Antenna

YZJ002AA Datasheet

Antenna Services

Version: 1.0

Date: 2021-12-10

Status: Preliminary

At Quectel, our aim is to provide timely and comprehensive services to our customers. If you require any assistance, please contact our headquarters:

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About the Document

Revision History

Version	Date	Author	Note
-	2021-12-10	Qinming Peng/ Jason Long	Creation of the document
1.0	2021-12-10	Qinming Peng/ Jason Long	First official release

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 LTE
- High efficiency
- Excellent performance

3 Product Specifications

Passive Electrical Specifications	
Frequency Range	620-960MHz，1710-2200MHz
Input Impendence	50 Ω
VSWR	≤ 10.0
Gain	≤ 4dBii
Polarization Type	Linear

Detailed Passive Electrical Specifications			
Frequency Range (MHz)	620-824	824-960	1710-2200
VSWR (Max.)	9.87	7.72	3.52
Average Efficiency (%)	37.94	13.91	44.48
Max. Peak Gain (dBi)	1.33	-3.27	3.51

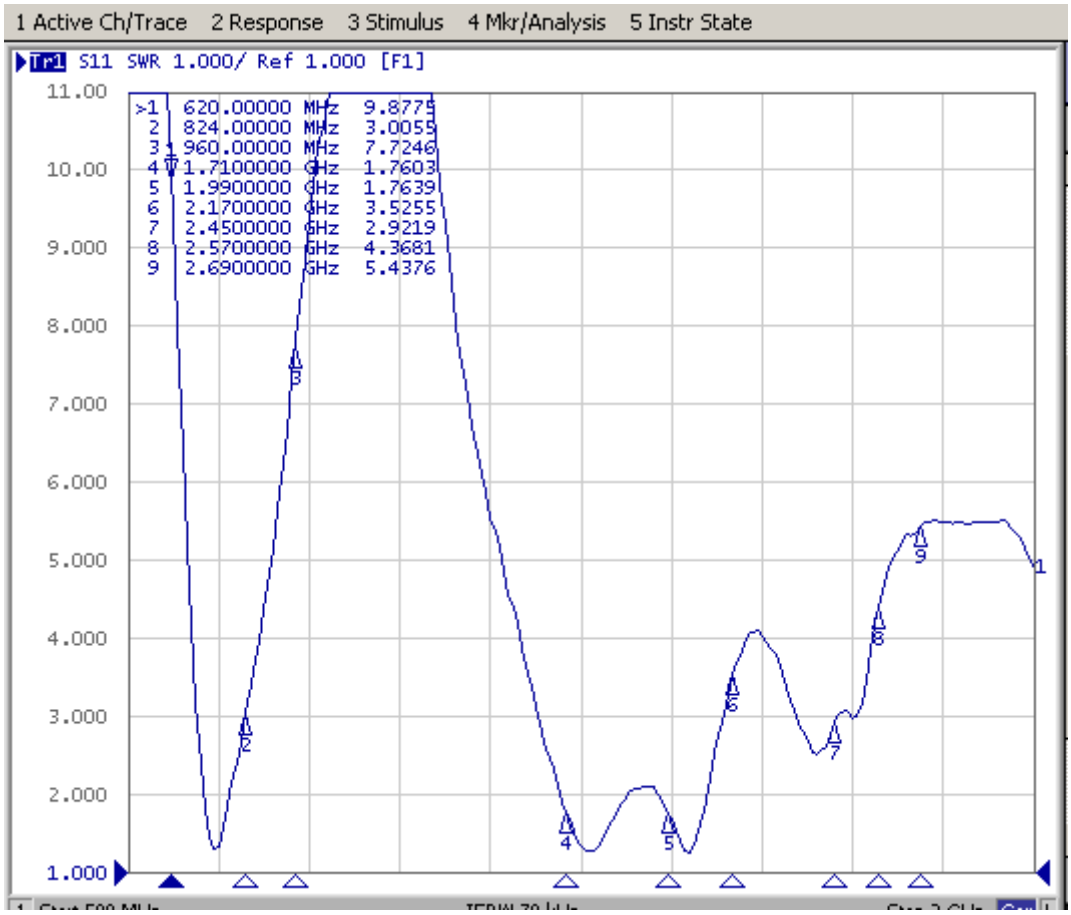
Mechanical Specifications	
Antenna Size (mm)	44.7×4.9
Working Temperature	-20 °C to +85 °C
Radome Color	Black
Mounting Type	Adhesive

