

CU24004-1
Product Specification
Rev.01

For Antenova					
Author	Signature	Date	Approved by	Signature	Date
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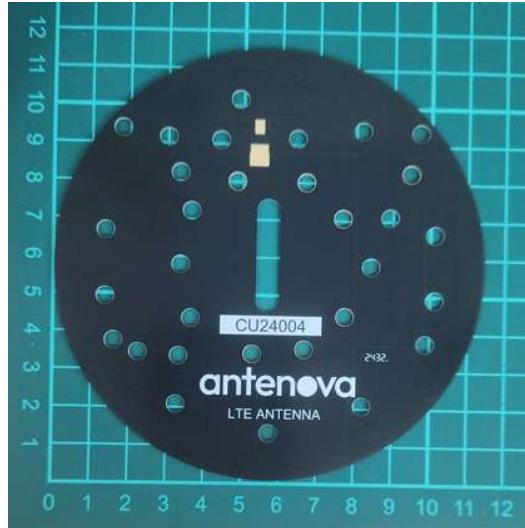
For Badger Meter			
	Approved by	Signature	Date

TABLE OF CONTENTS

TABLE OF CONTENTS	2
1. PART NUMBER	3
2. GENERAL DATA	3
3. RF CHARACTERISTICS SUMMARY	4
4. RF PERFORMANCE	5
4.1 <i>S Parameter</i>	5
4.2 <i>VSWR</i>	5
4.3 <i>Antenna Efficiency And Peak Gain</i>	5
4.4 <i>Antenna Radiation Pattern</i>	6
5. DIMENSIONS	7
5.1 <i>Antenna Dimensions</i>	7
6. ELECTRICAL INTERFACE	8
7. HAZARDOUS MATERIAL REGULATION CONFORMANCE	8
8. STATEMENT ON INTELLECTUAL PROPERTY	8
<i>Disclaimer</i>	8

1. PART NUMBER

Part Number
CU24004-1



2. GENERAL DATA

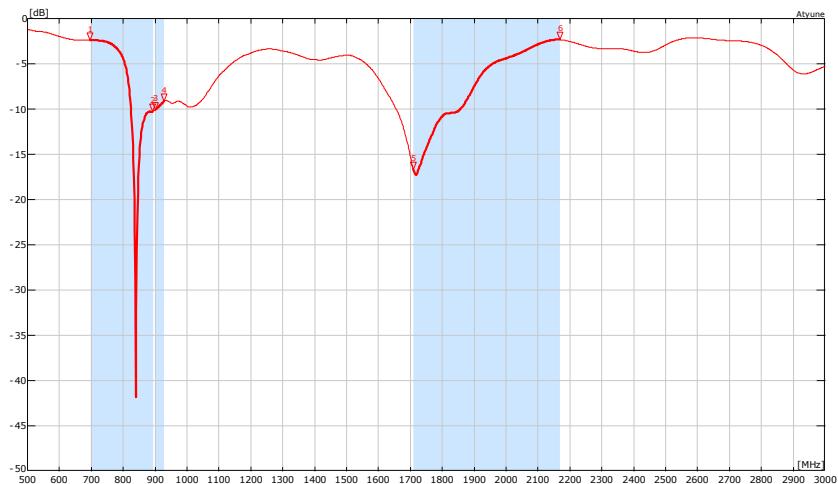
Antenova P/N	CU24004-1
Frequency	698-894,902-928,1710-2170 (MHz)
Polarization	Linear
Operating Temperature	-40 to +140°C
Impedance	50Ω
Weight	<25g
Antenna Type	Monopole
Dimensions	Dia. 114mm

3. RF CHARACTERISTICS SUMMARY

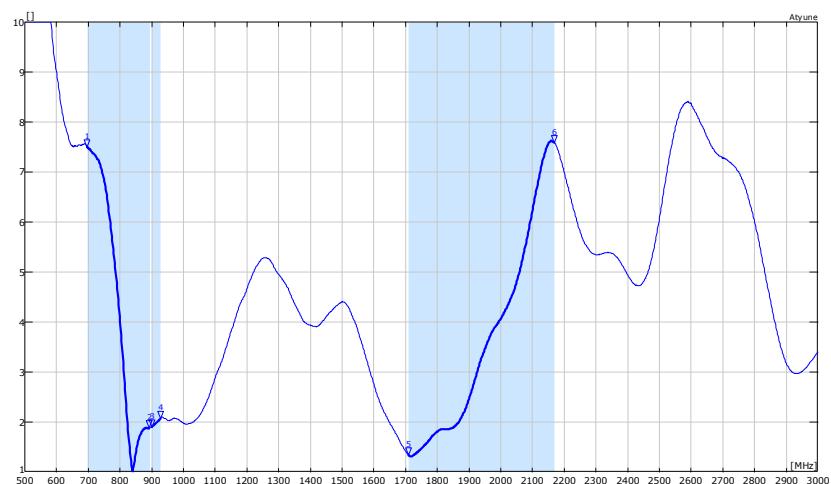
Frequency	698 – 894 MHz	902– 928 MHz	1710 – 2170 MHz
Average Efficiency	58.9%	75.9%	39.0%
Average Gain	-2.3dB	-1.2dB	-4.1dB
Peak Gain	2.3dBi	2.1dBi	3.2dBi
Maximum S11	-2.3 dB	-9.1 dB	-2.3 dB
Maximum VSWR	7.5:1	2.1:1	7.6:1

