Antenna

YFS001AA Datasheet

Antenna Services

Version: 1.2

Date: 2021-01-12

Status: Released

Our aim is to provide customers with timely and comprehensive service. For any assistance, please contact our company headquarters:

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About the Document

Revision History

Version	Date	Author	Note
1.0	2020-09-03	Kenny YIN	Initial
1.1	2020-09-10	Kenny YIN	Update Radiation Patterns in Chapter 4.5
1.2	2021-01-12	Kenny YIN	Updated the antenna image in Chapter 2.

Contents

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 5G & LTE
- High efficiency
- Excellent performance

3 Product Specifications

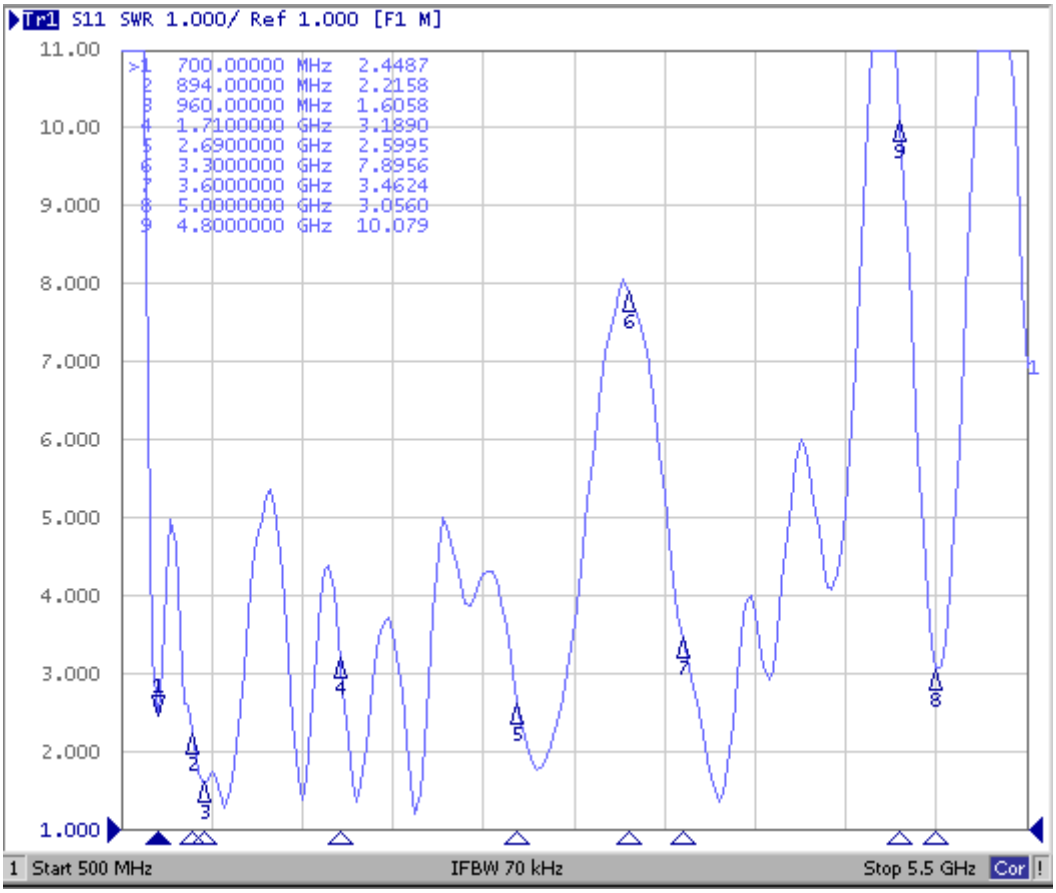
Passive Electrical Specifications	
Frequency Range	700–960 MHz 1710–2700 MHz 3300–3800 MHz 4400–5000 MHz
Input Impendence	50 Ω
VSWR	700–960 MHz ≤4.5 1710–2700 MHz ≤3.0 3300–5000 MHz ≤3.5
Gain	3 dBi
Polarization Type	Vertical
Mechanical Specifications	
Antenna Size (mm)	300 × Ø 22.6 mm
Casing	Fiberglass Tube
Radiator	Cuprum
Connect Type	N type (Male pin with internal thread)
Working Temperature	-40 °C to +80 °C
Radome Color	Gray
Waterproof grade	IP67

4 Overall Performance

4.1. Test Environment

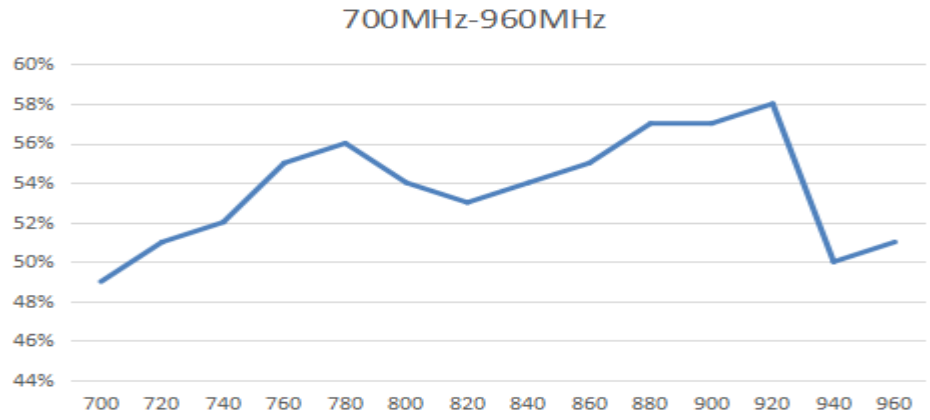
- KEYSIGHT VNA Network Analyzer, E5063A 100 kHz – 6.5 GHz
- RayZone® 2800 Chamber 5G (FR1) SISO/MIMO, 400 MHz – 6.0 GHz.

