

3D Antenna Measurement Summary Report

REPORT NO.: W7L-P24030007OT01 R1

**PLATFORM
MANUFACTURER:** Shenzhen Linkiing Technology Co.,Limited

PLATFORM NAME: Bluetooth Module

ANTENNA TYPE: PCB Antenna

TESTED DATE: 2024.03.19

ISSUED: 2024.05.22

APPLICANT: Shenzhen Linkiing Technology Co.,Limited

ADDRESS : Floor 2, Building 5, Lihe Industrial Area, 1055 SongBai Road, Xili Town, Nanshan District, Shenzhen, China

ISSUED BY : BV 7Layers Communications Technology (Shenzhen) Co., Ltd.

ADDRESS : Room B37, Warehouse A5, No.3 Chiwan 4th Road, Zhaoshang Street, Nanshan district, Shenzhen, P.R.C

This report is for your exclusive use. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission. This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Our report includes all of the tests requested by you and the results thereof based upon the information that you provided to us. You have 60 days from date of issuance of this report to notify us of any material error or omission caused by our negligence, provided, however, that such notice shall be in writing and shall specifically address the issue you wish to raise. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents. Unless specific mention, the uncertainty of measurement has been explicitly taken into account to declare the compliance or non-compliance to the specification.

RELEASE CONTROL RECORD

REPORT NO.	REASON FOR CHANGE	DATE ISSUED
W7L-P24030007OT01	Original release	2024.04.12
W7L-P24030007OT01 R1	Delete testing setup photo and EUT photos	2024.05.22

Table of Contents

GENERAL INFORMATION	3
1. Test Equipment List	4
2. Measurement Uncertainty	4
3. Characteristics of antenna.....	5

GENERAL INFORMATION

APPLICANT:	Shenzhen Linkiing Technology Co.,Limited
MANUFACTURER:	Shenzhen Linkiing Technology Co.,Limited
MODEL NO.:	LK8720PA
HARDWARE VERSION:	V2.2
SOFTWARE VERSION:	46

Test Standard: ANSI/IEEE Std. 149 1979.

PREPARED BY : Leon Guo , **DATE :** 2024.05.22
Leon Guo / Engineer

APPROVED BY : Luke Lu , **DATE :** 2024.05.22
Luke Lu / Manager

1. Test Equipment List

TYPE OF EQUIPMENT	MODEL NUMBER	SERIAL NUMBER	CALIBRATION DUE DATE
Network Analyzer	E5071C	MY46214638	2025.04.27
OTA Chamber	ETS AMS8500	N/A	N/A
RF Switch	ETS EMCenter	N/A	N/A
Measurement Antenna	ETS 3164-06	N/A	N/A

