



FCC Test Report

FCC ID : 2ATGY-AWC1065
PRODUCT DESIGNATION : Wireless Charging Stand
TRADE NAME : **ubiolabs**
MODEL NAME : AWC1065SG
FAMILY MODEL : AWC1065AW, AWC1065WG, AWC1065PG
CLIENT : UBIO LABS, INC.
DATE OF ISSUE : 16 Apr, 2020
STANDARD(S) : FCC Part 15 Subpart C
REPORT NO. : DGE200107002R

Prepared for

UBIO LABS, INC.

2821 Northup Way, Suite 250, Bellevue, WA 98004 USA

Prepared by

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TEST RESULT CERTIFICATION

Applicant's name..... : UBIO LABS, INC.

Address..... : 2821 Northup Way, Suite 250, Bellevue, WA 98004 USA

Manufacturer's Name..... : UBIO LABS, INC.

Address..... : 2821 Northup Way, Suite 250, Bellevue, WA 98004 USA

Product description

Product name..... : Wireless Charging Stand

Model and/or type reference . : AWC1065SG

Standards..... : FCC Rules and Regulations Part 15 Subpart C Section 15.207, 15.209, 15.203
ANSI C63.10:2013

This device described above has been tested by Shenzhen NTEK Testing Technology Co., Ltd., and the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.

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

Date of Test..... :

Date (s) of performance of tests..... : 02 Jan.2020 ~ 16 Apr.2020

Date of Issue..... : 16 Apr.2020

Test Result..... : **Pass**

Testing Engineer : Eileen Liu.
(Eileen Liu)

Technical Manager : Jason Chen
(Jason Chen)

Authorized Signatory : Sam. Chen
(Sam Chen)

Table of Contents	Page
1. TEST SUMMARY.....	4
1.1 FACILITIES AND ACCREDITATIONS.....	5
1.2 LABORATORY ACCREDITATIONS AND LISTINGS.....	5
1.3 MEASUREMENT UNCERTAINTY.....	5
2. GENERAL INFORMATION.....	7
2.1. GENERAL DESCRIPTION OF EUT.....	7
2.2. DESCRIPTION OF TEST MODES.....	8
2.3. DESCRIPTION OF TEST SETUP.....	9
2.4. DESCRIPTION TEST PERIPHERAL AND EUT PERIPHERAL.....	10
2.5. MEASUREMENT INSTRUMENTS LIST.....	11
3. EMC EMISSION TEST.....	12
3.1.CONDUCTED EMISSION MEASUREMENT.....	12
POWER LINE CONDUCTED EMISSION.....	12
TEST PROCEDURE.....	13
TEST SETUP.....	13
EUT OPERATING CONDITIONS.....	13
TEST RESULTS.....	14
3.2 RADIATED EMISSION MEASUREMENT.....	16
LIMITS OF RADIATED EMISSION MEASUREMENT.....	16
TEST PROCEDURE.....	17
TEST SETUP.....	18
TEST RESULTS.....	19
4. BANDWIDTH.....	24
4.1. MEASUREMENT PROCEDURE.....	24
4.2. MEASUREMENT RESULTS.....	24
5.ANTENNA APPLICATION.....	25
5.1 Antenna Requirement.....	25
5.2 Result.....	25

1. TEST SUMMARY

Test procedures according to the technical standards:

EMC Emission					
Standard	Test Item	FCC Rules	Limit	Judgment	Remark
FCC part 15C ANSI C63.10:2013	Conducted Emission	§15.207	Class B	PASS	
	Radiated Emission	§15.209	Class B	PASS	
	ANTENNA APPLICATION	§15.203	/	PASS	

NOTE:

- (1) 'N/A' denotes test is not applicable in this Test Report
- (2) For client's request and manual description, the test will not be executed.

1.1 FACILITIES AND ACCREDITATIONS

All measurement facilities used to collect the measurement data are located at 1/F, Building E, Fenda Science Park, Sanwei Community, Xixiang Street, Bao'an District, Shenzhen 518126 P.R. China.

The sites are constructed in conformance with the requirements of ANSI C63.7, ANSI C63.10 and CISPR Publication 22.

1.2 LABORATORY ACCREDITATIONS AND LISTINGS

Site Description

- CNAS-Lab. : The Laboratory has been assessed and proved to be in compliance with CNAS-CL01:2006 (identical to ISO/IEC 17025:2005)
The Certificate Registration Number is L5516.
- IC-Registration : The Certificate Registration Number is 9270A-1.
- FCC- Accredited : Test Firm Registration Number: 463705.
Designation Number: CN1184
- A2LA-Lab. : The Certificate Registration Number is 4298.01
This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005 General requirements for the competence of testing and calibration laboratories.
This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communiqué dated 8 January 2009).
- Name of Firm : Shenzhen NTEK Testing Technology Co., Ltd.
- Site Location : 1/F, Building E, Fenda Science Park, Sanwei Community, Xixiang Street, Bao'an District, Shenzhen 518126 P.R. China.

1.3 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement $y \pm U$, where expanded uncertainty U is based on a standard uncertainty multiplied by a coverage factor of $k=2$, providing a level of confidence of approximately **95 %**.

