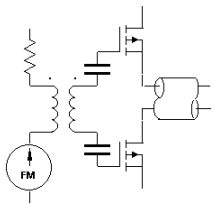

RFA181

RF Driver / Amplifier

ISOMET

0419

The RFA181 is a combined 80 MHz oscillator and power amplifier suitable for driving Isomet acousto-optic modulators. 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 RFA181 will operate from a +24V to +28Vdc supply. LED's indicate the status of the thermal interlocks, DC supply and RF power. 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 (RFA181) or rear (RFA181-R). Please specify at time of order.

SPECIFICATION

Power Output	:	45 Watts Max CW (28V supply) 40 Watts Max. CW (24V supply)
Load Impedance	:	50Ω
Harmonic Distortion	:	>20dB below fundamental
Mismatch Tolerance	:	Driver will not oscillate
Centre Frequency	:	80.0 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 40 Watts
Interlock	:	Open OFF, closed ON
	:	(Sink 20mA at Vdc)
Temperature Range	:	0º to 50ºC, 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 terminals
Power Supply, Vdc	:	+24V to +28Vdc, 1.0% regulation, < 5A

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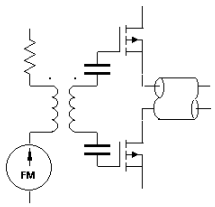
ISOMET CORP, 10342 Battleview Parkway, Manassas, VA 20109, USA.
Tel: (703) 321 8301 Fax: (703) 321 8546
E-mail: ISOMET@ ISOMET.COM ***Web Page: WWW.ISOMET.COM***

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



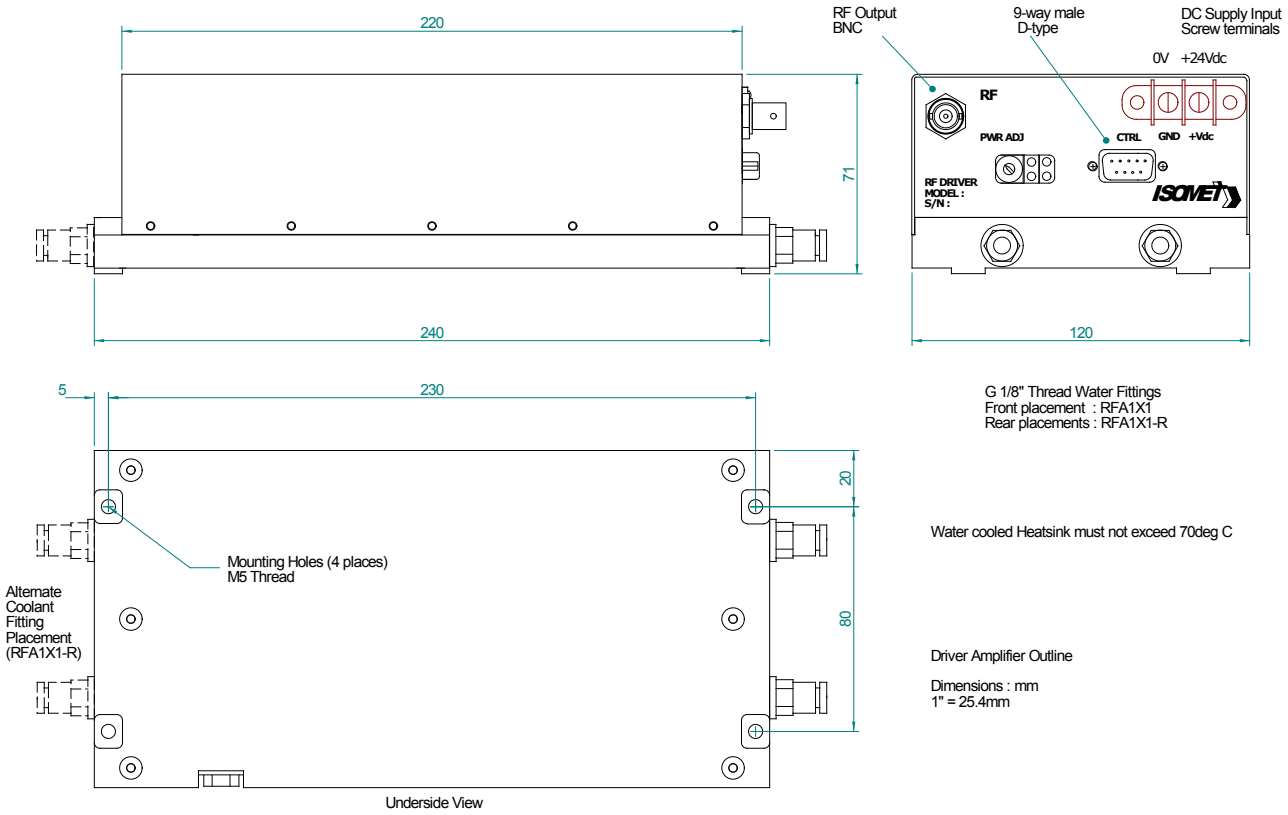
RFA181

RF Driver / Amplifier

ISOMET

0419

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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