

FCC Part 15, Subpart C

Test Report

Applicant: HUERICH PHOTO-ELECTRONIC TECHNOLOGY CO., LTD

Address: 3rd Floor 12 Qiaoli Village Qiaotou District Changping Town Dongguan City Guangdong

Manufacturer: HUERICH PHOTO-ELECTRONIC TECHNOLOGY CO., LTD

Address: 3rd Floor 12 Qiaoli Village Qiaotou District Changping Town Dongguan City Guangdong

FCC ID: 2A26E-HR0001AR

Product: Wireless Quick Charger

Brand: 

Test model(s): HIP-D05AR-F1; HIP-D10AR-F1

Series model(s): N/A

Test Date: Aug. 29, 2021 ~ Sep. 15, 2021

Issued Date: Sep. 30, 2021

Issued By: Hwa-Hsing (Dongguan) Testing Co., Ltd.

Lab Address: No.101, Bld N1, Yuyuan 2Rd, Yuyuan Industrial Park, HuangJiang Town, Dongguan, China

Test Firm Registration No.: 915896

Standards: FCC Part 15, Subpart C

The above equipment has been tested by **Hwa-Hsing (Dongguan) Testing Co., Ltd.**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

Prepared by :



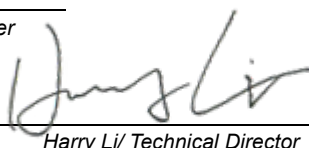
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Table of Contents

Release Control Record	3
1 Summary of Test Results	4
1.1 Measurement Uncertainty.....	4
1.2 Modification Record	4
2 General Information	5
2.1 General Description of EUT	5
2.2 Operating Modes of EUT	6
3 Configuration and Connections with EUT	6
3.1 Connection Diagram of EUT and Peripheral Devices.....	6
3.2 Configuration of Peripheral Devices and Cable Connections.....	6
4 Conducted Emission Measurement	7
4.1 Limits of Conducted Emission Measurement.....	7
4.2 Test Instruments.....	7
4.3 Test Procedures	7
4.4 Deviation from Test Standard	7
4.5 Test setup	8
4.6 EUT Operating Conditions	8
4.7 Test Results.....	9
5 Radiated Emissions up to 1 GHz	13
5.1 Limits of radiated emissions.....	13
5.2 Test Instruments.....	13
5.3 Test Procedure	14
5.4 Deviation from test standard	14
5.5 Test Setup	15
5.6 Test Results.....	16
6 Pictures of Test Procedures	40
Appendix – Information on the Testing Laboratories	41

**Release Control Record**

Issue No.	Description	Date Issued
210901VL02-RF-US-01	Original release.	Sep. 30, 2021



1 Summary of Test Results

FCC Part 15, Subpart C			
Clause	Test Item	Result/Remarks	Verdict
§15.203	Antenna Requirement	No antenna connector is used	Not Applicable
§15.207	AC Power Conducted Emission	Meet the requirement of limit.	Pass
§15.209	Radiated Emission	Meet the requirement of limit.	Pass

Note: There is no deviation to the applied test methods and requirements covered by the scope of this report

1.1 Measurement Uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT

The listed uncertainties are the worst-case uncertainty for the entire range of measurement. Please note that the uncertainty values are provided for informational purposes only and are not used in determining the PASS/FAIL results.

Measurement	Frequency	Expanded Uncertainty (k=2) (±)
Conducted Emissions at mains ports	150kHz ~ 30MHz	2.66 dB
Radiated Emissions 9KHz ~ 30MHz	9KHz ~ 30MHz	2.49 dB
Radiated Emissions up to 1 GHz	30MHz ~ 1GHz	3.47 dB

1.2 Modification Record

There were no modifications required for compliance.

2 General Information

2.1 General Description of EUT

Product Name	Wireless Quick Charger
Brand	HueRich
FCC ID	2A26E-HR0001AR
Test Model	HIP-D05AR-F1; HIP-D10AR-F1
Series Models	N/A
Power Supply Rating	HIP-D05AR-F1: DC 5V 2A, 10W Max. HIP-D10AR-F1: DC 9V-15V 2A Max.
Modulation type	ASK
Operating frequency	110kHz~205kHz
Antenna type	Coil Antenna

1. For a more detailed features description, please refer to the manufacturer's specification or the User's Manual.
2. For the test results, the EUT had been tested with all conditions. But only the worst case was shown in test report.
3. Please refer to the EUT photo document (Reference No.: 210901VL02-1&-2) for detailed product photo.
4. These test models: HIP-D05AR-F1; HIP-D10AR-F1, difference as below, and these models are carry out fully testing:

Wireless Quick Charge Model Difference Declaration		
Model	HIP-D05AR-F1	HIP-D10AR-F1
Input Voltage	5V	9V-15V
Input current	<1.5A	<1.5A
Output Voltage	5V	9V
Output power	MAX:5W	MAX:10W
Output current	<1.0A	<1.2A
Schematic diagram	Optional Part 1: Welding elements required. Optional Part 2: unsoldered components	Optional Part 1: unsoldered components. Optional Part 2: Welding elements required.
Layout	Optional Part 1: Welding elements required. Optional Part 2: unsoldered components.	Optional Part 1: unsoldered components. Optional Part 2: Welding elements required.

Note: The "Optional Part 1" & "Optional Part 2" refer to the Schematic Diagram



2.2 Operating Modes of EUT

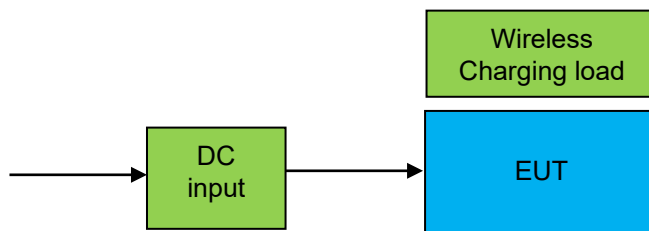
The EUT was tested under the following modes the final worst mode was marked in boldface and recorded in this report.

Test frequency	Test mode	Test voltage
110~130kHz	wireless charging + Transmitting	DC 5V
160~180kHz	Standby + Transmitting	

3 Configuration and Connections with EUT

3.1 Connection Diagram of EUT and Peripheral Devices

Configuration:



3.2 Configuration of Peripheral Devices and Cable Connections

ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A.	USB Dummy load	N/A	N/A	N/A	N/A	N/A

Note:

1. All power cords of the above support units are non-shielded (1.5m).
2. Items E~Gacted as communication partners to transfer data.

ID	Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1.	DC Line	1	1.2	No	N/A	



4 Conducted Emission Measurement

4.1 Limits of Conducted Emission Measurement

Frequency (MHz)	Conducted Limit (dBuV)	
	Quasi-Peak	Average
0.15 - 0.5	66 - 56	56 - 46
0.50 - 5.0	56	46
5.0 - 30.0	60	50

Note: 1. The lower limit shall apply at the transition frequencies.
2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.

4.2 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Due Date of Calibration
EMI Test Receiver Rohde&Schwarz	ESR 7	101961	2022/01/06
Artificial Mains Network Rohde&Schwarz	ENV216	3560.6550.15	2021/09/16
Test software FARAD	EZ EMC V1.1.4.2	N/A	N/A
Hygrothermograph Yuhuaaze	HTC-1	NA	2021/09/16
Digital Multimeter FLUKE	15B+	43512617WS	2021/09/16

Note: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to CEPREI/CHINA.
2. The test was performed in Shielded Room 1.

4.3 Test Procedures

- The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/50uH of coupling impedance for the measuring instrument.
- Both lines of the power mains connected to the EUT were checked for maximum conducted interference.
- The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit – 20dB) was not recorded.

Note: All modes of operation were investigated and the worst-case emissions are reported.

4.4 Deviation from Test Standard

No deviation.



The diagram shows a test setup on a table. On the table surface are three main components: an "EUT/AE PSU" and two "EUT/AE" units. Dimensions indicate a horizontal separation of 0,1 m between the PSU and the first EUT/AE unit, and another 0,1 m between the two EUT/AE units. A distance of $\geq 0,8$ m is specified from the PSU to other metallic objects. Cables connect these units to two "AMN" (Antenna Measurement Noise) boxes positioned below the table. The table has a height of 0,8 m. The area beneath the table is labeled "Insulation". Two "AAN" (Antenna Attachment Noise) points are shown near the base of the table legs, with a vertical dimension of 0,4 m from the ground plane. One cable is labeled "Cables to AE". Both AMN boxes are connected to a common "Vertical reference ground plane" at the bottom, which is 0,4 m away from the insulation layer. A note states "AMNs bonded to a reference ground plane".

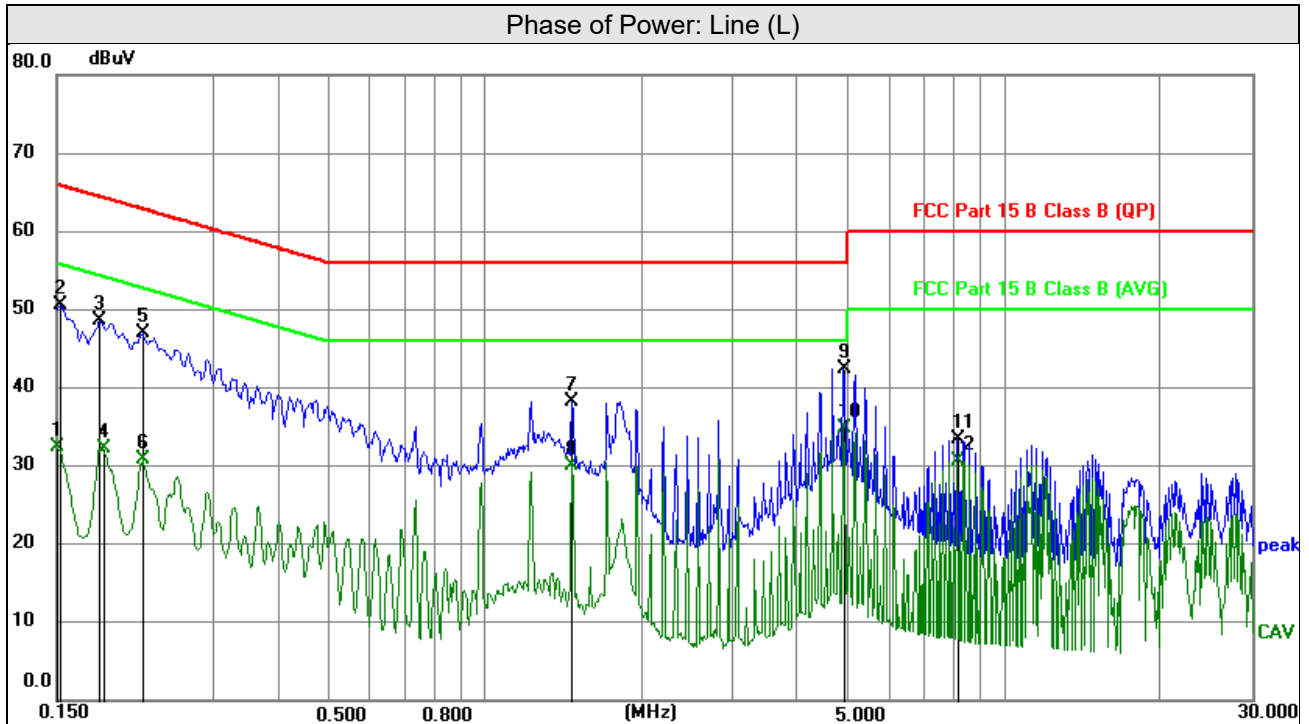
- a. Placed the EUT on the testing table.
- b. Set the EUT under transmission condition continuously at specific channel frequency.



4.7 Test Results

Model: HIP-D05AR-F1

Frequency Range	150kHz ~ 30MHz	Detector Function & Resolution bandwidth	Quasi-Peak (QP) / Average (AV), 9kHz
Power supply	DC5V from adapter AC120V/60Hz	Environmental Conditions	25°C, 60%RH

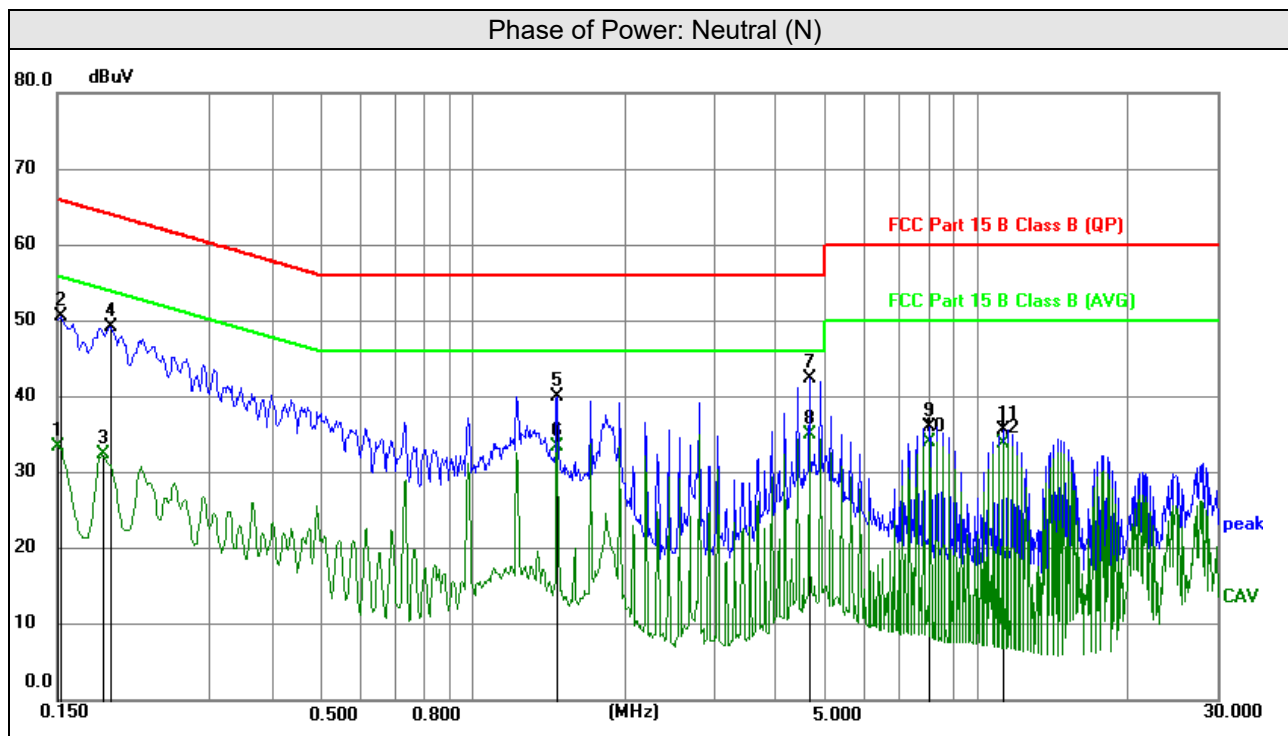


No	Frequency	Reading	Correction Factor	Emission Level	Limit	Margin	Remark
	(MHz)	(dBuV)	dB	(dBuV)	(dBuV)	(dB)	Detector
1	0.1500	22.55	9.82	32.37	56.00	-23.63	AVG
2	0.1522	40.81	9.82	50.63	65.88	-15.25	peak
3	0.1815	38.79	9.80	48.59	64.42	-15.83	peak
4	0.1838	22.47	9.80	32.27	54.31	-22.04	AVG
5	0.2198	37.16	9.79	46.95	62.83	-15.88	peak
6	0.2198	21.01	9.79	30.80	52.83	-22.03	AVG
7	1.4775	28.41	9.85	38.26	56.00	-17.74	peak
8	1.4775	20.10	9.85	29.95	46.00	-16.05	AVG
9	4.9223	32.76	9.71	42.47	56.00	-13.53	peak
10	4.9223	25.03	9.71	34.74	46.00	-11.26	AVG
11	8.1218	23.50	9.99	33.49	60.00	-26.51	peak
12	8.1218	20.73	9.99	30.72	50.00	-19.28	AVG

Remarks:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level – Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value

