



FCC TEST REPORT

FCC ID: 2BSND-G31

On Behalf of

Huizhou Gratronic Technology Co., Ltd

3 in 1 Wireless Charger

Model No.: G31

Prepared for : Huizhou Gratronic Technology Co., Ltd
Address : Room 2002, Dali Building, Maidi Road, Huicheng District, Huizhou

Prepared By : Shenzhen PSI Testing Co., Ltd.
Address : 1-2/F., Building 5, Yudafu Industrial Park, No.10, Xingye West Road,
Shajing Subdistrict, Bao'an District, Shenzhen, Guangdong, China

Report Number : psi2509165-C01-R01
Date of Receipt : August 20, 2025
Date of Test : August 20, 2025-September 17, 2025
Date of Report : September 17, 2025
Version Number : V0

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TEST REPORT DECLARATION

Applicant : Huizhou Gratronic Technology Co., Ltd
Address : Room 2002, Dali Building, Maidi Road, Huicheng District, Huizhou
Manufacturer : Huizhou Gratronic Technology Co., Ltd
Address : Room 2002, Dali Building, Maidi Road, Huicheng District, Huizhou
EUT Description : 3 in 1 Wireless Charger
(A) Model No. : G31
(B) Trademark : Gratronic

Measurement Standard Used:

FCC CFR Title 47 Part 15 Subpart C

ANSI C63.10:2013

Test Result: PASS

The device described above is tested by Shenzhen PSI Testing Co., Ltd. to determine the maximum emission levels emanating from the device and the severe levels of the device can endure and its performance criterion. The test results are contained in this test report and Shenzhen PSI Testing Co., Ltd. is assumed full responsibility for the accuracy and completeness of test. Also, this report shows that the EUT is technically compliant with the FCC CFR Title 47 Part 15 Subpart C requirements.

This report applies to above tested sample only. This report shall not be reproduced in parts without written approval of Shenzhen PSI Testing Co., Ltd.

Tested by (name + signature).....: Felix Pang
Test Engineer



Approved by (name + signature).....: Simple Guan
Project Manager



Date of issue.....: September 17, 2025

Revision History

Revision	Issue Date	Revisions	Revised By
V0	September 17, 2025	Initial released Issue	Felix Pang

1. Test Result Summary

Requirement	CFR 47 Section	Result
Antenna requirement	§15.203	PASS
AC Power Line Conducted Emission	§15.207	PASS
Spurious Emission	§15.209	PASS
Occupied Bandwidth	§15.215 (c)	PASS

Note:

1. *PASS: Test item meets the requirement.*
2. *Fail: Test item does not meet the requirement.*
3. *N/A: Test case does not apply to the test object.*
4. *The test result judgment is decided by the limit of test standard.*
5. Decision rules for the conclusion of this test report: decision by actual test data without considering measurement uncertainty.

2. General Information

2.1. Description of Device (EUT)

EUT Name	: 3 in 1 Wireless Charger
Model No.	: G31
DIFF.	: /
Power supply	: Input: 5 V  3 A, 9 V  3 A, 15 V  3 A Phone Output: 25W Max Earphone Output: 5W Max Watch Output: 2.5W Max
Radio Technology	: Wireless power transmission systems
Operation frequency	: Phone: 110.1-366.4 KHz Earphone: 110.1-205 KHz Watch: 325-350 KHz
Modulation	: ASK
Antenna Type	: Coil Antenna
Connector cable loss	: 0dBi
Software version	: V1.0
Hardware version	: V1.0
Note	: Antenna information is provided by applicant. Testing lab is not responsible for the accuracy of the information.

2.2. Accessories of Device (EUT)

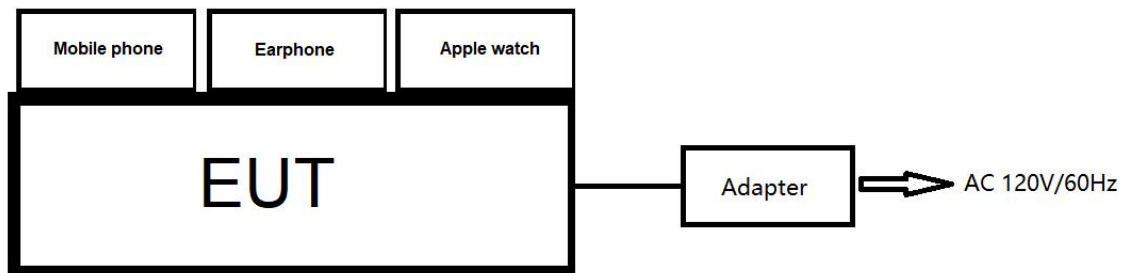
Accessories	:	N/A
Manufacturer	:	N/A
Model	:	N/A
specifications	:	N/A