2. Measurement Uncertainty

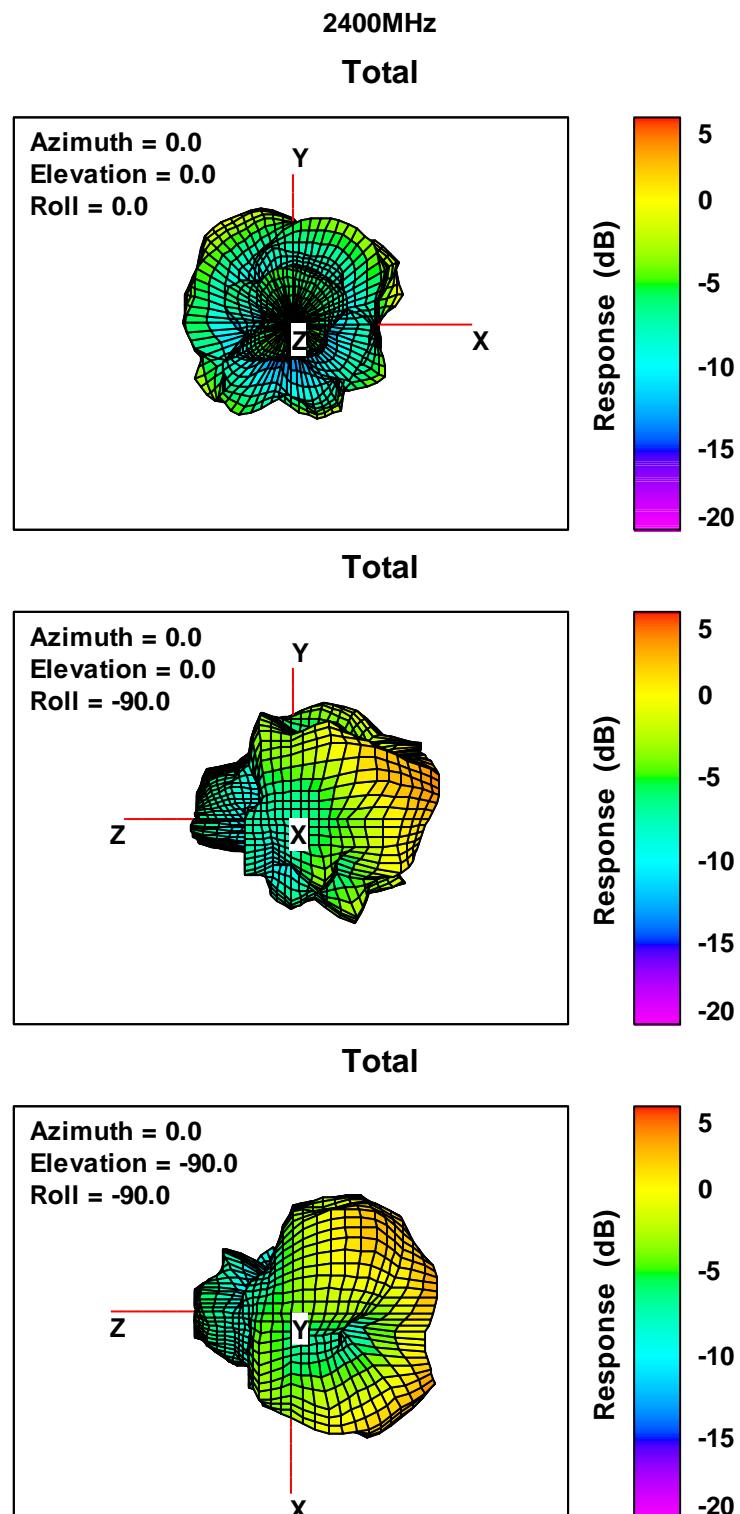
Expanded Uncertainty for Measurement (k=2 or 95% Confidence Level) at Passive antenna test over frequency range 780 – 2200MHz is +/- 1.52 dB.

3. Characteristics of antenna

3.1. 3D Antenna Gain-Free Space

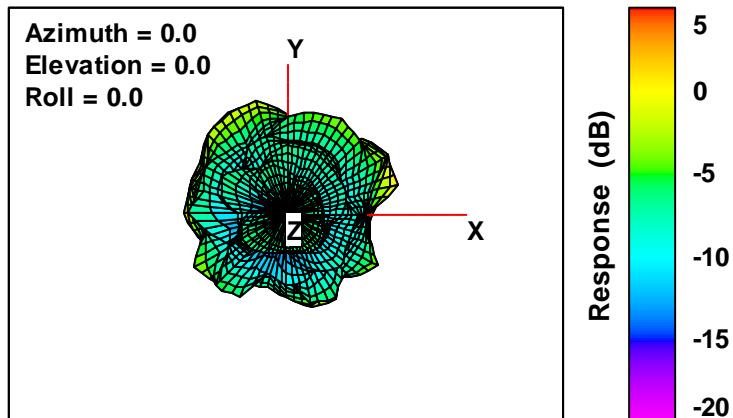
Frequency (MHz)	Directivity (dBi)	Efficiency (dB)	Efficiency (%)	Gain (dBi)
2400	7.60	-3.73	42.35	3.87
2410	7.68	-4.15	38.42	3.52
2420	7.72	-4.18	38.16	3.54
2430	7.80	-4.38	36.52	3.42
2440	7.79	-4.52	35.34	3.27
2450	7.80	-4.65	34.29	3.16
2460	7.84	-4.94	32.06	2.90
2470	7.84	-4.96	31.88	2.88
2480	7.80	-5.16	30.45	2.63
2490	7.82	-5.42	28.71	2.40
2500	7.94	-5.97	25.28	1.97

