

Antenna

YPR00A0AA Datasheet

Antenna Services

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About the Document

Revision History

Version	Date	Author	Note
-	2021-06-18	Jason LONG/ Aria CHU	Creation of the document
1.0	2021-06-18	Jason LONG/ Aria CHU	First official release
1.1	2021-11-27	Jason LONG/ Aria CHU	Updated the product description in Chapter 1.

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1 Product Description

This Quectel external 4G antenna covers main 4G LTE bands and is compatible with 3G/2G/LPWA bands as well. The external antenna is barely influenced by the internal environment of devices, giving a much better performance in efficiency, radiation and gain whilst providing an optimized solution for a customer product. Quectel also offers flexible installation with custom cable length and connector options.

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
- High efficiency
- Excellent performance



3 Product Specifications

Passive Electrical Specifications

Frequency Range	700–2700 MHz
Input Impedance	50 Ω
VSWR	≤ 4.75
Gain	≤ 2 dBi
Polarization Type	Linear

Mechanical Specifications

Antenna Size	194.3 mm \times 15.95 mm
Casing	ABS
Connector Type	SMA Male (Center Pin)
Working Temperature	-20 $^{\circ}$ C to +70 $^{\circ}$ C
Radome Color	Black
IP Rating	IP66

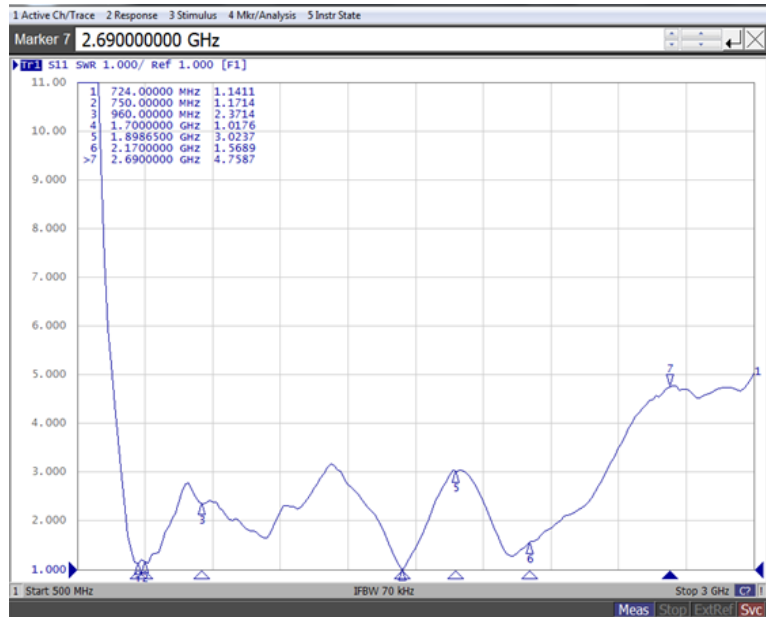
4 Overall Performance

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

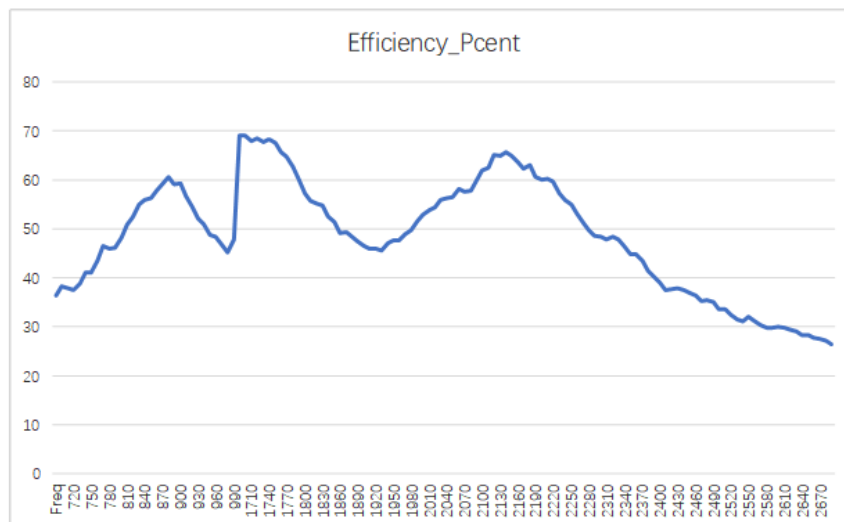


4.2. VSWR



Frequency (MHz)	750	960	1700	1890	2170	2690
VSWR	1.17	2.37	1.01	3.02	1.56	4.75

4.3. Efficiency



Frequency (MHz)	750	960	1700	1890	2170	2690
Efficiency (%)	41.00	48.79	69.23	48.72	63.89	27.27

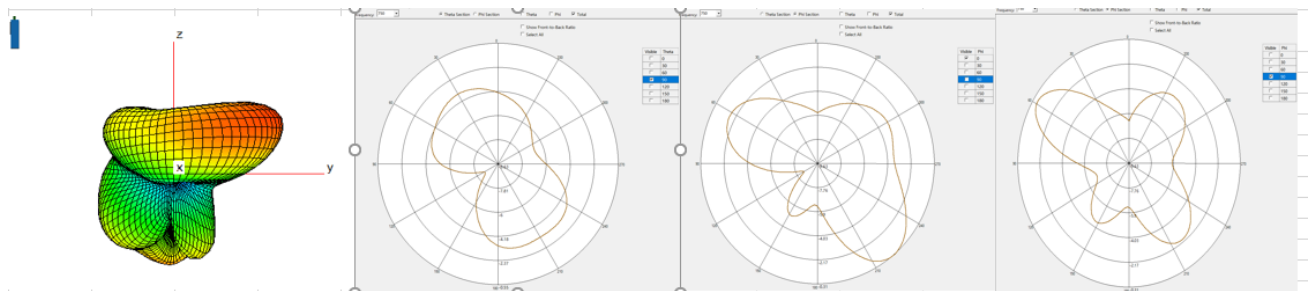
4.4. Gain



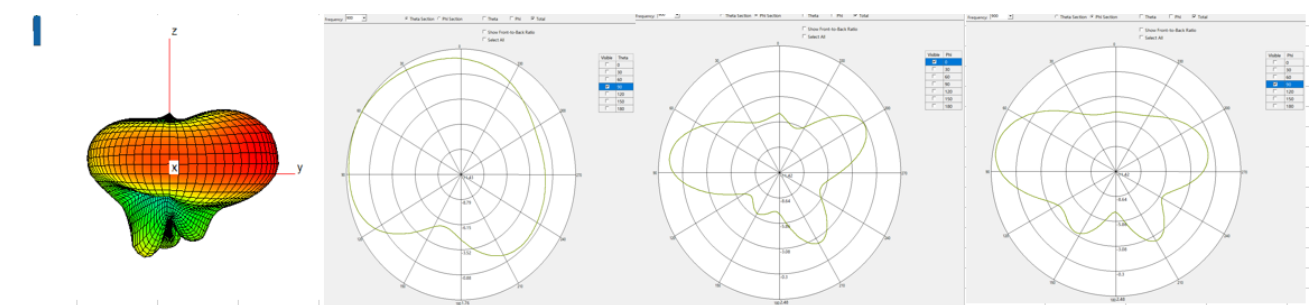
Frequency (MHz)	750	960	1700	1890	2170	2690
Gain (dBi)	-0.61	0.91	1.42	0.76	0.36	-1.41

4.5. Radiation Pattern

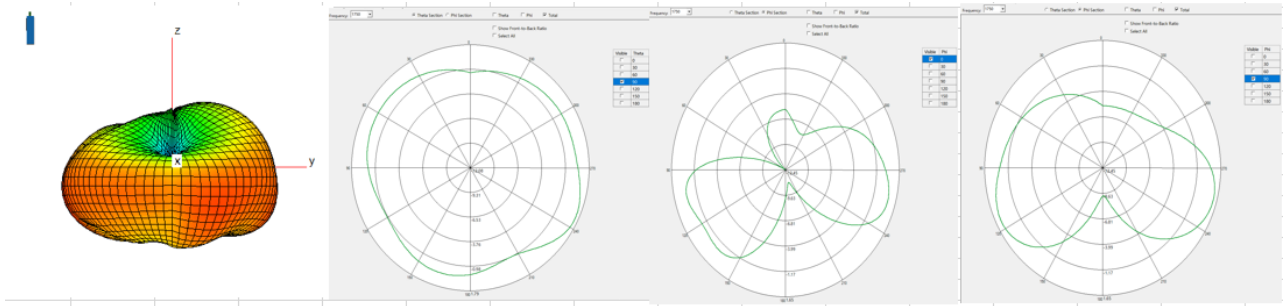
4.5.1. 700 MHz



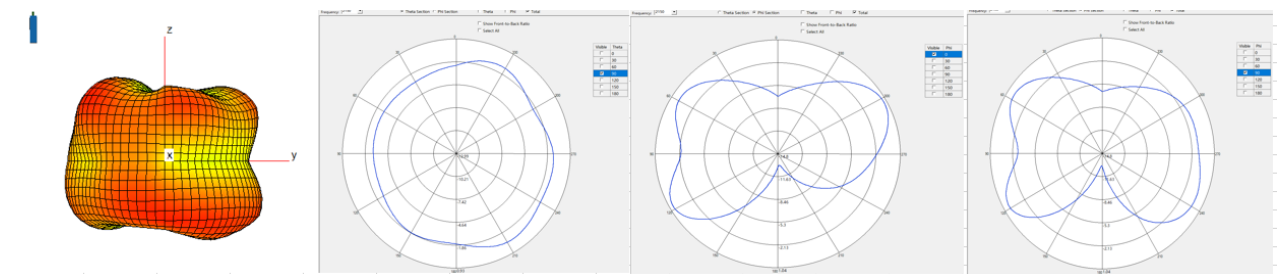
4.5.2. 960 MHz



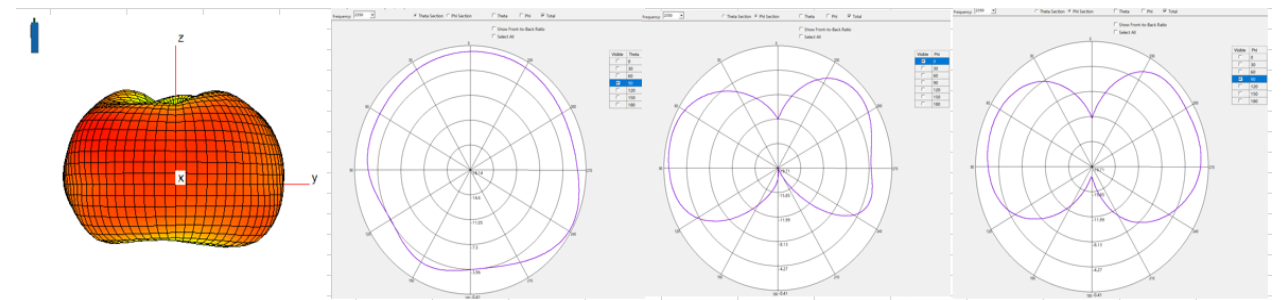
