



FCC 47 CFR PART 15 SUBPART C

TEST REPORT

FOR

MODEL NO: 3781

FCC ID: USQ3781

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Prepared for
BRAUN GMBH
T-QTA FRANKFURTER STRASSE 145
KRONBERG TS, D-61476 DE

Prepared by
UL VERIFICATION SERVICES INC.
47173 BENICIA STREET
FREMONT, CA 94538, U.S.A.
TEL: (510) 771-1000
FAX: (510) 661-0888



NVLAP LAB CODE 200065-0

Revision History

Rev.	Issue Date	Revisions	Revised By
V1	01/06/2020	Initial Issue	--
V2	1/22/2020	Updated open field statement, observed fundamental frequency	Tri Pham
V3	3/16/2020	Updated below 30MHz worst case	Tri Pham
V4	4/9/2020	Updated AC line plots and standard	Tri Pham

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1. ATTESTATION OF TEST RESULTS

COMPANY NAME: BRAUN GMBH
T-QTA FRANKFURTER STRASSE 145
KRONBERG TS, D-61476 DE

EUT DESCRIPTION: WIRELESS CHARGER

MODEL NUMBER: 3781

POWER SUPPLY MODELS: 492-5214

SERIAL NUMBER: 2299

DATE TESTED: September 30 - November 22, 2019

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. All indications of Pass/Fail in this report are opinions expressed by UL Verification Services Inc. based on interpretations and/or observations of test results. Measurement Uncertainties were not taken into account and are published for informational purposes only. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

Note: The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. 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 NVLAP, NIST, any agency of the Federal Government, or any agency of any government.

Approved & Released For
UL Verification Services Inc. By:



Frank Ibrahim
Operations Leader
UL Verification Service Inc.

Prepared By:



Tri Pham
Project Engineer
UL Verification Services Inc.

2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with ANSI C63.10-2013, FCC CFR 47 Part 2, and FCC CFR 47 Part 15.

3. FACILITIES AND ACCREDITATION

The test sites and measurement facilities used to collect data are located at 47173 and 47266 Benicia Street, Fremont, California, USA. Line conducted emissions are measured only at the 47173 address. The following table identifies which facilities were utilized for radiated emission measurements documented in this report. Specific facilities are also identified in the test results sections.

47173 Benicia Street	47266 Benicia Street	47658 Kato Rd.
☐ Chamber A (ISED:2324B-1)	☐ Chamber D (ISED:22541-1)	☒ Chamber I (ISED: 2324A-5)
☐ Chamber B (ISED:2324B-2)	☐ Chamber E (ISED:22541-2)	☐ Chamber J (ISED: 2324A-6)
☐ Chamber C (ISED:2324B-3)	☐ Chamber F (ISED:22541-3)	☐ Chamber K (ISED: 2324A-1)
	☐ Chamber G (ISED:22541-4)	☐ Chamber L (ISED: 2324A-3)
	☐ Chamber H (ISED:22541-5)	

The above test sites and facilities are covered under FCC Test Firm Registration # 208313. Chambers A through H are covered under Industry Canada company address code 2324B with site numbers 2324B -1 through 2324B-8, respectively.

UL Verification Services Inc. is accredited by NVLAP, Laboratory Code 200065-0. The full scope of accreditation can be viewed at [NVLAP Lab Search](#).

4. CALIBRATION AND UNCERTAINTY

4.1. MEASURING INSTRUMENT CALIBRATION

The measuring equipment utilized to perform the tests documented in this report has been calibrated in accordance with the manufacturer's recommendations and is traceable to recognized national standards.

4.2. SAMPLE CALCULATION

Where relevant, the following sample calculation is provided:

$$\begin{aligned}\text{Field Strength (dBuV/m)} &= \text{Measured Voltage (dBuV)} + \text{Antenna Factor (dB/m)} + \\ &\text{Cable Loss (dB)} - \text{Preamp Gain (dB)} \\ 36.5 \text{ dBuV} + 18.7 \text{ dB/m} + 0.6 \text{ dB} - 26.9 \text{ dB} &= 28.9 \text{ dBuV/m}\end{aligned}$$

4.3. MEASUREMENT UNCERTAINTY

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

PARAMETER	UNCERTAINTY
Conducted Disturbance, 9KHz to 0.15 MHz	3.84 dB
Conducted Disturbance, 0.15 to 30 MHz	3.65 dB
Radiated Disturbance, 9KHz to 30 MHz	3.15 dB
Radiated Disturbance, 30 to 1000 MHz	5.36 dB
Radiated Disturbance, 1000 to 18000 MHz	4.32 dB
Radiated Disturbance, 18000 to 26000 MHz	4.45 dB
Radiated Disturbance, 26000 to 40000 MHz	5.24 dB

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

5. EQUIPMENT UNDER TEST

5.1. DESCRIPTION OF EUT

The EUT is a wireless toothbrush charger with WiFi and Bluetooth functionality.

5.2. MAXIMUM OUTPUT POWER

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

Fundamental Frequency (kHz)	Mode	E Field (300m distance) FCC (dBuV/m)
37	Standby	0.97
37	Charging	-0.03

5.3. SOFTWARE AND FIRMWARE

The EUT runs firmware version 1.0.1.

5.4. WORST-CASE CONFIGURATION AND MODE

The EUT is wireless charger enclosed in a plastic case.

Note that the EUT was tested as standby and charging modes.

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.

The charging frequency operates between 30-47kHz. Testing was performed on the observed fundamental frequency of 37kHz.

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.

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.

5.5. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

SUPPORT EQUIPMENT & PERIPHERALS LIST			
Description	Manufacturer	Model	Serial Number
Toothbrush	Braun	3765	BC811081854