3.2. Antenna Pattern

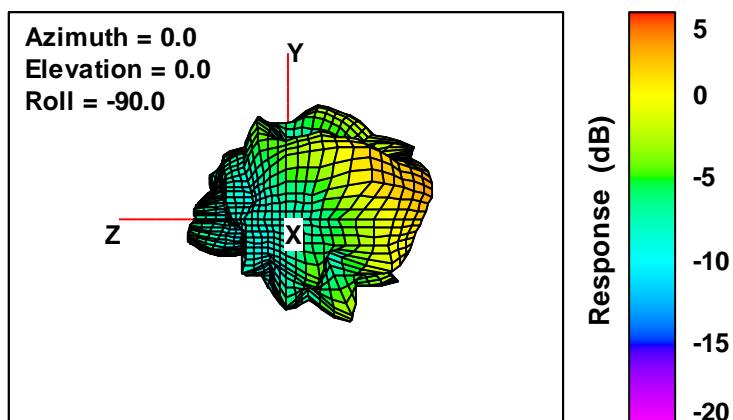


2440MHz

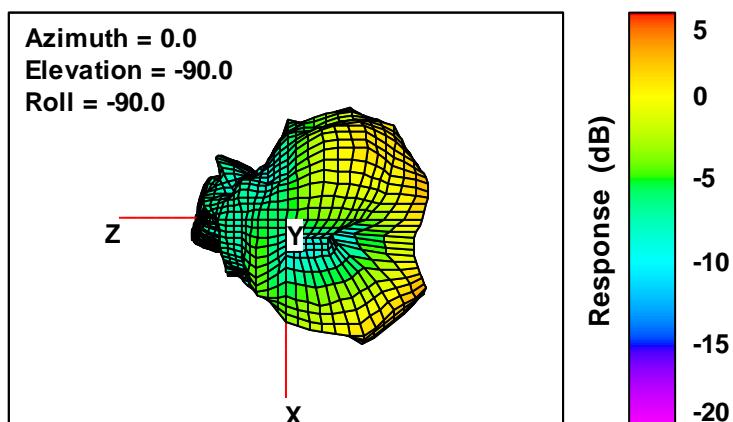
Total



Total

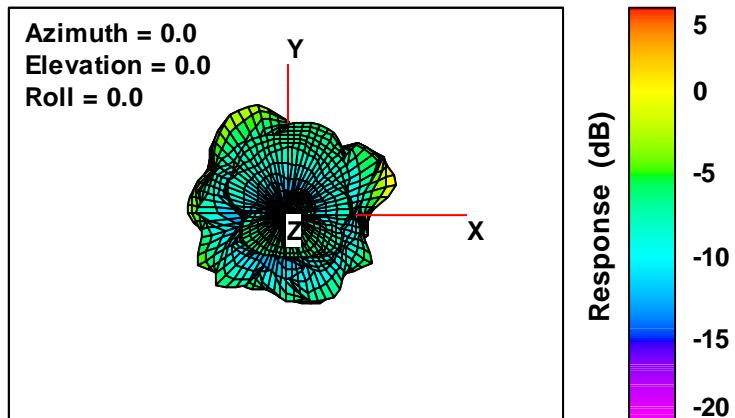


Total

