

Antenna

YB0032AA Datasheet

Antenna Services

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About the Document

Revision History

Version	Date	Author	Note
-	2021-02-25	Kenny YIN	Creation of the document
1.0	2021-02-25	Kenny YIN	First official release

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1 Product Description

The antenna is designed for superior performance, and can be widely used for wireless applications.

We provide comprehensive antenna design support such as simulation, testing and manufacturing for custom antenna solutions to meet your specific application needs.

2 Product Features

- Cellular LTE
- High efficiency
- Excellent performance

3 Product Specifications

LTE Electrical Specifications

Frequency Range	700-2700 MHz
Input Impedence	50 Ω
VSWR	≤ 3
Gain	≥ -2 dBi
Polarization Type	Linear

Mechanical Specifications

Antenna Box Size (mm)	$\Phi 120 \times 43$ mm
Casing	KIBILAC® ASA
Connect Type	SMA Male (center pin)
Working Temperature	-20 °C to +85 °C
Radome Color	Black
IP rating	IP67
Installation method	Screw

4 Overall Performance

4.1. Test Environment

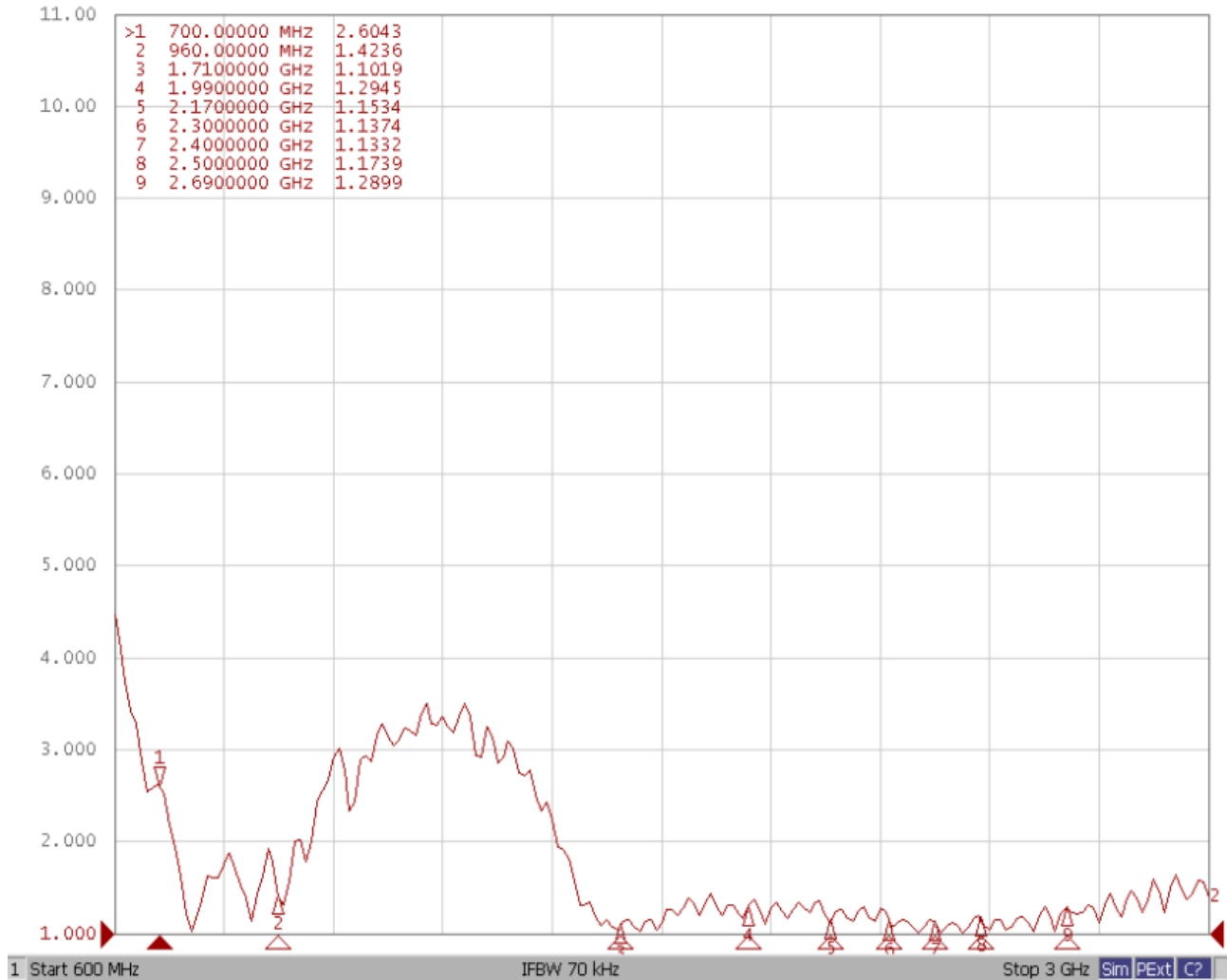
- KEYSIGHT VNA Network Analyzer E5063A 100 kHz – 6.5 GHz
- RayZone® 2800 Chamber 5G (FR1) SISO/MIMO, 400 MHz – 6.0 GHz



