

TEST REPORT

Report Number. : 15365975-E1V2

Applicant : BELKIN INTERNATIONAL, INC.
555 S. AVIATION BLVD., SUITE 180
EL SEGUNDO, CA 90245, USA

Model : WIZ032

FCC ID : K7SWIZ032

EUT Description : BoostCharge Pro 3-in-1 Wireless Charging Station

Test Standard(s) : FCC 47 CFR PART 15 SUBPART C

Date Of Issue:

2024-09-05

Prepared by:

UL Verification Services Inc.
47173 Benicia Street
Fremont, CA 94538 U.S.A.
TEL: (510) 319-4000
FAX: (510) 661-0888



Revision History

Rev.	Issue Date	Revisions	Revised By
V1	2024-08-20	Initial Issue	---
V2	2024-09-05	Updated Page 17, 22 and 23 to address TCB's questions	Tina Chu

TABLE OF CONTENTS

1. ATTESTATION OF TEST RESULTS	5
2. TEST METHODOLOGY	7
3. FACILITIES AND ACCREDITATION	7
4. DECISION RULES AND MEASUREMENT UNCERTAINTY	8
4.1. METROLOGICAL TRACEABILITY	8
4.2. DECISION RULES.....	8
4.3. MEASUREMENT UNCERTAINTY.....	8
5. EQUIPMENT UNDER TEST	9
5.1. DESCRIPTION OF EUT	9
5.2. MAXIMUM E-FIELD STRENGTH	9
5.3. SOFTWARE AND FIRMWARE.....	9
5.4. WORST-CASE CONFIGURATION.....	10
6. TEST AND MEASUREMENT EQUIPMENT	11
7. OCCUPIED BANDWIDTH	12
8. RADIATED EMISSION TEST RESULTS	15
8.1. LIMITS AND PROCEDURE	15
8.2. FCC TX FUNDAMENTAL AND SPURIOUS EMISSIONS FROM 9 kHz TO 30 MHz ..16	
8.2.1. CONFIGURATION 1: WPT ON STANDBY	16
8.2.2. CONFIGURATION 2: OPERATING MODE WITH iPhone (360kHz)	17
8.2.3. CONFIGURATION 3: OPERATING MODE WITH iPhone (127.7kHz)	18
8.2.4. CONFIGURATION 4: OPERATING MODE WITH AirPods Pro Case (127.7kHz) ..	19
8.2.5. CONFIGURATION 5: OPERATING MODE WITH iPhone (111-148kHz)	20
8.2.6. CONFIGURATION 6: OPERATING MODE WITH AirPods Pro Case (111-148kHz)	21
8.2.7. CONFIGURATION 7: OPERATING MODE WITH Watch (326.5kHz)	22
8.2.8. CONFIGURATION 8: OPERATING MODE WITH Watch (1.778MHz)	23
8.2.9. CONFIGURATION 9: OPERATING MODE WITH iPhone (360kHz) + iPhone	
(127.7kHz) + Watch (1.778MHz).....	24
8.3. FCC TX SPURIOUS EMISSION 30 TO 1000 MHz	25
8.3.1. CONFIGURATION 1: WPT ON STANDBY	25
8.3.2. CONFIGURATION 9: OPERATING MODE WITH iPhone (360kHz) + iPhone	
(127.7kHz) + Watch (1.778MHz).....	27
9. AC MAINS LINE CONDUCTED EMISSIONS.....	29
9.1. CONFIGURATION 1: WPT ON STANDBY	30
9.2. CONFIGURATION 9: OPERATING MODE WITH iPhone (360kHz) + iPhone (111-	
148kHz) + Watch (1.778MHz)	32

10. DESCRIPTION OF TEST SETUP AND SETUP PHOTOS34

1. ATTESTATION OF TEST RESULTS

COMPANY NAME: BELKIN INTERNATIONAL, INC.
555 S. AVIATION BLVD., SUITE 180
EL SEGUNDO, CA 90245, USA

EUT DESCRIPTION: BoostCharge Pro 3-in-1 Wireless Charging Station

MODEL NUMBER: WIZ032

BRAND: belkin

SERIAL NUMBER: Unit#1

SAMPLE RECEIPT DATE: 2024-08-02

DATE TESTED: 2024-08-06 TO 2024-08-07

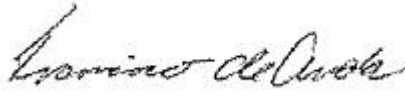
APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
FCC PART 15 SUBPART C	Complies

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.

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.

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.

Approved & Released For
UL Verification Services Inc. By:



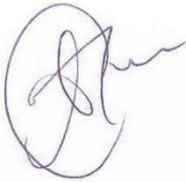
Francisco de Anda
Staff Engineer
Consumer Technology Division
UL Verification Services Inc.

Prepared By:



Benjamin Dobbins
Senior Test Engineer
Consumer Technology Division
UL Verification Services Inc.

Reviewed By:



Tina Chu
Senior Project Engineer
Consumer Technology Division
UL Verification Services Inc.

2. TEST METHODOLOGY

This report contains data provided by the customer which can impact the validity of results. UL Verification Services Inc. is only responsible for correctly integrating customer-provided data with measurements performed by UL Verification Services Inc.

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

- ANSI C63.10-2013
- FCC CFR 47 Part 2
- FCC CFR 47 Part 15
- KDB 414788 D01 Radiated Test Site

3. 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
☐	Building 1: 47173 Benicia Street, Fremont, CA 94538, USA	US0104	2324A	550739
☐	Building 2: 47266 Benicia Street, Fremont, CA 94538, USA			
☒	Building 4: 47658 Kato Rd, Fremont, CA 94538, USA			

4. DECISION RULES AND MEASUREMENT UNCERTAINTY

4.1. 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.

4.2. 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.)

4.3. 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%.

5. EQUIPMENT UNDER TEST

5.1. DESCRIPTION OF EUT

The EUT is a 3-in-1 wireless charging stand containing a Qi2 MPP/BPP 15W coil, a Qi BPP 5W coil, and an Apple Watch coil. The charging coils are separate and can charge three client devices at the same time.

The first coil is used for charging a Qi2 compatible device at 360kHz (15W max), a Qi compatible device at 127.7kHz (7.5W max), or an AirPods case at 127.7kHz (1W max). The second coil is used to charge a Qi compatible device at 111kHz to 148kHz (5W Max). The third coil is used for charging an Apple Watch at 326.5kHz or 1.778MHz (5W Max).

The EUT is powered by a 40W barrel jack AC/DC adapter.

5.2. MAXIMUM E-FIELD STRENGTH

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

Fundamental Frequency (kHz)	E field (300m distance) FCC (dBuV/m)
Standby	Coil#1 127.7kHz: -0.29 Coil#3 326.5kHz: -22.65
360 (Coil#1, iPhone 15, max15W)	-25.67
127.7 (Coil#1, Legacy iPhone, max 7.5W)	-9.3
127.7 (Coil#1, AirPods Case, max 1W)	-7.5
111 to 148 (Coil#2, Legacy iPhone, max 7.5; note Coil#2 is max 5W only)	-0.31
111 to 148 (Coil#2, AirPods Pro Case, max 1W)	-9.56
326.5 (Coil#3, Legacy Watch series, max 2.5W)	-30.1
Config 9 (All coils active)	Coil#1 360kHz: -19.87 Coil#2 111-148kHz: -6.8
Fundamental Frequency (kHz)	E field (30m distance) FCC (dBuV/m)
1778 (Coil#3, New Watch series, max 5W)	2.76
Config 9 (All coils active)	Coil#3 1778kHz: 6.26

5.3. SOFTWARE AND FIRMWARE

The firmware version installed in the EUT during testing was:

Coil#1: 360kHz/127.7kHz: V1.0

Coil#2: 111 to 148kHz: V0.03

Coil#3: 326.5kHz /1.778MHz: V2.0.3

5.4. WORST-CASE CONFIGURATION

Testing with the iPhone 15, Apple Watches, and AirPods Pro case is based on direct contact with no shifts in position due to the embedded magnets surrounding the coils in each of these client devices.

The legacy iPhone does not have an embedded magnet and is placed at the maximum power position during the testing.

For the entire radiated emissions test, the EUT was tested in desktop mode in the following configurations. The client devices were charging between 10% to 50% state of charge.

Radiated spurious emission 30MHz to 1GHz and AC conducted emissions were performed on Configuration 1, 9 at EUT minimum and maximum loads as worst-case.

The following configurations were tested as worst-case:

Config	Descriptions	Frequency	Client and worst-case orientation
1	EUT stand alone, standby, powered by AC/DC adapter.	@127.7kHz @326.5kHz	No client presents. On Standby. 111kHz to 148kHz, 360kHz and 1.778MHz signals were not observed in stand-by mode.
2	Direct contact during charging/operating between the EUT & WPT Client, EUT is powered by AC/DC adapter.	@360kHz	1 st coil: iPhone15, 270 degrees when the lightning connector is facing to the left.
3		@127.7kHz	1 st coil: Legacy iPhone, 270 degrees when the lightning connector is facing to the left.
4		@127.7kHz	1 st coil: AirPods Pro Case, 270 degrees when the lightning connector is facing to the left.
5		@111kHz to 148kHz	2 nd coil: Legacy iPhone, 270 degrees when the lightning connector is facing to the left.
6		@111kHz to 148kHz	2 nd coil: AirPods Pro Case. 180 degrees when the lightning connector is facing down (toward the user).
7		@326.5kHz	3 rd coil: Legacy Apple Watch, 90 degrees when the home button is facing to the right.
8		@1.778MHz	3 rd coil: New Apple Watch, 0 degrees when the home button is facing up, away from the user.
9		@360kHz @111kHz to 148kHz @ 1.778MHz	1 st coil: iPhone15, 270 degrees when the lightning connector is facing to the left. 2 nd coil: Legacy iPhone, 270 degrees when the lightning connector is facing to the left. 3 rd coil: New Apple Watch, 0 degrees when the home button is facing up, away from the user.

6. TEST AND MEASUREMENT EQUIPMENT

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

RADIATED EMISSIONS TEST EQUIPMENT LIST					
Description	Manufacturer	Model	ID Num	Cal Due	Last Cal
Antenna, Passive Loop 30Hz - 1MHz	ELECTRO METRICS	EM-6871	219909	2025-06-30	2023-06-20
Antenna, Passive Loop 100KHz - 30MHz	ELECTRO METRICS	EM-6872	219911	2024-12-31	2023-12-05
Antenna, Broadband Hybrid, 30MHz to 3GHz	Sunol Sciences Corp.	JB3	203089	2025-04-30	2024-04-9
EMI TEST RECEIVER	Rohde & Schwarz	ESW44	225688	2025-02-11	2024-02-11
Amplifier, 9KHz to 1GHz, 32dB	SONOMA INSTRUMENT	310	175953	2025-03-31	2024-04-04
AC MAINS LINE CONDUCTED EMISSIONS TEST EQUIPMENT LIST					
Description	Manufacturer	Model	ID Num	Cal Due	Last Cal
LISN	Fischer Custom Communications, Inc`	FCC-LISN-50/250-25-2-01-480V	175765	2025-01-31	2024-01-26
EMI TEST RECEIVER	Rohde & Schwarz	ESR	171646	2025-02-28	2024-02-27
Transient Limiter	TE	TBFL1	207996	2024-08-31	2023-08-10
UL AUTOMATION SOFTWARE					
Radiated Software	UL	UL EMC	Rev 9.5 2023-05-01		
AC Line Conducted Software	UL	UL EMC	Rev 9.5 2023-03-03		

7. 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.