A. Conducted Measurement :

Test Site	Method	Measurement Frequency Range	U, (dB)	NOTE
NTEKC01	ANSI	150 KHz ~ 30MHz	3.2	

B. Radiated Measurement :

Test Site	Method	Measurement Frequency Range	U, (dB)	NOTE
NTEKA01	ANSI	9KHz ~ 30MHz	4.7	
		30MHz ~ 1000MHz	5.0	

2. GENERAL INFORMATION

2.1. GENERAL DESCRIPTION OF EUT

Product Feature and Specification	
Equipment	Wireless Charging Stand
FCC ID	DGE200107002R
Model No.	AWC1065SG
Serial Model	AWC1065AW, AWC1065WG, AWC1065PG
Model difference	All are same, just different with color.
Operating Frequency	110.1KHz~204.9KHz
Modulation Technique	Induction
Antenna Type	Induction coil
Power supply	<input checked="" type="checkbox"/> DC supply: DC 15V 2.5A
	<input checked="" type="checkbox"/> Adapter: Input: 110-240V~ 50-60Hz
Output	Charger Output: 15V DC, 2.5A Max. (total) Wireless Charger Output: 10W Max
HW Version	N/A
SW Version	N/A

2.2. DESCRIPTION OF TEST MODES

EUT Configuration

The EUT configuration for testing is installed on RF field strength measurement to meet the Commissions requirement and operating in a manner which intends to maximize its emission characteristics in a continuous normal application.

EUT Exercise

The Transmitter was operated in the normal operating mode. The TX frequency was fixed which was for the purpose of the measurements.

Test Cases	
Test Item	Data Rate/ Modulation
AC Conducted Emission	Mode 1: Full load* (Coil 2 and Coil 3) Mode 2: Full load (Coil 1 and Coil 3) Mode 3: Wireless charging Mode(half load) Mode 4: Wireless charging Mode(Null load)
Radiated Test Cases	Mode 1: Full load* (Coil 2 and Coil 3) Mode 2: Full load (Coil 1 and Coil 3) Mode 3: Wireless charging Mode(half load) Mode 4: Wireless charging Mode(Null load)

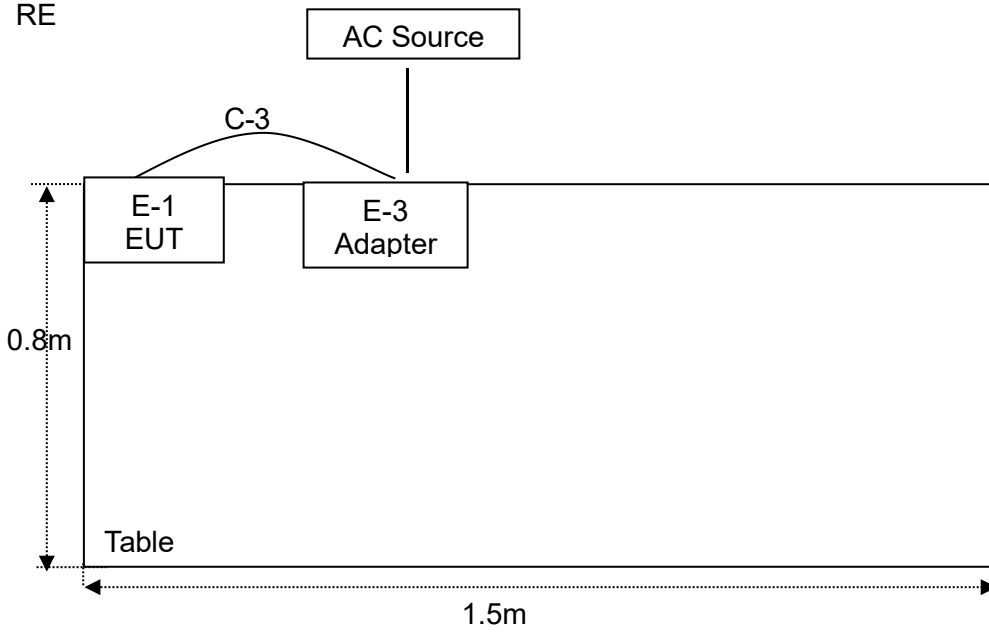
- (1) EUT can only access the specified load, can not adjust the size of the load
- (2) When Coil 1 is working, Coil 2 will automatically disconnect. The two coils cannot work at the same time. The full load mode is Coil 1 or Coil 3 or Coil 2 and Coil 3
- (3) All test modes have been tested, only the worst mode (Mode1) Coil 2 and Coil 3 are recorded in the report

Carrier Frequency and Test Channel list:

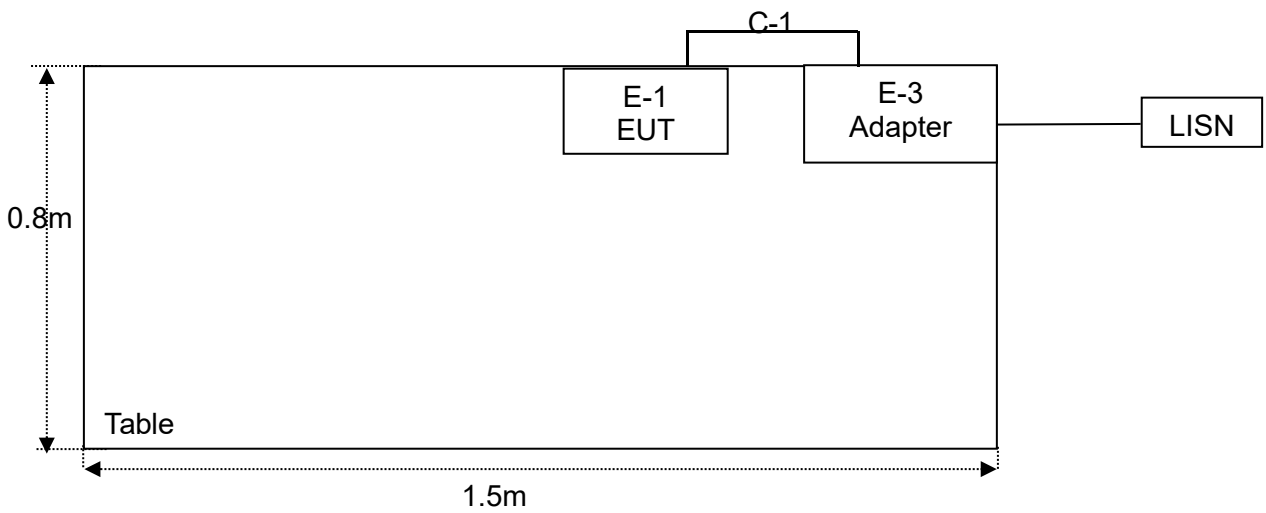
Channel	Frequency(MHz)
1	0.1234
2	0.1255
3	0.1335

