

LPWA 410 - 467 MHz FPC ANTENNAS

FEATURES & BENEFITS

- 410 - 467 MHz FPC antennas for LPWA and other IoT products
- Available cable length: 50 mm
- Available connectors: MHF-type and MHF4-type
- FPC with double side adhesive tape simplifies mounting within the device even on curved areas
- Omnidirectional coverage

PART NUMBERS

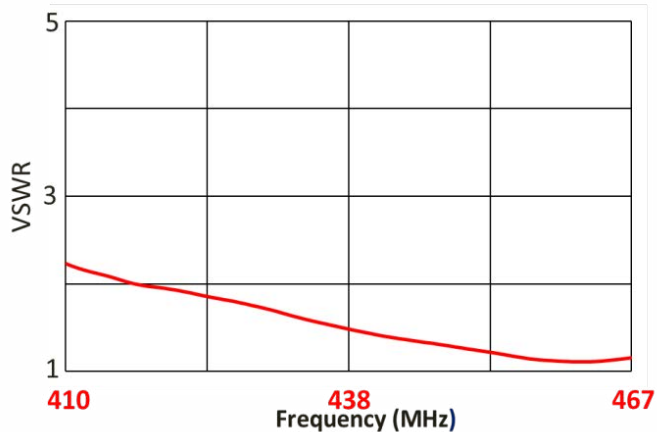
PART NUMBER	CABLE LENGTH(A)		CONNECTOR TYPE (ON CABLE)
	MM	INCH	
L000727-01	50	1.97	MHF-TYPE PLUG
L000727-02	50	1.97	MHF4L-TYPE PLUG

SPECIFICATIONS

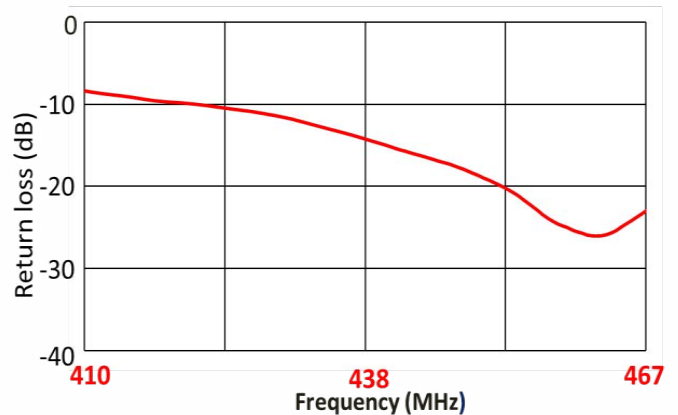
Frequency Range (MHz)	410-467 MHz
VSWR	< 2.25:1
Average Efficiency	58 %
Peak Gain	2.02 dBi
Average Gain	1.18 dBi
Power Handling	10 Watt cw
Feed Point Impedance	50 ohms
Polarization	Linear
Size	92.5 mm x 20 mm x 0.152 mm
Weight	< 1 g
Mounting	Adhesive
Mating Connectors	MHF1 and MHF4 type
Cable	1.13mm Dia.
Operating / Storage Temperature	-40 to +85°C
Hazardous Materials	A certificate of conformance is available from the product page on TE website.

