



5G/4G/3G/2G, NB-IoT, Cat-M, GNSS, Wi-Fi 6E WORLD BAND ANTENNA

**Part Numbers: 2195846-1, 2195846-2
2195846-3, 2195846-4
2195846-5, 2195846-6
2195846-7, 2195846-8**

FEATURES & BENEFITS

- Omnidirectional coverage
- Cabled FPC antenna
- Uses MetaSpan technology for World band coverage for 3G, 4G, 5G, NB-IoT and Cat-M
- Wi-Fi 6E triple band, Bluetooth, Zigbee and GNSS L1 included
- Adhesive backing on the FPC simplifies mounting within the device
- Different cable length and connector options available

SPECIFICATIONS (Shown as 2195846-4 : Others can vary with different cable lengths.)

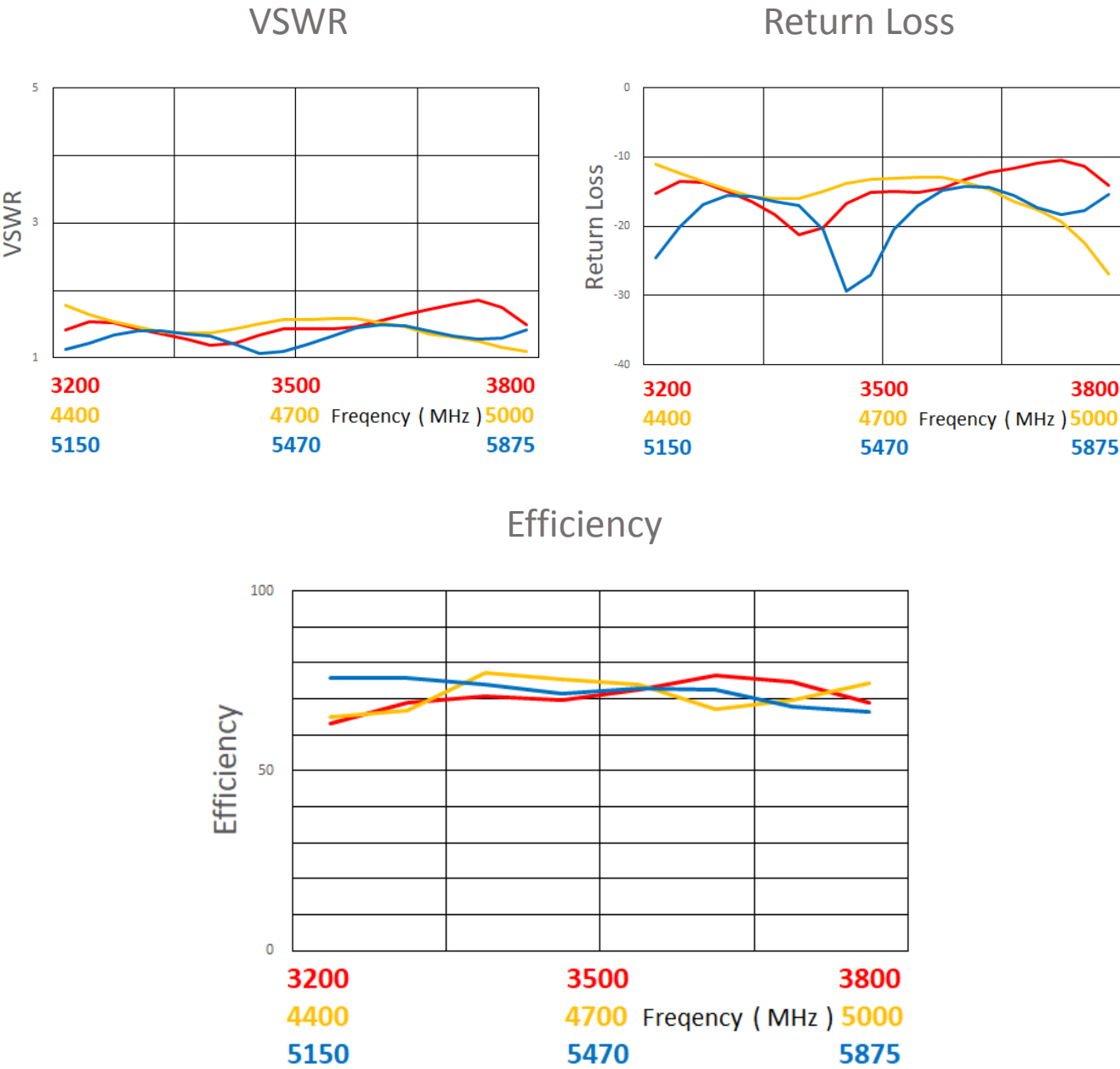
Frequency Range (MHz)	698-960	1560-1630	1710-2700	3200-3800	4400-5000	5150-5875	5925-7125
VSWR	< 1.7 : 1	< 2.1 : 1	< 2.6 : 1	< 1.9 : 1	< 1.8 : 1	< 1.5 : 1	< 2.3 : 1
Average Efficiency	49%	54%	57%	71%	71%	72%	59%
Peak Gain	-1.7 dBi	4.0 dBi	3.2 dBi	3.7 dBi	4.7 dBi	4.2 dBi	6.7 dBi
Average Gain	-3.1 dBi	-2.7 dBi	-2.4 dBi	-1.5 dBi	-1.5 dBi	-1.4 dBi	-2.3 dBi
Power Handling	10 Watt cw						
Feed Point Impedance	50 ohms unbalanced						
Polarization	Linear						
Size	80.0 mm x 15.0 mm x 0.2 mm						
Weight	< 1.5 g						
Mounting	Adhesive Tape						
Mating Connector	MHF-type receptacle (TE PN: 2337019-1) MHF4-type receptacle (TE PN: 2344884-1)						
Cable	1.13 mm Dia. & 1.37 mm Dia.						
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.						

