

## Specification

- Part No. : **LWB02.A.505111**
- Product Name : External 4G LTE Wide Band  
790-960/1710-2700MHz  
Bracket Mount Dipole Antenna
- Features : Worldwide 4G LTE including 3G and 2G  
Product Dimensions: 335.5\*45\*157mm  
External Wall and Pole Mount Antenna  
Robust design for all weather operation  
Cable: 5M CFD-200  
Connector: SMA(M)  
Cables and Connectors Customizable  
IP67 Compliant  
**RoHS Compliant**



## **1. Introduction**

The LWB02 is an omnidirectional outdoor 4G LTE antenna for use in worldwide telematics and cellular communication. Its flat and compact blade design, with a wide frequency range and high gain across all bands, can be used in global telematics, transportation and remote monitoring applications.

4G LTE applications demand a high-speed data uplink and downlink. The LWB02, utilizing low loss cables, provides high efficiency and high gain to achieve these requirements over long cable lengths.

The heavy-duty, fully IP67 waterproof housing can be used for either outdoor or indoor environments and with the mounting shaft, it can be easily fixed to walls or poles. The antenna casing and the mounting shaft use heat resistant, high impact, UV stabilized ASA resin, making it extremely robust.

Cable length and connector types are customizable. Lower loss LMR400 or CFD400 cable can be used to directly connect to the on-board connector to extend the cable length. Contact your regional Taoglas sales office for support.

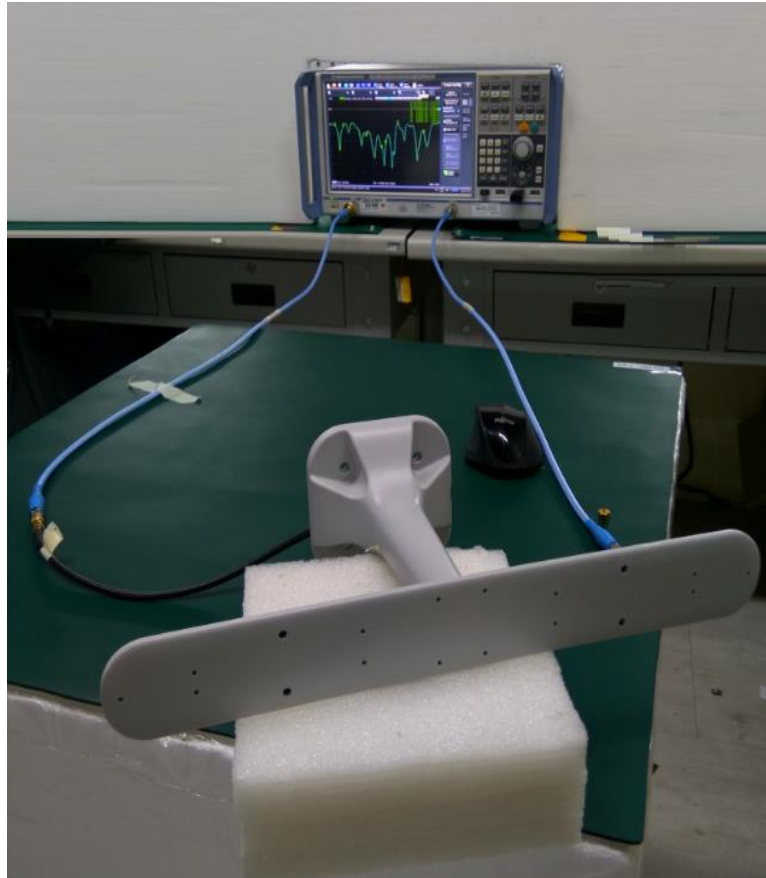
## 2. Specification

Cellular Antenna							
Frequency (MHz)	LTE700	GSM850	GSM900	DCS	PCS	UMTS1	LTE2600
	698~806	824~894	880~960	1710~1880	1850~1990	1920~2170	2300~2690
<b>Efficiency (%)</b>							
LTE_0.3M	65.83	77.39	78.32	70.44	65.23	67.02	53.70
LTE_1.0M	62.25	73.94	74.79	64.22	59.50	61.64	48.96
LTE_2.0M	58.09	2.92	68.21	57.24	52.36	53.98	42.54
LTE_3.0M	53.82	62.93	63.30	50.89	46.31	47.77	36.99
LTE_5.0M	46.55	53.56	53.51	40.13	36.31	37.21	27.99
<b>Average Gain (dBi)</b>							
LTE_0.3M	-1.83	-1.12	-1.08	-1.53	-1.86	-1.76	-3.09
LTE_1.0M	-2.07	-1.32	-1.28	-1.93	-2.26	-2.12	-3.49
LTE_2.0M	-2.37	-1.69	-1.68	-2.43	-2.81	-2.70	-4.12
LTE_3.0M	-2.70	-2.02	-2.01	-2.94	-3.35	-3.23	-4.73
LTE_5.0M	-3.33	-2.72	-2.74	-3.97	-4.40	-4.31	-5.95
<b>Peak Gain (dBi)</b>							
LTE_0.3M	3.23	3.67	3.87	6.19	6.28	6.98	5.07
LTE_1.0M	3.03	3.47	3.67	5.79	5.88	6.68	4.67
LTE_2.0M	2.73	3.07	3.27	5.29	5.28	6.08	4.07
LTE_3.0M	2.41	2.77	2.97	4.79	4.78	5.58	3.47
LTE_5.0M	2.11	2.47	2.67	4.29	4.28	5.08	2.87
Impedance					50Ω		
Polarization					Linear		