4 Overall Performance

4.1. Test Environment

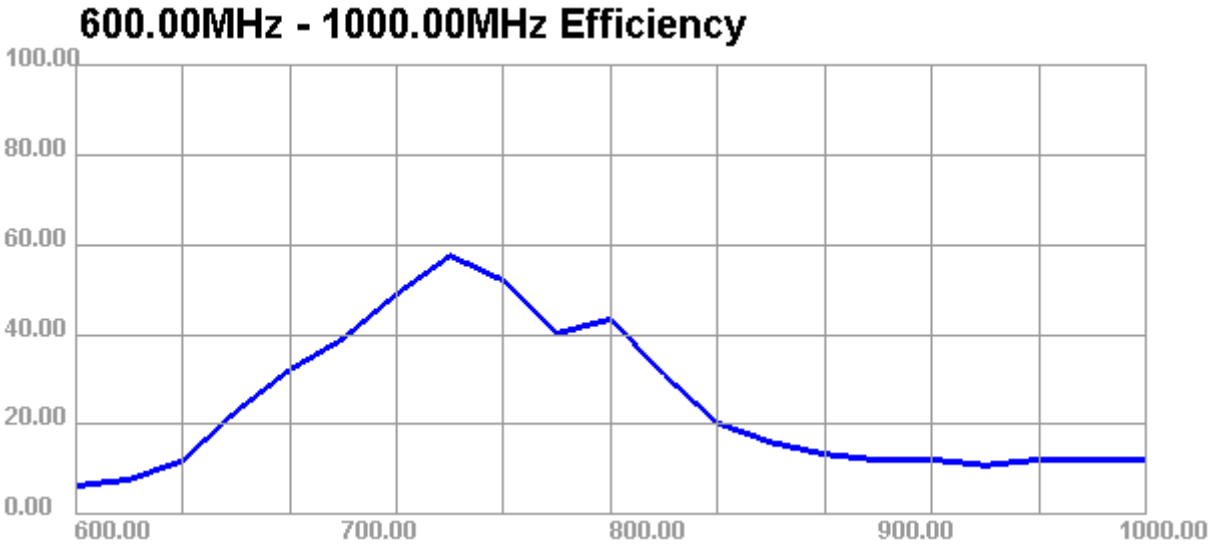
- KEYSIGHT VNA Network Analyzer E5063A 100 kHz – 8.5 GHz
- RayZone® 2800 Chamber 5G (FR1) SISO/MIMO, 400 MHz – 8.0 GHz

