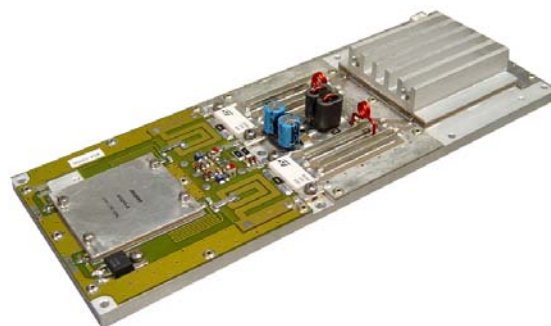




# AMP-550 VHF POWER AMPLIFIER MODULE BOARD 550 W

This amplifier is designed for FM radio transposers and transmitters, this unit incorporates microstrip technology and MOSFET transistor to enhance ruggedness and reliability . It is broadband in 87.5 MHz- 108 MHz and It has 550 Max. power output.



- 87.5 ÷ 108 MHz
- 48 Volts
- Input/Output 50 Ω
- Pout : 500 W min
- Gain : 18 dB typ
- Class B
- Devices: SD2932 or equivalent

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

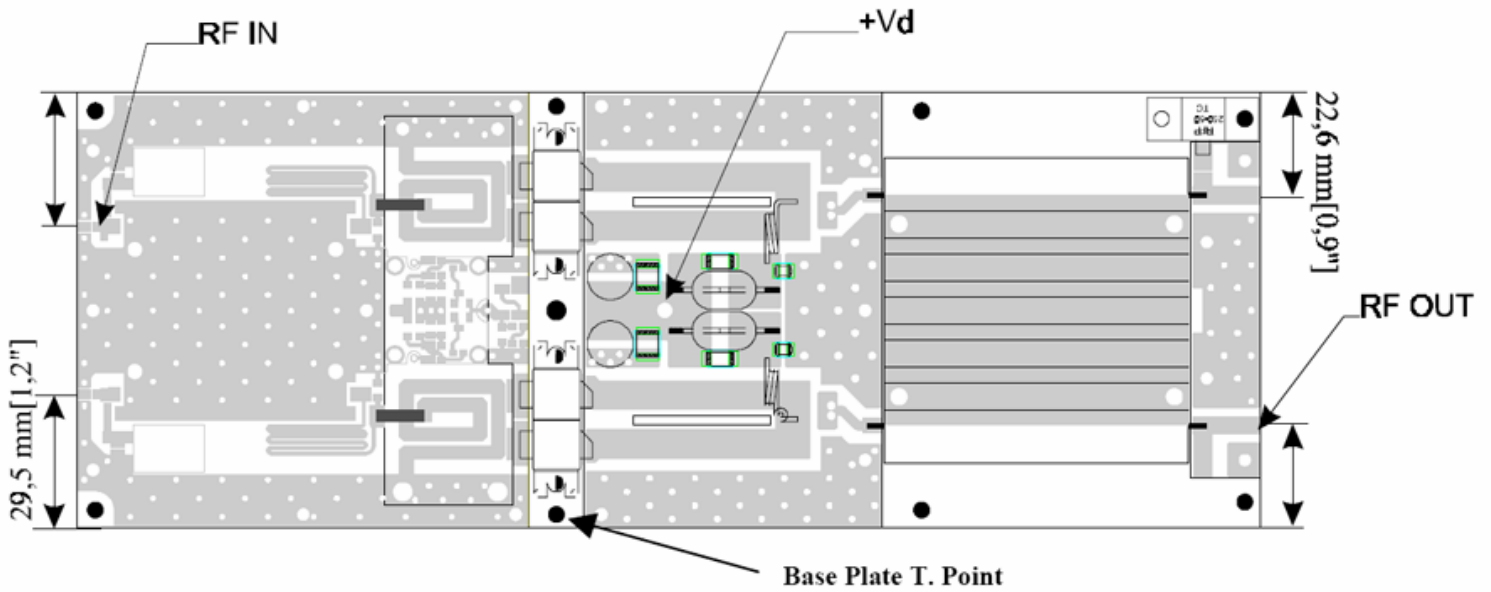
Symbol	Parameter	Value	Unit
Vs	Voltage Supply	52	V dc
Is	Current Supply	24	A dc
VSWR	Load Mismatch (all phase angles, Tc=40°C, Id=17A)	3:1	
Tstg	Storage Temperature Range	-30 + 100	°C
Tc	Operating Temperature	-10 +70	°C