RF DATA (Shown as 2195846-4 : Others can vary with different cable lengths.)



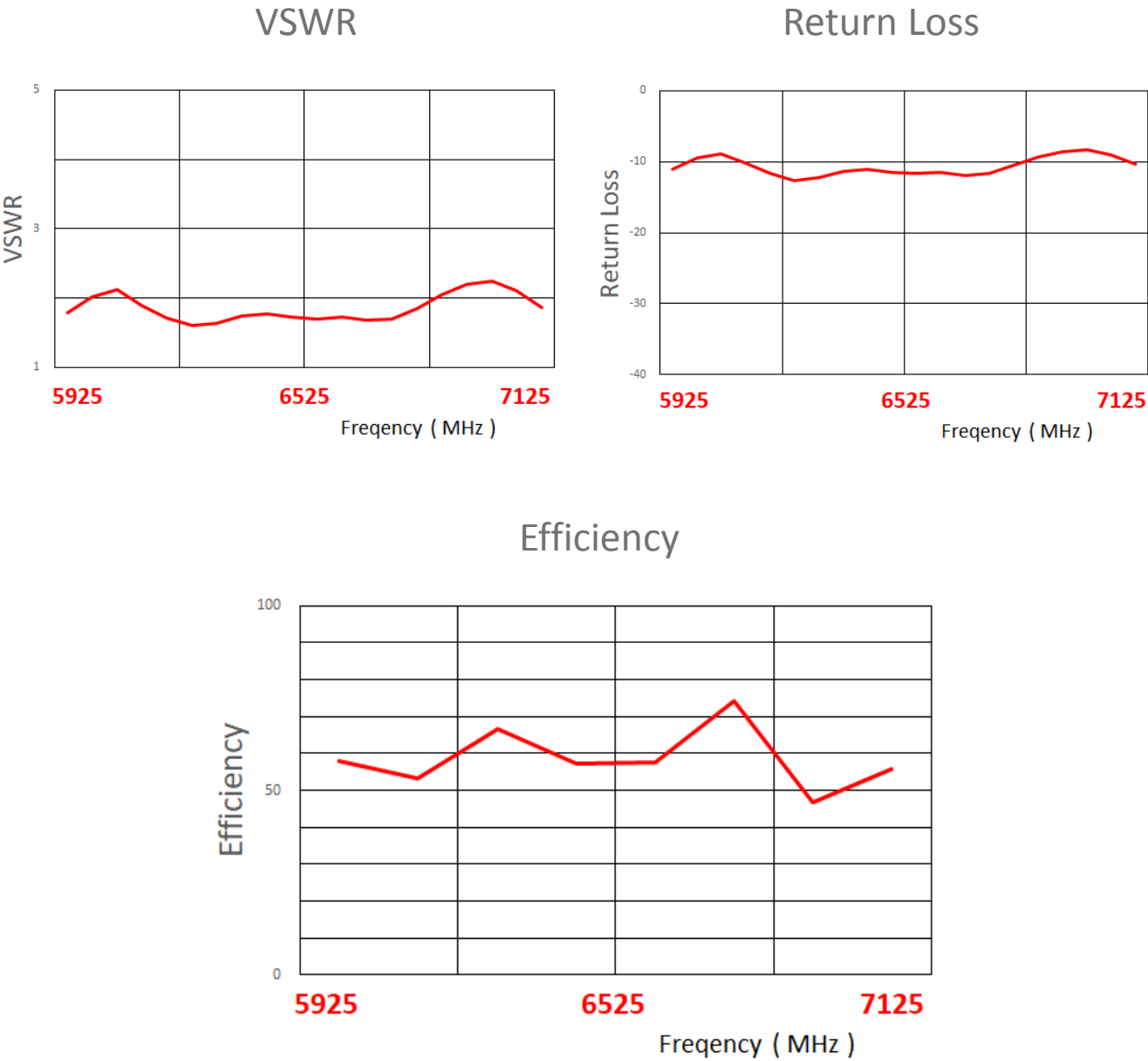
Data measured in free space and on plastic device enclosure

