

TEST REPORT

FCC Applicant: SCR Engineers Ltd.

Address: 18 Hamelacha street, Poleg Industrial Zone, PO Box 8310
Netanya, Israel 4250553

IC Applicant: SCR engineers LTD

Address: 18 Hamelacha street, Poleg Industrial Zone, PO Box 8310
Netanya, Israel 4250553

Manufacturer/ Factory: SCR Engineers Ltd.

Address: 18 Hamelacha street, Poleg Industrial Zone, PO Box 8310
Netanya, Israel 4250553

Equipment Under Test (EUT)

Product Name: Monitoring Ear Tag

Model No.: AMUT05

Trade Mark: SCR

Applicable standards: FCC CFR Title 47 Part 15 Subpart B
ICES-003: Issue 7

Date of sample receipt: June 28, 2023

Date of Test: June 28, 2023-July 06, 2023

Date of report issued: August 10, 2023

Test Result : PASS *

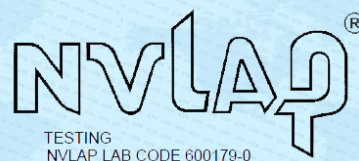
* In the configuration tested, the EUT complied with the standards specified above.

Authorized Signature:



Robinson Lo
Laboratory Manager

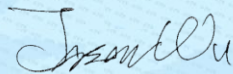
This results shown in this test report refer only to the sample(s) tested, this test report cannot be reproduced, except in full, without prior written permission of the company. The report would be invalid without specific stamp of test institute and the signatures of compiler and approver.



2 Version

Version No.	Date	Description
00	July 06, 2023	Original
01	July 31, 2023	This report is based on the original report GTS2023060162-02, change the address of applicant/ manufacturer/ factory, the original report GTS2023060162-02 was invalid as the date of issued this report.
02	August 10, 2023	This report is based on the original report GTS2023060162-02R1, change the address of applicant/ manufacturer/ factory, the original report GTS2023060162-02R1 was invalid as the date of issued this report.

Prepared By:

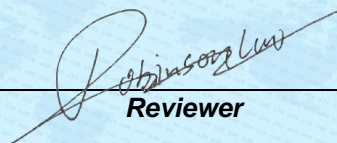


Date:

August 10, 2023

Project Engineer

Check By:



Date:

August 10, 2023

Reviewer

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4 Test Summary

Test Item	Test Requirement	Test Method	Class / Severity	Result
Conducted Emission	FCC Part15.107 ICES-003	ANSI C63.4	Class B	N/A
Radiated Emissions #	FCC Part15.109 &15.31 ICES-003	ANSI C63.4	Class B	PASS

Remarks:

1. Pass: The EUT complies with the essential requirements in the standard.
2. N/A:Not applicable
3. # Refer to FCC Part 15.33 (b)(1) conditional testing procedure :

Highest frequency generated or used in the device or on which the device operates or tunes (MHz)	Upper frequency of measurement range (MHz)
Below 1.705	30
1.705-108	1000
108-500	2000
500-1000	5000
Above 1000	5th harmonic of the highest frequency or 40 GHz, whichever is lower.

Refer to ICES-003 conditional testing procedure :

Highest internal frequency (Fx)	Highest measurement frequency
$F_x \leq 108 \text{ MHz}$	1GHz
$108 \text{ MHz} < F_x \leq 500 \text{ MHz}$	2GHz
$500 \text{ MHz} < F_x \leq 1 \text{ GHz}$	5GHz
$F_x > 1 \text{ GHz}$	5 x Fx up to a maximum of 40 GHz

Note: Fx is the highest fundamental frequency generated and/or used in the ITE or digital apparatus under test.

Measurement Uncertainty

Test Item	Frequency Range	Measurement Uncertainty	Notes
Radiated Emission	30MHz-200MHz	3.8039dB	(1)
Radiated Emission	200MHz-1GHz	3.9679dB	(1)
Radiated Emission	1GHz-18GHz	4.29dB	(1)
AC Power Line Conducted Emission	0.15MHz ~ 30MHz	3.44dB	(1)

Note (1): The measurement uncertainty is for coverage factor of k=2 and a level of confidence of 95%.

