

## Specification

- Part No. : **LWB01.A.505111**
- Product Name : External 4G/LTE Wide Band 689-960/1710-2690MHz  
Bracket Mount Dipole Antenna
- Features : Worldwide 4G LTE including 3G and 2G  
Product Dimensions: 425.5\*45\*157mm  
External Bracket Mount Antenna  
Robust Design for All Weather Operation  
Cable: 5M CFD-200  
Connector: SMA(M)  
Cables and Connectors Customizable  
IP67 Rated  
**RoHS Compliant**



## 1. Introduction

The LWB01 is an omnidirectional, outdoor, 4G LTE antenna for use in worldwide telematics and cellular communication. Its flat and compact blade design provides a wide frequency range, high efficiency and optimum omni-directional gain across all bands.

4G LTE applications demand a high-speed data uplink and downlink. The LWB01, utilizing low loss cables, provides high efficiency and high gain to achieve these requirements over long cable lengths.

Typical Applications:

- Global telematics
- Transportation
- Remote monitoring applications.

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 casting and the mounting shaft are protected by heat resistant, high impact, UV stabilized material, making it extremely robust.

Cable length and connector types are customizable. Options to use lower loss LMR400 or CFD400 cable are accommodated through the on-board connector in the bracket. Contact your regional Taoglas sales office for support.

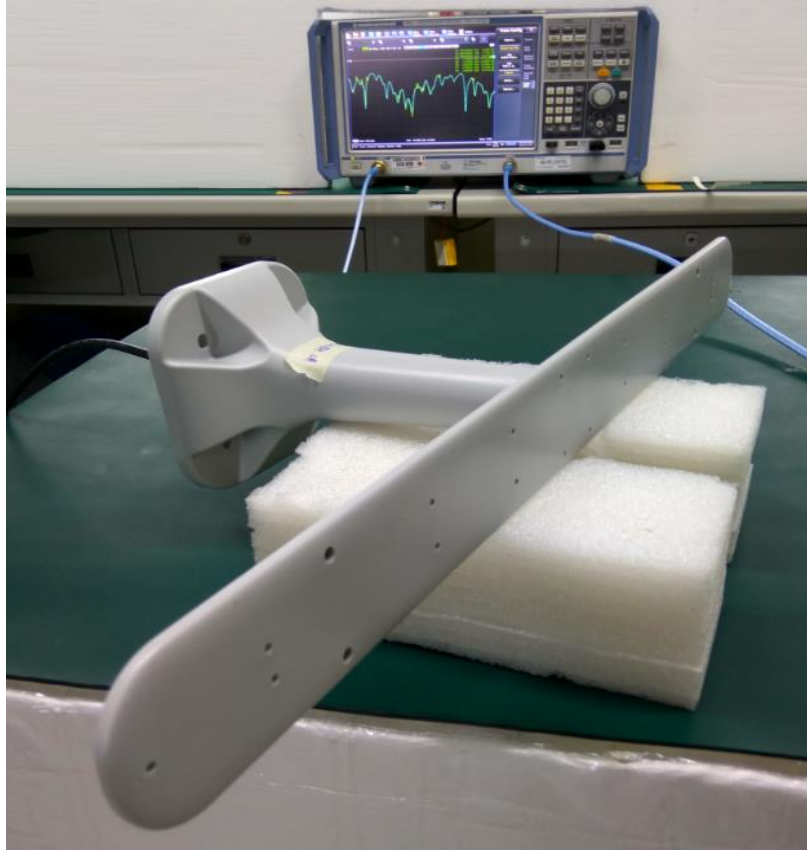
## 2. Specification

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	44.11	67.07	67.60	62.53	68.28	67.15	41.48
LTE_1.0M	40.81	63.36	62.07	55.18	59.07	57.57	35.41
LTE_2.0M	42.42	60.04	57.07	49.80	53.17	51.94	31.60
LTE_3.0M	33.41	57.39	49.52	45.24	48.21	46.86	28.01
LTE_5.0M	30.45	47.24	42.77	34.21	36.13	34.93	19.77
<b>Average Gain (dBi)</b>							
LTE_0.3M	-3.68	-1.74	-1.72	-2.04	-1.66	-1.74	-4.07
LTE_1.0M	-3.99	-1.99	-2.10	-2.59	-2.29	-2.41	-4.82
LTE_2.0M	-3.80	-2.22	-2.48	-3.04	-2.74	-2.86	-5.33
LTE_3.0M	-4.91	-2.42	-3.12	-3.45	-3.17	-3.31	-5.82
LTE_5.0M	-5.38	-3.26	-3.73	-4.66	-4.42	-4.58	-7.34
<b>Peak Gain (dBi)</b>							
LTE_0.3M	2.57	4.31	4.51	4.38	4.98	5.08	4.10
LTE_1.0M	3.10	4.54	4.78	3.21	3.21	3.37	3.08
LTE_2.0M	2.63	4.50	4.61	2.86	2.87	3.23	3.24
LTE_3.0M	2.59	4.07	4.05	2.42	2.65	2.83	1.79
LTE_5.0M	1.89	2.64	2.40	2.02	1.71	1.29	1.33
Impedance	50Ω						
Polarization	Linear						

