

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

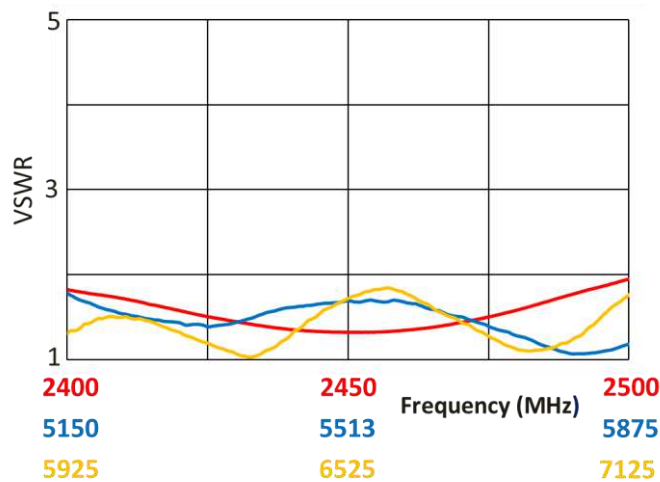
Cable Length/ P/N Connector	RF DATA	Frequency Range (MHz)		
		2400 - 2500	5150 - 5875	5925 - 7125
90 mm 1-2195935-1 MHF4L	VSWR	< 3.5:1	< 2.3:1	< 1.8:1
	Average Efficiency	42 %	49 %	49 %
	Peak Gain (Max)	0.1 dBi	2.8 dBi	4.0 dBi
	Average Gain	-3.7 dBi	-3.1 dBi	-3.1 dBi
130 mm 2195935-2 MHF 1-219935-2 MHF4L	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

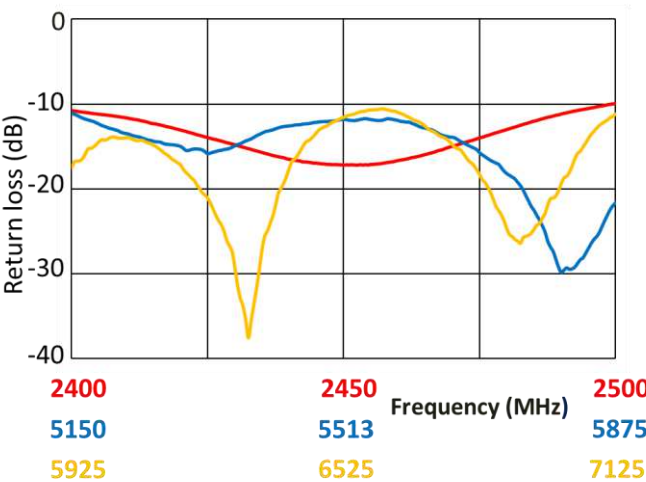
OD 1.13mm (P/N: x-2118359-x)			
Freq. Range (MHz)	2400-2500	5150-5875	5925-7125
Cable attenuation (dB/m)	< 2.8	< 4.3	< 5.0