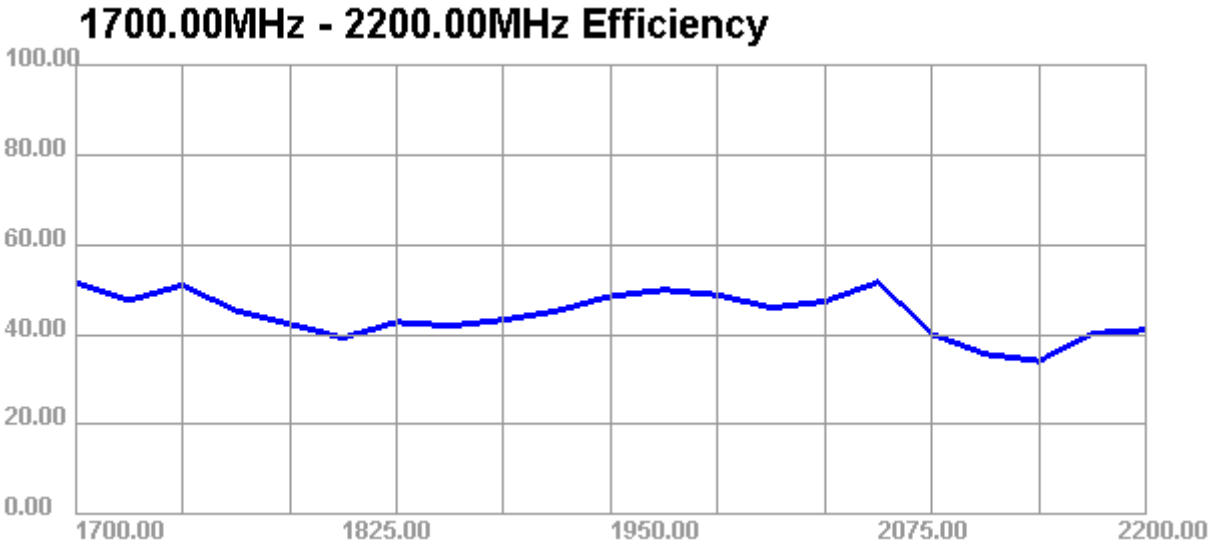
4.2. VSWR



Frequency (MHz)	620	824	960	1710	1990	2170	2450	2570	2690
VSWR	9.8	3.0	7.7	1.76	1.76	3.52	2.92	4.37	5.44