2.3. DESCRIPTION OF TEST SETUP

RE



CE



2.4. DESCRIPTION TEST PERIPHERAL AND EUT PERIPHERAL

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	Brand	Model/Type No.	Series No.	Note
E-1	Wireless Charging Stand	ubiolabs	AWC1065SG	N/A	EUT
E-2	Adapter	N/A	CHG1151SG	N/A	Accessory
E-3	Load	N/A	N/A	N/A	AE

Item	Cable Type	Shielded Type	Ferrite Core	Length	Note
C-1	USB Cable	unshielded	NO	1.2m	AE

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.
- (3) “YES” means “shielded” “with core”; “NO” means “unshielded” “without core”.

2.5. MEASUREMENT INSTRUMENTS LIST

Radiation Test equipment

	Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until	Calibration period
1	Spectrum Analyzer	Agilent	E4407B	MY45108040	2019.06.05	2020.06.04	1 year
2	Spectrum Analyzer	Agilent	N9020A	MY49100060	2019.10.26	2020.10.25	1 year
4	Test Receiver	R&S	ESPI	101318	2019.06.05	2020.06.04	1 year
5	Bilog Antenna	TESEQ	CBL6111D	31216	2019.04.08	2020.04.07	1 year
6	50Ω Coaxial Switch	Anritsu	MP59B	6200983705	2019.06.05	2020.06.04	1 year
7	Amplifier	EMC	EMC051835 SE	980246	2019.08.09	2020.08.08	1 year
8	Amplifier	MITEQ	TTA1840-35-HG	177156	2019.06.05	2020.06.04	1 year
9	Loop Antenna	ARA	PLA-1030/B	1029	2019.06.05	2020.06.04	1 year
10	Test Cable (9KHz-30MHz)	N/A	R-01	N/A	2017.04.21	2020.04.20	3 year
11	Test Cable (30MHz-1GHz)	N/A	R-02	N/A	2017.04.21	2020.04.20	3 year

Conduction Test equipment

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until	Calibration period
1	Test Receiver	R&S	ESCI	101160	2019.06.05	2020.06.04	1 year
2	LISN	R&S	ENV216	101313	2019.04.18	2020.04.17	1 year
3	LISN	SCHWARZBECK	NNLK 8129	8129245	2019.06.05	2020.06.04	1 year
4	50Ω Coaxial Switch	ANRITSU CORP	MP59B	6200983704	2019.06.05	2020.06.04	1 year
5	Test Cable (9KHz-30MHz)	N/A	C01	N/A	2017.04.21	2020.04.20	3 year
6	Test Cable (9KHz-30MHz)	N/A	C02	N/A	2017.04.21	2020.04.20	3 year
7	Test Cable (9KHz-30MHz)	N/A	C03	N/A	2017.04.21	2020.04.20	3 year

3. EMC EMISSION TEST

3.1. CONDUCTED EMISSION MEASUREMENT

POWER LINE CONDUCTED EMISSION (Frequency Range 150KHz-30MHz)

FREQUENCY (MHz)	limit	
	Quasi-peak	Average
0.15 -0.5	66 - 56 *	56 - 46 *
0.50 -5.0	56.00	46.00
5.0 -30.0	60.00	50.00

Note:

- (1) The tighter limit applies at the band edges.
- (2) The limit of " * " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.

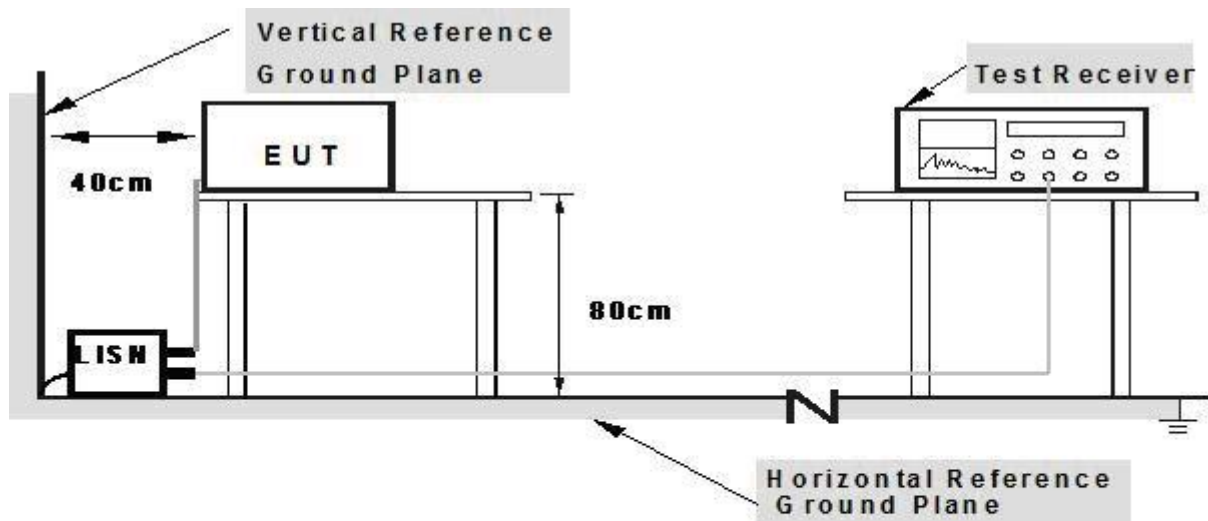
The following table is the setting of the receiver

