Test Report

Report No.:	MTi240417028-01E1
Date of issue:	2024-06-05
Applicant:	Shenzhen LOOWOKO Technology Limited
Product:	Magnetic wireless power bank
Model(s):	L-WP-05A5, L-WP-10L5
FCC ID:	2AYA9L-WP-10L5

Shenzhen Microtest Co., Ltd.

http://www.mtitest.cn

Address: 101, No. 7, Zone 2, Xinxing Industrial Park, Fuhai Avenue, Xinhe Community, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China.
Tel: (86-755)88850135 Fax: (86-755) 88850136 Web: www.mtitest.cn E-mail: mti@51mti.com

Instructions

1. This test report shall not be partially reproduced without the written consent of the laboratory.

2. The test results in this test report are only responsible for the samples submitted

3. This test report is invalid without the seal and signature of the laboratory.

4. This test report is invalid if transferred, altered, or tampered with in any form without authorization.

5. Any objection to this test report shall be submitted to the laboratory within 15 days from the date of receipt of the report.

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Test Result Certification	
Applicant:	Shenzhen LOOWOKO Technology Limited
Address:	4F, E building, Jin Bao Bao Industry Dist.,No2 North Part, Shang Xue Industry City, Long Gang, Shenzhen, China.
Manufacturer:	Shenzhen LOOWOKO Technology Limited
Address:	4F, E building, Jin Bao Bao Industry Dist.,No2 North Part, Shang Xue Industry City, Long Gang, Shenzhen, China.
Product description	
Product name:	Magnetic wireless power bank
Trade mark:	LOOWOKO
Model name:	L-WP-05A5
Series Model(s):	L-WP-10L5
Standards:	47 CFR Part 15C
Test Method:	ANSI C63.10-2013
Date of Test	
Date of test:	2024-04-28 to 2024-05-08
Test result:	Pass

Test Engineer	:	Yanice Xie
		(Yanice.Xie)
Reviewed By	:	David. Lee
		(David Lee)
Approved By	:	Leon chen
		(Leon Chen)

1 General Description

1.1 Description of the EUT

Product name:	Magnetic wireless power bank
Model name:	L-WP-05A5
Series Model(s):	L-WP-10L5
Model difference:	All the models are the same circuit and module, except the model name,the material of the bottom and capacity.
Electrical rating:	L-WP-05A5: Capacity:5000mAh/3.85V/19.25Wh Rated Capacity:3000mAh(5V 2A) Type-C Input:5V 3A/ 9V 2.2A/ 12V 1.67A Type-C Output:5V 3A/ 9V 2.2A/ 12V 1.67A Wireless Outout:15W Max Total Output: 5V 3A L-WP-10L5: Capacity:10000mAh/3.87V/38.7Wh Rated Capacity:6000mAh(5V 2A) Type-C Input:5V 3A/ 9V 2.2A/ 12V 1.67A Type-C Output:5V 3A/ 9V 2.2A/ 12V 1.67A Wireless Outout:15W Max Total Output: 5V 3A
Accessories:	N/A
Hardware version:	V04
Software version:	V15
Test sample(s) number:	MTi240417028-01S1001
RF specification	
Operating frequency range:	115-205kHz
Modulation type:	ASK
Antenna type:	Coil Antenna

1.2 Description of test modes

No.	Emission test modes
Mode1	Charging+Wireless Output(5W)
Mode2	Wireless Output(5W)
Mode3	Wireless Output(7.5W)
Mode4	Wireless Output(10W)
Mode5	Wireless Output(15W)
Mode6	Standby

1.3 Environmental Conditions

During the measurement the environmental conditions were within the listed ranges:

Temperature:	15°C ~ 35°C
Humidity:	20% RH ~ 75% RH
Atmospheric pressure:	98 kPa ~ 101 kPa

1.4 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.

Support equipment list			
Description	Model	Serial No.	Manufacturer
wireless charging load	YBZ1.1	/	YBZ
HUAWEI QUICK CHARGE(65W)	HW-200200ZP1	JN67LSN7N03451	HUAWEI
Support cable list			
Description	Length (m)	From	To
/	/	/	/

1.5 Measurement uncertainty

Measurement	Uncertainty
Conducted emissions (AMN 150kHz~30MHz)	±3.1dB
Occupied channel bandwidth	±3 %
Radiated spurious emissions (9kHz~30MHz)	±4.3dB
Radiated spurious emissions (30MHz~1GHz)	±4.7dB
Temperature	±1 °C
Humidity	± 5 %

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

2 Summary of Test Result

No.	Item	Requirement	Result
1	Antenna requirement	47 CFR Part 15.203	Pass
2	Conducted Emission at AC power line	47 CFR Part 15.207(a)	Pass
3	20dB Occupied Bandwidth	47 CFR Part 15.215(c)	Pass
4	Emissions in frequency bands (below 30MHz)	47 CFR Part 15.209	Pass
5	Emissions in frequency bands (30MHz - 1GHz)	47 CFR Part 15.209	Pass

3 Test Facilities and accreditations

3.1 Test laboratory

Test laboratory:	Shenzhen Microtest Co., Ltd.
Test site location:	101, No.7, Zone 2, Xinxing Industrial Park, Fuhai Avenue, Xinhe Community, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China
Telephone:	(86-755)88850135
Fax:	(86-755)88850136
CNAS Registration No.:	CNAS L5868
FCC Registration No.:	448573
IC Registration No.:	21760
CABID:	CN0093

4 List of test equipment

No.	Equipment	Manufacturer	Model	Serial No.	Cal. date	Cal. Due
Conducted Emission at AC power line						
1	EMI Test Receiver	Rohde&schwarz	ESCI3	101368	2024-03-20	2025-03-19
2	Artificial mains network	Schwarzbeck	NSLK 8127	183	2024-03-21	2025-03-20
3	Artificial Mains Network	Rohde & Schwarz	ESH2-Z5	100263	2024-03-20	2025-03-19
20dB Occupied Bandwidth						
1	Wideband Radio Communication Tester	Rohde&schwarz	CMW500	149155	2024-03-20	2025-03-19
2	ESG Series Analog Ssignal Generator	Agilent	E4421B	GB40051240	2024-03-21	2025-03-20
3	PXA Signal Analyzer	Agilent	N9030A	MY51350296	2024-03-21	2025-03-20
4	Synthesized Sweeper	Agilent	83752A	3610A01957	2024-03-21	2025-03-20
5	MXA Signal Analyzer	Agilent	N9020A	MY50143483	2024-03-21	2025-03-20
6	RF Control Unit	Tonscend	JS0806-1	19D8060152	2024-03-21	2025-03-20
7	Band Reject Filter Group	Tonscend	JS0806-F	19D8060160	2024-03-21	2025-03-20
8	ESG Vector Signal Generator	Agilent	N5182A	MY50143762	2024-03-20	2025-03-19
9	DC Power Supply	Agilent	E3632A	MY40027695	2024-03-21	2025-03-20
Emissions in frequency bands (below 30MHz)						
1	EMI Test Receiver	Rohde&schwarz	ESCI7	101166	2024-03-20	2025-03-19
2	Active Loop Antenna	Schwarzbeck	FMZB 1519 B	00066	2024-03-23	2025-03-22
3	Amplifier	Hewlett-Packard	8447F	3113A06184	2024-03-20	2025-03-19
Emissions in frequency bands (30MHz - 1GHz)						
1	EMI Test Receiver	Rohde&schwarz	ESCI7	101166	2024-03-20	2025-03-19
2	TRILOG Broadband Antenna	schwarabeck	VULB 9163	9163-1338	2023-06-11	2025-06-10
3	Active Loop Antenna	Schwarzbeck	FMZB 1519 B	00066	2024-03-23	2025-03-22
4	Amplifier	Hewlett-Packard	8447F	3113A06184	2024-03-20	2025-03-19
5	Multi-device Controller	TuoPu	TPMDC	/	2024-03-20	2025-03-19

5 Evaluation Results (Evaluation)

5.1 Antenna requirement

Test Requirement:	Refer to 47 CFR Part 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section.

5.1.1 Conclusion:

The antenna of the EUT is permanently attached.
The EUT complies with the requirement of FCC PART 15.203.

