

TEST REPORT

Report Number. : 14357342-E1V1

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

Model : BPD005

FCC ID : K7SBPD005

EUT Description : Apple Watch Charger Power Bank 10K

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

Date Of Issue:
2023-01-12

Prepared by:
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Revision History

<u>Rev.</u>	<u>Issue Date</u>	<u>Revisions</u>	<u>Revised By</u>
V1	2023-01-12	Initial Issue	---

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1. ATTESTATION OF TEST RESULTS

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

EUT DESCRIPTION: Apple Watch Charger Power Bank 10K

MODEL NUMBER: BPD005

BRAND: belkin

SERIAL NUMBER: 57V0035BC00028 (Unit #1); 57V0035BC00027 (Unit #2);
57V0035BC00037 (Unit #3)

SAMPLE RECEIPT DATE: 2022-12-08

DATE TESTED: 2022-12-14 TO 2023-01-03

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. This report must not be used by the client to claim product certification, approval, or endorsement by A2LA, NIST, any agency of the Federal Government, or any agency of the U.S. government.

Approved & Released For
UL Verification Services Inc. By:



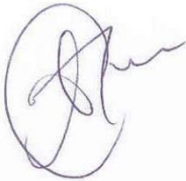
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2. TEST METHODOLOGY

This report contains data provided by the customer which can impact the validity of results. UL Verification Services Inc. is only responsible for the validity of results after the integration of the data provided by the customer.

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 v01r01

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
<input 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	US0104	2324A	550739
<input checked="" type="checkbox"/>	Building 4: 47658 Kato Rd, Fremont, CA 94538, USA	US0104	2324A	550739

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}
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

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

5. EQUIPMENT UNDER TEST

5.1. DESCRIPTION OF EUT

The EUT, Apple Watch Charger Power Bank 10K, is a power bank with one USB-C input/output port and one Apple Watch wireless charger. The Maximum input and output power of USB-C is 20W. The USB-C port supports Power Delivery and Battery Charging protocols. The Apple Watch charger can support fast charging of an Apple Watch Series 7 and later models, with maximum power up to 5W. The wireless charging (WPT) coil is used for charging an Apple Watch at either 326.5kHz or 1.778MHz with a maximum power 5W in charging mode.

When the EUT is in mobile (desktop) mode, it can only charge an Apple Watch via WPT.

When the EUT is in portable mode, it can charge both an Apple Watch via WPT and a cellphone via USB-C, when it is connected to a wall charger via a USB-C to USB-C cable.

5.2. MAXIMUM E-FIELD AND H-FIELD STRENGTH

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

Fundamental Frequency (kHz)	E field (300m distance) FCC (dBuV/m)
326.5 (Legacy Watch)	-23.75
Fundamental Frequency (kHz)	E field (30m distance) FCC (dBuV/m)
1778 (New Watch)	8.94

5.3. SOFTWARE AND FIRMWARE

The firmware version installed in the EUT during testing was V19.60

5.4. WORST-CASE CONFIGURATION

Testing for coil is based on direct contact with no shifts in position due to the embedded magnet in the charger pad.

For the entire radiated emissions test, the EUT was tested in either desktop mode or portable mode in the following configurations. The client devices were charging between a 20% to 50% state of charge.

Radiated spurious emission 30MHz to 1GHz was performed on Configuration 1, 3, 4, 6 at EUT minimum and maximum load only as worst-case.

AC conducted emissions was performed on Configuration 1 and 3 at EUT minimum and maximum load only as worst.

The following configurations were tested:

Config	Descriptions	Frequency	EUT orientation	Client and worst-case orientation
1	EUT is charged by AC/DC adapter. EUT internal battery level starting at 0%.WPT on standby.	326.5kHz	X-orientation (Flatbed)	No WPT client used.
2	EUT is powered by AC/DC adapter. Direct contact during charging/operating between the EUT & WPT Client.	326.5kHz	X-orientation (Flatbed)	Legacy watch. In portrait position with the digital crown/home button is on the right, 3 clock relative to the type C port.
3		1.778MHz	X-orientation (Flatbed)	Series 8 watch. In portrait position with the digital crown/home button is on right, 9 clock relative to the type C port.
4	EUT standalone. USB Type C port to cellphone in charging mode as worst case. EUT internal battery level starting at 100%. WPT on standby.	326.5kHz	Y-orientation (Landscape)	No WPT client used.
5	EUT standalone. Direct contact during charging/operating between the EUT & WPT Client. USB Type C port to cellphone in charging mode as worst case. EUT internal battery level starting at 100%	326.5kHz	X-orientation (Flatbed)	Legacy watch. In portrait position with the digital crown/home button is on the right, 3 clock relative to the type C port.
6	EUT standalone. Direct contact during charging/operating between the EUT & WPT Client. USB Type C port to cellphone in charging mode as worst case. EUT internal battery level starting at 100%	1.778MHz	X-orientation (Flatbed)	Series 8 watch. In portrait position with the digital crown/home button is on right, 9 clock relative to the type C port.

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	2023-05-10	2022-05-10
Antenna, Passive Loop 100KHz - 30MHz	ELECTRO-METRICS	EM-6872	219911	2023-05-10	2022-05-10
Antenna, Broadband Hybrid, 30MHz to 2000MHz	Sunol Sciences Crop.	JB1	80293 (chamber L)	2023-08-09	2022-08-09
Amplifier, 9KHz to 1GHz, 32dB	Sonoma Instrument	310N	29654 (chamber L)	2023-04-24	2022-04-24
EMI TEST RECEIVER	Rohde & Schwarz	ESW44	169937 (chamber L)	2023-02-20	2022-02-20
Antenna, BroadBand Hybrid, 30MHz to 3GHz	Sunol Sciences Corp.	JB3	173997 (chamber M)	2023-01-18	2022-01-18
Amplifier, 9KHz to 1GHz, 32dB	SONOMA INSTRUMENT	310	170650 (chamber M)	2023-08-31	2022-08-31
EMI TEST RECEIVER	Rohde & Schwarz	ESW44	169935 (chamber M)	2023-02-19	2022-02-19
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	2023-01-26	2022-01-26
Transient Limiter	TE	TBFL1	207996	2023-07-15	2022-07-15
EMI Test Receiver	Rohde & Schwarz	ESR3	171646	2023-02-16	2022-02-16
UL AUTOMATION SOFTWARE					
Radiated Software	UL	UL EMC	Jul 6 2022, Dec 7 2021, Mar 24 2022		
AC Line Conducted Software	UL	UL EMC	Rev 9.5, Feb 17, 2022		

7. OCCUPIED BANDWIDTH

TEST PROCEDURE

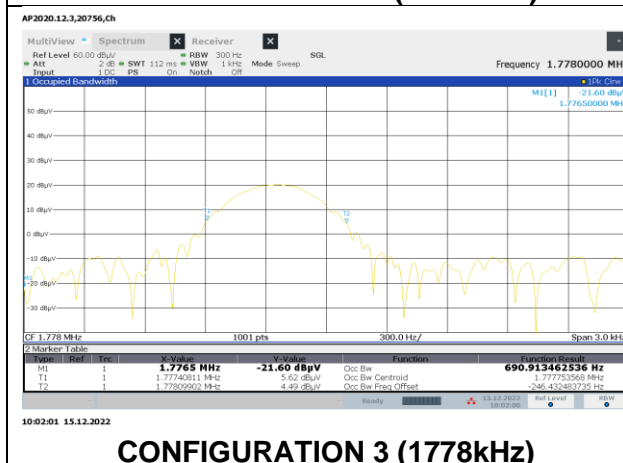
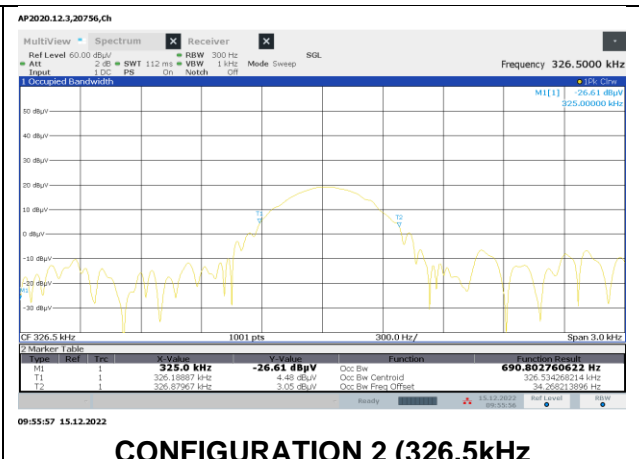
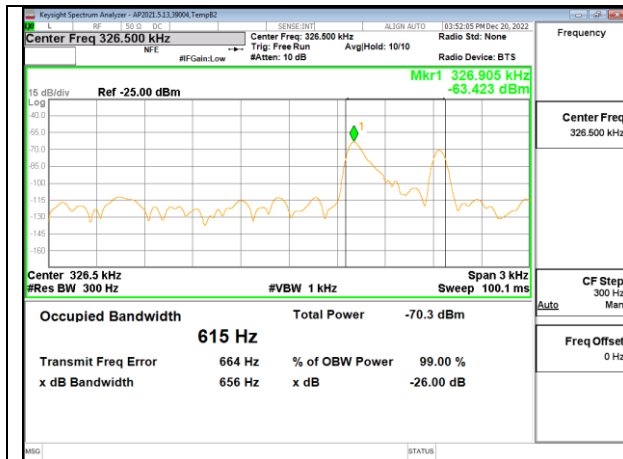
The transmitter output is connected to the spectrum analyzer. The RBW is set to 300Hz. The VBW is set to 3 times the RBW. The sweep time is coupled. The spectrum analyzer internal 99% bandwidth function is utilized.

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:	39004 TC, 28199JM
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Configuration	Frequency (kHz)	99% Bandwidth (Hz)
1	326.5	615
2	326.5	690.80
3	1778	690.91



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 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. Green color trace on plots: Perpendicular orientation.

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

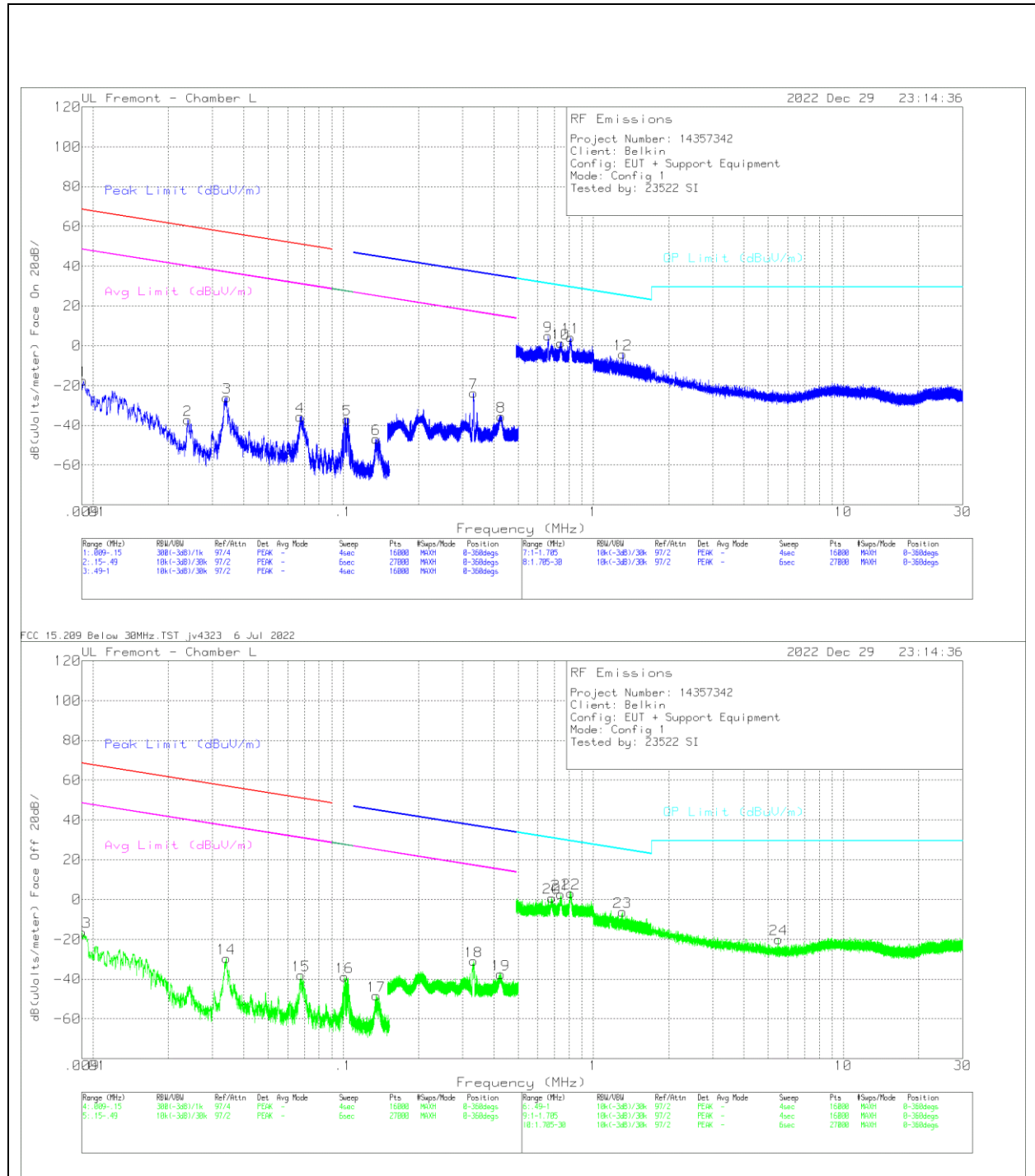
Base on FCC 15.31 (f) (2): measurements may be performed at a distance closer than that specified in the regulations; however, an attempt should be made to avoid making measurements in the near field.

