

1 Project Overview

This document is the specifications of the G5-T3 with WiFi antenna. The antenna solution is to make LDS wiring on the outside of the exterior surface bracket. The installation position is shown in Figure 1 :

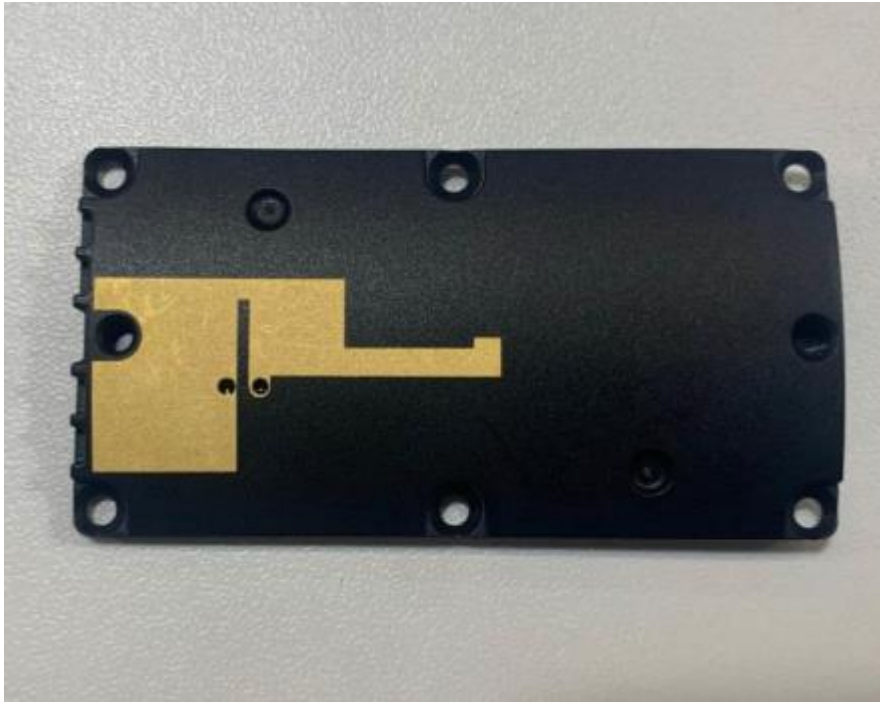


Figure 1 Antenna picture

2 Antenna Specification

Antenna Form	Plastic Stent+LDS
Working Bands	2400~2500MHz
Peak Gain	N/A
Efficiency	>30%
VSWR	<2
Impedance	50ohm
Polarization	Linear polarization
A/R	N/A
Radiation Pattern	Omnidirectional
Feed Mode	Pin
power capacity	33dBm
Size(L*W*H)	58mm*30mm*4.3mm
Weight	N/A
Operating temperature	-30 °C to +80 °C
Storage temperature	-30 °C to +80 °C

3 Test Environment

The measuring equipment for antenna return loss, voltage standing wave ratio and isolation is Keysight E5071C vector network analyzer. As shown below:



Figure 2 Keysight E5071C vector network analyzer

The efficiency, gain, and pattern of the antenna are all tested in a dark room at Satimo, France. The darkroom uses 64 probes to electronically scan the antenna's radiation performance, collect data, and then analyze and organize it through a computer, which can provide antenna testing in the 400MHz to 8.5GHz frequency.



