

# Antenna

# **YKL001CA** Datasheet

## Antenna Services

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Status: Released



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# About the Document

## Revision History

Version	Date	Author	Note
1.0	2020-07-27	FuFeng MEI	Initial
1.1	2020-12-15	FuFeng MEI	Updated the antenna image in Chapter 2.

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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 NB
- High efficiency
- Excellent performance



### 3 Product Specifications

#### Passive Electrical Specifications

Frequency Range	NB: 800–1000 MHz; 1700–1900 MHz
Input Impedence	50 $\Omega$
VSWR	$\leq 4.5$
Gain	$\leq 2.19$ dBi
Polarization Type	Linear

#### Mechanical Specifications

Antenna Size	50 mm × 48 mm
Casing	PC + ABS
Radiator	Cuprum
Connect Type	SMA (Male pin with internal thread)
Working Temperature	-20 °C to +80 °C
Radome Color	Black
Waterproof Grade	IP66

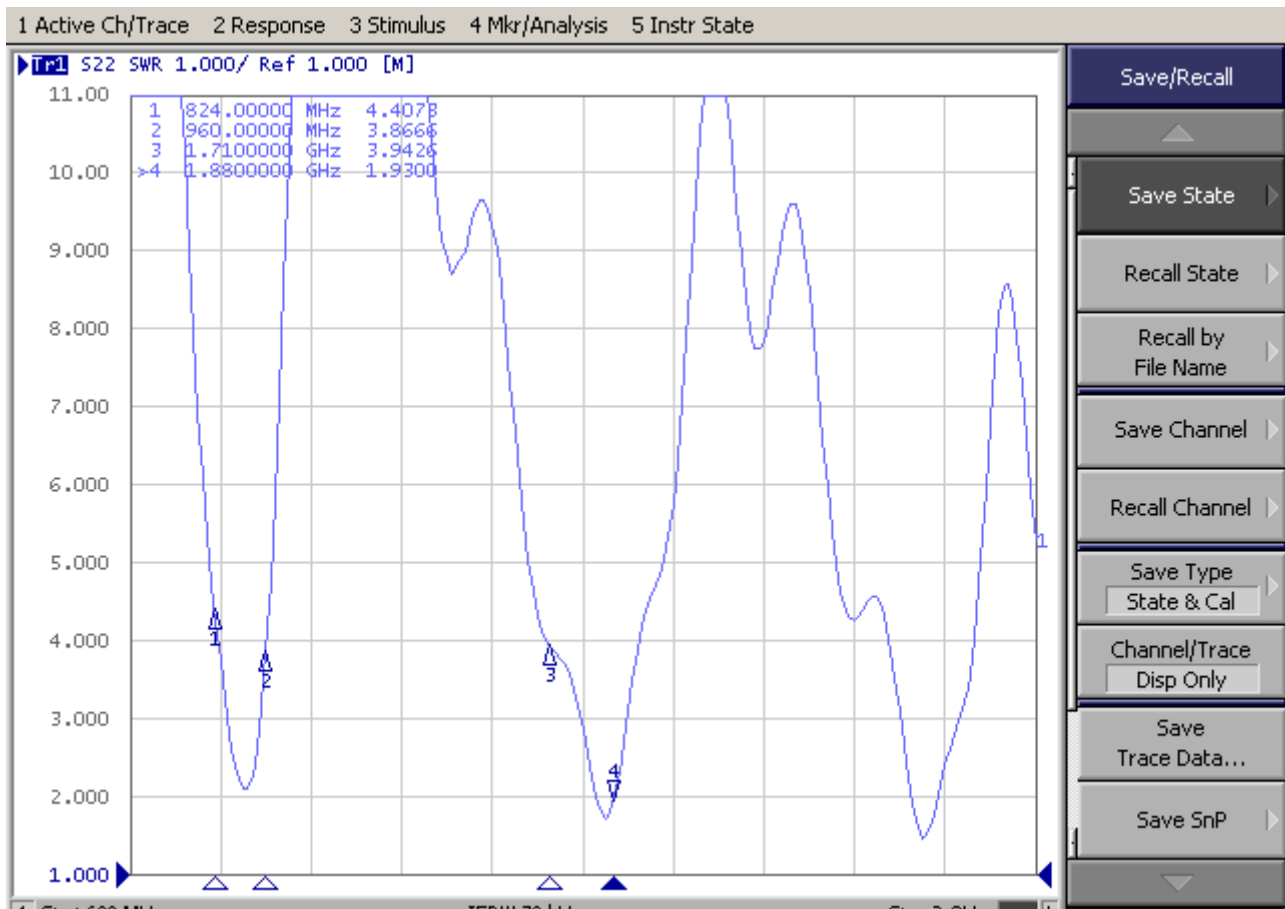
## 4 Overall Performance

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



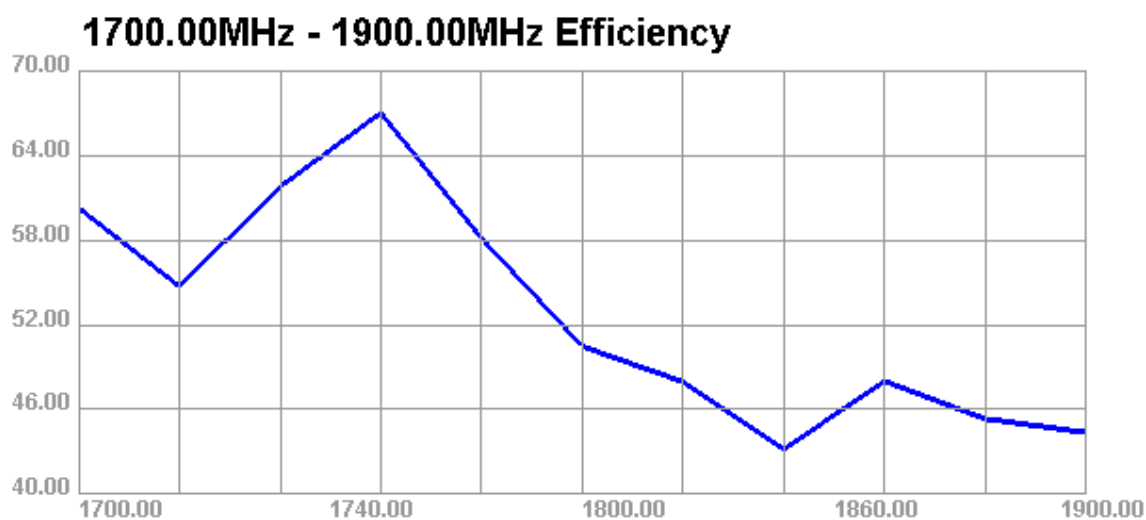
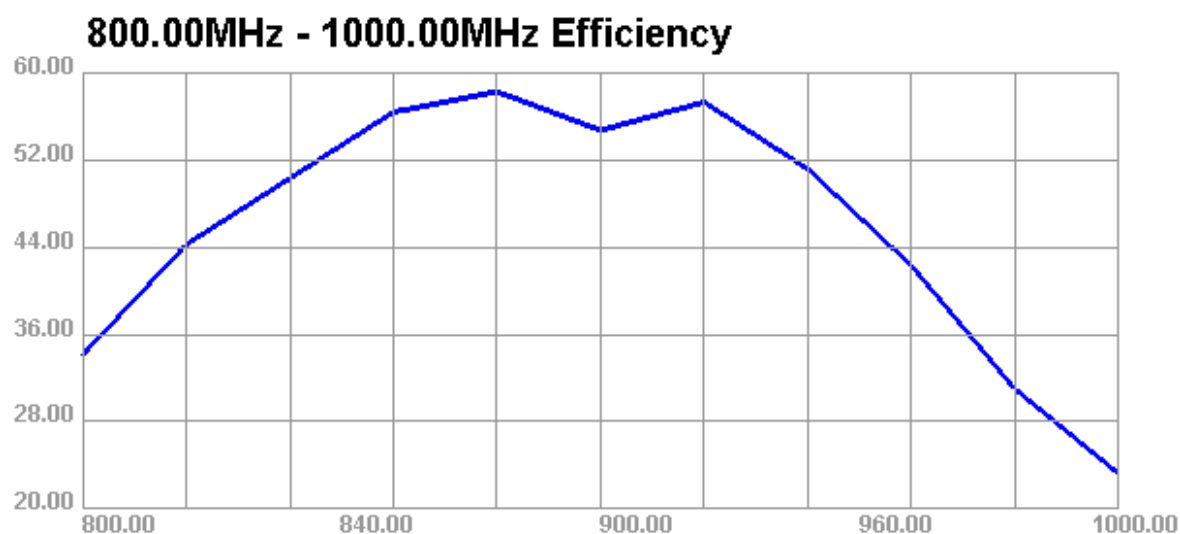