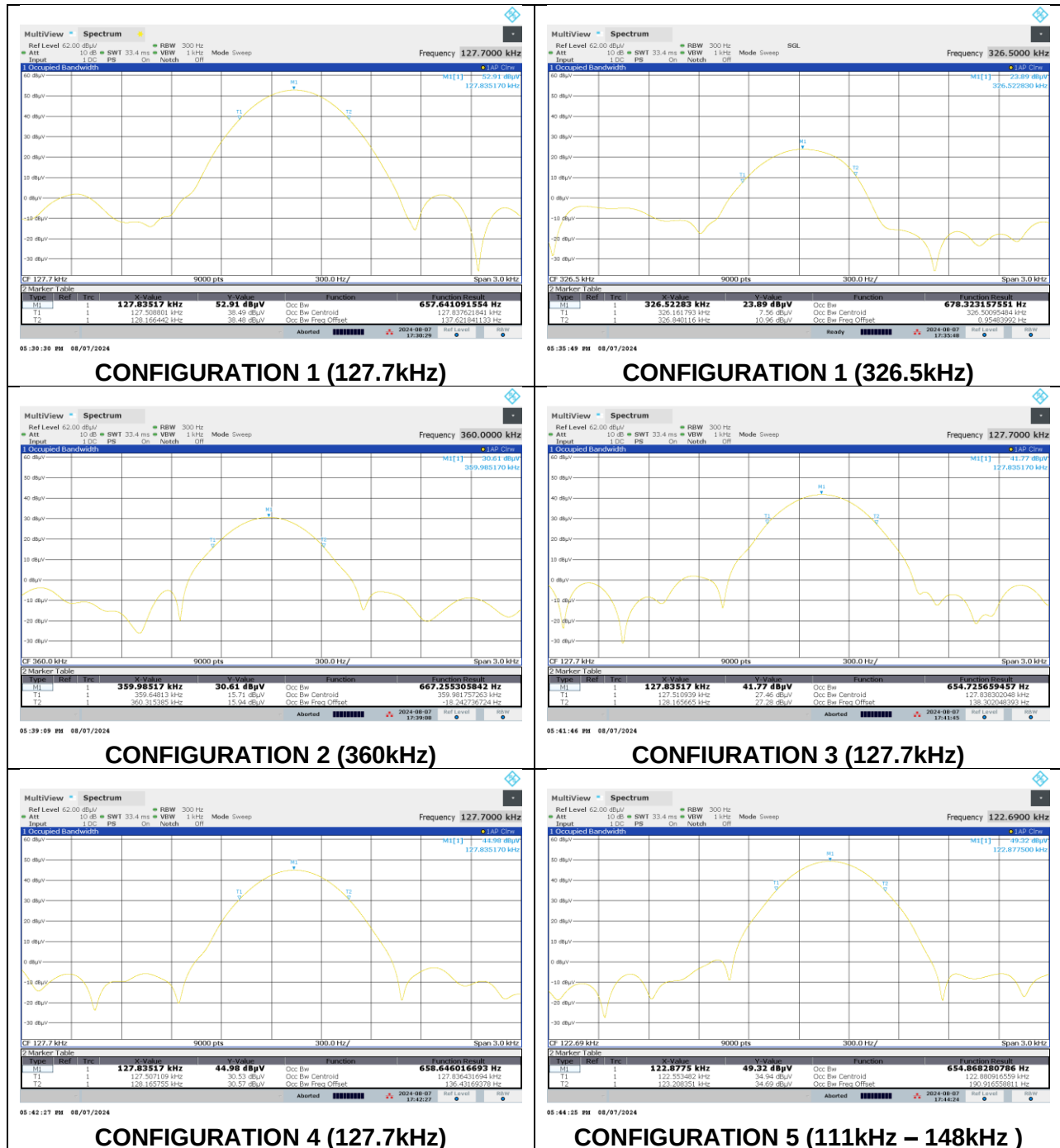
Note: Because the measured signal is CW-like, adjusting the RBW per C63.10 would not be practical since measured bandwidth will always follow the RBW and the result will be approximately twice the RBW.

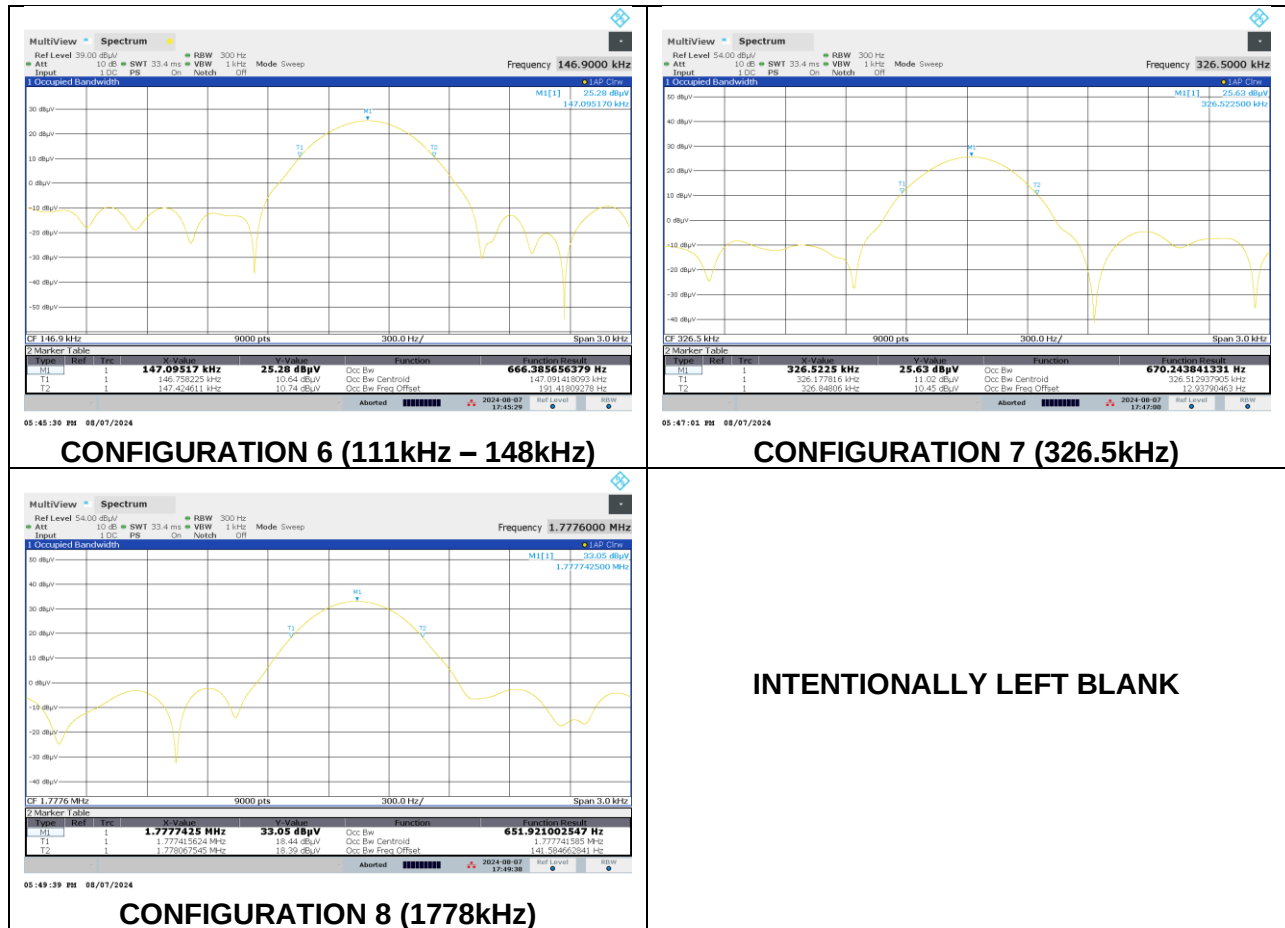
RESULTS

Test Engineer:	32933 LM
----------------	----------

Configuration	Frequency (kHz)	99% Bandwidth (Hz)
1 (Coil#1)	127.8	657.64
1(Coil#3)	326.5	678.32
2	360	667.25
3	127.8	654.72
4	127.8	658.64
5	122.9	654.86
6	147.1	666.38
7	326.5	670.24
8	1778	651.92

Configuration 1, Coil#2: N/A. No noticeable intended radiator





8. RADIATED EMISSION TEST RESULTS

8.1. LIMITS AND PROCEDURE

LIMIT

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.

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

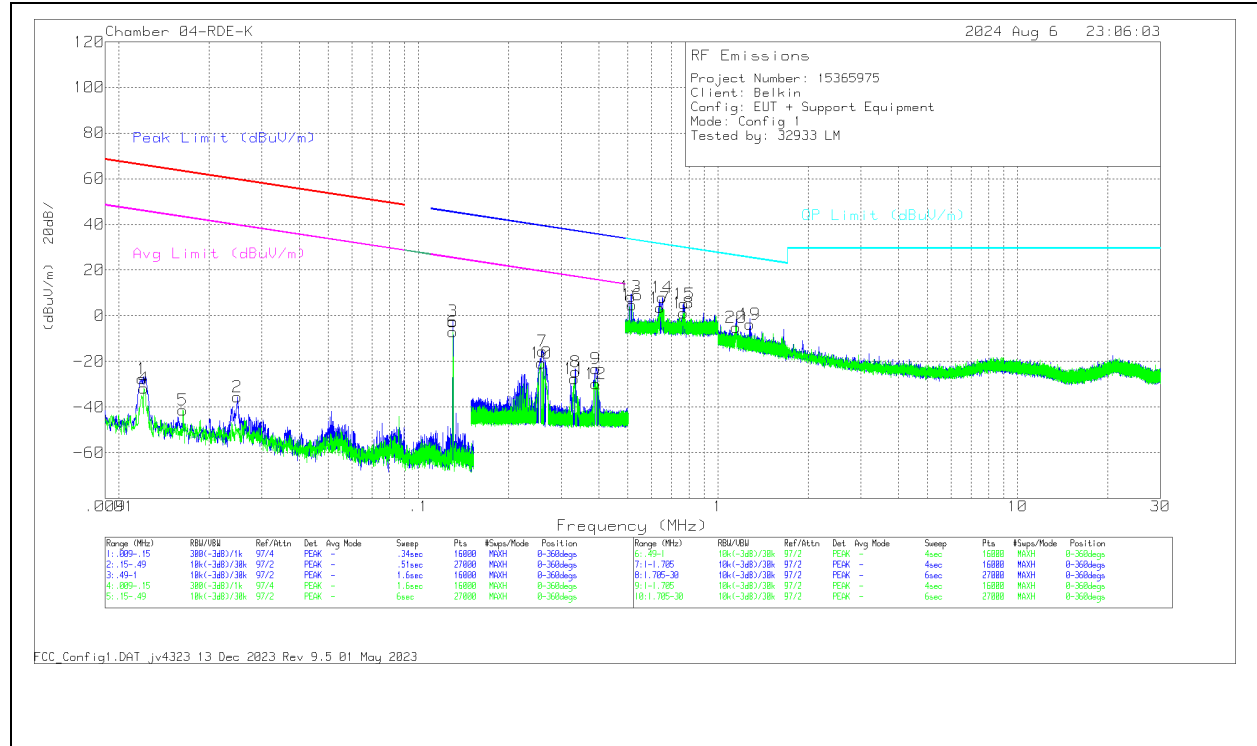
Base on FCC 15.31 (f) (2): measurements may be performed at a distance closer than that specified in the regulations; however, an attempt should be made to avoid making measurements in the near field.

