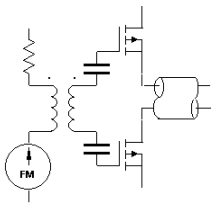

RV2(3)(5)-z-80-1-120
RF Driver/Amplifier

ISOMET

1125

The RVx-80-1-120 drivers are combined 80 MHz oscillator and RF power amplifiers. The -BR option is recommended for brass and copper cased acousto-optic modulators such as M1431C-. The standard configuration 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 input is provided for connection to the AO device thermal interlock sensor.

Active modulation	Model	Modulation Input
Digital only	RA2-	5V logic compatable
Analog only	RA3-	0 - 10V *
Dual	RA5-	both, as above

This driver will operate from a +24V to +28Vdc supply. LEDs indicate the status of the thermal interlocks, DC supply and RF power activity. The RF output power limit is adjusted by means of a pre-set potentiometer. Two inputs can directly control modulation of the RF output. 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 (-z) are listed below.

SPECIFICATION

Power Output, max CW.		:	>120W @ 24Vdc >140W @ 28Vdc
Load Impedance		:	50Ω
Harmonic Distortion		:	>20dB below fundamental
Mismatch Tolerance		:	Driver will not oscillate.
Center Frequency		:	80.0MHz
Frequency stability		:	± 25ppm
Frequency accuracy		:	± 25ppm
Control Signals			
RA2- and RA5-	Digital Mod'n	:	TTL compatible (>2.7V, RF active. <2.2V = Off)
RA3- and RA5-	Analog Mod'n	:	0.0 to 10.0V, ~1Kohm i/p impedance*
RF ON to OFF Ratio		:	40dB below full power
Output Switching Speed		:	< 400/100nsec Rise/Fall, 0 to 100 Watts
Power Supply		:	+24V, 0.25% regulation, <18A
Temperature Range		:	0º to 60ºC, Thermal Shutdown Interlock
RF Output		:	TNC Connector
Control signals:	Connector	:	15 pin 'D' type Male
Digital Mod, TTL (On:Off)			: +sig pn8, -rtn pn15
Analog Mod, (0-10V)			: +sig pn7, -rtn pn14
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)
DC Power Input		:	Feed through filter, screw terminal

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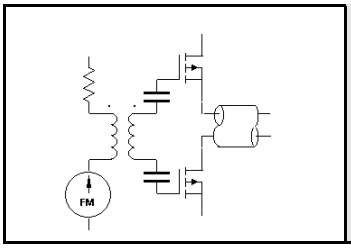
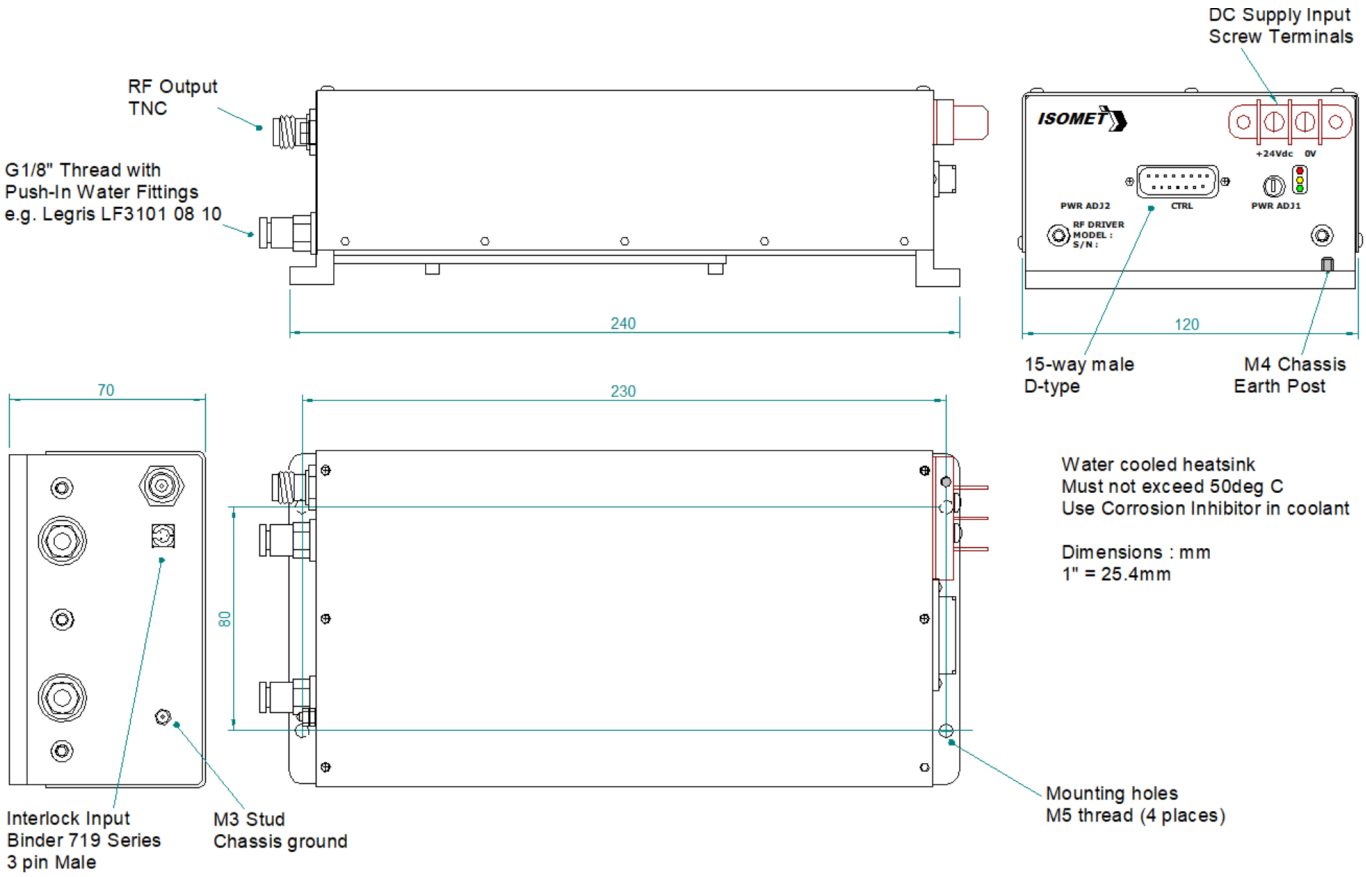


RV2(3)(5)-z-80-1-120
RF Driver/Amplifier

1125

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 –z, multiple combinations possible:

BR : Brass heatsink e.g. RV3-BR-80-1-120

Refer application note AN1906 regarding Coolant Specification

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