

TEST REPORT

Report Number : 15496277-E19V3

Applicant : APPLE, INC.
1 APPLE PARK WAY
CUPERTINO, CA 95014, U.S.A.

Model : A3258 (PARENT)
A3519, A3520, A3521 (VARIANTS)

FCC ID : BCG-E8947A (PARENT)
BCG-E8951A, BCG-E8952A, BCG-E8953A (VARIANTS)

IC : 579C-E8947A (PARENT)
579C-E8951A, 579C-E8952A, 579C-E8953A (VARIANTS)

EUT Description : SMARTPHONE

Test Standard(s) : FCC 47 CFR PART 15 SUBPART C
ISED RSS-216 ISSUE 3
ISED RSS-GEN ISSUE 5 + A1 + A2

Date Of Issue:
August 18, 2025

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Revision History

Rev.	Issue Date	Revisions	Revised By
V1	7/28/2025	Initial Issue	---
V2	8/14/2025	Updated worst case statement	Tri Pham
V3	8/18/2025	Updated units, sec 6.1, and added additional marker	Tri Pham

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1. ATTESTATION OF TEST RESULTS

Applicant Name and Address	APPLE, INC. 1 APPLE PARK WAY CUPERTINO, CA 95014, U.S.A.
Model	A3258 (PARENT) A3519, A3520, A3521 (VARIANTS)
Brand	APPLE
EUT Description	SMARTPHONE
SERIAL NUMBER	C46Y2WTM4L, CDXV2K66Q3
FCC ID	BCG-E8947A (Parent) BCG-E8951A, BCG-E8952A, BCG-E8953A (Variants)
IC	579C-E8947A (Parent) 579C-E8951A, 579C-E8952A, 579C-E8953A (Variants)
SAMPLE RECEIPT DATE	June 10, 2025
DATE TESTED	June 10, 2025 to July 05, 2025
Applicable Standards	FCC 47 CFR PART 15 SUBPART C ISED RSS-216 ISSUE 3 ISED RSS-GEN Issue 5 + A1 + A2
Test Results	COMPLIES
<p>UL Verification Services Inc. tested the above equipment in accordance with the requirements set forth in the above standards. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.</p> <p>The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. It is the manufacturer's responsibility to assure that additional production units of this model are manufactured with identical electrical and mechanical components. All samples tested were in good operating condition throughout the entire test program. Measurement Uncertainties are published for informational purposes only and were not taken into account unless noted otherwise.</p> <p>This document may not be altered or revised in any way unless done so by UL Verification Services Inc. and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by UL Verification Services Inc. will constitute fraud and shall nullify the document.</p>	
Approved & Released By: 	Prepared By: 
Thu Chan Staff Engineer UL Verification Services Inc.	John Allen Bautista Project Engineer UL Verification Services Inc.

2. TEST SUMMARY

FCC Clause	ISED Clause	Requirement	Result	Comment
See Comment	RSS-GEN 6.7	99% OBW	Reporting purposes only	ANSI C63.10 Section 6.9.3
15.209 (a)	RSS-216 (5.3.3.1, 5.3.3.2), RSS-GEN (8.9, 8.10)	Radiated Emissions	Complies	None.
-	RSS-216 (5.5)	Frequency Stability	Complies	None.
15.207 (a)	RSS-216 (5.3.2)	AC Mains Conducted Emissions	Complies	None.

3. TEST METHODOLOGY

The tests documented in this report were performed in accordance with:

- *ANSI C63.10-2020+Cor. 1-2023+C63.10a-2024
- ANSI C63.30-2021
- FCC 47 CFR Part 2
- FCC 47 CFR Part 15 Subpart C
- KDB 414788 D01 Radiated Test Site
- RSS-GEN Issue 5 + A1 + A2
- RSS-216 Issue 3

*Note: The use of ANSI C63.10-2020 + Cor. 1-2023 + C63.10a-2024 does not deviate from the testing procedures of ANSI C63.10-2020.

4. FACILITIES AND ACCREDITATION

UL Verification Services Inc. is accredited by A2LA, certification #0751.05, for all testing performed within the scope of this report. Testing was performed at the locations noted below.

	Address	ISED CABID	ISED Company Number	FCC Registration
<input checked="" type="checkbox"/>	Building 1: 47173 Benicia Street, Fremont, CA 94538, USA	US0104	2324A	550739
<input checked="" type="checkbox"/>	Building 2: 47266 Benicia Street, Fremont, CA 94538, USA			
<input type="checkbox"/>	Building 3: 843 Auburn Court, Fremont, CA 94538, USA			
<input checked="" type="checkbox"/>	Building 4: 47658 Kato Rd, Fremont, CA 94538, USA			
<input type="checkbox"/>	Building 5: 47670 Kato Rd, Fremont, CA 94538, USA			

5. DECISION RULES AND MEASUREMENT UNCERTAINTY

5.1. METROLOGICAL TRACEABILITY

All test and measuring equipment utilized to perform the tests documented in this report are calibrated on a regular basis, with a maximum time between calibrations of one year or the manufacturers' recommendation, whichever is less, and where applicable is traceable to recognized national standards.

5.2. DECISION RULES

The Decision Rule is based on Simple Acceptance in accordance with ISO Guide 98-4:2012 Clause 8.2. (Measurement uncertainty is not taken into account when stating conformity with a specified requirement).

5.3. MEASUREMENT UNCERTAINTY

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

PARAMETER	U _{Lab}
Radio Frequency (Spectrum Analyzer)	141.16 Hz
Occupied Bandwidth	2.75%
Worst Case Conducted Disturbance, 9KHz to 0.15 MHz	3.78 dB
Worst Case Conducted Disturbance, 0.15 to 30 MHz	3.40 dB
Worst Case Radiated Disturbance, 9KHz to 30 MHz (E-field)	2.84 dB
Worst Case Radiated Disturbance, 9KHz to 30 MHz (H-field)	2.87 dB
Worst Case Radiated Disturbance, 30 to 1000 MHz	6.01 dB
Time Domain Measurements	3.39%
Temperature	0.57°C
Relative Humidity	3.39%

Uncertainty figures are valid to a confidence level of 95%.

6. EQUIPMENT UNDER TEST

6.1. DESCRIPTION OF EUT

The Apple iPhone is a smartphone with cellular GSM, GPRS, EGPRS, WCDMA, LTE, 5GNR1, 5GNR2, IEEE 802.11a/b/g/n/ac/ax/be, Bluetooth (BT), Ultra-Wideband (UWB), Global Positioning System (GPS), Near-Field Communication (NFC), Narrow-Band (NB) UNII, 802.15.4, 802.15.4ab-Narrow Band (NB), Wireless Power Transfer (WPT) and Mobile Satellite Service (MSS) technologies. The rechargeable battery is not user accessible.

6.2. MAXIMUM E-FIELD and H-FIELD

The transmitter has maximum peak radiated electric and magnetic field strength as follows:

Fundamental Frequency (kHz)	Mode	E-field (300m distance) FCC (dB μ V/m)	H-field (3m distance) IC (dB μ A/m)
360	Operating	-23.39	5.65
--	Standby	-34.7	-5.59

6.3. WORST-CASE CONFIGURATION AND MODE

The EUT is a smartphone which is connected to the AC/DC adapter via USB-C cable and the inductive charging coil to charge WPT accessories (Load). For the entire radiated emissions test, the EUT was investigated on the following configurations:

1. At its natural orientation with EUT on a plastic fixture set at center location on Load
2. At its natural orientation with EUT on a plastic fixture with offset from center location on Load

The worst case was natural orientation with EUT on the fixture with offset from center location on Load.

MODE	DESCRIPTION
Standby	EUT with USB-C to USB-C cable powered by AC/DC Adapter
Operating	EUT with USB-C to USB-C cable powered by AC/DC Adapter & Wireless Charging to the Load (360 kHz)

Three different load levels were investigated: ~10% charged, ~50% charged, and ~90% charged, and it was determined that the ~50% charged configuration was the worst-case scenario set for final test.

For below 30MHz & 1GHz tests, the EUT was connected to AC power adapter as the worst case. For AC line conducted emission, test was investigated with AC power adapter. The EUT was tested on standby and operation modes. During operational mode, EUT was tested with Load.

For below 30MHz testing, investigation was done on three antenna orientations: RX antenna Face-On, Face-Off and Horizontal (parallel to ground). The worst-case configurations were determined on RX antenna Face-On and Face-Off; therefore, all final tests were performed using these two orientations.

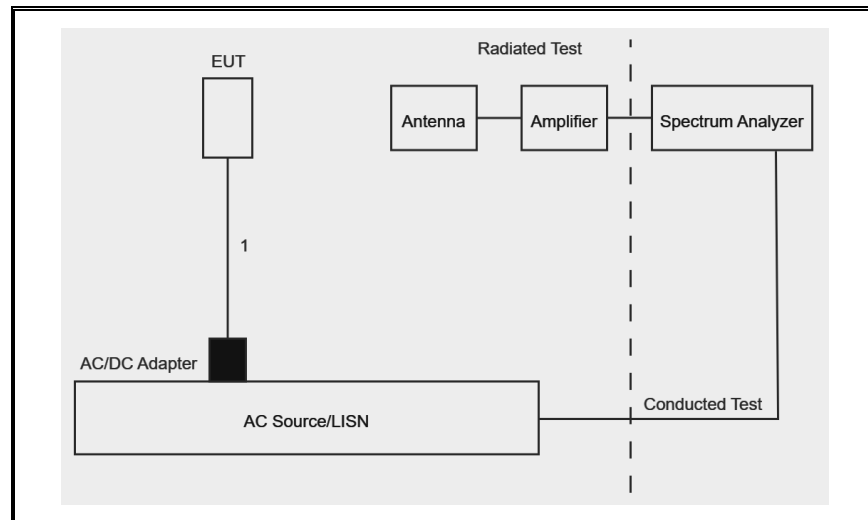
Although these tests were performed other than open area test site, adequate comparison measurements were confirmed against 300 m open area test site. Therefore, sufficient tests were made to demonstrate that the alternative site produces results that correlate with the ones of tests made in an open field based on KDB 414788 D01.

