



# **RF Performance Test Report**

**AT-LP3XBT**

**2022.01.21**

**TESTER:MO LITE**



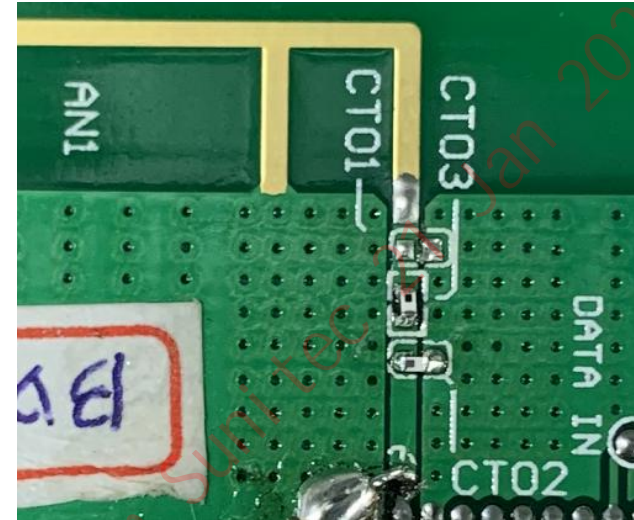
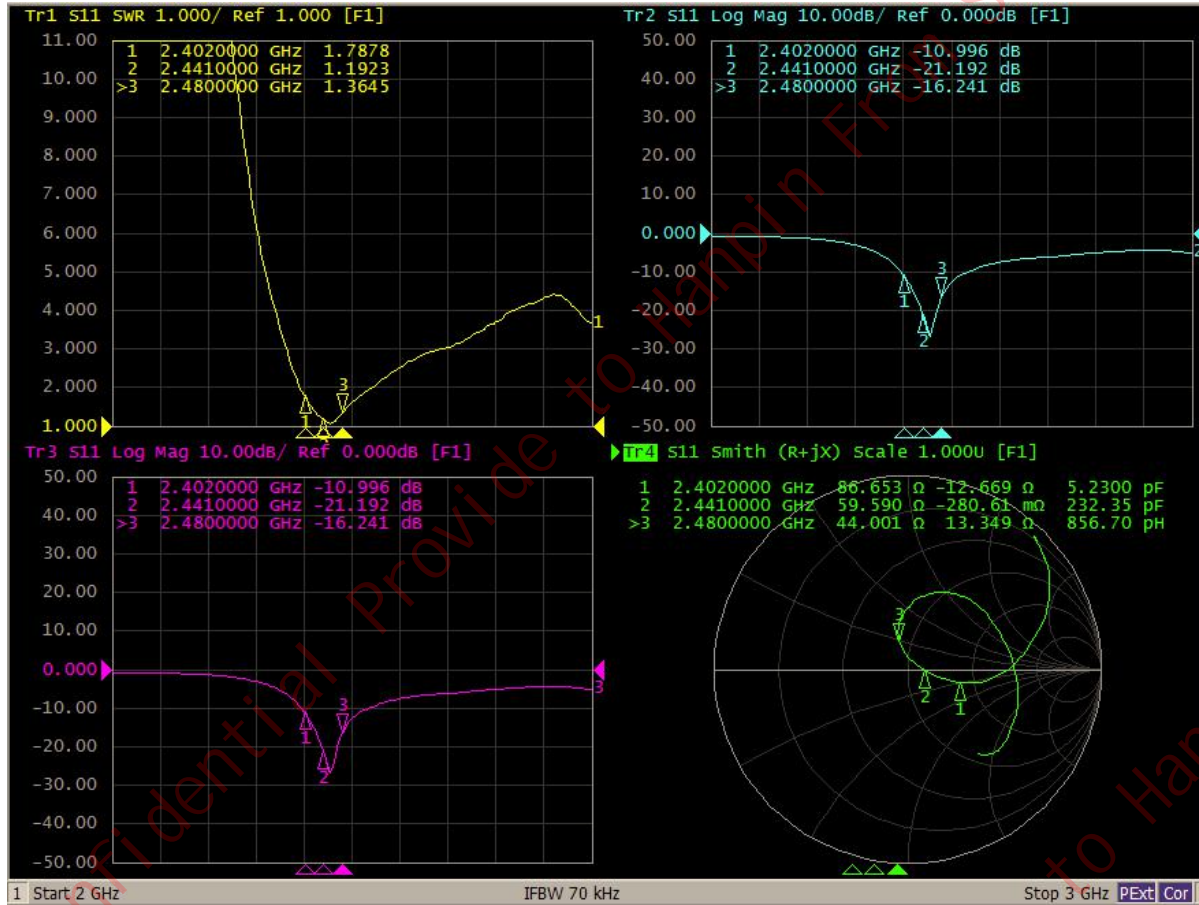
# Product appearance