6 Radio Spectrum Matter Test Results (RF)

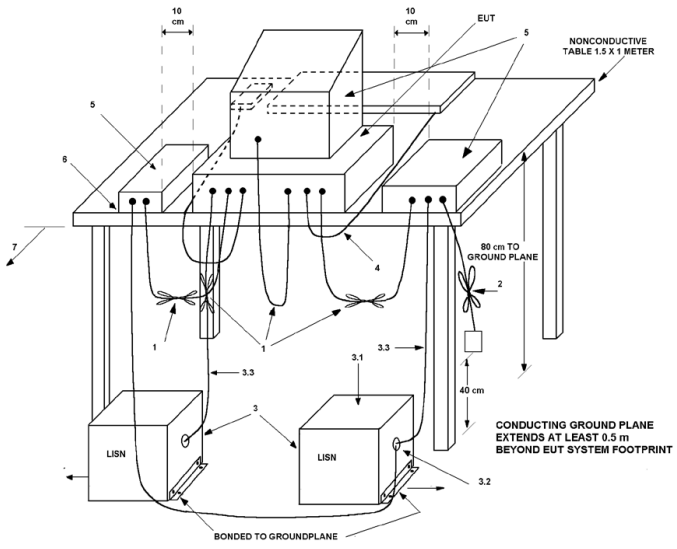
6.1 Conducted Emission at AC power line

Test Requirement:	Except as shown in paragraphs (b)and (c)of this section, for an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies, within the band 150 kHz to 30 MHz, shall not exceed the limits in the following table, as measured using a 50 μH/50 ohms line impedance stabilization network (LISN).
Test Limit:	Frequency of emission (MHz) / Conducted limit (dBμV): Quasi-peak / Average 0.15-0.5: 66 to 56* / 56 to 46* 0.5-5: 56 / 46 5-30: 60 / 50 *Decreases with the logarithm of the frequency.
Test Method:	ANSI C63.10-2013 section 6.2
Procedure:	Refer to ANSI C63.10-2013 section 6.2, standard test method for ac power-line conducted emissions from unlicensed wireless devices

6.1.1 E.U.T. Operation:

Operating Environment:					
Temperature:	25.6 °C	Humidity:	52 %	Atmospheric Pressure:	101 kPa
Pre test mode:	Mode1				
Final test mode:	Mode1				

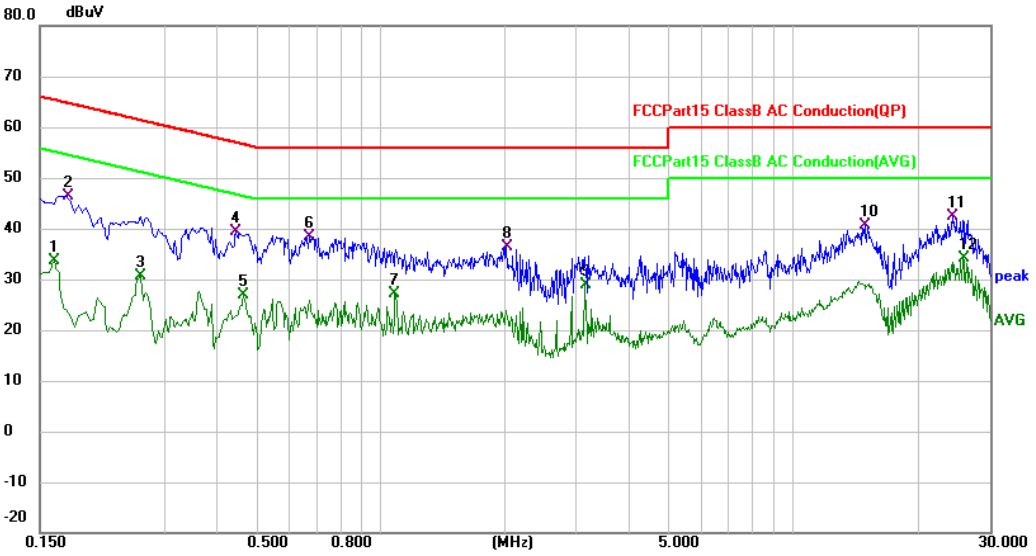
6.1.2 Test Setup Diagram:



6.1.3 Test Data:

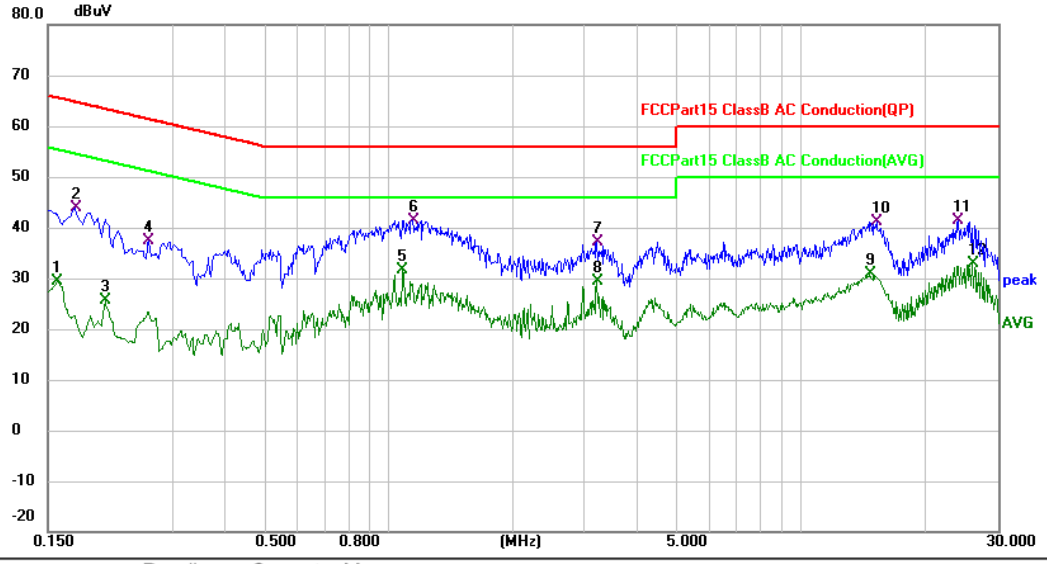
L-WP-05A5(titanium alloy)

Mode1 / Line: Line



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1620	23.24	10.38	33.62	55.36	-21.74	AVG	
2		0.1740	36.04	10.38	46.42	64.77	-18.35	QP	
3		0.2620	19.75	10.93	30.68	51.37	-20.69	AVG	
4		0.4460	27.93	11.39	39.32	56.95	-17.63	QP	
5		0.4660	15.36	11.44	26.80	46.58	-19.78	AVG	
6		0.6740	26.60	11.89	38.49	56.00	-17.51	QP	
7		1.0859	14.38	12.80	27.18	46.00	-18.82	AVG	
8		2.0180	25.79	10.63	36.42	56.00	-19.58	QP	
9		3.1540	18.24	10.64	28.88	46.00	-17.12	AVG	
10		14.9339	29.63	11.03	40.66	60.00	-19.34	QP	
11		24.3980	31.21	11.07	42.28	60.00	-17.72	QP	
12	*	25.8220	23.01	11.04	34.05	50.00	-15.95	AVG	

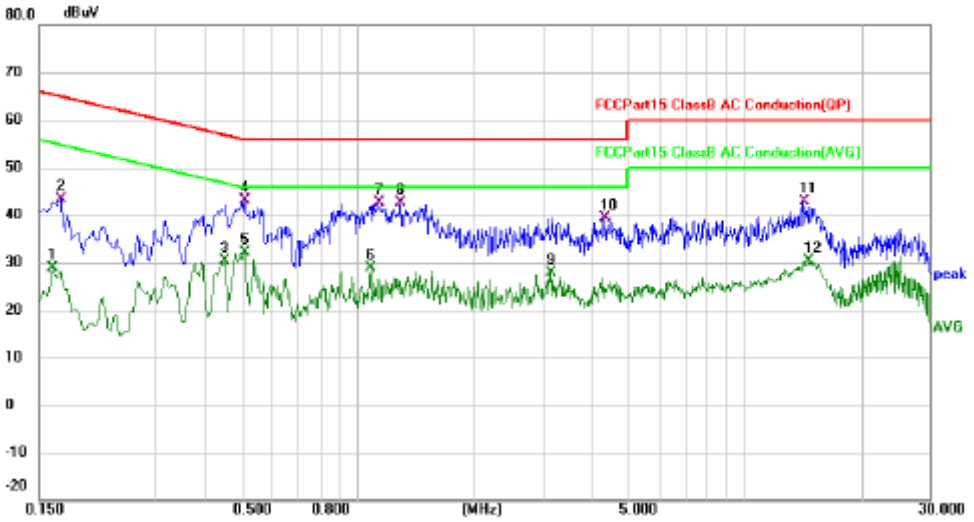
Mode1 / Line: Neutral



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1580	18.91	10.38	29.29	55.57	-26.28	AVG	
2		0.1740	33.56	10.38	43.94	64.77	-20.83	QP	
3		0.2060	14.84	10.80	25.64	53.37	-27.73	AVG	
4		0.2620	26.48	10.93	37.41	61.37	-23.96	QP	
5	*	1.0859	18.93	12.80	31.73	46.00	-14.27	AVG	
6		1.1420	28.57	12.90	41.47	56.00	-14.53	QP	
7		3.2220	26.48	10.64	37.12	56.00	-18.88	QP	
8		3.2220	18.79	10.64	29.43	46.00	-16.57	AVG	
9		14.7220	19.92	11.02	30.94	50.00	-19.06	AVG	
10		15.2500	30.06	11.04	41.10	60.00	-18.90	QP	
11		24.0380	30.34	11.07	41.41	60.00	-18.59	QP	
12		26.1180	21.91	11.03	32.94	50.00	-17.06	AVG	

