

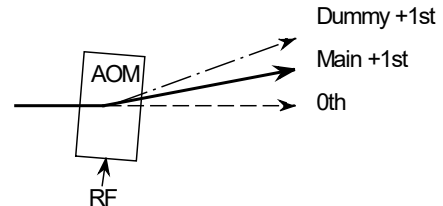
RV2(BR)-4051-1-180 RV3(BR)-4051-1-180 RF Driver/Amplifier



1124

The RVxBR-4051-x is a combined dual frequency oscillator and power amplifier suitable for driving Isomet IR Acousto-optic modulators such as the M700-G40 series. The prime frequency of 40MHz provides the active "ON" laser output beam. The dummy frequency of 50.7MHz is applied in the "OFF" condition and is used to provide a constant thermal load to the AOM. Two inputs directly control the RF output; modulation and freq' select. Protection includes an internal over temperature sensor, and a 'TranZorb' over voltage diode on the DC supply input. An external interlock input is provided. The amplifier includes an integral water-cooled heatsink. Available options (-x) are listed below.

The driver operates from a +24V supply.
LEDs indicate when the RF outputs are 'live'.
The maximum RF output power for each frequency is preset by front panel potentiometers.



SPECIFICATION

Power Output	:	> 75 Watts Max. CW
Load Impedance	:	50Ω
Harmonic Distortion	:	>20dB below fundamental
Mismatch Tolerance	:	Driver will not oscillate.
Center Frequency	:	40.0MHz(main), 50.7MHz (dummy)
Frequency stability	:	± 25ppm
Frequency accuracy	:	± 25ppm
Modulation Control Voltage		
Digital RV2BR-4051-	:	TTL compatible (> 2.7V, RF O/P=on)
Analog RV3BR-4051-	:	0.0 to 10.0V, 500ohm i/p impedance (nominal)
RF ON to OFF Ratio	:	40dB below full power
Output Switching Speed	:	< 0.1μs Rise/Fall, 0 to 60 Watts
Power Supply	:	+24V, 0.25% regulation, <6A
Temperature Range	:	0° to 60°C, Thermal Shutdown Interlock
RF Output	:	BNC Connector
Control signals:		
Connector	:	15 pin 'D' type Male
Frequency select, TTL	:	+sig pn8, -rtn pn15 (High=38.4MHz, Low=48MHz)
Modulation control, (0-10V or On:Off)	:	+sig pn7, -rtn pn14 (common to both frequencies)
Over temp fault, voltage free	:	+sig pn2, -rtn pn10 (Closed = OK)
High reflected RF power (HRP), voltage free	:	+sig pn6, -rtn pn13 (Closed = OK)
HRP fault reset	:	+sig pn3, -rtn pn11 (Momentary close)
Connector	:	Binder 719 3pin Male
Interlock enable, (connect to AO)	:	+sig pn1, -sig pn2 (Closed = on)
Power Input	:	Feed through filter, screw terminal

ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

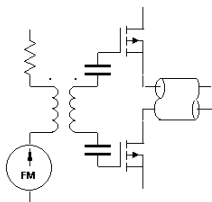
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Quality Assured.

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

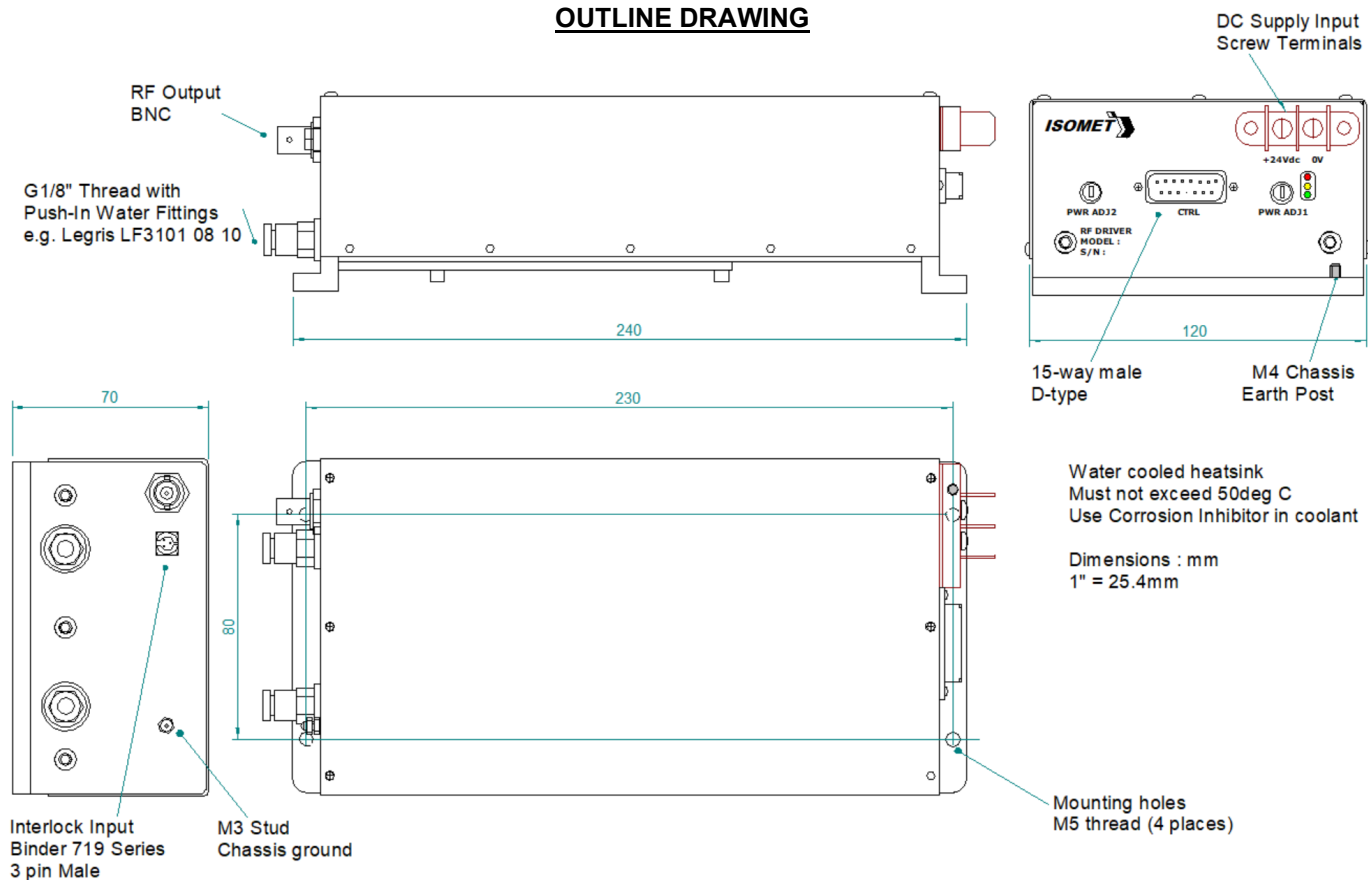


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OUTLINE DRAWING



Heatsink in contact with coolant water. Default aluminium. See BR option.
Water-coolant fittings supplied are suitable for 8mm OD / 6mm ID pipe.

Options -x, multiple combinations possible:

(BR) : Brass heatsink

Refer application note AN1906 regarding Coolant Specification

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Software Development
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