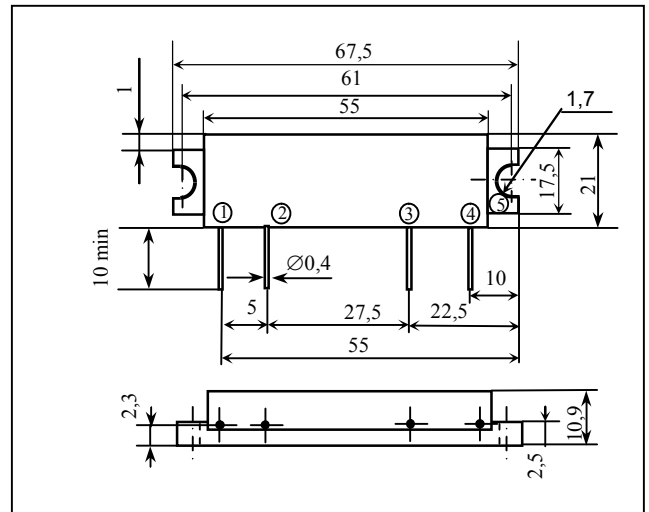


Power RF Amplifier

Power = 20 Watts
 Bandwidth = 1.5 to 30 MHz
 Gain = 30dB Vdd=28.0 Volts
 50 Ohms Input/Output Impedances
 Copper Flange

Description

The UM131-1 is 20 Watt SSB amplifier module covering a bandwidth of 1.5-30 MHz. This dual stage amplifier is specifically designed for Land Mobile HF band portable radio applications.


Absolute Maximum Ratings (T=25°C)

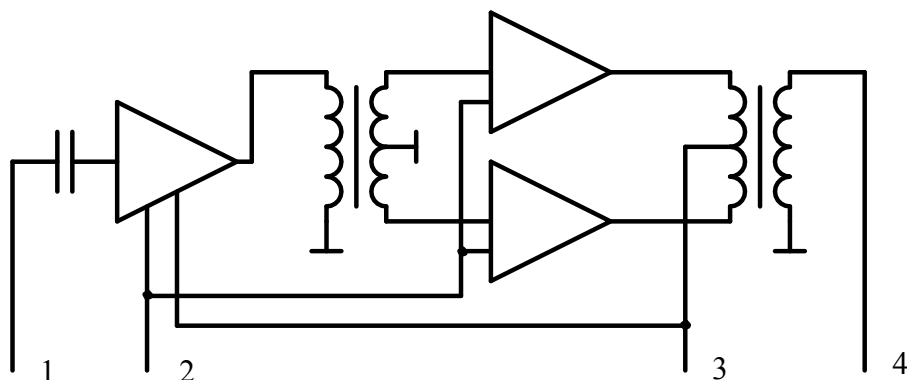
Parameter	Symbol	Value	Unit
DC supply Voltage	VDD	32.0	V
DC gate Voltage, Power control	VGG	5.0	V
Input Power	Pin	30	mW
Output Power	Pout	25	W
Operating Case Temp.	Tc	-40 to +85	°C
Storage Temperature	Tstg	-60 to +100	°C

Electrical Characteristics: (Tc = 25°C, Zs = Zl = 50 Ohms. Vdd = 28 Volts. Vgg = 5 Volts.)

Parameter	Symbol	Min	Typical	Max	Unit	Test Conditions
Frequency Range	BW	1.5		30	MHz	50 Ohm load
Output Power	Pout	20			Watts	
Power Gain	PG	30	33		dB	
Total Efficiency	η	45			%	Po=20W, CW
Intermod - 2tone ¹	IMD ₃		-33	-30	dBc	
2 nd Harmonic	F ₂			-25	dBc	
3 rd Harmonic	F ₃			-10	dBc	
Load Mismatch	Ψ	No degradation or destroy				Pin=20mW, Po=20W(PEP), VSWR =20

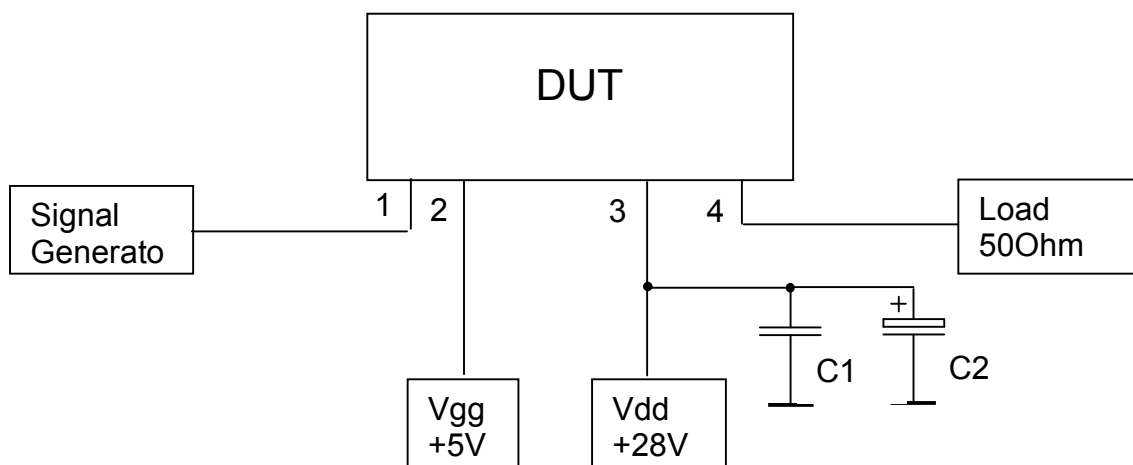
¹ Two Tone, Reference Each Tone

Block diagram



- 1- RF input
- 2- Gate Voltage (V_{gg}), Power Control
- 3- Drain Voltage (V_{dd})
- 4- RF Output (P_{out})
- 5- RF Ground (Case)

Test block diagram



- C1- 0.1uF
- C2- 100uF

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Specification is subject to change without notice