6.4. DESCRIPTION OF TEST SETUP

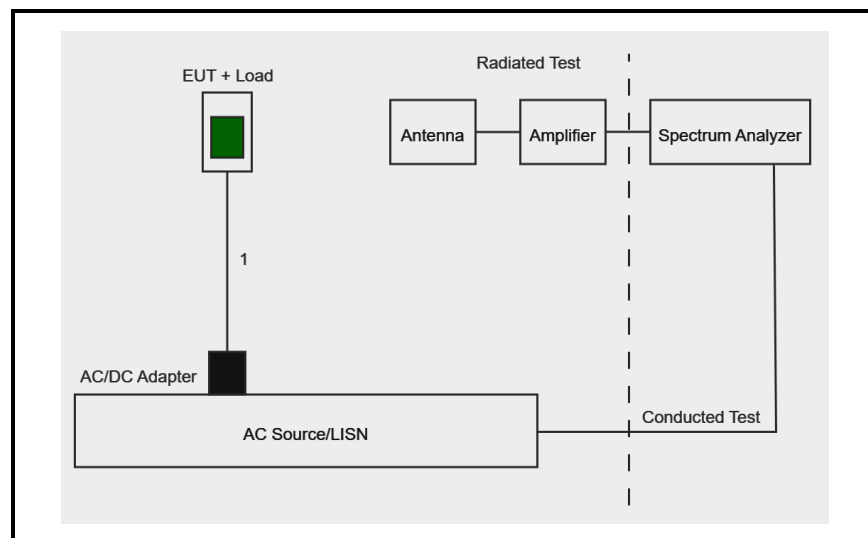
SUPPORT EQUIPMENT & PERIPHERALS LIST				
Description	Manufacturer	Model	Serial Number	FCC ID
AC/DC adapter	Apple	N/A	C4H0313063ZPF4FAZ	N/A
Charging Cable	Apple	N/A	FTLHDB000MV0001061	N/A
WPT Accessory (Load)	Apple	N/A	DND351202Y50NJM1S	N/A

I/O CABLE LIST						
Cable No.	Port	# of Identical Ports	Connector Type	Cable Type	Cable Length (m)	Remarks
1	DC	1	USB-C	Un-Shielded	1	None

STANDBY MODE SETUP



OPERATING MODE SETUP



7. TEST AND MEASUREMENT EQUIPMENT

The following test and measurement equipment were utilized for the tests documented in this report:

TEST EQUIPMENT LIST				
Description	Manufacturer	Model	ID Num	Cal Due
Antenna, Passive Loop 30Hz to 1MHz	Electro-Metrics	EM-6871	170013	2025/09/30
Antenna, Passive Loop 100KHz to 30MHz	Electro-Metrics	EM-6872	170015	2025/09/30
Amplifier, 9kHz to 1GHz, 32dB	Sonoma Instrument	310N	222362	2026/06/30
Antenna, Broadband Hybrid, 30MHz to 2000MHz w/4dB	Sunol Sciences Corp.	JB3	173997	2026/03/31
Sniffer Probes	Electro Metrics	EM-6992	N/A	N/A
Spectrum Analyzer, PXA, 3Hz to 44GHz	Agilent (Keysight) Technologies	N9030A-544	85213	2026/01/31

AC Line Conducted				
Description	Manufacturer	Model	ID Num	Cal Due
EMI TEST RECEIVER 9kHz - 3.6GHz	Rohde & Schwarz	ESR	171646	2026-02-28
LISN for Conducted Emissions	Fischer Custom Communications, Inc	FCC-LISN-50/250-25-2-01-480V	175765	2026-01-31
Transient Limiter	TE	TBFL1	207996	2025-09-30
UL AUTOMATION SOFTWARE				
Radiated Software	UL	UL EMC	Ver 9.5, 21 May 2024	
Conducted Software	UL	UL EMC	2024.2.23	
AC Line Conducted Software	UL	UL EMC	Ver 9.5, 03 Mar 2023	

Note: For equipment listed above that has a calibration date or calibration due date that falls within the test date range, care was taken to ensure that this equipment was used after the calibration date and before the calibration due date.

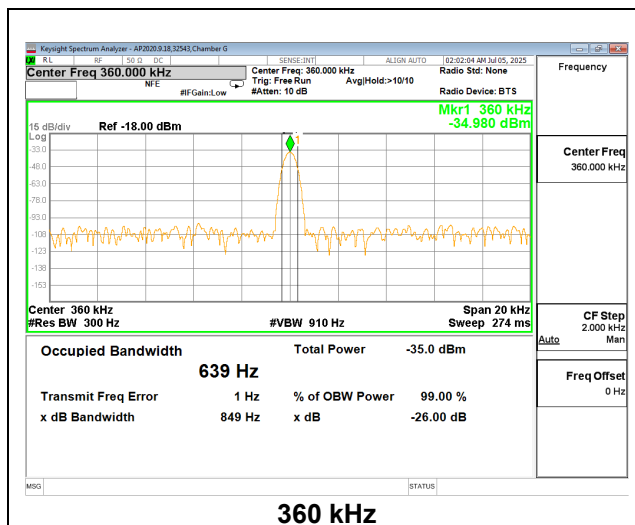
8. OCCUPIED BANDWIDTH

TEST PROCEDURE

The transmitter output is connected to the spectrum analyzer. The RBW is set to 300Hz. The VBW is set to 3 times the RBW. The sweep time is coupled. The spectrum analyzer internal 99% bandwidth function is utilized.

Note: Because the measured signal is CW-like, adjusting the RBW per C63.10 would not be practical since measured bandwidth will always follow the RBW and the result will be approximately twice the RBW.

RESULTS



9. RADIATED EMISSION TEST RESULTS

LIMITS

FCC §15.209 (a)

Frequency (MHz)	Field Strength (microvolts/meter)	Measurement Distance (m)
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 to 216	150	3
216 to 960	200	3
Above 960 MHz	500	3
Note: The lower limit shall apply at the transition frequency.		

ISED RSS-216 Section 5.3.3.1 and 5.3.3.2 and ISED RSS-GEN Sections 8.9 and 8.10.

ISED RSS-216 Table 3 and Table 5

Table 3: Magnetic field strength limits at 3 m distance (9 kHz to 30 MHz)	
Frequency (MHz)	Quasi-peak (dB μ A/m)
0.009 – 0.07	69
0.07 – 0.15	69 to 39 *
0.15 – 30	39 to 7 *
* In the 0.07 MHz to 0.15 MHz and 0.15 MHz to 30 MHz frequency ranges the limit level in dB μ A/m decreases linearly with the logarithm of frequency.	

Table 5: Electric field strength limits at 10 m distance (30 MHz to 1000 MHz)	
Frequency range (MHz)	Quasi-peak (dB μ V/m)
30 – 230	30
230 – 1000	37
Note: The more stringent limit applies at the transition frequency.	

TEST PROCEDURE

The EUT is placed on a non-conducting table 80 cm above the ground plane for measurement below 1GHz; The antenna to EUT distance is 3 meters. The EUT is configured in accordance with ANSI C63.10. The EUT is set to transmit in a continuous mode.

For measurements below 30MHz, the resolution bandwidth 9kHz to 150kHz is set to 300Hz, video bandwidth is set to 1kHz. 150kHz to 30MHz, the resolution bandwidth is set to 10kHz, video bandwidth is set to 30kHz.

For measurements below 1 GHz the resolution bandwidth is set to 100 kHz for peak detection measurements or 120 kHz for quasi-peak detection measurements. Peak detection is used unless otherwise noted as quasi-peak.

The frequency range of interest is monitored at a fixed antenna height and EUT azimuth. The EUT is rotated through 360 degrees to maximize emissions received. The antenna is scanned from 1 to 4 meters above the ground plane to further maximize the emission. Measurements are made with the antenna polarized in both the vertical and the horizontal positions.

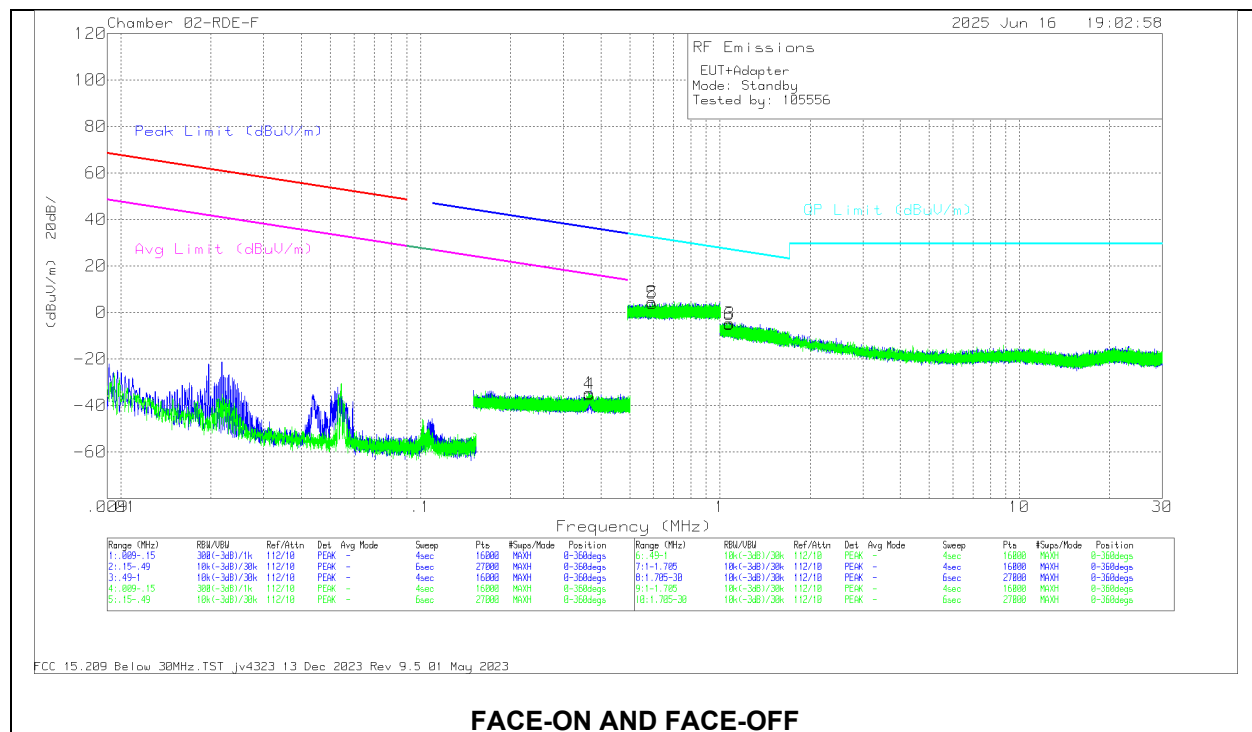
For below 30MHz testing, investigation was done on three antenna orientations (parallel, perpendicular, and ground-parallel), parallel and perpendicular are the worst orientations, therefore testing was performed on these two orientations only. Blue color trace on plots: Parallel orientation (face on). Green color trace on plots: Perpendicular orientation (face off).

KDB 414788 Open Field Site(OFS) and Chamber Correlation Justification

Based on FCC 15.31 (f) (2): measurements may be performed at a distance closer than that specified in the regulations; however, an attempt should be made to avoid making measurements in the near field.

OFS and chamber correlation testing had been performed and the chamber measured test result is the worst-case test result.

RESULTS

9.1. STANDBY MODE**9.1.1. FCC TX FUNDAMENTAL & SPURIOUS EMISSIONS (9 kHz - 30 MHz)****DATA**

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna E(dB/m)	CBL/AMP (dB)	Dist Corr 300m	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	Margin (dB)	Avg Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Polarity
1	.3667	21.7	Pk	56.1	-32.5	-80	-34.7	36.32	-71.02	16.32	-51.02	0-360	Face-on
4	.3669	21.14	Pk	56.1	-32.5	-80	-35.26	36.32	-71.58	16.32	-51.58	0-360	Face-off

