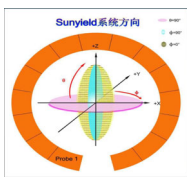
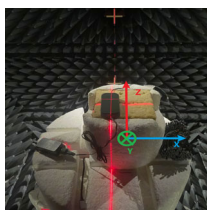
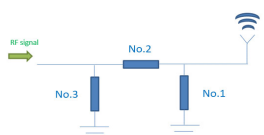
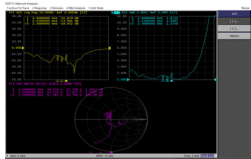
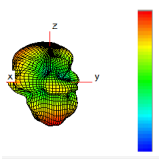
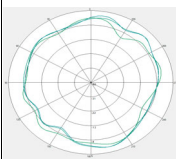
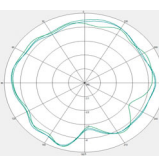
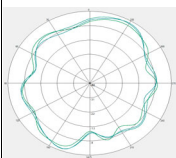
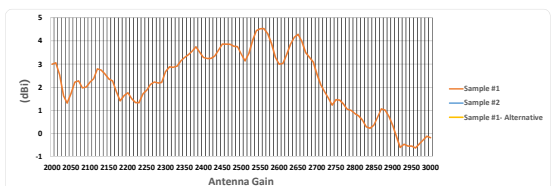
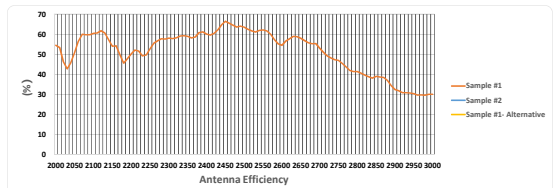
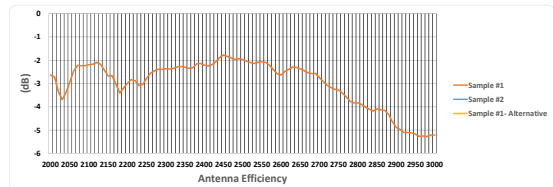


LEEDARSON 立达信		Antenna Test Report		Version: 2026-03-16_V2.6			
Product Information							
Client		M071 HT4圣诞灯串		Protocol		WiFi+BLE	
Project Number		RD0260409011		Sample Quantity		2	
Model Number		V1.0		PCB Version		LOX-WIFI-C3-R0	
Chip Type		ESP32-C3		Structure Version		正式模	
Sample Picutres							
Summary			高指标(灯类)_2.4G				
No.	Item	Result	Limit		Judgment		
1	VSWR	1.67	<	2.5	Pass		
2	Antenna efficiency	-2.25	>	-7	Pass		
Conclusion		Pass					
Revision history							
Testor		zhuwei		Test Date		2026.5.12	
Version		Date		Revise Content		Reviser	
V2.0		2026.5.12		Establish		zhuwei	

General Test		RayZone-2800 OTA 测试系统	Test setting		Sample Picture		
			 				
Antenna Matching							
			Matching Component				
			Position	No.1	No.2	No.3	
			Item No.				
			Value				
			1st				
			2nd	-	-	-	
			3rd	-	-	-	
			Remark	-			
Passive Test Results							
VNA Data			Chamber Data				
Original Result of Simulation Setting			Frequency (MHz)	Gain(dB)	Efficiency (dB)	3D	$\theta=90^\circ$ (XY Plane)
			2400	3.28	-2.22		
			2410	3.24	-2.25		
			2420	3.25	-2.18		
			2430	3.35	-2.06		
			2440	3.61	-1.89		
			2450	3.86	-1.78		
Final Tuning Result			2460	3.86	-1.84	$\phi=0^\circ$ (XZ Plane) 	$\phi=90^\circ$ (YZ Plane) 
			2470	3.86	-1.90		
			2480	3.78	-1.97		
			2490	3.75	-1.94		
			2500	3.42	-1.97		
			-	-	-		
			MIN	3.24	-2.25		
			MAX	3.86	-1.78		
			AVG	3.57	-2.00		