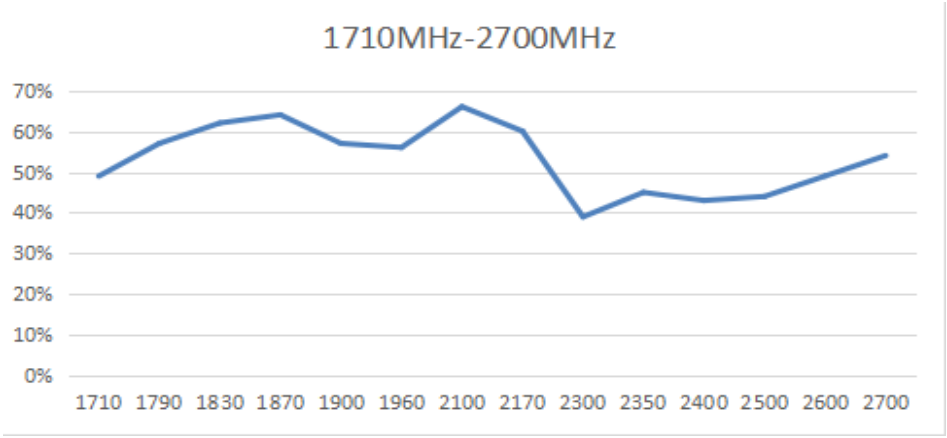
4.2. VSWR

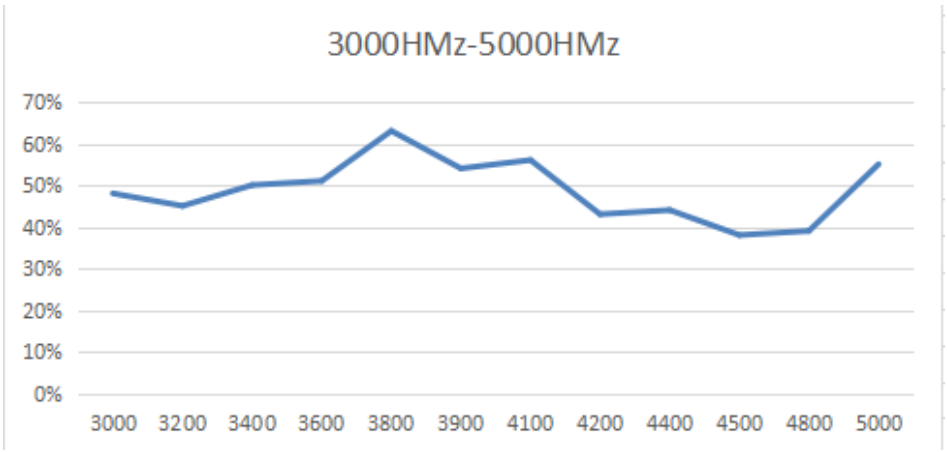


Frequency (MHz)	700	824	960	1710	2690	3300	4800	5000
VSWR	2.3	3.8	2.6	3.2	2.0	4.8	5.9	2.0

