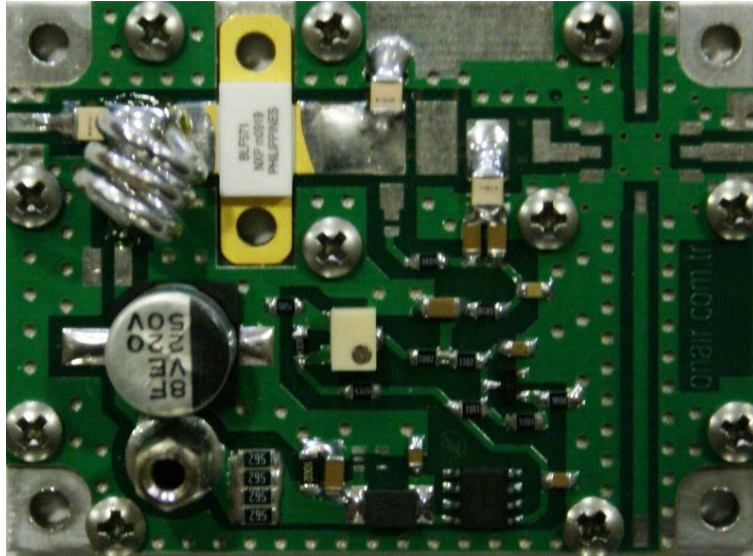




VHFAMP10

10 W VHF PALLET AMPLIFIER



Designed for analog and digital TV transposers and transmitters, this amplifier incorporates microstrip technology and LDMOS transistor. Output power can be adjust via 1-5VDC control voltage.

- 170 - 230 MHz
- 50V Nominal
- Input/output: 50 Ohm/50 Ohm
- Pout CW: 10W (Continuous Work)
- Pout: 10W pep –35 dBc min (two-tone test 6MHz spacing)
- Gain: 10 dB min; 23 dB max
- Class: AB
- Devices: BLF571
- Connectorized version available
- RoHS Compliant

Technical Parameters

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

Symbol	Parameter	Value	Unit
Vs	Voltage Supply	50	V DC
Is	Current Supply	1	A DC
Tstg	Storage Temperature Range	-20 / +80	°C
Tc	Operating Case Temperature	0 / +75	°C
ψ	VSWR max	1.75:1 all phase	
	Max Input Power	20	dBm
	Max CW Output Power (continuous work)	10	Watt

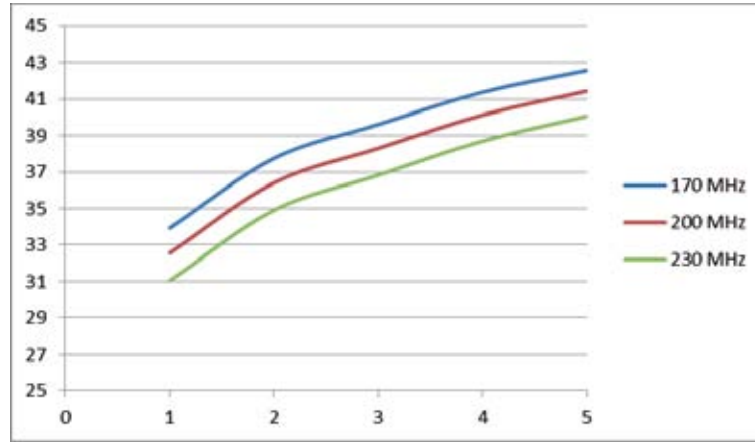
Electrical Specifications (Base Plate T. = 45 °C, 50 Ω loaded, Vd = 30 V)

Parameter (Symbol)	Min	Typ.	Max	Unit	Test Conditions
Bandwith (BW)	170		230	MHz	Pout = 10 W (CW)
Power Gain (Gp)	10		23	dB	Pref = 10 W (CW)
Power Output @1dB Compression				W	Referred to Pout = 10W (CW)
Quiescent Current (I _q)		0.1	0.15	A	Pout = 0 W - Total
@P _{max} (I _{tot})			1	A	10W Ps Black Level Video + Audio
Input Return Loss (Irl)	11	13		dB	Pout = 10 W CW
Gain Flatness (Gr)		±1	±1.5	dB	Pref = 10 W CW, BW: 170-230MHz
Drain Efficiency (η)	36	38		%	Pout = 10 W (CW)
Load Mismatch					Pref = 10 W CW, f= 230MHz, load , VSWR = 2:1 all phase angles

