



## 10 W UHF PALLET AMPLIFIER

This power amplifier pallet has been designed to cover the entire UHF TV band from 470 to 862 MHz. Designed for analog and digital applications, the UHFAMP10-R incorporates microstrip technology and LDMOS power devices for increased ruggedness and reliability. Patented bias control (IR Smart Bias®, optional).

### Technical Specification Summary

Frequency Range	470-862MHz	Typ. Gain	17 dB
P1dB	15 W	Typ. Efficiency	>40 % At 1dBcp
Analogue TV	10 Wps	Temperature Range	-10 to +75 °C
DVB	2,5 Wrms	Max VSWR	3:1
DTV		Working Class	AB
Dual tone		Supply Voltage	28 V
Devices:	PTF080101M or equivalent		

### Electrical Specifications

Parameter	Min.	Typ.	Max	Units	Notes
Frequency	470		862	MHz	
P1dB	15	20		W	
Power		20		W <sub>pep</sub>	2 tones, 100kHz spacing (-27dBc)
IMD3		-42		dBc	2 tones, 100kHz spacing (20W <sub>pep</sub> )
Power Input		0,5		W	
Gain	16	17		dB	
V Supply		28	30	V <sub>dc</sub>	
Drain Current			1,2	A	
Input return loss		-2		dB	<b>See NOTE 1</b>
Phase Variation		+/-5%			Unit to unit
Gain Variation			+/-1,5	dB	
F2 Second Harmonic		-35	-25	dBc	
F3 Third Harmonic		-45	-30	dBc	
Baseplate Temp.	-10		+75	C	

**Physical Dimensions (LxWxH)**

85,5mm x 47,8mm x 20mm / 3,36" x 1,88" x 0,79"

**Weight**

104 g. / 0,22 Pounds

**NOTE 1:** The In/out Return Loss value is low due to the push-pull single stage configuration of this amplifier (without hybrid). It is recommended to put a 4 - 5 dB attenuator in input in order to avoid a ripple of the gain in the final equipment

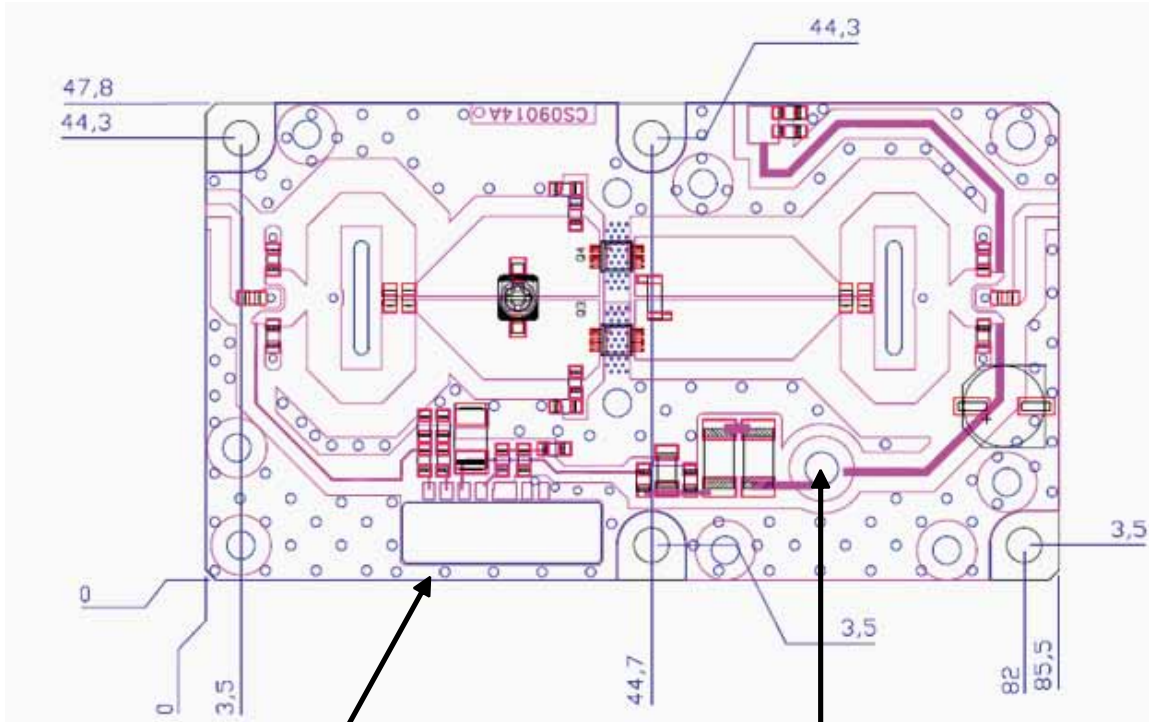


# UHFAMP10-R

## ABSOLUTE Maximum Ratings

Parameter	Value	Units	Notes
Output Power	20	W	
Input Power	0,5	W	
Operating Voltage	30	Vdc	
Stable operations	28	Vdc	
Bias Current	0,6	A	
Drain Current	1,2	A	
VSWR	3:1		
Storage Temp.	-20 +80	C	
Base Plate temp.	75°	C	