4.5.3. 1750 MHz



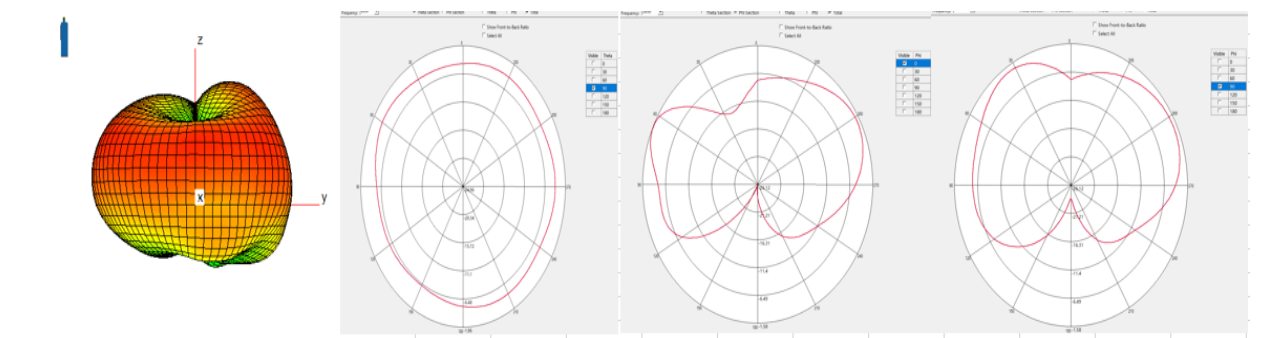
4.5.4. 2150 MHz



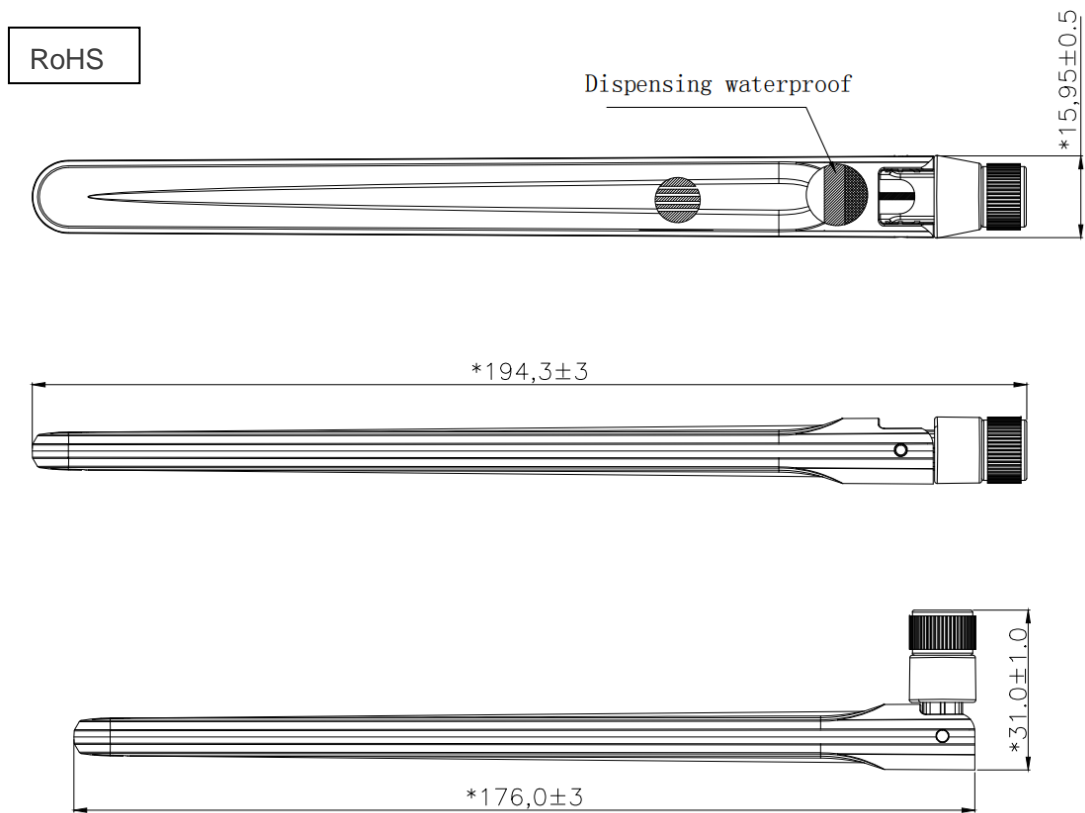
4.5.5. 2350 MHz



4.5.6. 2690 MHz



5 Product Size



SMA Male (center pin)