

M4100 SERIES

Microwave Source

LOW AM & PM NOISE PERFORMANCE

The M4100 is a quartz crystal based microwave source. The crystal frequency is multiplied by X8, amplified and then multiplied to the final output frequency by use of an SRD multiplier. The unit is designed for rough handling and has a life of 20,000 hours minimum.



Frequency Range: 1.0 GHz to 3.0 GHz (Specify Operating Frequency)

Output Performance

Output Power: +10.0 dBm min
 Harmonics: < -60 dBc
 Sub harmonics: < -60 dBc
 Spurious: < -90 dBc
 Load Impedance: 50 Ohms

Aging Performance

<±1.0 PPM / 1st year
 <±10.0 PPM / 10 years

Mechanical Frequency Adjust

Compensation for 10 years aging

Electrical Frequency Control (Optional)

EFC Range: ±8 PPM
 EFC Voltage: ±6 VDC
 Slope: Negative
 Slew Rate: 3 KHz typical
 Input Impedance: 5 K Ohms typical

Frequency vs. Temperature Performance

| Temperature | Stability |
|----------------|-----------|
| 0° C to +50° C | ±10 PPM |
| 0° C to +70° C | ±15 PPM |

Phase Noise Performance

(1.8 GHz typical)

100 Hz: -94 dBc/Hz
 1.0 KHz: -117 dBc/Hz
 10 KHz: -135 dBc/Hz
 100 KHz: -139 dBc/Hz

Operating Supply

Supply Voltage: +15 VDC ±2%
 Supply Current: 180 ma typical

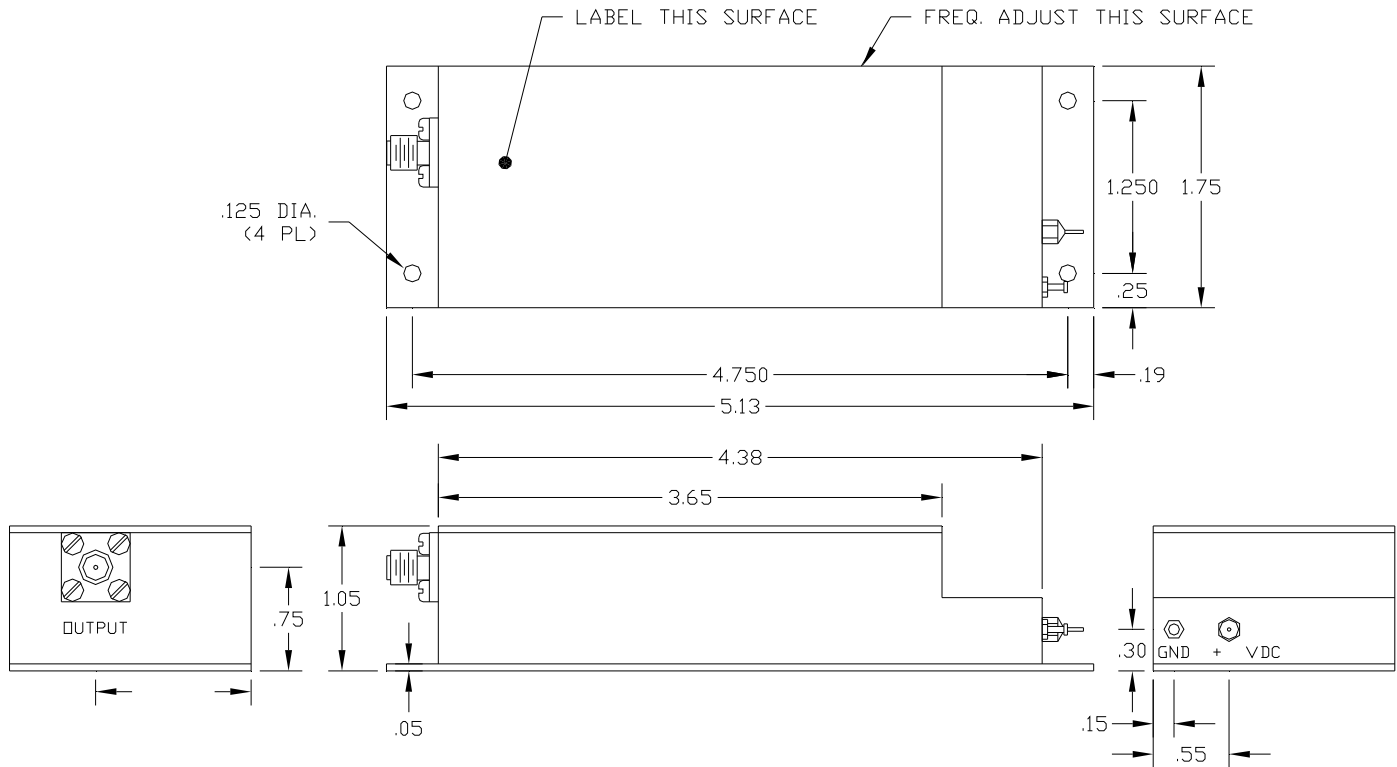
Applications

Test Equipment
 Converters
 Synthesizers
 A.T.E.

Techtrol Cyclonetics Inc.

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 Phone: (717) 774-2746 Fax: (717) 774-6799
 Website: tci-ant.com E-mail: Sales@tci-ant.com

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Dimensions in Inches

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