## Mechanical specifications



Smart Bias

28 V DC

## HEATSINK MOUNTING/HARDWARE

### 1.HEATSINK TOOLING

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

### 2.THERMAL COMPOUND

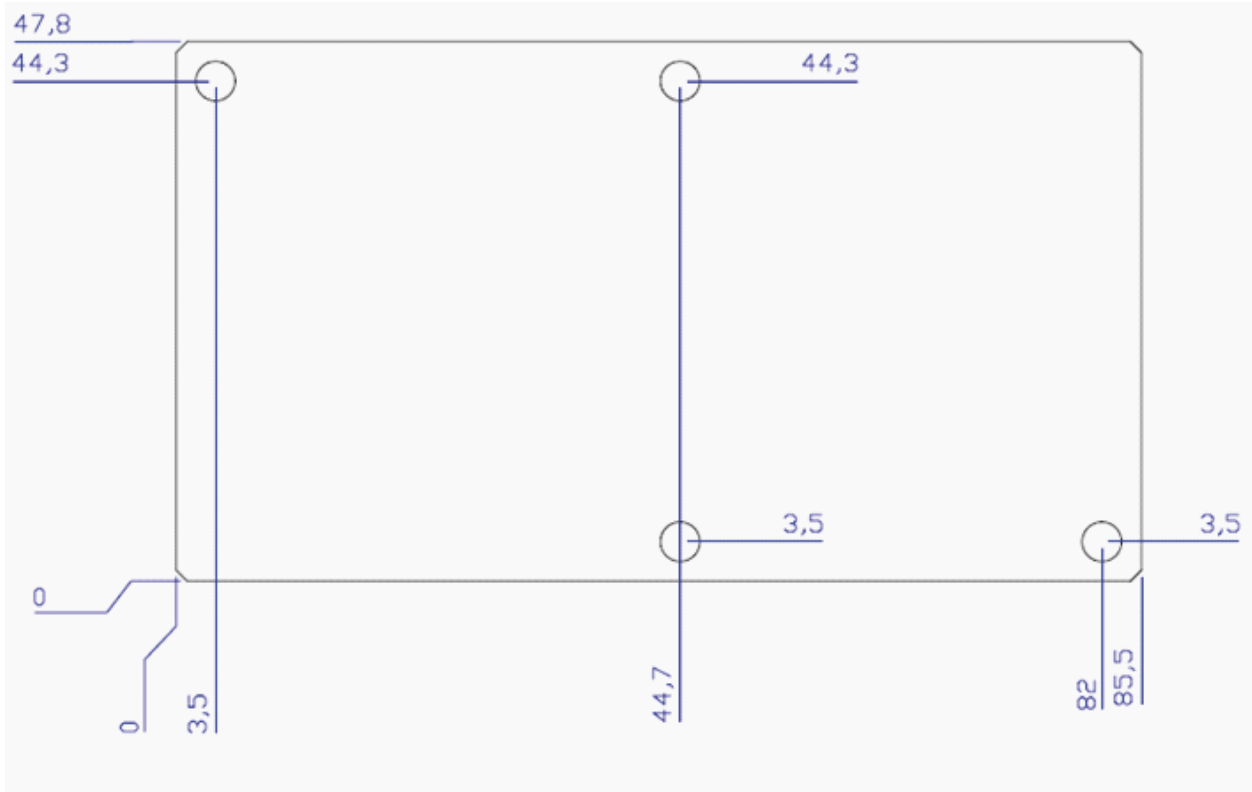
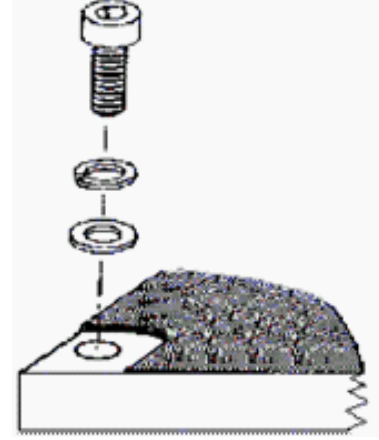
- Paste with silicones
- Thickness : optimum between 0.06 mm and 0.15 mm, on the whole back surface of the amplifier.

### 3.SCREWS

- 4 x M3 -Cross head screws (position 1, 2, 3, 4)
- The recommended Torque is 12 Kg/cm for M3 type screws

### 4.TIGHTENING ORDER

- See next figure:



Di mensions : mm [inch]



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