Frequency Range	150kHz ~ 30MHz	Detector Function & Resolution bandwidth	Quasi-Peak (QP) / Average (AV), 9kHz
Power supply	DC5V from adapter AC120V/60Hz	Environmental Conditions	25°C, 60%RH



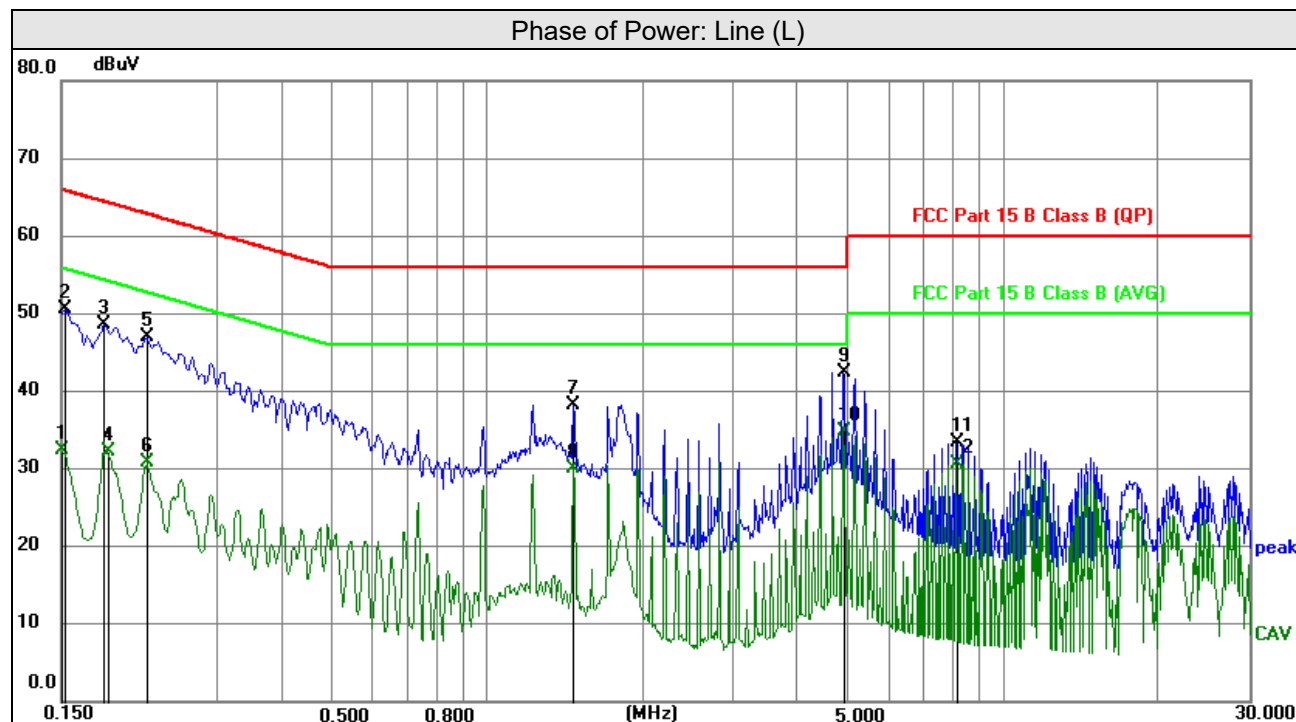
No.	Frequency	Reading	Correction Factor	Emission Level	Limit	Margin	Remark
	(MHz)	(dBuV)	dB	(dBuV)	(dBuV)	(dB)	Detector
1	0.1500	23.56	9.78	33.34	56.00	-22.66	AVG
2	0.1522	40.77	9.78	50.55	65.88	-15.33	peak
3	0.1838	22.59	9.76	32.35	54.31	-21.96	AVG
4	0.1905	39.44	9.76	49.20	64.01	-14.81	peak
5	1.4730	30.26	9.72	39.98	56.00	-16.02	peak
6	1.4730	23.69	9.72	33.41	46.00	-12.59	AVG
7	4.6635	32.68	9.63	42.31	56.00	-13.69	peak
8	4.6635	25.42	9.63	35.05	46.00	-10.95	AVG
9	8.1015	26.14	9.88	36.02	60.00	-23.98	peak
10	8.1015	24.09	9.88	33.97	50.00	-16.03	AVG
11	11.2920	25.62	10.07	35.69	60.00	-24.31	peak
12	11.2920	23.80	10.07	33.87	50.00	-16.13	AVG

Remarks:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level – Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value.

Model: HIP-D10AR-F1

Frequency Range	150kHz ~ 30MHz	Detector Function & Resolution bandwidth	Quasi-Peak (QP) / Average (AV), 9kHz
Power supply	DC9V from adapter AC120V/60Hz	Environmental Conditions	25°C, 60%RH



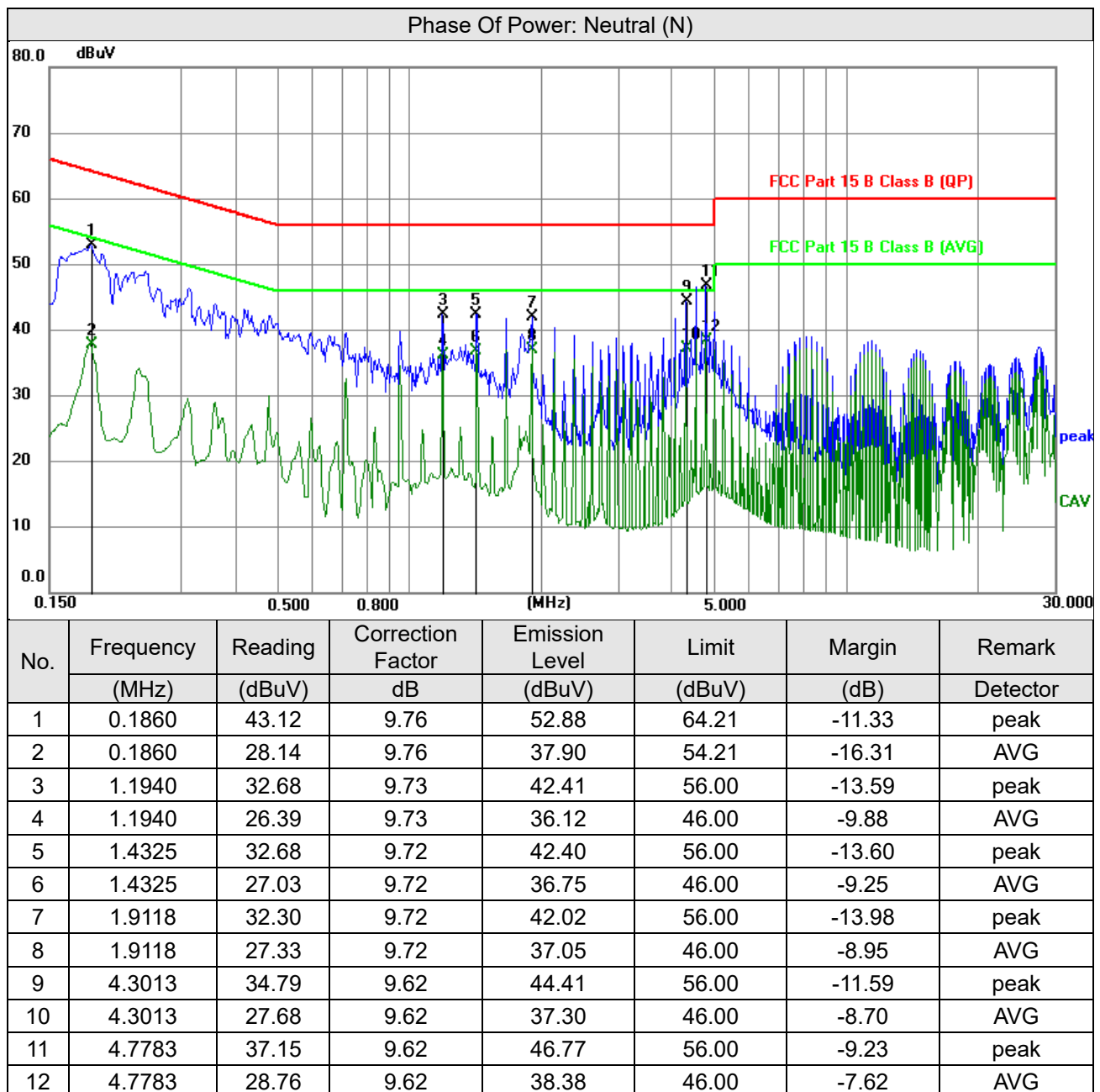
No	Frequency (MHz)	Reading (dBuV)	Correction Factor dB	Emission Level (dBuV)	Limit (dBuV)	Margin (dB)	Remark Detector
1	0.1860	27.82	9.80	37.62	54.21	-16.59	AVG
2	0.1883	42.45	9.80	52.25	64.11	-11.86	peak
3	0.2423	38.57	9.79	48.36	62.02	-13.66	peak
4	0.2490	22.92	9.79	32.71	51.79	-19.08	AVG
5	0.7147	28.85	9.88	38.73	56.00	-17.27	peak
6	0.7147	18.92	9.88	28.80	46.00	-17.20	AVG
7	1.4303	30.61	9.85	40.46	56.00	-15.54	peak
8	1.4303	23.23	9.85	33.08	46.00	-12.92	AVG
9	1.9050	30.90	9.79	40.69	56.00	-15.31	peak
10	1.9050	23.38	9.79	33.17	46.00	-12.83	AVG
11	4.7647	36.89	9.70	46.59	56.00	-9.41	peak
12	4.7647	28.31	9.70	38.01	46.00	-7.99	AVG

Remarks:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level – Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value



Frequency Range	150kHz ~ 30MHz	Detector Function & Resolution bandwidth	Quasi-Peak (QP) / Average (AV), 9kHz
Power supply	DC9V from adapter AC120V/60Hz	Environmental Conditions	25°C, 60%RH



Remarks:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level – Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value.



5 Radiated Emissions up to 1 GHz

5.1 Limits of radiated emissions

FCC Part 15, Subpart C, Section 15.209

Emissions radiated outside of the specified bands, shall be according to the general radiated limits as following:

Frequencies (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)
0.009 – 0.490	2400/F(kHz)	300
0.490 – 1.705	24000/F(kHz)	30
1.705 – 30.0	30	30
30 – 88	100	3
88 – 216	150	3
216 - 960	200	3
Above 960	500	3

Note:

1. The lower limit shall apply at the transition frequencies.
2. Emission level (dBuV/m) = 20 log Emission level (uV/m).
3. As shown in 15.35(b), for frequencies above 1000MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20dB under any condition of modulation.
4. The measured field strength was extrapolated to distance 30 meters, using the formula that the limit of field strength varies as the inverse distance square (40dB per decade of distance)

5.2 Test Instruments

Radiated emission below 30MHz:

Equipment	Manufacturer	Model No.	Serial No.	Next Cal.
EMI Test Receiver	Rohde&Schwarz	ESCI 7	100962	2022/01/05
Semi-anechoic Chamber	MAORUI	9m*6m*6m	NSEMC003	2022/04/14
Test software	FARAD	FARAD	EZ_EMCV1.1.4.2	N/A
Loop Antenna	EMCI	HLA 6121	45745	2022/04/13
Preamplifier	EMCI	EMC001340	980201	2021/10/17
Antenna Tower	MF	MFA-440H	NA	NA
Turn Table	MF	MFT-201SS	NA	NA
Antenna Tower&Turn Table Controller	MF	MF-7802	NA	NA

Frequency Range below 1GHz:

Equipment	Manufacturer	Model No.	Serial No.	Next Cal.
EMI Test Receiver	Rohde&Schwarz	ESCI 7	100962	2022/01/05
Broadband antenna	Schwarzbeck	VULB 9168	00937	2022/04/15
3m Semi-anechoic Chamber	MAORUI	9m*6m*6m	NSEMC003	2022/04/14
Signal Amplifier	Com-power	PAM-103	18020051	2022/03/14
Attenuator	Rohde&Schwarz	TS2GA-6dB	18101101	N/A
Test software	FARAD	FARAD	EZ_EMCV1.1.4.2	N/A

Note: 1. The calibration interval of the above test instruments is 12 months or 24 months(Antenna and Semi-anechoic Chamber) and the calibrations are traceable to CEPREI/CHINA.



5.3 Test Procedure

Peak emission levels are measured by setting the instrument as follow:

- 1) RBW & VBW setting as a function of frequency:

Frequency	RBW	VBW
9kHz~150kHz	200Hz	600Hz
0.15MHz~30MHz	9kHz	30kHz
30MHz~1000MHz	120kHz	300kHz
>1000MHz	1MHz	3MHz

- 2) Detector = peak.
3) Sweep time = auto.
4) Trace mode = max hold.
5) Allow sweeps to continue until the trace stabilizes. (Note that the required measurement time may be lengthened for low-duty-cycle applications.)

Note: If the peak-detected amplitude can be shown to comply with the average limit, then it is not necessary to perform a separate average measurement

9kHz~30MHz

- The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 10 meters Semi-anechoic chamber room. The table was rotated 360 degrees to determine the position of the highest radiation.
- The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- The test-receiver system was set to quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.

30MHz~1GHz

- The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meters semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- The antenna is a broadband antenna, and its height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

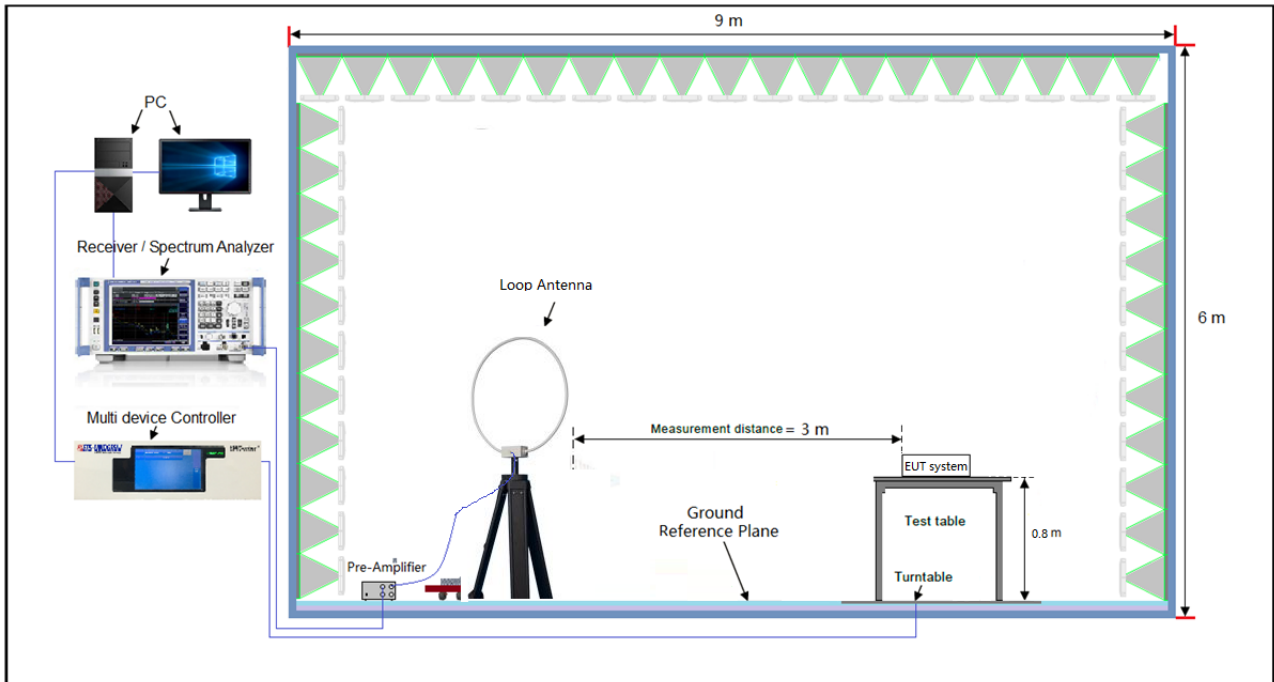
5.4 Deviation from test standard

No deviation.