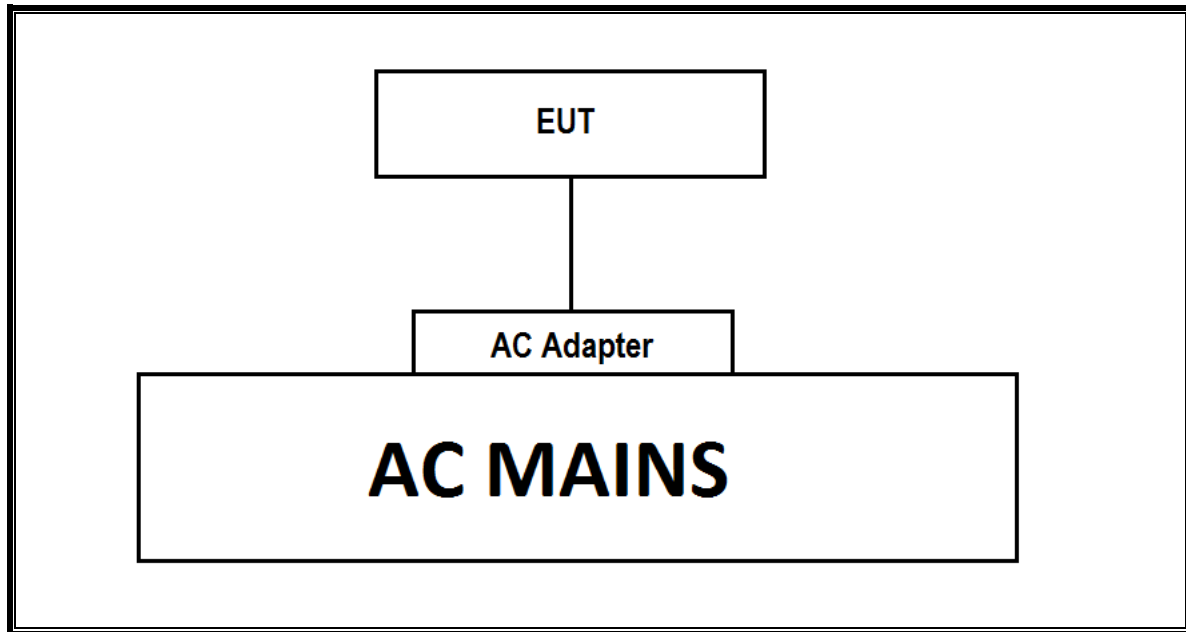
I/O CABLES

N/A

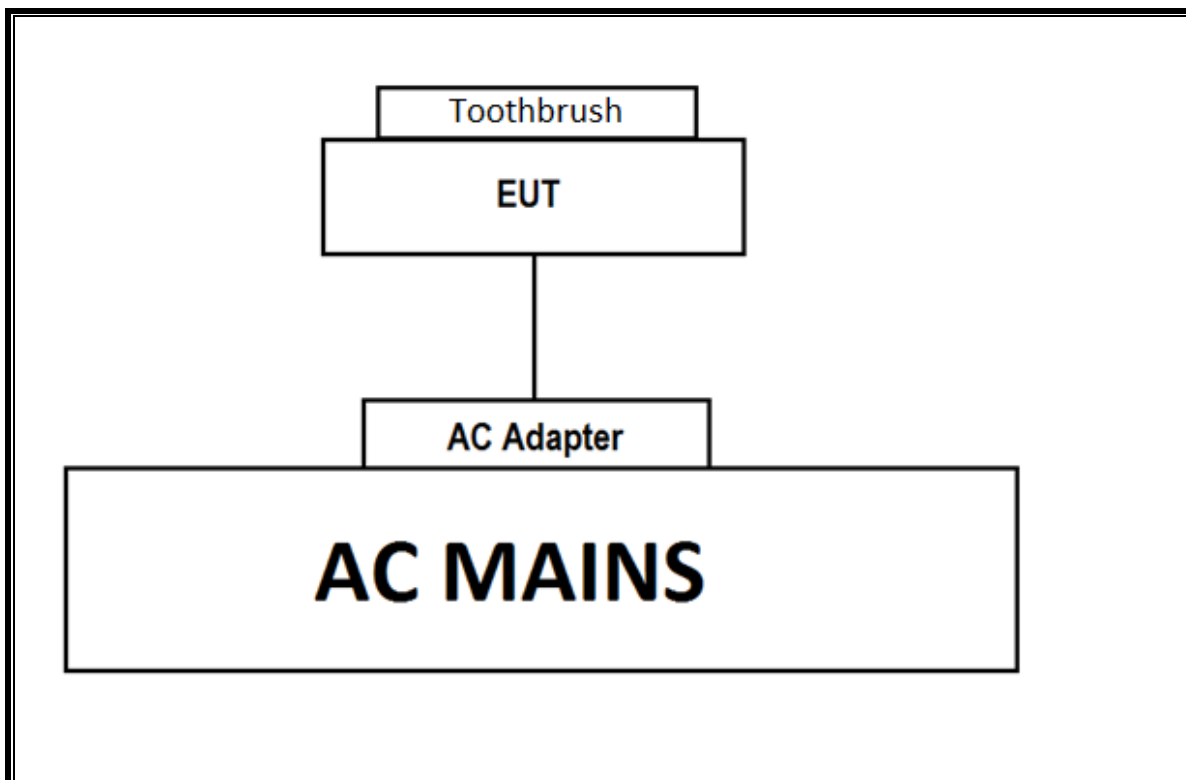
TEST SETUP

Please see the following modes for the test setups. All modes indicate that the EUT is directly connected to an AC/DC adapter.

MODE 1: STANDBY MODE



MODE 2: CHARGING MODE



6. 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	Local ID (T No.)	Cal Date	Cal Due
Antenna, Horn 1-18GHz	ETS-Lindgren	3117	T863	05/30/2018	05/30/2020
Antenna, Broadband Hybrid, 30MHz to 2000MHz	Sunol Sciences Corp.	JB3	T899	08/23/2019	08/23/2020
Spectrum Analyzer, PXA, 3Hz to 44GHz	Agilent (Keysight) Technologies	N9030A	T1454	01/08/2019	01/08/2020
RF Amplifier, 1-18GHz	MITEQ	AFS42-00101800-25-S-42	T1165	06/24/2019	05/24/2020
EMI TEST RECEIVER	Rohde & Schwarz	ESW44	PRE0179372	02/16/2019	02/16/2020
Hybrid Antenna, 30MHz to 3GHz	SunAR rf motion	JB3	PRE0181575	09/05/2019	09/05/2020
Spectrum Analyzer, PXA, 3Hz to 44GHz	Agilent (Keysight) Technologies	N9030A	T1454	01/23/2019	01/23/2020
Amplifier, 1 to 18GHz	Ampical	AMP1G18-35	T1571	05/28/2019	05/28/2020
Antenna, Active Loop 9kHz-30MHz	Com-Power Corp.	AL-130R	PRE0165308	4/11/2019	4/11/2020
AC Line Conducted					
EMI Test Receiver	Rohde&Schwarz	ESR	T1436	4/10/2019	4/10/2020
AC Power source	Schaffner	NSG1007	134	1/23/2019	1/23/2020
L.I.S.N	FCC INC.	FCC LISN 50/250	1310	1/24/2019	1/24/2020
UL AUTOMATION SOFTWARE					
Radiated Software	UL	UL EMC	Ver 9.5, Dec 01, 2016		
AC Line Conducted Software	UL	UL EMC	Ver 9.5, May 26, 2015		

7. RADIATED EMISSION TEST RESULTS

7.1. LIMITS AND PROCEDURE

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.		

TEST PROCEDURE

The EUT is placed on a non-conducting table 80 cm above the ground plane for measurement below 1GHz; 1.5 m above the ground plane for measurement above 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.