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

RESULTS

8.2. FCC TX FUNDAMENTAL AND SPURIOUS EMISSIONS FROM 9 kHz TO 30 MHz

8.2.1. CONFIGURATION 1: WPT ON STANDBY

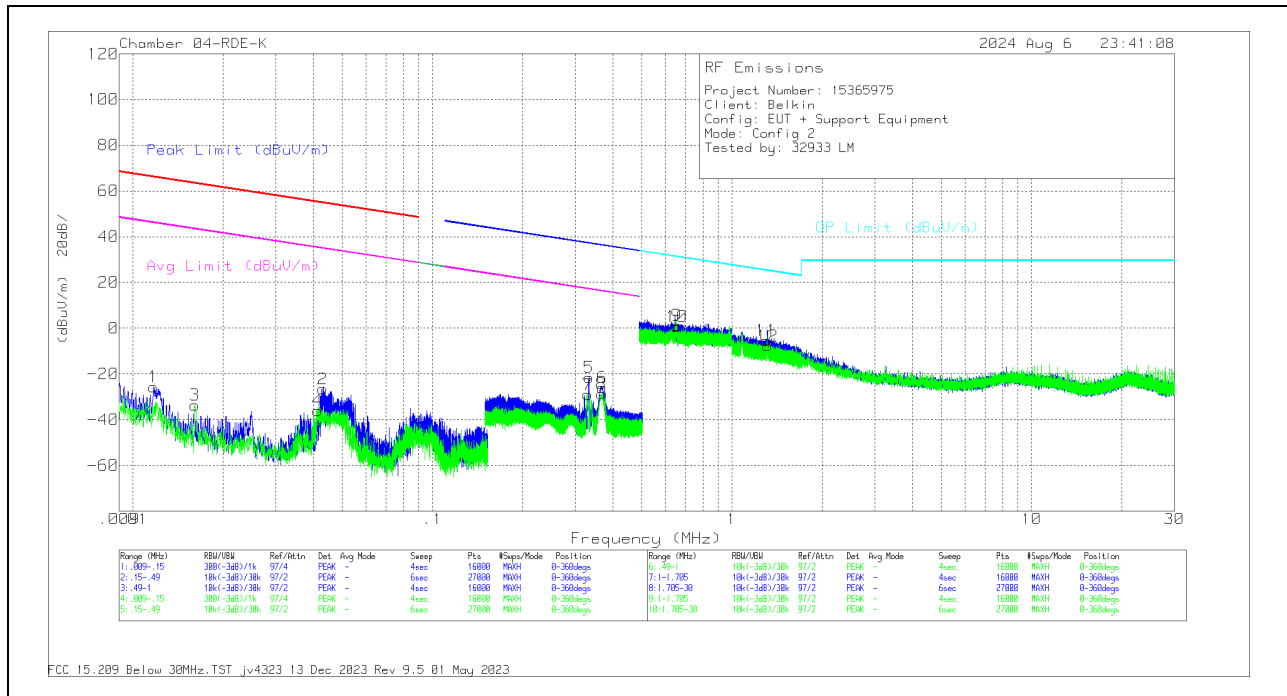


DATA

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna E(dB/m)	Amp/Cbl (dB)	Dist Corr 300m (dB)	Dist Corr 30m (dB)	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	Margin (dB)	Avg Limit (dBuV/m)	Margin (dB)	QP Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Polarity
1	.0119	23.53	Pk	60	-31.1	-80	-	-27.57	66.04	-93.61	46.04	-73.61	-	-	0-360	Face-On
2	.0249	17.64	Pk	58.5	-31.8	-80	-	-35.66	59.67	-95.33	39.67	-75.33	-	-	0-360	Face-On
3	.1278	56.21	Pk	55.8	-32.3	-80	-	-29	45.49	-45.78	25.49	-25.78	-	-	162	Face-On
4	.0121	19.31	Pk	60	-31.1	-80	-	-31.79	65.91	-97.7	45.91	-77.7	-	-	0-360	Face-Off
5	.0164	10.69	Pk	59.5	-31.4	-80	-	-41.21	63.31	-104.52	43.31	-84.52	-	-	0-360	Face-Off
6	.1278	51.97	Pk	55.8	-32.3	-80	-	-4.53	45.49	-50.02	25.49	-30.02	-	-	40	Face-Off
7	.2597	40.48	Pk	56.2	-32.2	-80	-	-15.52	39.32	-54.84	19.32	-34.84	-	-	0-360	Face-On
8	.3267	33.25	Pk	56.2	-32.1	-80	-	-22.65	37.33	-59.98	17.33	-39.98	-	-	137	Face-On
9	.3912	32.82	Pk	56.1	-32.1	-80	-	-23.18	35.76	-58.94	15.76	-38.94	-	-	0-360	Face-On
10	.257	35.26	Pk	56.2	-32.2	-80	-	-20.74	39.41	-60.15	19.41	-40.15	-	-	0-360	Face-Off
11	.3269	27.51	Pk	56.2	-32.1	-80	-	-28.39	37.32	-65.71	17.32	-45.71	-	-	56	Face-Off
12	.3911	26.23	Pk	56.1	-32.1	-80	-	-29.77	35.76	-65.53	15.76	-45.53	-	-	0-360	Face-Off
13	.5115	24.48	Pk	56.1	-32.2	-	-40	8.38	-	-	-	-	33.43	-25.05	0-360	Face-On
14	.6513	24.15	Pk	56.2	-32.2	-	-40	8.15	-	-	-	-	31.34	-23.19	0-360	Face-On
15	.7696	21.21	Pk	56.2	-32.2	-	-40	5.21	-	-	-	-	29.89	-24.68	0-360	Face-On
16	.5169	20.93	Pk	56.1	-32.2	-	-40	4.83	-	-	-	-	33.34	-28.51	0-360	Face-Off
17	.6403	19.62	Pk	56.1	-32.2	-	-40	3.52	-	-	-	-	31.48	-27.96	0-360	Face-Off
18	.7669	17.32	Pk	56.2	-32.2	-	-40	1.32	-	-	-	-	29.92	-28.6	0-360	Face-Off
19	1.2777	22.89	Pk	45.5	-32.1	-	-40	-3.71	-	-	-	-	25.5	-29.21	0-360	Face-On
20	1.1499	20.8	Pk	46.1	-32.1	-	-40	-5.2	-	-	-	-	26.41	-31.61	0-360	Face-Off

Pk - Peak detector

8.2.2. CONFIGURATION 2: OPERATING MODE WITH iPhone (360kHz)



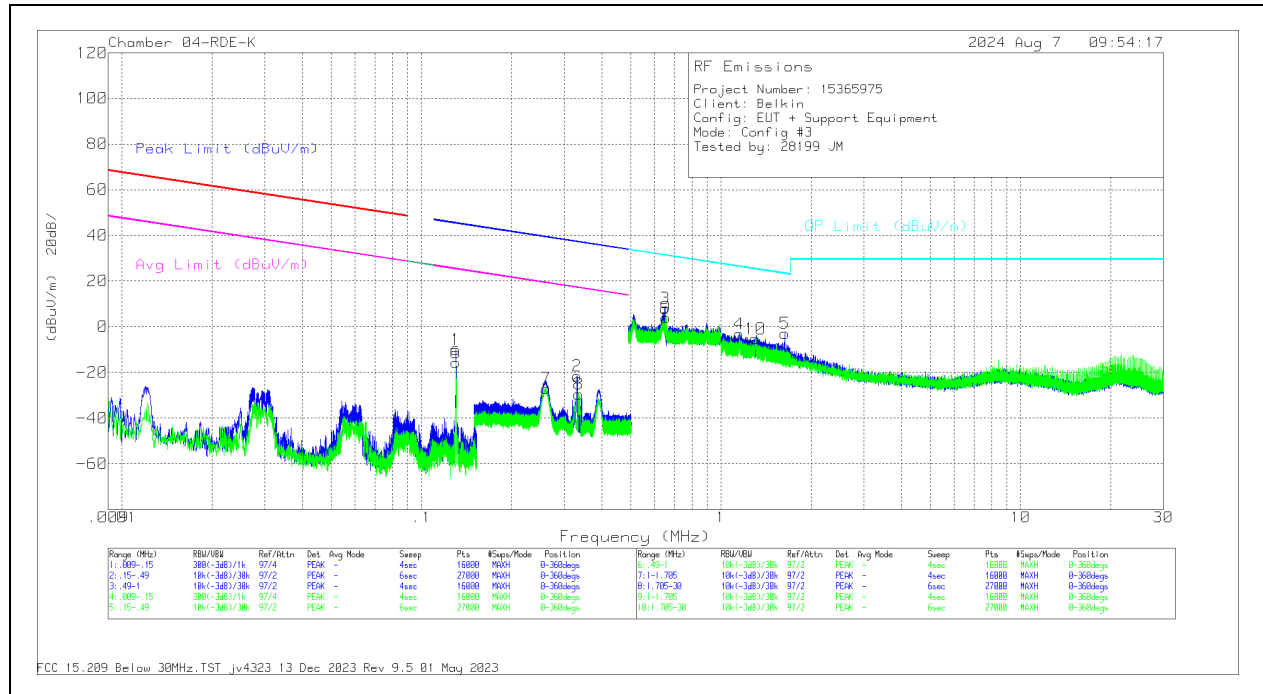
DATA

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna E(dB/m)	Amp/Cbl (dB)	Dist Corr 300m (dB)	Dist Corr 30m (dB)	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	Margin (dB)	Avg Limit (dBuV/m)	Margin (dB)	QP Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Polarity
1	.0117	25.36	Pk	60.1	-31.1	-80	-	-25.64	66.19	-91.83	46.19	-71.83	-	-	0-360	Face On
2	.0431	28.47	Pk	57.2	-32.3	-80	-	-26.63	54.89	-81.52	34.89	-61.52	-	-	0-360	Face On
3	.0161	18.25	Pk	59.5	-31.4	-80	-	-33.65	63.46	-97.11	43.46	-77.11	-	-	0-360	Face Off
4	.0414	19.2	Pk	57.2	-32.4	-80	-	-36	55.25	-91.25	35.25	-71.25	-	-	0-360	Face Off
5	.3334	34.36	Pk	56.2	-32.2	-80	-	-21.64	37.15	-58.79	17.15	-38.79	-	-	0-360	Face On
6	.36	30.43	Pk	56.1	-32.2	-80	-	-25.67	36.48	-62.15	16.48	-42.15	-	-	239	Face On
7	.33	26.81	Pk	56.2	-32.1	-80	-	-29.09	37.24	-66.33	17.24	-46.33	-	-	0-360	Face Off
8	.3596	28.26	Pk	56.1	-32.2	-80	-	-27.84	36.49	-64.33	16.49	-44.33	-	-	147	Face Off
9	.655	17.21	Pk	56.2	-32.2	-	-40	1.21	-	-	-	-	31.29	-30.08	0-360	Face On
10	.654	16.61	Pk	56.2	-32.2	-	-40	.61	-	-	-	-	31.3	-30.69	0-360	Face Off
11	1.303	21.53	Pk	45.3	-32.1	-	-40	-5.27	-	-	-	-	25.33	-30.6	0-360	Face On
12	1.3157	18.99	Pk	45.3	-32	-	-40	-7.71	-	-	-	-	25.24	-32.95	0-360	Face Off

Pk - Peak detector

Note: Marker 5 is fundamental signal from coil#3 where in standby mode.

