



Certification Test Report

FCC ID: GV3-20SP0M1

IC: 6128A-20SP0M1

FCC Rule Part: 15.247

ISED Canada's Radio Standards Specification: RSS-247

TÜV SÜD Report Number: RD72159794.602

Manufacturer: ACCO Brands USA, LLC

Model: SensorPod-M

Test Begin Date: May 20, 2020

Test End Date: July 27, 2020

Report Issue Date: August 28, 2020



A2LA Cert. No. 2955.18

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

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1 GENERAL

1.1 Purpose

The purpose of this report is to demonstrate compliance with Part 15 Subpart C of the FCC's Code of Federal Regulations and Innovation, Science and Economic Development Canada Radio Standards Specification: RSS-247 Certification.

1.2 Product Description

The SensorPod-M sends air quality data over-the-air to the Z-2500 and Z-3500 line of air purifiers.

Technical Information:

Detail	Description
Frequency Range	2402 – 2480MHz
Channel Spacing	2MHz
Number of Channels	40
Modulation Format	GFSK
Rated RF Output Power	-3dBm (Conducted)
Operating Voltage	100-240Vac 50/60Hz (AC/DC Adapter)
Antenna Type / Gain	PCB Trace Antenna / 2.0 dBi
Hardware Version	Z3500 1.0
Software Release	Z3500 1.0

Manufacturer Information:

ACCO Brands USA, LLC
4 Corporate Drive
Lake Zurich, IL 60047

EUT Serial Numbers: 004

Test Sample Condition: The test samples were provided in good working order with no visible defects.

1.3 Test Methodology and Considerations

The EUT was configured with special firmware to allow selection of operating frequency.

The power level was set to -6dB for all testing.

2 TEST FACILITIES

2.1 Location

The radiated and conducted emissions test sites are located at the following address:

TÜV SÜD America Inc.
2320 Presidential Drive, Suite 101
Durham, NC 27703
Phone: (919) 748-4615

2.2 Laboratory Accreditations/Recognitions/Certifications

TÜV SÜD America Inc. (Durham) is accredited to ISO/IEC 17025 by A2LA accreditation program, and has been issued certificate number 2955.18 in recognition of this accreditation. Unless otherwise specified, all tests methods described within this report are covered under the ISO/IEC 17025 scope of accreditation.

The Semi-Anechoic Chamber Test Site and Conducted Emissions Site have been fully described, submitted to, and accepted by the FCC and Innovation, Science and Economic Development (ISED) Canada.

FCC Designation Number: US1245
FCC Test Firm Registration Number: 238628
ISED Canada Company Number: 20446

2.3 Radiated Emissions Test Site Description

2.3.1 Semi-Anechoic Chamber Test Site

The Semi-Anechoic Chamber Test Site consists of a 18' x 28' x 18' shielded enclosure. The chamber is lined with Samwha Electronics Co. LTD Ferrite Absorber, model number SFA300 (HSN-1). The ferrite tile is 10cm x 10 cm and weighs approximately 1.4lbs. These tiles are mounted on steel panels and installed directly on the inner walls of the chamber. On top of the ferrite tiles is DMAS HT-45 (Dutch Microwave Absorber Solutions) hybrid absorber on all walls except the wall behind the antenna mast which has a shorter DMAS HT-25 absorber.

The turntable is 1.50m in diameter and is located 150cm from the back wall of the chamber. The chamber is grounded via 1 - 8' copper ground rod, installed at the center of the back wall, it is bound to the ground plane using short #6 copper wire. The turntable is all steel, flush mounted table installed in an all steel frame. The table is remotely operated from inside the control room located 25' from the turntable. The turntable is electrically bonded to the surrounding ground plane via steel fingers installed on the edge of the turn table. The steel fingers make constant contact with the ground plane.

Behind the turntable is a 2' x 6' x 1.5' deep shielded pit used for support equipment if necessary. The pit is equipped with 2 - 4" PVC chase from the turntable to the pit that allow for cabling to the EUT if necessary. The underside of the turntable can be accessed from the pit so cables can be supplied to the EUT from the pit.

A diagram of the Semi-Anechoic Chamber Test Site is shown in Figure 2.3-1 below:

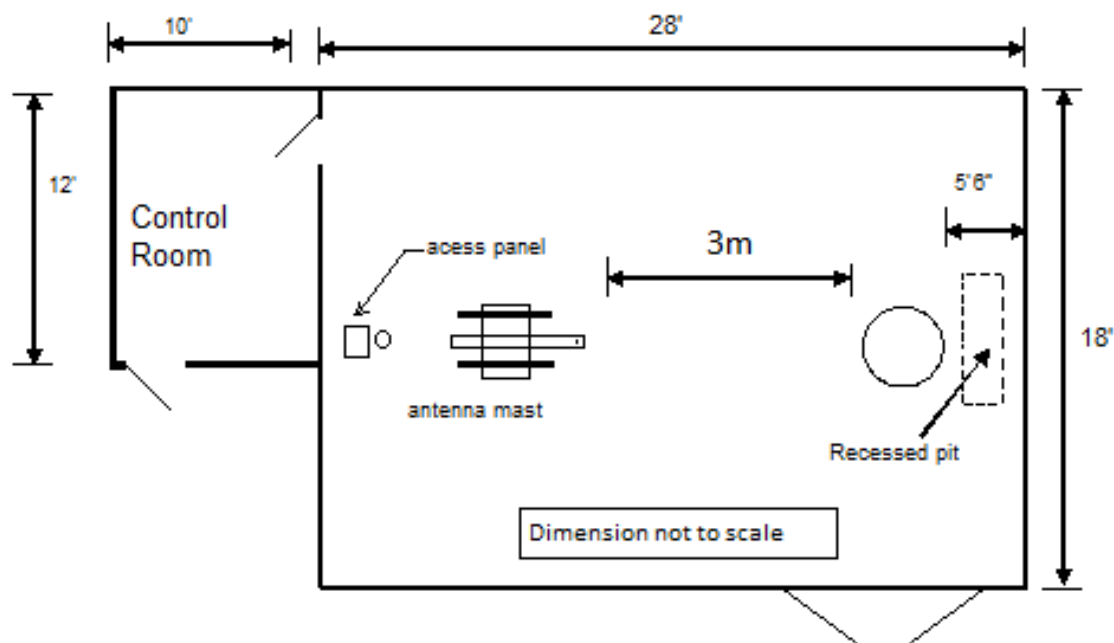


Figure 2.3-1: Semi-Anechoic Chamber Test Site

2.4 Conducted Emissions Test Site Description

The AC mains conducted EMI site is located in the main EMC lab. It consists of an 8' x 10' sheet galvanized steel horizontal ground reference plane (GRP) bonded every 6" to an 8' X 8' aluminum vertical ground plane.

A diagram of the room is shown below in figure 2.4-1:

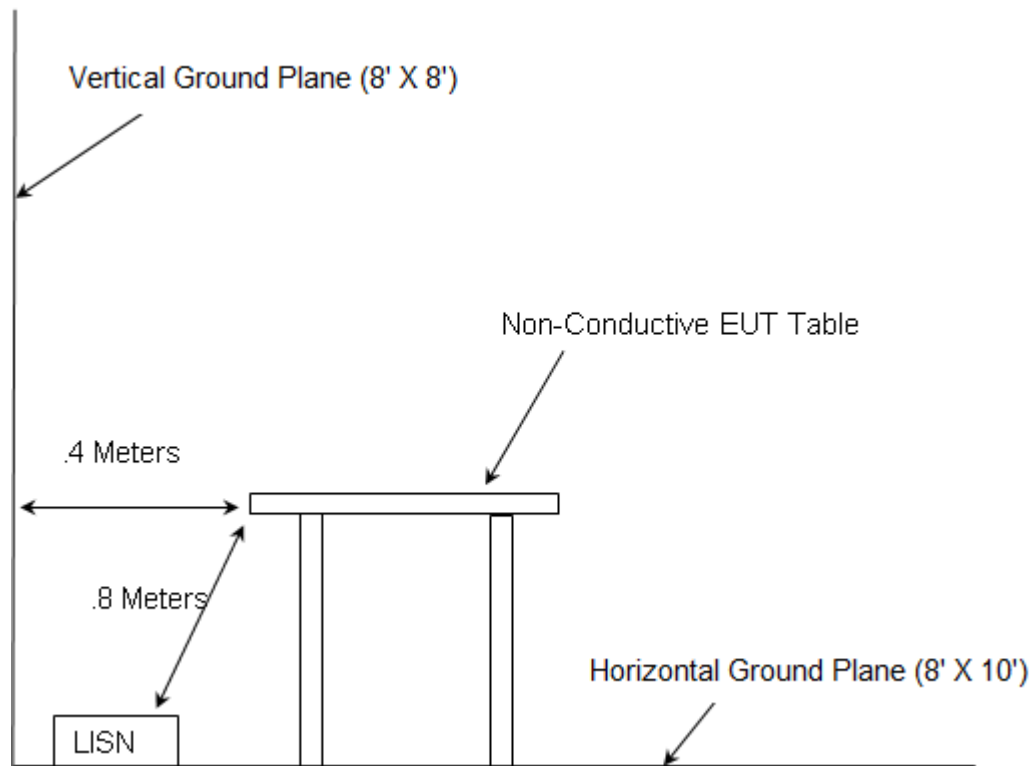


Figure 2.4-1: AC Mains Conducted EMI Site

3 APPLICABLE STANDARD REFERENCES

The following standards were used:

- ❖ ANSI C63.10-2013: American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices
- ❖ US Code of Federal Regulations (CFR): Title 47, Part 2, Subpart J: Equipment Authorization Procedures, 2020
- ❖ US Code of Federal Regulations (CFR): Title 47, Part 15, Subpart C: Radio Frequency Devices, Intentional Radiators, 2020
- ❖ FCC 558074 D01 15.247 Meas Guidance v05r02 – Guidance for Compliance Measurements on Digital Transmission System, Frequency Hopping Spread Spectrum System, and Hybrid System Devices Operating Under Section 15.247 of the FCC Rules, April 2, 2019
- ❖ ISED Canada Radio Standards Specification: RSS-247, Digital Transmission Systems (DTSs), Frequency Hopping Systems (FHSs) and Licence-Exempt Local Area Network (LE-LAN) Devices, Issue 2, February 2017
- ❖ ISED Canada Radio Standards Specification: RSS-GEN – General Requirements for Compliance of Radio Apparatus, Issue 5, Amendment 1, March 2019

4 LIST OF TEST EQUIPMENT

The calibration interval of test equipment is annually or the manufacturer's recommendations. Where the calibration interval deviates from the annual cycle based on the instrument manufacturer's recommendations, it shall be stated below.