4.2. VSWR

LTE MIMO 1

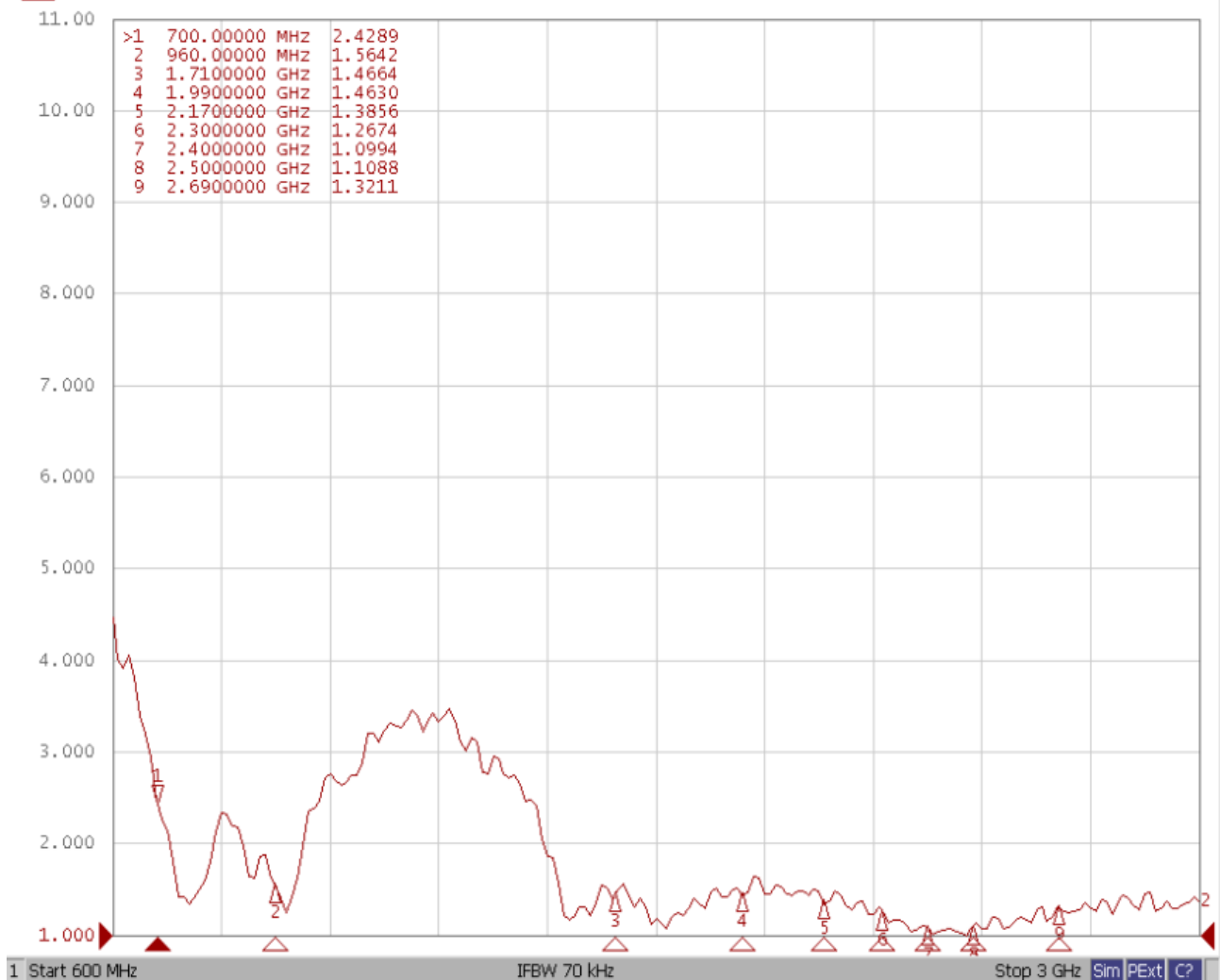
▶ **Tr2** S22 SWR 1.000/ Ref 1.000 [F2]



Frequency (MHz)	700	960	1710	2170	2300	2400	2500	2690
VSWR	2.60	1.42	1.10	1.15	1.13	1.13	1.17	1.28

LTE MIMO 2

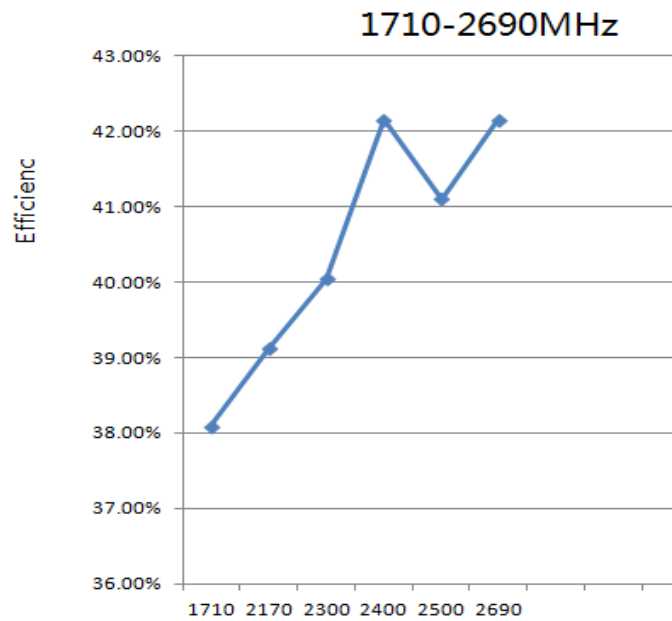
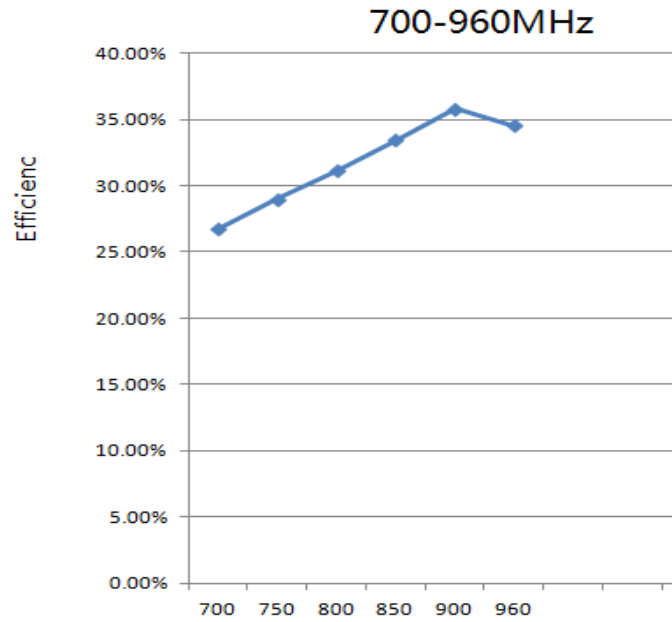
▶ **F2** S22 SWR 1.000/ Ref 1.000 [F2]



