



# ISM 915 MHz HDP LPWAN FPC ANTENNAS

## FEATURES & BENEFITS

- 915 MHz ISM antenna for LoRaWAN and other IoT products
- For use in European Union (EU) and other global regions (Non-Americas regions)
- Available cable lengths: 50, 100 ,150 mm
- Available connectors: MHF-type, MHFL4-type
- FPC with double side adhesive tape simplifies mounting within the device even on curved areas
- Omnidirectional coverage

## MATING COMPONENTS TO PART NUMBERS AND DIMENSIONS

PART NUMBER	CABLE LENGTH (A)		CONNECTOR TYPE (ON CABLE)
	MM	INCH	
L000550-01	50	1.97	MHF-TYPE PLUG
L000550-02	100	3.93	MHF-TYPE PLUG
L000550-03	150	5.90	MHF-TYPE PLUG
L000550-04	50	1.97	MHF4L-TYPE PLUG
L000550-05	100	3.93	MHF4L-TYPE PLUG
L000550-06	150	5.90	MHF4L-TYPE PLUG

**SPECIFICATIONS**

(Shown with 100 mm cable, Others can vary with different cable)

<b>Frequency Range (MHz)</b>	902-928 MHz
<b>VSWR</b>	< 1.5:1
<b>Average Efficiency</b>	43 %
<b>Peak Gain</b>	1.5 dBi
<b>Average Gain</b>	-3.6 dBi
<b>Power Handling</b>	10 Watt cw
<b>Feed Point Impedance</b>	50 ohms
<b>Polarization</b>	Linear
<b>Size</b>	35 mm x 9.2 mm x 2 mm
<b>Weight</b>	< 1 g
<b>Mounting</b>	Adhesive
<b>Mating Connectors</b>	MHF1 and MHF4 type, Refer to page 6
<b>Cable</b>	1.13mm Dia.
<b>Operating / Storage Temperature</b>	-40 to +85°C
<b>Hazardous Materials</b>	A certificate of conformance is available from the product page on TE website.

**ANTENNA RF SPECIFICATIONS WITH DIFFERENT CABLE ASSEMBLIES**

Cable Length / Cable OD 1.13 mm	RF DATA	Frequency Range (MHz)
		902 - 928
50 mm	VSWR	< 2.0:1
	Average Efficiency	44 %
	Peak Gain (Max)	1.5 dBi
	Average Gain	-3.6 dBi
100 mm	VSWR	< .1.5:1
	Average Efficiency	43%
	Peak Gain (Max)	1.5 dBi
	Average Gain	-3.6 dBi
150 mm	VSWR	< 2.0:1
	Average Efficiency	42 %
	Peak Gain (Max)	1.3 dBi
	Average Gain	-3.8 dBi

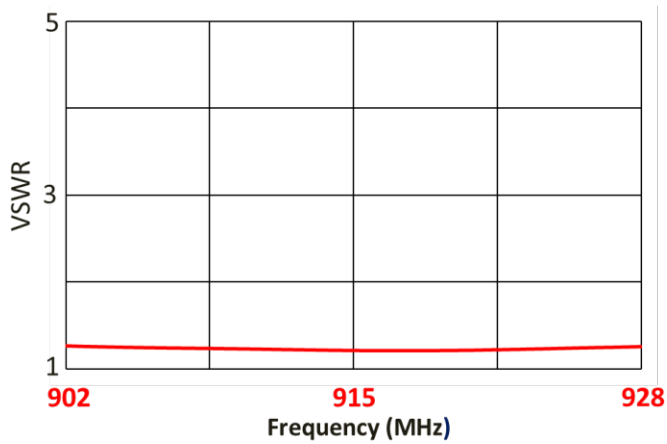
**CABLE LOSS**

OD 1.13mm (P/N: L000550-01-06)	
<b>Freq. Range (MHz)</b>	902 - 928
<b>Cable attenuation (dB/m)</b>	< 0.33

