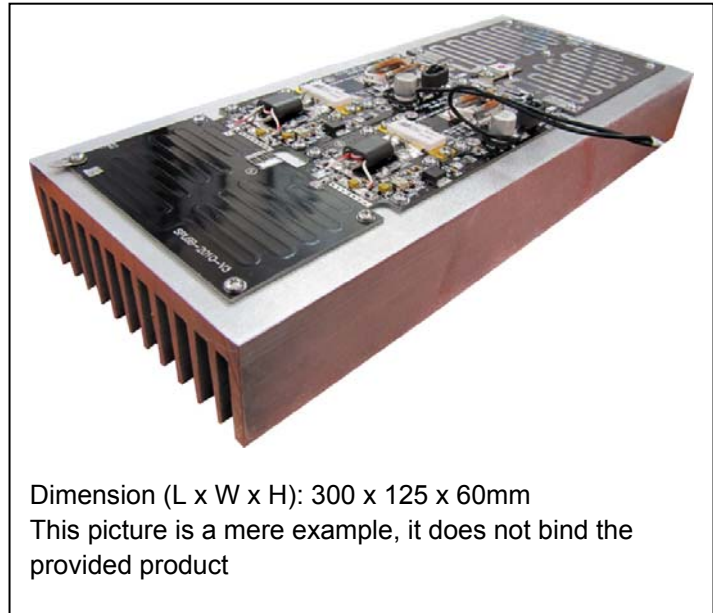


## 600W – FM Amplifier

Designed for FM radio transmitters  
This amplifier incorporates microstrip  
Technology and SMT to enhance ruggedness  
and reliability.

### TEFLON POWER COMBINER

- 87.5 ÷ 108 MHz 15W input
- 48 Volts
- Input/Output 50  $\Omega$
- Output power: 500W min 600W max
- Gain: 16 dB typ
- Class B Bias ADJ
- Heat sink included
- Devices: 2 X MRF151G or equivalent



Dimension (L x W x H): 300 x 125 x 60mm  
This picture is a mere example, it does not bind the  
provided product

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

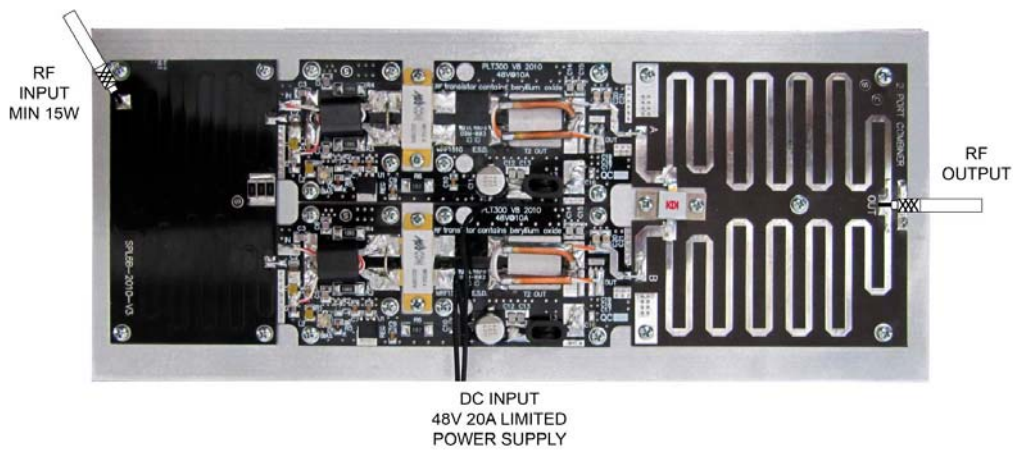
Symbol	Parameter	Value	Unit
Vdd	Drain Voltage Supply	52	V
Idc	Supply Current	20	A
swr	Load Mismatch (all phase angles, Tc=40°C, Id=20A)	3:1	SWR
Pin	Input Power	25	W
Tstg	Storage Temperature Range	-30 to +100	°C
Tc	Operating Temperature	-10 +70	°C