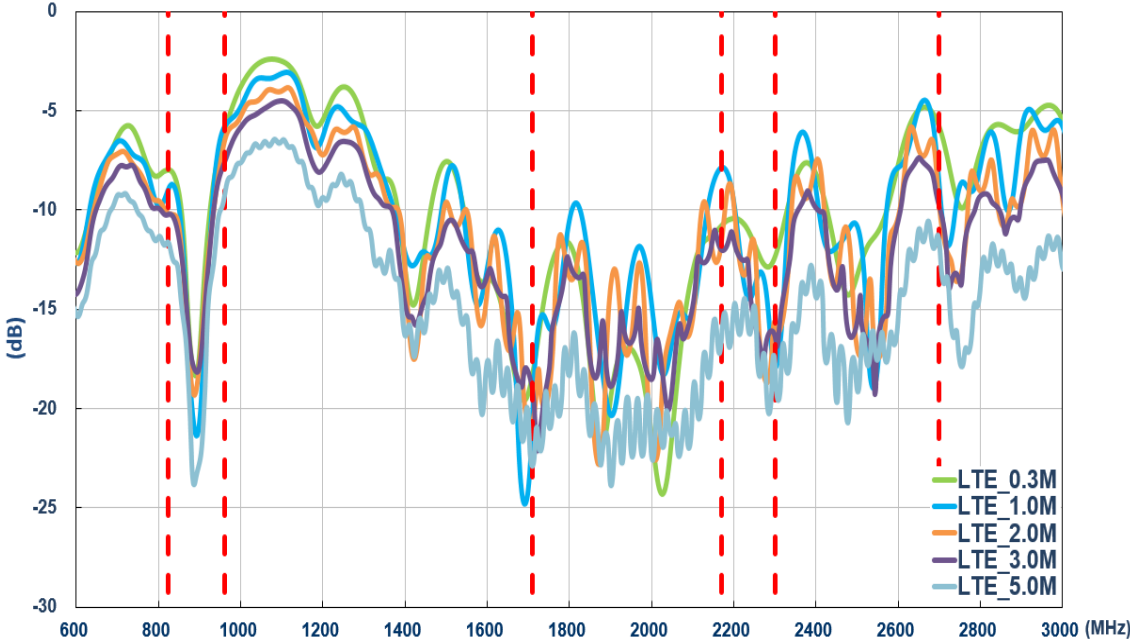
<b>MECHANICAL</b>	
Antenna Dimensions	425.5*45*157mm
Cable	5 Meter CFD-200
Connector	SMA(M)
Casing	ASA
Weight	250g
IP Rating	IP67
<b>ENVIRONMENTAL</b>	
Operation Temperature	-40°C to 85°C
Storage Temperature	-40°C to 90°C
Humidity	Non-condensing 65°C 95% RH

