



**PRO-IS-212**

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**50.0 x 8.0 x 0.8mm**  
**RoHS/RoHS II Compliant**  
**MSL Level = 1**

## Features

- Frequency coverage : 868 - 960, 1710 - 1990 MHz
- Thickness of 0.8 mm
- Linear Polarization
- Gain of up to 2.9 dBi
- Efficiency > 37%
- Easy integration using cable and connector
- Customizable cable and Connector options

## Applications

- LoRA/SigFox/3G/2G/GSM/ISM applications
- IoT, M2M
- Industrial, Infrastructure IoT
- Smart Metering
- Consumer electronics
- Wireless modules
- Video and surveillance
- Broadband cellular connectivity

## Product Image





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## Electrical Specification

Parameter	Specification		Unit
Operating Frequency	868 ~ 960	1710 ~ 1990	MHz
Return Loss	< -3.5	< -3.6	dB
Polarization	Linear		
Peak Gain	2.9	1.9	dBi
Efficiency	>37	>51	%
Impedance	50	50	$\Omega$

## Mechanical Specification

Parameter	Specification
Antenna Dimension	50 x 8 x 0.8 mm
Cable Type	Coaxial
Cable length	100 mm
Connector Type	MHF-1 (F)
Mounting Type	Adhesive

## Environmental Specification

Parameter	Specification
Operating Temperature	-40°C to +85°C
MSL Level	1
RoHS/RoHS II Compliant	Yes



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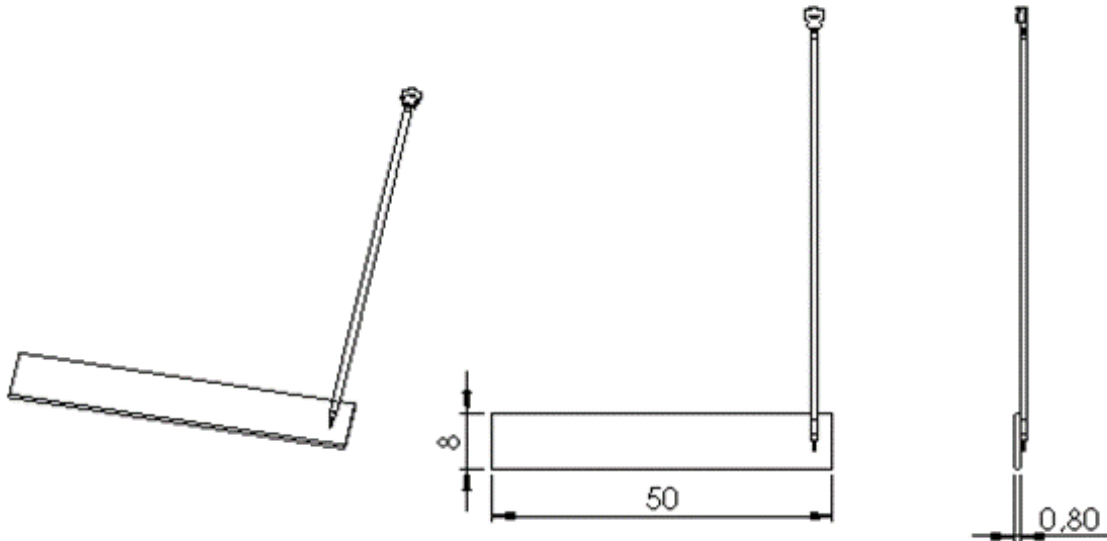


