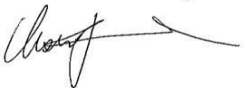
CU23005-1

Product Specification
Rev.01

For Antenova					
Author	**Signature**	**Date**	**Approved by**	**Signature**	**Date**
Tim Lin		11/09/2023	Christy Lin		11/09/2023

For PDi			
	Approved by	**Signature**	**Date**

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1. PART NUMBER

Part Number
CU23005-1

2. GENERAL DATA

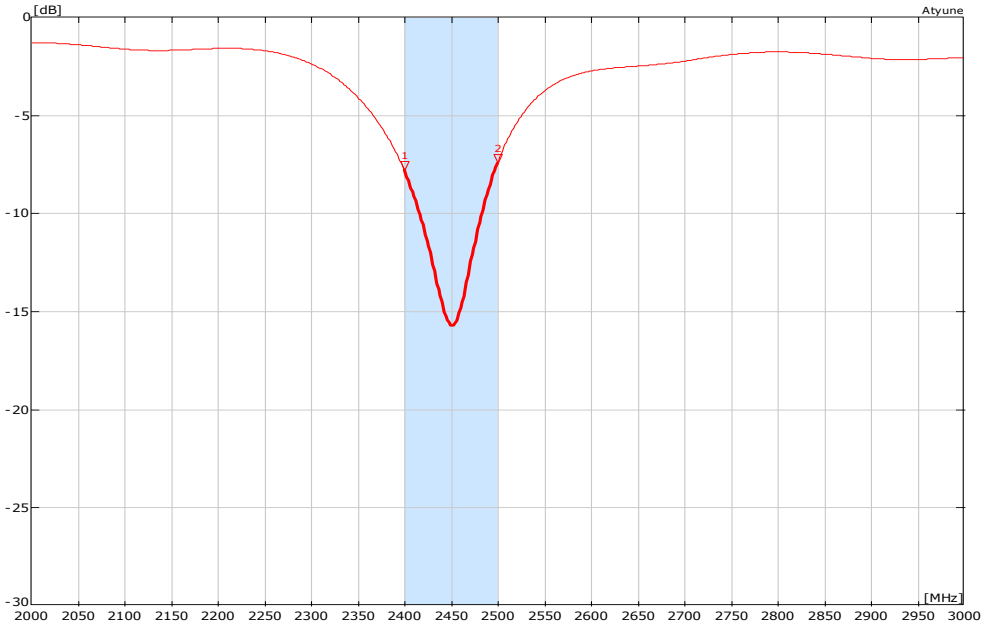
Antenova P/N	CU23005-1
Frequency	2400-2500 (MHz)
Polarization	Linear
Operating Temperature	-40 to +140°C
Impedance	50Ω
Weight	<0.5g
Antenna Type	SMD
Dimensions	21.0 x 4.0 x 1.7 (mm^3)

3. RF CHARACTERISTICS SUMMARY

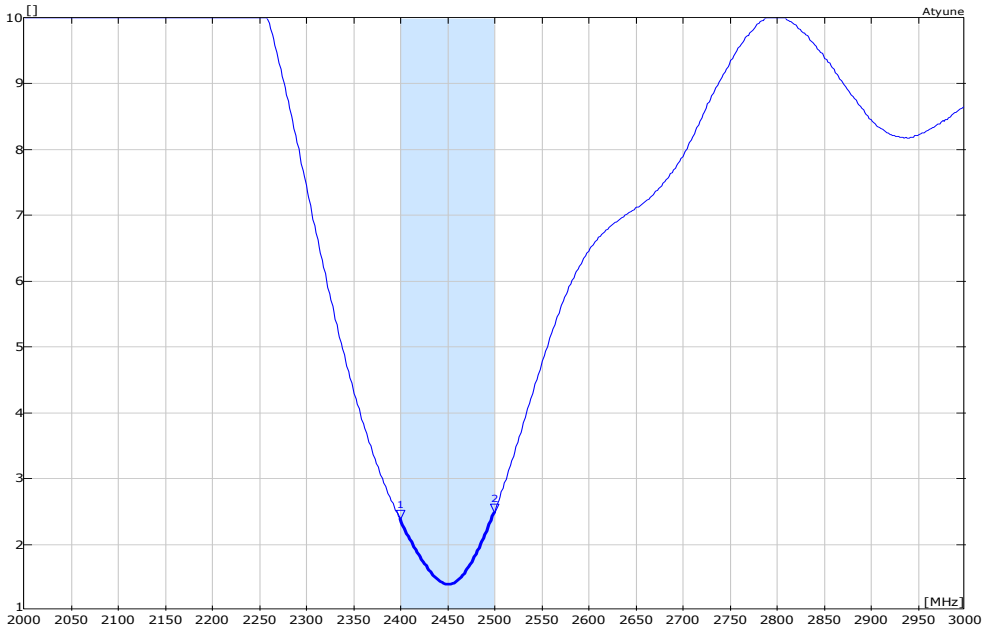
Frequency	2400~2500MHz
Peak Gain	0.7dBi
Average Gain	-5.8dB
Average Efficiency	26.5%
Maximum S11	< -7.4 dB
Maximum VSWR	2.5:1

