REPORT No. : XM20060056W03

TEST REPORT

MANUFACTURER	:	Xiamen Ilead Tek Co., Ltd.
Address	:	Room 01, Unit 2101, No.50 Chengyi North Street, Software Park Phase III, Xiamen, Fujian, China
PRODUCT NAME	:	2.4G_IFA
MODEL NAME	:	ANT001
BRAND NAME	:	PeriPage
STANDARD(S)	:	IEEE-149-1979-R2003
RECEIPT DATE	:	2020.7.20
TEST DATE	:	2020.7.20
ISSUE DATE	:	2020.7.20

Edited by : Peng fuwei(Test engineer)

Review by: Elvis Wang(Auditor)

Approved by: Anne Liu (Supervisor)

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DIRECTORY

Change History		
Version	Date	Reason for change
1.0	2020-07-20	First edition

1. Technical information

1.1 Equipment Under Test (EUT) Description

EUT Type..... :	N/A
Sample No. .....:	N/A
Hardware Version.....:	N/A
Software Version..... :	N/A
Applicant..... :	Xiamen Ilead Tek Co., Ltd.
Manufacturer..... :	Xiamen Ilead Tek Co., Ltd.
Standard and Frequency Band.....:	2400MHz-2483.5MHz
Test Channel.....:	N/A
Modulation Type..... :	N/A
Antenna Type..... :	PCB on-board
Antenna Connector..... :	N/A
Power Supply..... :	N/A

Note 1: For a more detailed description, please refer to Specification or User's Manual supplied by the applicant and/or manufacturer.

1.2 Antenna layout and Implementation:

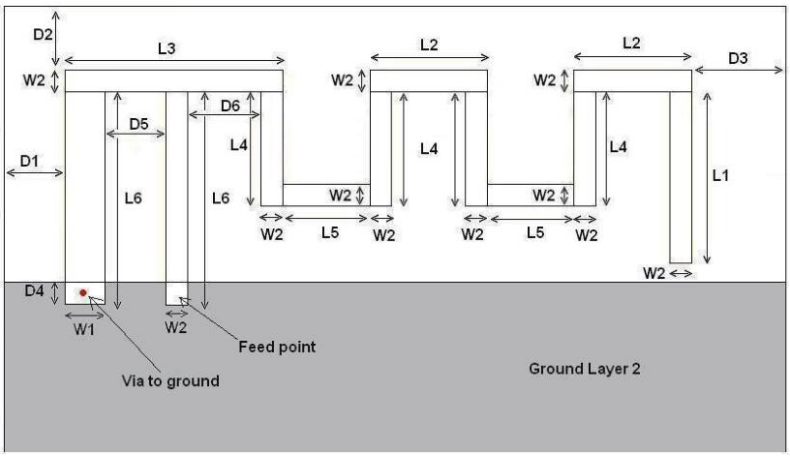


Figure 1: Antenna Dimensions

L1	3.94 mm
L2	2.70 mm
L3	5.00 mm
L4	2.64 mm
L5	2.00 mm
L6	4.90 mm
W1	0.90 mm
W2	0.50 mm
D1	0.50 mm
D2	0.30 mm
D3	0.30 mm
D4	0.50 mm
D5	1.40mm
D6	1.70 mm

Table 1: Antenna Dimensions

1.3 Testing Laboratory Information

1. Identification of the Responsible Testing Laboratory

Laboratory Name:	Kehu-Morlab Test Laboratory
Laboratory Address:	Unit 101, No.1732 Gangzhong Road, Xiamen Area, Pilot Free Trade Zone (Fujian) P.R. China
Telephone:	+86 592 5612050
Facsimile:	+86 592 5612095

2. Identification of the Responsible Testing Location

Name:	Kehu-Morlab Test Laboratory
Address:	Unit 101, No.1732 Gangzhong Road, Xiamen Area, Pilot Free Trade Zone (Fujian) P.R. China

1.4 Test Standard and Results

The report is tested according to the following standard:

№	Standard No.	Standard Name
1	IEEE-149-1979-R2003	Standard Test Procedures for Antennas

Test items and the results are as bellow:

№	Test Frequency Band	Test Item	Result
1	2400MHz～2483.5MHz	Gain	N/A
2	2400MHz～2483.5MHz	Efficiency	N/A
3	2400MHz～2483.5MHz	Pattern	N/A