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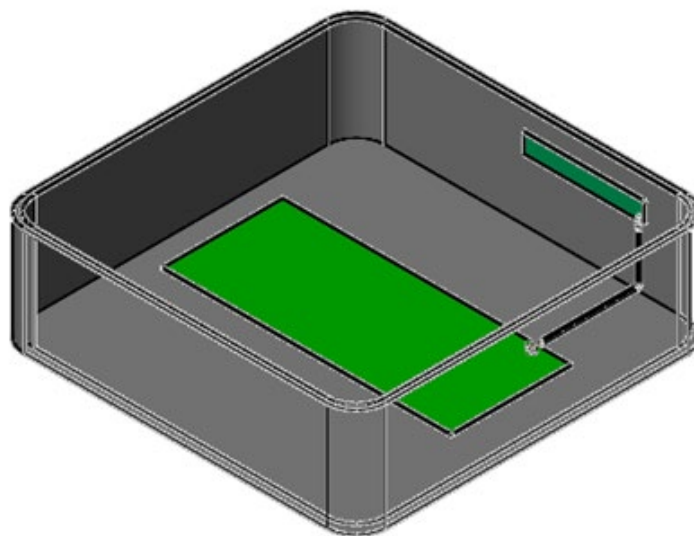
## Product Dimensions



Unit: mm

## Measurement Setup

The antenna measurements were done on a standard measurement fixture - the antenna mounted in an ABS plastic box, 150x150x45 mm, connected to a PCB, 120x50 mm, with the cable fully extended





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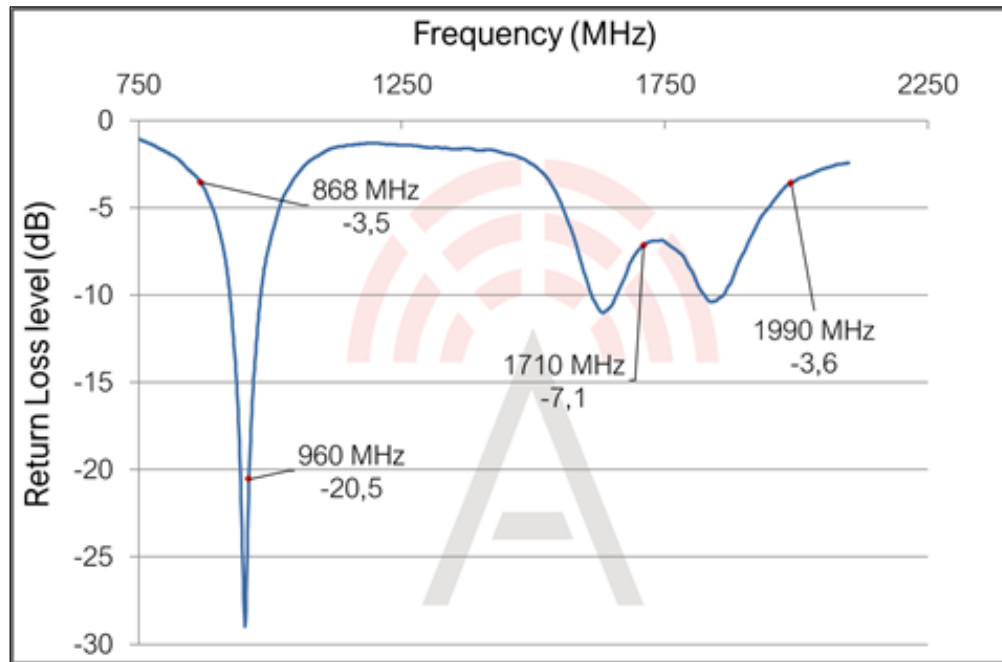