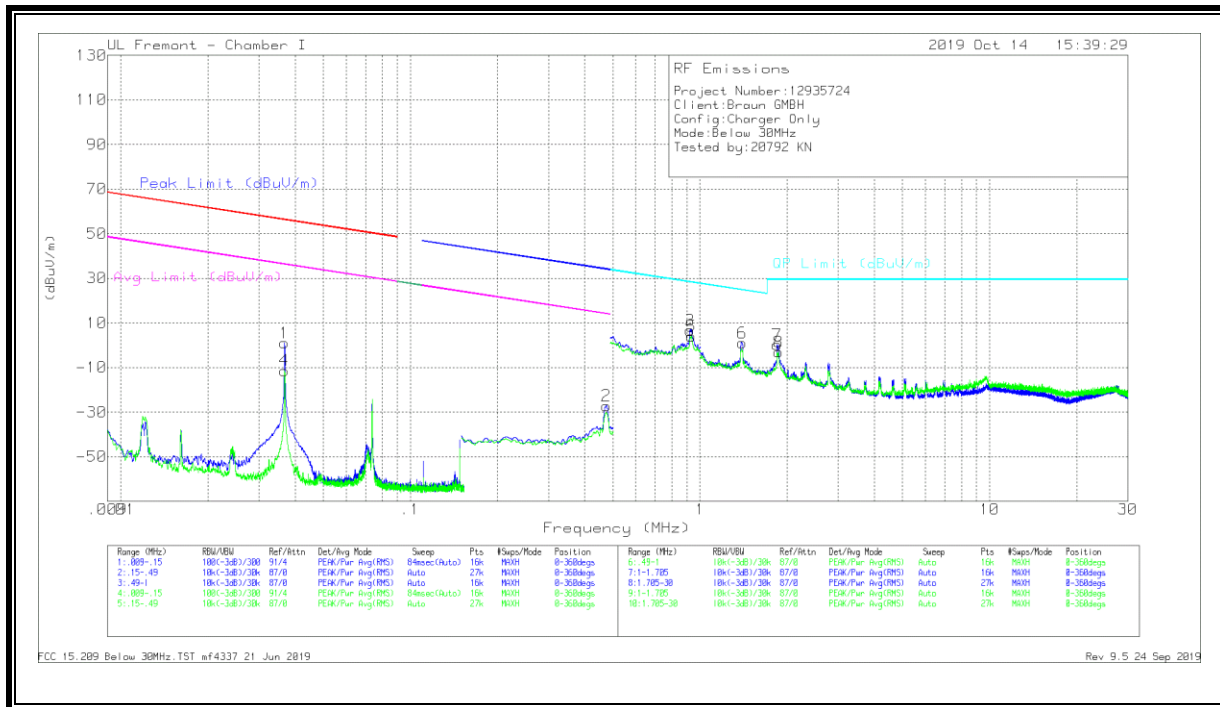
The frequency range of interest is monitored at a fixed antenna height and EUT azimuth. The EUT is rotated through 360 degrees to maximize emissions received. The antenna is scanned from 1 to 4 meters above the ground plane to further maximize the emission. Measurements are made with the antenna polarized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

RESULTS

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

7.2.1. STANDBY MODE



DATA

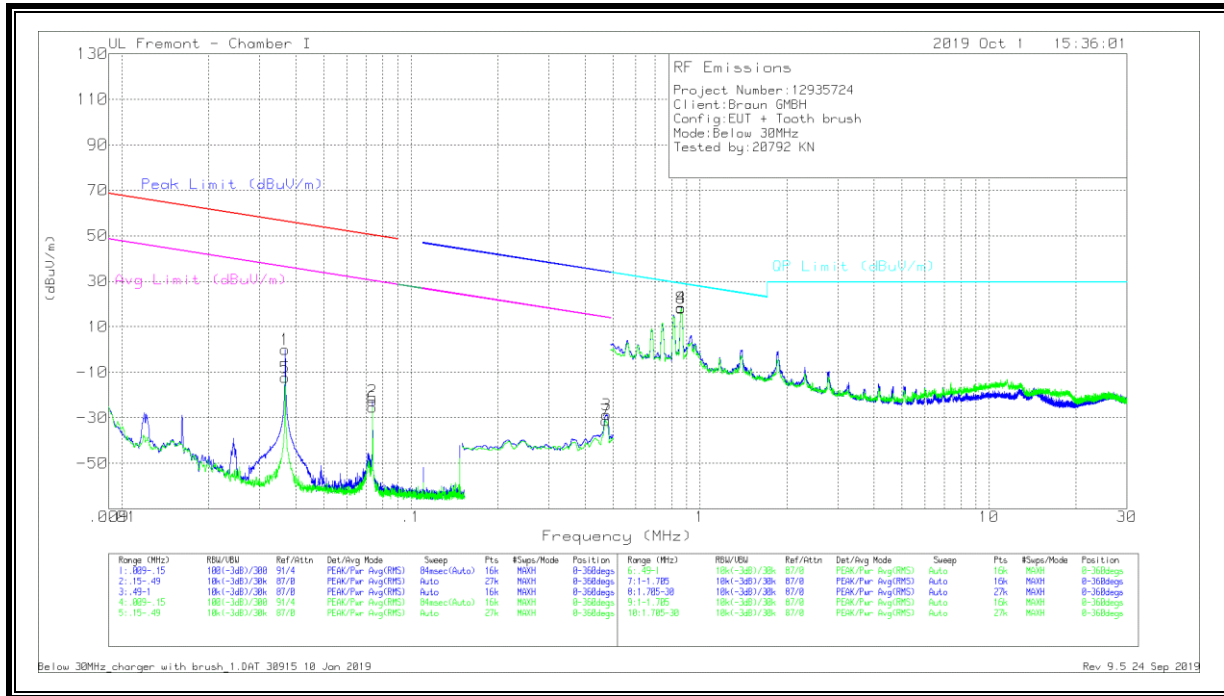
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna (ACF)	Cables w/ PRE0180175 (dB)	Dist Corr 300m	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	Margin (dB)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Avg Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)
1	.0368	55.97	Pk	57.2	-32.2	-80	97	56.27	-55.3	36.27	-35.3	-	-	-	-	-
2	.47469	28.71	Pk	56	-31.8	-80	-27.09	-	-	-	-	34.08	-61.17	14.08	-41.17	0-360
4	.03681	43.7	Pk	57.2	-32.2	-80	-11.3	56.27	-67.57	36.27	-47.57	-	-	-	-	0-360

Pk - Peak detector

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna (ACF)	Cables w/ PRE0180175 (dB)	Dist Corr 30m (dB) 40Log	Corrected Reading (dBuV/m)	QP Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)
3	.92517	22.37	Pk	56.1	-31.8	-40	6.67	28.3	-21.63	0-360
5	.93238	19.85	Pk	56.1	-31.8	-40	4.15	28.23	-24.08	0-360
6	1.39767	28.09	Pk	44.7	-31.8	-40	.99	24.72	-23.73	0-360
7	1.84543	29.62	Pk	42.4	-31.7	-40	.32	29.5	-29.18	0-360
8	1.86744	26.4	Pk	42.3	-31.7	-40	-3	29.5	-32.5	0-360