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# Antenna Performance Test Report

VSWR、Return loss and impedance:



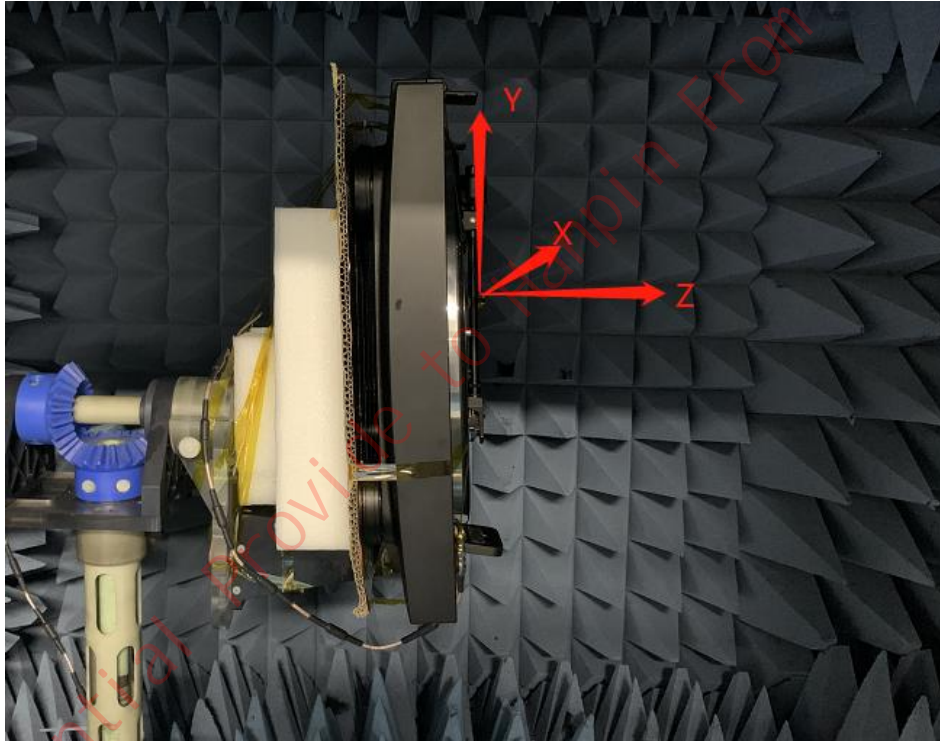
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CT02=3.9NH,Sunlord P/N:SDCL1005C3N9STDF

