Rev. 001



700 MHz / 960 MHz / 1.427 GHz / 1.695 GHz / 2.69 GHz / 3.3 GHz / 7 GHz PCB Antenna (5G NR, LTE)



General information

Planar ultra-wideband Vivaldi antenna for various applications including laboratory measurements, spectrum monitoring etc.

Typical applications

5G NR, LTE, ISM, RFID, IoT (Sigfox, LoRa, NB-IoT), LP-WAN, Smart meters, Bluetooth, Wi-Fi 2.4/5/6 GHz

Electrical data				
Antenna type	External / internal PCB antenna			
5G bands	1, 2, 3, 5, 7, 8, 12, 13, 14, 18, 20, 25, 26, 28 - 30, 34, 38, 39, 40, 41, 46 - 48, 50, 53, 65, 66, 70, 74 - 84, 86, 89, 90 - 98			
4G bands	1 - 14, 17 - 30, 32 - 53, 65 -70, 74 – 76, 85			
Other frequency bands	SRD860 (EU), ISM915 (US), GNSS, ISM2400, Wi-Fi 6 GHz, ISM5800			
Frequency range [MHz]	700960	14271517	16952690	33007125
Return loss [dB]	-8	-10	-12	-11
Peak gain [dBi]	2.1	2.9	4.1	4.4
Radiation efficiency [%]	84	71	60	51
Nominal input impedance [Ohm]	50			
Polarization	linear			
Radiation pattern	omnidirectional / directional			
Maximum input power [W]	10			

Mechanical data		
Antenna PCB dimensions [mm]	155 x 49.7 x 0.8	
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) Other cable lengths can be provided.

Antenna performance was measured using the specified 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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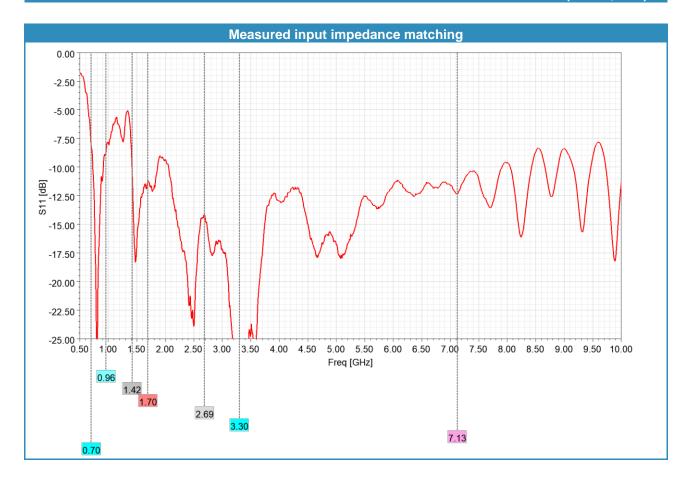
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Sevskiy® RF & Antenna Development

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