Frequency (MHz)	700	960	1710	2170	2300	2400	2500	2690
VSWR	2.42	1.56	1.46	1.38	1.26	1.09	1.10	1.32

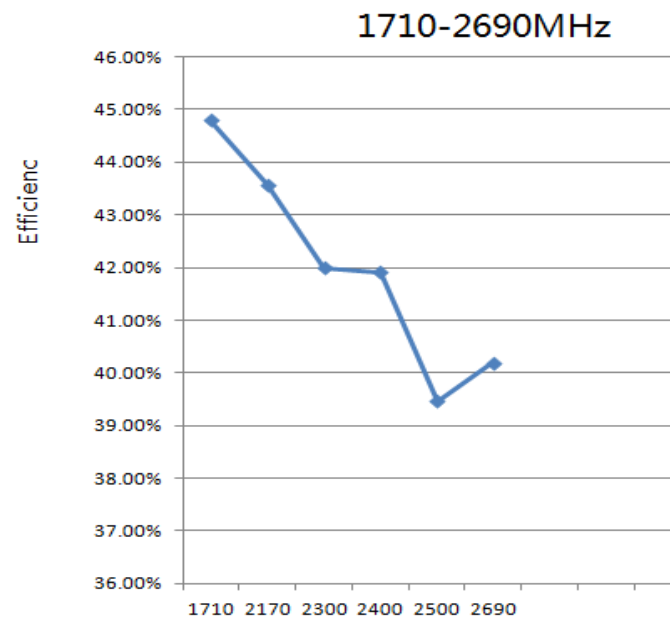
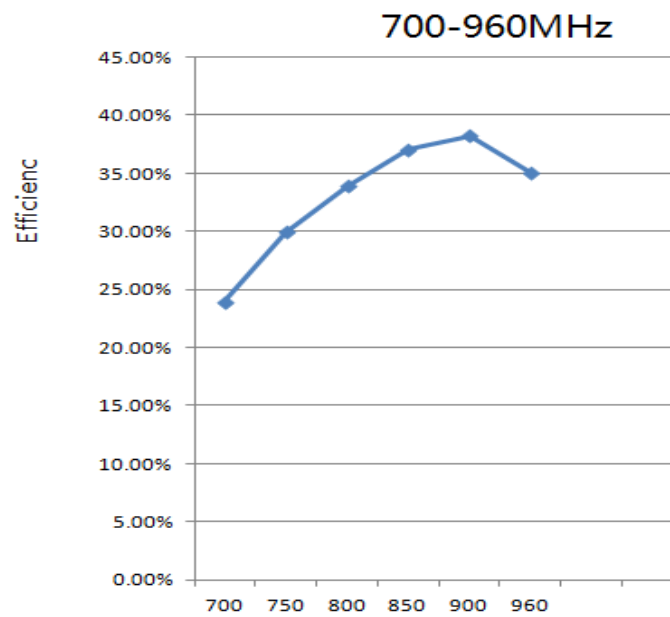
4.3. Efficiency

LTE MIMO 1



Frequency (MHz)	700	960	1710	2170	2300	2400	2500	2690
Efficiency (%)	26.73	34.54	38.09	39.12	40.04	42.15	41.10	42.15