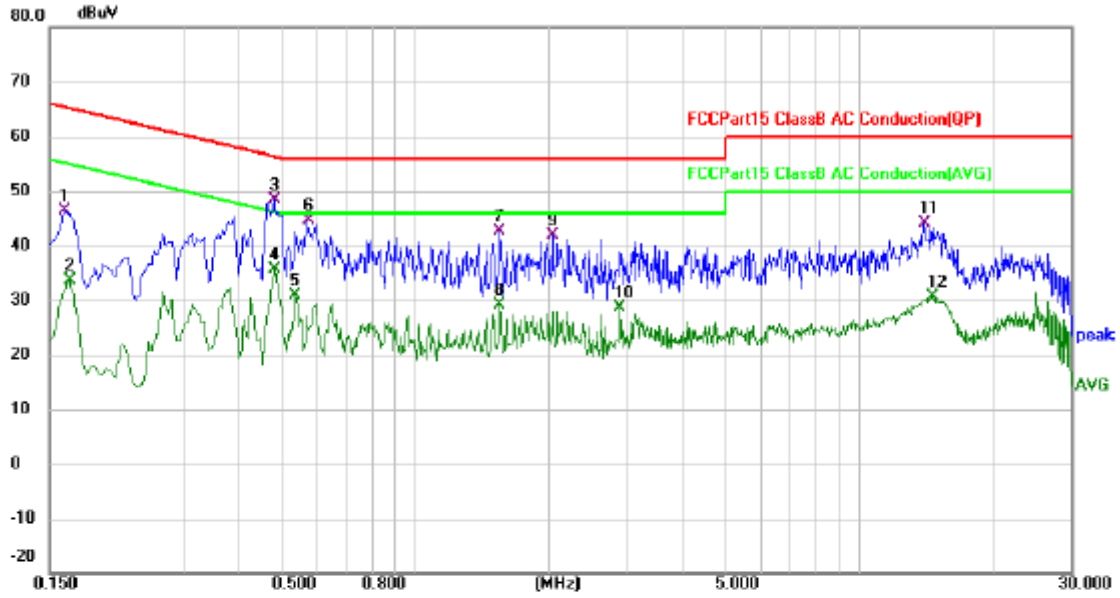
L-WP-05A5(carbon fiber)

Mode1 / Line: Line



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1620	18.50	10.38	28.88	55.36	-26.48	AVG	
2		0.1700	33.01	10.38	43.39	64.96	-21.57	QP	
3		0.4500	18.93	11.39	30.32	46.88	-16.56	AVG	
4	*	0.5100	31.67	11.53	43.20	56.00	-12.80	QP	
5		0.5100	20.50	11.53	32.03	46.00	-13.97	AVG	
6		1.0780	15.98	12.78	28.76	46.00	-17.24	AVG	
7		1.1340	29.64	12.88	42.52	56.00	-13.48	QP	
8		1.2900	29.37	13.20	42.57	56.00	-13.43	QP	
9		3.1460	17.36	10.64	28.00	46.00	-18.00	AVG	
10		4.3578	28.76	10.65	39.41	56.00	-16.59	QP	
11		14.1459	31.95	10.98	42.93	60.00	-17.07	QP	
12		14.6259	19.32	11.01	30.33	50.00	-19.67	AVG	

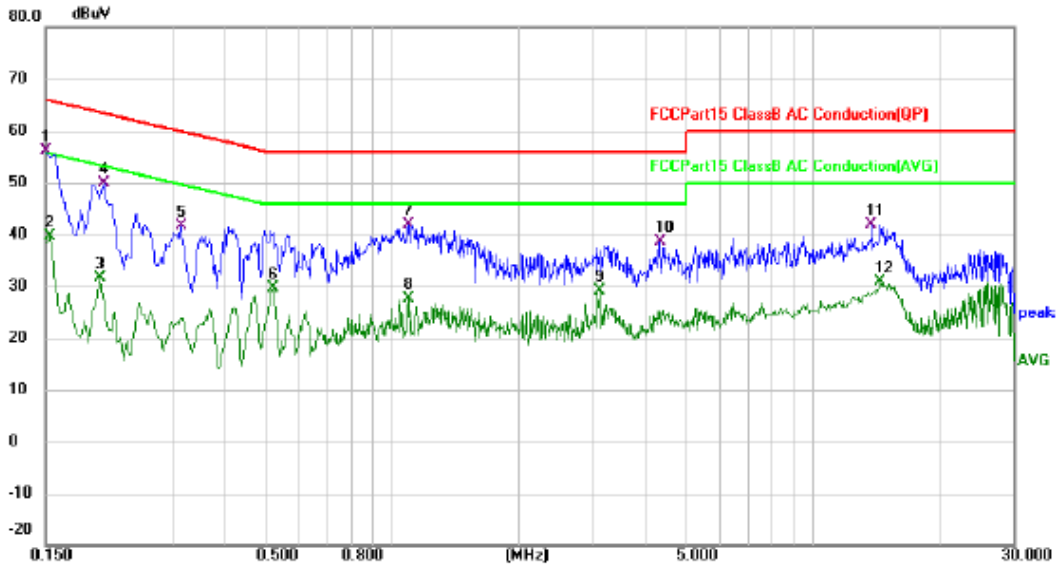
Mode1 / Line: Neutral



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1620	36.06	10.38	46.44	65.36	-18.92	QP	
2		0.1660	23.34	10.38	33.72	55.16	-21.44	AVG	
3	*	0.4820	36.84	11.46	48.30	56.30	-8.00	QP	
4		0.4820	24.29	11.46	35.75	46.30	-10.55	AVG	
5		0.5380	19.33	11.60	30.93	46.00	-15.07	AVG	
6		0.5740	32.93	11.67	44.60	56.00	-11.40	QP	
7		1.5580	28.87	13.75	42.62	56.00	-13.38	QP	
8		1.5580	15.49	13.75	29.24	46.00	-16.76	AVG	
9		2.0380	31.13	10.63	41.76	56.00	-14.24	QP	
10		2.8900	17.99	10.65	28.64	46.00	-17.36	AVG	
11		13.9580	33.07	10.97	44.04	60.00	-15.96	QP	
12		14.5540	19.71	11.01	30.72	50.00	-19.28	AVG	

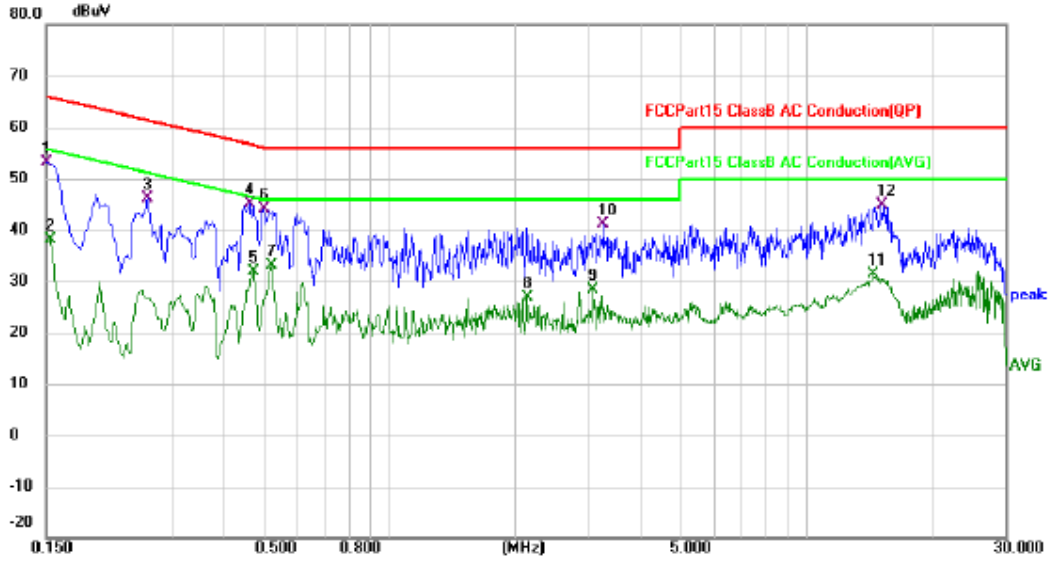
L-WP-10L5 (titanium alloy)

Mode1 / Line: Line



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	*	0.1500	45.69	10.37	56.06	66.00	-9.94	QP	
2		0.1539	29.26	10.38	39.64	55.79	-16.15	AVG	
3		0.2020	20.87	10.78	31.65	53.53	-21.88	AVG	
4		0.2060	39.11	10.80	49.91	63.37	-13.46	QP	
5		0.3140	30.67	11.06	41.73	59.86	-18.13	QP	
6		0.5220	18.08	11.55	29.63	46.00	-16.37	AVG	
7		1.0940	29.15	12.80	41.95	56.00	-14.05	QP	
8		1.0940	14.85	12.80	27.65	46.00	-18.35	AVG	
9		3.1180	18.39	10.64	29.03	46.00	-16.97	AVG	
10		4.3259	27.86	10.65	38.51	56.00	-17.49	QP	
11		13.7700	30.87	10.96	41.83	60.00	-18.17	QP	
12		14.4900	19.83	11.00	30.83	50.00	-19.17	AVG	

