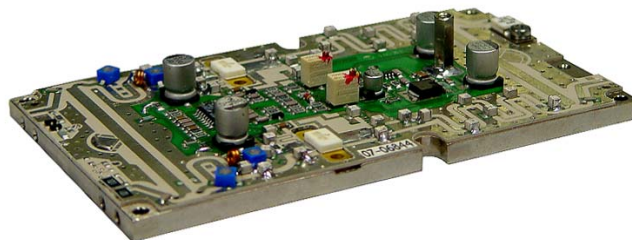


AMP-25WDTV TV UHF LINEAR AMPLIFIER 25 W IN CLASS A

Designed for analog and digital TV transposers and transmitters, this amplifier incorporates micro strip technology and single-end LDMos Devices to enhance ruggedness and reliability.



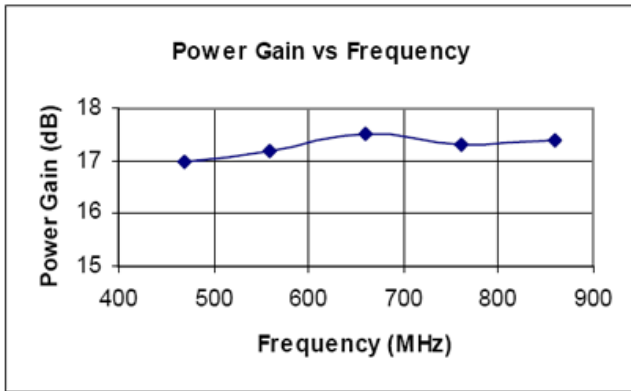
- ◆ 470 - 860 MHz
- ◆ 28 ÷32 Volt (30V nominal)
- ◆ Pout 25 Watt (CW)
- ◆ Pout 25 Watt Peak Synk Separate Amplification
- ◆ Pout 15 Watt Peak Synk Common Amplification
- ◆ Pout 5 Watt rms DVB-T
- ◆ Gain: 15 dB min.
- ◆ Connectorized version available
- ◆ APL corrector on board
- ◆ Dimensions are:5.36"x3.07"x0.79"

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

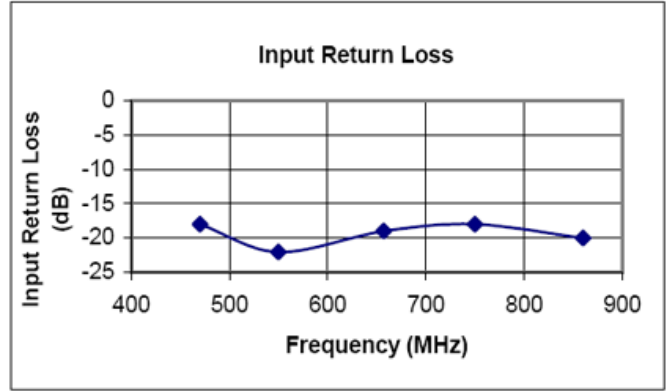
Symbol	Parameter	Value	Unit
Vs	Voltage Supply	35	V dc
Is	Current Supply	12	A dc
Tstg	Storage Temperature Range	-30+100	°C
Tc	Operating Base Plate Temperature	0+75	°C
ψ	VSWR max	3:1 all phase angles	

ELECTRICAL SPECIFICATIONS (Base Plate T. = 45 °C, 50Ω loaded, Vd = 30 V)

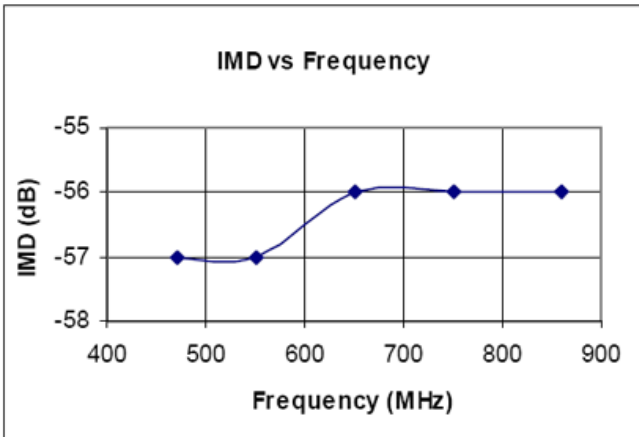
Symbol	Parameter	Test Conditions	Value			Unit
			Min	Typ.	Max.	
BW	Bandwidth	Pout = 25 W (CW)	470		860	MHz
Gp	Power gain	Pref = 25 W (CW)	15	16	-	dB
Pout-1dB	Power Output @ 1dB Compression	Referred to Pout = 2.5W (CW)	40	60	-	W
Iq	Supply Current	Pout = 0 W – Total	-	-	1	A
Itot	@ PMax		-		3	A
Ω	Input/Output	50 Ohm				Ohm
Irl	Input return loss	Pout = 25 W (CW)	-15	-18	-	dB
Ψ	Load mismatch	Pref = 25 W CW, f= 860MHz, load VSWR = 2:1,all phase angles	No degradation in Pout			
Gr	Gain Flatness	Pref = 25 W CW, BW: 470-860MHz		±0.5	±1	dB
η	Drain Efficiency	Pout = 25 W (CW)	25	27	-	%
	Pout separate ampl.	Sync. Compression < 1dB without correction	40			Wps
	Pout common ampl.	Pout 15W ps common ampl. dual sound, with Red Field sound 1 @ -13dB and sound 2 @ -20dB without precorrection	-55	-58		dBc
	Pout DVB-T	Pout 5Wrms without precorrection	-35	-38		dBc