## 3. Antenna Characteristics

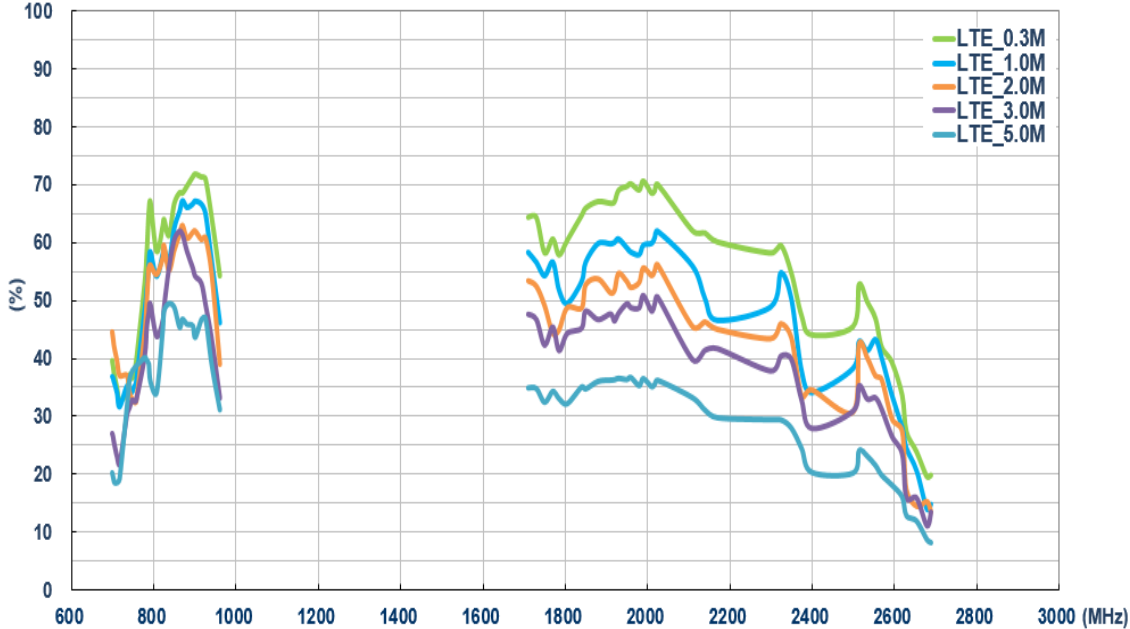
### 3.1. Antenna Test Setup



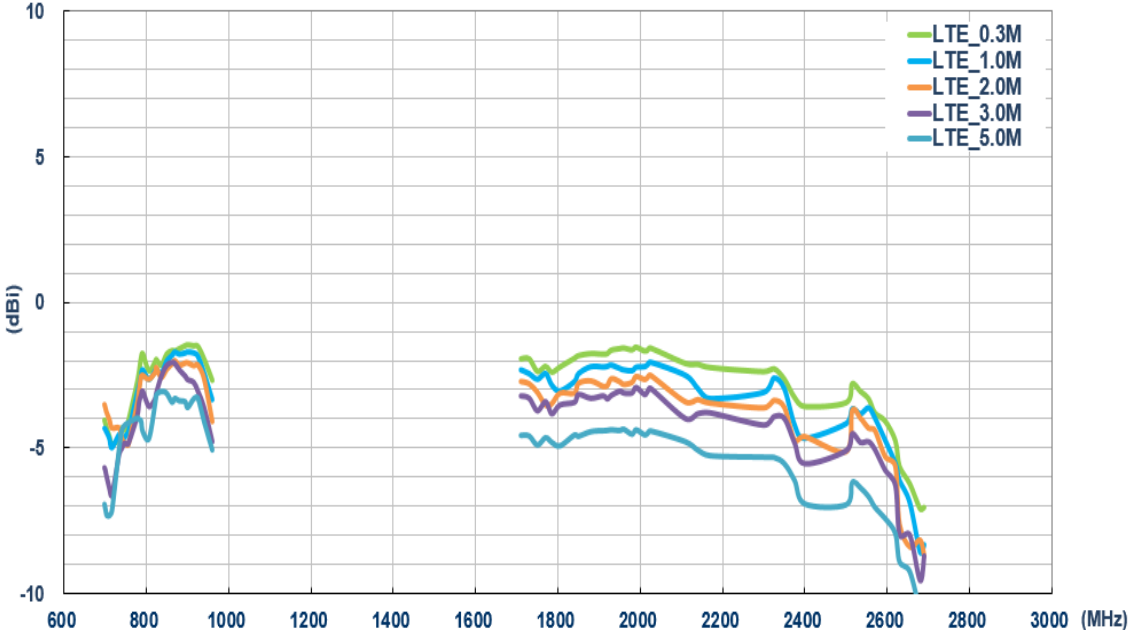
### 3.2. Return Loss



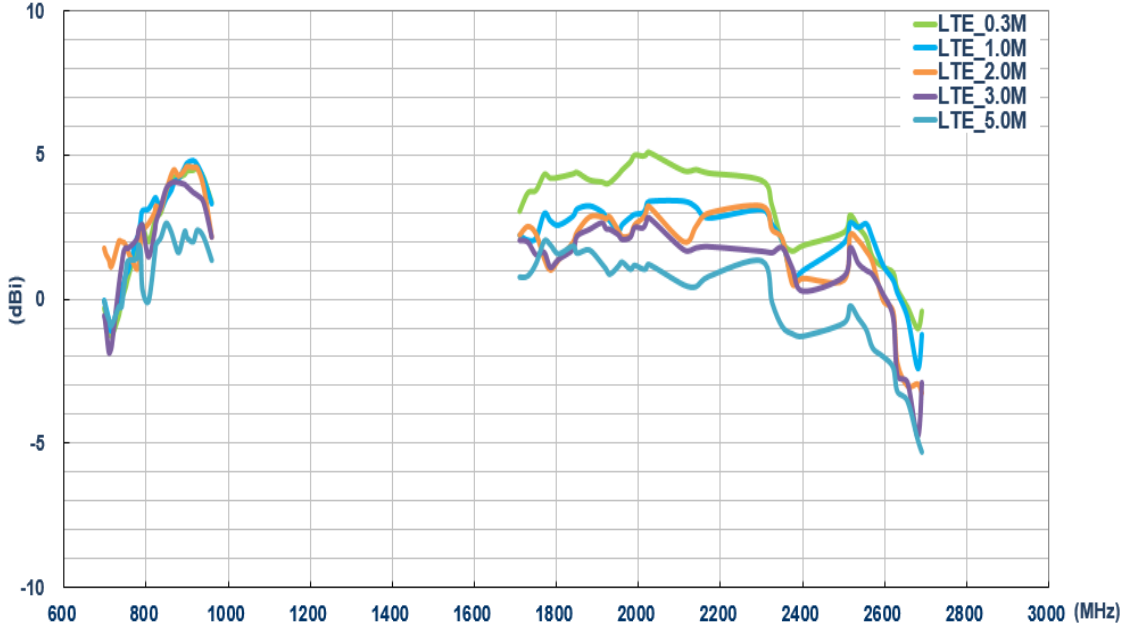
### 3.3. Efficiency



**3.4. Average Gain**

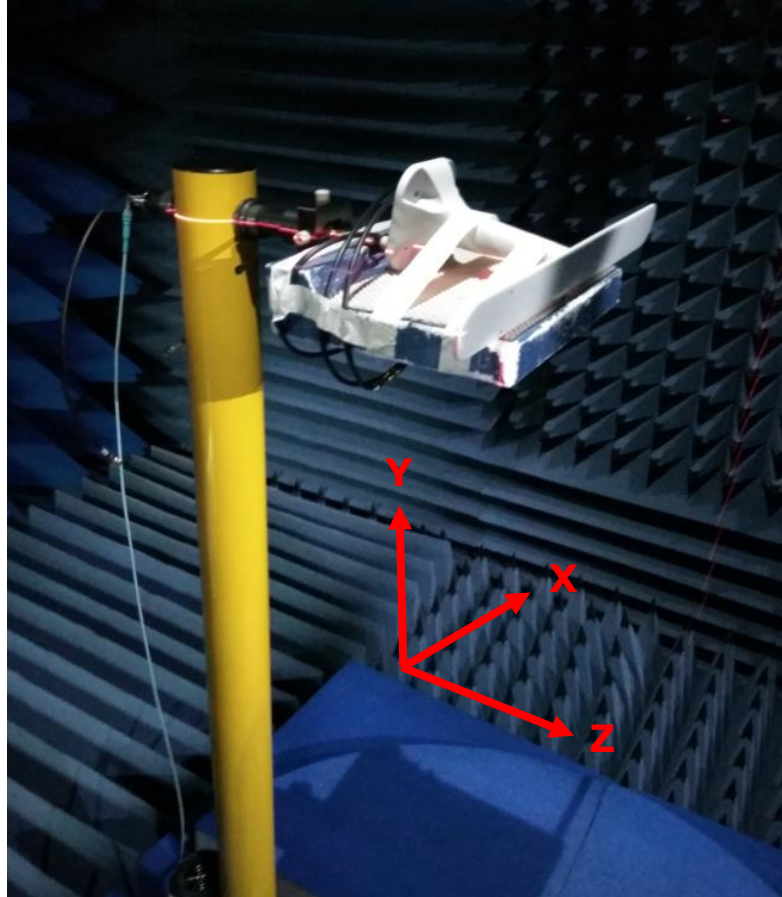