1.5 Test Equipment and Software

№	Equipment	Type（Version）	Supplier	Cal.Due Date
1	OTA Test system	EM Quest 1.11Build 7570	ETS/U.S.A	/
2	Network Analyzer	Aglient E5071C	keysight/U.S.A	2021-03-11
3	Fully Anechoic Chamber	4m×4m×4m	ETS/U.S.A	2022-05-31

1.6 Environmental Conditions

Record the range of test environment during the test:

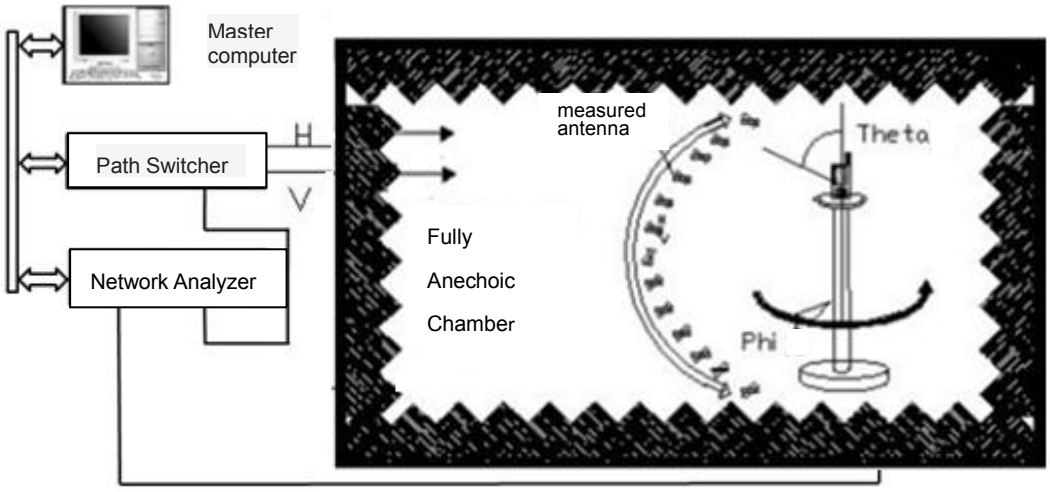
Ambient temperature(°C):	15 - 35
Relative humidity (%):	30 -60
Atmosphere pressure (kPa):	86-106

2. Test results

2.1 Antenna Gain, Efficiency, Pattern

2.1.1 Test Procedure：

The measured EUT rotates 0~180 degrees around the θ axis. The measured antenna is sampled along the Φ axis of 0~360 from 15 degrees to a measuring step, and the measured value is read automatically. The antenna gain, efficiency, pattern is measured