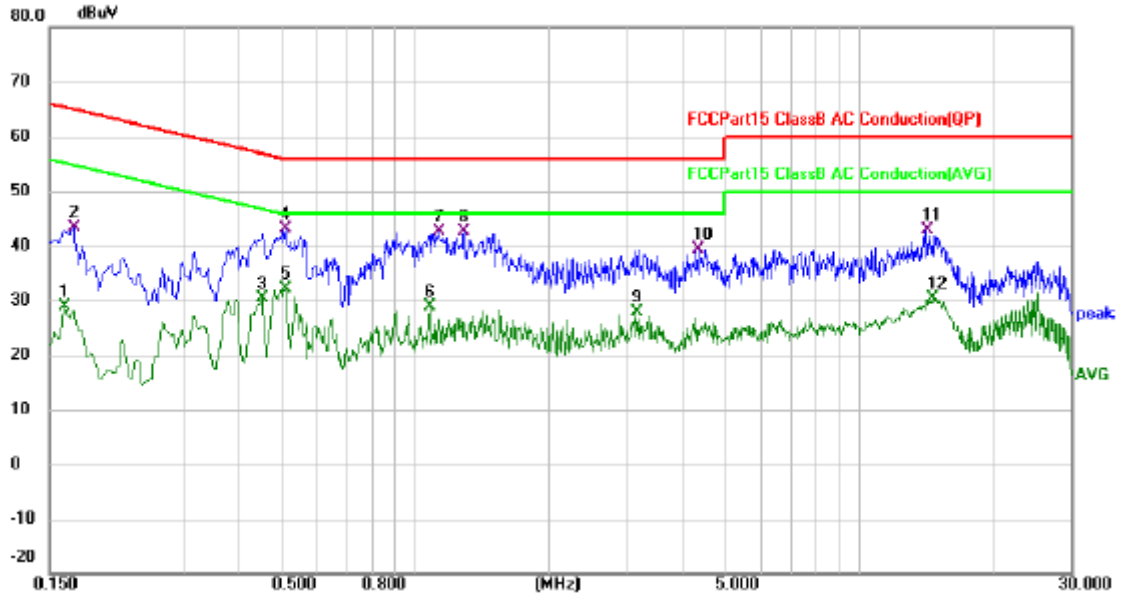
Mode1 / Line: Neutral



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1500	42.84	10.37	53.21	66.00	-12.79	QP	
2		0.1539	27.72	10.38	38.10	55.79	-17.69	AVG	
3		0.2620	35.32	10.93	46.25	61.37	-15.12	QP	
4	*	0.4620	33.65	11.42	45.07	56.66	-11.59	QP	
5		0.4700	20.52	11.44	31.96	46.51	-14.55	AVG	
6		0.4980	32.65	11.51	44.16	56.03	-11.87	QP	
7		0.5220	21.46	11.55	33.01	46.00	-12.99	AVG	
8		2.1340	16.37	10.63	27.00	46.00	-19.00	AVG	
9		3.0900	17.75	10.64	28.39	46.00	-17.61	AVG	
10		3.2700	30.38	10.65	41.03	56.00	-14.97	QP	
11		14.4700	20.40	11.00	31.40	50.00	-18.60	AVG	
12		15.1180	33.84	11.03	44.87	60.00	-15.13	QP	

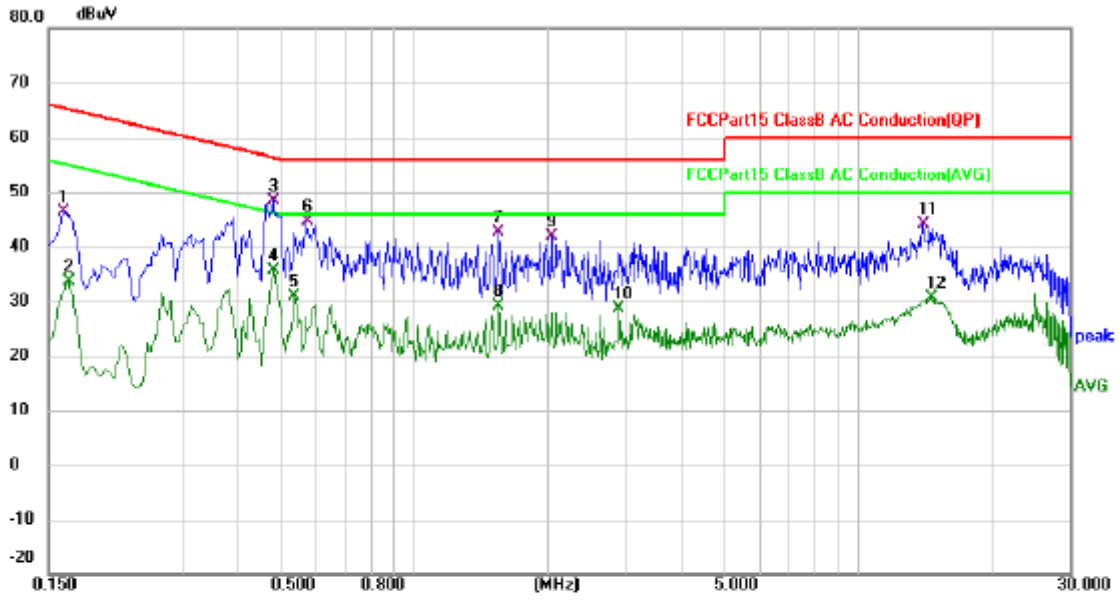
L-WP-10L5 (carbon fiber)

Mode1 / Line: Line



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1620	18.50	10.38	28.88	55.36	-26.48	AVG	
2		0.1700	33.01	10.38	43.39	64.96	-21.57	QP	
3		0.4500	18.93	11.39	30.32	46.88	-16.56	AVG	
4	*	0.5100	31.67	11.53	43.20	56.00	-12.80	QP	
5		0.5100	20.50	11.53	32.03	46.00	-13.97	AVG	
6		1.0780	15.98	12.78	28.76	46.00	-17.24	AVG	
7		1.1340	29.64	12.88	42.52	56.00	-13.48	QP	
8		1.2900	29.37	13.20	42.57	56.00	-13.43	QP	
9		3.1460	17.36	10.64	28.00	46.00	-18.00	AVG	
10		4.3578	28.76	10.65	39.41	56.00	-16.59	QP	
11		14.1459	31.95	10.98	42.93	60.00	-17.07	QP	
12		14.6259	19.32	11.01	30.33	50.00	-19.67	AVG	

Mode1 / Line: Neutral



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1620	36.06	10.38	46.44	65.36	-18.92	QP	
2		0.1660	23.34	10.38	33.72	55.16	-21.44	AVG	
3	*	0.4820	36.84	11.46	48.30	56.30	-8.00	QP	
4		0.4820	24.29	11.46	35.75	46.30	-10.55	AVG	
5		0.5380	19.33	11.60	30.93	46.00	-15.07	AVG	
6		0.5740	32.93	11.67	44.60	56.00	-11.40	QP	
7		1.5580	28.87	13.75	42.62	56.00	-13.38	QP	
8		1.5580	15.49	13.75	29.24	46.00	-16.76	AVG	
9		2.0380	31.13	10.63	41.76	56.00	-14.24	QP	
10		2.8900	17.99	10.65	28.64	46.00	-17.36	AVG	
11		13.9580	33.07	10.97	44.04	60.00	-15.96	QP	
12		14.5540	19.71	11.01	30.72	50.00	-19.28	AVG	

Note: For the main model and series model back materials are mainly distinguished metal and non-plastic, the report only reflects the worst mode of two materials.