2.3. Tested Supporting System Details

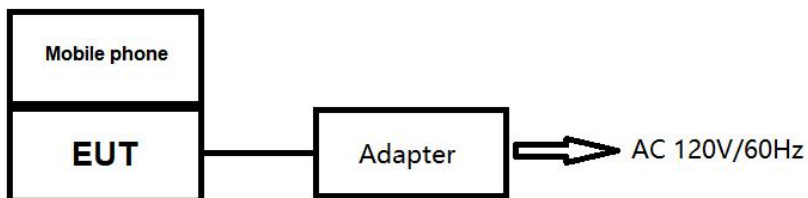
No.	Description	Manufacturer	Model	Serial Number	Certification
1	AC ADAPTER	Xiaomi	MDY-08-EH	/	/
2	Mobile phone	Apple Inc.	iPhone 15	/	/
3	Earphone	Apple Inc.	A2031	/	/
4	Apple watch	Apple Inc.	ultra 2	/	/

2.4. Block Diagram of connection between EUT and simulators

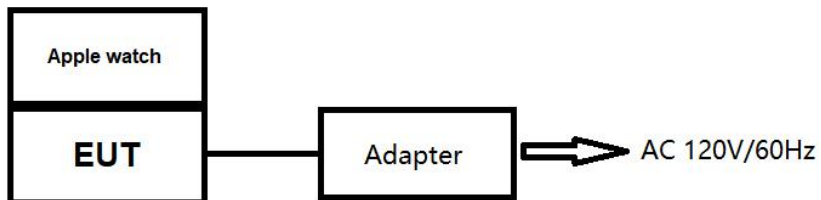
Mode 1 & 2 & 3:



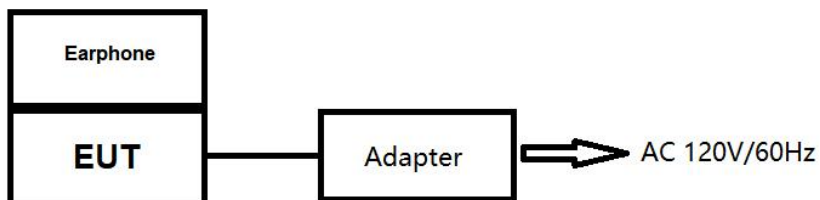
Mode 4 & 5 & 6:



Mode 7 & 8 & 9:



Mode 10 & 11 & 12:



2.5. Description of Test Modes

Number	Modes
1	AC Mains + Phone charging port + Earphone charging port + Watch charging port(Battery Status: $\leq 1\%$)
2	AC Mains + Phone charging port + Earphone charging port + Watch charging port(Battery Status:50%)
3	AC Mains + Phone charging port + Earphone charging port + Watch charging port(Battery Status: $\geq 98\%$)
4	AC Mains + Phone charging port(Battery Status: $\leq 1\%$)
5	AC Mains + Phone charging port(Battery Status:50%)
6	AC Mains + Phone charging port(Battery Status: $\geq 98\%$)
7	AC Mains + Watch charging port(Battery Status: $\leq 1\%$)
8	AC Mains + Watch charging port(Battery Status:50%)
9	AC Mains + Watch charging port(Battery Status: $\geq 98\%$)
10	AC Mains + Earphone charging port(Battery Status: $\leq 1\%$)
11	AC Mains + Earphone charging port(Battery Status:50%)
12	AC Mains + Earphone charging port(Battery Status: $\geq 98\%$)
13	Standby
Note:1. All test modes has been tested, this report only reflected the model 1 worst mode.	

2.6. Test Conditions

Items	Required
Temperature range:	15-35℃
Humidity range:	25-75%
Pressure range:	86-106kPa

2.7. Test Facility

Shenzhen PSI Testing Co., Ltd.

1-2/F., Building 5, Yudafu Industrial Park, No.10, Xingye West Road, Shajing Subdistrict, Bao'an District, Shenzhen, Guangdong, China

September 13, 2023 File on Federal Communication Commission

Registration Number: 916281

2.8. Measurement Uncertainty

(95% confidence levels, k=2)

Item	Uncertainty
Power Line Conducted Emissions Test	2.13dB
Radiation Emission test in 3m chamber(Below 30MHz)	4.07dB
Radiation Emission test in 3m chamber(30MHz to 1GHz)	4.51dB
Radiation Emission test in 3m chamber(1GHz to 18GHz)	5.07dB
Radiation Emission test in 3m chamber(18GHz to 40GHz)	5.21dB
Radio Frequency	48.24KHz
Conducted RF Power	0.41dB
Power Spectral Density	0.39 dB
Occupied-Bandwidth	968Hz
Duty Cycle	1%
Conducted-Spurious Emission	1.26dB

