### TECHNICAL DATA SHEET

# AN150206-01H

Rev. 001



1164 MHz / 1300 MHz PCB Antenna (GNSS Lower L-band)



#### **General information**

This small antenna is intended to be used within a plastic housing of a mobile device, router or a gateway. On request, the antenna geometry can be optimized for customer's housing design and material properties.

Typical applications			
GNSS, tracking devices, IoT			
Electrical data			
Antenna type	Embedded / internal PCB antenna		
Frequency band	GNSS (lower L-Band) GPS L2, L5; BeiDou B2, B3; Glonass L2, L3		
Frequency range [MHz]	11641214	12171300	
Return loss [dB]	-8	-12	
Peak gain [dBi]	1.2	1.4	
Radiation efficiency [%]	69	71	
Nominal input impedance [Ohm]	50		
Polarization	linear		
Radiation pattern	omnidirectional		
Maximum input power [W]	10		

Mechanical data		
Antenna PCB dimensions [mm]	39.4 x 14.1 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 [%]	095	
RoHS / REACH compliant	yes / yes	

#### Additional information

<sup>1)</sup> 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.

<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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