

FCC PART 15 SUBPART C

Wireless Power bank

MODEL No.:2IHPP2300(AST-WR416)

FCC ID:2AQJK-AST-WR416

REPORT NO.: SZNTT26039470E1-1

ISSUE DATE: Oct. 09, 2026

Prepared for

NINGBO ALLSTAR O&E TECHNOLOGY CO.,LTD.

NO.19 HUIJIN ROAD, LUOTUO STREET,ZHENHAI, NINGBO, China

Prepared by

Shenzhen NTT Testing Technology Co.,Ltd.

1B, Building 2, Factory Building & 103, Building 3, Factory Building, Dayang
Industrial Park No.4, Industrial Avenue, Tangwei Community, Fuhai Sub-district,
Bao 'an District, Shenzhen City, China

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TEST REPORT DESCRIPTION

Applicant : NINGBO ALLSTAR O&E TECHNOLOGY CO.,LTD.

Address : NO.19 HUIJIN ROAD, LUOTUO STREET,ZHENHAI, NINGBO, China

Manufacturer : NINGBO ALLSTAR O&E TECHNOLOGY CO.,LTD.

Address : NO.19 HUIJIN ROAD, LUOTUO STREET,ZHENHAI, NINGBO, China

EUT : Wireless Power bank

Model Name : 2IHPP2300(AST-WR416)

Trademark : iHome

Measurement Procedure Used:

APPLICABLE STANDARDS	
STANDARD	TEST RESULT
FCC 47 CFR Part 15, Subpart C	PASS

The above equipment was tested by Shenzhen NTT Testing Technology Co.,Ltd.The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.10-2020+Cor 1+2023 and the energy emitted by the sample EUT tested as described in this report is in compliance with conducted and radiated emission limits of FCC Rules Part 15C

The test results of this report relate only to the tested sample identified in this report.

Prepared by(Test Engineer):
Gary Lu

Reviewer(Supervisor):
Cindy Qin

Approved(Manager):
Abel Yu

Gary Lu

Cindy Qin

Abel Yu





Modified Information

Version	Report No.	Revision Data	Summary
Ver.1.0	SZNTT26039470E1-1	Oct. 09, 2026	Original Version

1. SUMMARY OF TEST RESULTS

Test Item	Section in CFR 47	Result
Antenna requirement	15.203	Pass
AC Power Line Conducted Emission	15.207	Pass
Spurious Emission	15.209(a)(f)	Pass
20dB Bandwidth	15.215	Pass

2. GENERAL INFORMATION

2.1. Description of Device (EUT)

EUT : Wireless Power bank

Model Number : 2IHPP2300(AST-WR416)

Different : /

Model different : N/A

Power Rating : Capacity: 5000mAh/3.85V/19.25Wh
Type-C Input & Output: DC 5V/2.1A
Wireless Output: 5W

Operation : 111-205 KHz
Frequency for WPT

Modulation : MSK

Antenna Type: : Coil Antenna

Date of Received : Sept. 17, 2026

Date of Test : Sept. 17, 2026 to Oct. 09, 2026

2.2. Description of Support Units

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Item	Equipment	Mfr/Brand	Model/Type No.	Series No.	Note
E-1	Wireless Power bank	N/A	2IHPP2300(AST-WR416)	N/A	EUT
E-2	Adapter	N/A	HW-090200CH0	N/A	Auxiliary
E-3	Load	EESON	2S	N/A	Auxiliary

Note: (1)The support equipment was authorized by Declaration of Confirmation.
(2)For detachable type I/O cable should be specified the length in cm in 『Length』 column.

2.3. Independent Operation Modes

Pretest Test Mode	Description of Mode
1	Wireless charging+charging
2	Wireless charging
3	/

2.4. Test Mode

Test Items	Final Test Mode
Conducted Emissions	Mode 1
Radiated Emissions	Mode 1&2
20dB bandwidth	Mode 1
Remark: All the modes have tested and recorded the worst mode in the report	

2.5. Description of Test Facility

Site Description

Designation Number: CN3446
 EMC Lab.: Test Firm Registration Number: 129414
 Accredited by ANAB, Dec. 19, 2025
 The Certificate Registration Number is AT-3446

Name of Firm: Shenzhen NTT Testing Technology Co.,Ltd.

Site Location: 1B, Building 2, Factory Building & 103, Building 3, Factory Building, Dayang Industrial Park, No.4, Industrial Avenue, Tangwei Community, Fuhai Sub-district, Bao 'an District, Shenzhen City, Guangdong, China

2.6. Measurement Uncertainty

Item	MU	Remark
Uncertainty for radio frequency	$\pm 7 \times 10^{-8}$	
Conducted Emissions (150kHz~30MHz)	$\pm 3.64\text{dB}$	
Radiated Emission(9KHz~30MHz)	$\pm 4.51\text{dB}$	
Radiated Emission(30MHz~1GHz)	$\pm 5.03\text{dB}$	
Radiated Emission(1GHz~6GHz)	$\pm 3.92\text{dB}$	
Radiated Emission(6GHz~18GHz)	$\pm 4.33\text{dB}$	
Radiated Emission(18GHz~40GHz)	$\pm 3.38\text{dB}$	
Uncertainty for conducted RF Power	$\pm 0.20\text{dB}$	
Conducted spurious emissions	$\pm 0.24\text{dB}$	
Uncertainty for temperature	0.6°C	
Uncertainty for humidity	1%	
Bandwidth	$\pm 1.5 \times 10^{-6}$	
Time	$\pm 2\%$	
Duty Cycle	$\pm 2\%$	
Remark: The coverage Factor (k=2), and measurement Uncertainty for a level of Confidence of 95%		

3. MEASURING DEVICE AND TEST EQUIPMENT

Conducted Test Site

Name	Model No.	Serial No.	Manufacturer	Date of Cal.	Due Date
944 Shielded Room	HSRCE944	/	HTEC	2025/04/30	2028/04/29
EMI Test Receiver	ESCI	100881/003	ROHDE&SCHWARZ	2026/09/04	2027/09/03
LISN	AMN6500	101185	ROHDE&SCHWARZ	2026/09/04	2027/09/03
LISN	NNLK 8129	00603	SCHWARZBECK	2026/09/04	2027/09/03
Pulse Limiters	VTSD 9561 F	00343	SCHWARZBECK	2026/09/04	2027/09/03
Cable	RG223-2M	/	RG	2026/09/04	2027/09/03