RF DATA

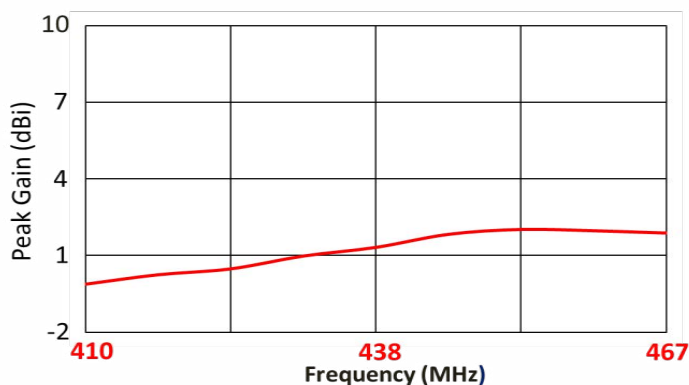
VSWR



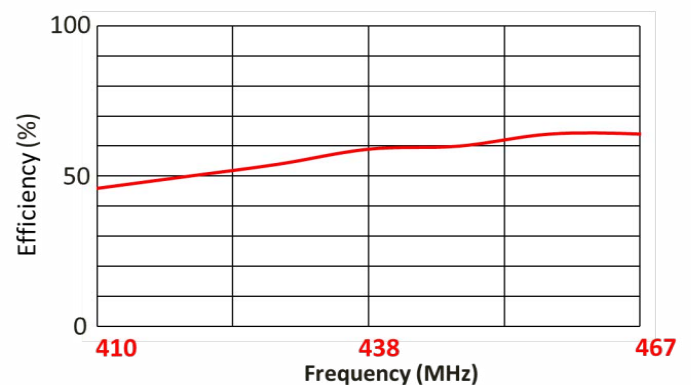
Return Loss



Peak Gain



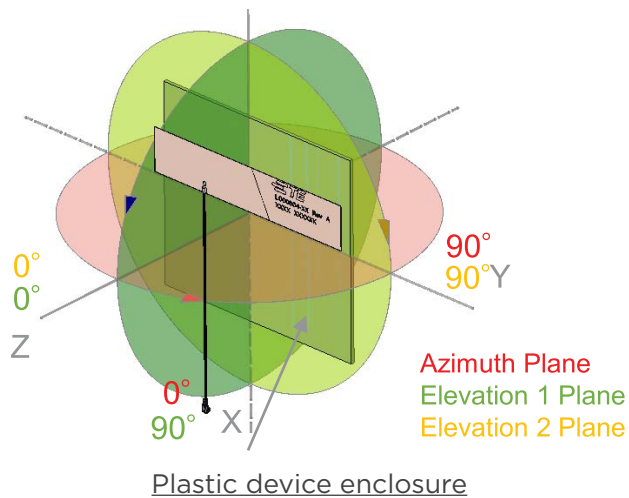
Efficiency



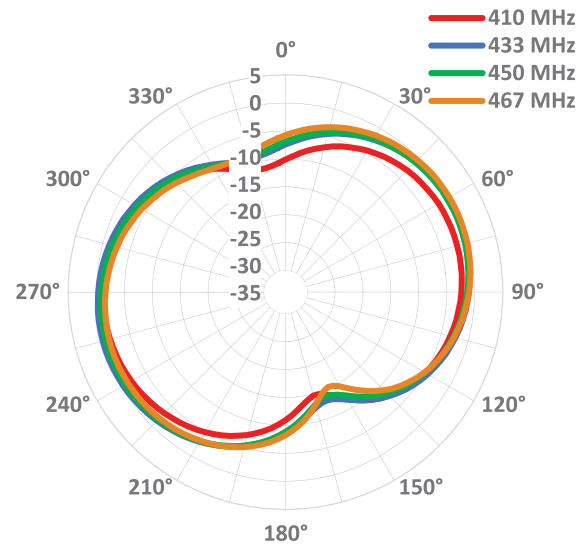
Data measured on 1.7mm thick PC plastic with reference evaluation board and matching circuit tuned to 450MHz.
Application data might vary.

