

## 30W - RF AMPLIFIER

Designed for FM radio transposers and transmitters, this amplifier incorporates microstrip technology and MOSFET to enhance ruggedness and reliability.

87.5 ÷ 108 MHz

28 Volts

Input / Output 50 Ohm/50 Ohm

P<sub>out</sub> : 30 W

Gain: 16 dB min.

Class AB

Devices: BLF245

Optional: 50 ÷ 120MHz in 30MHz segments

Optional: Class A biasing



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>	Voltage Supply	30	V dc
I <sub>S</sub>	Supply Current	2	A dc
T <sub>stg</sub>	Storage Temperature Range	-30 + 100	°C
T <sub>c</sub>	Operating Temperature	-10 + 45	°C

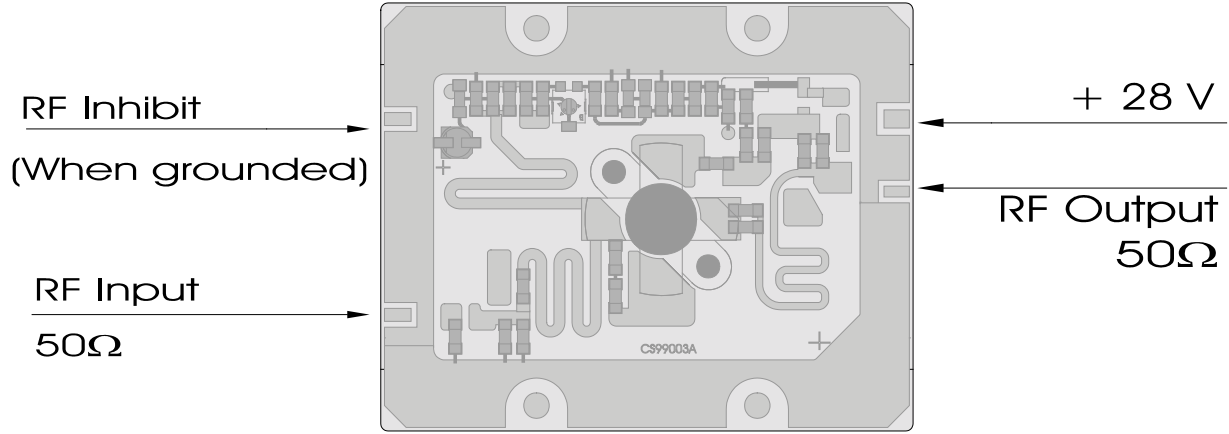
## ELECTRICAL SPECIFICATIONS (Base Plate T. = 45 °C, 50 Ohm loaded, V<sub>d</sub> = 28 V)

Characteristics	Min	Typ.	Max	Unit
<b>Fundamental Output Power</b>	30			W
Power Input			750	mW
Power Gain (30W output)	16	17		dB
Efficiency (Load 50 Ohm)	60			%
Input VSWR	1.5:1			
Output VSWR (any phase angle)			3:1	
Flatness			±0,25	dB
Class AB Quiescent Current		200		mA



# FMAMP30-R1

## PC BOARD LAYOUT



## HEATSINK MOUNTING/HARDWARE

### 1. HEATSINK TOOLING

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

### 2. THERMAL COMPOUND

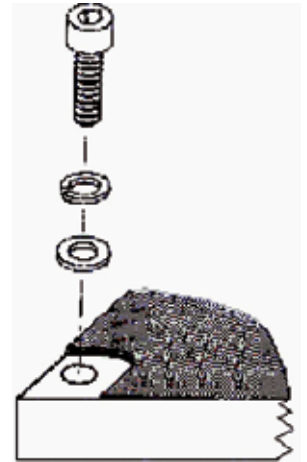
- Paste with silicones
- Thickness: optimum between 0.06 mm and 0.15 mm, on the whole back surface of the amplifier.

### 3. SCREWS

- M3 hexagon socket head cap screws
- The recommended Torque is 12 Kg/cm for M3 type screws and 10 Kg/cm for M2.5 type screws.

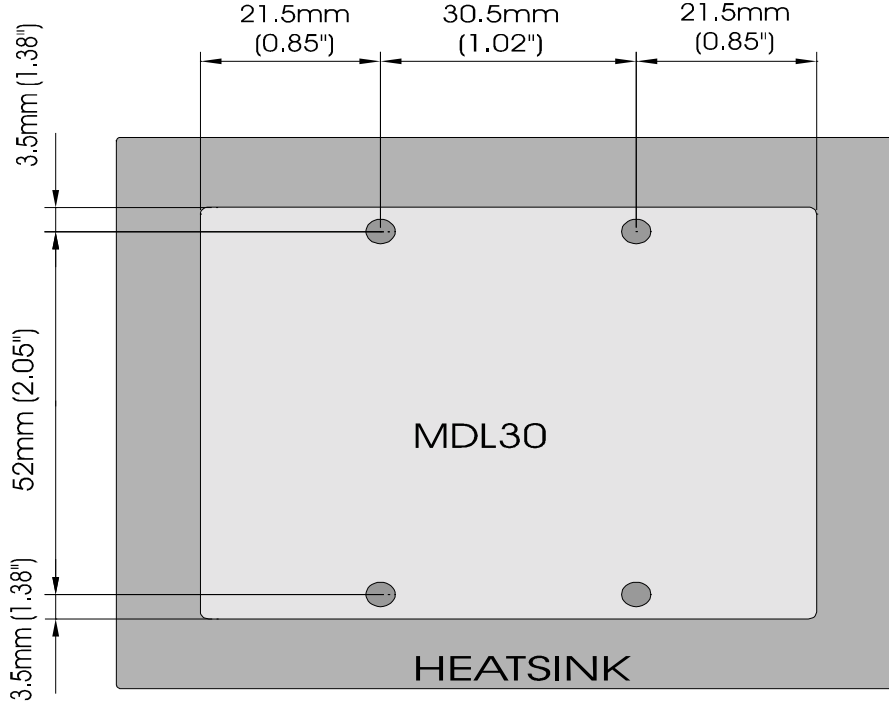
### 4. TIGHTENING ORDER

- See next figure





# FMAMP30-R1



## IMPORTANT NOTICE

ONAIR MEDYA RESERVE THE RIGHT TO MAKE CHANGES TO THE PRODUCT(S) OR INFORMATION CONTAINED HEREIN WITHOUT NOTICE. ONAIR MEDYA ASSUMES NO RESPONSIBILITY FOR ANY ERRORS WHICH MAY APPEAR IN THIS DOCUMENT.

WARRANTY INFORMATION APPLICABLE TO THE PRODUCT IDENTIFIED HEREIN IS AVAILABLE UPON REQUEST. NOTHING CONTAINED HEREIN SHALL CONSTITUTE A WARRANTY, REPRESENTATION OR GUARANTEE OF ANY KIND. ONAIR MEDYA EXPRESSLY DISCLAIMS ALL OTHER WARRANTIES, EXPRESS AND/OR IMPLIED INCLUDING BUT NOT LIMITED TO WARRANTIES OF MERCHANTABILITY, AND OF FITNESS FOR A PARTICULAR PURPOSE, USE OR APPLICATION.

No part of this document may be copied or reproduced in any form or by any means without the prior written consent of ONAIR MEDYA.

## WARNING

ONAIR MEDYA PRODUCTS ARE NOT INTENDED FOR USE IN LIFE SUPPORT APPLIANCES, DEVICES OR SYSTEMS. USE OF ONAIR MEDYA PRODUCT IN ANY SUCH APPLICATION WITHOUT WRITTEN CONSENT IS PROHIBITED.