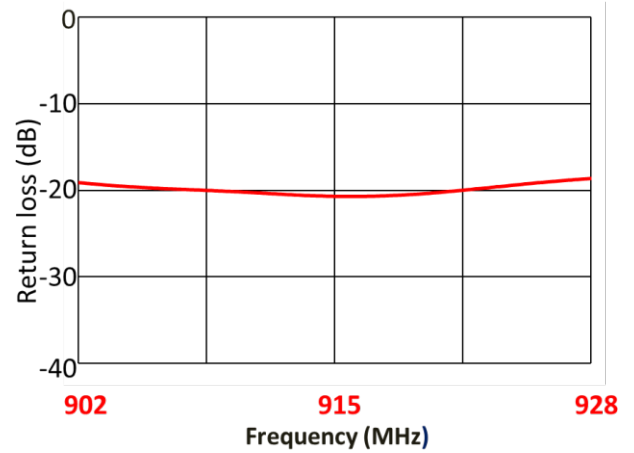
**RF DATA**

(Shown with 100 mm cable: Others vary with different cable lengths.)

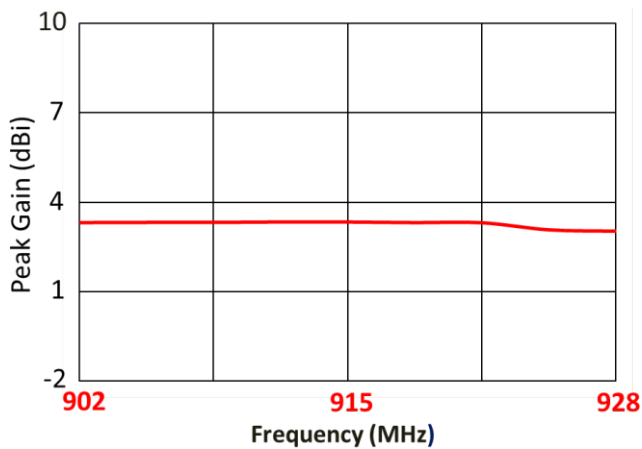
**VSWR**



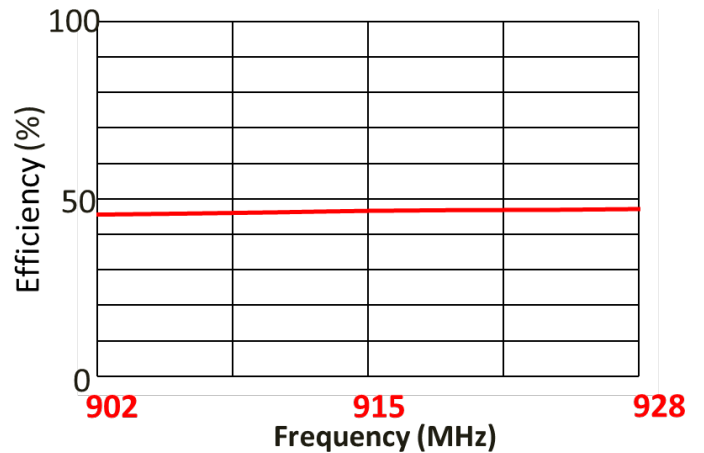
**Return Loss**



**Peak Gain**



**Efficiency**

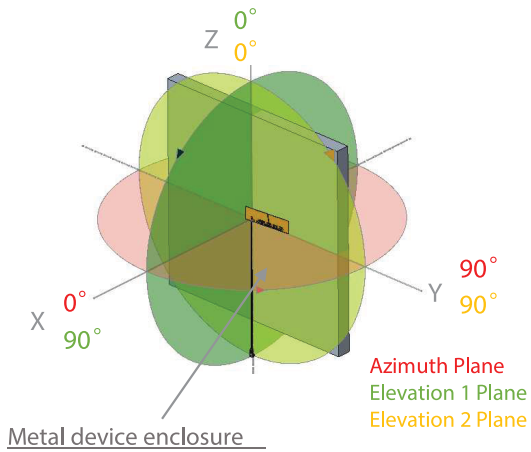


Data measured in free space and on 1.8 mm thick PC plastic

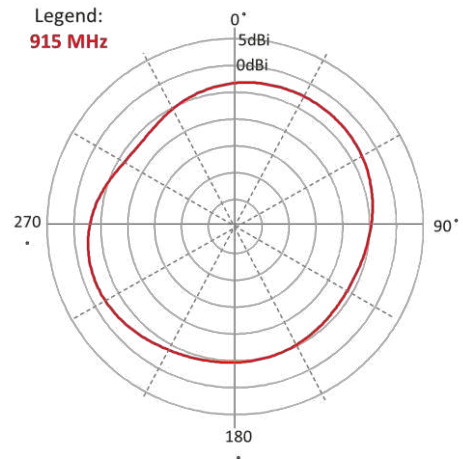
**RADIATION PATTERN**

(Shown with 100 mm cable: Others vary with different cable lengths.)