RADIATION PATTERN

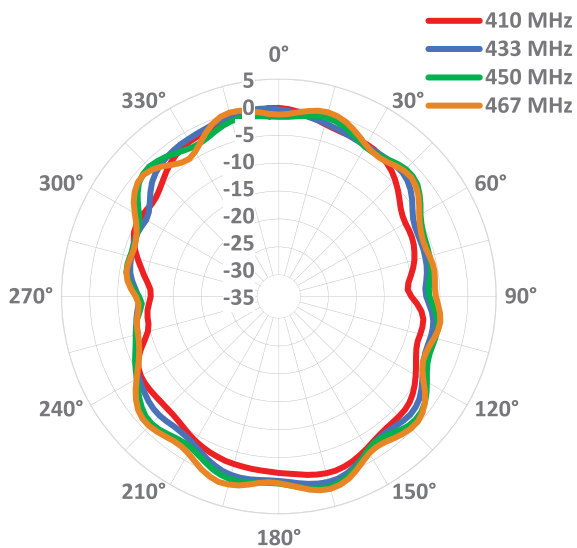
Test setup



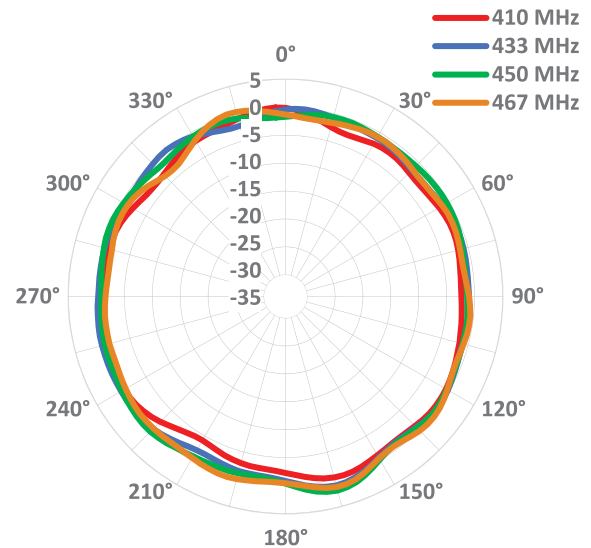
Azimuth



Elevation

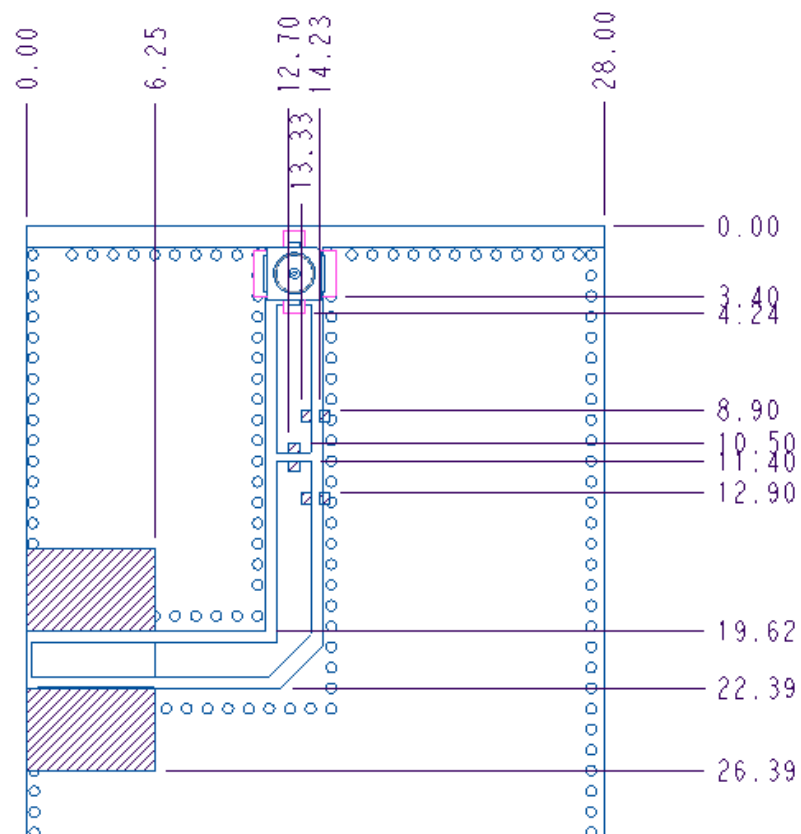


Elevation 2



Data measured on 1.7mm thick PC plastic with reference evaluation board and matching circuit tuned to 450MHz.
Application data might vary.