Table 4-1: Test Equipment

Asset ID	Manufacturer	Model #	Equipment Type	Serial #	Last Calibration Date	Calibration Due Date
DEMC3002	Rohde & Schwarz	ESU40	Receiver	100346	1/22/2020	1/22/2021
DEMC3006	Rohde & Schwarz	TS-PR18	Amplifier	122006	1/23/2020	1/23/2021
DEMC3007	Rohde & Schwarz	TS-PR26	Amplifier	100051	1/23/2020	1/23/2021
DEMC3012	Rohde & Schwarz	EMC32-EB	Software	100731	NCR	NCR
DEMC3016	Fei Teng Wireless Technology	HA-07M18G-NF	Antenna	2013120203	4/8/2020	4/8/2021
DEMC3027	Micro-Tronics	BRM50702	2.4GHz Notch Filter	175	1/27/2020	1/27/2021
DEMC3032	Hasco, Inc.	HLL142-S1-S1-192/WA	Cable	3075	1/23/2020	1/23/2021
DEMC3038	Florida RF Labs	NMSE-290AW-60.0-NMSE	Cable Set	1448	1/27/2020	1/27/2021
DEMC3039	Florida RF Labs	NMSE-290AW-396.0-NMSE	Cable Set	1447	1/27/2020	1/27/2021
DEMC3055	Rohde & Schwarz	3005	Cable	3055	1/23/2020	1/23/2021
DEMC3085	Rohde & Schwarz	FSW43	Spectrum Analyzer	103997	1/22/2020	1/22/2021
DEMC3161	TESEQ	CBL-6112D	Antenna	51323	2/18/2020	2/18/2021

NCR = No Calibration Required

DMAS MT-25 RF absorber material was used on the floor for all final measurements above 1 GHz.

Asset DEMC3002: Firmware Version: ESU40 is 4.73 SP4

Asset DEMC3012: Software Version: EMC32-B is 10.50.00

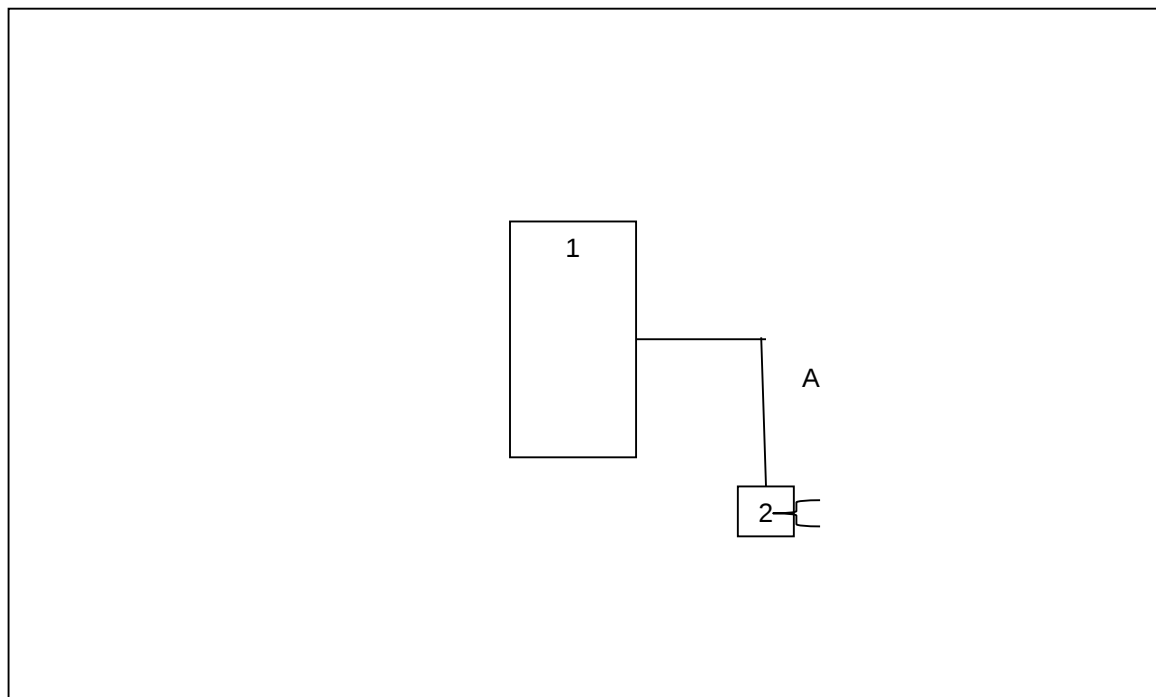
5 SUPPORT EQUIPMENT

Table 5-1: Support Equipment

Item	Equipment Type	Manufacturer	Model Number	Serial Number
1	EUT	ACCO Brands USA, LLC	SensorPod-M	See Section 1.2
2	AC/DC Wall Wart	ShenZhen Rongweixin Technology Co, Ltd	R062- 0900500UC	N/A

Notes:

6 EQUIPMENT UNDER TEST SETUP BLOCK DIAGRAM

**Figure 6-1: Test Setup Block Diagram****Table 6-1: Cable Description**

Cable #	Cable Type	Length	Shield	Termination
A	DC Power Cable	1.9m	No	1 to 2

7 SUMMARY OF TESTS

Along with the tabular data shown below, plots were taken of all signals deemed important enough to document.

7.1 Antenna Requirement – FCC: 15.203

The antenna is integral to the device and cannot be removed or replaced by the end user. The peak gain of the antenna is 2.0 dBi.

7.2 Power Line Conducted Emissions – FCC: 15.207; ISED Canada: RSS-Gen 8.8

7.2.1 Measurement Procedure

ANSI C63.10-2013 section 6 was the guiding document for this evaluation. Conducted emissions were performed from 150kHz to 30MHz with the spectrum analyzer's resolution bandwidth set to 9kHz and the video bandwidth set to 30kHz. The calculation for the conducted emissions is as follows:

Corrected Reading = Analyzer Reading + LISN Loss + Cable Loss

Margin = Applicable Limit - Corrected Reading

7.2.2 Measurement Results

Performed by: Chris Gormley

Table 7.2.2-1: Conducted EMI Results – Line and Neutral – SensorPod-M

Frequency (MHz)	QuasiPeak (dBμV)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Line	Filter	Corr. (dB)
0.154500	---	26.45	55.75	29.31	N	OFF	9.6
0.154500	38.62	---	65.75	27.14	N	OFF	9.6
0.460500	---	42.09	46.68	4.59	N	OFF	9.6
0.460500	46.12	---	56.68	10.56	N	OFF	9.6
0.469500	49.50	---	56.52	7.03	N	OFF	9.6
0.469500	---	44.04	46.52	2.48	N	OFF	9.6
0.762000	36.25	---	56.00	19.75	N	OFF	9.6
0.762000	---	30.53	46.00	15.47	N	OFF	9.6
0.852000	35.59	---	56.00	20.41	L1	OFF	9.6
0.852000	---	29.99	46.00	16.01	L1	OFF	9.6
2.067000	31.56	---	56.00	24.44	L1	OFF	9.8
2.067000	---	26.98	46.00	19.02	L1	OFF	9.8
3.246000	35.28	---	56.00	20.72	N	OFF	9.8
3.246000	---	29.88	46.00	16.12	N	OFF	9.8
4.141500	35.37	---	56.00	20.63	N	OFF	9.8
4.141500	---	28.74	46.00	17.26	N	OFF	9.8
4.798500	35.54	---	56.00	20.46	N	OFF	9.8
4.798500	---	29.88	46.00	16.12	N	OFF	9.8
6.342000	34.76	---	60.00	25.24	L1	OFF	9.9
6.342000	---	28.20	50.00	21.80	L1	OFF	9.9

Table 7.2.2-2: Conducted EMI Results – Line and Neutral – Wall Wart

Frequency (MHz)	QuasiPeak (dBμV)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Line	Filter	Corr. (dB)
0.150000	---	20.93	56.00	35.07	L1	OFF	9.6
0.150000	35.79	---	66.00	30.21	L1	OFF	9.6
0.451500	35.59	---	56.85	21.26	N	OFF	9.6
0.451500	---	29.52	46.85	17.33	N	OFF	9.6
0.469500	43.03	---	56.52	13.49	L1	OFF	9.6
0.469500	---	36.68	46.52	9.85	L1	OFF	9.6
0.766500	---	23.05	46.00	22.95	L1	OFF	9.6
0.766500	29.90	---	56.00	26.10	L1	OFF	9.6
1.338000	26.79	---	56.00	29.21	L1	OFF	9.7
1.338000	---	18.94	46.00	27.06	L1	OFF	9.7
3.259500	---	22.04	46.00	23.96	L1	OFF	9.8
3.259500	28.23	---	56.00	27.77	L1	OFF	9.8
4.461000	30.10	---	56.00	25.90	L1	OFF	9.8
4.461000	---	23.31	46.00	22.69	L1	OFF	9.8
4.776000	30.31	---	56.00	25.69	L1	OFF	9.8
4.776000	---	23.76	46.00	22.24	L1	OFF	9.8
6.315000	---	22.31	50.00	27.69	L1	OFF	9.9
6.315000	29.80	---	60.00	30.20	L1	OFF	9.9
21.124500	33.12	---	60.00	26.88	L1	OFF	10.1
21.124500	---	20.97	50.00	29.03	L1	OFF	10.1