CT03=6.2NH,Sunlord P/N:SDCL1005C6N2STDF

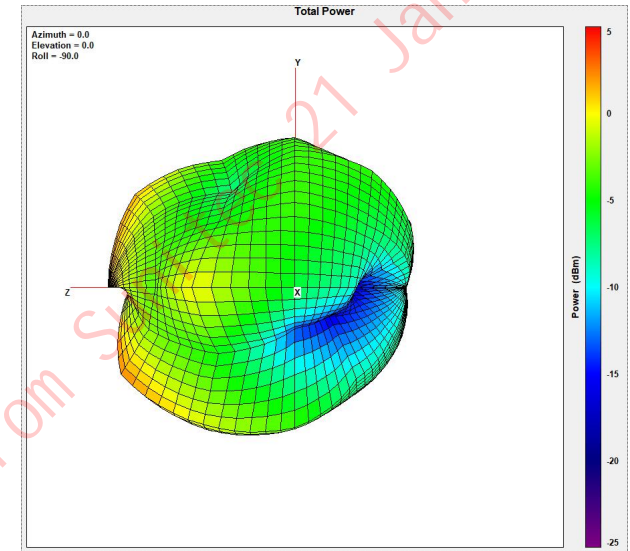
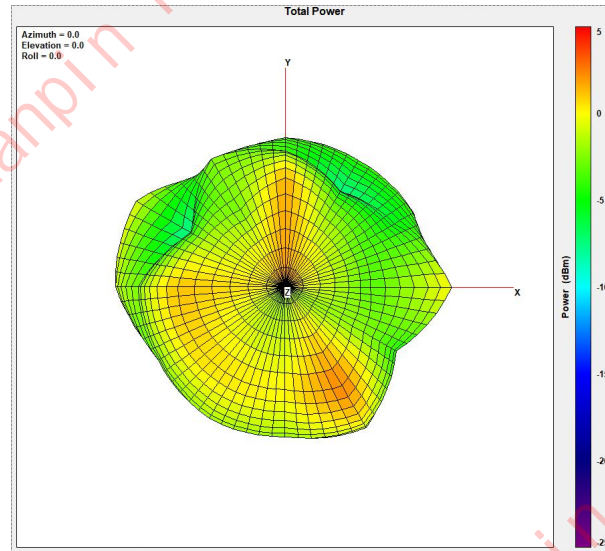
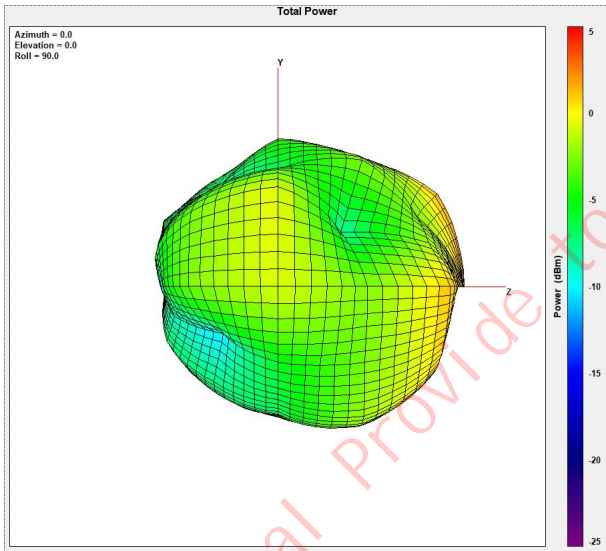
# Antenna Performance Test Report

