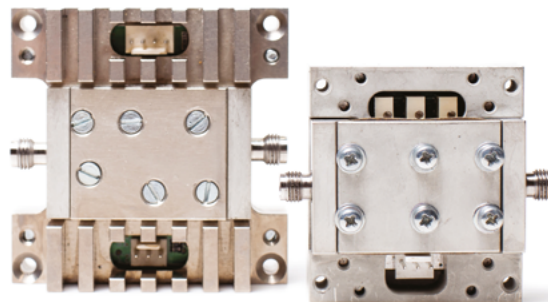


## MSHU microwave amplifiers

### Features

- Extra-wide operating frequency range
- Small dimensions
- Low noise figure
- Low current consumption



### Description of MShU50/1

MShU50/1 amplifier design allows you to use it both separately and as a part of complicated systems. Amplifier body is designed as a radiator providing excellent heat removal. Connector type is 1.85/0.8 mm. Two-stage amplifier provides 30 dB amplification. Amplifier input and

output are DC isolated. Double filtration and additional stabilization of supply and bias voltages is provided for amplifier power supply. Total power-supply isolation is  $\geq 140$  dB. Supply voltage: +10 V (400 mA), -5 V (80 mA).

### Specifications

Operating frequency range	100 kHz ... 50 GHz			
	100 kHz ... 6 GHz	6 ... 12 GHz	12 ... 30 GHz	30 ... 50 GHz
Amplification, dB	$\geq 30$ dB	$\geq 28$ dB		$\geq 32$ dB
Noise figure, dB	4.0 dB	3.0 dB	3.5 dB	6.0 dB
Input VSWR	1.2		1.95	2.65
Output VSWR	1.2		1.95	3
Output compression per 1 dB, dBm	+20 dBm			

### Description of MShU20/2

MShU20/2 amplifier design allows you to use it both separately and as a part of a complicated systems. Amplifier coaxial path is 3.5/1.52 mm. Amplifier circuit includes three amplification stages. Each stage provides approx. 12 dB amplification and proprietary frequency-response equalization circuit. Amplifier input and output are DC

isolated. Double filtration and additional stabilization of supply and bias voltages is provided for amplifier power supply. Power circuit utilizes proprietary thermal offset correction circuit providing higher thermal stability of parameters. Total power-supply isolation is  $\geq 120$  dB. Supply voltage: +10 V (220 mA), -5 V (80 mA).

### Specifications

Operating frequency range	10 MHz ... 20 GHz			
	10 MHz ... 2 GHz	2 ... 6 GHz	6 ... 14 GHz	14 ... 20 GHz
Amplification, dB	$\geq 30$	$\geq 29$	$\geq 31$	$\geq 34$
Noise figure, dB	4.0	3.0	2.5	
Output compression per 1 dB, dBm	+17		+16	+15
Input VSWR	1.65			
Output VSWR	1.45			

### Ordering information

- MShU20/2 — Low-noise microwave amplifier, 10 MHz ... 20 GHz.
- MShU50/1 — Low-noise microwave amplifier, 100 kHz ... 50 GHz.