Figure 7.2.2-1: Conducted EMI Emission Plot – Line and Neutral – SensorPod-M

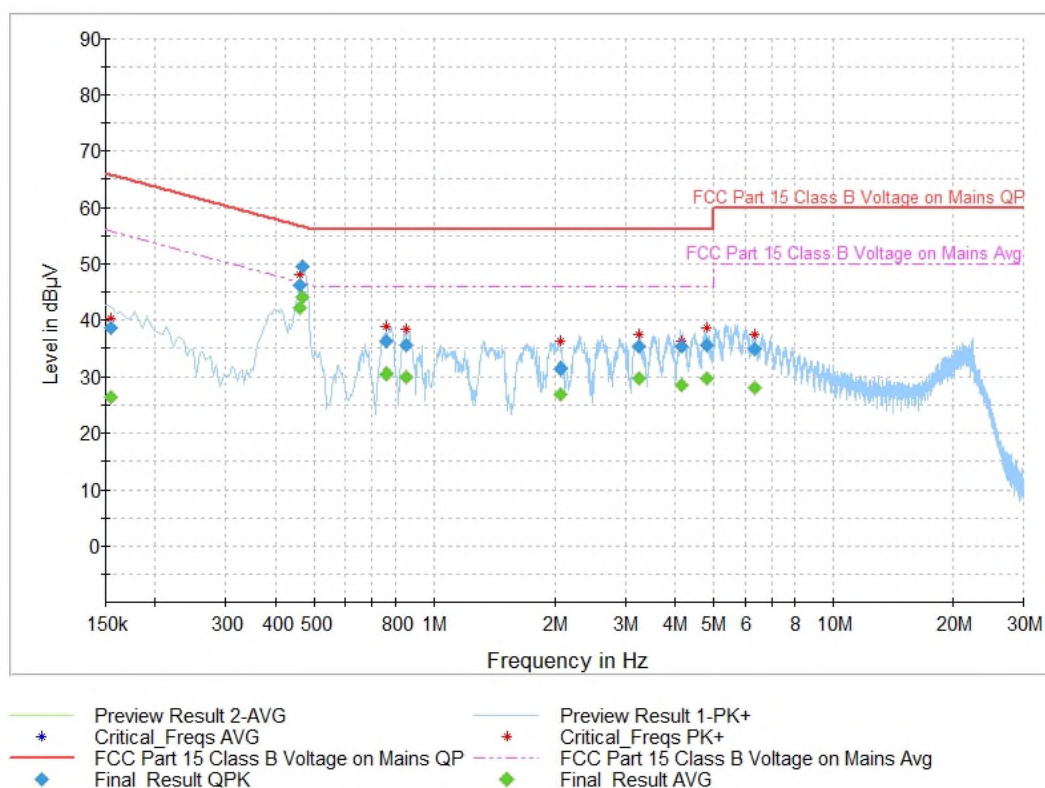
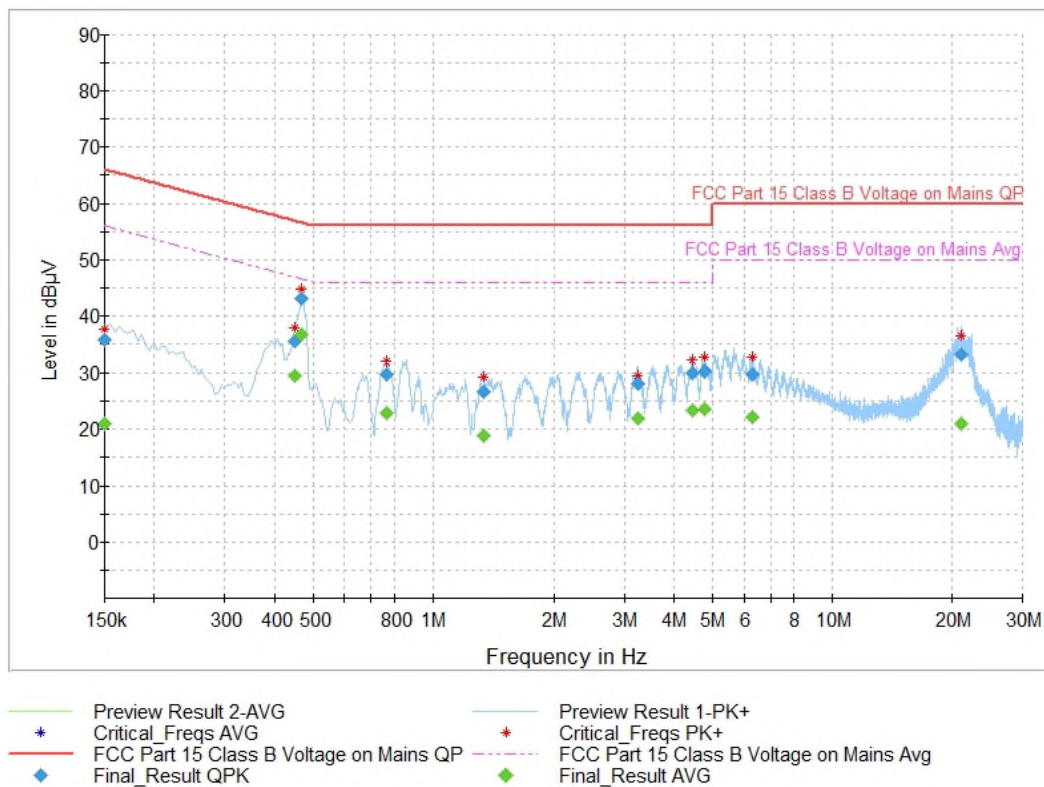


Figure 7.2.2-2: Conducted EMI Emission Plot – Line and Neutral – Wall Wart



7.3 6dB / 99% Bandwidth – FCC: 15.247(a)(2); ISED Canada: RSS-247 5.2(a), RSS-Gen 6.7

7.3.1 Measurement Procedure

The 6dB bandwidth was measured in accordance with the FCC558074 D01 15.247 Meas Guidance v05r02. The Resolution Bandwidth (RBW) of the spectrum analyzer was set to 100 kHz. The Video Bandwidth (VBW) was set to ≥ 3 times the RBW. The trace was set to max hold with a peak detector active. The marker-delta function of the spectrum analyzer was utilized to determine the 6 dB bandwidth of the emission.

The occupied bandwidth measurement function of the spectrum analyzer was used to measure the 99% bandwidth. The span of the analyzer was set to capture all products of the modulation process, including the emission sidebands. The resolution bandwidth was set to 1% to 5% of the occupied bandwidth. The video bandwidth was set to 3 times the resolution bandwidth.

7.3.2 Measurement Results

Performed by: Chris Gormley

Table 7.3.2-1: 6dB / 99% Bandwidth

Frequency (MHz)	6dB Bandwidth (MHz)	99% Bandwidth (MHz)
2402	0.8442	1.901
2440	0.8442	1.729
2480	0.7692	1.764

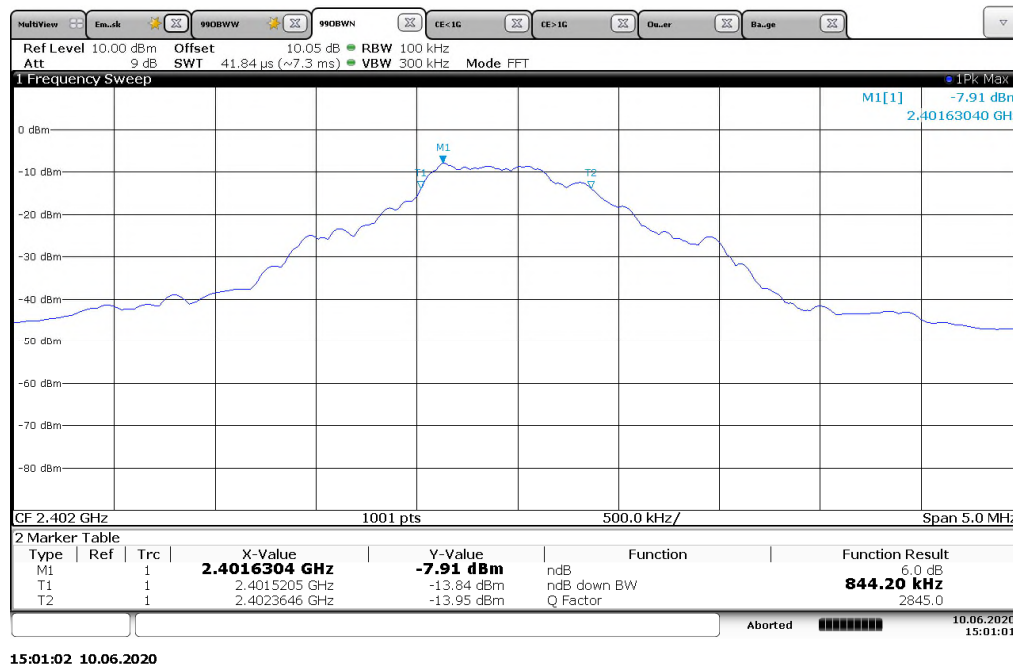
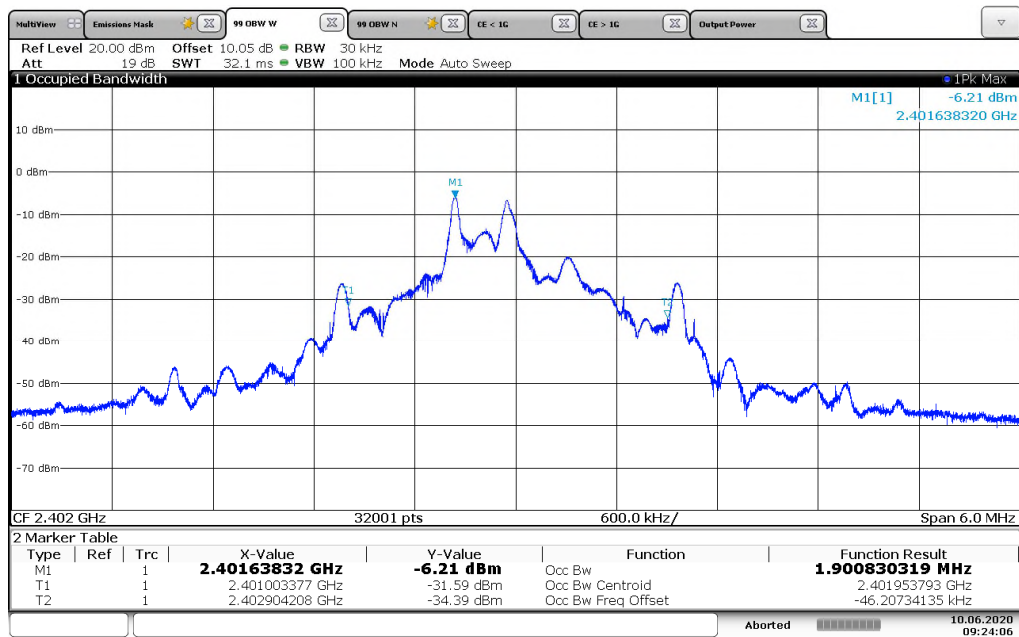
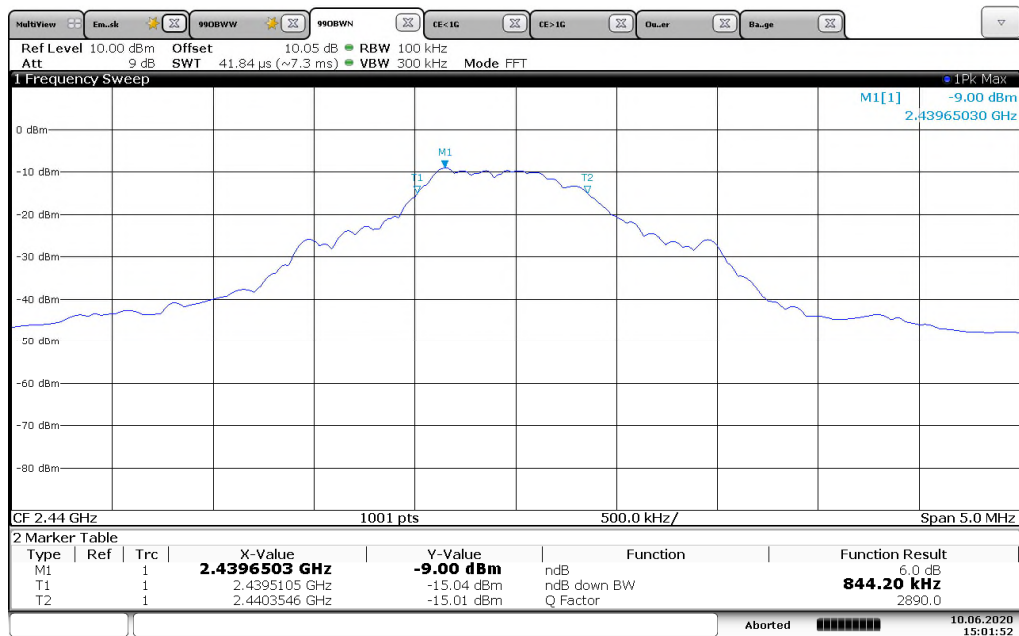


