

RFA1170/4-ZP

RF Power Amplifier

(Preliminary data)



1014

The Model RFA1170/4-ZP is a class AB amplifier designed to drive the LS700-1109-10 Germanium Acousto-Optic Cells with > 240Watts across a 55-105 MHz bandwidth. There is zero phase shift between the outputs at all frequencies. The amplifier is optimised for high rep-rate duty cycle applications that also require very fast RF rise and fall times.

The RFA1170/4-ZP requires a frequency input source such as the Isomet quad channel IMS4 programmable synthesizer or a customer supplied all waveform generator. (An integral RF splitter / pre-amp circuit is provided to interface third party single channel signal sources to the quad output RFA1170/4-ZP).

The RFA1170/4-ZP includes a number of additional features to aid diagnostics and control:

- Data values representing the forward and reflected RF power for each output (Qualitative).
- Measurement of the DC current draw for each RF channel. (Qualitative).
- Thermal Interlock and real time temperature measurement for the Amplifier and associated AO deflector.
- Interlock and diagnostic connection to LS700 series AOD's

These features require a serial interface and suitable GUI

The RFA1170/4-ZP can be supplied with a USB interface card and Windows based GUI.

SPECIFICATIONS

Power out:	< 60 Watts max. CW into 50 Ω per output
Frequency response:	55 - 105 MHz
Flatness:	+/- 1dB
Gain Input to Each Output:	48dB nominal
Input / Output impedance:	50Ω Nominal
Input power	0dBm / 1mW / 0.64Vpp (50Ω) typical, 5dBm / 3mW / 1.1V pp MAX
Input VSWR:	< 2.0:1
RF rise/fall time	10n / 5nsec for 0-45W output
2 nd Harmonic Distortion:	> 20 dB below fundamental at 50W output
3 rd Harmonic Distortion:	> 15 dB below fundamental at 50W output
RF gate	TTL high = RF outputs enabled, Low = OFF
Thermal interlocks	Compatible with LS700-1109
Power Supply Requirement:	24A average, 40A peak at +24Vdc
Water Cooling:	Maintain water flow at > 1litre/min / <25°C (Corrosion inhibitor recommended)

ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

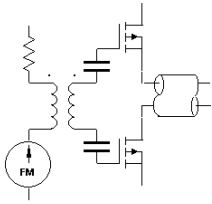
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Quality Assured.

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



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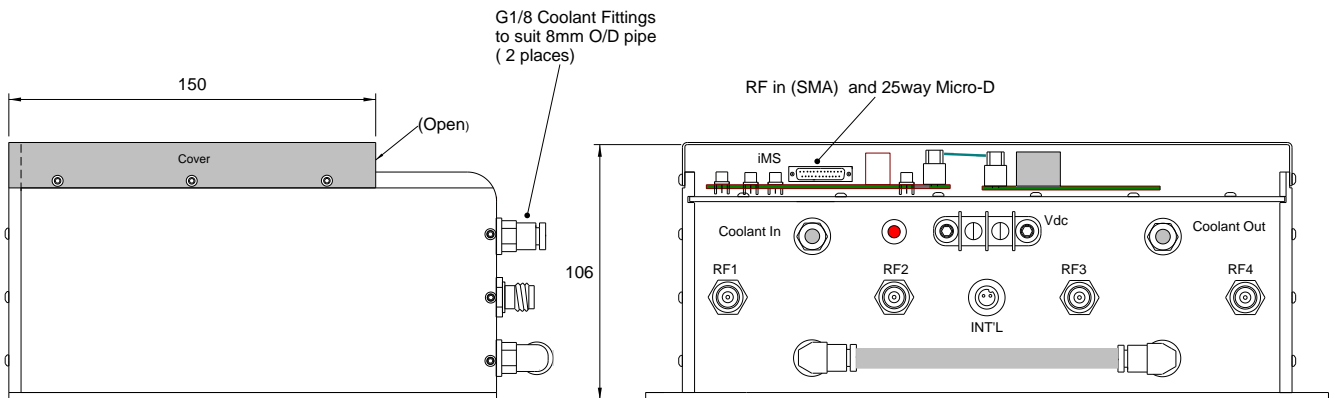
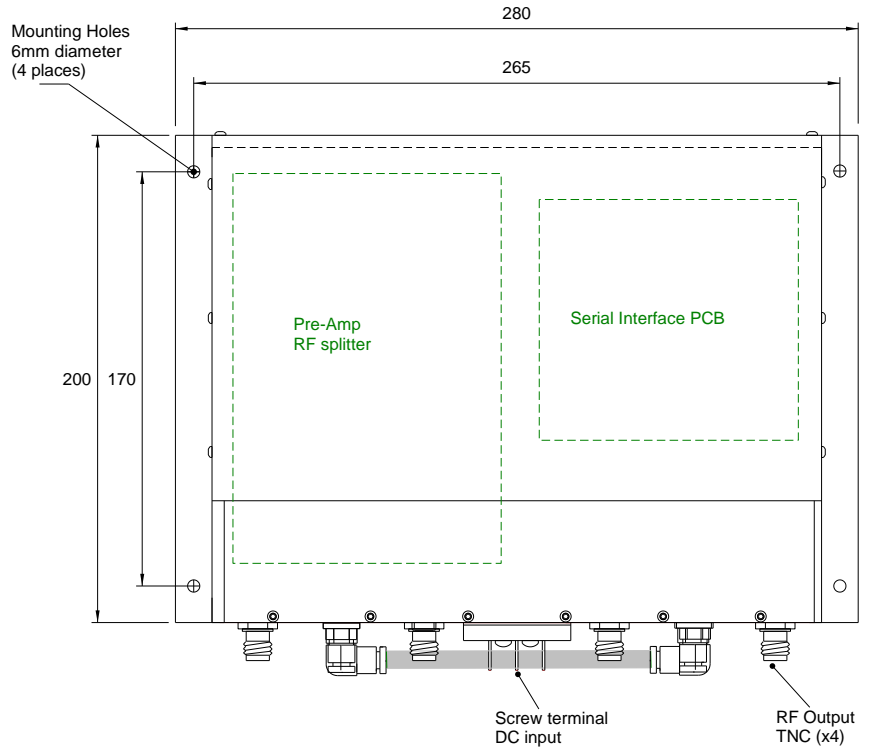
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OUTLINE DRAWING



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