4.3. Efficiency

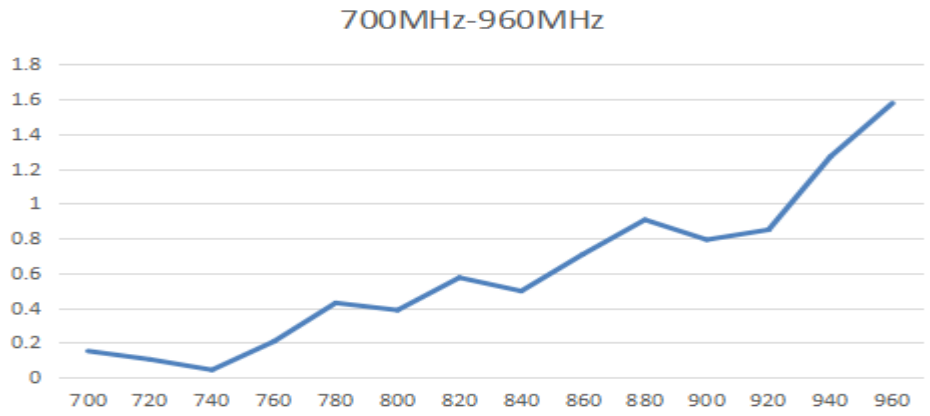


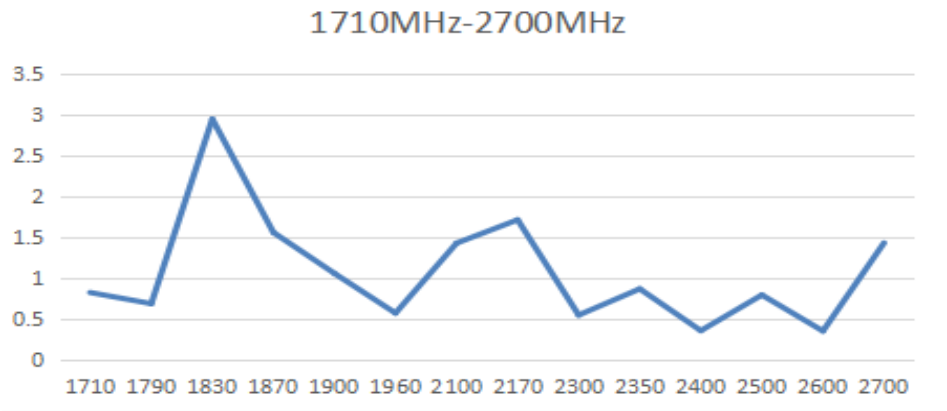


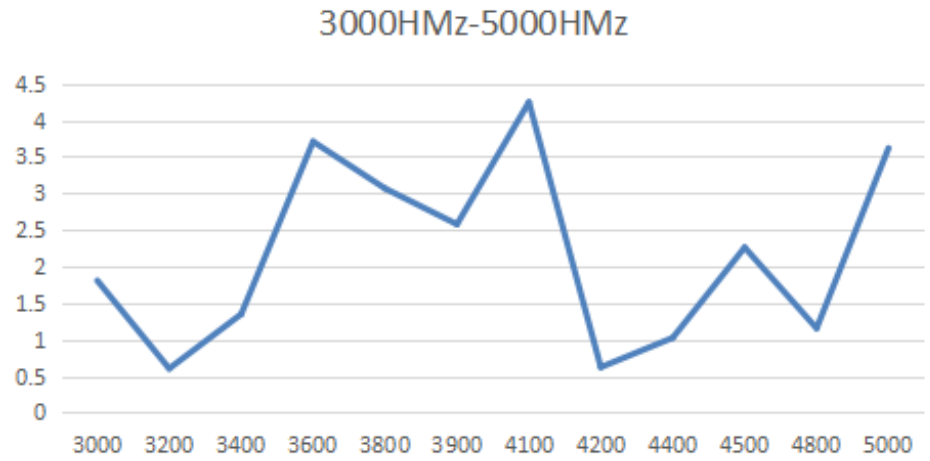


Frequency (MHz)	700	824	960	1710	2690	3300	4800	5000
Efficiency (%)	49	54	51	49	54	46	39	55

