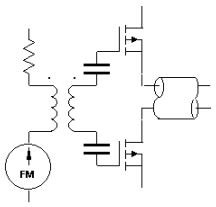

RN2(3)(5)-z-50-2-80
RF Driver/Amplifier

ISOMET

0425

The RNx-50-2-80 driver features a common 50MHz oscillator and dual power amplifiers. It is configured to drive high power IR modulators such as the M600-G50 series. The -BR option is recommended for brass and copper cased acousto-optic modulators. 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 the RF power activity. The RF output power limit is adjusted by means of a pre-set potentiometer. Fault signals are provided.

SPECIFICATION

Power Output (total)		:	> 170 Watts max CW (28V supply) > 150 Watts max CW (24V supply)
Load Impedance		:	50Ω
Harmonic Distortion		:	>20dB below fundamental
Mismatch Tolerance		:	Driver will not oscillate.
Center Frequency		:	40MHz
Frequency stability		:	± 25ppm
Frequency accuracy		:	± 25ppm
Control Signals:			
RN2- and RN5-	Digital mod'n	:	TTL compatible (>2.7V, RF active. <2.2V = Off)
RN3- and RN5-	Analog mod'n	:	0.0 to 10.0V, ~3Kohm i/p impedance*
All models	GATE (optional)	:	TTL compatible (NC or <0.8V =ON, >2.2V = Off)
RF ON to OFF Ratio		:	40dB below full power
Output Switching Speed		:	< 0.4 / 0.1μs Rise/Fall, 0 to 70 Watts
Temperature Range		:	0º to 60ºC, Thermal Shutdown Interlock
RF Output		:	BNC (2 off)
Power Supply		:	+24V to +28Vdc, 0.25% regulation, < 16A
DC Power Input		:	Filtered screw terminal, 6/32 UNC
Control signals -			15 pin 'D' type Male
Digital modulation, TTL			: +sig pn8, -rtn pn15
Analog Modulation control, (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)

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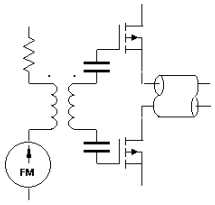

RN2(3)(5)-z-50-2-80
RF Driver/Amplifier

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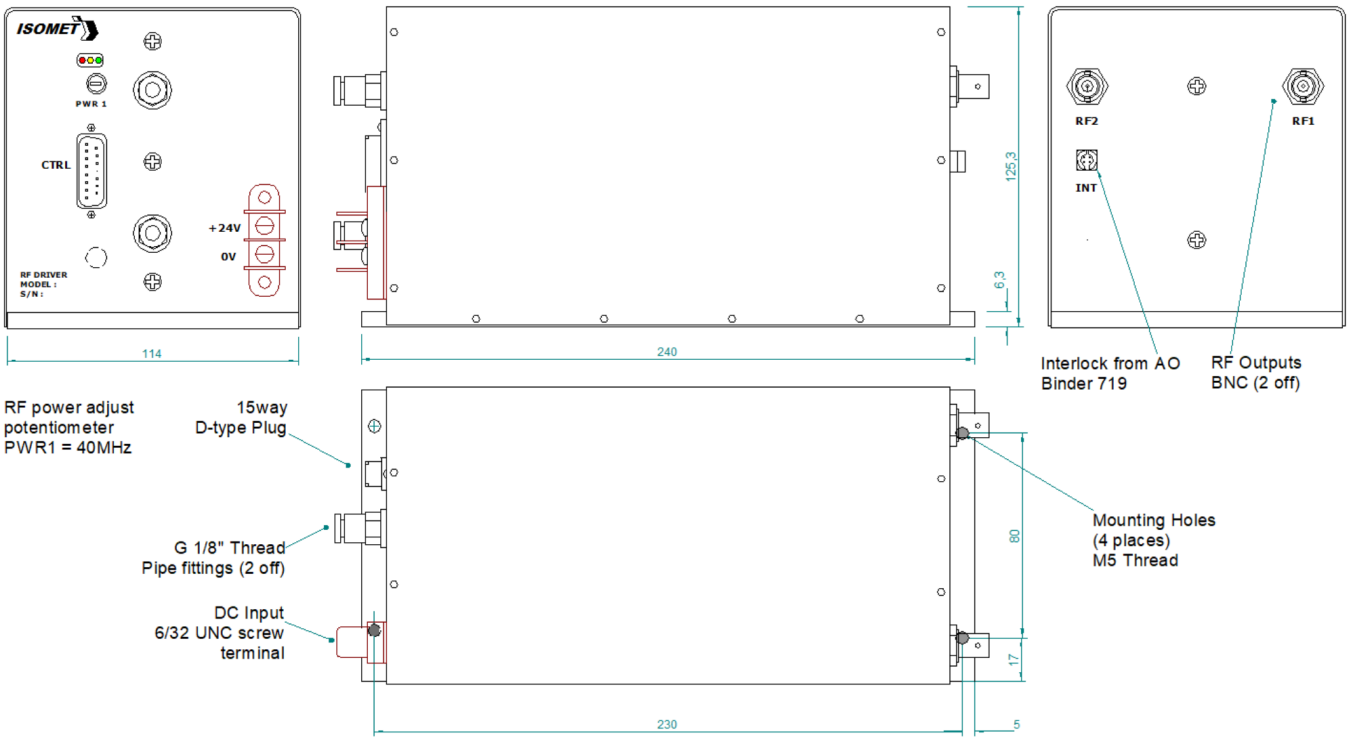
OUTLINE DRAWING

Dim's = mm



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 in contact with water. e.g. RN3-BR-50-2-80

Refer application note AN1906 regarding Coolant Specification

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E-mail: ISOMET@ ISOMET.COM ***Web Page: WWW.ISOMET.COM***

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