

# RFA350-2

## Tuneable RF Driver

(Phase Delayed - Dual Output)



1006

The RFA350-2 is a combined 40-60MHz VCO and power amplifier suitable for driving Isomet High Power Acousto-optic devices such as Model AOM600-1108. The driver features a 0 to +10 volts input to tune the output frequency and a 0 to +10 volt analog modulation input signal to control the amplitude of the RF output. The driver has two 60 Watt RF outputs. Maximum gain is externally adjustable via a pre-set potentiometer. An internal delay line introduces the correct phasing between the RF outputs.

An external interlock (or RF enable) input is provided. The RFA350-2BS will operate from a +24V to +28Vdc supply. LED's indicate when the RF outputs are 'live' and Interlocks enabled. The amplifier includes an integral water-cooled heatsink.

### Preliminary SPECIFICATIONS

Oscillator Type:	Varactor-tuned thin film hybrid
Power Out, Each Output (RF1, RF2):	60 Watts Maximum CW into 50Ω
Phase delay between outputs:	AO Deflector dependant
Load VSWR:	< 2.5:1 for best results
Output RF Power Variation vs.Freq:	≤ 1 dB
Spurious Outputs:	Harmonics > 20dB below fundamental
Tuning Range:	40-60MHz
Tuning Voltage Input (Vt):	0 to 10V for specified tuning range
Tuning Linearity:	< +/- 1.5% over specified tuning range
Tuning Voltage Impedance:	1Kohm (nominal)
Tuning Slew Rate	> 10 MHz/μs
Residual FM:	< 10 KHz peak-to-peak
Frequency Stability:	±0.25%
Amplitude Voltage Input (MOD):-	
Analogue:	0-10V for 100% depth of modulation, DC coupled
Input Impedance:	50Ω source
RF ON-OFF Ratio:	> 35 dB
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)

#### ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

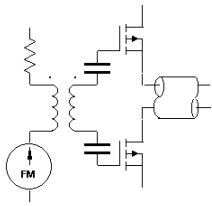
ISOMET CORP, 5263 Port Royal Rd, Springfield, VA 22151, USA.

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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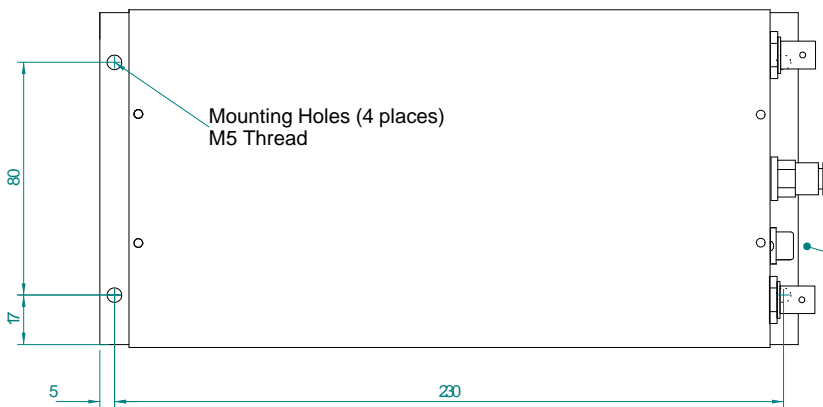
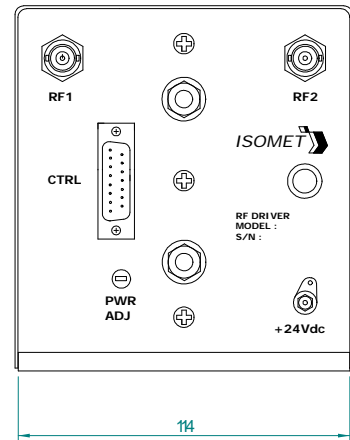
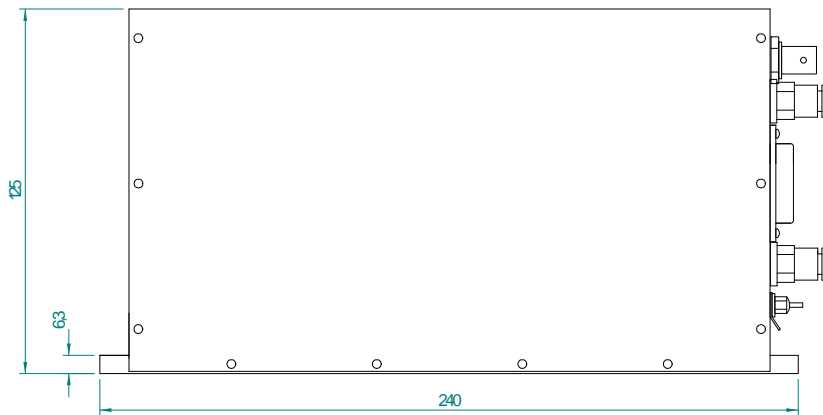


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### OUTLINE DRAWING

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

Control signals -	:	15 pin 'D' type Male
Frequency Control, 0 - 10V	:	+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)

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