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: DESKTOP, WPT ON STANDBY, CHARGED BY AC/DC ADAPTER (326.5kHz)



DATA

Range 1: Face On .009 - .15MHz														
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna E(ACF)	Amp/Cbl (dB)	Dist Corr 300m	Corrected Reading (dBuV/m)	QP Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Avg Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)
1	.0091	30.05	Pk	61.1	-28.7	-80	-17.55	-	-	68.37	-85.92	48.37	-65.92	0-360
2	.0239	15.43	Pk	58.6	-31.3	-80	-37.27	-	-	60.02	-97.29	40.02	-77.29	0-360
3	.0342	28.08	Pk	57.6	-31.7	-80	-26.02	-	-	56.9	-82.92	36.9	-62.92	0-360
4	.0673	20.27	Pk	56	-32	-80	-35.73	-	-	51.03	-86.76	31.03	-66.76	0-360
5	.1036	19.35	Pk	55.6	-32	-80	-37.05	27.3	-64.35	-	-	-	-	0-360
6	.1353	9.37	Pk	55.8	-32	-80	-46.83	-	-	45	-91.83	25	-71.83	0-360

Range 4: Face Off .009 - .15MHz														
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna E(ACF)	Amp/Cbl (dB)	Dist Corr 300m	Corrected Reading (dBuV/m)	QP Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Avg Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)
13	.009	31.03	Pk	61.3	-28.6	-80	-16.27	-	-	68.49	-84.76	48.49	-64.76	0-360
14	.0341	24.6	Pk	57.6	-31.7	-80	-29.5	-	-	56.94	-86.44	36.94	-66.44	0-360
15	.0678	18.02	Pk	56	-32	-80	-37.98	-	-	50.96	-88.94	30.96	-68.94	0-360
16	.1011	17.61	Pk	55.6	-32	-80	-38.79	27.51	-66.3	-	-	-	-	0-360
17	.1355	7.88	Pk	55.8	-32	-80	-48.32	-	-	44.98	-93.3	24.98	-73.3	0-360

Range 2: Face On .15 - .49MHz													
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna E(ACF)	Amp/Cbl (dB)	Dist Corr 300m	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	Margin (dB)	Avg Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	
7	.3319	26	Pk	56.2	-32	-80	-29.8	37.33	-67.13	17.33	-47.13	0-360	
8	.428	20.37	Pk	56.1	-32	-80	-35.53	34.98	-70.51	14.98	-50.51	0-360	

Range 5: Face Off .15 - .49MHz													
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna E(ACF)	Amp/Cbl (dB)	Dist Corr 300m	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	Margin (dB)	Avg Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	
18	.3324	24.86	Pk	56.2	-32	-80	-30.94	37.18	-68.12	17.18	-48.12	0-360	
19	.4261	18.32	Pk	56.1	-32	-80	-37.58	35.02	-72.6	15.02	-52.6	0-360	

Range 3: Face On .49 - 1MHz													
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna E(ACF)	Amp/Cbl (dB)	Dist Corr 30m (dB) 40Log	Corrected Reading (dBuV/m)	QP Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)			
9	.6606	20.68	Pk	56.2	-31.9	-40	4.98	31.21	-26.23	0-360			
10	.7402	16.98	Pk	56.2	-31.9	-40	1.28	30.23	-28.95	0-360			
11	.813	19.98	Pk	56.2	-31.9	-40	4.28	29.41	-26.13	0-360			

Range 6: Face Off .49 - 1MHz													
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna E(ACF)	Amp/Cbl (dB)	Dist Corr 30m (dB) 40Log	Corrected Reading (dBuV/m)	QP Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)			
20	.6828	16.59	Pk	56.2	-31.9	-40	.89	30.93	-30.04	0-360			
21	.7397	18.4	Pk	56.2	-31.9	-40	2.7	30.23	-27.53	0-360			
22	.8131	18.87	Pk	56.2	-31.9	-40	3.17	29.41	-26.24	0-360			

Range 7: Face On 1 - 1.705MHz													
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna E(ACF)	Amp/Cbl (dB)	Dist Corr 30m (dB) 40Log	Corrected Reading (dBuV/m)	QP Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)			
12	1.3122	22.4	Pk	45.3	-31.9	-40	-4.2	25.27	-29.47	0-360			

Range 9: Face Off 1 - 1.705MHz													
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna E(ACF)	Amp/Cbl (dB)	Dist Corr 30m (dB) 40Log	Corrected Reading (dBuV/m)	QP Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)			
23	1.3083	20.42	Pk	45.3	-31.9	-40	-6.18	25.29	-31.47	0-360			

Range 10: Face Off 1.705 - 30MHz													
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna E(ACF)	Amp/Cbl (dB)	Dist Corr 30m (dB) 40Log	Corrected Reading (dBuV/m)	QP Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)			
24	5.5103	16.16	Pk	35.6	-31.7	-40	-19.94	29.5	-49.44	0-360			

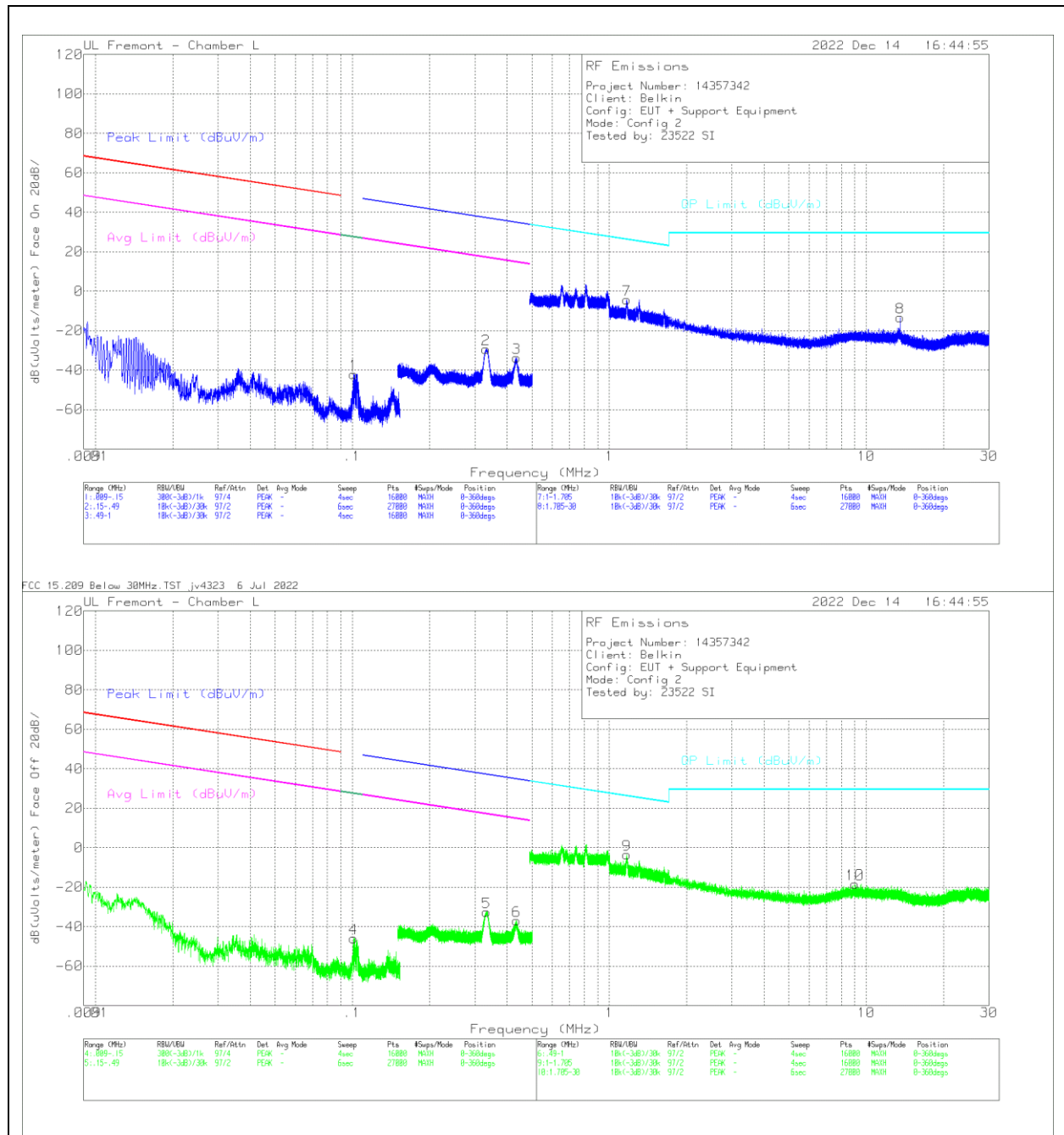
Radiated Emissions

Range 2: Face On .15 - .49MHz													
Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna E(ACF)	Amp/Cbl (dB)	Dist Corr 300m	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	Margin (dB)	Avg Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)		
.3267	32.05	Pk	56.2	-32	-80	-23.75	37.19	-60.94	17.19	-40.94	282		

Range 5: Face Off .15 - .49MHz													
Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna E(ACF)	Amp/Cbl (dB)	Dist Corr 300m	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	Margin (dB)	Avg Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)		
.3269	24.72	Pk	56.2	-32	-80	-31.08	37.32	-68.4	17.32	-48.4	192		

Pk - Peak detector

8.2.2. CONFIGURATION 2: DESKTOP, OPERATING MODE WITH Apple Watch (326.5kHz)



DATA

Range 1: Face On .009 - .15MHz											
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna E(ACF)	Amp/Cbl (dB)	Dist Corr 300m	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	QP Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)
1	.1014	14.41	Pk	55.6	-32	-80	-41.99	-	27.49	-69.48	0-360

Range 4: Face Off .009 - .15MHz										
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna E(ACF)	Amp/Cbl (dB)	Dist Corr 300m	Corrected Reading (dBuV/m)	QP Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)
4	.1014	10.58	Pk	55.6	-32	-80	-45.82	27.49	-73.31	0-360

Range 2: Face On .15 - .49MHz												
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna E(ACF)	Amp/Cbl (dB)	Dist Corr 300m	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	Margin (dB)	Avg Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)
2	.3317	26.59	Pk	56.2	-32	-80	-29.21	37.2	-66.41	17.2	-46.41	0-360
3	.4364	22.23	Pk	56.1	-32	-80	-33.67	34.81	-68.48	14.81	-48.48	0-360

Range 5: Face Off .15 - .49MHz												
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna E(ACF)	Amp/Cbl (dB)	Dist Corr 300m	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	Margin (dB)	Avg Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)
5	.3331	23.17	Pk	56.2	-32	-80	-32.63	37.16	-69.79	17.16	-49.79	0-360
6	.4347	18.99	Pk	56.1	-32	-80	-36.91	34.84	-71.75	14.84	-51.75	0-360

Range 7: Face On 1 - 1.705MHz										
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna E(ACF)	Amp/Cbl (dB)	Dist Corr 30m (dB) 40Log	Corrected Reading (dBuV/m)	QP Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)
7	1.17	21.58	Pk	46	-31.9	-40	-4.32	26.26	-30.58	0-360

Range 9: Face Off 1 - 1.705MHz										
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna E(ACF)	Amp/Cbl (dB)	Dist Corr 30m (dB) 40Log	Corrected Reading (dBuV/m)	QP Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)
9	1.169	22.46	Pk	46	-31.9	-40	-3.44	26.27	-29.71	0-360

Range 8: Face On 1.705 - 30MHz										
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna E(ACF)	Amp/Cbl (dB)	Dist Corr 30m (dB) 40Log	Corrected Reading (dBuV/m)	QP Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)
8	13.5579	24.1	Pk	34.1	-31.5	-40	-13.3	29.5	-42.8	0-360

Range 10: Face Off 1.705 - 30MHz										
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna E(ACF)	Amp/Cbl (dB)	Dist Corr 30m (dB) 40Log	Corrected Reading (dBuV/m)	QP Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)
10	9.0368	18.68	Pk	34.6	-31.6	-40	-18.32	29.5	-47.82	0-360

