

D320 SERIES

Tunable RF Driver



902

The D320 family of drivers are electronically tunable, On-Off gated RF generators. They are designed for use with the ISOMET 1201, 1205, 1206 and 1207 Acousto-Optic Bragg cells for the simultaneous deflection and intensity modulation of a laser beam.

Contained in each driver is a varactor tuned oscillator, a fast acting digitally controlled RF switch, and a class-A power amplifier. The oscillator features good tuning linearity and a fast slew rate. Although not temperature stabilized, the oscillator frequency stability is satisfactory for many linear scan applications. The modulation input is TTL compatible. It has a 10-90% switching time (rise time) of 5ns.

The D320 series is also offered with the modulation input modified to accept a +0 to +2 Volt unipolar signal for amplitude control. This option is offered at a nominal additional cost and is indicated by adding a "788" suffix.

SPECIFICATIONS

Oscillator Type:	Varactor tuned, Emitter coupled transistor
Amplifier Type:	Broadband Class A
Output RF Power:	$\geq 1.0W$
Output Impedance:	50 Ω (Nominal)
Load VSWR:	< 2.5:1 for best results
Output RF Power Variation vs. Frequency:	$\leq 1dB$
Spurious Outputs:	Harmonics > 20dB below fundamental
Tuning Characteristics:	Linear frequency vs. tuning voltage
Tuning Voltage:	$\cong +4V$ to +17V
Tuning Linearity:	$\pm 1\%$ from best fit straight line over specified tuning range
Tuning Voltage Impedance:	Drive from low impedance source, 50 Ω or less
Tuning Slew Rate:	> 10MHz/ μs
Residual FM:	< 10KHz peak to peak
Frequency Stability:	$\pm 0.25\%$ from 0° to +60°C
Modulation Input:	TTL Compatible, Positive Logic RF on $\geq +2.75V$; RF Off $\leq +0.3V$
Digital Input Impedance:	50 Ω Source or TTL Line Driver
RF On-Off Ratio:	40dB
DC Power Input:	+28VDC at 600mA Regulated to $\pm 0.25\%$
Temperature Range:	0°C to 60°C Ambient, temperature at Mounting Face must not exceed 70°C
Mounting Orientation:	Any
Dimensions:	See Outline (reverse side)

MODELS	D321	D322B	D323B
Frequency Range	30-50MHz	57-103MHz	82-138MHz
Scale Factor	2MHz/V	3MHz/V	4MHz/V

ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

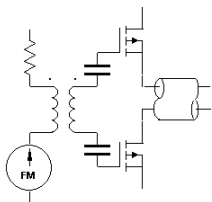
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Quality Assured.

In-house: RF & Digital design
Software Development
OEM manufacture



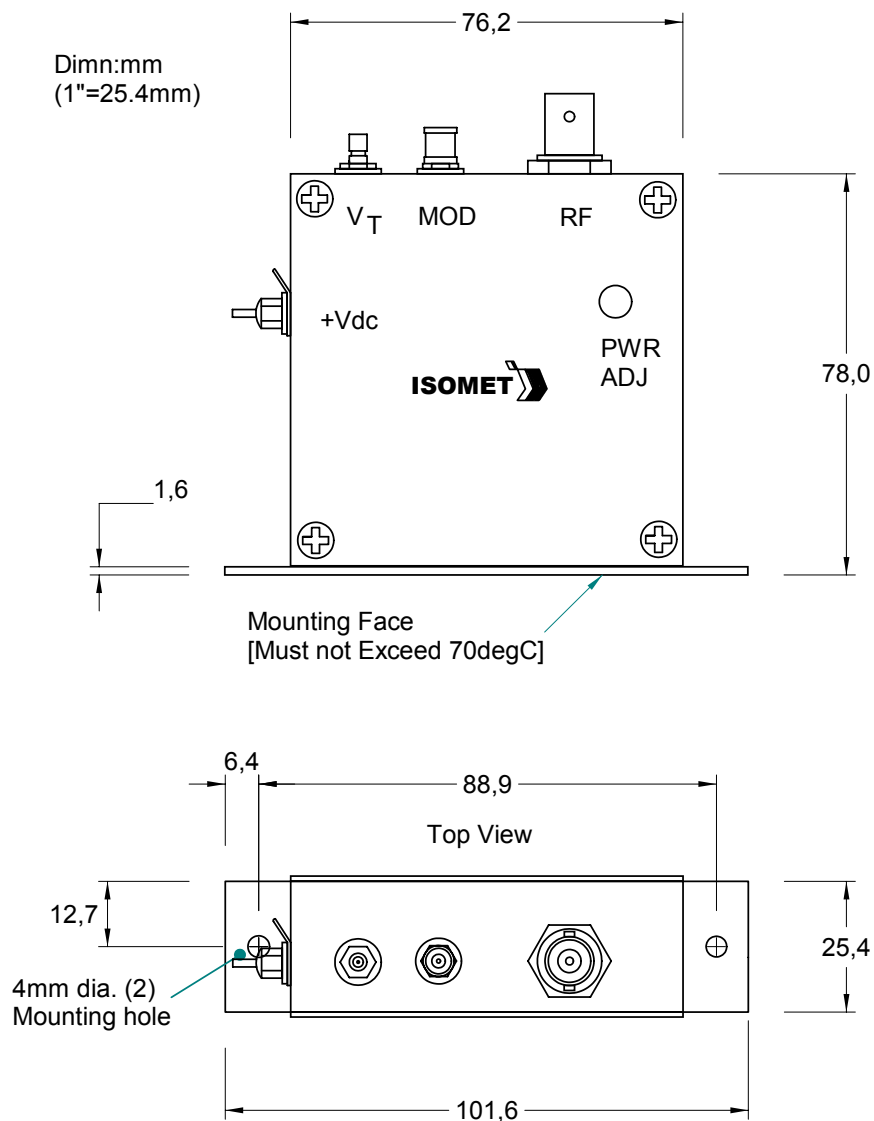
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OUTLINE DRAWING



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