

RFA3175-4

Tunable RF Driver

(Phase Delayed - Quad Output)



0312

The Model RFA3175-4 Deflector Driver is a class A solid-state RF source designed to drive *ISOMET* beam steered Acousto-Optic Scanners with up to 6.0 Watts total power across a frequency band of 125 to 225 MHz

The driver features a 0 to +10 volts input to tune the output frequency and a 0 to +1 volt analog modulation input signal to control the amplitude of the RF output. The driver has four 1.5 Watt RF outputs. Maximum gain is externally adjustable via a pre-set potentiometer. An internal delay line introduces the correct phasing between the RF outputs. The base plate can be water cooled if required.

SPECIFICATIONS

Oscillator Type:	Varactor-tuned thin film hybrid
Power Out, Each Output (X1...X4):	1.5 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:	125-225MHz
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%
Video Input Voltage (MOD):- Analogue:	0-10V for 100% depth of modulation, DC coupled
Input Impedance:	600 ohm (nominal)
RF ON-OFF Ratio:	> 37 dB
RF Amplitude rise/fall time	< 20nsec
DC Power Input:	+28Vdc* at 1.5A regulated to ± 0.25%
Temperature Range:	0°C to 60°C ambient, temperature at mounting face must not exceed 70°C. Water cooling available.
Mounting Orientation:	Any

* A +24Vdc positive supply can be used giving a lower maximum RF power of 1.4W/output

ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

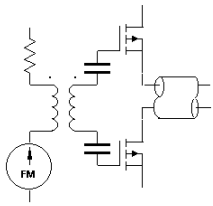
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Quality Assured.

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



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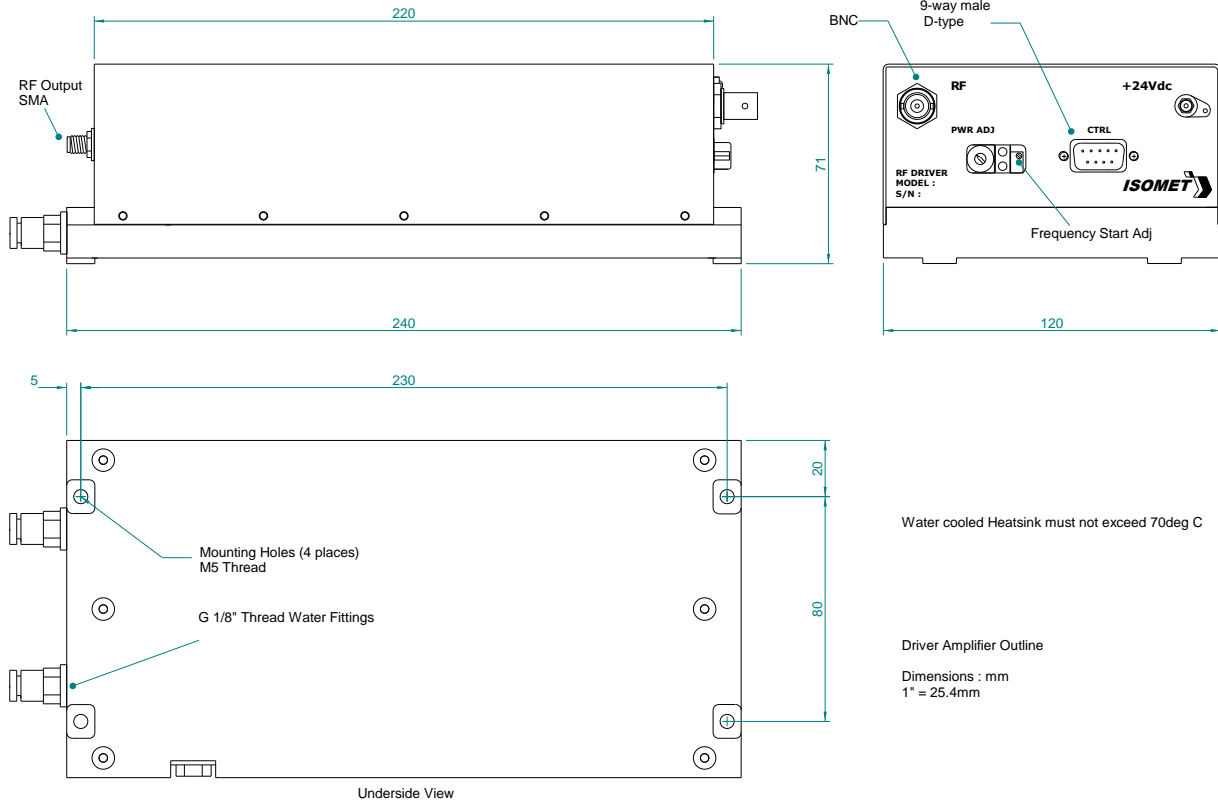
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OUTLINE DRAWING

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
-CC : conduction cooled

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