

Low noise amplifier with high dynamic range ELU 300 ELSYS

Specifications

- *Working frequency range* 2.8 – 3.6 GHz
- *Gain* 20 dB
- *Noise figure* 0.7 dB
- *P1 dB output* 21 dBm
- *VSWR input/output* 1.5/1.7
- *Power supply* 15 V 150 mA



ELU 300

- consists of two-stage amplifier made on GaAs transistors and of power supply stabilizer.
- is made in aluminum alloy sealed enclosure with protective galvanic coating and painted with alkyd enamel.
- input/output are SMA f type connectors.
- may be used for amplification of continuous and pulse signals in different radio technical devices.
- may be made with coatings and connectors to customer's specifications.

Maximum allowable operating conditions

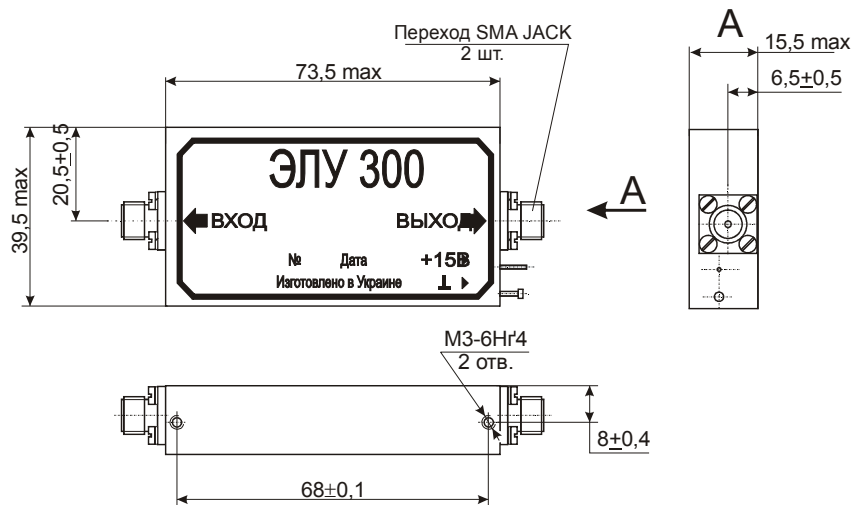
Parameter , unit of measurement	Value		
	min	typical	max
Working frequency range, MHz	2800	—	3600
Supply voltage (positive), V	9	15	16
Supply voltage ripple, %	—	—	5
MTBF, h	10000		
High working ambient temperature, °C	+60		
High peak ambient temperature, °C	+70		
Low working ambient temperature, °C	minus 50		

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Main specifications

Parameter, units of measurement	Value		
	min.	typical	max.
Power gain, dB	18,0	20,0	—
Power gain flatness, dB	—	±2,0	±2,5
Noise figure, dB: in 2,9 – 3,1 GHz range in 2,8 – 3,6 GHz range	—	0,7 1,0	1,0 1,3
VSWR input/output: in 2,9 – 3,1 GHz range in 2,8 – 3,6 GHz range	—	1,5/1,7 1,9/1,9	2,0 2,5
Supply voltage, V	9	15	16
Current consumption, mA	—	125	150

Outline drawing



Для присоединения к входу и выходу изделия применять переход SMA PLUG.

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CH1 SWR 250 m / REF 1
S11 3: 1.5319 3.191 599 984 GHz

CH2 SWR 250 m / REF 1
S22 3: 1.6418 3.191 599 984 GHz



CH1 Markers
1: 1.5938
2.80000 GHz
2: 1.4819
2.99000 GHz
4: 1.7783
3.60000 GHz
5: 1.9971
3.80000 GHz



CH2 Markers
1: 1.2086
2.80000 GHz
2: 1.2069
2.99000 GHz
4: 1.5687
3.60000 GHz
5: 1.6948
3.80000 GHz

START 2800.000 MHz STOP 3800.000 MHz

START 2800.000 MHz STOP 3800.000 MHz

CH3 S21 LOG 5 dB/REF 20 dB 3: 21.153 dB 3.191 599 984 GHz



CH3 Markers
1: 22.856 dB
2.80000 GHz
2: 21.853 dB
2.99000 GHz
4: 18.380 dB
3.60000 GHz
5: 16.741 dB
3.80000 GHz

START 2.800 000 000 GHz

STOP 3.800 000 000 GHz