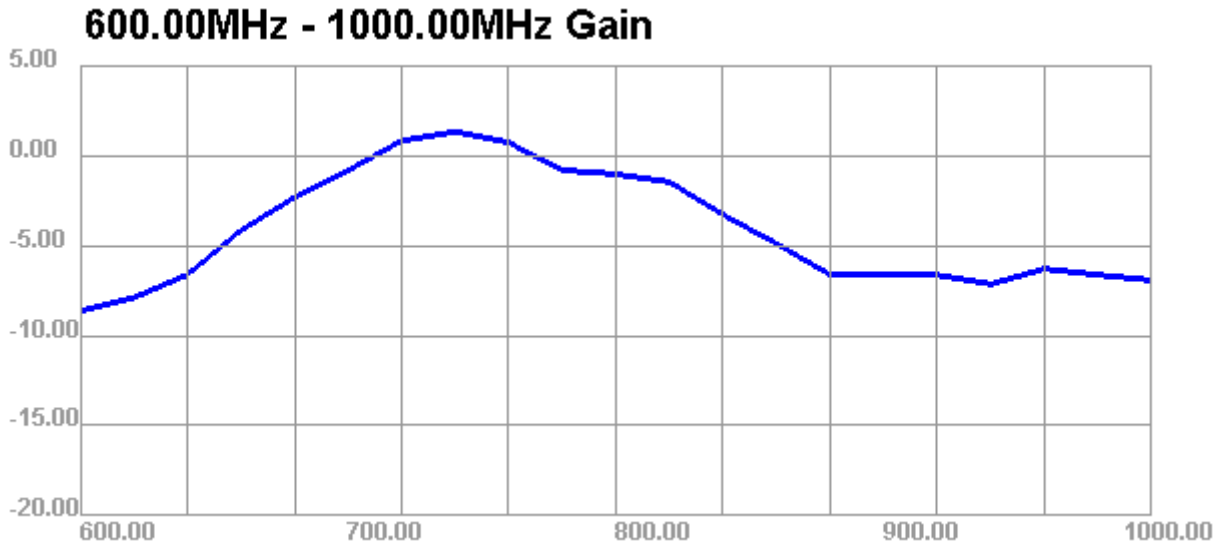
4.3. Efficiency

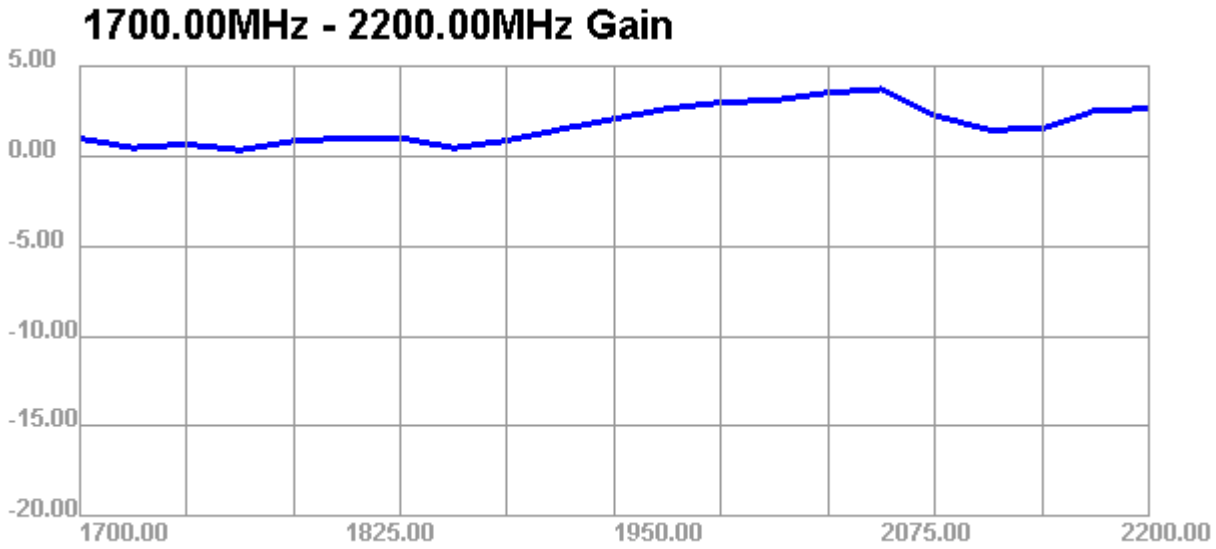




Frequency (MHz)	600	700	840	960	1700	1950	2150	2200
Efficiency (%)	6.41	39.08	20.31	12.21	51.52	48.57	34.15	41.03