5 General Information

5.1 General Description of EUT

Product Name:	Monitoring Ear Tag
Model No.:	AMUT05
Test sample(s) ID:	GTS2023060162-2
Sample(s) Status:	Normal sample
Power Supply:	Battery: DC 3V, 1000mAh

5.2 Test mode and Test voltage

Test mode:	
Operation mode	Keep the EUT in operation mode.
Test voltage	
DC 3V	

5.3 Description of Support Units

NA

5.4 Deviation from Standards

None.

5.5 Abnormalities from Standard Conditions

None.

5.6 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

- **FCC —Registration No.: 381383**

Global United Technology Services Co., Ltd., Shenzhen EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in files. Registration 381383.

- **IC —Registration No.: 9079A**

The 3m Semi-anechoic chamber of Global United Technology Services Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 9079A

- **NVLAP (LAB CODE:600179-0)**

Global United Technology Services Co., Ltd., is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP). LAB CODE:600179-0

5.7 Test Location

The test was performed at:

Global United Technology Services Co., Ltd.

Address: No. 123-128, Tower A, Jinyuan Business Building, No.2, Laodong Industrial Zone, Xixiang Road, Baoan District, Shenzhen, Guangdong, China 518102

Tel: 0755-27798480

Fax: 0755-27798960

6 Test Instruments list

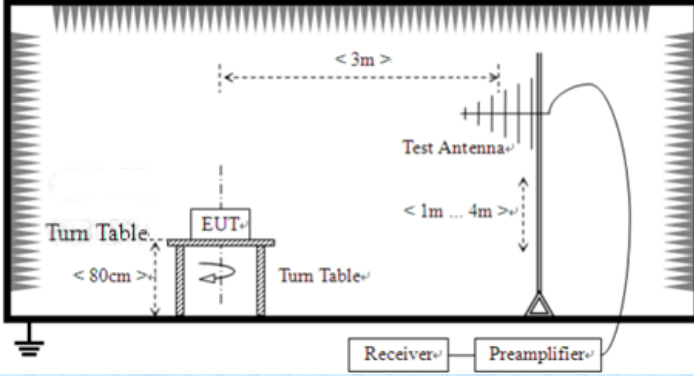
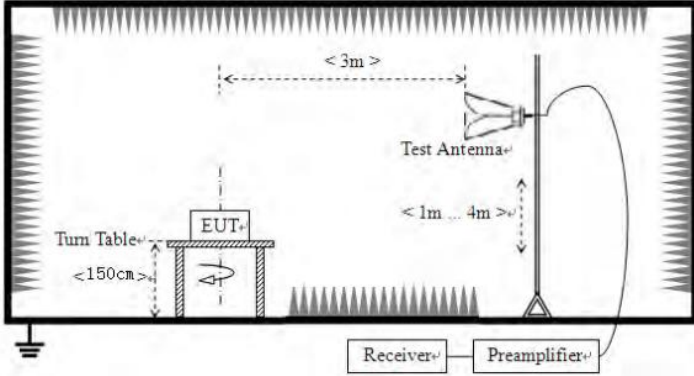
Radiated Emission:						
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)
1	3m Semi- Anechoic Chamber	ZhongYu Electron	9.2(L)*6.2(W)* 6.4(H)	GTS250	June 23, 2021	June 22, 2024
2	Control Room	ZhongYu Electron	6.2(L)*2.5(W)* 2.4(H)	GTS251	N/A	N/A
3	EMI Test Receiver	Rohde & Schwarz	ESU26	GTS203	April 14, 2023	April 13, 2024
4	BiConiLog Antenna	SCHWARZBECK MESS-ELEKTRONIK	VULB9168	GTS640	March 19, 2023	March 18, 2025
5	Double -ridged waveguide horn	SCHWARZBECK MESS-ELEKTRONIK	BBHA 9120 D	GTS208	April 17, 2023	April 16, 2025
6	EMI Test Software	AUDIX	E3	N/A	N/A	N/A
7	Coaxial Cable	GTS	N/A	GTS213	April 21, 2023	April 20, 2024
8	Coaxial Cable	GTS	N/A	GTS211	April 21, 2023	April 20, 2024
9	Coaxial cable	GTS	N/A	GTS210	April 21, 2023	April 20, 2024
10	Coaxial Cable	GTS	N/A	GTS212	April 21, 2023	April 20, 2024
11	Wideband Radio Communication Tester	Rohde & Schwarz	CMW500	GTS575	April 14, 2023	April 13, 2024
12	Loop Antenna	ZHINAN	ZN30900A	GTS534	Nov. 29, 2022	Nov. 28, 2023
13	Broadband Preamplifier	SCHWARZBECK	BBV9718	GTS535	April 14, 2023	April 13, 2024
14	Amplifier(1GHz-26.5GHz)	HP	8449B	GTS601	April 14, 2023	April 13, 2024
15	Horn Antenna (18-26.5GHz)	/	UG-598A/U	GTS664	Oct. 30, 2022	Oct. 29, 2023
16	Horn Antenna (26.5-40GHz)	A.H Systems	SAS-573	GTS665	Oct. 30, 2022	Oct. 29, 2023
17	FSV-Signal Analyzer (10Hz-40GHz)	Keysight	FSV-40-N	GTS666	March 13, 2023	March 12, 2024
18	Amplifier	/	LNA-1000-30S	GTS650	April 14, 2023	April 13, 2024
19	CDNE M2+M3-16A	HCT	30MHz-300MHz	GTS668	Dec. 20, 2022	Dec.19, 2023
20	Thermo meter	JINCHUANG	GSP-8A	GTS643	April 19, 2023	April 18, 2024