Efficiency and Gain									
Frequency (MHz)	Sample #1			Sample #2			Sample #1- Alternative		
	Gain(dB)	Efficiency (dB)	Efficiency (%)	Gain(dB)	Efficiency (dB)	Efficiency (%)	Gain(dB)	Efficiency (dB)	Efficiency (%)
2000	2.99	-2.64	54.45						
2010	3.06	-2.73	53.38						
2020	2.54	-3.35	46.27						
2030	1.64	-3.68	42.81						
2040	1.32	-3.38	45.87						
2050	1.73	-2.93	50.97						
2060	2.22	-2.47	56.60						
2070	2.28	-2.22	59.96						
2080	1.97	-2.24	59.74						
2090	2.01	-2.23	59.78						
2100	2.22	-2.19	60.43						
2110	2.37	-2.17	60.66						
2120	2.79	-2.10	61.72						
2130	2.74	-2.18	60.60						
2140	2.57	-2.43	57.19						
2150	2.36	-2.68	54.01						
2160	2.27	-2.66	54.21						
2170	1.80	-3.02	49.94						
2180	1.42	-3.40	45.66						
2190	1.64	-3.20	47.87						
2200	1.76	-2.99	50.27						
2210	1.52	-2.83	52.06						
2220	1.34	-2.87	51.58						
2230	1.34	-3.08	49.22						
2240	1.71	-3.04	49.68						
2250	1.88	-2.77	52.85						
2260	2.12	-2.56	55.49						
2270	2.23	-2.47	56.69						
2280	2.19	-2.39	57.72						
2290	2.22	-2.39	57.63						
2300	2.68	-2.36	58.10						
2310	2.88	-2.38	57.83						
2320	2.86	-2.35	58.20						
2330	2.91	-2.28	59.13						
2340	3.13	-2.27	59.27						
2350	3.28	-2.30	58.92						
2360	3.41	-2.35	58.18						
2370	3.55	-2.32	58.66						
2380	3.75	-2.16	60.81						
2390	3.51	-2.13	61.19						
2400	3.28	-2.22	60.05						
2410	3.24	-2.25	59.57						
2420	3.25	-2.18	60.46						
2430	3.35	-2.06	62.18						
2440	3.61	-1.88	64.76						
2450	3.86	-1.78	66.44						
2460	3.86	-1.84	65.52						
2470	3.86	-1.90	64.55						
2480	3.78	-1.97	63.59						
2490	3.75	-1.94	64.03						
2500	3.42	-1.97	63.52						
2510	3.14	-2.05	62.43						
2520	3.46	-2.10	61.67						
2530	4.04	-2.14	61.11						
2540	4.44	-2.08	61.90						
2550	4.53	-2.07	62.12						
2560	4.53	-2.10	61.69						
2570	4.31	-2.22	60.02						
2580	3.87	-2.42	57.32						
2590	3.30	-2.58	55.22						
2600	2.99	-2.64	54.50						
2610	3.03	-2.48	56.54						
2620	3.41	-2.39	57.67						
2630	3.86	-2.29	58.97						
2640	4.16	-2.31	58.77						
2650	4.28	-2.36	58.02						
2660	3.98	-2.45	56.91						
2670	3.50	-2.54	55.75						
2680	3.30	-2.57	55.30						
2690	3.09	-2.57	55.40						
2700	2.57	-2.76	53.02						
2710	2.11	-2.92	51.09						
2720	1.81	-3.08	49.19						
2730	1.54	-3.17	48.20						
2740	1.24	-3.25	47.30						
2750	1.47	-3.28	47.01						
2760	1.45	-3.42	45.51						
2770	1.27	-3.58	43.84						
2780	1.06	-3.77	41.98						
2790	1.00	-3.83	41.39						
2800	0.87	-3.83	41.38						
2810	0.77	-3.91	40.64						
2820	0.58	-4.01	39.68						
2830	0.30	-4.10	38.99						
2840	0.23	-4.18	38.17						
2850	0.37	-4.09	39.02						
2860	0.71	-4.12	38.70						
2870	1.07	-4.15	38.44						
2880	1.01	-4.31	37.03						
2890	0.75	-4.64	34.38						
2900	0.36	-4.88	32.51						
2910	-0.13	-4.97	31.86						
2920	-0.60	-5.10	30.89						
2930	-0.45	-5.10	30.89						
2940	-0.53	-5.12	30.76						
2950	-0.53	-5.17	30.40						
2960	-0.62	-5.27	29.69						
2970	-0.44	-5.25	29.82						
2980	-0.28	-5.27	29.69						
2990	-0.11	-5.21	30.13						
3000	-0.17	-5.21	30.11						



Raw File List						
No.	Item	File Type	Sample #1	Sample #2	Sample #1- Alternative	Remark
1	VSWR	SnP				Final Tuning Result
2	Passive data	trx				
3						