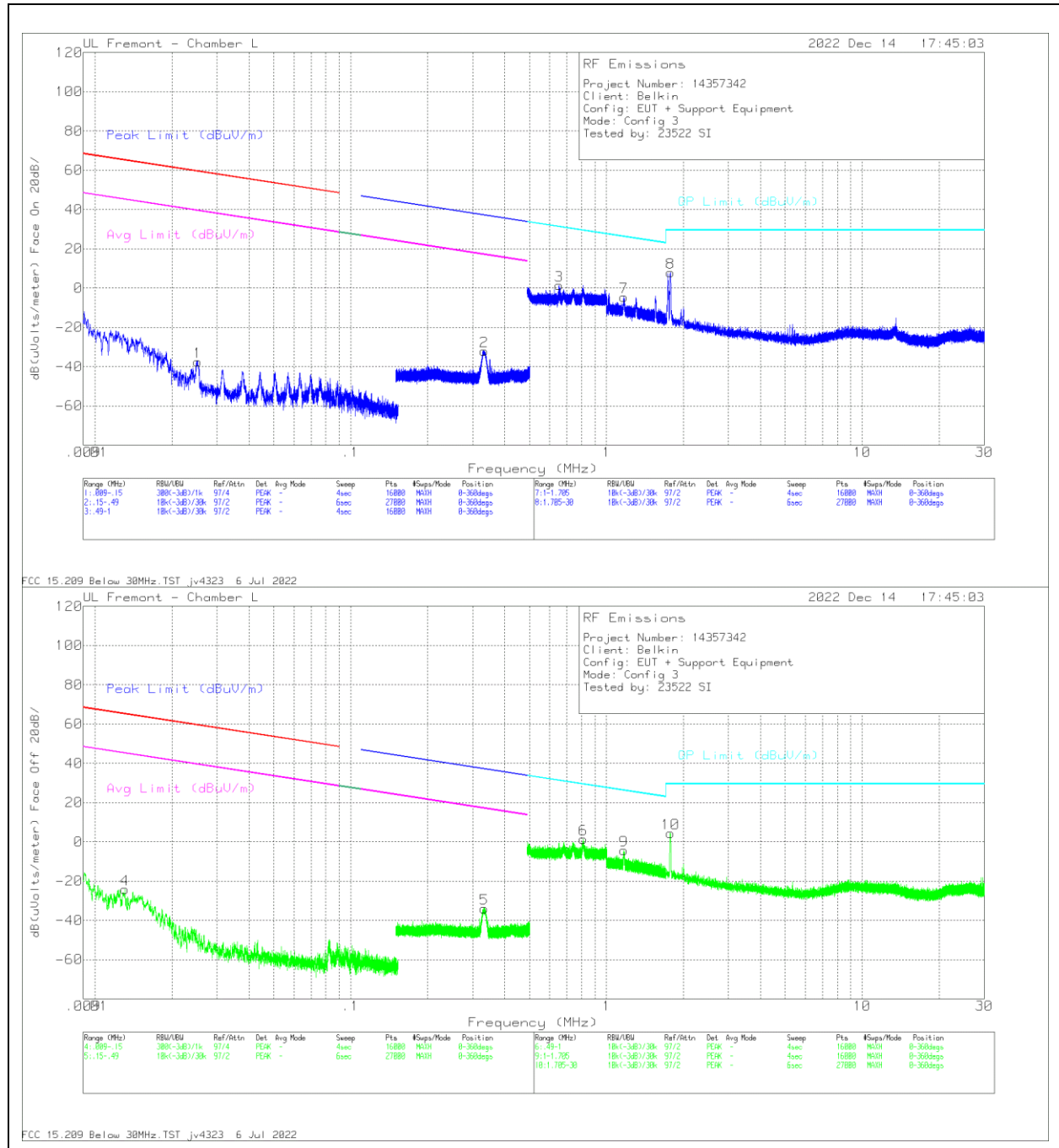
Radiated Emissions

Range 2: Face On .15 - .49MHz											
Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna E(ACF)	Amp/Cbl (dB)	Dist Corr 300m	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	Margin (dB)	Avg Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)
.324	28.16	Pk	56.2	-32	-80	-27.64	37.4	-65.04	17.4	-45.04	253

Range 5: Face Off .15 - .49MHz											
Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna E(ACF)	Amp/Cbl (dB)	Dist Corr 300m	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	Margin (dB)	Avg Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)
.3325	26.53	Pk	56.2	-32	-80	-29.27	37.17	-66.44	17.17	-46.44	142

Pk - Peak detector

8.2.3. CONFIGURATION 3: DESKTOP, OPERATING MODE WITH Apple Watch (1.778MHz)



DATA

Range 1: Face On .009 - .15MHz												
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna E(ACF)	Amp/Cbl (dB)	Dist Corr 300m	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	Margin (dB)	Avg Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)
1	.0253	15.6	Pk	58.4	-31.4	-80	-37.4	59.54	-96.94	39.54	-76.94	0-360

Range 4: Face Off .009 - .15MHz												
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna E(ACF)	Amp/Cbl (dB)	Dist Corr 300m	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	Margin (dB)	Avg Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)
4	.0131	25.56	Pk	59.9	-29.7	-80	-24.24	65.24	-89.48	45.24	-69.48	0-360

Range 2: Face On .15 - .49MHz												
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna E(ACF)	Amp/Cbl (dB)	Dist Corr 300m	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	Margin (dB)	Avg Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)
2	.3329	23.86	Pk	56.2	-32	-80	-31.94	37.16	-69.1	17.16	-49.1	0-360

Range 5: Face Off .15 - .49MHz												
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna E(ACF)	Amp/Cbl (dB)	Dist Corr 300m	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	Margin (dB)	Avg Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)
5	.3323	21.89	Pk	56.2	-32	-80	-33.91	37.18	-71.09	17.18	-51.09	0-360

Range 3: Face On .49 - 1MHz												
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna E(ACF)	Amp/Cbl (dB)	Dist Corr 30m (dB) 40Log	Corrected Reading (dBuV/m)	QP Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)		
3	.6524	17.04	Pk	56.2	-31.9	-40	1.34	31.32	-29.98	0-360		

Range 6: Face Off .49 - 1MHz												
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna E(ACF)	Amp/Cbl (dB)	Dist Corr 30m (dB) 40Log	Corrected Reading (dBuV/m)	QP Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)		
6	.8113	17.23	Pk	56.2	-31.9	-40	1.53	29.43	-27.9	0-360		

Range 7: Face On 1 - 1.705MHz												
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna E(ACF)	Amp/Cbl (dB)	Dist Corr 30m (dB) 40Log	Corrected Reading (dBuV/m)	QP Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)		
7	1.1701	21.45	Pk	46	-31.9	-40	-4.45	26.26	-30.71	0-360		

Range 9: Face Off 1 - 1.705MHz												
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna E(ACF)	Amp/Cbl (dB)	Dist Corr 30m (dB) 40Log	Corrected Reading (dBuV/m)	QP Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)		
9	1.1685	21.57	Pk	46	-31.9	-40	-4.33	26.27	-30.6	0-360		

Range 8: Face On 1.705 - 30MHz												
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna E(ACF)	Amp/Cbl (dB)	Dist Corr 30m (dB) 40Log	Corrected Reading (dBuV/m)	QP Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)		
8	1.7763	26.96	Pk	42.9	-31.9	-40	-2.04	29.5	-31.54	0-360		

Range 10: Face Off 1.705 - 30MHz												
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna E(ACF)	Amp/Cbl (dB)	Dist Corr 30m (dB) 40Log	Corrected Reading (dBuV/m)	QP Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)		
10	1.7784	33.52	Pk	42.9	-31.9	-40	4.52	29.5	-24.98	0-360		

Radiated Emissions

Range 2: Face On .15 - .49MHz												
Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna E(ACF)	Amp/Cbl (dB)	Dist Corr 300m	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	Margin (dB)	Avg Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	
.3251	28.81	Pk	56.2	-32	-80	-26.99	37.37	-64.36	17.37	-44.36	224	

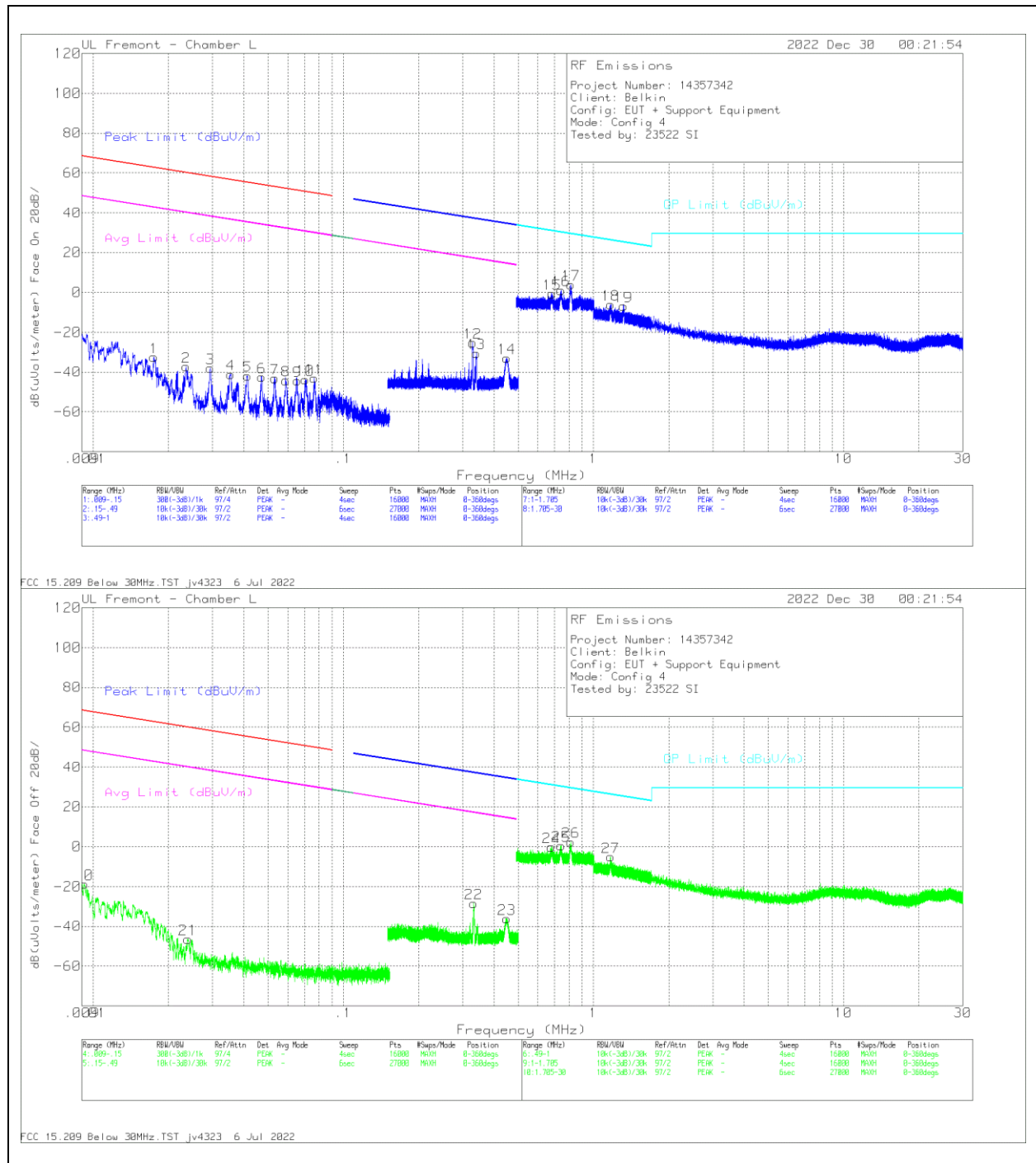
Range 5: Face Off .15 - .49MHz												
Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna E(ACF)	Amp/Cbl (dB)	Dist Corr 300m	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	Margin (dB)	Avg Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	
.358	21.4	Pk	56.1	-32	-80	-34.5	36.53	-71.03	16.53	-51.03	153	

Range 8: Face On 1.705 - 30MHz												
Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna E(ACF)	Amp/Cbl (dB)	Dist Corr 30m (dB) 40Log	Corrected Reading (dBuV/m)	QP Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)			
1.7766	36.93	Pk	42.9	-31.9	-40	7.93	29.5	-21.57	359			

Range 10: Face Off 1.705 - 30MHz												
Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna E(ACF)	Amp/Cbl (dB)	Dist Corr 30m (dB) 40Log	Corrected Reading (dBuV/m)	QP Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)			
1.7759	36.37	Pk	42.9	-31.9	-40	7.37	29.5	-22.13	145			

Pk - Peak detector

8.2.4. CONFIGURATION 4: PORTABLE, WPT ON STANDBY (326.5kHz) + Phone



DATA

Range 1: Face On .009 - .15MHz												
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna E(ACF)	Amp/Cbl (dB)	Dist Corr 300m	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	Margin (dB)	Avg Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)
1	.0175	18.84	Pk	59.3	-30.6	-80	-32.46	62.74	-95.2	42.74	-75.2	0-360
2	.0235	15.47	Pk	58.6	-31.3	-80	-37.23	60.16	-97.39	40.16	-77.39	0-360
3	.0294	15.62	Pk	58	-31.6	-80	-37.98	58.22	-96.2	38.22	-76.2	0-360
4	.0355	13.14	Pk	57.5	-31.7	-80	-41.06	56.59	-97.65	36.59	-77.65	0-360
5	.0413	12.75	Pk	57.2	-31.8	-80	-41.85	55.26	-97.11	35.26	-77.11	0-360
6	.0471	12.29	Pk	57.1	-31.9	-80	-42.52	54.13	-96.65	34.13	-76.65	0-360
7	.0533	12.01	Pk	56.8	-31.9	-80	-43.09	53.05	-96.14	33.05	-76.14	0-360
8	.0588	11.41	Pk	56.3	-31.9	-80	-44.19	52.2	-96.39	32.2	-76.39	0-360
9	.0655	11.67	Pk	56	-32	-80	-44.33	51.26	-95.59	31.26	-75.59	0-360
10	.0705	12.39	Pk	55.9	-32	-80	-43.71	50.62	-94.33	30.62	-74.33	0-360
11	.0765	13.19	Pk	55.8	-32	-80	-43.01	49.91	-92.92	29.91	-72.92	0-360

Range 4: Face Off .009 - .15MHz												
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna E(ACF)	Amp/Cbl (dB)	Dist Corr 300m	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	Margin (dB)	Avg Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)
20	.0092	28.89	Pk	61.1	-28.7	-80	-18.71	68.32	-87.03	48.32	-67.03	0-360
21	.0239	6.32	Pk	58.6	-31.3	-80	-46.38	60.01	-106.39	40.01	-86.39	0-360