General used equipment:						
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)
1	Barometer	KUMAO	SF132	GTS647	April 19, 2023	April 18, 2024

7 Test Results and Measurement Data

7.1 Radiated Emission

Test Requirement:	FCC Part15 B Section 15.109 ICES-003				
Test Method:	ANSI C63.4:2014				
Test Frequency Range:	30MHz to 6000MHz				
Test site:	Measurement Distance: 3m (Semi-Anechoic Chamber)				
Receiver setup:	FCC:				
	Frequency	Detector	RBW	VBW	Value
	30MHz-1GHz	Quasi-peak	120kHz	300kHz	Quasi-peak
	Above 1GHz	Peak	1MHz	3MHz	Peak
		Peak	1MHz	3MHz	Average
	IC:				
	Frequency	Detector	RBW	VBW	Remark
	30MHz-1GHz	Quasi-peak	120kHz	300kHz	Quasi-peak Value
	Above 1GHz	Peak	1MHz	3MHz	Peak Value
		Peak	1MHz	10Hz	Average Value
Limit:	FCC:				
	Frequency	Limit (dBuV/m @3m)		Remark	
	30MHz-88MHz	40.00		Quasi-peak Value	
	88MHz-216MHz	43.50		Quasi-peak Value	
	216MHz-960MHz	46.00		Quasi-peak Value	
	960MHz-1GHz	54.00		Quasi-peak Value	
	Above 1GHz	74.00		Peak Value	
		54.00		Average Value	
	IC:				
	Frequency	Limit (dBuV/m @3m)		Remark	
	30MHz-88MHz	40.00		Quasi-peak Value	
	88MHz-216MHz	43.50		Quasi-peak Value	
	216MHz-230MHz	46.00		Quasi-peak Value	
	230MHz-960MHz	47.00		Quasi-peak Value	
	960MHz-1GHz	54.00		Quasi-peak Value	
	Above 1GHz	74.00		Peak Value	
54.00		Average Value			