8.2.3. CONFIGURATION 3: OPERATING MODE WITH iPhone (127.7kHz)

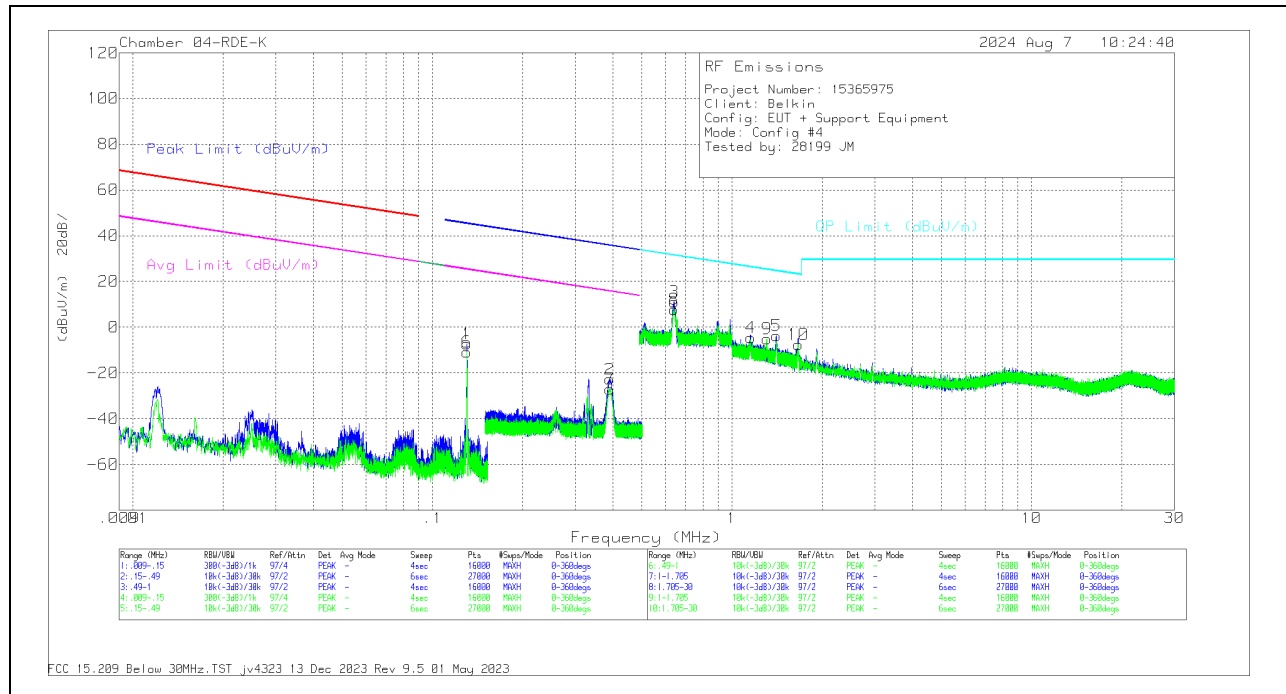


DATA

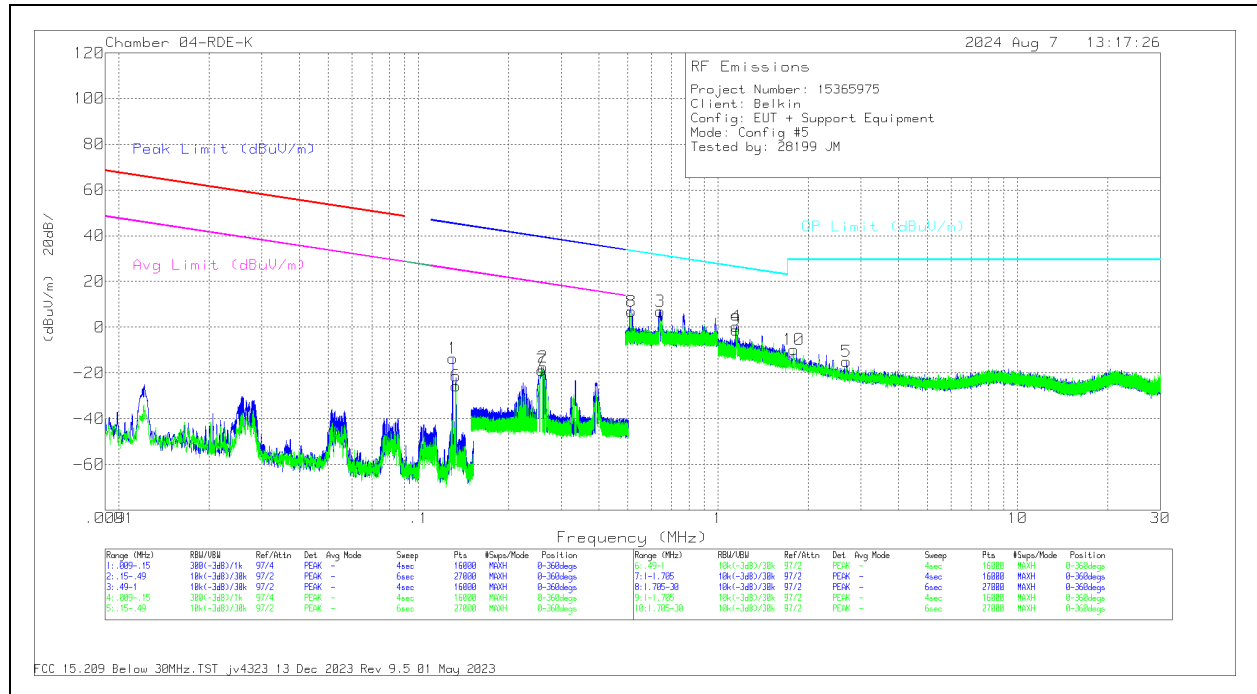
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna E(dB/m)	Amp/Cbl (dB)	Dist Corr 300m (dB)	Dist Corr 30m (dB)	Corrected Reading (dBuV/m)	QP Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Avg Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Polarity
1	.1278	47.2	Pk	55.8	-32.3	-80	-	-9.3	-	-	45.49	-54.79	25.49	-34.79	10	Face-On
2	.3309	34.27	Pk	56.2	-32.1	-80	-	-21.63	-	-	37.22	-58.85	17.22	-38.85	0-360	Face-On
3	.6514	23.96	Pk	56.2	-32.2	-	-40	7.96	31.33	-23.37	-	-	-	-	0-360	Face-On
4	1.1489	22.88	Pk	46.1	-32.1	-	-40	-3.12	26.42	-29.54	-	-	-	-	0-360	Face-On
5	1.6323	25.45	Pk	43.6	-32	-	-40	-2.95	23.38	-26.33	-	-	-	-	0-360	Face-On
6	.1278	41	Pk	55.8	-32.3	-80	-	-15.5	-	-	45.49	-60.99	25.49	-40.99	109	Face-Off
7	.2601	28.82	Pk	56.2	-32.1	-80	-	-27.08	-	-	39.31	-66.39	19.31	-46.39	0-360	Face-Off
8	.335	26.4	Pk	56.2	-32.2	-80	-	-29.6	-	-	37.11	-66.71	17.11	-46.71	0-360	Face-Off
9	.6557	20.04	Pk	56.2	-32.2	-	-40	4.04	31.28	-27.24	-	-	-	-	0-360	Face-Off
10	1.3037	21.55	Pk	45.3	-32.1	-	-40	-5.25	25.32	-30.57	-	-	-	-	0-360	Face-Off

Pk - Peak detector

8.2.4. CONFIGURATION 4: OPERATING MODE WITH AirPods Pro Case (127.7kHz)



8.2.5. CONFIGURATION 5: OPERATING MODE WITH iPhone (111-148kHz)

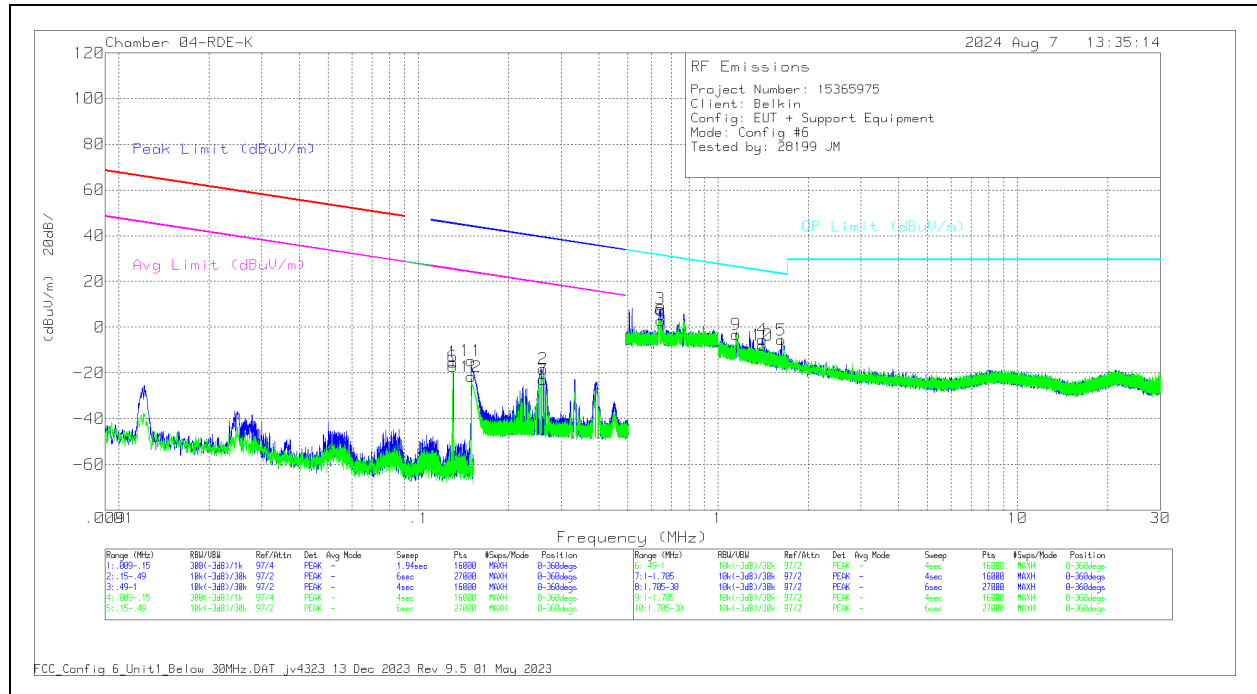


DATA

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna E(dB/m)	Amp/Cbl (dB)	Dist Corr 300m (dB)	Dist Corr 30m (dB)	Corrected Reading (dBuV/m)	QP Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Avg Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Polarity
1	.1278	56.19	Pk	55.8	-32.3	-80	-	-31	-	-	45.49	-45.8	25.49	-25.8	157	Face-On
2	.261	38.55	Pk	56.2	-32.1	-80	-	-17.35	-	-	39.28	-56.63	19.28	-36.63	0-360	Face-On
3	.6431	23.12	Pk	56.1	-32.2	-	-40	7.02	31.44	-24.42	-	-	-	-	0-360	Face-On
4	1.1507	26.29	Pk	46.1	-32.1	-	-40	.29	26.41	-26.12	-	-	-	-	0-360	Face-On
5	2.6838	17.12	Pk	39.7	-31.9	-	-40	-15.08	29.5	-44.58	-	-	-	-	0-360	Face-On
6	.1278	52.03	Pk	55.8	-32.3	-80	-	-4.47	-	-	45.49	-49.96	25.49	-29.96	210	Face-Off
7	.2585	37.22	Pk	56.2	-32.2	-80	-	-18.78	-	-	39.36	-58.14	19.36	-38.14	0-360	Face-Off
8	.5144	22.96	Pk	56.1	-32.2	-	-40	6.86	33.38	-26.52	-	-	-	-	0-360	Face-Off
9	1.1519	24.77	Pk	46.1	-32.1	-	-40	-1.23	26.4	-27.63	-	-	-	-	0-360	Face-Off
10	1.792	19.33	Pk	42.8	-31.9	-	-40	-9.77	29.5	-39.27	-	-	-	-	0-360	Face-Off