2.9. Test Equipment List

Item	Equipment	Manufacturer	Model No.	Serial No.	Firmware Version	Last Cal.	Cal. Interval
1.	9*6*6 anechoic chamber	SKET	9*6*6	N/A	/	2022.12.20	3 Year
2.	Test Receiver	Rohde&Schwarz	ESCI 7	101032/003	4.42 SP3	2024.12.18	1 Year
3.	L.I.S.N.#1	Rohde&Schwarz	ENV216	102282	/	2024.12.18	1 Year
4.	L.I.S.N.#2	RFT	NNB111	13835240	/	2024.12.18	1 Year
5.	Loop Antenna	Schwarz beck	FMZB 1519B	00128	/	2025.01.02	2 Year
6.	Bilog Antenna	Schwarz beck	VULB 9168	01448	/	2025.01.02	2 Year
7.	Spectrum Analyzer	Rohde&Schwarz	FSV-40N	101648	3.70	2024.12.18	1 Year
8.	Horn Antenna	Schwarz beck	BBHA 9120 D	02706	/	2025.01.02	2 Year
9.	Amplifier	SKET	LAPA_01G1 8G-45dB	SK20220329 01	/	2024.12.18	1 Year
10.	Horn Antenna	Schwarz beck	BBHA 9170	00946	/	2024.12.31	2 Year
11.	Amplifier	SKET	LNPA_0118 G-45	SK20200108 01	/	2024.12.18	1 Year
12.	RF Power Probe	Rohde&Schwarz	NRP-Z11	1138.3004.02 -1111533-Fz	/	2024.12.18	1 Year
13.	RF Sensor Unit	Tachoy	TR1029-2	20220428P0 08	/	2024.12.18	1 Year
14.	Spectrum Analyzer	Agilent	N9020A	MY51281067	A.14.03	2024.12.18	1 Year
15.	Temp. & Humid Chamber	Auchno	9606	/	/	2024.12.18	1 Year
16.	Regulated DC Power Supply	Xinouhua	ADC120V10 A	20221125163 8	/	2024.12.18	1 Year
17.	Cable	SKET	Cable-RE-1	#02/#03	/	2024.12.18	1 Year
18.	Cable	SKET	Cable-RE-2	#01	/	2024.12.18	1 Year
19.	Cable	SKET	Cable-RE-3	#04	/	2024.12.18	1 Year
20.	Cable	SKET	Cable-CE-1	A-E-24	/	2024.12.18	1 Year
21.	6dB Attenuator	Schwarzbeck	DGA 9552N 6dB	CK4186	/	2024.12.18	1 Year
22.	Power meter	Agilent	E4419B	GB40202121	/	2024.12.18	1 Year

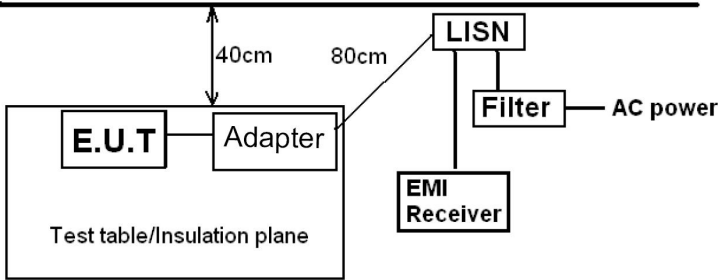
For Test Software Information

Item	Software Name	Manufacturer	Version
RE	EZ EMC	Farad	PSI-3A1
CE	EZ EMC	Farad	PSI-3A1
RF	RTS	TACHOY	V1.0.0

3. Test Results and Measurement Data

3.1. Conducted Emission

3.1.1. Test Specification

Test Requirement:	FCC Part15 C Section 15.207		
Test Method:	ANSI C63.10:2013		
Frequency Range:	150 kHz to 30 MHz		
Receiver setup:	RBW=9 kHz, VBW=30 kHz, Sweep time=auto		
Limits:	Frequency range (MHz)	Limit (dBuV)	
		Quasi-peak	Average
	0.15-0.5	66 to 56*	56 to 46*
	0.5-5	56	46
	5-30	60	50
Test Setup:	Reference Plane  40cm 80cm E.U.T Adapter LISN Filter AC power EMI Receiver Test table/Insulation plane Remark: E.U.T: Equipment Under Test LISN: Line Impedance Stabilization Network Test table height=0.8m		
Test Mode:	Transmitting Mode		
Test Procedure:	1. The E.U.T is connected to an adapter through a line impedance stabilization network (L.I.S.N.). This provides a 50ohm/50uH coupling impedance for the measuring equipment. 2. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm/50uH coupling impedance with 50ohm termination. (Please refer to the block diagram of the test setup and photographs). 3. Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10: 2013 on conducted measurement.		
Test Result:	PASS		

