

RFA151

RF Driver / Amplifier



1014

The RFA151 is a combined 50 MHz oscillator and power amplifier suitable for driving Isomet acousto-optic modulators such as models 1208-G50. 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). See options.

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 | : | Driver will not oscillate |
| Centre Frequency | : | 50.0 MHz |
| Frequency stability | : | ± 25ppm |
| Frequency accuracy | : | ± 25ppm |
| Modulation Control Voltage | : | |
| Digital | : | TTL compatible (> 2.7V, RF active) |
| Analog | : | 0.0 to 10.0V, 3Kohm i/p impedance (nominal) |
| RF ON to OFF Ratio | : | 40dB below full power |
| Output Switching Speed | : | < 200/50 ns Rise/Fall, 0 to 25 Watts |
| Interlock | : | Open OFF, closed ON (Sink 20mA at Vdc) |
| Temperature Range | : | 0° to 50°C, Thermal Shutdown Interlock |
| 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, 15V logic | : | +sig pn1, -rtn pn2 (+15V = OK, 0V = fault) |
| DC Power Input | : | Filtered screw terminal |
| Power Supply | : | +24V to +28Vdc, 1.0% regulation, < 4A |

ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

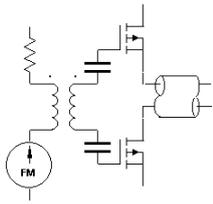
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Quality Assured.

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



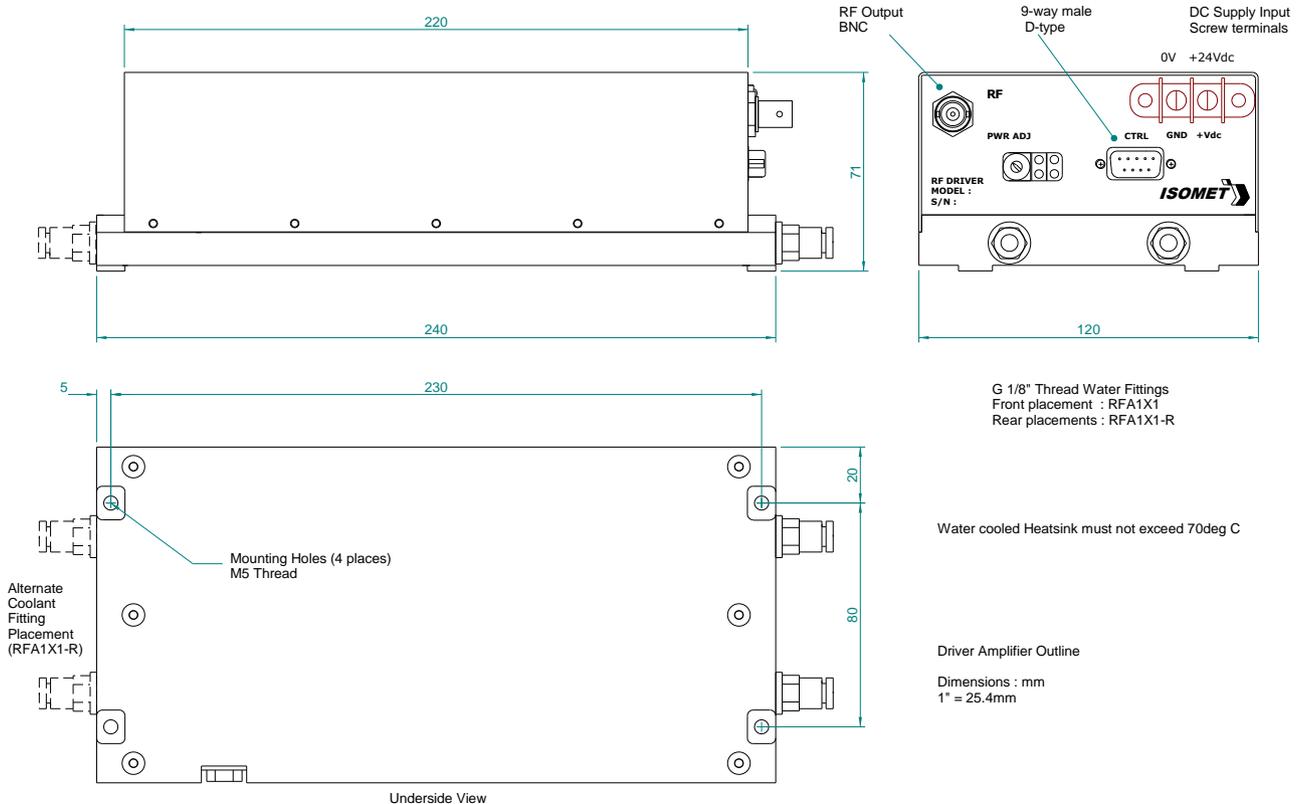
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OUTLINE DRAWING



OPTIONS

- A : Analog modulation only
- BR: Brass heatsink, rear mounted water fittings only.
(to suit brass or copper cased AO devices)
- R : Rear mounted water fitting
- V : 0 - 5V analog modulation range

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