

RGA0170-4-10

Quad RF Amplifier



2722

The RGA0170-4-10 contains four independent class-A solid-state RF amplifiers and is designed to operate with the customers frequency or AWG source. Each output will deliver up to 10 Watts power across a frequency bandwidth of 130 to 210 MHz

Each channel requires 0dBm (1mW) RF input. There is no gain adjustment.

The RF power, amplitude modulation and phase* are determined by the input source.

(*Phase control is required to optimize efficiency for beam steered AO defectors such as the D1384 series)

Protection includes over-temperature, reverse DC voltage connection.

SPECIFICATIONS

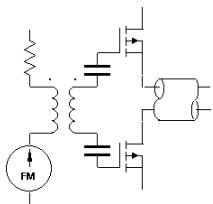
| | |
|--------------------------------------|--|
| Power Out, each output: | 10 Watts max CW into 50Ω |
| Load VSWR: | < 2.5:1 for best results |
| Output RF power variation vs. freq': | ≤ 1 dB over specified bandwidth |
| Spurious output: | Harmonics > 20dB below fundamental |
| 3dB Bandwidth | 130-210MHz minimum |
| RF input: | 3dBm max |
| Gain: | > 40dB |
| Input impedance: | 50 ohm (nominal) |
| RF amplitude rise/fall time | < 200/50nsec typical (input dependent) |
| DC power input: | +24V to 28Vdc** at <10A regulated to ± 0.25% |
| Temperature range: | 0°C to 50°C ambient temperature. Integrated water cooled heatsink. Mounting face must not exceed 70°C. |

Refer application note AN1906 regarding coolant specification

** +28Vdc supply will give increased maximum RF power

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



RGA0170-4-10

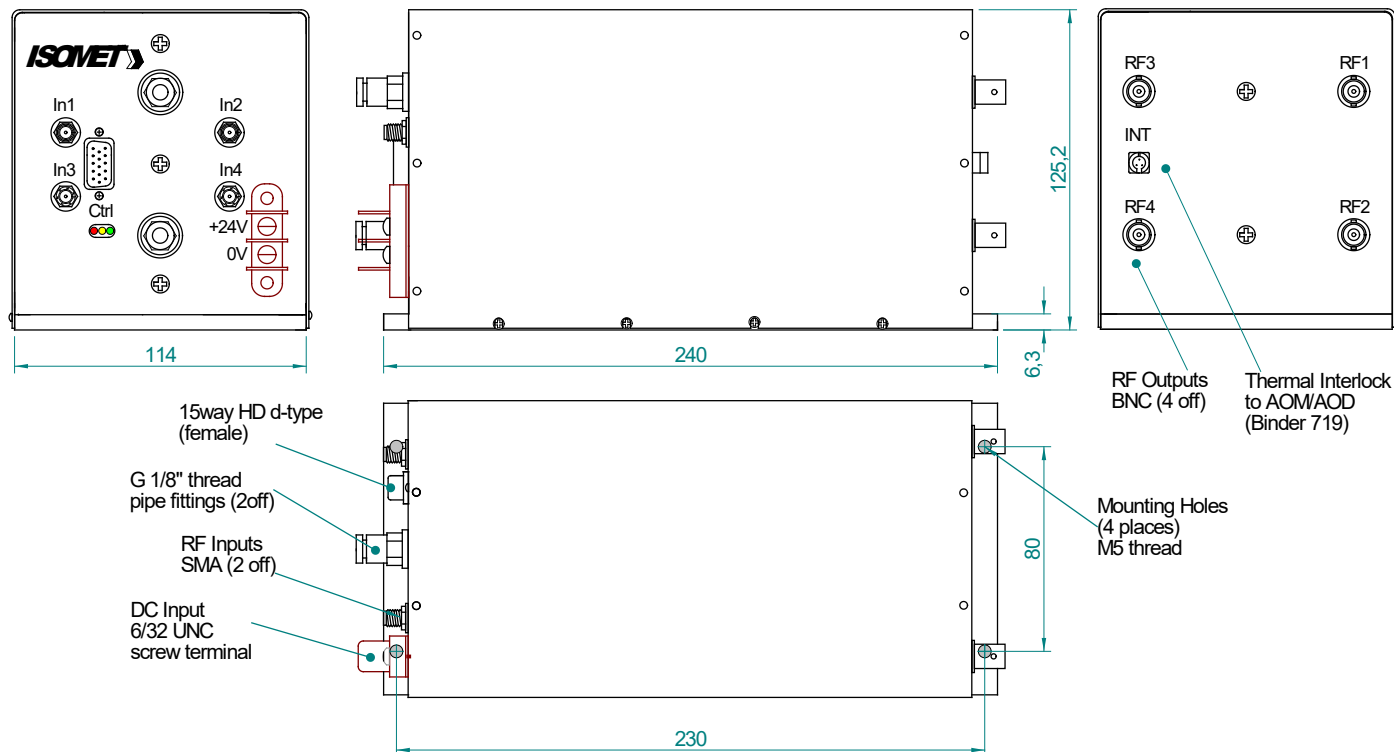
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OUTLINE DRAWING

Dim'n mm



Control signals on 15 pin high density 'D' type:

| pin | signal | pin | signal | pin | signal |
|-----|-----------|-----|---|-----|-----------------------|
| 1 | +5V OUT | 6 | reserved | 11 | reserved |
| 2 | reserved | 7 | 0V OUT | 12 | Interlock Monitor OUT |
| 3 | reserved | 8 | reserved | 13 | reserved |
| 4 | 0V return | 9 | -Enable (-Gate) IN Active low 5V logic | 14 | reserved |
| 5 | reserved | 10 | +5V OUT | 15 | reserved |

DO NOT connect to reserved pins

Options -x, multiple combinations possible:

- BR : Brass water cooled heatsink (water fittings on RF output face)

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