Range 2: Face On .15 - .49MHz												
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna E(ACF)	Amp/Cbl (dB)	Dist Corr 300m	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	Margin (dB)	Avg Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)
12	.329	21.07	Pk	56.2	-32	-80	-34.73	37.32	-72.05	17.32	-52.05	0-360
13	.3402	25.31	Pk	56.2	-32	-80	-30.49	36.98	-67.47	16.98	-47.47	0-360
14	.4502	22.89	Pk	56.1	-31.9	-80	-32.91	34.54	-67.45	14.54	-47.45	0-360

Range 5: Face Off .15 - .49MHz												
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna E(ACF)	Amp/Cbl (dB)	Dist Corr 300m	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	Margin (dB)	Avg Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)
22	.332	21.39	Pk	56.2	-32	-80	-34.41	37.33	-71.74	17.33	-51.74	0-360
23	.4505	19.66	Pk	56.1	-31.9	-80	-36.14	34.53	-70.67	14.53	-50.67	0-360

Range 3: Face On .49 - 1MHz												
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna E(ACF)	Amp/Cbl (dB)	Dist Corr 30m (dB) 40Log	Corrected Reading (dBuV/m)	QP Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)		
15	.6831	15.05	Pk	56.2	-31.9	-40	-65	30.92	-31.57	0-360		
16	.7425	16.85	Pk	56.2	-31.9	-40	-1.15	30.2	-29.05	0-360		
17	.8132	19.67	Pk	56.2	-31.9	-40	3.97	29.41	-25.44	0-360		

Range 6: Face Off .49 - 1MHz												
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna E(ACF)	Amp/Cbl (dB)	Dist Corr 30m (dB) 40Log	Corrected Reading (dBuV/m)	QP Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)		
24	.6793	15.56	Pk	56.2	-31.9	-40	-1.4	30.97	-31.11	0-360		
25	.7423	16.27	Pk	56.2	-31.9	-40	.57	30.2	-29.63	0-360		
26	.8123	18.16	Pk	56.2	-31.9	-40	2.46	29.42	-26.96	0-360		

Range 7: Face On 1 - 1.705MHz												
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna E(ACF)	Amp/Cbl (dB)	Dist Corr 30m (dB) 40Log	Corrected Reading (dBuV/m)	QP Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)		
18	1.1707	19.82	Pk	46	-31.9	-40	-6.08	26.26	-32.34	0-360		
19	1.3186	19.79	Pk	45.2	-31.9	-40	-6.91	25.23	-32.14	0-360		

Range 9: Face Off 1 - 1.705MHz												
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna E(ACF)	Amp/Cbl (dB)	Dist Corr 30m (dB) 40Log	Corrected Reading (dBuV/m)	QP Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)		
27	1.1723	20.8	Pk	46	-31.9	-40	-5.1	26.24	-31.34	0-360		

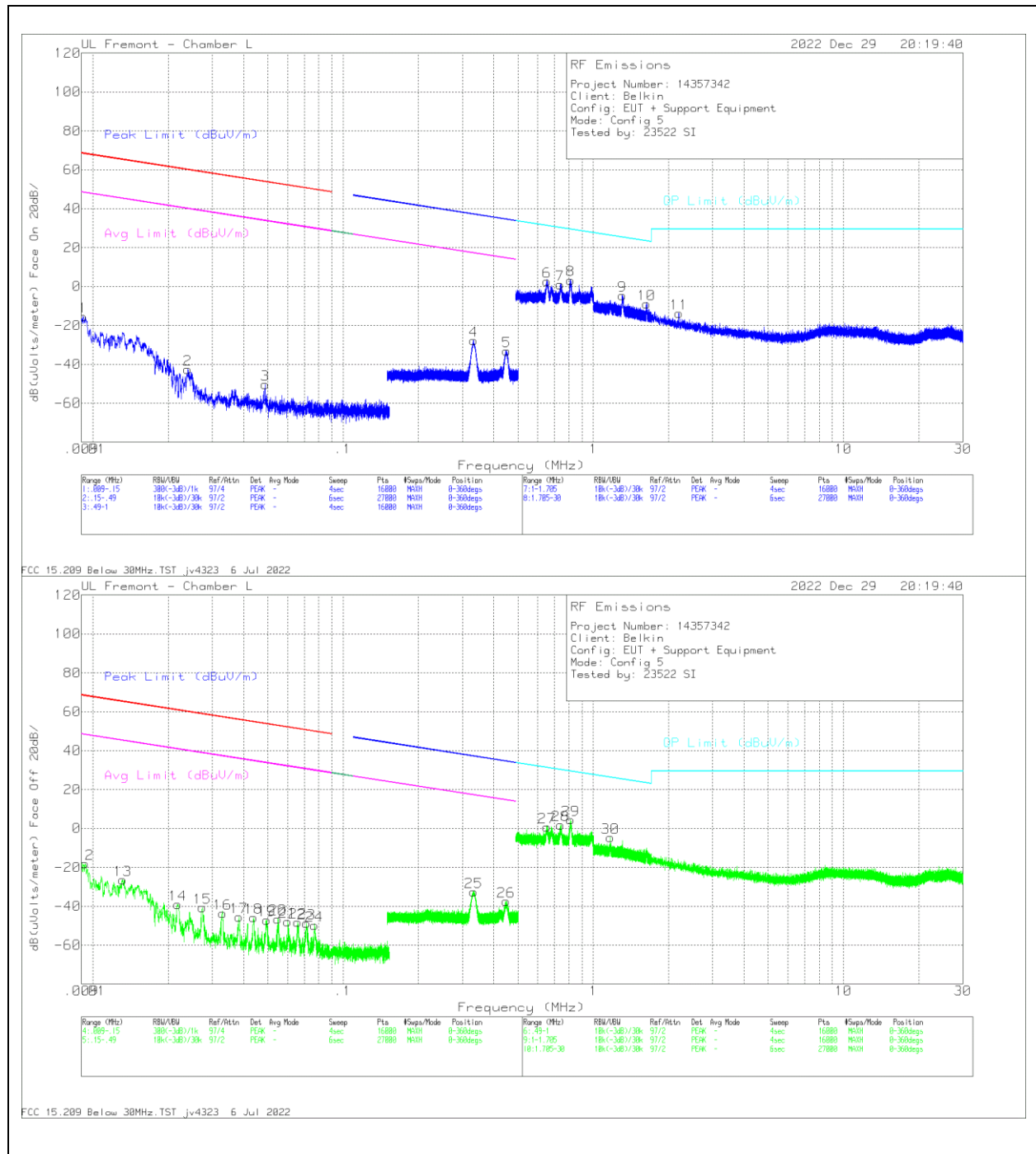
Radiated Emissions

Range 2: Face On .15 - .49MHz												
Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna E(ACF)	Amp/Cbl (dB)	Dist Corr 300m	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	Margin (dB)	Avg Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	
3269	30.63	Pk	56.2	-32	-80	-25.17	37.27	-62.44	17.27	-42.44	228	

Range 5: Face Off .15 - .49MHz												
Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna E(ACF)	Amp/Cbl (dB)	Dist Corr 300m	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	Margin (dB)	Avg Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	
3267	27.42	Pk	56.2	-32	-80	-28.38	37.19	-66.57	17.19	-46.57	350	

Pk - Peak detector

8.2.5. CONFIGURATION 5: PORTABLE, OPERATING MODE WITH Apple Watch (326.5kHz) + Phone



DATA

Range 1: Face On .009 - .15MHz												
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna E(ACF)	Amp/Cbl (dB)	Dist Corr 300m	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	Margin (dB)	Avg Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)
1	.0091	32.09	Pk	61.1	-28.7	-80	-15.51	68.36	-83.87	48.36	-63.87	0-360
2	.0239	10.07	Pk	58.6	-31.3	-80	-42.63	60	-102.63	40	-82.63	0-360
3	.0488	4.41	Pk	57.1	-31.9	-80	-50.39	53.81	-104.2	33.81	-84.2	0-360

Range 4: Face Off .009 - .15MHz												
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna E(ACF)	Amp/Cbl (dB)	Dist Corr 300m	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	Margin (dB)	Avg Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)
12	.0093	29.75	Pk	61	-28.8	-80	-18.05	68.21	-86.26	48.21	-66.26	0-360
13	.0132	23.41	Pk	59.9	-29.7	-80	-26.39	65.2	-91.59	45.2	-71.59	0-360
14	.0218	13.32	Pk	58.8	-31.2	-80	-39.08	60.82	-99.9	40.82	-79.9	0-360
15	.0274	12.99	Pk	58.2	-31.5	-80	-40.71	58.83	-99.54	38.83	-79.54	0-360
16	.033	10.27	Pk	57.7	-31.7	-80	-43.73	57.22	-100.95	37.22	-80.95	0-360
17	.0384	8.98	Pk	57.3	-31.8	-80	-45.52	55.9	-101.42	35.9	-81.42	0-360
18	.0438	8.95	Pk	57.2	-31.8	-80	-45.65	54.75	-100.4	34.75	-80.4	0-360
19	.0495	7.79	Pk	57.1	-31.9	-80	-47.01	53.7	-100.71	33.7	-80.71	0-360
20	.0549	8.76	Pk	56.7	-31.9	-80	-46.44	52.8	-99.24	32.8	-79.24	0-360
21	.0601	7.78	Pk	56.2	-31.9	-80	-47.92	52	-99.92	32	-79.92	0-360
22	.0658	7.9	Pk	56	-32	-80	-48.1	51.22	-99.32	31.22	-79.32	0-360
23	.0715	7.27	Pk	55.9	-32	-80	-48.83	50.5	-99.33	30.5	-79.33	0-360
24	.077	6.36	Pk	55.8	-32	-80	-49.84	49.86	-99.7	29.86	-79.7	0-360

Range 2: Face On .15 - .49MHz												
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna E(ACF)	Amp/Cbl (dB)	Dist Corr 300m	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	Margin (dB)	Avg Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)
4	.3324	28.09	Pk	56.2	-32	-80	-27.71	37.18	-64.89	17.18	-44.89	0-360
5	.4507	22.59	Pk	56.1	-31.9	-80	-32.21	34.53	-67.74	14.53	-47.74	0-360

Range 5: Face Off .15 - .49MHz												
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna E(ACF)	Amp/Cbl (dB)	Dist Corr 300m	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	Margin (dB)	Avg Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)
25	.3325	23.29	Pk	56.2	-32	-80	-32.51	37.17	-69.68	17.17	-49.68	0-360
26	.4475	18.45	Pk	56.1	-32	-80	-37.45	34.59	-72.04	14.59	-52.04	0-360

Range 3: Face On .49 - 1MHz												
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna E(ACF)	Amp/Cbl (dB)	Dist Corr 30m (dB) 40Log	Corrected Reading (dBuV/m)	QP Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)		
6	.6534	18.38	Pk	56.2	-31.9	-40	2.68	31.31	-28.63	0-360		
7	.7988	18.58	Pk	56.2	-31.9	-40	88	30.27	-29.39	0-360		
8	.813	18.99	Pk	56.2	-31.9	-40	3.29	29.41	-26.12	0-360		

Range 6: Face Off .49 - 1MHz												
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna E(ACF)	Amp/Cbl (dB)	Dist Corr 30m (dB) 40Log	Corrected Reading (dBuV/m)	QP Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)		
27	.6535	16.35	Pk	56.2	-31.9	-40	85	31.31	-30.66	0-360		
28	.74	17.44	Pk	56.2	-31.9	-40	1.74	30.23	-28.49	0-360		
29	.8105	20.09	Pk	56.2	-31.9	-40	4.39	29.44	-25.05	0-360		

Range 7: Face On 1 - 1.705MHz												
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna E(ACF)	Amp/Cbl (dB)	Dist Corr 30m (dB) 40Log	Corrected Reading (dBuV/m)	QP Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)		
9	1.3086	22.04	Pk	45.3	-31.9	-40	-4.56	25.29	-29.85	0-360		
10	1.6332	19.39	Pk	43.6	-31.9	-40	-8.91	23.37	-32.28	0-360		

Range 8: Face On 1.705 - 30MHz												
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna E(ACF)	Amp/Cbl (dB)	Dist Corr 30m (dB) 40Log	Corrected Reading (dBuV/m)	QP Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)		
11	2.1986	16.94	Pk	41.1	-31.8	-40	-13.76	29.5	-43.26	0-360		

Range 9: Face Off 1 - 1.705MHz												
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna E(ACF)	Amp/Cbl (dB)	Dist Corr 30m (dB) 40Log	Corrected Reading (dBuV/m)	QP Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)		
30	1.1699	21.17	Pk	46	-31.9	-40	-4.73	26.26	-30.99	0-360		