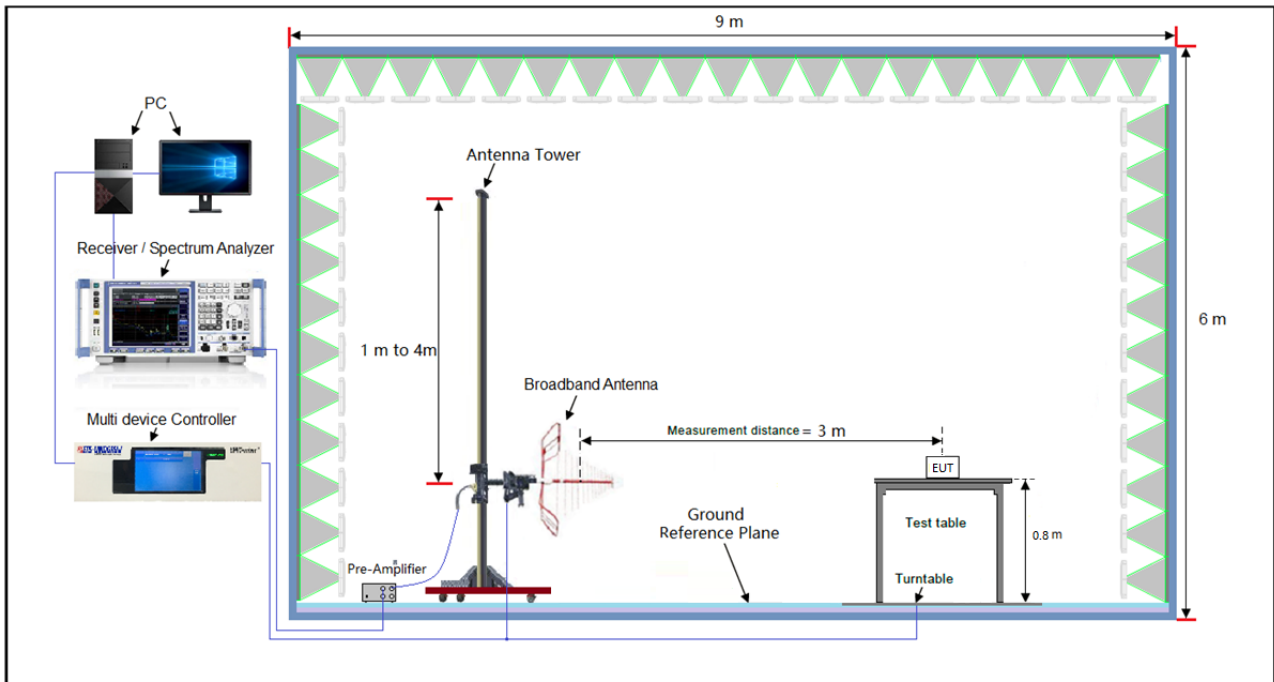


5.5 Test Setup

9kHz~30MHz test setup



30MHz~1GHz test setup



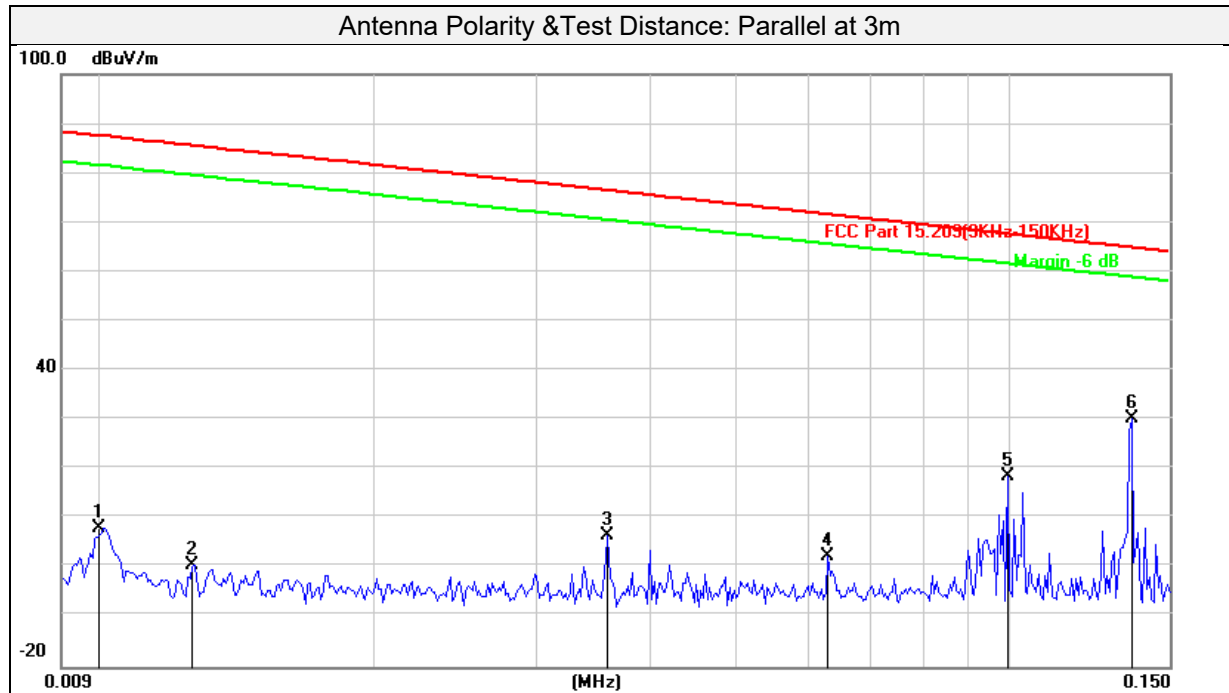
Note: For the actual test configuration, please refer to the attached file (Test Setup Photo).



5.6 Test Results

Model: HIP-D05AR-F1

Test model	HIP-D05AR-F1		
Test mode	Standby		
Frequency Range	9kHz ~150kHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP), 200Hz



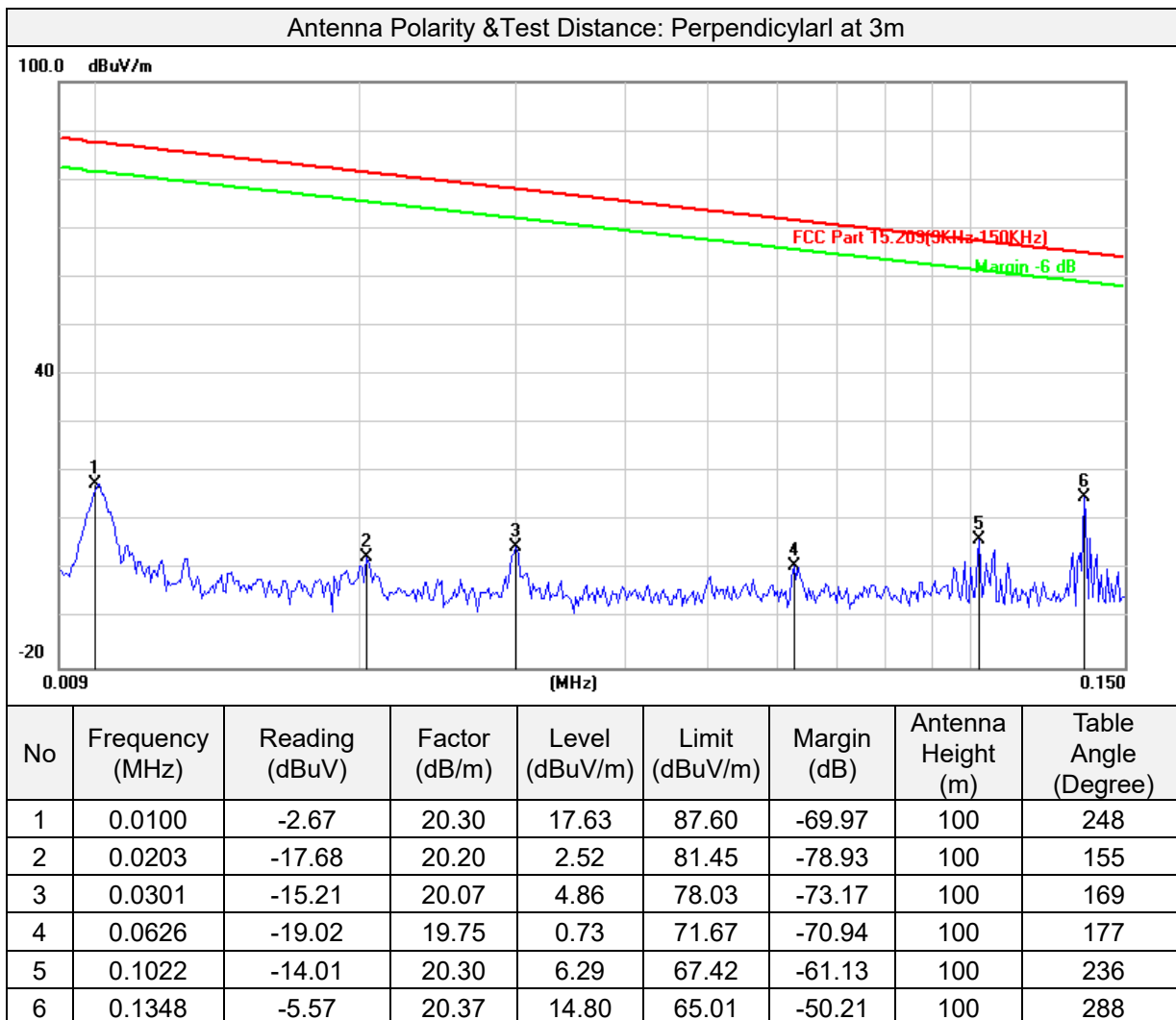
No	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)
1	0.0100	-12.27	20.30	8.03	87.60	-79.57	100	247
2	0.0126	-19.58	20.27	0.69	85.60	-84.91	100	155
3	0.0360	-13.48	19.99	6.51	76.48	-69.97	100	179
4	0.0629	-17.28	19.75	2.47	71.63	-69.16	100	236
5	0.0994	-1.59	20.29	18.70	67.66	-48.96	100	56
6	0.1363	9.94	20.37	30.31	64.91	-34.60	100	210

REMARKS:

1. Peak detector quick scan is showed on the graph and final quasi-peak detector data is measured corresponding to relevant limit and recorded in the data table.
2. Negative sign (-) in the margin column signify levels below the limit.
3. Frequency range scanned: 0.009-0.15MHz.
4. Only emissions significantly above equipment noise floor are reported.

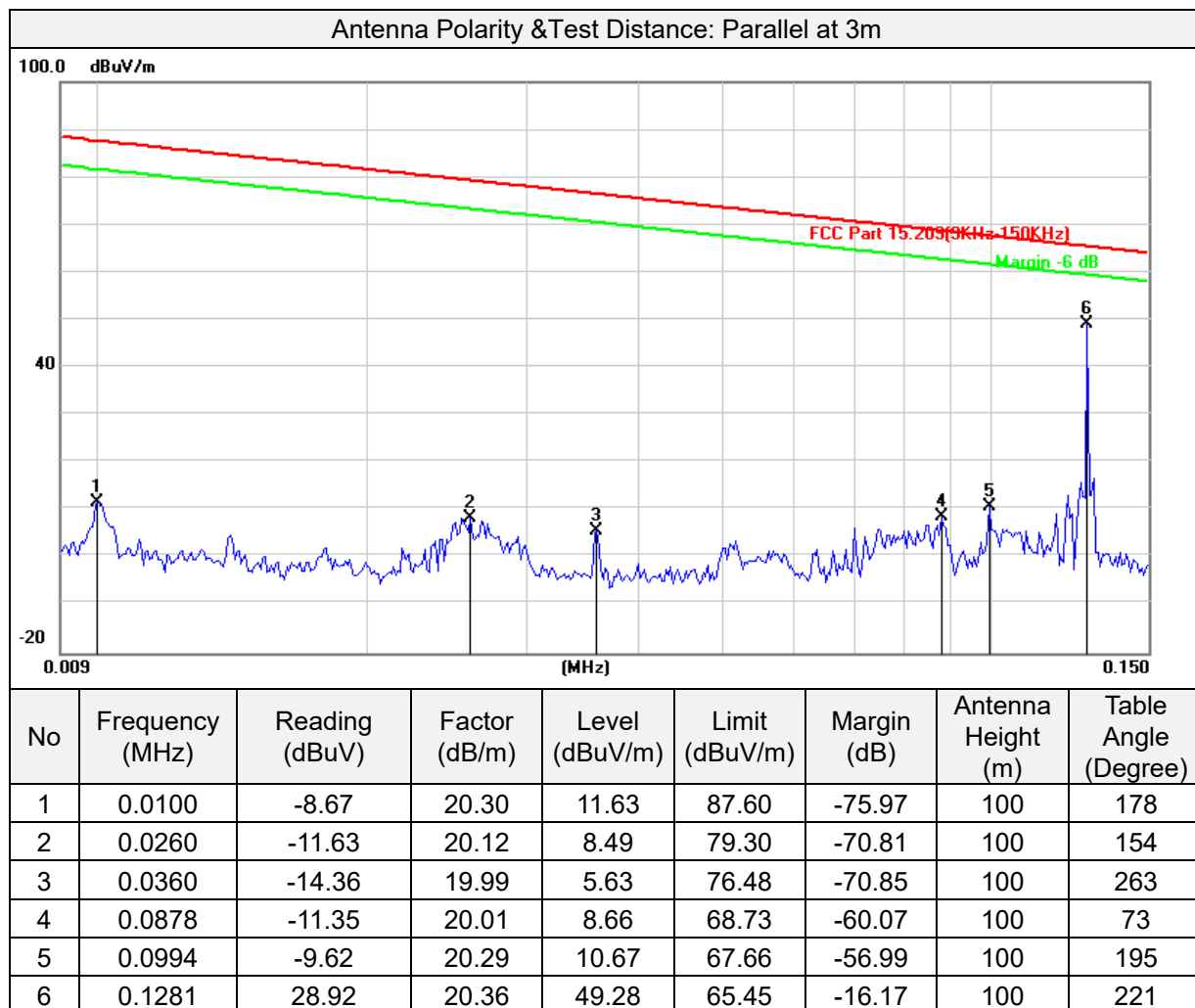


Test model	HIP-D05AR-F1		
Test mode	Standby		
Frequency Range	9kHz ~150kHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP), 200Hz



- Remarks:**
1. Peak detector quick scan is showed on the graph and final quasi-peak detector data is measured corresponding to relevant limit and recorded in the data table.
 2. Negative sign (-) in the margin column signify levels below the limit.
 3. Frequency range scanned: 0.009-0.15MHz.
 4. Only emissions significantly above equipment noise floor are reported.

Test model	HIP-D05AR-F1		
Test mode	Wireless charging mode		
Frequency Range	9kHz ~150kHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP), 200Hz

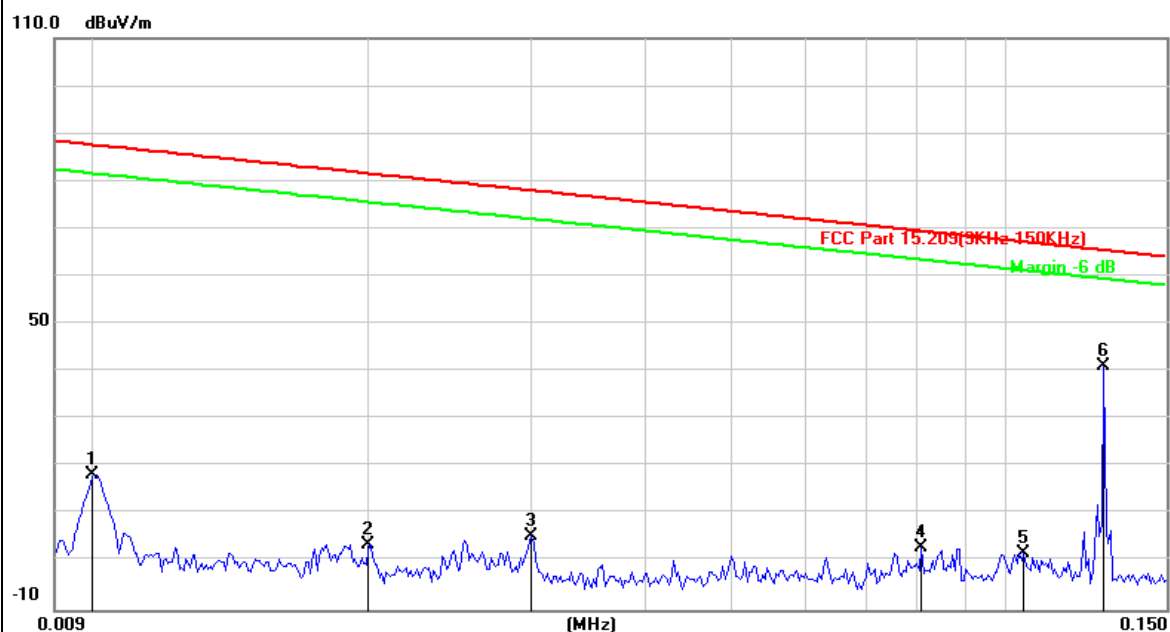


- Remarks:**
1. Peak detector quick scan is shown on the graph and final quasi-peak detector data is measured corresponding to relevant limit and recorded in the data table.
 2. Negative sign (-) in the margin column signify levels below the limit.
 3. Frequency range scanned: 0.009-0.15MHz.
 4. Only emissions significantly above equipment noise floor are reported.