Radiated Test Site(Below 1G and Above 1G)&RF Test Site

Name	Model No.	Serial No.	Manufacturer	Date of Cal.	Due Date
966 Shielded Room	966 Room	/	EMToni	2025/07/24	2028/07/23
EMI Test Receiver	ESPI	101018	ROHDE&SCHWARZ	2026/09/04	2027/09/03
Amplifier (30MHz-1GHz)	BBV 9745	00431	SCHWARZBECK	2026/09/09	2027/09/08
Bilog Antenna (30MHz-1GHz)	VULB9168	1858	SCHWARZBECK	2026/09/05	2027/09/04
Horn antenna (1GHz-18GHz)	BBHA 9120 D	02622	SCHWARZBECK	2026/09/05	2027/09/04
Preamplifier (1GHz-18GHz)	BBV 9718D	0024	SCHWARZBECK	2026/09/04	2027/09/03
Spectrum Analyzer (10Hz-40GHz)	FSV 40	100952	ROHDE&SCHWARZ	2026/09/04	2027/09/03
Preamplifier (18GHz-40GHz)	BBV 9721	0056	SCHWARZBECK	2026/09/04	2027/09/03
Double Ridge Guide Horn Antenna (18GHz-40GHz)	SAS-574	588	A.H.System	2026/09/05	2027/09/04
Loop Antenna (9KHz-30MHz)	FMZB 1513-60	00115	SCHWARZBECK	2026/09/04	2027/09/03
MXG Signal Analyzer	N9020A	MY49100730	Agilent	2026/09/04	2027/09/03

MXG Vector Signal Generator	N5182A	MY50144920	Agilent	2026/09/04	2027/09/03
WIDEBAND RADIO COMMUNICATION TESTER	CMW500	/	ROHDE&SCHWARZ	2026/09/07	2027/09/06
Power Sensor	MW100-RFC B-2	MW260105N TT-64	MWRFTest	2026/09/04	2027/09/03
RF Swith	MW100-RFC B-1	MW260105N TT-64	MWRFTest	2026/09/04	2027/09/03
Cable	RG223-3M	/	DA	2026/09/04	2027/09/03
Cable	RG223-12M	/	DA	2026/09/04	2027/09/03
Cable	SFT205-NM NMSW-2.5M	/	DA	2026/09/04	2027/09/03
Cable	SFT205-NM NM-12M	/	DA	2026/09/04	2027/09/03
Cable	UCA500-NJ WSM-1.5M	017	MWRFTest	2026/09/04	2027/09/03

Test software

Item	Name	Manufacturer	Model	Software version
1	EMC Conduction Test System	FALA	EZ-EMC	Ver.EMC-CON 3A1.1+
2	EMC radiation test system	FALA	EZ-EMC	Ver.FA-03A2 RE+
3	RF test system	TACHOY	RFTest	V1.0.0
4	RF communication test system	TACHOY	RFTest	V1.0.0

4. 20DB BANDWIDTH

4.1. Test Procedure

Set to the maximum power setting and enable the EUT transmit continuously

Set RBW = 1-5%OBW.

Set the video bandwidth (VBW) = 3RBW.

Set Span= approximately 2 to 3 times the 20 dB bandwidth, centered on a hopping channel

Set Detector = Peak.

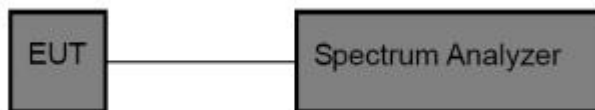
Set Trace mode = Max hold.

Set Sweep = auto couple.

Measure and record the results in the test report.

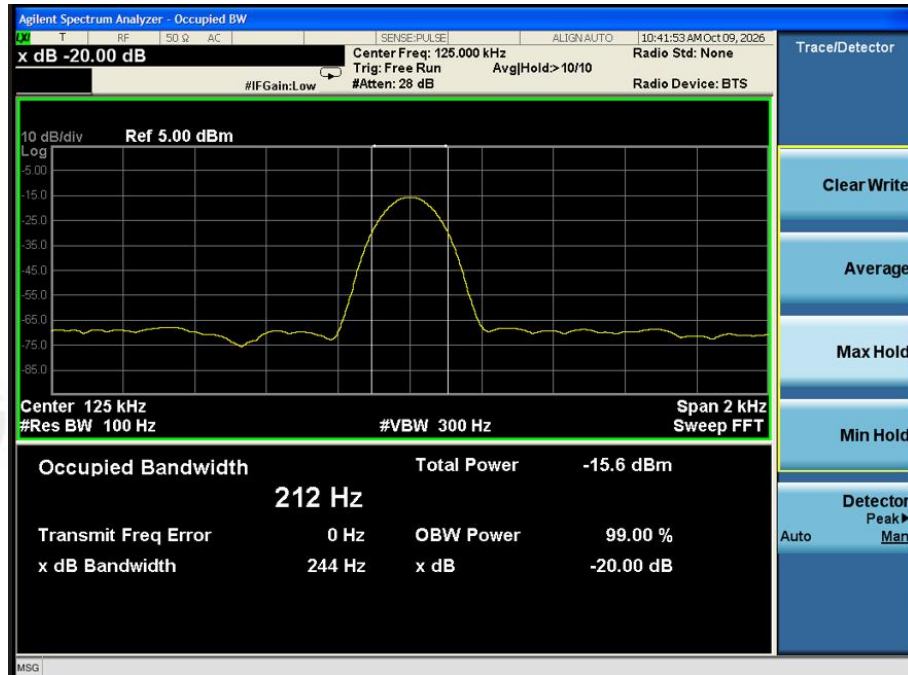
Because the measured signal is CW-like, adjusting the RBW per C63.10 would not be practical since measurement bandwidth will always follow the RBW. The RBW is set to 100 Hz to perform the occupied bandwidth test.