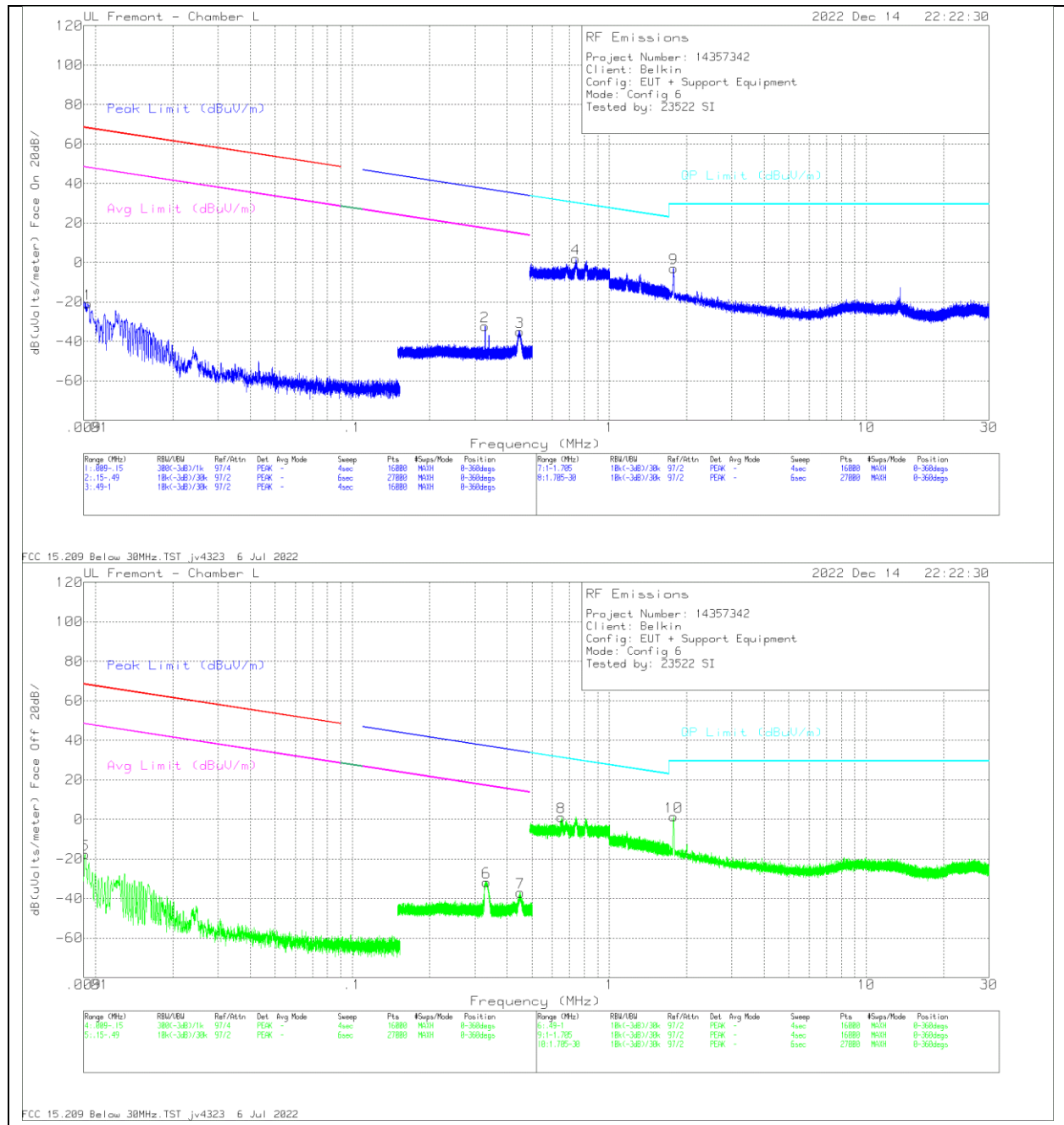
Radiated Emissions

Range 2: Face On .15 - .49MHz												
Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna E(ACF)	Amp/Cbl (dB)	Dist Corr 300m	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	Margin (dB)	Avg Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	
.3267	29.12	Pk	56.2	-32	-80	-26.68	37.33	-64.01	17.33	-44.01	218	

Range 5: Face Off .15 - .49MHz												
Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna E(ACF)	Amp/Cbl (dB)	Dist Corr 300m	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	Margin (dB)	Avg Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	
.3267	26.89	Pk	56.2	-32	-80	-28.91	37.33	-66.24	17.33	-46.24	305	

Pk - Peak detector

8.2.6. CONFIGURATION 6: PORTABLE, OPERATING MODE WITH Apple Watch (1.778MHz) + Phone



DATA

Range 1: Face On .009 - .15MHz												
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna E(ACF)	Amp/Cbl (dB)	Dist Corr 300m	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	Margin (dB)	Avg Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)
1	.0093	27.12	Pk	60.9	-28.8	-80	-20.78	68.18	-88.96	48.18	-68.96	0-360

Range 4: Face Off .009 - .15MHz												
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna E(ACF)	Amp/Cbl (dB)	Dist Corr 300m	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	Margin (dB)	Avg Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)
5	.0091	28.83	Pk	61.2	-28.7	-80	-17.67	68.4	-86.07	48.4	-66.07	0-360

Range 2: Face On .15 - .49MHz												
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna E(ACF)	Amp/Cbl (dB)	Dist Corr 300m	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	Margin (dB)	Avg Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)
2	.3281	23.52	Pk	56.2	-32	-80	-32.28	37.29	-69.57	17.29	-49.57	0-360
3	.4483	20.8	Pk	56.1	-32	-80	-35.1	34.57	-69.67	14.57	-49.67	0-360

Range 5: Face Off .15 - .49MHz												
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna E(ACF)	Amp/Cbl (dB)	Dist Corr 300m	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	Margin (dB)	Avg Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)
6	.3319	24.15	Pk	56.2	-32	-80	-31.65	37.19	-68.84	17.19	-48.84	0-360
7	.4499	18.82	Pk	56.1	-32	-80	-37.08	34.54	-71.62	14.54	-51.62	0-360

Range 3: Face On .49 - 1MHz												
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna E(ACF)	Amp/Cbl (dB)	Dist Corr 30m (dB) 40Log	Corrected Reading (dBuV/m)	QP Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)		
4	.7414	17.57	Pk	56.2	-31.9	-40	1.87	30.21	-28.34	0-360		

Range 6: Face Off .49 - 1MHz												
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna E(ACF)	Amp/Cbl (dB)	Dist Corr 30m (dB) 40Log	Corrected Reading (dBuV/m)	QP Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)		
8	.65	16.82	Pk	56.2	-31.9	-40	1.12	31.35	-30.23	0-360		

Range 8: Face On 1.705 - 30MHz												
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna E(ACF)	Amp/Cbl (dB)	Dist Corr 30m (dB) 40Log	Corrected Reading (dBuV/m)	QP Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)		
9	1.7794	26.29	Pk	42.8	-31.9	-40	-2.81	29.5	-32.31	0-360		

Range 10: Face Off 1.705 - 30MHz												
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna E(ACF)	Amp/Cbl (dB)	Dist Corr 30m (dB) 40Log	Corrected Reading (dBuV/m)	QP Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)		
10	1.7773	30.5	Pk	42.9	-31.9	-40	1.5	29.5	-28	0-360		

Radiated Emissions

Range 2: Face On .15 - .49MHz												
Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna E(ACF)	Amp/Cbl (dB)	Dist Corr 300m	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	Margin (dB)	Avg Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	
.3265	21.6	Pk	56.2	-32	-80	-34.2	37.33	-71.53	17.33	-51.53	64	

Range 5: Face Off .15 - .49MHz												
Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna E(ACF)	Amp/Cbl (dB)	Dist Corr 300m	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	Margin (dB)	Avg Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	
.3665	23.44	Pk	56.1	-32	-80	-32.46	36.33	-68.79	16.33	-48.79	119	

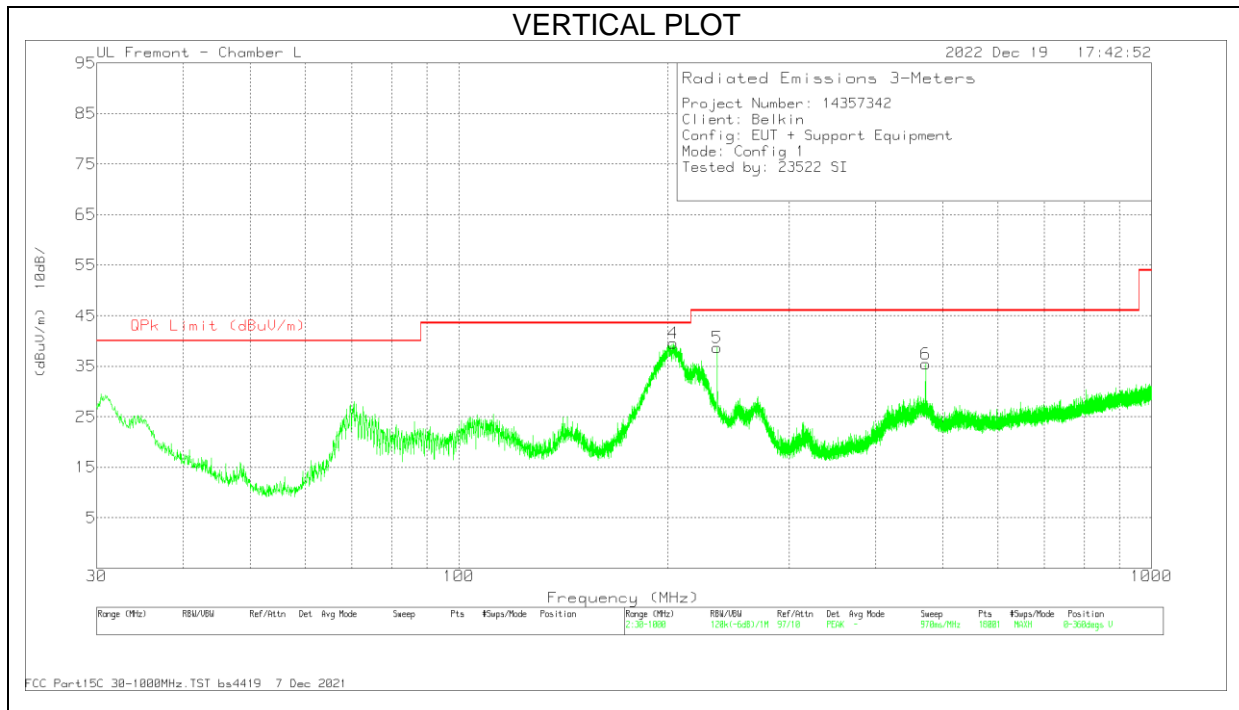
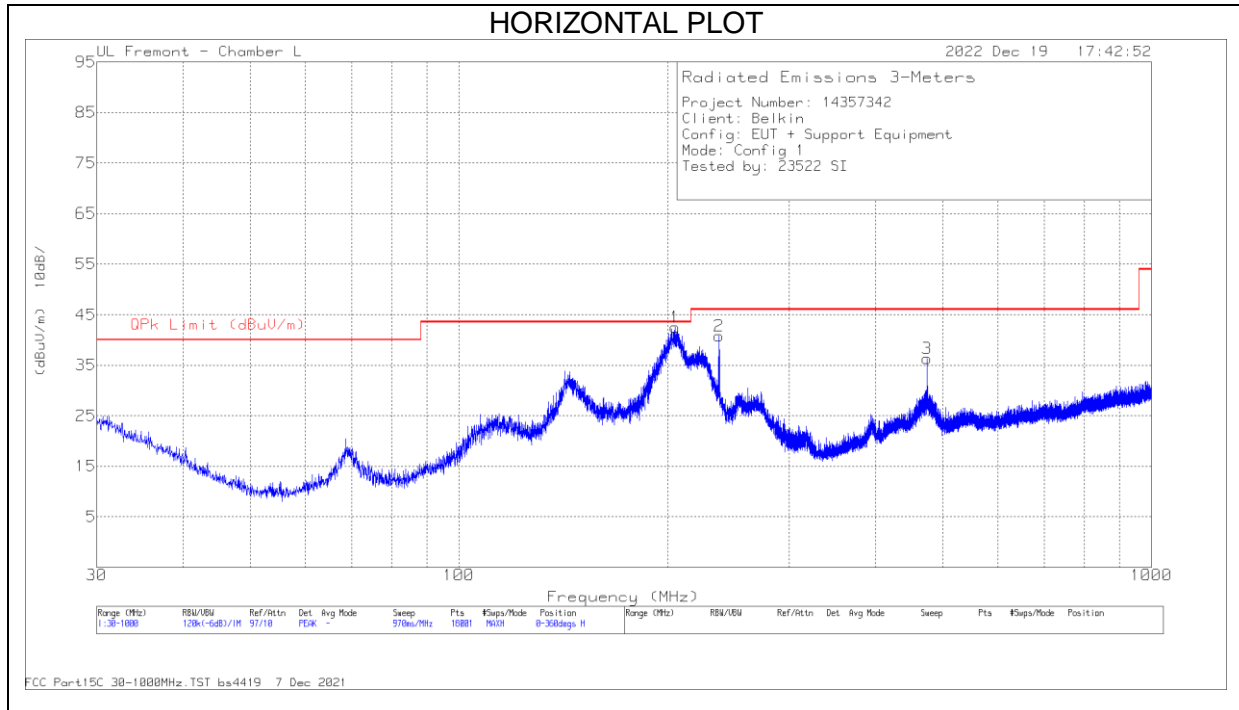
Range 8: Face On 1.705 - 30MHz												
Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna E(ACF)	Amp/Cbl (dB)	Dist Corr 30m (dB) 40Log	Corrected Reading (dBuV/m)	QP Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)			
1.7809	38.04	Pk	42.8	-31.9	-40	8.94	29.5	-20.56	236			

Range 10: Face Off 1.705 - 30MHz												
Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna E(ACF)	Amp/Cbl (dB)	Dist Corr 30m (dB) 40Log	Corrected Reading (dBuV/m)	QP Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)			
1.7754	33.88	Pk	42.9	-31.9	-40	4.88	29.5	-24.62	0			