4.4. Gain

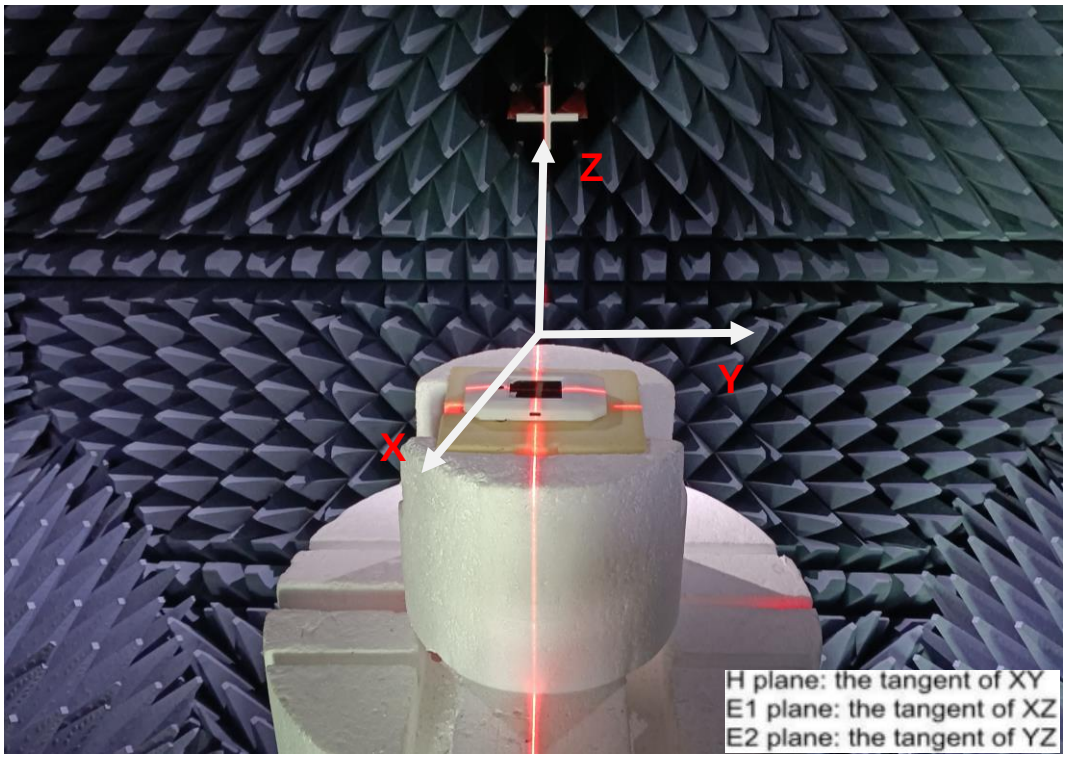


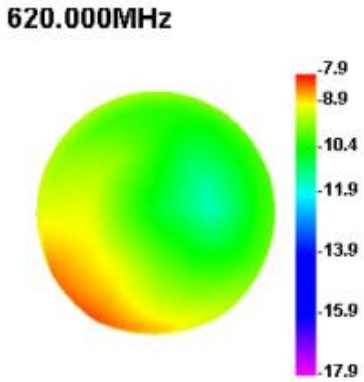


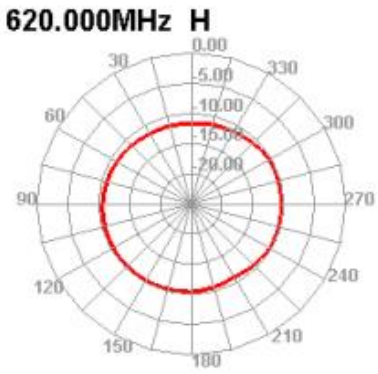
Frequency (MHz)	600	700	840	960	1700	1950	2150	2200
Gain (dBi)	-8.62	-0.82	-3.27	-6.29	0.98	2.06	1.5	2.61

