

RFA2180-1-15

RF Driver / Amplifier



0622

The RFA2180-1 is a combined 180 MHz oscillator and power amplifier suitable for driving UV/VIS acousto-optic modulators such as the M1340. 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 driver will operate from a +24V to +28Vdc supply. LED's indicate the status of the thermal interlocks, DC supply and RF power output. The RF output power limit is adjusted by means of a pre-set potentiometer.

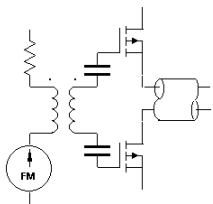
The amplifier includes an integral water cooled base.

SPECIFICATION

Power Output	:	> 20 Watts Max CW (28V supply) > 15 Watts Max. CW (24V supply)
Load Impedance	:	50Ω
Harmonic Distortion	:	>25dB below fundamental
Mismatch Tolerance	:	Driver will not oscillate
Centre Frequency	:	180.0 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
Output Switching Speed	:	< 40ns rise / < 40ns fall, 0 to 10 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, Vdc	:	+24V to +28Vdc, 0.25% regulation, < 3A

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



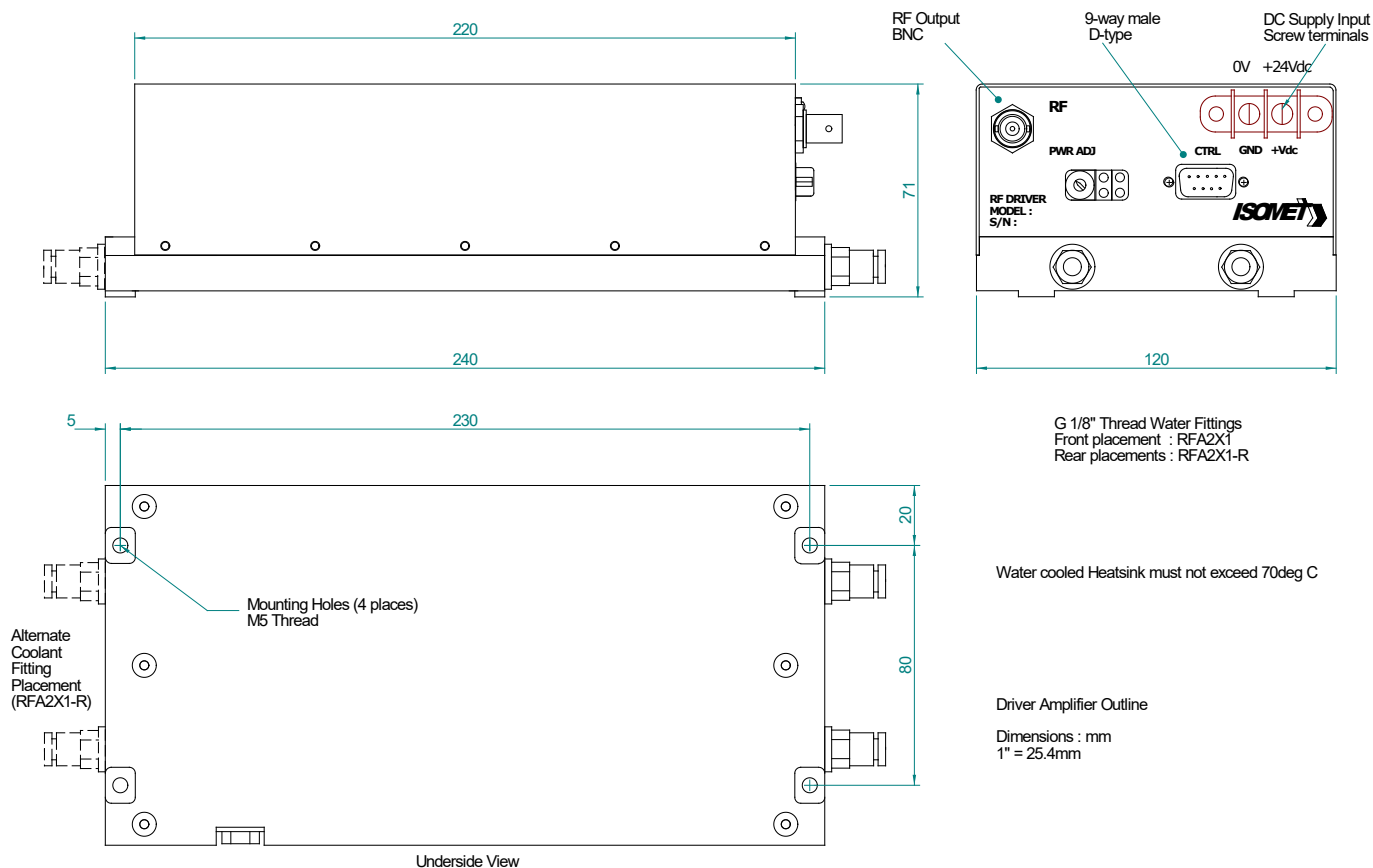
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OUTLINE DRAWING



Refer application note AN1906 regarding Coolant Specification

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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