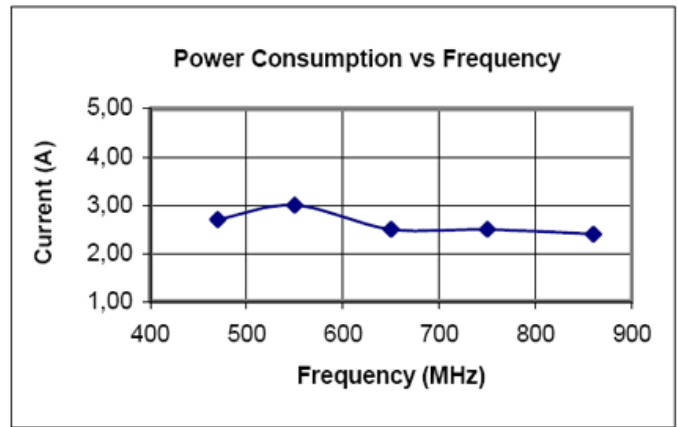
Test Condition: Vd 30V, Idq 2 x 350mA, Pout 15W ps



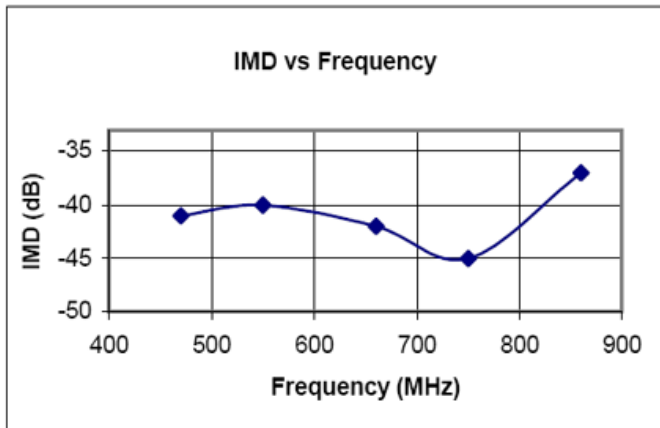
Test Condition: Vd 30V, Idq 2 x 350mA, Pout Low Level



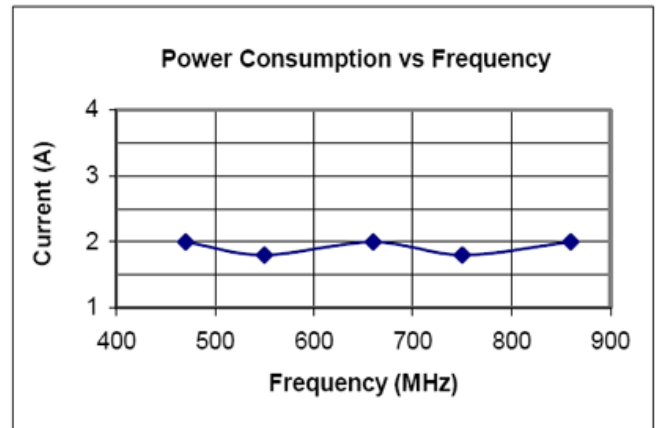
Test Condition: Vd 30V, Idq 2 x 350mA, Pout 15W ps (red field with sound 1 @-13dB and sound 2 @-20dB)