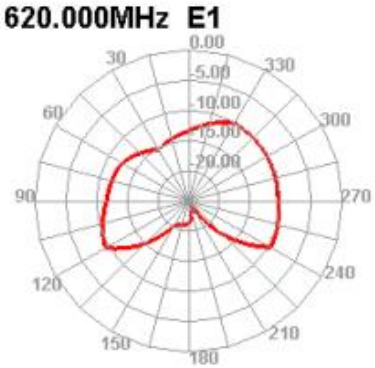
4.5. Radiation Pattern

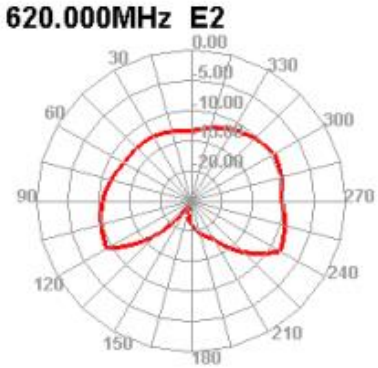
- Test condition: free space



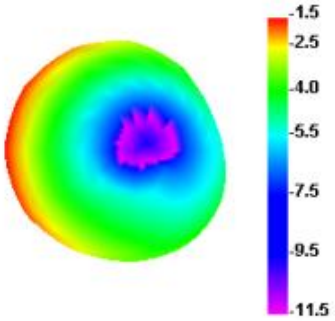




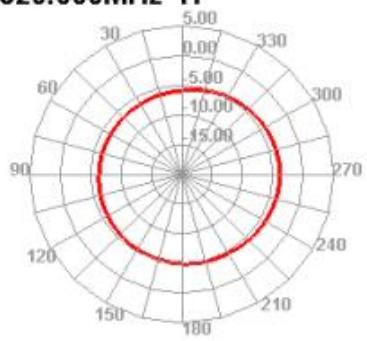




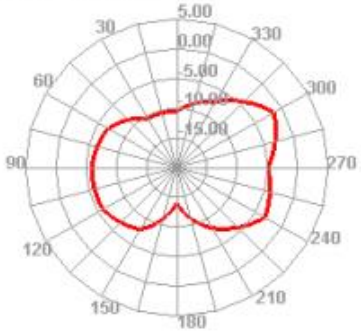
820.000MHz



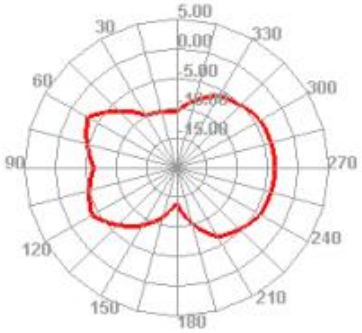
820.000MHz H



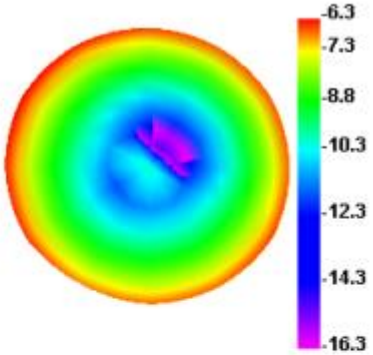
820.000MHz E1



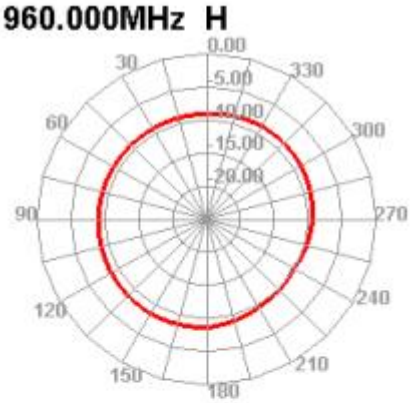
820.000MHz E2



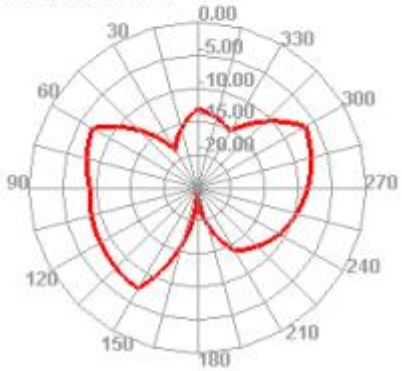
960.000MHz



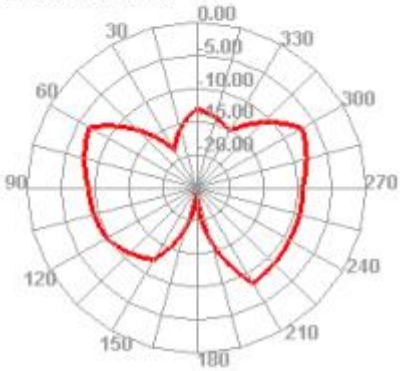