● VSWR



Frequency (MHz)	824	960	1710	1880
VSWR	4.41	3.87	3.94	1.93

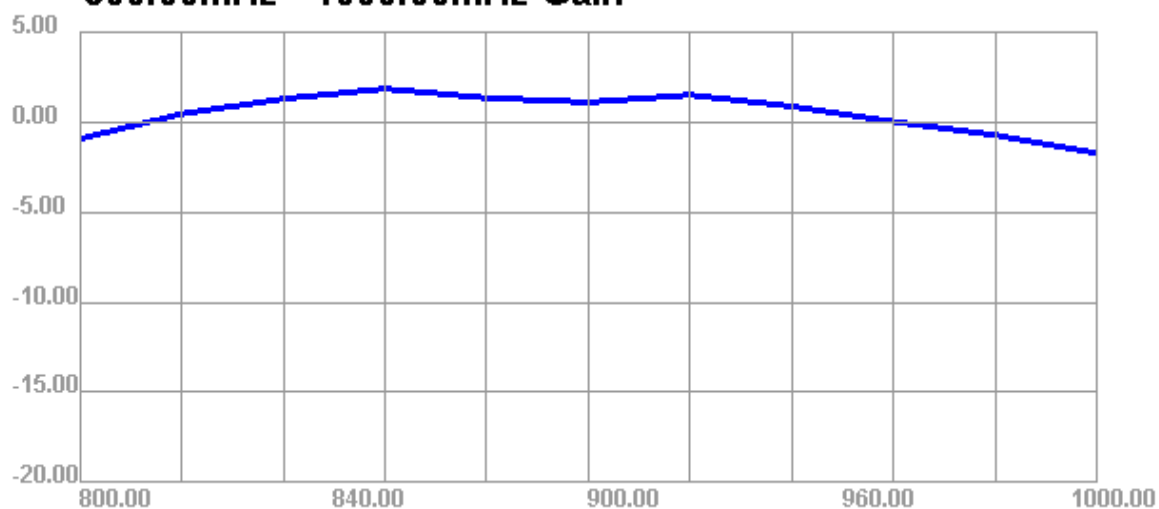
● Efficiency



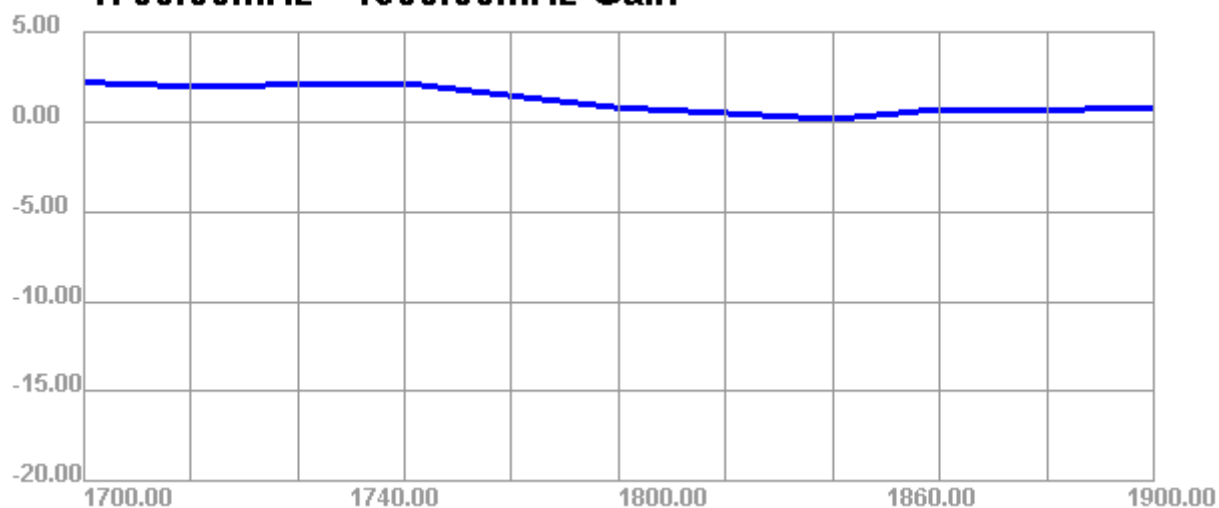
Frequency (MHz)	800	820	960	1700	1740	1860	1900
Efficiency (%)	34.13	44.25	42.33	60.27	61.78	48.01	44.38