4.4. Gain

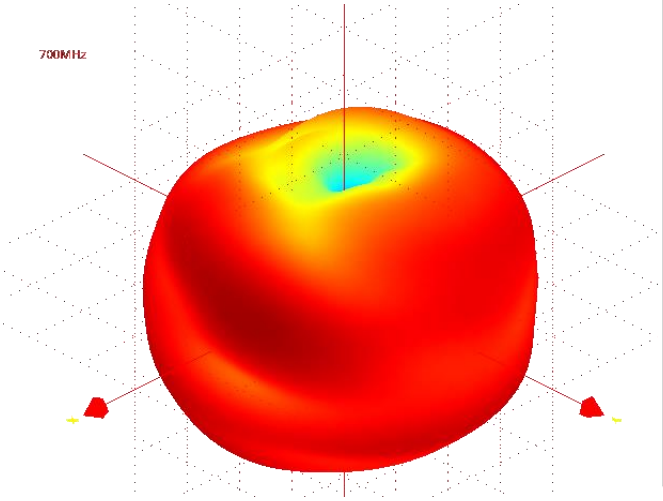


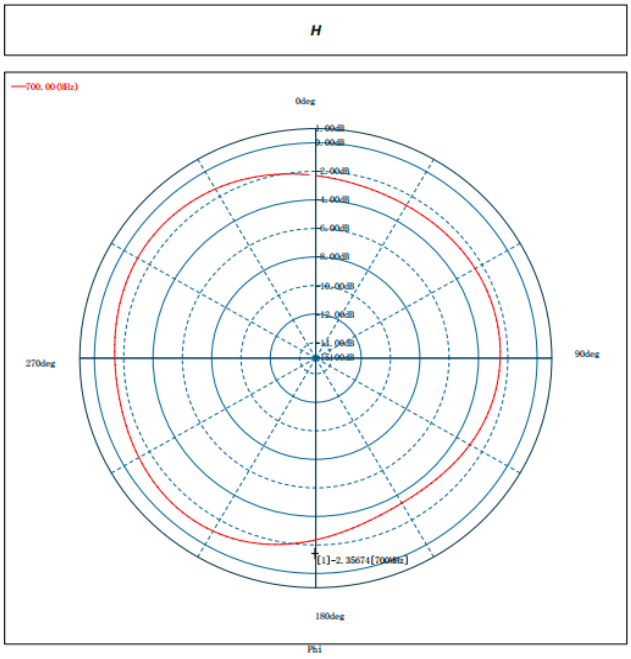


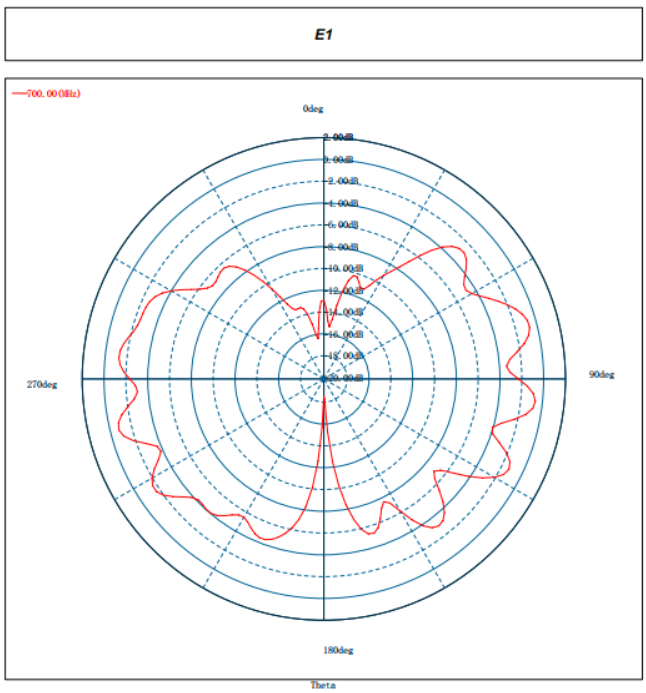


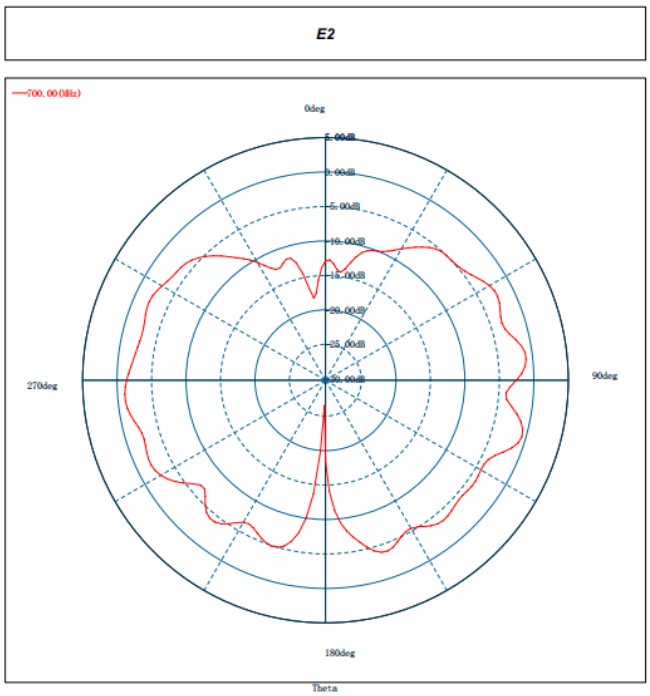
Frequency (MHz)	700	824	960	1710	2690	3300	4800	5000
Gain (dBi)	0.15	0.49	1.5	0.8	1.4	0.8	1.1	3.6