RF DATA (Shown as 2195846-4 : Others can vary with different cable lengths.)



Data measured in free space and on plastic device enclosure

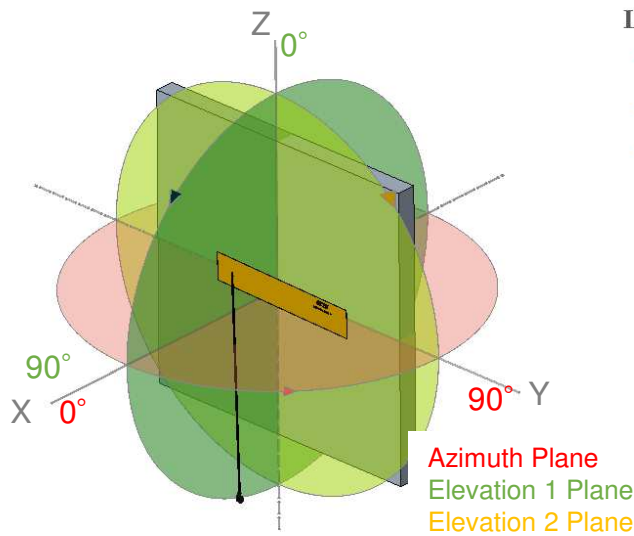
RF DATA (Shown as 2195846-4 : Others can vary with different cable lengths.)



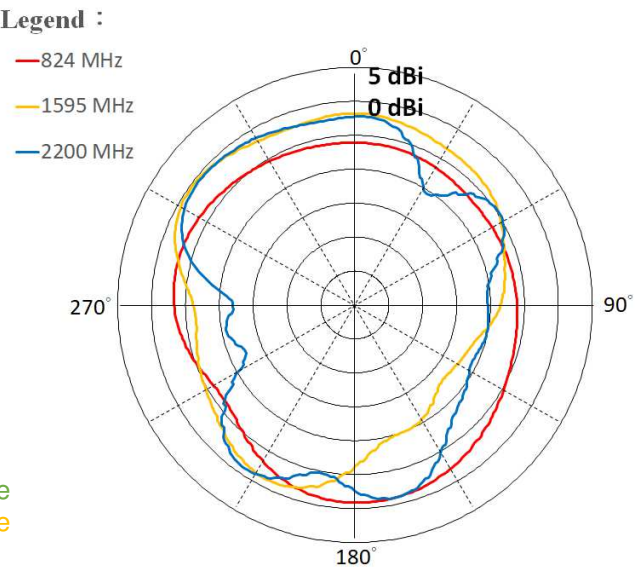
Data measured in free space and on plastic device enclosure