4. RF PERFORMANCE

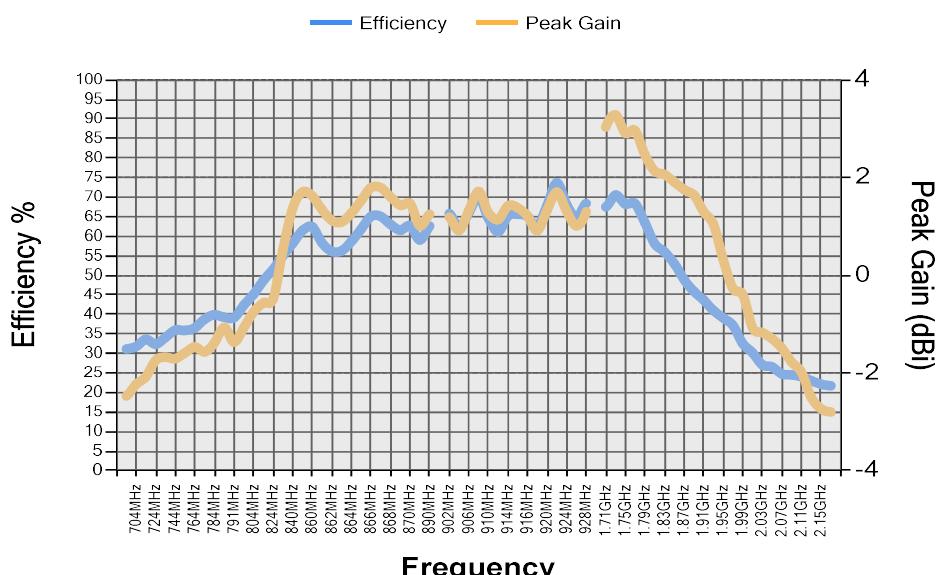
4.1 S Parameter



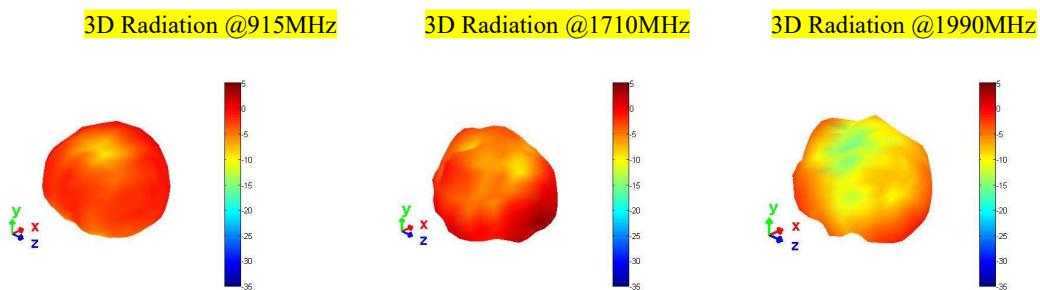
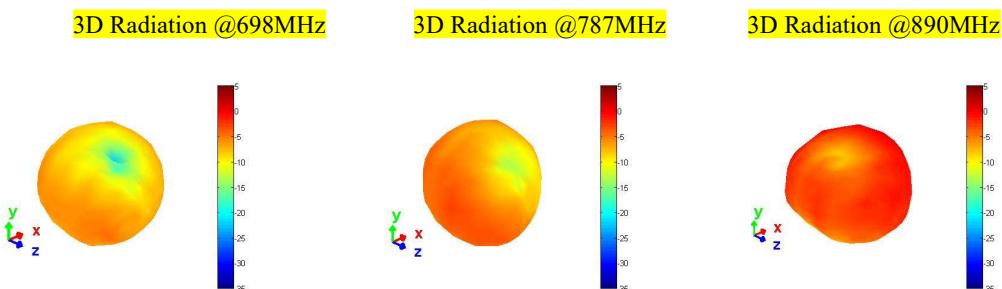
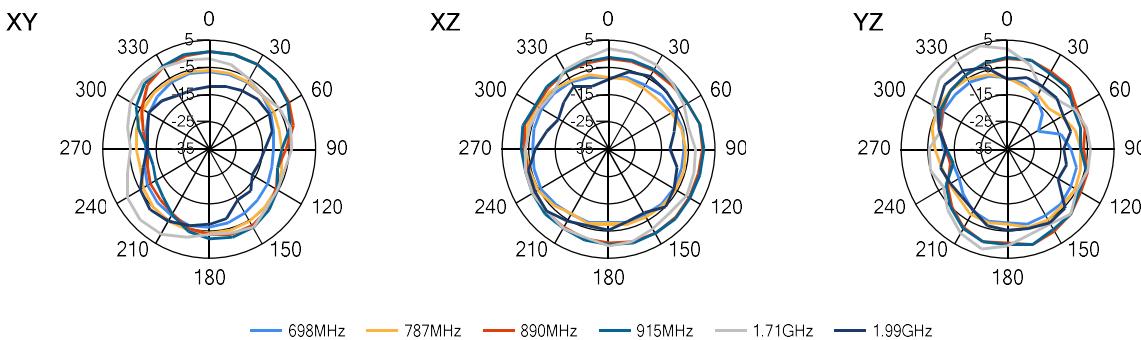
4.2 VSWR