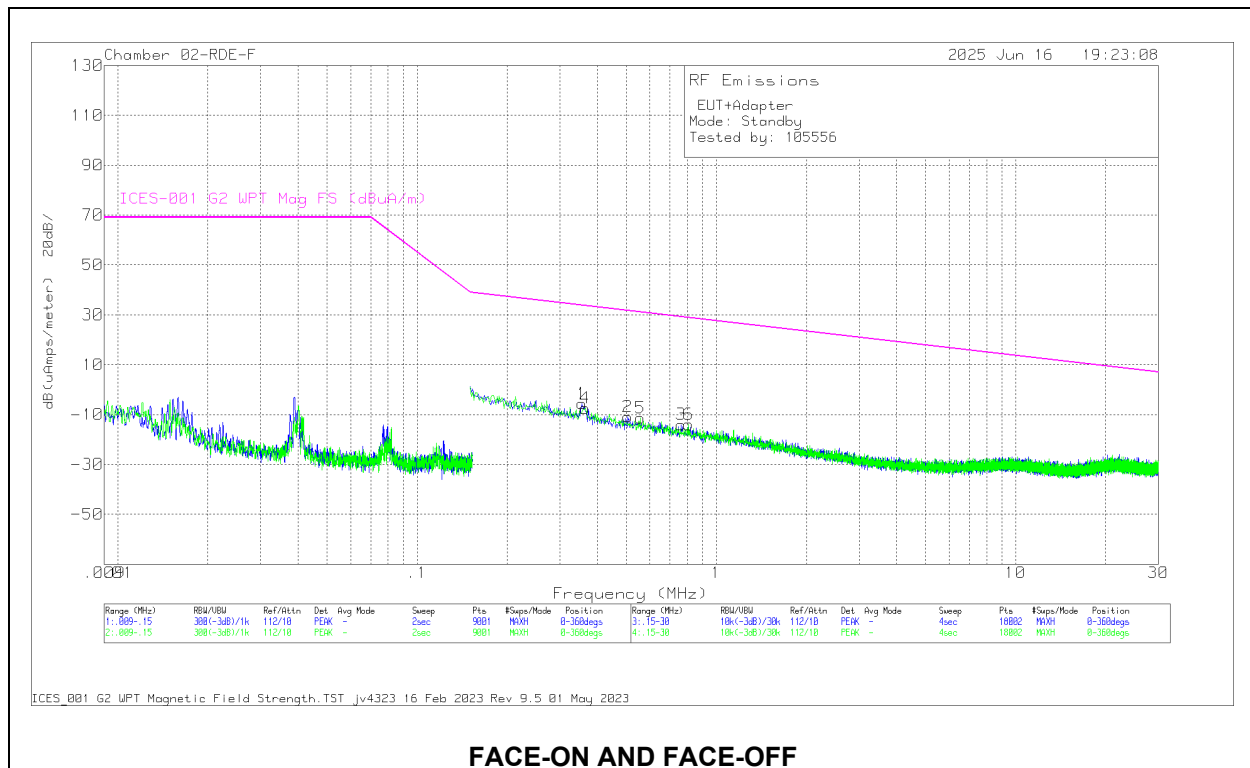
Pk - Peak detector

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna E(dB/m)	CBL/AMP (dB)	Dist Corr 30m (dB) 40Log	Corrected Reading (dBuV/m)	QP Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Polarity
2	.5938	20.72	Pk	56.1	-32.3	-40	4.52	32.14	-27.62	0-360	Face-on
5	.5947	20.09	Pk	56.1	-32.3	-40	3.89	32.12	-28.23	0-360	Face-off

Pk - Peak detector

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna E ACF (dB/m)	CBL/AMP (dB)	Dist Corr 30m (dB) 40Log	Corrected Reading (dBuV/m)	QP Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Polarity
6	1.076	20.96	Pk	46.2	-32.3	-40	-5.14	26.99	-32.13	0-360	Face-off
3	1.0769	21.35	Pk	46.2	-32.3	-40	-4.75	26.98	-31.73	0-360	Face-on

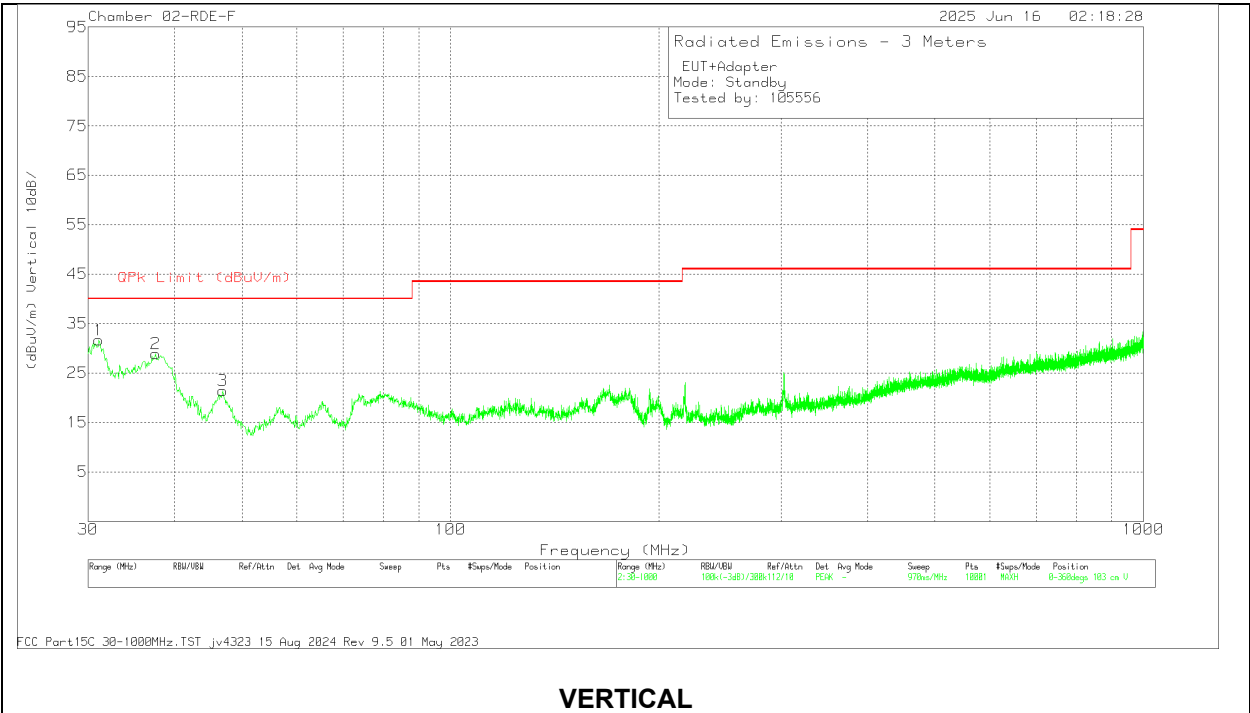
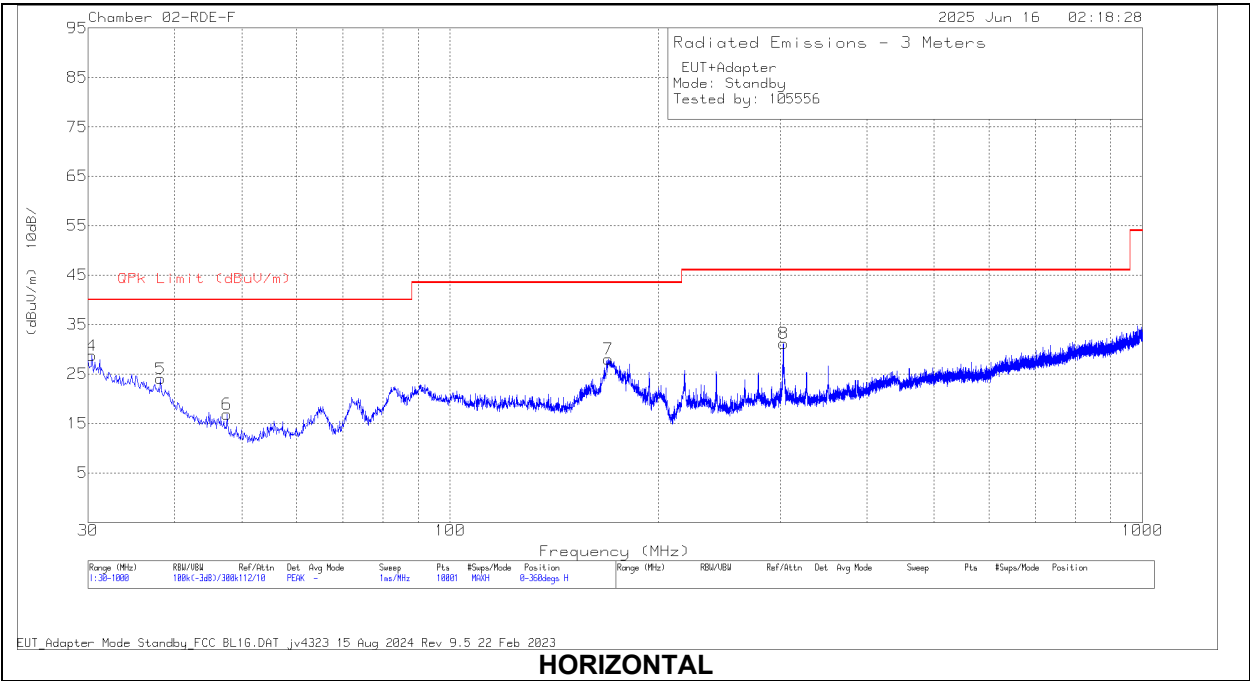
Pk - Peak detector

9.1.2. ISED TX FUNDAMENTAL & SPURIOUS EMISSIONS (9 kHz - 30 MHz)**DATA**

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna H ACF (dB/m)	CBL/AMP (dB)	Corrected Reading (dBuA/m)	RSS-216 Mag FS (dBuA/m)	Margin (dB)	Azimuth (Degs)	Polarity
1	.3556	23.61	Pk	3.3	-32.5	-5.59	33.79	-39.38	0-360	Face-on
4	.3639	21.97	Pk	3.1	-32.5	-7.43	33.65	-41.08	0-360	Face-off
2	.5065	21.12	Pk	.4	-32.4	-10.88	31.65	-42.53	0-360	Face-on
5	.5562	21.17	Pk	-.3	-32.3	-11.43	31.08	-42.51	0-360	Face-off
3	.7618	21.17	Pk	-2.9	-32.3	-14.03	29.19	-43.22	0-360	Face-on
6	.8066	21.74	Pk	-3.4	-32.3	-13.96	28.84	-42.8	0-360	Face-off