4.2. Test Setup



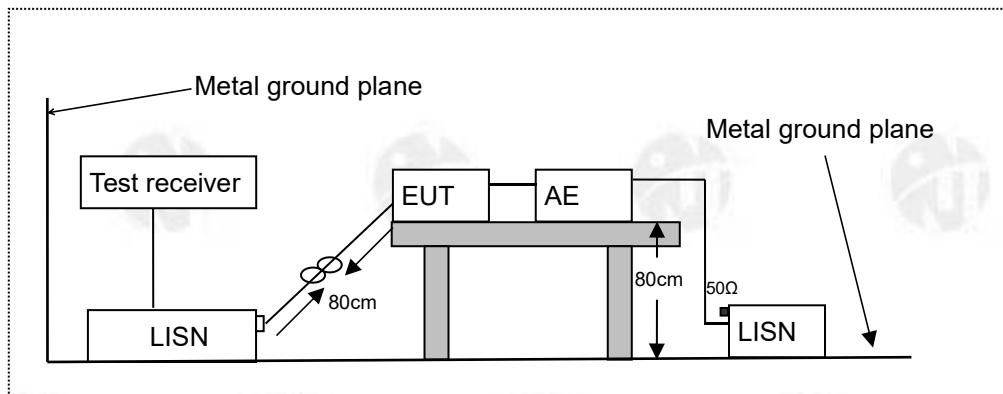
4.3. Test Results

Frequency (KHz)	20dB bandwidth (Hz)	99% bandwidth (Hz)	Result
125	244	212	Pass



5. POWER LINE CONDUCTED EMISSION MEASUREMENT

5.1. Block Diagram of Test Setup



LISN: Line Impedance Stabilization Network
AE: Associated equipment
EUT: Equipment under test

5.2. Limits

FCC Part 15.207

Frequency (MHz)	Limit (dB μ V)	
	Quasi-peak Level	Average Level
0.15 ~ 0.50	66.0 ~ 56.0 *	56.0 ~ 46.0 *
0.50 ~ 5.00	56.0	46.0
5.00 ~ 30.00	60.0	50.0

NOTE1-The lower limit shall apply at the transition frequencies.
NOTE2-The limit decreases linearly with the logarithm of the frequency in the range 0.15MHz to 0.50MHz.

5.3. Test Procedure

The EUT was placed on a desk 0.8 m height from the metal ground plane and 0.4 m from the conducting wall of the shielding room and it was kept at least 0.8 m from any other grounded conducting surface. The size of the table will nominally be 1.5 m x1.0 m.

The rear of the arrangement shall be flush with the back of the supporting tabletop unless that would not be possible or typical of normal use.

All units of equipment forming the system under test (includes the EUT as well as connected peripherals and associated equipment or devices) shall be arranged such that a nominal 0.1 m separation is achieved between the neighboring units.

Connect EUT to the power mains through a line impedance stabilization network (LISN). Where the mains cable supplied by the manufacturer is longer than 1 m, the excess should be folded at the

centre into a bundle no longer than 0.4 m, so that its length is shortened to 1 m.

All the support units are connecting to the other LISN.

The LISN provides 50 ohm coupling impedance for the measuring instrument.

Both sides of AC line were checked for maximum conducted interference.

The frequency range from 150 kHz to 30 MHz was sweep.

Set the test-receiver system to quasi peak detect function and average detect function, and to measure the conducted emissions values.

Test results were obtained from the following equation:

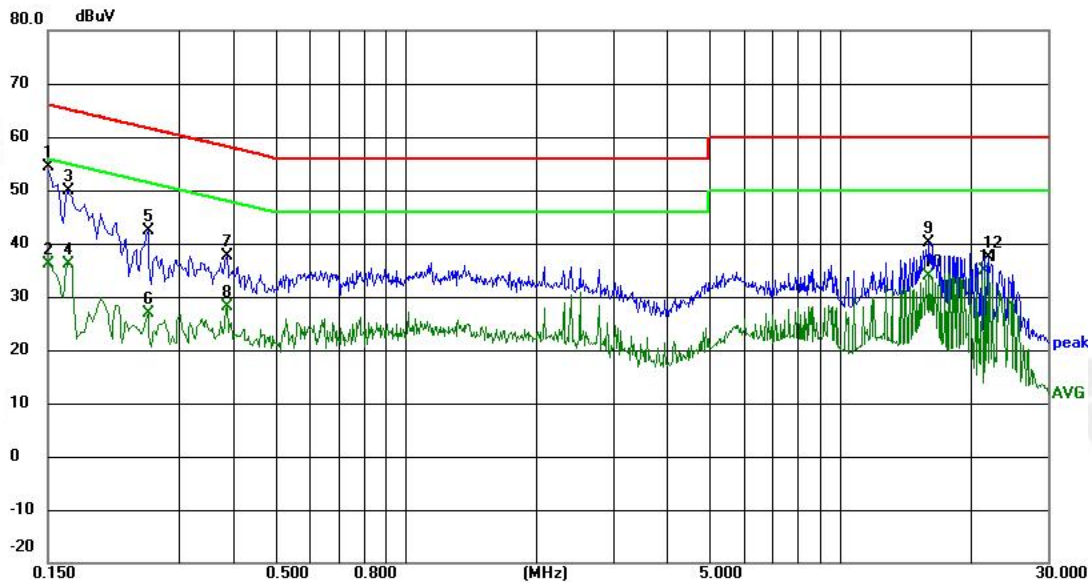
Emission Level (dB μ V) = LISN Factor (dB) + Cable Loss (dB) + Reading (dB μ V)

Margin (dB) = Emission Level (dB μ V) - Limit (dB μ V)

5.4. Measuring Results

PASS.

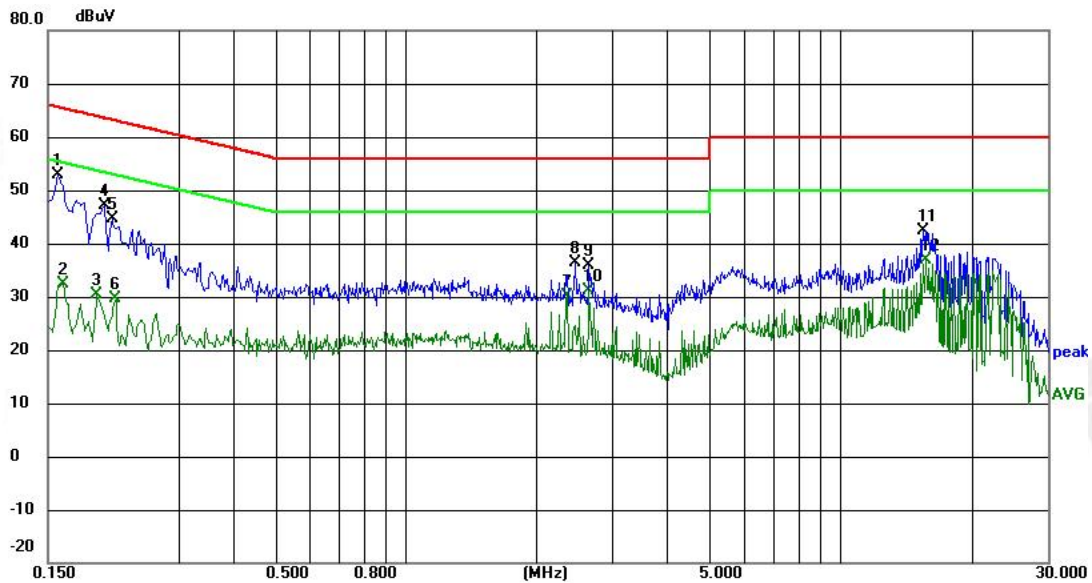
EUT:	Wireless Power bank	Model Name:	2IHPP2300(AST-WR416)
Test Mode:	Mode 1	Phase:	L
Test Voltage:	AC120V/60Hz		