Receiver Parameters	Setting
Attenuation	10 dB
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 kHz

TEST PROCEDURE

- a. The EUT was placed 0.8 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- b. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
- c. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
- d. LISN at least 80 cm from nearest part of EUT chassis.
- e. For the actual test configuration, please refer to the related Item –EUT Test Photos.

TEST SETUP



- Note: 1. Support units were connected to second LISN.**
2. Both of LISNs (AMN) are 80 cm from EUT and at least 80 cm from other units and other metal planes

EUT OPERATING CONDITIONS

The EUT tested system was configured as the statements of 2.3 Unless otherwise a special operating condition is specified in the follows during the testing.

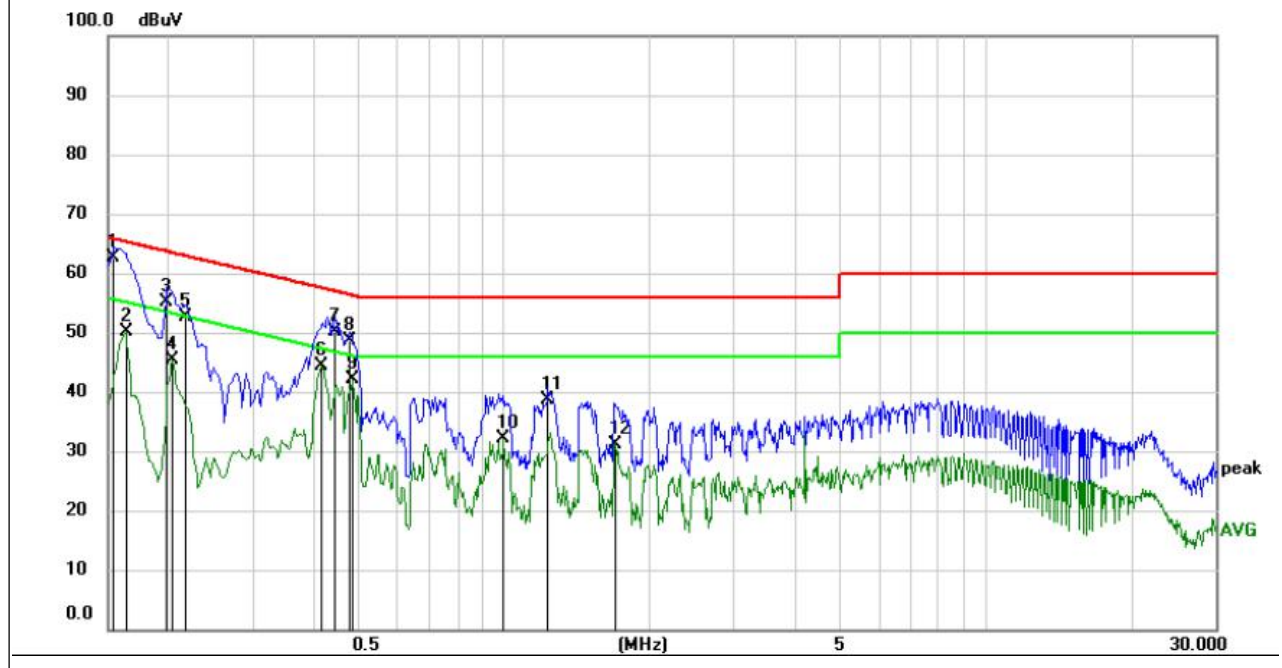
TEST RESULTS

EUT :	Wireless Charging Stand	Model Name. :	AWC1065SG
Temperature:	23 °C	Relative Humidity:	53%
Pressure:	1010hPa	Test Date:	2020-03-02
Test Mode:	Mode 1	Phase :	L
Test Voltage:	Output: DC 15V , Input: Adapter AC 120V/60Hz		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector
		MHz	dBuV	dB	dBuV	dBuV	dB	
1		0.1545	52.57	9.94	62.51	65.75	-3.24	QP
2		0.1635	40.15	9.93	50.08	55.28	-5.20	AVG
3		0.1995	45.25	9.90	55.15	63.63	-8.48	QP
4		0.2040	35.43	9.90	45.33	53.45	-8.12	AVG
5		0.2175	42.61	9.90	52.51	62.91	-10.40	QP
6	*	0.4155	34.38	9.92	44.30	47.54	-3.24	AVG
7		0.4425	40.23	9.92	50.15	57.01	-6.86	QP
8		0.4785	38.58	9.93	48.51	56.37	-7.86	QP
9		0.4830	32.32	9.93	42.25	46.29	-4.04	AVG
10		0.9960	22.19	9.97	32.16	46.00	-13.84	AVG
11		1.2345	28.53	9.98	38.51	56.00	-17.49	QP
12		1.7070	21.24	10.01	31.25	46.00	-14.75	AVG

Remark:

1. All readings are Quasi-Peak and Average values.
2. Factor = Insertion Loss + Cable Loss.

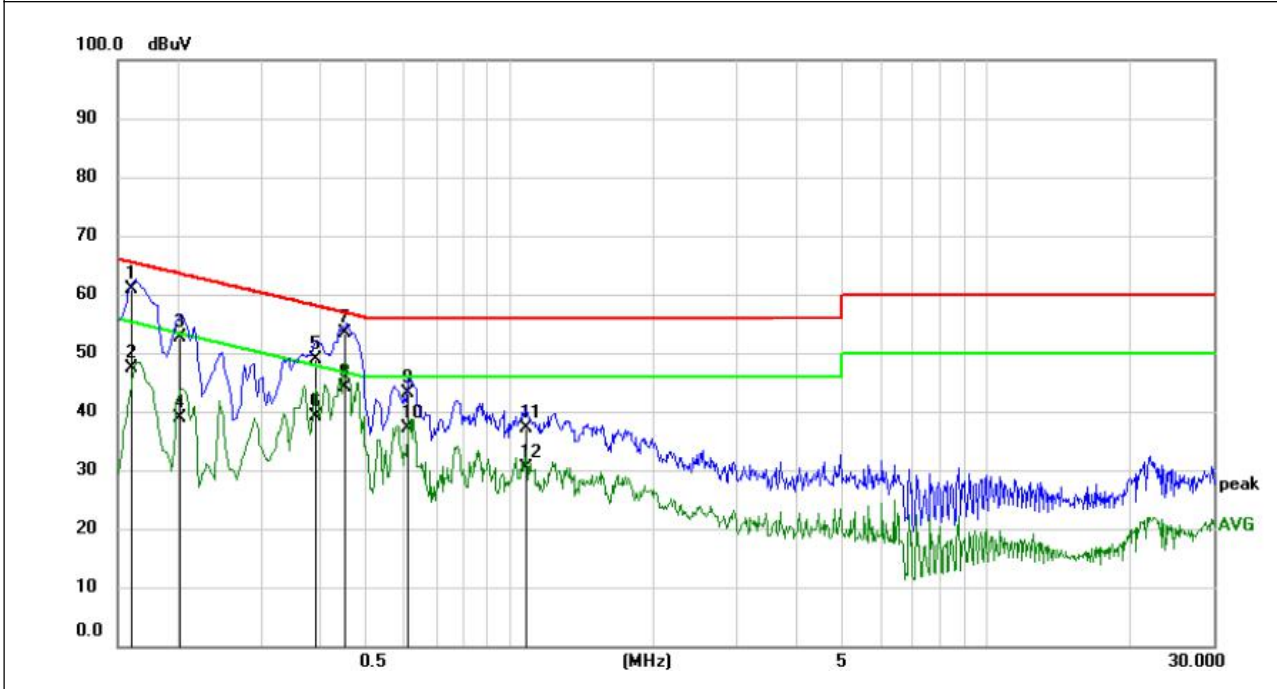


EUT:	Wireless Charging Stand	Model Name. :	AWC1065SG
Temperature:	23 °C	Relative Humidity:	52%
Pressure:	1010hPa	Test Date:	2020-03-02
Test Mode:	Mode 1	Phase :	N
Test Voltage:	Output: DC 15V,Input: Adapter AC 120V/60Hz		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
		MHz	dBuV	dB	dBuV	dBuV	dB		
1		0.1606	50.89	9.93	60.82	65.43	-4.61	QP	
2		0.1606	37.45	9.93	47.38	55.43	-8.05	AVG	
3		0.2014	42.68	9.90	52.58	63.55	-10.97	QP	
4		0.2014	29.02	9.90	38.92	53.55	-14.63	AVG	
5		0.3915	39.07	9.93	49.00	58.03	-9.03	QP	
6		0.3915	29.20	9.93	39.13	48.03	-8.90	AVG	
7		0.4513	42.35	9.93	53.28	56.85	-4.57	QP	
8	*	0.4513	33.24	9.93	44.17	46.85	-3.68	AVG	
9		0.6137	33.29	9.95	43.24	56.00	-12.76	QP	
10		0.6137	27.27	9.95	37.22	46.00	-8.78	AVG	
11		1.0775	27.08	9.97	37.05	56.00	-18.95	QP	
12		1.0775	20.43	9.97	30.40	46.00	-15.60	AVG	

Remark:

1. All readings are Quasi-Peak and Average values.
2. Factor = Insertion Loss + Cable Loss.



3.2 RADIATED EMISSION MEASUREMENT

LIMITS OF RADIATED EMISSION MEASUREMENT

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

Frequency (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

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
10.495-0.505	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)
13.36-13.41			

Notes:

- (1) Measurement was performed at an antenna to the closed point of EUT distance of meters.
- (2) Emission level (dBuV/m)=20log Emission level (uV/m).
- (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.
- (4) 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

TEST PROCEDURE

Test Arrangement for Radiated Emissions up to 1 GHz

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at an accredited test facility. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The antenna is a broadband antenna (Blow 30M, use loop 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.
- d. 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.

Note: The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for quasi-peak detection (QP) at frequency below 1GHz.

Test Arrangement for Radiated Emissions above 1 GHz.

