

RFA200

RF Amplifier

(Power amplifier compatible with the Isomet DDS's)



0914

The Model RFA200 water-cooled amplifier is a Class-A solid-state unit designed to drive the *ISOMET* high power Acousto-Optic modulators and deflectors with up to 70 Watts total power in the 35 to 65 MHz frequency band. The amplifier RF input is compatible with the *ISOMET* high speed, direct digital frequency synthesizers. The amplifier also 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 for connection to the AO device thermal interlock.

The RFA200 will operate from a +24V to +28Vdc supply. LED's indicate the status of the thermal interlocks, DC supply and RF power. The RF output power limit 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 (RFA200) or rear (RFA200-R). See options.

SPECIFICATIONS

Power Out (BNC):	> 70Watts CW into 50Ω *
Optimized Frequency Response:	30-50 MHz (40-60MHz on request)
Flatness:	± 0.5dB
Gain to Each Output:	50dB nominal
Input Signal (SMA):	3dBm nominal
Input Impedance:	50Ω nominal
Output Impedance:	50Ω nominal
Input VSWR:	<2.0:1
Harmonic Distortion:	>25dB below fundamental
RF Rise/fall time:	< 300ns/50ns
Power Supply Requirement (DC):	<7A at +24V (or +28V) *
Power Input:	Filtered screw terminal.
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, TTL compatible	: +sig pn1, -rtn pn2 (+5V = OK, 0V = fault)

ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

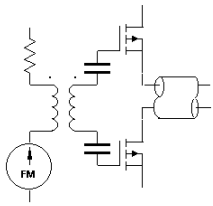
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Quality Assured.

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



RFA200

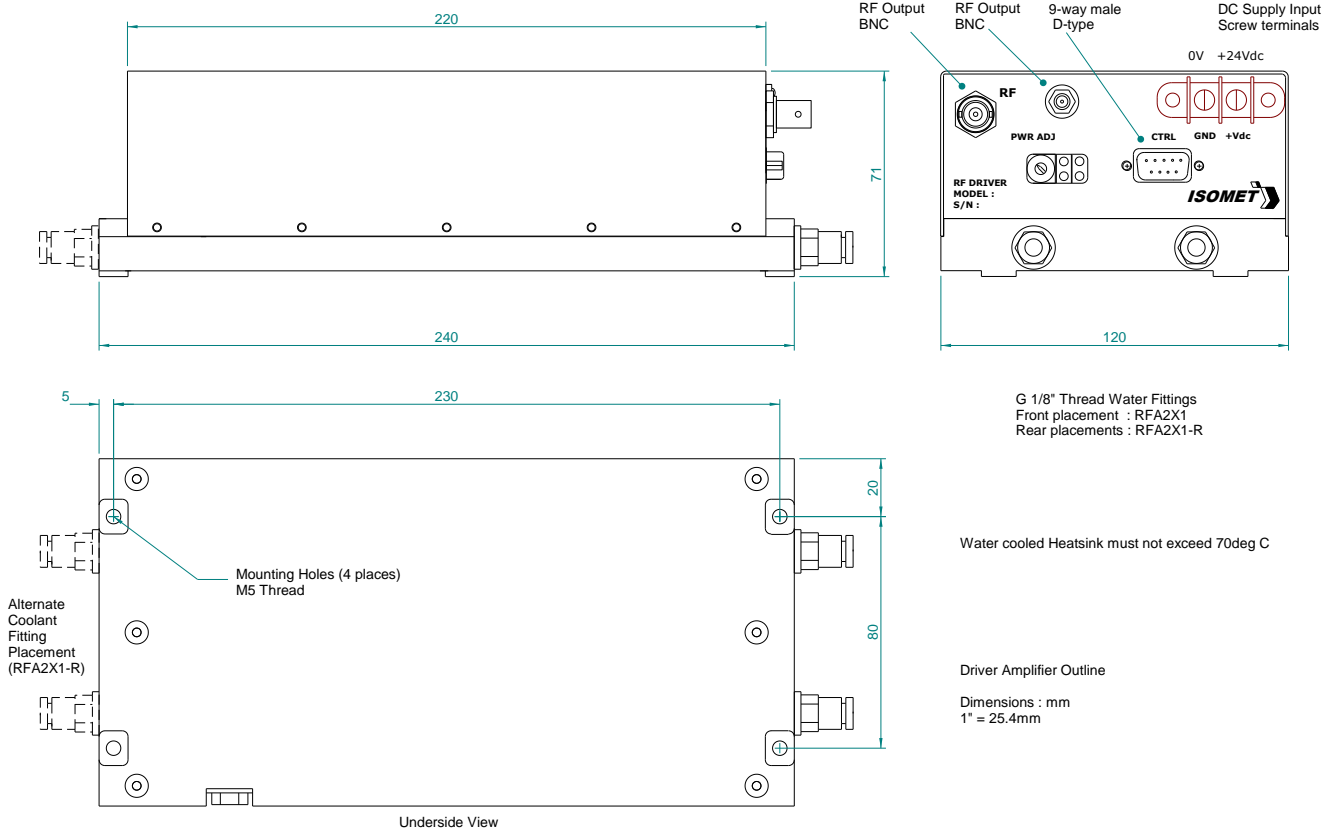
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OUTLINE DRAWING



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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