Antenna Test Settings: 垂直



# Antenna Performance Test Report

Antenna Efficiency 2441MHz 3D Radiation Pattern :垂直





# RF Performance Test Report

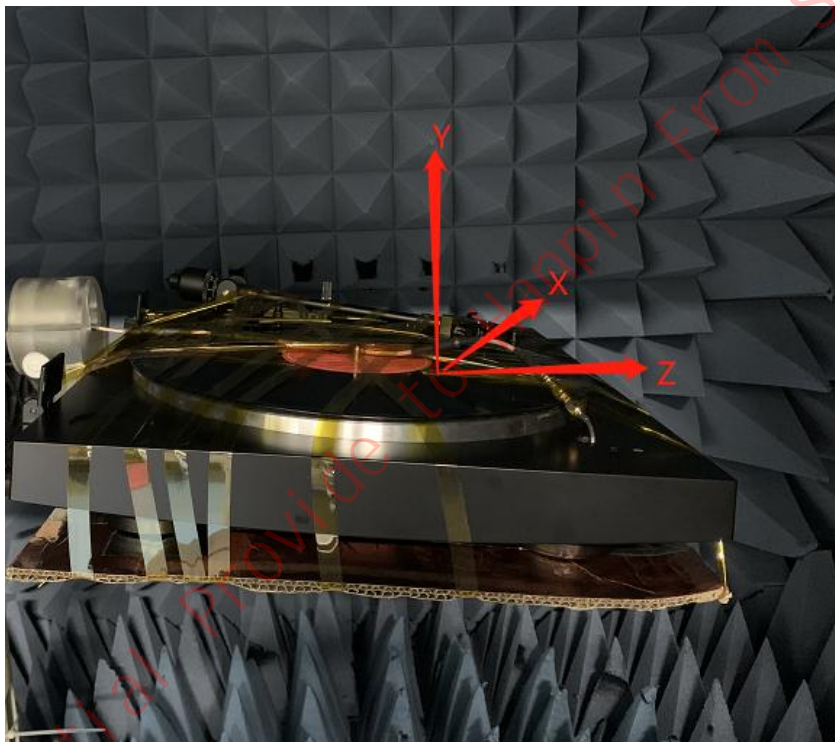
## Antenna performance data:垂直

Total Attributes	Point Values	Ant. Port Input Pwr. (dBm)	Tot. Rad. Pwr. (dBm)	Peak EIRP (dBm)	Directivity (dBi)	Efficiency (dB)	Efficiency (%)	Gain (dBi)
	Frequency (MHz)							
	2400	0	-4.3449	1.56386	5.90876	-4.3449	36.7714	1.56386
	2401	0	-4.34048	1.55858	5.89905	-4.34048	36.8089	1.55858
	2402	0	-4.33186	1.54395	5.87581	-4.33186	36.8819	1.54395
	2403	0	-4.32867	1.53453	5.8632	-4.32867	36.9091	1.53453
	2404	0	-4.32635	1.52511	5.85146	-4.32635	36.9288	1.52511
	2405	0	-4.31505	1.51698	5.83203	-4.31505	37.025	1.51698
	2406	0	-4.30399	1.51334	5.81733	-4.30399	37.1194	1.51334
	2407	0	-4.28759	1.55793	5.84552	-4.28759	37.2599	1.55793
	2408	0	-4.27225	1.6126	5.88485	-4.27225	37.3917	1.6126
	2409	0	-4.25529	1.65616	5.91145	-4.25529	37.538	1.65616
	2410	0	-4.23632	1.70682	5.94314	-4.23632	37.7023	1.70682
	2411	0	-4.22176	1.74499	5.96675	-4.22176	37.8289	1.74499
	2412	0	-4.1988	1.78748	5.98627	-4.1988	38.0295	1.78748
	2413	0	-4.17718	1.82884	6.00602	-4.17718	38.2193	1.82884
	2414	0	-4.16953	1.8509	6.02043	-4.16953	38.2866	1.8509
	2415	0	-4.15352	1.88246	6.03599	-4.15352	38.428	1.88246
	2416	0	-4.13989	1.90672	6.04661	-4.13989	38.5488	1.90672
	2417	0	-4.12043	1.93556	6.05599	-4.12043	38.7219	1.93556
	2418	0	-4.10287	1.96429	6.06716	-4.10287	38.8789	1.96429
	2419	0	-4.09847	1.97561	6.07408	-4.09847	38.9182	1.97561
	2420	0	-4.07793	2.00133	6.07926	-4.07793	39.1027	2.00133
	2421	0	-4.06605	2.00645	6.0725	-4.06605	39.2099	2.00645
	2422	0	-4.0525	2.0093	6.06179	-4.0525	39.3324	2.0093
	2423	0	-4.03709	2.00943	6.04652	-4.03709	39.4721	2.00943
	2424	0	-4.02188	2.00537	6.02725	-4.02188	39.6107	2.00537
	2425	0	-4.01454	2.00681	6.02136	-4.01454	39.6776	2.00681
	2426	0	-3.99429	2.06254	6.05683	-3.99429	39.8631	2.06254
	2427	0	-3.97488	2.11458	6.08947	-3.97488	40.0416	2.11458
	2428	0	-3.95262	2.1714	6.12402	-3.95262	40.2474	2.1714
	2429	0	-3.94247	2.20573	6.1482	-3.94247	40.3416	2.20573
	2430	0	-3.92597	2.24749	6.17346	-3.92597	40.4952	2.24749
	2431	0	-3.91605	2.28087	6.19692	-3.91605	40.5878	2.28087
	2432	0	-3.89351	2.33233	6.22584	-3.89351	40.7989	2.33233
	2433	0	-3.87447	2.37577	6.25024	-3.87447	40.9782	2.37577
	2434	0	-3.8625	2.41338	6.27588	-3.8625	41.0913	2.41338
	2435	0	-3.84025	2.46023	6.30048	-3.84025	41.3024	2.46023
	2436	0	-3.82467	2.49235	6.31702	-3.82467	41.4508	2.49235
	2437	0	-3.80281	2.534	6.33681	-3.80281	41.66	2.534
	2438	0	-3.78692	2.56761	6.35453	-3.78692	41.8127	2.56761
	2439	0	-3.77652	2.59371	6.37023	-3.77652	41.913	2.59371
	2440	0	-3.76951	2.61405	6.38356	-3.76951	41.9806	2.61405
	2441	0	-3.7525	2.6508	6.40331	-3.7525	42.1454	2.6508

