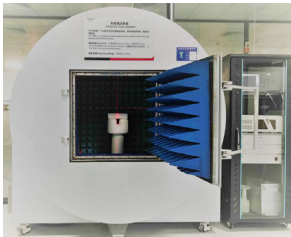
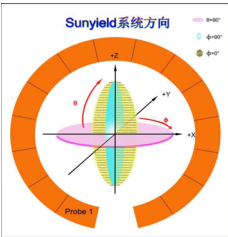
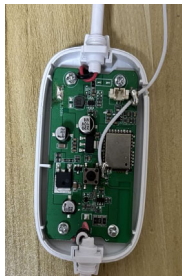
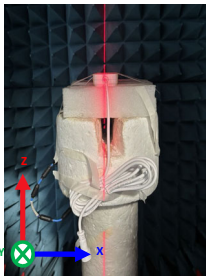
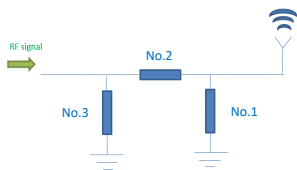
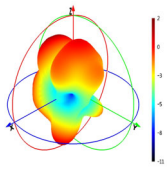
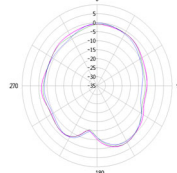
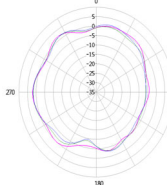
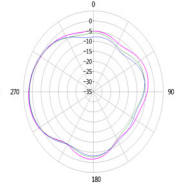
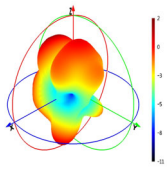
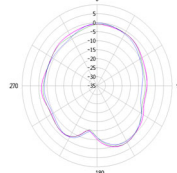
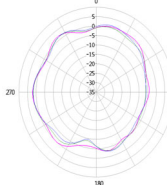
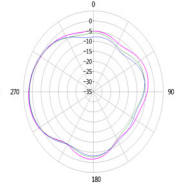
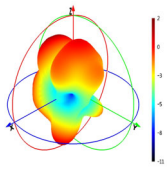
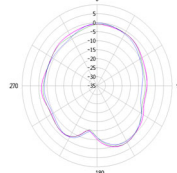
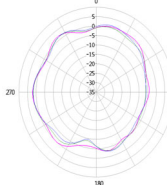
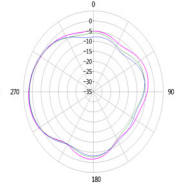
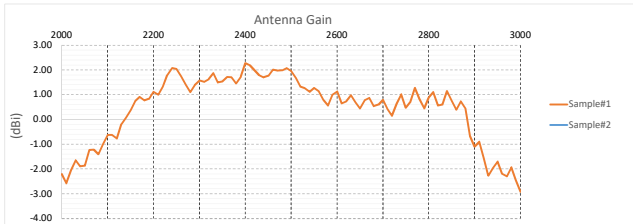
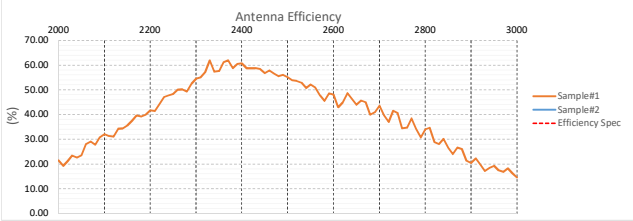
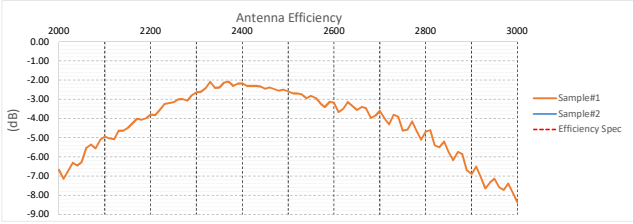