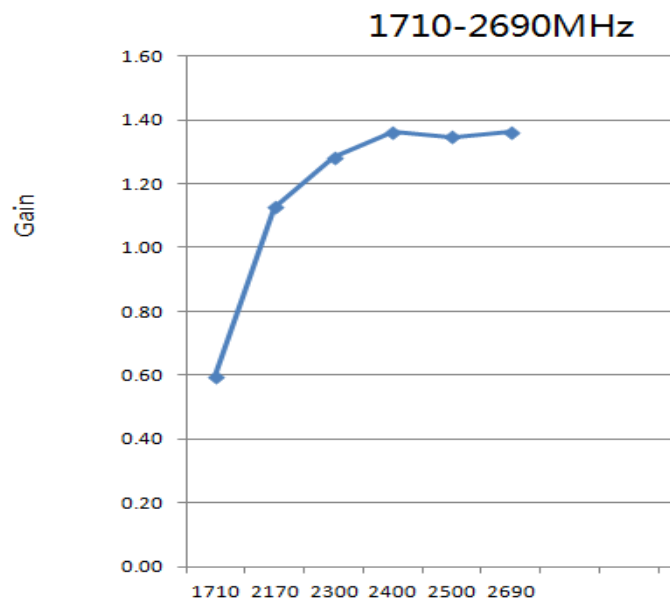
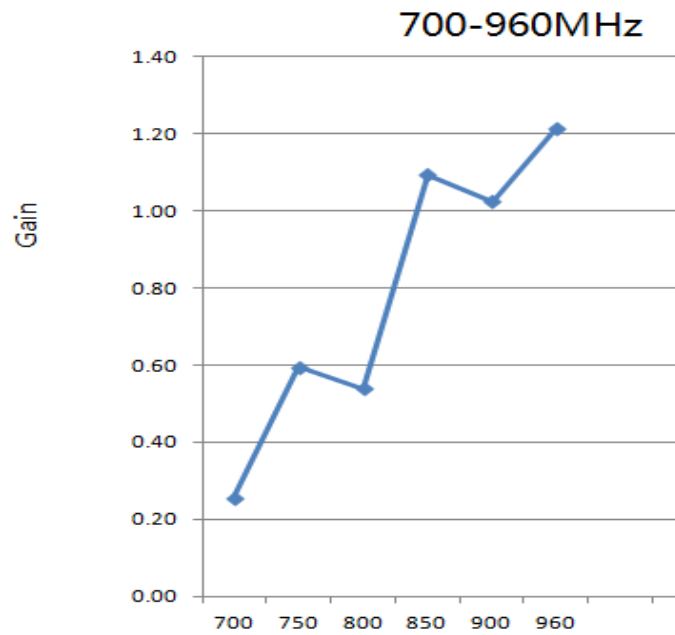
LTE MIMO 2



Frequency (MHz)	700	960	1710	2170	2300	2400	2500	2690
Efficiency (%)	24.32	35.12	44.79	43.57	41.99	41.91	39.46	40.19

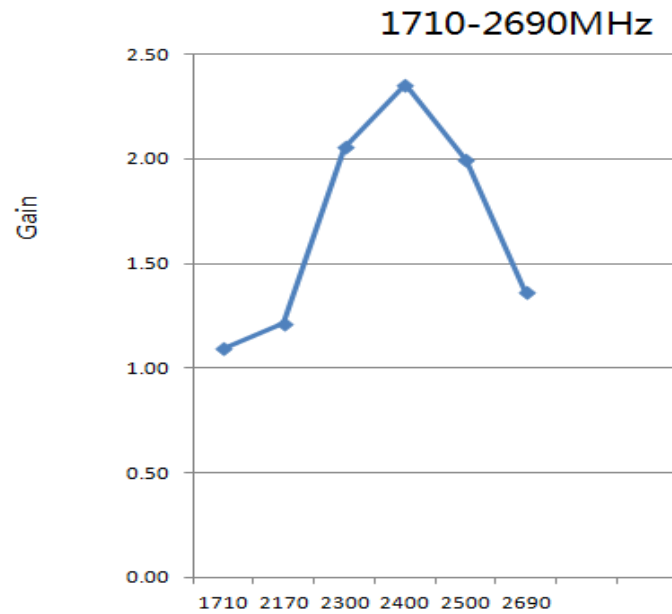
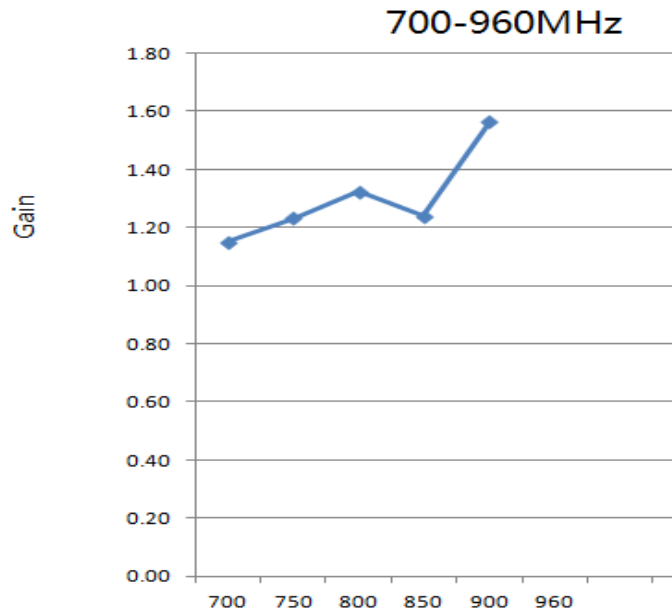
4.4. Gain

LTE MIMO 1



Frequency (MHz)	700	960	1710	2170	2300	2400	2500	2690
Gain (dBi)	0.26	1.21	0.60	1.13	1.28	1.36	1.35	1.36