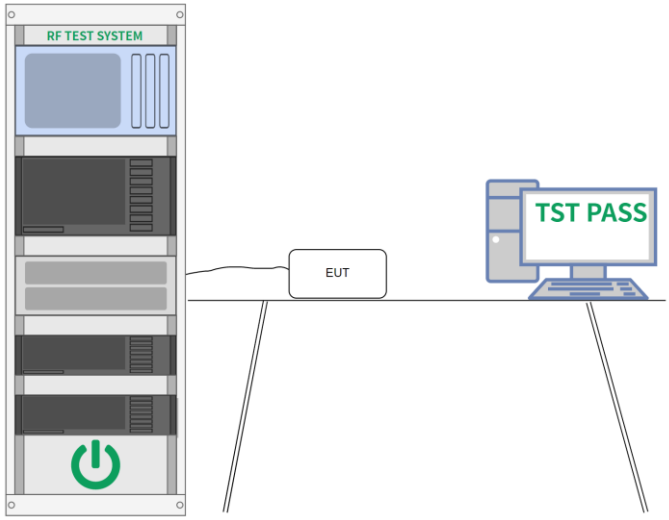
6.2 20dB Occupied Bandwidth

Test Requirement:	47 CFR Part 15.215(c)
Test Limit:	Refer to 47 CFR 15.215(c), intentional radiators operating under the alternative provisions to the general emission limits, as contained in §§ 15.217 through 15.257 and in subpart E of this part, must be designed to ensure that the 20 dB bandwidth of the emission, or whatever bandwidth may otherwise be specified in the specific rule section under which the equipment operates, is contained within the frequency band designated in the rule section under which the equipment is operated.
Test Method:	ANSI C63.10-2013, section 6.9.2
Procedure:	a) The spectrum analyzer center frequency is set to the nominal EUT channel center frequency. The span range for the EMI receiver or spectrum analyzer shall be between two times and five times the OBW. b) The nominal IF filter bandwidth (3 dB RBW) shall be in the range of 1% to 5% of the OBW and video bandwidth (VBW) shall be approximately three times RBW, unless otherwise specified by the applicable requirement. c) Set the reference level of the instrument as required, keeping the signal from exceeding the maximum input mixer level for linear operation. In general, the peak of the spectral envelope shall be more than [10 log (OBW/RBW)] below the reference level. Specific guidance is given in 4.1.5.2. d) Steps a) through c) might require iteration to adjust within the specified tolerances. e) The dynamic range of the instrument at the selected RBW shall be more than 10 dB below the target "−xx dB down" requirement; that is, if the requirement calls for measuring the −20 dB OBW, the instrument noise floor at the selected RBW shall be at least 30 dB below the reference value. f) Set detection mode to peak and trace mode to max hold. g) Determine the reference value: Set the EUT to transmit an unmodulated carrier or modulated signal, as applicable. Allow the trace to stabilize. Set the spectrum analyzer marker to the highest level of the displayed trace (this is the reference value). h) Determine the "−xx dB down amplitude" using [(reference value) − xx]. Alternatively, this calculation may be made by using the marker-delta function of the instrument. i) If the reference value is determined by an unmodulated carrier, then turn the EUT modulation ON, and either clear the existing trace or start a new trace on the spectrum analyzer and allow the new trace to stabilize. Otherwise, the trace from step g) shall be used for step j). j) Place two markers, one at the lowest frequency and the other at the highest frequency of the envelope of the spectral display, such that each marker is at or slightly below the "-xx dB down amplitude" determined in step h). If a marker is below this "−xx dB down amplitude" value, then it shall be as close as possible to this value. The occupied bandwidth is the frequency difference between the two markers. Alternatively, set a marker at the lowest frequency of the envelope of the spectral display, such that the marker is at or slightly below the "-xx dB down amplitude" determined in step h). Reset the marker-delta function and move the marker to the other side of the emission until the delta marker amplitude is at the same level as the reference marker amplitude. The marker-delta frequency reading at this point is the specified emission bandwidth. k) The occupied bandwidth shall be reported by providing plot(s) of the measuring instrument display; the plot axes and the scale units per division shall be clearly labeled. Tabular data may be reported in addition to the plot(s).

6.2.1 E.U.T. Operation:

Operating Environment:					
Temperature:	26.7 °C	Humidity:	60 %	Atmospheric Pressure:	101 kPa
Pre test mode:	Mode1, Mode2, Mode3, Mode4, Mode5				
Final test mode:	All of the listed pre-test mode were tested, only the data of the worst mode (Mode5) is recorded in the report				

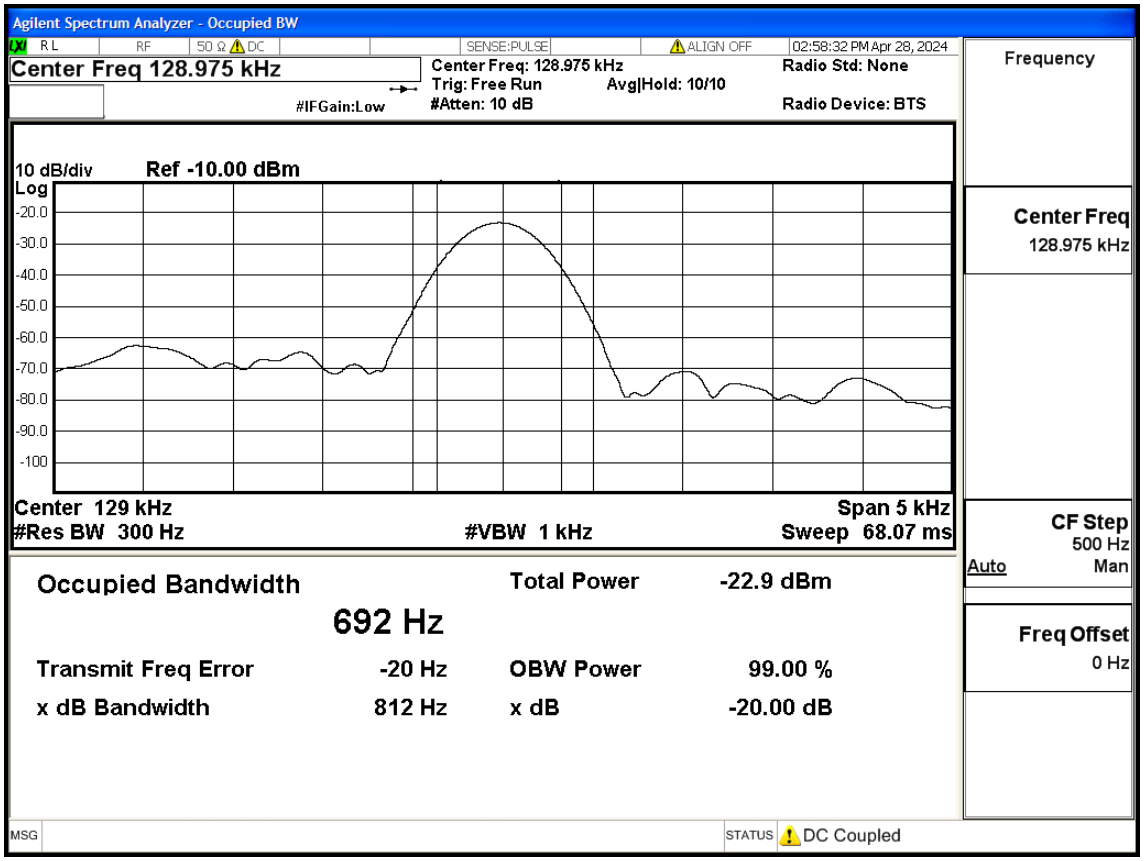
6.2.2 Test Setup Diagram:



6.2.3 Test Data:

Note: 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 300 Hz to perform the occupied bandwidth test.

Frequency kHz	20 dB occupied bandwidth Hz	99% occupied bandwidth Hz
128.975	812	692



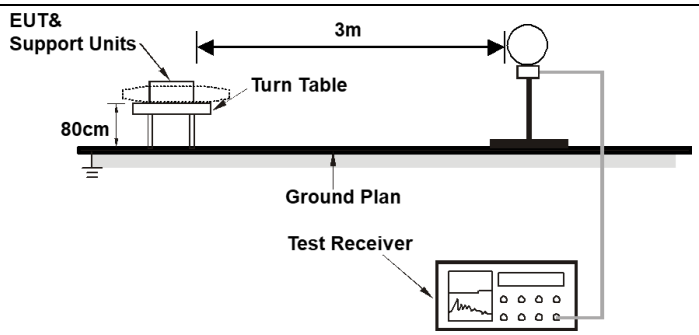
6.3 Emissions in frequency bands (below 30MHz)

<table>
<tr><td>Test Requirement:</td><td colspan="3">47 CFR Part 15.209</td></tr>
<tr><td>Test Limit:</td><td colspan="3">
<table>
<tr><th>Frequency (MHz)</th><th>Field strength (microvolts/meter)</th><th>Measurement distance (meters)</th></tr>
<tr><td>0.009-0.490</td><td>2400/F(kHz)</td><td>300</td></tr>
<tr><td>0.490-1.705</td><td>24000/F(kHz)</td><td>30</td></tr>
<tr><td>1.705-30.0</td><td>30</td><td>30</td></tr>
<tr><td>30-88</td><td>100 **</td><td>3</td></tr>
<tr><td>88-216</td><td>150 **</td><td>3</td></tr>
<tr><td>216-960</td><td>200 **</td><td>3</td></tr>
<tr><td>Above 960</td><td>500</td><td>3</td></tr>
</table>
** Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this part, e.g., §§ 15.231 and 15.241.
In the emission table above, the tighter limit applies at the band edges.
The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9–90 kHz, 110–490 kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector.
As shown in § 15.35(b), for frequencies above 1000 MHz, the field strength limits in paragraphs (a)and (b)of this section are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. For point-to-point operation under paragraph (b)of this section, the peak field strength shall not exceed 2500 millivolts/meter at 3 meters along the antenna azimuth.
</td></tr>
<tr><td>Test Method:</td><td colspan="3">ANSI C63.10-2013 section 6.4</td></tr>
<tr><td>Procedure:</td><td colspan="3">ANSI C63.10-2013 section 6.4</td></tr>
</table>