Pk - Peak detector

7.2.2. CHARGING MODE



DATA

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna (ACF)	Cables w/ PRE0186650	Dist Corr 300m	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	Margin (dB)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Avg Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)
1	.03671	54.97	Pk	57.2	-32.2	-80	-03	56.29	-56.32	36.29	-36.32	-	-	-	-	0-360
2	.07362	33.85	Pk	55.7	-32.2	-80	-22.65	50.24	-72.89	30.24	-52.89	-	-	-	-	0-360
3	.47503	27.48	Pk	56	-32.1	-80	-28.62	-	-	-	-	34.07	-62.69	14.07	-42.69	0-360
5	.03671	42.64	Pk	57.2	-32.2	-80	-12.36	56.29	-68.65	36.29	-48.65	-	-	-	-	0-360
6	.07362	31.06	Pk	55.7	-32.2	-80	-25.44	50.24	-75.68	30.24	-55.68	-	-	-	-	0-360
7	.47274	24.92	Pk	56	-32.1	-80	-31.18	-	-	-	-	34.11	-65.29	14.11	-45.29	0-360

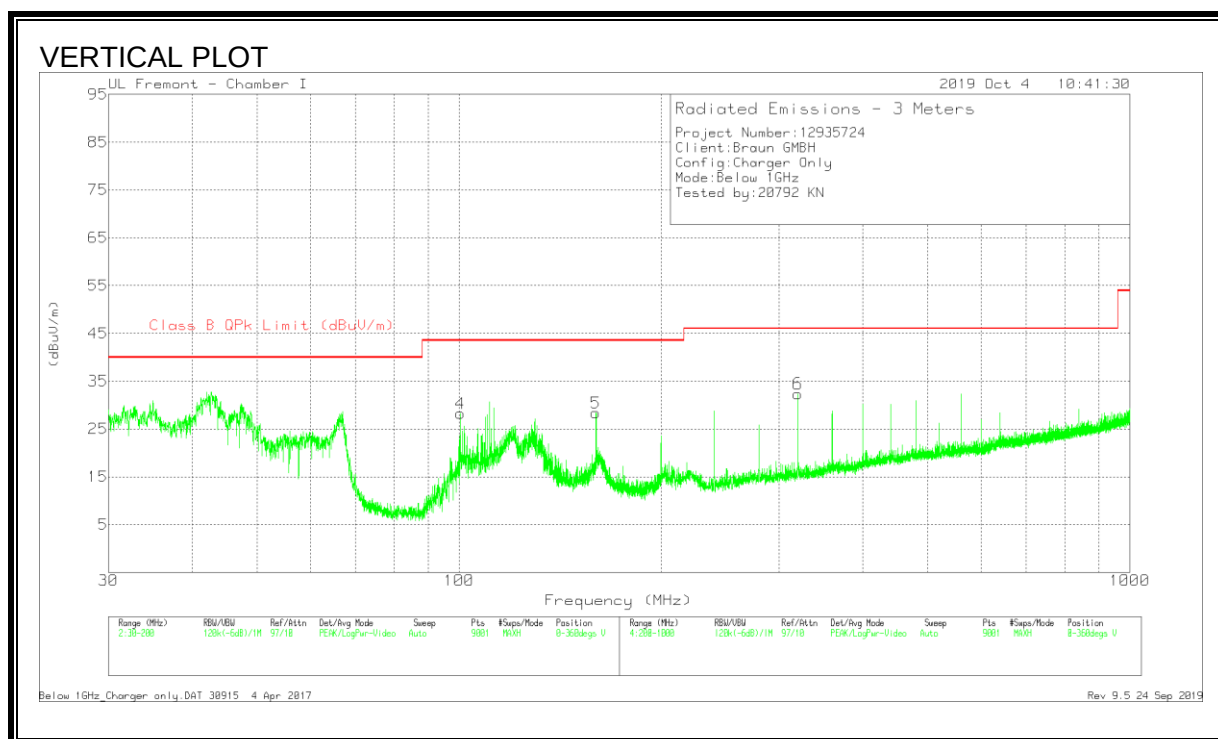
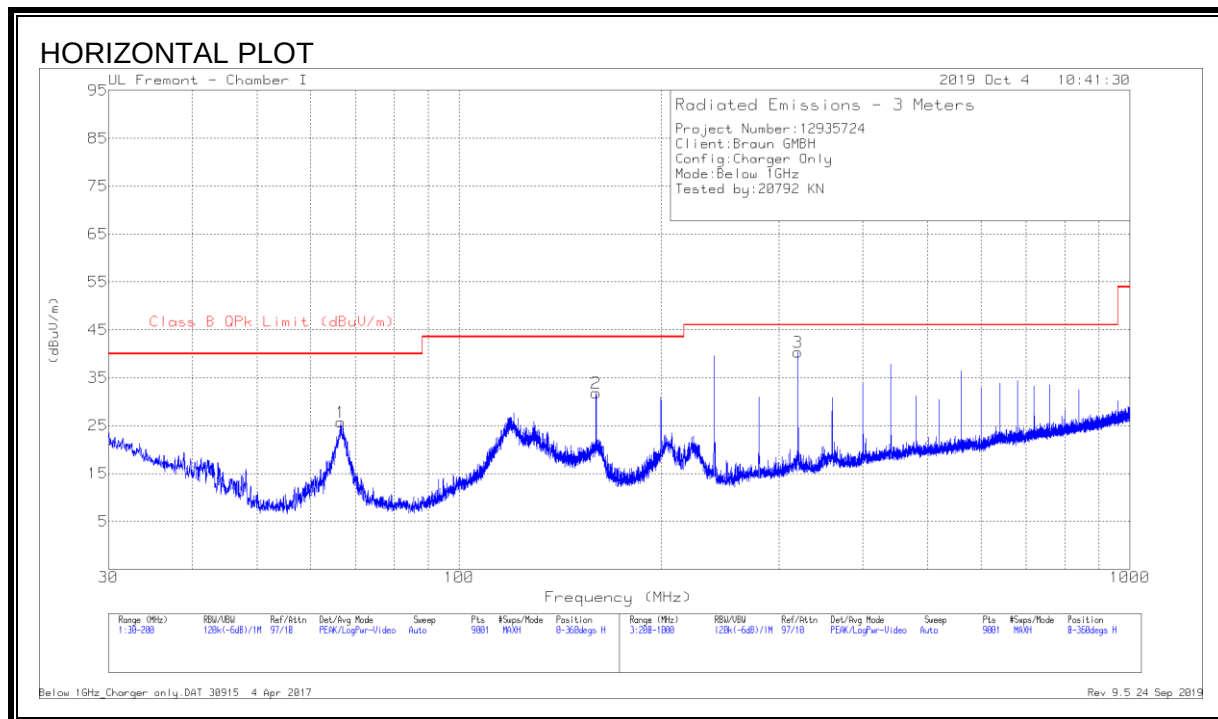
Pk - Peak detector