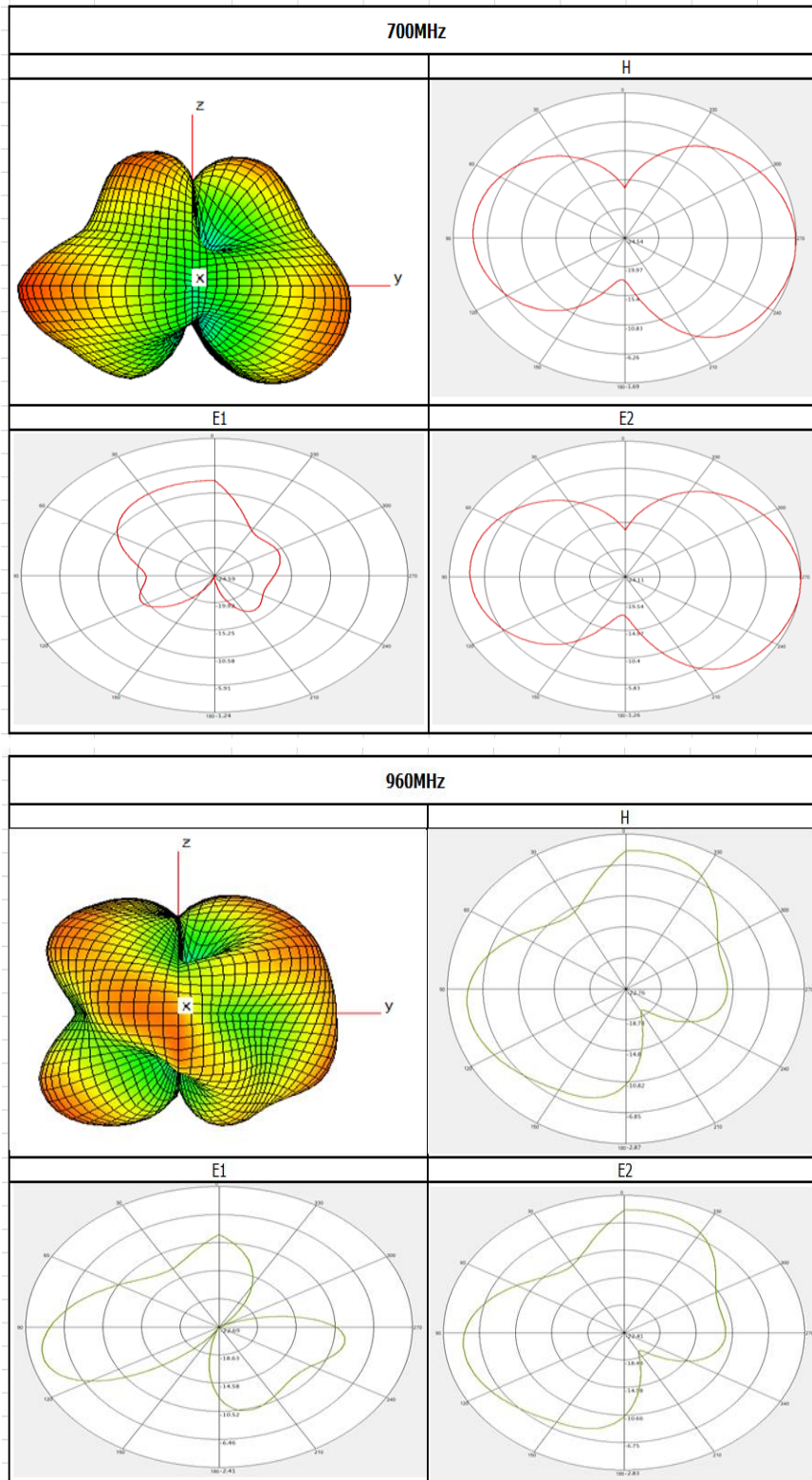
LTE MIMO 2

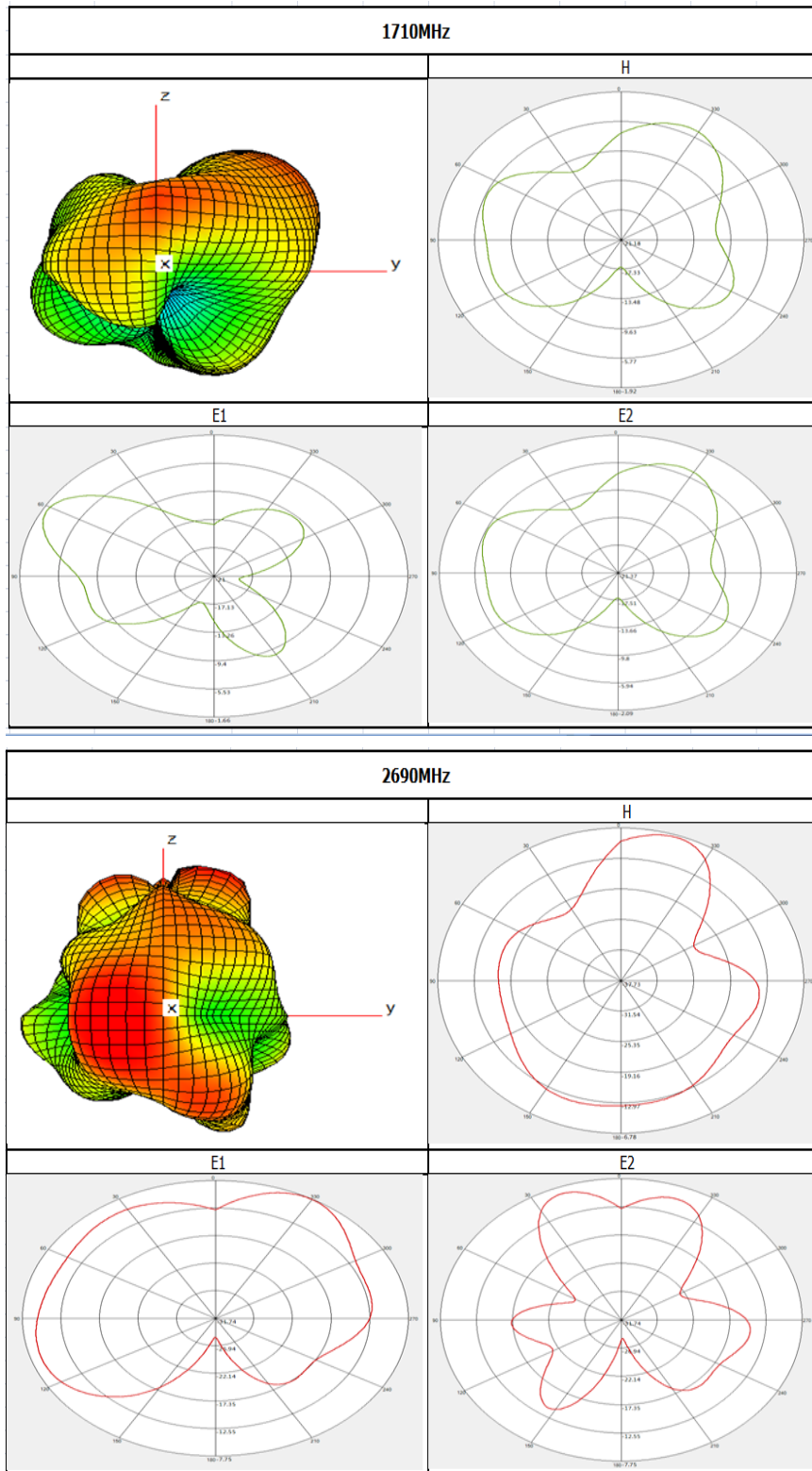


Frequency (MHz)	700	960	1710	2170	2300	2400	2500	2690
Gain (dBi)	0.82	1.56	1.09	1.21	2.05	2.36	1.99	1.36