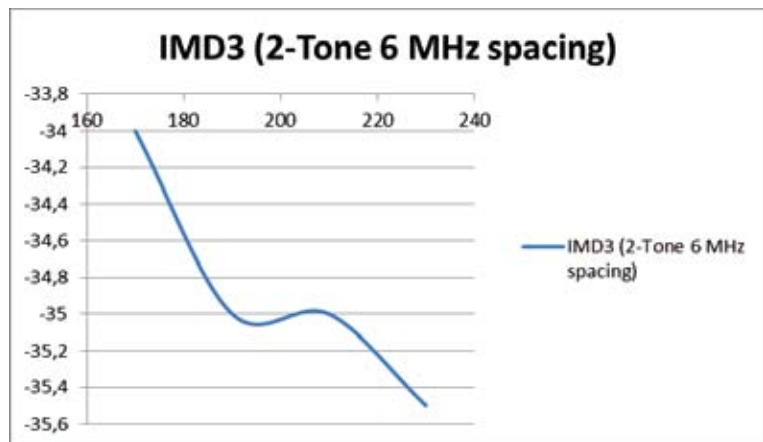
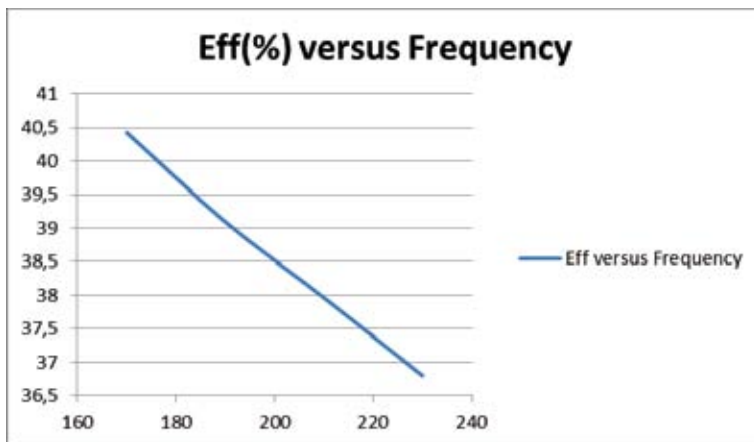
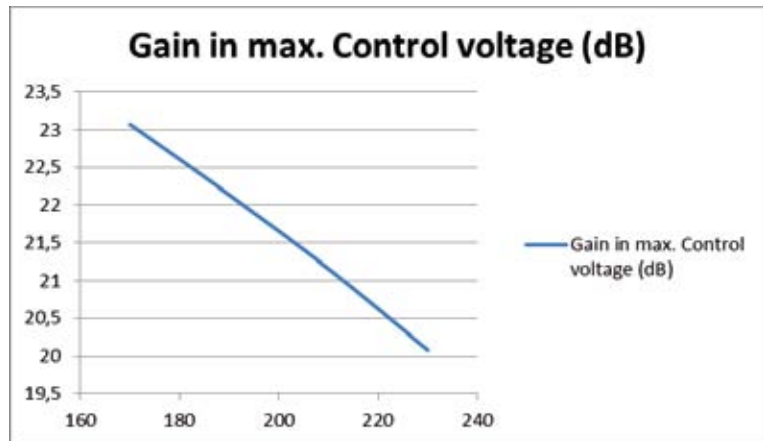
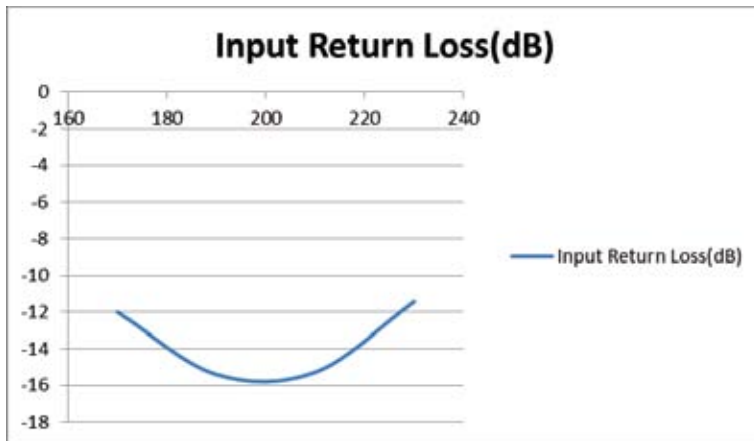


VHFAMP10

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OUTPUT POWER VERSUS CONTROL VOLTAGE (1-5VDC)

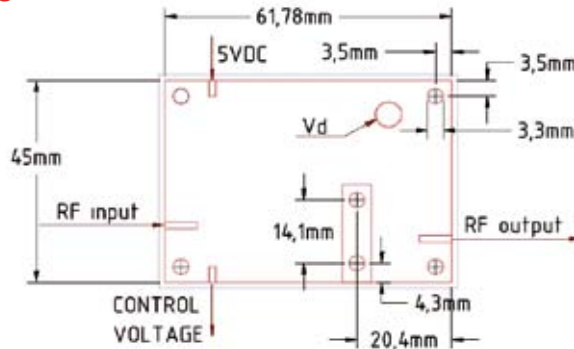




VHFAMP10

10 W VHF PALLET AMPLIFIER

LAYOUT AND CONNECTIONS



HEATSINK MOUNTING/HARDWARE

1. HEATSINK TOOLING

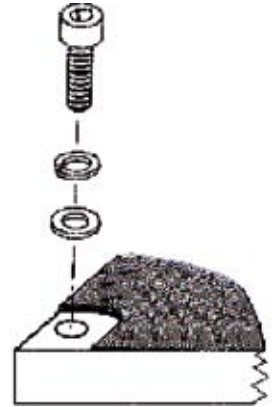
- Planarity: typical value 0.8
- Roughness: better than 0.03 mm

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

- 8 x M3 - Socket head cap screws.
- 8 Split lock washers WZ $\varnothing 3$ + 8 Flat washers ZU $\varnothing 3$.
- 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:

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