Pk - Peak detector

9.1.3. FCC TX SPURIOUS EMISSION (30 - 1000 MHz)



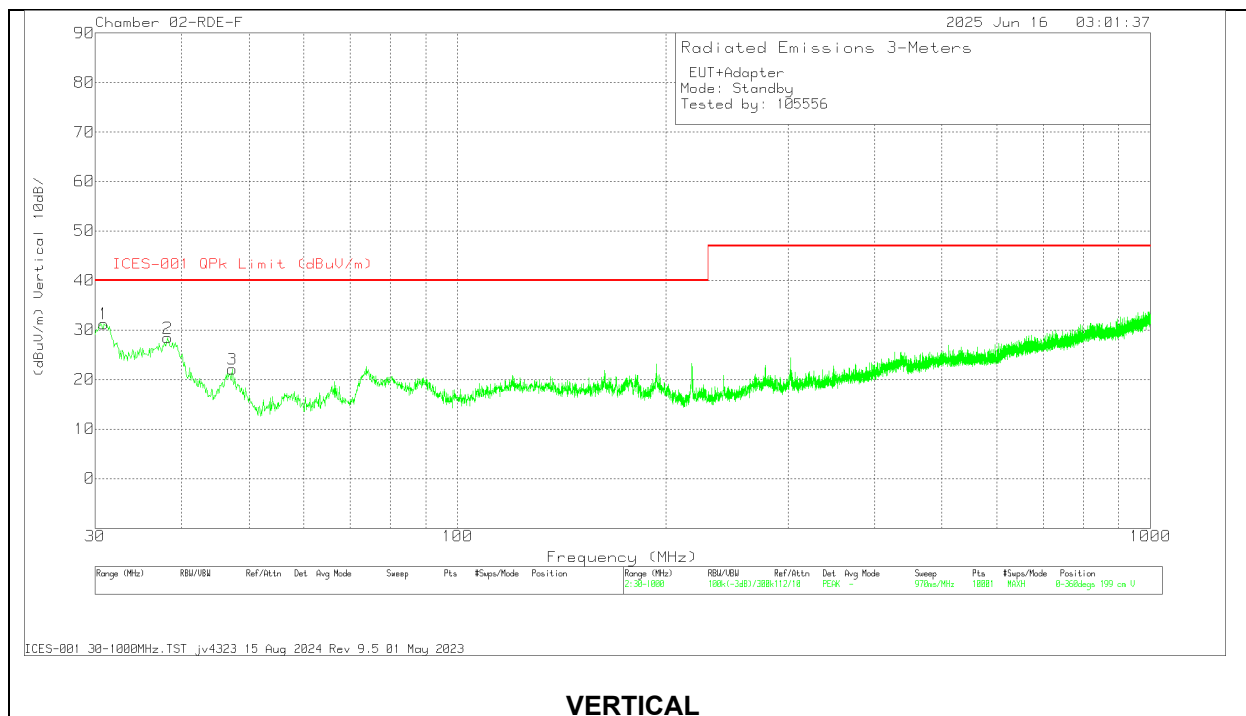
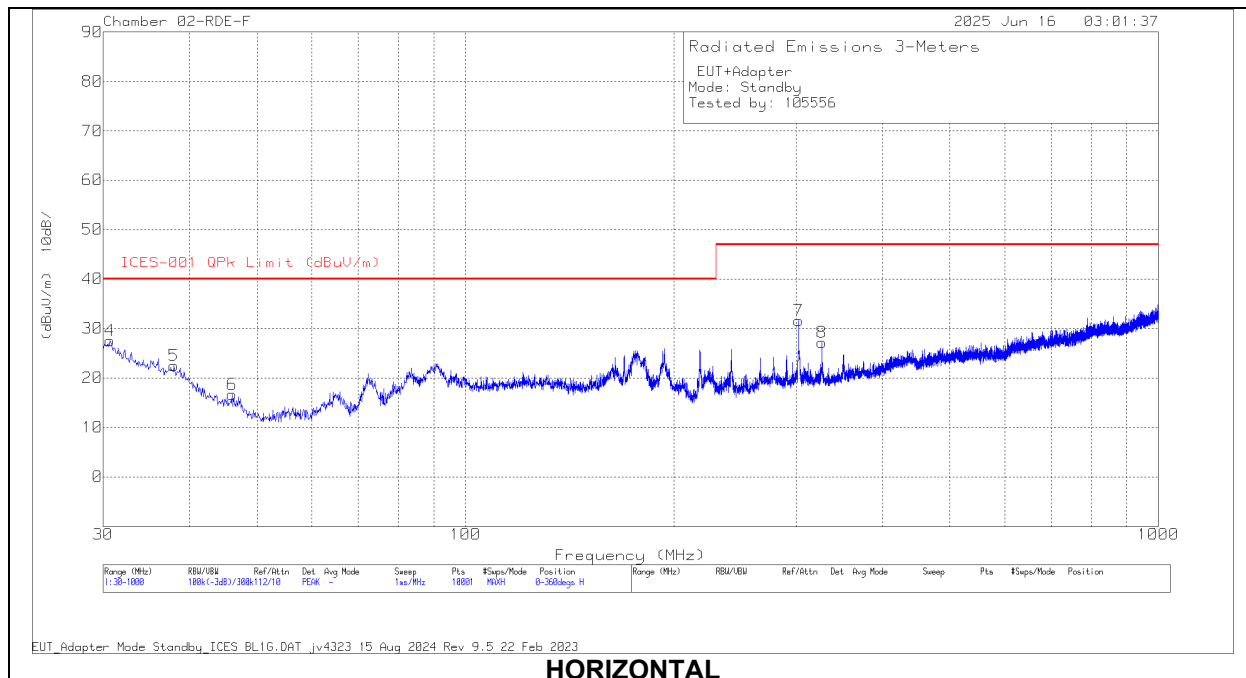
DATA

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	202301 ACF (dB/m)	CBL/AMP (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 37.797	32.86	Qp	21.3	-31.5	22.66	40	-17.34	145	104	V
4	30.5269	21.99	Qp	26.6	-31.5	17.09	40	-22.91	119	118	H
1	31.0801	32.57	Qp	26.2	-31.6	27.17	40	-12.83	259	103	V
5	37.4885	23.5	Qp	21.5	-31.6	13.4	40	-26.6	32	100	H
6	46.8411	22.32	Qp	14.8	-31.5	5.62	40	-34.38	341	112	H
3	47.8354	31.32	Qp	14.3	-31.6	14.02	40	-25.98	41	109	V
7	* 169.195	40.97	Pk	17.6	-30.5	28.07	43.52	-15.45	0-360	199	H
8	302.958	41.6	Pk	19.4	-29.8	31.2	46.02	-14.82	0-360	100	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Qp - Quasi-Peak detector

Pk – Peak detector

9.1.4. ISED TX SPURIOUS EMISSION (30 - 1000 MHz)

DATA

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	202301 ACF (dB/m)	CBL/AMP (dB)	Corrected Reading (dBuV/m)	ICES-001 QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	30.1323	22.62	Qp	26.8	-31.4	18.02	40	-21.98	17	105	H
1	31.18	32.31	Qp	26.2	-31.6	26.91	40	-13.09	238	117	V
5	37.79	23.67	Qp	21.3	-31.5	13.47	40	-26.53	54	108	H
2	38.1517	33.98	Qp	21	-31.4	23.58	40	-16.42	260	116	V
3	47.0208	32.86	Qp	14.7	-31.5	16.06	40	-23.94	87	119	V
6	47.3609	23.26	Qp	14.5	-31.5	6.26	40	-33.74	213	116	H
7	302.764	42.02	Pk	19.4	-29.8	31.62	47	-15.38	0-360	101	H
8	326.917	37.38	Pk	19.8	-30	27.18	47	-19.82	0-360	101	H

Qp - Quasi-Peak detector

Pk – Peak detector

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	202301 ACF (dB/m)	Hybrid Path 30MHz-1000MHz (dB)	Dist Corr 10m (dB)	Corrected Reading (dBuV/m)	RSS-216 QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	30.1323	22.62	Qp	26.8	-31.4	-10.46	7.56	30	-22.44	17	105	H
1	31.18	32.31	Qp	26.2	-31.6	-10.46	16.45	30	-13.55	238	117	V
5	37.79	23.67	Qp	21.3	-31.5	-10.46	3.01	30	-26.99	54	108	H
2	38.1517	33.98	Qp	21	-31.4	-10.46	13.12	30	-16.88	260	116	V
3	47.0208	32.86	Qp	14.7	-31.5	-10.46	5.6	30	-24.4	87	119	V
6	47.3609	23.26	Qp	14.5	-31.5	-10.46	-4.2	30	-34.2	213	116	H
7	302.764	42.02	Pk	19.4	-29.8	-10.46	21.16	37	-15.84	0-360	101	H
8	326.917	37.38	Pk	19.8	-30	-10.46	16.72	37	-20.28	0-360	101	H

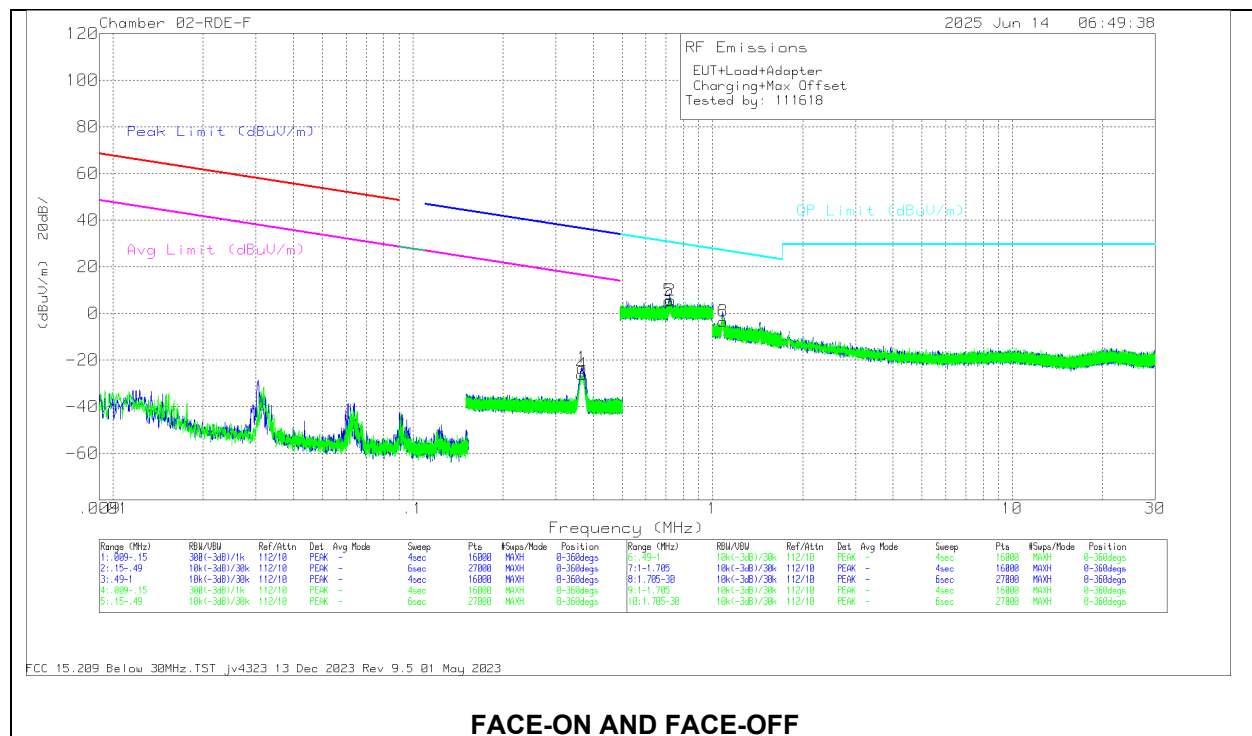
Qp - Quasi-Peak detector

Pk – Peak detector

Note: The original data collected at 3m converted at 10m distance.

9.2. OPERATING MODE

9.2.1. FCC TX FUNDAMENTAL & SPURIOUS EMISSIONS (9 kHz - 30 MHz)



DATA

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna E(dB/m)	CBL/AMP (dB)	Dist Corr 300m	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	Margin (dB)	Avg Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Polarity
4	.3667	30.19	Pk	56.1	-32.5	-80	-26.21	36.32	-62.53	16.32	-42.53	0-360	Face-off
1	.3677	33.01	Pk	56.1	-32.5	-80	-23.39	36.3	-59.69	16.30	-39.69	0-360	Face-on

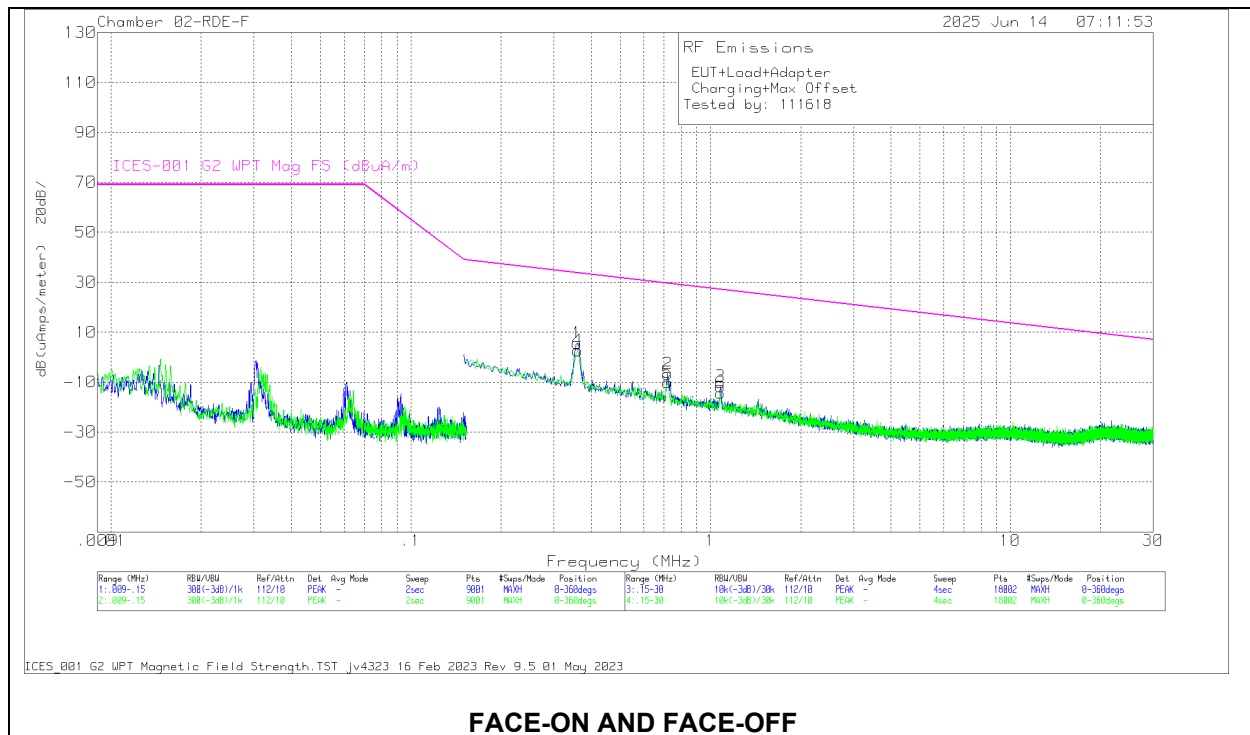
Pk - Peak detector

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna E(dB/m)	CBL/AMP (dB)	Dist Corr 30m (dB) 40Log	Corrected Reading (dBuV/m)	QP Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Polarity
5	.717	21.74	Pk	56.1	-32.4	-40	5.44	30.5	-25.06	0-360	Face-off
2	.7244	21.92	Pk	56.1	-32.4	-40	5.62	30.41	-24.79	0-360	Face-on

