



VHFAMP05-R1

5W LDMos Technology Amplifier

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

- 170 - 230 MHz
- (28-32 V) 30V Nominal
- Input/Output 50 Ohm/50 Ohm
- Pout : 5W CW
- 5Wps separate amplification
- 3Wps common amplification
- 1,5Wrms DAB
- 1 Wrms DVB
- Gain : 21 dB min
- Class AB - *very linear*
- Devices: MRF282SR1 or equivalent
- Connectorized version available



Dimensions (LxWxH) 120x78x30 mm (4.72"x3.07"x1.18")

This picture is a mere example, it does not bind the provided product

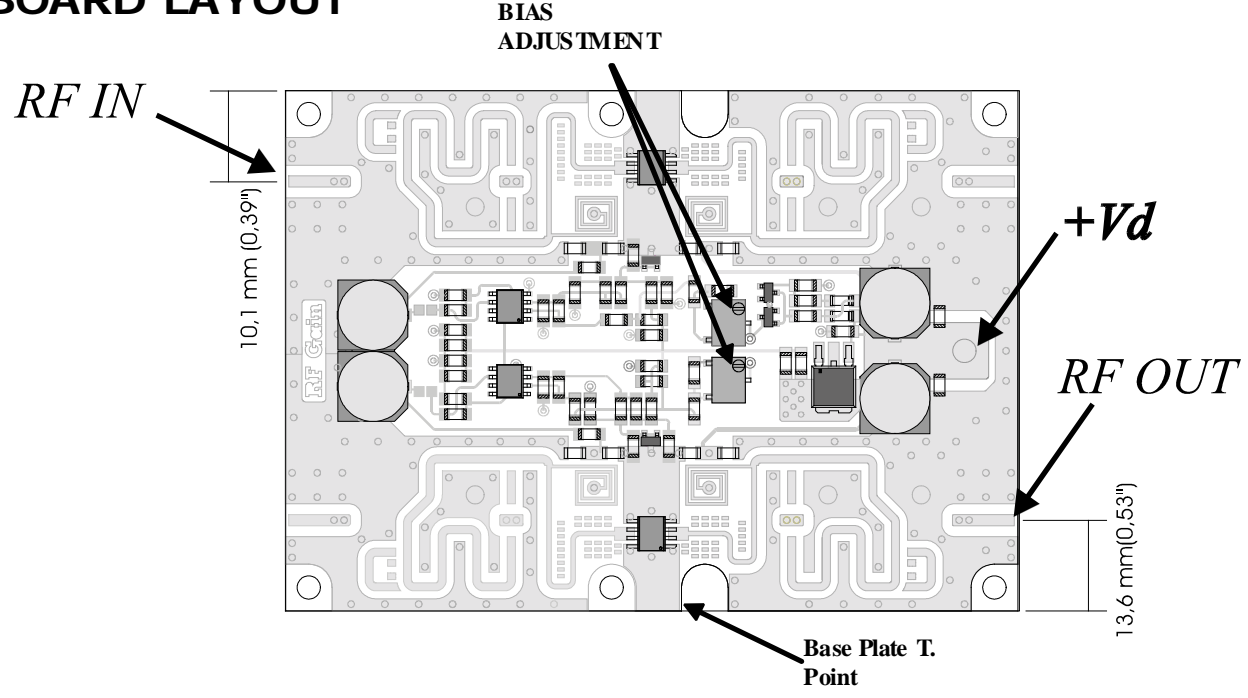
ABSOLUTE MAXIMUM RATINGS (Device Flange T = 70 °C)

Symbol	Parameter	Value	Unit
V _s	Voltage Supply	35	V dc
I _s	Current Supply	4	A dc
T _{stg}	Storage Temperature Range	-30 + 100	°C
T _c	Operating base plate Temperature	0 + 75 ¹	°C
	VSWR max	3:1 all phase angle	-
	Max input power	See note ²	-

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

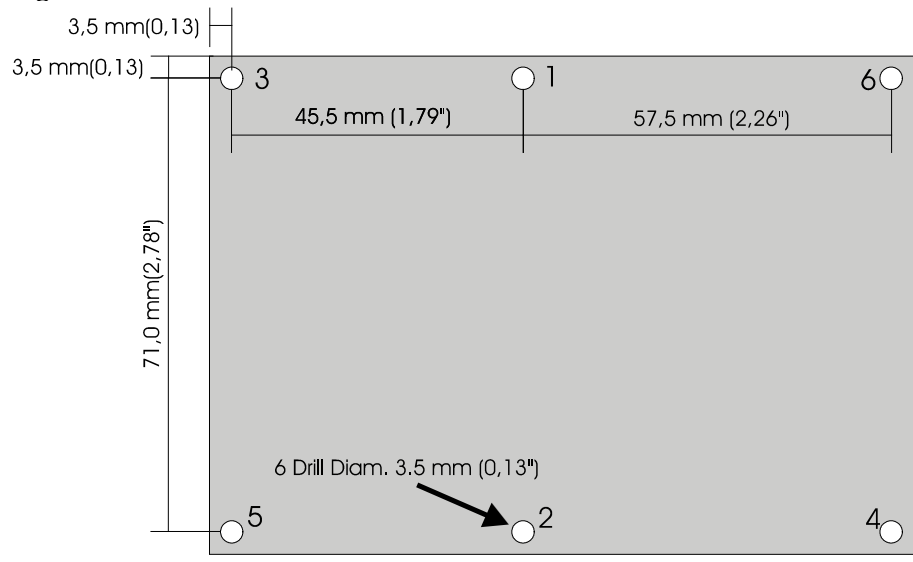
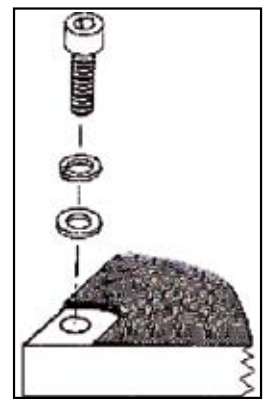
Symbol	Parameter	Test Conditions	Value			Unit
			Min	Typ.	Max	
BW	Bandwidth	Pout = 5 W (CW)	170	-	230	MHz
G _p	Power gain	Pref = 5 W (CW)	21	22	-	dB
P _{out} - 1dB	Power Output @ 1dB	Reference to P _{out} = 1W (CW)	7	12	-	W
I _q *	Quiescent Current	Pout = 0 W - Total ³ *	-	-	0,6	A
I _{tot} *	@ P _{Max}		-	-	1.5	A
I _{rl}	Input return	Pout = 5W CW	16	20	-	dB
	Load mismatch	Pref = 5W CW, f= 230MHz, load VSWR = 2:1, all phase angles	No degradation in Pout			
Gr	Gain Flatness	Pref = 5W CW, BW: 170-230MHz	-	-	±0,5	dB
	Drain Efficiency	Pout = 5W (CW)	25	-	-	%

PC BOARD LAYOUT



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
 - M3 -Cross head 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:



Dimensions: 78x110 mm [3 x 4,3 inch.]



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