

RFA250-2

RF Driver/Amplifier

(PRELIMINARY DATA)



405a

The RFA250-2 is a combined 50 MHz oscillator and power amplifier suitable for driving Isomet High Power Acousto-optic modulators such as Model AOM600-1108. This driver features digital and analog inputs for the control of the RF amplitude. Protection includes an internal over temperature sensor, and a 'TranZorb' over voltage diode on the DC supply input. An external interlock (or RF enable) input is provided.

The RFA250-2 will operate from a +24V to +28Vdc supply. An LED indicates when the RF outputs are 'live'. The maximum RF output power can be adjusted by means of a pre-set potentiometer.

The amplifier includes an integral water-cooled heatsink.

SPECIFICATION

Power Output	:	> 160 Watts Max CW (28V supply) > 120 Watts Max. CW (24V supply)
Load Impedance	:	50Ω
Harmonic Distortion	:	>20dB below fundamental
Mismatch Tolerance	:	The Driver will not oscillate
Center Frequency	:	50 MHz
Frequency stability	:	± 0.003%
Frequency accuracy	:	± 0.005%
Modulation Control Voltage	:	
Digital	:	TTL compatible (> 2.7V, RF O/P=on)
Analog	:	0.0 to 10.0V, 600ohm i/p impedance (nominal)
RF ON to OFF Ratio	:	40dB below full power
Output Switching Speed	:	< 0.25μs Rise/Fall, 0 to 50 Watts
Interlock	:	Open OFF, closed ON
	:	Sink 20mA at 12V
Power Supply	:	+24V to +28Vdc, 0.25% regulation, < 10A
Temperature Range	:	0° to 60°C, Thermal Shutdown Interlock
RF Output	:	BNC (2 off)
Control signals -	:	15 pin 'D' type Male
Amplitude Control, Digital	:	+sig pn8, -rtn pn15
Amplitude Control, Analog	:	+sig pn7, -rtn pn14
Interlock enable (connect to AO)	:	+sig pn1, -rtn pn9 (closed = on)
Interlock monitor, CMOS open drain	:	+sig pn2, -rtn pn10 (low = OK)
Power Input	:	Feed through filter solder tag
Dimensions	:	(See reverse)

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

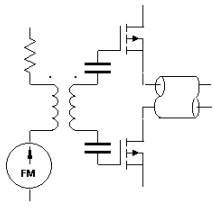
E-mail: ISOMET@ISOMET.COM Web Page: WWW.ISOMET.COM

Quality Assured.

In-house: RF & Digital design

Software Development

OEM manufacture



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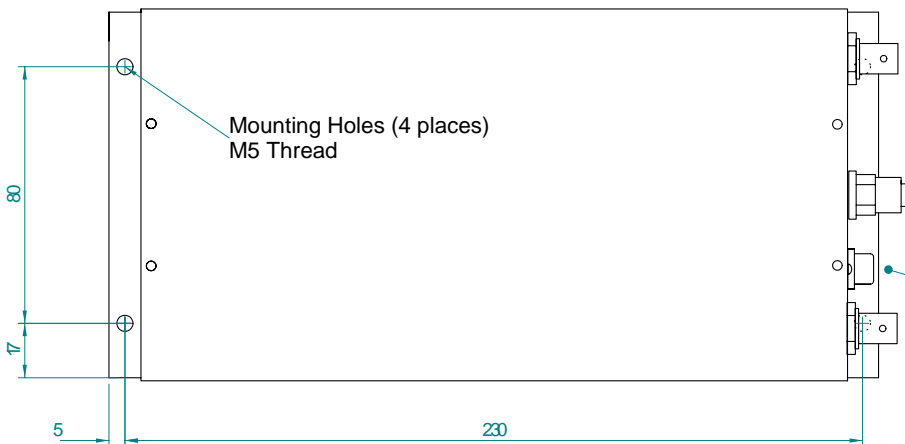
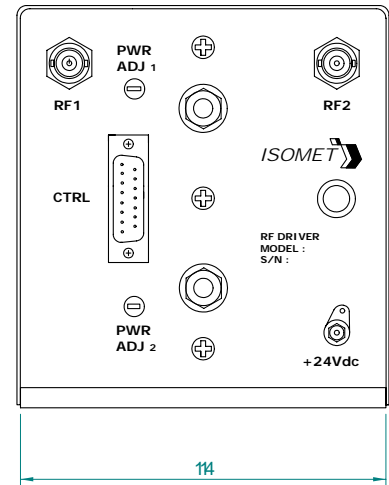
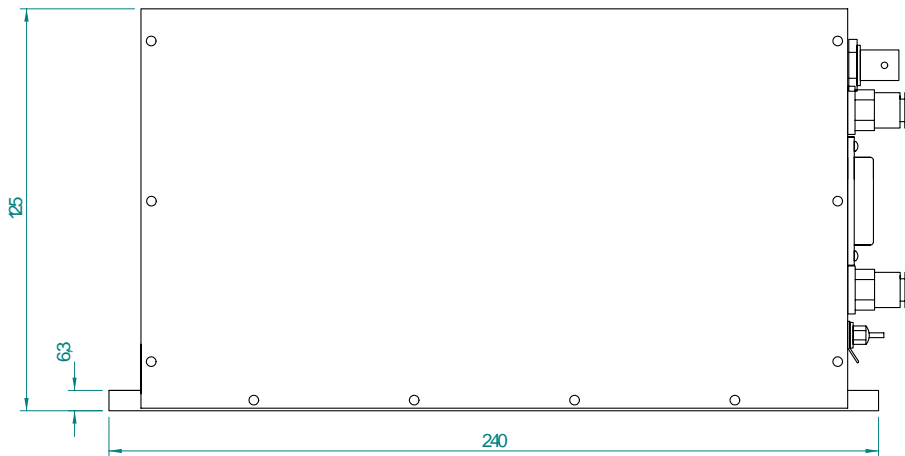


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OUTLINE DRAWING

RFA250-2 Series RF Amplifier Outline

Dimensions : mm
1" = 25.4mm



Mounting Holes (4 places)
M5 Thread

RF Outputs
BNC (2 off)

G 1/8" Thread Water Fittings (2 off)
Water cooled Heatsink
Must not exceed 70deg C

15way D-type Plug

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