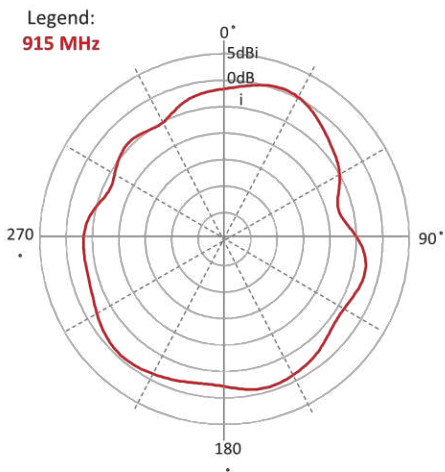
**Test setup**



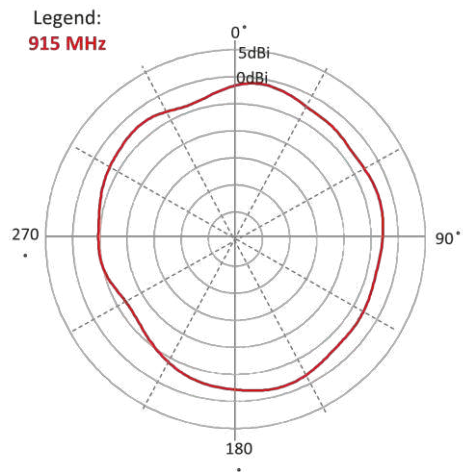
**Azimuth**



**Elevation 1**

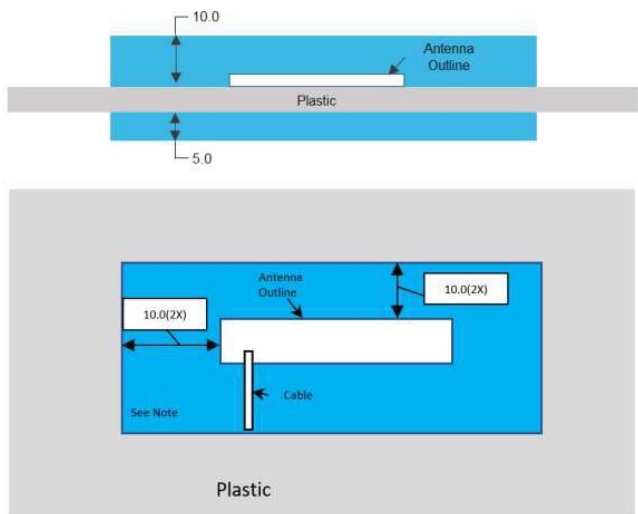


**Elevation 2**



Data measured in free space and on 1.8 mm thick PC plastic

**KEEP OUT AREA**



**NOTES**

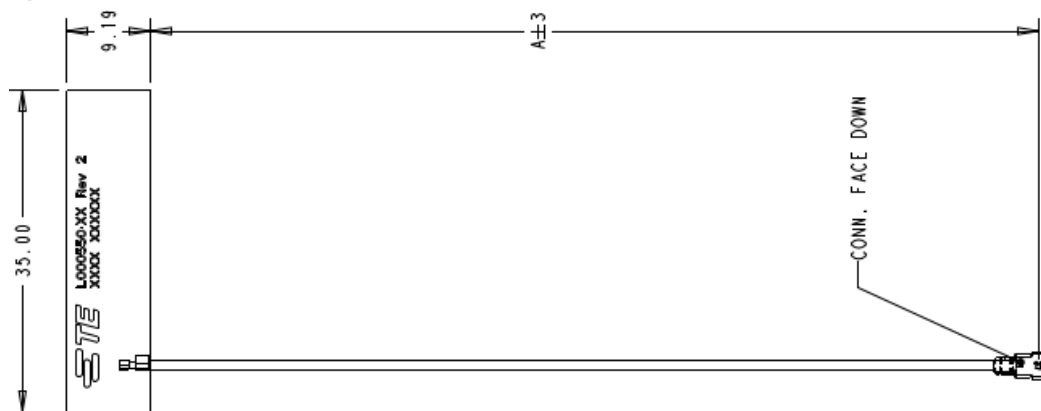
1. Antenna designed to be mounted on plastic cover.
2. Area in blue indicates Keep Out Area
3. Contact TE if Keep Out Area cannot be guaranteed.

Dimension: mm

Diagrams is not into scale

**DIMENSIONS**

(Refer to Page 6 for dimension "A")





Dimension: mm

Diagrams is not into scale

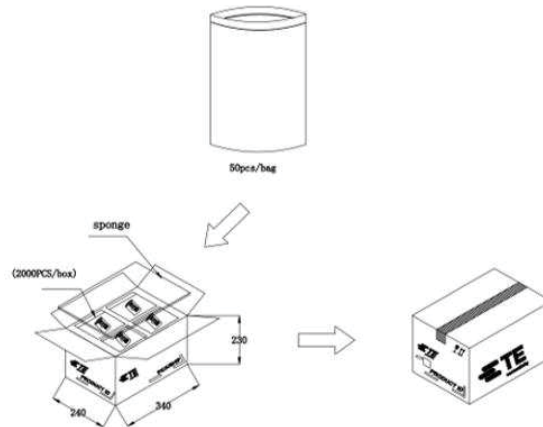
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Standard Antenna Solutions

## MATING COMPONENTS TO PART NUMBERS AND DIMENSIONS

PART NUMBER	CABLE LENGTH (A)		CABLE O.D MM	CONNECTOR TYPE (ON CABLE)	MATING COMPONENTS	
	MM	INCH			PART NUMBER	IMAGE
L000550-01	50	1.97	1.13	MHF-TYPE PLUG	RECEPTACLE (TE PN: 2337019-1)	
L000550-02	100	3.93	1.13	MHF-TYPE PLUG	RECEPTACLE (TE PN: 2337019-1)	
L000550-03	150	5.90	1.13	MHF-TYPE PLUG	RECEPTACLE (TE PN: 2337019-1)	
L000550-04	50	1.97	1.13	MHF4L-TYPE PLUG	RECEPTACLE (TE PN: 2334884-1)	
L000550-05	100	3.93	1.13	MHF4L-TYPE PLUG	RECEPTACLE (TE PN: 2334884-1)	
L000550-06	150	5.90	1.13	MHF4L-TYPE PLUG	RECEPTACLE (TE PN: 2334884-1)	

## PACKAGING



## TE TECHNICAL SUPPORT CENTER

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- Germany: +49 (0) 6251-133-1999
- UK: +44 (0) 800-267666
- France: +33 (0) 1-3420-8686
- Netherlands: +31 (0) 73-6246-999
- China: +86 (0) 400-820-6015

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