Remark:

- Factor = Insertion Loss + Cable Loss + Pulse limit.
- '*' means the worst case

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1 *	0.1500	44.31	10.16	54.47	66.00	-11.53	peak	P
2	0.1500	26.08	10.16	36.24	56.00	-19.76	AVG	P
3	0.1660	39.83	10.15	49.98	65.16	-15.18	peak	P
4	0.1660	26.09	10.15	36.24	55.16	-18.92	AVG	P
5	0.2540	32.33	10.17	42.50	61.63	-19.13	peak	P
6	0.2540	16.60	10.17	26.77	51.63	-24.86	AVG	P
7	0.3860	27.23	10.28	37.51	58.15	-20.64	peak	P
8	0.3860	17.95	10.28	28.23	48.15	-19.92	AVG	P
9	16.0300	29.68	10.44	40.12	60.00	-19.88	peak	P
10	16.0300	23.34	10.44	33.78	50.00	-16.22	AVG	P
11	21.5620	24.38	10.47	34.85	50.00	-15.15	AVG	P
12	21.8380	27.01	10.47	37.48	60.00	-22.52	peak	P

EUT:	Wireless Power bank	Model Name:	2IHPP2300(AST-WR416)
Test Mode:	Mode 1	Phase:	N
Test Voltage:	AC120V/60Hz		



Remark:

- Factor = Insertion Loss + Cable Loss + Pulse limit.
- '*' means the worst case

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1 *	0.1580	42.83	10.15	52.98	65.57	-12.59	peak	P
2	0.1620	22.28	10.15	32.43	55.36	-22.93	AVG	P
3	0.1940	20.27	10.12	30.39	53.86	-23.47	AVG	P
4	0.2020	37.11	10.12	47.23	63.53	-16.30	peak	P
5	0.2100	34.51	10.13	44.64	63.21	-18.57	peak	P
6	0.2139	19.39	10.13	29.52	53.05	-23.53	AVG	P
7	2.3460	19.84	10.22	30.06	46.00	-15.94	AVG	P
8	2.4500	26.11	10.23	36.34	56.00	-19.66	peak	P
9	2.6500	25.70	10.25	35.95	56.00	-20.05	peak	P
10	2.6500	20.92	10.25	31.17	46.00	-14.83	AVG	P
11	15.4900	31.91	10.43	42.34	60.00	-17.66	peak	P
12	15.7660	26.44	10.43	36.87	50.00	-13.13	AVG	P

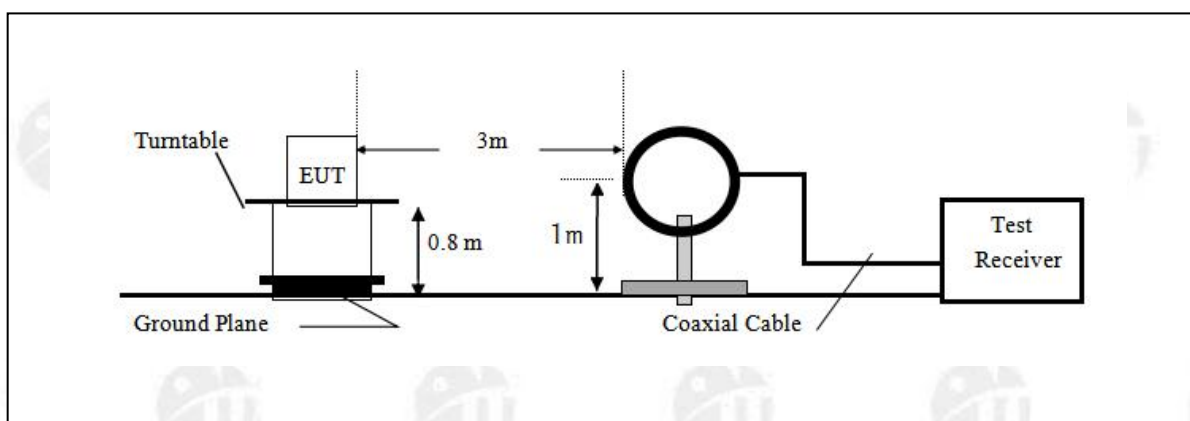
6. RADIATED EMISSION TEST

6.1.Measurement Procedure

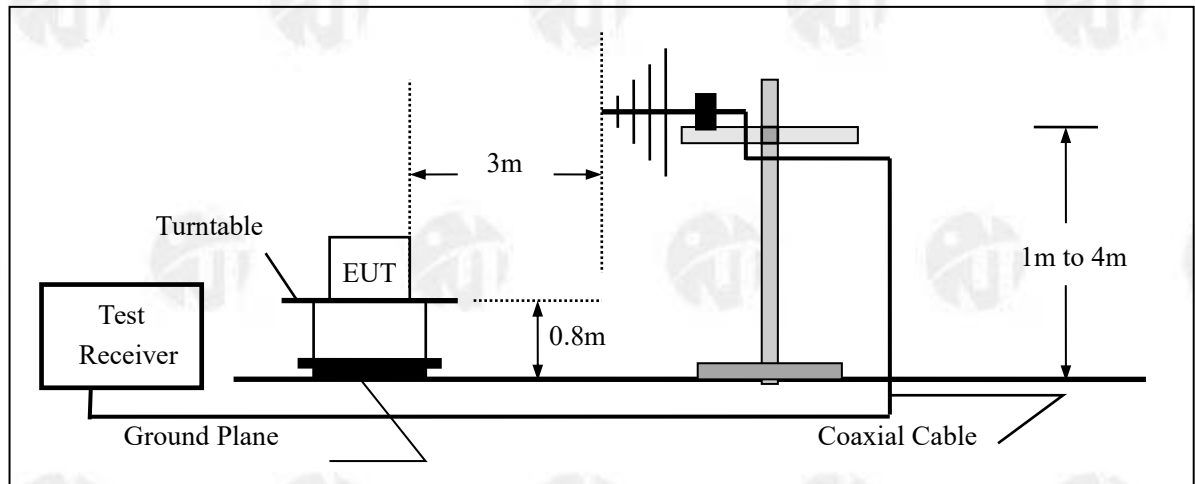
1. The EUT was placed on a turn table which is 0.8m above ground plane.
2. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
3. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
4. Repeat above procedures until all frequency measured were complete.
5. Use the following receiver/spectrum analyzer settings:
Span = wide enough to fully capture the emission being measured
RBW=200Hz for 9KHz to 150KHz,
RBW=9kHz for 150KHz to 30MHz,
RBW=120KHz for 30MHz to 1GHz
VBW $\geq 3 \times$ RBW
Sweep = auto
Detector function = QP
Trace = max hold

