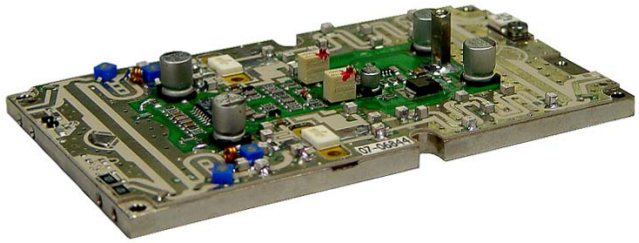
AMP-25WDTV
TV UHF LINEAR AMPLIFIER
25 W IN CLASS A

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”

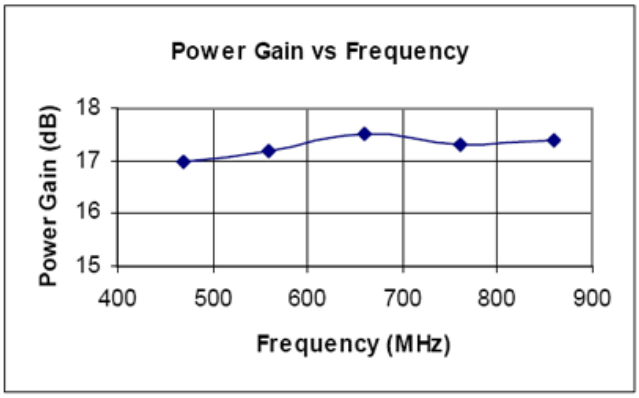


ABSOLUTE MAXIMUM RATINGS (Device Flange T = 70 °C)

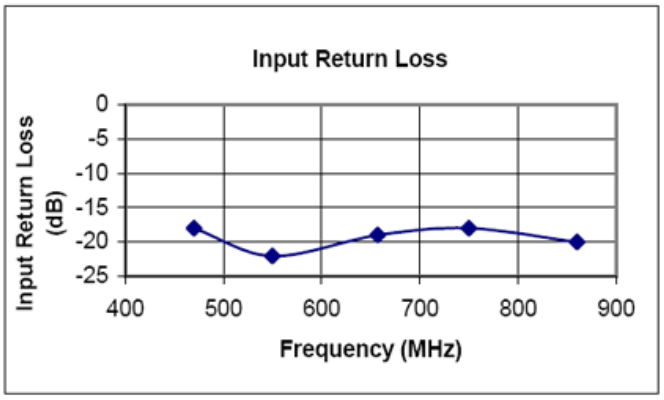
Symbol	Parameter	Value	Unit
Vs	Voltage Supply	**35**	**V dc**
Is	Current Supply	**12**	**A dc**
Tstg	Storage Temperature Range	**-30+100**	**°C**
Tc	Operating Base Plate Temperature	**0+75**	**°C**
ψ	VSWR max	**3:1** all phase angles	

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

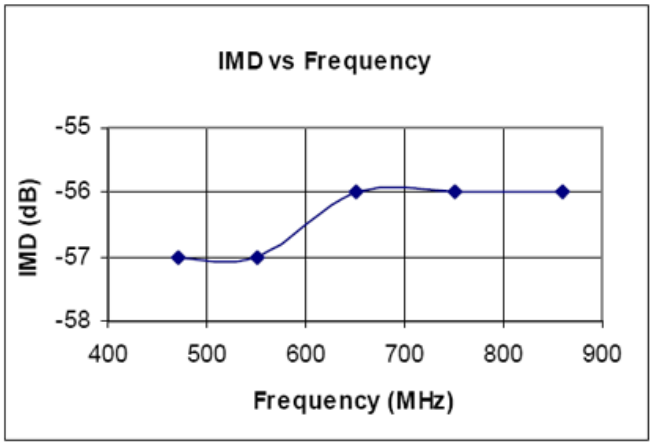
Symbol	Parameter	Test Conditions	Value			Unit
			Min	Typ.	Max.	
BW	**Bandwidth**	Pout = 25 W (CW)	**470**		**860**	**MHz**
Gp	**Power gain**	Pref = 25 W (CW)	**15**	**16**	**-**	**dB**
Pout-1dB	**Power Output @ 1dB Compression**	Referred to Pout = 2.5W (CW)	**40**	**60**	**-**	**W**
Iq	**Supply Current**	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**



