

# Antenna

# **YZJ002BA** Datasheet

**Antenna Services**

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Status: Preliminary



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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

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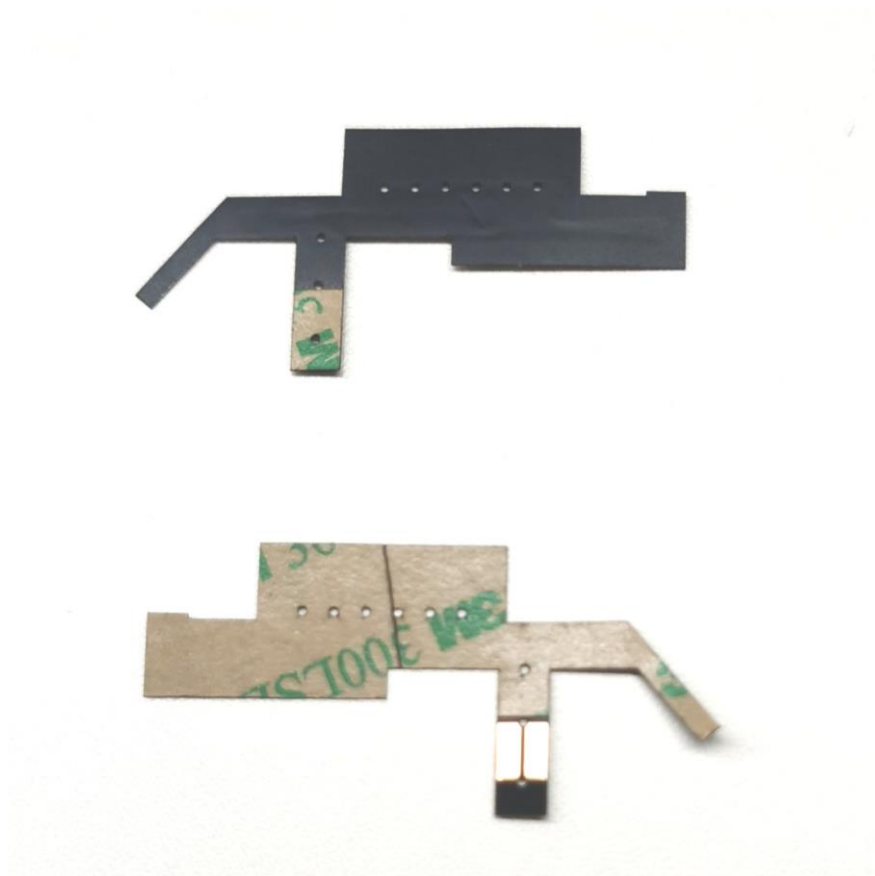
## 1 Product Description

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 4G DIV
- High efficiency
- Excellent performance



### 3 Product Specifications

#### Passive Electrical Specifications

Frequency Range	620-960MHz, 1710-2200MHz
Input Impedence	50 $\Omega$
VSWR	$\leq 9.0$
Gain	$\leq 5\text{dBi}$
Polarization Type	Linear

#### Detailed Passive Electrical Specifications

Frequency Range (MHz)	620-824	824-960	1710-2200
VSWR (Max.)	8.45	7.53	1.89
Average Efficiency (%)	31.37	22.52	46.97
Max. Peak Gain (dBi)	0.27	-1.86	4.59

#### Mechanical Specifications

Antenna Size (mm)	53.68x4.9
Working Temperature	-20 °C to +85 °C
Radome Color	Black
Mounting Type	Adhesive

