

# 230 SERIES

## Analog RF Driver



902

The Series 230 Driver is designed to operate with Isomet acousto-optic modulators for the proportional (analog) control of laser beam intensity. For this mode of operation, a double sideband amplitude modulated source of RF energy is required at a selected frequency and power level.

Contained in the 230 Driver are a free-running quartz crystal carrier-frequency oscillator, a wideband balanced diode ring modulator, a bias level adjustment and a broadband Class A amplifier. Under control of the low level video (analog) input signal, the balanced ring modulator impresses the modulating video on the carrier. The resulting double sideband AM signal is amplified in the broadband Class A amplifier. An externally accessible bias control permits adjustment of average output power from the driver. Depth of modulation is determined by the amplitude of the modulating input signal.

Efficient heat transfer from the driver requires that the mounting base be attached to an external heat sink not exceeding 70°C in temperature. Regulated DC power must be supplied by the user.

### SPECIFICATIONS

Output impedance:	50Ω Nominal
Load Mismatch VSWR:	2:1 Max
Video Input Voltage:	1V peak-to-peak for 100% depth of modulation, DC coupled
Input Impedance:	50Ω source
Frequency Accuracy:	± 0.005%
Frequency Stability:	± 0.003%
DC Power Input:	+28VDC regulated to +0.25% 400mA for 1W models, 500mA for 1.6W models
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.

### PERFORMANCE

<u>Model</u>	<u>Center Frequency</u>	<u>Modulation BW</u>	<u>RF Drive Power</u>	<u>Use With Modulator</u>
231A-2*	40MHz	20MHz	>1.6W	1201E-1, 1201E-2
232A-1	80MHz	35MHz	>1W	1205C-1
233A-1	110MHz	50MHz	>1W	1206C
234A-1	150MHz	70MHz	>1W	1212
235A-1	200MHz	100MHz	>1W	1250C

\*The 231A-2 may be used with RFA-105 to produce 6W of drive power for the 1201E-2 at 1.06μm, or with RFA-1150 to produce 50W for the 1207B at 10.6μm.

#### ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

ISOMET CORP, 5263 Port Royal Rd, Springfield, VA 22151, USA.

Tel: (703) 321 8301 Fax: (703) 321 8546

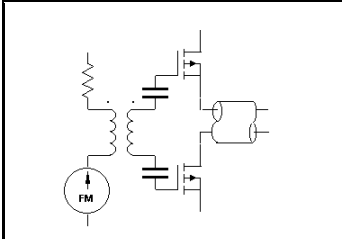
E-mail: [ISOMET@ISOMET.COM](mailto:ISOMET@ISOMET.COM) Web Page: [WWW.ISOMET.COM](http://WWW.ISOMET.COM)

Quality Assured.

In-house: RF & Digital design

Software Development

OEM manufacture



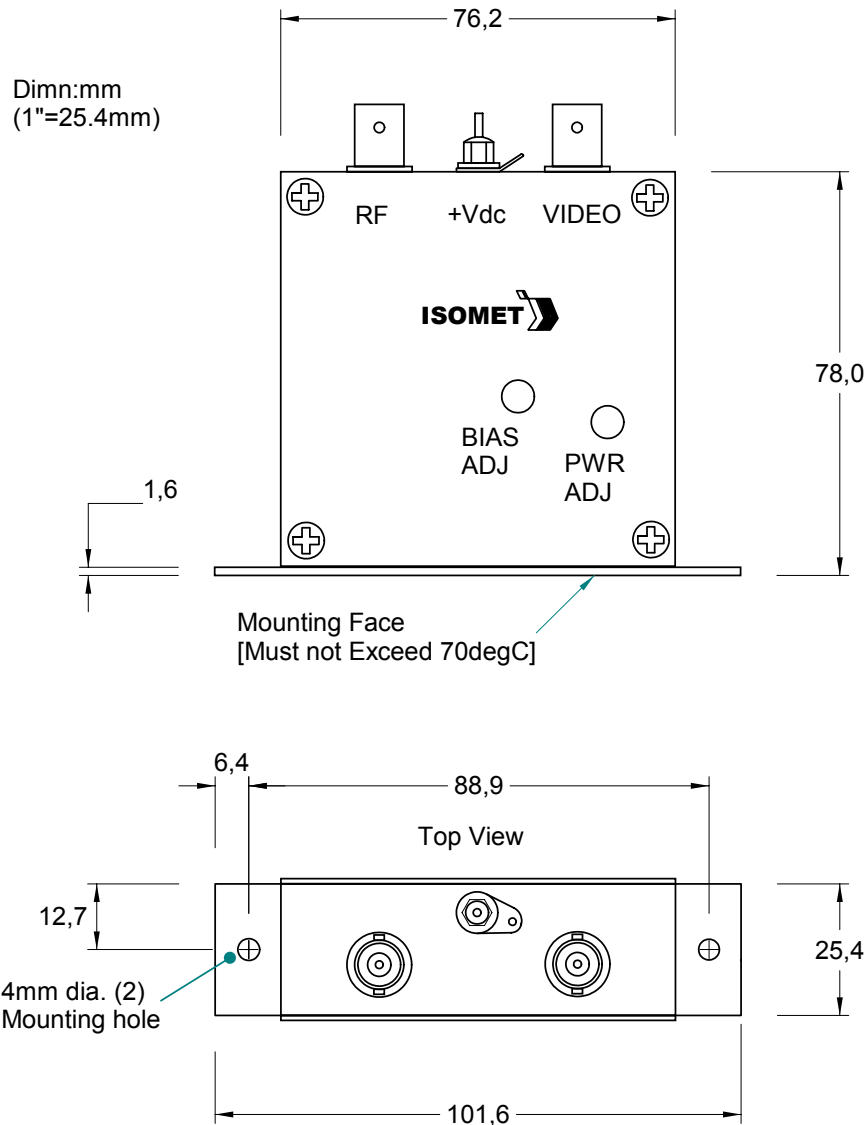
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### OUTLINE DRAWING



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