LEEDARSON 立达信		Antenna Test Report		Version: 2025-07-17_V2.4			
Product Information							
Client		M071		Protocol		WIFI+BLE	
Project Number		\		Sample Quantity		1	
Model Number		LDE42B001A		PCB Version		\	
Chip Type		ESP32-C3		Structure Version		正式模	
Sample Picutres							
Summary							
No.	Item	Result	Limit		Judgment		
1	VSWR	1.65	< 2.5		PASS		
2	Antenna efficiency	-2.58	≥-10		PASS		
Conclusion	PASS						
Revision history							
Testor		Meihua Chen		Test Date		2025.8.27	
Version		Date		Revise Content		Reviser	
V2.0		2025.8.27		Establish Report		Meihua Chen	

Test setting																																																									
SY-16M Test System	Sample Picture																																																								
 	  																																																								
Antenna Matching																																																									
	<table><tr><th colspan="4">Matching Component</th></tr><tr><th>Position</th><th>No. 1</th><th>No. 2</th><th>No. 3</th></tr><tr><td>Item No.</td><td></td><td></td><td></td></tr><tr><td>Value</td><td>0.5pF</td><td>0Ω</td><td>NC</td></tr><tr><td>1st</td><td>2020310216</td><td>2020710715</td><td></td></tr><tr><td>2nd</td><td></td><td></td><td></td></tr><tr><td>3rd</td><td></td><td></td><td></td></tr><tr><td>Remark</td><td colspan="3"></td></tr></table>	Matching Component				Position	No. 1	No. 2	No. 3	Item No.				Value	0.5pF	0Ω	NC	1st	2020310216	2020710715		2nd				3rd				Remark																											
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Passive Test Results																																																									
VNA Data	Chamber Data																																																								
Original Result of Simulation Setting	<table><tr><th>Frequency (MHz)</th><th>Gain (dBi)</th><th>Efficiency (dB)</th><th>3D</th><th>$\theta = 90^\circ$ (XY Plane)</th></tr><tr><td>2400</td><td>2.28</td><td>-2.17</td><td rowspan="7"></td><td rowspan="7"></td></tr><tr><td>2410</td><td>2.19</td><td>-2.31</td></tr><tr><td>2420</td><td>1.99</td><td>-2.30</td></tr><tr><td>2430</td><td>1.80</td><td>-2.31</td></tr><tr><td>2440</td><td>1.70</td><td>-2.33</td></tr><tr><td>2450</td><td>1.77</td><td>-2.46</td></tr><tr><td>2460</td><td>2.02</td><td>-2.38</td></tr><tr><td>2470</td><td>1.97</td><td>-2.47</td><td>$\phi = 0^\circ$ (XZ Plane)</td><td>$\phi = 90^\circ$ (YZ Plane)</td></tr><tr><td>2480</td><td>1.99</td><td>-2.55</td><td rowspan="5"></td><td rowspan="5"></td></tr><tr><td>2490</td><td>2.08</td><td>-2.51</td></tr><tr><td>2500</td><td>1.96</td><td>-2.58</td></tr><tr><td>—</td><td>—</td><td>—</td></tr><tr><td>MIN</td><td>1.70</td><td>-2.58</td></tr><tr><td>MAX</td><td>2.28</td><td>-2.17</td></tr><tr><td>AVG</td><td>1.98</td><td>-2.40</td></tr></table>	Frequency (MHz)	Gain (dBi)	Efficiency (dB)	3D	$\theta = 90^\circ$ (XY Plane)	2400	2.28	-2.17			2410	2.19	-2.31	2420	1.99	-2.30	2430	1.80	-2.31	2440	1.70	-2.33	2450	1.77	-2.46	2460	2.02	-2.38	2470	1.97	-2.47	$\phi = 0^\circ$ (XZ Plane)	$\phi = 90^\circ$ (YZ Plane)	2480	1.99	-2.55			2490	2.08	-2.51	2500	1.96	-2.58	—	—	—	MIN	1.70	-2.58	MAX	2.28	-2.17	AVG	1.98	-2.40
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Final Tuning Result																																																									
																																																									