2.1.2 Test Result：

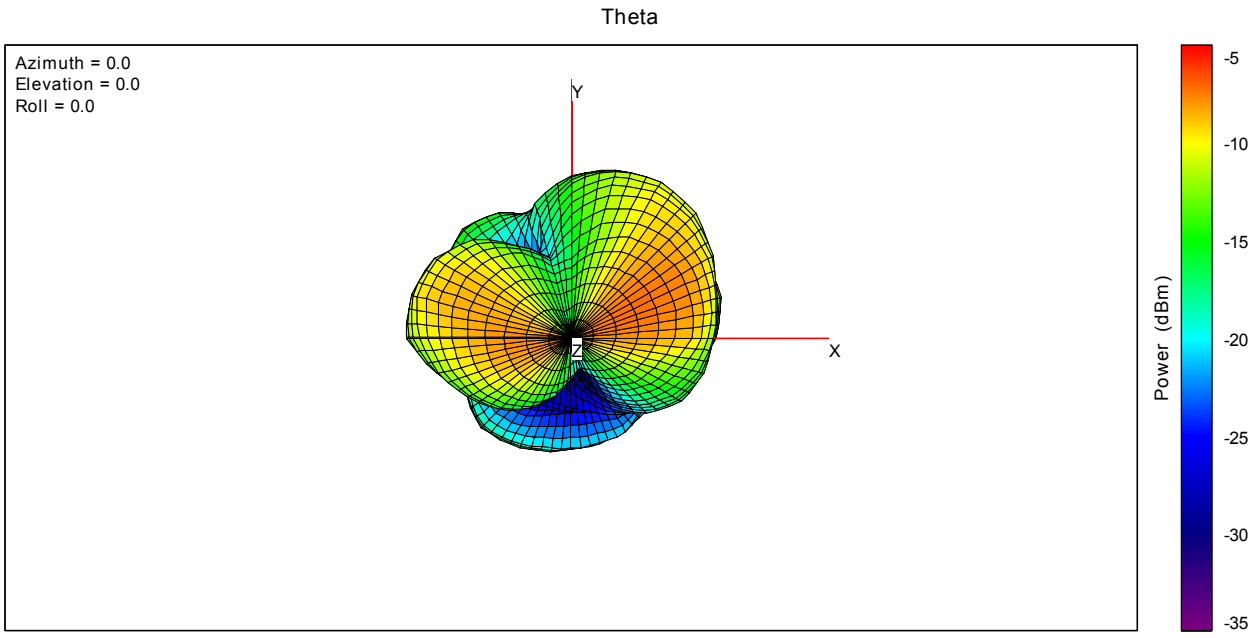
Max Gain:-4.73dBi

No.	Test Frequency （MHz）	Gain Test Value （dBi）	Efficiency test value （%）	Antenna pattern	Result
1	2400	-4.80	15.56	Phi=0 Phi=90 Theta=90	N/A
2	2402	-4.89	15.66		N/A
3	2404	-4.90	15.52		N/A
4	2406	**-4.73**	15.49		N/A
5	2408	-4.79	15.44		N/A

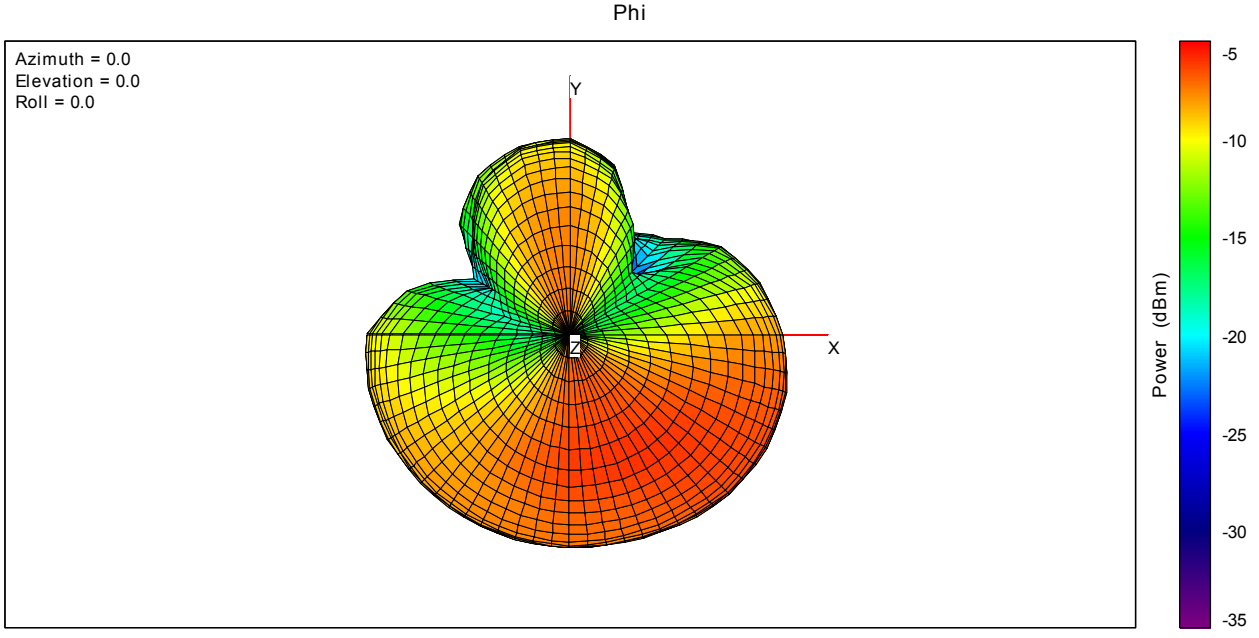
6	2410	-4.93	15.19		N/A
7	2412	-4.88	15.20		N/A
8	2414	-4.92	15.37		N/A
9	2416	-5.00	15.25		N/A
10	2418	-4.85	15.19		N/A
11	2420	-4.79	15.28		N/A
12	2422	-4.93	15.14		N/A
13	2424	-4.95	15.10		N/A
14	2426	-4.98	15.28		N/A
15	2428	-5.13	15.23		N/A
16	2430	-5.09	15.11		N/A
17	2432	-5.01	15.16		N/A
18	2434	-5.16	14.98		N/A
19	2436	-5.24	14.77		N/A
20	2438	-5.26	14.78		N/A
21	2440	-5.43	14.61		N/A
22	2442	-5.48	14.36		N/A
23	2444	-5.31	14.42		N/A
24	2446	-5.35	14.31	Phi=0 Phi=90 Theta=90	N/A
25	2448	-5.45	13.99		N/A
26	2450	-5.44	13.95		N/A
27	2452	-5.57	13.86		N/A
28	2454	-5.73	13.50		N/A
29	2456	-5.61	13.43		N/A
30	2458	-5.48	13.54		N/A
31	2460	-5.55	13.40		N/A
32	2462	-5.55	13.30		N/A
33	2464	-5.61	13.29		N/A
34	2466	-5.83	13.05		N/A
35	2468	-5.86	12.89		N/A
36	2470	-5.71	12.97		N/A
37	2472	-5.71	12.95		N/A
38	2474	-5.74	12.88		N/A
39	2476	-5.74	12.91		N/A
40	2478	-5.88	12.79		N/A
41	2480	-5.98	12.69		N/A
42	2482	-5.89	12.81		N/A
43	2483.5	-5.83	12.87		N/A

