



# FMAMP300-R2

## 300 W - FM Amplifier

Designed for FM radio transposers and transmitters, this amplifier incorporates microstrip technology and MOSFET transistor to enhance ruggedness and reliability.

87.5 ÷ 108 MHz

48 Volts

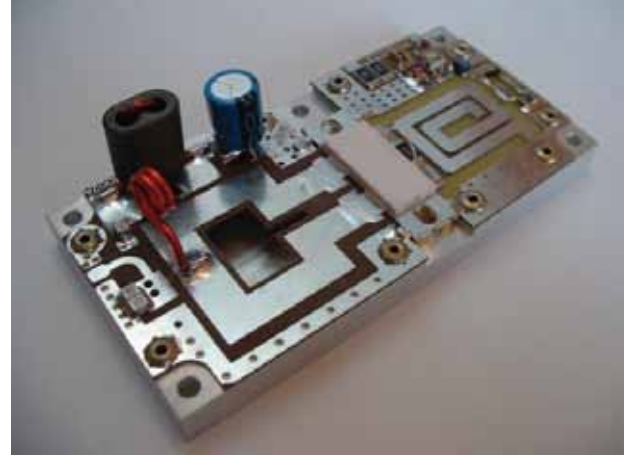
Input/Output 50 Ohm/50 Ohm

P<sub>out</sub> : 300 W min

Gain : 19 dB typ

Class B

Devices: MRF151G or equivalent



This picture is a mere example, it does not bind the provided product

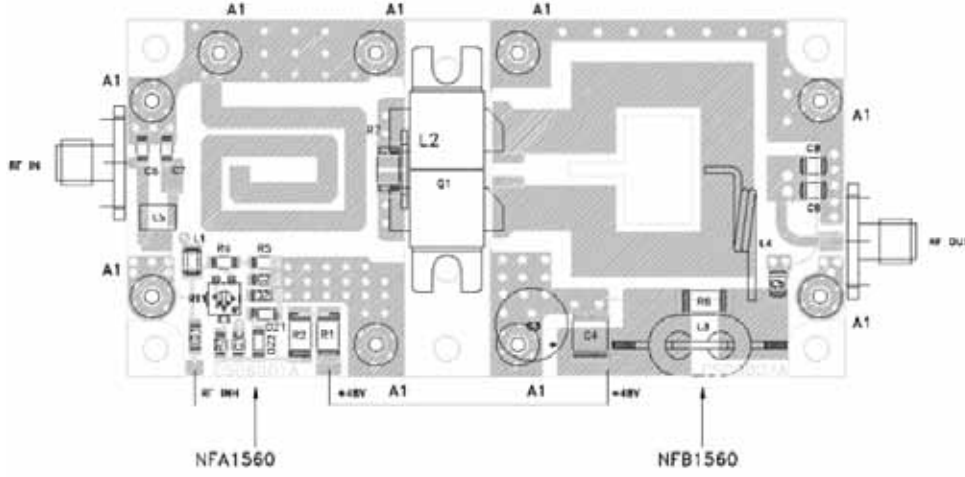
### ABSOLUTE MAXIMUM RATINGS (Device Flange T = 70 °C)

Symbol	Parameter	Value	Unit
V <sub>s</sub>	Drain Voltage Supply	50	V dc
I <sub>s</sub>	Supply Current	12	A dc
VSWR	Load Mismatch (all phase angles, T <sub>c</sub> =40°C, I <sub>d</sub> =10A)	3:1	
T <sub>stg</sub>	Storage Temperature Range	-30 + 100	°C
T <sub>c</sub>	Operating Temperature	-10 +50	°C

### ELECTRICAL SPECIFICATIONS (Base Plate T. = 45 °C, 50 Ohm loaded, V<sub>d</sub> = 48 V)

ELECTRICAL CHARACTERISTICS				
Characteristics	Min	Typ.	Max	Unit
Operating Frequency Range	87.5		108	MHz
Fundamental Output Power	300			W
Power Input		2.8	3.5	W
Power Gain (300W output)	17.5	19		dB
Collector Efficiency (Load 50 Ohm)	65	75		%
Input VSWR		1.5:1	1.7:1	
Insertion Phase Variation (Unit to Unit )		±10		Degrees
Power Gain Variation (Unit to Unit)		±1		dB
F2 Second Harmonic		-30		dB
F3 Third Harmonic		-35		dB

## ELECTRICAL CONNECTIONS<sup>1</sup>



## HEATSINK MOUNTING/HARDWARE

### 1.HEATSINK TOOLING

- Planarity: typical value 0.8 $\mu$
- Roughness: better than 0.03 mm

### 2.THERMAL COMPOUND

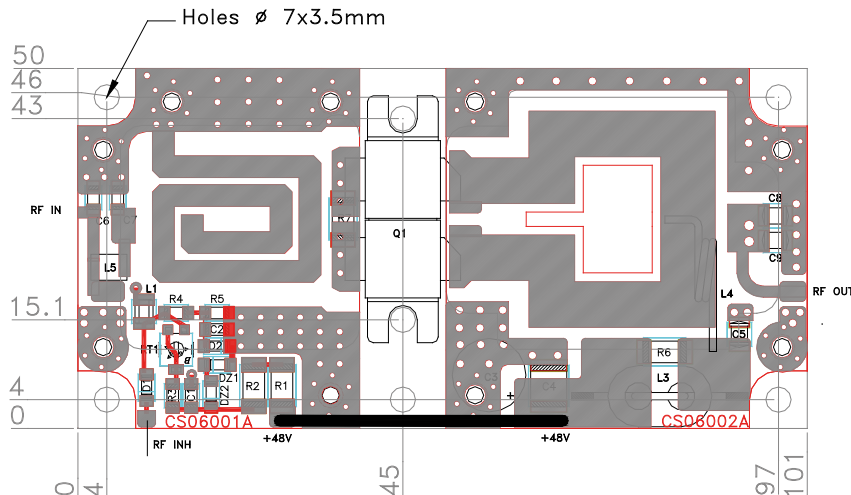
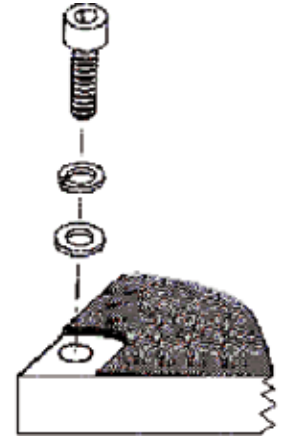
- Paste with silicones
- Thickness: optimum between 0.06 mm and 0.15 mm, on the whole back surface of the amplifier.

### 3.SCREWS

- M3 hexagon socket head cap screws
- The recommended Torque is 12 Kg/cm for M3 type screws and 10 Kg/cm for M2.5 type screws.

### 4.TIGHTENING ORDER

- See next figure:



<sup>1</sup>RFin/out connectors to be considered as an option.



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