RADIATION PATTERN (Shown as 2195846-4 : Others can vary with different cable lengths)

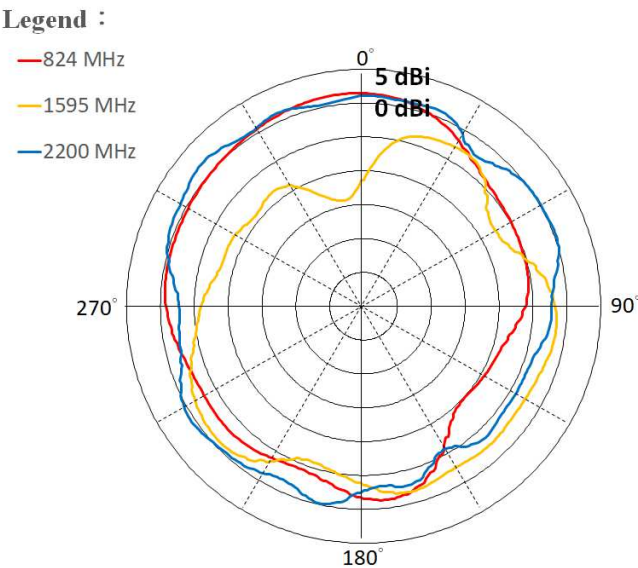
Test setup



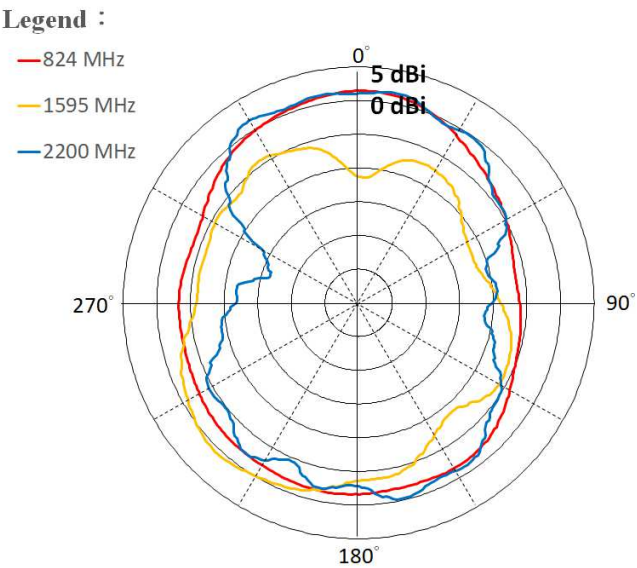
Azimuth



Elevation 1



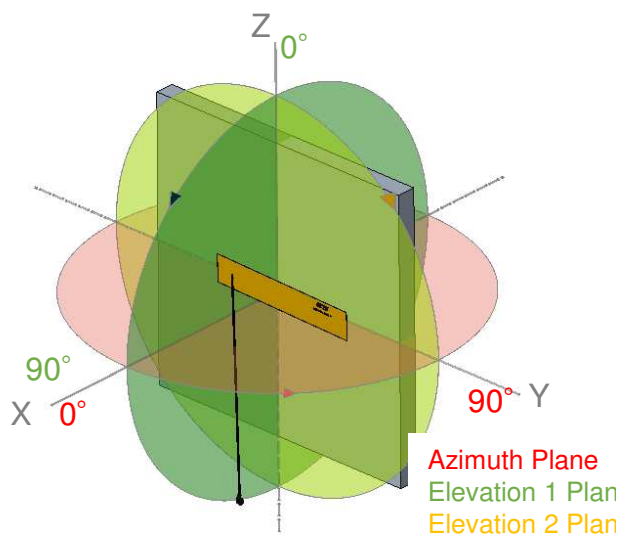
Elevation 2



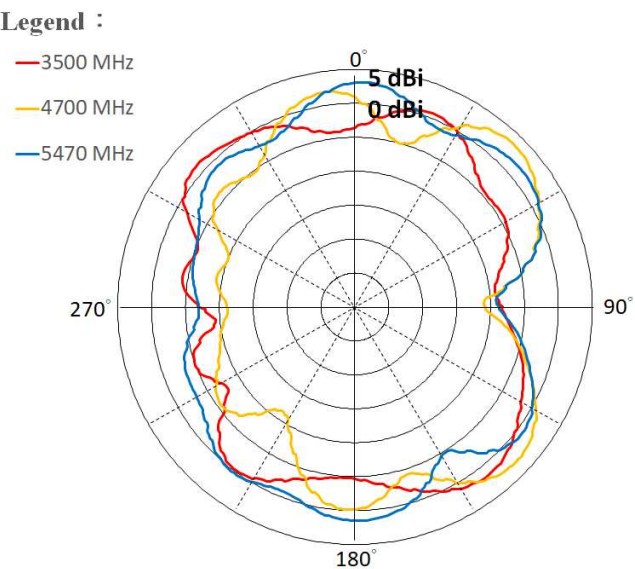
Data measured in free space and on plastic device enclosure

RADIATION PATTERN (Shown as 2195846-4 : Others can vary with different cable lengths)