## 4 Overall Performance

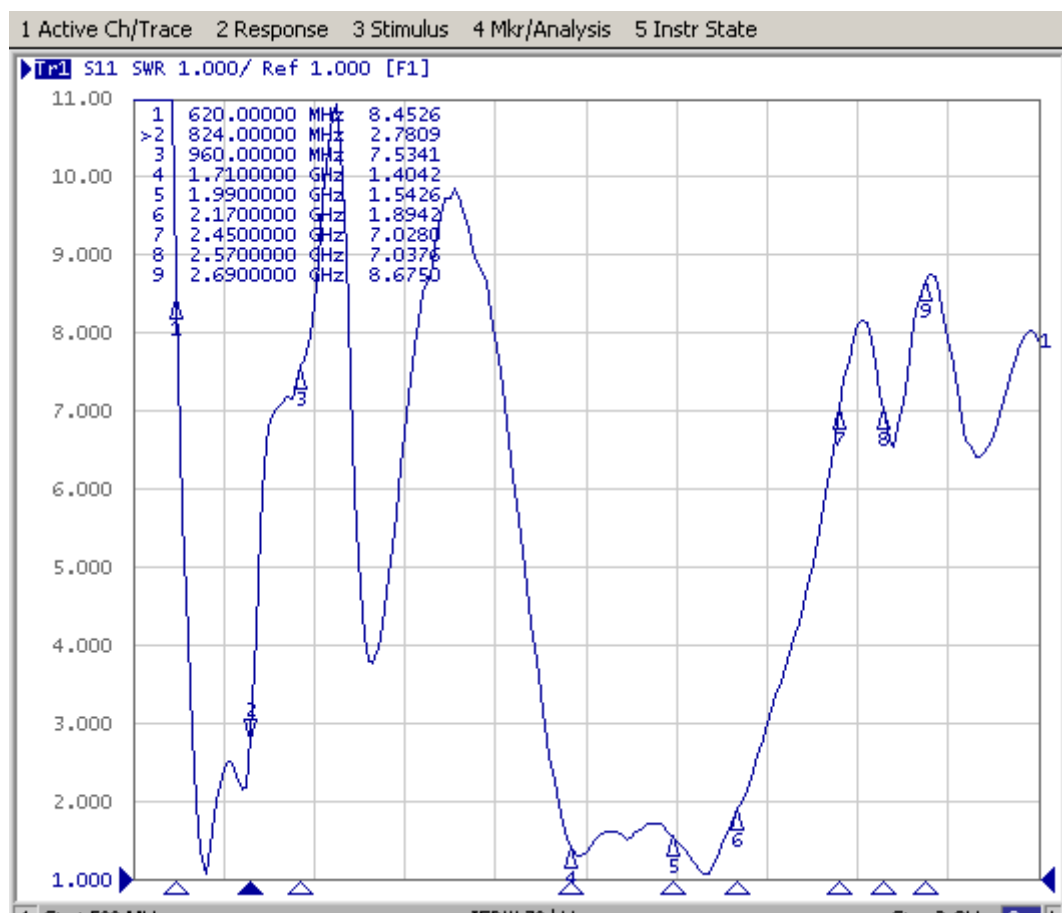
### 4.1. Test Environment

