

224A-1(2) / 234A-1(2)

RF Driver



902

The 224A (Digital Modulation) and 234A (Analog Modulation) Drivers are designed to operate with Isomet 150MHz AO modulators for high speed control of laser beam intensity.

Contained in these Drivers are a free-running quartz crystal carrier-frequency oscillator, a wideband balanced diode ring modulator, and a broadband Class A amplifier. Under control of the video 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. For the analog variant (234A), an externally accessible bias control permits adjustment of the 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
RF On-Off Ratio:	40dB
Digital Input Model 224A or Analog Input: Model 234A	TTL compatible, Positive logic RF on $\geq +2.75V$ (15mA), RF Off $\leq 0.3V$ 0 - 1V for 100% depth of modulation
Frequency Accuracy:	$\pm 0.005\%$
Frequency Stability:	$\pm 0.003\%$
DC Power Input:	+24V or +28Vdc regulated to $\pm 0.25\%$, <500mA
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>Minimum Rise Time / Modulation BW</u>	<u>RF Drive Power</u>	<u>Use With Modulator</u>
2x4A-1	150MHz	5ns / 50MHz	>1.0W (24Vdc) >1.2W (28Vdc)	1212-2-949*
2x4A-2			>1.6W (28Vdc)	

*The 2x4A-1 may be used with RFA105 power amplifier to produce up to 6W or with the RFA118 to produce up to 18W of drive power for higher power requirements.

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

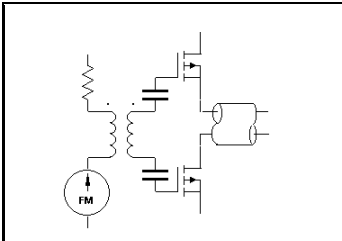
E-mail: ISOMET@ISOMET.COM Web Page: WWW.ISOMET.COM

Quality Assured.

In-house: RF & Digital design

Software Development

OEM manufacture



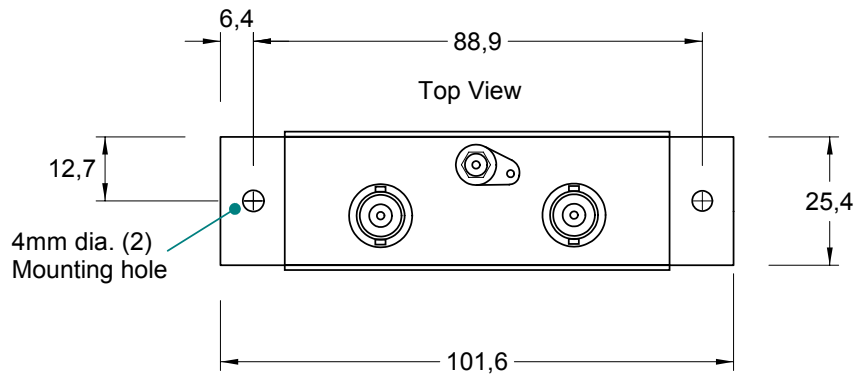
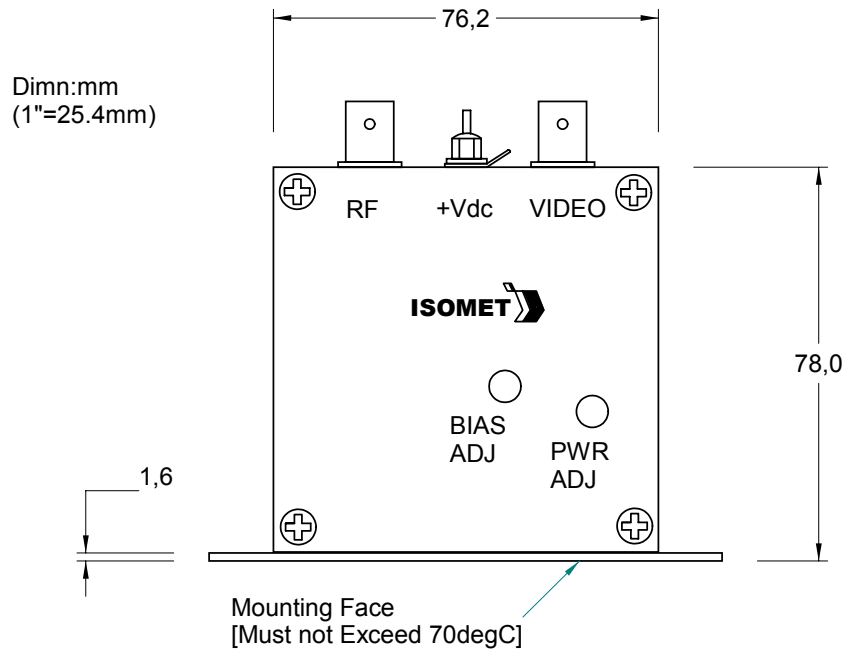
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OUTLINE DRAWING



[BIAS ADJ on 234A-1(2) only]

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