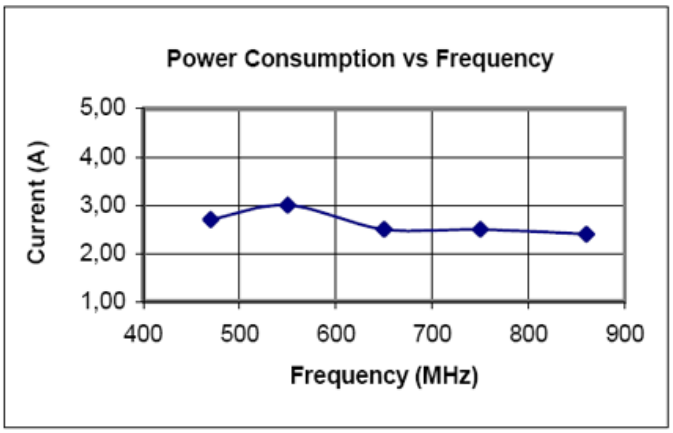
Test Condition: Vd 30V, Idq 2 x 350mA, Pout 15W ps



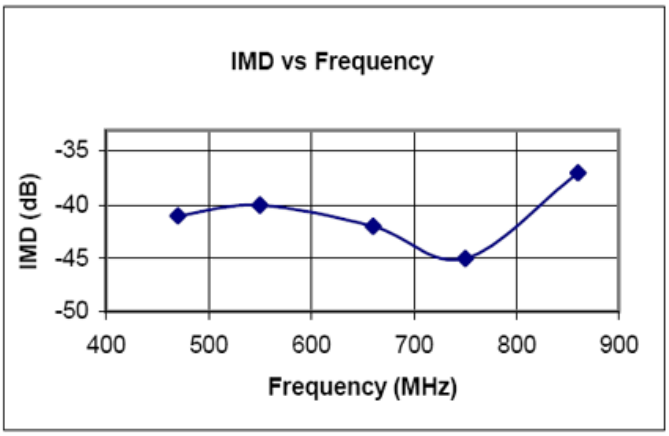
Test Condition: Vd 30V, Idq 2 x 350mA, Pout Low Level



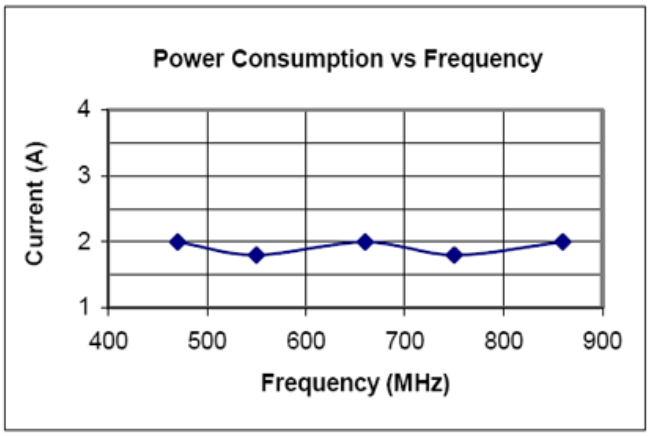
Test Condition: Vd 30V, Idq 2 x 350mA, Pout 15W ps (red field with sound 1 @-13dB and sound 2 @-20dB)