● Gain

**800.00MHz - 1000.00MHz Gain**



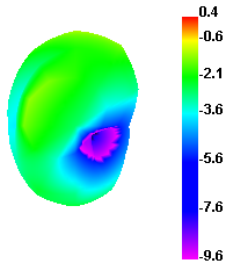
**1700.00MHz - 1900.00MHz Gain**



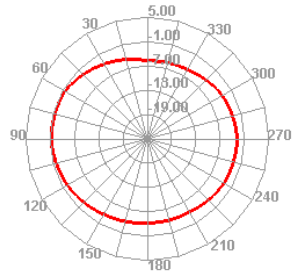
Frequency (MHz)	800	820	960	1700	1740	1860	1900
Gain	-0.93	0.44	0.02	2.19	2.06	0.69	0.79

● Radiation Patterns

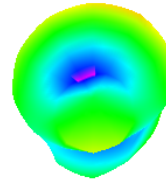
820.000MHz



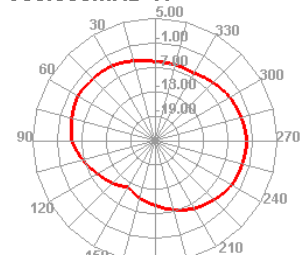
820.000MHz H



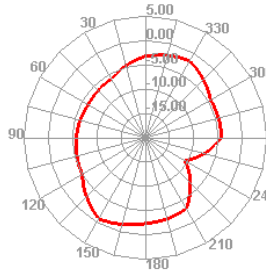
900.000MHz



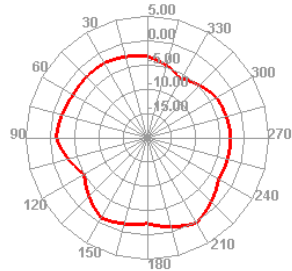
900.000MHz H



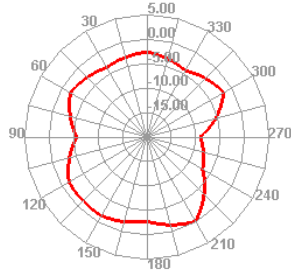
820.000MHz E1



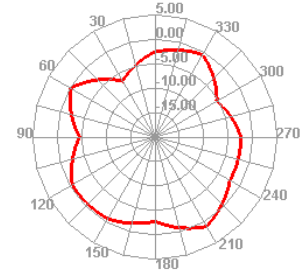
820.000MHz E2



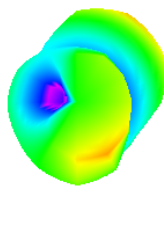
900.000MHz E1



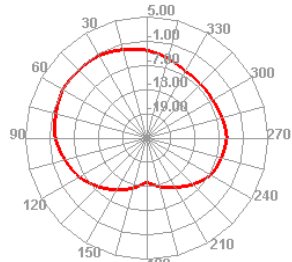
900.000MHz E2