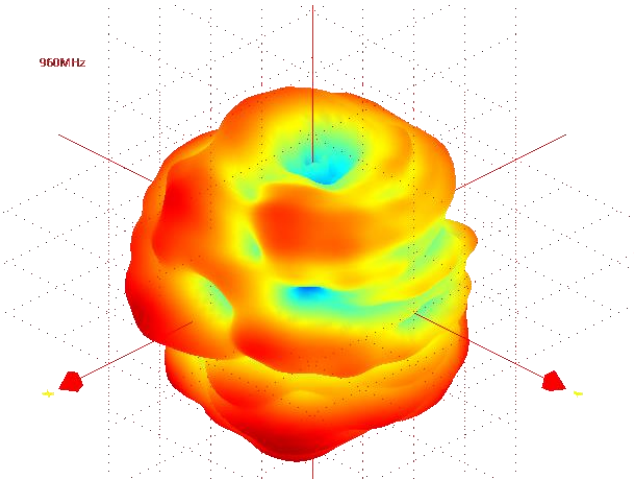
4.5. Radiation Patterns



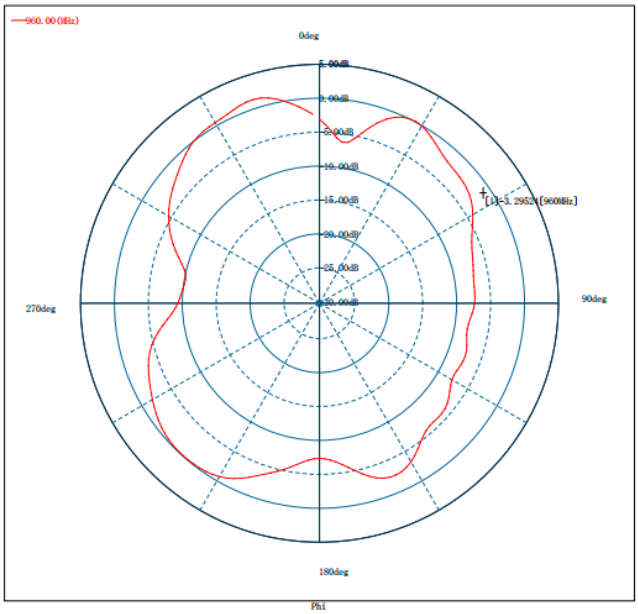




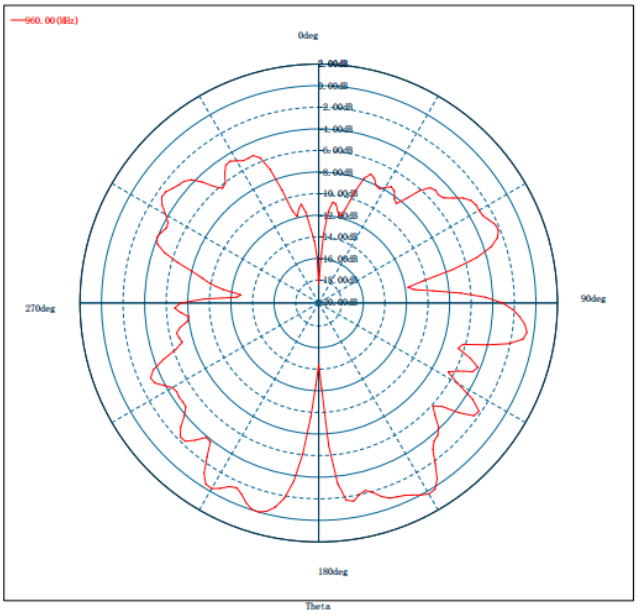



960MHz

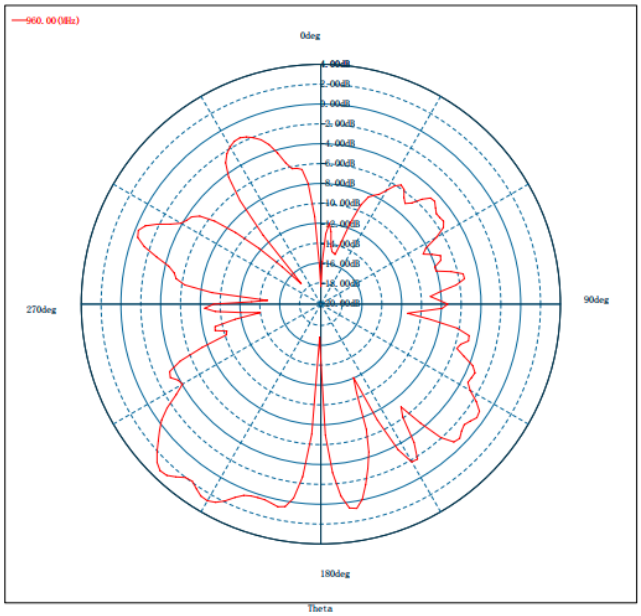
H

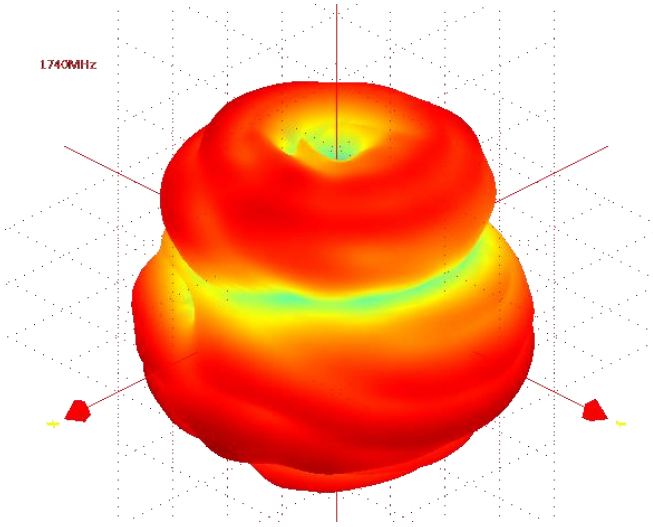

960.00(MHz)
0deg
90deg
180deg
270deg
Phi

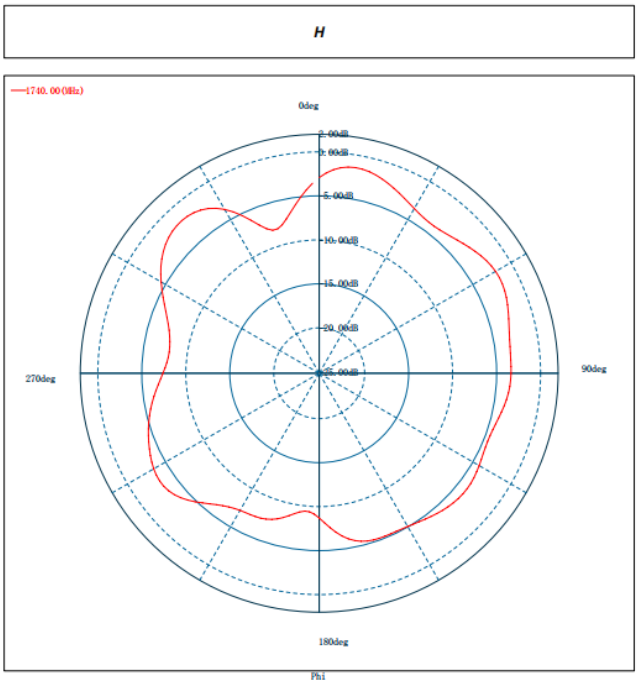
E1

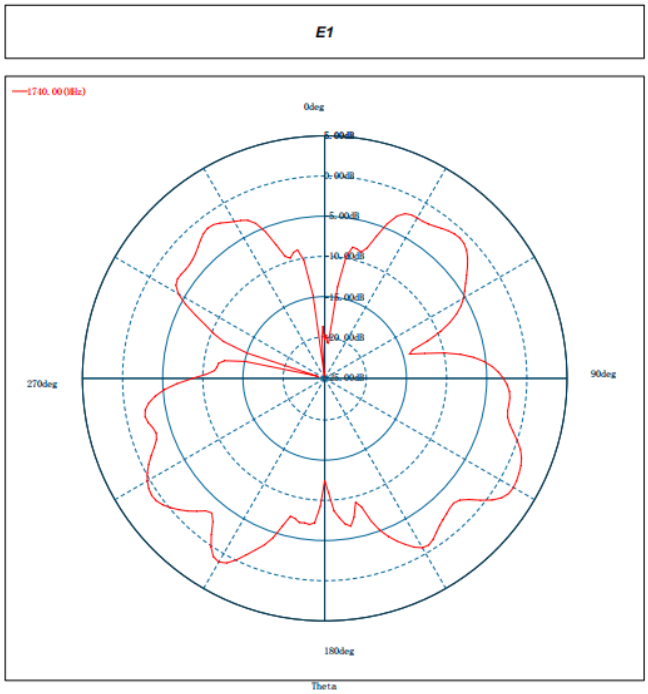

960.00(MHz)
0deg
90deg
180deg
270deg
Theta

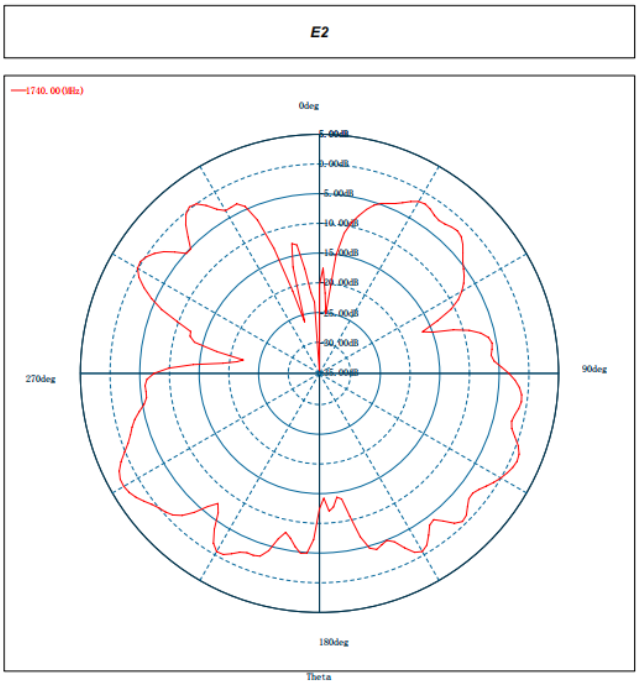
E2


960.00(MHz)
0deg
90deg
180deg
270deg
Theta


1740MHz


H
1740.00(MHz)