Pk - Peak detector

8.2.6. CONFIGURATION 6: OPERATING MODE WITH AirPods Pro Case (111-148kHz)

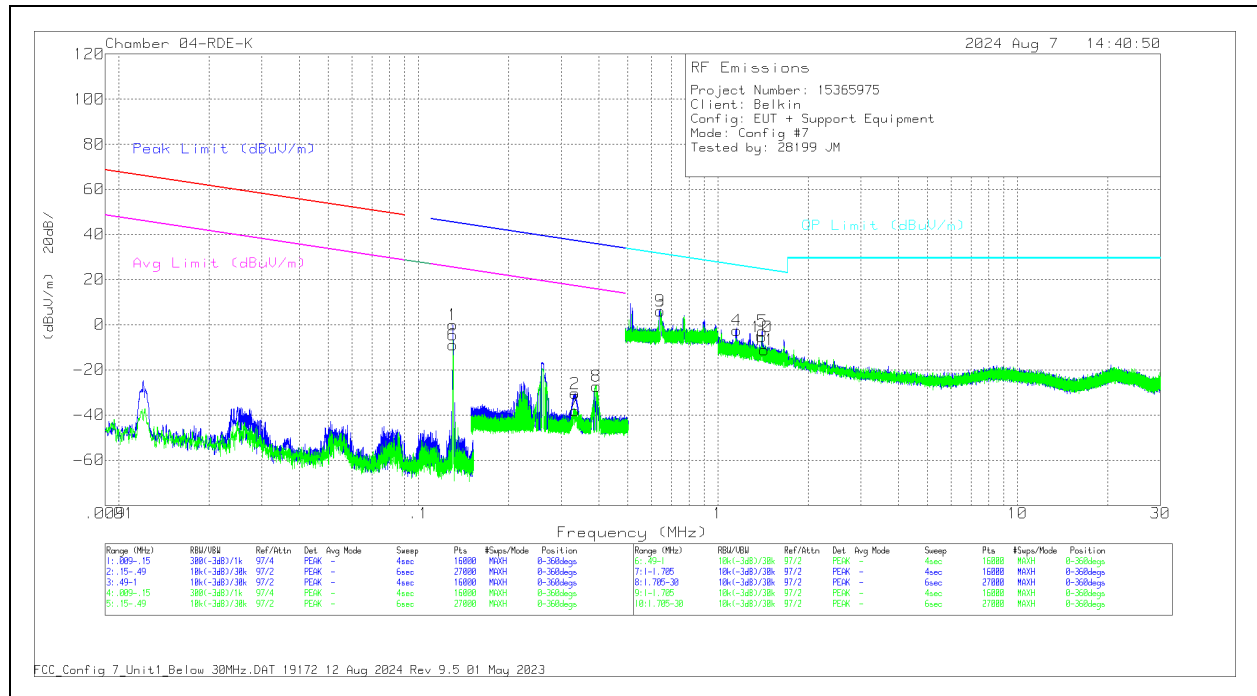


DATA

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna E(dB/m)	Amp/Cbl (dB)	Dist Corr 300m (dB)	Dist Corr 30m (dB)	Corrected Reading (dBuV/m)	QP Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Avg Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Polarity
1	.1305	41.07	Pk	55.8	-32.2	-80	-	-15.33	-	-	45.31	-60.64	25.31	-40.64	0-360	Face-On
2	.2604	37.72	Pk	56.2	-32.1	-80	-	-18.18	-	-	39.3	-57.48	19.3	-37.48	0-360	Face On
3	.641	24.19	Pk	56.1	-32.2	-	-40	8.09	31.47	-23.38	-	-	-	-	0-360	Face On
4	1.4081	21.98	Pk	44.8	-32.1	-	-40	-5.32	24.66	-29.98	-	-	-	-	0-360	Face On
5	1.6292	22.87	Pk	43.6	-32	-	-40	-5.53	23.39	-28.92	-	-	-	-	0-360	Face On
6	.1301	39.16	Pk	55.8	-32.2	-80	-	-17.24	-	-	45.34	-62.58	25.34	-42.58	0-360	Face-Off
7	.2604	33.05	Pk	56.2	-32.1	-80	-	-22.85	-	-	39.3	-62.15	19.3	-42.15	0-360	Face Off
8	.6456	18.93	Pk	56.1	-32.2	-	-40	2.83	31.41	-28.58	-	-	-	-	0-360	Face Off
9	1.1522	22.89	Pk	46.1	-32.1	-	-40	-3.11	26.39	-29.5	-	-	-	-	0-360	Face Off
10	1.4091	19.49	Pk	44.8	-32.1	-	-40	-7.81	24.65	-32.46	-	-	-	-	0-360	Face Off
11	.147	46.74	Pk	55.9	-32.2	-80	-	-9.56	-	-	44.27	-53.83	24.27	-33.83	154	Face-On
12	.147	39.53	Pk	55.9	-32.2	-80	-	-16.77	-	-	44.27	-61.04	24.27	-41.04	251	Face-Off

Pk - Peak detector

8.2.7. CONFIGURATION 7: OPERATING MODE WITH Watch (326.5kHz)



DATA

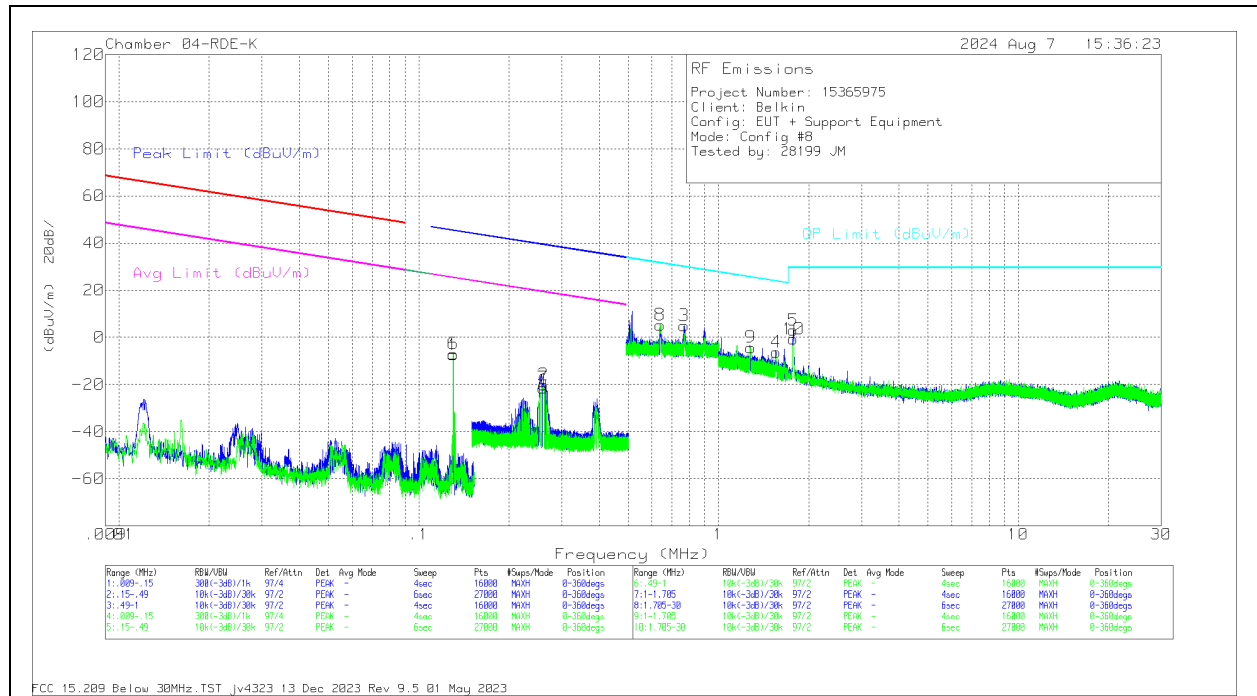
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna E(dB/m)	Amp/Cbl (dB)	Dist Corr 300m (dB)	Dist Corr 30m (dB)	Corrected Reading (dBuV/m)	QP Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Avg Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Polarity
1	.1304	56.27	Pk	55.8	-32.2	-80	-	-13	-	-	45.32	-45.45	25.32	-25.45	0-360	Face-On
2	.3268	25.8	Pk	56.2	-32.1	-80	-	-30.1	-	-	37.33	-67.43	17.33	-47.43	310	Face-On
3	.6425	22.22	Pk	56.1	-32.2	-	-40	6.12	31.45	-25.33	-	-	-	-	0-360	Face-On
4	1.1534	23.52	Pk	46.1	-32.1	-	-40	-2.48	26.39	-28.87	-	-	-	-	0-360	Face-On
5	1.4053	24.4	Pk	44.8	-32.1	-	-40	-2.9	24.67	-27.57	-	-	-	-	0-360	Face-On
6	.1305	47.39	Pk	55.8	-32.2	-80	-	-9.01	-	-	45.31	-54.32	25.31	-34.32	0-360	Face-Off
7	.3249	22.44	Pk	56.2	-32.1	-80	-	-33.46	-	-	37.38	-70.84	17.38	-50.84	35	Face-Off
8	.3924	28.79	Pk	56.1	-32.1	-80	-	-27.21	-	-	35.73	-62.94	15.73	-42.94	0-360	Face-Off
9	.6426	22.19	Pk	56.1	-32.2	-	-40	6.09	31.45	-25.36	-	-	-	-	0-360	Face-Off
10	1.4031	21.88	Pk	44.8	-32.1	-	-40	-5.42	24.69	-30.11	-	-	-	-	0-360	Face-Off
11	1.4299	16.15	Pk	44.7	-32	-	-40	-11.15	24.52	-35.67	-	-	-	-	0-360	Face-Off

Pk - Peak detector

Note: Markers 1, 6 are fundamental signals from coil#1 where the coil is in standby mode.

Marker 8 signal is harmonics signal of fundamental signal from coil#1 where the coil is in standby mode.

8.2.8. CONFIGURATION 8: OPERATING MODE WITH Watch (1.778MHz)



DATA

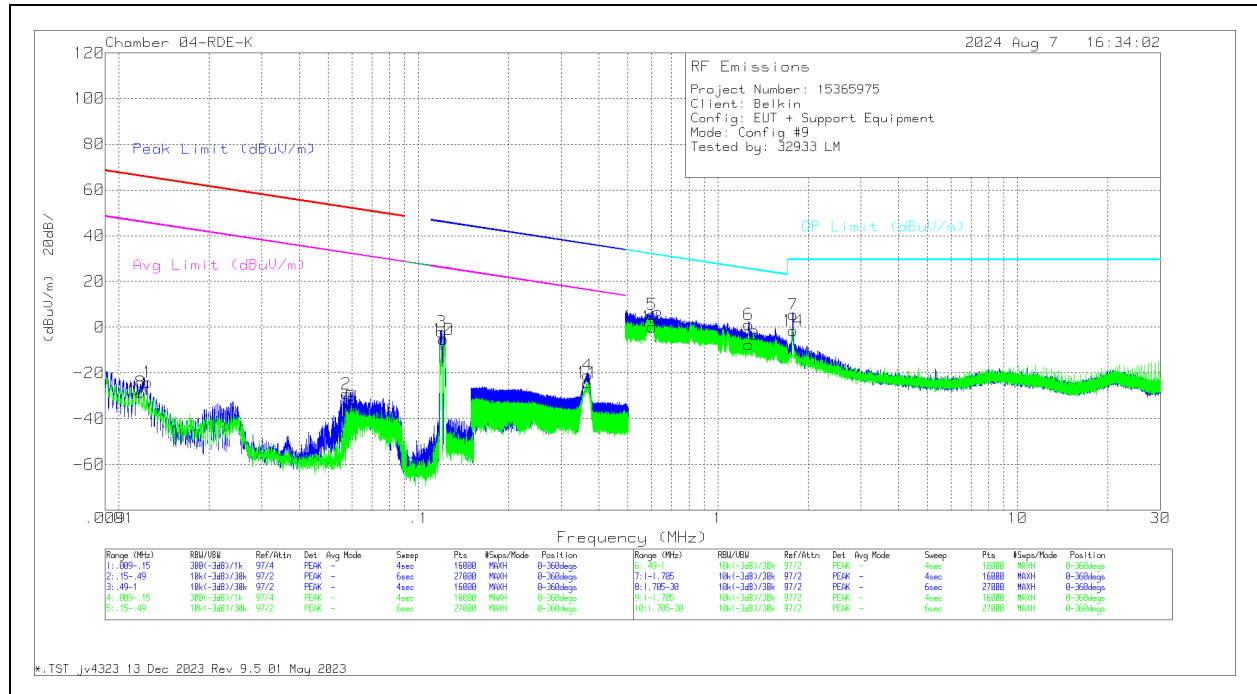
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna E(dB/m)	Amp/Cbl (dB)	Dist Corr 300m (dB)	Dist Corr 30m (dB)	Corrected Reading (dBuV/m)	QP Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Avg Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Polarity
1	.1304	48.98	Pk	55.8	-32.2	-80	-	-7.42	-	-	45.32	-52.74	25.32	-32.74	0-360	Face On
2	.2612	35.81	Pk	56.2	-32.1	-80	-	-20.09	-	-	39.27	-59.36	19.27	-39.36	0-360	Face On
3	.7681	20.93	Pk	56.2	-32.2	-	-40	4.93	29.91	-24.98	-	-	-	-	0-360	Face On
4	1.5564	21.65	Pk	44	-31.9	-	-40	-6.25	23.79	-30.04	-	-	-	-	0-360	Face On
5	1.7774	31.86	Pk	42.9	-32	-	-40	2.76	29.5	-26.74	-	-	-	-	30	Face On
6	.1304	49.41	Pk	55.8	-32.2	-80	-	-6.99	-	-	45.32	-52.31	25.32	-32.31	0-360	Face Off
7	.2602	34.5	Pk	56.2	-32.1	-80	-	-21.4	-	-	39.31	-60.71	19.31	-40.71	0-360	Face Off
8	.639	21.36	Pk	56.1	-32.2	-	-40	5.26	31.5	-26.24	-	-	-	-	0-360	Face Off
9	1.2814	22.39	Pk	45.4	-32.1	-	-40	-4.31	25.47	-29.78	-	-	-	-	0-360	Face Off
10	1.7774	27.99	Pk	42.9	-32	-	-40	-1.11	29.5	-30.61	-	-	-	-	105	Face Off

Pk - Peak detector

Note: Markers 1, 6 are fundamental signals from coil#1 where the coil is in standby mode.