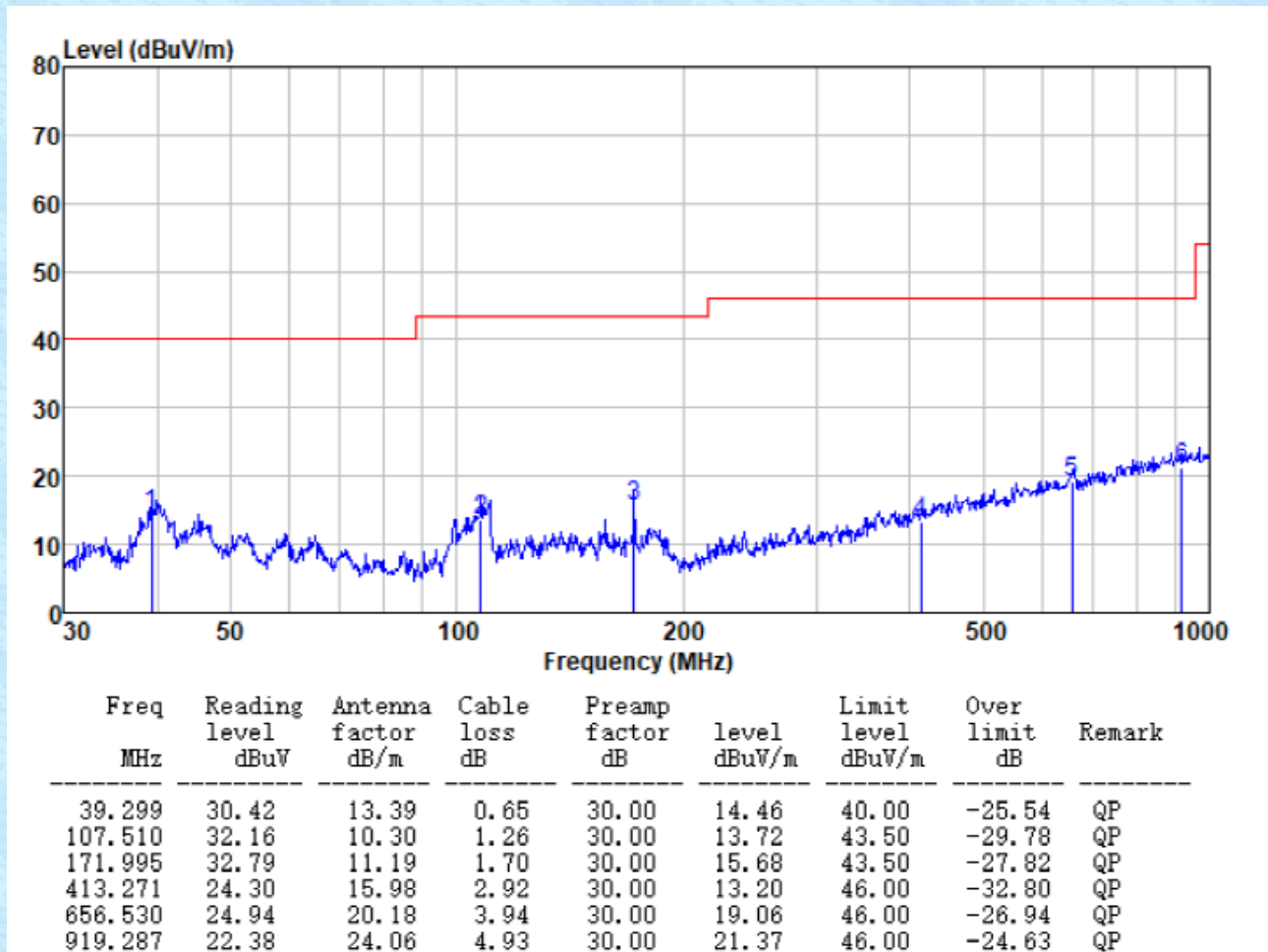
<p>Test setup:</p>	<p>For radiated emissions from 30MHz to 1GHz</p>  <p>For radiated emissions above 1GHz</p> 
<p>Test environment:</p>	<p>Temp.: 25 °C Humid.: 52% Press.: 1 012mbar</p>
<p>Test Instruments:</p>	<p>Refer to section 6 for details</p>
<p>Test mode:</p>	<p>Refer to section 5.2 for details</p>
<p>Test results:</p>	<p>Pass</p>