Figure 7.3.2-1: 6dB Bandwidth Low Channel



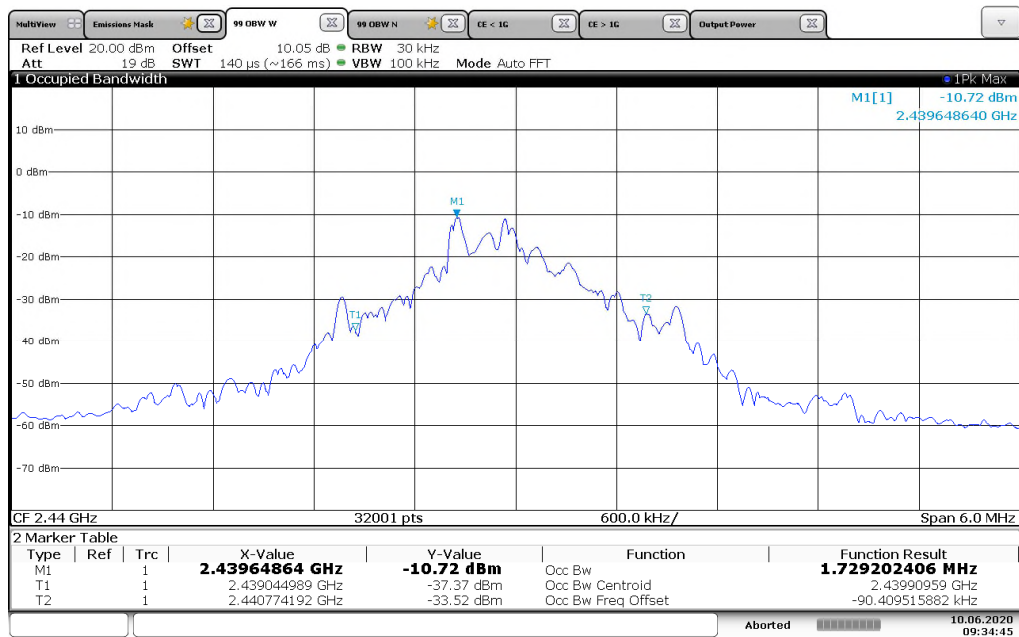
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Figure 7.3.2-2: 99% Bandwidth Low Channel



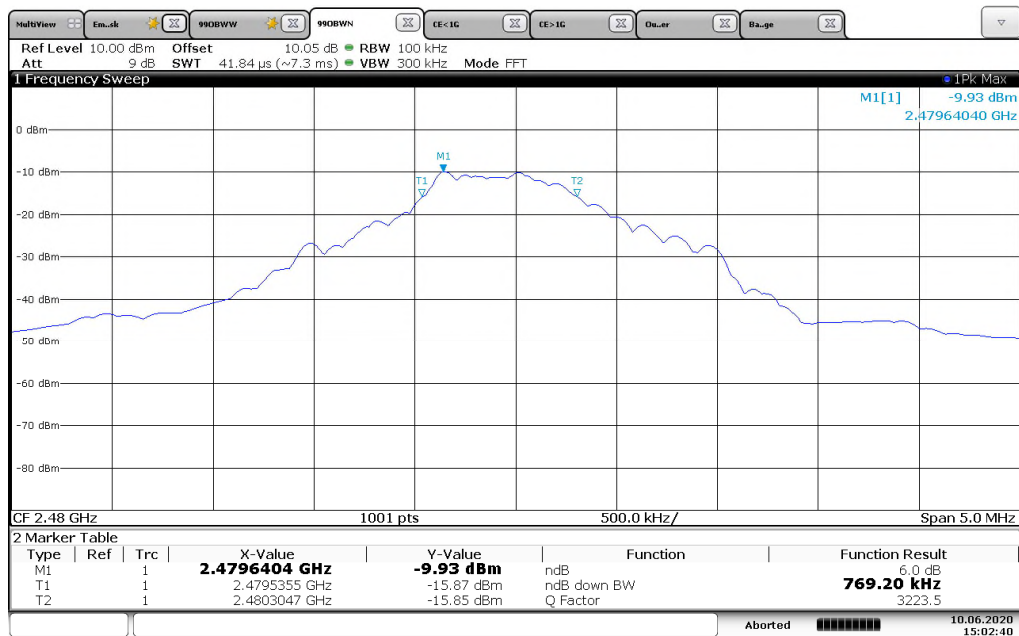
15:01:52 10.06.2020

Figure 7.3.2-3: 6dB Bandwidth Mid Channel



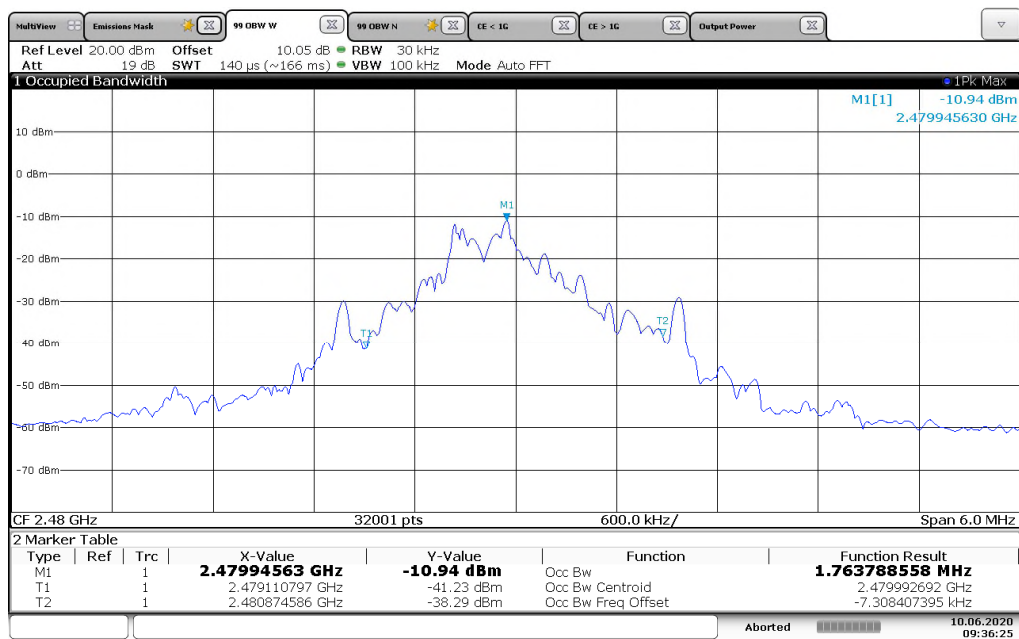
09:34:46 10.06.2020

Figure 7.3.2-4: 99% Bandwidth Mid Channel



15:02:40 10.06.2020

Figure 7.3.2-5: 6dB Bandwidth High Channel



09:36:26 10.06.2020

Figure 7.3.2-6: 99% Bandwidth High Channel

7.4 Fundamental Emission Output Power – FCC: 15.247(b)(3); ISED Canada: RSS-247 5.4(d)

7.4.1 Measurement Procedure

The maximum peak conducted output power was measured in accordance with FCC 558074 D01 15.247 Meas Guidance v05r02 utilizing the spectrum analyzer RBW $\geq$ DTS bandwidth method. The RF output of the equipment under test was directly connected to the input of the spectrum analyzer applying suitable attenuation.