Pk - Peak detector

8.3. FCC TX SPURIOUS EMISSION 30 TO 1000 MHz

8.3.1. CONFIGURATION 1: DESKTOP, WPT ON STANDBY, CHARGED BY AC/DC ADAPTER (326.5kHz)



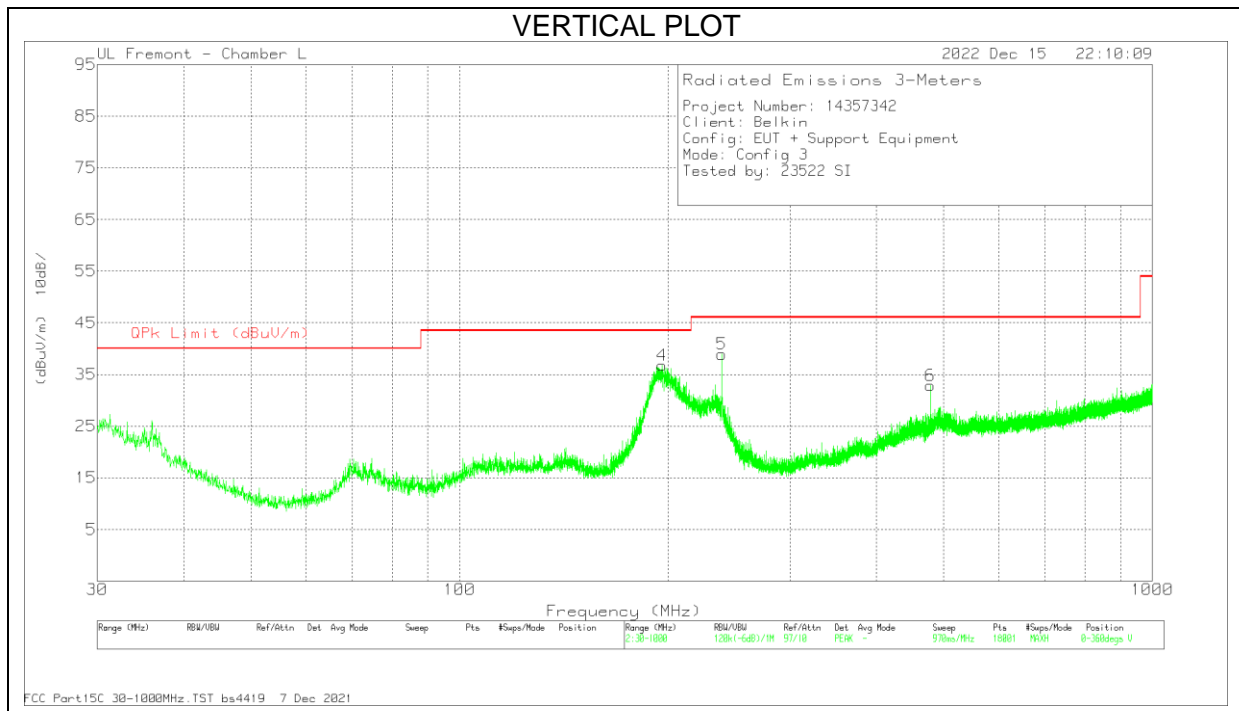
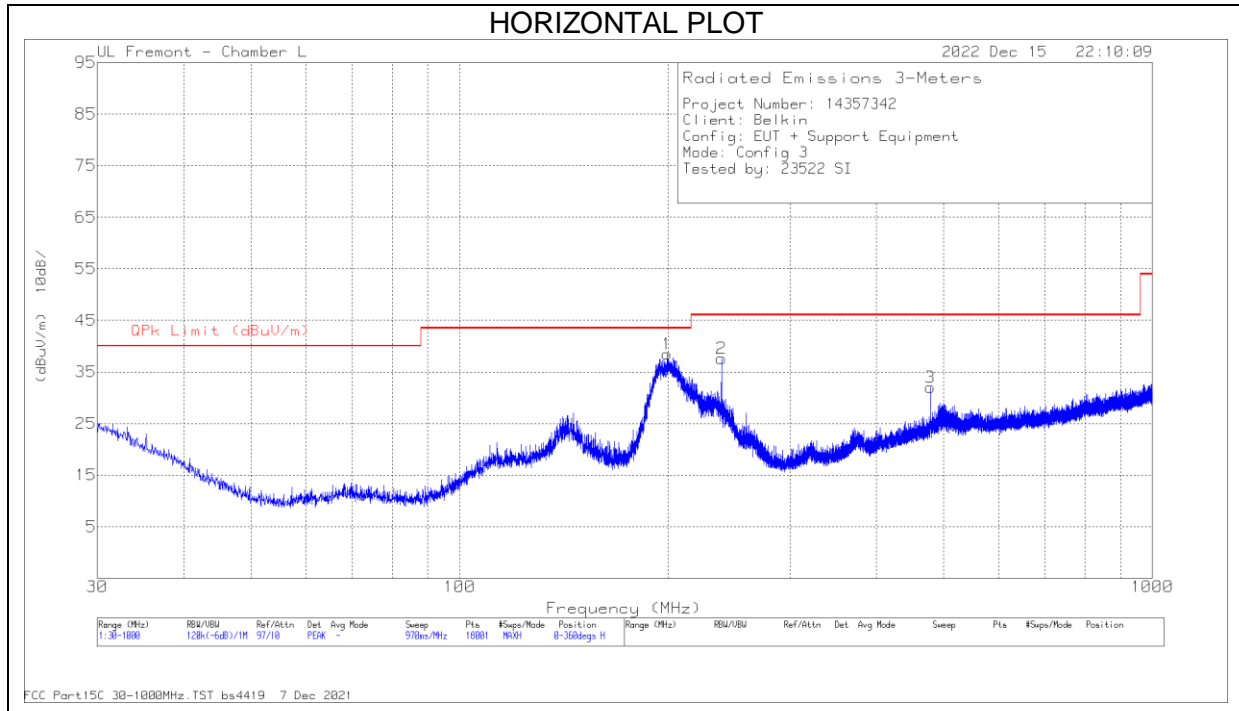
DATA

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	80293 ACF (dB)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	205.501	52.61	Qp	16.9	-29.9	39.61	43.52	-3.91	245	125	H
2	237.315	39.22	Qp	17.3	-29.8	26.72	46.02	-19.3	127	133	H
3	474.099	41.86	Pk	23.2	-28.8	36.26	46.02	-9.76	0-360	200	H
4	203.641	47.63	Qp	17.7	-30	35.33	43.52	-8.19	101	125	V
5	235.991	51.27	Pk	17.2	-29.8	38.67	46.02	-7.35	0-360	100	V
6	472.213	41.11	Pk	23.1	-28.8	35.41	46.02	-10.61	0-360	100	V

Pk - Peak detector

Qp - Quasi-Peak detector

8.3.2. CONFIGURATION 3: DESKTOP, OPERATING MODE WITH Apple Watch (1.778MHz)



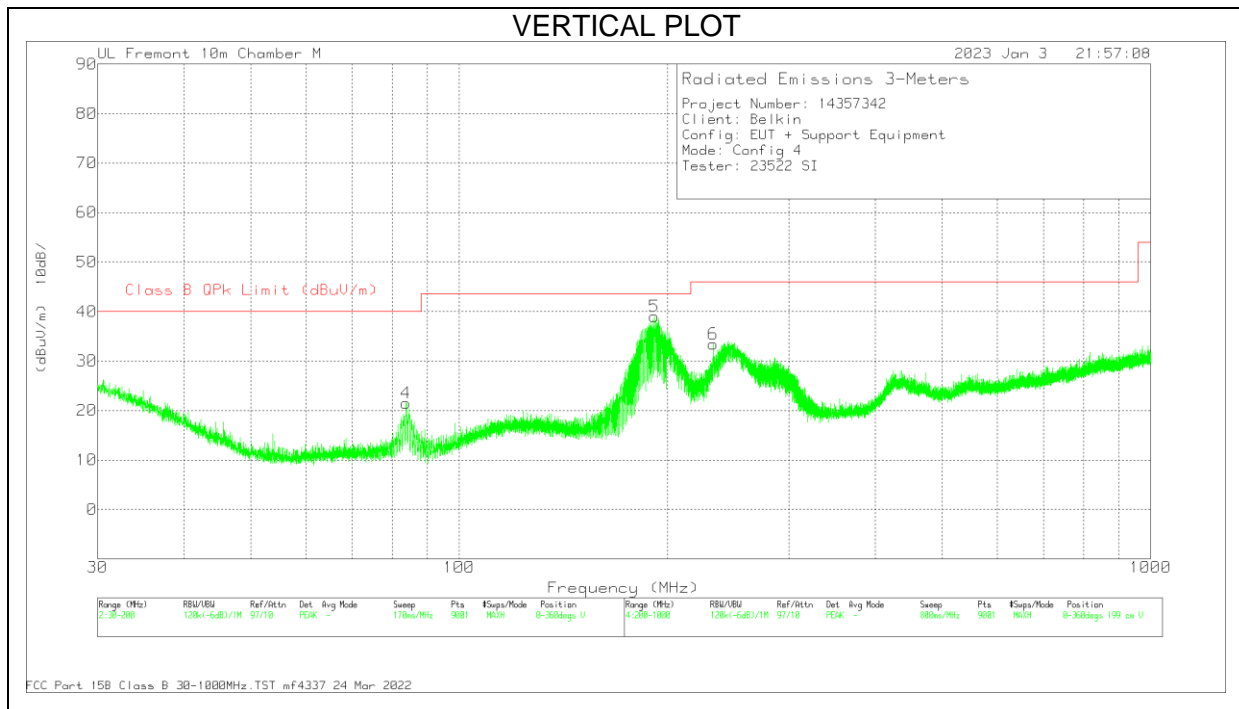
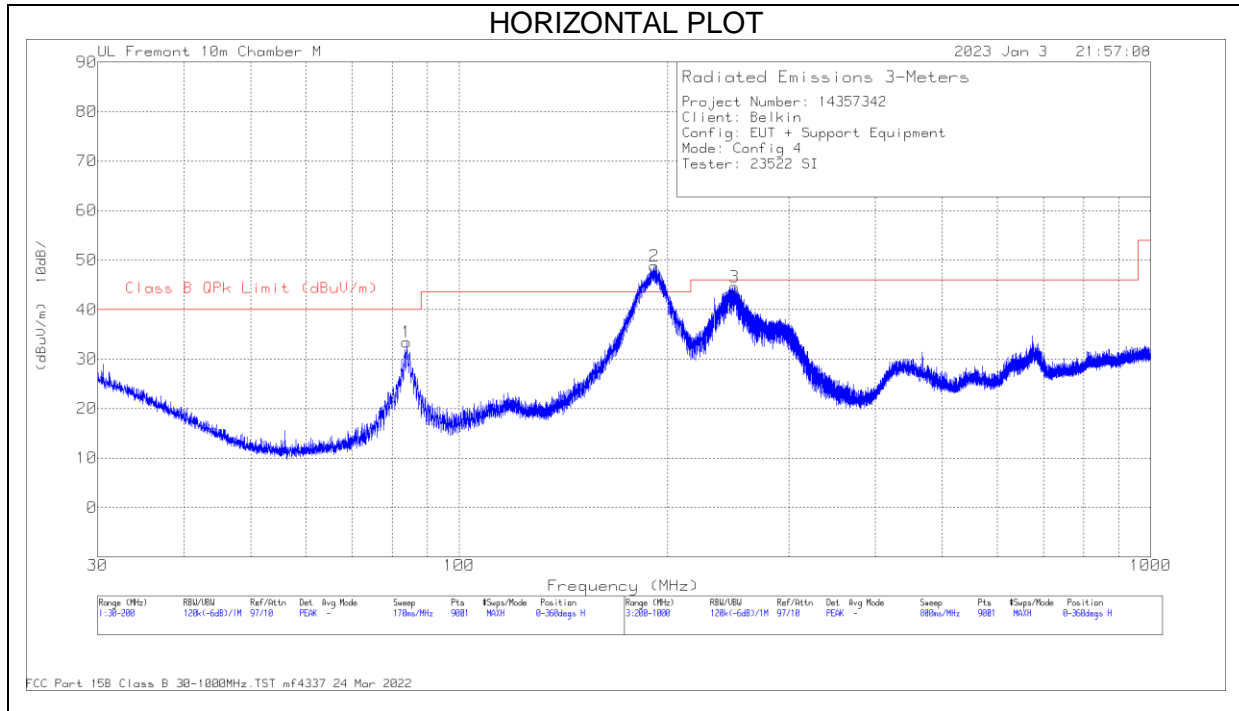
DATA

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	80293 ACF (dB)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	198.952	43.24	Qp	19.2	-30.1	32.34	43.52	-11.18	94	193	H
2	238.874	49.1	Pk	18.2	-29.7	37.6	46.02	-8.42	0-360	100	H
3	478.303	36.89	Pk	23.9	-28.8	31.99	46.02	-14.03	0-360	200	H
4	194.645	41.26	Qp	18.5	-30	29.76	43.52	-13.76	259	119	V
5	239.089	50.42	Pk	18.2	-29.7	38.92	46.02	-7.1	0-360	200	V
6	478.356	37.74	Pk	23.9	-28.8	32.84	46.02	-13.18	0-360	100	V