0deg
90deg
180deg
270deg
Phi


E1
1740.00(MHz)
0deg
90deg
180deg
270deg
Theta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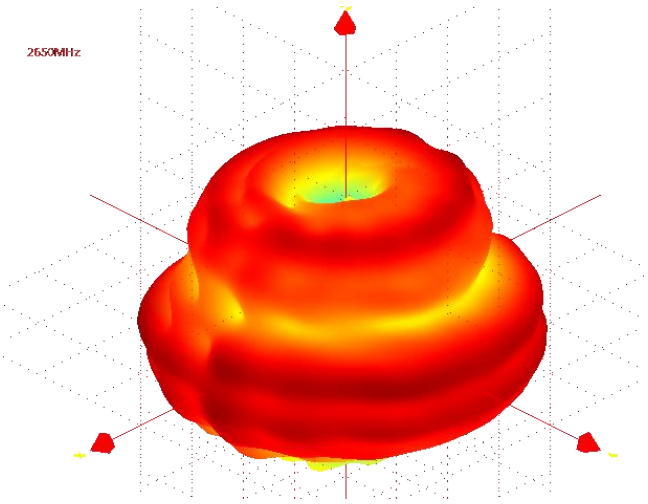
90deg
180deg
270deg
Theta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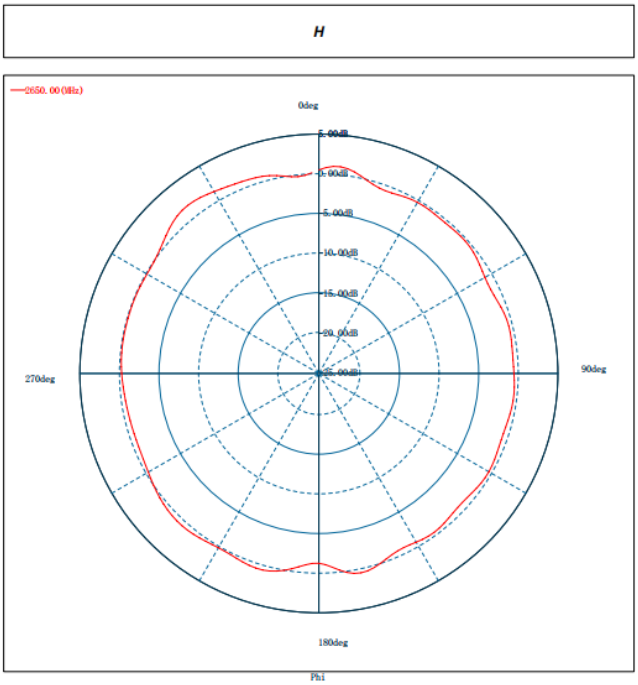
H
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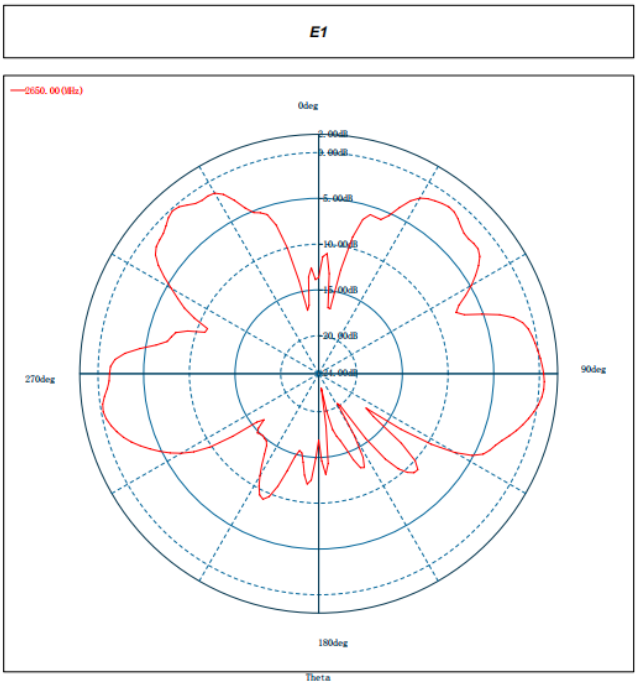
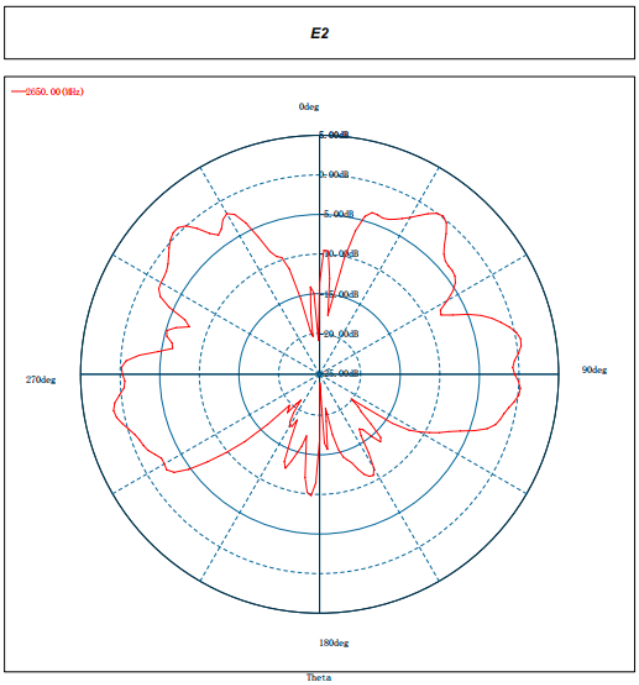
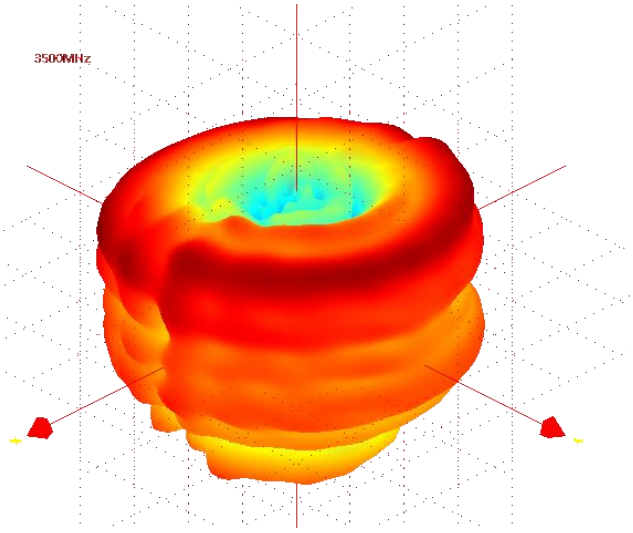
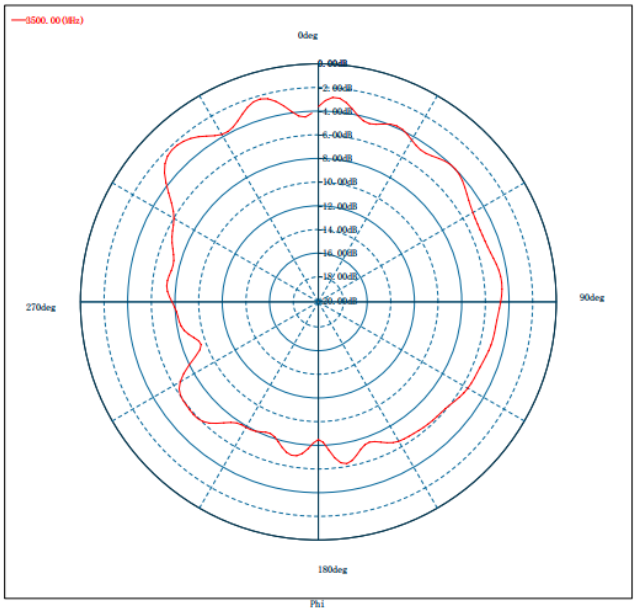
90deg
180deg
270deg
Phi