4.3 Antenna Efficiency And Peak Gain



4.4 Antenna Radiation Pattern

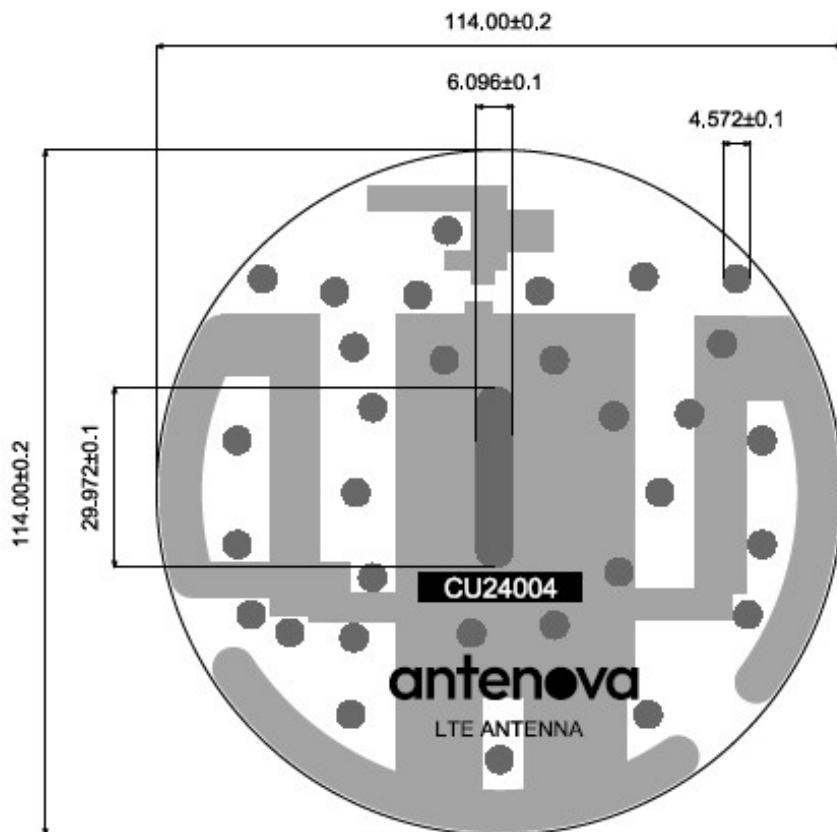


5. DIMENSIONS

5.1 Antenna Dimensions

Units: mm

D	T
Diameter	Thickness
114 ±0.2	0.9 ±0.1



6. ELECTRICAL INTERFACE

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

- 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 $50\ \Omega$

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 $50\ \Omega$

7. HAZARDOUS MATERIAL REGULATION CONFORMANCE

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

8. STATEMENT ON INTELLECTUAL PROPERTY

It is the policy of Antenova Ltd to file worldwide patents on all novel technology and exploitable ideas developed within the company. All information provided in this document is, and shall remain, the property of Antenova. Nothing herein shall be construed as granting or conferring any rights by license or otherwise in the Information except as expressly provided herein. A recipient acquires hereunder only a limited right to use the Information solely for the purpose of evaluation of the technology, subject to the terms and conditions set out in an associated Non Disclosure Agreement.

Disclaimer

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