

TEST REPORT

Application No.: SZCR2507003148AT
Applicant: Anker Innovations Limited
Address of Applicant: Unit 56, 8th Floor, Tower 2, Admiralty Centre, 18 Harcourt Road, Hong Kong
Manufacturer: Anker Innovations Limited
Address of Manufacturer: Unit 56, 8th Floor, Tower 2, Admiralty Centre, 18 Harcourt Road, Hong Kong
Equipment Under Test (EUT):
EUT Name: Anker Prime Wireless Charging Station(3-in-1, MagGo, AirCool, Dock stand)
Model No.: A25X7 ♣
 ♣ Please refer to section 2 of this report which indicates which model was actually tested and which were electrically identical.
FCC ID: 2AOKB-A25X7
Standard(s) : 47 CFR Part 15, Subpart C
Date of Receipt: 2025-07-18
Date of Test: 2025-07-26 to 2025-08-09
Date of Issue: 2025-08-18

Test Result:	Pass*
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* In the configuration tested, the EUT complied with the standards specified above.

Kenx. Xu

Keny Xu
EMC Laboratory Manager



SGS-CSTC Standards Technical Services Co., Ltd.
Shenzhen Branch (EMC Laboratory)

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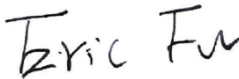
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Revision Record				
Version	Chapter	Date	Modifier	Remark
01		2025-08-18		Original

Authorized for issue by:				
				
		Charlie Dai/Project Engineer		
				
		Eric Fu/Reviewer		



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2 Test Summary

Radio Spectrum Technical Requirement				
Item	Standard	Method	Requirement	Result
Antenna Requirement	47 CFR Part 15, Subpart C	N/A	47 CFR Part 15, Subpart C 15.203	Pass

Radio Spectrum Matter Part				
Item	Standard	Method	Requirement	Result
20dB Bandwidth	47 CFR Part 15, Subpart C	ANSI C63.10 (2020) Section 6.9.2	47 CFR Part 15, Subpart C 15.215	Pass
Conducted Emissions at AC Mains Power Port (150kHz-30MHz)		ANSI C63.10 (2020) Section 6.2	47 CFR Part 15, Subpart C 15.207	Pass
Restricted Bands		ANSI C63.10 (2020) Section 6.10.5	47 CFR Part 15, Subpart C 15.205	Pass
Radiated Emissions (9kHz-30MHz)		ANSI C63.10 (2020) Section 6.4	47 CFR Part 15, Subpart C 15.205 & 15.209	Pass
Radiated Emissions (30MHz-1GHz)		ANSI C63.10 (2020) Section 6.5	47 CFR Part 15, Subpart C 15.205 & 15.209	Pass

Remark:

Model No.: A25X7

The model have two enclosure(black and white), only the model A25X7(with black enclosure) was tested, since according to the declaration from the applicant, the electrical circuit design, layout, components used, internal wiring and functions were identical for all the above models, with only difference on the colour of the enclosure.



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4 General Information

4.1 Details of E.U.T.

Power supply:	Adapter: Model: A2663(for US) Input: 100-240V~50/60HZ 2.1A Output: 5.0V/3.0A, 9.0V/3.0A, 15.0V/3.0A, 20.0V/3.25A Wireless output: Output 1: 5W/7.5W/15W/25W(for iphone/Load) Output 2: 5W(for iwatch) Output 3: 5W(for TWS)
Cable(s):	USB-C to USB-C 150cm unshielded
Operation frequency:	114.4-145.6kHz & 113.0~147.60kHz & 325.296~327.816 & 356.88-369.48kHz & 1776.56~1779.0kHz
Modulation type:	Load modulation
Antenna type:	Loop Antenna

Remark 1:The information in this section is provided by the applicant or manufacturer, SGS is not liable to the accuracy, suitability, reliability or/and integrity of the information.

Remark 2: when this device output 5/7.5W for iphone, the operation frequency range is 114.4-145.6kHz; when this device output 15W/25W for iphone, the operation frequency range is 356.88-369.48kHz.

Remark 3: when this device output 2.5W for iWatch, the operation frequency range is 325.296~327.816 kHz; when this device output 5W for iWatch, the operation frequency range is 1776.56~1779.0kHz.

Remark 4: when this device output 5W for TWS, the operation frequency range is 113.0~147.60kHz;



4.2 Description of Support Units

Description	Manufacturer	Model No.	Serial No.
DC power supply	ZHAOXIN	PS-3005D	REF. No.SEA27B01
E-loading (5W/7.5W/15W/25W adjustable)	Provided by the manufacturer	N/A	N/A
Watch(2.5W/5W)	Apple	Series 5	REF. No.SEA32A00
Airpods(5W)	Apple	Airpods 2	REF. No.SEA05B06D
Mobile Phone (For 5W)	Nexus	MRA58K	REF. No.SEA16P00
iPhone 8 (For 7.5W)	Apple	A1863	REF. No.SEA16J00
iPhone 15Pro (For 15W)	Apple	A3104	REF. No.SEA16Q02
iPhone 16pro (For 25W)	Apple	MYLU3CH/A	Provided by the customer



4.3 Measurement Uncertainty

Test Item	Measurement Uncertainty
20dB Bandwidth	$\pm 0.3\%$
Conducted Emissions at AC Mains Power Port (150kHz-30MHz)	$\pm 3.1\text{dB}$
Restricted Bands	$\pm 0.3\%$
Radiated Emissions (9kHz-30MHz)	$\pm 3.6\text{dB}$
Radiated Emissions (30MHz-1GHz)	$\pm 6.0\text{dB}$ for 3m; $\pm 5.0\text{dB}$ for 10m
Remark: The U_{lab} (lab Uncertainty) is less than $U_{\text{CISPR/ETSI}}$ (CISPR/ETSI Uncertainty), so the test results – compliance is deemed to occur if no measured disturbance level exceeds the disturbance limit; – non-compliance is deemed to occur if any measured disturbance level exceeds the disturbance limit.	



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4.4 Test Location

All tests were performed at:

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No. 1 Workshop, M-10, Middle Section, Science & Technology Park, Nanshan District, Shenzhen, Guangdong, China. 518057.

Tel: +86 755 2601 2053 Fax: +86 755 2671 0594

No tests were sub-contracted.

4.5 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

• A2LA (Certificate No. 3816.01)

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory is accredited by the American Association for Laboratory Accreditation(A2LA). Certificate No. 3816.01.

• VCCI (Member No. 1937)

The 3m Fully-anechoic chamber for above 1GHz, 10m Semi-anechoic chamber for below 1GHz, Shielded Room for Mains Port Conducted Interference Measurement and Telecommunication Port Conducted Interference Measurement of SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen EMC laboratory have been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: G-20026, R-14188, C-12383 and T-11153 respectively.

• FCC –Designation Number: CN1336

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory has been recognized as an accredited testing laboratory.

Designation Number: CN1336. Test Firm Registration Number: 787754.

• Innovation, Science and Economic Development Canada

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory has been recognized by ISED as an accredited testing laboratory.

CAB identifier: CN0006.

IC#: 4620C.

4.6 Deviation from Standards

None

4.7 Abnormalities from Standard Conditions

None



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5 Equipment List

20dB Bandwidth					
Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date
DC Power Supply	Zhao Xin	PS-305D	SEM011-13	2025-07-24	2026-07-23
Spectrum Analyzer	Rohde & Schwarz	FSP30	SEM004-06	2024-09-14	2025-09-13
Measurement Software	TST PASS	TST PASS V2.0	N/A	N/A	N/A
Coaxial Cable	SGS	N/A	SEM031-01	2025-07-05	2026-07-04
Attenuator	Huber+Suhner	6620_SMA-50-1	SEM021-09	2025-03-03	2026-03-02

Conducted Emissions at AC Mains Power Port (150kHz-30MHz)					
Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date
Shielding Room	ZhongYu Electron	GB-88	SEM001-06	2025-05-07	2028-05-06
EMI Test Receiver	Rohde&Schwarz	ESR	SZ-WRG-M-047	2025-01-08	2026-01-07
Measurement Software	AUDIX	e3 V8.2014-6-27a	N/A	N/A	N/A
Coaxial Cable	SGS	N/A	SEM024-01	2025-07-05	2026-07-04
LISN	Rohde&Schwarz	ENV216	SEM007-01	2025-07-25	2026-07-24
LISN	ETS-LINDGREN	3816/2	SEM007-02	2025-03-03	2026-03-02

Restricted Bands					
Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date
DC Power Supply	Zhao Xin	PS-305D	SEM011-13	2025-07-24	2026-07-23
Spectrum Analyzer	Rohde & Schwarz	FSP30	SEM004-06	2024-09-14	2025-09-13
Measurement Software	TST PASS	TST PASS V2.0	N/A	N/A	N/A
Coaxial Cable	SGS	N/A	SEM031-01	2025-07-05	2026-07-04
Attenuator	Huber+Suhner	6620_SMA-50-1	SEM021-09	2025-03-03	2026-03-02

Radiated Emissions (9kHz-30MHz)					
Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date
10m Semi-Anechoic Chamber	SAEMC	FSAC1018	SEM001-03	2025-03-21	2026-03-20
MXE EMI receiver	KEYSIGHT	N9038A	SEM004-16	2025-07-25	2026-07-24
Trilog-Broadband Antenna	Schwarzbeck	VULB9168	SEM003-18	2023-09-23	2025-09-22
Pre-amplifier	Sonoma Instrument	310N	SEM005-04	2025-03-04	2026-03-03



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	Co				
Loop Antenna	ETS-Lindgren	6502	SEM003-08	2023-11-20	2025-11-19
Measurement Software	AUDIX	e3 V8.2014-6-27	N/A	N/A	N/A
Coaxial Cable	SGS	N/A	SEM029-01	2025-07-05	2026-07-04

Radiated Emissions (30MHz-1GHz)

Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date
10m Semi-Anechoic Chamber	SAEMC	FSAC1018	SEM001-03	2025-03-21	2026-03-20
MXE EMI receiver	KEYSIGHT	N9038A	SEM004-16	2025-07-25	2026-07-24
Trilog-Broadband Antenna	Schwarzbeck	VULB9168	SEM003-18	2023-09-23	2025-09-22
Pre-amplifier	Sonoma Instrument Co	310N	SEM005-04	2025-03-04	2026-03-03
Loop Antenna	ETS-Lindgren	6502	SEM003-08	2023-11-20	2025-11-19
Measurement Software	AUDIX	e3 V8.2014-6-27	N/A	N/A	N/A
Coaxial Cable	SGS	N/A	SEM029-01	2025-07-05	2026-07-04

General used equipment

Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date
Humidity/ Temperature Indicator	deli	8838	SEM002-32	2025-07-23	2026-07-22
Humidity/ Temperature Indicator	deli	8838	SEM002-33	2025-07-23	2026-07-22
Barometer	Changchun Meteorological Industry Factory	DYM3	SEM002-01	2025-03-03	2026-03-02



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6 Radio Spectrum Technical Requirement

6.1 Antenna Requirement

6.1.1 Test Requirement:

47 CFR Part 15, Subpart C 15.203

6.1.2 Conclusion

15.203 requirement:

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, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

EUT Antenna:

The antenna is integrated on the main PCB and no consideration of replacement.

