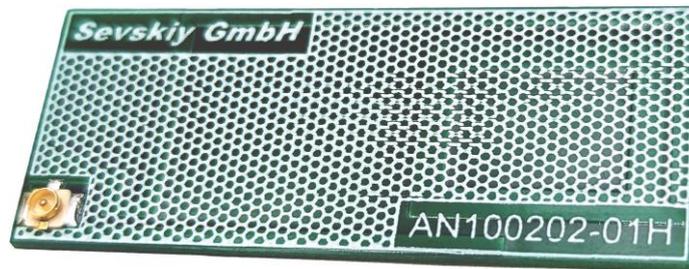


**830 MHz / 930 MHz PCB Antenna (ISM, IoT, Sigfox, LoRa)**



**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), LP-WAN, Smart meters

**Electrical data**

Antenna type	Embedded / internal PCB antenna		
Frequency band	SRD860 (EU), ISM915 (US)		
Frequency range [MHz]	830...870	870...915	915...930
Return loss [dB]	-12	-11	-12
Peak gain [dBi]	1.3	1.5	1.55
Radiation efficiency [%]	76	72	73
Nominal input impedance [Ohm]	50		
Polarization	linear		
Radiation pattern	omnidirectional		
Maximum input power [W]	10		

**Mechanical data**

Antenna PCB dimensions [mm]	42 x 17.5 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 [%]	0...95
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.

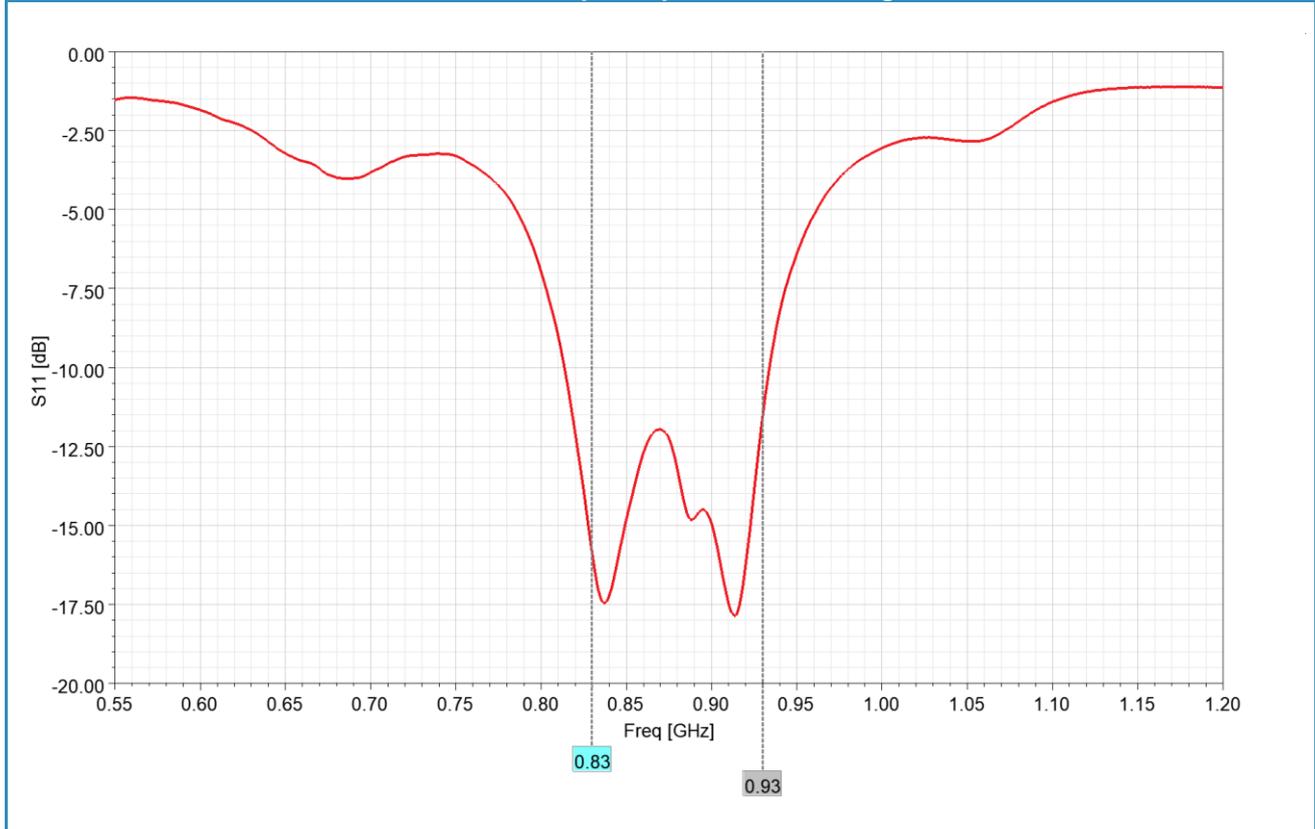
Further customization, electromagnetic simulations and measurements can be offered on request.

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

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830 MHz / 930 MHz PCB Antenna (ISM, IoT, Sigfox, LoRa)

Measured input impedance matching



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