6.2.Test SET-UP (Block Diagram of Configuration)

(A) Radiated Emission Test Set-Up, Frequency Below 30MHz



(B) Radiated Emission Test Set-Up, Frequency Below 1000MHz



6.3. Radiated Emission Limit

The emissions from an intentional radiator shall not exceed the field strength levels specified in the following table 15.209(a):

FCC Part 15.209				
Frequency (MHz)	Field Strength Limitation		Field Strength Limitation Frequency tion at 3m Measurement Dist	
	(uV/m)	Dist	(uV/m)	(dBuV/m)
0.009 – 0.490	$2400 / F(\text{KHz})$	300m	$10000 * 2400/F(\text{KHz})$	$20\log 2400/F(\text{KHz}) + 80$
0.490 – 1.705	$24000 / F(\text{KHz})$	30m	$100 * 24000/F(\text{KHz})$	$20\log 24000/F(\text{KHz}) + 40$
1.705 – 30.00	30	30m	$100 * 30$	$20\log 30 + 40$
30.0 – 88.0	100	3m	100	$20\log 100$
88.0 – 216.0	150	3m	150	$20\log 150$
216.0 – 960.0	200	3m	200	$20\log 200$
Above 960.0	500	3m	500	$20\log 500$



15.205 Restricted bands of operation

MHz	MHz	MHz	GHz
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
¹ 0.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.025 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 - 1710	10.6 - 12.7
6.26775 - 6.26825	108 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 - 14.5
8.291 - 8.294	149.9 - 150.05	2310 - 2390	15.35 - 16.2
8.362 - 8.366	156.52475 - 156.52525	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.7 - 156.9	2690 - 2900	22.01 - 23.12
8.41425 - 8.41475	162.0125 - 167.17	3260 - 3267	23.6 - 24.0
12.29 - 12.293	167.72 - 173.2	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	240 - 285	3345.8 - 3358	36.43 - 36.5
12.57675 - 12.57725	322 - 335.4	3600 - 4400	(²)

Remark: 1. Emission level in dBuV/m=20 log (uV/m)
 2. Measurement was performed at an antenna to the closed point of EUT distance of meters.
 3. Only spurious frequency is permitted to locate within the Restricted Bands specified in provision of § 15.205, and the emissions located in restricted bands also comply with 15.209 limit.



6.4.Measurement Result

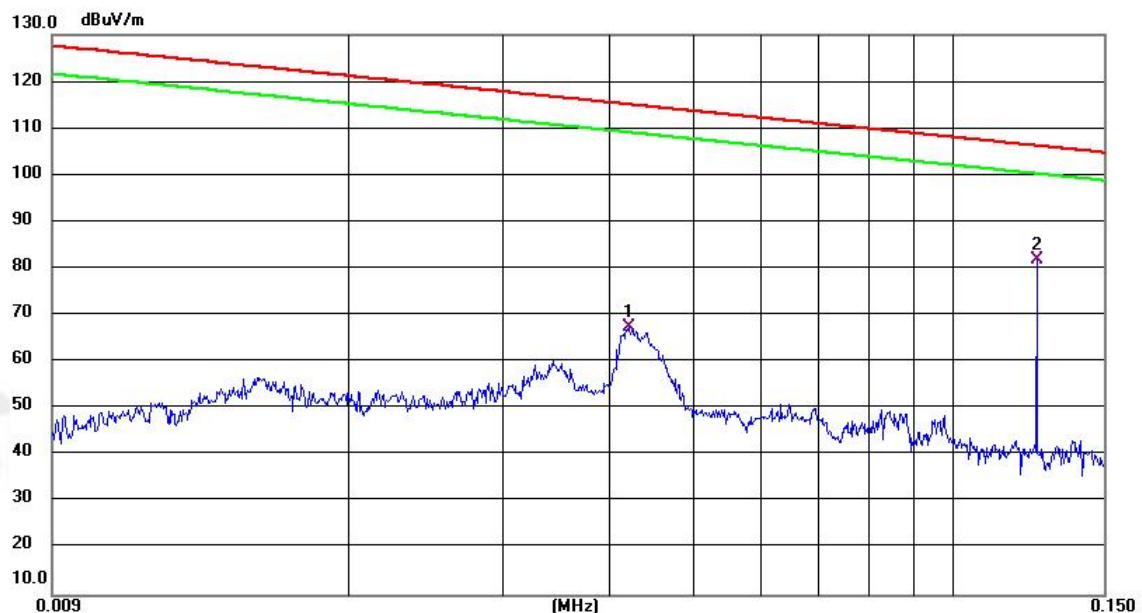
Measurement data:

Note: Limit dBuV/m @3m = Limit dBuV/m @300m+ 80

Limit dBuV/m @3m = Limit dBuV/m @30m + 40

9 kHz~30 MHz

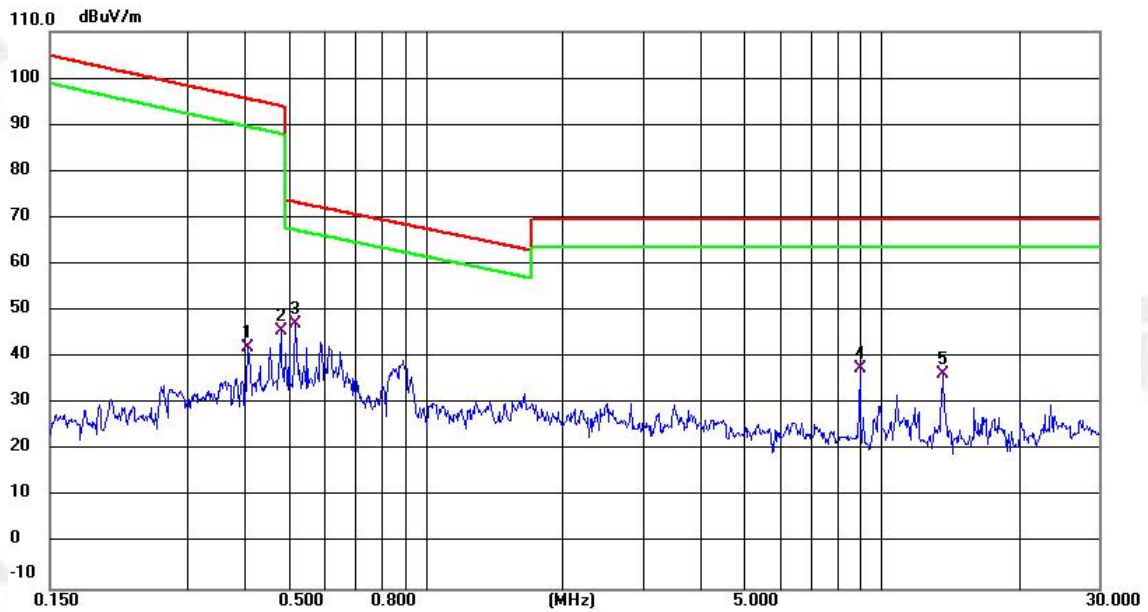
Temperature:	26℃	Relative Humidity:	54%
Pressure:	101kPa	Pol.	Coplanar
Test Voltage :	AC120V/60Hz	Mode:	Mode 1



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	0.0420	41.59	25.95	67.54	115.10	-47.56	QP
2 *	0.1252	60.21	21.57	81.78	106.26	-24.48	QP



Temperature:	26℃	Relative Humidity:	54%
Pressure:	101kPa	Pol.	Coplanar
Test Voltage :	AC120V/60Hz	Mode:	Mode 1



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	0.4082	21.12	21.05	42.17	95.50	-53.33	QP
2	0.4812	24.85	20.91	45.76	93.97	-48.21	QP
3 *	0.5181	26.25	20.89	47.14	73.32	-26.18	QP
4	8.9634	13.49	24.10	37.59	69.54	-31.95	QP
5	13.6227	11.85	24.64	36.49	69.54	-33.05	QP

Note:

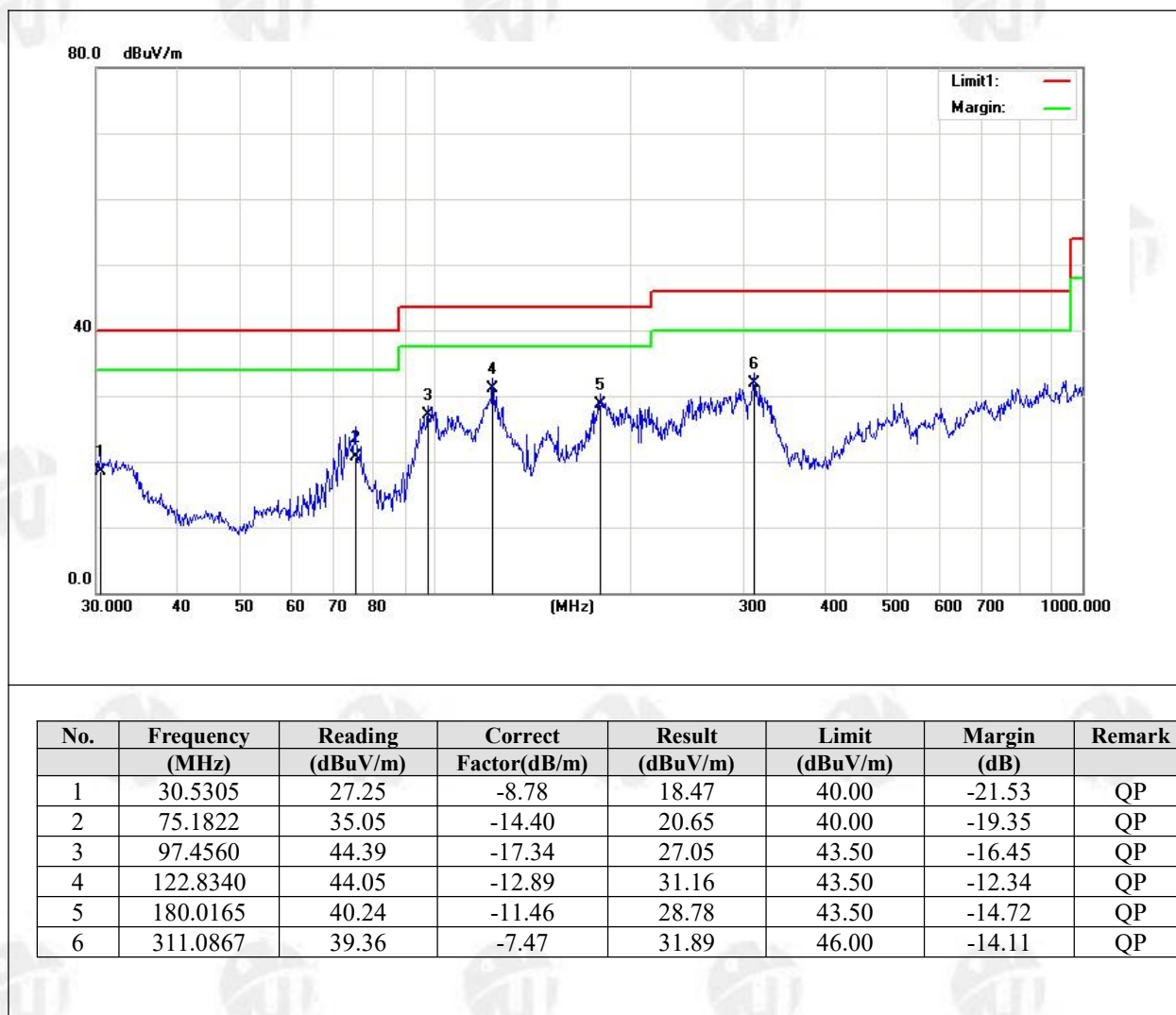
Pre-scan the data of both directions, and the report will only display the data of the worst mode.