3.1.2. Test data

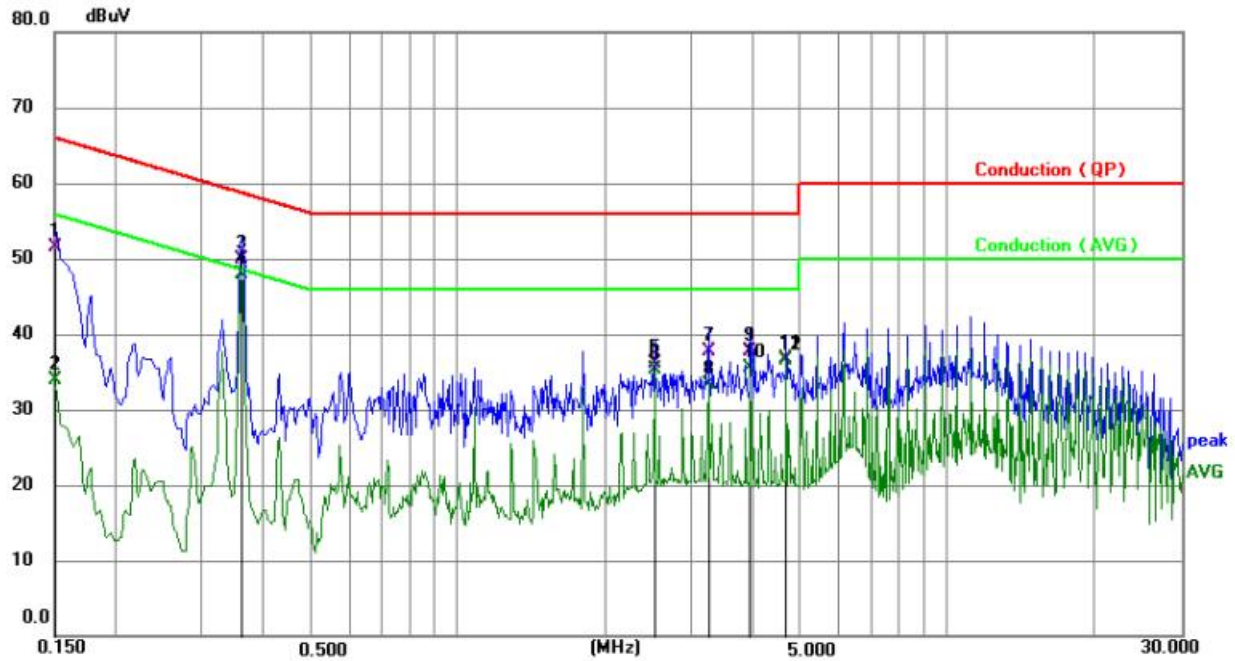
Please refer to following diagram for individual

Test Mode	: Mode 1
Test Results	: PASS
Note:	1. The test results are listed in next pages. 2. If the limits for the measurement with the average detector are met when using a receiver with a peak detector, the test unit shall be deemed to meet both limits and the measurement with the average detector and quasi-peak detector need not be carried out. 3. If the limits for the measurement with the average detector are met when using a receiver with a quasi-peak detector, the test unit shall be deemed to meet both limits and the measurement with the average detector need not be carried out.

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Mode 1:

Temperature	26℃	Humidity	54%
Pol	Line		AC 120V/60Hz

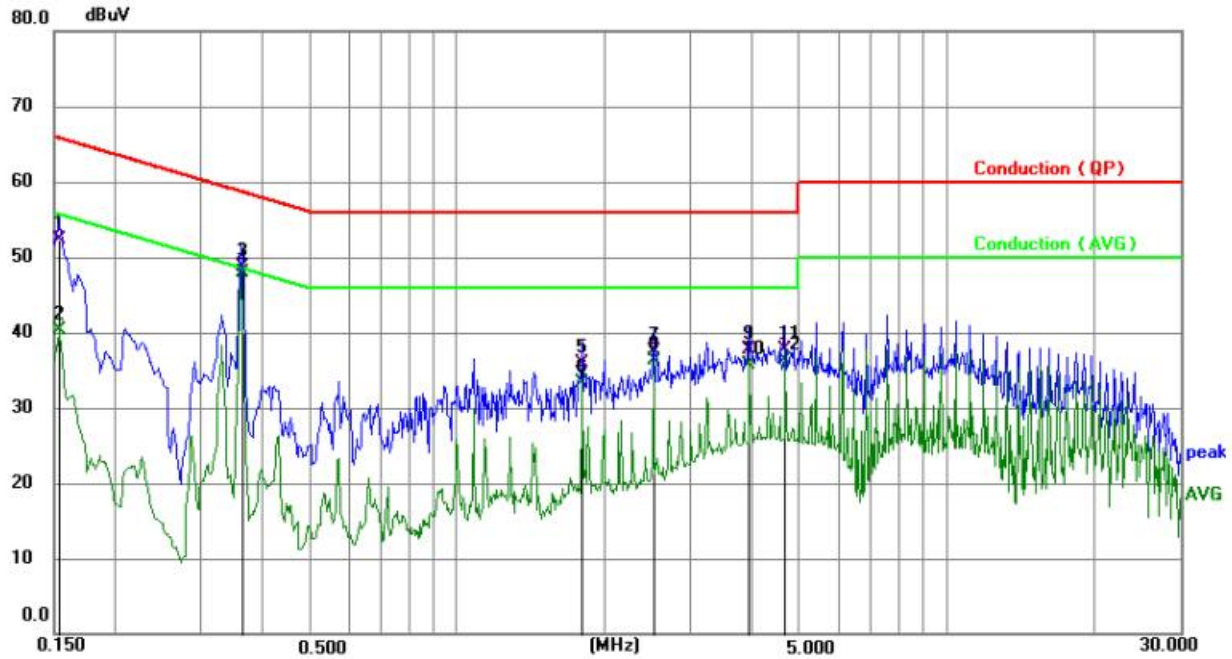


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F	Remark
1	0.1500	41.63	9.89	51.52	66.00	-14.48	QP	P	
2	0.1500	24.05	9.89	33.94	56.00	-22.06	AVG	P	
3	0.3613	39.91	9.97	49.88	58.70	-8.82	QP	P	
4 *	0.3613	38.02	9.97	47.99	48.70	-0.71	AVG	P	
5	2.5215	26.08	10.06	36.14	56.00	-19.86	QP	P	
6	2.5215	25.20	10.06	35.26	46.00	-10.74	AVG	P	
7	3.2414	27.56	10.08	37.64	56.00	-18.36	QP	P	
8	3.2414	23.19	10.08	33.27	46.00	-12.73	AVG	P	
9	3.9615	27.64	10.09	37.73	56.00	-18.27	QP	P	
10	3.9615	25.34	10.09	35.43	46.00	-10.57	AVG	P	
11	4.6814	26.63	10.11	36.74	56.00	-19.26	QP	P	
12	4.6814	26.41	10.11	36.52	46.00	-9.48	AVG	P	