7.4.2 Measurement Results

Performed by: Chris Gormley

Table 7.4.2-1: Maximum Peak Conducted Output Power

Frequency (MHz)	Output Power (dBm)
2402	-6.11
2440	-6.97
2480	-7.81

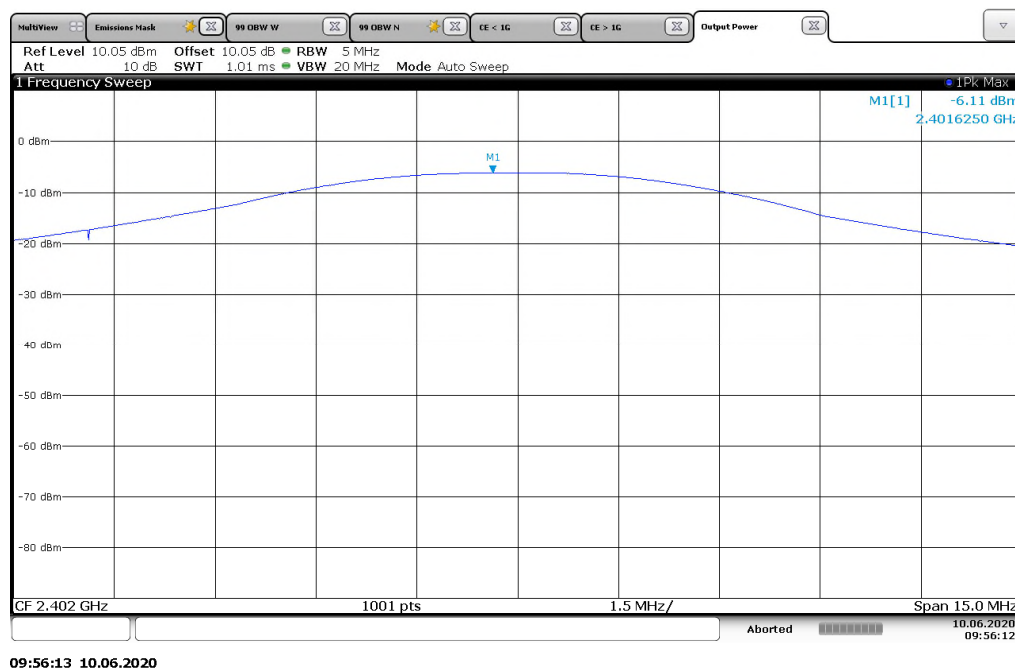
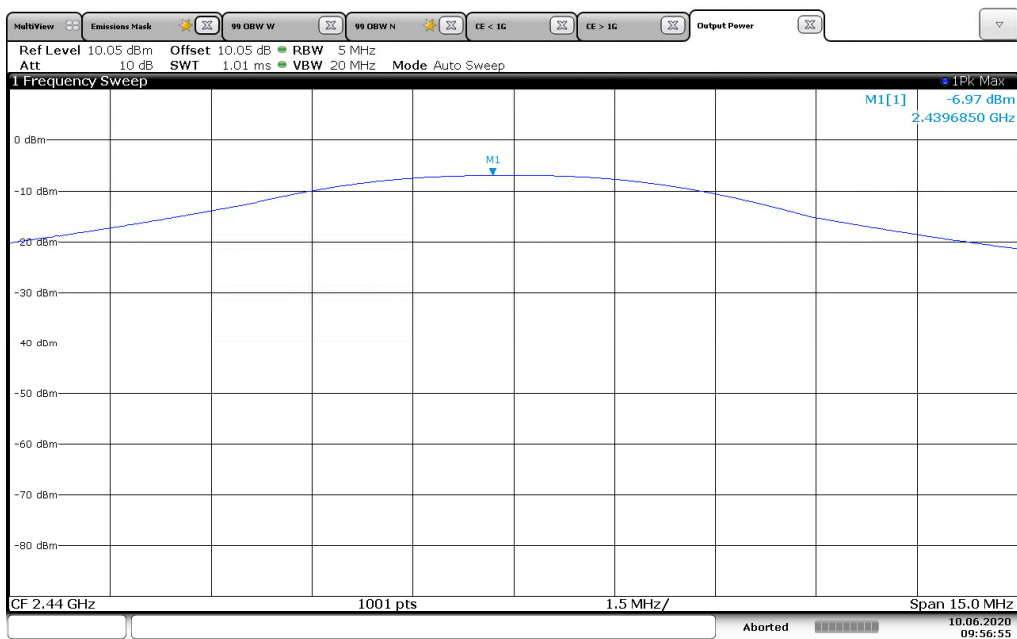
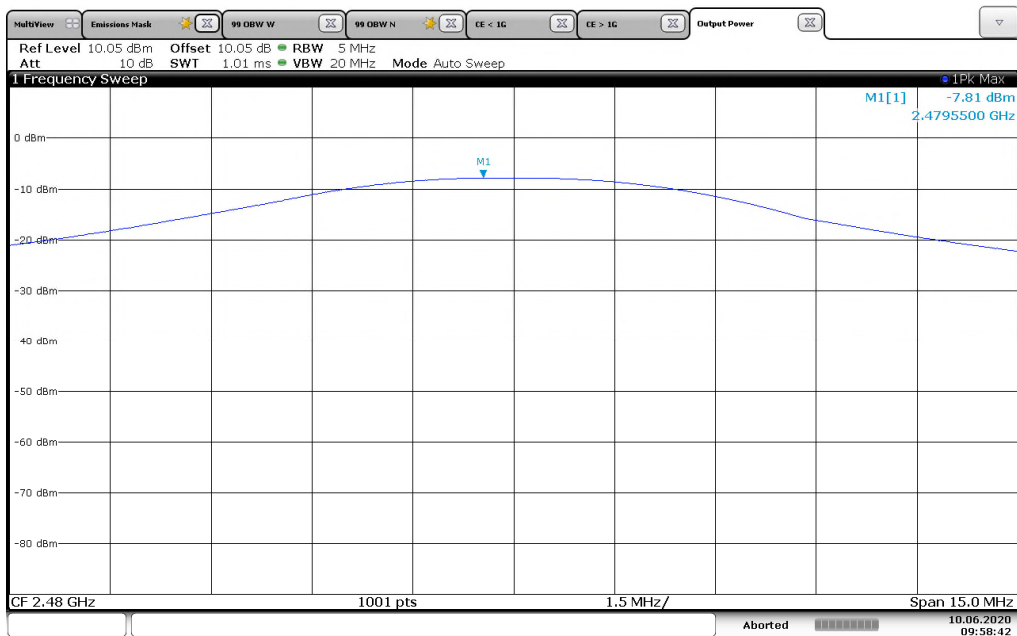


Figure 7.4.2-1: Low Channel



09:56:55 10.06.2020

Figure 7.4.2-2: Mid Channel



09:58:43 10.06.2020

Figure 7.4.2-3: High Channel

7.5 Emission Levels – FCC: 15.247(d), 15.205, 15.209; ISED Canada RSS-247 5.5, RSS-Gen 8.9/8.10

7.5.1 Emissions into Non-restricted Frequency Bands

7.5.1.1 Measurement Procedure

The unwanted emissions into non-restricted bands were measured conducted in accordance with FCC 558074 D01 15.247 Meas Guidance v05r02. The RF output of the equipment under test was directly connected to the input of the spectrum analyzer applying suitable attenuation. The Resolution Bandwidth (RBW) of the spectrum analyzer was set to 100 kHz. The Video Bandwidth (VBW) was set to ≥ 300 kHz. Span was set to 1.5 times the DTS bandwidth. The trace was set to max hold with a peak detector active. The resulting spectrum analyzer peak level was used to determine the reference level with respect to the 20 dBc limit. The spectrum span was then adjusted for the measurement of spurious emissions from 30 MHz to 25GHz, 10 times the highest fundamental frequency. Additionally, a prescan was performed from 9 kHz or the lowest frequency generated to 30 MHz.

Band-edge compliance was determined using the conducted marker-delta method in which the radio frequency power that is produced by the EUT is at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of desired power.

