

868 MHz / 915 MHz / 2.45 GHz / 5.5 GHz PCB Antenna (ISM, IoT, RFID, Bluetooth, Wi-Fi, 5G NR, LTE)



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, Bluetooth, Wi-Fi 2.4/5 GHz, 5G NR, LTE

Electrical data

Antenna type	Embedded / internal PCB antenna							
5G bands	5, 7, 8, 14, 18, 20, 26, 38, 41, 46, 47, 53, 79, 81, 82, 89, 90							
4G bands	5, 6, 7, 8, 14, 18, 19, 20, 26, 27, 38, 41, 46, 47, 53, 69							
Other frequency bands	SRD860 (EU), ISM915 (US), ISM2400, Wi-Fi 5 GHz, ISM5800							
Frequency range [MHz]	791... 807	807... 928	824... 870	832... 870	2400... 2540	2540... 2620	4400... 5725	5725... 5925
Return loss [dB]	-7	-9	-15	-20	-10	-7	-10	-15
Peak gain [dBi]	-0.4	0.4	0	0.6	3.9	3.9	5	2.7
Radiation efficiency [%]	83	81	83	83	71	67	73	69
Nominal input impedance [Ohm]	50							
Polarization	linear							
Radiation pattern	omnidirectional							
Maximum input power [W]	10							

Mechanical data

Antenna PCB dimensions [mm]	38 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]	200 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.

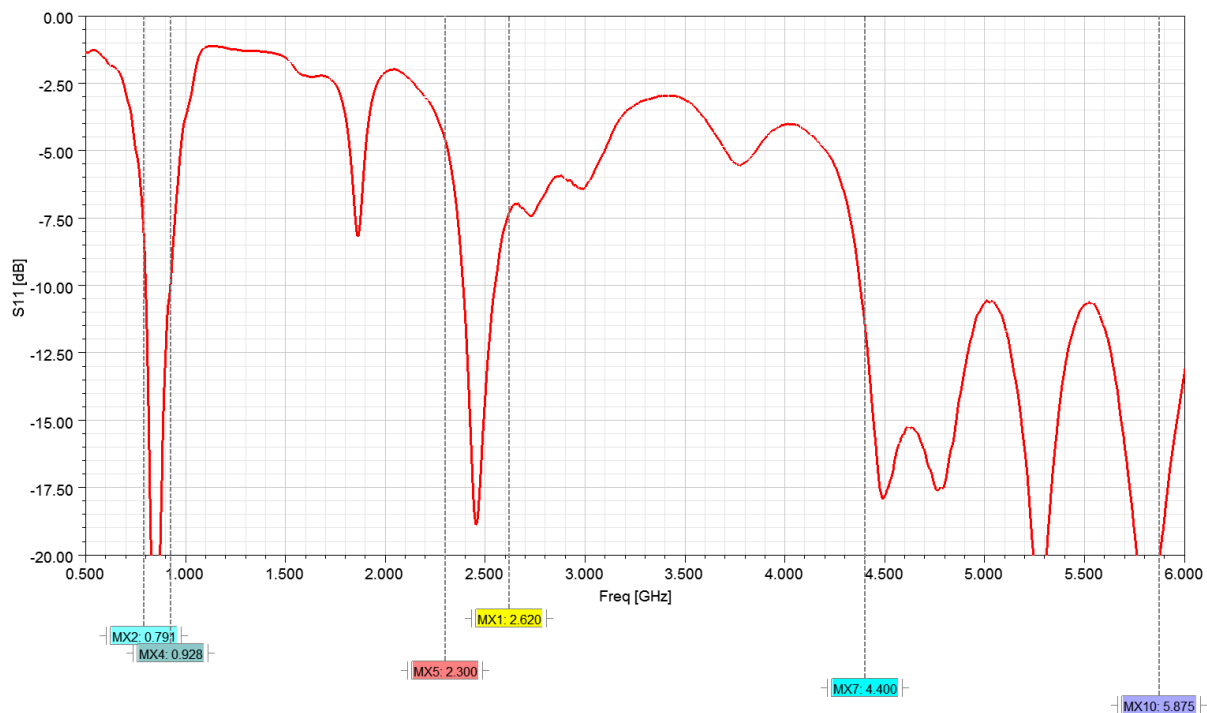
Further customization, electromagnetic simulations and measurements can be offered on request.

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

All information (including technical data and pictures) presented in this document is typical and subject to change without notice. Sevskiy is a registered trade mark of Sevskiy GmbH. Copyright © 2009 - 2023 Sevskiy GmbH. All rights reserved. No warranties.

868 MHz / 915 MHz / 2.45 GHz / 5.5 GHz PCB Antenna (ISM, IoT, RFID, Bluetooth, Wi-Fi, 5G NR, LTE)

Measured input impedance matching



All information (including technical data and pictures) presented in this document is typical and subject to change without notice. Sevskiy is a registered trade mark of Sevskiy GmbH. Copyright © 2009 - 2023 Sevskiy GmbH. All rights reserved. No warranties.

Sevskiy GmbH, CEO: Dr. Sergey Sevskiy
Office: Schatzbogen 43, Munich, Germany

Tel.: +49 89 38-90-7229
Fax: +49 89 38-90-7230

E-Mail: sergey@sevskiy.de
Internet: www.sevskiy.com