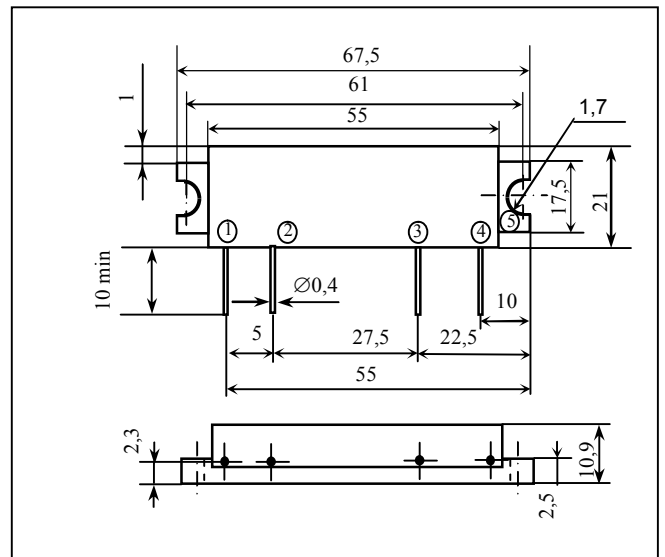


Power RF Amplifier

Power = 16 Watts
 Bandwidth = 146 to 174 MHz
 Gain = 29dB V_{dd}=12.5 Volts
 50 Ohms Input/Output Impedances
 Copper Flange

Description

The UM118-2 is 16 Watt FM amplifier module covering a bandwidth of 146-174 MHz. This dual stage amplifier is specifically designed for Land Mobile VHF band portable radio applications.



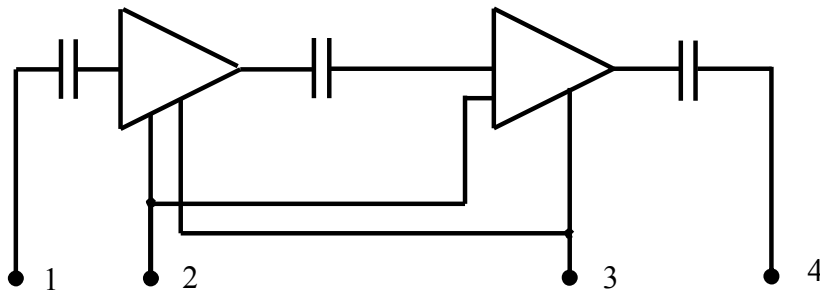
Absolute Maximum Ratings (T=25°C)

Parameter	Symbol	Value	Unit
DC supply Voltage	VDD	16.5	V
DC gate Voltage, Power control	VGG	5.0	V
Input Power	P _{in}	30	mW
Output Power	P _{out}	25	W
Operating Case Temp.	T _c	-40 to +85	°C
Storage Temperature	T _{stg}	-60 to +100	°C

Electrical Characteristics: (T_c = 25°C, Z_s = Z_l = 50 Ohms. V_{dd} = 12.5 Volts. V_{gg} = 5 Volts.)

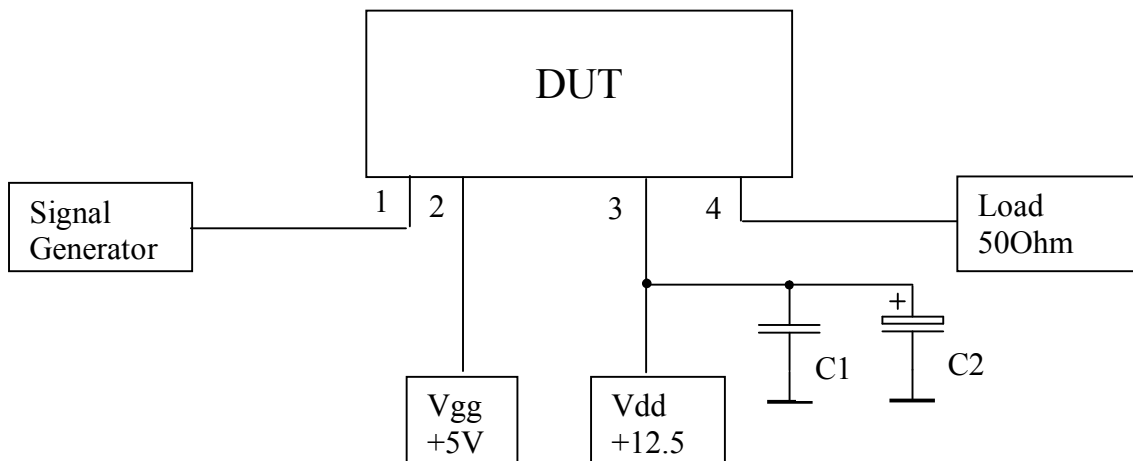
Parameter	Symbol	Min	Typical	Max	Unit	Test Conditions
Frequency Range	BW	300		308	MHz	50 Ohm load
Output Power	P _{out}	16	20		Watts	
Power Gain	PG	29	30		dB	
Total Efficiency	η	40	50		%	P _o =16W, CW
2 nd Harmonic	F ₂		-40	-30	dBc	
3 rd Harmonic	F ₃		-40	-30	dBc	
Load Mismatch	Ψ	No degradation or destroy				P _{in} =20mW, P _o =16W, VSWR =20

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

ZAO 'Syntez Microelectronics'

119V Leninsky Prospekt, Voronezh 394007, Russia • Tel +7-4732-379-101 Fax +7-4732-266-057

exim@syntezmicro.ru

www.syntezmicro.ru

Specification is subject to change without notice