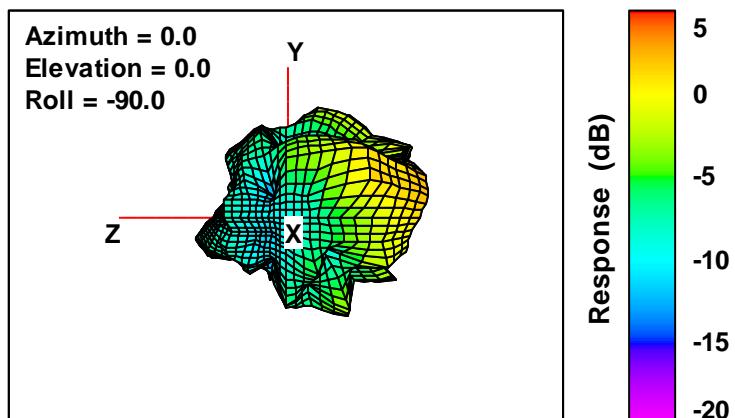


2480MHz

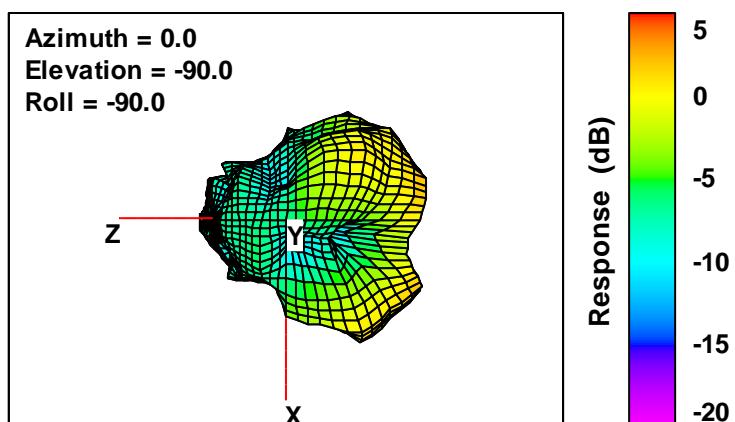
Total



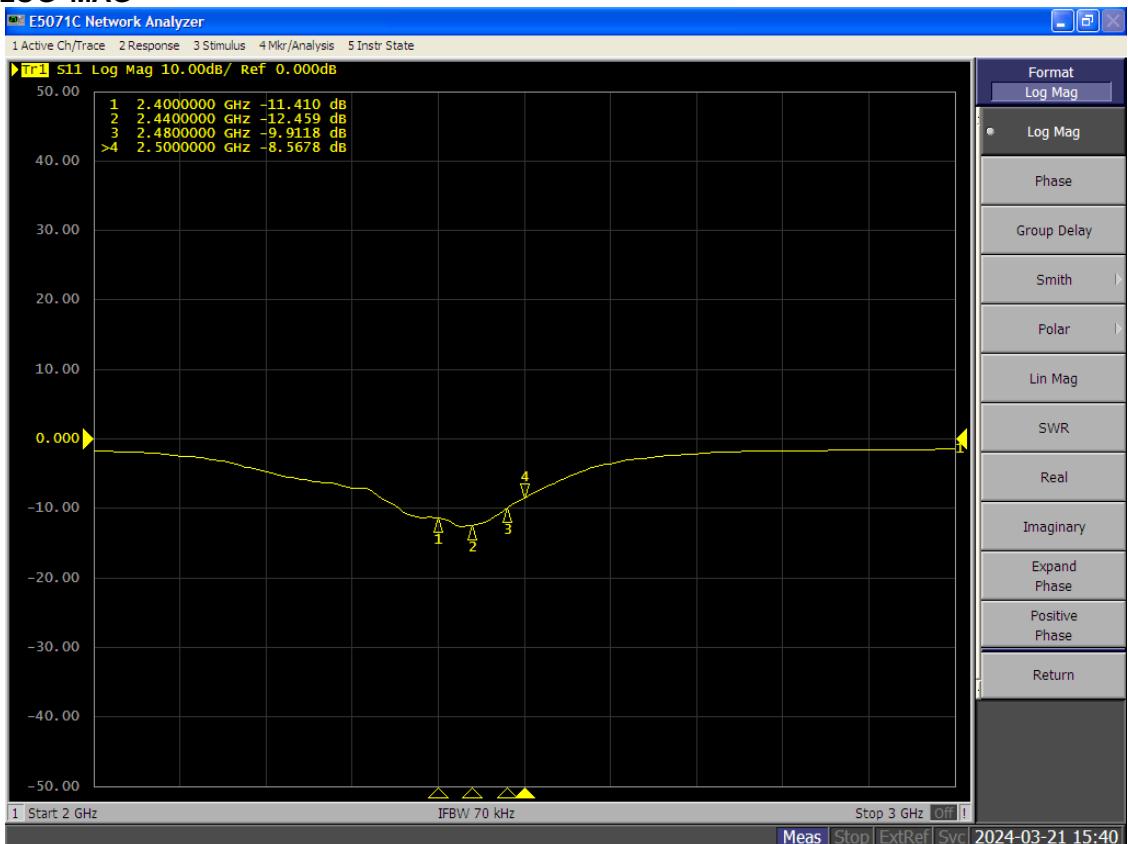
Total



Total



3.3. LOG MAG



3.4. SWR