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



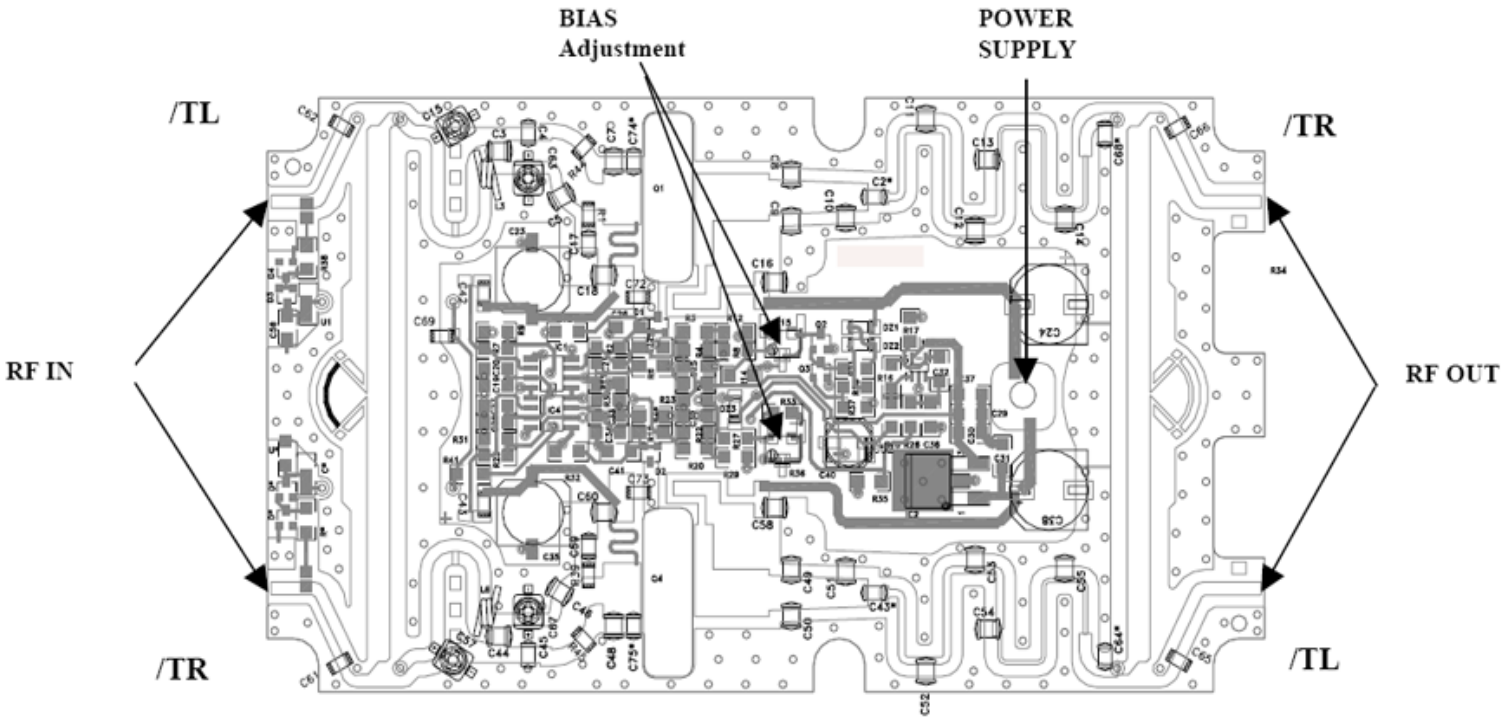
Test Condition: Vd 30V, Idq 2 x 350mA, Pout 5Wrms DVB-T signal



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.

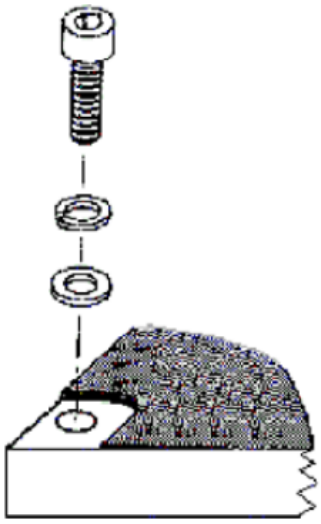
AMP-25WDTV LAYOUT AND CONNECTIONS



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:



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