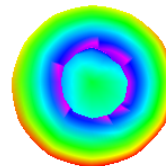
960.000MHz



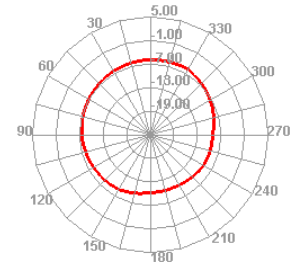
960.000MHz H



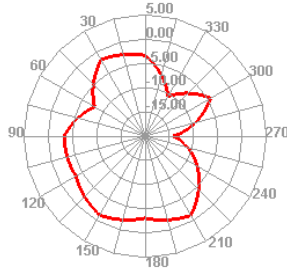
1700.000MHz



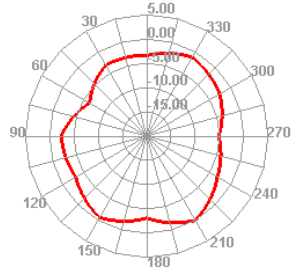
1700.000MHz H



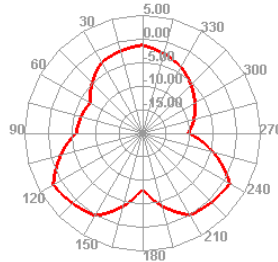
960.000MHz E1



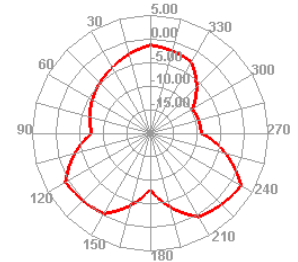
960.000MHz E2



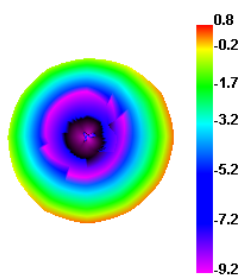
1700.000MHz E1



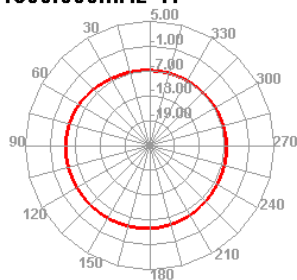
1700.000MHz E2



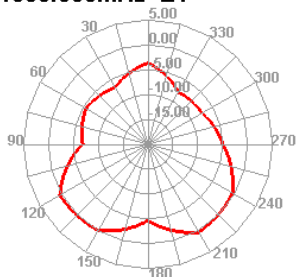
1800.000MHz



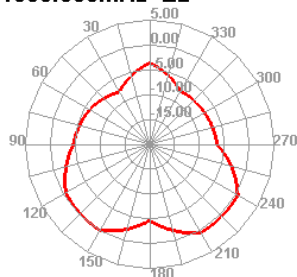
1800.000MHz H



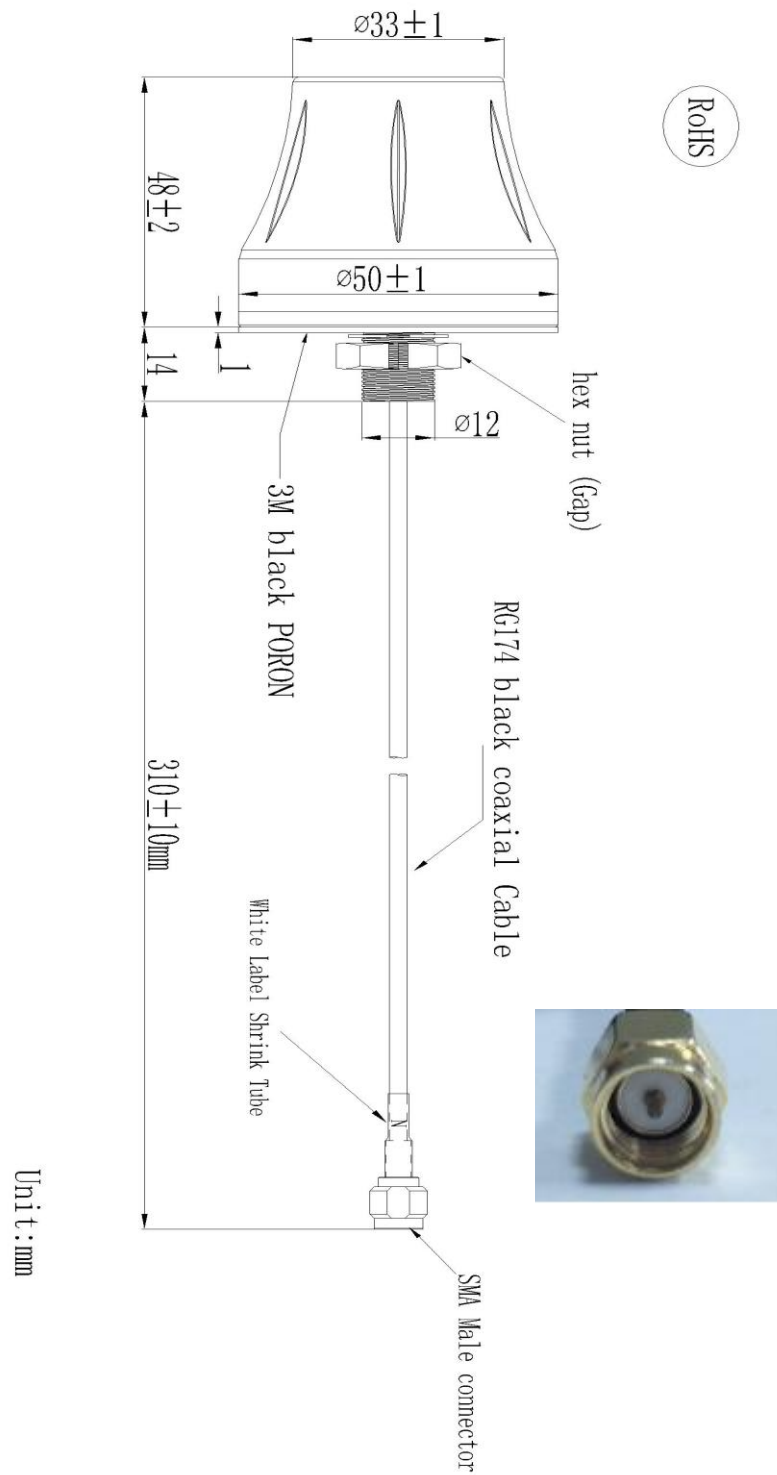
1800.000MHz E1



1800.000MHz E2



## 5 Product Size



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