Level = Reading + Factor Margin = Level - Limit

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Pol	Neutral
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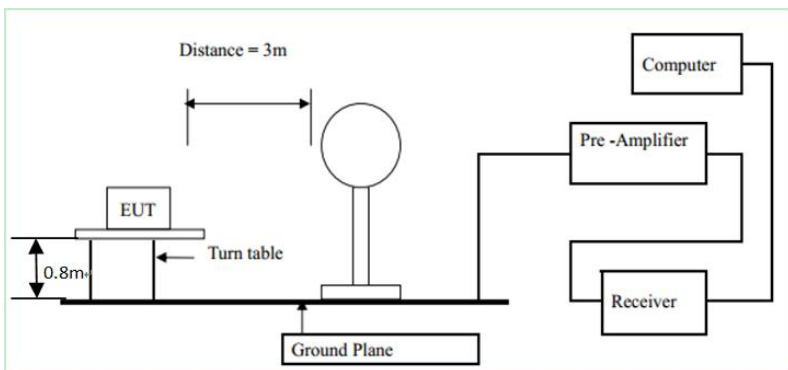


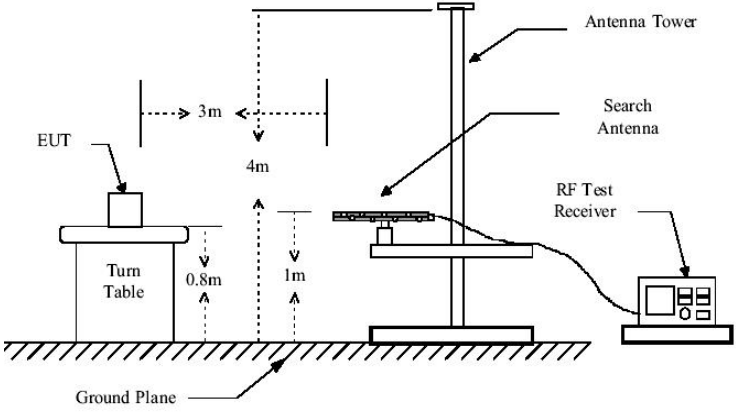
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F	Remark
1	0.1532	42.43	9.89	52.32	65.82	-13.50	QP	P	
2	0.1532	30.46	9.89	40.35	55.82	-15.47	AVG	P	
3	0.3614	38.66	9.97	48.63	58.70	-10.07	QP	P	
4 *	0.3614	38.01	9.97	47.98	48.70	-0.72	AVG	P	
5	1.8015	25.80	10.06	35.86	56.00	-20.14	QP	P	
6	1.8015	23.19	10.06	33.25	46.00	-12.75	AVG	P	
7	2.5215	27.53	10.06	37.59	56.00	-18.41	QP	P	
8	2.5215	26.26	10.06	36.32	46.00	-9.68	AVG	P	
9	3.9615	27.71	10.09	37.80	56.00	-18.20	QP	P	
10	3.9615	25.71	10.09	35.80	46.00	-10.20	AVG	P	
11	4.6814	27.62	10.11	37.73	56.00	-18.27	QP	P	
12	4.6814	26.19	10.11	36.30	46.00	-9.70	AVG	P	

Level = Reading + Factor Margin = Level - Limit

3.2. Radiated Spurious Emission Measurement

3.2.1. Test Specification

Test Requirement:	FCC Part15 C Section 15.209				
Test Method:	ANSI C63.10: 2013				
Frequency Range:	9 kHz to 1 GHz				
Measurement Distance:	3 m				
Antenna Polarization:	Coaxial & Coplanar(9KHz-30MHz) Horizontal & Vertical(30MHz-1GHz)				
Operation mode:	Refer to item 4.1				
Receiver Setup:	Frequency	Detector	RBW	VBW	Remark
	9kHz- 150kHz	Quasi-peak	200Hz	1kHz	Quasi-peak Value
	150kHz-30MHz	Quasi-peak	9kHz	30kHz	Quasi-peak Value
	30MHz-1GHz	Quasi-peak	100KHz	300KHz	Quasi-peak Value
Note: 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.					
Limit:	Frequency		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		30		30
	30-88		100		3
	88-216		150		3
	216-960		200		3
	Above 960		500		3
	Test setup:	For radiated emissions below 30MHz			
					
