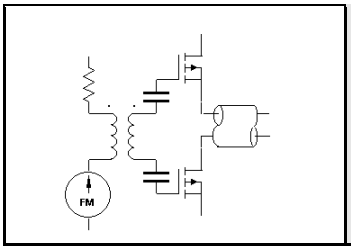

220 Series

Digital RF Driver

ISOMET

902

The Series 220 Driver is designed to operate with Isomet acousto-optic modulators for digital control of laser beam intensity. For this mode of operation, an on-off gated source of RF energy is required at a selected frequency and power level.

Contained in the 220 Driver are a free running quartz crystal stabilized oscillator, a gain control, a fast acting RF switch, and a broadband class-A power amplifier. Under control of the TTL compatible digital input, the RF switch gates the oscillator to the power amplifier. The particular choice of circuit design results in a clean RF output with minimum overshoot and ringing and virtually no RF leakage in the off condition. The rise and fall times are negligible compared to the compatible modulator.

SPECIFICATIONS

Output impedance:	50Ω Nominal
Load Mismatch VSWR:	2:1 Max
RF On-Off Ratio:	40dB
Digital Input:	TTL compatible, Positive logic RF on ≥ +2.75V (15mA), RF Off ≤ 0.3V
Frequency Accuracy:	± 0.005%
Frequency Stability:	± 0.003%
DC Power Input:	+28Vdc regulated to ±0.25% (Supplied by the User) 200mA for 0.75W models, 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

Model	Center Frequency	Rise Time	RF Drive Power	Use With Modulator
222E-1	80MHz	5ns	>.75W	1205C-1
222A-1	80MHz	5ns	>1W	1205C-1,-2
223A-1	110MHz	5ns	>1W	1206C
225A-1	200MHz	3ns	>1W	1250C
221A-2*	40MHz	10ns	>1.6W	1201E-1, 1201E-2
222A-2	80MHz	5ns	>1.6W	1205C-2 (830nm)

*The 221A-2 may be used with RFA-105 to produce 8W 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
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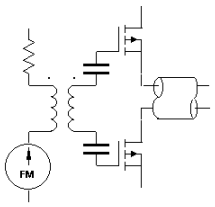
E-mail: ISOMET@ ISOMET.COM ***Web Page: WWW.ISOMET.COM***

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

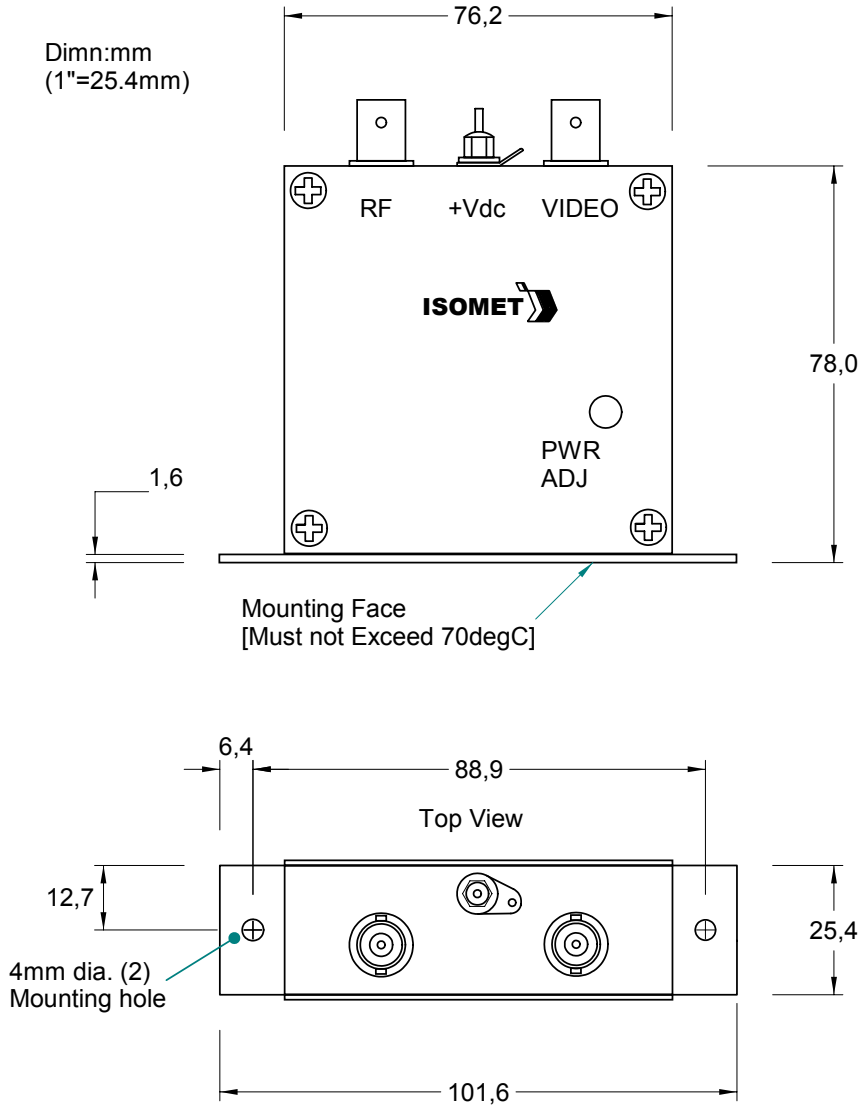


220 Series

Digital RF Driver

902

OUTLINE DRAWING



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Software Development
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