	2441	0	-3.7525	2.6508	6.40331	-3.7525	42.1454	2.6508
	2442	0	-3.75347	2.65816	6.41163	-3.75347	42.136	2.65816
	2443	0	-3.74354	2.67017	6.41371	-3.74354	42.2325	2.67017
	2444	0	-3.74349	2.67151	6.415	-3.74349	42.2329	2.67151
	2445	0	-3.73208	2.68898	6.42106	-3.73208	42.344	2.68898
	2446	0	-3.7268	2.69717	6.42396	-3.7268	42.3956	2.69717
	2447	0	-3.71569	2.71435	6.43004	-3.71569	42.5041	2.71435
	2448	0	-3.70165	2.73347	6.43512	-3.70165	42.6418	2.73347
	2449	0	-3.6817	2.76416	6.44586	-3.6817	42.8381	2.76416
	2450	0	-3.66449	2.78953	6.45402	-3.66449	43.0082	2.78953
	2451	0	-3.65549	2.80145	6.45694	-3.65549	43.0974	2.80145
	2452	0	-3.64346	2.82113	6.46459	-3.64346	43.217	2.82113
	2453	0	-3.6354	2.83008	6.46548	-3.6354	43.2972	2.83008
	2454	0	-3.62623	2.83929	6.46552	-3.62623	43.3888	2.83929
	2455	0	-3.62344	2.8403	6.46374	-3.62344	43.4167	2.8403
	2456	0	-3.61809	2.84576	6.46385	-3.61809	43.4701	2.84576
	2457	0	-3.61426	2.85039	6.46465	-3.61426	43.5085	2.85039
	2458	0	-3.60573	2.86098	6.46671	-3.60573	43.594	2.86098
	2459	0	-3.59386	2.87339	6.46725	-3.59386	43.7133	2.87339
	2460	0	-3.59218	2.86485	6.45703	-3.59218	43.7302	2.86485
	2461	0	-3.59008	2.85586	6.44594	-3.59008	43.7514	2.85586
	2462	0	-3.58014	2.85699	6.43714	-3.58014	43.8516	2.85699
	2463	0	-3.57994	2.84096	6.4209	-3.57994	43.8537	2.84096
	2464	0	-3.57256	2.83339	6.40594	-3.57256	43.9283	2.83339
	2465	0	-3.57948	2.80487	6.38435	-3.57948	43.8583	2.80487
	2466	0	-3.57198	2.78876	6.36075	-3.57198	43.9341	2.78876
	2467	0	-3.56306	2.7802	6.34326	-3.56306	44.0244	2.7802
	2468	0	-3.56203	2.7602	6.32224	-3.56203	44.0349	2.7602
	2469	0	-3.56232	2.73811	6.30043	-3.56232	44.0319	2.73811
	2470	0	-3.56062	2.71267	6.2733	-3.56062	44.0492	2.71267
	2471	0	-3.56134	2.68632	6.24766	-3.56134	44.0419	2.68632
	2472	0	-3.55516	2.66284	6.218	-3.55516	44.1046	2.66284
	2473	0	-3.54952	2.63856	6.18808	-3.54952	44.1619	2.63856
	2474	0	-3.54866	2.60773	6.15639	-3.54866	44.1707	2.60773
	2475	0	-3.54601	2.5798	6.12581	-3.54601	44.1976	2.5798
	2476	0	-3.53447	2.55238	6.08685	-3.53447	44.3152	2.55238
	2477	0	-3.53575	2.51028	6.04603	-3.53575	44.3022	2.51028
	2478	0	-3.53368	2.474	6.00767	-3.53368	44.3233	2.474
	2479	0	-3.5307	2.43423	5.96493	-3.5307	44.3537	2.43423
	2480	0	-3.53496	2.38543	5.92039	-3.53496	44.3102	2.38543

