

Specifications

- *Working frequency range 0,9 – 2,0 GHz*
- *Gain 35 dB*
- *Output power 50 W*
- *VSWR input maximum 1,8*
- *Power supply +10 V 28 A; -12 V 0,7 A*



The power amplifier UM4 is intended to operate as a final power amplifier in radio navigation and detection systems and may be used to amplify continuous and pulsed signals in L-band.

The system of thermal compensation maintains stable output power over the whole working temperature range.

The control system allows to enable/disable power supply of amplifier by means of external trigger pulse.

The monitoring system cuts off power supply of the amplifier when the temperature of enclosure reaches 80 °C. It has output signals "Failure" and "Overheating", as well as output power control signal in the range from 1W to 50W.

Structurally the amplifier is made in aluminum enclosure without heat sink. It has a coaxial input (female) with 3,5/1,5mm section and coaxial output (female) with 7/3 mm section.

Maximum allowable operating conditions

Parameter	Value		
	min	typical	max
Positive supply voltage, V	9,5	10	10,5
Negative supply voltage, V	minus 9	minus 12	minus 15
Maximum allowable input power, mW	-	-	100
*Maximum allowable temperature of enclosure, °C	-	-	80°C
Working temperature range, °C	minus 50	-	+60

* Operating time without forced air cooling at ambient temperature +27C° maximum 10 minutes.

Main specifications

Parameter, unit	min	typical	max
Frequency range, GHz	0,9	-	2,0
Output power at 1 dB gain compression over frequency range, W:	30	50	-
Gain in linear conditions, dB	35	-	-
Gain flatness, dB	-	2	3
VSWR input	-	1,5	2
Self-noise at the output, μ W	-	0,3	0,5

Outline drawing