Markers, 2, 7 are harmonics signals of fundamental signal from coil#1 where the coil is in standby mode.

8.2.9. CONFIGURATION 9: OPERATING MODE WITH iPhone (360kHz) + iPhone (127.7kHz) + Watch (1.778MHz)



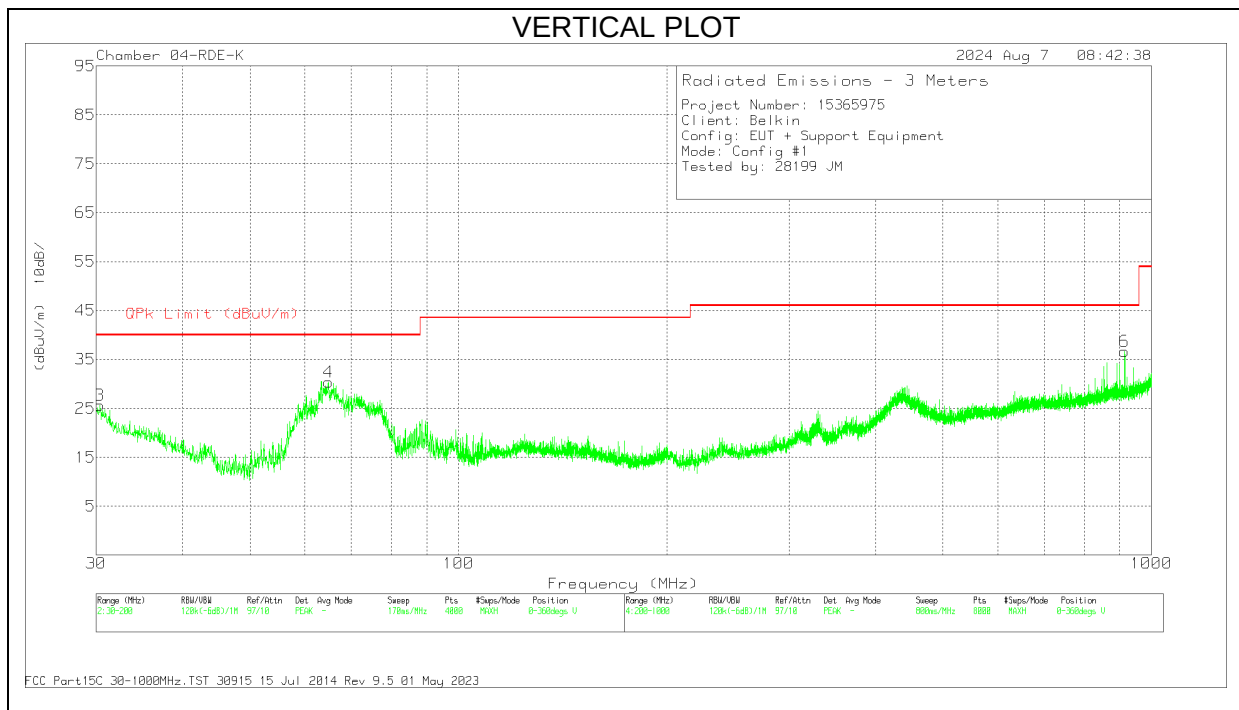
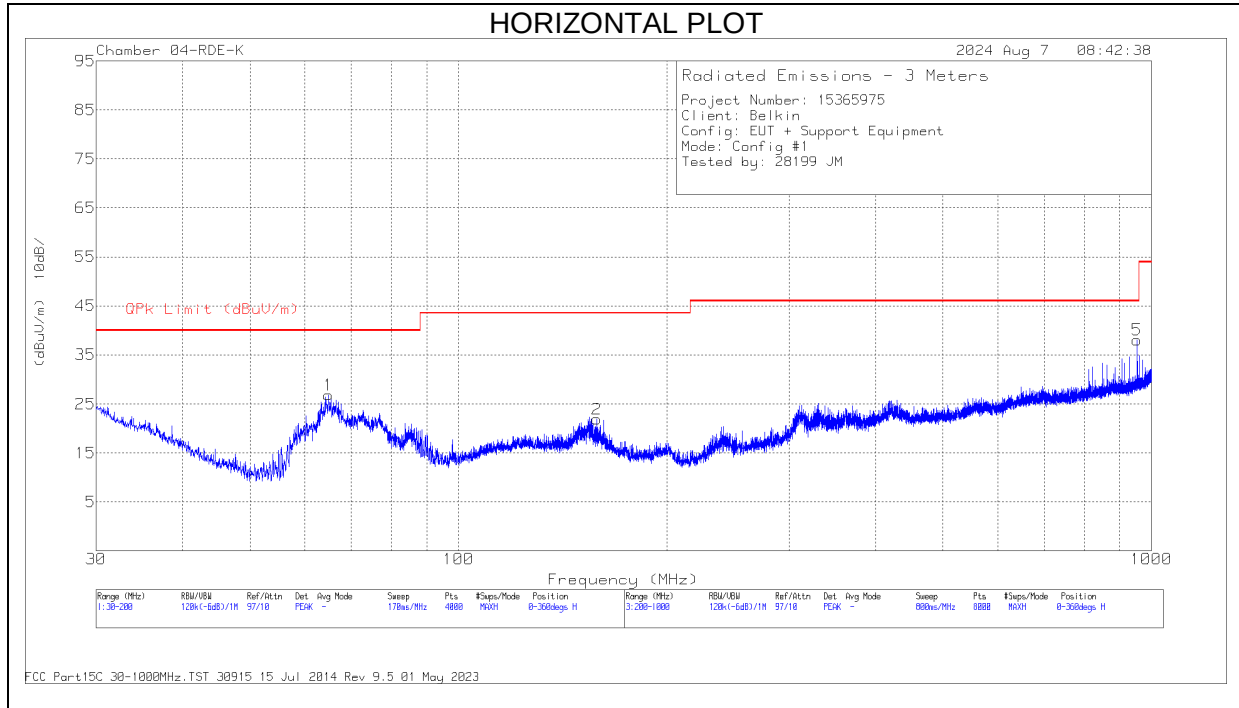
DATA

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna E(dB/m)	Amp/Cbl (dB)	Dist Corr 300m (dB)	Dist Corr 30m (dB)	Corrected Reading (dBuV/m)	QP Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Avg Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Polarity
1	.0125	27.14	PK	60	-31.1	-80	-	-23.96	-	-	65.67	-89.63	45.67	-69.63	0-360	Face On
2	.0574	26.68	PK	56.4	-32.2	-80	-	-29.12	-	-	52.41	-81.53	32.41	-61.53	0-360	Face On
3	.1218	49.8	PK	55.7	-32.3	-80	-	-6.8	-	-	45.91	-52.71	25.91	-32.71	339	Face On
4	.3599	36.23	PK	56.1	-32.2	-80	-	-19.87	-	-	36.49	-56.36	16.49	-36.36	250	Face On
5	.6042	21.67	PK	56.1	-32.2	-	-40	5.57	31.99	-26.42	-	-	-	-	0-360	Face On
6	1.2653	27.91	PK	45.5	-32.1	-	-40	1.31	25.58	-24.27	-	-	-	-	0-360	Face On
7	1.7772	35.36	PK	42.9	-32	-	-40	6.26	29.5	-23.24	-	-	-	-	0	Face On
8	.0118	22.58	PK	60.1	-31.1	-80	-	-28.42	-	-	66.12	-94.54	46.12	-74.54	0-360	Face Off
9	.0597	21.41	PK	56.2	-32.2	-80	-	-34.59	-	-	52.06	-86.65	32.06	-66.65	0-360	Face Off
10	.1215	46.34	PK	55.7	-32.3	-80	-	-10.26	-	-	45.93	-56.19	25.93	-36.19	77	Face Off
11	.36	28.09	PK	56.1	-32.2	-80	-	-28.01	-	-	36.48	-64.49	16.48	-44.49	166	Face Off
12	.6036	16.29	PK	56.1	-32.2	-	-40	.19	31.99	-31.8	-	-	-	-	0-360	Face Off
13	1.2645	18.91	PK	45.5	-32.1	-	-40	-7.69	25.59	-33.28	-	-	-	-	0-360	Face Off
14	1.7779	28.91	PK	42.9	-32	-	-40	-.19	29.5	-29.69	-	-	-	-	64	Face Off