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



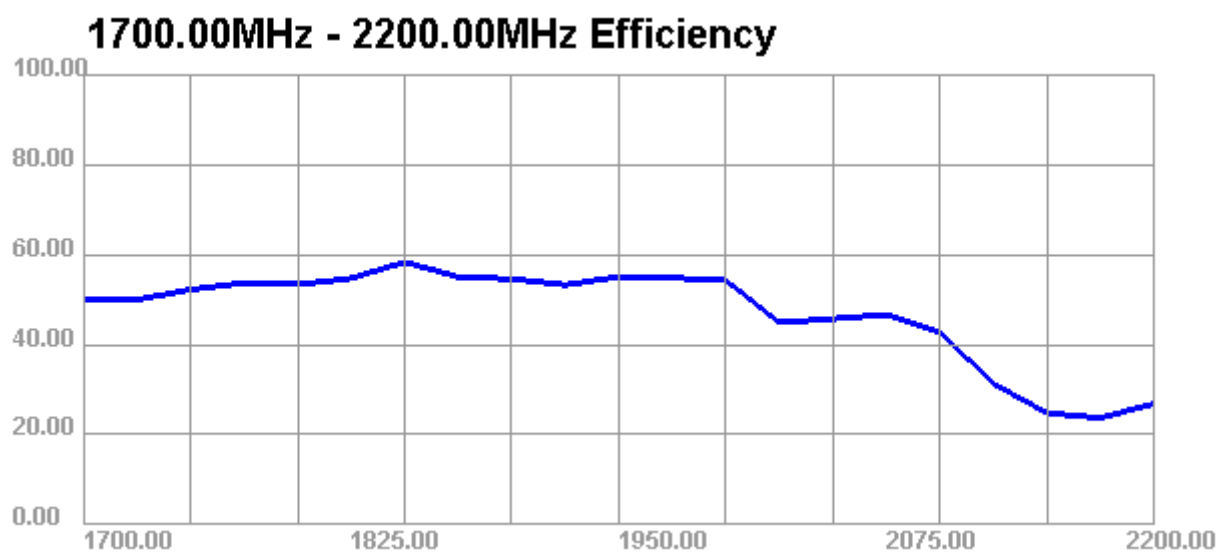
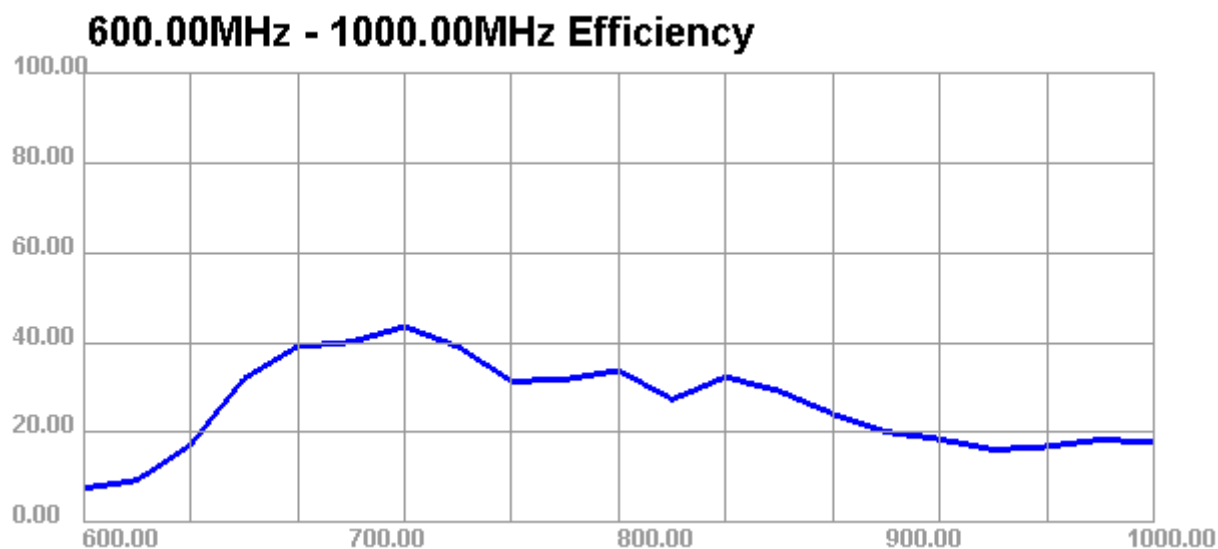