Factor = antenna factor + cable loss – pre-amplifier.

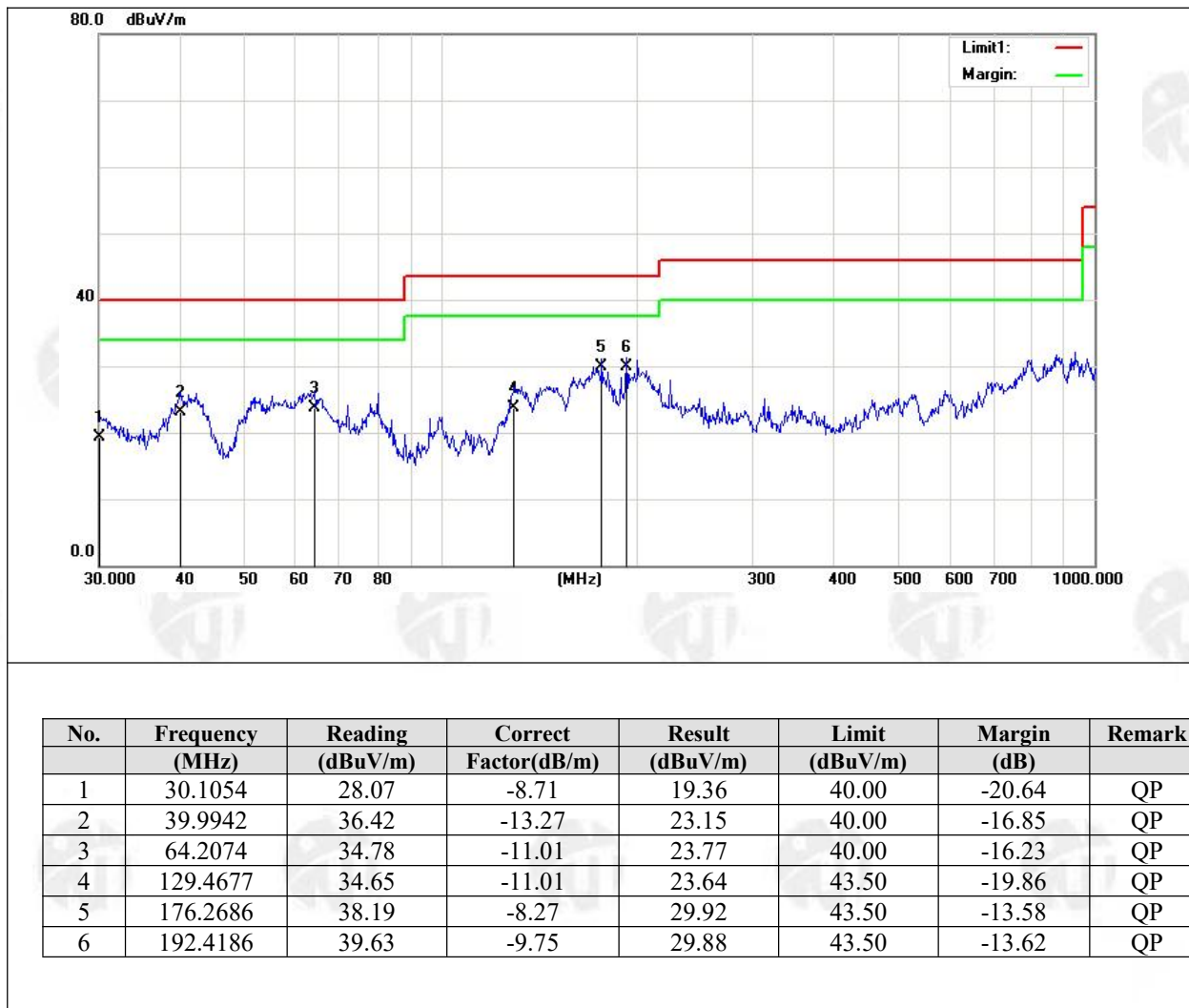
Margin = Emission Level- Limit.

30MHz-1GHz:

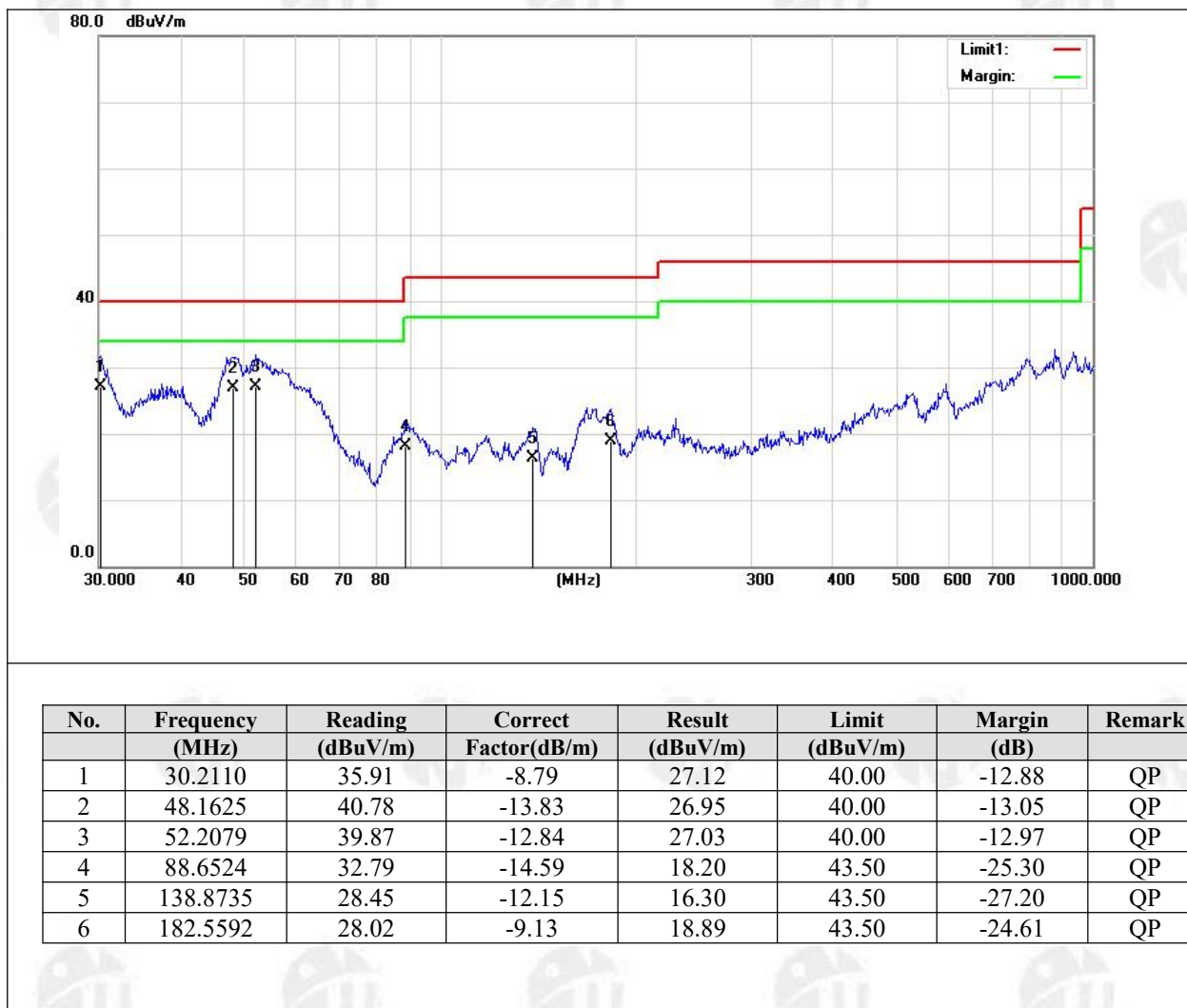
Temperature:	26℃	Relative Humidity:	54%
Pressure:	101 kPa	Polarization:	Horizontal
Test Voltage:	AC120V/60Hz	Mode:	Model 1