Pk - Peak detector

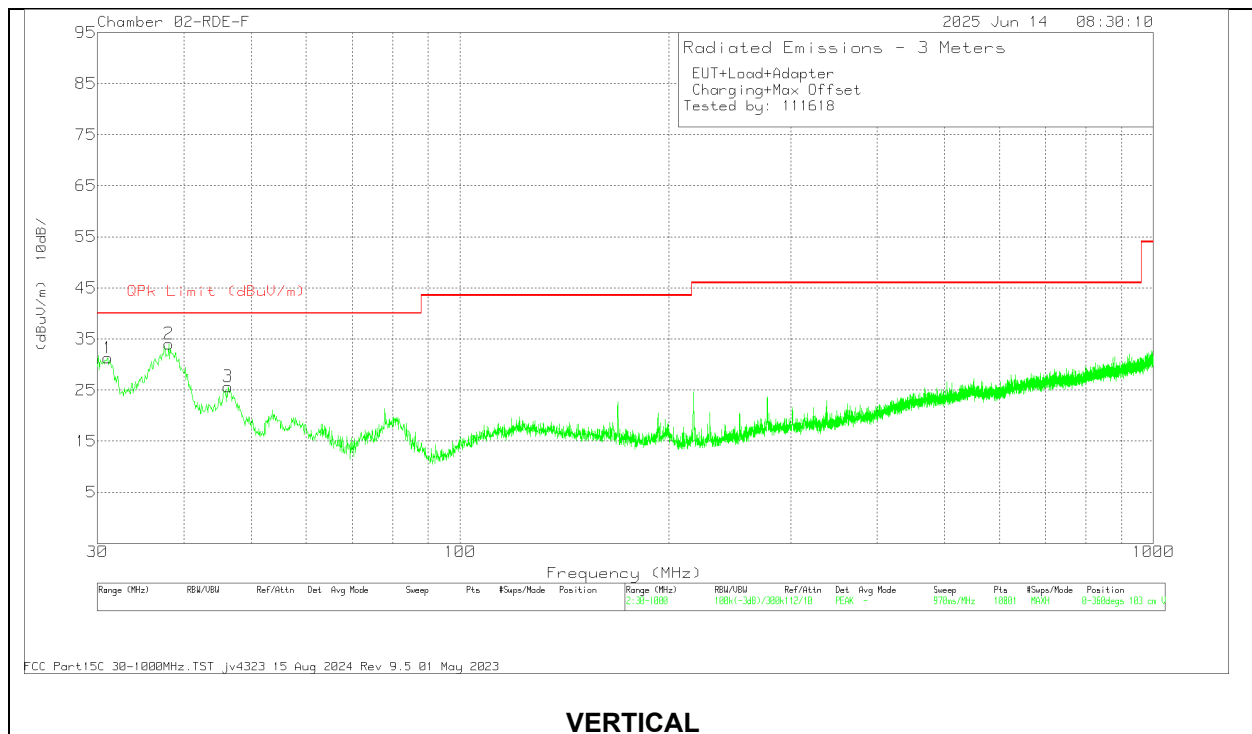
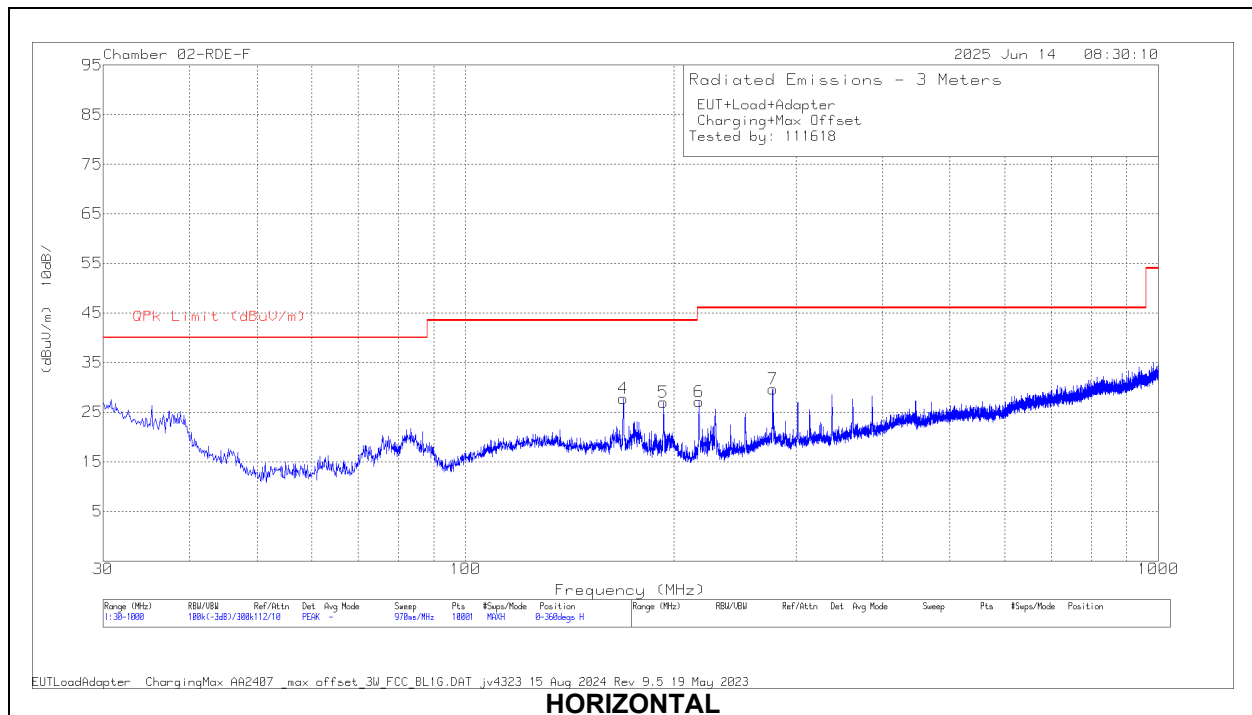
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna E(ACF) (dB/m)	CBL/AMP (dB)	Dist Corr 30m (dB) 40Log	Corrected Reading (dBuV/m)	QP Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Polarity
3	1.0866	22.69	Pk	46.2	-32.3	-40	-3.41	26.9	-30.31	0-360	Face-on
6	1.0866	22.69	Pk	46.2	-32.3	-40	-3.41	26.9	-30.31	0-360	Face-off

Pk - Peak detector

9.2.2. ISED TX FUNDAMENTAL & SPURIOUS EMISSIONS (9 kHz - 30 MHz)**DATA**

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna H (ACF) (dB/m)	CBL/AMP (dB)	Corrected Reading (dBuA/m)	RSS-216 Mag FS (dBuA/m)	Margin (dB)	Azimuth (Degs)	Polarity
1	.3589	34.95	Pk	3.2	-32.5	5.65	33.73	-28.08	0-360	Face-on
4	.3606	32.05	Pk	3.1	-32.5	2.65	33.70	-31.05	0-360	Face-off
2	.7204	28.22	Pk	-2.5	-32.4	-6.68	29.52	-36.2	0-360	Face-on
5	.7204	24.77	Pk	-2.5	-32.4	-10.13	29.52	-39.65	0-360	Face-off
3	1.0785	25.78	Pk	-5.3	-32.3	-11.82	27.09	-38.91	0-360	Face-on
6	1.0785	23.34	Pk	-5.3	-32.3	-14.26	27.09	-41.35	0-360	Face-off