**3.5. Peak Gain**



## 4. Antenna Radiation Patterns

### 4.1. Antenna Setup (Antenna Test Setup in Anechoic Chamber)

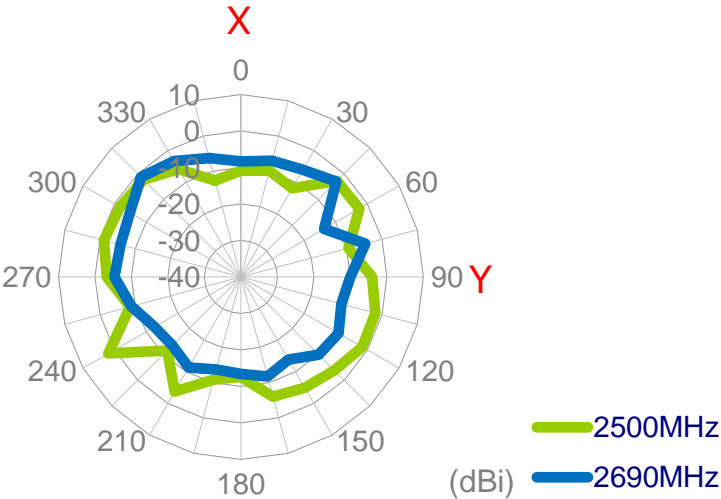
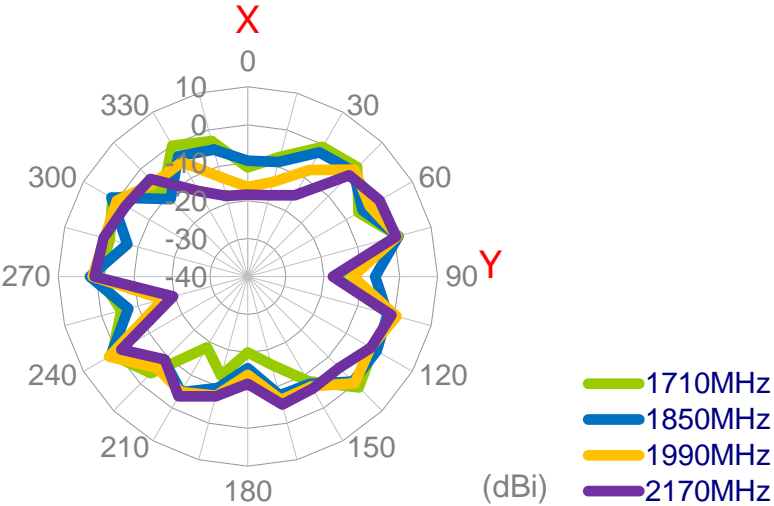
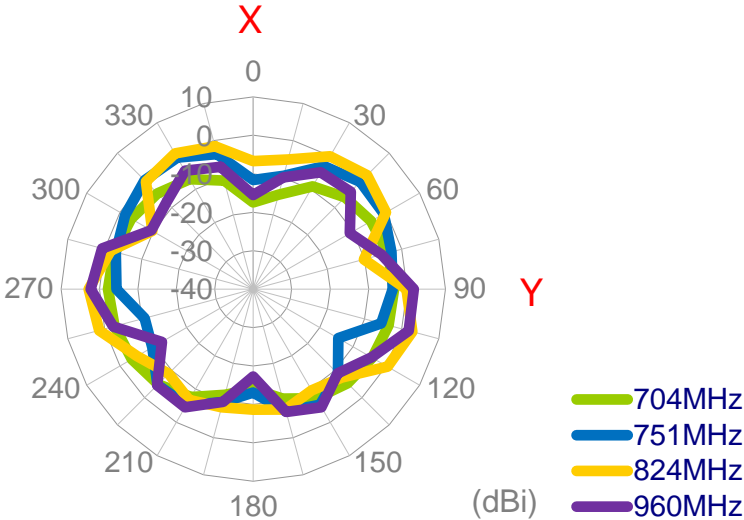




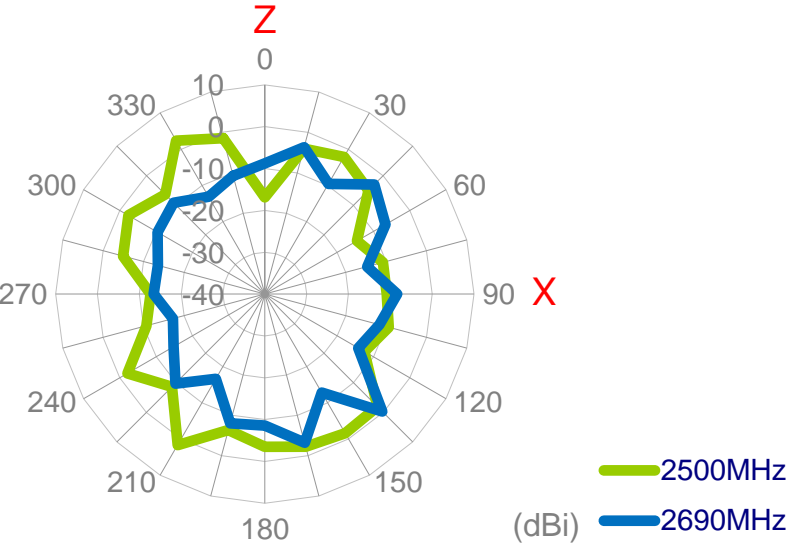
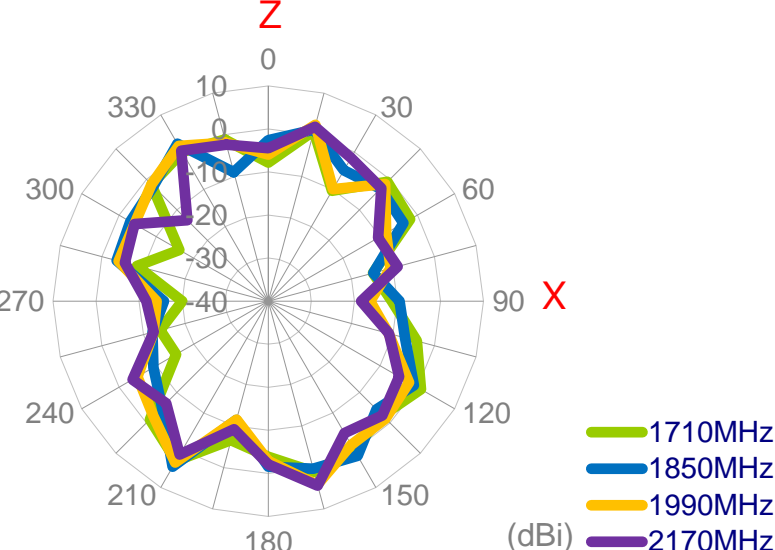
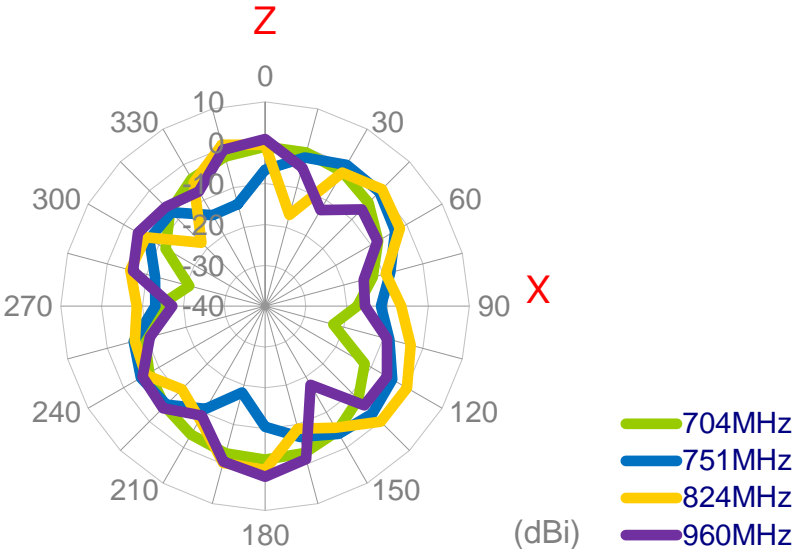
**4.2. 2D Radiation Patterns**