Antenna location: Refer to Internal photos



7 Radio Spectrum Matter Test Results

7.1 20dB Bandwidth

Test Requirement 47 CFR Part 15, Subpart C 15.215

Test Method: ANSI C63.10 (2020) Section 6.9.2

Limit:

For report reference only

7.1.1 E.U.T. Operation

Operating Environment:

Temperature: 23.0 °C

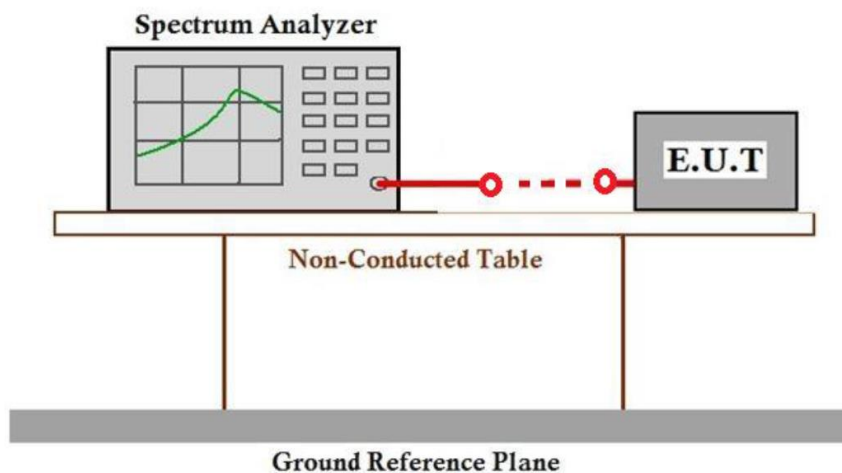
Humidity: 50.7 % RH

Atmospheric Pressure: 1020 mbar

7.1.2 Test Mode Description

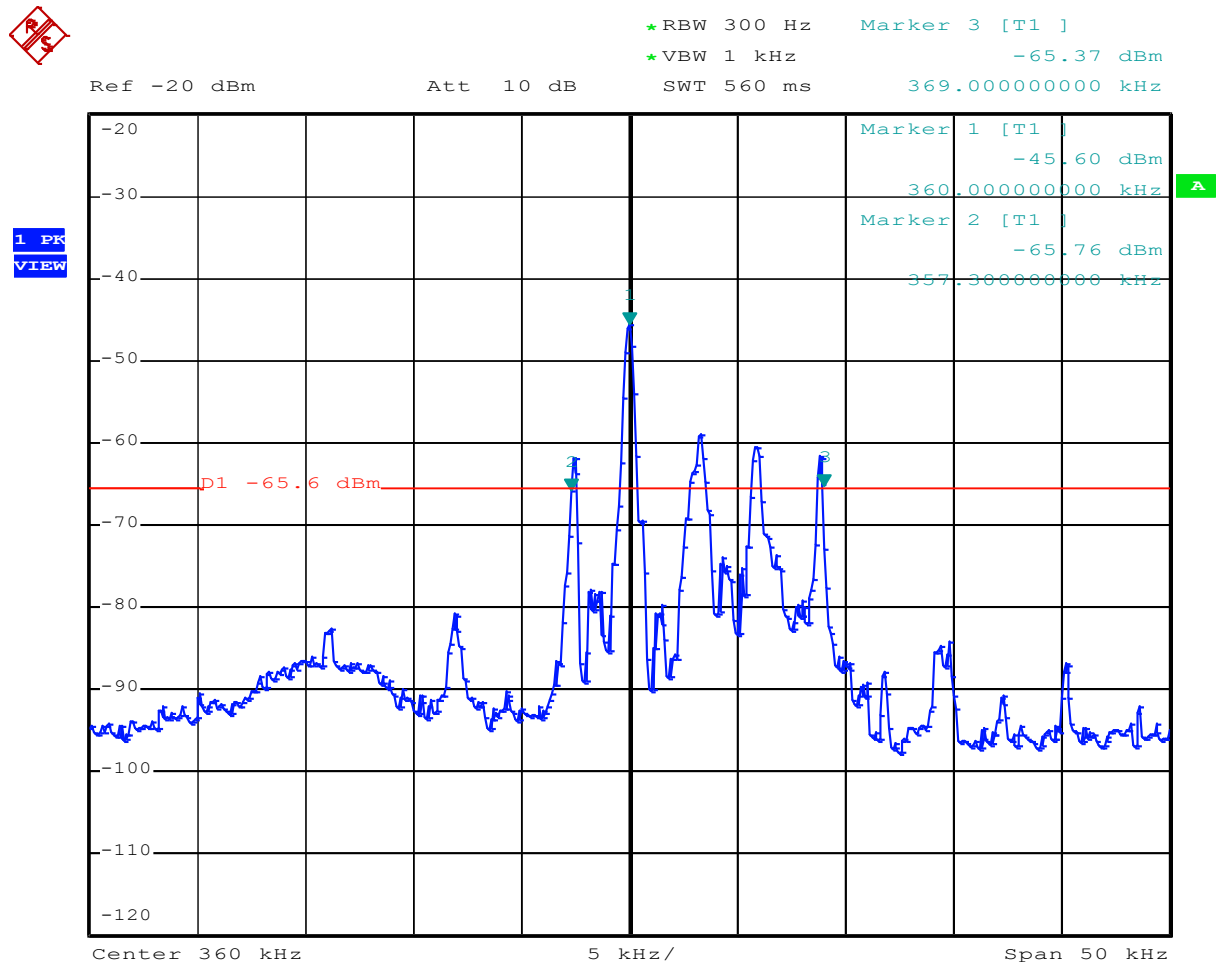
Pre-scan / Final test	Mode Code	Description
Final test	02	Operation(Wireless):Keep the EUT pairing with other devices(Output1: 7.5W).
Final test	05	Operation(Wireless):Keep the EUT pairing with other devices(Output1: 25W).
Final test	06-1	Operation(Wireless):Keep the EUT pairing with other devices(Output2: 2.5W).
Final test	06-2	Operation(Wireless):Keep the EUT pairing with other devices(Output2: 5W).
Final test	07	Operation(Wireless):Keep the EUT pairing with other devices(Output3: 5W).

7.1.3 Test Setup Diagram

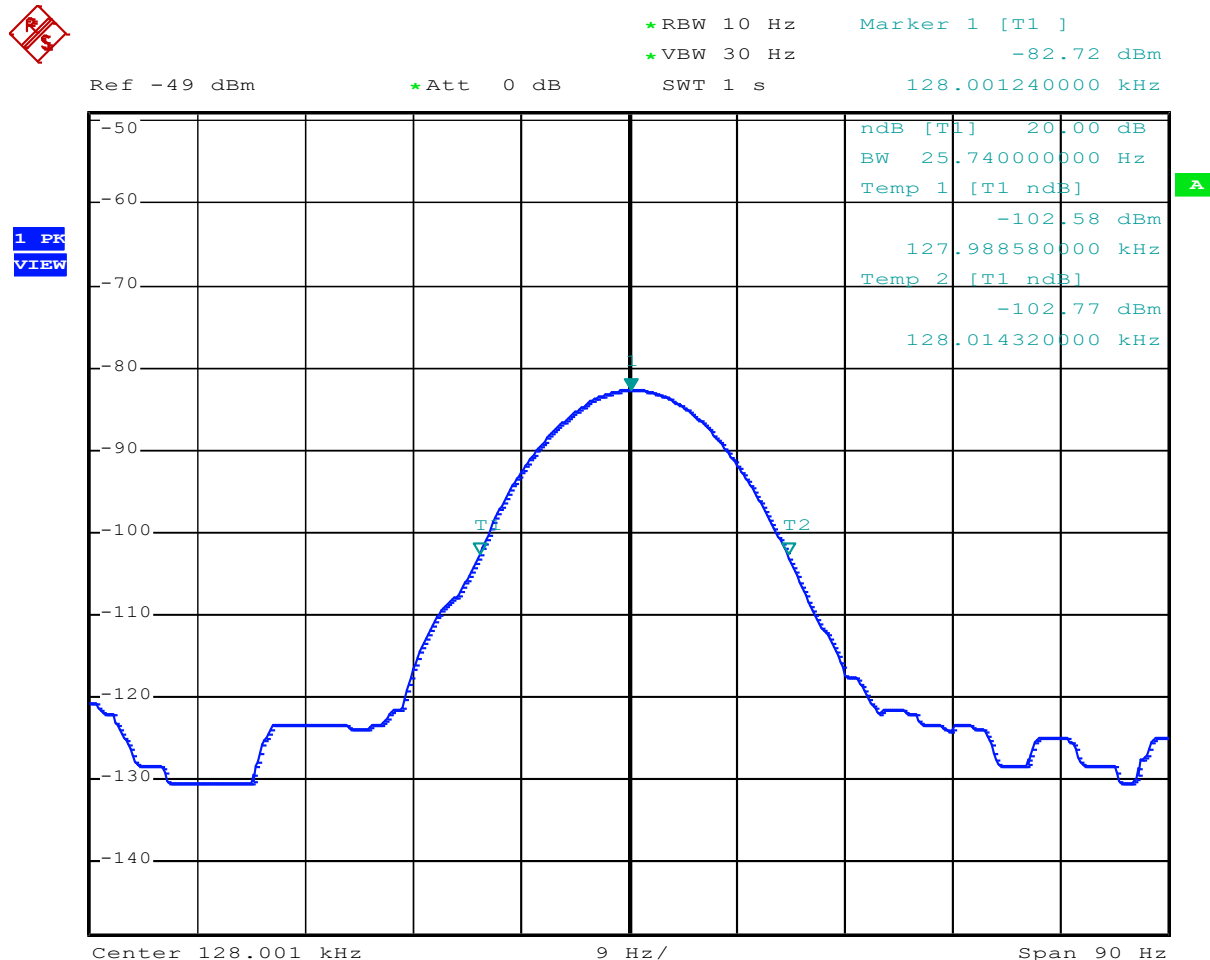


7.1.4 Measurement Procedure and Data

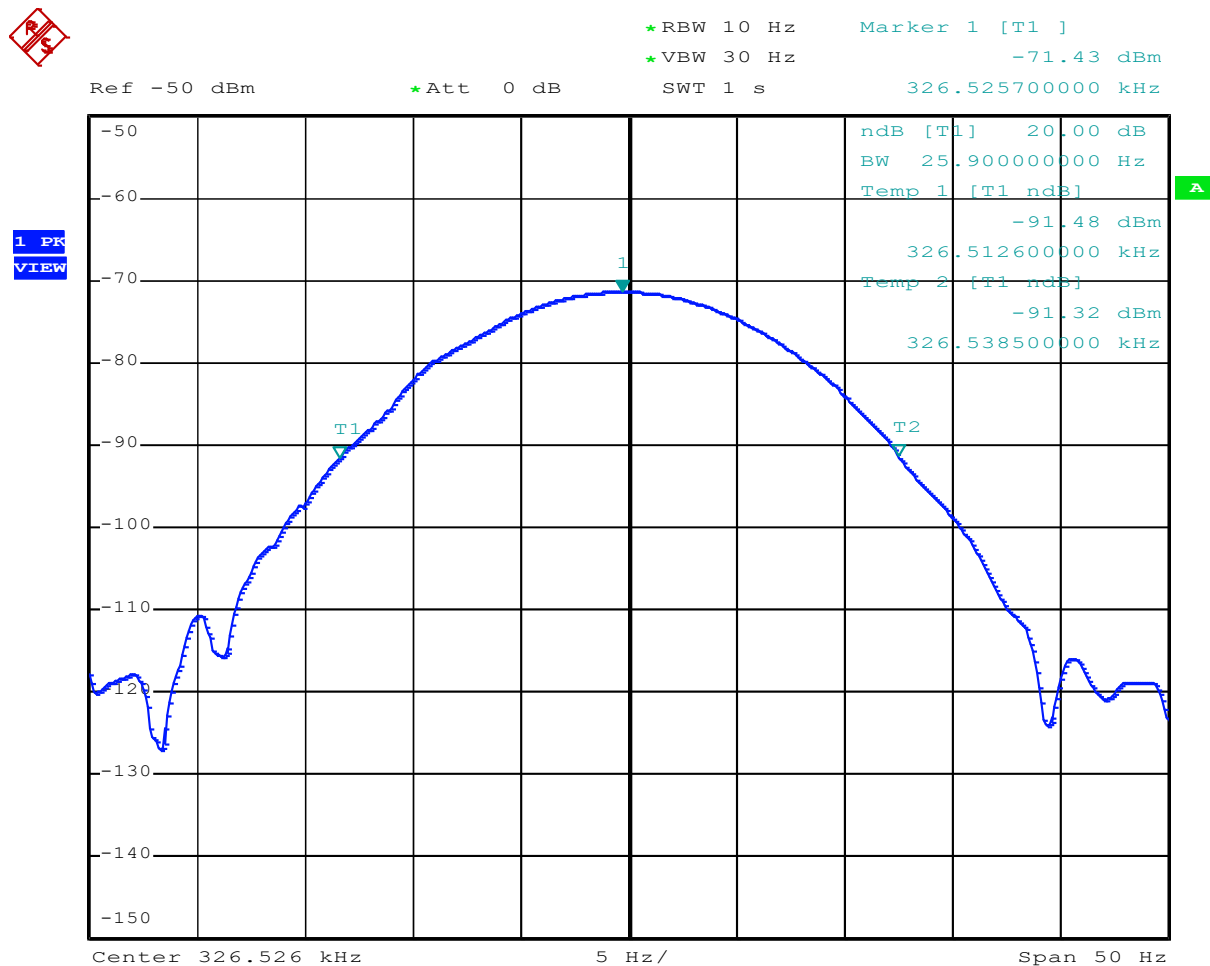
Mode 05:



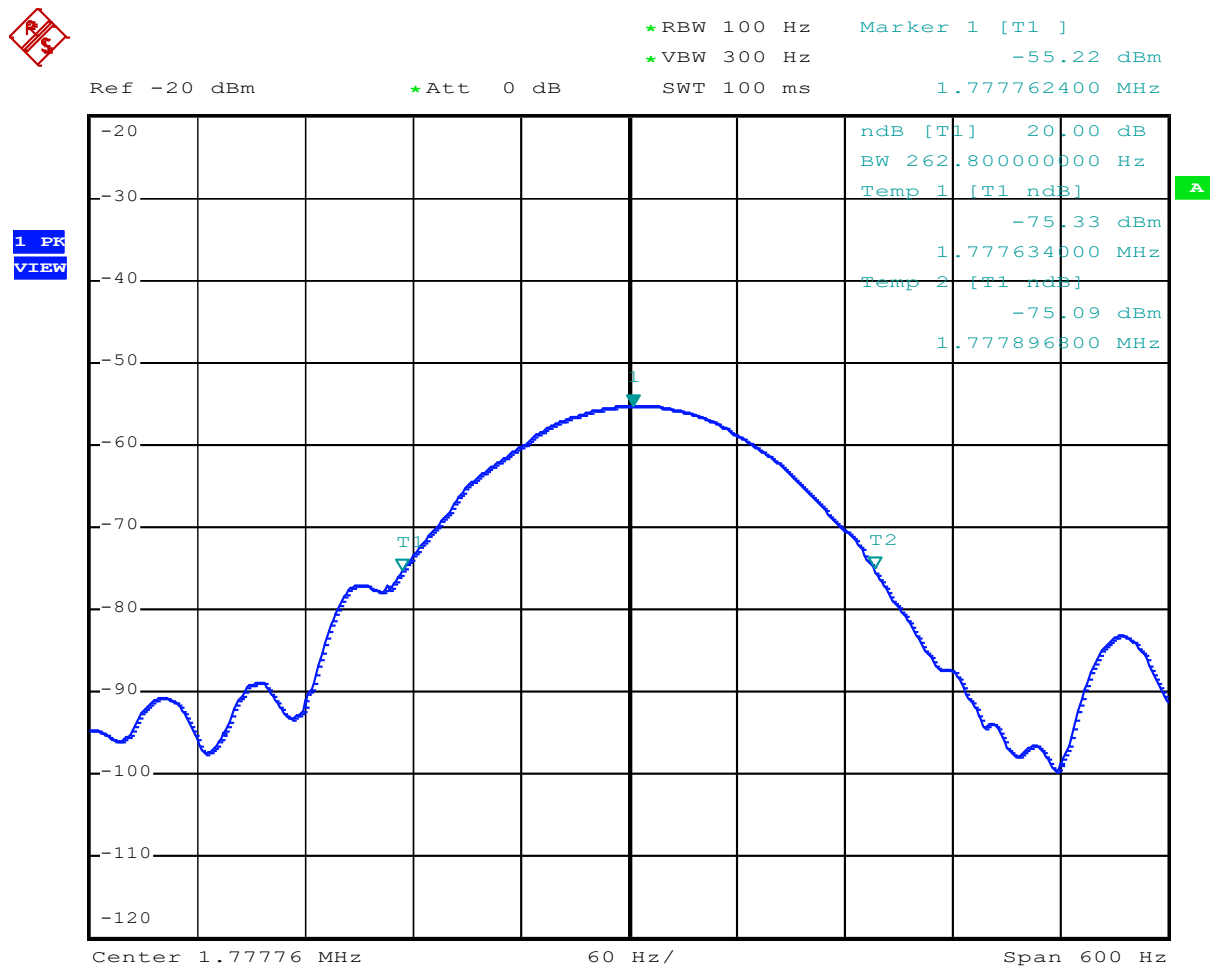
Mode 02:



Mode 06-1:



Mode 06-2:



Mode 07:



*RBW 10 Hz Marker 1 [T1] -64.81 dBm
*VBW 30 Hz
SWT 1 s 147.00000000 kHz

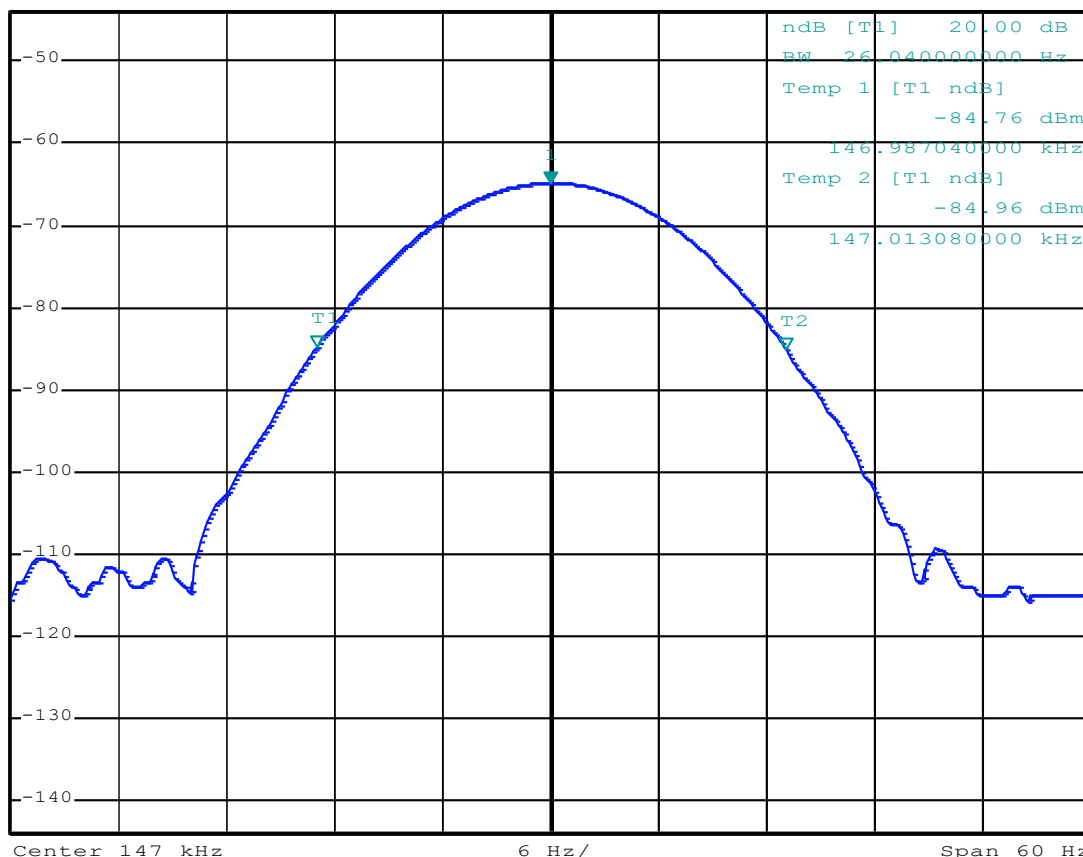
Ref -44 dBm

*Att 10 dB

SWT 1 s

147.00000000 kHz

1 PK
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7.2 Conducted Emissions at AC Mains Power Port (150kHz-30MHz)

Test Requirement 47 CFR Part 15, Subpart C 15.207

Test Method: ANSI C63.10 (2020) Section 6.2

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.

7.2.1 E.U.T. Operation

Operating Environment:

Temperature: 25.3 °C

Humidity: 40.5 % RH

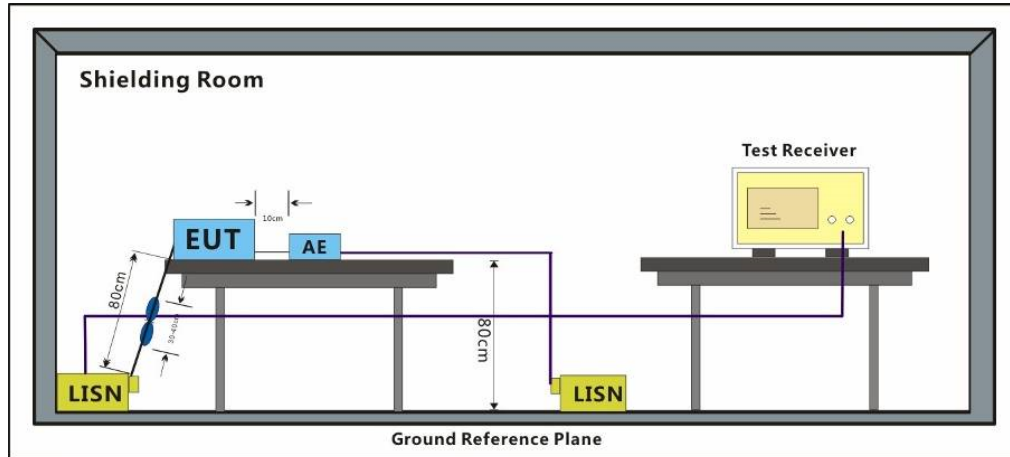
Atmospheric Pressure: 1020 mbar

7.2.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Pre-scan	02	Operation(Wireless):Keep the EUT pairing with other devices(Output1: 5W).
Pre-scan	03	Operation(Wireless):Keep the EUT pairing with other devices(Output1: 7.5W).
Pre-scan	04	Operation(Wireless):Keep the EUT pairing with other devices(Output1: 15W).
Pre-scan	05	Operation(Wireless):Keep the EUT pairing with other devices(Output1: 25W).
Pre-scan	06	Operation(Wireless):Keep the EUT pairing with other devices(Output2: 5W).
Pre-scan	07	Operation(Wireless):Keep the EUT pairing with other devices(Output3: 5W).
Final test	20	Operation(Wireless):Keep the EUT pairing with other devices(Output1: 25W+Output2: 5W+Output 3: 5W) + BT.



7.2.3 Test Setup Diagram



7.2.4 Measurement Procedure and Data

- 1) The mains terminal disturbance voltage test was conducted in a shielded room.
- 2) The EUT was connected to AC power source through a LISN 1 (Line Impedance Stabilization Network) which provides a 50ohm/50μH + 5ohm linear impedance. The power cables of all other units of the EUT were connected to a second LISN 2, which was bonded to the ground reference plane in the same way as the LISN 1 for the unit being measured. A multiple socket outlet strip was used to connect multiple power cables to a single LISN provided the rating of the LISN was not exceeded.
- 3) The tabletop EUT was placed upon a non-metallic table 0.8m above the ground reference plane. And for floor-standing arrangement, the EUT was placed on the horizontal ground reference plane,
- 4) The test was performed with a vertical ground reference plane. The rear of the EUT shall be 0.4 m from the vertical ground reference plane. The vertical ground reference plane was bonded to the horizontal ground reference plane. The LISN 1 was placed 0.8 m from the boundary of the unit under test and bonded to a ground reference plane for LISNs mounted on top of the ground reference plane. This distance was between the closest points of the LISN 1 and the EUT. All other units of the EUT and associated equipment was at least 0.8 m from the LISN 2.
- 5) 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 on conducted measurement.