30MHz to 1GHz					

	
Test Procedure:	1. For the radiated emission test below 1GHz: The EUT was placed on a turntable with 0.8 meter above ground. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high PASS filter are used for the test in order to get better signal level. 2. Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level 3. For measurement below 1GHz, If the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the peak emission level will be reported. Otherwise, the emission measurement will be repeated using the quasi-peak detector and reported. 4. Use the following spectrum analyzer settings: (1) Span shall wide enough to fully capture the emission being measured; (2) Set RBW=100 kHz for $f < 1$ GHz; VBW $\geq$ RBW; Sweep = auto; Detector function = peak; Trace = max hold; For average measurement: VBW = 10 Hz, when duty cycle is no less than 98 percent. VBW $\geq 1/T$, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.
Test mode:	Refer to section 4.1 for details
Test results:	PASS

3.2.2. Test Data

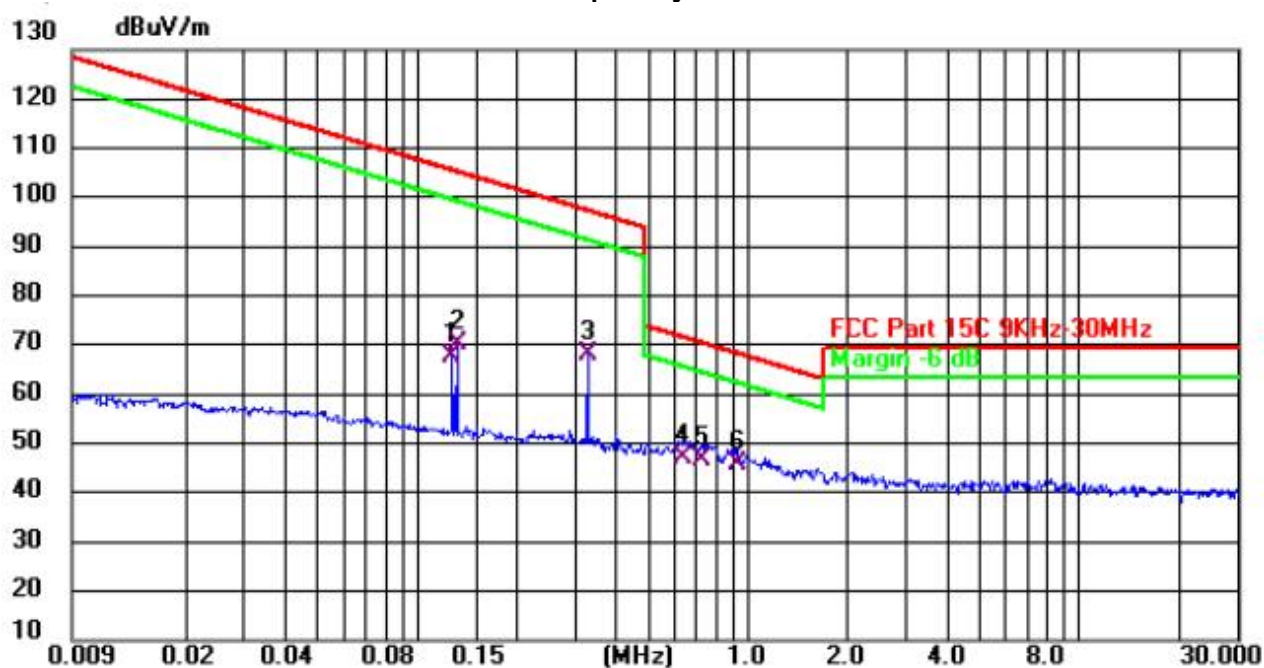
Please refer to following diagram for individual

Frequency Range	: 9KHz~30MHz
Test Mode	: Mode 1
Test Results	: PASS
Note:	1. The test results are listed in next pages. 2. If the limits for the measurement with the average detector are met when using a receiver with a peak detector, the test unit shall be deemed to meet both limits and the measurement with the quasi-peak detector need not be carried out.

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Mode 1:

Antenna polarity: Coaxial



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F
1	0.1272	67.36	0.16	67.52	105.51	-37.99	Peak	-	-	P
2	0.1320	70.14	0.16	70.30	105.19	-34.89	Peak	-	-	P
3	0.3285	67.20	0.79	67.99	97.27	-29.28	Peak	-	-	P
4	0.6360	45.90	1.38	47.28	71.53	-24.25	QP	-	-	P
5	0.7187	45.25	1.54	46.79	70.47	-23.68	QP	-	-	P
6 *	0.9242	43.78	1.95	45.73	68.29	-22.56	QP	-	-	P

1. Level = Reading + Factor Margin = Level – Limit

2. '-' Means the test Degree and Height are not recorded by the test software and only show the worstcase in the test report.