Measurement Data

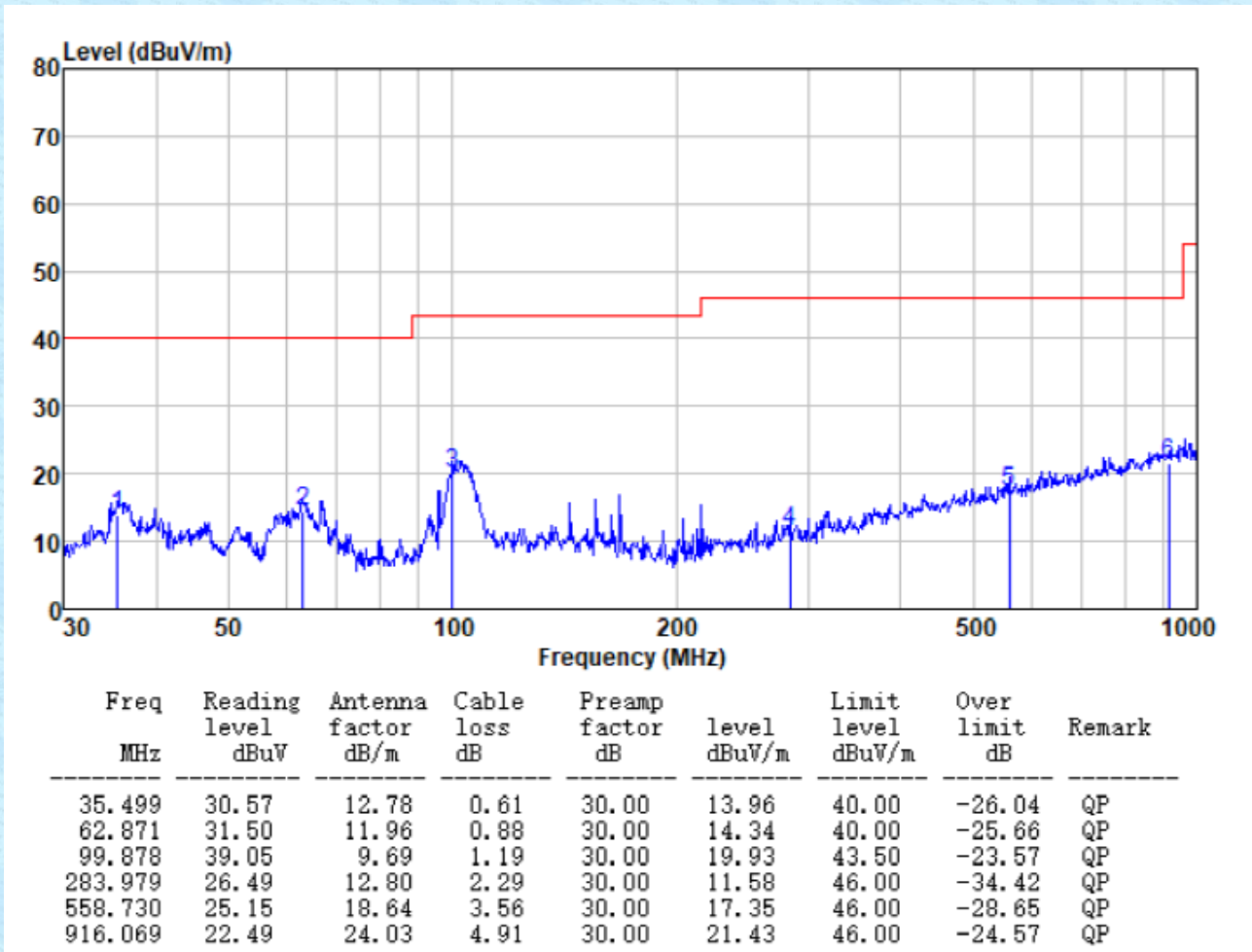
Below 1GHz:

FCC:

Test mode:	Operation mode	Antenna Polarity:	Horizontal
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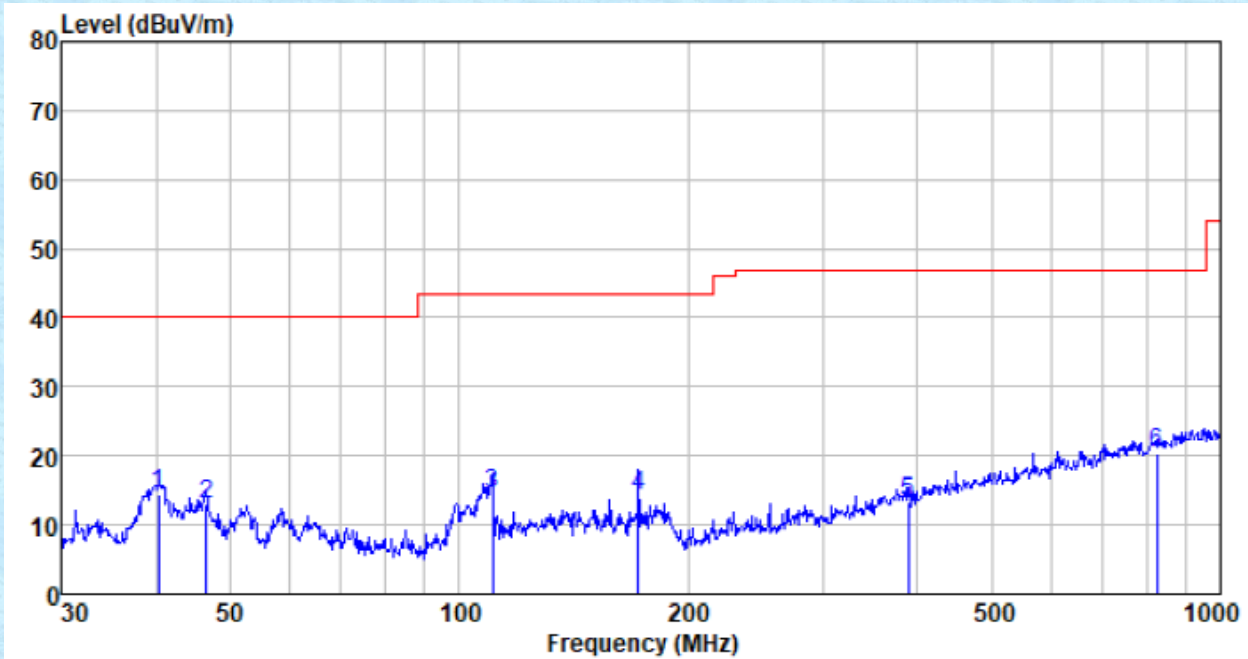


Test mode:	Operation mode	Antenna Polarity:	Vertical
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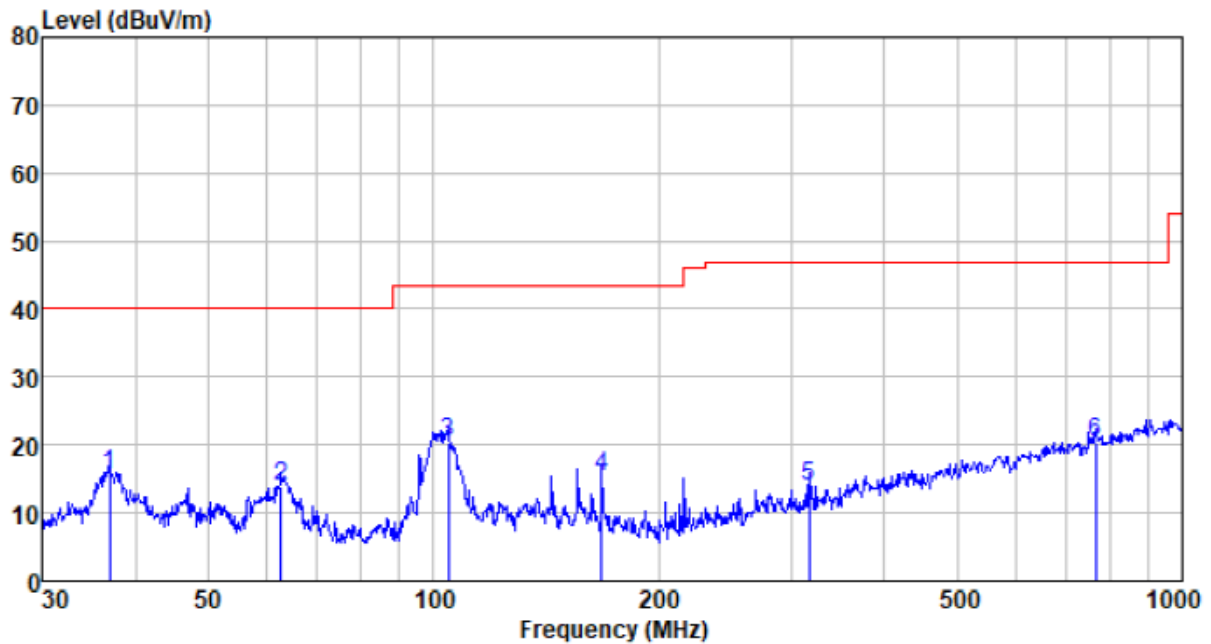
IC:

Test mode:	Operation mode	Antenna Polarity:	Horizontal
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Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
40.276	30.24	13.49	0.66	30.00	14.39	40.00	-25.61	QP
46.503	28.82	13.30	0.74	30.00	12.86	40.00	-27.14	QP
110.569	32.65	10.53	1.28	30.00	14.46	43.50	-29.04	QP
171.995	31.15	11.19	1.70	30.00	14.04	43.50	-29.46	QP
389.355	25.19	15.39	2.80	30.00	13.38	47.00	-33.62	QP
824.597	22.86	23.01	4.55	30.00	20.42	47.00	-26.58	QP

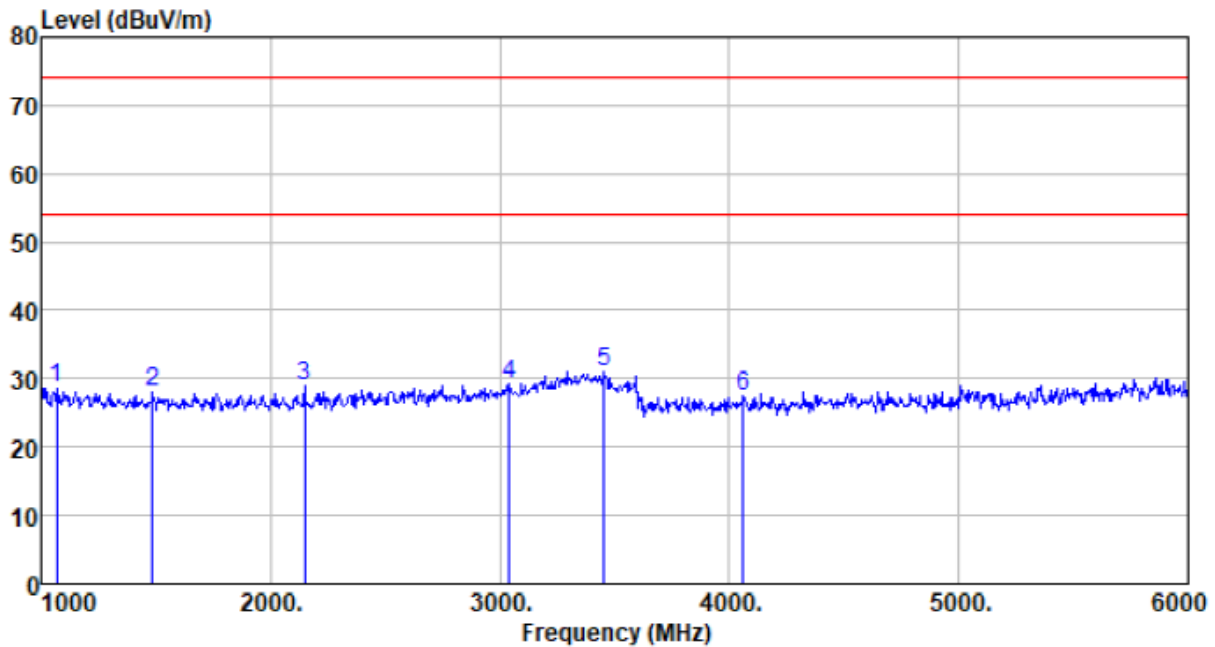
Test mode:	Operation mode	Antenna Polarity:	Vertical
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Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
36.895	32.03	13.02	0.63	30.00	15.68	40.00	-24.32	QP
62.651	31.13	12.01	0.88	30.00	14.02	40.00	-25.98	QP
104.536	39.16	10.06	1.23	30.00	20.45	43.50	-23.05	QP
167.824	31.89	11.67	1.67	30.00	15.23	43.50	-28.27	QP
317.701	28.43	13.06	2.45	30.00	13.94	47.00	-33.06	QP
766.057	23.91	22.08	4.33	30.00	20.32	47.00	-26.68	QP