2.1.3 Test Pattern：

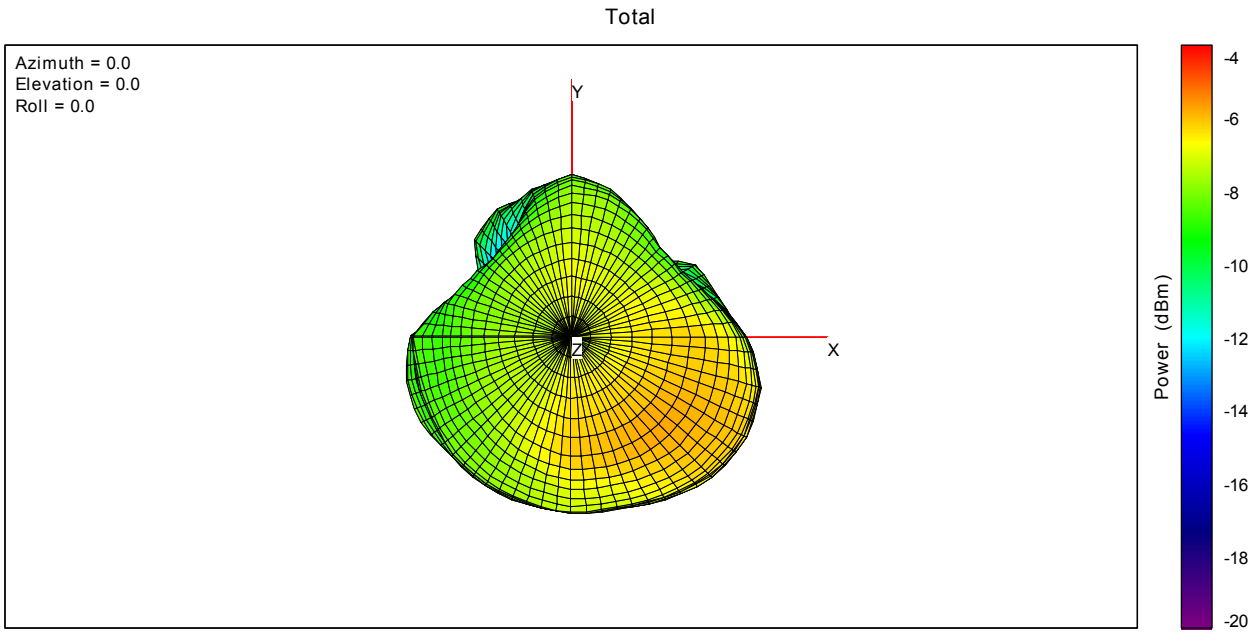
1. Test Frequency Band:2400MHz～2483.5MHz



