



General Description

This power amplifier pallet has been design to cover the entire UHF TV band from 470 to 862 MHz. Designed for analog and digital applications, the AMP-10UHFD 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
- Max P1dB: 20 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 _{pep}	2 tones, 100kHz spacing (-27dBc)
IMD3		-42		dBc	2 tones, 100kHz spacing (20W _{pep})
Power Input		0,5		W	
Gain	16	17		dB	
V Supply		28	30	Vdc	
Drain Current			1,2	A	
Input return loss		-2		dB	See NOTE 1
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	

Video Parameter	Min.	Typ.	Max	Units	Notes
Analog Power (ATV)				W _{ps}	common amplification
Digital Power (DVB)				W _{rms}	
M.E.R. (DVB)				dB	
Shoulders (DVB)				dBc	At +/-4,2MHz

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.**

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	