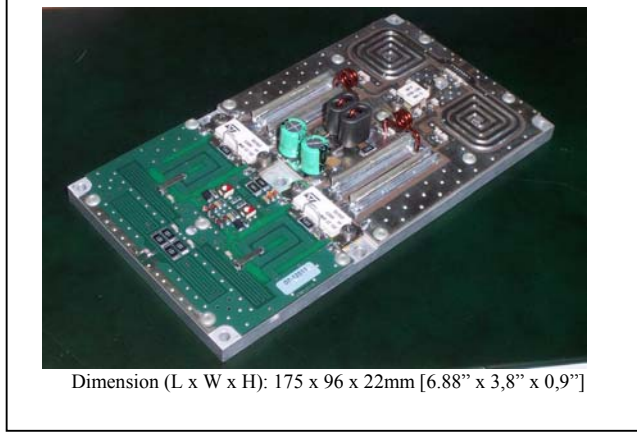


550 W - FM Amplifier

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 Ω
- Pout : 550 W min
- Gain : 18 dB typ
- Class B
- Devices: SD2932 or equivalent
- Connectorized version available



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

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

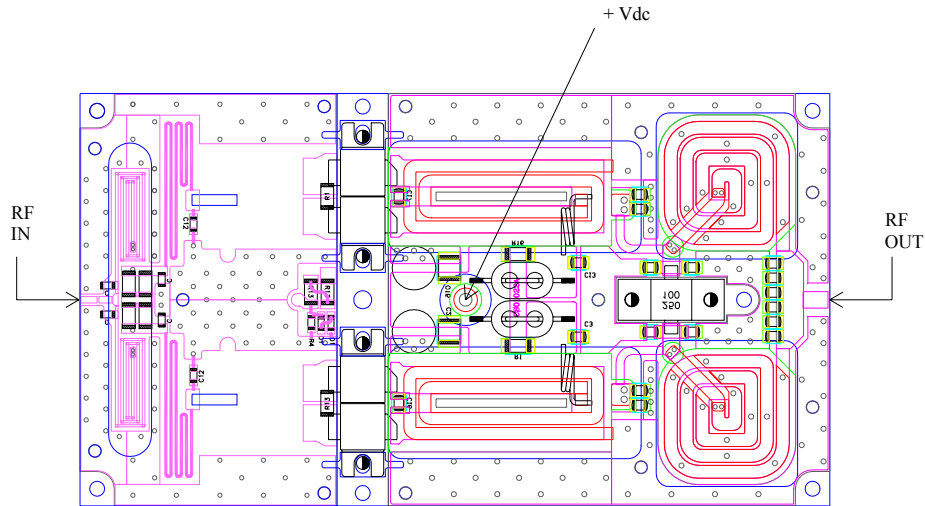
Symbol	Parameter	Value	Unit
V _S	Drain Voltage Supply	52	V dc
I _S	Supply Current	24	A dc
VSWR	Load Mismatch (all phase angles, T _c =40°C, I _d =17A)	3:1	
T _{stg}	Storage Temperature Range	-30 +100	°C
T _c	Operating Temperature	-10 +75	°C

ELECTRICAL SPECIFICATIONS (Base Plate T. = 45 °C, 50Ω loaded, V_d = 48 V)

ELECTRICAL CHARACTERISTICS at T _{base plate} = 25 ° C.				
Characteristics	Min	Typ.	Max	Unit
Operating Frequency Range	87.5		108	MHz
Fundamental Output Power	550	600		W
Power Input		8.5	10	W
Power Gain (550W output)	18	20		dB
Collector Efficiency (Load 50Ω)	60	65		%
Input VSWR		1.3:1	1.5:1	
Insertion Phase Variation (Unit to Unit)		±10		Degrees
Power Gain Variation (Unit to Unit)		±1		dB
F2 Second Harmonic		-35		dB
F3 Third Harmonic		-20		dB

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LAYOUT AND CONNECTIONS:



HEATSINK MOUNTING/HARDWARE

1. HEATSINK TOOLING

- Planarity: typical value 0.8µ
- Roughness: better than 0.03 mm

2. THERMAL COMPOUND

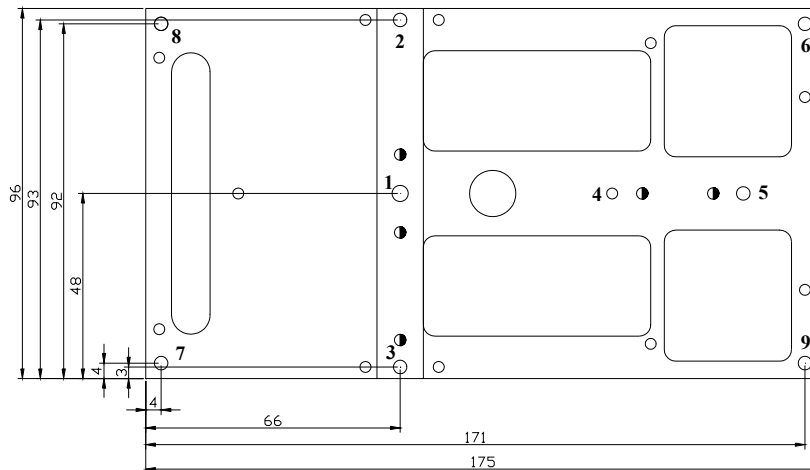
- Paste with silicones
- Thickness: optimum between 0.06 mm and 0.15 mm, on the whole back surface of the amplifier.

3. SCREWS

- M4 hexagon socket head cap screws (position 1).
- M3 hexagon socket head cap screws (position 2, 3, 4, 5, 6, 7, 8, 9).
- The recommended Torque is 12 Kg/cm for M3 type screws and 10 Kg/cm for M2.5 type screws.

4. TIGHTENING ORDER

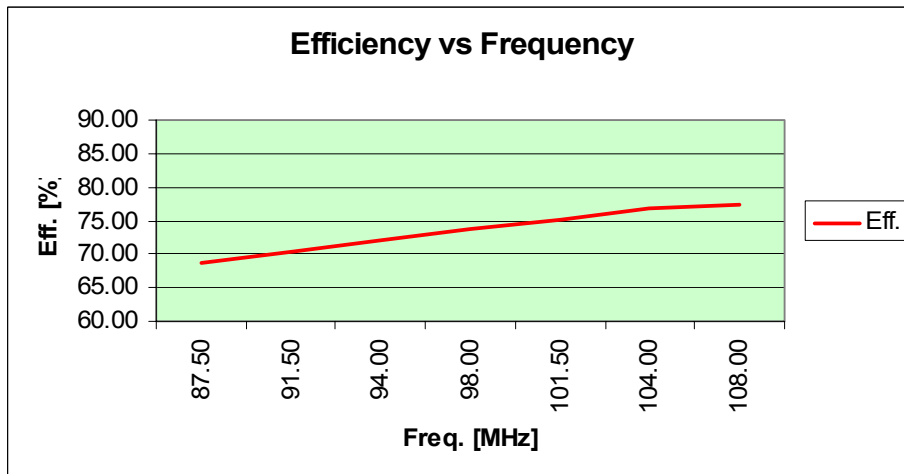
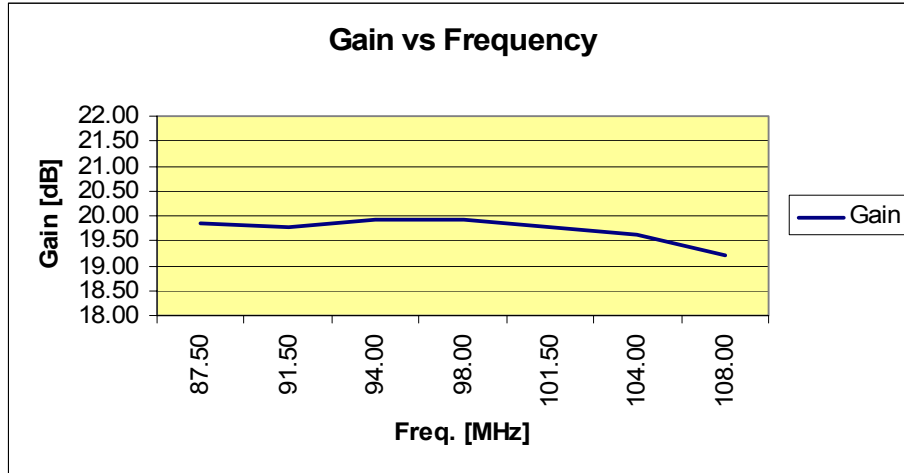
- See next figure:



Dimensions: mm

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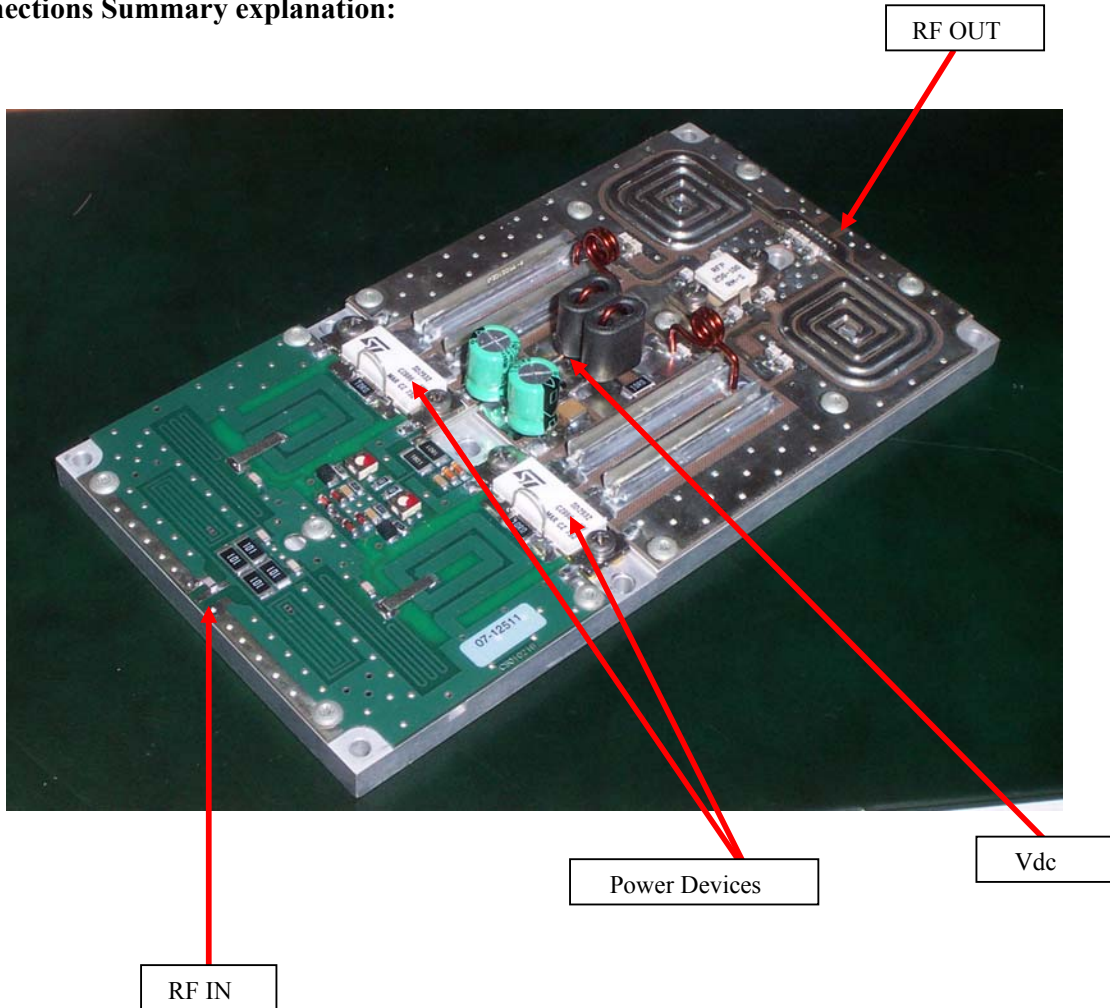
Graphics:



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Electrical Connections:

Connections Summary explanation:



Connection:

Connect the solder point Input and Output of the amplifier to the near printed circuit board, with a solder TAB of appropriate size, using best RF practices.

Res-Ingenium

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