Remark: Level=Read Level+ Cable Loss+ LISN Factor



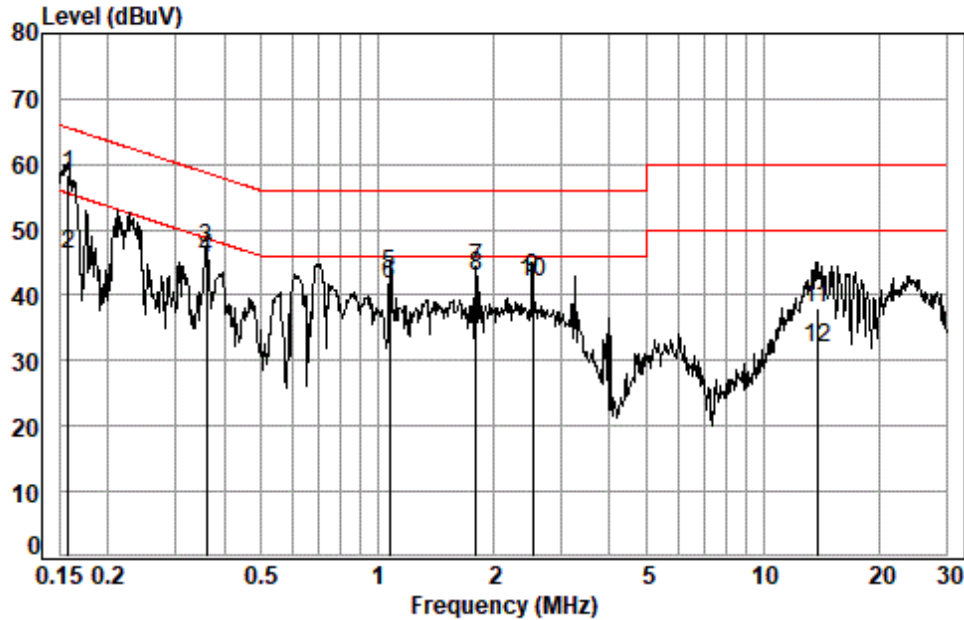
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SZEMC-TRF-01 Rev. A/1

Report No.: SZCR250700314803

Page: 21 of 44

Test Mode: 20; Line: Live line



Site : Shielding Room
Condition: Line
Job No. : 03148AT
Test mode: 20

	Freq	Cable Loss	LISN Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB	dBuV	dBuV	dBuV	dB	
1 *	0.1582	0.05	10.18	48.26	58.49	65.56	-7.07	QP
2	0.1582	0.05	10.18	35.98	46.21	55.56	-9.35	Average
3	0.3596	0.07	9.74	37.43	47.24	58.74	-11.50	QP
4	0.3596	0.07	9.74	35.68	45.49	48.74	-3.25	Average
5	1.0767	0.10	9.58	33.56	43.24	56.00	-12.76	QP
6	1.0767	0.10	9.58	31.86	41.54	46.00	-4.46	Average
7	1.8000	0.11	9.58	34.53	44.22	56.00	-11.78	QP
8 *	1.8000	0.11	9.58	33.13	42.82	46.00	-3.18	Average
9	2.5199	0.12	9.62	32.99	42.73	56.00	-13.27	QP
10	2.5199	0.12	9.62	32.09	41.83	46.00	-4.17	Average
11	13.8411	0.25	9.87	27.97	38.09	60.00	-21.91	QP
12	13.8411	0.25	9.87	21.95	32.07	50.00	-17.93	Average



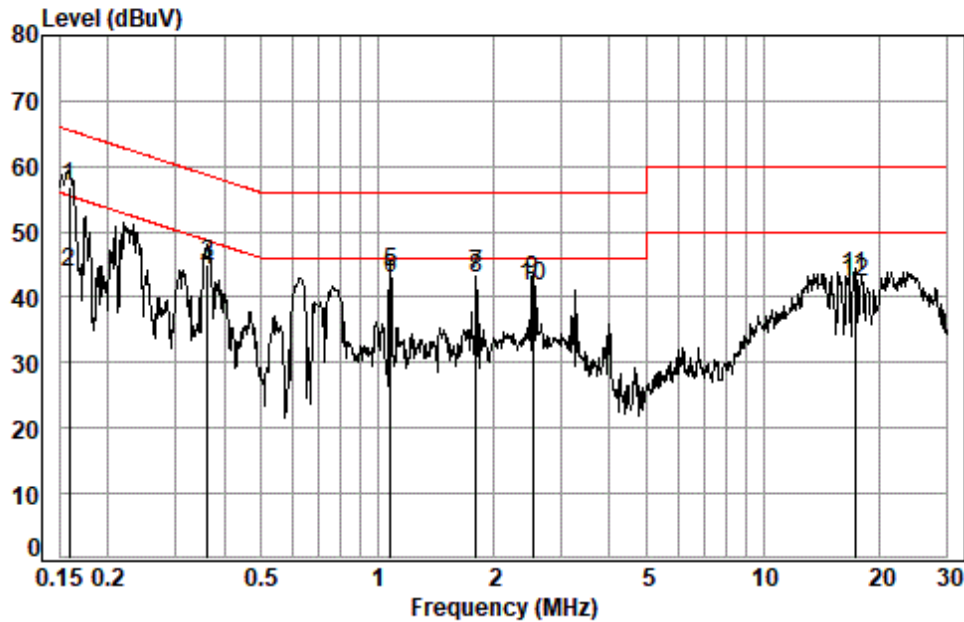
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Test Mode: 20; Line: Neutral Line



Site : Shielding Room
Condition: Neutral
Job No. : 03148AT
Test mode: 20

	Freq	Cable Loss	LISN Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB	dBuV	dBuV	dBuV	dB	
1 *	0.1590	0.05	10.14	46.63	56.82	65.52	-8.70	QP
2	0.1590	0.05	10.14	33.68	43.87	55.52	-11.65	Average
3	0.3634	0.07	9.75	35.12	44.94	58.65	-13.71	QP
4	0.3634	0.07	9.75	34.36	44.18	48.65	-4.47	Average
5	1.0824	0.10	9.54	34.09	43.73	56.00	-12.27	QP
6 *	1.0824	0.10	9.54	33.33	42.97	46.00	-3.03	Average
7	1.8000	0.11	9.55	33.84	43.50	56.00	-12.50	QP
8	1.8000	0.11	9.55	33.12	42.78	46.00	-3.22	Average
9	2.5200	0.12	9.54	33.07	42.73	56.00	-13.27	QP
10	2.5200	0.12	9.54	32.02	41.68	46.00	-4.32	Average
11	17.2799	0.30	10.00	32.93	43.23	60.00	-16.77	QP
12	17.2799	0.30	10.00	31.84	42.14	50.00	-7.86	Average



7.3 Restricted Bands

Test Requirement 47 CFR Part 15, Subpart C 15.205
Test Method: ANSI C63.10 (2020) Section 6.10.5

Limit:

The fundamental wave could not fall in the restricted band 90KHz-110KHz

7.3.1 E.U.T. Operation

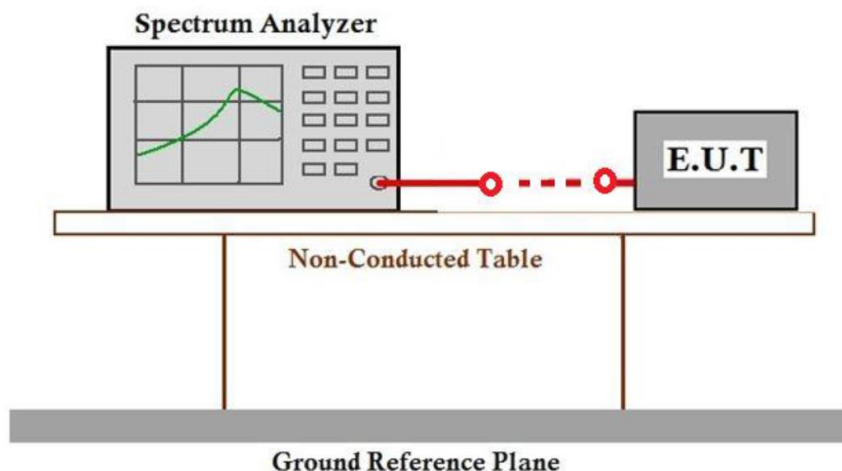
Operating Environment:

Temperature: 23.0 °C Humidity: 50.7 % RH Atmospheric Pressure: 1020 mbar

7.3.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	02	Operation(Wireless):Keep the EUT pairing with other devices(Output1: 5W).
Final test	04	Operation(Wireless):Keep the EUT pairing with other devices(Output1: 25W).
Final test	05	Operation(Wireless):Keep the EUT pairing with other devices(Output2: 2.5W).
Final test	06	Operation(Wireless):Keep the EUT pairing with other devices(Output2: 5W).
Final test	07	Operation(Wireless):Keep the EUT pairing with other devices(Output3: 5W).