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

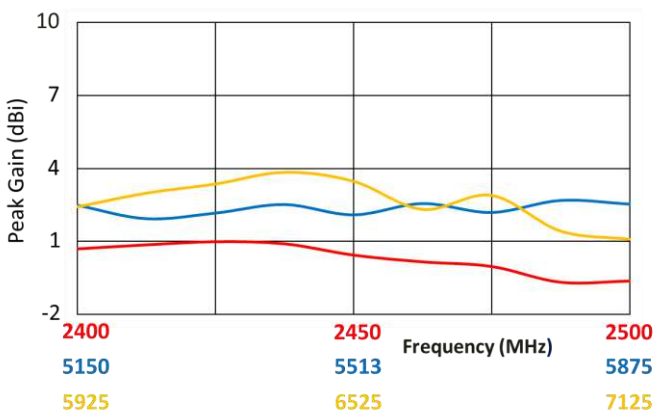
VSWR



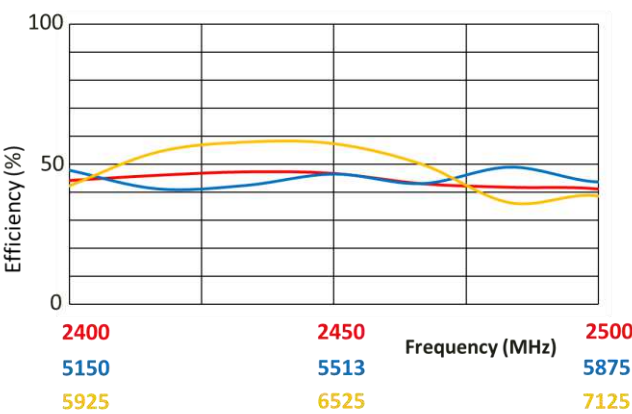
Return Loss



Peak Gain



Efficiency

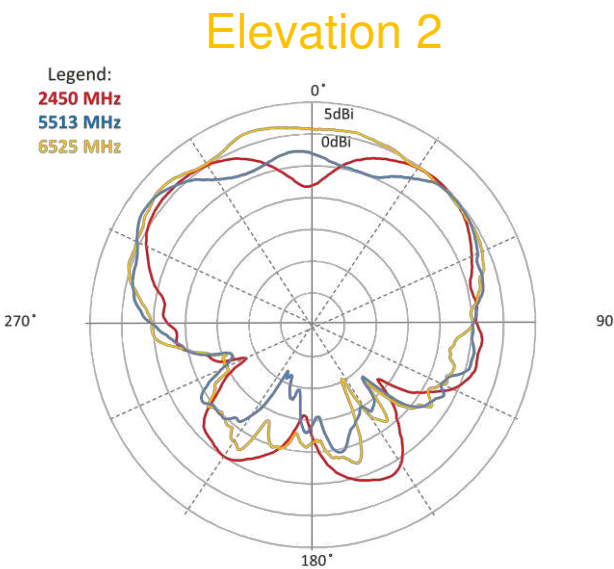
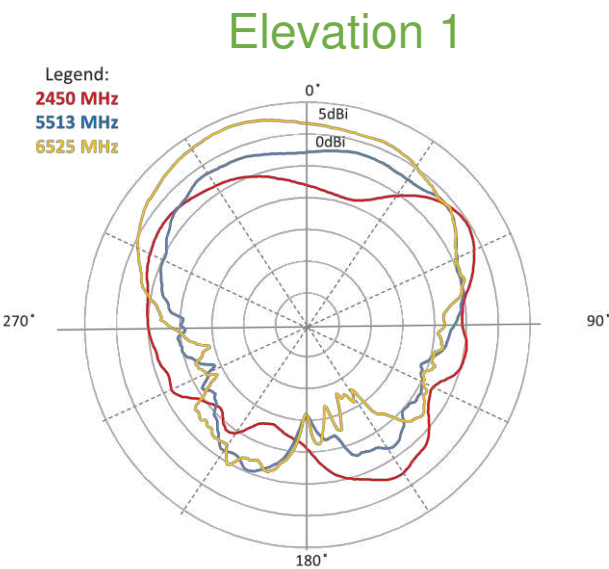
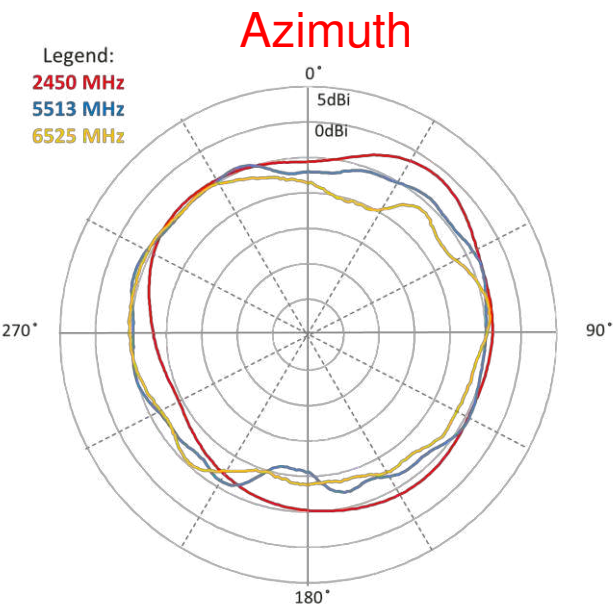
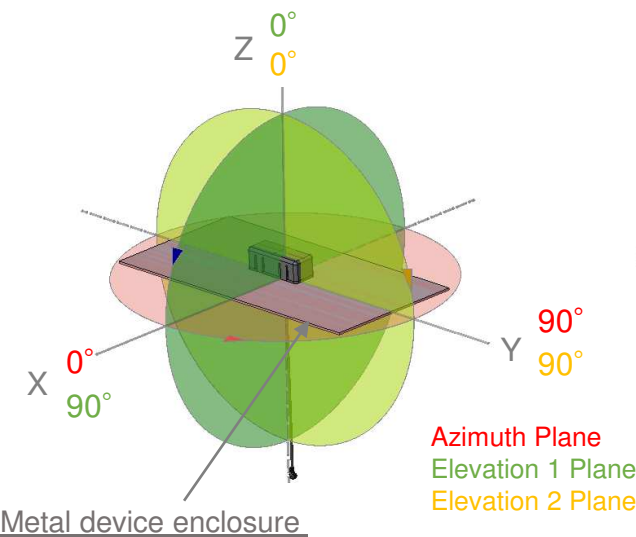