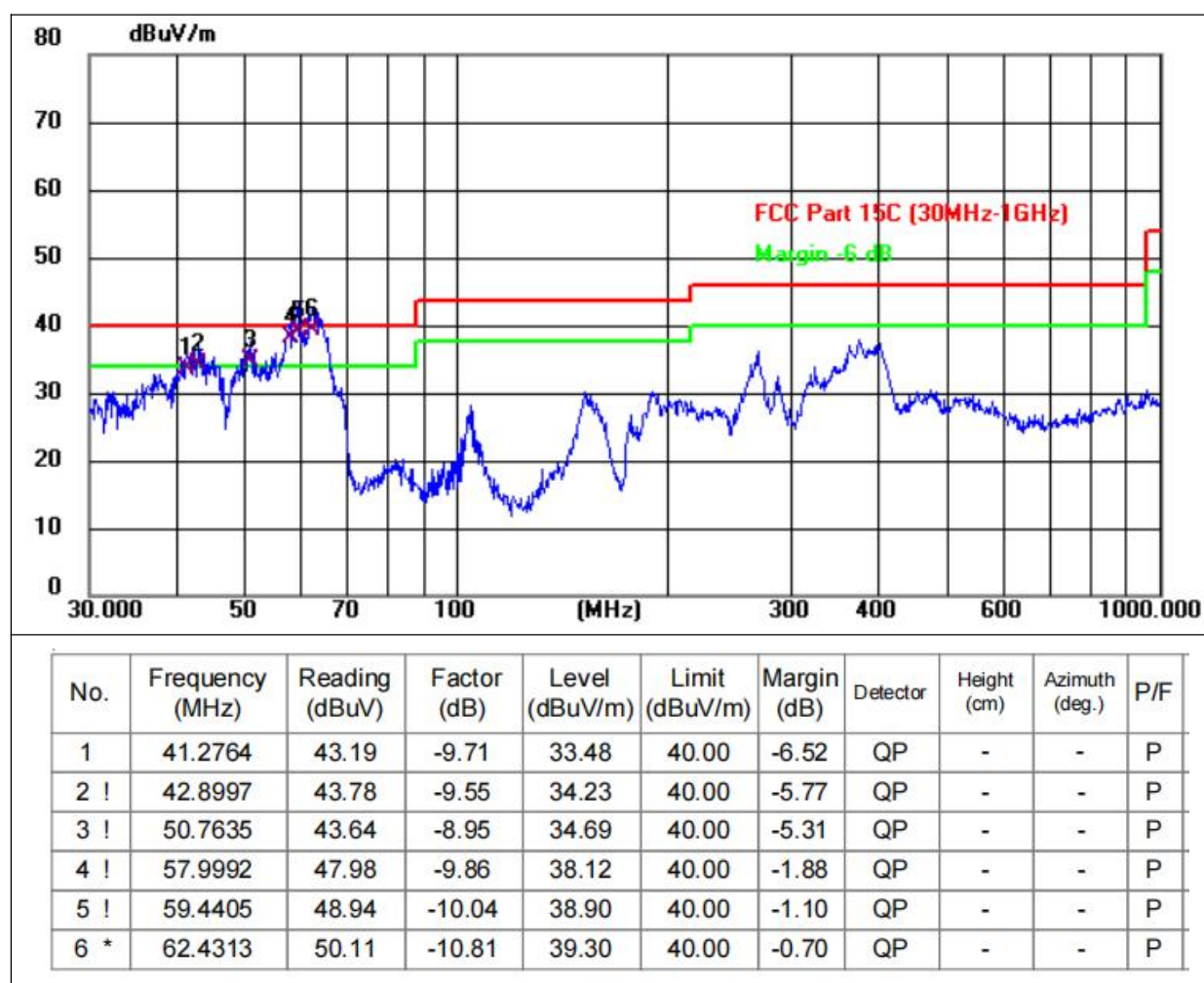
Frequency Range	: 30MHz~1000MHz
Test Mode	: Mode 1
Test Results	: PASS
Note:	1. The test results are listed in next pages. 2. If the limits for the measurement with the average detector are met when using a receiver with a peak detector, the test unit shall be deemed to meet both limits and the measurement with the quasi-peak detector need not be carried out.

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Mode 1:

30MHz-1GHz

Temperature	26℃	Humidity	54%
Pol	Vertical	Test Voltage	AC 120V/60Hz



Note: 1.Level = Reading + Factor Margin = Level - Limit

2.Means' the test Degree and Height are not recorded by the test software and only show the worst case in the test report.

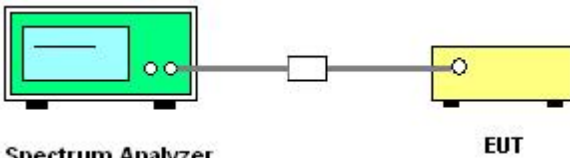
Pol	Horizontal
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Note: 1.Level = Reading + Factor Margin = Level - Limit

2.Means' the test Degree and Height are not recorded by the test software and only show the worst case in the test report.

3.3. Test Specification

Test Requirement:	FCC Part15 C Section 15.215(c)
Test Method:	ANSI C63.10: 2013
Limit:	N/A
Test Procedure:	1. According to the follow Test-setup, keep the relative position between the artificial antenna and the EUT. 2. Set to the maximum power setting and enable the EUT transmit continuously. 3. Use the following spectrum analyzer settings for 20dB Bandwidth measurement. Span = approximately 2 to 3 times the 20 dB bandwidth, centered on a hopping channel; RBW$\geq$1% of the 20 dB bandwidth; VBW$\geq$RBW; Sweep = auto; Detector function = peak; Trace = max hold. 4. Measure and record the results in the test report.
Test setup:	 The diagram illustrates the test setup. On the left is a green Spectrum Analyzer with a blue screen and two red dots representing ports. A black cable connects one of these ports to a small white rectangular block, which represents an antenna or connector. This block is further connected by another black cable to a yellow rectangular block on the right, labeled 'EUT' (Equipment Under Test), which also has a red dot representing a port.
Test Mode:	Refer to section 4.1 for details
Test results:	PASS