**4.2.1. With 0.3M Cable**

XY Plane

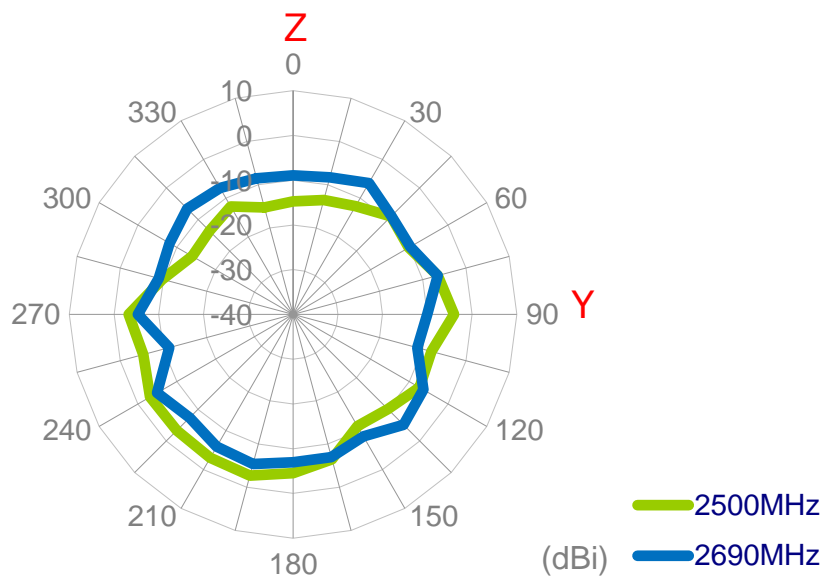
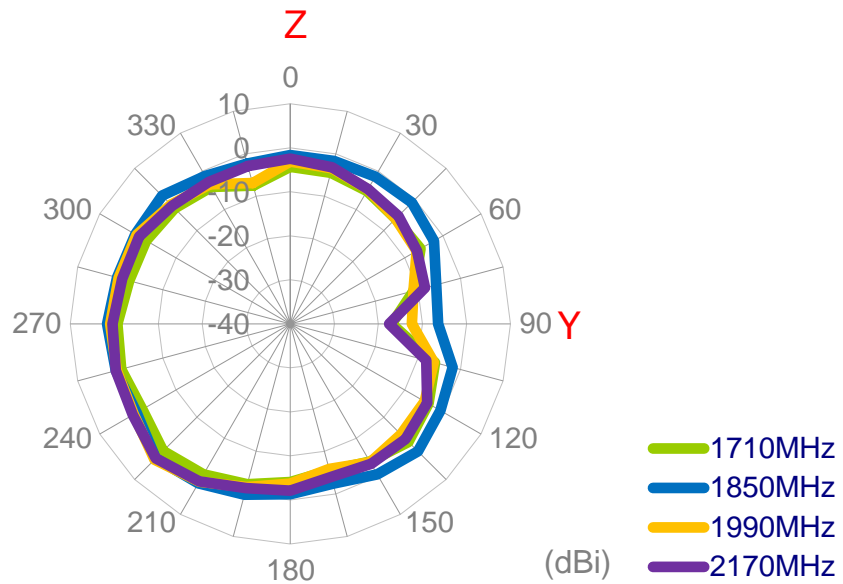
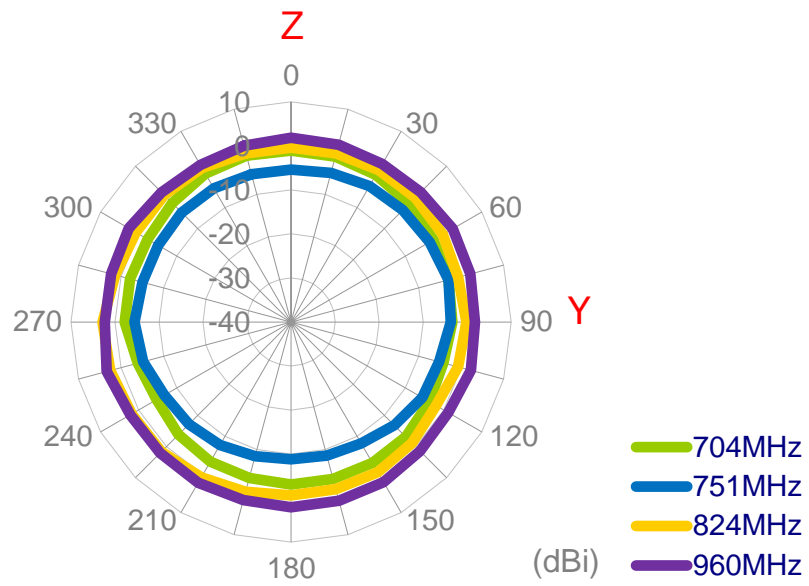