E1
2650.00(MHz)
0deg
90deg
180deg
270deg
Theta


E2
2650.00(MHz)
0deg
90deg
180deg
270deg
Theta


3500MHz

H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0deg
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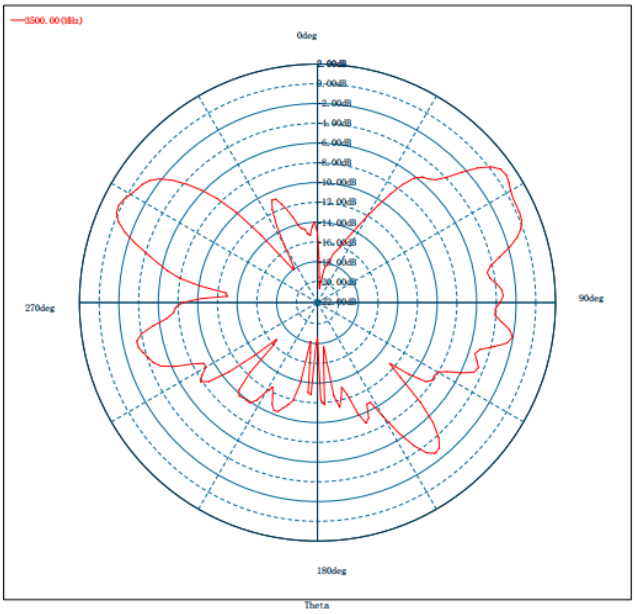
180deg
270deg
Phi

E1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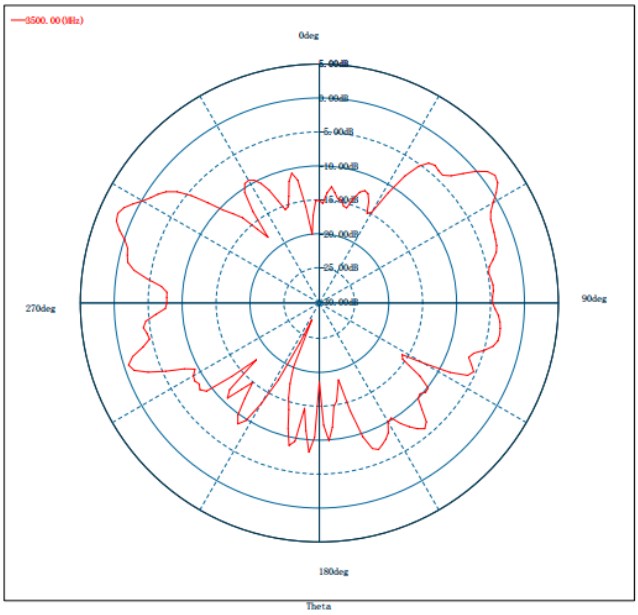
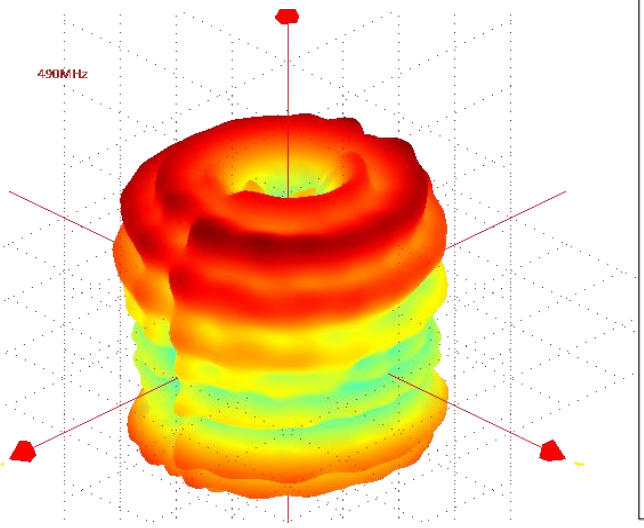
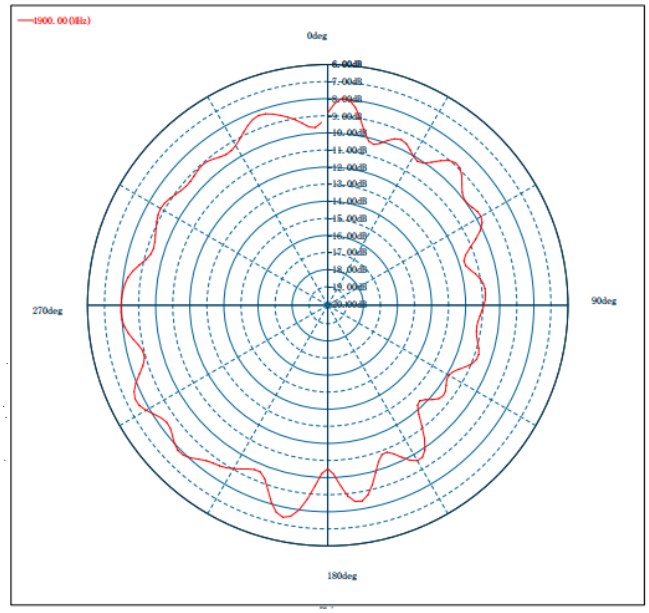
0deg
90deg
180deg
270deg
Theta