Test model	HIP-D05AR-F1		
Test mode	Wireless charging mode		
Frequency Range	9kHz ~150kHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP), 200Hz

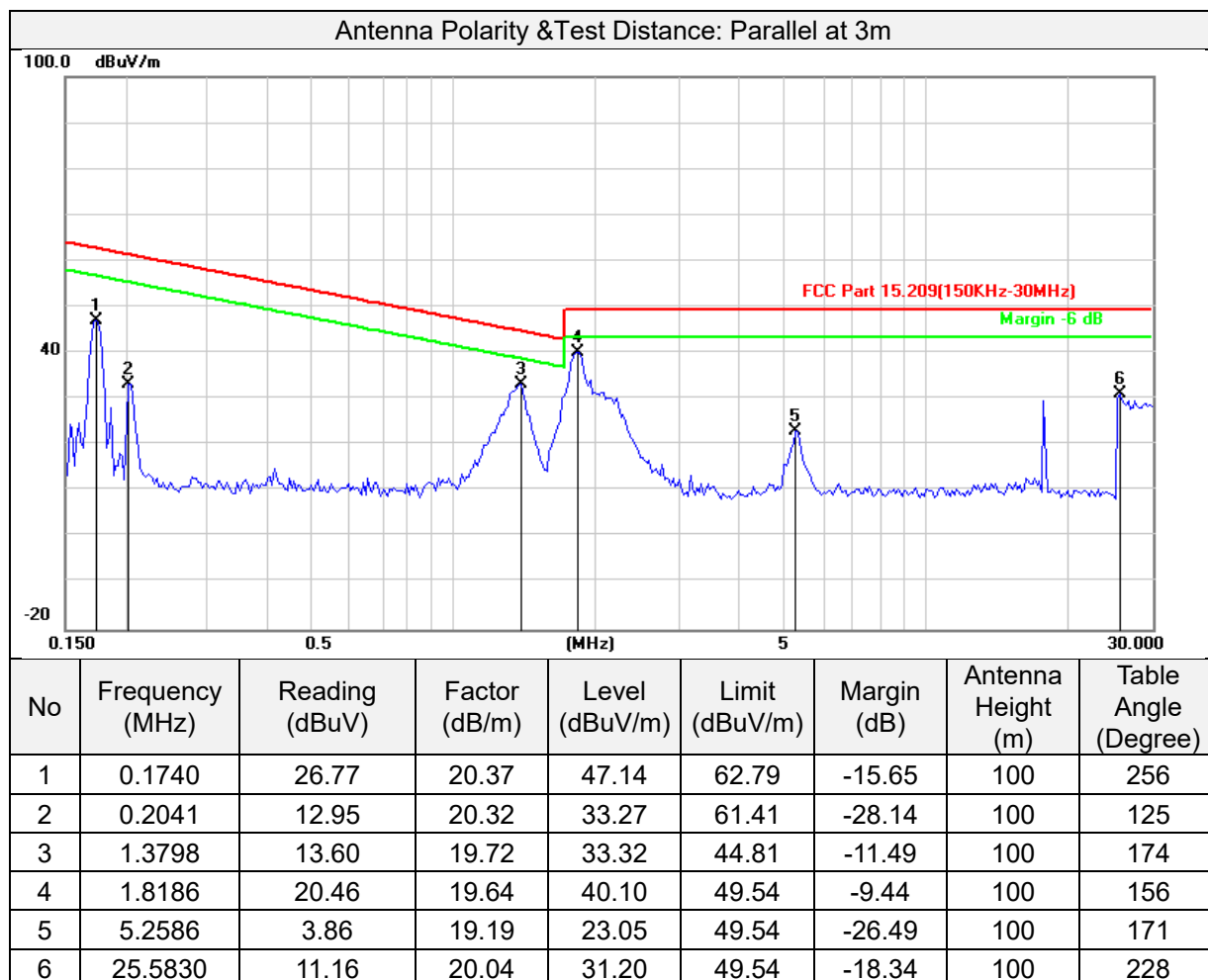
Antenna Polarity & Test Distance: Perpendicylarl at 3m



No	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)
1	0.0100	-1.92	20.30	18.38	87.60	-69.22	100	142
2	0.0200	-16.45	20.20	3.75	81.58	-77.83	100	321
3	0.0301	-14.64	20.07	5.43	78.03	-72.60	100	223
4	0.0807	-16.68	19.84	3.16	69.47	-66.31	100	289
5	0.1046	-18.47	20.31	1.84	67.21	-65.37	100	182
6	0.1281	20.71	20.36	41.07	65.45	-24.38	100	240

- Remarks:**
1. Peak detector quick scan is showed on the graph and final quasi-peak detector data is measured corresponding to relevant limit and recorded in the data table.
 2. Negative sign (-) in the margin column signify levels below the limit.
 3. Frequency range scanned: 0.009-0.15MHz.
 4. Only emissions significantly above equipment noise floor are reported.

Test model	HIP-D05AR-F1		
Test mode	Standby mode		
FrequencyRange	150kHz ~30MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP), 200Hz

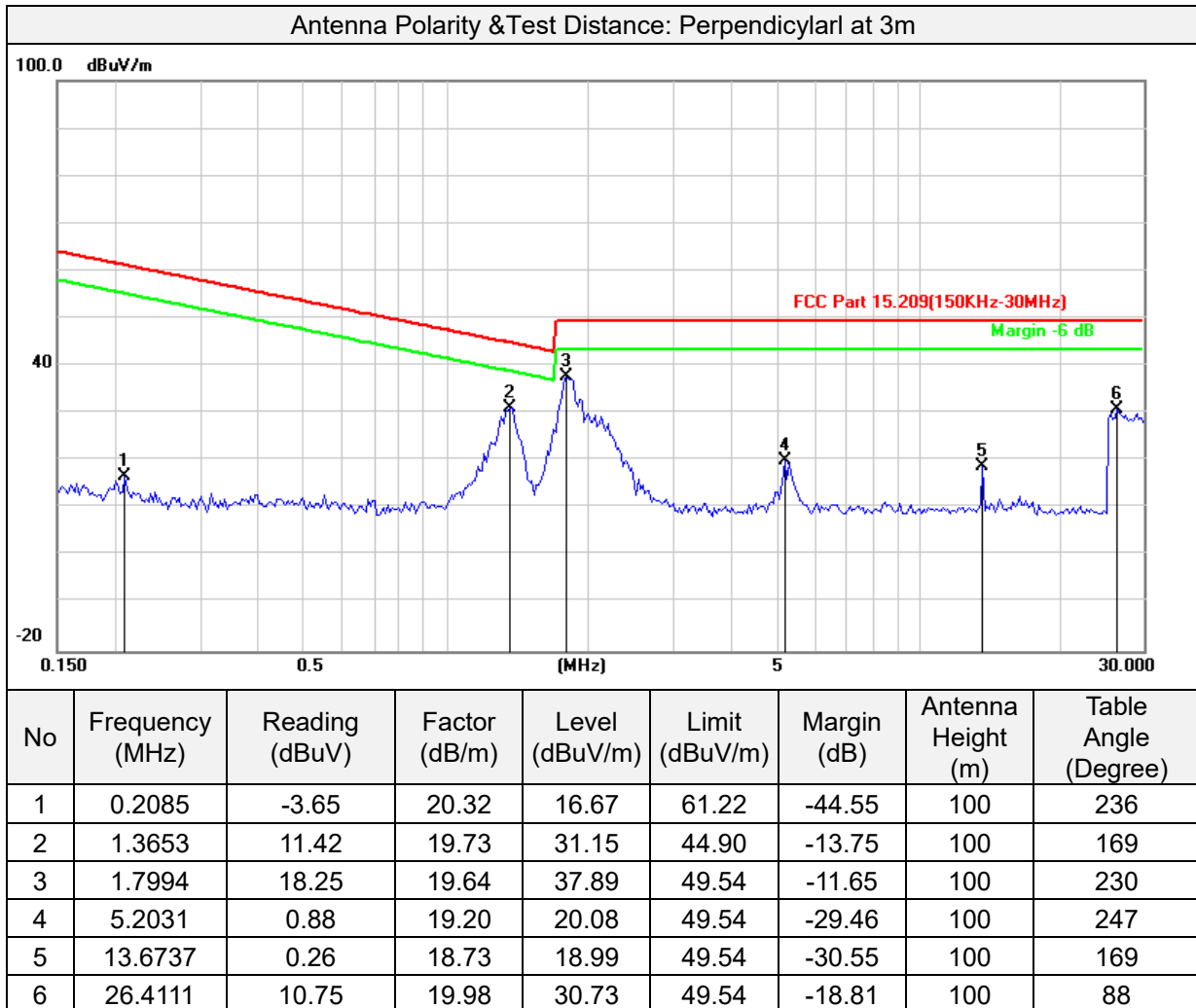


Remarks:

1. Peak detector quick scan is showed on the graph and final quasi-peak detector data is measured corresponding to relevant limit and recorded in the data table.
2. Negative sign (-) in the margin column signify levels below the limit.
3. Frequency range scanned: 0.15-30 MHz.
4. Only emissions significantly above equipment noise floor are reported.



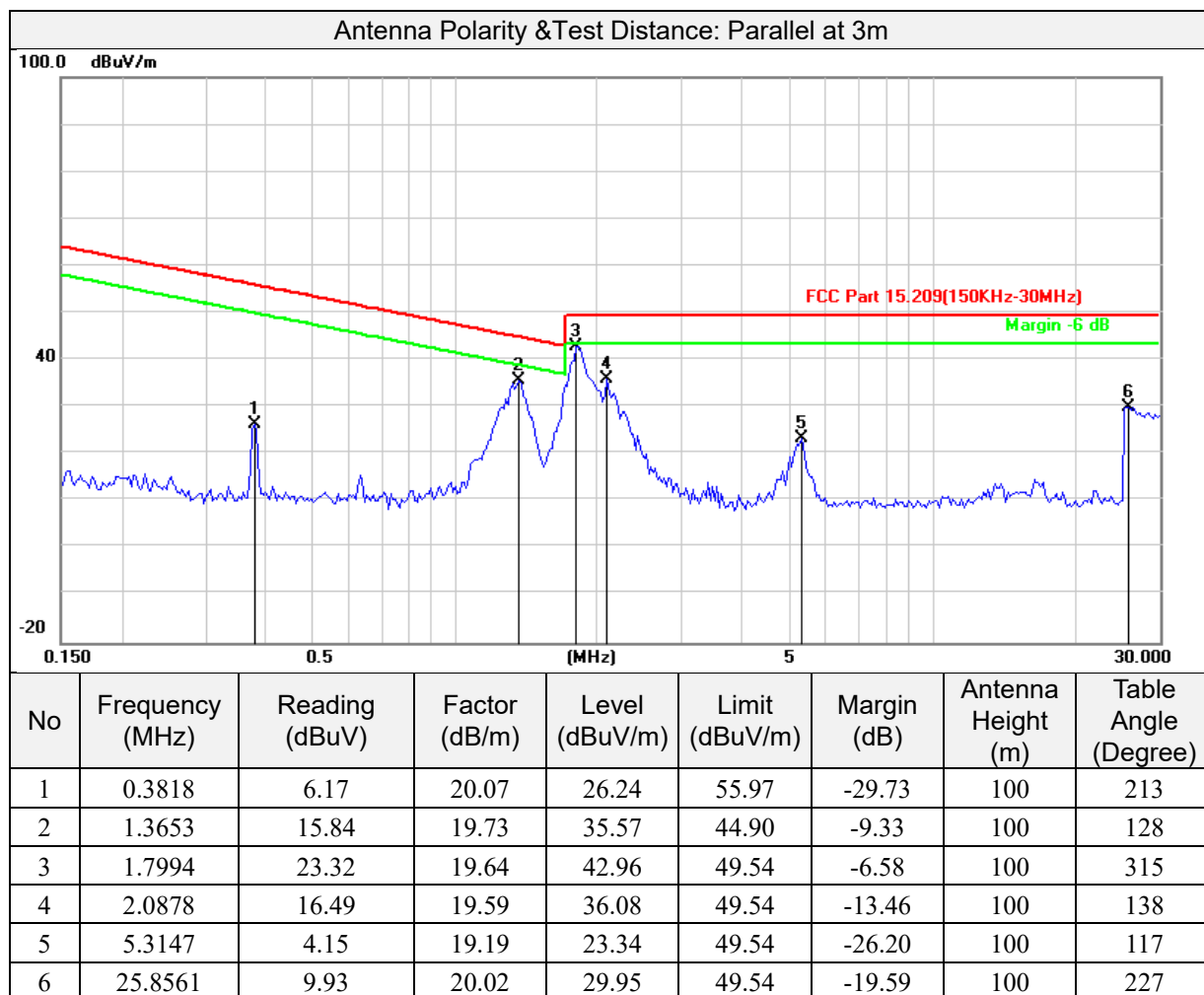
Test model	HIP-D05AR-F1		
Test mode	Standby mode		
FrequencyRange	150kHz ~30MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP), 200Hz



Remarks:

1. Peak detector quick scan is showed on the graph and final quasi-peak detector data is measured corresponding to relevant limit and recorded in the data table.
2. Negative sign (-) in the margin column signify levels below the limit.
3. Frequency range scanned: 0.15-30 MHz.
4. Only emissions significantly above equipment noise floor are reported.