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna (ACF)	Cables w/ PRE0186650	Dist Corr 30m (dB) 40Log	Corrected Reading (dBuV/m)	QP Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)
4	.8617	34.41	Pk	56.1	-32.1	-40	18.41	28.91	-10.5	0-360
8	.86147	34.2	Pk	56.1	-32.1	-40	18.2	28.91	-10.71	0-360

Pk - Peak detector

7.3. FCC TX SPURIOUS EMISSION 30 TO 1000 MHz

7.3.1. STANDBY MODE



DATA

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF PRE0184052 (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	Class B QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	66.6258	42.98	Pk	13.9	-31.2	25.68	40	-14.32	0-360	299	H
2	159.9941	44.27	Pk	18.1	-30.5	31.87	43.52	-11.65	0-360	199	H
4	100.3804	43.01	Pk	16.2	-30.9	28.31	43.52	-15.21	0-360	100	V
5	159.9752	40.84	Pk	18.1	-30.5	28.44	43.52	-15.08	0-360	100	V
3	319.9113	50.23	Pk	19.9	-29.8	40.33	46.02	-5.69	0-360	299	H
6	319.9113	42.29	Pk	19.9	-29.8	32.39	46.02	-13.63	0-360	299	V

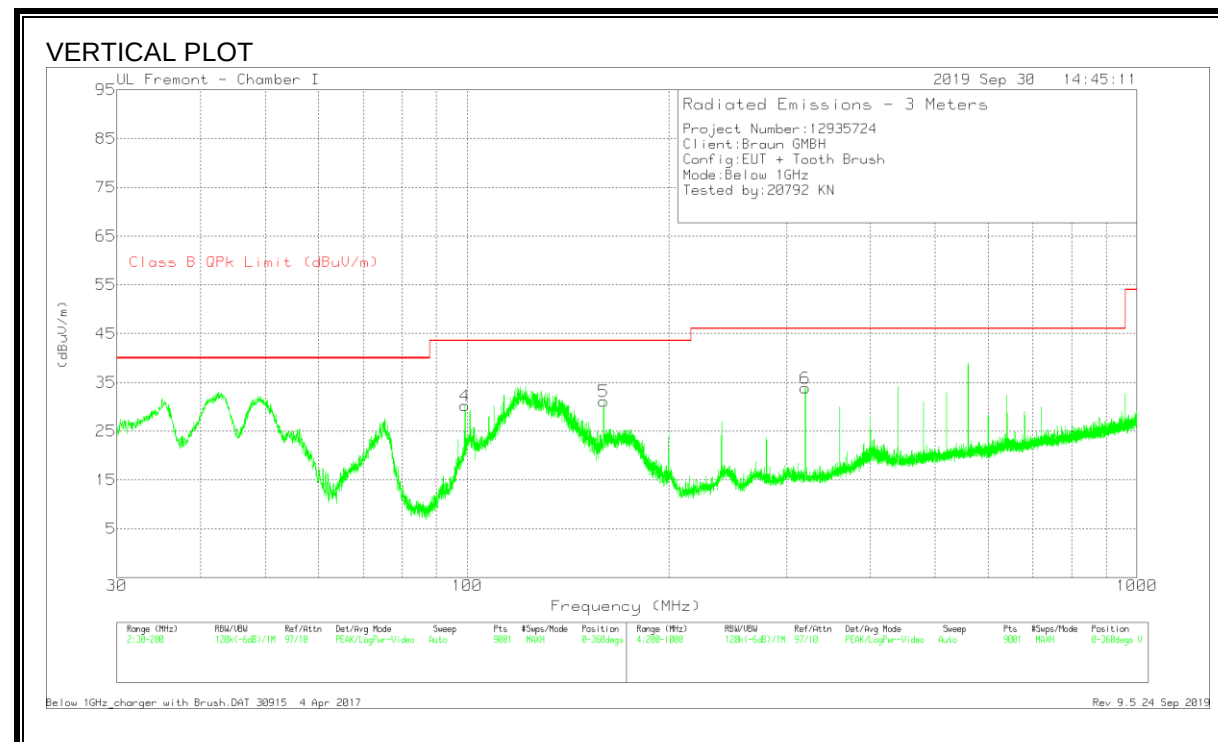
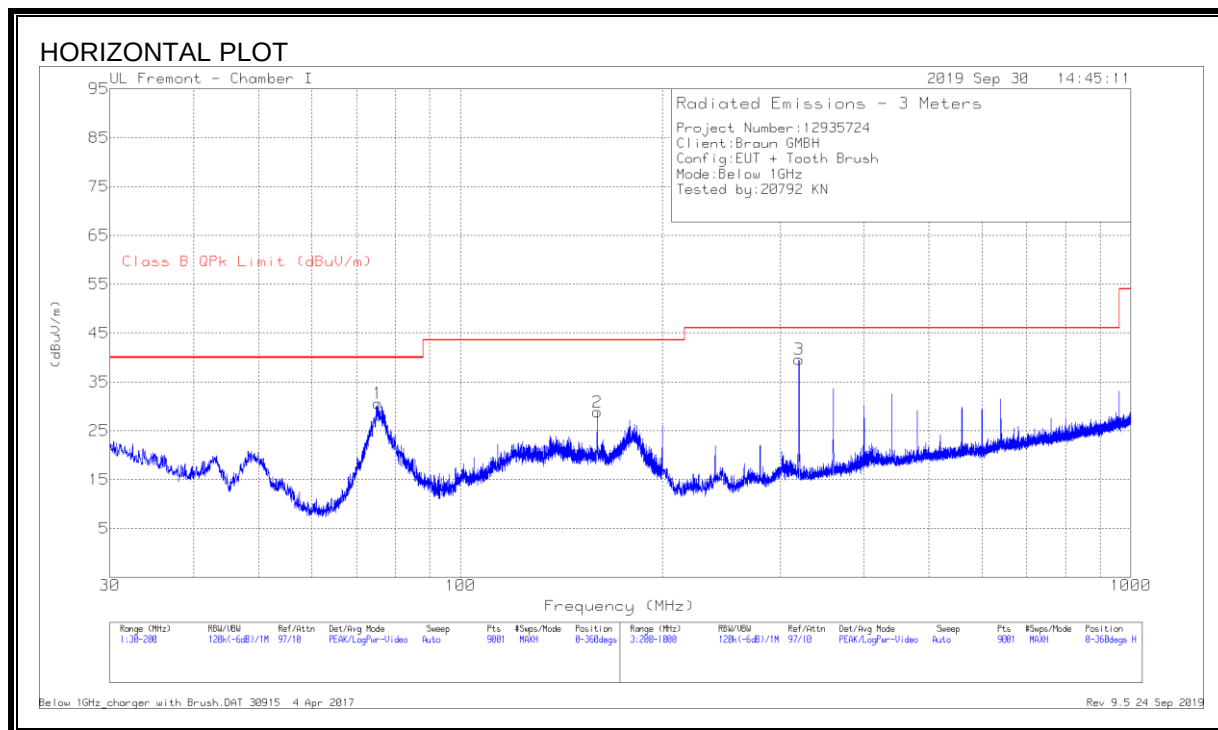
Pk - Peak detector