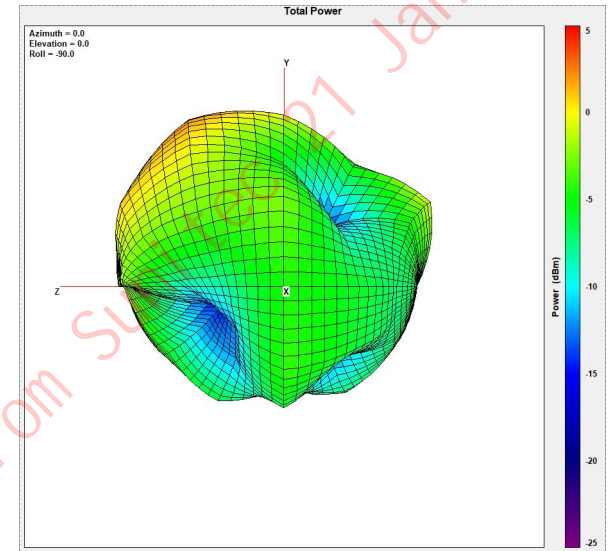
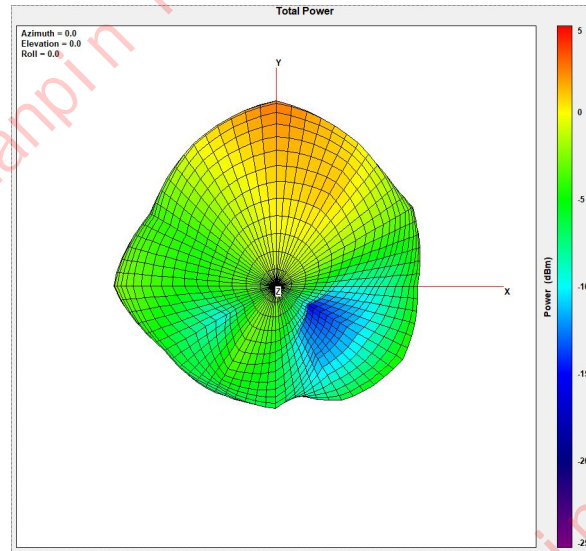
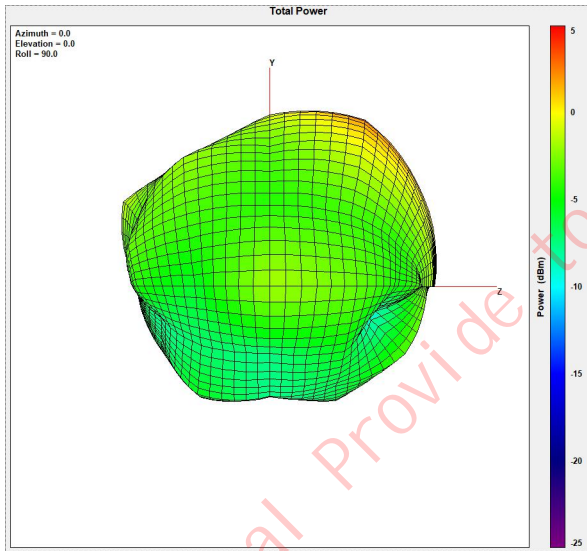
# Antenna Performance Test Report