Pk - Peak detector

9.2.3. FCC TX SPURIOUS EMISSION (30 - 1000 MHz)

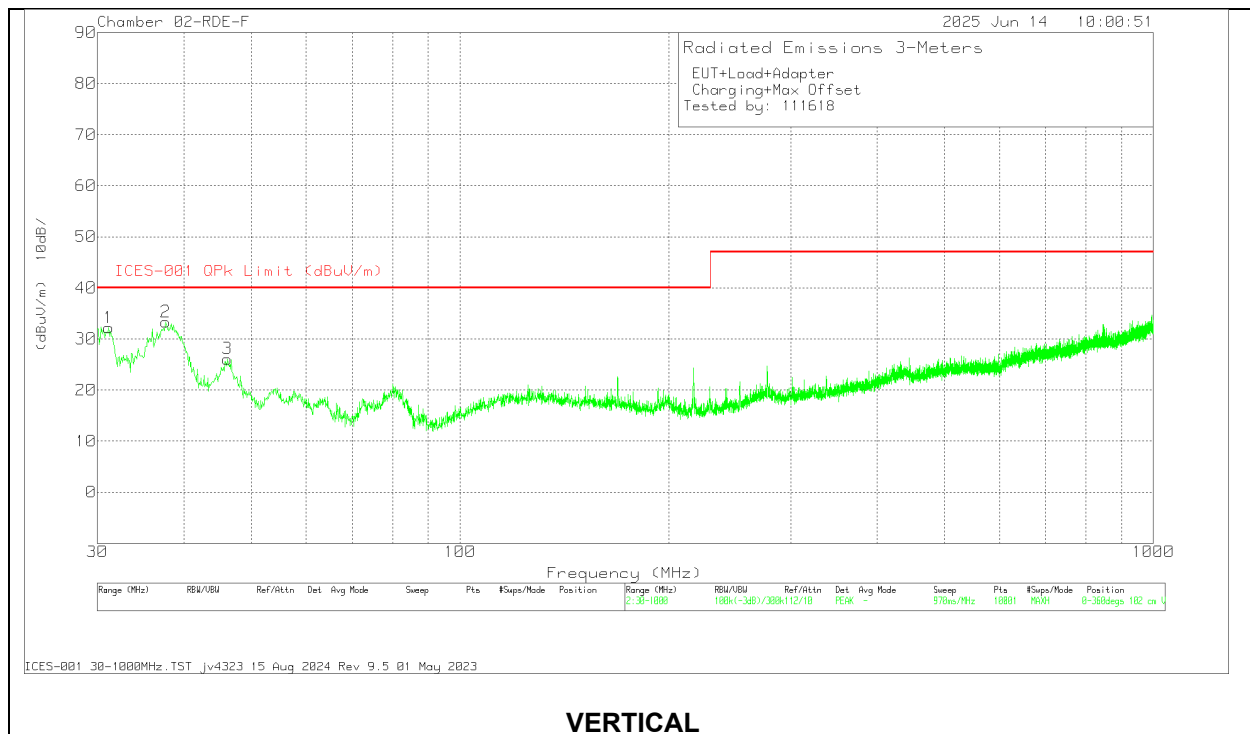
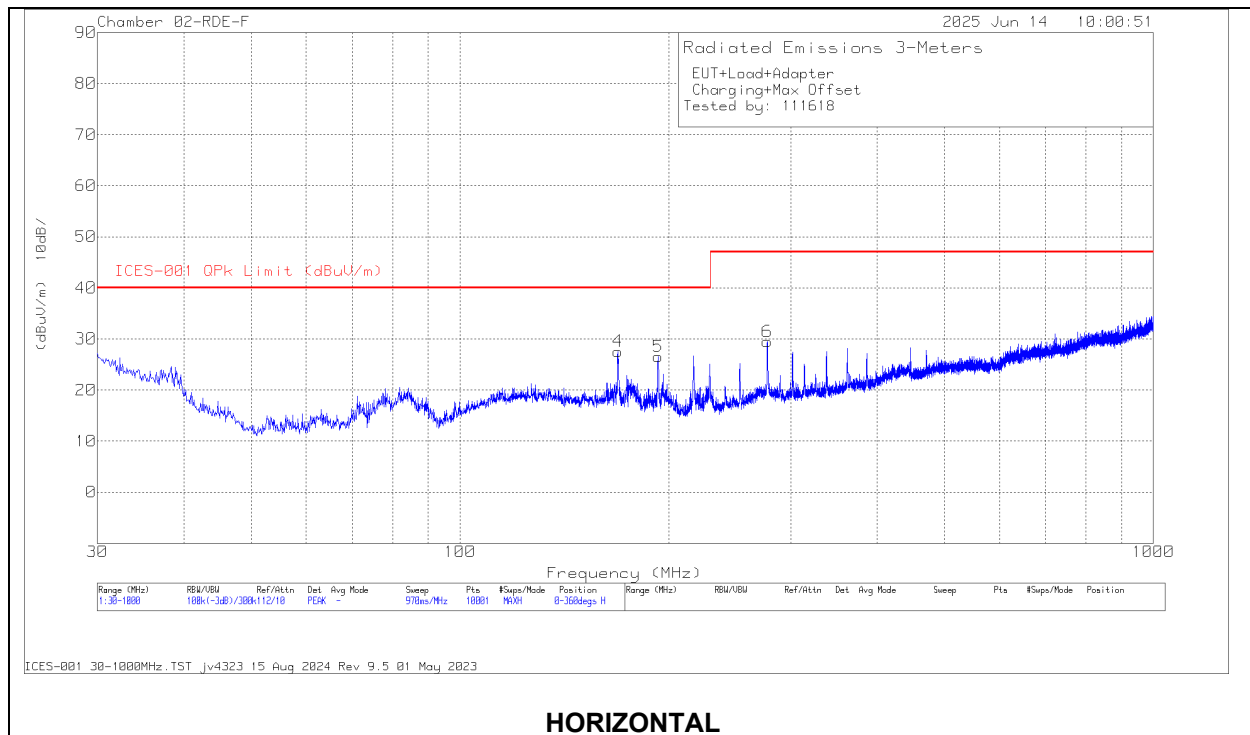
DATA

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	202301 ACF (dB/m)	CBL/AMP (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	* 168.98	39.8	Qp	17.6	-30.5	26.9	43.52	-16.62	80	181	H
1	31.0284	31.35	Qp	26.3	-31.6	26.05	40	-13.95	263	148	V
2	37.4526	36.49	Qp	21.5	-31.6	26.39	40	-13.61	285	110	V
3	46.4672	33.56	Qp	15	-31.6	16.96	40	-23.04	129	202	V
5	193.078	38.56	Qp	17.4	-30.8	25.16	43.52	-18.36	66	115	H
6	217.225	40.05	Qp	16.5	-30.2	26.35	46.02	-19.67	63	150	H
7	* 277.641	40.48	Pk	19.2	-30	29.68	46.02	-16.34	0-360	100	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Qp - Quasi-Peak detector

Pk – Peak detector

9.2.4. ISED TX SPURIOUS EMISSION (30 - 1000 MHz)

DATA

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	202301 ACF (dB/m)	CBL/AMP (dB)	Corrected Reading (dBuV/m)	ICES-001 QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	31.1744	30.56	Qp	26.2	-31.6	25.16	40	-14.84	245	131	V
2	39.0027	34.12	Qp	20.4	-31.6	22.92	40	-17.08	94	218	V
3	46.6314	34.33	Qp	14.9	-31.5	17.73	40	-22.27	67	140	V
4	168.867	39.28	Qp	17.6	-30.5	26.38	40	-13.62	59	147	H
5	193.112	38.48	Qp	17.4	-30.8	25.08	40	-14.92	60	102	H
6	277.614	38.32	Qp	19.2	-30	27.52	47	-19.48	270	119	H

Qp - Quasi-Peak detector

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	202301 ACF (dB/m)	Hybrid Path 30MHz-1000MHz (dB)	Dist Corr 10m (dB)	Corrected Reading (dBuV/m)	RSS-216 QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	31.1744	30.56	Qp	26.2	-31.6	-10.46	14.7	30	-15.3	245	131	V
2	39.0027	34.12	Qp	20.4	-31.6	-10.46	12.46	30	-17.54	94	218	V
3	46.6314	34.33	Qp	14.9	-31.5	-10.46	7.27	30	-22.73	67	140	V
4	168.867	39.28	Qp	17.6	-30.5	-10.46	15.92	30	-14.08	59	147	H
5	193.112	38.48	Qp	17.4	-30.8	-10.46	14.62	30	-15.38	60	102	H
6	277.614	38.32	Qp	19.2	-30	-10.46	17.06	37	-19.94	270	119	H

Qp - Quasi-Peak detector

Note: The original data collected at 3m converted at 10m distance.

10. FREQUENCY STABILITY

LIMIT

RSS-216 §The frequency stability requirements with respect to ambient temperature specified in subclause 10.4.2 of ANSI C63.30-2021 shall apply only for WPT source devices intended for outdoor operation. This test shall be performed at the rated power supply voltage and for three ambient temperatures: -20°C, +20°C and +50°C.

The frequency stability with respect to power supply voltage shall apply to all WPT source devices.

TEST PROCEDURE

ANSI C63.30-2021 Clause 10.4.2

RESULTS

No non-compliance noted.

ID:	32547	Date:	06/1/2025
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Temperature (°C)	Voltage	Start Up		@ 2 mins		@ 5 mins		@ 10 mins		Signal Level (dBuA)	Correction Factor*	Corrected Signal Level (dBuA/m)	Limit (dBuA/m)	Within Authorized Frequency Band (based on 99% BW) (Yes or No)	Result (Pass / Fail)
		Freq. Reading (kHz)	Signal Level (dBuA)	Freq. Reading (kHz)	Signal Level (dBuA)	Freq. Reading (kHz)	Signal Level (dBuA)	Freq. Reading (kHz)	Signal Level (dBuA)						
+50°C	Normal	359.999404	29.59	359.99922	31.05	360.008486	31	360.0084	30.69	31.05	-25.66	5.39	33.700	Yes	Pass
+20°C (Normal)		359.999901	30.58	360.000085	31.31	360.000.059	30.74	360.000129	30.49	31.31	-25.66	5.65		Yes	Pass
-20°C		360.020559	37.22	360.011327	36.17	360.021173	37.19	360.011806	37.98	37.98	-25.66	12.32		Yes	Pass
+20°C	85% (or manufacturer declared min)	360.010398	35.57	360.010370	34.73	360.023925	36.03	360.096103	34.23	36.03	-25.66	10.37	33.700	Yes	Pass
	115% (or manufacturer declared max)	360.008694	30.13	360.003072	30.76	359.999605	30.90	359.999742	31.19	31.19	-25.66	5.53		Yes	Pass

*Note: Field strength at 3m at nominal temperature of 20°C was 5.65dBuA/m. Correction factor is the difference between the signal level measured in the environment chamber using the small loop antenna at nominal temperature and the field strength, H-dBuA/m, measured at 3m.

11. AC POWER LINE CONDUCTED EMISSIONS

LIMITS

FCC §15.207 (a)

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.

ISED RSS-216 Section 5.3.2

ISED RSS-216 Table 2

Table 2: Conducted emission limits (AC mains terminals)		
Frequency range (MHz)	Quasi-peak (dBµV)	Average (dBµV)
0.009 – 0.05	110	—
0.05 – 0.15	90 to 80 *	—
0.15 – 0.5	66 to 56 *	56 to 46 *
0.5 – 5	56	46
5 – 30	60	50

Note: The more stringent limit applies at transition frequencies.
 * In the 0.05 MHz to 0.15 MHz and 0.15 MHz to 0.5 MHz frequency ranges the limit level in dBµV decreases linearly with the logarithm of frequency

TEST PROCEDURE

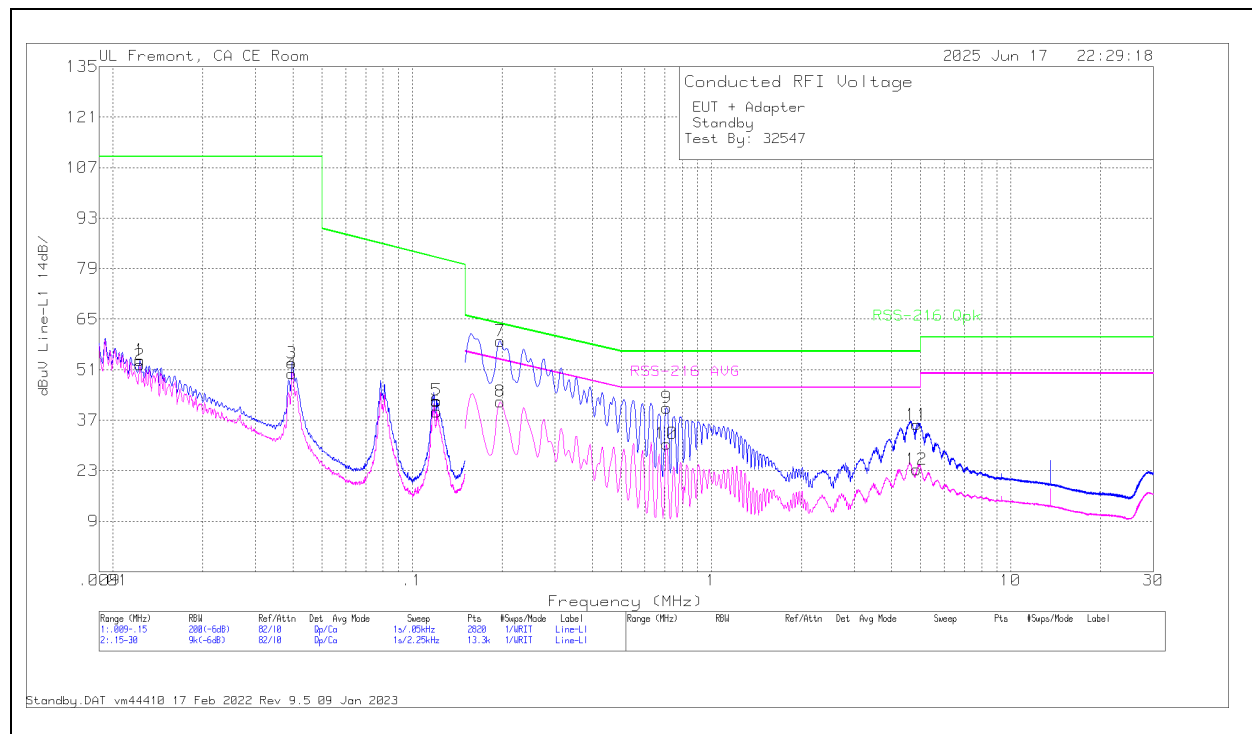
The EUT is placed on a non-conducting table 40 cm from the vertical ground plane and 80 cm above the horizontal ground plane. The EUT is configured in accordance with ANSI C63.10.