XZ Plane

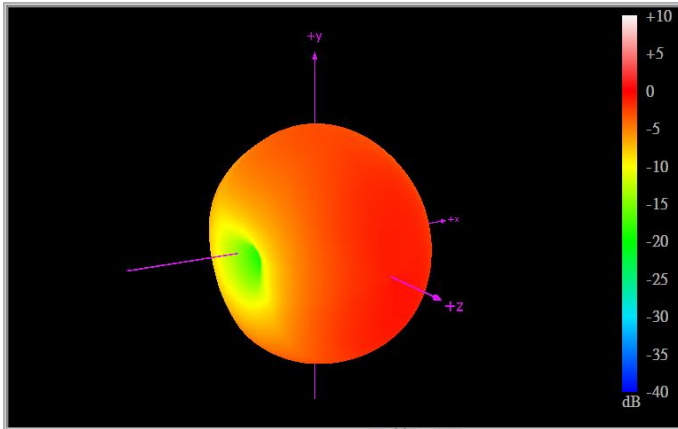




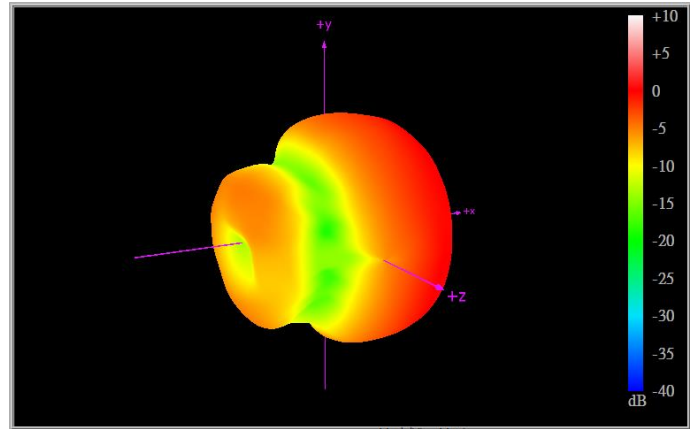
## YZ Plane



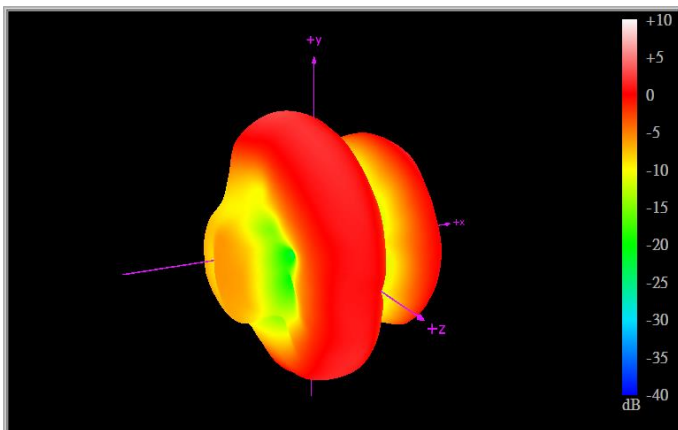
### 4.3. 3D Radiation Patterns



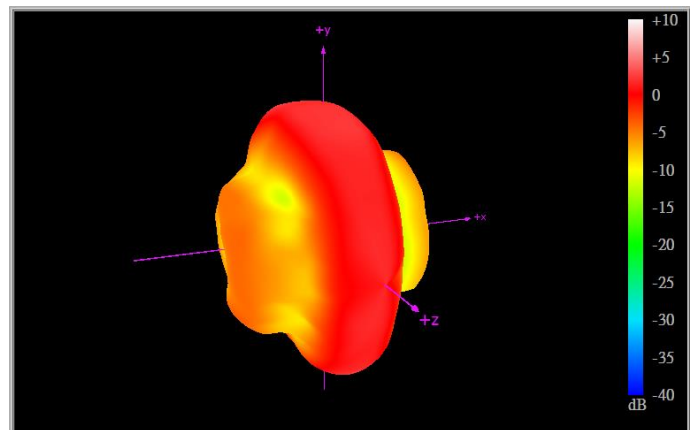
704MHz



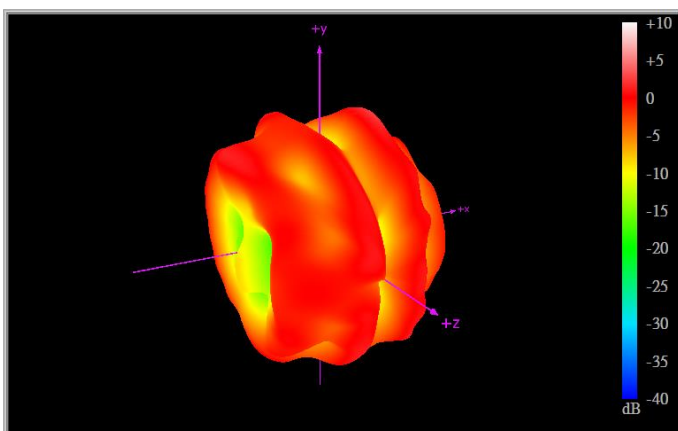
751MHz



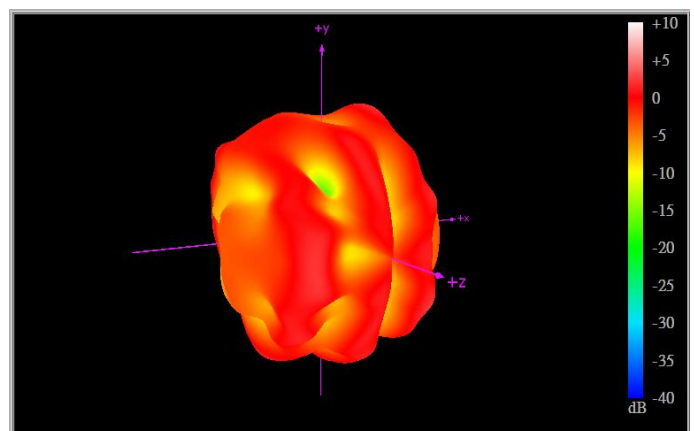
824MHz