Antenna Test Settings:水平



# Antenna Performance Test Report

Antenna Efficiency 2441MHz 3D Radiation Pattern :水平







# RF Performance Test Report

## Antenna performance data:水平

Total Attributes	Point Values	Ant. Port Input Pwr. (dBm)	Tot. Rad. Pwr. (dBm)	Peak EIRP (dBm)	Directivity (dBi)	Efficiency (dB)	Efficiency (%)	Gain (dBi)											
Frequency (MHz)																			
	2400	0	-4.91182	1.22626	6.13808	-4.91182	32.2714	1.22626			2441	0	-4.11604	2.80678	6.92282	-4.11604	38.7611	2.80678	
	2401	0	-4.89039	1.2046	6.09499	-4.89039	32.431	1.2046			2442	0	-4.11213	2.82276	6.93489	-4.11213	38.796	2.82276	
	2402	0	-4.86838	1.18239	6.05077	-4.86838	32.5958	1.18239			2443	0	-4.10129	2.8583	6.95959	-4.10129	38.893	2.8583	
	2403	0	-4.8566	1.14956	6.00616	-4.8566	32.6843	1.14956			2444	0	-4.09992	2.87748	6.9774	-4.09992	38.9052	2.87748	
	2404	0	-4.84821	1.1105	5.9587	-4.84821	32.7476	1.1105			2445	0	-4.08399	2.90224	6.98623	-4.08399	39.0482	2.90224	
	2405	0	-4.83138	1.08318	5.91457	-4.83138	32.8747	1.08318			2446	0	-4.07772	2.898	6.97572	-4.07772	39.1046	2.898	
	2406	0	-4.81706	1.04712	5.86418	-4.81706	32.9833	1.04712			2447	0	-4.06698	2.89876	6.96575	-4.06698	39.2014	2.89876	
	2407	0	-4.7982	1.01013	5.80833	-4.7982	33.1268	1.01013			2448	0	-4.05483	2.90012	6.95495	-4.05483	39.3113	2.90012	
	2408	0	-4.7797	0.997918	5.77761	-4.7797	33.2683	0.997918			2449	0	-4.03629	2.90911	6.9454	-4.03629	39.4794	2.90911	
	2409	0	-4.76125	1.01496	5.77621	-4.76125	33.4099	1.01496			2450	0	-4.01671	2.91252	6.92923	-4.01671	39.6578	2.91252	
	2410	0	-4.74141	1.03914	5.78055	-4.74141	33.5628	1.03914			2451	0	-4.01183	2.90574	6.91756	-4.01183	39.7025	2.90574	
	2411	0	-4.72373	1.07087	5.7946	-4.72373	33.6998	1.07087			2452	0	-4.00182	2.90241	6.90422	-4.00182	39.7941	2.90241	
	2412	0	-4.70042	1.11152	5.81194	-4.70042	33.8811	1.11152			2453	0	-3.99538	2.88676	6.88215	-3.99538	39.8531	2.88676	
	2413	0	-4.67619	1.15894	5.83513	-4.67619	34.0707	1.15894			2454	0	-3.99163	2.87175	6.86338	-3.99163	39.8875	2.87175	
	2414	0	-4.66657	1.19108	5.85765	-4.66657	34.1462	1.19108			2455	0	-3.9963	2.84403	6.84033	-3.9963	39.8446	2.84403	
	2415	0	-4.64627	1.24249	5.88876	-4.64627	34.3063	1.24249			2456	0	-3.99441	2.83065	6.82506	-3.99441	39.862	2.83065	
	2416	0	-4.6296	1.29099	5.92059	-4.6296	34.4382	1.29099			2457	0	-3.99158	2.8131	6.80468	-3.99158	39.888	2.8131	
	2417	0	-4.60897	1.35405	5.96302	-4.60897	34.6021	1.35405			2458	0	-3.98291	2.80733	6.79025	-3.98291	39.9677	2.80733	
	2418	0	-4.58193	1.41712	5.99905	-4.58193	34.8182	1.41712			2459	0	-3.9742	2.79926	6.77346	-3.9742	40.0479	2.79926	
	2419	0	-4.57127	1.46334	6.03461	-4.57127	34.9038	1.46334			2460	0	-3.97803	2.77681	6.75483	-3.97803	40.0127	2.77681	
	2420	0	-4.54466	1.53659	6.08125	-4.54466	35.1183	1.53659			2461	0	-3.98075	2.7533	6.73405	-3.98075	39.9875	2.7533	
	2421	0	-4.52581	1.60226	6.12807	-4.52581	35.2711	1.60226			2462	0	-3.97483	2.74753	6.72235	-3.97483	40.0421	2.74753	