7.5.1.2 Measurement Results

Performed by: Chris Gormley

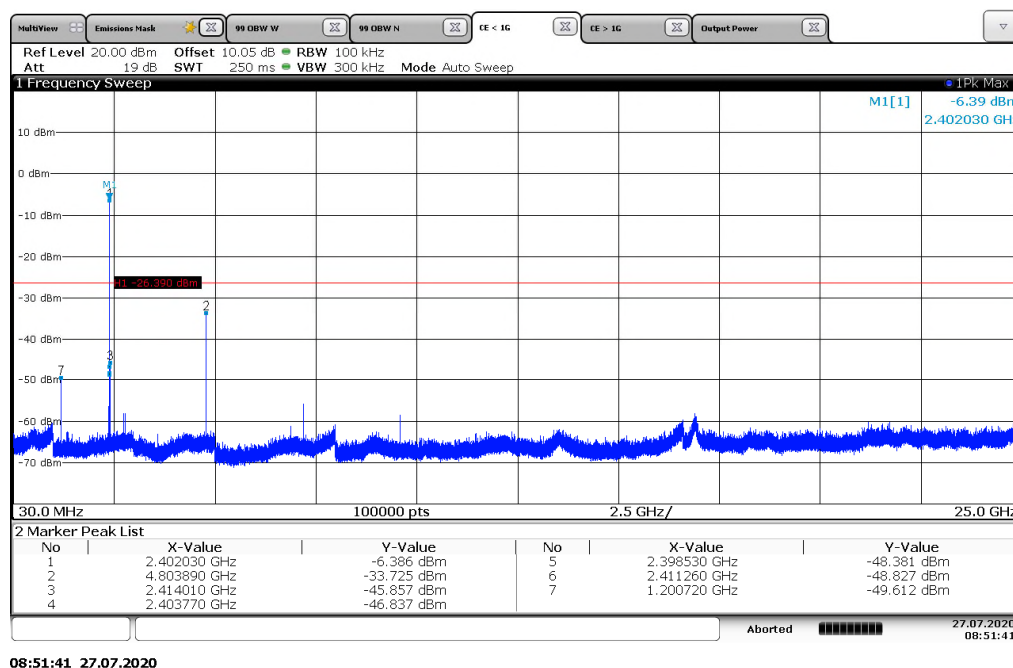
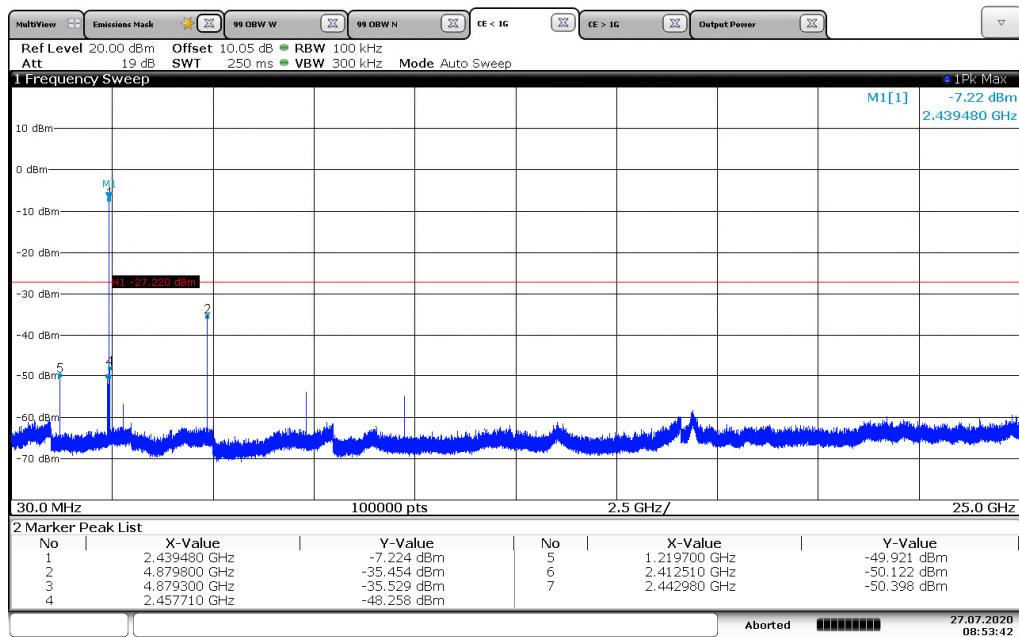
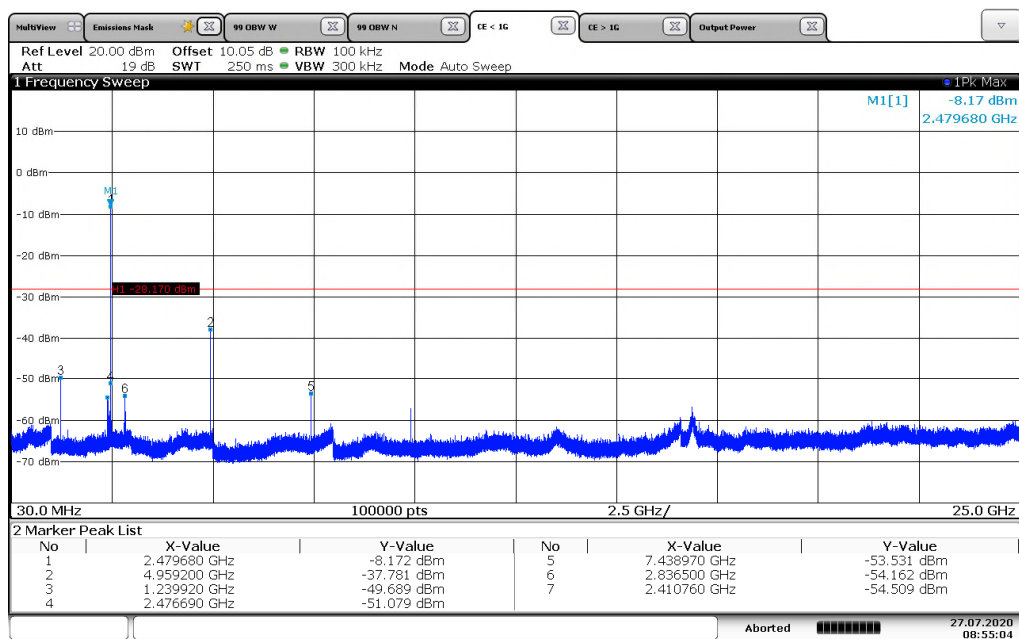


Figure 7.5.1.2-1: 30 MHz - 25 GHz – LCH



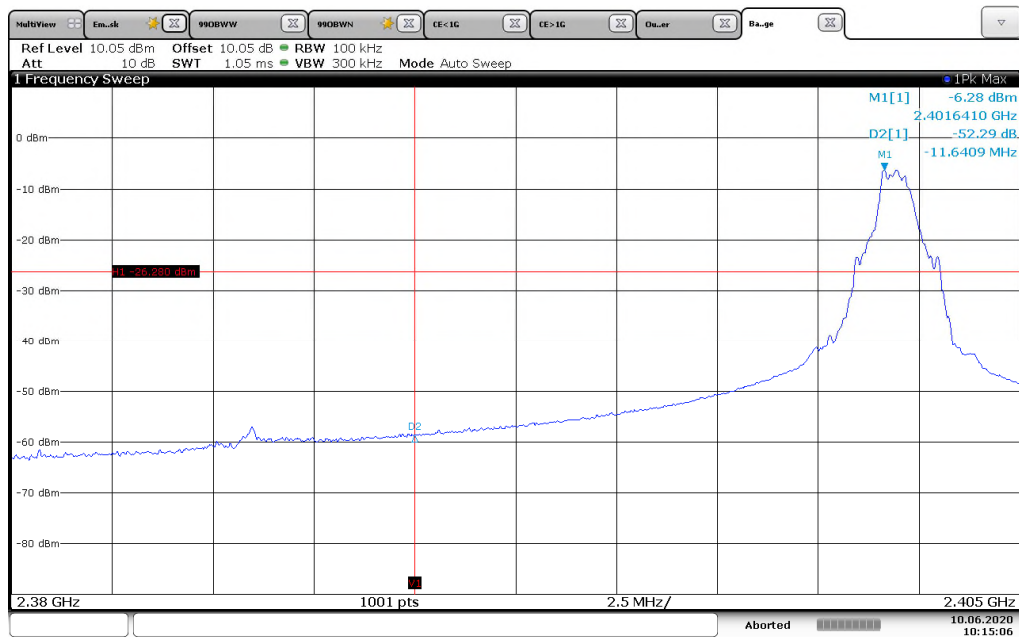
08:53:42 27.07.2020

Figure 7.5.1.2-2: 30 MHz – 25 GHz – MCH



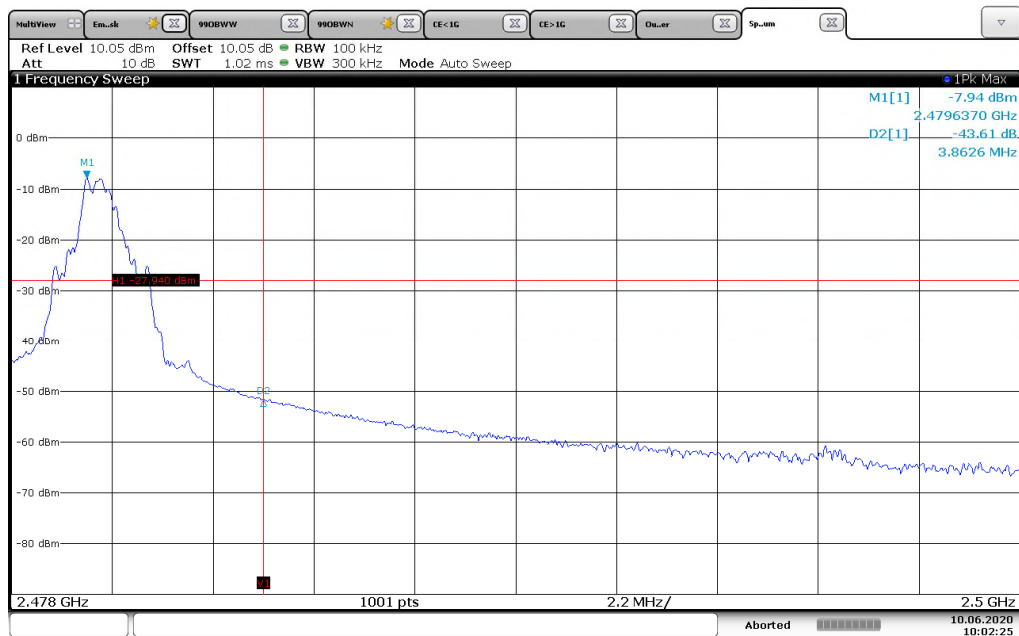
08:55:05 27.07.2020

Figure 7.5.1.2-3: 30 MHz - 25 GHz – HCH



10:15:06 10.06.2020

Figure 7.5.1.2-4: Lower Band-edge - LCH



10:02:26 10.06.2020

Figure 7.5.1.2-5: Upper Band-edge - HCH

7.5.2 Emissions into Restricted Frequency Bands**7.5.2.1 Measurement Procedure**

The unwanted emissions into restricted bands were measured radiated over the frequency range of 30MHz to 25GHz, 10 times the highest fundamental frequency.

The EUT was rotated through 360° and the receive antenna height was varied from 1m to 4m so that the maximum radiated emissions level would be detected. For frequencies below 1000MHz, quasi-peak measurements were made using a RBW of 120 kHz and a VBW of 300 kHz. For frequencies above 1000MHz, peak and average measurements were made with RBW and VBW of 1 MHz and 3 MHz respectively.

Each emission found to be in a restricted band as defined by section 15.205, including any emission at the operational band-edge, was compared to the radiated emission limits as defined in section 15.209.

7.5.2.2 Duty Cycle Correction

The Duty Cycle Correction was not required.