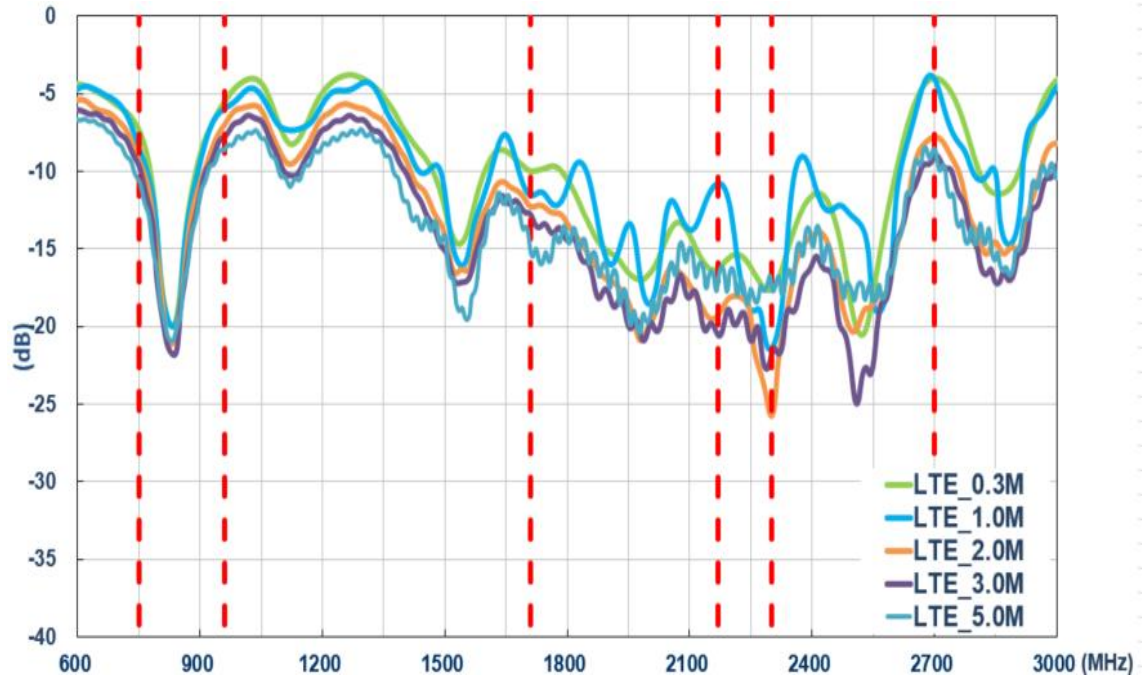
MECHANICAL	
Antenna Dimensions	335.5*45*157mm
Cable	5 Meter CFD-200
Connector	SMA(M)
Casing	ASA
Weight	220g
Waterproof	IP67
Environment	
Operation Temperature	-40°C to 85°C
Storage Temperature	-40°C to 90°C
Humidity	Non-condensing 65°C 95% RH