## 4.2. VSWR



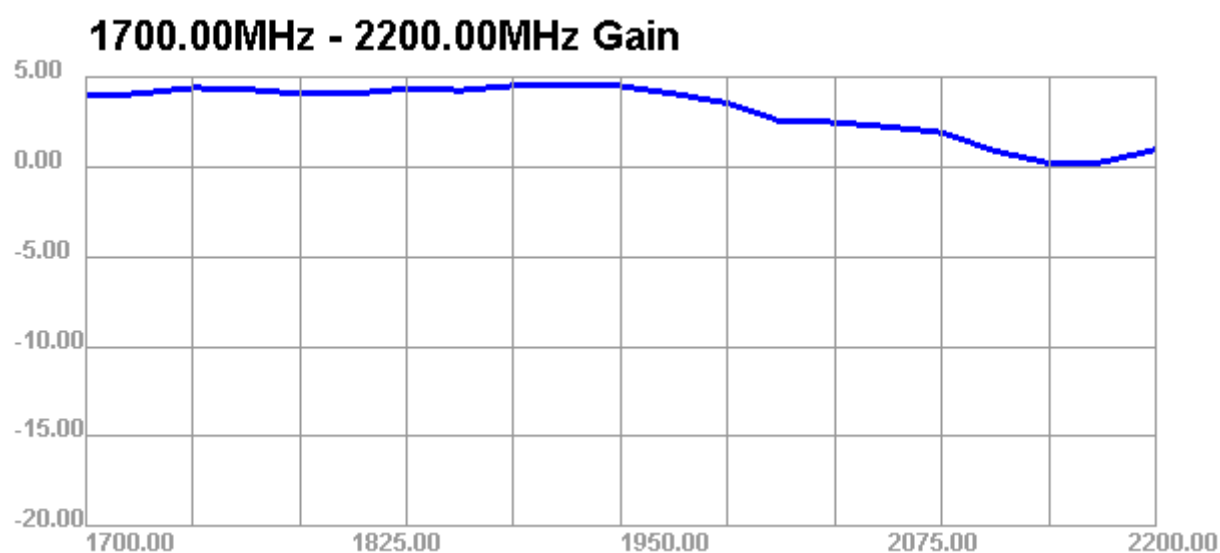
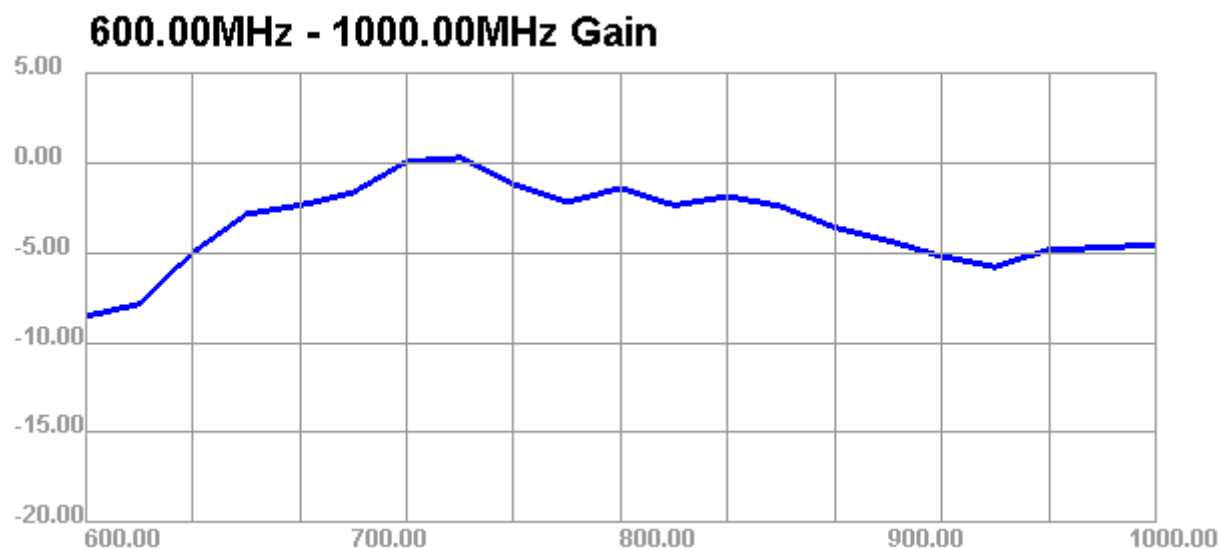
Frequency (MHz)	620	824	960	1710	1990	2170	2450	2570	2690
VSWR	8.45	2.78	7.53	1.4	1.54	1.89	7.03	7.04	8.68

### 4.3. Efficiency



Frequency (MHz)	600	700	840	960	1700	1950	2150	2200
Efficiency (%)	7.64	40.13	32.38	16.91	49.82	55.12	24.82	26.93