7.3.3 Test Setup Diagram



7.3.4 Measurement Procedure and Data

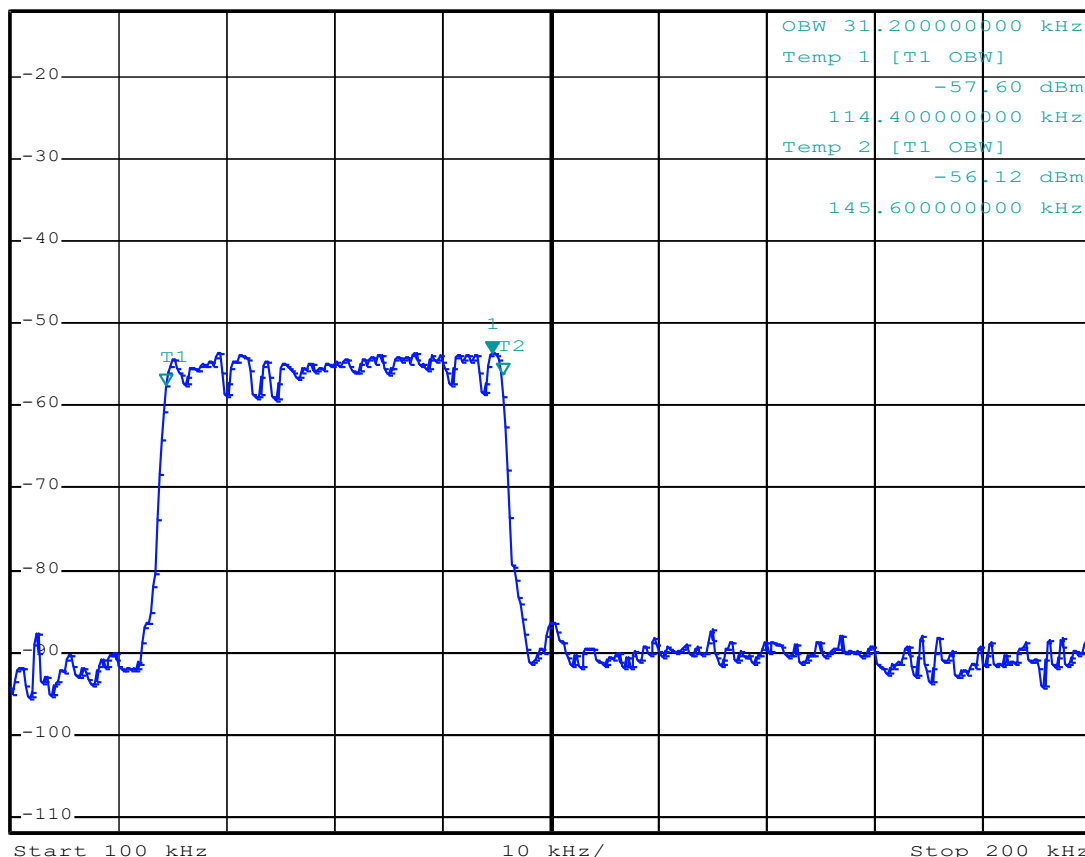


Mode 02

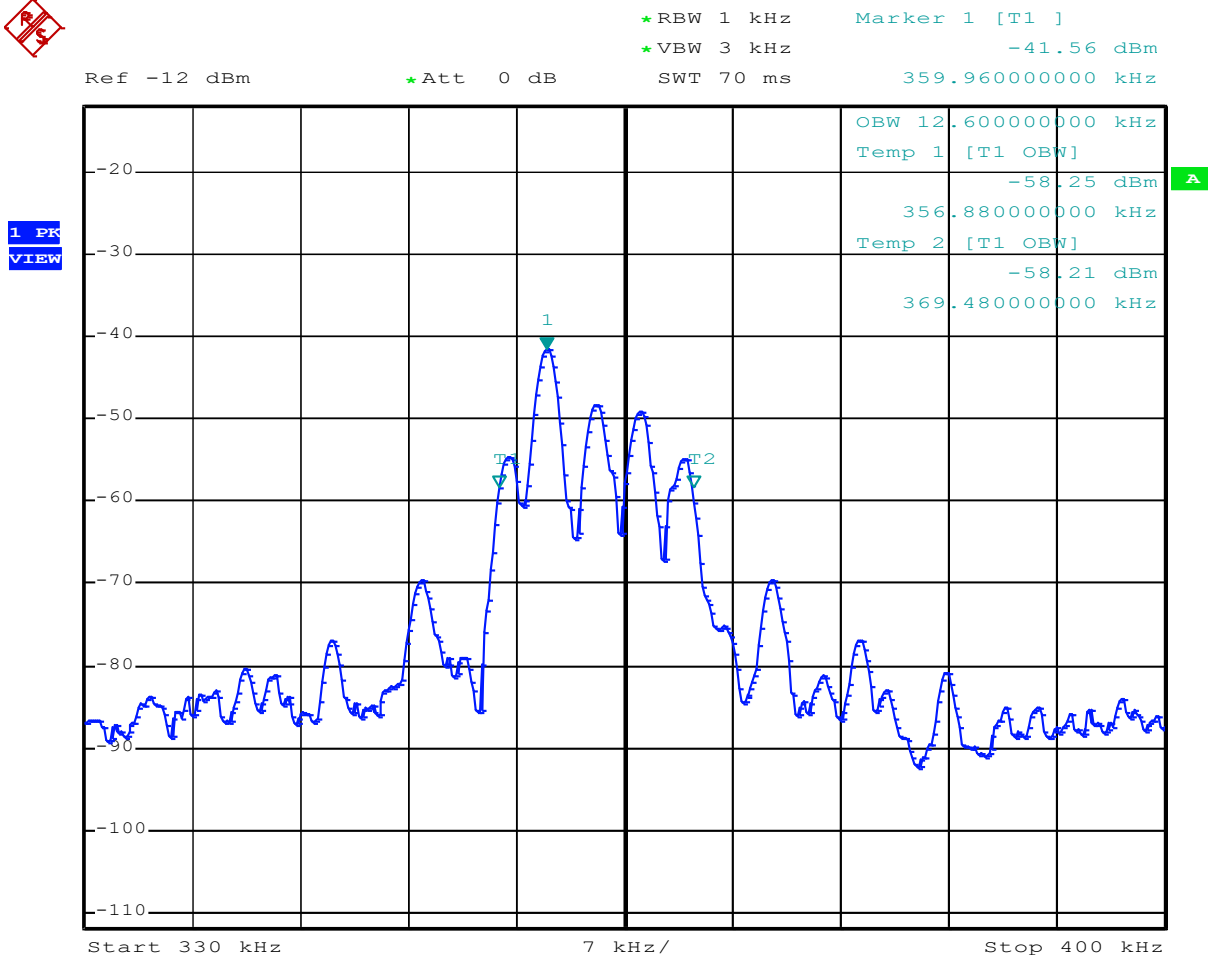


★RBW 1 kHz Marker 1 [T1]
★VBW 3 kHz -53.50 dBm
Ref -12 dBm ★Att 0 dB SWT 100 ms 144.60000000 kHz

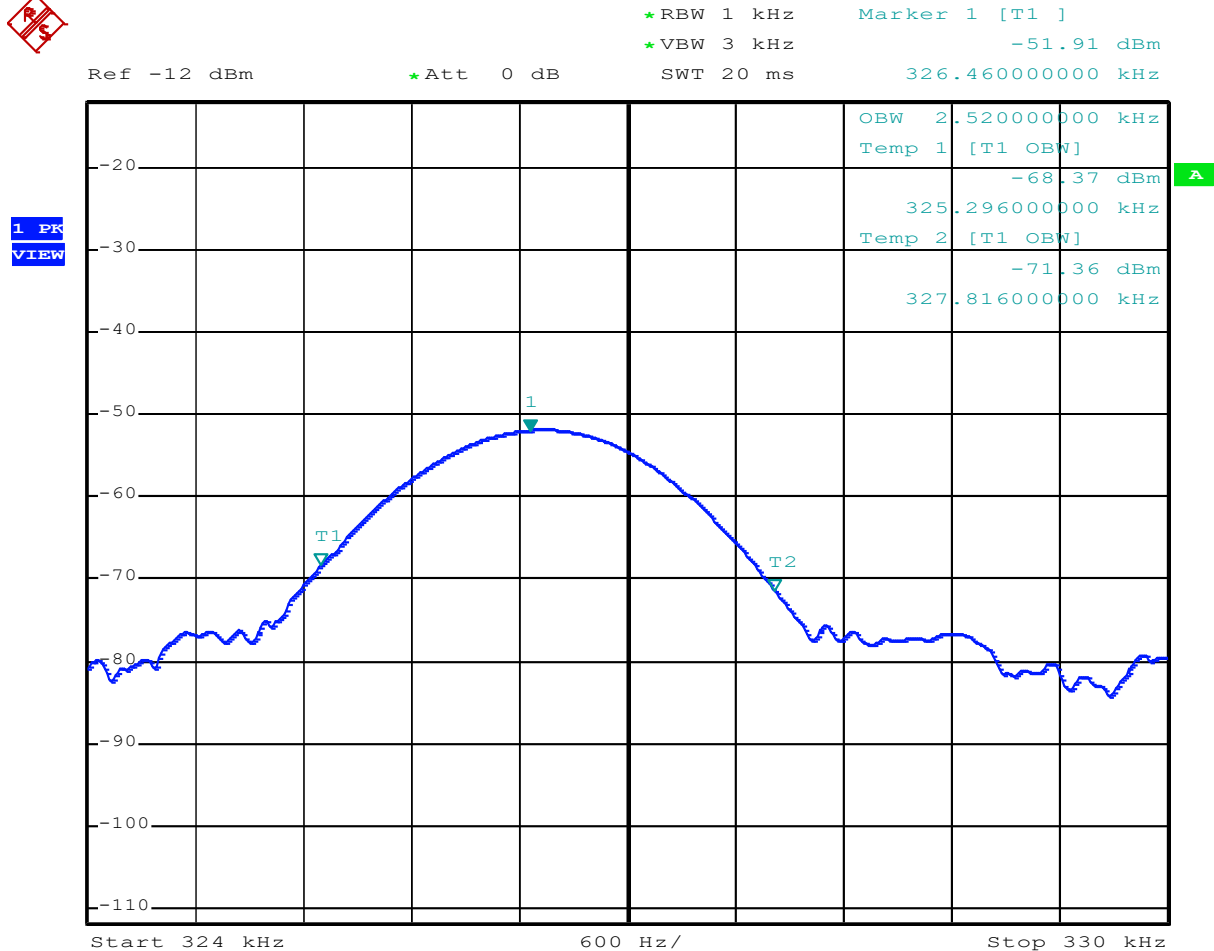
1 PK
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Mode 04



Mode 05



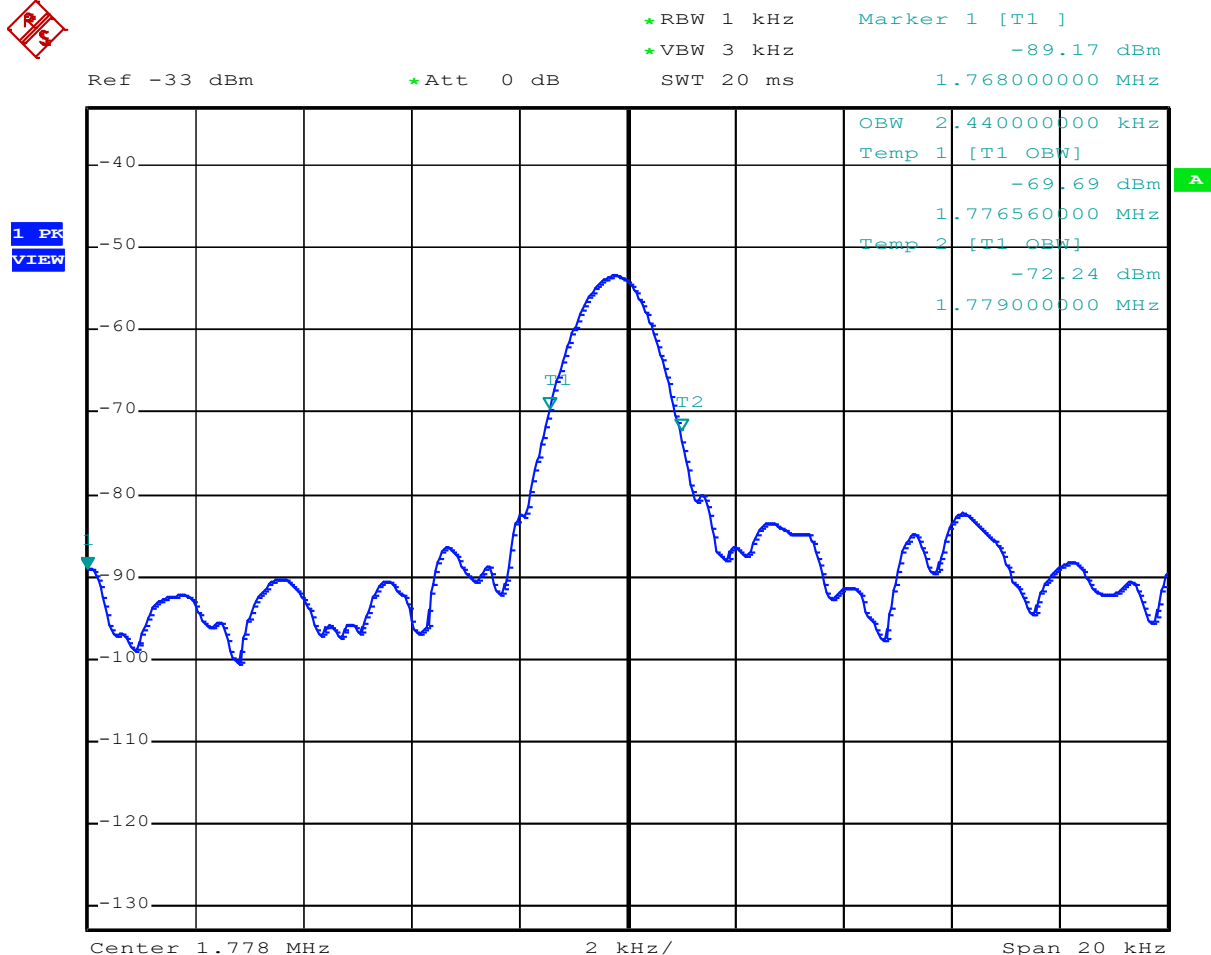
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Mode 06