Pk - Peak detector

8.3. FCC TX SPURIOUS EMISSION 30 TO 1000 MHz

8.3.1. CONFIGURATION 1: WPT ON STANDBY



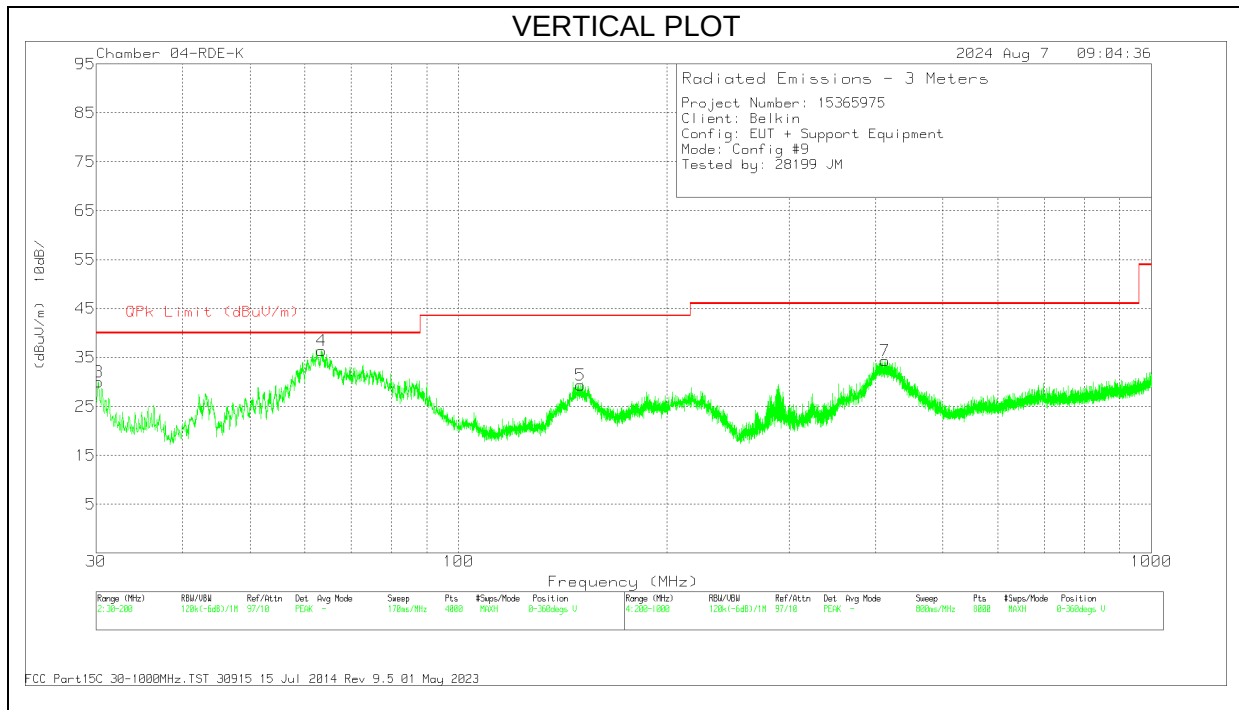
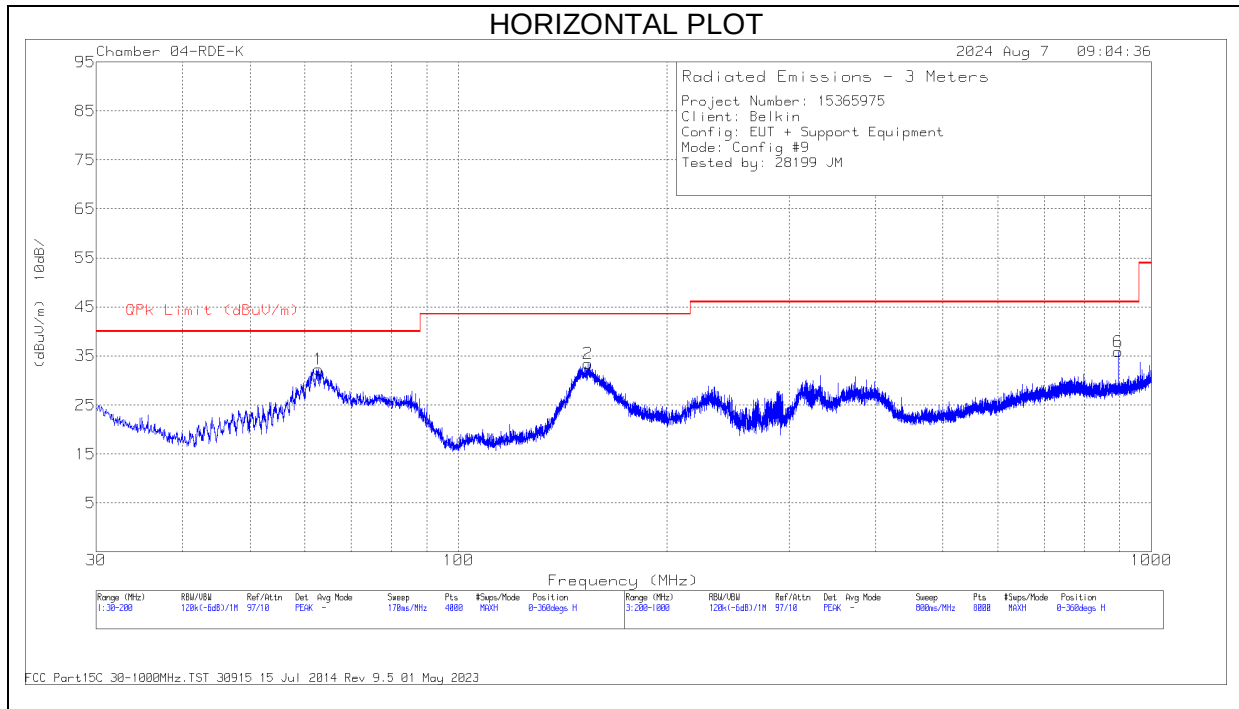
DATA

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	203089 ACF (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	64.944	43.85	Pk	13.9	-30.9	26.85	40	-13.15	0-360	299	H
2	158.383	33.77	Pk	18.2	-30.1	21.87	43.52	-21.65	0-360	199	H
3	30.3826	29.92	Pk	26.8	-31.1	25.62	40	-14.38	0-360	100	V
4	64.9866	47.42	Pk	13.9	-30.9	30.42	40	-9.58	0-360	100	V
5	949.956	27.75	Pk	28.5	-25.4	30.85	46.02	-15.17	223	379	H
	949.956	19.07	Qp	28.5	-25.4	22.17	46.02	-23.85	223	379	H
6	914.993	35.02	Pk	28.1	-26.5	36.62	46.02	-9.4	0-360	199	V

Pk - Peak detector

Qp - Quasi-Peak detector

8.3.2. CONFIGURATION 9: OPERATING MODE WITH iPhone (360kHz) + iPhone (127.7kHz) + Watch (1.778MHz)



DATA

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	203089 ACF (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	62.776	49.58	Pk	13.7	-31	32.28	40	-7.72	0-360	399	H
2	153.835	45.13	Pk	18.2	-29.9	33.43	43.52	-10.09	0-360	199	H
3	30.2126	34.07	Pk	27	-31.1	29.97	40	-10.03	0-360	100	V
4	60.992	52.77	Pk	13.5	-31.1	35.17	40	-4.83	183	132	V
	60.992	47.13	Qp	13.5	-31.1	29.53	40	-10.47	183	132	V
5	150.009	41.5	Pk	18.3	-30.4	29.4	43.52	-14.12	0-360	100	V
6	894.99	34.73	Pk	28.1	-26.9	35.93	46.02	-10.09	0-360	199	H
7	412.628	41.24	Pk	21.9	-28.8	34.34	46.02	-11.68	0-360	100	V

Pk - Peak detector

Qp - Quasi-Peak detector

9. AC MAINS 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.

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.

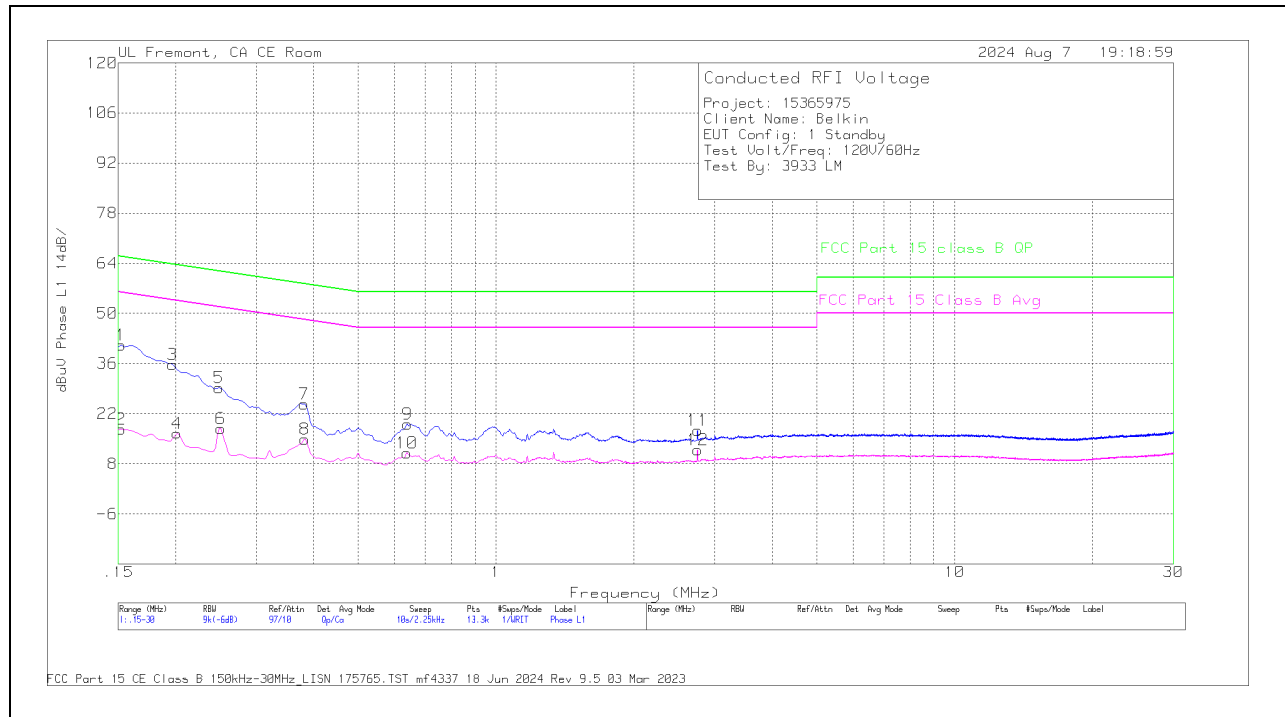
The receiver is set to a resolution bandwidth of 9kHz for 150kHz to 30MHz. Peak detection is used unless otherwise noted as quasi-peak or average.

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

RESULTS

9.1. CONFIGURATION 1: WPT ON STANDBY

LINE 1 RESULTS

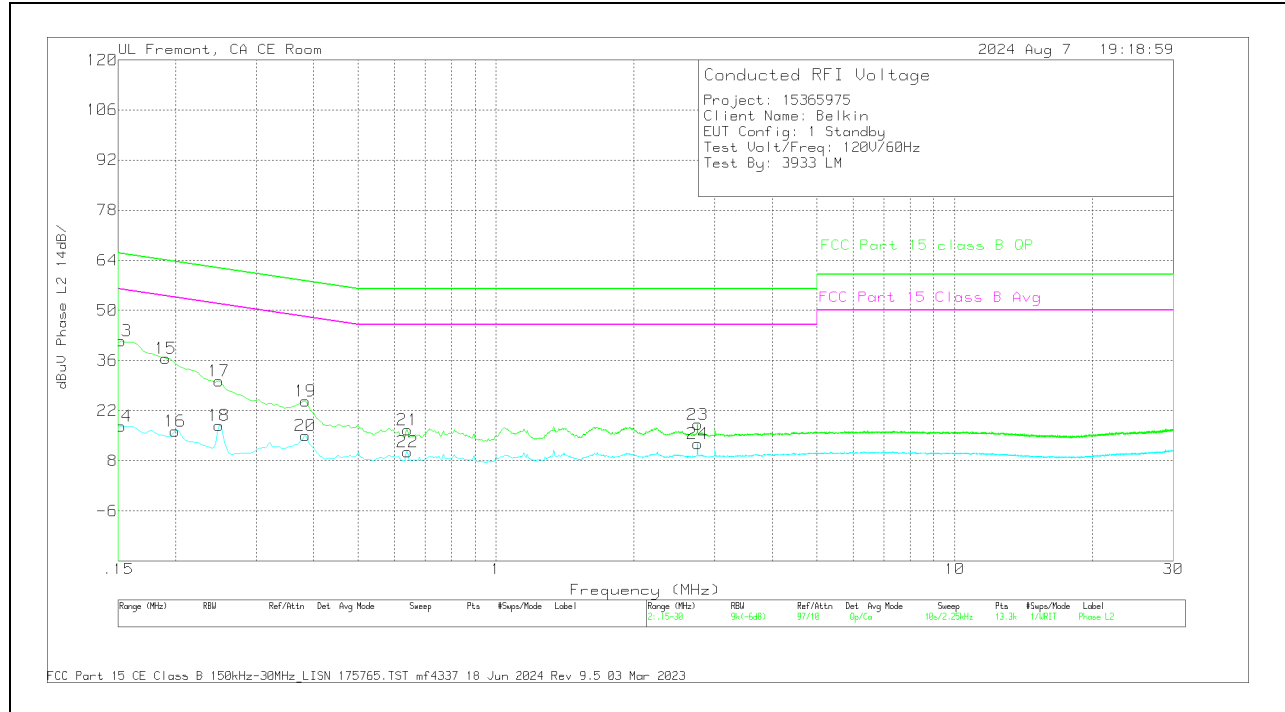


WORST EMISSIONS

Range 1: Phase L1 .15 - 30MHz												
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Cbl (dB)	LISN (dB)	Trns Limiter (dB)	10dB Atten (dB)	Corrected Reading (dBuV)	FCC Part 15C Avg Limit (dBuV)	Margin (dB)	FCC Part 15C QP Limit (dBuV)	Margin (dB)
2	.1523	-1.86	Ca	0	.1	9.5	10	17.74	55.88	-38.14	-	-
4	.2018	-2.98	Ca	.1	0	9.4	10	16.52	53.54	-37.02	-	-
6	.2513	-1.58	Ca	0	0	9.4	10	17.82	51.72	-33.9	-	-
8	.3829	-4.51	Ca	0	0	9.4	10	14.89	48.22	-33.33	-	-
10	.6394	-8.54	Ca	.1	0	9.4	10	10.96	46	-35.04	-	-
12	2.751	-7.6	Ca	.1	0	9.4	10	11.9	46	-34.1	-	-
1	.1523	21.48	Qp	0	.1	9.5	10	41.08	-	-	65.88	-24.8
3	.1973	16.09	Qp	.1	.1	9.4	10	35.69	-	-	63.73	-28.04
5	.249	9.79	Qp	0	0	9.4	10	29.19	-	-	61.79	-32.6
7	.3818	5.32	Qp	0	0	9.4	10	24.72	-	-	58.24	-33.52
9	.6405	-4.49	Qp	.1	0	9.4	10	19.01	-	-	56	-36.99
11	2.751	-2.21	Qp	.1	0	9.4	10	17.29	-	-	56	-38.71