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at an accredited chamber room. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The height of antenna can be varied from one meter to four meters, the height of adjustment depends on the EUT height and the antenna 3dB beamwidth both, to detect the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

During the radiated emission test, the Spectrum Analyzer was set with the following configurations:

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*RBW

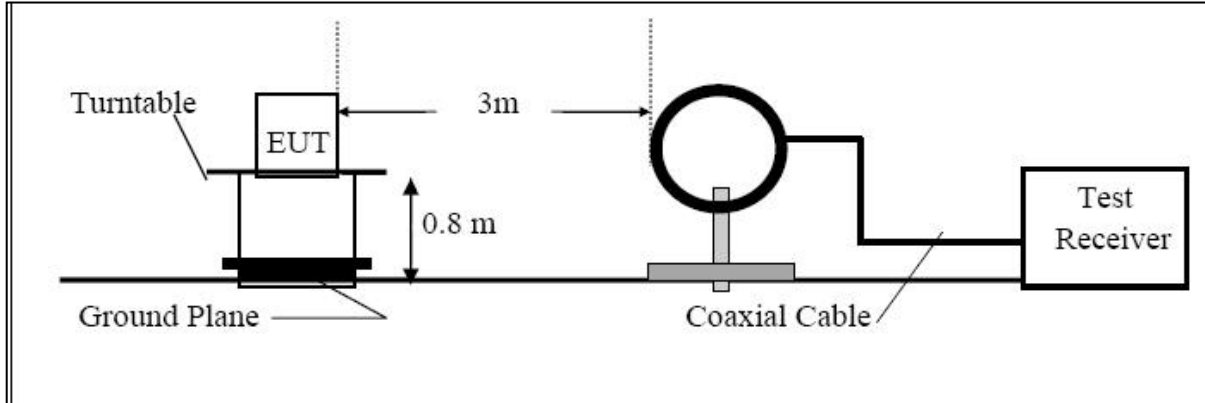
Sweep = auto

Detector function = QP

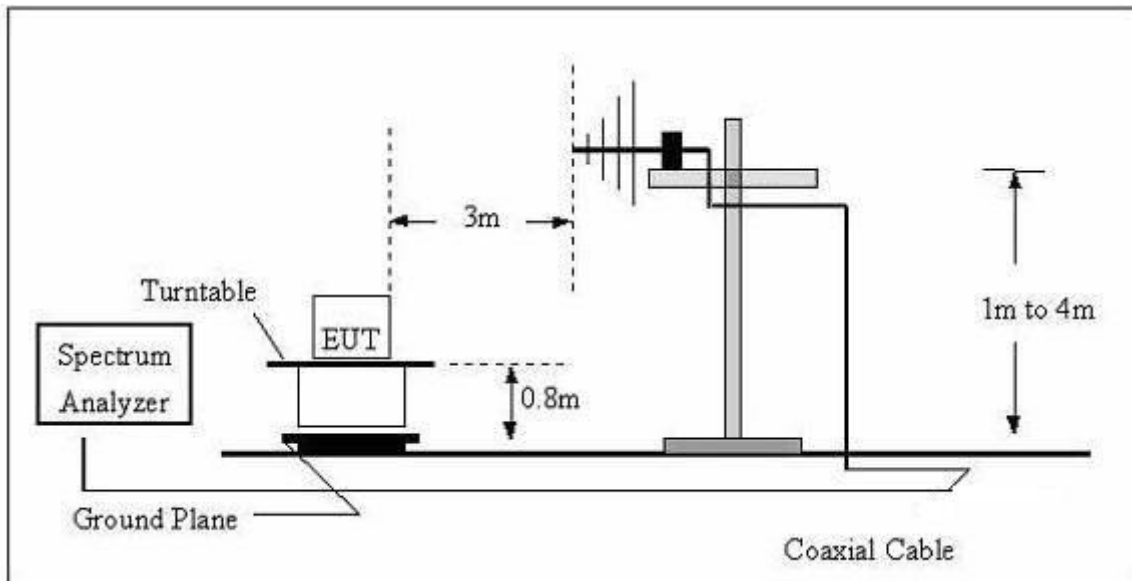
Trace = max hold

TEST SETUP

For Radiated Emission Test Set-Up, Frequency Below 30MHz



For Radiated Emission 30~1000MHz



TEST RESULTS
TEST RESULTS (9KHz~30MHz)

EUT :	Wireless Charging Stand	Model Name. :	AWC1065SG
Temperature:	23 °C	Relative Humidity:	53%
Pressure:	1010 hPa	Test Date :	2020-03-02
Test Mode :	Low frequency/Max Load	Polarization :	X
Test Power :	Output: DC 15V,Input: Adapter AC 120V/60Hz		

Frequency (MHz)	Ant.Pol.	Factor (dBuV/ m)	Emission Level (dBuV/ m)	Limits (dBuV/m)	Margin (dB)	Remark
0.045	X	9.73	46.08	114.482	-68.40	Avg
0.1234	X	9.06	62.91	105.778	-42.87	Avg(fundamental frequency)
0.806	X	11.290	46.030	69.478	-23.45	QP
3.302	X	12.970	42.375	57.228	-14.85	QP
7.592	X	12.537	43.730	69.542	-25.81	QP
20.269	X	15.489	36.830	69.542	-32.71	QP

Note:

Below 30MHz, Pre-test the X, Y, Z axis to find X axis is worst case, so only record X axis test data.

X: Field strength which this device generates since the position of the charging coil and loop antenna differ by 0 degrees.

Y: Field strength which this device generates since the position of the charging coil and loop antenna differ by 90 degrees.

Z: Field strength which this device generates since the position of the charging coil and loop antenna differ by 180 degrees.