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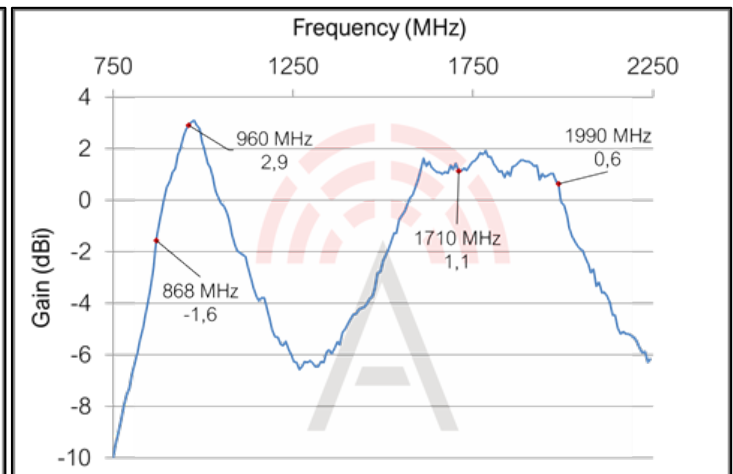
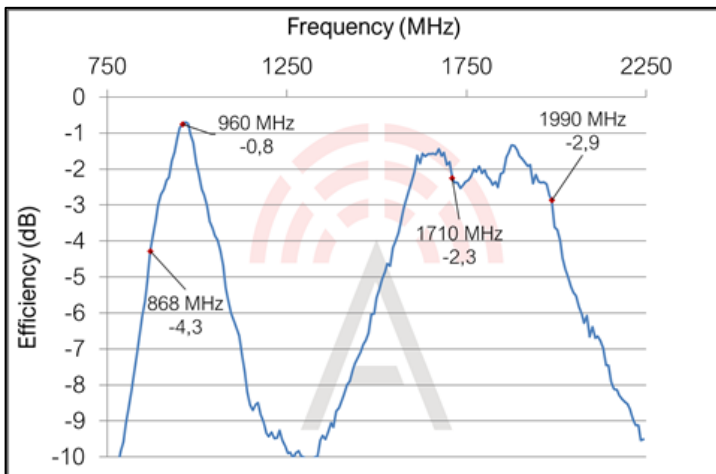
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## Return Loss



## Total Radiation Efficiency

## Maximum Radiation Gain





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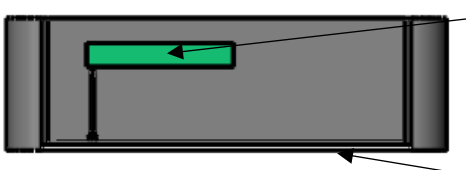
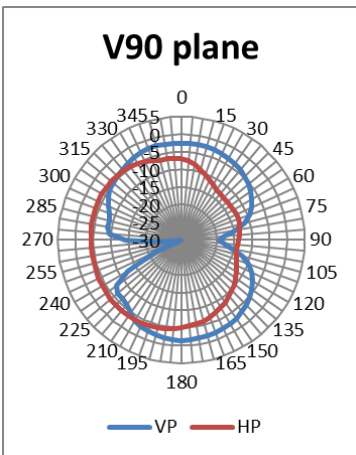
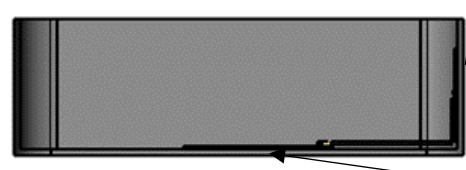
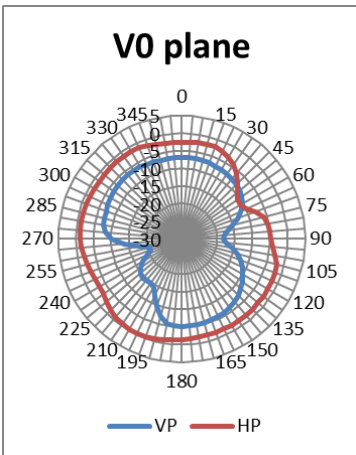
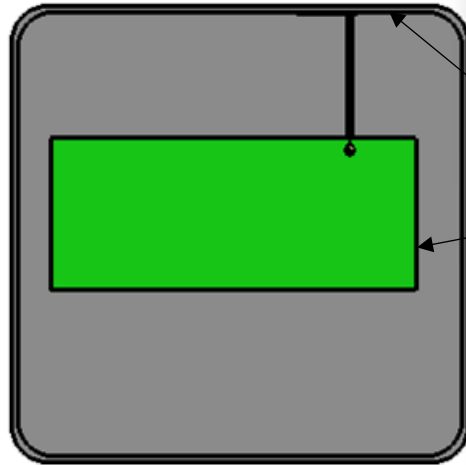
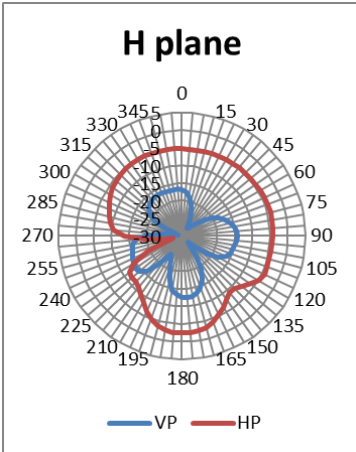


