

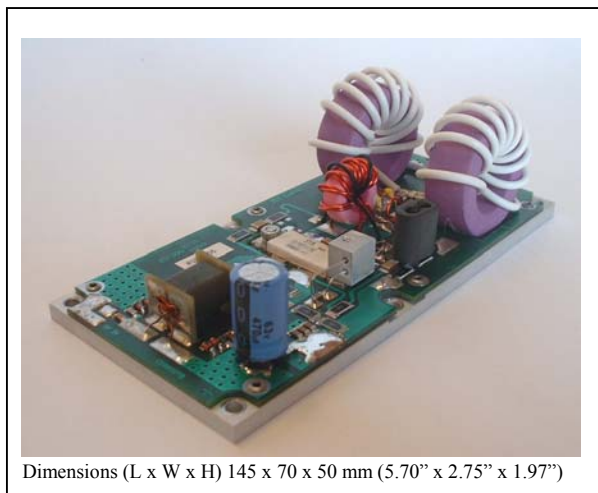


# LINEAR 300W

## 300 W HF Amplifier

Designed for HF band, this amplifier incorporates microstrip technology and MOSFET transistor to enhance ruggedness and reliability.

- 1 ÷ 30 MHz
- 50 Volts
- Input / Output 50 Ohm
- Pout : 300 W min
- Gain : 22 dB typ.
- Class AB
- Devices: MRF151G or equivalent



Dimensions (L x W x H) 145 x 70 x 50 mm (5.70" x 2.75" x 1.97")

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

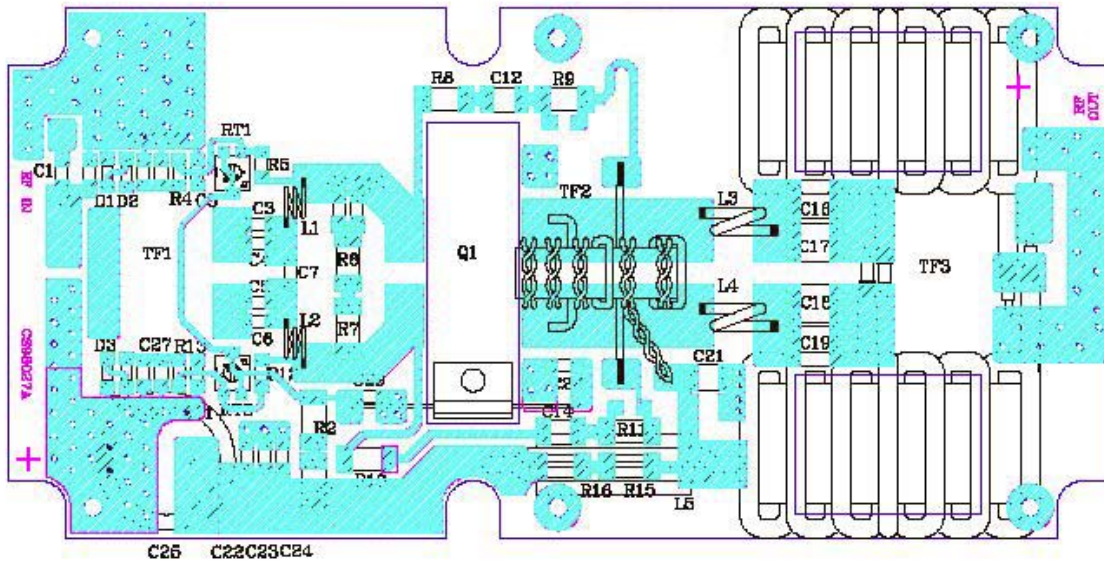
### ABSOLUTE MAXIMUM RATINGS (Device Flange T = 70 °C)

Symbol	Parameter	Value	Unit
V <sub>S</sub>	Drain Voltage Supply	52	V dc
I <sub>S</sub>	Supply Current	13	A dc
VSWR	Load Mismatch (all phase angles, T <sub>c</sub> =40°C, @300W)	3:1	
T <sub>stg</sub>	Storage Temperature Range	-30 + 100	°C
T <sub>c</sub>	Operating Temperature	-20 +60	°C

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

Characteristics	Min	Typ.	Max	Unit
Operating Frequency Range	1		30	MHz
Fundamental Output Power	300			W
Power Input		2.0	3.0	W
Power Gain	20	22		dB
Drain Efficiency (Load 50Ω)	52	55		%
Input VSWR			1.5:1	
Insertion Phase Variation (Unit to Unit)		±10		Degrees
Power Gain Variation (Unit to Unit)		±1		dB
Gain Compression (@300W, ref 100W)		0.4	0.6	dB
F2 Second Harmonic		-35		dB
F3 Third Harmonic		-20		dB

LINEAR BOARD 300 WATT 1-30 MHZ



**HEATSINK MOUNTING/HARDWARE**

**1. HEATSINK TOOLING**

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

**2. THERMAL COMPOUND**

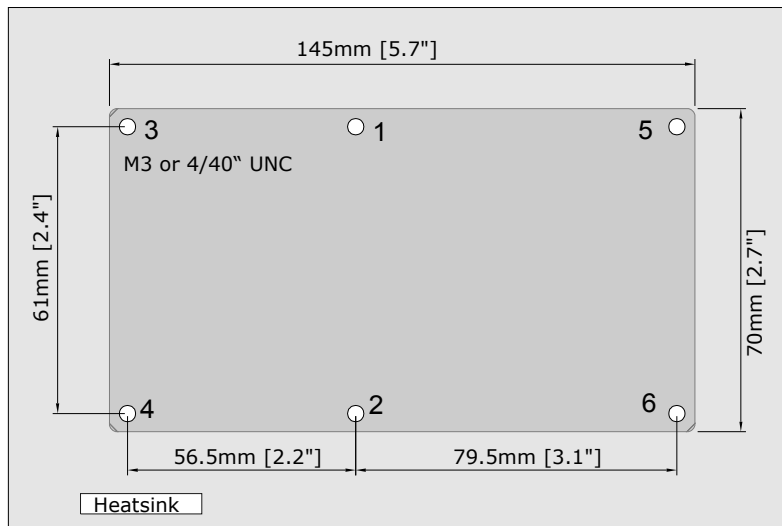
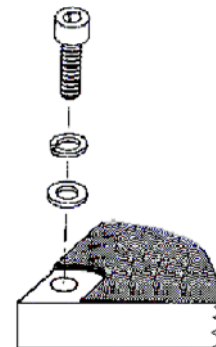
- Paste with silicones
- Thickness: optimum between 0.06 mm and 0.15 mm, on the whole back surface of the amplifier.

**3. SCREWS**

- 6 x M3 or 4/40" UNC Cross head 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:



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