## 3. Antenna Characteristics

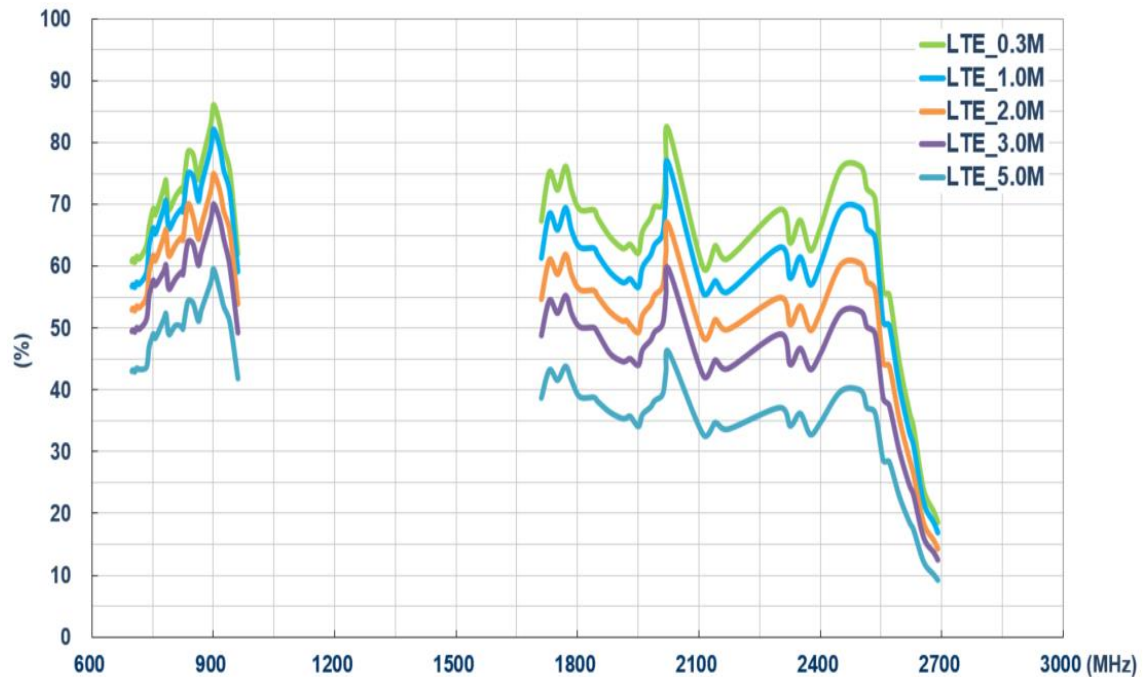
### 3.1 Antenna Test Setup



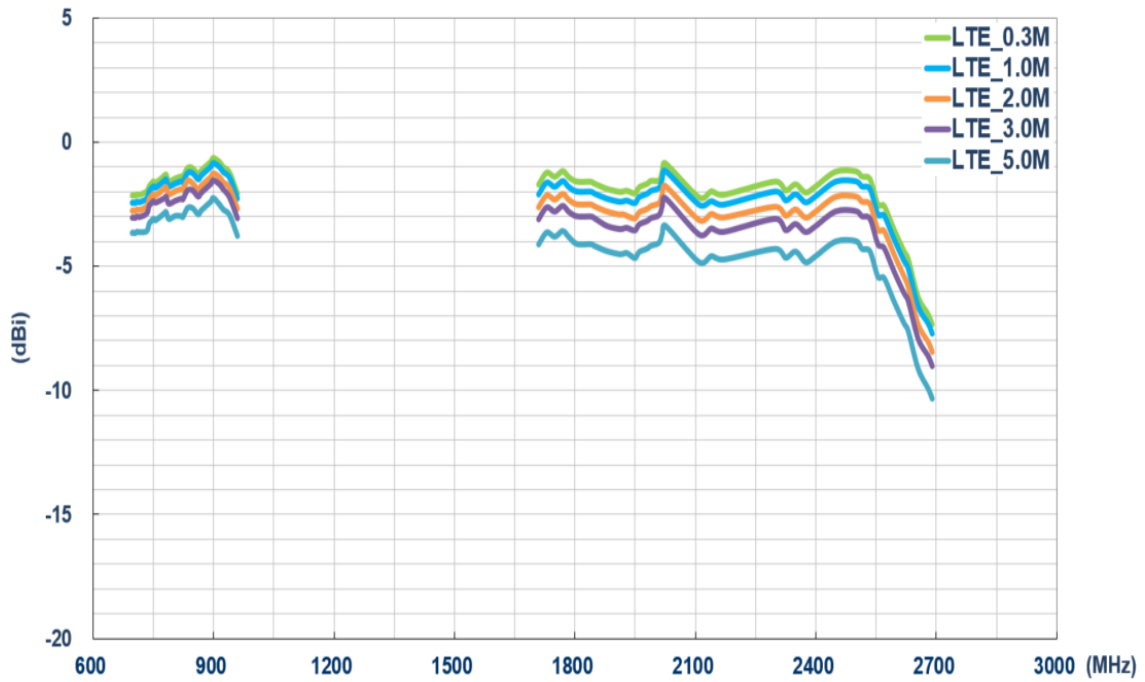
### 3.2 Return Loss



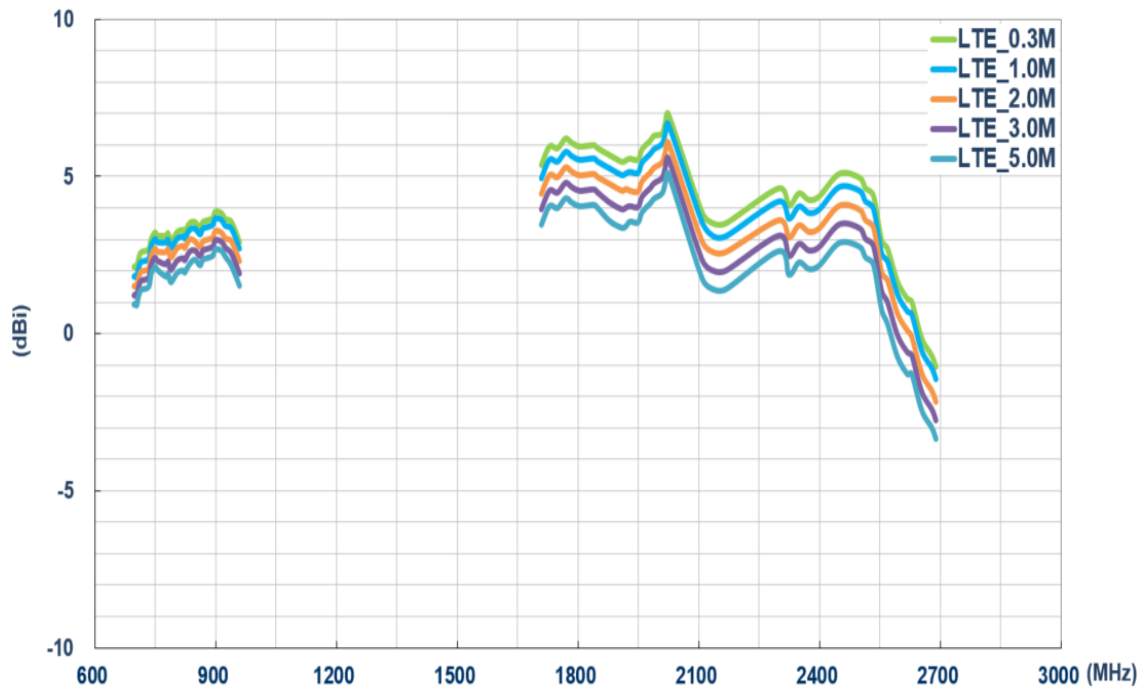
### 3.3 Efficiency



### 3.4 Average Gain

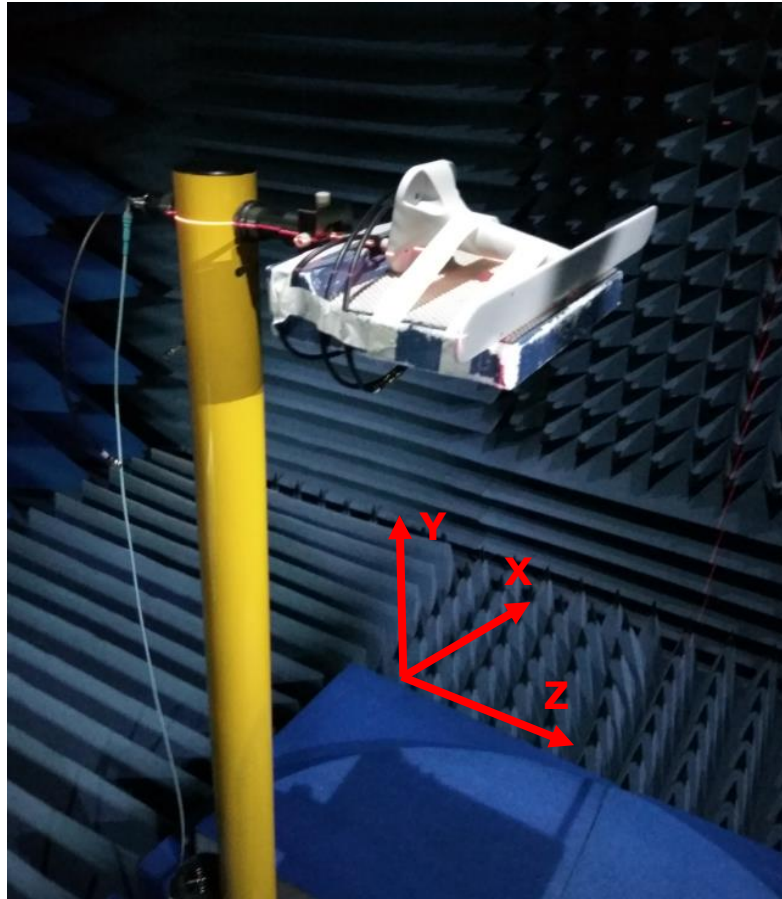


### 3.5 Peak Gain



## 4. Antenna Radiation Patterns