Radiated Emissions

Frequency (MHz)	Meter Reading (dBuV)	Det	AF PRE0184052 (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	Class B QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
320.0015	52.19	Qp	19.9	-29.8	42.29	46.02	-3.73	145	96	H

Qp - Quasi-Peak detector

7.3.2. CHARGING MODE



DATA

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF PRE0184052 (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	Class B QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	75.2769	47.85	Pk	13.9	-31.1	30.65	40	-9.35	0-360	299	H
2	159.9941	41.26	Pk	18.1	-30.5	28.86	43.52	-14.66	0-360	399	H
4	99.3037	45.21	Pk	15.9	-30.9	30.21	43.52	-13.31	0-360	100	V
5	159.9563	43.52	Pk	18.1	-30.5	31.12	43.52	-12.4	0-360	100	V
3	319.9113	49.53	Pk	19.9	-29.8	39.63	46.02	-6.39	0-360	299	H
6	320.0002	43.74	Pk	19.9	-29.8	33.84	46.02	-12.18	0-360	99	V

Pk - Peak detector

Radiated Emissions

Frequency (MHz)	Meter Reading (dBuV)	Det	AF PRE0184052 (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	Class B QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
159.9912	41.51	Qp	18.1	-30.5	29.11	43.52	-14.41	328	163	H
269.1496	22.14	Qp	19.1	-30	11.24	46.02	-34.78	270	168	V

Qp - Quasi-Peak detector

8. AC POWER LINE CONDUCTED EMISSIONS

8.1. LIMITS

FCC §15.207 (a)

Frequency of Emission (MHz)	Conducted Limit (dB μ V)	
	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.

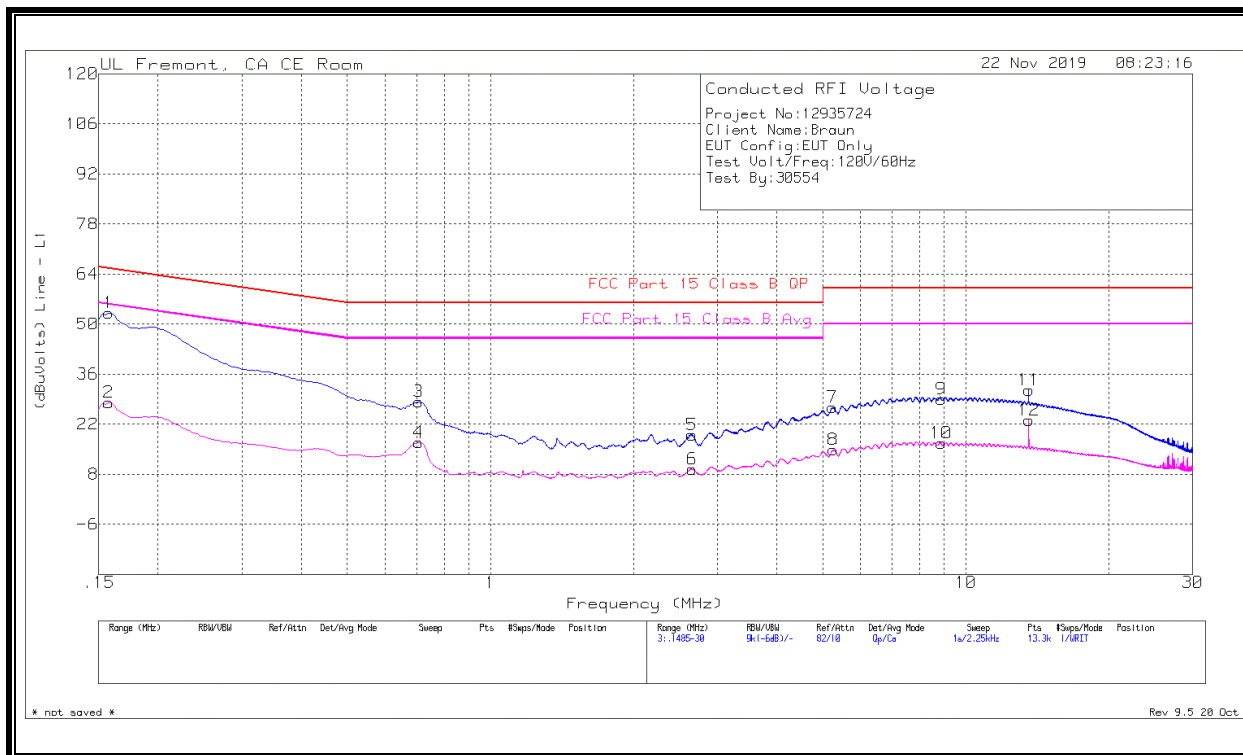
The receiver is set to a resolution bandwidth of 9 kHz. Peak detection is used unless otherwise noted as quasi-peak or average.

