AN250201-03H

Rev. 001



824 MHz / 925 MHz / 2.45 GHz / 4.7 GHz / 5.5 GHz PCB Antenna (ISM, IoT, RFID, 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, NB-IoT), LP-WAN, Smart meters, Bluetooth, Wi-Fi, 5G NR, LTE				
Electrical data				
Antenna type	Embedded / internal PCB antenna			
5G bands	5, 7, 18, 26, 38, 41, 46, 47, 53, 79, 81, 82, 89, 90, 97			
4G bands	5, 6, 7, 18, 19, 20, 26, 27, 38, 40, 41, 46, 47, 53, 69			
Other frequency bands	SRD860 (EU), ISM915 (US), ISM2400, Wi-Fi 5 GHz, ISM5800			
Frequency range [MHz]	824925	24102485	44005850	
Return loss [dB]	-6	-10	-8	
Peak gain [dBi]	0.7	2.1	3.4	
Radiation efficiency [%]	68	63	51	
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]	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.

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.

AN250201-03H

TECHNICAL

DATA SHEET

Rev. 001



824 MHz / 925 MHz / 2.45 GHz / 4.7 GHz / 5.5 GHz PCB Antenna (ISM, IoT, RFID, Wi-Fi, 5G NR, LTE)



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.