

# RFA0110-4-20

## Quad RF Amplifier



3121

The RFA0110-4-20 contains four independent class-A solid-state RF amplifiers and is designed to operate with *ISOMET* quad-output frequency synthesizers. Each output will deliver in excess of 20W power across a frequency bandwidth of 85 to 135 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. Diagnostics are also provided. This is compatible with IMS4 synthesizer amplifier interface and includes forward/reflected RF power (relative readings), DC current and temperature. Protection includes over-temperature, reverse DC voltage connection.

### SPECIFICATIONS

Power Out, each output:	30 Watts minimum 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
Bandwidth	85-135MHz minimum
RF input:	3dBm max
Gain:	> 40dB
Input impedance:	50ohm (nominal)
RF amplitude rise/fall times	< 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

**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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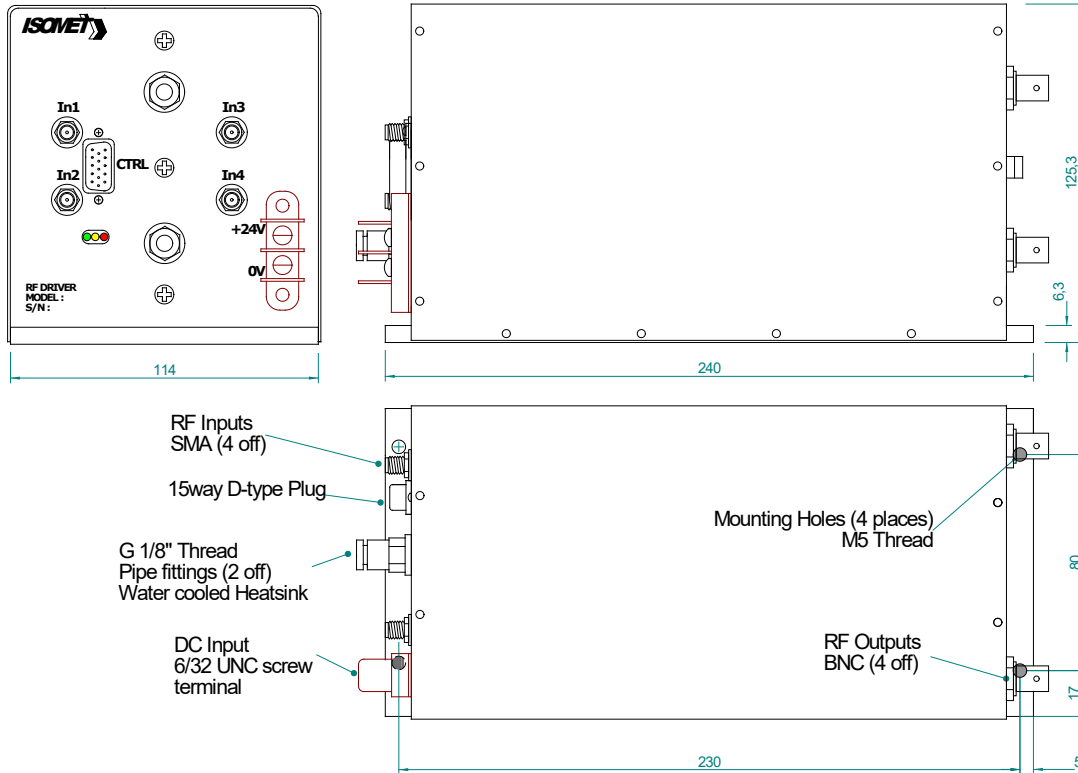
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### OUTLINE DRAWING

Dim'n mm



Control signals on 15 pin high density 'D' type (compatible with iMS4-x synthesizers, J5 output) :

pin	signal	pin	signal	pin	signal
1	+5V OUT	6	reserved	11	reserved
2	reserved	7	0V	12	Interlock Monitor OUT
3	reserved	8	reserved	13	reserved
4	0V OUT	9	Amplifier Enable (-Gate) IN	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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