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

8.2. RESULTS

8.2.1.STANDBY MODE

LINE 1 RESULTS



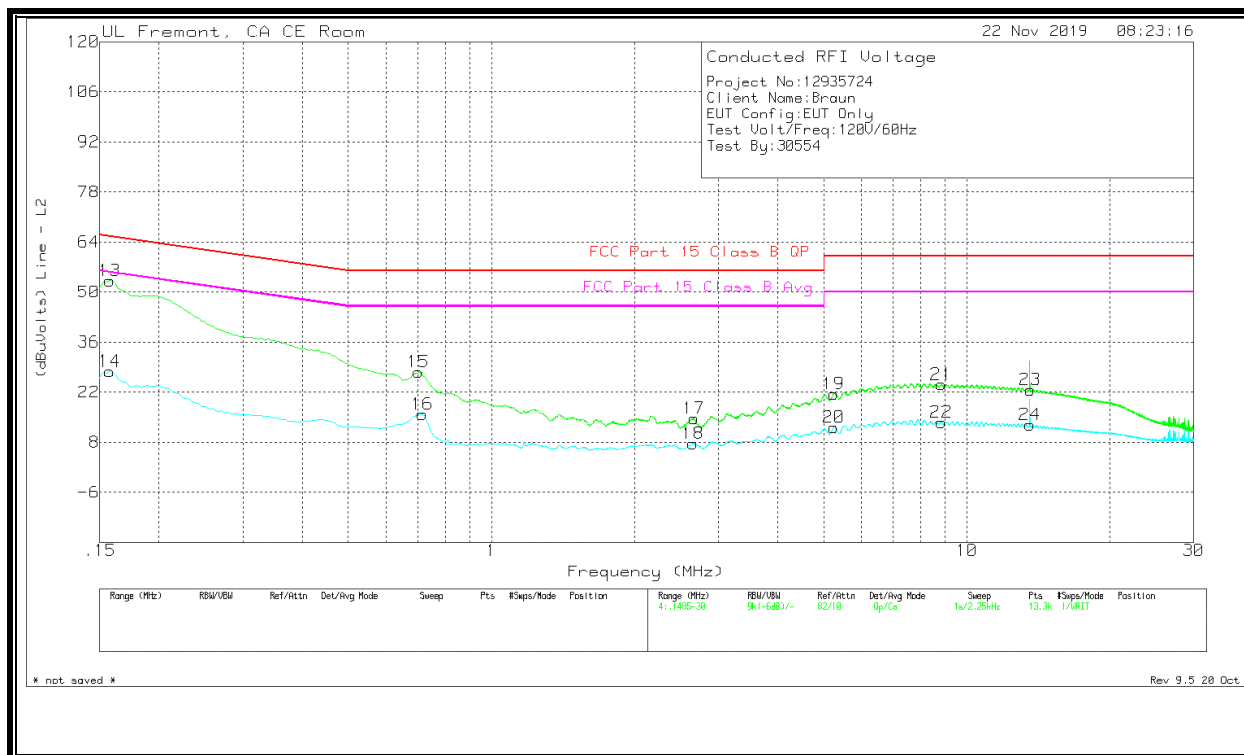
WORST EMISSIONS

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	LISN L1	LC Cables C1&C3	Limiter (dB)	Corrected Reading (dBuVolts)	FCC Part 15 Class B QP	Margin (dB)	FCC Part 15 Class B Avg	Margin (dB)
2	.1575	17.8	Ca	.1	0	10.1	28	-	-	55.59	-27.59
4	.7065	6.7	Ca	0	0	10.1	16.8	-	-	46	-29.2
6	2.65613	-82	Ca	0	.1	10.1	9.38	-	-	46	-36.62
8	5.256	4.63	Ca	0	.1	10.1	14.83	-	-	50	-35.17
10	8.865	6.25	Ca	0	.2	10.2	16.65	-	-	50	-33.35
12	13.56075	12.58	Ca	.1	.2	10.2	23.08	-	-	50	-26.92
1	.1575	42.89	Qp	.1	0	10.1	53.09	65.52	-12.43	-	-
3	.7065	18.11	Qp	0	0	10.1	28.21	56	-27.79	-	-
5	2.655	8.76	Qp	0	.1	10.1	18.96	56	-37.04	-	-
7	5.2425	16.46	Qp	0	.1	10.1	26.66	60	-33.34	-	-
9	8.86613	18.55	Qp	0	.2	10.2	28.95	60	-31.05	-	-
11	13.56075	21.04	Qp	.1	.2	10.2	31.54	60	-28.46	-	-

Qp - Quasi-Peak detector

Ca - CISPR average detection

LINE 2 RESULTS



WORST EMISSIONS

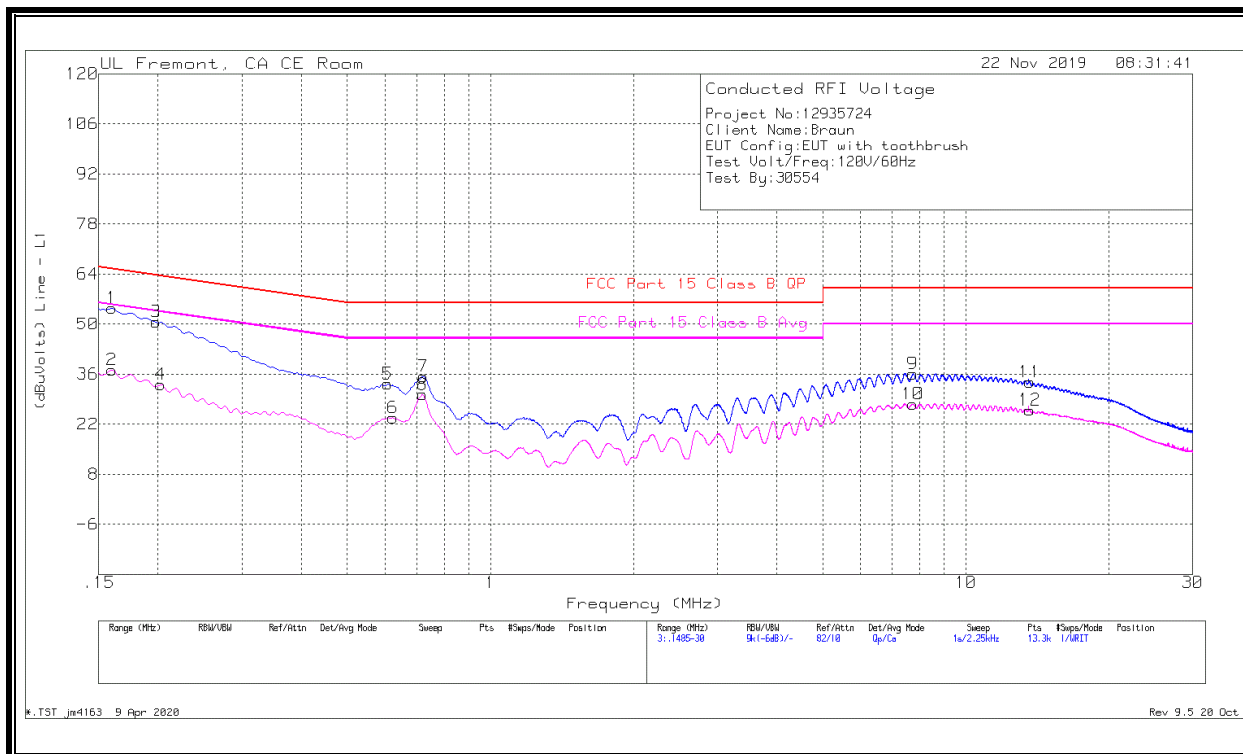
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	LISN L2	LC Cables C2&C3	Limiter (dB)	Corrected Reading (dBuVolts)	FCC Part 15 Class B QP	Margin (dB)	FCC Part 15 Class B Avg	Margin (dB)
14	.1575	17.54	Ca	.1	0	10.1	27.74	-	-	55.59	-27.85
16	.7155	5.7	Ca	0	0	10.1	15.8	-	-	46	-30.2
18	2.655	-2.61	Ca	0	.1	10.1	7.59	-	-	46	-38.41
20	5.24813	1.9	Ca	0	.1	10.1	12.1	-	-	50	-37.9
22	8.83125	3.14	Ca	0	.2	10.2	13.54	-	-	50	-36.46
24	13.56975	2.36	Ca	.1	.2	10.2	12.86	-	-	50	-37.14
13	.1575	42.92	Qp	.1	0	10.1	53.12	65.52	-12.4	-	-
15	.702	17.46	Qp	0	0	10.1	27.56	56	-28.44	-	-
17	2.6685	4.43	Qp	0	.1	10.1	14.63	56	-41.37	-	-
19	5.24925	11.32	Qp	0	.1	10.1	21.52	60	-38.48	-	-
21	8.847	13.68	Qp	0	.2	10.2	24.08	60	-35.92	-	-
23	13.5945	12.12	Qp	.1	.2	10.2	22.62	60	-37.38	-	-