Mode 07

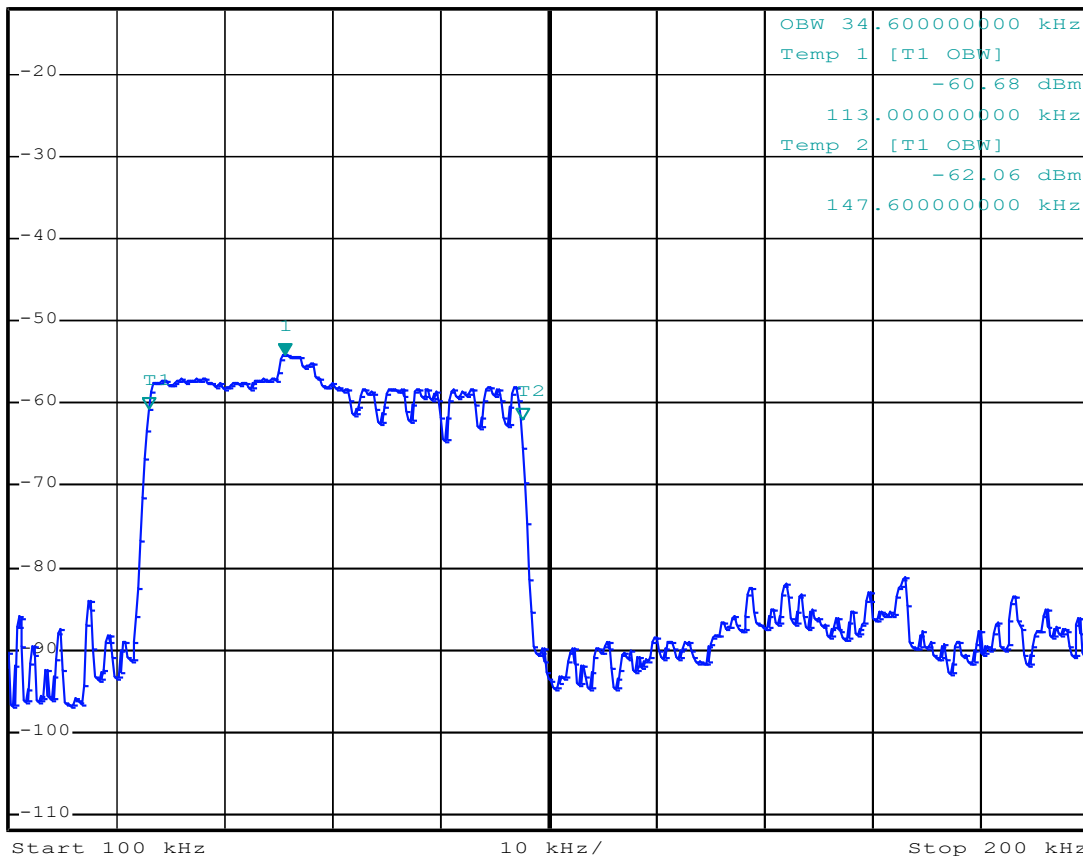


*RBW 1 kHz Marker 1 [T1]
*VBW 3 kHz -54.17 dBm
SWT 100 ms 125.60000000 kHz

Ref -12 dBm

*Att 0 dB

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7.4 Radiated Emissions (9kHz-30MHz)

Test Requirement 47 CFR Part 15, Subpart C 15.205 & 15.209

Test Method: ANSI C63.10 (2020) Section 6.4

Measurement Distance: 3m

Limit:

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

Remark: The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90kHz, 110-490kHz. Radiated emission limits in these three bands are based on measurements employing an average detector, 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.

If field strength is measured at only a single point, then that point shall be at the radial from the EUT that produces the maximum emission at the frequency being measured, as described in 5.4. If that point is closer to the EUT than $\lambda/2\pi$ and the limit distance is greater than $\lambda/2\pi$, the measurement shall be extrapolated to the limit distance by conservatively presuming that the field strength decreases at a 40 dB/decade of distance rate to the $\lambda/2\pi$ distance, and at a 20 dB/decade of distance rate beyond $\lambda/2\pi$. This shall be accomplished using Equation (2):

$$FS_{(10m)} = FS_{(30/300m)} + 40\log\{d_{(near\ field)}/d_{(10m)}\} + 20\log\{d_{(30/300m)}/d_{(near\ field)}\} \quad (2)$$

If the single point measured is at a distance greater than $\lambda/2\pi$, then extrapolation to the limit distance shall be calculated using Equation (3):

$$FS_{(10m)} = FS_{(30/300m)} + 20\log\{d_{(30/300m)}/d_{(10m)}\} \quad (3)$$

If both the single point and the limit distance are equal to or closer to the EUT than $\lambda/2\pi$, then extrapolation to the limit distance shall be calculated using Equation (4):

$$FS_{(10m)} = FS_{(30/300m)} + 40\log\{d_{(30/300m)}/d_{(10m)}\} \quad (4)$$

Remark:

$$d_{near\ field} = 47.77 / f_{MHz}$$

where f_{MHz} is the frequency of the emission being measured in MHz.

7.4.1 E.U.T. Operation

Operating Environment:

Temperature: 23.6 °C

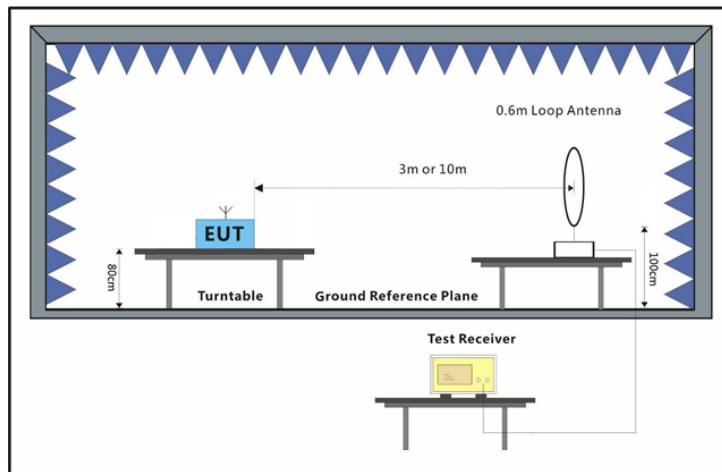
Humidity: 48.0 % RH

Atmospheric Pressure: 1020 mbar

7.4.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Pre-scan	02	Operation(Wireless):Keep the EUT pairing with other devices(Output1: 5W).
Pre-scan	03	Operation(Wireless):Keep the EUT pairing with other devices(Output1: 7.5W).
Pre-scan	04	Operation(Wireless):Keep the EUT pairing with other devices(Output1: 15W).
Pre-scan	05	Operation(Wireless):Keep the EUT pairing with other devices(Output1: 25W).
Pre-scan	06	Operation(Wireless):Keep the EUT pairing with other devices(Output2: 5W).
Pre-scan	07	Operation(Wireless):Keep the EUT pairing with other devices(Output3: 5W).
Final test	18	Operation(Wireless):Keep the EUT pairing with other devices(Output1: 7.5W+Output2: 5W+Output 3: 5W).
Final test	20	Operation(Wireless):Keep the EUT pairing with other devices(Output1: 25W+Output2: 5W+Output 3: 5W) + BT.

7.4.3 Test Setup Diagram



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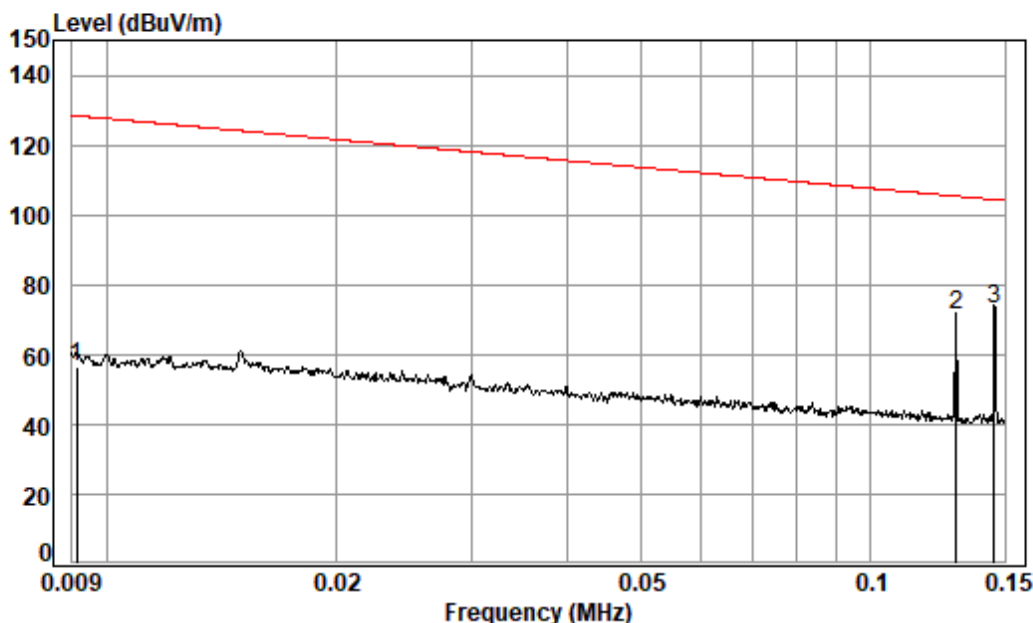
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7.4.4 Measurement Procedure and Data

- a. All radiated emission measurements in terms of magnetic field strength shall be performed with a shielded loop antenna.
- b. For all radiated emission measurements in terms of magnetic field strength, the loop antenna were placed such that:
 - i. its centre shall be at 1.3 m height above the ground plane;
 - ii. the projection of its centre onto the ground plane shall be at the specified measurement distance from the projection on the ground plane of the closest point on the boundary of the equipment under test (EUT); and
 - iii. measurements shall be performed with the loop antenna placed vertically, in turn, in two polarizations (the measurement axis specified below is the line segment connecting the projections on the ground plane of the centre of the loop antenna and the centre of the EUT arrangement):
 - coaxial (loop plane perpendicular to the ground plane and to the measurement axis); and
 - coplanar (loop plane perpendicular to the ground plane and coplanar with the measurement axis).





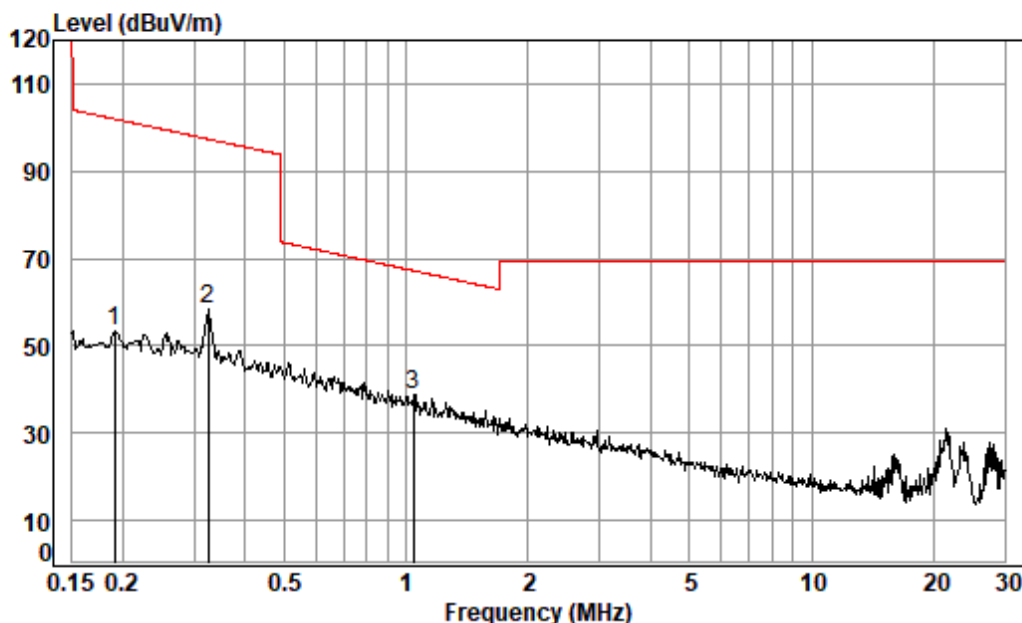
Condition: 3m

Job No. : 03148AT

Test Mode: 18

	Freq	Read Level	Ant Factor	Cable Loss	Preamp Factor	Level	Limit	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	0.009	68.22	18.99	0.10	31.11	56.20	128.38	-72.18	Average
2	0.130	92.77	10.52	0.14	32.40	71.03	105.35	-34.32	Average
3 pp	0.145	94.57	10.50	0.14	32.40	72.81	104.35	-31.54	Average