Figure3 Satimo Darkroom

4 Test Results

4.1 VSWR



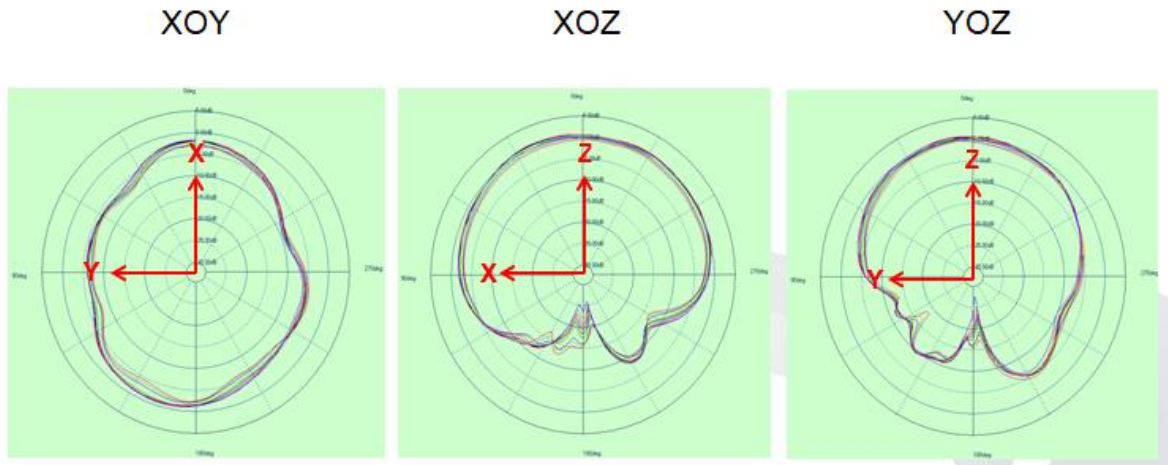
Figure 4 VSWR

4.2 Passive Efficiency and Gain

Frequency(MHz)	Efficiency	Peak Gain (dBi)
2400	31.94%	0.29
2410	33.49%	0.32
2420	35.42%	0.48
2430	37.95%	0.60
2440	38.93%	0.77
2450	40.50%	0.95
2460	42.24%	1.04
2470	42.73%	1.15
2480	43.12%	1.25
2490	42.53%	1.40
2500	40.94%	1.11

4.3 Antenna 2D pattern

Antenna Specifications



5 Structure Diagram

1	2	3	4	5	6																																				
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<p>NOTES:</p> <p>1. THE DIMENSION MARKED WITH "*" IS THE KEY DIMENSION, NO TOLERANCE REFERENCE TABLE, NO DIMENSION REFERENCE 3D/2D</p> <p>2. SCRATCH OR COLLISION DAMAGES ON THE SURFACE ARE NOT ALLOWED; NEED TO REMOVE ALL BURRS AND SHARP EDGES, CLEAN THE OIL POLLUTION;</p> <p>3. ALL MATERIALS OF THE MODULE MUST MEET ROHS & REACH REQUIREMENTS.</p>			<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td>Title</td> <td>BAB0119_ANT_ASM</td> <td>DRW.</td> <td>Brighter</td> <td>Date</td> <td>22/8/10</td> </tr> <tr> <td>Project</td> <td>BAB0119</td> <td>CHK.</td> <td></td> <td>Date</td> <td></td> </tr> <tr> <td>P/N</td> <td>F-0Y-31-0090-000-00</td> <td>APP.</td> <td></td> <td>Date</td> <td></td> </tr> <tr> <td>Material</td> <td>BOM</td> <td>REV.</td> <td>T03</td> <td>G/W</td> <td></td> </tr> <tr> <td>Scale</td> <td>1:1</td> <td colspan="4" rowspan="3" style="text-align: center;"> Dimensions in mm All rights strictly reserved. 惠州硕贝德无线科技股份有限公司 Wuzhou speed wireless technology co., ltd. </td> </tr> <tr> <td>Sheet</td> <td>1 / 1</td> </tr> <tr> <td>Size</td> <td>A4</td> </tr> </table>			Title	BAB0119_ANT_ASM	DRW.	Brighter	Date	22/8/10	Project	BAB0119	CHK.		Date		P/N	F-0Y-31-0090-000-00	APP.		Date		Material	BOM	REV.	T03	G/W		Scale	1:1	Dimensions in mm All rights strictly reserved. 惠州硕贝德无线科技股份有限公司 Wuzhou speed wireless technology co., ltd.				Sheet	1 / 1	Size	A4		
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