Test model	HIP-D05AR-F1		
Test mode	Wireless charging mode		
FrequencyRange	150kHz ~30MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP), 200Hz

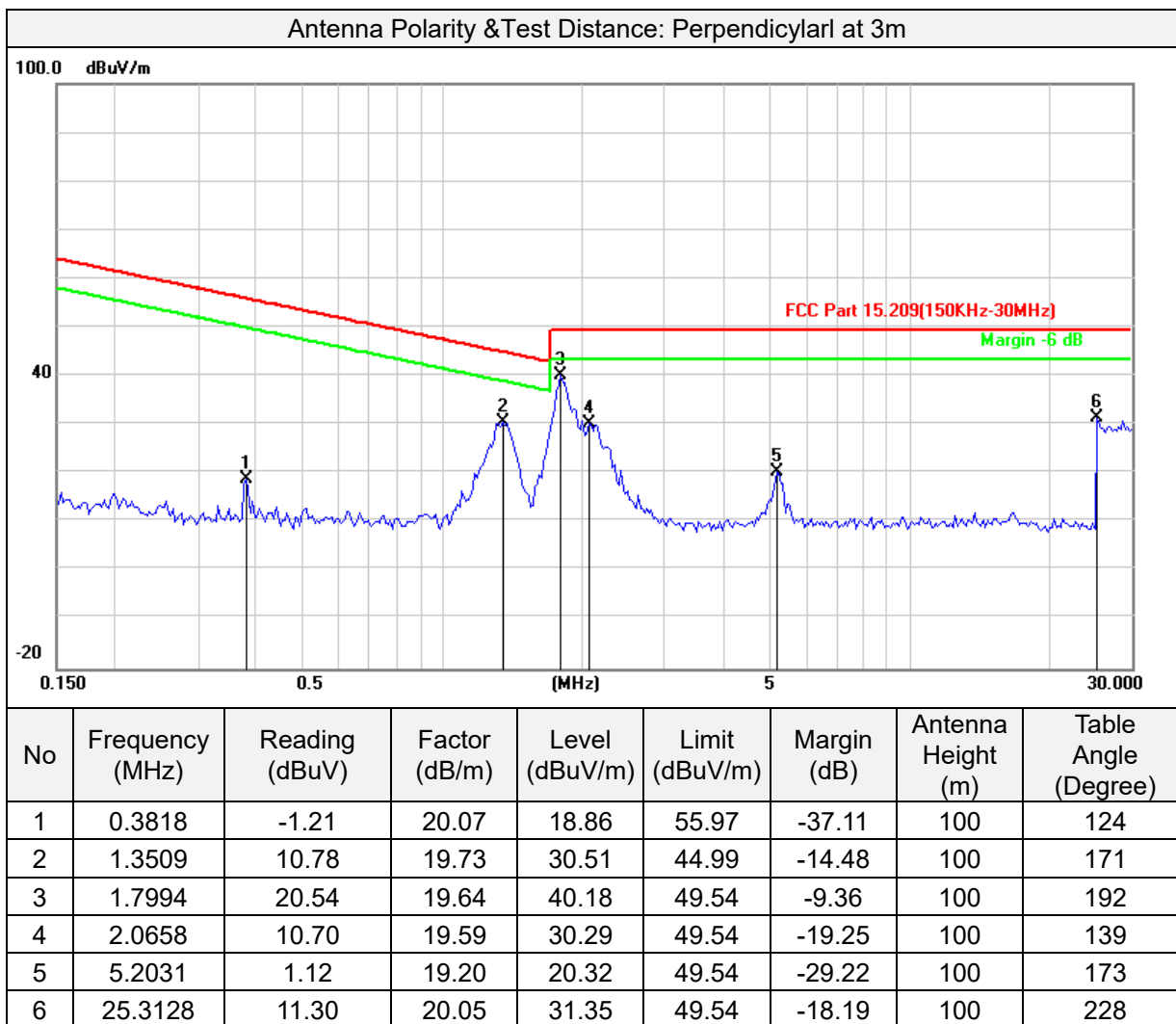


Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
– Pre-Amplifier Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value



Test model	HIP-D05AR-F1		
Test mode	Wireless charging mode		
FrequencyRange	150kHz ~30MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP), 200Hz

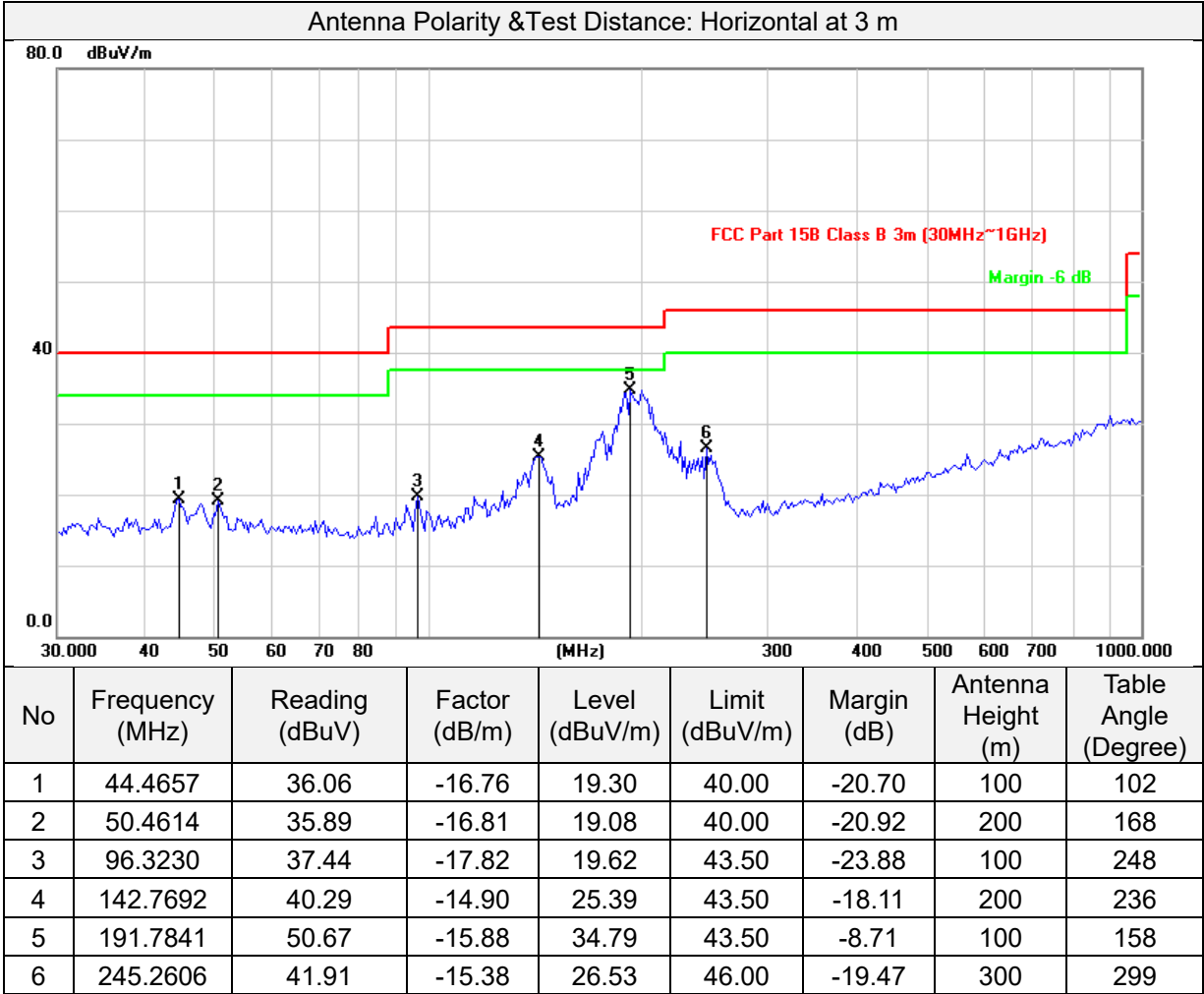


Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
– Pre-Amplifier Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value



Test model	HIP-D05AR-F1		
Test mode	Standby		
FrequencyRange	30MHz ~1GHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP), 120kHz

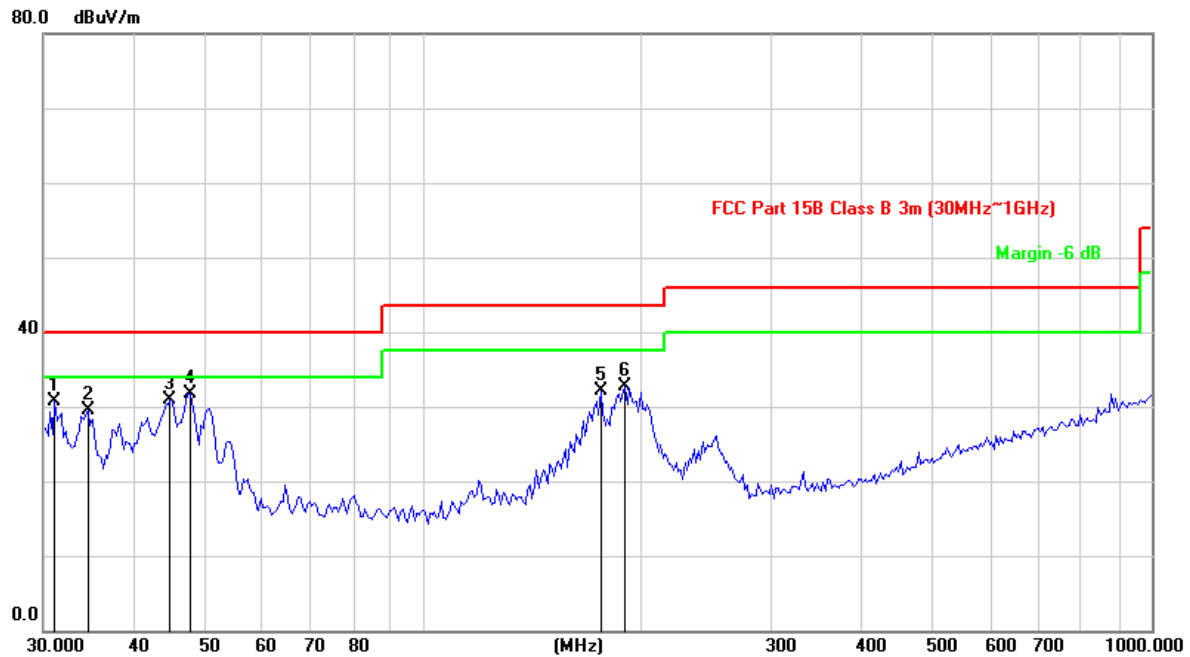


- Remarks:
1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
 2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
– Pre-Amplifier Factor (dB)
 3. The other emission levels were very low against the limit.
 4. Margin value = Emission level – Limit value



Test model	HIP-D05AR-F1		
Test mode	Standby		
FrequencyRange	30MHz ~1GHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP), 120kHz

Antenna Polarity & Test Distance: Vertical at 3m



No	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)
1	31.0728	47.59	-16.80	30.79	40.00	-9.21	100	236
2	34.5270	46.34	-16.78	29.56	40.00	-10.44	100	185
3	44.7793	47.59	-16.77	30.82	40.00	-9.18	200	288
4	47.7028	48.57	-16.78	31.79	40.00	-8.21	200	266
5	175.0404	45.43	-13.34	32.09	43.50	-11.41	100	179
6	189.1076	48.28	-15.54	32.74	43.50	-10.76	100	210

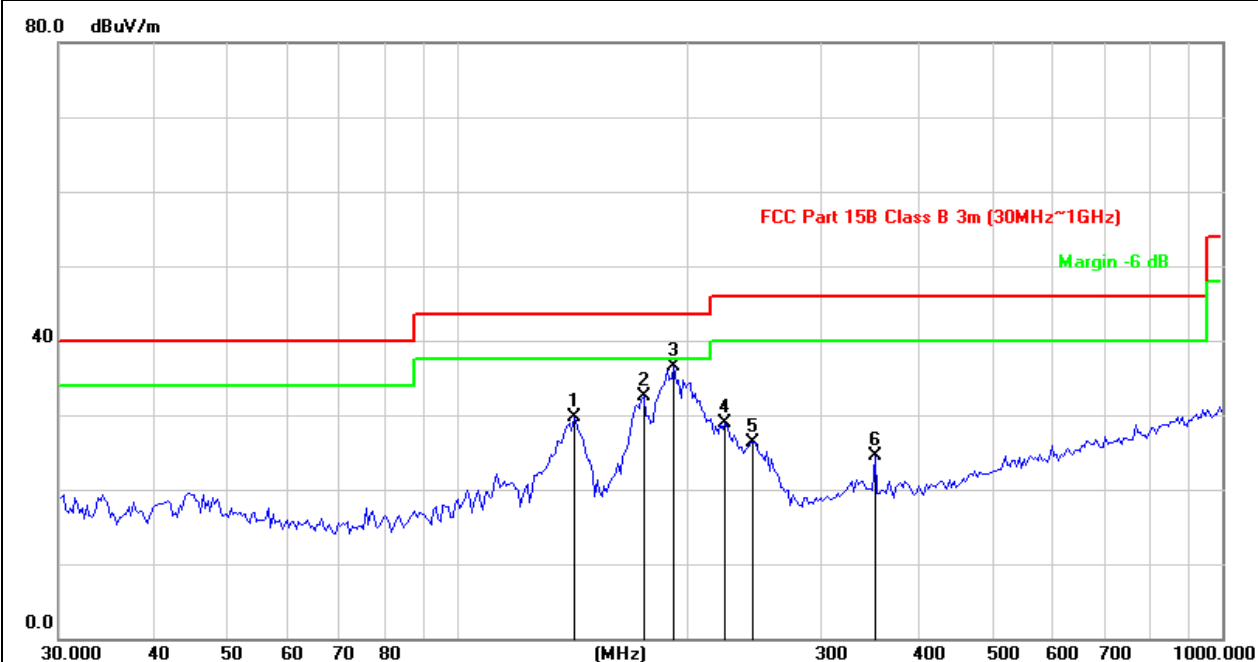
Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
– Pre-Amplifier Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value



Test model	HIP-D05AR-F1		
Test mode	Wireless charging mode		
Frequency Range	30MHz ~ 1GHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP), 120kHz

Antenna Polarity & Test Distance: Horizontal at 3 m

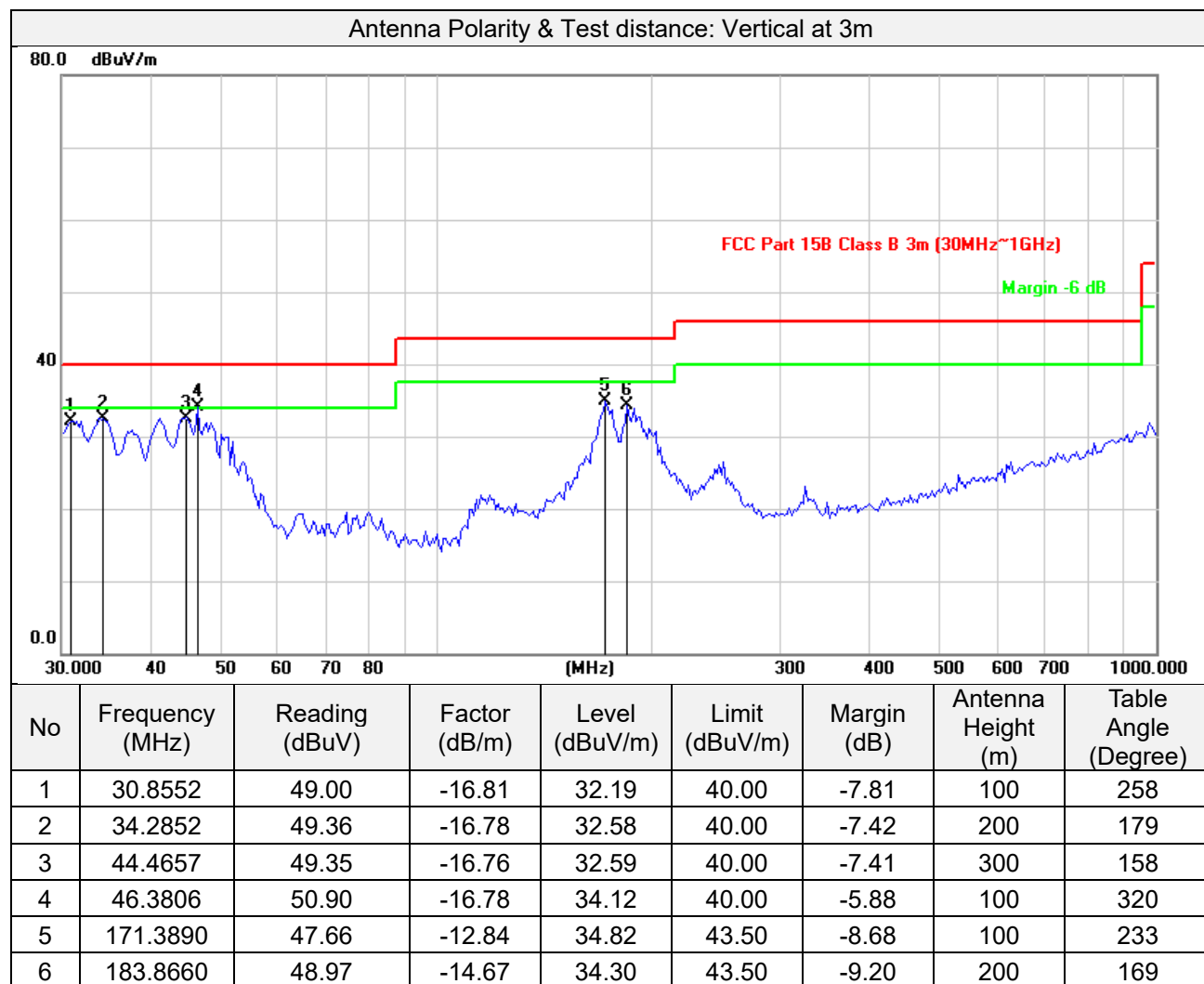


No	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)
1	141.7694	44.60	-14.94	29.66	43.50	-13.84	200	178
2	175.0404	45.75	-13.34	32.41	43.50	-11.09	200	169
3	191.7841	52.45	-15.88	36.57	43.50	-6.93	100	287
4	223.8482	45.00	-16.03	28.97	46.00	-17.03	100	299
5	243.5431	41.83	-15.44	26.39	46.00	-19.61	100	236
6	350.9722	37.27	-12.73	24.54	46.00	-21.46	300	185