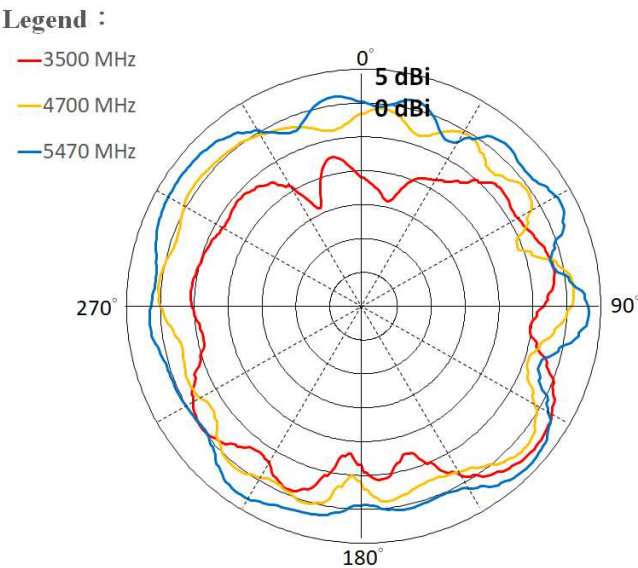
Test setup



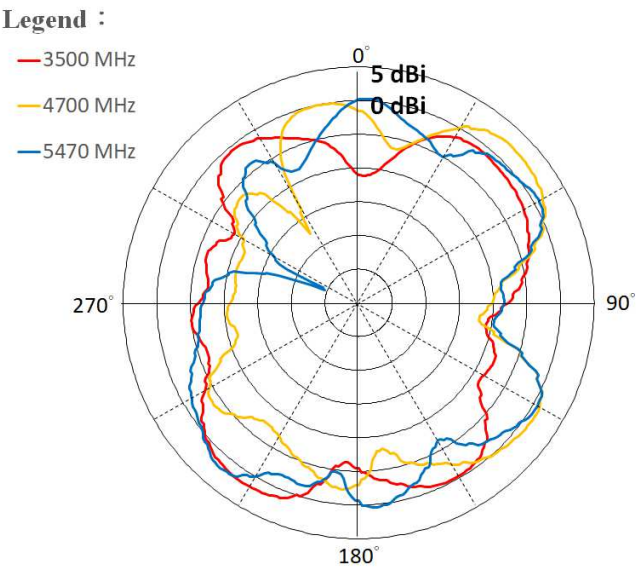
Azimuth



Elevation 1



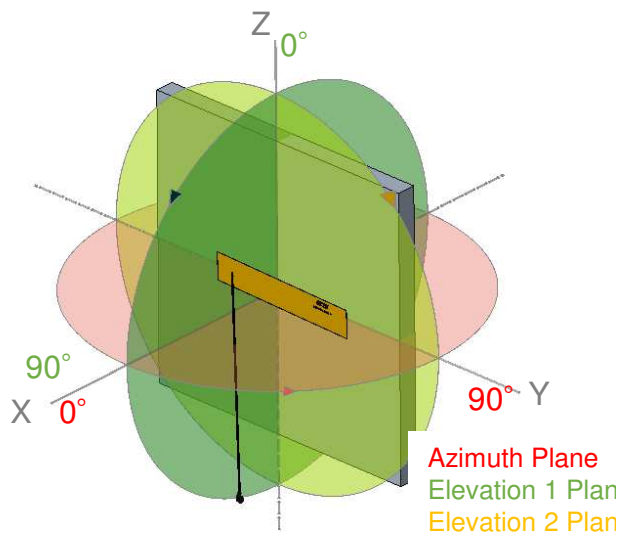
Elevation 2



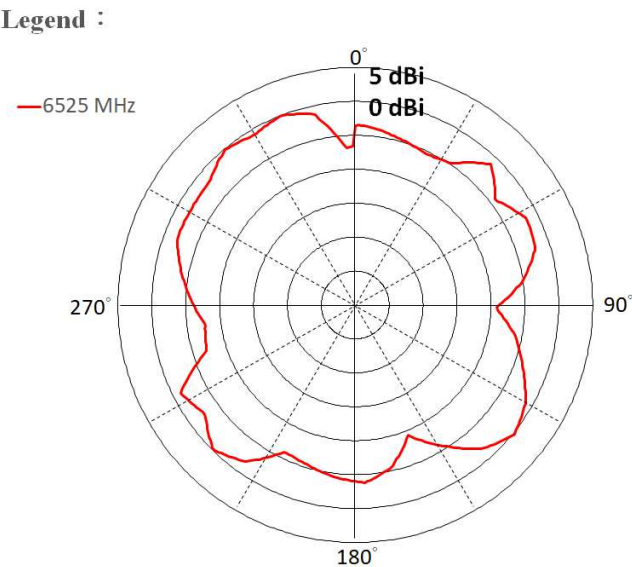
Data measured in free space and on plastic device enclosure

RADIATION PATTERN (Shown as 2195846-4 : Others can vary with different cable lengths)

