

RFA050-2-120

RF Amplifier

(Dual Output PA for use with beam steered AOD's)



0126

The Model RFA050-2-120 is a dual channel Class-A solid-state water-cooled amplifier designed to drive *ISOMET* high power beam steered Acousto-Optic Deflectors with up to 240 Watts total power in the 35 to 65 MHz frequency band. The amplifier has two RF inputs compatible with the *ISOMET* high speed, multi output frequency synthesizers. Protection includes an internal over temperature sensor, and a 'TranZorb' over voltage diode on the DC supply input. An external interlock (or RF enable) input is provided for connection to the AO device thermal interlock.

An LED indicates when the RF outputs are 'live'. The amplifier requires a +24V or +28V regulated DC power supply and exhibits a nominal gain of 50dB.

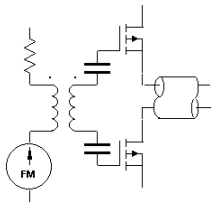
SPECIFICATIONS

Power Out, Each Output (RF1, RF2)	>110Watts CW (24Vdc), >120W 28Vdc into 50Ω
Optimized Frequency Response:	40-60 MHz (30-50MHz on request)
Flatness:	± 0.5dB
Gain to Each Output:	50dB nominal
Input Signal (IN1, IN2):	0dBm nominal
Input Impedance:	50Ω nominal
Output Impedance:	50Ω nominal
Input VSWR:	< 2.0:1
Harmonic Distortion:	> 25dB below fundamental
RF Rise/fall time:	< 300/100ns
Power Supply Requirement (DC):	16.0A at +24V (or +28V)
DC Input:	Screw terminal, filtered
Dimensions:	(See reverse)
Maximum Allowable Case Temperature:	60°C
Minimum Allowable Case Temperature:	0°C

LED	Indicates
Red	Internal 5V OK
Yellow	Amplifier Enabled by iMS4- <u>and</u> AO Interlock closed = OK
Green	Internal 12V OK

ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE
 ISOMET CORP, 10342 Battlevue Parkway, Manassas, VA 20109, USA.
 Tel: (703) 321 8301 Fax: (703) 321 8546
 E-mail: ISOMET@ISOMET.COM Web Page: WWW.ISOMET.COM

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



RFA050-2-120

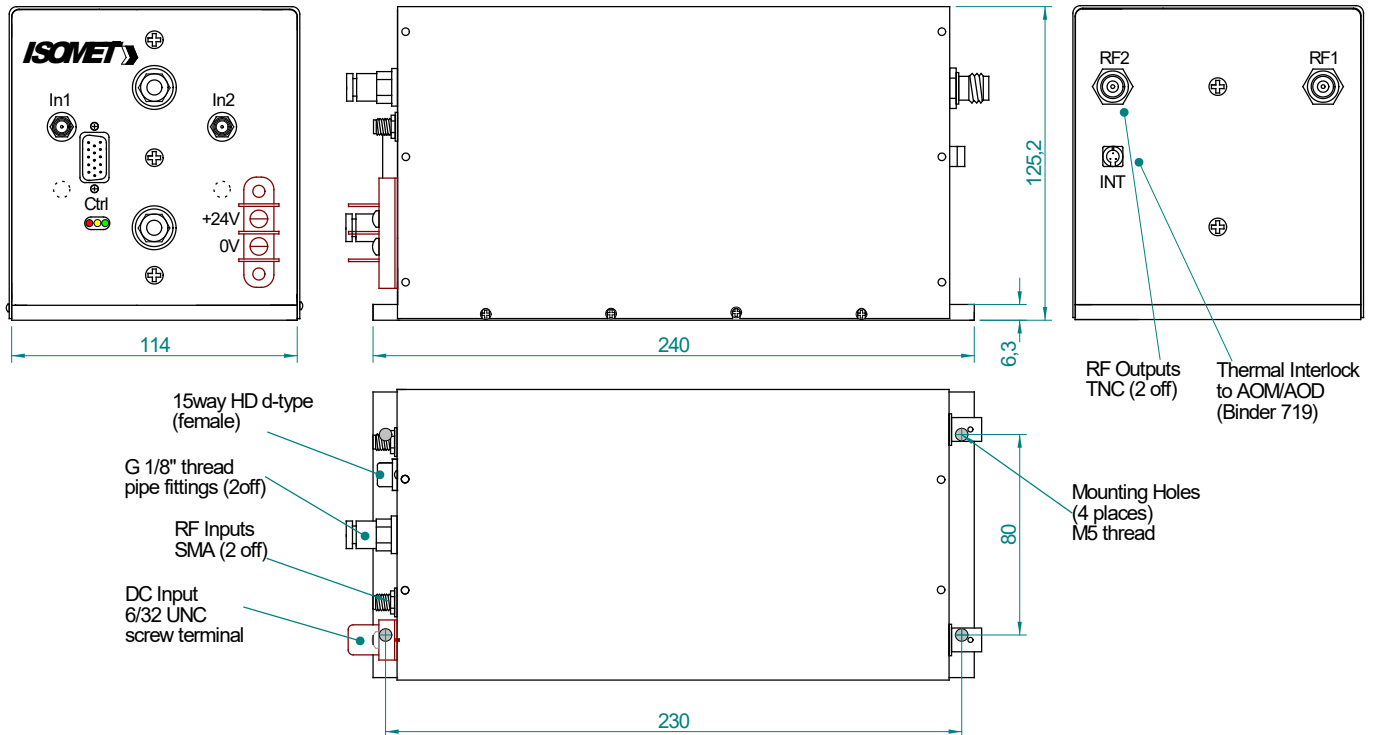
RF Amplifier

(Dual Output PA for use with beam steered AOD's)



0126

OUTLINE DRAWING



Control: 15-pin high density 'D' type Male

Signal (5V logic)	Pins	Connects to
-RF Gate, Digital input	sig pn9	iMS4-, J5_pn9
Interlock monitor, opto-open collector output	sig pn12 (low = OK)	iMS4-, J5 pn12
Buffered I2C Serial Interface (transmit)	Tx pn2, Ty pn5	iMS4-, J5 pn2,5
Buffered I2C Serial Interface (receive)	Rx pn3, Ry pn6	iMS4-, J5 pn3 , 6
5V DC output for isolated IO	pn1, pn0	iMS4-, J5 pn1,10
0V DC output for isolated IO	pn4, pn7	iMS4-, J5 pn4,7
ADC_BSY output *	pn11	iMS4-, J5 pn11
ADC_CnvSt input *	pn8	iMS4-, J5 pn8

* For future use

ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE
 ISOMET CORP, 10342 Battlevue Parkway, Manassas, VA 20109, USA.
 Tel: (703) 321 8301 Fax: (703) 321 8546
 E-mail: ISOMET@ISOMET.COM Web Page: WWW.ISOMET.COM

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