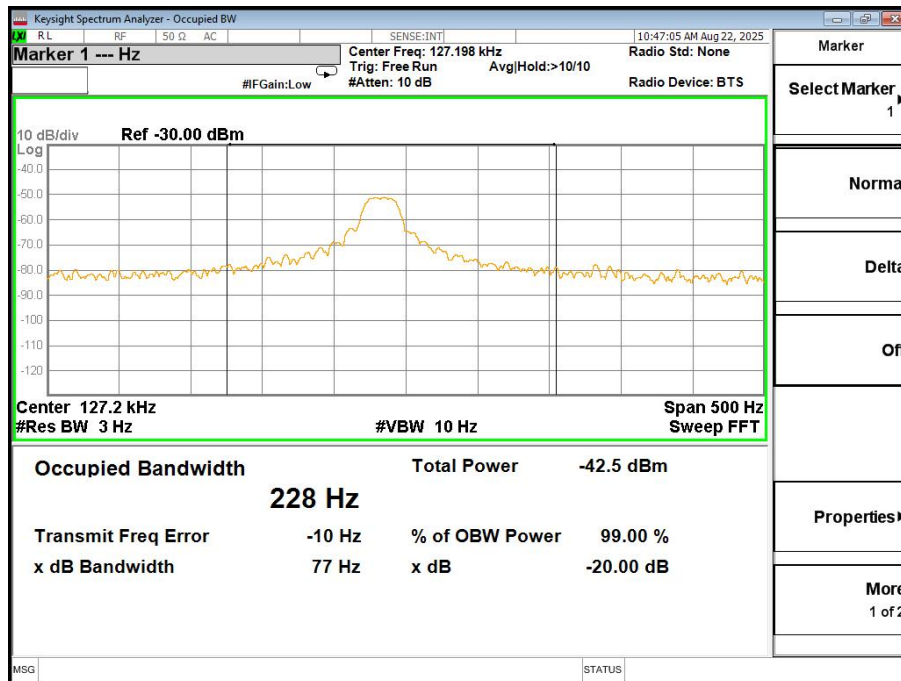
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3.3.1. Test data

Temperature:	24.2 °C	Relative Humidity:	54.3%
Pressure:	101kPa		

	Frequency (KHz)	20dB bandwidth (KHz)	Result
Phone coil	127.2	0.077	Pass

Phone coil



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Temperature:	24.2 °C	Relative Humidity:	54.3%
Pressure:	101kPa		

	Frequency (KHz)	20dB bandwidth (KHz)	Result
Earphone coil	132	0.01	Pass

Earphone coil

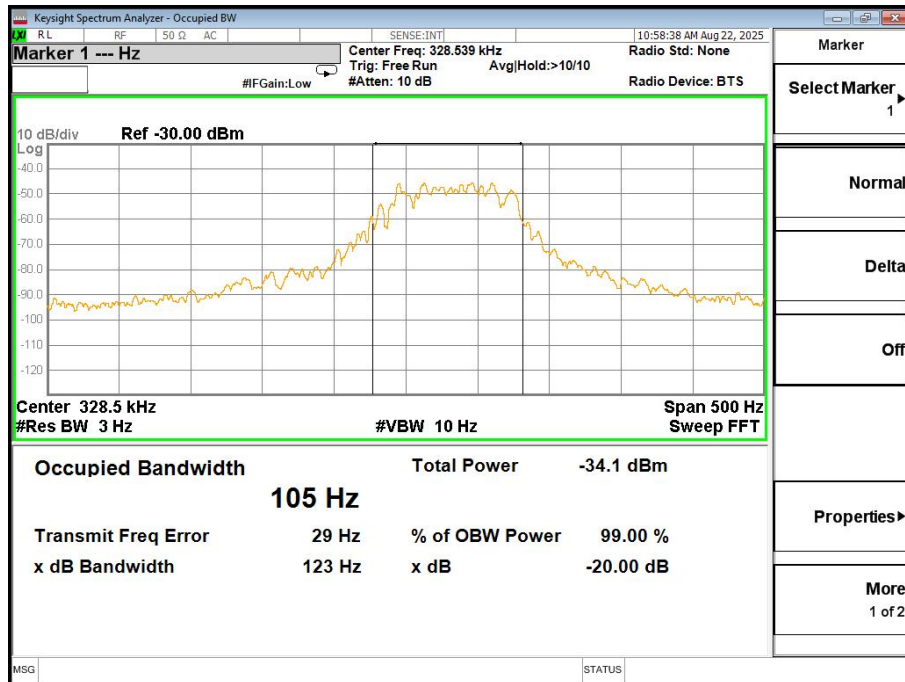


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Temperature:	24.2 °C	Relative Humidity:	54.3%
Pressure:	101kPa		

	Frequency (KHz)	20dB bandwidth (KHz)	Result
Watch coil	328.5	0.123	Pass

Watch coil



4. Photos of test setup

Reference to the **appendix I Test Setup Photo** for details.

5. Photos of EUT

Reference to the **appendix II external photos** and **appendix III internal photos** for details.

----- END OF REPORT-----