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## Radiation Characteristics - 2D Pattern (900 MHz)





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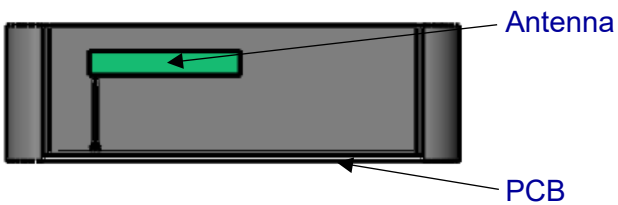
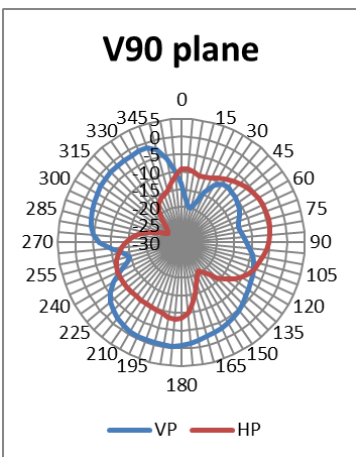
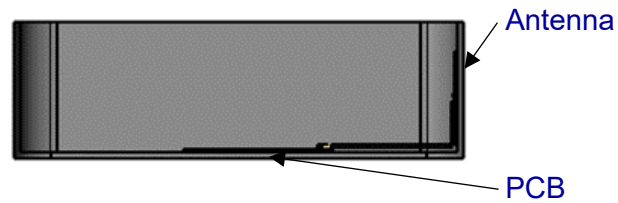
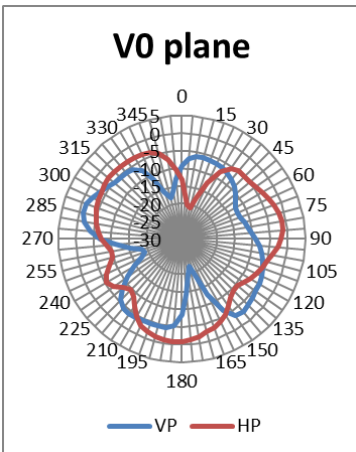
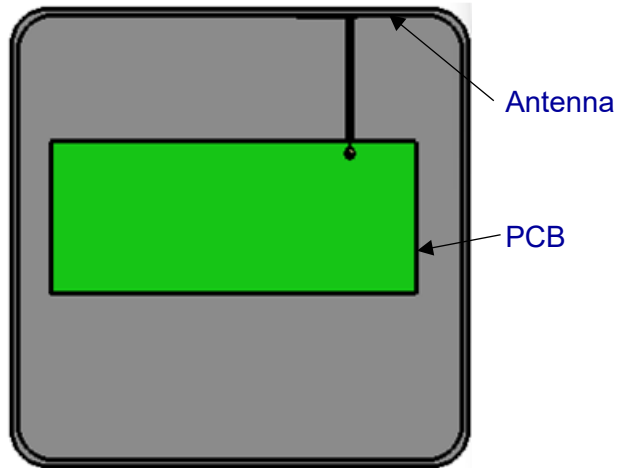
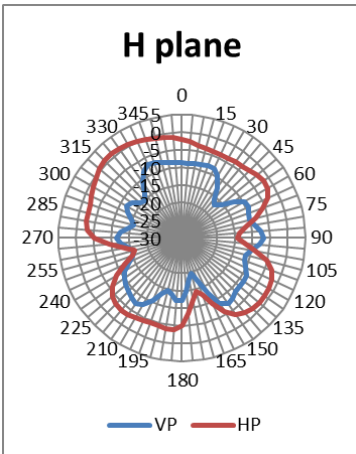