### 4.1 Antenna Setup (Antenna testing Setup in Anechoic Chamber)

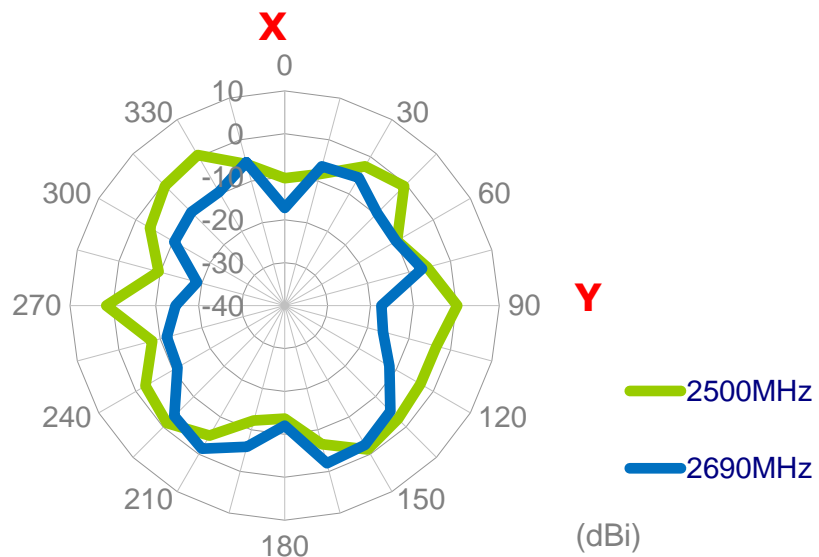
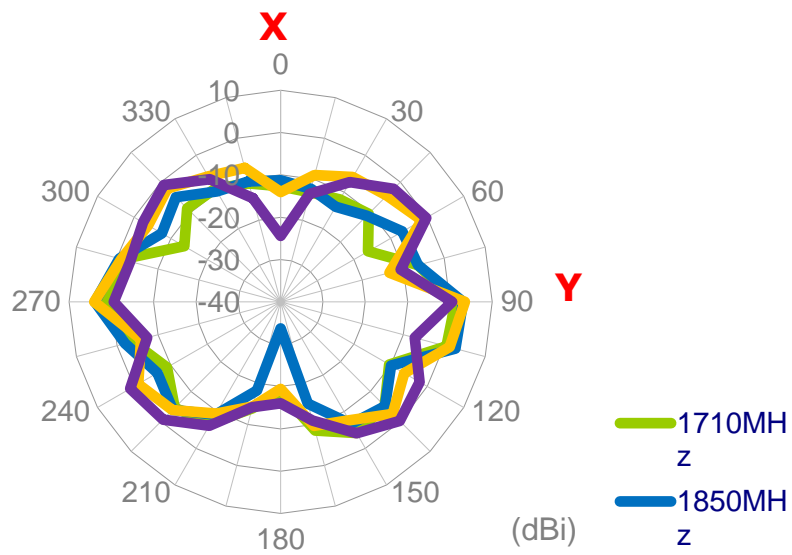
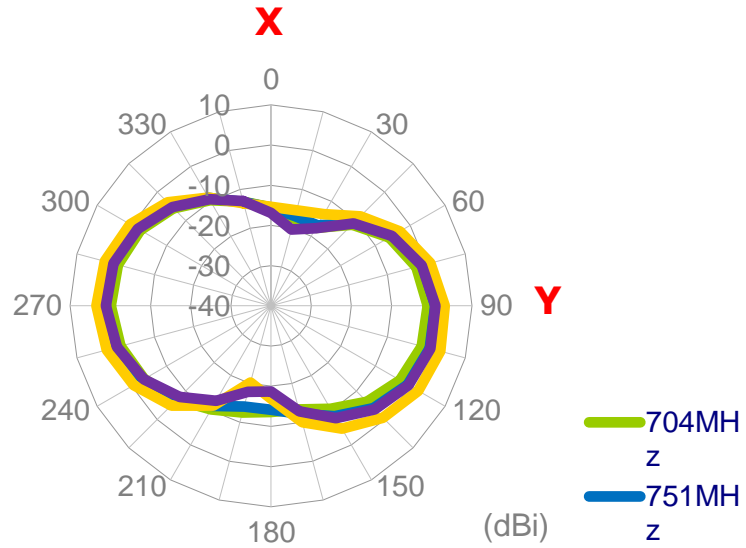




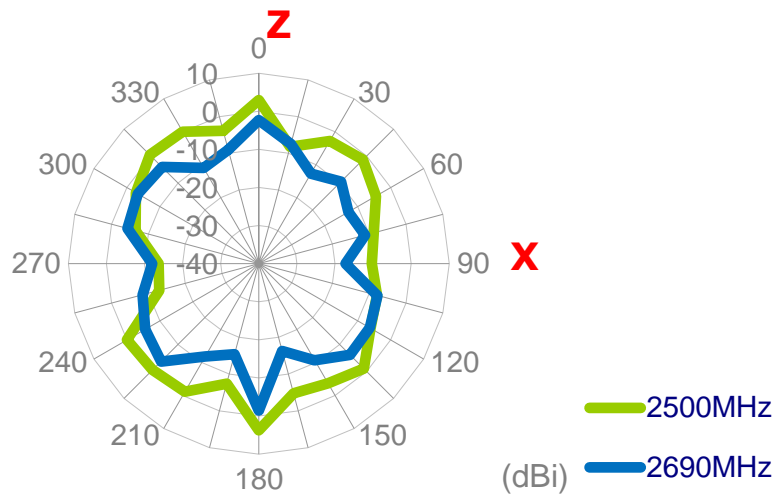
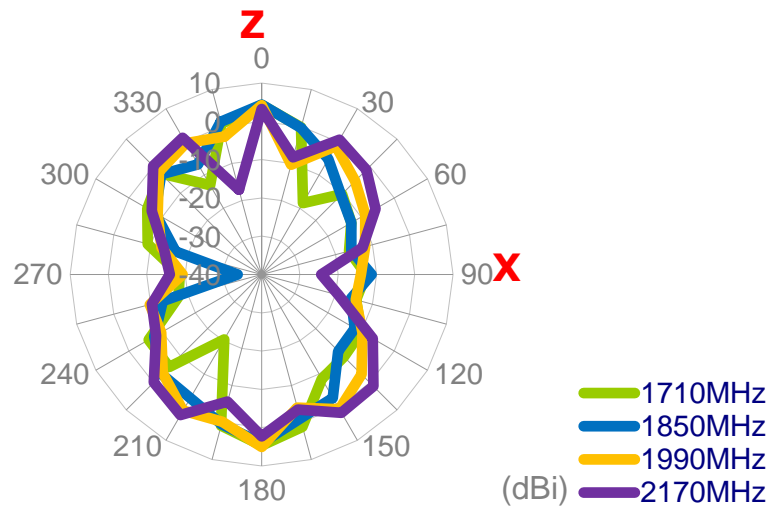
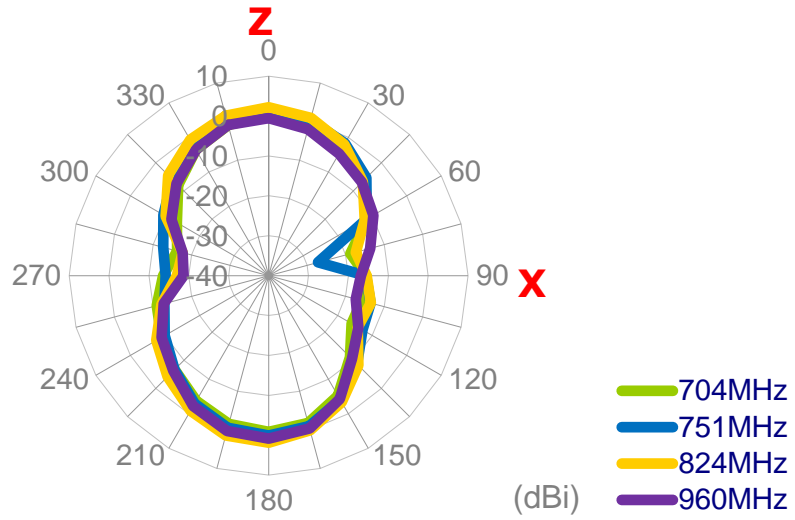
## 4.2 2D Radiation Patterns