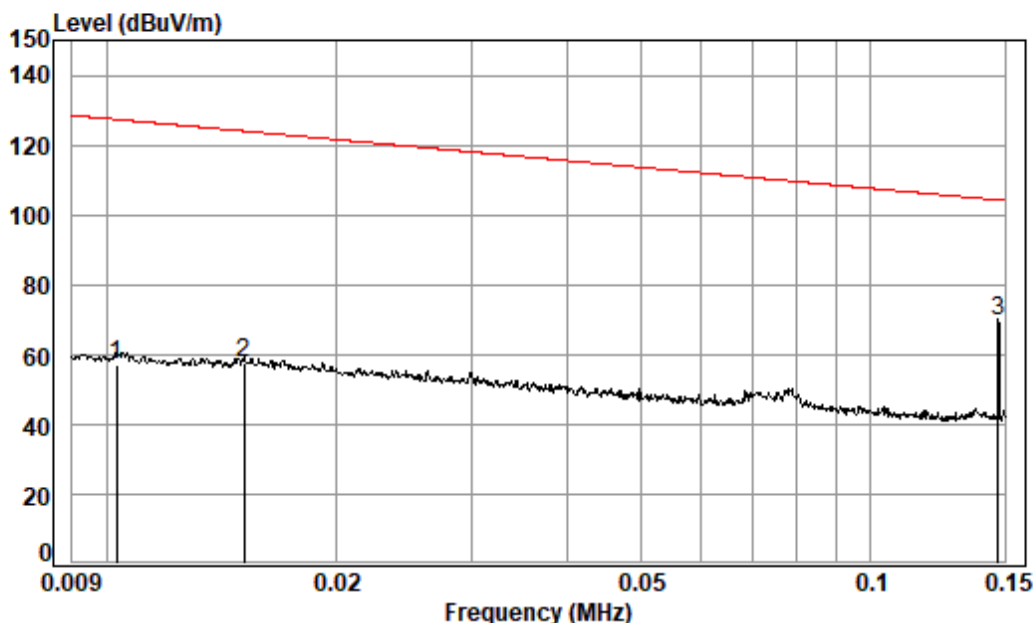
Condition: 3m

Job No. : 03148AT

Test Mode: 18

	Freq	Read Level	Ant Factor	Cable Loss	Preamplifier Factor	Level	Limit	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	0.191	74.98	10.47	0.17	32.40	53.22	101.96	-48.74	
2	0.325	80.04	10.40	0.23	32.42	58.25	97.36	-39.11	
3 pp	1.043	60.70	10.34	0.36	32.60	38.80	67.20	-28.40	





Condition: 3m

Job No. : 03148AT

Test Mode: 20

	Freq	Read Level	Ant Factor	Cable Loss	Preamplifier Factor	Level	Limit	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	0.010	70.04	18.07	0.10	31.19	57.02	127.33	-70.31	Average
2	0.015	73.19	15.91	0.11	31.46	57.75	123.98	-66.23	Average
3 pp	0.147	91.46	10.50	0.14	32.40	69.70	104.25	-34.55	Average

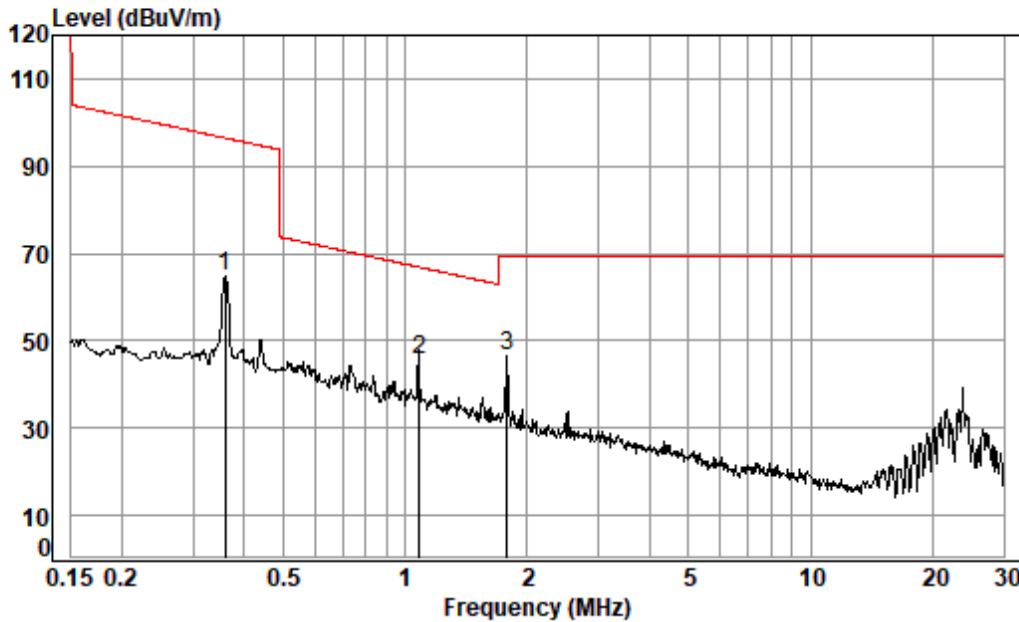


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Condition: 3m

Job No. : 03148AT

Test Mode: 20

		Read	Ant	Cable	Preamp		Limit	Over	
	Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	av	0.360	86.44	10.39	0.24	32.44	64.63	96.49	-31.86 Average
2	pp	1.082	67.63	10.32	0.37	32.59	45.73	66.87	-21.14 QP
3		1.781	68.71	10.08	0.42	32.55	46.66	69.50	-22.84 QP



7.5 Radiated Emissions (30MHz-1GHz)

Test Requirement 47 CFR Part 15, Subpart C 15.205 & 15.209

Test Method: ANSI C63.10 (2020) Section 6.5

Measurement Distance: 10m

Limit:

Frequency(MHz)	Field strength(microvolts/meter)	Measurement distance(meters)
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3
Remark: The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector.		

7.5.1 E.U.T. Operation

Operating Environment:

Temperature: 23.6 °C

Humidity: 48.1 % RH

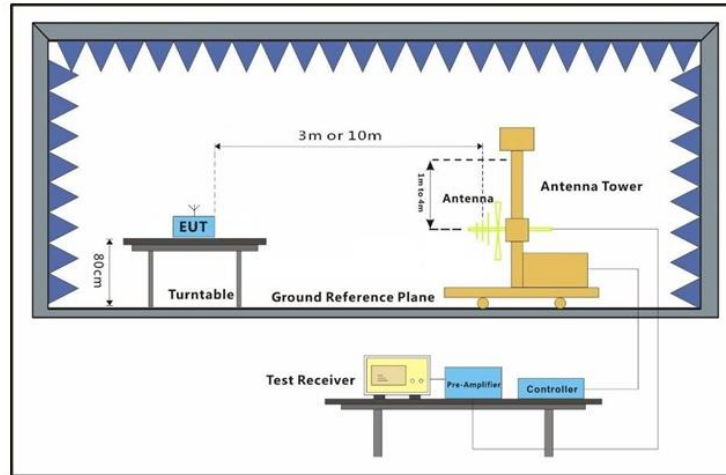
Atmospheric Pressure: 1020 mbar

7.5.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Pre-scan	02	Operation(Wireless):Keep the EUT pairing with other devices(Output1: 5W).
Pre-scan	03	Operation(Wireless):Keep the EUT pairing with other devices(Output1: 7.5W).
Pre-scan	04	Operation(Wireless):Keep the EUT pairing with other devices(Output1: 15W).
Pre-scan	05	Operation(Wireless):Keep the EUT pairing with other devices(Output1: 25W).
Pre-scan	06	Operation(Wireless):Keep the EUT pairing with other devices(Output2: 5W).
Pre-scan	07	Operation(Wireless):Keep the EUT pairing with other devices(Output3: 5W).
Final test	18	Operation(Wireless):Keep the EUT pairing with other devices(Output1: 7.5W+Output2: 5W+Output 3: 5W).
Final test	20	Operation(Wireless):Keep the EUT pairing with other devices(Output1: 25W+Output2: 5W+Output 3: 5W) + BT.



7.5.3 Test Setup Diagram



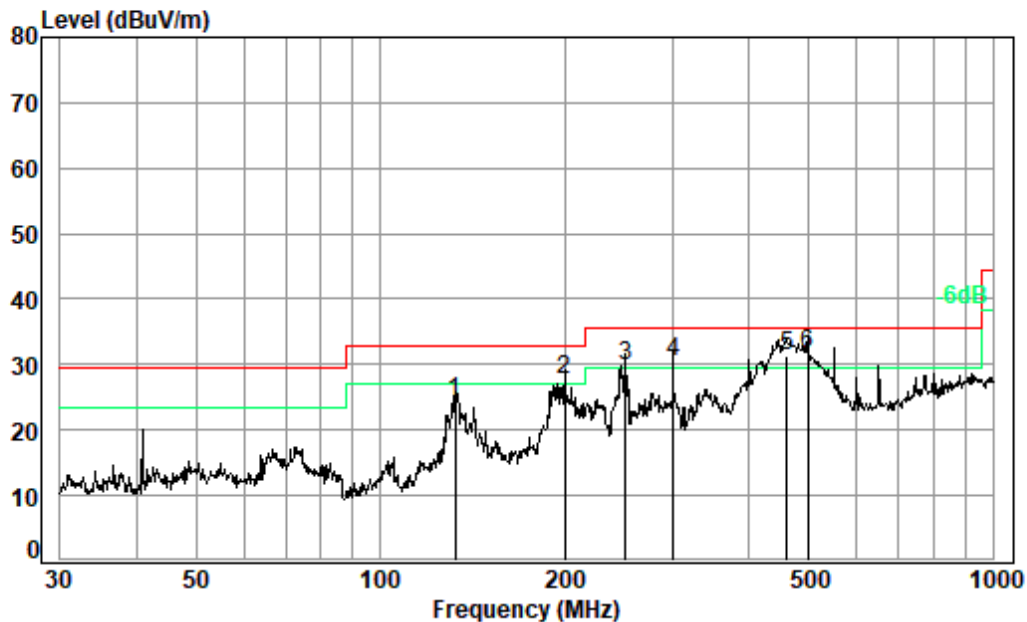
7.5.4 Measurement Procedure and Data

- The EUT was placed on the top of a rotating table 0.8 meters above the ground for below 1GHz at a 3 or 10 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- The EUT was set 3 or 10 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- The antenna 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 (for the test frequency of below 30MHz, the antenna was tuned to heights 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 Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.
- Test the EUT in the lowest channel, the middle channel, the Highest channel
- The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, And found the X axis positioning which it is worse case.
- Repeat above procedures until all frequencies measured was complete.