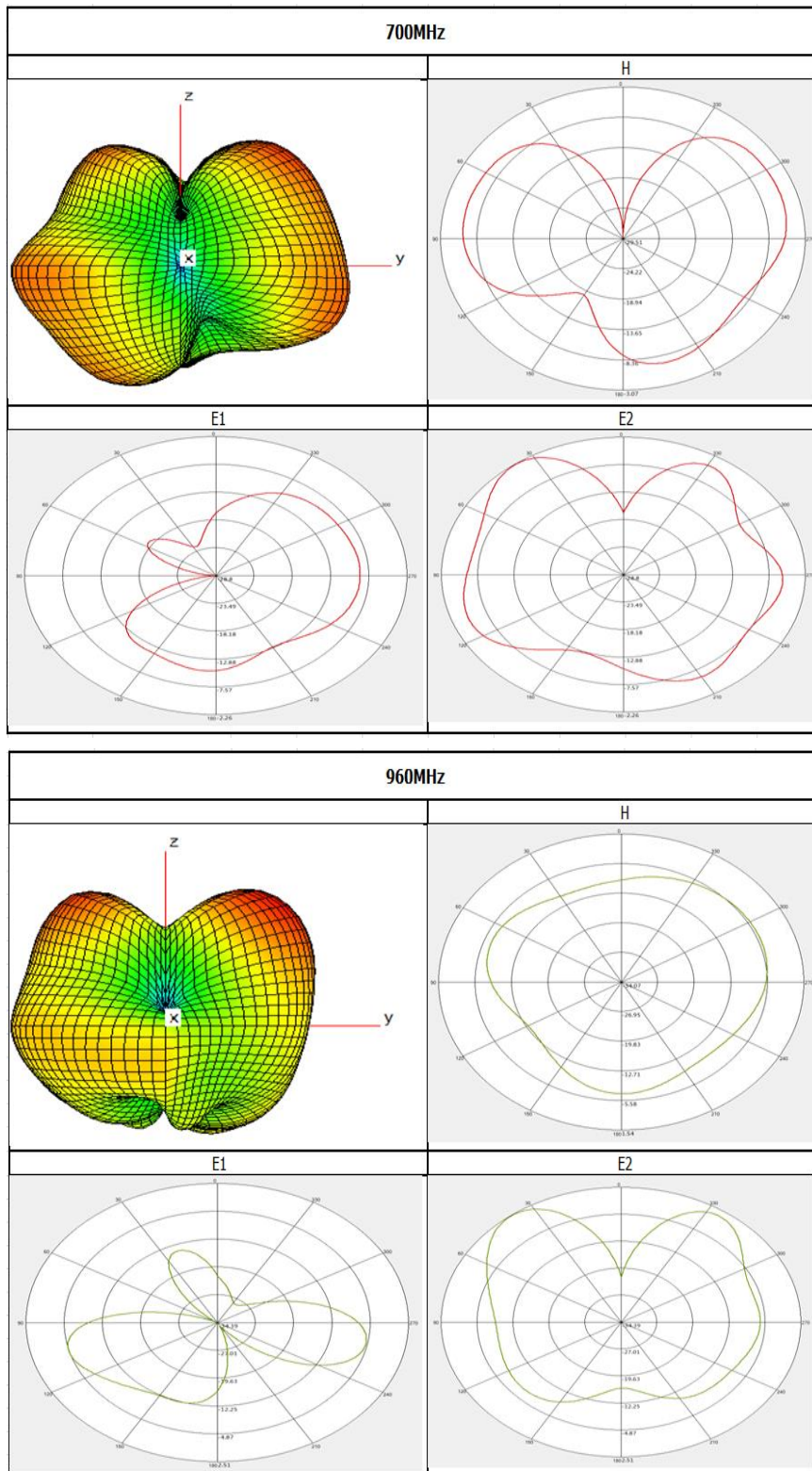
4.5. Radiation Patterns