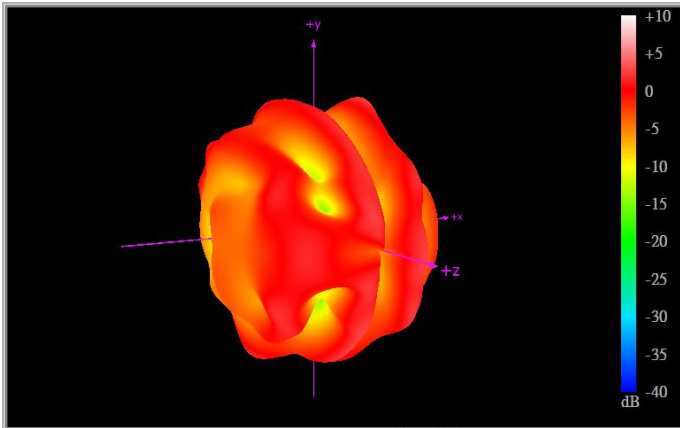
960MHz



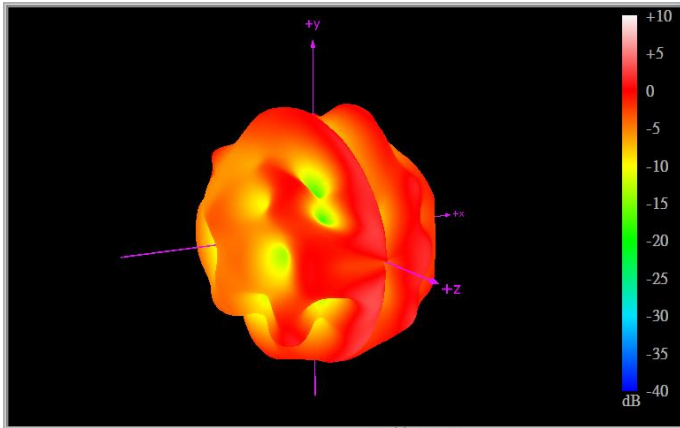
1710MHz



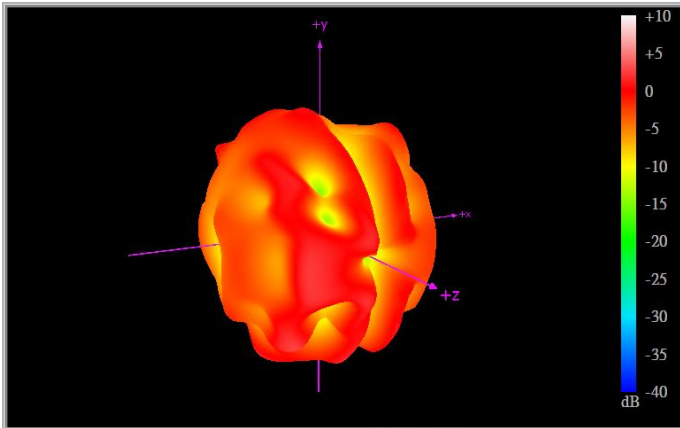
1850MHz



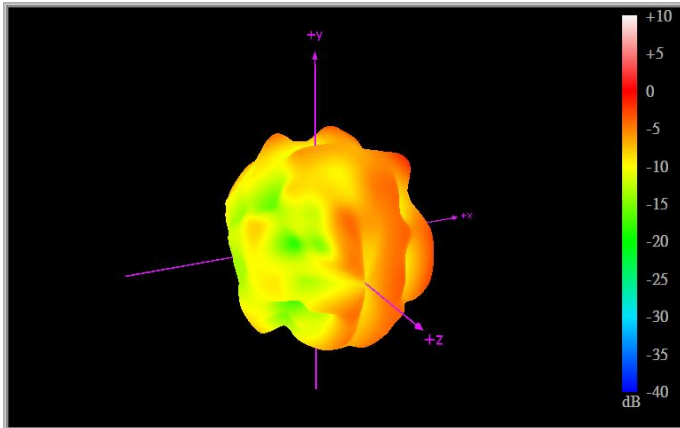
1990MHz



2170MHz



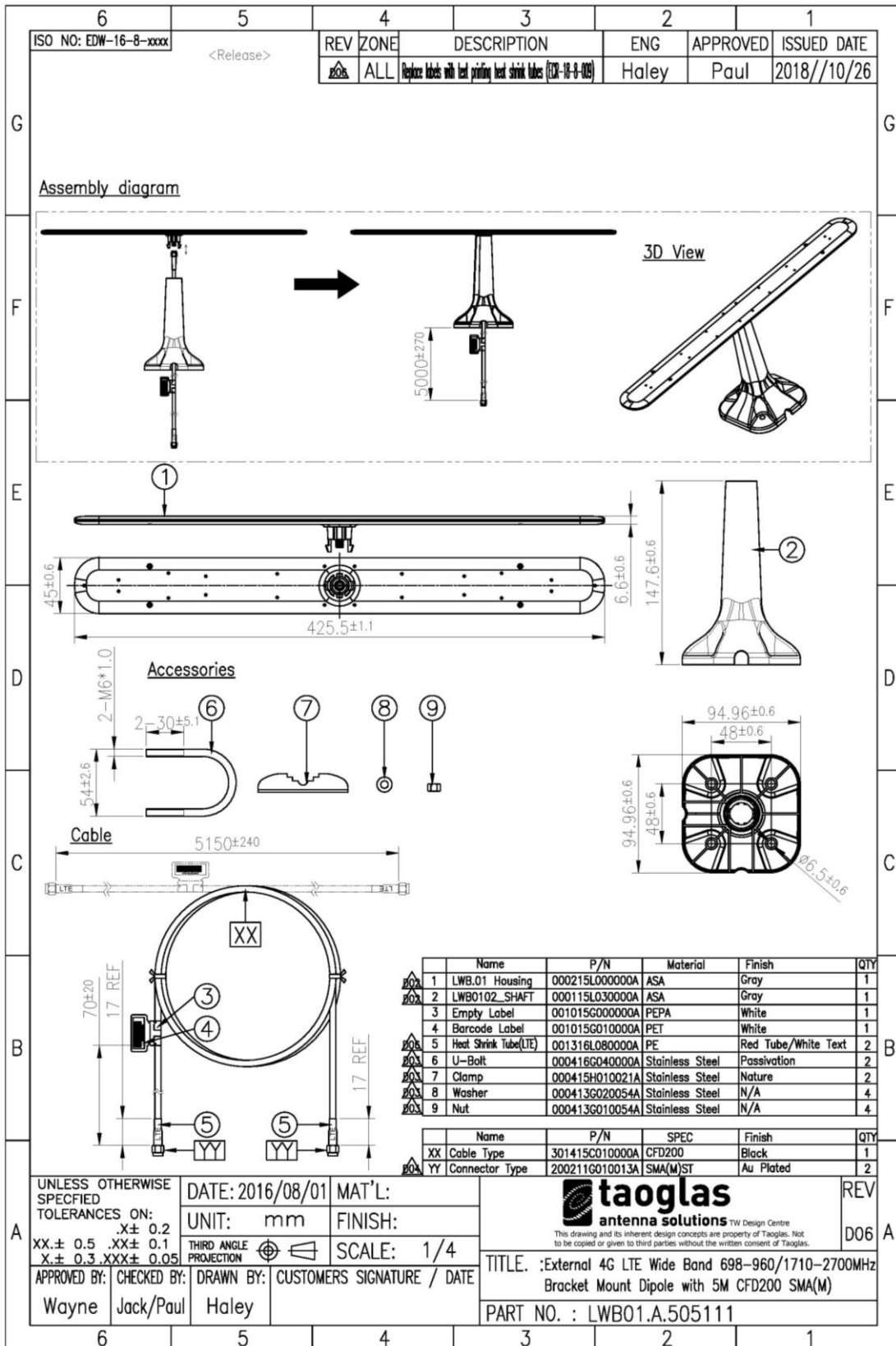
2500MHz



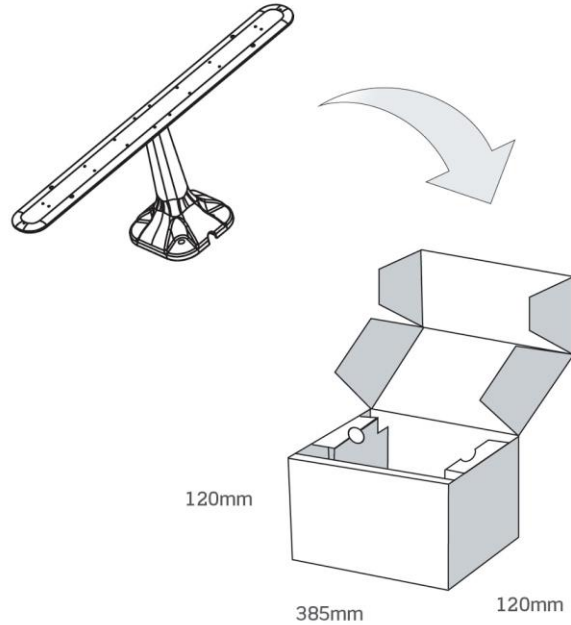
2690MHz



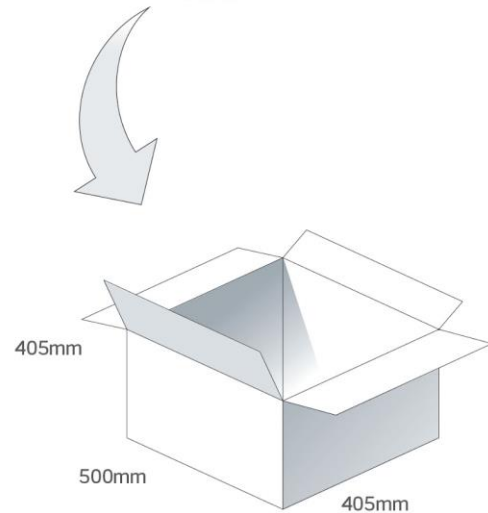
