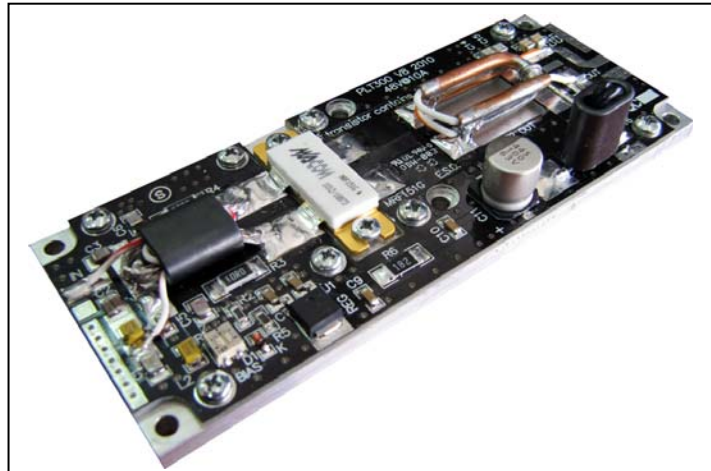


300W – FM Amplifier Pallet

Designed for FM radio transmitters this amplifier incorporates microstrip technology to enhance ruggedness and reliability

MOSFET TECHNOLOGY

- 87.5 ÷ 108 MHz 5W input
- 48 Volts
- Input/Output 50 Ω
- Pout : 250W min 320W max
- Gain : 19 dB typ
- Class B Bias ADJ
- Low pass filter on board
- Devices: MRF151G or equivalent



Dimension (L x W x H): 150 x 50 x 15mm [5" x 2" x 0.6"]
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
Vdd	Drain Voltage Supply	52	V
Idc	Supply Current	12	A
swr	Load Mismatch (all phase angles, Tc=40°C, Id=10A)	3:1	SWR
Pin	Input Power	10	W
Tstg	Storage Temperature Range	-30 to +100	°C
Tc	Operating Temperature	-10 +70	°C

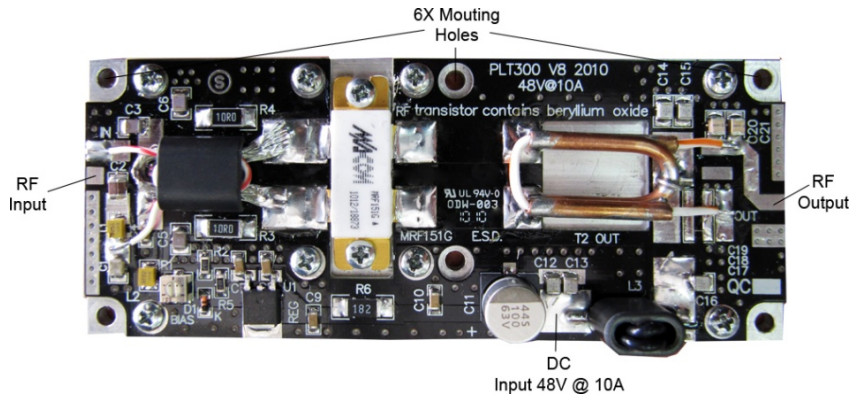
ELECTRICAL SPECIFICATIONS (Base Plate T = 45 °C, 50Ω loaded, Vdd = 48 V @ 10A)

Characteristics	Min	Typ	Max	Unit
Operating Frequency Range	86	98	109	MHz
Fundamental Output Power	280	300	320	W
Input Power		5	7	W
Power Gain (300W output)	17.5	19		db
Drain Efficiency (Load 50Ω)	65	75		%
Input SWR		1.5:1	1.7:1	SWR
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

Warning – Operating without antenna or dummy load (50ohm) can permanently damage to the RF power transistor.

Warning – Check the output connection before applying DC voltage to the module.



HEATSINK MOUNTING/HARDWARE

Warning – This module must be place on a heat sink that is at least 160X80X30 mm

If the module will be over heated above 50°C – Air fan should be applied to the heat sink.

Warning – Overheating can cause permanently damage to the power transistor.