Pk - Peak detector

Qp - Quasi-Peak detector

8.3.3. CONFIGURATION 4: PORTABLE, WPT ON STANDBY (326.5kHz) + Phone

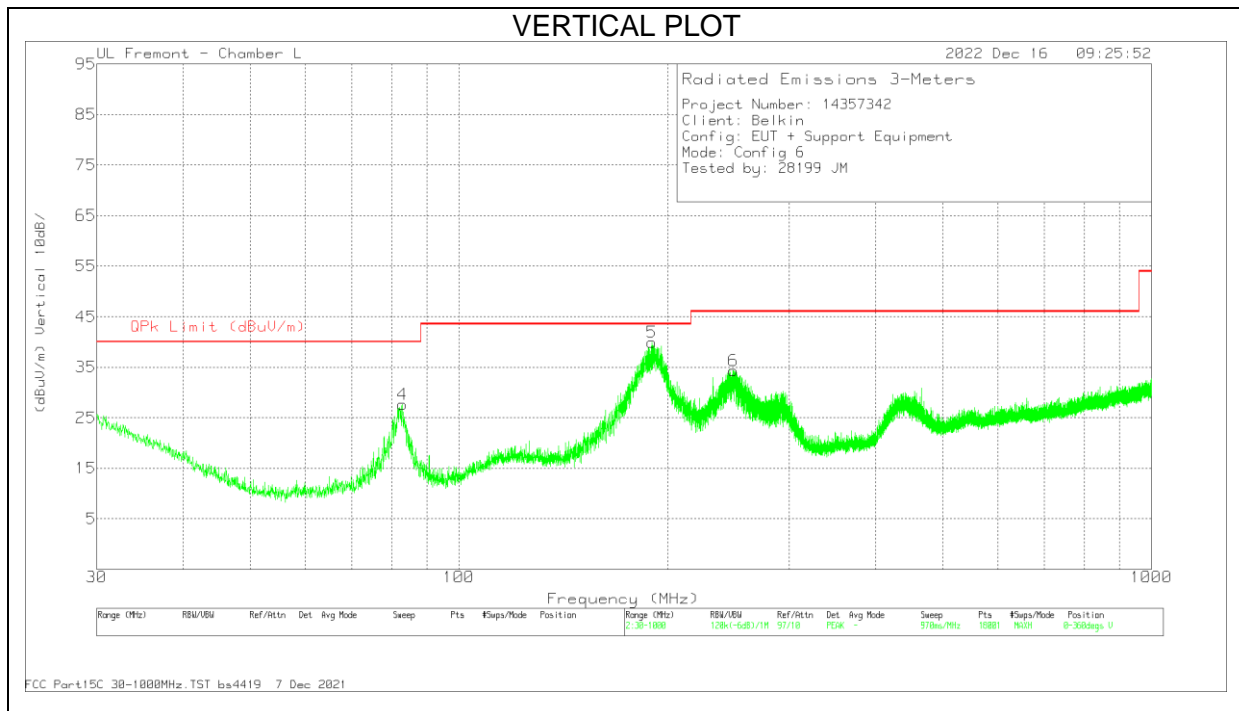
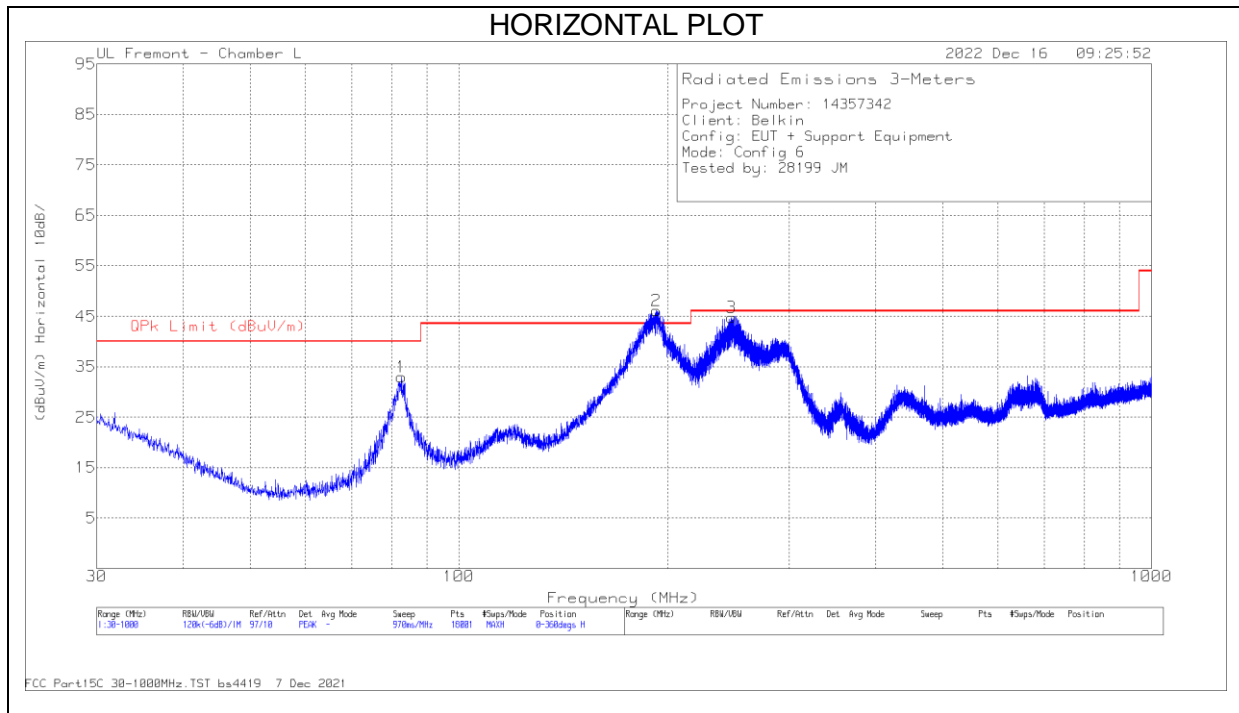


DATA

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Hybrid 997 3 meter	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	Class B QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	83.9281	49.24	Pk	13.6	-29.4	33.44	40	-6.56	0-360	299	H
2	191.476	48.63	Qp	17.7	-28.8	37.53	43.52	-5.99	21	108	H
3	250.31	45.16	Qp	18.1	-28.5	34.76	46.02	-11.26	15	133	H
4	83.8148	37.33	Pk	13.6	-29.4	21.53	40	-18.47	0-360	100	V
5	191.404	50.21	Qp	17.7	-28.8	39.11	43.52	-4.41	84	175	V
6	233.156	44.05	Pk	17.9	-28.5	33.45	46.02	-12.57	0-360	199	V

Pk - Peak detector
 Qp - Quasi-Peak detector

8.3.4. CONFIGURATION 6: PORTABLE, OPERATING MODE WITH Apple Watch (1.778MHz) + Phone



DATA

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	80293 ACF (dB)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	82.6496	50.06	Pk	13.8	-30.9	32.96	40	-7.04	0-360	199	H
2	191.416	51.64	Qp	18.2	-30.1	39.74	43.52	-3.78	161	107	H
3	248.015	54.27	Qp	18.2	-29.8	42.67	46.02	-3.35	164	131	H
4	82.919	44.79	Pk	13.7	-30.9	27.59	40	-12.41	0-360	299	V
5	195.018	32.58	Qp	18.6	-30	21.18	43.52	-22.34	222	218	V
6	249.22	45.97	Pk	18.2	-29.8	34.37	46.02	-11.65	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.

ICES-001 Issue 5 Table 1

Frequency range (MHz)	Appliances rated 120 V, without an earth connection	Appliances rated 120 V, without an earth connection	All other appliances	All other appliances
	Quasi-peak (dBµV)	Average (dBµV)	Quasi-peak (dBµV)	Average (dBµV)
0.009 – 0.05	122	—	110	—
0.05 – 0.15	102 to 92 *	—	90 to 80 *	—
0.15 – 0.5	72 to 62 *	62 to 52 *	66 to 56 *	56 to 46 *
0.5 – 5	56	46	56	46
5 – 30	60	50	60	50

Note: The more stringent limit applies at transition frequencies.
 *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 9 kHz. Peak detection is used unless otherwise noted as quasi-peak or average.

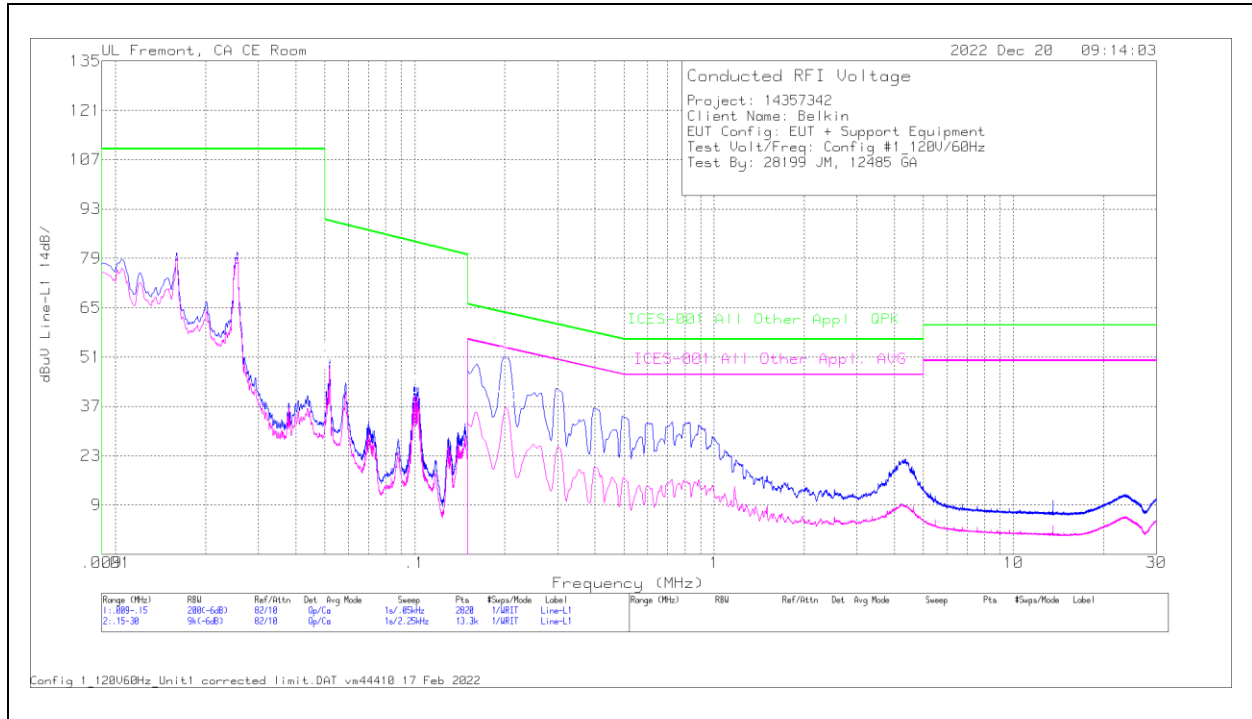
Line conducted data is recorded for both NEUTRAL and HOT lines.

RESULTS

Testing range from 9kHz to 30MHz using ICES-001 Issue Table 1 “All other appliances” limit to cover both FCC and ISED frequency range.

9.1. CONFIGURATION 1: DESKTOP, WPT ON STANDBY, CHARGED BY AC/DC ADAPTER (326.5kHz)

LINE 1 RESULTS



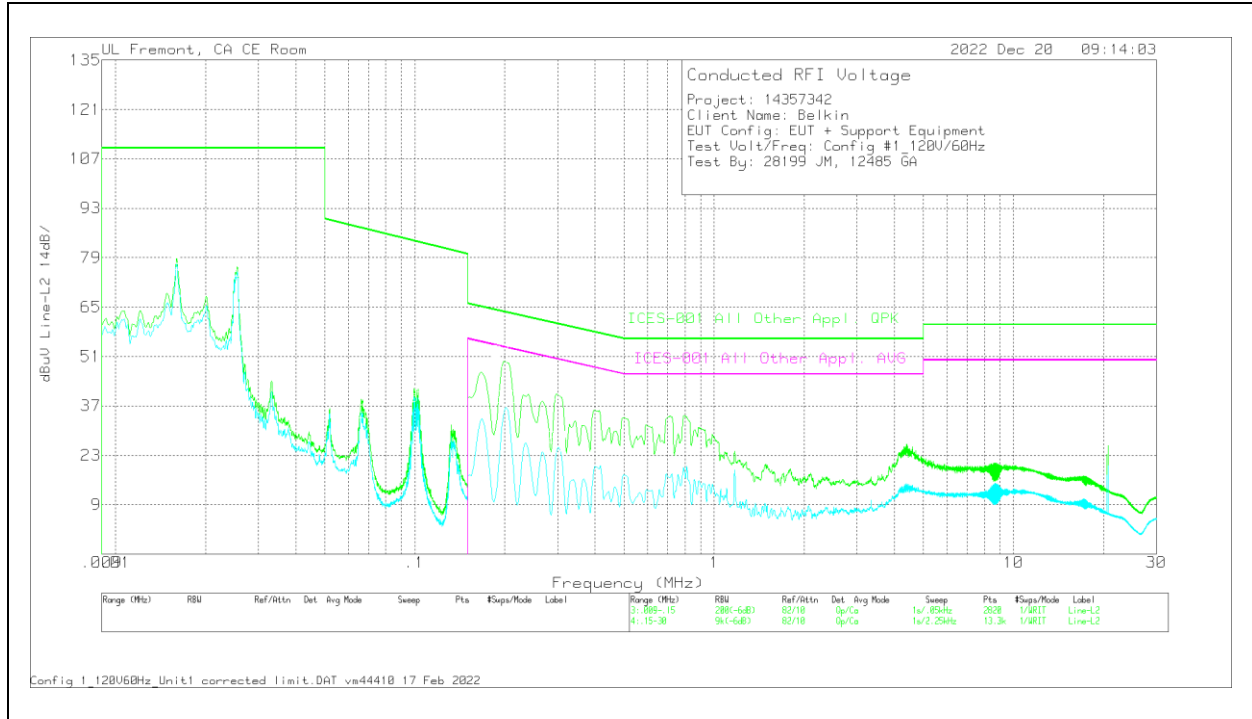
WORST EMISSIONS

Range 1: Line-L1 .009 - .15MHz											
Marker	Frequency (MHz)	Meter Reading (dBµV)	Det	175765 LISN L1	C1&C3 cable path loss	207996 Limiter with short cabl	Corrected Reading dBµV	ICES-001 All Other Appl. QPK	Margin (dB)	ICES-001 All Other Appl. AVG	Margin (dB)
2	.01605	65.57	Ca	2.7	0	10.9	79.17	-	-	-	-
4	.0255	67.21	Ca	1.5	0	10.8	79.51	-	-	-	-
6	.052	38.43	Ca	.3	0	9.9	48.63	-	-	-	-
8	.10025	29.95	Ca	.2	0	9.5	39.65	-	-	-	-
1	.016	66.84	Qp	2.8	0	10.9	80.54	110	-29.46	-	-
3	.0255	68.47	Qp	1.5	0	10.8	80.77	110	-29.23	-	-
5	.05195	40.05	Qp	.3	0	9.9	50.25	89.65	-39.4	-	-
7	.10025	32.53	Qp	.2	0	9.5	42.23	83.67	-41.44	-	-

