

868 MHz / 915 MHz / 1575 MHz / 5800 MHz PCB Antenna (ISM, IoT, Sigfox, LoRa, GNSS)



#### **General information**

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

#### Typical applications ISM, RFID, IoT (Sigfox, LoRa), GNSS, LP-WAN, Smart meters

Electrical data							
Antenna type	Embedded / internal PCB antenna						
Frequency band	SRD860 (EU), ISM915 (US), GNSS, ISM5800						
Frequency range [MHz]	863	870	915	1559	1591	5725	5855
	870	915	928	1591	1610	5855	5925
Return loss [dB]	-11	-8	-7	-8	-6	-6	-5
Peak gain [dBi]	1.2	1.2	1.2	1.8	1.8	7	7
Radiation efficiency [%]	80	78	76	62	66	85	87
Nominal input impedance [Ohm]	50						
Polarization	linear						
Radiation pattern	omnidirectional						
Maximum input power [W]	10						

Mechanical data				
Antenna PCB dimensions [mm]	45.2 x 20 x 1			
Connector type <sup>1)</sup>	IPEX MHF1 / Hirose U.FL (UMCC) compatible <sup>1)</sup>			
Cable type and thickness <sup>2)</sup> [mm]	micro coax 1.13 <sup>2)</sup>			
Cable length <sup>3)</sup> [mm]	180 <sup>3)</sup>			
PCB material	FR4			

Environmental data				
Operating temperature [°C]	-40+85			
Storage temperature [°C]	-40+85			
Ambient relative humidity [%]	095			
RoHS / REACH compliant	yes / yes			

## Additional information

<sup>1)</sup> Other connector types can be offered on request.

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

<sup>3)</sup> 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.

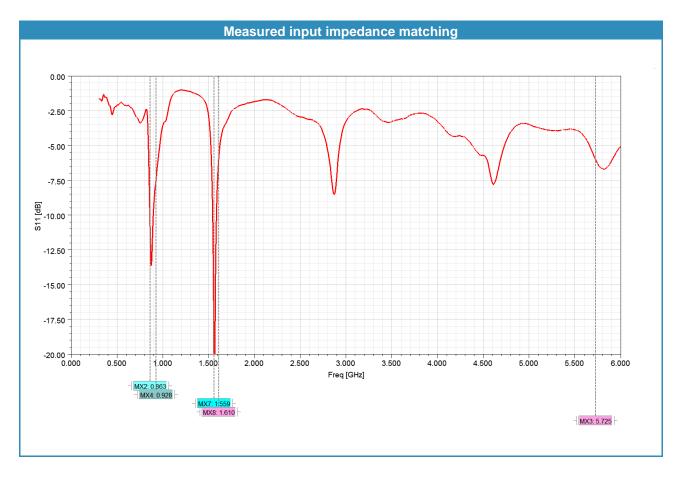
The antenna can be additionally equipped with adhesive tape and mounting holes.

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# TECHNICAL DATA SHEET

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