



# RFJ040-2-2

## RF Driver / Amplifier



2824

The RFJ040-2-2 is a combined 40 MHz oscillator and dual channel power amplifier suitable for driving Isomet acousto-optic modulator pairs. This driver features both digital gate and analog modulation inputs for the control of the RF amplitude. These controls are common to both outputs. 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.

The driver will operate from a +24V to +28Vdc supply. LED's indicate the status of the thermal interlocks, DC supply and the RF power activity. The RF power limit is adjusted by means of a single pre-set potentiometer, common to both outputs.

The amplifier is conduction cooled through the base and must be mounted to heat conducting surface.

### SPECIFICATION

Power Output per channel	:	> 2.0 Watts CW (28V supply) > 1.5 Watts CW (24V supply)
Power Balance between channel	:	< +/- 0.25dB at 1W
Load Impedance	:	50Ω
Harmonic Distortion	:	>20dB below fundamental
Mismatch Tolerance	:	Driver will not oscillate
Centre Frequency	:	40.0 MHz
Frequency stability	:	± 25ppm
Frequency accuracy	:	± 25ppm
Modulation Control Voltage		
Digital	:	TTL compatible (> 2.7V, RF active) SMA connector, 5V maximum
Analog	:	0.0 to 10.0V, 3Kohm i/p impedance (nominal) SMA connector, 12V maximum
RF ON to OFF Ratio	:	40dB below full power
Output Switching Speed	:	< 50/20 ns Rise/Fall, 0 to 1 Watts
Interlock	:	Open OFF, closed ON (Sink 20mA at Vdc) Binder 3-way connector, pin1 – pin2
Temperature Range	:	0° to 50°C, Thermal Shutdown Interlock
DC Power Input	:	Filtered screw terminals
Power Supply, Vdc	:	+24V to +28Vdc, 1.0% regulation, < 2A

#### ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

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Quality Assured.

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



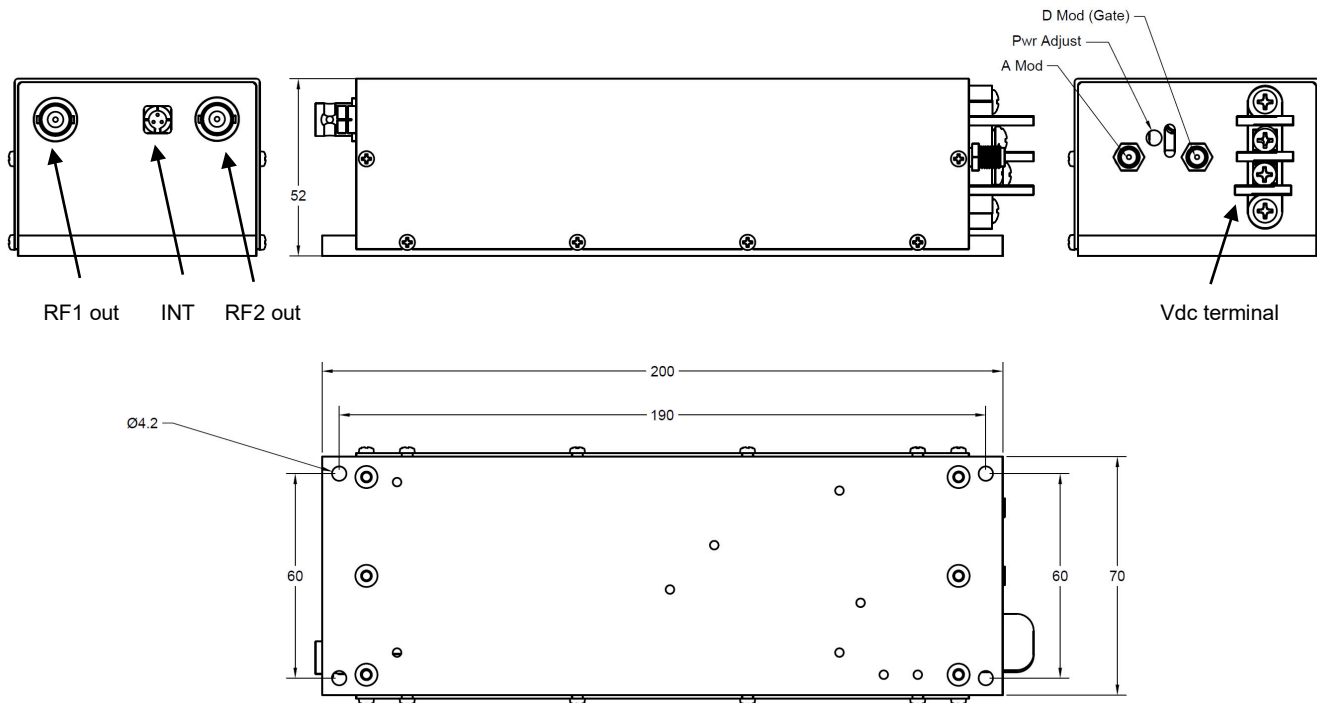
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### OUTLINE DRAWING



### OPTIONS -x:

- A : Analog modulation ONLY
- V : 0-5V analog modulation range
- X : 0-10V analog modulation range
- D : Digital modulation ONLY

e.g. RFJ040-2-2-X Analog modulation 0-10V + Digital Modulation  
 RFJ040-2-2-AX Analog modulation only, 0-10V

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