SPECIFICATION

PART NO： U00T02S000N01821

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This document contains the measured data for the U00T02S000N01821 antenna. The U00T02S000N01821 is a 2.4GHz, 3dBi gain, custom omni-directional antenna designed for the Rosemount enclosure. The measurements were taken in PCTEL's high quality near field antenna range test facility (NFR) and verified using the tapered far field antenna range. The data in this report comes from the NFR and is saved for future inquiry. The antenna was mounted to the sensor housing for all the measurements in order to improve the usefulness of the data.

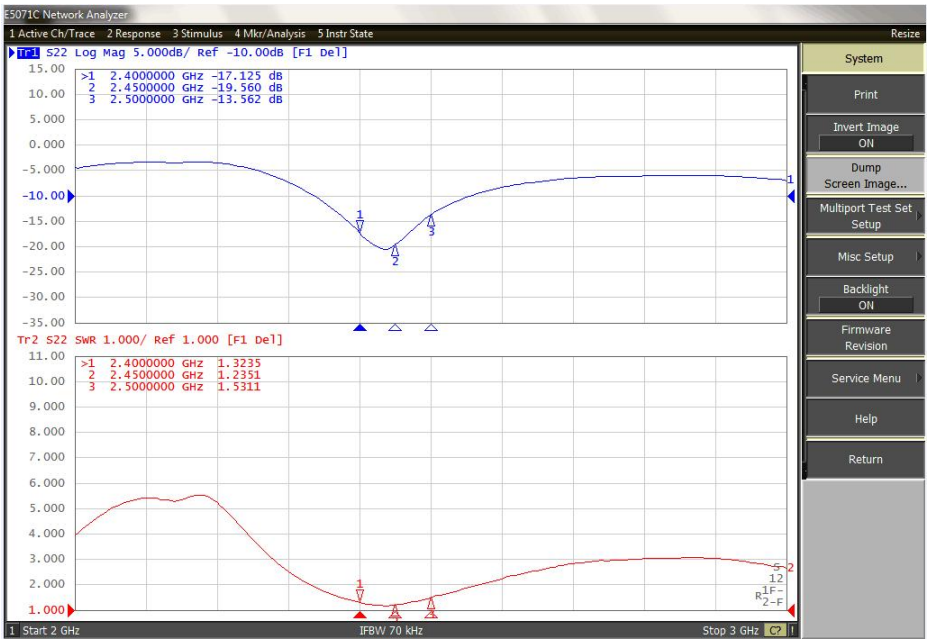
The first plot in this report shows the VSWR (voltage to standing wave ratio) as a function of frequency. It indicates how much energy is transmitted versus how much energy is reflected. This measurement was taken using a calibrated Agilent E5071C RF network analyzer.

The next plot shows the gain as a function of frequency. The gain values are achieved by measuring a known gain standard in the same configuration as the antenna under test in the NFR antenna range. The measured data for the two antennas is then compared and analyzed by the antenna range computer software. After the analysis is complete, the software computes the gain values. The average gain is computed by averaging the gain values of the azimuth plane radiation pattern at the horizon.

The three plots following the gain versus frequency curve show the radiation patterns of the antenna at different frequencies. The frequencies chosen for these plots are the low, middle, and high points of the frequency range that the antenna was designed for. The radiation patterns shown are the elevation pattern (XZ plane), azimuth pattern (XY plane or the horizon cut), and a full three dimensional radiation pattern at the center frequency band.

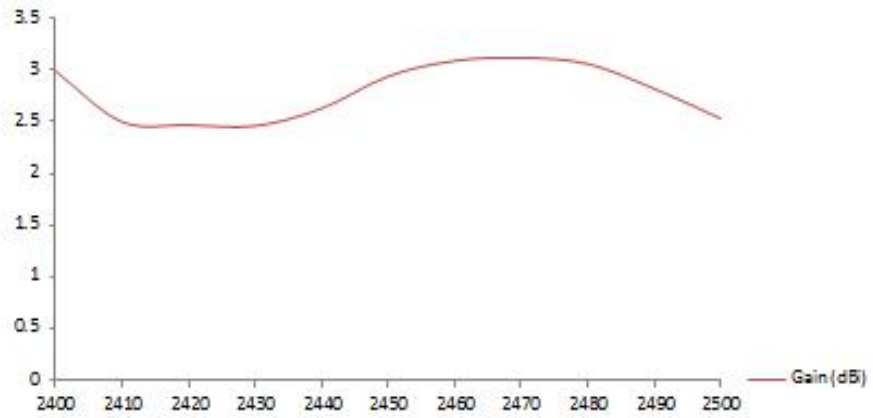
If there are any questions regarding the data in this report or if more detail is needed, please feel free to contact me.

VSWR vs Frequency

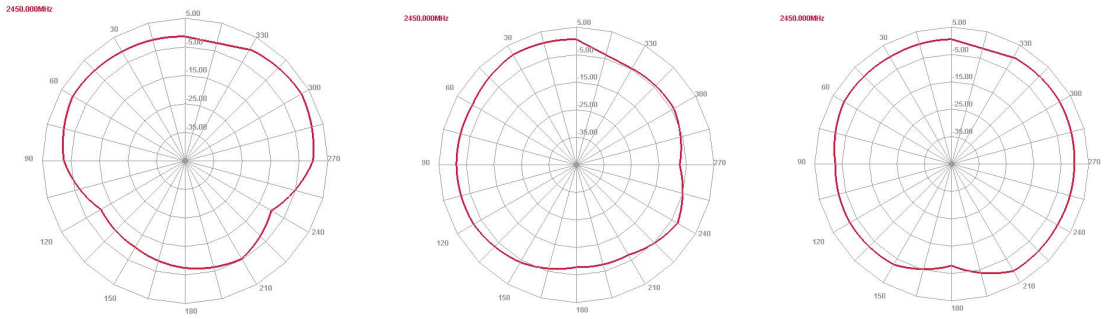


This plots shows that the VSWR response of the antennas tested were within the specified range which is <2:1.