Test Condition: Vd 30V, Idq 2 x 350mA, Pout 15W ps with black field



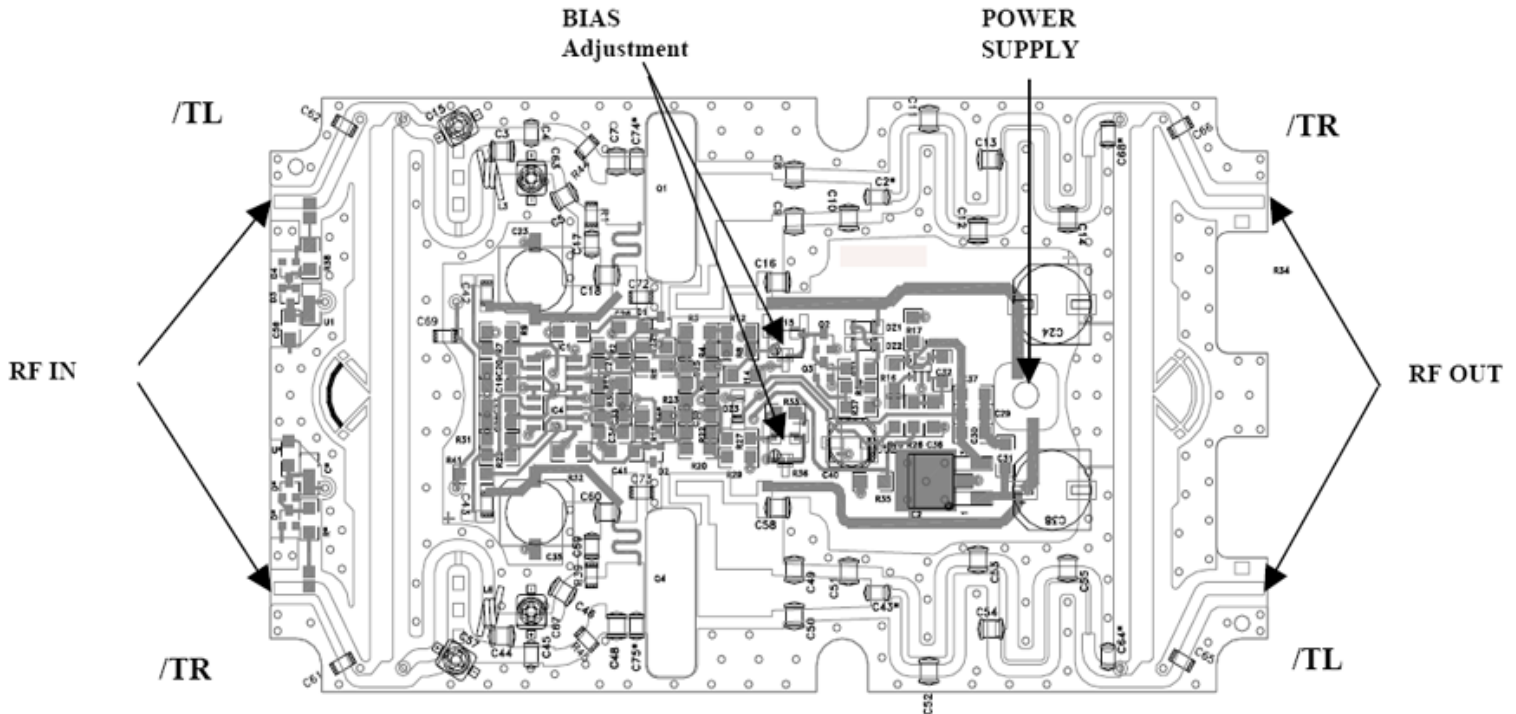
Test Condition: Vd 30V, Idq 2 x 350mA, Pout 5Wrms DVB-T signal



Test Condition: Vd 30V, Idq 2x 350mA, Pout 5Wrms DVB-T signal

The operating voltage range of this module is from 28V to 32V, 30V nominal. If used at 32V, the max power available will be higher but with a consequently decrease of efficiency and MTBF. Under conditions of overdrive or reflected power, when a multicarrier signal is applied, the 32V supply can be the reason of a minor ruggedness. Please, use suitable protection circuits.

AMP-25WDTV LAYOUT AND CONNECTIONS



NOTE. In response to customer request, this pallet has been designed to allow two different positions of IN/OUT connections:
 /TL = connection on the left side, /TR = connection on the right side.

HEATSINK MOUNTING/HARDWARE

1. HEATSINK TOOLING

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

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 5, 6, 7, 8) – 4 x M2.5 (position 1, 2, 3, 4).
- The recommended Torque is 12 Kg. cm (10.5 in. lbs).

4. TIGHTENING ORDER

- See next figure:

