

# Wi-Fi 6/ 6E TRIPLE BAND EMBEDDED ANTENNA

**Part Numbers: X-2195935-X**  
(see page 6 for details)



## FEATURES & BENEFITS

- New 6 GHz band for Wi-Fi 6E, Wi-Fi 7, Bluetooth and ZigBee
- Unique antenna module assembly to be mounted on a metal chassis.
- Omnidirectional (chassis size can influence performance)
- Snap-in feature for easy assembly and coding for unambiguous mounting direction
- Different cable length and connector options available

## SPECIFICATIONS (Shown as 1-2195935-2 : Others can vary with different cable lengths.)

Frequency Range (MHz)	2400-2500	5150-5875	5925-7125
VSWR	< 2.0:1	< 1.8:1	< 1.9:1
Average Efficiency	42 %	44 %	43 %
Peak Gain	0.4 dBi	2.0 dBi	3.4 dBi
Average Gain	-3.8 dBi	-3.5 dBi	-3.9 dBi
Power Handling	10 Watt cw		
Feed Point Impedance	50 ohms		
Polarization	Linear		
Size	29 mm x 12 mm x 10 mm		
Weight	< 4.3 g		
Mounting	Snap on, sheet metal thickness 0.8 - 1.0 mm		
Mating Connectors	MHF and MHF4L type, Refer to page 6		
Cable	1.13mm Dia., Refer to page 6		
Operating Temperature	-40 to +85°C		
Storage Temperature	-40 to +85°C		
Hazardous Materials	A certificate of conformance is available from the product page on TE website.		

## Antenna RF Specifications with different cable assemblies

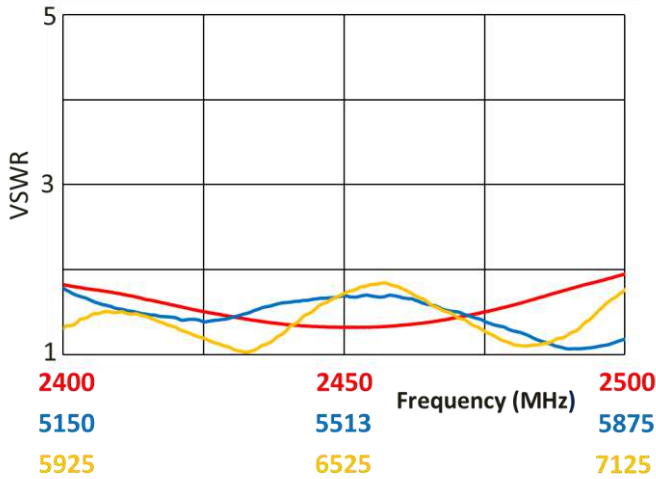
Cable Length/ P/N Connector	RF DATA	Frequency Range (MHz)		
		2400 - 2500	5150 - 5875	5925 - 7125
90 mm 1-2195935-1 MHF4L	VSWR	< 3.5:1	< 2.3:1	< 1.8:1
	Average Efficiency	42 %	49 %	49 %
	Peak Gain (Max)	0.1 dBi	2.8 dBi	4.0 dBi
	Average Gain	-3.7 dBi	-3.1 dBi	-3.1 dBi
130 mm 2195935-2 MHF 1-219935-2 MHF4L	VSWR	< 2.0:1	< 1.8:1	< 1.9:1
	Average Efficiency	42 %	44 %	43 %
	Peak Gain (Max)	0.4 dBi	2.0 dBi	3.4 dBi
	Average Gain	-3.8 dBi	-3.5 dBi	-3.9 dBi
210 mm 2195935-3 MHF 1-2195935-3 MHF4L	VSWR	< 2.2:1	< 1.9:1	< 1.9:1
	Average Efficiency	40 %	41 %	38 %
	Peak Gain (Max)	0.2 dBi	1.8 dBi	3.1 dBi
	Average Gain	-3.9 dBi	-3.8 dBi	-4.2 dBi
360 mm 2195935-4 MHF 1-2195935-4 MHF4L	VSWR	< 1.9:1	< 1.9:1	< 1.9:1
	Average Efficiency	36 %	36 %	31 %
	Peak Gain (Max)	-0.2 dBi	1.1 dBi	2.2 dBi
	Average Gain	-4.7 dBi	-4.7 dBi	-5 dBi

## CABLE LOSS

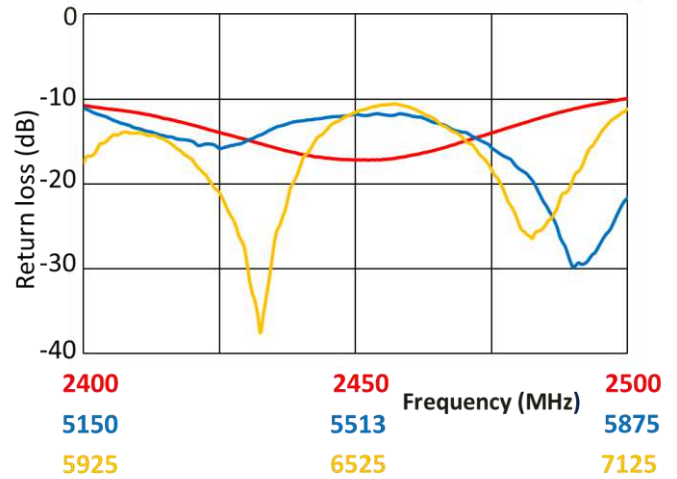
OD 1.13mm ( P/N: x-2118359-x )			
Freq. Range (MHz)	2400-2500	5150-5875	5925-7125
Cable attenuation (dB/m)	< 2.8	< 4.3	< 5.0

**RF DATA** (Shown as 1-2195935-2 : Others can vary with different cable lengths.)

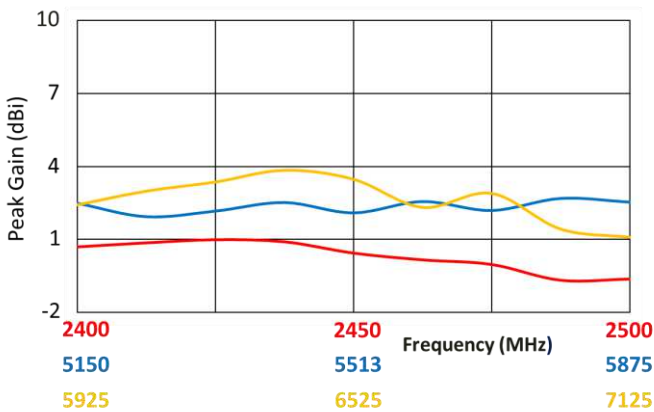
VSWR



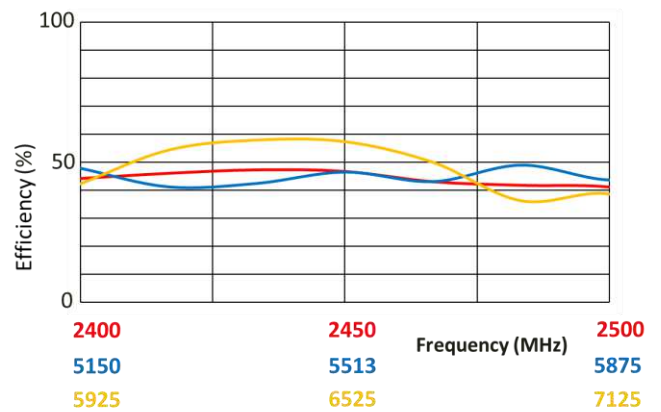
Return Loss



Peak Gain



Efficiency

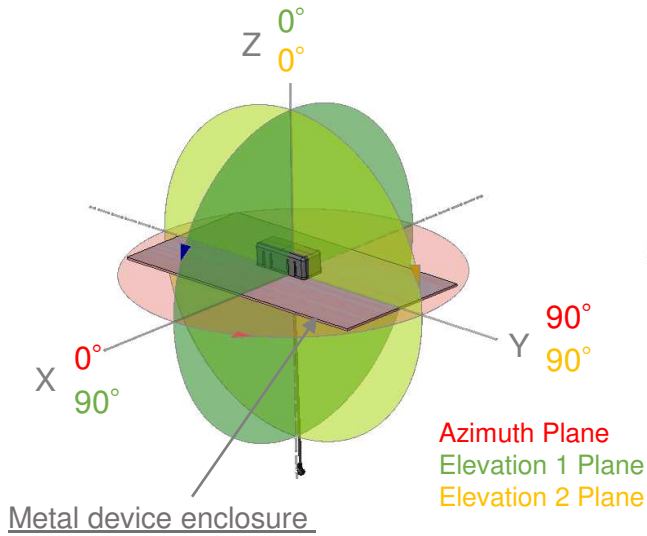


Data measured in free space and on 150 x 70 x 0.8 mm metal ground

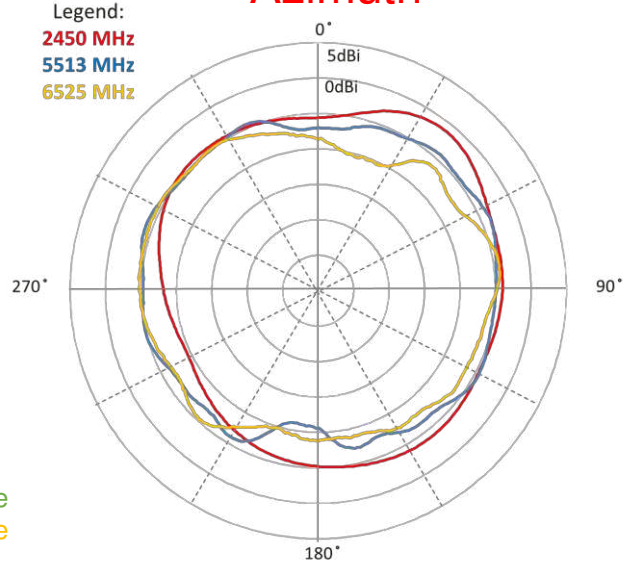
# RADIATION PATTERN

(Shown as 1-2195935-2 : Others can vary with different cable lengths.)

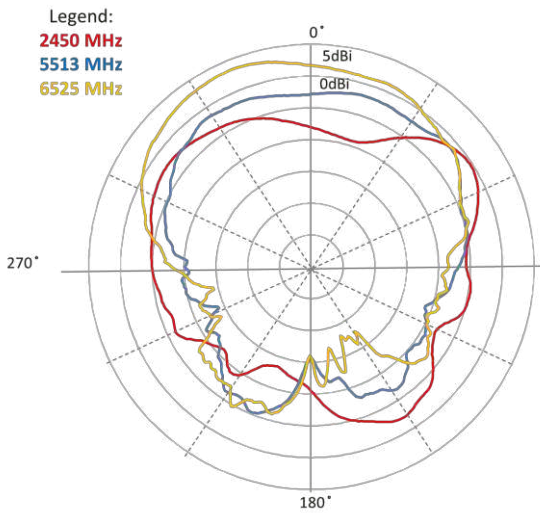
## Test setup



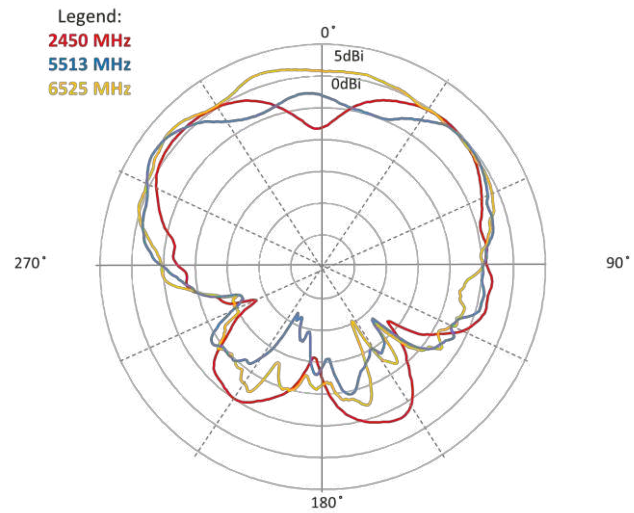
## Azimuth



## Elevation 1

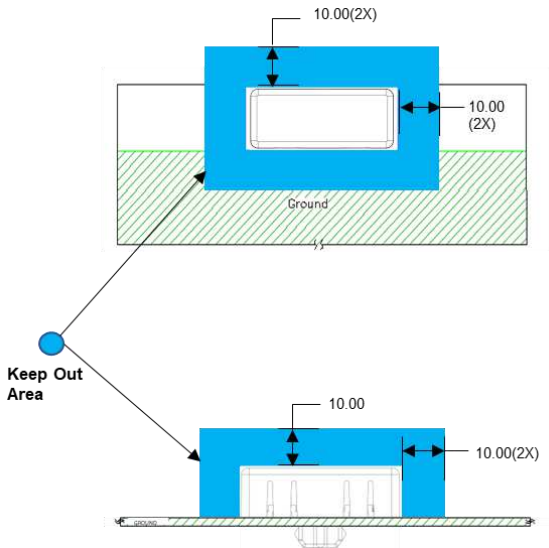


## Elevation 2

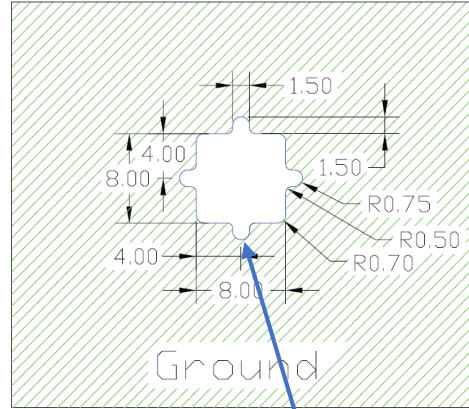


Data measured in free space and on 150 x 70 x 0.8 mm metal ground

## KEEP OUT AREA



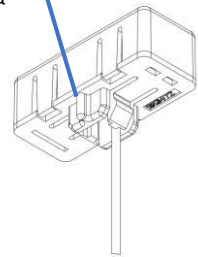
### Mounting Guide



- NOTES: 1. Antenna must be mounted on a metal chassis.  
2. For more information please call TE.

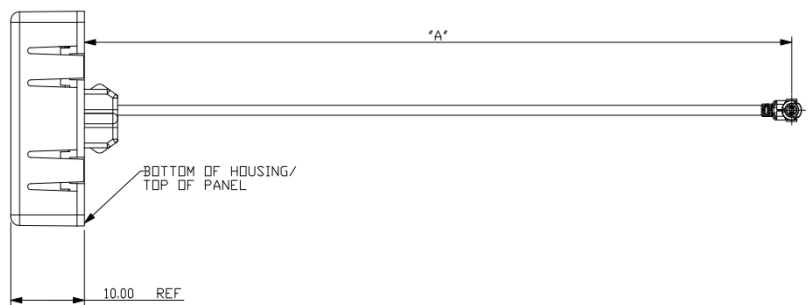
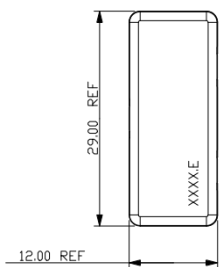
Dimensions: mm  
Diagram is not to scale

Choose one out of four positions to define antenna mounting direction

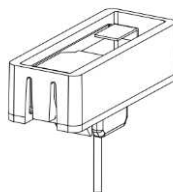


## DIMENSIONS

(Refer to Page9 for dimension "A" and "B")





Open Top Version is available on request.  
Antenna height reduced to 8.5 mm

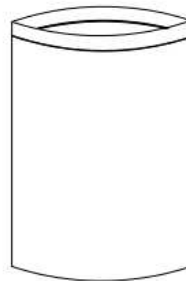


Dimensions: mm  
Diagram is not to scale

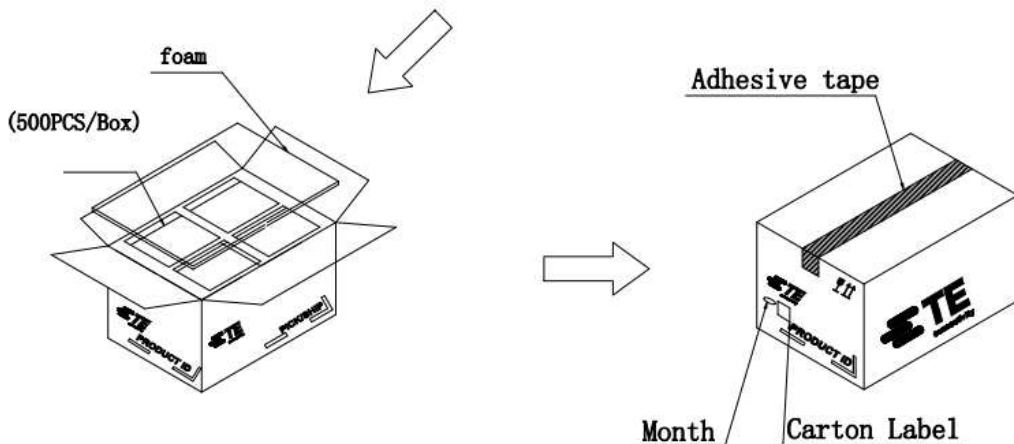
## MATING COMPONENTS TO PART NUMBERS AND DIMENSIONS

2195935-2	130	5.11	1.13	MHFL-TYPE PLUG	RECEPTACLE (TE PN: 2337019-1)	
2195935-3	210	8.26	1.13	MHFL-TYPE PLUG	RECEPTACLE (TE PN: 2337019-1)	
2195935-4	360	14.17	1.13	MHFL-TYPE PLUG	RECEPTACLE (TE PN: 2337019-1)	
1-2195935-1	90	3.54	1.13	MHF4L-TYPE PLUG	RECEPTACLE (TE PN: 2334884-1)	
1-2195935-2	130	5.11	1.13	MHF4L-TYPE PLUG	RECEPTACLE (TE PN: 2334884-1)	
1-2195935-3	210	8.26	1.13	MHF4L-TYPE PLUG	RECEPTACLE (TE PN: 2334884-1)	
1-2195935-4	360	14.17	1.13	MHF4L-TYPE PLUG	RECEPTACLE (TE PN: 2334884-1)	
PART NUMBER	MM	INCH	CABLE O.D("B"), MM	CONNECTOR TYPE (ON CABLE)	PART NUMBER	IMAGE
	CABLE LENGTH(A)				MATING COMPONENTS	

## PACKAGING



10pcs/Bag



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