### 4.2.1 With 0.3M Cable

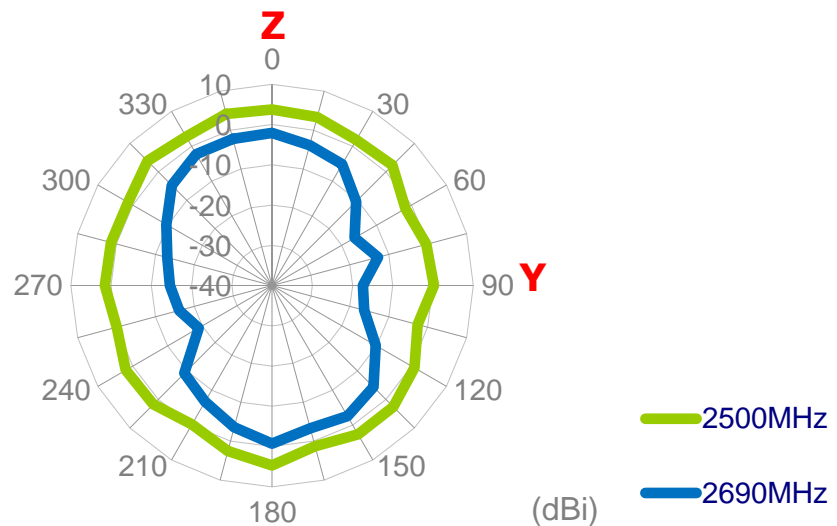
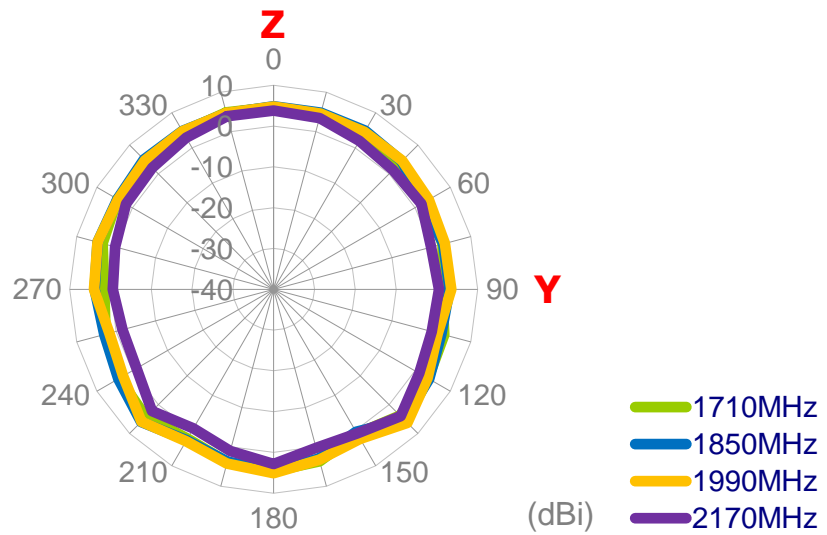
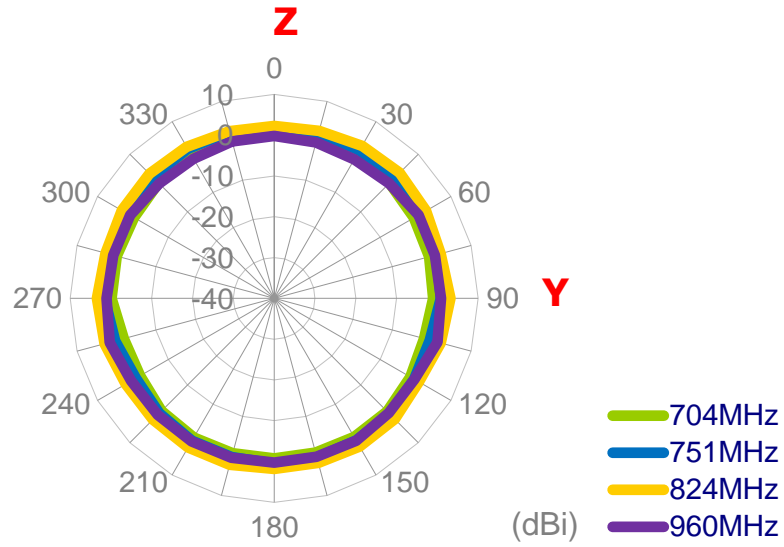
XY Plane



