

RFA3080-2

Tunable RF Driver

(Phase Delayed - Dual Output)



0115

The Model RFA3080-2 Deflector Driver is a class A solid-state RF source designed to drive *ISOMET* beam steered Acousto-Optic Scanners with up to 10.0 Watts total power across a frequency band of 65 to 95 MHz.

The driver controls include a 0 to +10 volt frequency tuning input and a 0 to +10 volt amplitude modulation input. Each output delivers > 5 Watt RF. Maximum gain is externally adjustable via a pre-set potentiometer. The start frequency is also adjustable and is set by the frequency offset potentiometer (FOS). An internal delay line introduces the correct phasing between the RF outputs, specific to the AO deflector. The base plate is water cooled.

SPECIFICATIONS

Oscillator Type:	Varactor-tuned thin film hybrid
Power Out, Total Output (J1+J2):	11 Watts Maximum CW into 50Ω
Phase delay between outputs:	AO Deflector dependant
Load VSWR:	< 2.5:1 for best results
Output RF Power Variation vs.Freq:	≤ 1 dB
Spurious Outputs:	Harmonics > 20dB below fundamental
Tuning Range:	60-100MHz max, 65-95MHz typical
Tuning Voltage (Vt):	0 to 10V for specified tuning range
Tuning Linearity:	< +/- 1.5% over specified tuning range
Tuning Voltage Impedance:	1Kohm (nominal)
Tuning Slew Rate	> 10 MHz/μs
Residual FM:	< 10 KHz peak-to-peak
Frequency Stability:	±0.25%
Modulation Input	
Analogue:	0-10V for 100% depth of modulation, DC coupled
Input Impedance:	600 ohm (nominal)
RF ON-OFF Ratio:	> 40 dB
RF Amplitude rise/fall time	< 100nsec
DC Power Input:	+24Vdc* at 2.5A regulated to ± 0.25%
Temperature Range:	0°C to 60°C ambient. Temperature at mounting face must not exceed 70°C. Water cooling available.

* A +28Vdc positive supply can be used giving a higher maximum RF power

ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

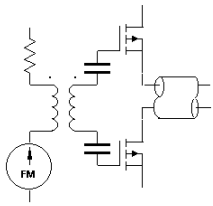
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Quality Assured.

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



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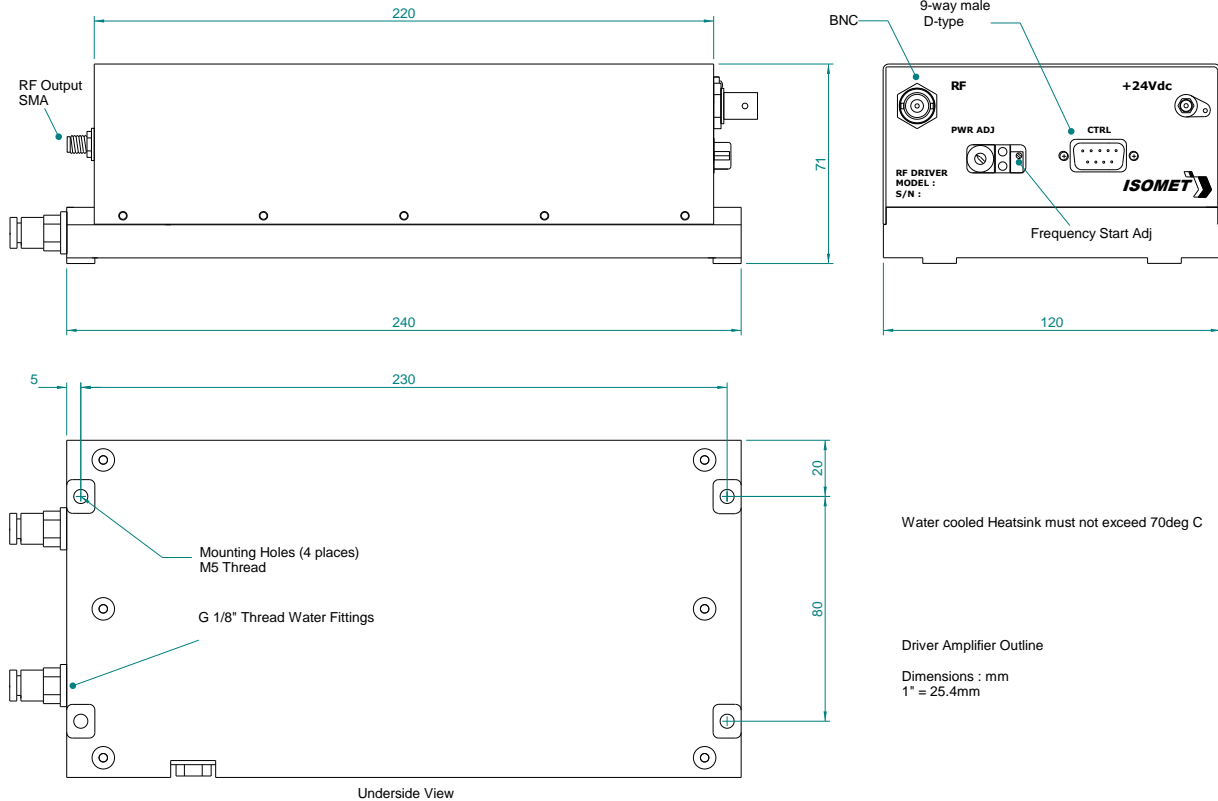
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OUTLINE DRAWING

Water cooled version



Control signals -	:	9 pin 'D' type
Tuning Voltage	:	+sig pn1, -rtn pn6
Amplitude Control	:	+sig pn8, -rtn pn3
Interlock Control (Contact / Low = On)	:	+sig pn9, -rtn pn4
Digital Gate (NC or High = On)	:	+sig pn7, -sig pn2

Options -x, multiple combinations possible:

- BR : Brass water cooled heatsink (water fittings on RF output face)

Refer application note AN0901 regarding Coolant Specification

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