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
– Pre-Amplifier Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value

Test model	HIP-D05AR-F1		
Test mode	Wireless charging mode		
Frequency Range	30MHz ~ 1GHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP), 120kHz

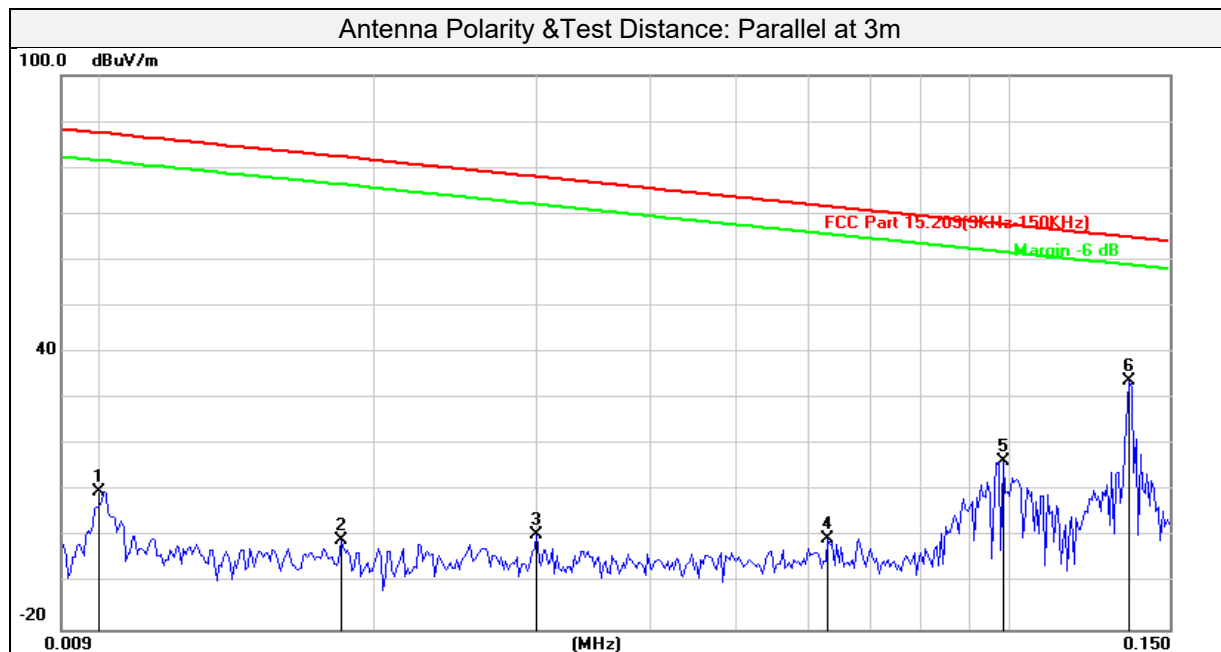


Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
– Pre-Amplifier Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value

Model: HIP-D10AR-F1

Test model	HIP-D10AR-F1		
Test mode	Standby		
Frequency Range	9kHz ~150kHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP), 200Hz

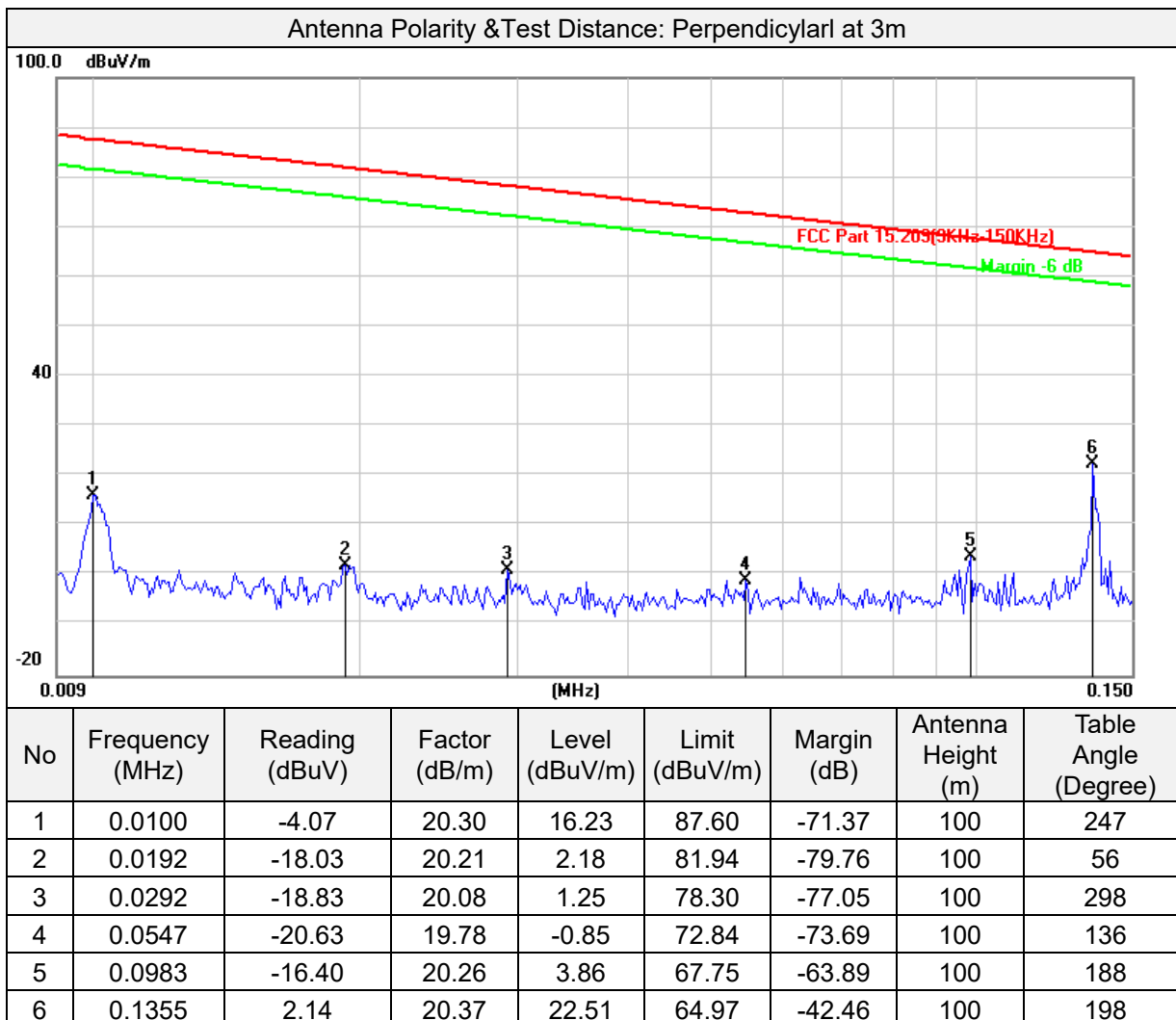


No	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)
1	0.0100	-10.53	20.30	9.77	87.60	-77.83	100	278
2	0.0183	-20.92	20.22	-0.70	82.36	-83.06	100	168
3	0.0301	-19.62	20.07	0.45	78.03	-77.58	100	88
4	0.0629	-19.96	19.75	-0.21	71.63	-71.84	100	255
5	0.0983	-3.88	20.26	16.38	67.75	-51.37	100	205
6	0.1355	13.46	20.37	33.83	64.97	-31.14	100	233

REMARKS:

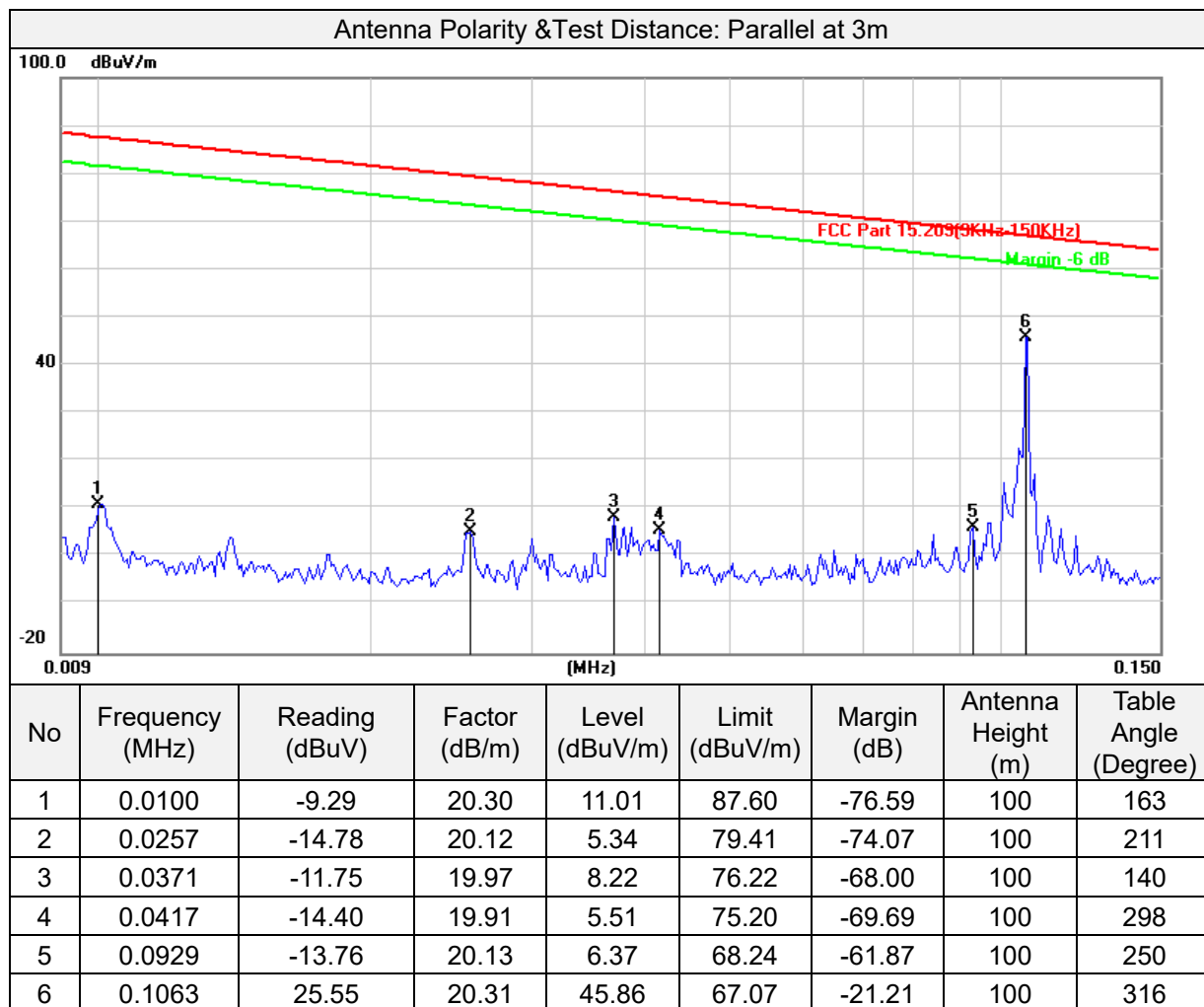
1. Peak detector quick scan is showed on the graph and final quasi-peak detector data is measured corresponding to relevant limit and recorded in the data table.
2. Negative sign (-) in the margin column signify levels below the limit.
3. Frequency range scanned: 0.009-0.15MHz.
4. Only emissions significantly above equipment noise floor are reported.

Test model	HIP-D10AR-F1		
Test mode	Standby		
Frequency Range	9kHz ~150kHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP), 200Hz



- Remarks:**
1. Peak detector quick scan is showed on the graph and final quasi-peak detector data is measured corresponding to relevant limit and recorded in the data table.
 2. Negative sign (-) in the margin column signify levels below the limit.
 3. Frequency range scanned: 0.009-0.15MHz.
 4. Only emissions significantly above equipment noise floor are reported.

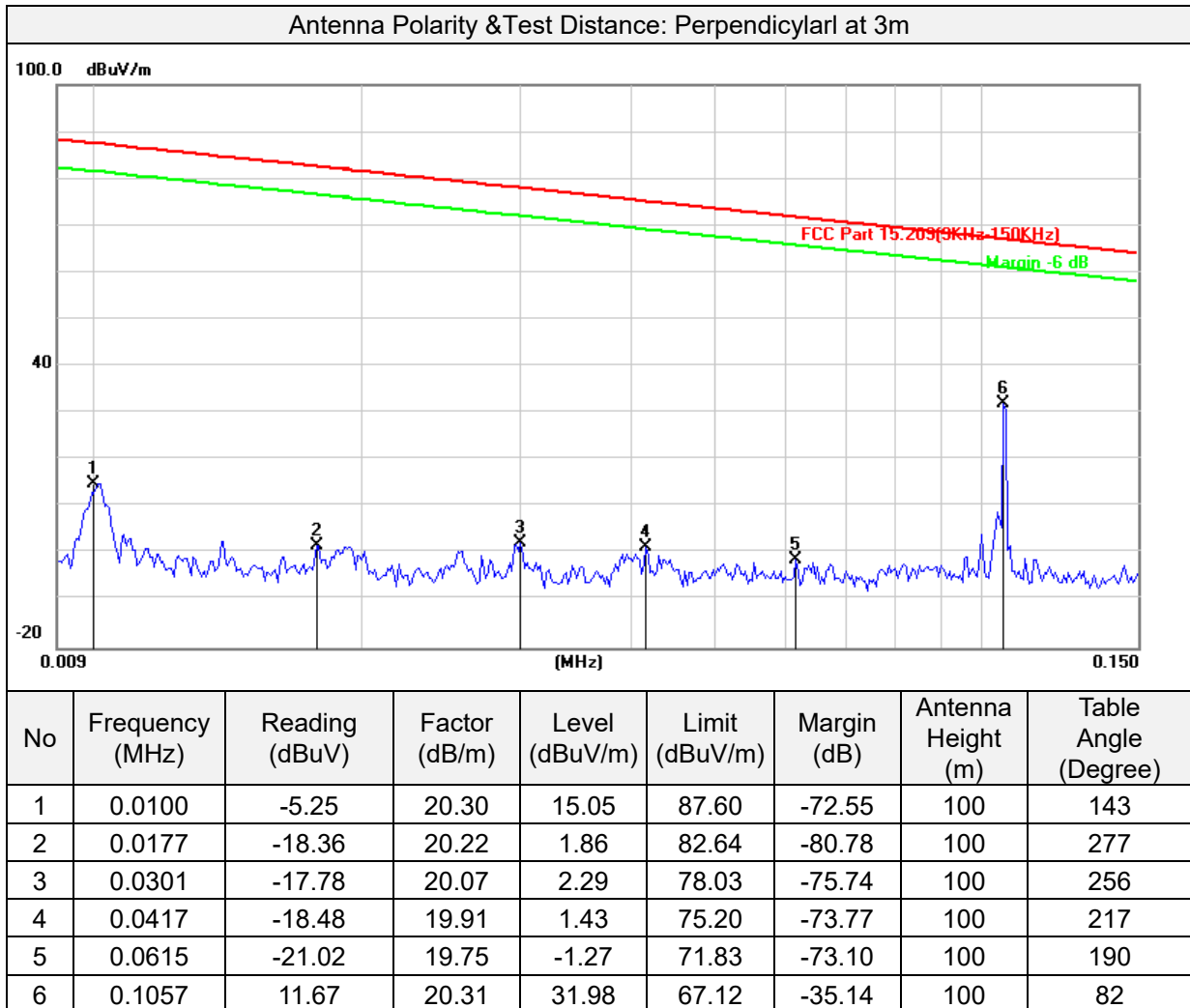
Test model	HIP-D10AR-F1		
Test mode	Wireless charging mode		
Frequency Range	9kHz ~150kHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP), 200Hz



Remarks:

1. Peak detector quick scan is showed on the graph and final quasi-peak detector data is measured corresponding to relevant limit and recorded in the data table.
2. Negative sign (-) in the margin column signify levels below the limit.
3. Frequency range scanned: 0.009-0.15MHz.
4. Only emissions significantly above equipment noise floor are reported.