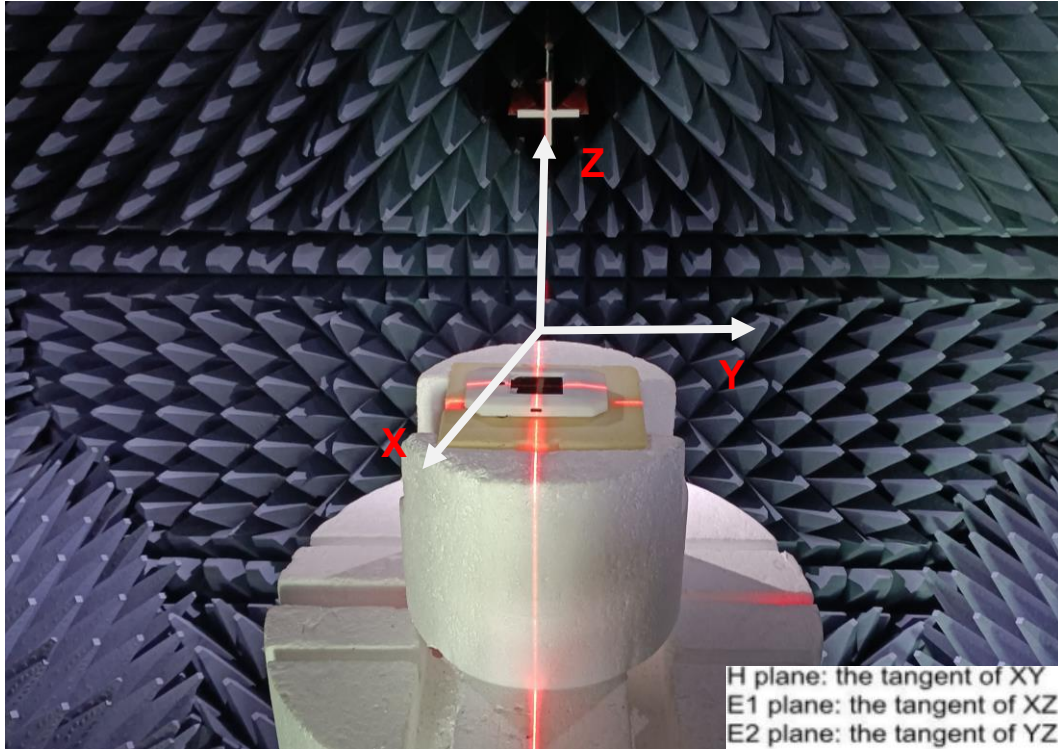
## 4.4. Gain



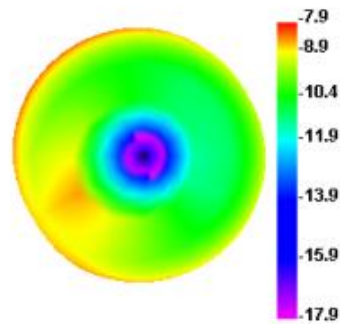
Frequency (MHz)	600	700	840	960	1700	1950	2150	2200
Gain (dBi)	-8.55	-1.66	-1.86	-4.82	3.93	4.48	0.19	0.96

## 4.5. Radiation Pattern

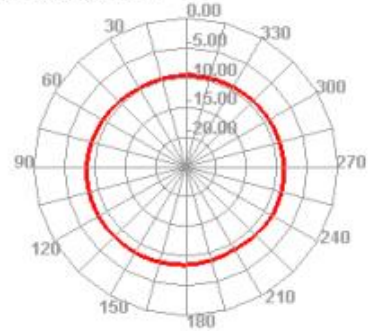
- Test condition: free space



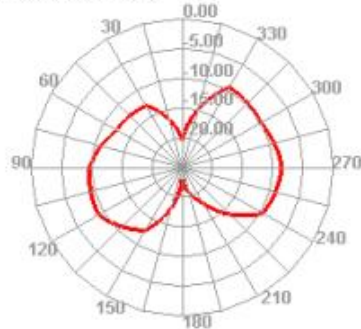
**620.000MHz**



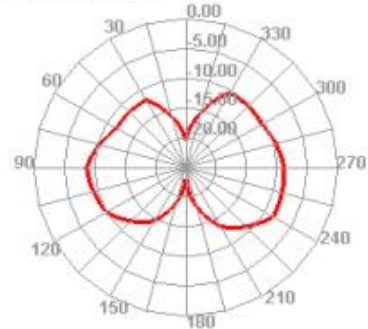
**620.000MHz H**



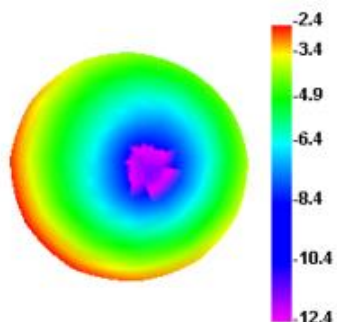
**620.000MHz E1**



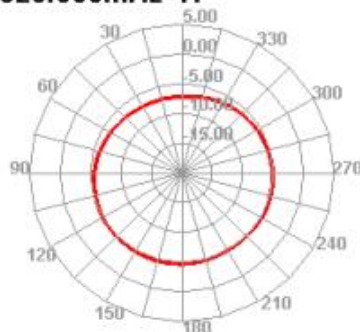
**620.000MHz E2**



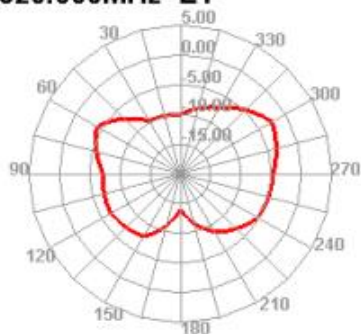
**820.000MHz**



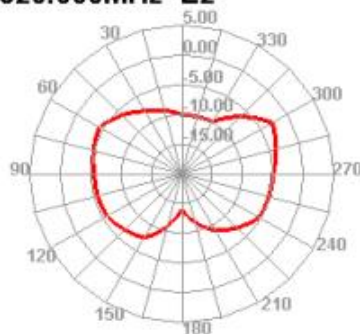
**820.000MHz H**



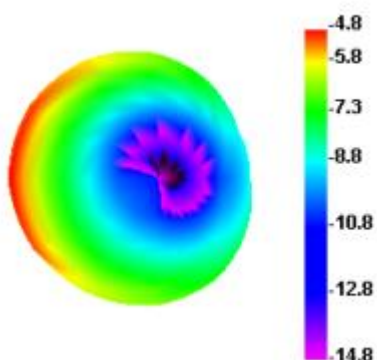
**820.000MHz E1**



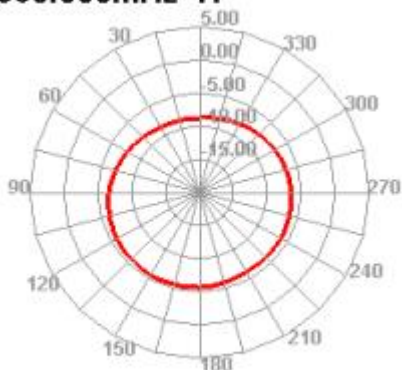
**820.000MHz E2**



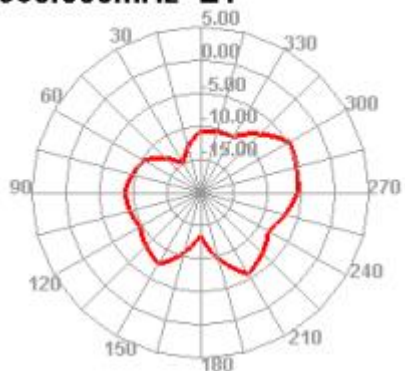
**960.000MHz**



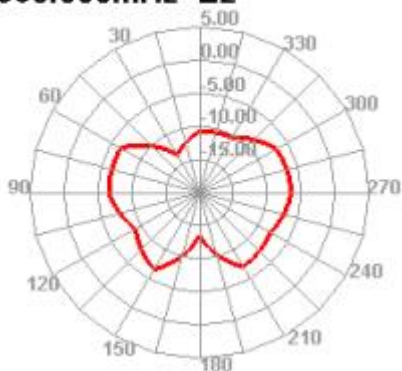
**960.000MHz H**



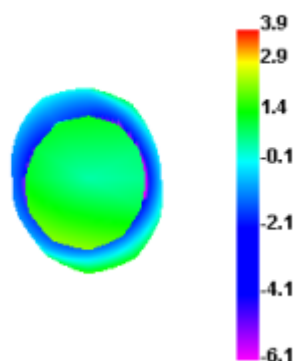
**960.000MHz E1**



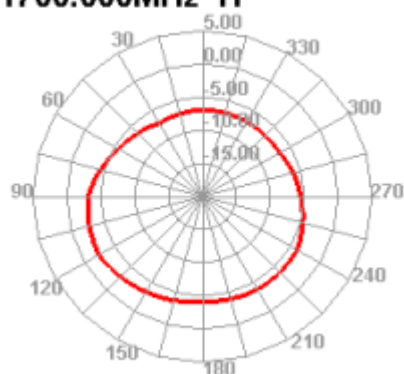
**960.000MHz E2**



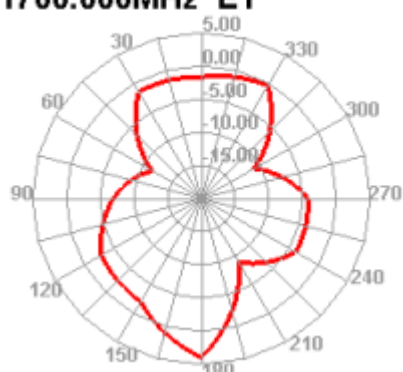
**1700.000MHz**



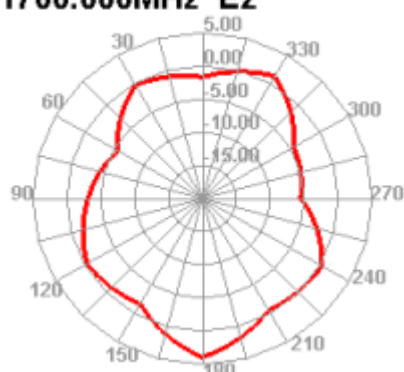
**1700.000MHz H**



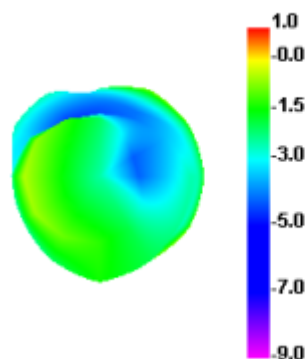
**1700.000MHz E1**



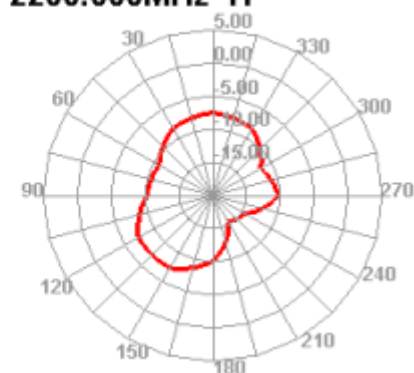
**1700.000MHz E2**



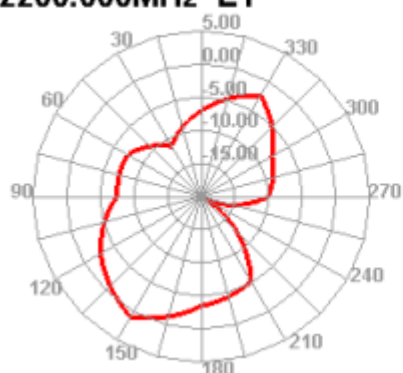
**2200.000MHz**



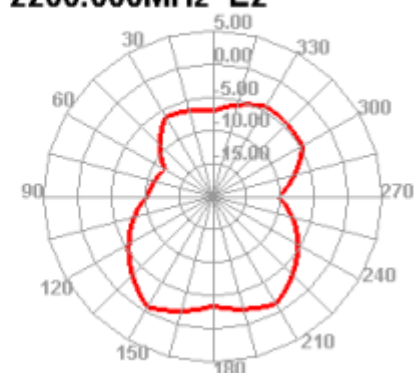
**2200.000MHz H**



**2200.000MHz E1**



**2200.000MHz E2**





5 Product Size