Remark: Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor



Test Mode: 18; Polarity: Horizontal



Condition: 10m HORIZONTAL

Job No. : 03148AT

Test Mode: 18

	Freq	Read Level	Ant Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	132.685	39.57	16.49	0.67	32.50	24.23	33.00	-8.77	QP
2	199.986	45.50	14.10	0.56	32.50	27.66	33.00	-5.34	QP
3	251.180	45.51	15.93	0.91	32.50	29.85	35.60	-5.75	QP
4	300.367	44.26	17.55	1.18	32.50	30.49	35.60	-5.11	QP
5	460.727	40.75	21.33	1.67	32.53	31.22	35.60	-4.38	QP
6 pp	499.425	40.52	21.87	1.79	32.60	31.58	35.60	-4.02	QP



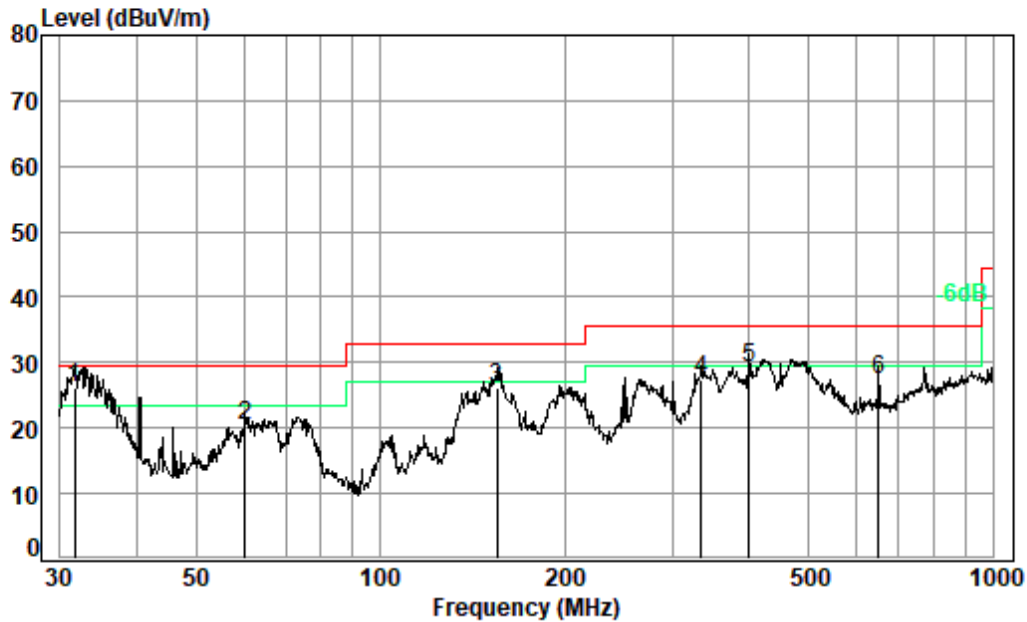
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Test Mode: 18; Polarity: Vertical



Condition: 10m VERTICAL

Job No. : 03148AT

Test Mode: 18

		Read	Ant	Cable	Preamp		Limit	Over	
	Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	pp	31.731	42.72	15.88	0.11	32.40	26.31	29.50	-3.19 QP
2		60.069	35.22	17.29	0.17	32.44	20.24	29.50	-9.26 QP
3		155.364	39.98	17.92	0.63	32.50	26.03	33.00	-6.97 QP
4		333.687	40.18	18.47	1.29	32.46	27.48	35.60	-8.12 QP
5		400.432	40.35	19.72	1.47	32.40	29.14	35.60	-6.46 QP
6		649.660	33.43	24.63	2.16	32.70	27.52	35.60	-8.08 QP



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Report No.: SZCR250700314803

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The test was performed at a 10m test site. According to below formulate and the test data at 10m test distance,

$$L_3 / L_{10} = D_{10} / D_3$$

Note:

L₃: Level @ 3m distance. Unit: uV/m;

L₁₀: Level @ 10m distance. Unit: uV/m;

D₃: 3m distance. Unit: m

D₁₀: 10m distance. Unit: m

The level at 3m test distance is below:

Frequency (MHz)	Level @ 10m (dBuV/m)	Level @ 10m (uV/m)	Level @ 3m (uV/m)	Level @ 3m (dBuV/m)	Limit @ 3m (dBuV/m)	Margin (dB)	Ant. Polarization
132.685	39.57	95.17	317.23	50.03	43.50	6.53	H
199.986	45.5	188.36	627.88	55.96	43.50	12.46	H
251.18	45.51	188.58	628.61	55.97	46.00	9.97	H
300.367	44.26	163.31	544.35	54.72	46.00	8.72	H
460.727	40.75	109.02	363.39	51.21	46.00	5.21	H
499.425	40.52	106.17	353.90	50.98	46.00	4.98	H
31.731	42.72	136.77	455.91	53.18	40.00	13.18	V
60.069	35.22	57.68	192.26	45.68	40.00	5.68	V
155.364	39.98	99.77	332.57	50.44	43.50	6.94	V
333.687	40.18	102.09	340.31	50.64	46.00	4.64	V
400.432	40.35	104.11	347.04	50.81	46.00	4.81	V
649.66	33.43	46.94	156.45	43.89	46.00	-2.11	V



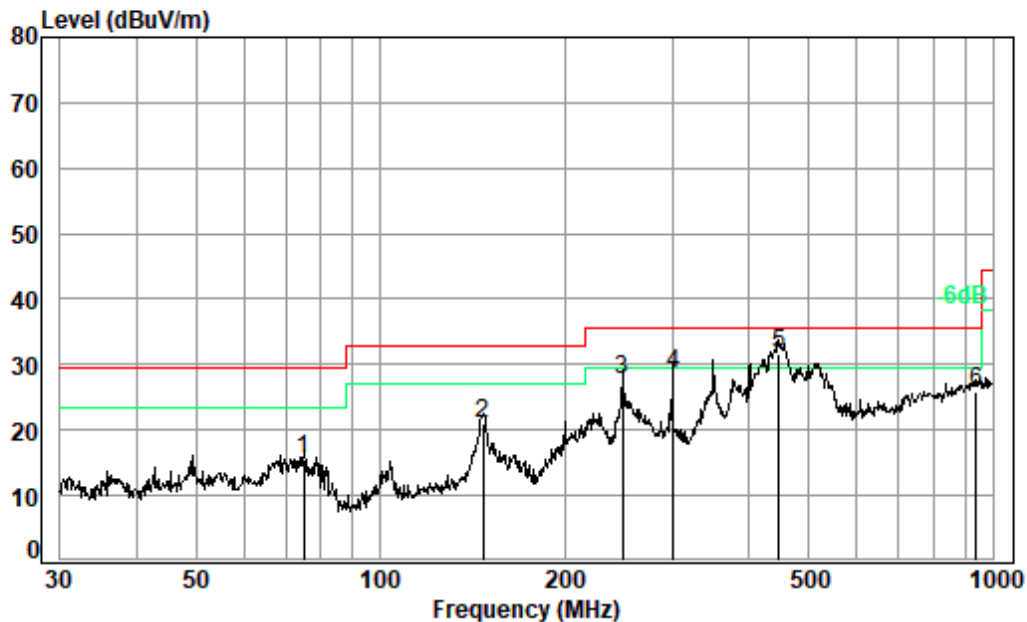
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Test Mode: 20; Polarity: Horizontal



Condition: 10m HORIZONTAL

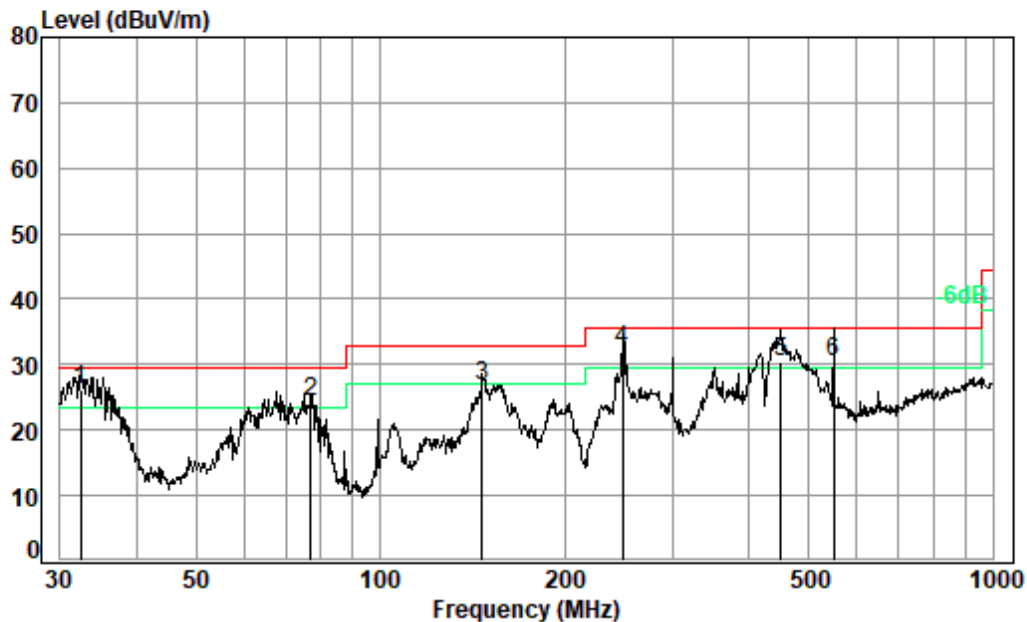
Job No. : 03148AT

Test Mode: 20

	Freq	Read Level	Ant Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	74.919	33.00	14.59	0.42	32.49	15.52	29.50	-13.98	QP
2	147.404	35.11	17.67	0.64	32.50	20.92	33.00	-12.08	QP
3	248.552	43.27	15.89	0.89	32.50	27.55	35.60	-8.05	QP
4	300.367	42.34	17.55	1.18	32.50	28.57	35.60	-7.03	QP
5 pp	447.982	41.52	21.11	1.63	32.50	31.76	35.60	-3.84	QP
6	938.833	27.03	27.94	2.73	31.80	25.90	35.60	-9.70	QP



Test Mode: 20; Polarity: Vertical



Condition: 10m VERTICAL

Job No. : 03148AT

Test Mode: 20

	Freq	Read Level	Ant Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	32.406	42.36	16.03	0.11	32.40	26.10	29.50	-3.40	QP
2	77.051	42.39	14.03	0.46	32.49	24.39	29.50	-5.11	QP
3	146.888	40.89	17.64	0.64	32.50	26.67	33.00	-6.33	QP
4 pp	248.552	48.05	15.89	0.89	32.50	32.33	35.60	-3.27	QP
5	451.135	40.02	21.18	1.64	32.51	30.33	35.60	-5.27	QP
6	549.020	38.47	22.63	1.93	32.65	30.38	35.60	-5.22	QP



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The test was performed at a 10m test site. According to below formulate and the test data at 10m test distance,

$$L_3 / L_{10} = D_{10} / D_3$$

Note:

L₃: Level @ 3m distance. Unit: uV/m;

L₁₀: Level @ 10m distance. Unit: uV/m;

D₃: 3m distance. Unit: m

D₁₀: 10m distance. Unit: m

The level at 3m test distance is below:

Frequency (MHz)	Level @ 10m (dBuV/m)	Level @ 10m (uV/m)	Level @ 3m (uV/m)	Level @ 3m (dBuV/m)	Limit @ 3m (dBuV/m)	Margin (dB)	Ant. Polarization
74.919	33	44.67	148.89	43.46	40.00	3.46	H
147.404	35.11	56.95	189.84	45.57	43.50	2.07	H
248.552	43.27	145.71	485.71	53.73	46.00	7.73	H
300.367	42.34	130.92	436.39	52.80	46.00	6.80	H
447.982	41.52	119.12	397.08	51.98	46.00	5.98	H
938.833	27.03	22.46	74.88	37.49	46.00	-8.51	H
32.406	42.36	131.22	437.40	52.82	40.00	12.82	V
77.051	42.39	131.67	438.91	52.85	40.00	12.85	V
146.888	40.89	110.79	369.30	51.35	43.50	7.85	V
248.552	48.05	252.64	842.13	58.51	46.00	12.51	V
451.135	40.02	100.23	334.10	50.48	46.00	4.48	V
549.02	38.47	83.85	279.50	48.93	46.00	2.93	V



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8 Test Setup Photo

Refer to Appendix for WPC – Test Setup Photos for SZCR2507003148AT

9 EUT Constructional Details (EUT Photos)

Refer to Appendix - External and Internal photos for SZCR2507003148AT

- End of the Report -