Efficiency and Gain							
Frequency (MHz)	Spec		Sample#1		Sample#2		
	Spec (dB)	Spec (%)	Gain (dBi)	Efficiency γ (dB)	Gain (dBi)	Efficiency γ (dB)	Efficiency γ (%)
2000			-2.20	-6.67	21.54		
2010			-2.58	-7.14	19.32		
2020			-2.04	-6.73	21.21		
2030			-1.65	-6.30	23.46		
2040			-1.89	-6.46	22.60		
2050			-1.86	-6.27	23.60		
2060			-1.23	-5.52	28.07		
2070			-1.22	-5.36	29.08		
2080			-1.40	-5.56	27.81		
2090			-0.97	-5.11	30.81		
2100			-0.63	-4.94	32.07		
2110			-0.63	-5.03	31.38		
2120			-0.76	-5.08	31.03		
2130			-0.18	-4.64	34.34		
2140			0.08	-4.63	34.45		
2150			0.39	-4.48	35.65		
2160			0.75	-4.26	37.52		
2170			0.91	-4.02	39.63		
2180			0.77	-4.07	39.20		
2190			0.84	-3.98	39.97		
2200			1.12	-3.80	41.66		
2210			1.01	-3.82	41.46		
2220			1.33	-3.56	44.10		
2230			1.79	-3.26	47.17		
2240			2.08	-3.20	47.82		
2250			2.04	-3.16	48.25		
2260			1.76	-3.00	50.12		
2270			1.41	-2.99	50.25		
2280			1.11	-3.07	49.31		
2290			1.39	-2.79	52.57		
2300			1.57	-2.64	54.48		
2310			1.82	-2.60	54.99		
2320			1.63	-2.42	57.22		
2330			1.87	-2.09	61.83		
2340			1.50	-2.41	57.35		
2350			1.54	-2.39	57.67		
2360			1.72	-2.13	61.23		
2370			1.70	-2.08	61.97		
2380			1.46	-2.31	58.72		
2390			1.73	-2.19	60.44		
2400			2.28	-2.17	60.72		
2410			2.19	-2.31	58.73		
2420			1.99	-2.30	58.82		
2430			1.80	-2.31	58.80		
2440			1.70	-2.33	58.44		
2450			1.77	-2.46	56.81		
2460			2.02	-2.38	57.84		
2470			1.87	-2.47	56.57		
2480			1.99	-2.55	55.58		
2490			2.08	-2.51	56.07		
2500			1.96	-2.58	55.15		
2510			1.68	-2.69	53.86		
2520			1.33	-2.71	53.61		
2530			1.27	-2.76	52.94		
2540			1.12	-2.94	50.79		
2550			1.28	-2.82	52.23		
2560			1.15	-2.93	50.98		
2570			0.78	-3.21	47.78		
2580			0.56	-3.41	45.57		
2590			1.01	-3.14	48.51		
2600			1.14	-3.19	47.97		
2610			0.66	-3.67	42.98		
2620			0.74	-3.48	44.92		
2630			0.88	-3.13	48.68		
2640			0.69	-3.34	46.32		
2650			0.45	-3.56	44.06		
2660			0.78	-3.41	45.65		
2670			0.87	-3.47	44.99		
2680			0.54	-3.97	40.04		
2690			0.61	-3.86	41.10		
2700			0.80	-3.60	43.61		
2710			0.42	-4.00	39.80		
2720			0.15	-4.31	37.03		
2730			0.64	-3.81	41.59		
2740			1.02	-3.91	40.69		
2750			0.47	-4.63	34.41		
2760			0.72	-4.59	34.71		
2770			1.28	-4.15	38.46		
2780			0.84	-4.65	34.26		
2790			0.45	-5.11	30.80		
2800			0.89	-4.68	34.05		
2810			1.11	-4.60	34.64		
2820			0.56	-5.40	28.87		
2830			0.61	-5.51	28.13		
2840			1.15	-5.21	30.15		
2850			0.75	-5.76	26.57		
2860			0.40	-6.17	24.14		
2870			0.74	-5.74	26.68		
2880			0.43	-5.86	25.97		
2890			-0.66	-6.70	21.39		
2900			-1.09	-6.89	20.47		
2910			-0.89	-6.51	22.33		
2920			-1.55	-7.03	19.83		
2930			-2.26	-7.64	17.21		
2940			-1.94	-7.34	18.46		
2950			-1.70	-7.14	19.34		
2960			-2.19	-7.58	17.46		
2970			-2.29	-7.72	16.89		
2980			-1.93	-7.39	18.25		
2990			-2.45	-7.89	16.27		
3000			-2.92	-8.36	14.59		



Raw File List					
No.	Item	File Type	Sample #1	Sample #2	Remark
1	VSWR	SnP			
2	Passive data	trx			
3					