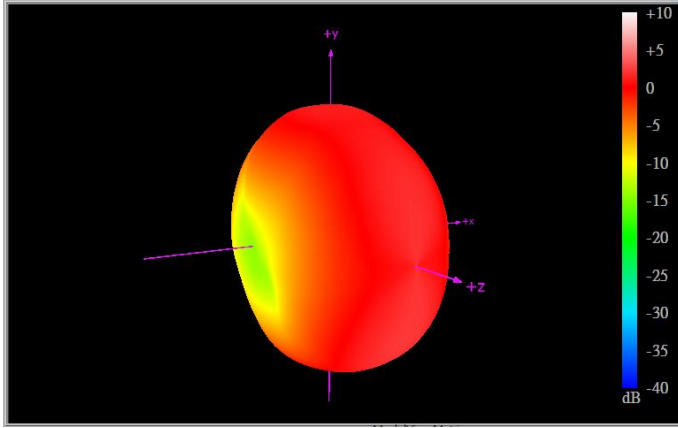
XZ Plane



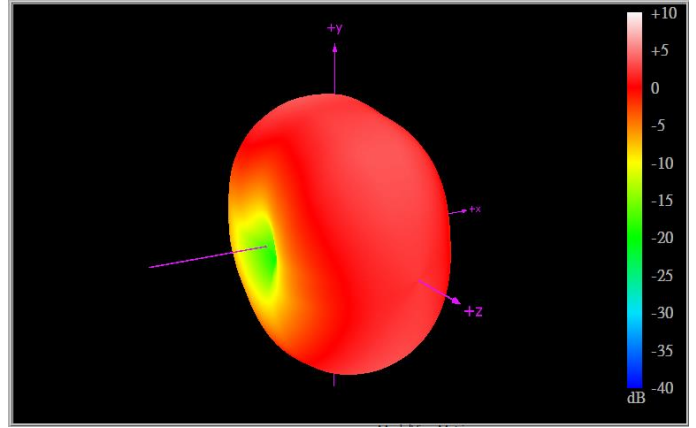
YZ Plane



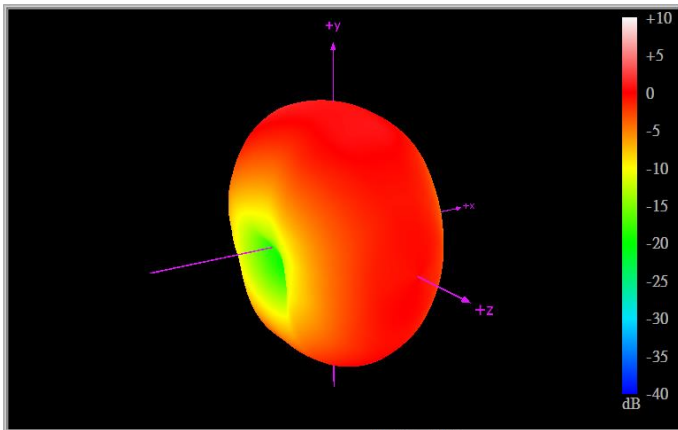
### 4.3 3D Radiation Patterns



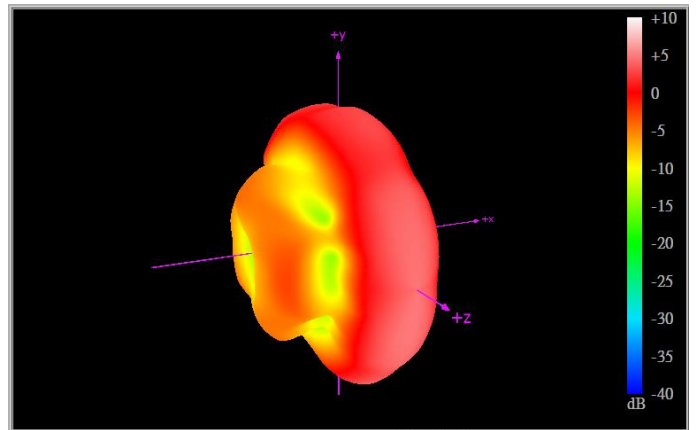
751MHz



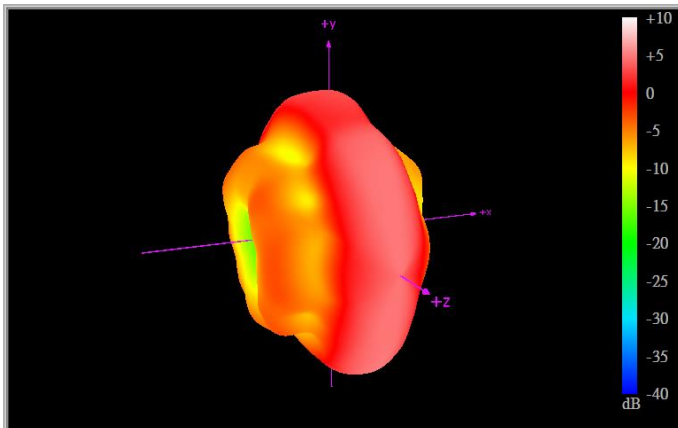
824MHz



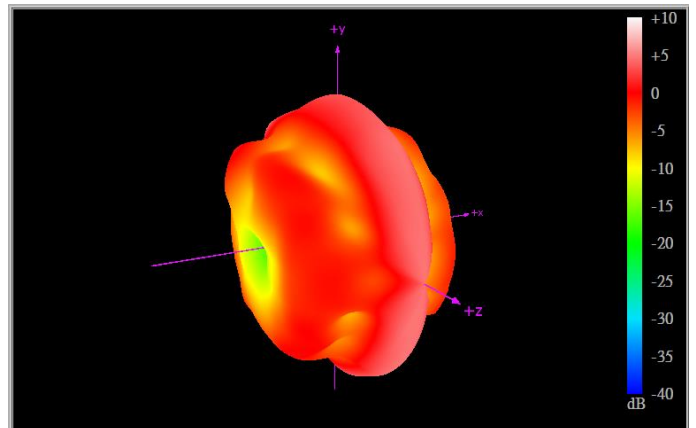
960MHz