## 5. Drawing (Unit: mm)



## 6. Packaging

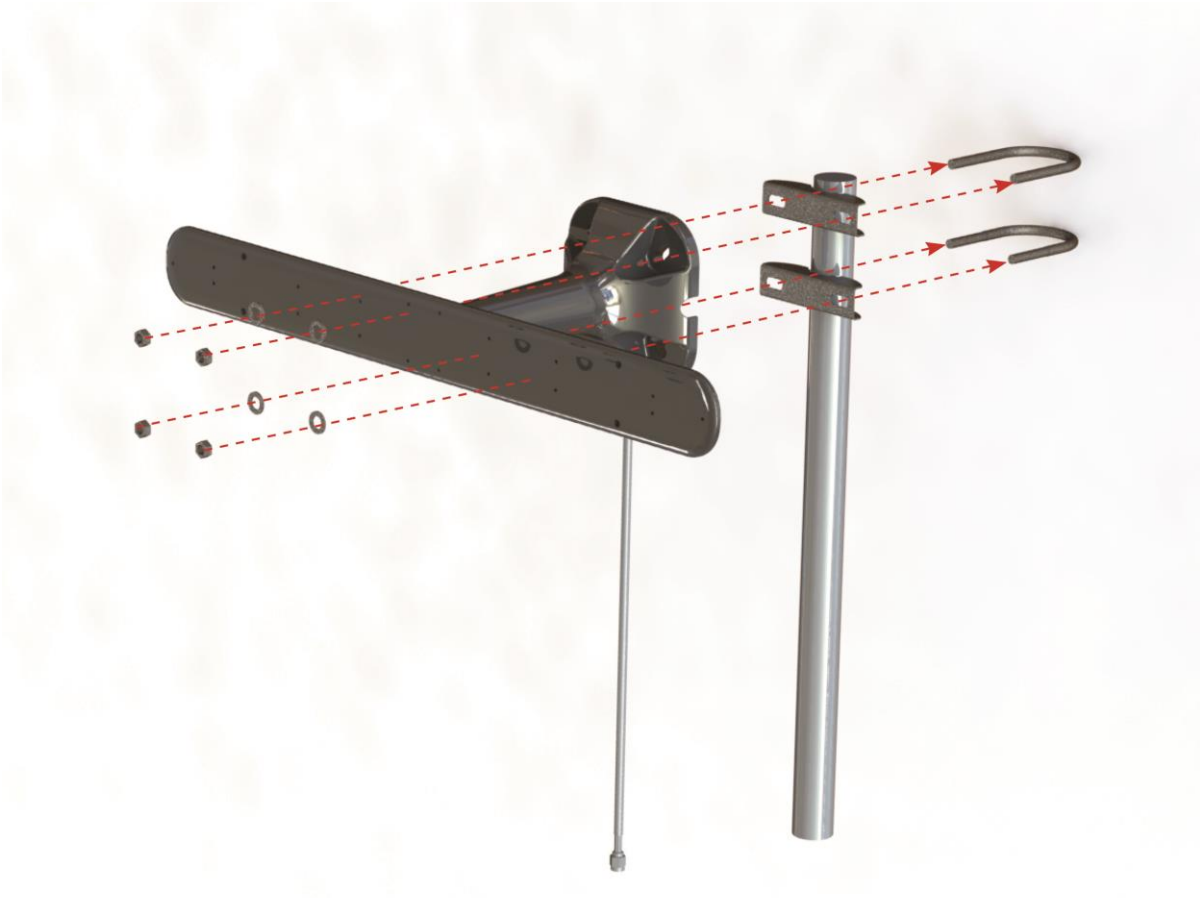


1 pc LWB01.A.505111 in box  
Dimensions - 385\*120\*120mm  
Weight - 743g



12 pcs LWB01.A.505111 in one carton  
Carton Dimensions - 405\*500\*380mm  
Weight - 10.12Kg

## 7. Installation Instructions





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