6.3.1 E.U.T. Operation:

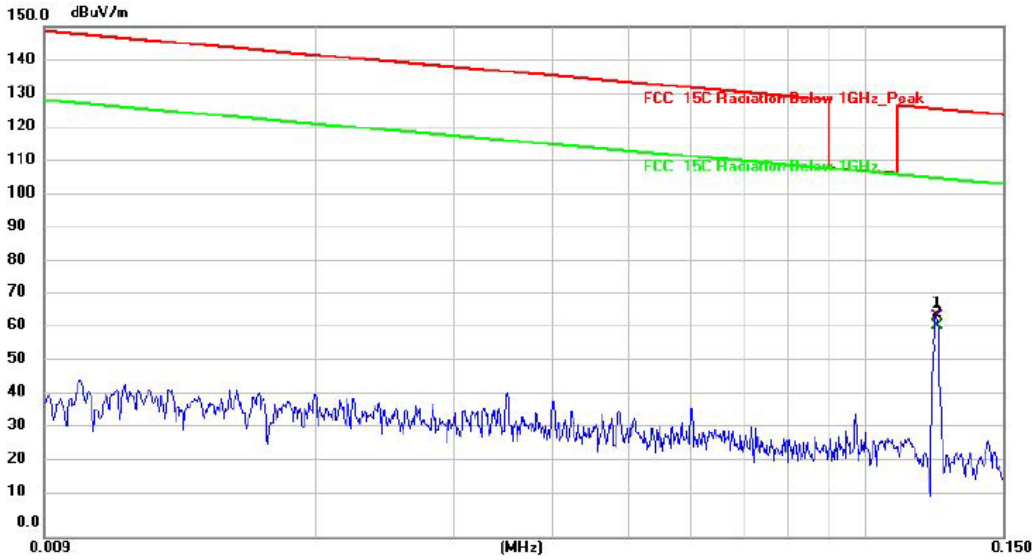
<table>
<tr><td colspan="6">Operating Environment:</td></tr>
<tr><td>Temperature:</td><td>22.5 °C</td><td>Humidity:</td><td>43 %</td><td>Atmospheric Pressure:</td><td>101 kPa</td></tr>
<tr><td>Pre test mode:</td><td colspan="5">Mode1, Mode2, Mode3, Mode4, Mode5</td></tr>
<tr><td>Final test mode:</td><td colspan="5">All of the listed pre-test mode were tested, only the data of the worst mode (Mode1) is recorded in the report</td></tr>
</table>

6.3.2 Test Setup Diagram:



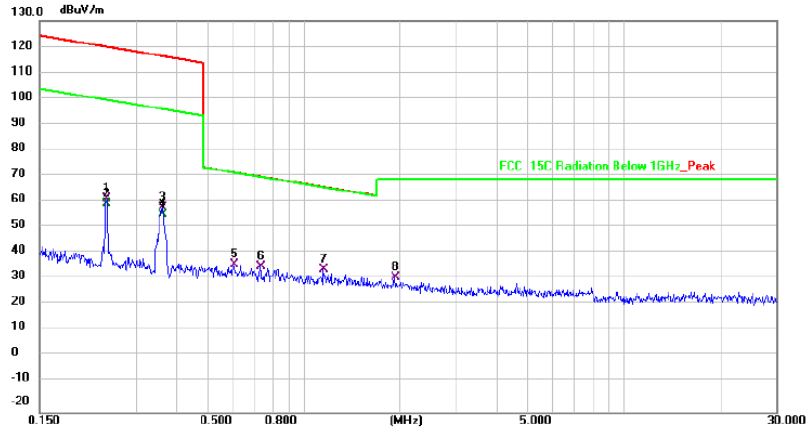
6.3.3 Test Data:

Mode1 / Polarization: coplane



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		0.1232	41.81	20.20	62.01	125.81	-63.80	Peak	
2	*	0.1232	41.49	20.20	61.69	105.74	-44.05	AVG	

Mode1 / Polarization: coplane



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		0.2429	37.78	20.30	58.08	119.91	-61.83	Peak	
2		0.2429	36.84	20.30	57.14	99.91	-42.77	AVG	
3		0.3633	38.28	20.33	58.61	116.40	-57.79	Peak	
4		0.3633	35.64	20.33	55.97	96.40	-40.43	AVG	
5		0.6043	16.47	20.41	36.88	71.98	-35.10	QP	
6		0.7313	15.44	20.46	35.90	70.33	-34.43	QP	
7	*	1.1534	14.30	20.58	34.88	66.39	-31.51	QP	
8		1.9283	11.37	20.64	32.01	69.50	-37.49	QP	

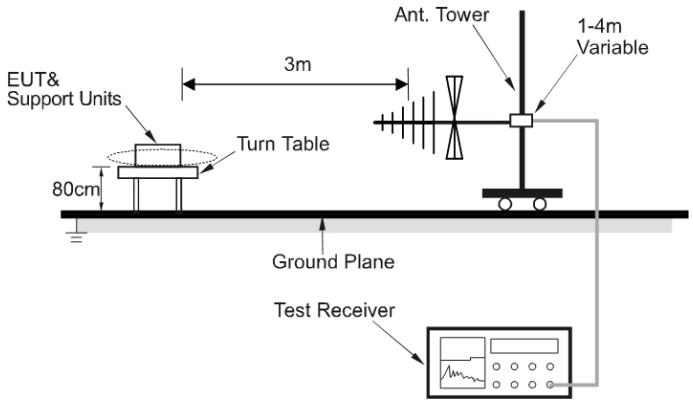
6.4 Emissions in frequency bands (30MHz - 1GHz)

<table>
<tr><td>Test Requirement:</td><td colspan="3">47 CFR Part 15.209</td></tr>
<tr><td>Test Limit:</td><td colspan="3">
<table>
<tr><td>Frequency (MHz)</td><td>Field strength (microvolts/meter)</td><td>Measurement distance (meters)</td></tr>
<tr><td>0.009-0.490</td><td>2400/F(kHz)</td><td>300</td></tr>
<tr><td>0.490-1.705</td><td>24000/F(kHz)</td><td>30</td></tr>
<tr><td>1.705-30.0</td><td>30</td><td>30</td></tr>
<tr><td>30-88</td><td>100 **</td><td>3</td></tr>
<tr><td>88-216</td><td>150 **</td><td>3</td></tr>
<tr><td>216-960</td><td>200 **</td><td>3</td></tr>
<tr><td>Above 960</td><td>500</td><td>3</td></tr>
</table>
** Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this part, e.g., §§ 15.231 and 15.241.
In the emission table above, the tighter limit applies at the band edges.
The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9–90 kHz, 110–490 kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector.
As shown in § 15.35(b), for frequencies above 1000 MHz, the field strength limits in paragraphs (a)and (b)of this section are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. For point-to-point operation under paragraph (b)of this section, the peak field strength shall not exceed 2500 millivolts/meter at 3 meters along the antenna azimuth.
</td></tr>
<tr><td>Test Method:</td><td colspan="3">ANSI C63.10-2013 section 6.5</td></tr>
<tr><td>Procedure:</td><td colspan="3">ANSI C63.10-2013 section 6.5</td></tr>
</table>

6.4.1 E.U.T. Operation:

<table>
<tr><td colspan="6">Operating Environment:</td></tr>
<tr><td>Temperature:</td><td>26 °C</td><td>Humidity:</td><td>54 %</td><td>Atmospheric Pressure:</td><td>101 kPa</td></tr>
<tr><td>Pre test mode:</td><td colspan="5">Mode1, Mode2, Mode3, Mode4, Mode5</td></tr>
<tr><td>Final test mode:</td><td colspan="5">All of the listed pre-test mode were tested, only the data of the worst mode (Mode1) is recorded in the report</td></tr>
</table>

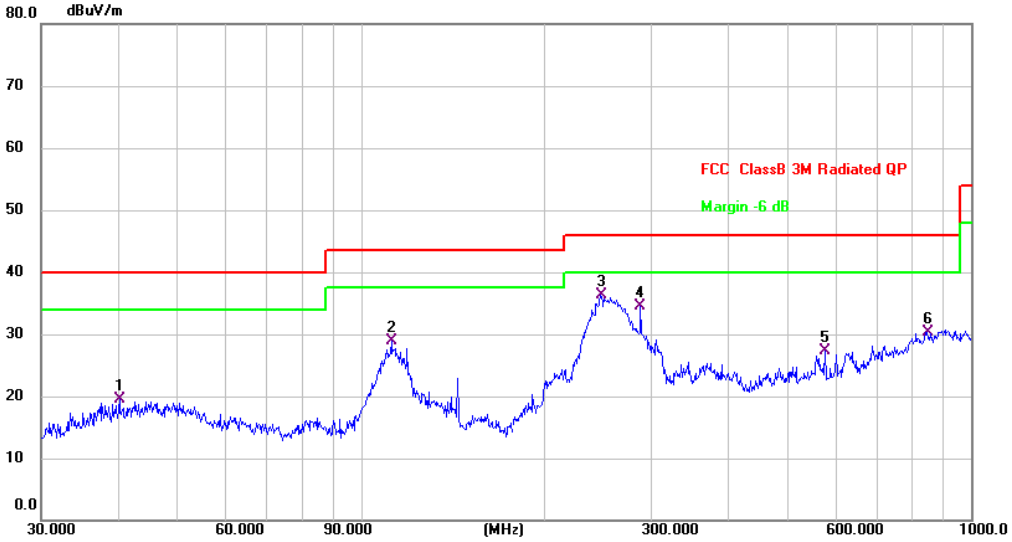
6.4.2 Test Setup Diagram:



6.4.3 Test Data:

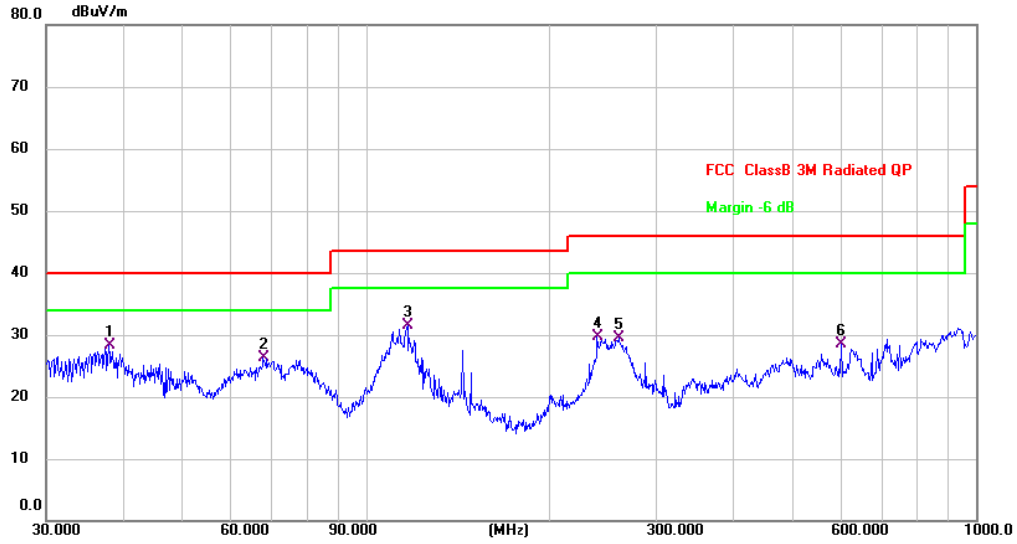
L-WP-05A5(titanium alloy)

Mode1 / Polarization: Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		40.2757	28.10	-8.54	19.56	40.00	-20.44	QP	
2		112.1305	36.77	-7.79	28.98	43.50	-14.52	QP	
3	*	247.6819	44.05	-7.75	36.30	46.00	-9.70	QP	
4		287.9904	40.19	-5.60	34.59	46.00	-11.41	QP	
5		576.6443	30.18	-2.95	27.23	46.00	-18.77	QP	
6		848.0563	30.48	-0.12	30.36	46.00	-15.64	QP	

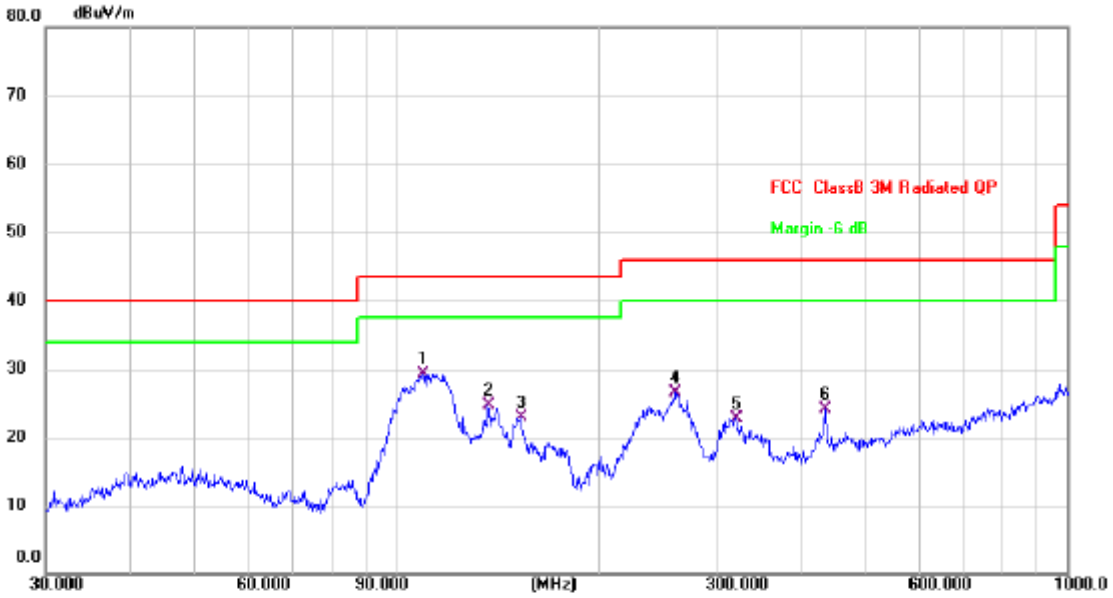
Mode1 / Polarization: Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	37.9450	37.43	-9.09	28.34	40.00	-11.66	QP	
2		67.9129	37.17	-10.87	26.30	40.00	-13.70	QP	
3		116.9495	39.80	-8.32	31.48	43.50	-12.02	QP	
4		239.9874	36.52	-6.89	29.63	46.00	-16.37	QP	
5		260.1444	36.95	-7.40	29.55	46.00	-16.45	QP	
6		601.4265	31.53	-2.99	28.54	46.00	-17.46	QP	

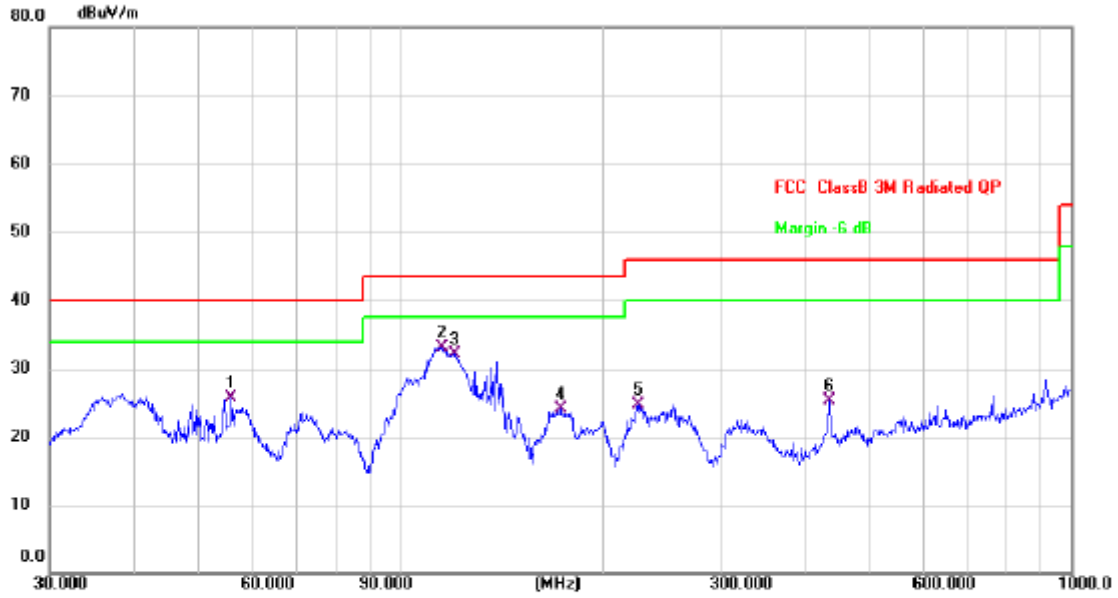
L-WP-05A5(carbon fiber)

Mode1 / Polarization: Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	109.7959	42.38	-13.06	29.32	43.50	-14.18	QP	
2		136.9391	40.30	-15.60	24.70	43.50	-18.80	QP	
3		153.2003	38.05	-15.07	22.98	43.50	-20.52	QP	
4		260.1444	37.63	-11.07	26.56	46.00	-19.44	QP	
5		319.9369	32.46	-9.72	22.74	46.00	-23.26	QP	
6		435.5898	31.77	-7.72	24.05	46.00	-21.95	QP	