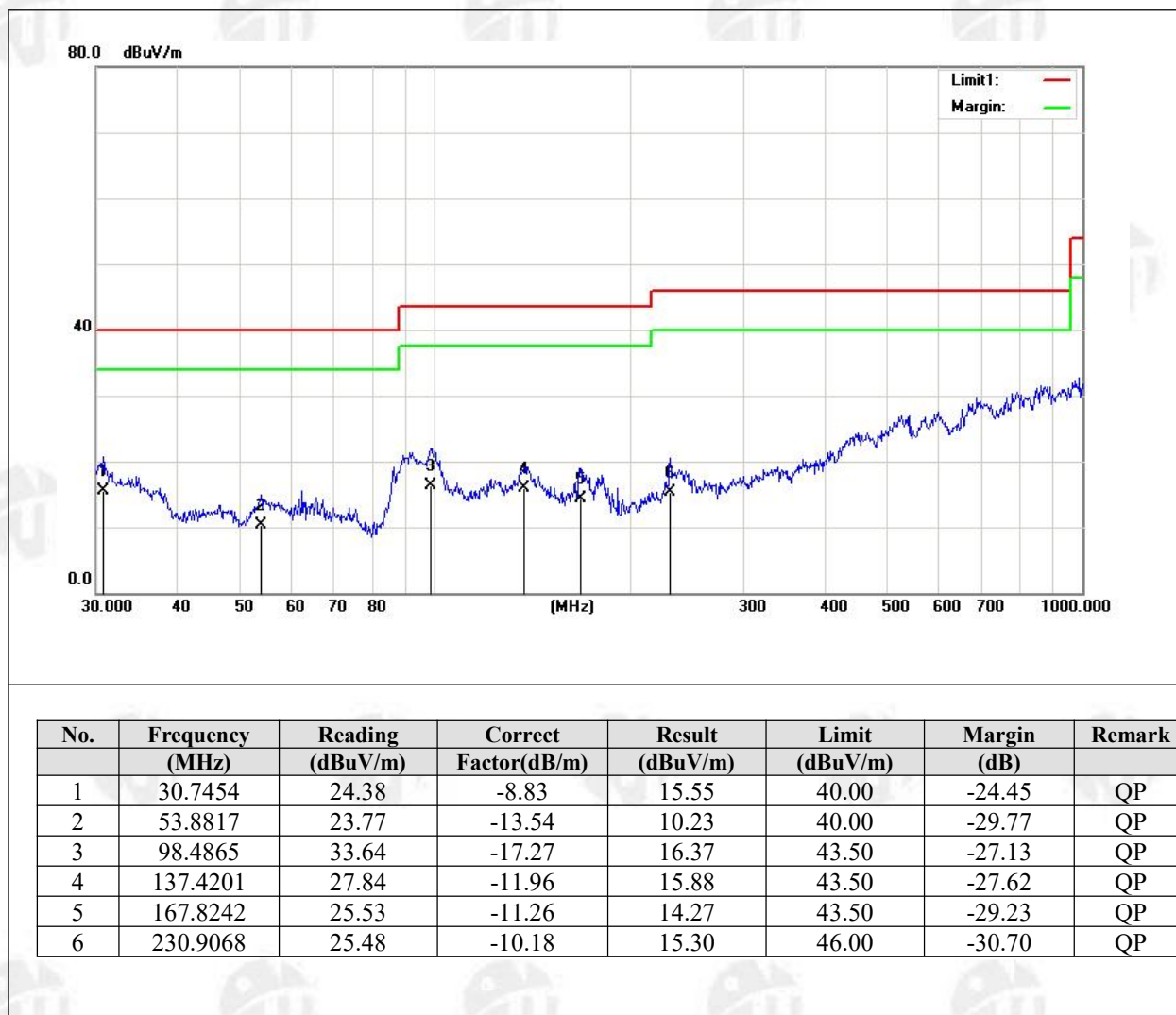
Temperature:	26℃	Relative Humidity:	54%
Pressure:	101 kPa	Polarization:	Vertical
Test Voltage:	AC120V/60Hz	Mode:	Model 1



Temperature:	26℃	Relative Humidity:	54%
Pressure:	101 kPa	Polarization:	Vertical
Test Voltage:	DC3.7V	Mode:	Model 2



Temperature:	26℃	Relative Humidity:	54%
Pressure:	101 kPa	Polarization:	Horizontal
Test Voltage:	DC3.7V	Mode:	Model 2



Remarks:

- 1.Factor = antenna factor + cable loss – pre-amplifier.
- 2.Margin = Result - Limit.
- 3.The emission levels of other frequencies are very lower than the limit and not show in test report.



7. TEST PHOTOGRAPHS AND EUT PHOTOGRAPHS

Please the attachment for details.

-----The end-----