E2


3500.00(MHz)
0deg
90deg
180deg
270deg
Theta


4900MHz

H


1900.00(MHz)
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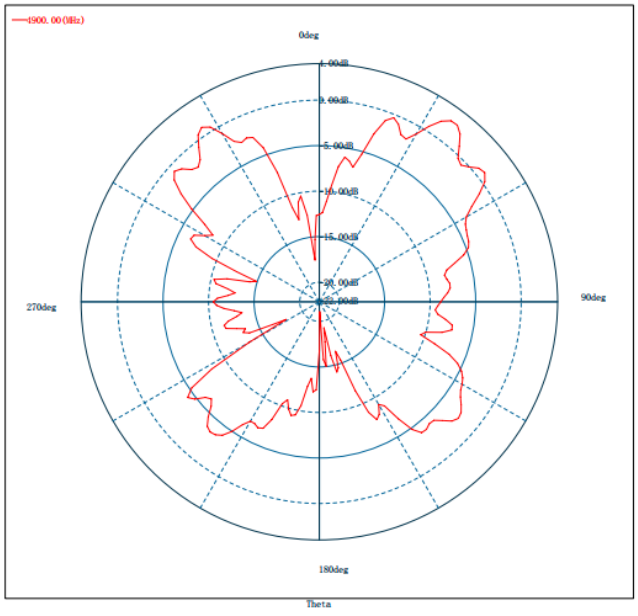
90deg
180deg
270deg

E1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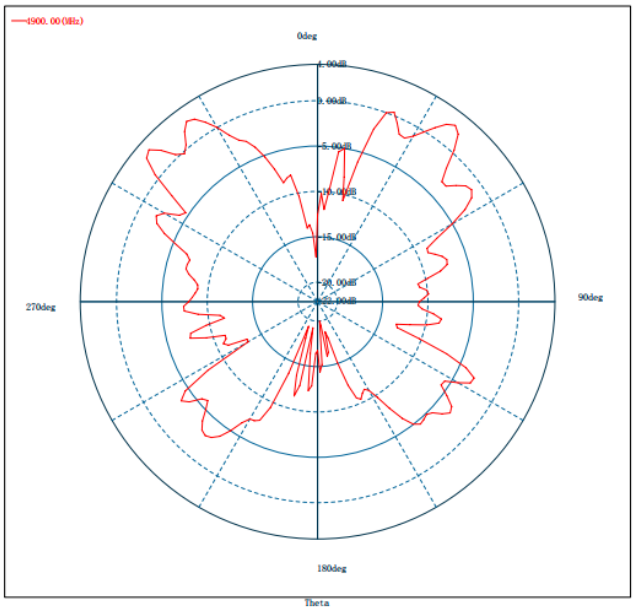
90deg
180deg
270deg
Theta

E2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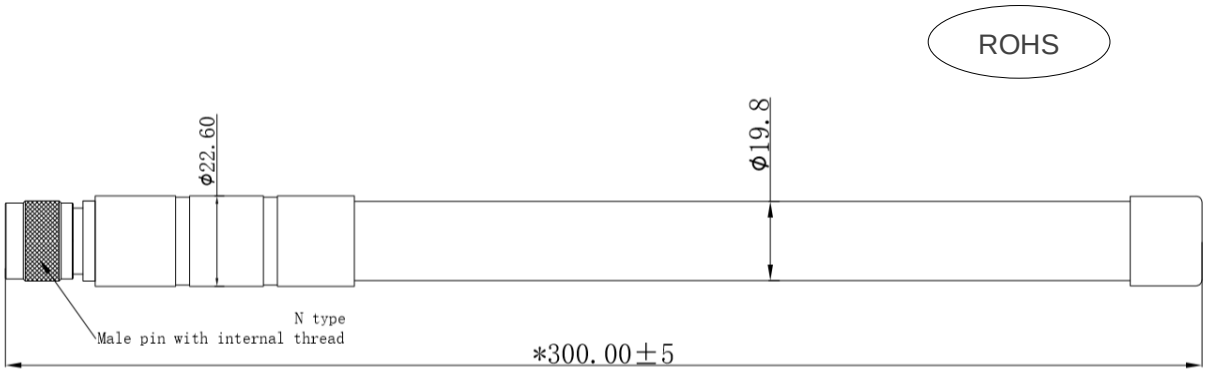
180deg
270deg
Theta

5 Product Size



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