Qp - Quasi-Peak detector

Ca - CISPR average detection

8.2.2. CHARGING MODE

LINE 1 RESULTS



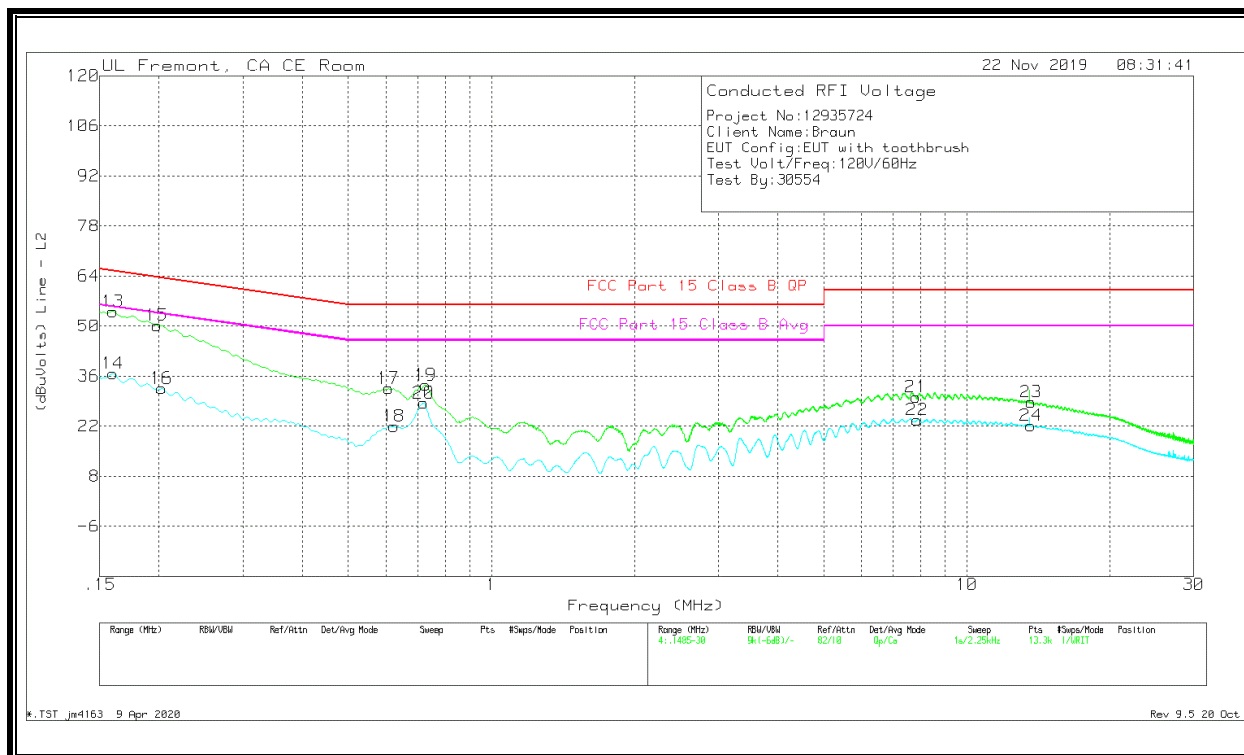
WORST EMISSIONS

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	LISN L1	LC Cables C1&C3	Limiter (dB)	Corrected Reading (dBuVolts)	FCC Part 15 Class B QP	Margin (dB)	FCC Part 15 Class B Avg	Margin (dB)
2	.15975	26.94	Ca	.1	0	10.1	37.14	-	-	55.48	-18.34
4	.2025	22.96	Ca	0	0	10.1	33.06	-	-	53.51	-20.45
6	.62325	13.69	Ca	0	0	10.1	23.79	-	-	46	-22.21
8	.72	20.1	Ca	0	0	10.1	30.2	-	-	46	-15.8
10	7.7355	17.2	Ca	0	.2	10.2	27.6	-	-	50	-22.4
12	13.63275	15.37	Ca	.1	.2	10.2	25.87	-	-	50	-24.13
1	.15975	44.23	Qp	.1	0	10.1	54.43	65.4	-10.97	-	-
3	.198	40.49	Qp	0	0	10.1	50.59	63.63	-13.04	-	-
5	.6075	23.08	Qp	0	0	10.1	33.18	56	-22.82	-	-
7	.72225	25.24	Qp	0	0	10.1	35.34	56	-20.66	-	-
9	7.74	25.64	Qp	0	.2	10.2	36.04	60	-23.96	-	-
11	13.6305	23.25	Qp	.1	.2	10.2	33.75	60	-26.25	-	-

Qp - Quasi-Peak detector

Ca - CISPR average detection

LINE 2 RESULTS



WORST EMISSIONS

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	LISN L2	LC Cables C2&C3	Limiter (dB)	Corrected Reading (dBuVolts)	FCC Part 15 Class B QP	Margin (dB)	FCC Part 15 Class B Avg	Margin (dB)
14	.15975	26.47	Ca	.1	0	10.1	36.67	-	-	55.48	-18.81
16	.2025	22.43	Ca	0	0	10.1	32.53	-	-	53.51	-20.98
18	.62325	11.84	Ca	0	0	10.1	21.94	-	-	46	-24.06
20	.72	18.28	Ca	0	0	10.1	28.38	-	-	46	-17.62
22	7.85925	13.26	Ca	0	.2	10.2	23.66	-	-	50	-26.34
24	13.635	11.61	Ca	.1	.2	10.2	22.11	-	-	50	-27.89
13	.15975	43.86	Qp	.1	0	10.1	54.06	65.4	-11.34	-	-
15	.198	40.08	Qp	0	0	10.1	50.18	63.63	-13.45	-	-
17	.6075	22.41	Qp	0	0	10.1	32.51	56	-23.49	-	-
19	.72675	23.33	Qp	0	0	10.1	33.43	56	-22.57	-	-
21	7.81425	19.7	Qp	0	.2	10.2	30.1	60	-29.9	-	-
23	13.6485	18.17	Qp	.1	.2	10.2	28.67	60	-31.33	-	-

Qp - Quasi-Peak detector

Ca - CISPR average detection