Data measured in free space and on 150 x 70 x 0.8 mm metal ground

RADIATION PATTERN

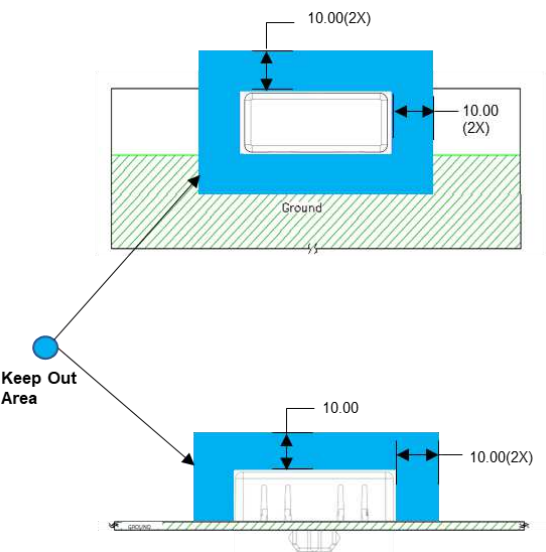
(Shown as 1-2195935-2 : Others can vary with different cable lengths.)

Test setup

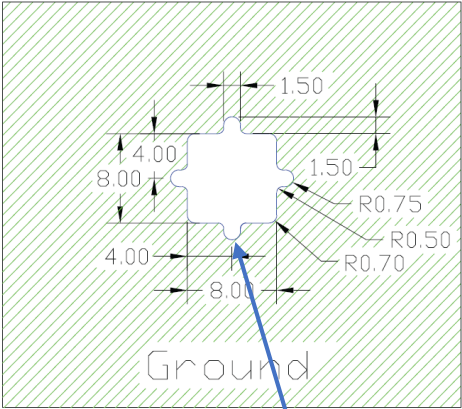


Data measured in free space and on 150 x 70 x 0.8 mm metal ground

KEEP OUT AREA



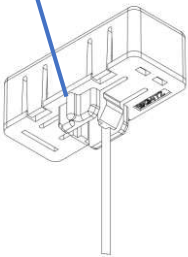
Mounting Guide



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

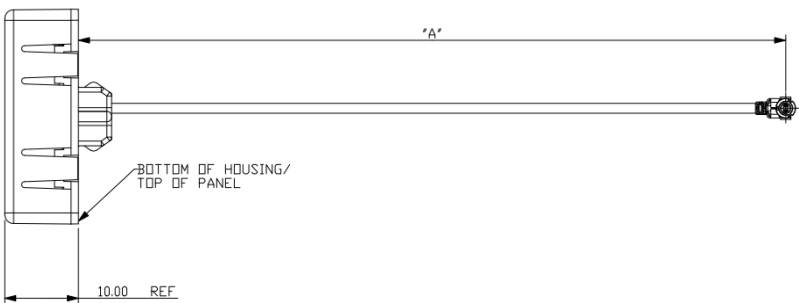
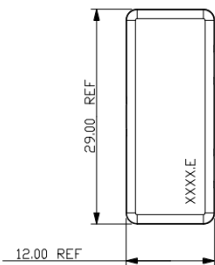
Dimensions: mm
Diagram is not to scale