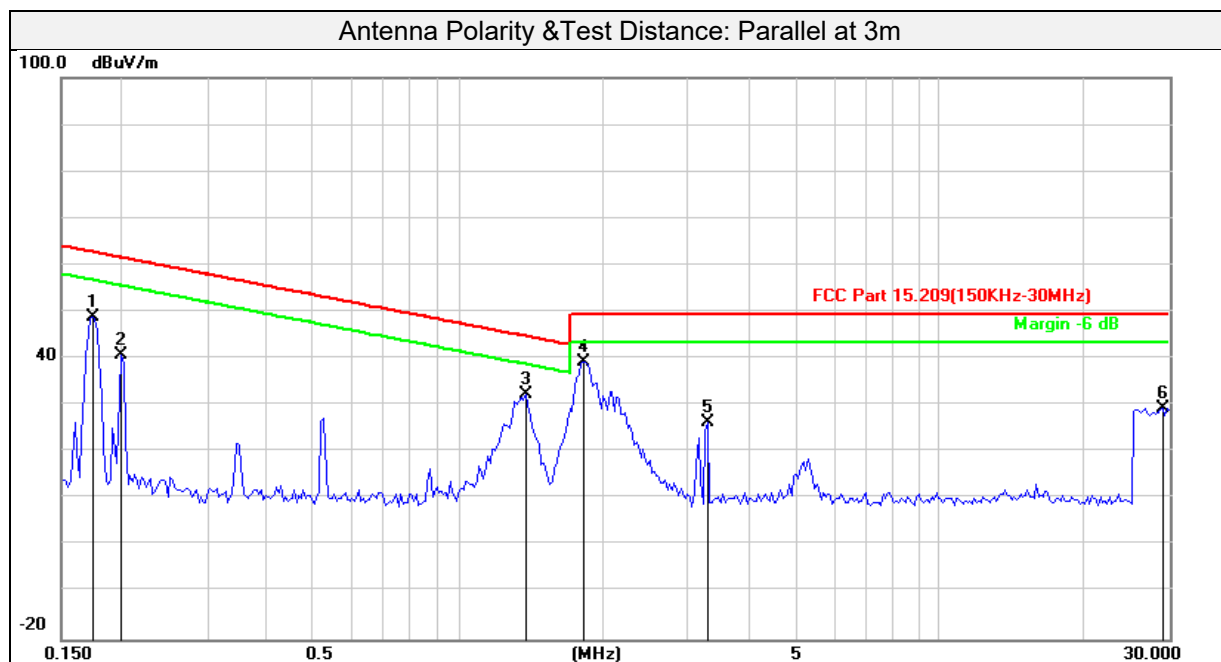
Test model	HIP-D10AR-F1		
Test mode	Wireless charging mode		
Frequency Range	9kHz ~150kHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP), 200Hz



Remarks:

1. Peak detector quick scan is showed on the graph and final quasi-peak detector data is measured corresponding to relevant limit and recorded in the data table.
2. Negative sign (-) in the margin column signify levels below the limit.
3. Frequency range scanned: 0.009-0.15MHz.
4. Only emissions significantly above equipment noise floor are reported.

Test model	HIP-D10AR-F1		
Test mode	Standby mode		
FrequencyRange	150kHz ~30MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP), 200Hz



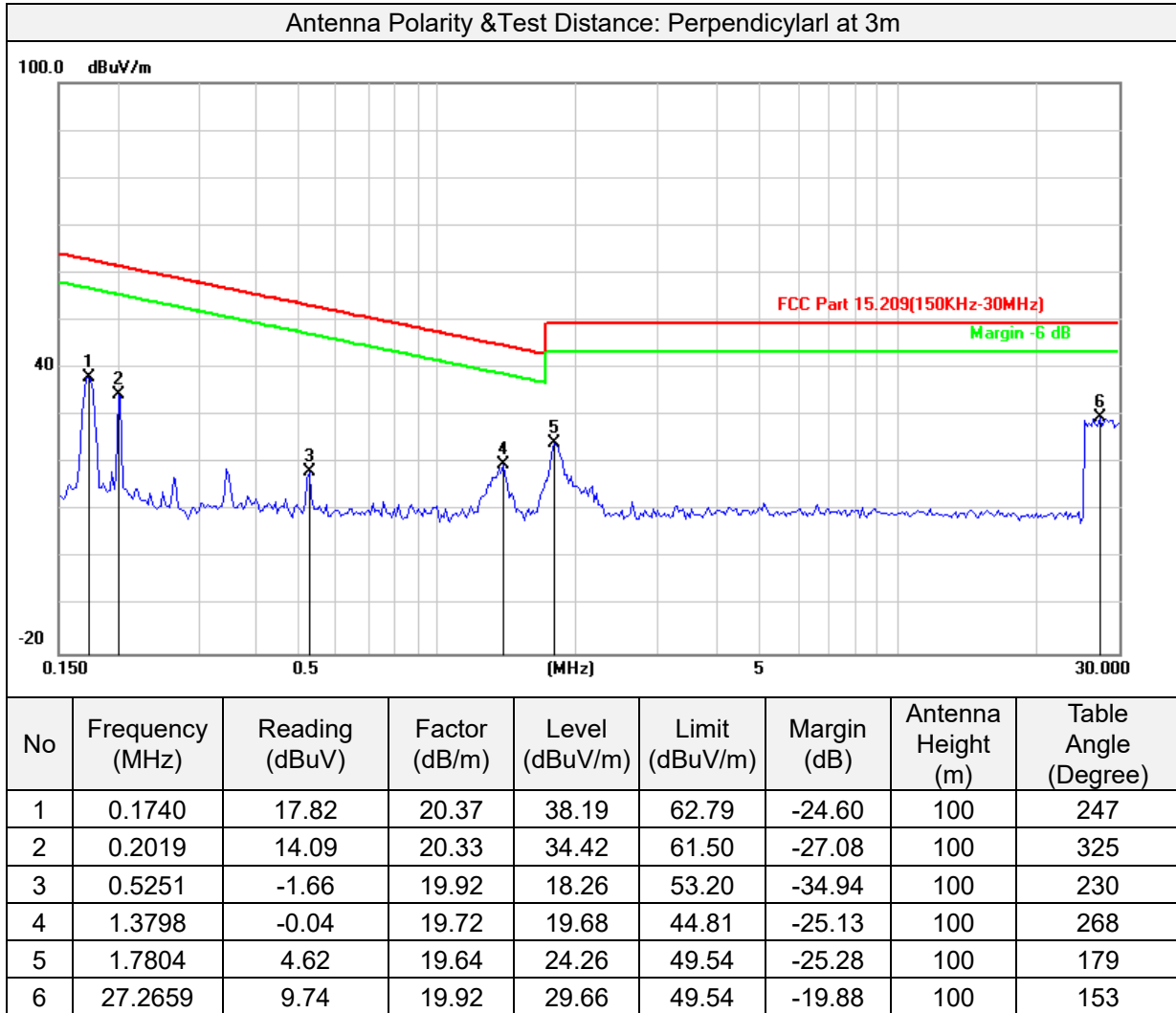
No	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)
1	0.1739	28.37	20.37	48.74	62.80	-14.06	100	210
2	0.1998	20.31	20.33	40.64	61.59	-20.95	100	268
3	1.3798	12.48	19.72	32.20	44.81	-12.61	100	41
4	1.8185	19.72	19.64	39.36	49.54	-10.18	100	26
5	3.2959	7.08	19.32	26.40	49.54	-23.14	100	230
6	29.0594	9.64	19.80	29.44	49.54	-20.10	100	188

Remarks:

1. Peak detector quick scan is showed on the graph and final quasi-peak detector data is measured corresponding to relevant limit and recorded in the data table.
2. Negative sign (-) in the margin column signify levels below the limit.
3. Frequency range scanned: 0.15-30 MHz.
4. Only emissions significantly above equipment noise floor are reported.



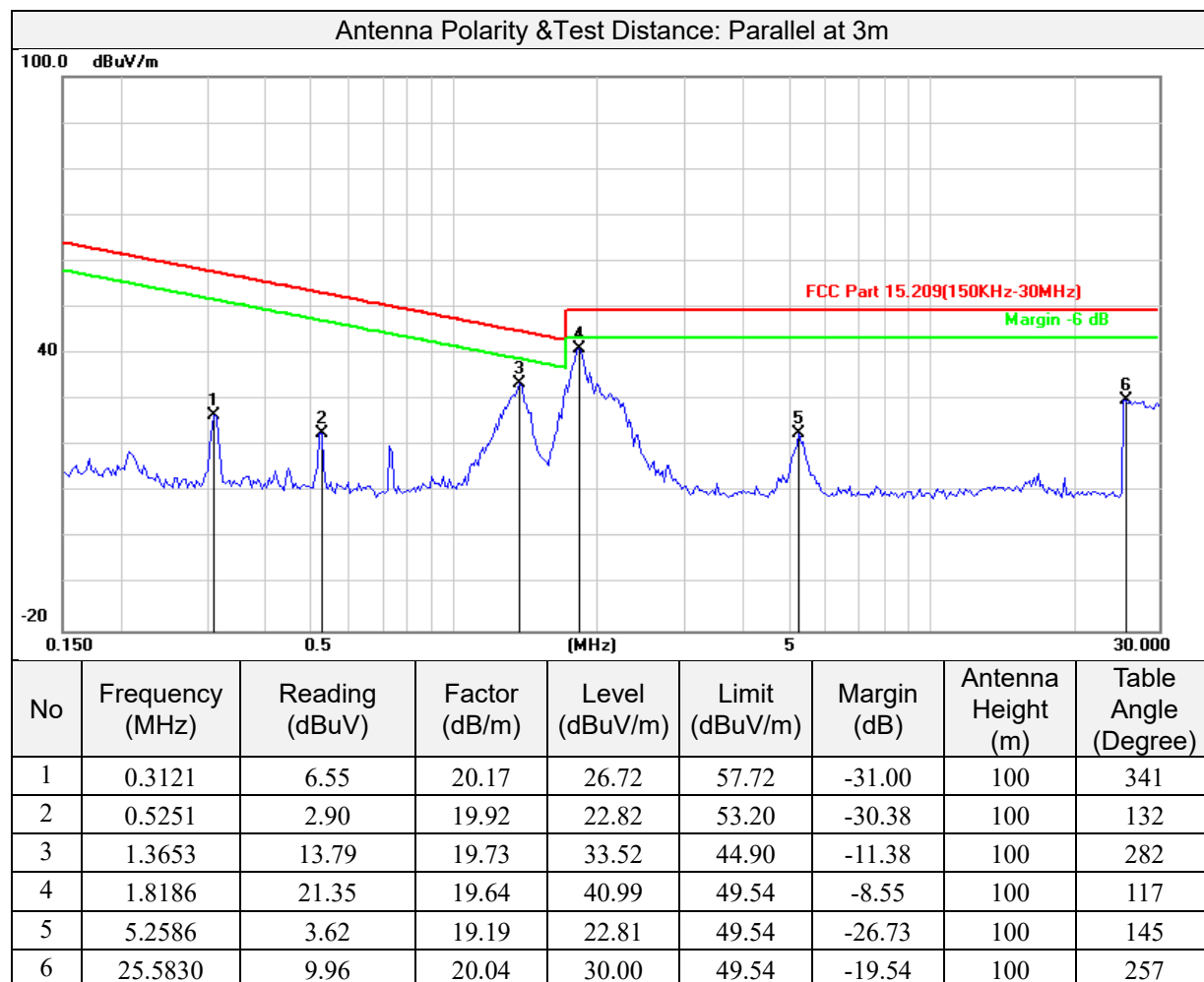
Test model	HIP-D10AR-F1		
Test mode	Standby mode		
FrequencyRange	150kHz ~30MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP), 200Hz



Remarks:

1. Peak detector quick scan is showed on the graph and final quasi-peak detector data is measured corresponding to relevant limit and recorded in the data table.
2. Negative sign (-) in the margin column signify levels below the limit.
3. Frequency range scanned: 0.15-30 MHz.
4. Only emissions significantly above equipment noise floor are reported.

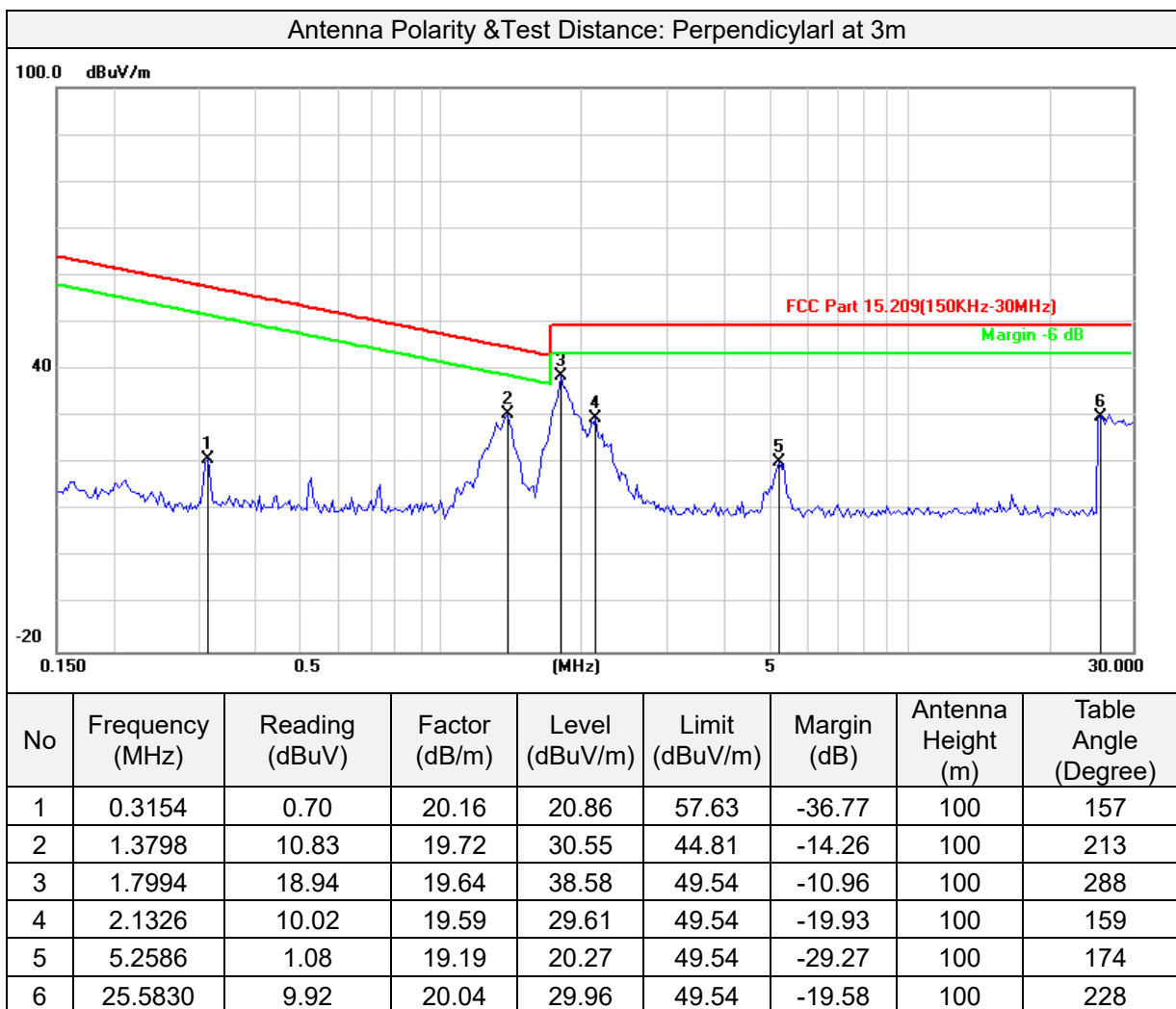
Test model	HIP-D10AR-F1		
Test mode	Wireless charging mode		
FrequencyRange	150kHz ~30MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP), 200Hz



Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
– Pre-Amplifier Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value

Test model	HIP-D10AR-F1		
Test mode	Wireless charging mode		
FrequencyRange	150kHz ~30MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP), 200Hz

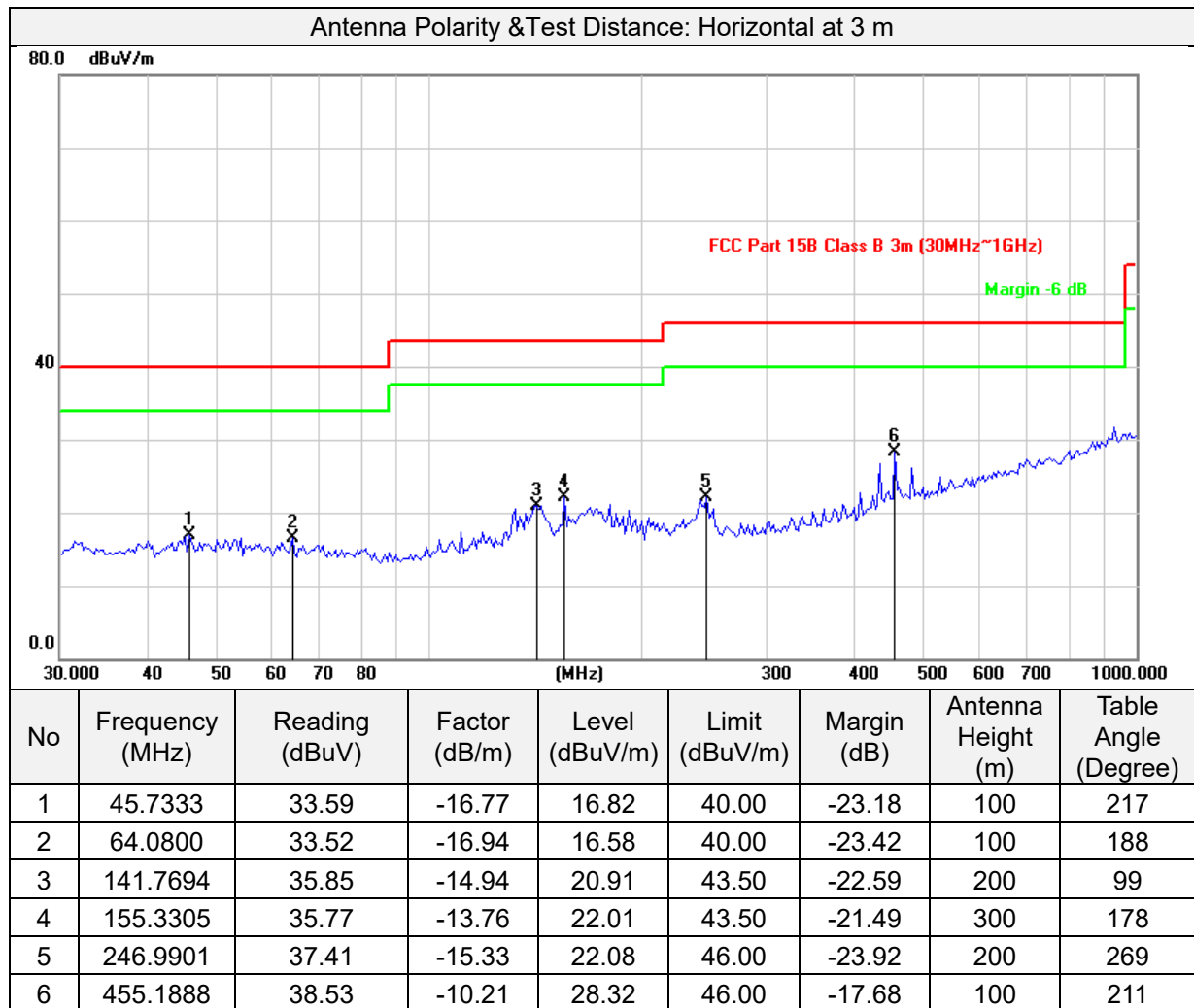


Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
– Pre-Amplifier Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value



Test model	HIP-D10AR-F1		
Test mode	Standby		
FrequencyRange	30MHz ~1GHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP), 120kHz



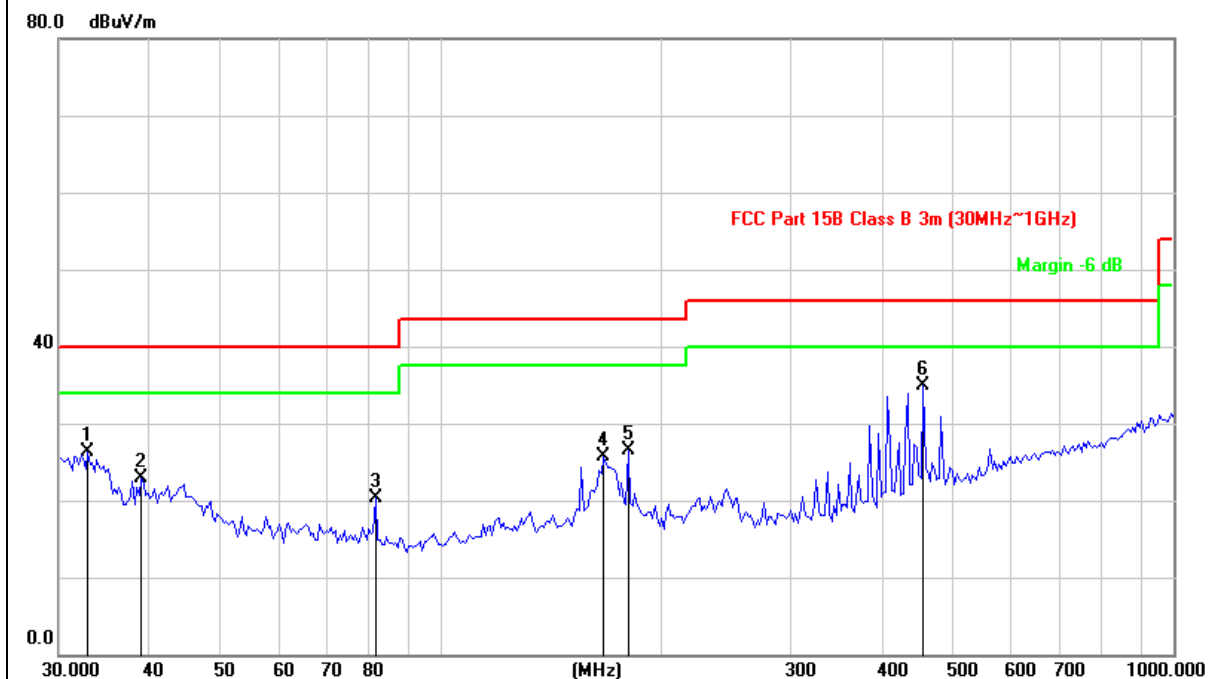
Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
– Pre-Amplifier Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value



Test model	HIP-D10AR-F1		
Test mode	Standby		
FrequencyRange	30MHz ~1GHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP), 120kHz

Antenna Polarity & Test Distance: Vertical at 3m



No	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)
1	32.8697	43.01	-16.79	26.22	40.00	-13.78	100	288
2	38.9081	39.66	-16.74	22.92	40.00	-17.08	100	178
3	81.3740	38.03	-17.79	20.24	40.00	-19.76	200	169
4	166.6385	38.52	-12.77	25.75	43.50	-17.75	300	158
5	180.0304	40.52	-14.02	26.50	43.50	-17.00	200	236
6	455.1888	45.10	-10.21	34.89	46.00	-11.11	100	298

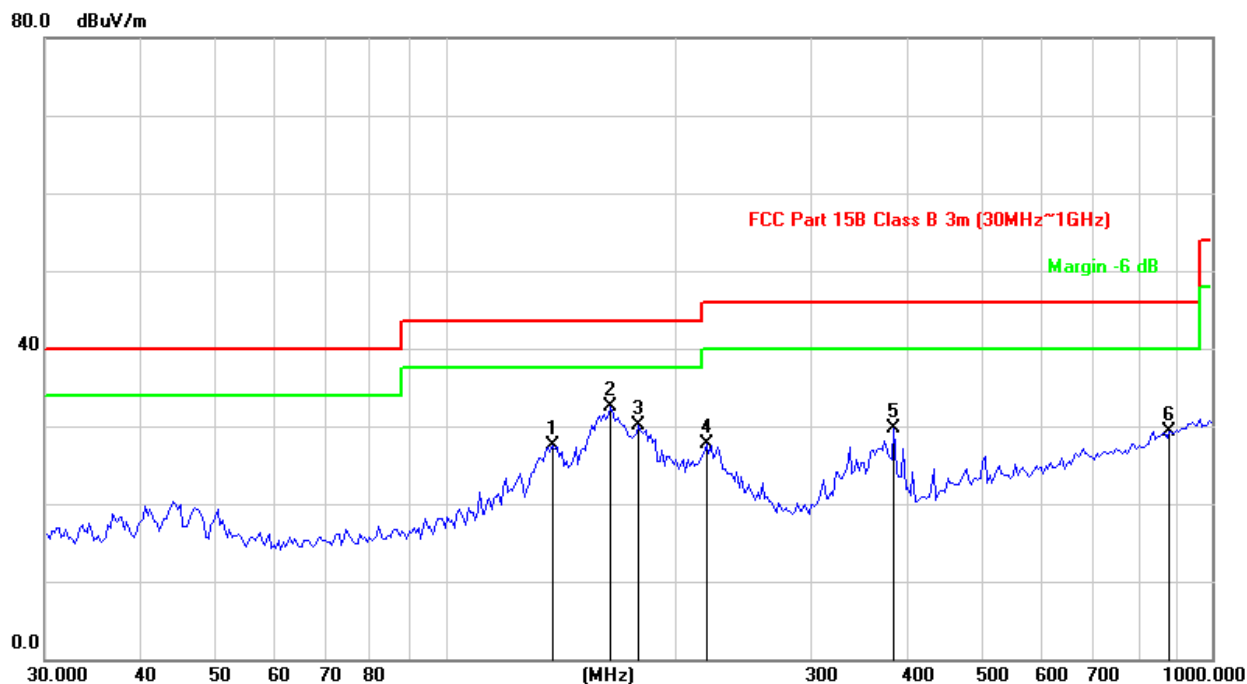
Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
– Pre-Amplifier Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value



Test model	HIP-D10AR-F1		
Test mode	Wireless charging mode		
Frequency Range	30MHz ~ 1GHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP), 120kHz

Antenna Polarity & Test Distance: Horizontal at 3 m



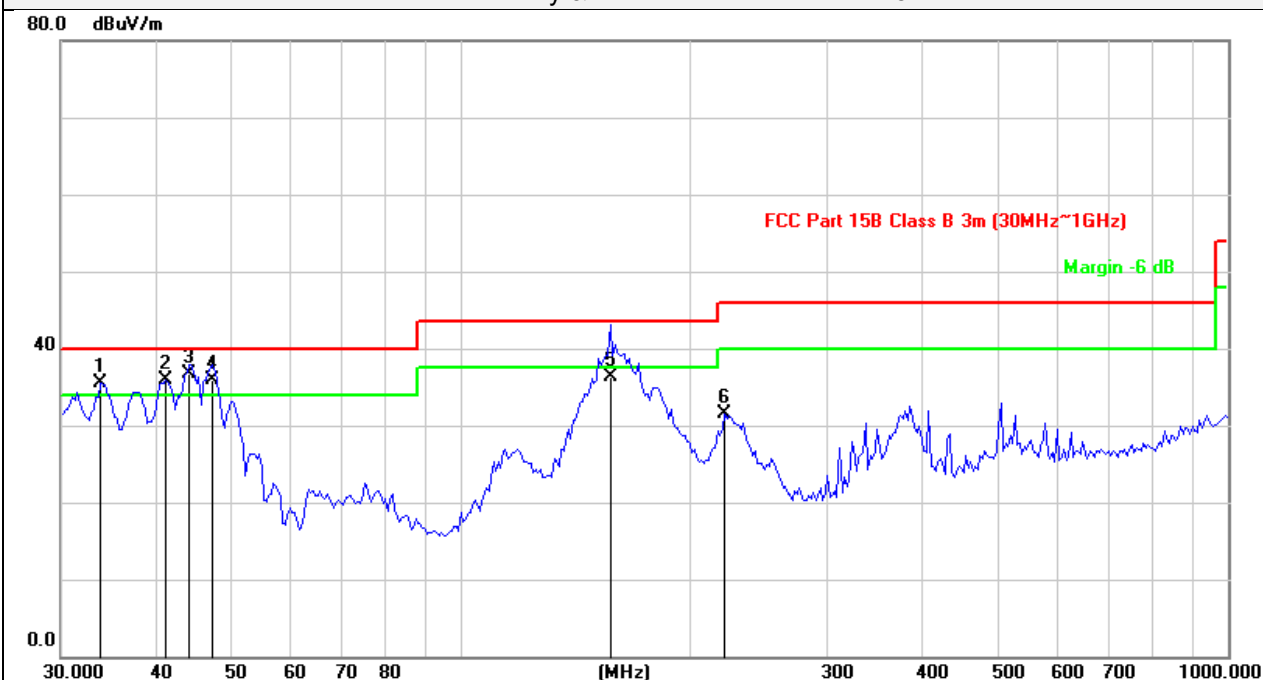
No	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)
1	137.8400	42.68	-15.15	27.53	43.50	-15.97	100	237
2	164.3129	45.44	-12.86	32.58	43.50	-10.92	100	259
3	178.7697	43.86	-13.85	30.01	43.50	-13.49	200	178
4	219.1785	43.92	-16.17	27.75	46.00	-18.25	200	298
5	384.5447	41.92	-12.18	29.74	46.00	-16.26	300	236
6	881.1838	30.64	-1.33	29.31	46.00	-16.69	200	188

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
- Pre-Amplifier Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level - Limit value

Test model	HIP-D10AR-F1		
Test mode	Wireless charging mode		
Frequency Range	30MHz ~ 1GHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP), 120kHz

Antenna Polarity & Test distance: Vertical at 3m



No	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)
1	33.8066	52.36	-16.79	35.57	40.00	-4.43	100	118
2	41.1580	52.68	-16.73	35.95	40.00	-4.05	100	174
3	44.1600	53.55	-16.75	36.80	40.00	-3.20	100	253
4	47.3688	52.69	-16.79	35.90	40.00	-4.10	100	162
5	156.5800	49.96	-13.56	36.40	43.50	-7.10	100	87
6	220.7240	47.61	-16.13	31.48	46.00	-14.52	200	220

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
- Pre-Amplifier Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value



6 Pictures of Test Procedures

Please refer to the attached file (Test Setup Photo 210901VL02-3).



Appendix – Information on the Testing Laboratories

We, Hwa-Hsing (Dongguan) Co., Ltd., A global provider of TESTING and CERTIFICATION services for consumer products, electronic products and wireless information technology products. Adhering to the core values "HONEST and TRUSTWORTHY, OBJECTIVE and IMPARTIALITY, RIGOROUS and AFFICIENT", commitment to provide professional, perfect and efficient comprehensive ONE-STOP solution of TESTING and CERTIFICATION services for Manufacturers, Buyers, Traders, Brands, Retailers. Assist client to better manage risk, protect their brands, reduce costs and cut time to over 150 markets in global. Our laboratories are FCC recognized accredited test firms and accredited and approved according to ISO/IEC 17025.

If you have any comments, please feel free to contact us at the following:

Lab Address: [No.101, Bld N1, Yuyuan 2Rd, Yuyuan Industrial Park, HuangJiang Town, Dongguan, China](#)

Contact Tel: [0769-83078199](tel:0769-83078199)

Email: Customerservice.dg@hwa-hsing.com

Web Site: www.hwa-hsing.com

The address and road map of all our labs can be found in our web site also.

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