

1200 MHz / 5800 MHz PCB Antenna (ISM, IoT, GNSS)



General information

This small antenna is intended to be used within a plastic housing of a mobile device, router or a gateway. On request, the antenna geometry can be optimized for customer's housing design and material properties.

Typical applications

IoT, GNSS, tracking devices, ISM

Electrical data

Antenna type	Embedded / internal PCB antenna	
Frequency band	GNSS (L-Band), ISM5800	
Frequency range [MHz]	1164...1300	5725...5875
Return loss [dB]	-8	-5
Peak gain [dBi]	1.2	6.3
Radiation efficiency [%]	83	89
Nominal input impedance [Ohm]	50	
Polarization	linear	
Radiation pattern	omnidirectional	
Maximum input power [W]	10	

Mechanical data

Antenna PCB dimensions [mm]	35 x 17 x 1
Connector type ¹⁾	IPEX MHF1 / Hirose U.FL (UMCC) compatible ¹⁾
Cable type and thickness ²⁾ [mm]	micro coax 1.13 ²⁾
Cable length ³⁾ [mm]	150 ³⁾
PCB material	FR4

Environmental data

Operating temperature [°C]	-40...+85
Storage temperature [°C]	-40...+85
Ambient relative humidity [%]	0...95
RoHS / REACH compliant	yes / yes

Additional information

¹⁾ Other connector types can be offered on request.

²⁾ Following cable thicknesses can be used with MHF1 connector: 0.81 mm, 1.13 mm, 1.32 mm, 1.37 mm.

³⁾ Recommended length. Cable is not included, but can be customized and provided separately.

Antenna performance was measured using the recommended cable length in free space.

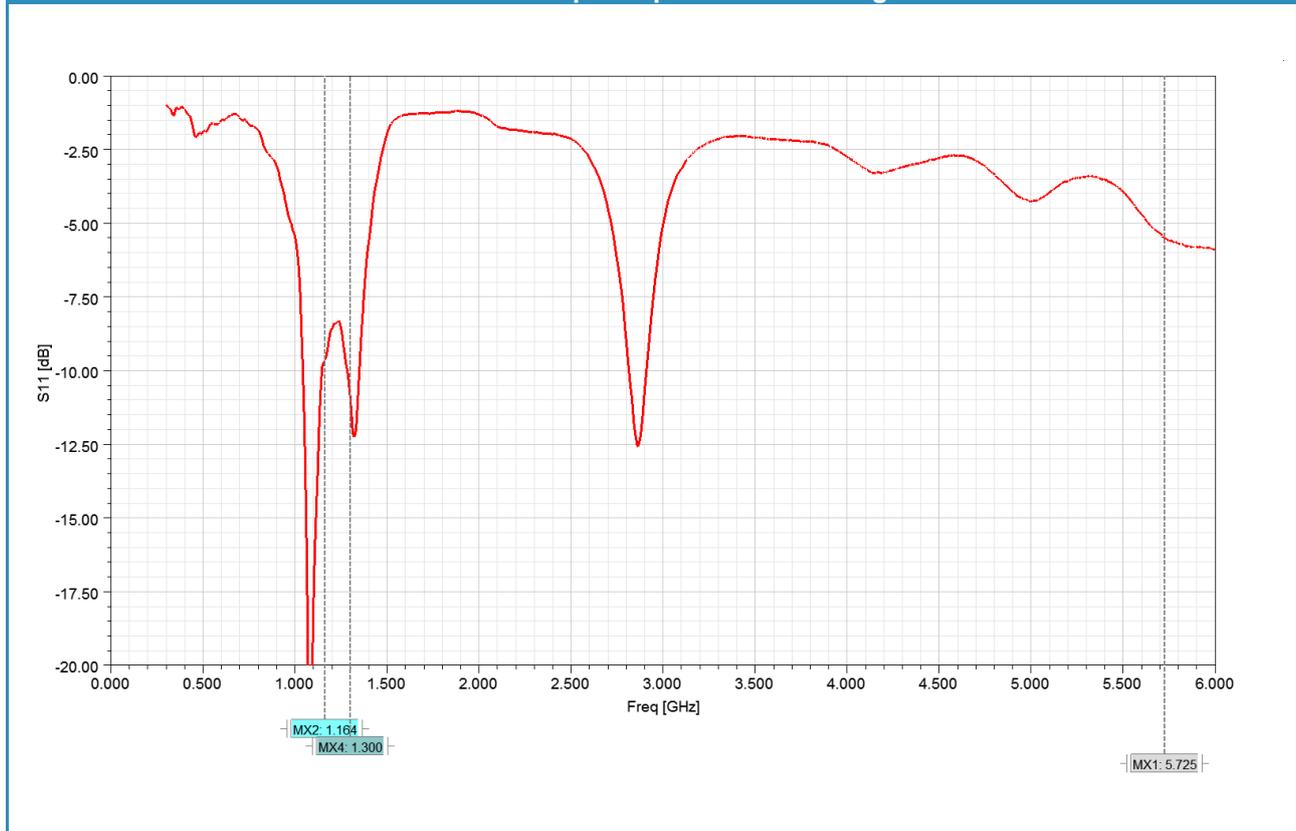
Further customization, electromagnetic simulations and measurements can be offered on request.

The antenna can be additionally equipped with adhesive tape and mounting holes.

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Measured input impedance matching



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