7.5.2.3 Measurement Results

Performed by: Chris Gormley

Table 7.5.2.3-1: Radiated Spurious Emissions Tabulated Data

Frequency (MHz)	Level (dBuV)		Antenna Polarity (H/V)	Turntable Position (o)	Antenna Height (cm)	Correction Factors (dB)	Corrected Level (dBuV/m)		Limit (dBuV/m)		Margin (dB)	
	pk	Qpk/Avg					pk	Qpk/Avg	pk	Qpk/Avg	pk	Qpk/Avg
Low Channel												
2390	59.46	25.00	V	281	100	-3.01	56.45	21.99	74.0	54.0	17.55	32.01
4804	59.00	34.30	H	304	100	3.45	62.45	37.75	74.0	54.0	11.55	16.25
4804	64.00	37.90	V	51	126	3.45	67.45	41.35	74.0	54.0	6.55	12.65
12010	37.00	23.00	H	0	100	13.36	50.36	36.36	74.0	54.0	23.64	17.64
12010	36.60	23.00	V	0	100	13.36	49.96	36.36	74.0	54.0	24.04	17.64
19216	44.00	29.70	H	0	150	8.80	52.80	38.50	74.0	54.0	21.20	15.50
19216	43.00	29.70	V	0	150	8.80	51.80	38.50	74.0	54.0	22.20	15.50
Mid Channel												
4880	58.10	32.90	H	301	100	3.76	61.86	36.66	74.0	54.0	12.14	17.34
4880	64.60	38.60	V	41	107	3.76	68.36	42.36	74.0	54.0	5.64	11.64
7320	51.90	27.90	H	11	100	8.38	60.28	36.28	74.0	54.0	13.72	17.72
7320	48.20	25.30	V	300	100	8.38	56.58	33.68	74.0	54.0	17.42	20.32
12200	35.90	22.40	H	0	100	13.06	48.96	35.46	74.0	54.0	25.04	18.54
12200	35.60	22.40	V	0	100	13.06	48.66	35.46	74.0	54.0	25.34	18.54
19520	43.40	29.40	H	0	150	9.17	52.57	38.57	74.0	54.0	21.43	15.43
19520	42.90	29.30	V	0	150	9.17	52.07	38.47	74.0	54.0	21.93	15.53
High Channel												
2483.5	63.41	25.30	H	248	111	-3.16	60.25	22.14	74.0	54.0	13.75	31.86
4960	57.10	31.90	H	87	100	3.81	60.91	35.71	74.0	54.0	13.09	18.29
4960	63.00	37.70	V	273	100	3.81	66.81	41.51	74.0	54.0	7.19	12.49
7440	50.60	26.80	H	13	100	8.93	59.53	35.73	74.0	54.0	14.47	18.27
7440	49.90	26.50	V	302	100	8.93	58.83	35.43	74.0	54.0	15.17	18.57
12400	36.70	22.90	H	0	100	12.32	49.02	35.22	74.0	54.0	24.98	18.78
12400	36.70	22.80	V	0	100	12.32	49.02	35.12	74.0	54.0	24.98	18.88
19840	43.50	29.90	H	0	150	9.35	52.85	39.25	74.0	54.0	21.15	14.75
19840	43.30	29.90	V	0	150	9.35	52.65	39.25	74.0	54.0	21.35	14.75
22320	43.10	30.00	H	0	150	11.87	54.97	41.87	74.0	54.0	19.03	12.13
22320	42.80	30.00	V	0	150	11.87	54.67	41.87	74.0	54.0	19.33	12.13

Note: All emissions not listed were attenuated below the noise floor of the measurement instrumentation or greater than 20dB from the limit.

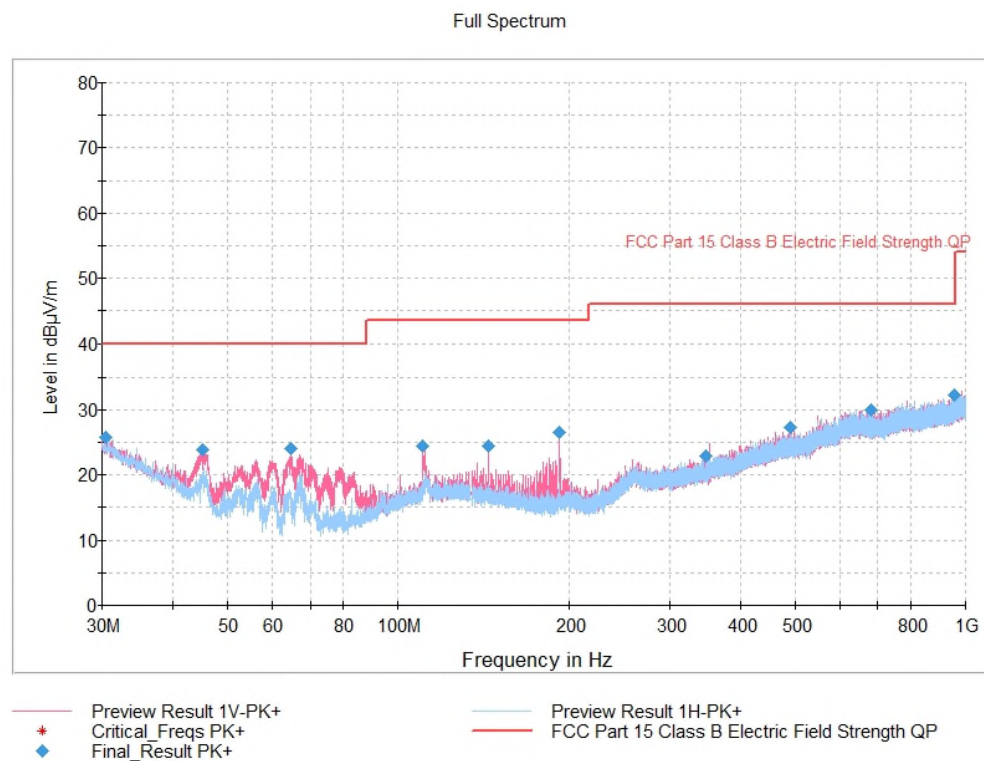


Figure 7.5.2.3-1: Radiated Spurious Emissions Below 1GHz Emission Profile

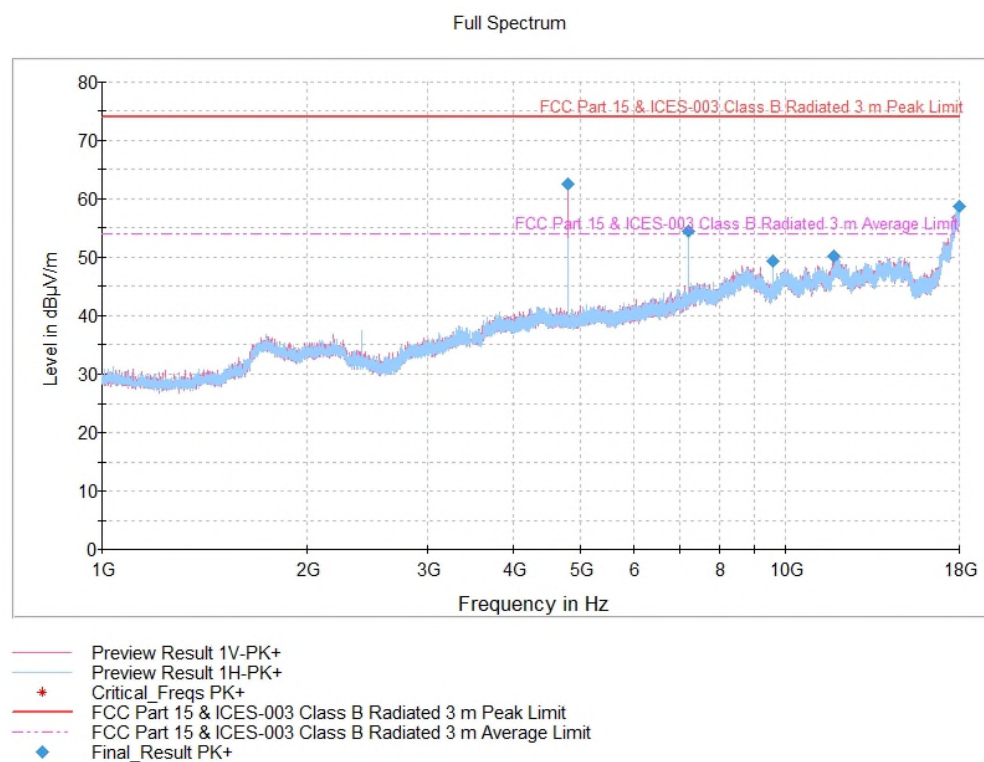
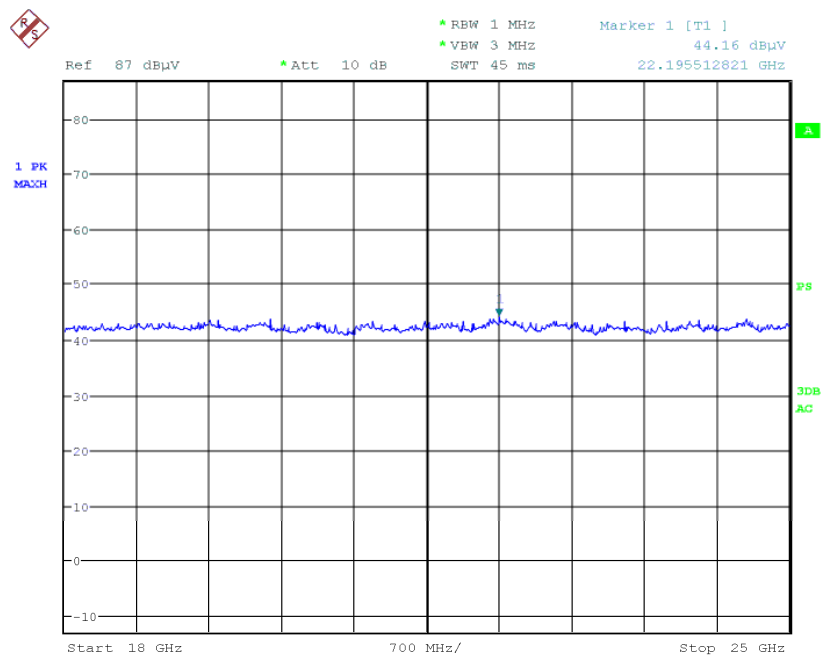
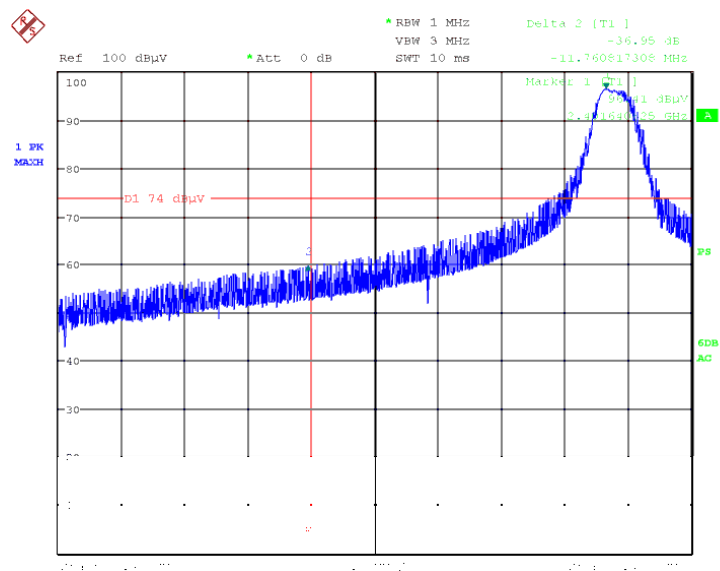