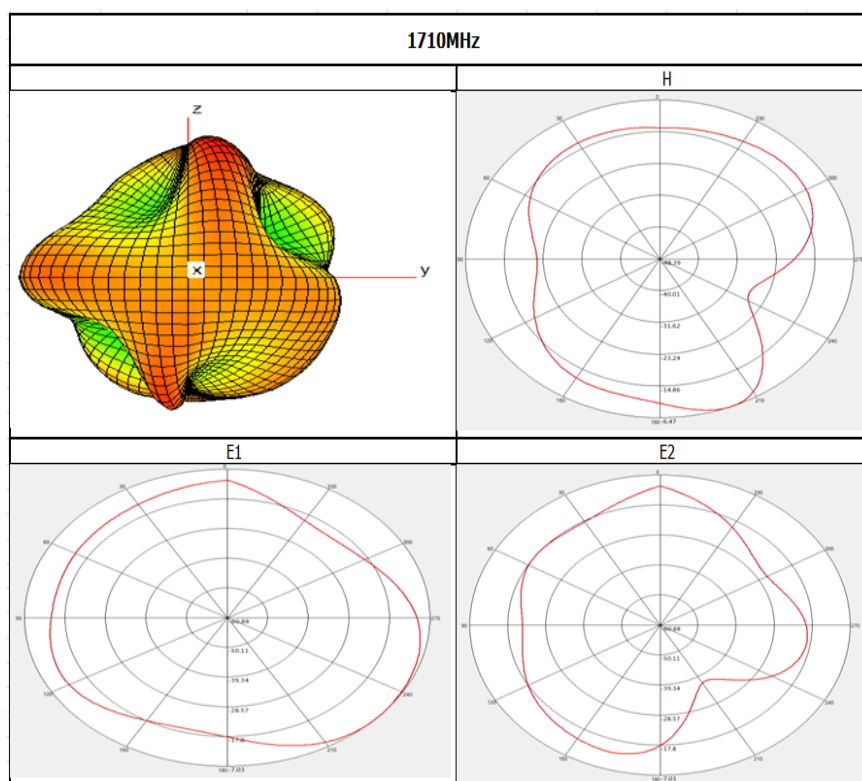
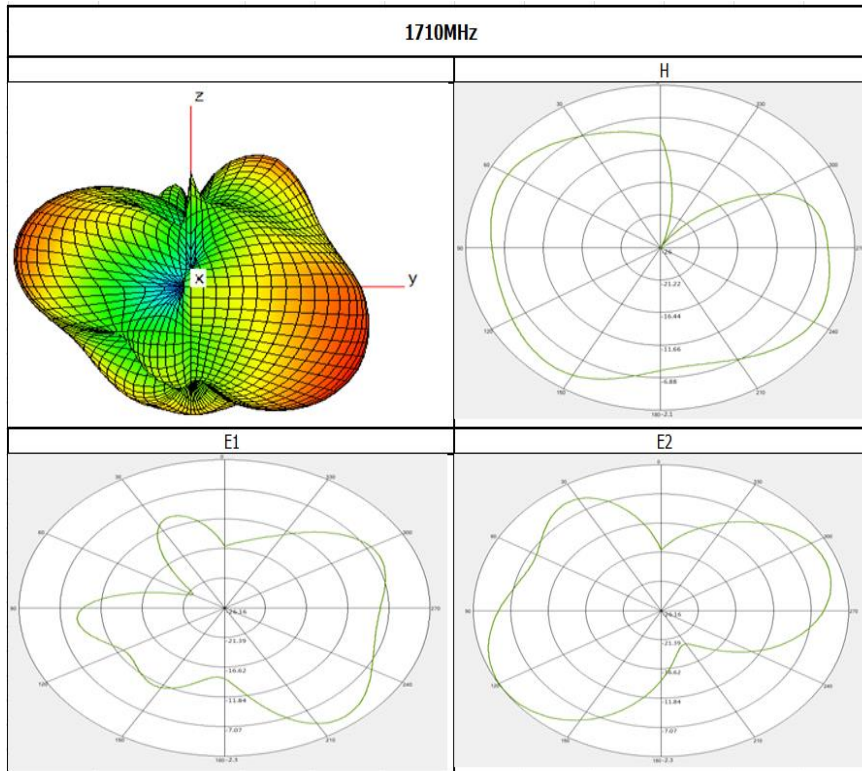
LTE MIMO 1