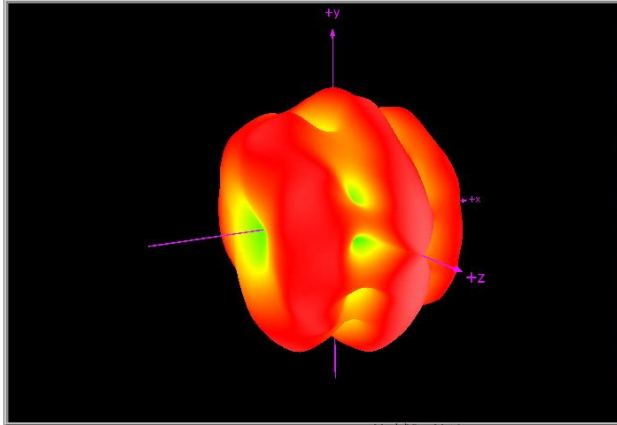
1710MHz



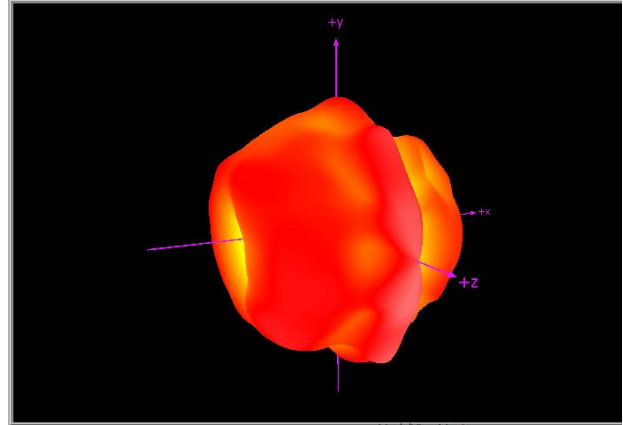
1850MHz



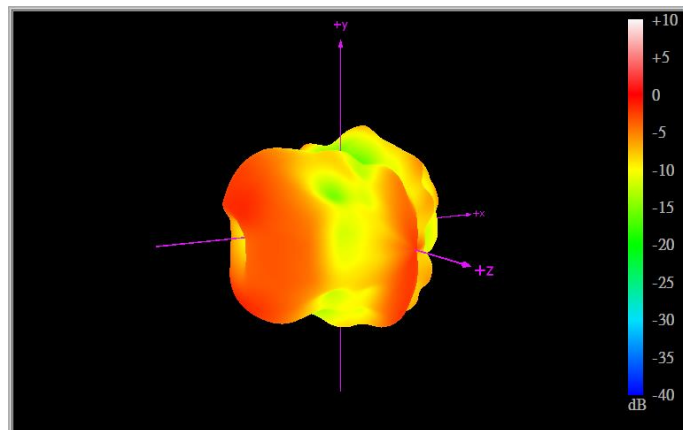
1990MHz



2170MHz

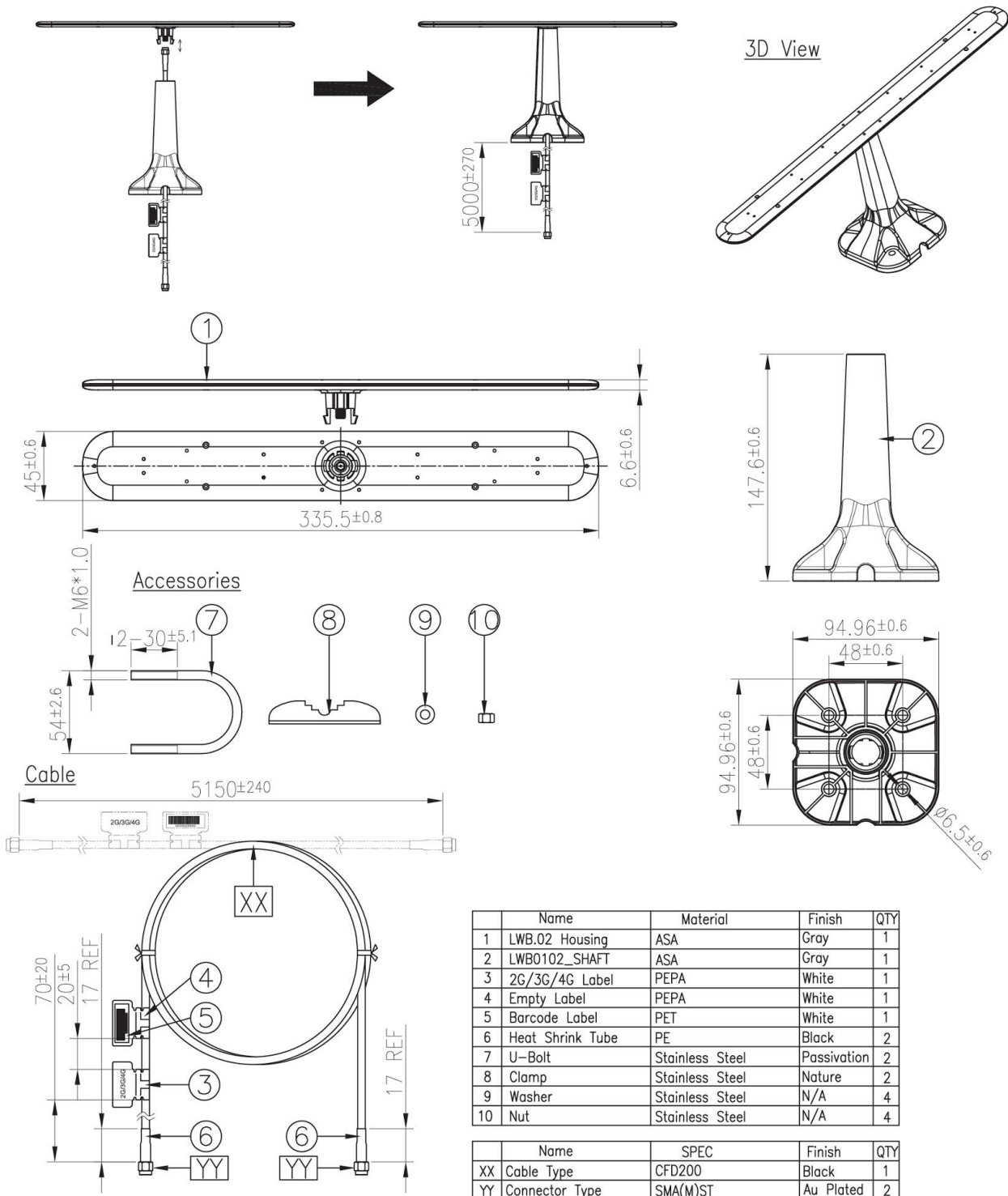


2500MHz

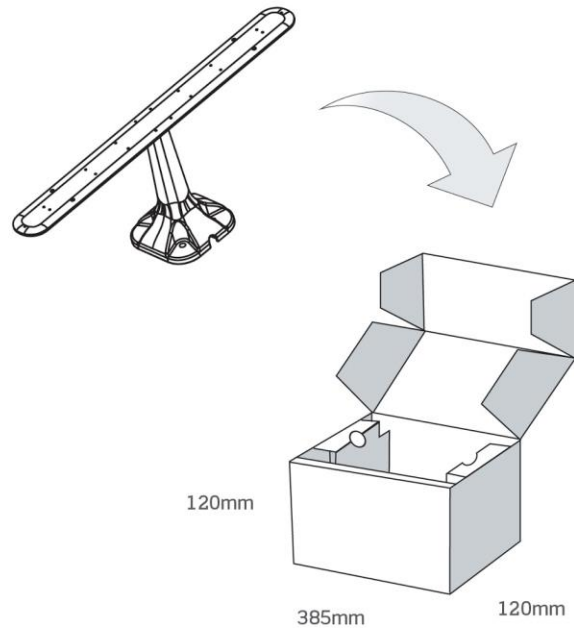


2690MHz

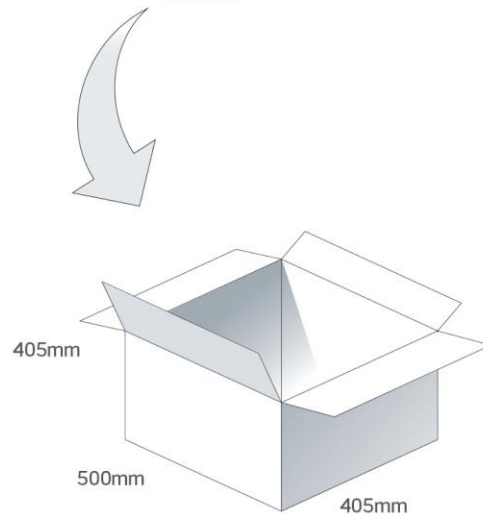