Range 2: Line-L1 .15 - 30MHz											
Marker	Frequency (MHz)	Meter Reading (dBµV)	Det	175765 LISN L1	C1&C3 cable path loss	207996 Limiter with short cabl	Corrected Reading dBµV	ICES-001 All Other Appl. QPK	Margin (dB)	ICES-001 All Other Appl. AVG	Margin (dB)
10	.20175	27.36	Ca	0	0	9.4	36.76	-	-	53.54	-16.78
12	.249	16.97	Ca	0	0	9.3	26.27	-	-	51.79	-25.52
9	.1995	41.57	Qp	.1	0	9.4	51.07	63.63	-12.56	-	-
11	.29625	32.77	Qp	0	0	9.3	42.07	60.35	-18.28	-	-

Qp - Quasi-Peak detector
 Ca - CISPR average detection

LINE 2 RESULTS



WORST EMISSIONS

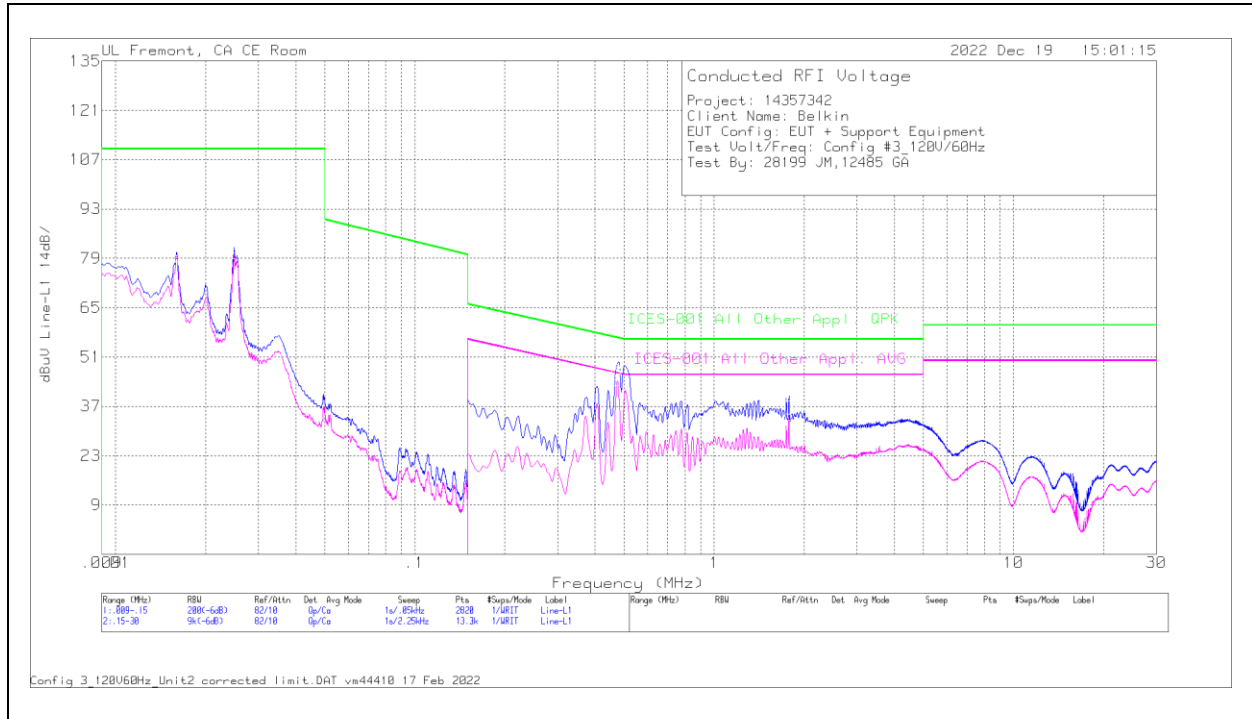
Range 3: Line-L2 .009 - .15MHz											
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	175765 LISN L2	C2&C3 cable path loss	207996 Limiter with short cabl	Corrected Reading dBuV	ICES-001 All Other Appl. QPK	Margin (dB)	ICES-001 All Other Appl. AVG	Margin (dB)
14	.01605	63.79	Ca	2.5	0	10.9	77.19	-	-	-	-
16	.0255	63.01	Ca	1.4	0	10.8	75.21	-	-	-	-
18	.0669	25.12	Ca	.2	0	9.7	35.02	-	-	-	-
20	.09935	29.88	Ca	.2	0	9.5	39.58	-	-	-	-
13	.01603	65.27	Qp	2.5	0	10.9	78.67	110	-31.33	-	-
15	.0255	64.19	Qp	1.4	0	10.8	76.39	110	-33.61	-	-
17	.06695	28.78	Qp	.2	0	9.7	38.68	87.34	-48.66	-	-
19	.09935	32.2	Qp	.2	0	9.5	41.9	83.75	-41.85	-	-

Range 4: Line-L2 .15 - 30MHz											
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	175765 LISN L2	C2&C3 cable path loss	207996 Limiter with short cabl	Corrected Reading dBuV	ICES-001 All Other Appl. QPK	Margin (dB)	ICES-001 All Other Appl. AVG	Margin (dB)
22	.2018	27.25	Ca	0	0	9.4	36.65	-	-	53.54	-16.89
24	.3008	15.86	Ca	0	0	9.3	25.16	-	-	50.22	-25.06
21	.1973	40.14	Qp	0	0	9.4	49.54	63.73	-14.19	-	-
23	.2963	31.09	Qp	0	0	9.3	40.39	60.35	-19.96	-	-

Qp - Quasi-Peak detector
 Ca - CISPR average detection

9.2. CONFIGURATION 3: DESKTOP, OPERATING MODE WITH Apple Watch (1.778MHz)

LINE 1 RESULTS



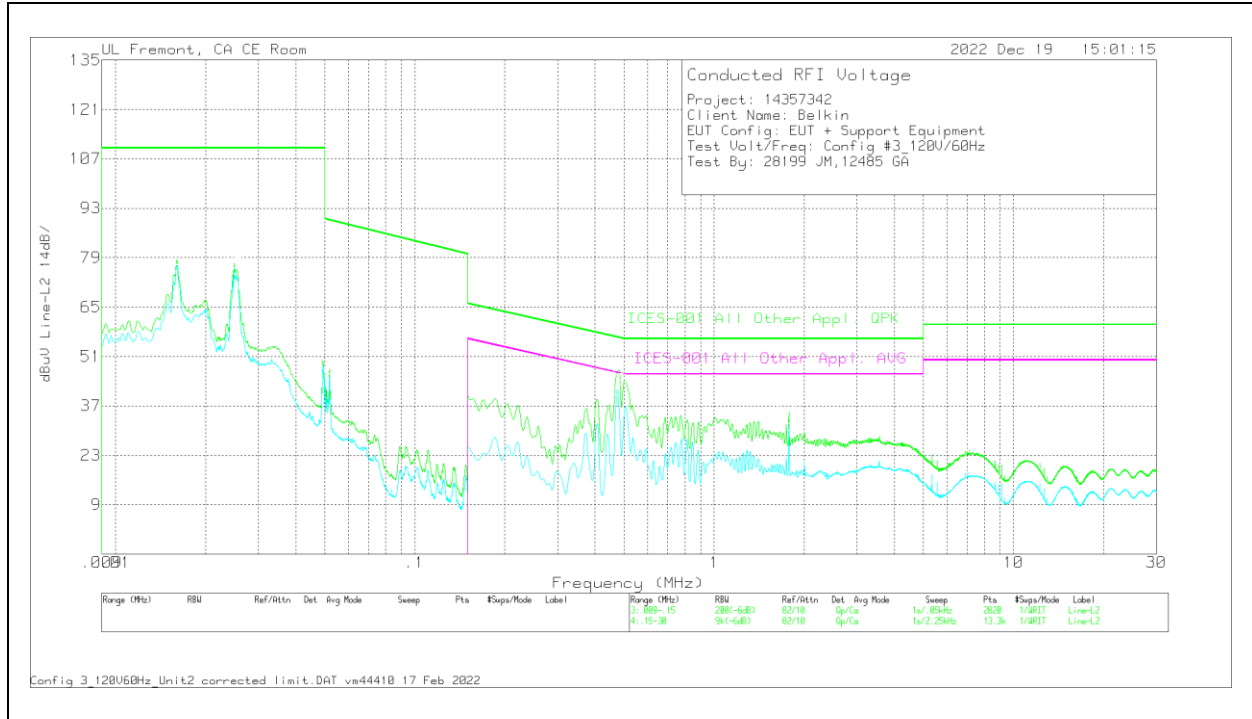
WORST EMISSIONS

Range 1: Line-L1 .009 - .15MHz											
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	175765 LISN L1	C1&C3 cable path loss	207996 Limiter with short cabl	Corrected Reading dBuV	ICES-001 All Other Appl. QPK	Margin (dB)	ICES-001 All Other Appl. AVG	Margin (dB)
2	.016	65.79	Ca	2.8	0	10.9	79.49	-	-	-	-
4	.0249	68.01	Ca	1.5	0	10.8	80.31	-	-	-	-
6	.0351	41.55	Ca	.7	0	10.4	52.65	-	-	-	-
1	.016	66.95	Qp	2.8	0	10.9	80.65	110	-29.35	-	-
3	.0249	69.8	Qp	1.5	0	10.8	82.1	110	-27.9	-	-
5	.0352	45.95	Qp	.7	0	10.4	57.05	110	-52.95	-	-

Range 2: Line-L1 .15 - 30MHz											
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	175765 LISN L1	C1&C3 cable path loss	207996 Limiter with short cabl	Corrected Reading dBuV	ICES-001 All Other Appl. QPK	Margin (dB)	ICES-001 All Other Appl. AVG	Margin (dB)
8	.474	34.78	Ca	0	.1	9.3	44.18	-	-	46.44	-2.26
10	1.7768	25.04	Ca	0	.1	9.3	34.44	-	-	46	-11.56
12	7.98	11.9	Ca	0	.2	9.3	21.4	-	-	50	-28.6
7	.4808	40.22	Qp	0	.1	9.3	49.62	56.33	-6.71	-	-
9	1.7768	30.65	Qp	0	.1	9.3	40.05	56	-15.95	-	-
11	7.9418	17.77	Qp	0	.2	9.3	27.27	60	-32.73	-	-

Qp - Quasi-Peak detector
 Ca - CISPR average detection

LINE 2 RESULTS



WORST EMISSIONS

Range 3: Line-L2 .009 - .15MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	175765 LISN L2	C2&C3 cable path loss	207996 Limiter with short cabl	Corrected Reading dBuV	ICES-001 All Other Appl. QPK	Margin (dB)	ICES-001 All Other Appl. AVG	Margin (dB)
14	.0161	63.43	Ca	2.5	0	10.9	76.83	-	-	-	-
16	.0249	63.66	Ca	1.4	0	10.8	75.86	-	-	-	-
18	.052	35.59	Ca	.3	0	9.9	45.79	-	-	-	-
13	.0161	64.99	Qp	2.5	0	10.9	78.39	110	-31.61	-	-
15	.0249	65.35	Qp	1.4	0	10.8	77.55	110	-32.45	-	-
17	.052	37.23	Qp	.3	0	9.9	47.43	89.65	-42.22	-	-

Range 4: Line-L2 .15 - 30MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	175765 LISN L2	C2&C3 cable path loss	207996 Limiter with short cabl	Corrected Reading dBuV	ICES-001 All Other Appl. QPK	Margin (dB)	ICES-001 All Other Appl. AVG	Margin (dB)
20	.474	32.19	Ca	0	.1	9.3	41.59	-	-	46.44	-4.85
22	1.7768	22.25	Ca	0	.1	9.3	31.65	-	-	46	-14.35
24	7.1993	7.76	Ca	0	.1	9.3	17.16	-	-	50	-32.84
19	.4808	37.83	Qp	0	.1	9.3	47.23	56.33	-9.1	-	-
21	1.7768	25.74	Qp	0	.1	9.3	35.14	56	-20.86	-	-
23	7.1925	14.15	Qp	0	.1	9.3	23.55	60	-36.45	-	-

Qp - Quasi-Peak detector
 Ca - CISPR average detection

10. DESCRIPTION OF TEST SETUP AND SETUP PHOTOS

Please refer to 14357342-EP1 (FCC) for description of test up and setup photo.

END OF TEST REPORT