LTE MIMO 2

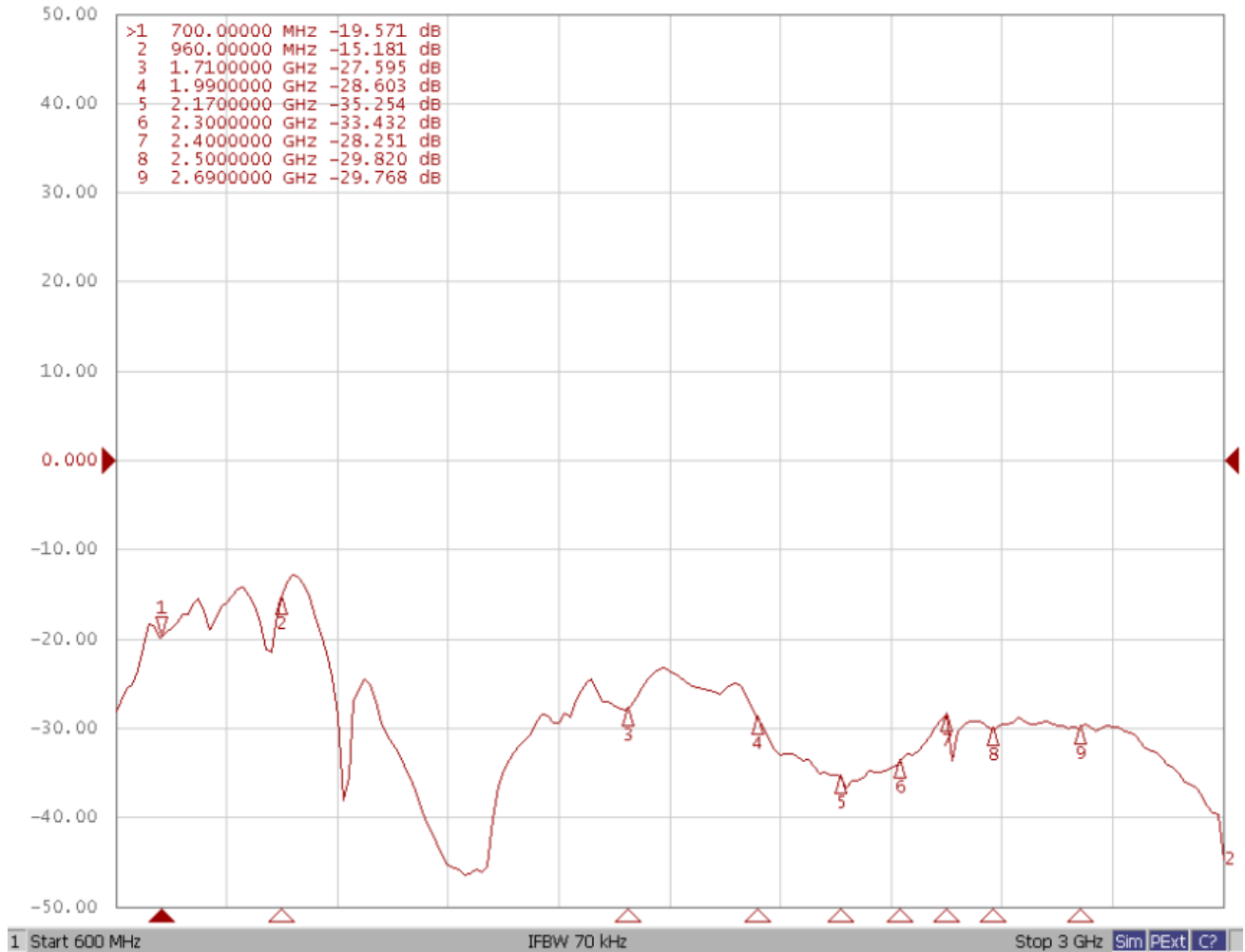




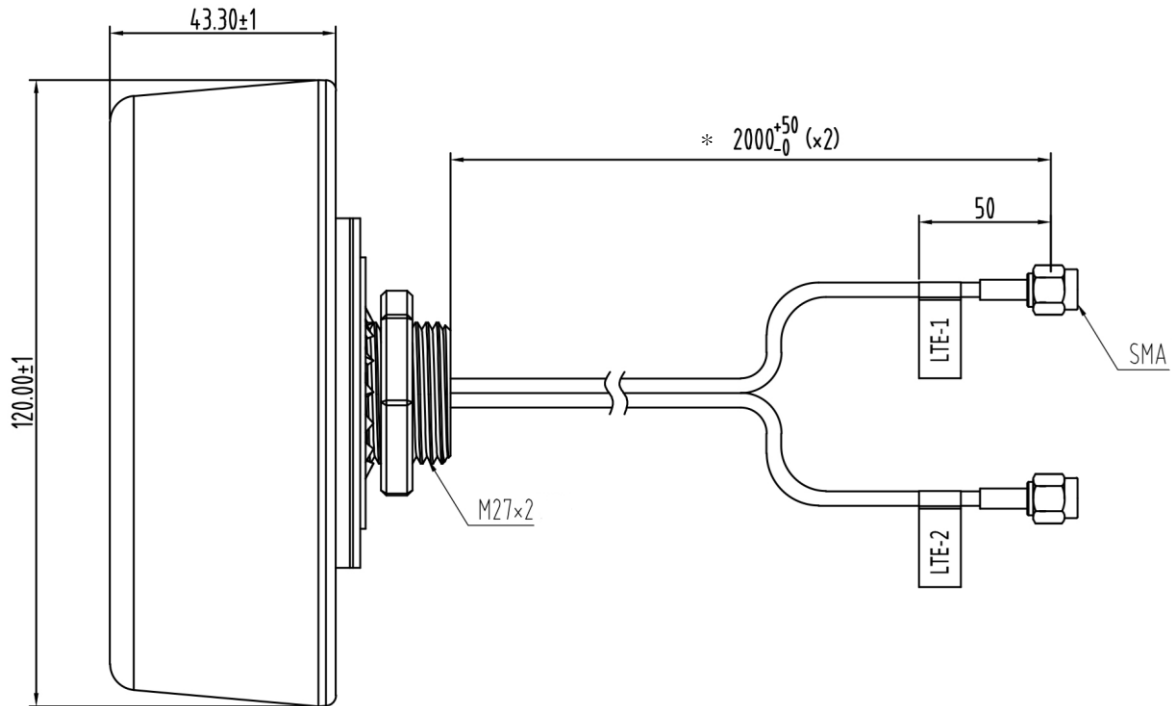
4.6. Insulation

LTE MIMO 1 & LTE MIMO 2

S12 Log Mag 10.00dB/ Ref 0.000dB [F2]



5 Product Size



6 Connect Description

As follows, the default SMA Male (center pin) is usually the setting that most users would probably choose.



7 Installation

- Recommended hole size: $\varnothing 28.0 \pm 0.5 \text{mm}$;
- Recommended wall thickness size: $3.0 \pm 1.0 \text{mm}$;