3D diagram_Theta (2400MHz～2483.5MHz)

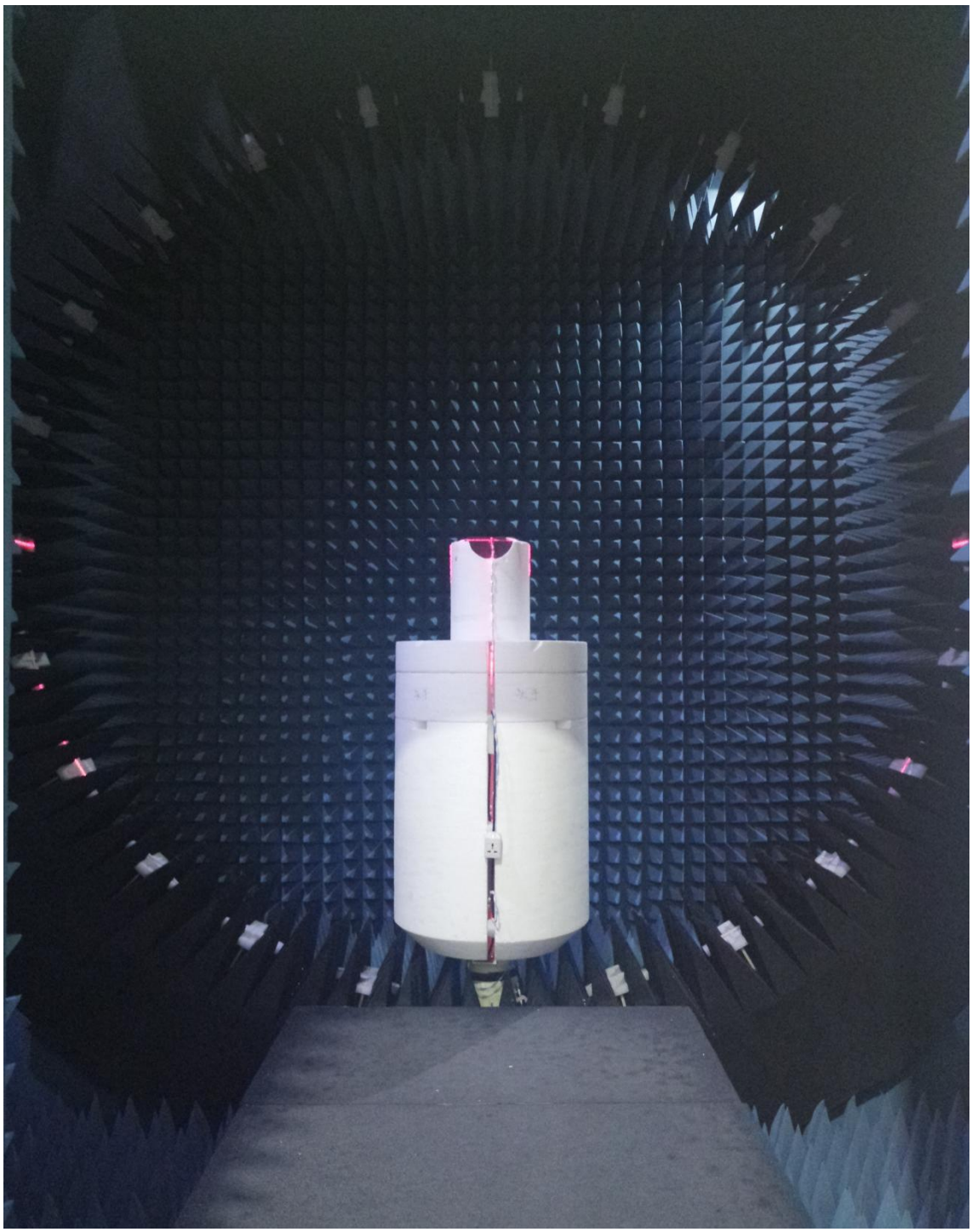


3D diagram _Phi (2400MHz～2483.5MHz)



3D diagram _Total (2400MHz～2483.5MHz)

Annex A photographs of test setup



Test Photo