Choose one out of four
positions to define antenna
mounting direction

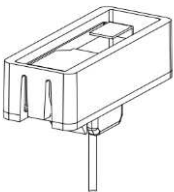


DIMENSIONS

(Refer to Page9 for dimension “A” and “B”)



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

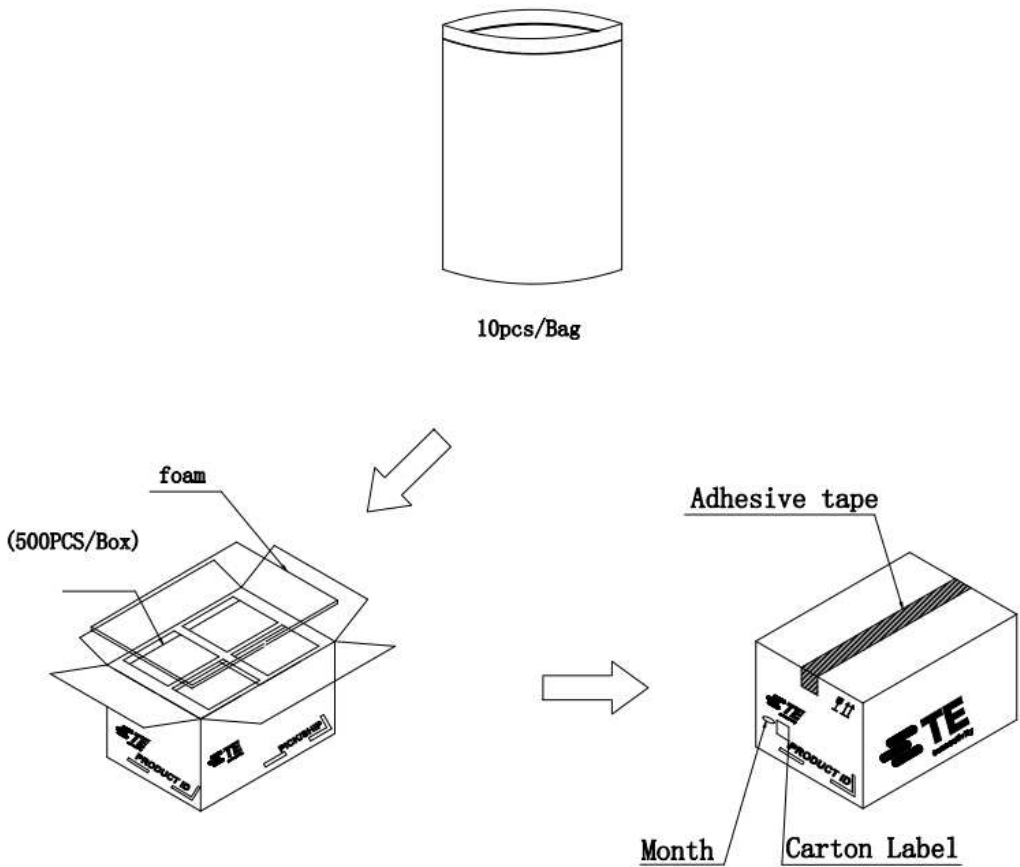


Dimensions: mm
Diagram is not to scale

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)	
1-2195935-4	360	14.17	1.13	MHF4L-TYPE PLUG	RECEPTACLE (TE PN: 2334884-1)	
PART	MM	INCH	CABLE O.D("B"), MM	CONNECTOR TYPE	PART NUMBER	IMAGE
NUMBER	CABLE LENGTH(A)			(ON CABLE)	MATING COMPONENTS	

PACKAGING





TE TECHNICAL SUPPORT CENTER

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