EUT :	Wireless Charging Stand	Model Name. :	AWC1065SG
Temperature:	23 °C	Relative Humidity:	53%
Pressure:	1010 hPa	Test Date :	2020-03-02
Test Mode :	High frequency/Max Load	Polarization :	X
Test Power :	Output: DC 15V,Input: Adapter AC 120V/60Hz		

Frequency	Ant.Pol.	Factor	Emission Level	Limits	Margin	Remark
(MHz)		(dBuV/m)	(dBuV/m)	(dBuV/m)	(dB)	
0.050	X	9.84	41.96	113.6248	-71.66	Avg
0.134	X	9.93	76.02	105.0946	-29.07	Avg(fundamental frequency)
0.729	X	10.760	40.310	70.350	-30.04	QP
1.306	X	11.930	33.983	65.285	-31.30	QP
5.283	X	12.561	32.562	69.542	-36.98	QP
9.360	X	13.095	44.467	69.542	-25.08	QP

Note:

Below 30MHz, Pre-test the X, Y, Z axis to find X axis is worst case, so only record X axis test data.

X: Field strength which this device generates since the position of the charging coil and loop antenna differ by 0 degrees.

Y: Field strength which this device generates since the position of the charging coil and loop antenna differ by 90 degrees.

Z: Field strength which this device generates since the position of the charging coil and loop antenna differ by 180 degrees.

EUT:	Wireless Charging Stand	Model Name. :	AWC1065SG
Temperature:	24 °C	Relative Humidity:	54%
Pressure:	1010 hPa	Test Date :	2020-03-02
Test Mode :	Mid frequency/Max Load	Polarization :	X
Test Power :	Output: DC 15V,Input: Adapter AC 120V/60Hz		

Frequency (MHz)	Ant.Pol.	Factor (dBuV/m)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
0.053	X	9.771	42.981	113.1187	-70.14	Avg
0.126	X	10.286	80.09	105.6314	-25.54	Avg(fundamental frequency)
0.500	X	10.997	43.567	73.625	-30.06	QP
2.339	X	11.860	36.332	60.224	-23.89	QP
6.327	X	12.351	35.910	69.542	-33.63	QP
10.430	X	13.175	36.708	69.542	-32.83	QP

Note:

Below 30MHz, Pre-test the X, Y, Z axis to find X axis is worst case, so only record X axis test data.

X: Field strength which this device generates since the position of the charging coil and loop antenna differ by 0 degrees.

Y: Field strength which this device generates since the position of the charging coil and loop antenna differ by 90 degrees.

Z: Field strength which this device generates since the position of the charging coil and loop antenna differ by 180 degrees.

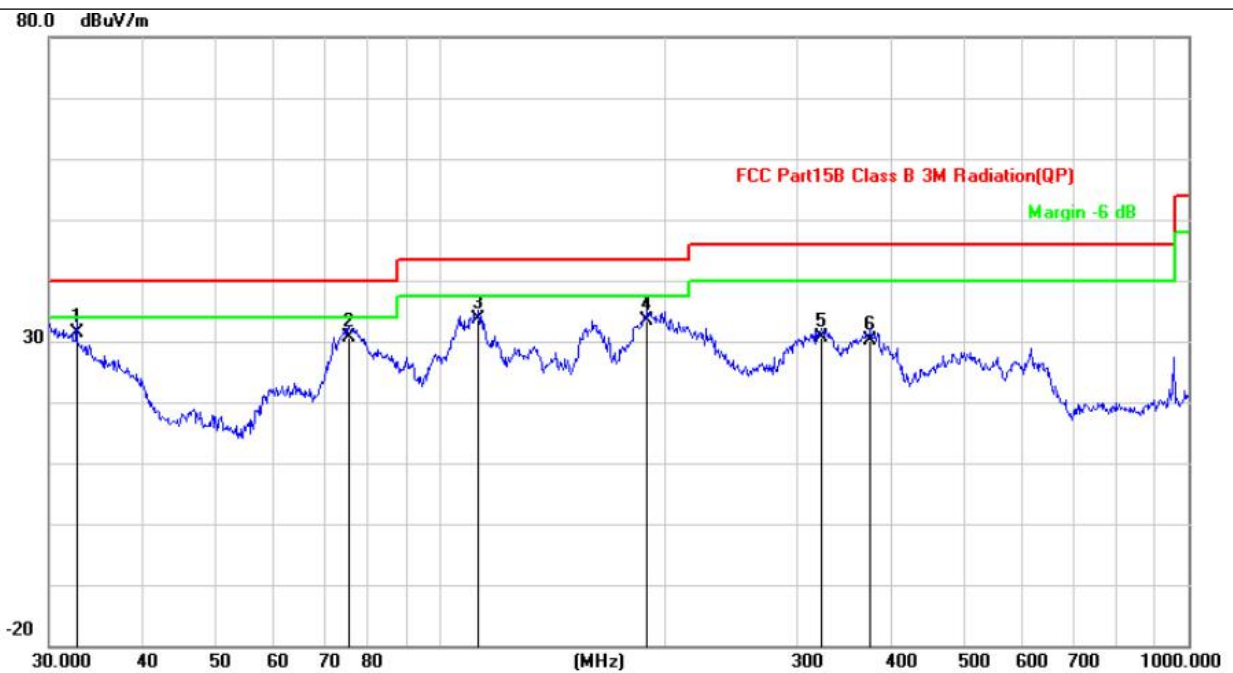
TEST RESULTS (30MHz ~1000MHz)

EUT:	Wireless Charging Stand	Model Name. :	AWC1065SG
Temperature:	24 °C	Relative Humidity:	54%
Pressure:	1010 hPa	Test Date :	2020-03-02
Test Mode :	Mode 1	Polarization :	Horizontal
Test Power :	Output: DC 15V,Input: Adapter AC 120V/60Hz		

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measurement dBuV/m	Limit dB/m	Over dB	Detector	Antenna Height cm	Table Degree degree	Comment
1	*	32.6340	52.98	-21.48	31.50	40.00	-8.50	QP			
2		75.4464	61.20	-30.69	30.51	40.00	-9.49	QP			
3		112.5244	58.77	-25.26	33.51	43.50	-9.99	QP			
4		189.0743	61.20	-27.70	33.50	43.50	-10.00	QP			
5		323.3204	53.61	-23.06	30.55	46.00	-15.45	QP			
6		375.9385	51.69	-21.54	30.15	46.00	-15.85	QP			

Remark:

Factor = Antenna Factor + Cable Loss - Amplifier.