The receiver is set to a resolution bandwidth of 200Hz for below 150kHz, 9kHz for 150kHz to 30MHz. Peak detection is used unless otherwise noted as quasi-peak or average.

Line conducted data is recorded for both NEUTRAL and HOT lines.

RESULTS

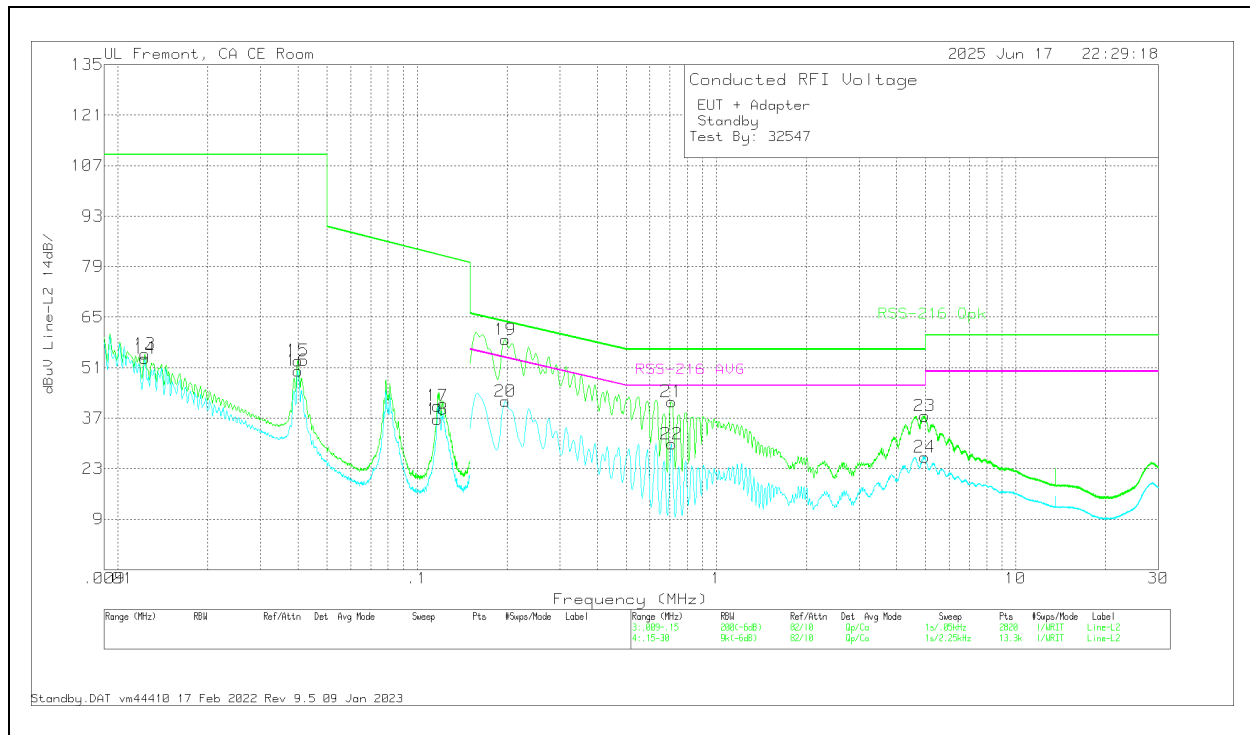
Testing ranges from 9kHz to 30MHz using ISED RSS-216 Table 2 limit to cover both FCC and ISED frequency range.

11.1. STANDBY MODE**LINE 1 RESULTS****DATA**

Range 1: Line-L1 .15 - 30MHz									
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	LISN (dB)	Line 1 C3_C1_Limiter no Pad_UL (dB)	Trns Limiter (dB)	Corrected Reading (dBuV)	RSS-216 Qpk (dBuV)	Margin (dB)
2	.0123	26	Ca	3.7	10.5	12.1	52.3	-	-
4	.0397	28.9	Ca	.5	10.2	10.3	49.9	-	-
6	.1207	20.17	Ca	.1	9.5	9.6	39.37	-	-
1	.0123	27.29	Qp	3.7	10.5	12.1	53.59	110	-56.41
3	.0397	31.83	Qp	.5	10.2	10.3	52.83	110	-57.17
5	.1207	23.29	Qp	.1	9.5	9.6	42.49	81.98	-39.49

Range 2: Line-L1 .15 - 30MHz											
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	LISN (dB)	Line 1 C3_C1_Limiter no Pad_UL (dB)	Trns Limiter (dB)	Corrected Reading (dBuV)	RSS-216 Qpk (dBuV)	Margin (dB)	RSS-216 AVG (dBuV)	Margin (dB)
8	.1973	23.25	Ca	.1	9.4	9.4	42.15	-	-	53.73	-11.58
10	.708	11.76	Ca	0	9.4	9.3	30.46	-	-	46	-15.54
12	4.8548	4.55	Ca	0	9.4	9.4	23.35	-	-	46	-22.65
7	.1973	40	Qp	.1	9.4	9.4	58.9	63.73	-4.83	-	-
9	.7103	21.73	Qp	0	9.4	9.3	40.43	56	-15.57	-	-
11	4.8503	16.98	Qp	0	9.4	9.4	35.78	56	-20.22	-	-

LINE 2 RESULTS

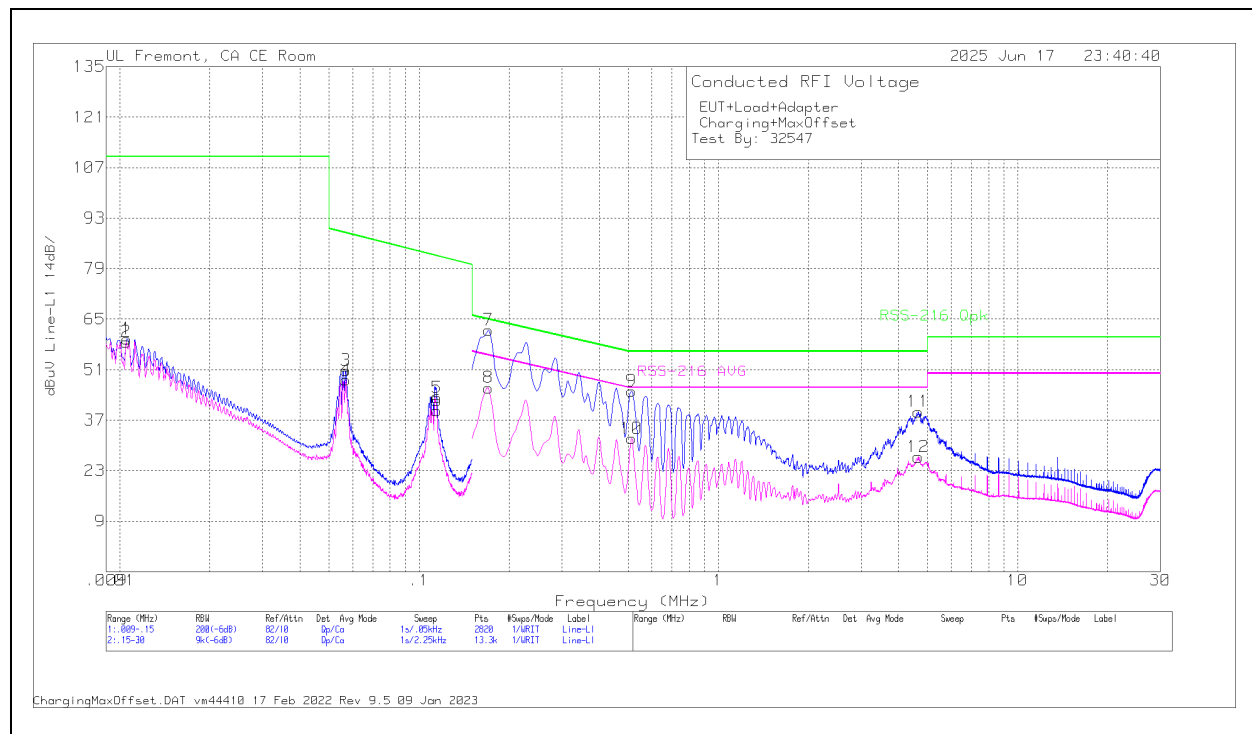


DATA

Range 3: Line-L2 .15 - 30MHz									
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	LISN (dB)	Line 2 C3_C2_Limiter no Pad_UL (dB)	Trns Limiter (dB)	Corrected Reading (dBuV)	RSS-216 Qpk (dBuV)	Margin (dB)
14	.0123	27.17	Ca	3.7	10.6	12.1	53.57	-	-
16	.04	29.16	Ca	.5	10.2	10.3	50.16	-	-
18	.1169	17.47	Ca	.1	9.5	9.6	36.67	-	-
13	.0123	28.35	Qp	3.7	10.6	12.1	54.75	110	-55.25
15	.04	31.91	Qp	.5	10.2	10.3	52.91	110	-57.09
17	.1169	21.21	Qp	.1	9.5	9.6	40.41	82.27	-41.86

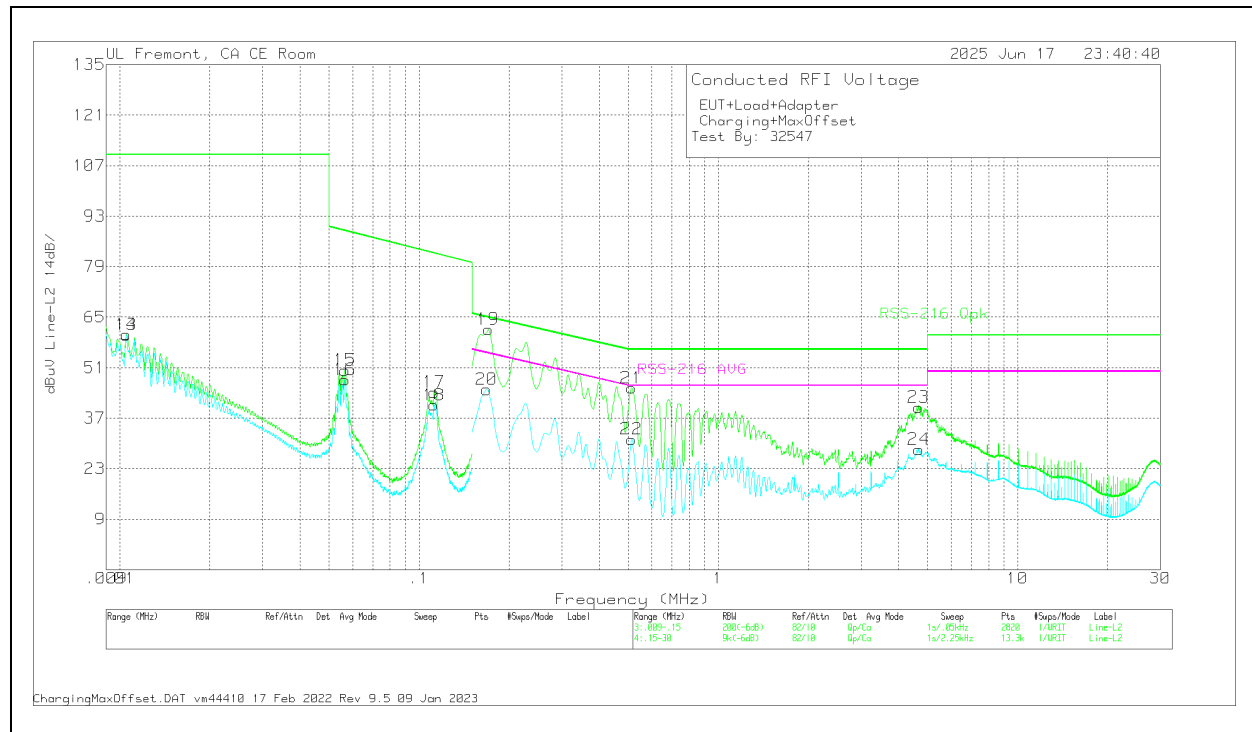
Range 4: Line-L2 .15 - 30MHz											
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	LISN (dB)	Line 2 C3_C2_Limiter no Pad_UL (dB)	Trns Limiter (dB)	Corrected Reading (dBuV)	RSS-216 Qpk (dBuV)	Margin (dB)	RSS-216 AVG (dBuV)	Margin (dB)
20	.1973	22.88	Ca	0	9.4	9.4	41.68	-	-	53.73	-12.05
22	.708	11.25	Ca	0	9.3	9.3	29.85	-	-	46	-16.15
24	4.974	7.4	Ca	0	9.4	9.4	26.2	-	-	46	-19.8
19	.1973	39.97	Qp	0	9.4	9.4	58.77	63.73	-4.96	-	-
21	.708	22.97	Qp	0	9.3	9.3	41.57	56	-14.43	-	-
23	4.974	18.85	Qp	0	9.4	9.4	37.65	56	-18.35	-	-