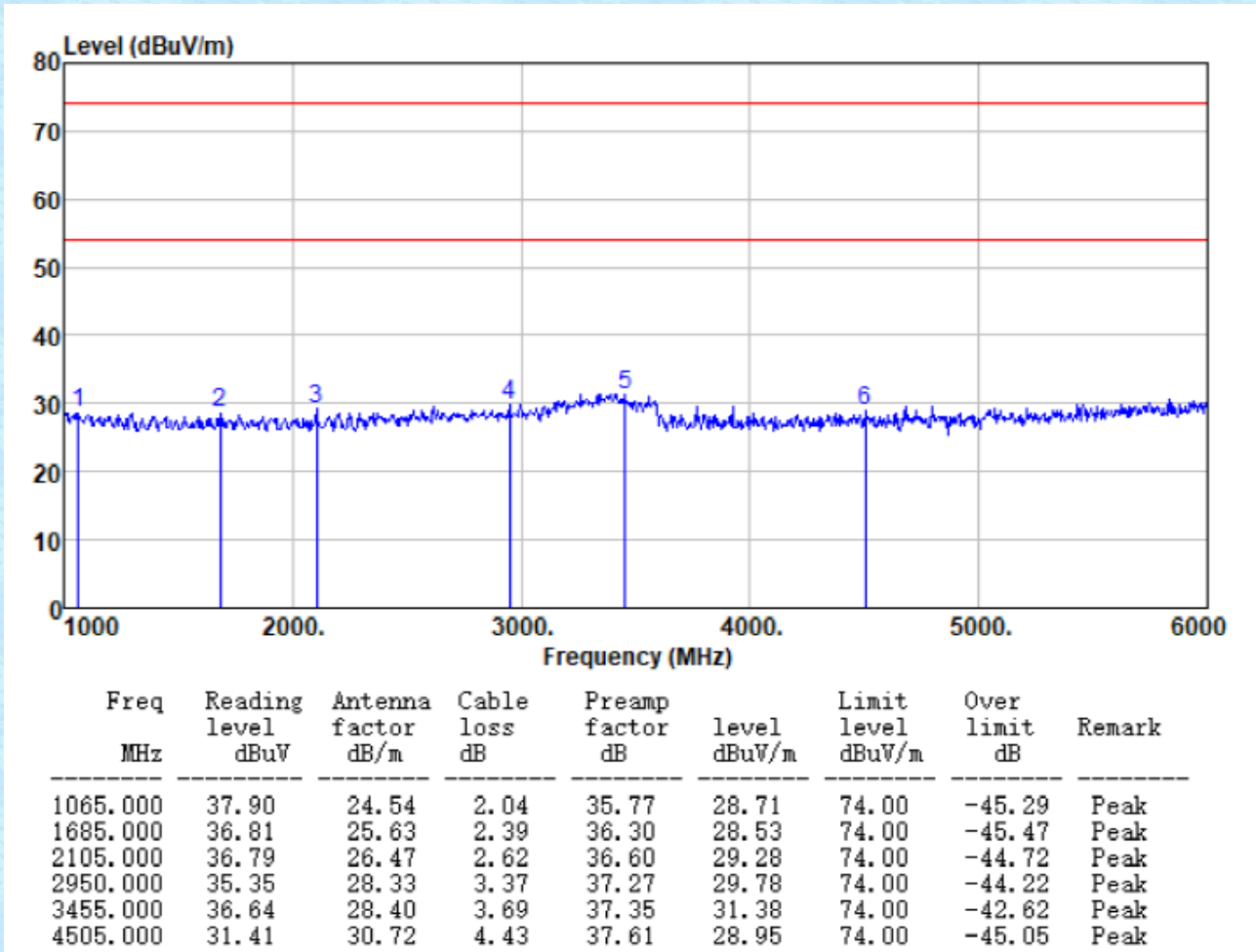
Above 1GHz:

Test mode:	NFC mode	Antenna Polarity:	Horizontal
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Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
1070.000	37.89	24.55	2.04	35.78	28.70	74.00	-45.30	Peak
1485.000	36.62	25.28	2.28	36.16	28.02	74.00	-45.98	Peak
2150.000	36.23	26.62	2.65	36.64	28.86	74.00	-45.14	Peak
3040.000	34.82	28.40	3.45	37.31	29.36	74.00	-44.64	Peak
3455.000	36.37	28.40	3.69	37.35	31.11	74.00	-42.89	Peak
4060.000	30.92	29.91	3.94	37.43	27.34	74.00	-46.66	Peak

Test mode:	NFC mode	Antenna Polarity:	Vertical
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Remark: the samples were transmitting(zigbee) during the test but it was reduced by the filter

8 Test Setup Photo

Reference to the **appendix I** for details.

9 EUT Constructional Details

Reference to the **appendix II** for details.

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