## 5. Mechanical Drawing (Unit: mm)



## 6. Packaging

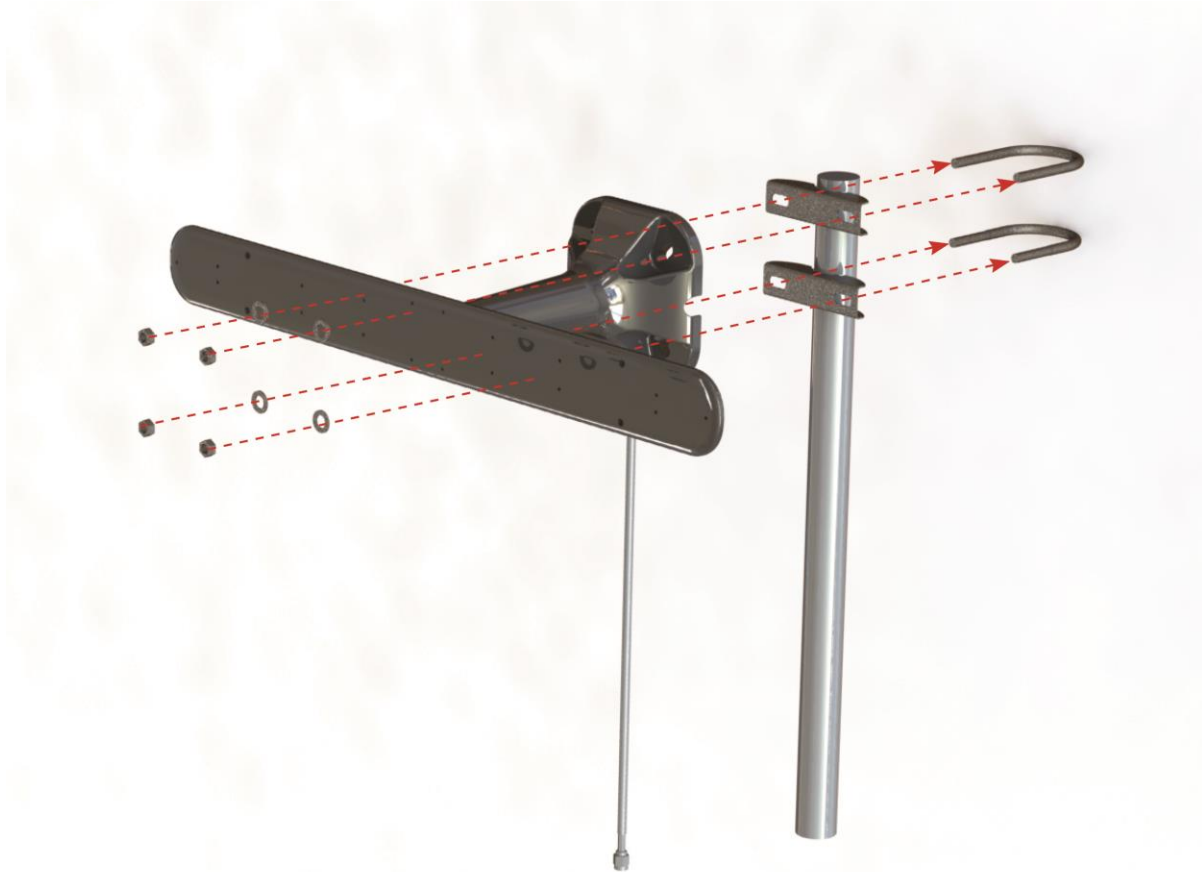


1 pc LWB02.A.505111 in box  
Dimensions - 385\*120\*120mm  
Weight - 743g



12 pcs LWB02.A.505111 in one carton  
Carton Dimensions - 405\*500\*380mm  
Weight - 10.12Kg

## 7. Installation Instructions





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