Qp - Quasi-Peak detector
Ca - CISPR average detection

11.2. OPERATING MODE**LINE 1 RESULTS****DATA**

Range 1: Line-L1 .15 - 30MHz										
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	LISN (dB)	Line 1 C3_C1_Limiter no Pad_UL (dB)	Trns Limiter (dB)	Corrected Reading (dBuV)	RSS-216 Qpk (dBuV)	Margin (dB)	
2	.0105	30.49	Ca	4.4	11.4	12.4	58.69	-	-	
4	.0569	28.05	Ca	.3	9.9	9.9	48.15	-	-	
6	.1145	20.52	Ca	.1	9.5	9.5	39.62	-	-	
1	.0106	31.36	Qp	4.4	11.4	12.4	59.56	110	-50.44	
3	.0569	30.69	Qp	.3	9.9	9.9	50.79	88.82	-38.03	
5	.1146	24.14	Qp	.1	9.5	9.5	43.24	82.45	-39.21	

Range 2: Line-L1 .15 - 30MHz											
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	LISN (dB)	Line 1 C3_C1_Limiter no Pad_UL (dB)	Trns Limiter (dB)	Corrected Reading (dBuV)	RSS-216 Qpk (dBuV)	Margin (dB)	RSS-216 AVG (dBuV)	Margin (dB)
8	.1703	26.97	Ca	.1	9.4	9.5	45.97	-	-	54.95	-8.98
10	.5123	13.34	Ca	0	9.3	9.3	31.94	-	-	46	-14.06
12	4.6568	8.03	Ca	0	9.4	9.4	26.83	-	-	46	-19.17
7	.1703	42.98	Qp	.1	9.4	9.5	61.98	64.95	-2.97	-	-
9	.5123	26.48	Qp	0	9.3	9.3	45.08	56	-10.92	-	-
11	4.659	20.54	Qp	0	9.4	9.4	39.34	56	-16.66	-	-

LINE 2 RESULTS**DATA**

Range 3: Line-L2 .15 - 30MHz									
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	LISN (dB)	Line 2 C3_C2_Limiter no Pad_UL (dB)	Trns Limiter (dB)	Corrected Reading (dBuV)	RSS-216 Qpk (dBuV)	Margin (dB)
14	.0105	31.93	Ca	4.4	11.4	12.4	60.13	-	-
16	.0565	27.59	Ca	.3	9.9	9.9	47.69	-	-
18	.1121	21.56	Ca	.1	9.5	9.5	40.66	-	-
13	.0105	31.98	Qp	4.4	11.4	12.4	60.18	110	-49.82
15	.0565	30.22	Qp	.3	9.9	9.9	50.32	88.89	-38.57
17	.1123	25.07	Qp	.1	9.5	9.5	44.17	82.64	-38.47

Range 4: Line-L2 .15 - 30MHz											
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	LISN (dB)	Line 2 C3_C2_Limiter no Pad_UL (dB)	Trns Limiter (dB)	Corrected Reading (dBuV)	RSS-216 Qpk (dBuV)	Margin (dB)	RSS-216 AVG (dBuV)	Margin (dB)
20	.168	25.95	Ca	.1	9.4	9.5	44.95	-	-	55.06	-10.11
22	.5123	12.56	Ca	0	9.3	9.3	31.16	-	-	46	-14.84
24	4.6793	9.54	Ca	0	9.4	9.4	28.34	-	-	46	-17.66
19	.1703	42.69	Qp	0	9.4	9.5	61.59	64.95	-3.36	-	-
21	.5123	26.74	Qp	0	9.3	9.3	45.34	56	-10.66	-	-
23	4.668	21.22	Qp	0	9.4	9.4	40.02	56	-15.98	-	-

Qp - Quasi-Peak detector
Ca - CISPR average detection

12. SETUP PHOTOS

Please refer to 15496277-EP1V1 for setup photos.

APPENDIX A – SPOT CHECK EVALUATION

MODEL DIFFERENCES

The manufacturer hereby declares the following for models A3258, A3519, A3520 and A3521.

These models have the same PCB layout, design, common components, antennas, antenna locations and housing cases, except for FR2 is removed from variants and disabled/enabled cellular bands via software as shown below.

Model	FCC ID	IC ID	Feature Difference	Sim Support	Reference Model
A3258	BCG-E8947A	579C-E8947A	-With FR2/LTE/5GNR B14/29/71 -No B11/21 -With UL MIMO (n41/48/77)	eSIM	-
A3519	BCG-E8951A	579C-E8951A	-Without FR2 -Added B11/21 -No UL MIMO	eSIM	A3258
A3520	BCG-E8952A	579C-E8952A	-Without FR2 -No LTE/5GNR B14/29/71 -No LTE B11/21 -No UL MIMO	eSIM+pSIM	
A3521	BCG-E8953A	579C-E8953A	-Without FR2 -No LTE/5GNR B14/29/71 -No LTE B11/21 -With UL MIMO (n41/78/79) -No MSS / 5GNR B53	pSIM+pSIM	

Note:

The spot check plan allows for data reuse from the reference model where the variant model data meets the limits and has not changed by more than the criteria from KDB 484596 D01 v03 equation (4).

$$d_{dB} = |V_{dB} - R_{dB}| \quad (1)$$

$$d_{dB} \leq d_{dBmax} \quad (2)$$

$$d_{dBmax}(M_{dB}) = \begin{cases} (3 + M_{dB}/20) \text{ dB} & , \text{ for } 0 \leq M_{dB} \leq 60 \text{ dB} \\ 6 \text{ dB} & , \text{ for } M_{dB} > 60 \text{ dB} \end{cases} \quad (4)$$

Where d_{dB} is deviation between the variant and the reference model, V_{dB} is variant spot check level, R_{dB} is the corresponding reference measurement level, d_{dBmax} is the maximum deviation d_{dB} allowed, and M_{dB} is the margin in dB.

SPOT CHECK VERIFICATION RESULTS SUMMARY FOR A3519

A3525 SPOT CHECK RESULTS								
Equipment Class / Technology	Worst Mode	Test Item	Measured Frequency (MHz)	Original Model: A3258	Sub Model: A3519	Delta (dB or MHz)	Margin	Remarks
				FCC ID : BCG-E8947A IC : 579C-E8947A	FCC ID: BCG-E8951A IC : 579C-E8951A			
DCD / WPT (FCC)	Operating	E-field (300m distance) FCC (dB μ V/m)	0.36	-23.39	-23.79	-0.40	-59.72	Note 1
	Standby	Out-Of-Band Emissions (dB μ V/m)	30 - 1000	27.17	26.36	-0.81	-12.83	Note 1

Note 1: Deviation from reference to variant within the value allowed by equation (4) in KDB 484596. Additional tests not required.

A3519 SPOT CHECK RESULTS								
Equipment Class / Technology	Worst Mode	Test Item	Measured Frequency (MHz)	Original Model: A3258	Sub Model: A3519	Delta (dB or MHz)	Margin	Remarks
				FCC ID : BCG-E8947A IC : 579C-E8947A	FCC ID: BCG-E8951A IC : 579C-E8951A			
DCD / WPT (IC)	Operating	H-field (3m distance) IC (dB μ A/m)	0.36	5.65	5.51	-0.14	-28.05	Note 1
	Standby	Out-Of-Band Emissions (dB μ V/m)	30 - 1000	26.91	29.19	2.28	-13.09	Note 1

Note 1: Deviation from reference to variant within the value allowed by equation (4) in KDB 484596. Additional tests not required.

SPOT CHECK VERIFICATION RESULTS SUMMARY FOR A3520

A3520 SPOT CHECK RESULTS								
Equipment Class / Technology	Worst Mode	Test Item	Measured Frequency (MHz)	Original Model: A3258	Sub Model: A3520	Delta (dB or MHz)	Margin	Remarks
				FCC ID : BCG-E8947A IC : 579C-E8947A	FCC ID: BCG-E8952A IC : 579C-E8952A			
DCD / WPT (FCC)	Operating	E-field (300m distance) FCC (dB μ V/m)	0.36	-23.39	-23.23	0.16	-59.56	Note 1
	Standby	Out-Of-Band Emissions (dB μ V/m)	30 - 1000	27.17	29.49	2.32	-10.51	Note 1

Note 1: Deviation from reference to variant within the value allowed by equation (4) in KDB 484596. Additional tests not required.

A3520 SPOT CHECK RESULTS								
Equipment Class / Technology	Worst Mode	Test Item	Measured Frequency (MHz)	Original Model: A3258	Sub Model: A3520	Delta (dB or MHz)	Margin	Remarks
				FCC ID : BCG-E8947A IC : 579C-E8947A	FCC ID: BCG-E8952A IC : 579C-E8952A			
DCD / WPT (IC)	Operating	H-field (3m distance) IC (dB μ A/m)	0.36	5.65	6.42	0.77	-28.05	Note 1
	Standby	Out-Of-Band Emissions (dB μ V/m)	30 - 1000	26.91	28.91	2.00	-13.09	Note 1

Note 1: Deviation from reference to variant within the value allowed by equation (4) in KDB 484596. Additional tests not required.

SPOT CHECK VERIFICATION RESULTS SUMMARY FOR A3521

A3521 SPOT CHECK RESULTS								
Equipment Class / Technology	Worst Mode	Test Item	Measured Frequency (MHz)	Original Model: A3258	Sub Model: A3521	Delta (dB or MHz)	Margin	Remarks
				FCC ID : BCG-E8947A IC : 579C-E8947A	FCC ID: BCG-E8953A IC : 579C-E8953A			
DCD / WPT (FCC)	Operating	E-field (300m distance) FCC (dB μ V/m)	0.36	-23.39	-25.10	-1.71	-59.72	Note 1
	Standby	Out-Of-Band Emissions (dB μ V/m)	30 - 1000	27.17	29.78	2.61	-12.83	Note 1

Note 1: Deviation from reference to variant within the value allowed by equation (4) in KDB 484596. Additional tests not required.

A3521 SPOT CHECK RESULTS								
Equipment Class / Technology	Worst Mode	Test Item	Measured Frequency (MHz)	Original Model: A3258	Sub Model: A3521	Delta (dB or MHz)	Margin	Remarks
				FCC ID : BCG-E8947A IC : 579C-E8947A	FCC ID: BCG-E8953A IC : 579C-E8953A			
DCD / WPT (IC)	Operating	H-field (3m distance) IC (dB μ A/m)	0.36	5.65	7.73	2.08	-28.05	Note 1
	Standby	Out-Of-Band Emissions (dB μ V/m)	30 - 1000	26.91	29.23	2.32	-13.09	Note 1

Note 1: Deviation from reference to variant within the value allowed by equation (4) in KDB 484596. Additional tests not required.

END OF REPORT