	2422	0	-4.50674	1.67207	6.17882	-4.50674	35.4263	1.67207			2463	0	-3.98175	2.72941	6.71116	-3.98175	39.9784	2.72941	
	2423	0	-4.48337	1.7507	6.23407	-4.48337	35.6174	1.7507			2464	0	-3.9794	2.72432	6.70372	-3.9794	40	2.72432	
	2424	0	-4.46093	1.82617	6.2871	-4.46093	35.802	1.82617			2465	0	-3.98888	2.68688	6.67576	-3.98888	39.9128	2.68688	
	2425	0	-4.44571	1.88304	6.32875	-4.44571	35.9277	1.88304			2466	0	-3.98734	2.66807	6.6554	-3.98734	39.927	2.66807	
	2426	0	-4.4227	1.95644	6.37914	-4.4227	36.1186	1.95644			2467	0	-3.98575	2.6437	6.62945	-3.98575	39.9416	2.6437	
	2427	0	-4.39935	2.02549	6.42484	-4.39935	36.3133	2.02549			2468	0	-3.99082	2.61673	6.60755	-3.99082	39.895	2.61673	
	2428	0	-4.374	2.10241	6.47641	-4.374	36.5259	2.10241			2469	0	-3.99209	2.58827	6.59036	-3.99209	39.8833	2.58827	
	2429	0	-4.3619	2.15633	6.51823	-4.3619	36.6277	2.15633			2470	0	-3.9911	2.57365	6.56475	-3.9911	39.8924	2.57365	
	2430	0	-4.34238	2.2394	6.58178	-4.34238	36.7927	2.2394			2471	0	-3.98921	2.53779	6.52701	-3.98921	39.9097	2.53779	
	2431	0	-4.32717	2.29991	6.62708	-4.32717	36.9218	2.29991			2472	0	-3.9836	2.52065	6.50425	-3.9836	39.9613	2.52065	
	2432	0	-4.30044	2.37127	6.67171	-4.30044	37.1497	2.37127			2473	0	-3.97558	2.53179	6.50737	-3.97558	40.0352	2.53179	
	2433	0	-4.27789	2.43907	6.71697	-4.27789	37.3431	2.43907			2474	0	-3.97333	2.51132	6.48465	-3.97333	40.0559	2.51132	
	2434	0	-4.26224	2.48353	6.74577	-4.26224	37.478	2.48353			2475	0	-3.96983	2.48681	6.45664	-3.96983	40.0882	2.48681	
	2435	0	-4.23761	2.54225	6.77986	-4.23761	37.6911	2.54225			2476	0	-3.95734	2.48985	6.44719	-3.95734	40.2037	2.48985	
	2436	0	-4.21922	2.58265	6.80187	-4.21922	37.8511	2.58265			2477	0	-3.95571	2.45301	6.40873	-3.95571	40.2188	2.45301	
	2437	0	-4.19218	2.63	6.82218	-4.19218	38.0874	2.63			2478	0	-3.9471	2.43804	6.38513	-3.9471	40.2986	2.43804	
	2438	0	-4.17091	2.6847	6.85561	-4.17091	38.2745	2.6847			2479	0	-3.93887	2.42489	6.36386	-3.93887	40.3741	2.42489	
	2439	0	-4.15482	2.72272	6.87754	-4.15482	38.4165	2.72272			2480	0	-3.93682	2.39928	6.3361	-3.93682	40.3941	2.39928	
	2440	0	-4.14012	2.76792	6.90805	-4.14012	38.5467	2.76792											
	2441	0	-4.11604	2.80678	6.92282	-4.11604	38.7611	2.80678											



# Antenna Performance Test Report

## RF data summary

AT-LP3XBT				
Frequency(MHz)	垂直		水平	
	Efficiency (%)	Gain (dBi)	Efficiency (%)	Gain (dBi)
2402	36.9	1.5	32.6	1.2
2441	42.1	2.7	38.8	2.8
2480	44.3	2.4	40.4	2.4
MAX Efficiency	44.4% @2.479GHz		40.4% @2.480GHz	
MAX Gain	2.9dBi @2.459GHz		2.9dBi @2.450GHz	

# Antenna Performance Test Report

AT-LP3XBT working distance on copper board test result:

Test condition: Connect JBL charge 2 with **AT-LP3XBT** for testing, Place JBL charge 2 on 80cm high platform, So is **AT-LP3XBT**, rotate **AT-LP3XBT** in 360°, and keep away from JBL charge 2, until JBL charge 2 occurs staccato phenomenon.



**Test place: Sunitec parking lot**

**Test distance: 37m**

**Test date: 2022-01-21**