### ELECTRICAL SPECIFICATIONS (Heatsink T = 45 °C, 50 $\Omega$ loaded, Vdd = 48 V @ 20A)

Characteristics	Min	Typ	Max	Unit
Operating Frequency Range	87	98	108	MHz
Fundamental Output Power	500	600	650	W
Input Power		15	25	W
Power Gain (600W output)	15	16	17	db
Drain Efficiency (Load 50 $\Omega$ )	65	75		%
Input SWR		2:1	3:1	SWR
Insertion Phase Variation (Unit to Unit )		-/+ 10		degrees
Bias set class B		1.7		V
F2 Second Harmonic		-30		dbc
F3 Third Harmonic		-35		dbc

## 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 INSTALLATION

Heat sink don't comes with mounting holes  
Air fan must be installed below the heat sink

Amplifier require 48V 20A Current limit Power supply – we recommend SE-1000-48 by MEANWELL.

Warning – Amplifier must be operated only with 50ohm antenna\dummy load.

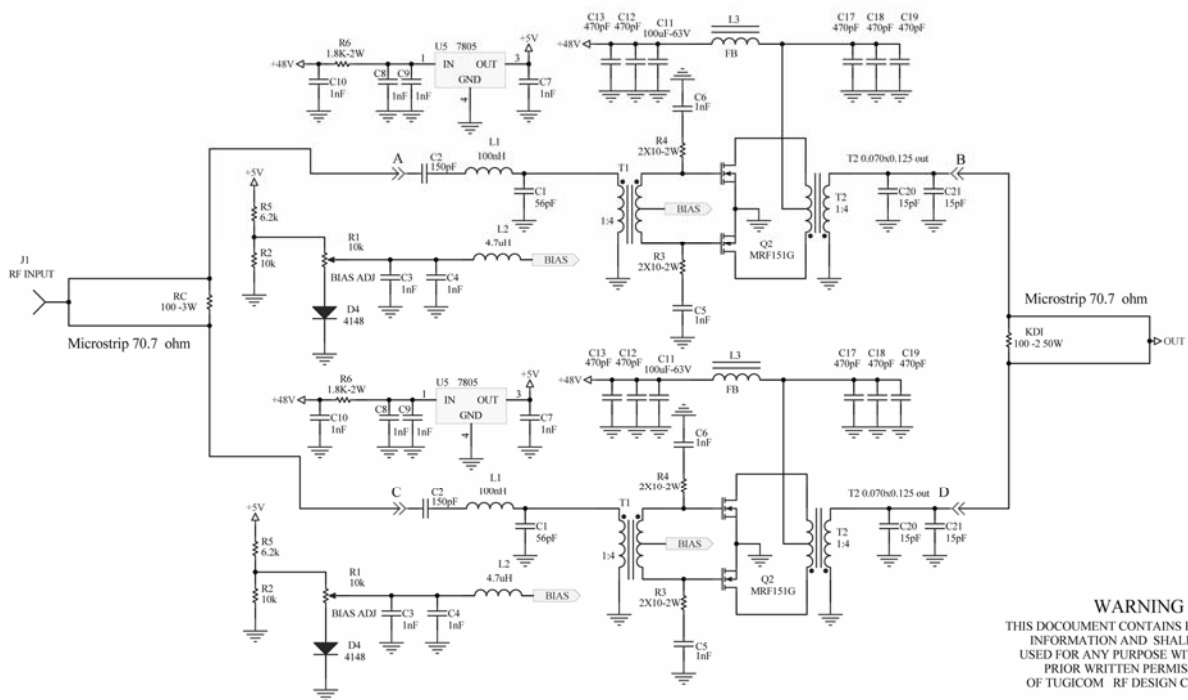
Warning – Minimum input power 15W, Maximum input power 25W.

Warning – Maximum Heat sink temperature 70°C

In order to reduce power or control the output power – this must be done only by reducing the power supply voltage.

**Warning – Do not touch the bias – factory bias setup is 1.7V (class B)**

## Electrical diagram



**WARNING**  
 THIS DOCUMENT CONTAINS PROPRIETARY  
 INFORMATION AND SHALL NOT BE  
 USED FOR ANY PURPOSE WITHOUT THE  
 PRIOR WRITTEN PERMISSION  
 OF TUGICOM RF DESIGN COMPANY



# AMP600

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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.