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

### ELECTRICAL CHARACTERISTICS at Tbase plate = 25 ° C.

Characteristics	Min	Typ.	Max	Unit
Operating Frequency Range	87.5	52	108	MHz
Fundamental Output Power		550	A dc	W
Power Input		8.5	10	W
Power Gain (500W output)	18	20		dB
Collector Efficiency (Load 50 Ω)	60	65		%
Input VSWR		1.3:1	1.5:1	
Insertion Phase Variation (Unit to Unit )		±10		Degree
Power Gain Variation (Unit to Unit)		±1		dB
F2 Second Harmonic		-35		dB
F3 Third Harmonic		-20		dB

## ELECTRICAL CONNECTIONS



## HEATSINK MOUNTING/HARDWARE

### 1. HEATSINK TOOLING

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

### 2. THERMAL COMPOUND

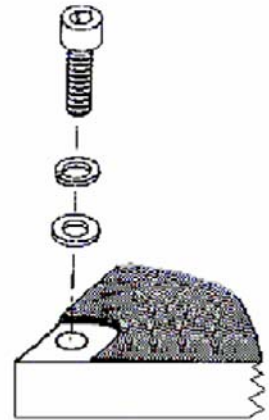
- Paste with silicones
- Thickness: optimum between 0.06 mm and 0.15 mm, on the whole back surface of the amplifier.

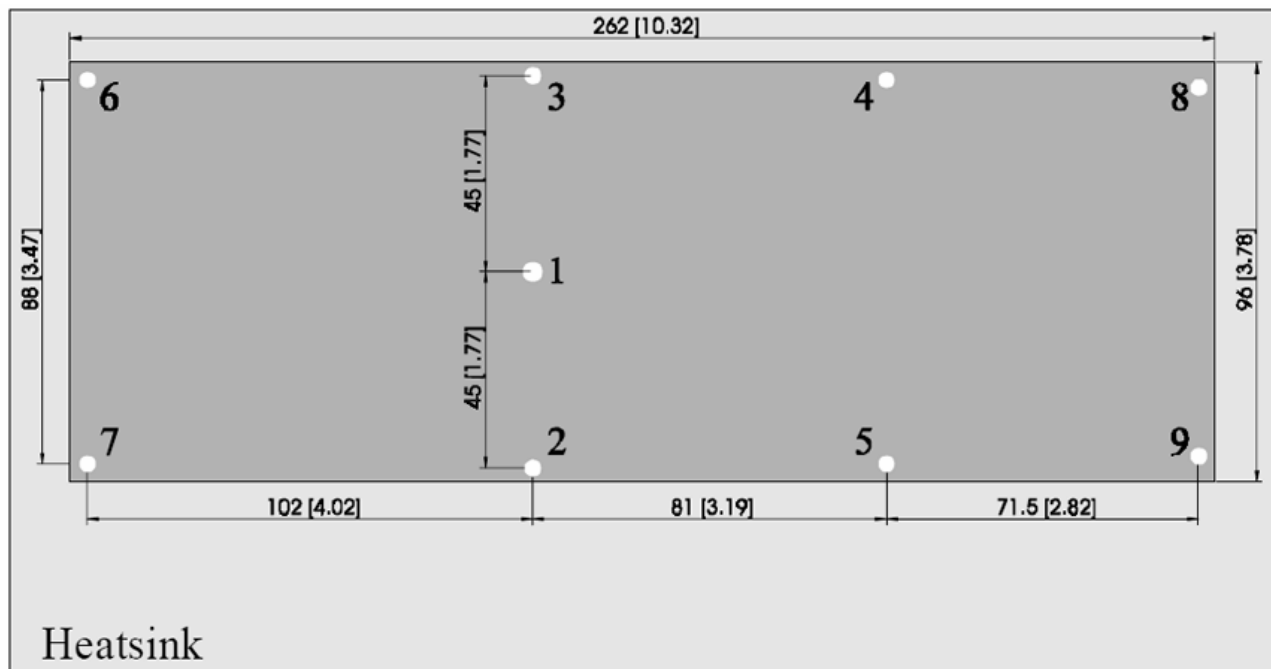
### 3. SCREWS

- 8 x M3 - Socket head cap screws.
- 8 Split lock washers WZ Ø3 + 8 Flat washers ZU Ø 3.
- The recommended Torque is 12 Kg . cm (10.5 in . lbs).

### 4. TIGHTENING ORDER

- See next figure:





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