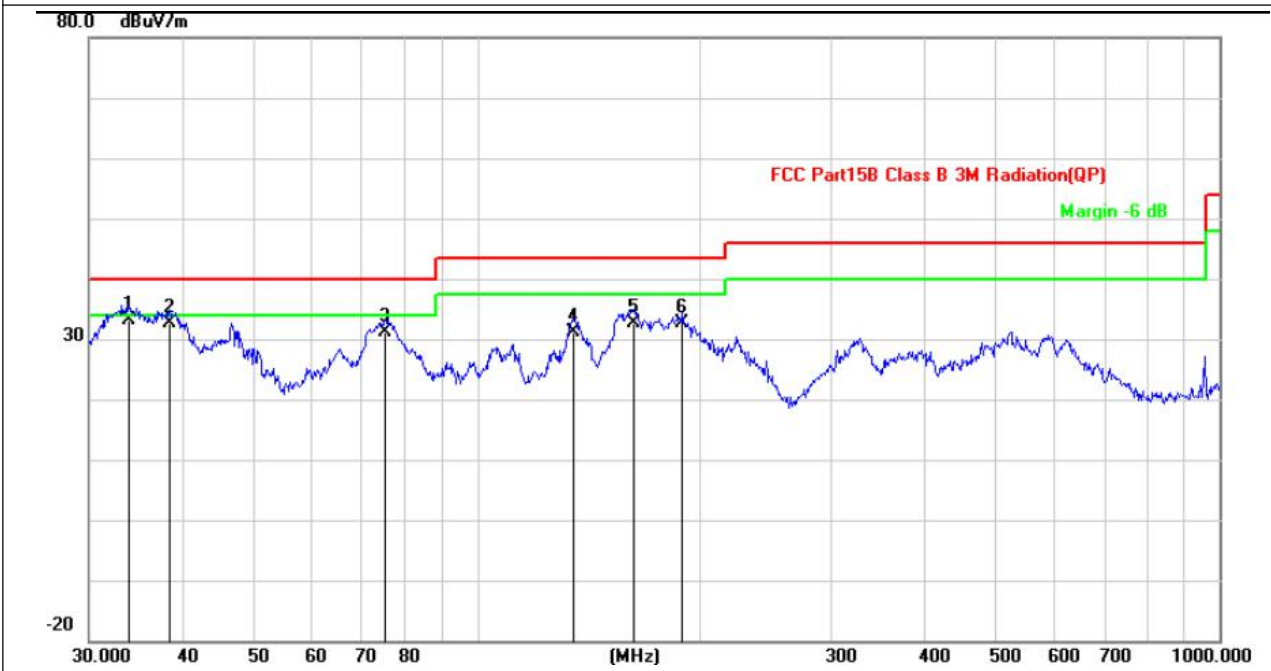


EUT:	Wireless Charging Stand	Model Name. :	AWC1065SG
Temperature:	24 °C	Relative Humidity:	54%
Pressure:	1010 hPa	Test Date :	2020-03-02
Test Mode :	Mode 1	Polarization :	Vertical
Test Power :	Output: DC 15V,Input: Adapter AC 120V/60Hz		

No	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree
		MHz	dBuV	dB	dBuV/m	dB/m	dB Detector	cm	degree Comment
1	*	33.9174	55.95	-22.80	33.15	40.00	-6.85 QP		
2		38.4809	56.94	-24.43	32.51	40.00	-7.49 QP		
3		75.1822	61.66	-30.51	31.15	40.00	-8.85 QP		
4		134.5592	55.93	-24.78	31.15	43.50	-12.35 QP		
5		162.6106	58.30	-25.79	32.51	43.50	-10.99 QP		
6		189.0743	59.49	-26.98	32.51	43.50	-10.99 QP		

Remark:

Factor = Antenna Factor + Cable Loss - Amplifier.



4. BANDWIDTH

4.1. MEASUREMENT PROCEDURE

1. The EUT was placed on the top of the turntable 0.8 meter above ground. The phase center of the receiving antenna mounted on the top of a height-variable antenna tower was placed 3 meters far away from the turntable.
- 2, Set the EUT Work on operation frequency.
3. Set Span = approximately 2 to 5 times the 20 dB bandwidth, centered on a channel
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; Sweep = auto; Detector function = peak
4. Set SPA Trace 1 Max hold, then View.

4.2. MEASUREMENT RESULTS

Frequency (KHz)	Test Data (Hz) 99% Bandwidth	Test Data (Hz) -20dB Bandwidth	Criteria
123.4	733	830	PASS



Note: Only the worst case modes is recorded in the report.

5. ANTENNA APPLICATION

5.1 Antenna Requirement

15.203 requirement: For intentional device, according to 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.

5.2 Result

The EUT antenna is permanent attached antenna. It comply with the standard requirement.

END REPORT