Qp - Quasi-Peak detector
Ca - CISPR average detection

LINE 2 RESULTS

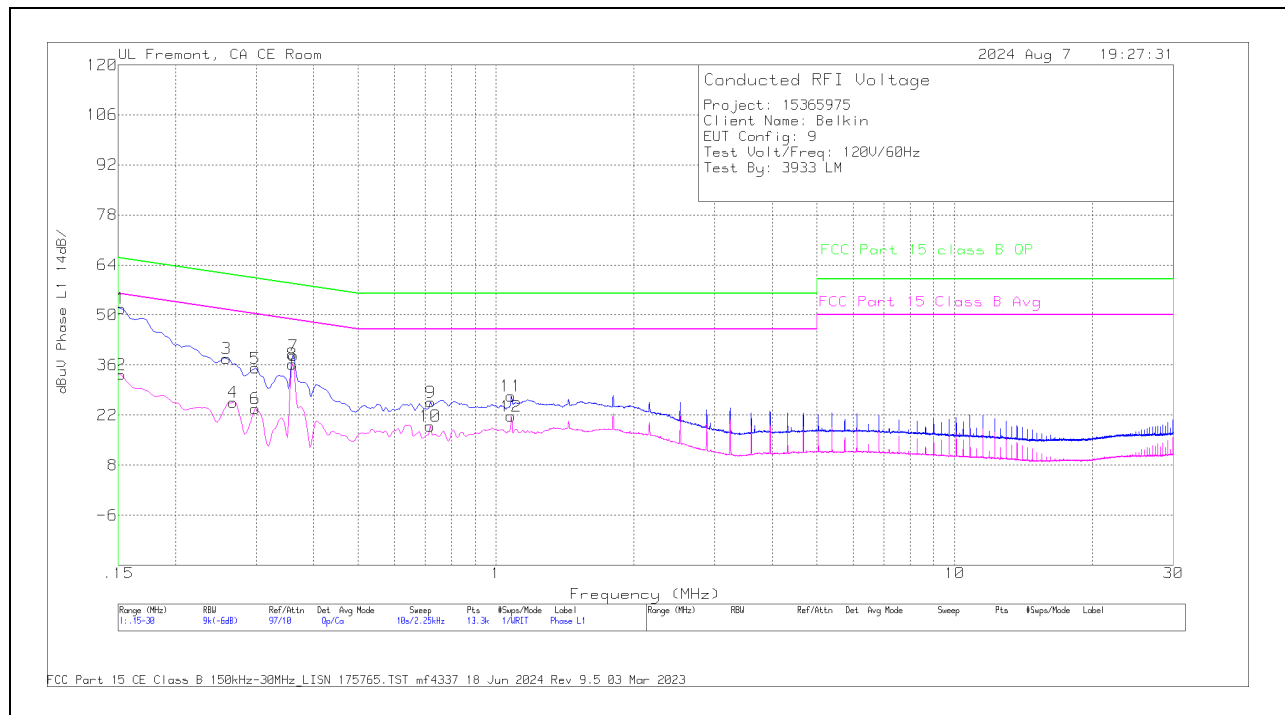


WORST EMISSIONS

Range 2: Phase L2 .15 - 30MHz												
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Cbl (dB)	LISN (dB)	Trms Limiter (dB)	10dB Atten (dB)	Corrected Reading (dBuV)	FCC Part 15C Avg Limit (dBuV)	Margin (dB)	FCC Part 15C QP Limit (dBuV)	Margin (dB)
14	.1523	-1.9	Ca	0	.1	9.5	10	17.7	55.88	-38.18	-	-
16	.1995	-3.3	Ca	.1	0	9.4	10	16.2	53.63	-37.43	-	-
18	.249	-1.52	Ca	0	0	9.4	10	17.88	51.79	-33.91	-	-
20	.384	-4.41	Ca	.1	0	9.4	10	15.09	48.19	-33.1	-	-
22	.6405	-9	Ca	.1	0	9.4	10	10.5	46	-35.5	-	-
24	2.751	-6.73	Ca	.1	0	9.4	10	12.77	46	-33.23	-	-
13	.1523	21.91	Qp	0	.1	9.5	10	41.51	-	-	65.88	-24.37
15	.1905	17.14	Qp	.1	0	9.4	10	36.64	-	-	64.01	-27.37
17	.249	10.88	Qp	0	0	9.4	10	30.28	-	-	61.79	-31.51
19	.384	5.21	Qp	.1	0	9.4	10	24.71	-	-	58.19	-33.48
21	.6405	-2.85	Qp	.1	0	9.4	10	16.65	-	-	56	-39.35
23	2.751	-1.39	Qp	.1	0	9.4	10	18.11	-	-	56	-37.89

9.2. CONFIGURATION 9: OPERATING MODE WITH iPhone (360kHz) + iPhone (111-148kHz) + Watch (1.778MHz)

LINE 1 RESULTS

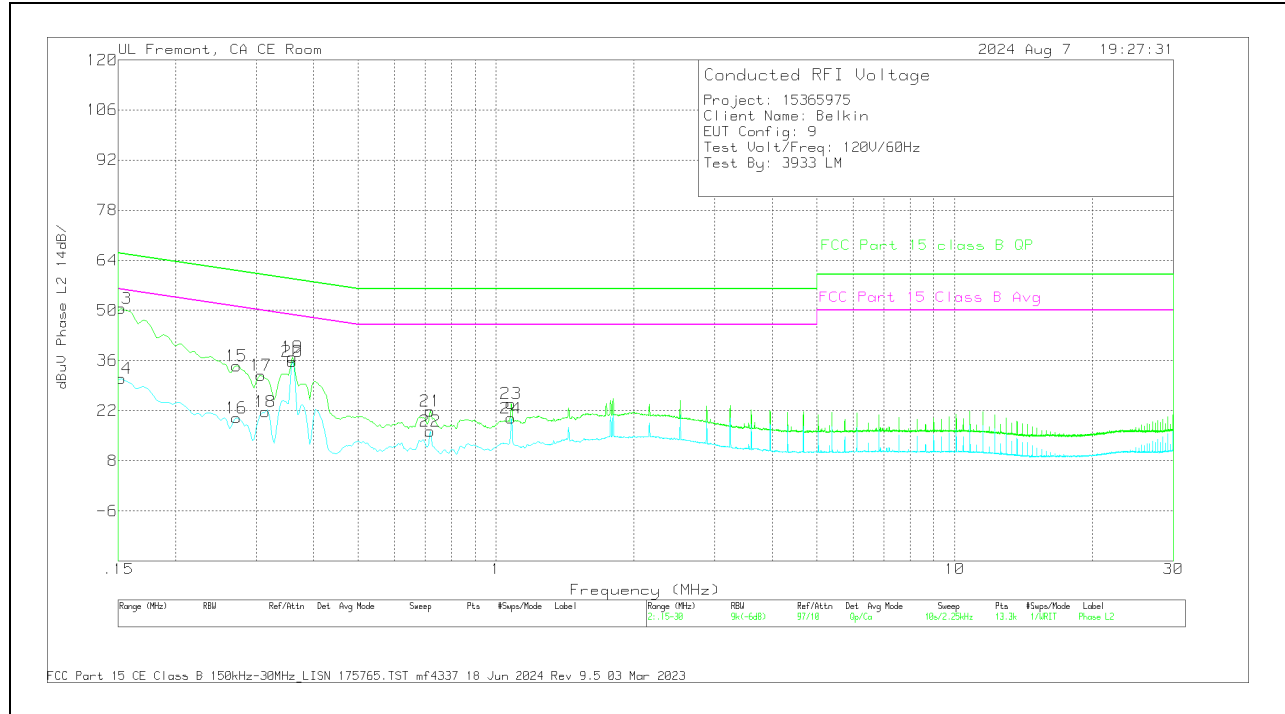


WORST EMISSIONS

Range 1: Phase L1 .15 - 30MHz												
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Cbl (dB)	LISN (dB)	Trns Limiter (dB)	10dB Atten (dB)	Corrected Reading (dBuV)	FCC Part 15C Avg Limit (dBuV)	Margin (dB)	FCC Part 15C QP Limit (dBuV)	Margin (dB)
2	.1523	13.74	Ca	0	.1	9.5	10	33.34	55.88	-22.54	-	-
4	.267	6.16	Ca	0	0	9.4	10	25.56	51.21	-25.65	-	-
6	.2985	4.31	Ca	.1	0	9.4	10	23.81	50.28	-26.47	-	-
8	.3593	16.9	Ca	0	0	9.4	10	36.3	48.75	-12.45	-	-
10	.7193	-46	Ca	.1	0	9.3	10	18.94	46	-27.06	-	-
12	1.0793	2.12	Ca	.1	0	9.4	10	21.62	46	-24.38	-	-
1	.1523	32.24	Qp	0	.1	9.5	10	51.84	-	-	65.88	-14.04
3	.258	18.45	Qp	0	0	9.4	10	37.85	-	-	61.5	-23.65
5	.2985	15.6	Qp	.1	0	9.4	10	35.1	-	-	60.28	-25.18
7	.3615	19.21	Qp	0	0	9.4	10	38.61	-	-	58.69	-20.08
9	.7215	6.23	Qp	.1	0	9.3	10	25.63	-	-	56	-30.37
11	1.0793	7.78	Qp	.1	0	9.4	10	27.28	-	-	56	-28.72

Qp - Quasi-Peak detector
Ca - CISPR average detection

LINE 2 RESULTS



WORST EMISSIONS

Range 2: Phase L2 .15 - 30MHz												
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Cbl (dB)	LISN (dB)	Trns Limiter (dB)	10dB Atten (dB)	Corrected Reading (dBuV)	FCC Part 15C Avg Limit (dBuV)	Margin (dB)	FCC Part 15C QP Limit (dBuV)	Margin (dB)
14	.1523	11.39	Ca	0	.1	9.5	10	30.99	55.88	-24.89	-	-
16	.2715	.62	Ca	0	0	9.4	10	20.02	51.07	-31.05	-	-
18	.3143	2.14	Ca	.1	0	9.4	10	21.64	49.86	-28.22	-	-
20	.3593	16.24	Ca	.1	0	9.4	10	35.74	48.75	-13.01	-	-
22	.7193	-3.06	Ca	0	0	9.3	10	16.24	46	-29.76	-	-
24	1.0793	.36	Ca	.1	0	9.4	10	19.86	46	-26.14	-	-
13	.1523	30.94	Qp	0	.1	9.5	10	50.54	-	-	65.88	-15.34
15	.2715	15.05	Qp	0	0	9.4	10	34.45	-	-	61.07	-26.62
17	.3075	12.4	Qp	.1	0	9.4	10	31.9	-	-	60.04	-28.14
19	.3593	17.38	Qp	.1	0	9.4	10	36.88	-	-	58.75	-21.87
21	.7193	2.54	Qp	0	0	9.3	10	21.84	-	-	56	-34.16
23	1.0793	4.54	Qp	.1	0	9.4	10	24.04	-	-	56	-31.96

Qp - Quasi-Peak detector
Ca - CISPR average detection

10. DESCRIPTION OF TEST SETUP AND SETUP PHOTOS

Please refer to 15365975-EP1 (FCC) for description of test up and setup photo.

END OF TEST REPORT