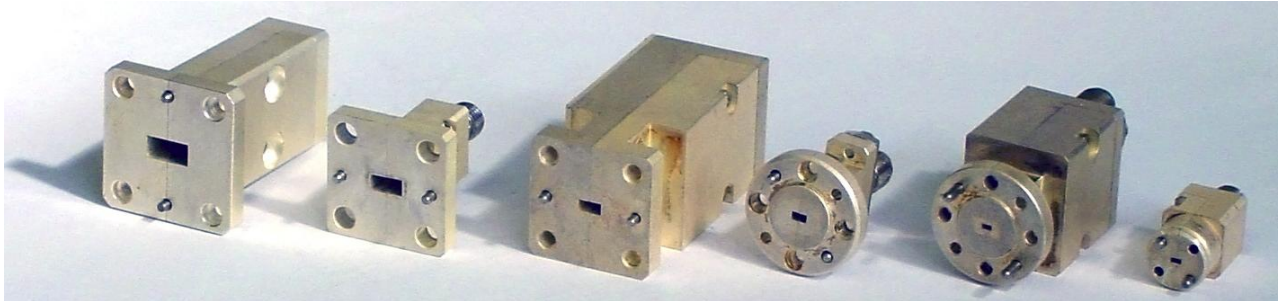




Wideband detectors in 18–400 GHz frequency range



APPLICATION

A series of broadband detectors **M334001-M334008** allows detecting amplitude-modulated microwave signals in frequency range from 18 to 400 GHz.

Detectors are intended for use in instrumentation and research equipment.

DESCRIPTION

Detector is executed with hybrid-integrated production engineering and consists of transition «waveguide–microstrip line», detecting diode with beam leads, and wide-band amplifier.

The detector has waveguide input and coaxial output (connector of 50 Ohm SMA type). The type of waveguide flange is specified by a customer at order according to ГOCT 13317-89 or UG standard EIA (Electronic Industries Alliance).

Detectors are efficient at the maximum relative humidity of 80% (at temperature 25°C) and in temperature range 0...50°C.

**SPECIFICATION**

Parameter	M334001	M334002	M334003	M334004
Operating frequency range, GHz	325–400	220–325	118–178	78–118
Conversion ratio at operation load $R_l=50$ Ohm, V/W	500	500	600–900	1750– 3400
Speed at $R_l = 50$ Ohms, nanosecond	1–100	1–100	1	1
Supply voltage, V	12±1	12±1	12±4	12±4
Weight, g, no more	60	60	60	60
Waveguide cross-section, mm	0.9x0,45	0.9x0,45	1.6x0,8	2.4x1,2
Overall dimensions, mm	20x20x61	18x18x18	18x20x40	18x20x40

Parameter	M334005	M334006	M334007	M334008
Operating frequency range, GHz	53–78	38–53	25.5–38	18–25.5
Conversion ratio at operation load $R_l=50$ Ohm, V/W	2800– 3500	4500– 6400	1100– 4500	1100– 3500
Speed at $R_l = 50$ Ohms, nanosecond	1	1	1	1
Supply voltage, V	12±4	7±1	12±1	12±1
Weight, g, no more	60	60	120	120
Waveguide cross-section, mm	3.6x1.8	5.2x2.6	7.2x3.4	11x5.5
Overall dimensions, mm	20x20x42	20x20x57	23x23x43	29x29x65