1.HEATSINK TOOLING

- Planarity: typical value 1 μ
- Roughness: better than 0.05 mm

2.THERMAL COMPOUND

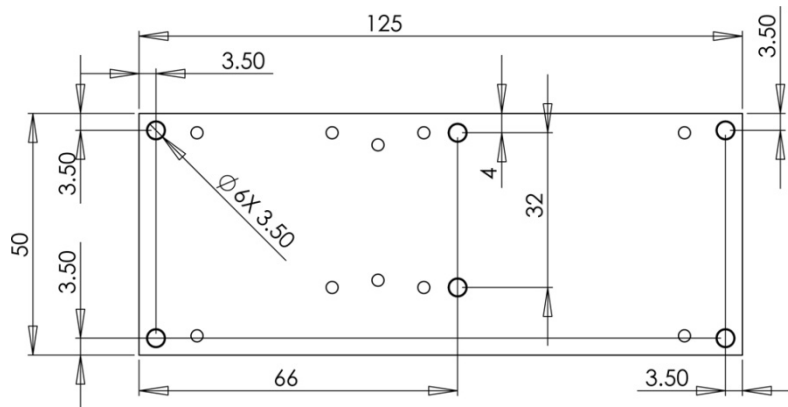
- Paste with silicones
- Thickness: optimum between 0.06 mm and 0.15 mm, on the whole back surface of the amplifier.

3.SCREWS

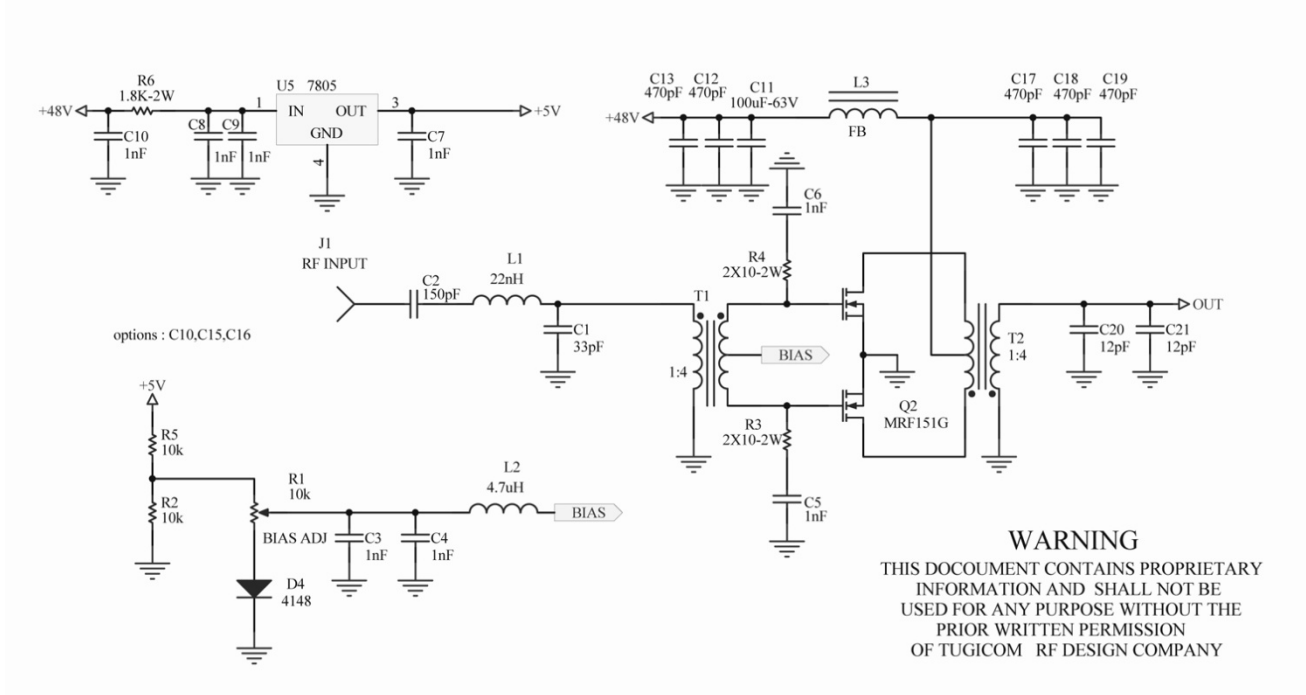
- M3 hexagon socket head cap screws
- The recommended Torque is 12 Kg/cm for M3 type screws

4.TIGHTENING ORDER

- See next figure: (all dimensions are in mm)



Electrical diagram





PLT300

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WARRANTY

All OEM modules have 1 year warranty in Tugicom laboratory Israel
the warranty not include the RF power transistor.

Shipping to our laboratory and back for a repair is not included in the warranty.