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## Radiation Characteristics - 2D Pattern (1710 MHz)





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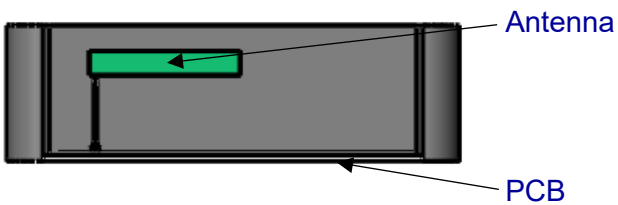
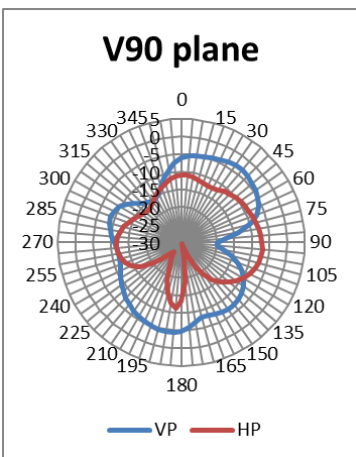
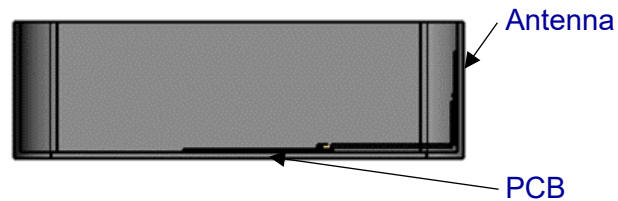
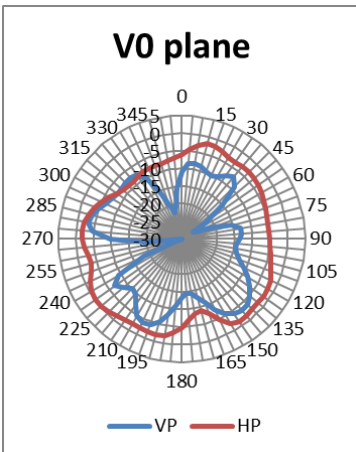
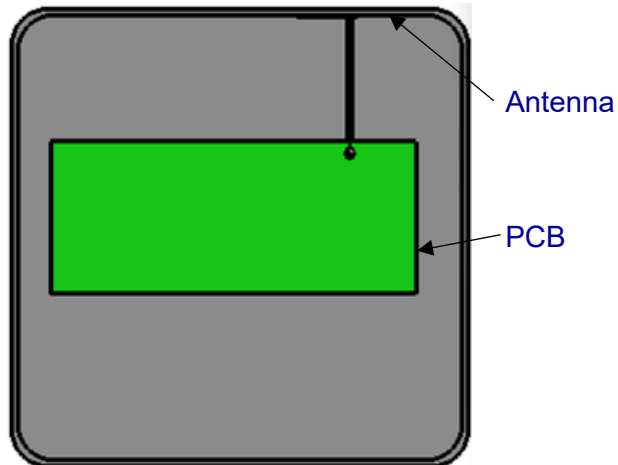
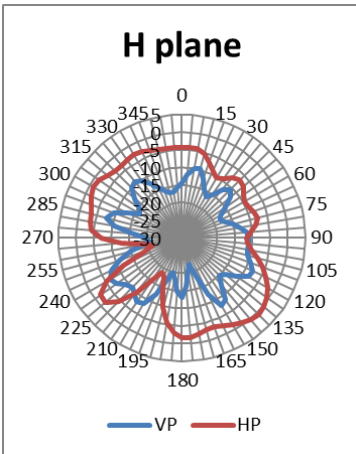


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## Radiation Characteristics - 2D Pattern (1990 MHz)



# Cellular 2G/3G/GSM + LPWA LoRA/SigFox - Board Antenna



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## Packaging Information

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Pieces per bag: 100 pieces

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