4. RF PERFORMANCE

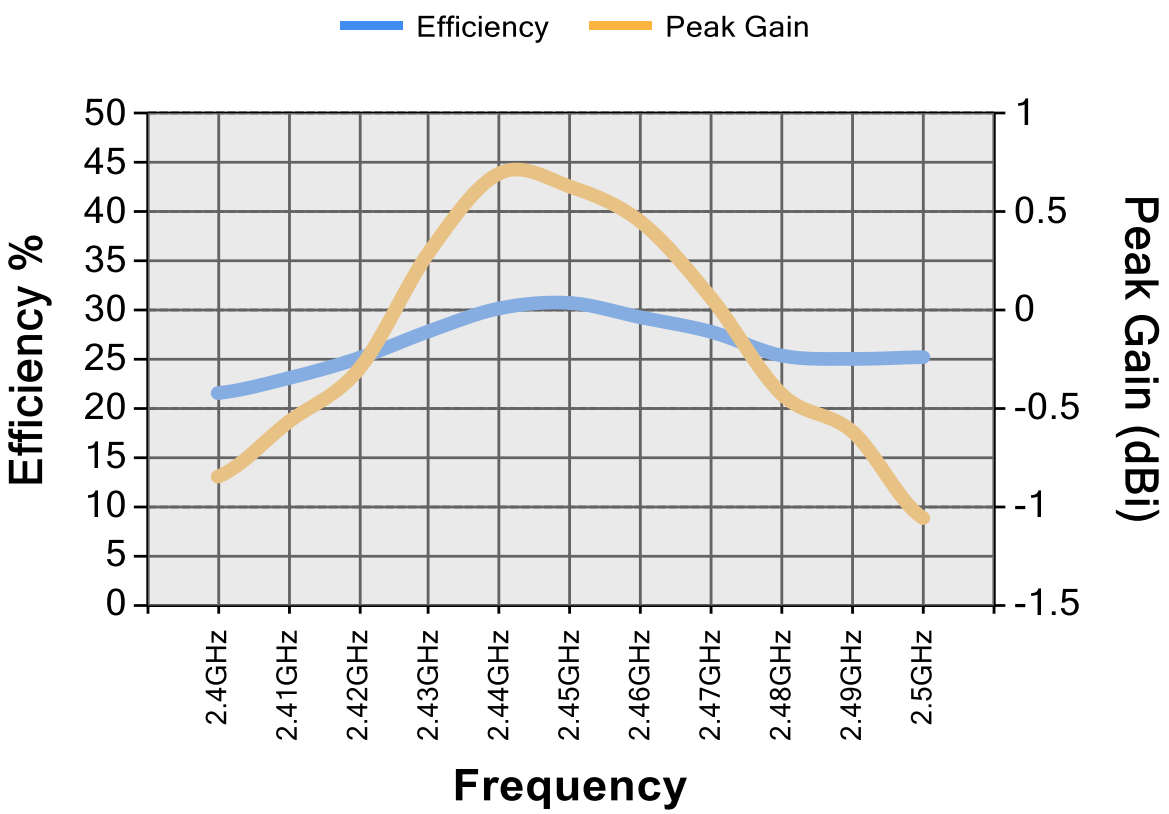
4.1 S Parameter



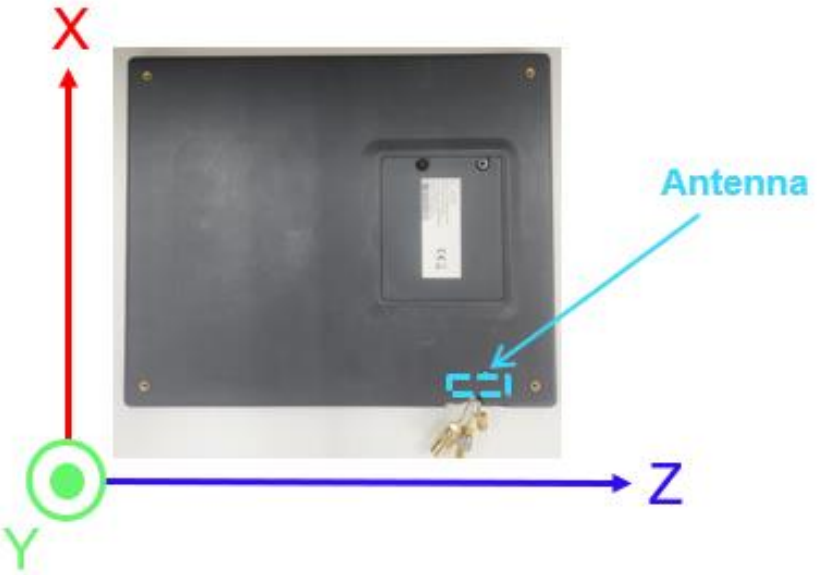
4.2 VSWR

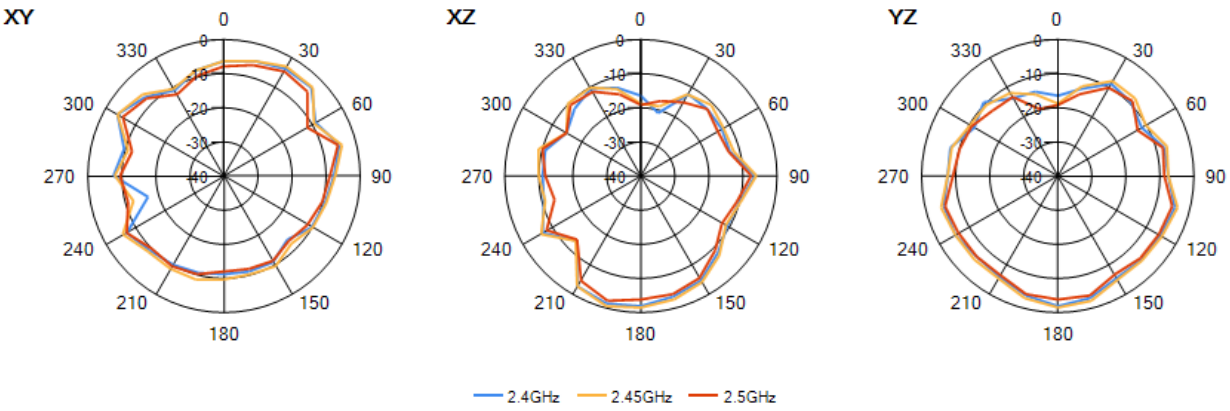


4.3 Antenna Efficiency And Peak Gain

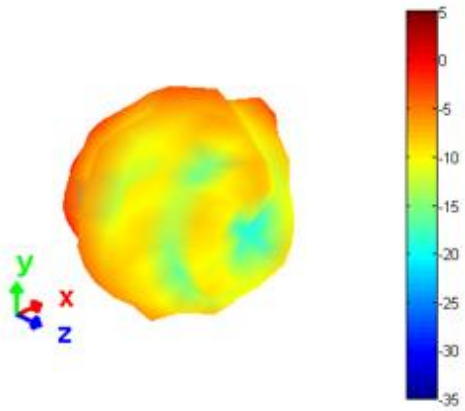


4.4 Antenna Radiation Pattern





3D Radiation @ 2450 MHz

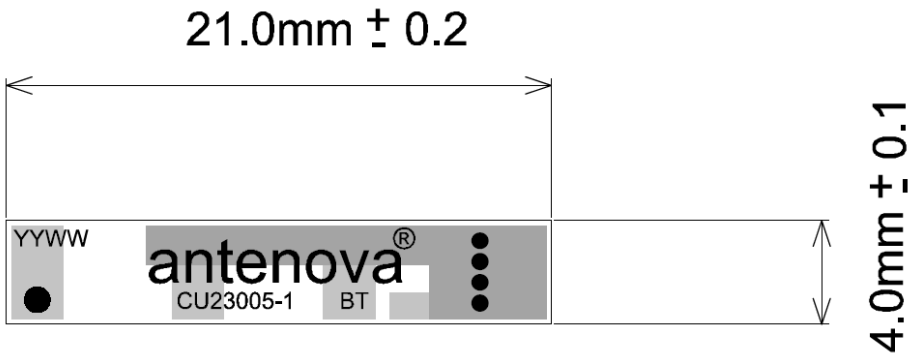


DIMENSIONS

4.5 Antenna Dimensions

Units: mm

L	W	H
Length	Width	Height
21.0 ±0.2	4.0 ±0.1	1.7 ±0.1



5. ELECTRICAL INTERFACE

The Host PCB should ensure that the transmission lines are designed to have a characteristic impedance of 50 Ω

- The length of the transmission lines should be kept to a minimum
- Any other parts of the RF system like transceivers, power amplifiers, etc, should also be designed to have an impedance of 50 Ω

Once the material for the PCB has been chosen (PCB thickness and dielectric constant), a coplanar transmission line can easily be designed using any of the commercial software packages for transmission line design. For the chosen PCB thickness, copper thickness and substrate dielectric constant, the program will calculate the appropriate transmission line width and gaps on either side of the track so the characteristic impedance of the coplanar transmission line is 50 Ω

6. HAZARDOUS MATERIAL REGULATION CONFORMANCE

The antenna has been tested to conform to RoHS requirements. A certificate of conformance is available from Antenova's website.

7. STATEMENT ON INTELLECTUAL PROPERTY

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