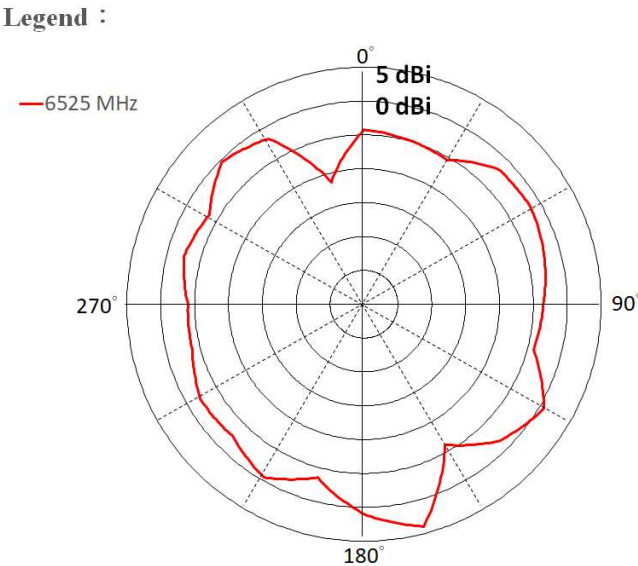
Test setup



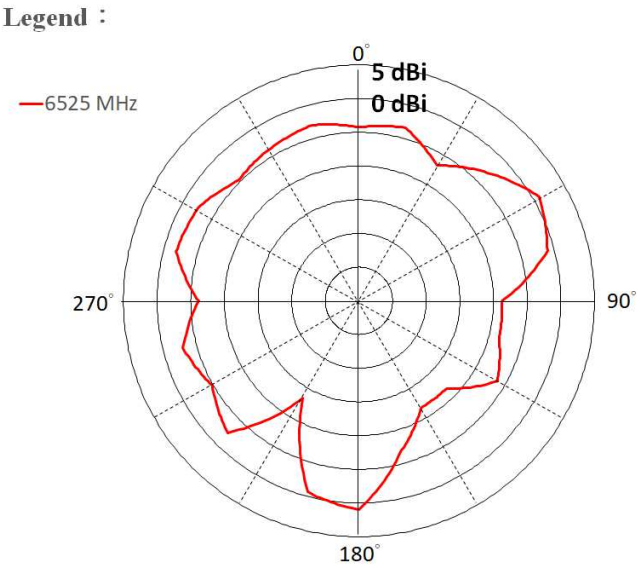
Azimuth



Elevation 1



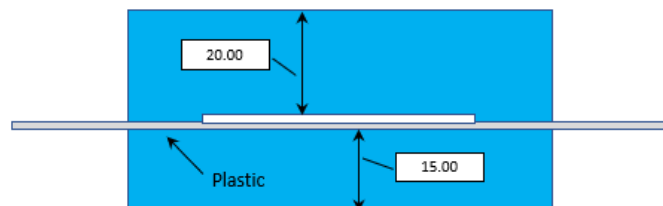
Elevation 2



Data measured in free space and on plastic device enclosure

Diagram illustrating the dimensions and components of a cable antenna assembly:

- The assembly is mounted on a **Plastic** base.
- The antenna structure is labeled **2195845**.
- The antenna is connected to a **Cable**.
- The dimensions are specified as follows:
 - Horizontal dimension: **5.00(2X)**
 - Vertical dimension (top): **10.00**
 - Vertical dimension (bottom): **5.00**
- A note indicates: **See Note**.
- The antenna is labeled **Antenna Outline**.



- NOTES :
1. Antenna designed to be mounted on plastic cover.
 2. Area in blue above indicates Keep Out Area.
This is base on 60x60mm size metal parts.
 3. For more information please call TE.

Dimensions : mm
Diagram is not to scale

10-PIN D-SUB CONNECTOR

MTE MetaSpan

2195046-3 REV. A2

XXXX XXXXXX

▼2.5 MAX
(SOLDER HEIGHT)

0.12 ± 0.02
(THICKNESS
W/O RELEASE PAPER)

