Rev. 001



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863 MHz / 924 MHz / 1559 MHz / 1591 MHz / 2400 MHz PCB Antenna (ISM, IoT, GNSS, Wi-Fi 2.4 GHz)



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 (upper L-band), Wi-Fi 2.4 GHz

| Electrical data | | | |
|-------------------------------|---|----------|----------|
| Antenna type | Embedded / internal PCB antenna | | |
| Frequency band | SRD860 (EU), ISM915 (US), GNSS, ISM2400 | | |
| Frequency range [MHz] | 863924 | 15591591 | 24102485 |
| Return loss [dB] | -10 | -7 | -12 |
| Peak gain [dBi] | 0.4 | -0.3 | 1.7 |
| Radiation efficiency [%] | 62 | 56 | 68 |
| Nominal input impedance [Ohm] | 50 | | |
| Polarization | linear | | |
| Radiation pattern | omnidirectional | | |
| Maximum input power [W] | 10 | | |

| Mechanical data | | |
|----------------------------------|--|--|
| Antenna PCB dimensions [mm] | 43 x 20 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] | 180 ³⁾ | |
| 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

- 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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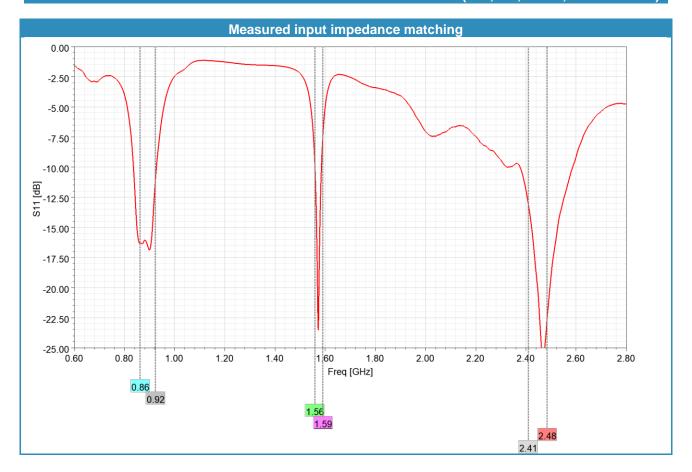
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