

RFA151

RF Driver / Amplifier



0407

The RFA151 is a combined 50 MHz oscillator and power amplifier suitable for driving Isomet acousto-optic modulators such as models 1208-6-(4). This driver features both digital gate and analog modulation 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 RFA151 will operate from a +24V to +28Vdc supply. LED's indicate the status of the thermal interlocks, DC supply and the RF power activity. The maximum RF output power is adjusted by means of a pre-set potentiometer.

The amplifier includes an integral water-cooled base. The unit can be supplied with the coolant fittings located at the front (RFA151) or rear (RFA151 -R). Please specify at time of order.

SPECIFICATION

Power Output	:	30 Watts Max CW (28V supply) 25 Watts Max. CW (24V supply)
Load Impedance	:	50Ω
Harmonic Distortion	:	>20dB below fundamental
Mismatch Tolerance	:	The Driver will not oscillate
Centre 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, 1Kohm 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 28V)
Power Supply	:	+24V to +28Vdc, 1.0% regulation, < 4A
Temperature Range	:	0° to 60°C, Thermal Shutdown Interlock
R.F. Output	:	BNC
Control signals -	:	9 pin 'D' type
Amplitude Control, Digital	:	+sig pn6, -rtn pn7
Amplitude Control, Analog	:	+sig pn8, -rtn pn9
Interlock enable (connect to AO)	:	+sig pn4, -rtn pn5 (closed = on)
Interlock monitor, CMOS compatible	:	+sig pn1, -rtn pn2 (+15V = OK, 0V = fault)
Power Input	:	Feed through filter solder tag
Dimensions	:	(See reverse)

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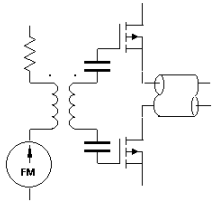
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Quality Assured.

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



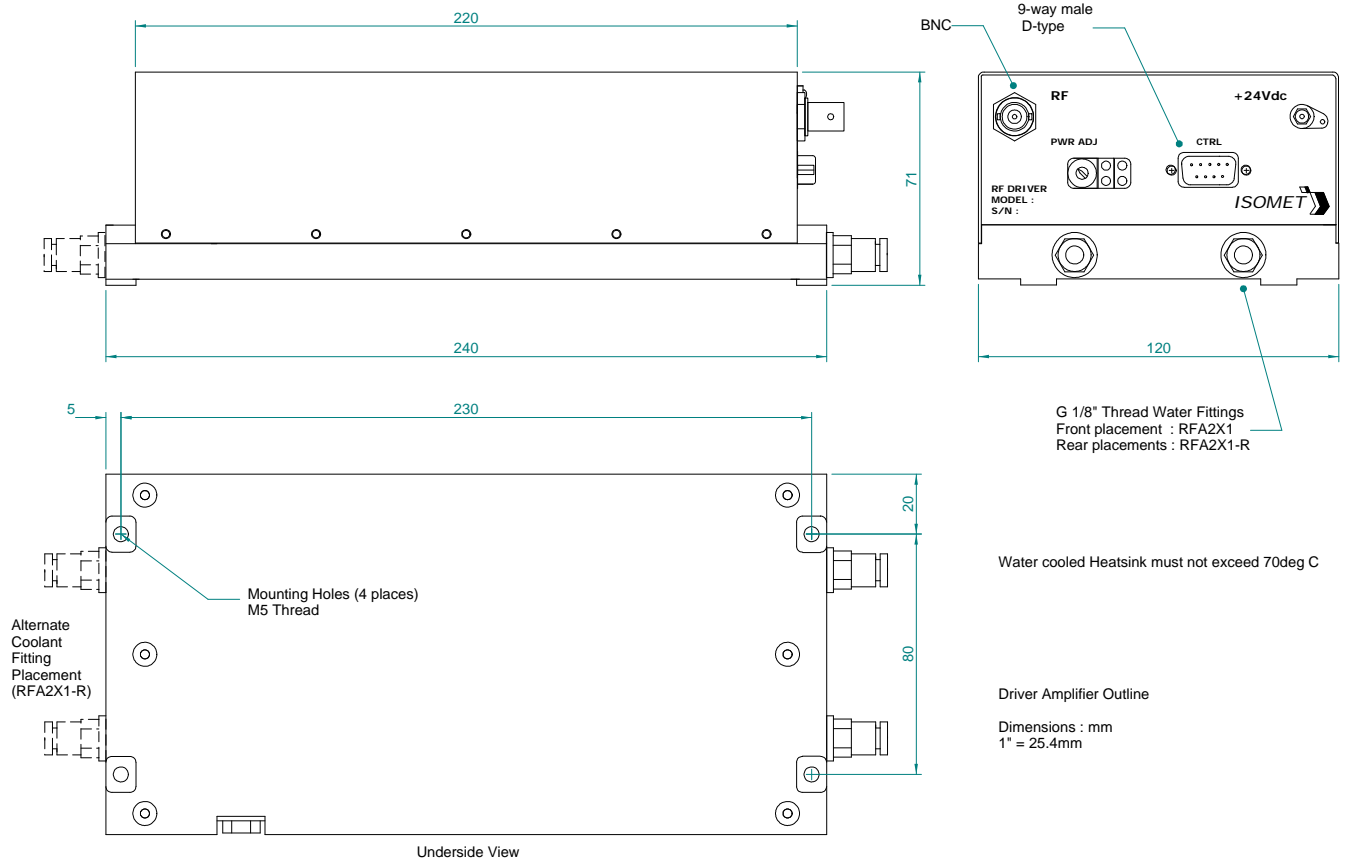
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OUTLINE DRAWING



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