960.000MHz H



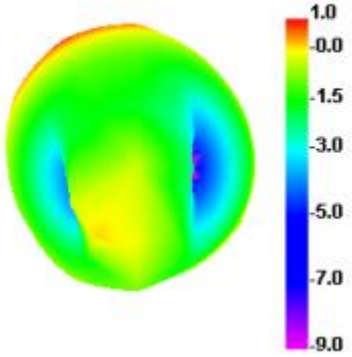
960.000MHz E1



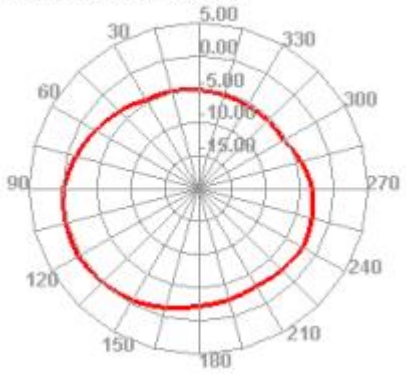
960.000MHz E2



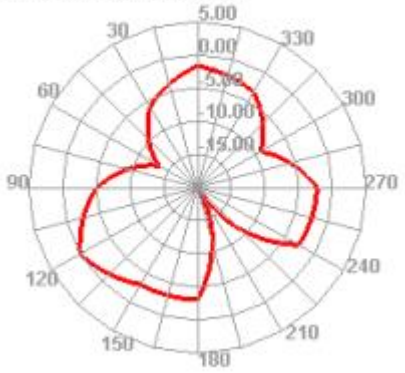
1700.000MHz



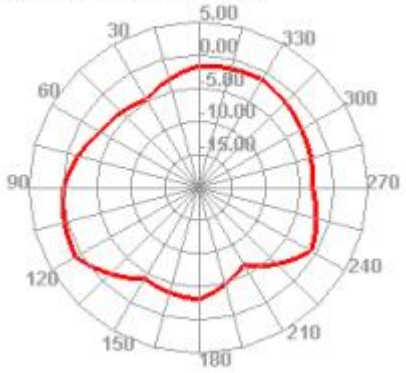
1700.000MHz H



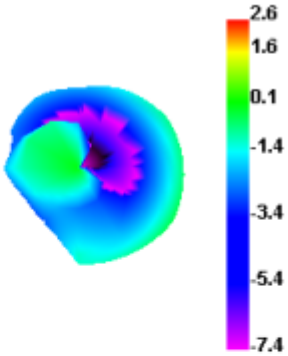
1700.000MHz E1



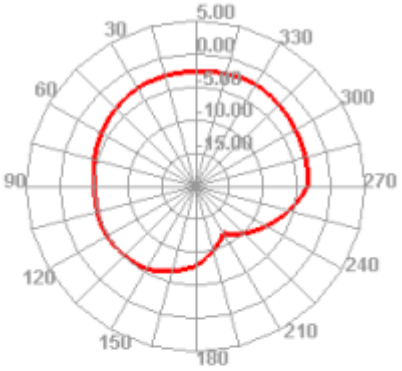
1700.000MHz E2



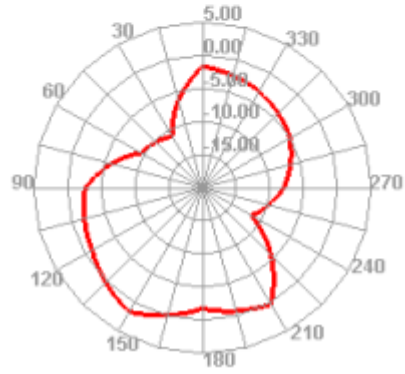
2200.000MHz



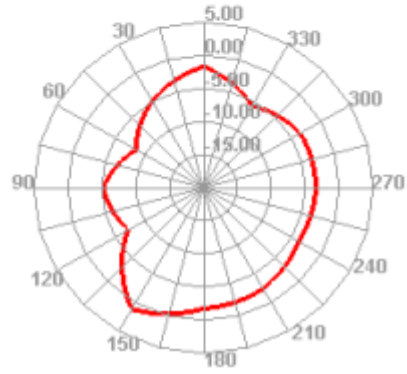
2200.000MHz H



2200.000MHz E1



2200.000MHz E2



5 Product Size