1.00 REF

1.00 REF

3.30 REF

2.50 REF

15.00 ± 0.15

80.00 ± 0.15

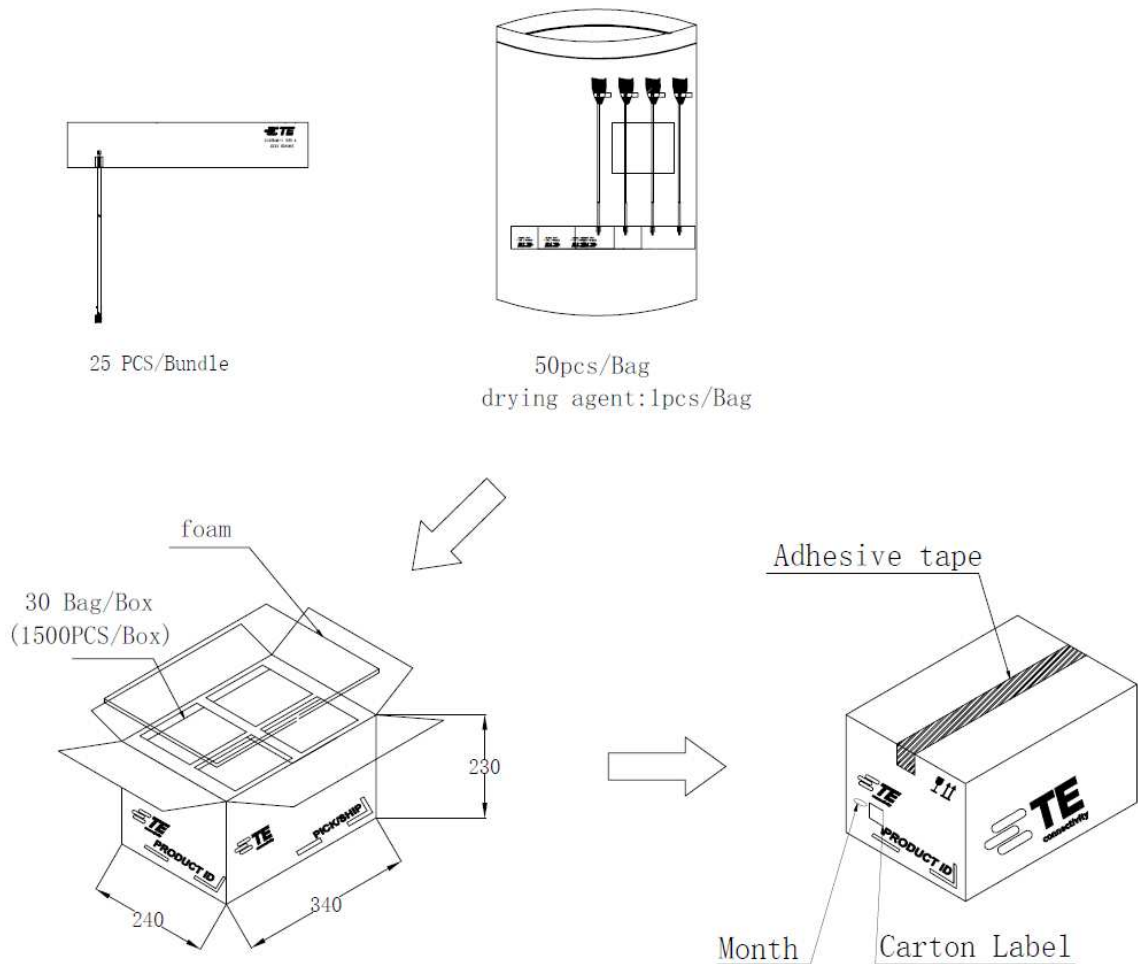
Dim "A" + / - 3

(DIM "C")

MATING COMPONENTS

2195846-1	50.0	1.969	1.37	MHF-TYPE PLUG	RECEPTACLE (TE PN : 2337019-1)	
2195846-2	100.0	3.937	1.37	MHF-TYPE PLUG	RECEPTACLE (TE PN : 2337019-1)	
2195846-3	150.0	5.906	1.37	MHF-TYPE PLUG	RECEPTACLE (TE PN : 2337019-1)	
2195846-4	200.0	7.874	1.37	MHF-TYPE PLUG	RECEPTACLE (TE PN : 2337019-1)	
2195846-5	50.0	1.969	1.13	MHF4L-TYPE PLUG	RECEPTACLE (TE PN : 2334884-1)	
2195846-6	100.0	3.937	1.13	MHF4L-TYPE PLUG	RECEPTACLE (TE PN : 2334884-1)	
2195846-7	150.0	5.906	1.13	MHF4L-TYPE PLUG	RECEPTACLE (TE PN : 2334884-1)	
2195846-8	200.0	7.874	1.13	MHF4L-TYPE PLUG	RECEPTACLE (TE PN : 2334884-1)	
PART NUMBER	MM	INCH	MM	CONNECTOR TYPE (ON CABLE)	PART NUMBER	IMAGE
	CABLE LENGTH "A"		CABLE DIA.		MATING COMPONENTS	

PACKAGING



5G/4G/3G/2G, NB-IoT, Cat-M, GNSS, Wi-Fi 6E WORLD BAND ANTENNA

Standard Antenna Solutions

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12/2020