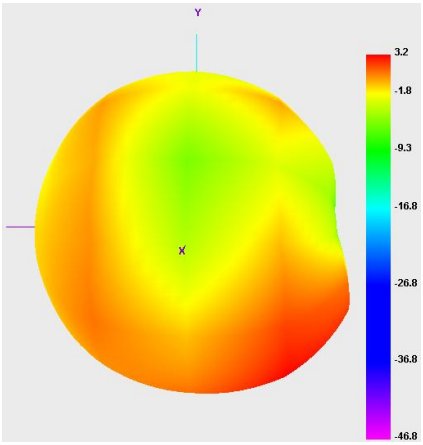
This plot shows the computed gain values when compared to the known gain standard.



This plot shows the full 2D radiation characteristics of the antenna.



This plot shows the full 3D radiation characteristics of the antenna.

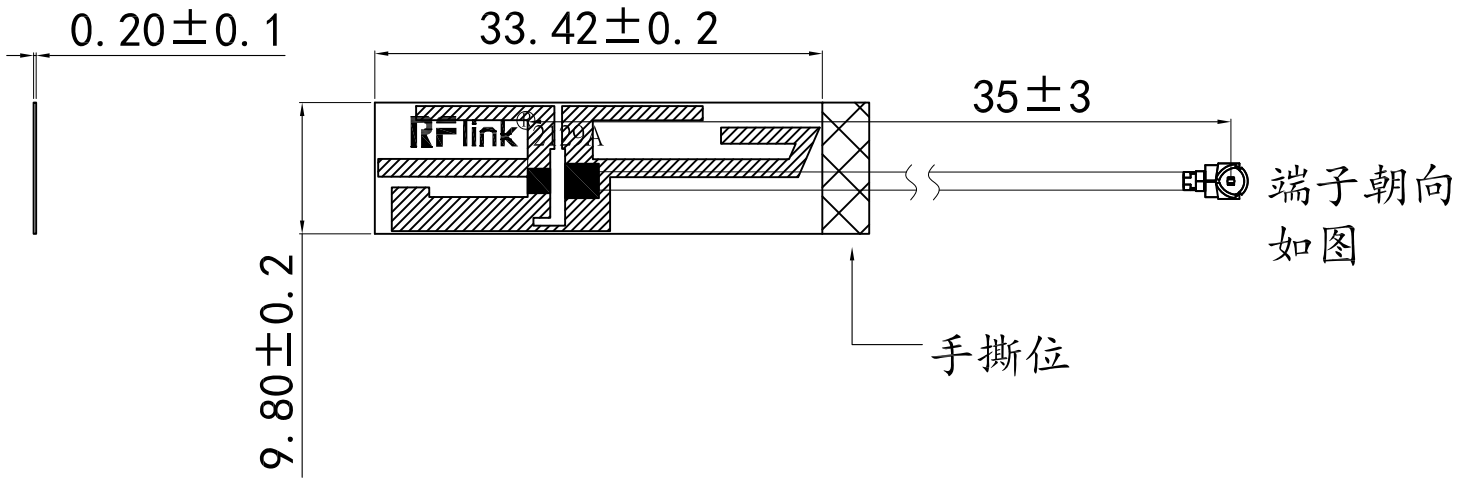


二、规格表:

产品主要技术参数

主要技术指标		Main technical specifications	
频率范围（MHZ）	2400-2500	Frequency Range (MHZ)	2400~2500
特性阻抗(Ω)	50	Impedance(Ω)	50
增益(dBi)	3dBi	Peak Gain(dBi)	3dBi
输出电压驻波比	≦2.0	VSWR	≦2.0
极化方式	交叉极化	Polarization	Cross Polarization
方向性	全向性	Radiation	Omni-directional
连接方式	Cable+端子	Connector Type	Cable+MHF Plug
物理性能		Physical Properties	
天线外套材料	FPC	Antenna cover	FPC
工作温度	-20℃~+70℃	Operating Temp	-20℃~+70℃
保存温度	-20℃~+70℃	Storage Temp	-20℃~+70℃

REV	DATE	DESCRIPTION	Change the code
A	2022-07-27	NEW ISSUE	



规格Specification:

频率Frequency Range:2.4~2.5GHz

NO.	DESCRIPTION	Q'TY	REMARK
3	FPC	1	PI;
2	端子	1	Copper;
1	线 材	1	ø0.81 Black;

带公差尺寸为检验尺寸

产品符合环保RoHS2.0之要求

尺寸范围(mm)	公差(mm)
0<L≤6	±0.10
6<L≤30	±0.10
30<L≤90	±0.15
80<L≤180	±0.20
180<L≤315	±0.25
315<L≤800	±0.35
角度	±0.5°

APPROVED

CHECKED

DRAWING

COSTOMER:

PART NO :

PARTNAME : RF Antenna Assembly

R.F P/NO : U00T02S000N01821

REV	UNIT	SCALE	SIZE	SHEET
A	mm	1:1	A4	1OF1

RFlink

东莞市仁丰电子科技有限公司

RenFeng Electronic technology Co., LTD.