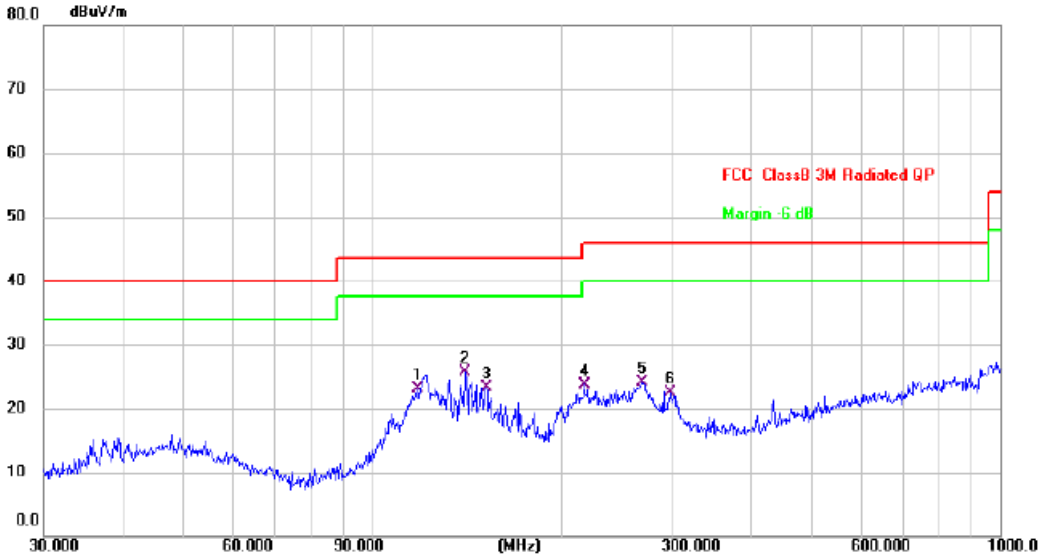
Mode1 / Polarization: Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		56.0007	38.84	-13.16	25.68	40.00	-14.32	QP	
2	*	114.9169	47.32	-14.21	33.11	43.50	-10.39	QP	
3		120.6991	47.28	-15.27	32.01	43.50	-11.49	QP	
4		173.2051	39.59	-15.55	24.04	43.50	-19.46	QP	
5		226.0994	38.06	-13.26	24.80	46.00	-21.20	QP	
6		435.5898	33.01	-7.72	25.29	46.00	-20.71	QP	

L-WP-10L5(titanium alloy)

Mode1 / Polarization: Horizontal



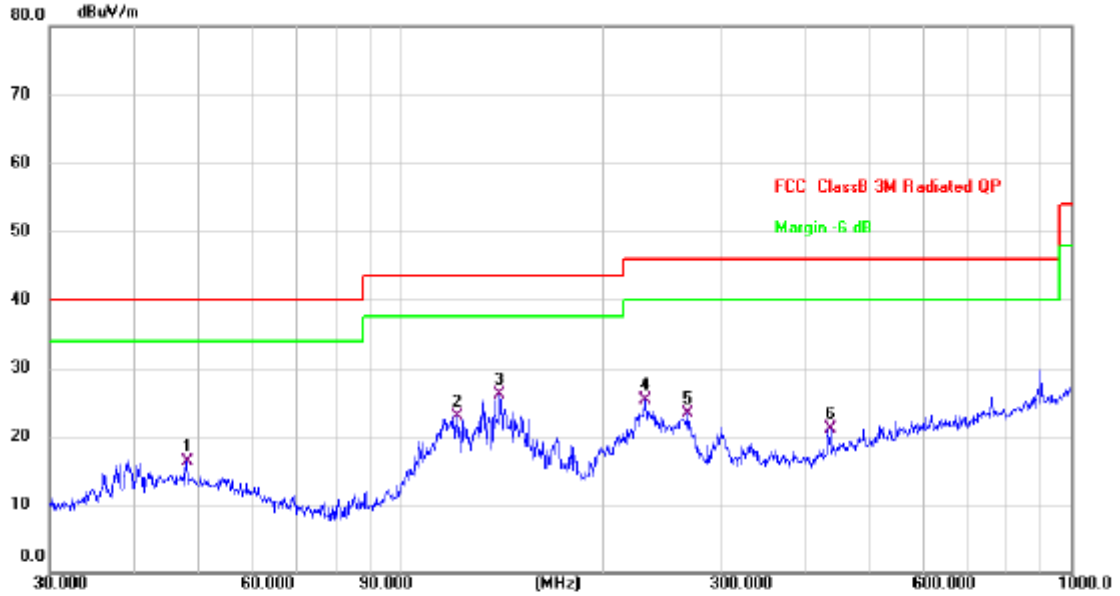
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		117.7725	37.45	-14.29	23.16	43.50	-20.34	QP	
2	*	140.8350	39.90	-14.18	25.72	43.50	-17.78	QP	
3		151.5972	38.59	-15.25	23.34	43.50	-20.16	QP	
4		217.5443	37.26	-13.46	23.80	46.00	-22.20	QP	
5		269.4282	34.91	-10.81	24.10	46.00	-21.90	QP	
6		298.2681	32.37	-9.94	22.43	46.00	-23.57	QP	

Mode1 / Polarization: Vertical

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	35.8746	44.95	-14.75	30.20	40.00	-9.80	QP	
2		73.3593	37.84	-16.43	21.41	40.00	-18.59	QP	
3		124.1330	45.99	-16.29	29.70	43.50	-13.80	QP	
4		143.3261	41.55	-14.49	27.06	43.50	-16.44	QP	
5		202.8104	32.48	-12.08	20.40	43.50	-23.10	QP	
6		230.9068	33.03	-12.28	20.75	46.00	-25.25	QP	

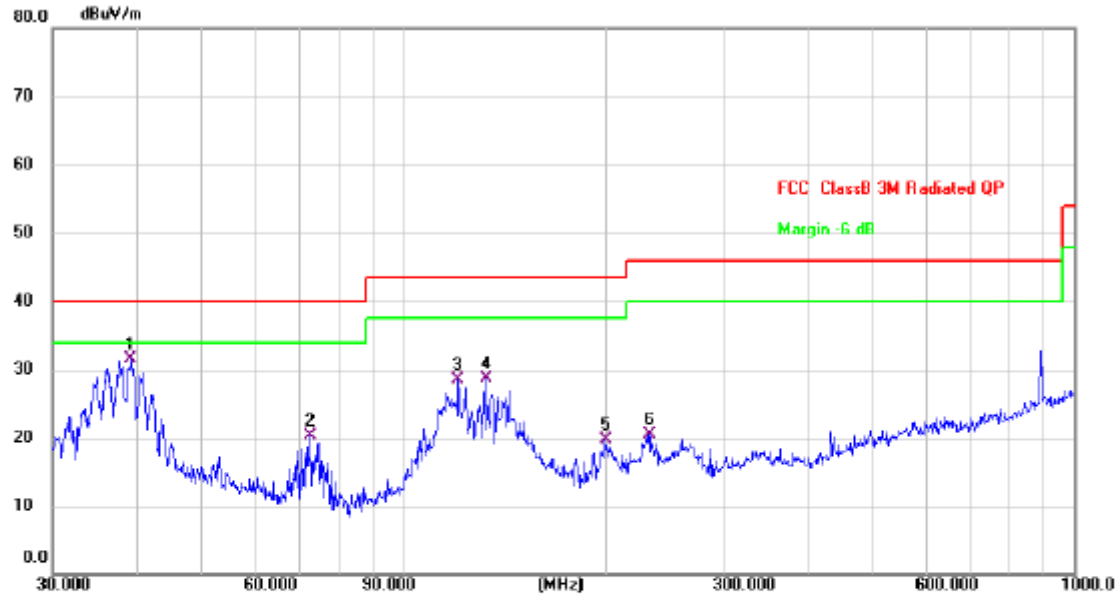
L-WP-10L5(carbon fiber)

Mode1 / Polarization: Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		47.9940	28.81	-12.49	16.32	40.00	-23.68	QP	
2		121.5485	38.44	-15.45	22.99	43.50	-20.51	QP	
3	*	140.8350	40.23	-14.18	26.05	43.50	-17.45	QP	
4		231.7178	37.52	-12.24	25.28	46.00	-20.72	QP	
5		268.4852	34.23	-10.84	23.39	46.00	-22.61	QP	
6		437.1200	28.86	-7.77	21.09	46.00	-24.91	QP	

Mode1 / Polarization: Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	39.2991	45.24	-13.80	31.44	40.00	-8.56	QP	
2		72.8466	36.51	-16.16	20.35	40.00	-19.65	QP	
3		120.6991	43.71	-15.27	28.44	43.50	-15.06	QP	
4		132.6850	44.62	-16.00	28.62	43.50	-14.88	QP	
5		199.9856	31.73	-11.95	19.78	43.50	-23.72	QP	
6		231.7179	32.67	-12.24	20.43	46.00	-25.57	QP	

Note: For the main model and series model back materials are mainly distinguished metal and non-plastic, the report only reflects the worst mode of two materials.

Photographs of the test setup

Refer to Appendix - Test Setup Photos.

Photographs of the EUT

Refer to Appendix - EUT Photos

----End of Report----