EVALUATION BOARD MATCHING NETWORK LAYOUT



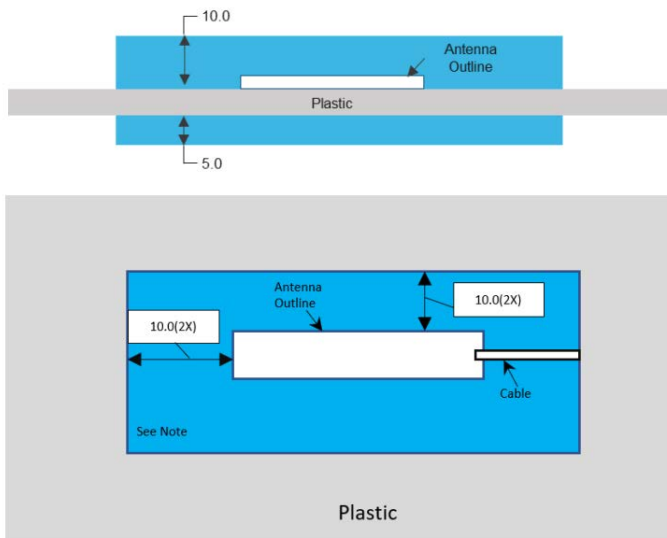
NOTES

1. Antenna is connected to evaluation board with MHF
2. Measured with below matching circuit condition.
①15nH,②6pF,③NC
3. Reference PCB Dimension(mm) - 28 x 103 x 1.6mm
4. NC = Non connection (mechanical mounting pads).
5. For more information please contact TE.

Dimension: mm

Diagram is not to scale

KEEP OUT AREA



NOTES

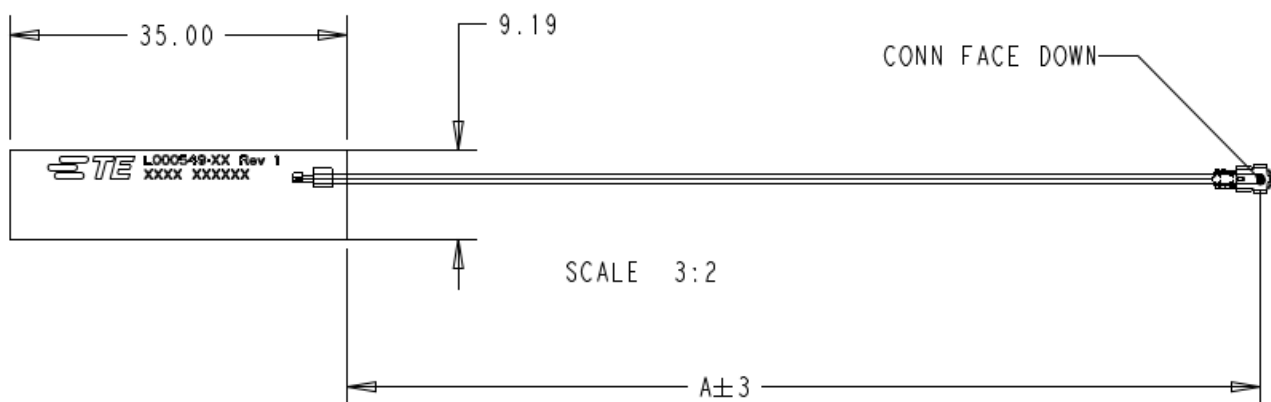
1. Antenna designed to be mounted on plastic cover.
2. Area in blue indicates Keep Out Area
3. Contact TE if Keep Out Area cannot be guaranteed.

Dimension: mm

Diagram is not to scale

DIMENSIONS

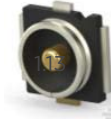
(Refer to Page 6 for dimension "A")



