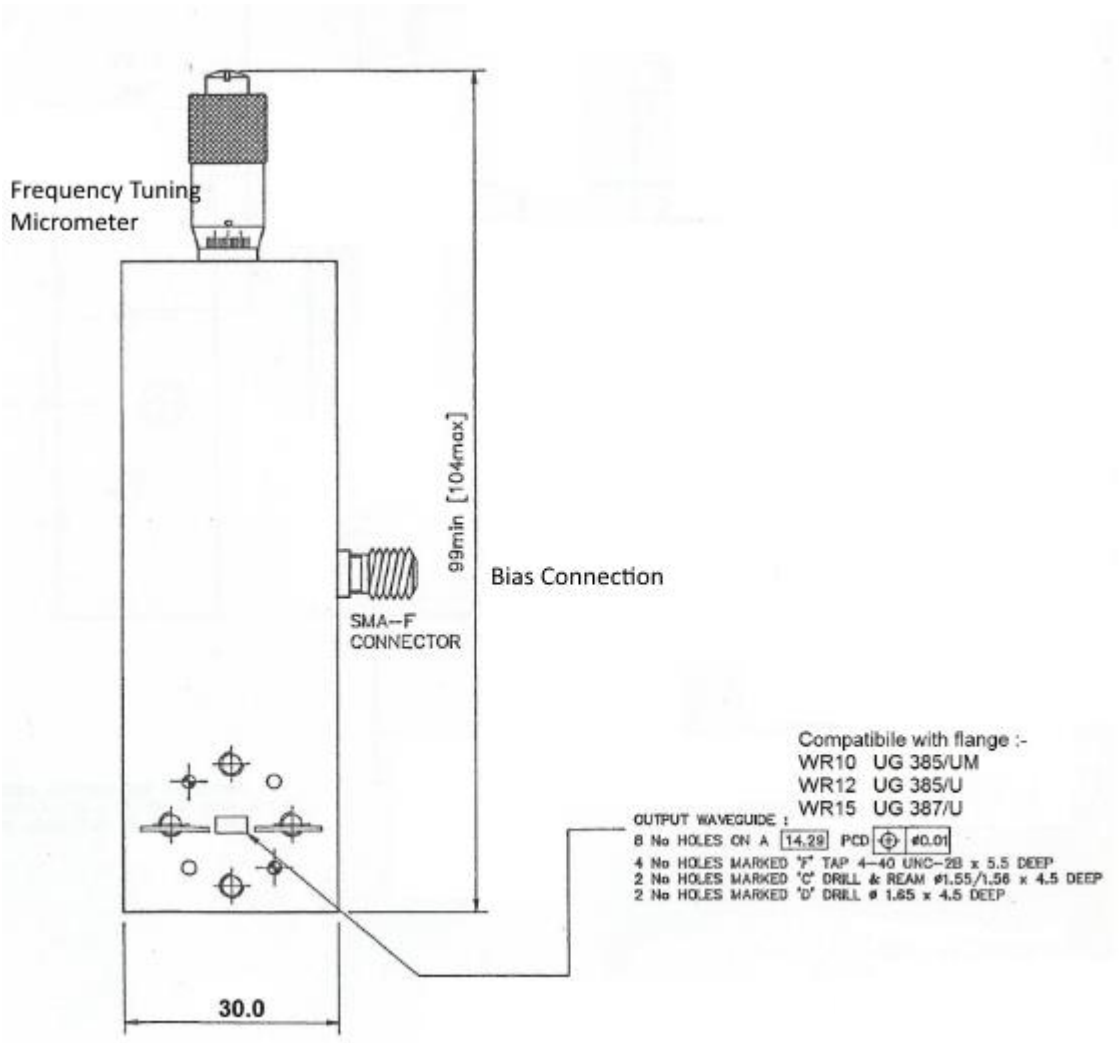
Mechanical Outline Cont.



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