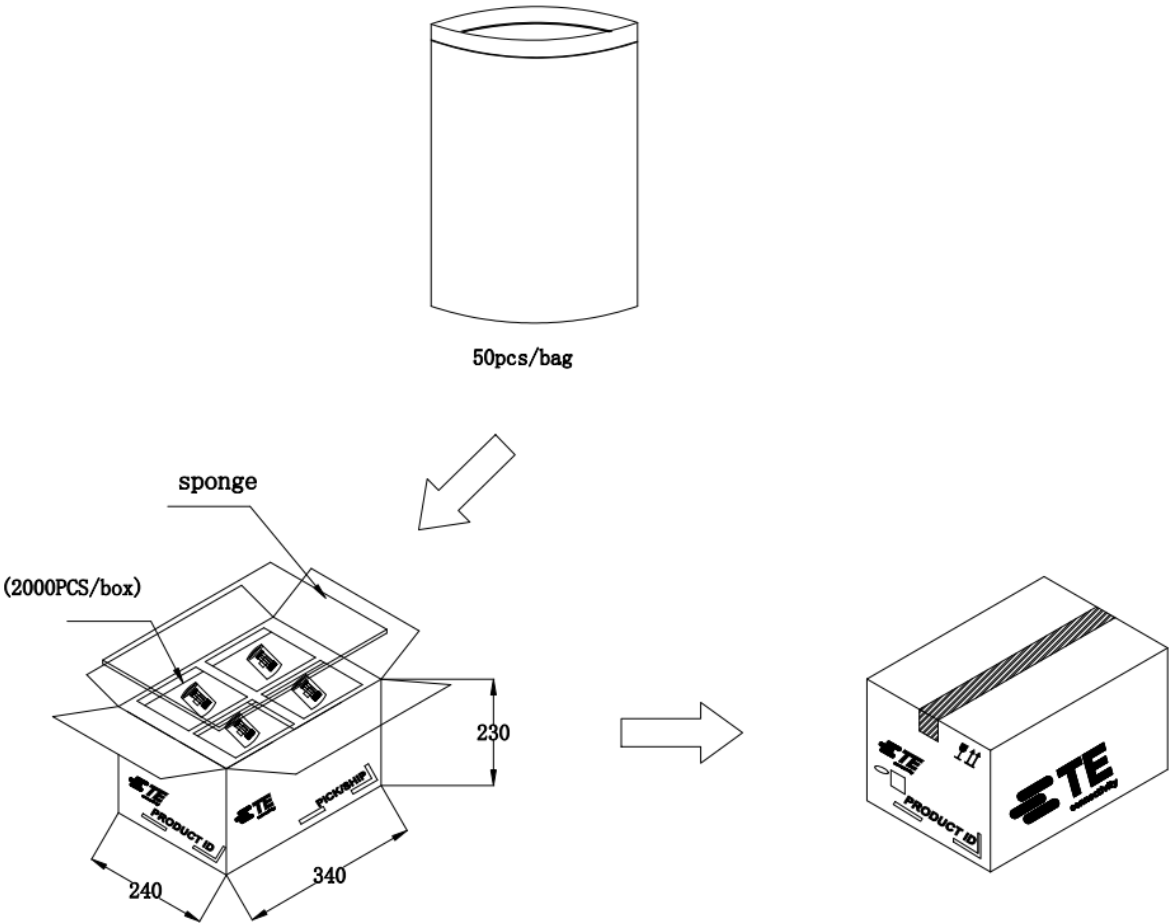
Dimension: mm

Diagram is not to scale

MATING COMPONENTS TO PART NUMBERS AND DIMENSIONS

PART NUMBER	CABLE LENGTH(A)		CABLE O.D, MM	CONNECTOR TYPE (ON CABLE)	PART NUMBER MATING COMPONENTS	IMAGE
	MM	INCH				
L000727-01	50	1.97	1.13	MHF-TYPE PLUG	RECEPTACLE (TE PN: 2337019-1)	
L000727-02	50	1.97	1.13	MHF4L-TYPE PLUG	RECEPTACLE (TE PN: 2334884-1)	

PACKAGING



LPWA 410 - 467 MHz FPC ANTENNAS

Standard Antenna Solutions

TE TECHNICAL SUPPORT CENTER

USA:	+1 (800) 522-6752
Canada:	+1 (905) 475-6222
Mexico:	+52 (0) 55-1106-0800
Latin/S. America:	+54 (0) 11-4733-2200
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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Published 06-24