Figure 7.5.2.3-2: Radiated Spurious Emissions Above 1GHz Emission Profile



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Figure 7.5.2.3-3: Radiated Spurious Emissions Above 18GHz Emission Profile



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Figure 7.5.2.3-4: Radiated Spurious Emissions – Low Channel Band Edge

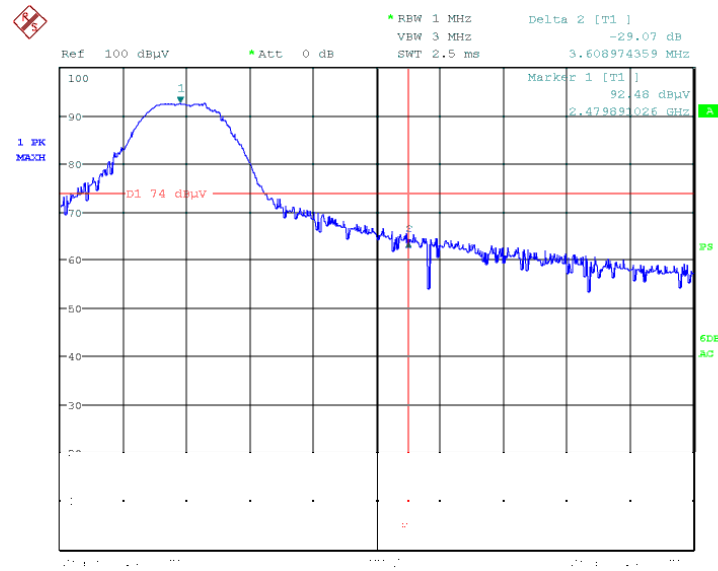


Figure 7.5.2.3-5: Radiated Spurious Emissions – High Channel Band Edge

7.5.2.4 Sample Calculation:

$$R_C = R_U + CF_T$$

Where:

CF_T	=	Total Correction Factor (AF+CA+AG)-DC (Average Measurements Only)
R_U	=	Uncorrected Reading
R_C	=	Corrected Level
AF	=	Antenna Factor
CA	=	Cable Attenuation
AG	=	Amplifier Gain
DC	=	Duty Cycle Correction Factor

Example Calculation: Peak

Corrected Level: $59.46 + -3.01 = 56.45\text{dBuV/m}$

Margin: $74\text{dBuV/m} - 56.45\text{dBuV/m} = 17.55\text{dB}$

Example Calculation: Average

Corrected Level: $25.00 + -3.01 = 21.99\text{dBuV}$

Margin: $54\text{dBuV} - 21.99\text{dBuV} = 32.01\text{dB}$

7.6 Power Spectral Density – FCC: 15.247(e); ISED Canada: RSS-247 5.2(b)

7.6.1 Measurement Procedure

The power spectral density was measured in accordance with the FCC 558074 D01 15.247 Meas Guidance v05r02 utilizing the PKPSD (peak PSD) method. The RF output of the equipment under test was directly connected to the input of the spectrum analyzer applying suitable attenuation. The Resolution Bandwidth (RBW) of the spectrum analyzer was set to 20 kHz. The Video Bandwidth (VBW) was set to 100 kHz. Span was set to 1.5 times the DTS bandwidth. The trace was set to max hold with a peak detector active.

7.6.2 Measurement Results

Performed by: Chris Gormley

Table 7.6.2-1: Peak Power Spectral Density

Frequency (MHz)	PSD Level (dBm)
2402	-8.23
2440	-9.32
2480	-10.30

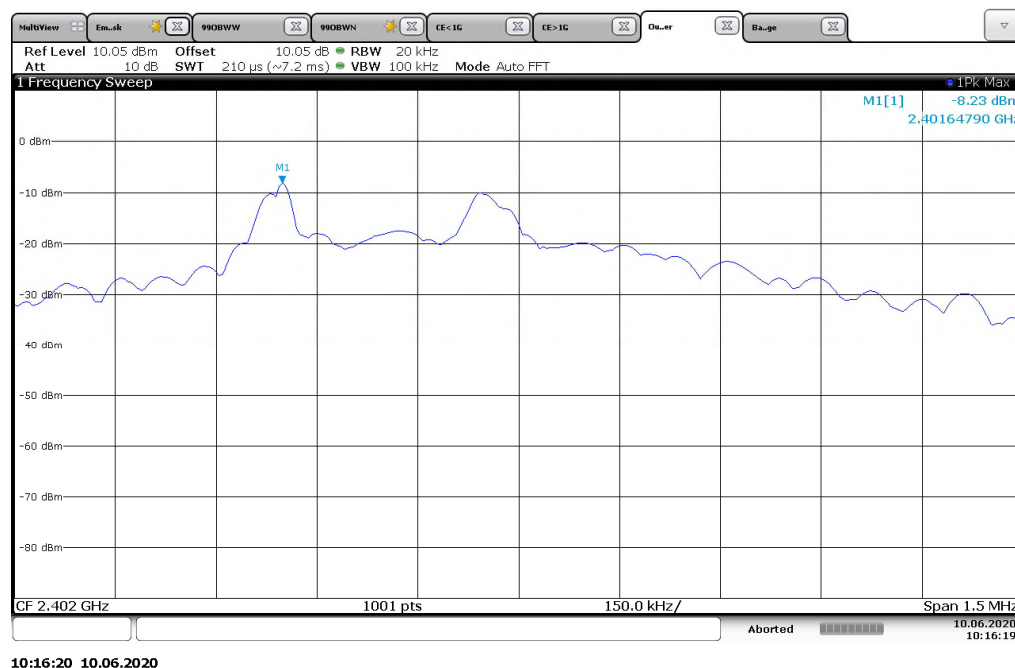
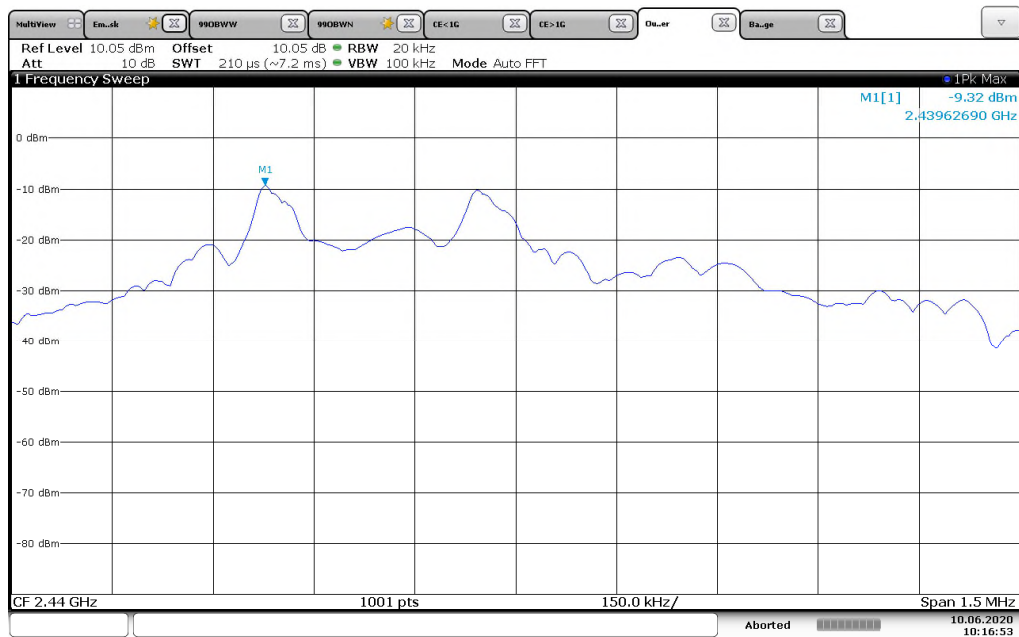
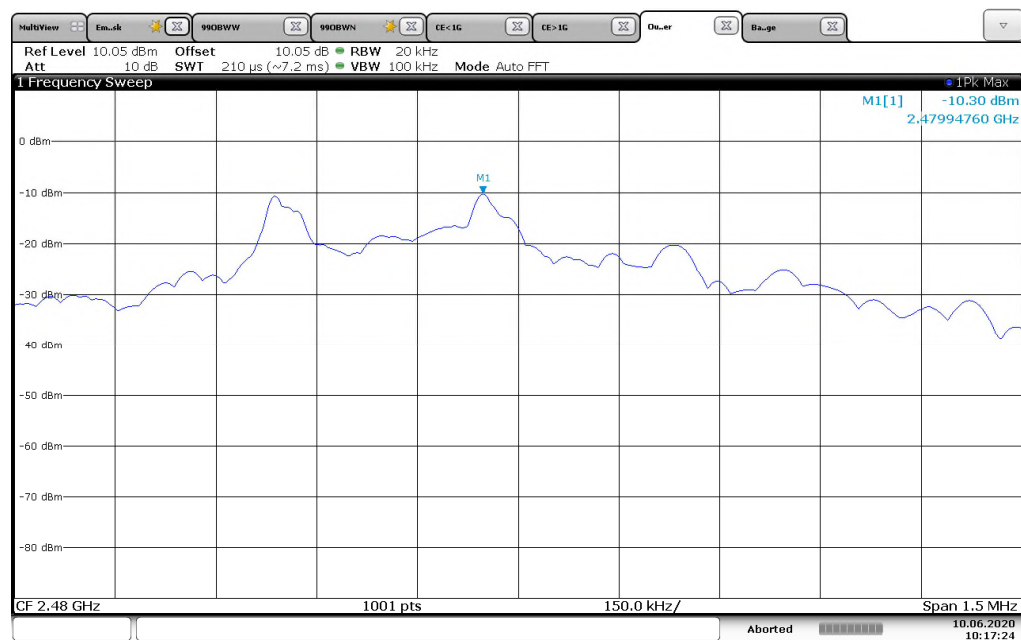


Figure 7.6.2-1: PSD Plot –LCH



10:16:53 10.06.2020

Figure 7.6.2-2: PSD Plot – MCH



10:17:24 10.06.2020

Figure 7.6.2-3: PSD Plot – HCH

8 MEASUREMENT UNCERTAINTY

The expanded laboratory measurement uncertainty figures (U_{Lab}) provided below correspond to an expansion factor (coverage factor) $k = 1.96$ which provide confidence levels of 95%.

Parameter	U_{lab}
Occupied Channel Bandwidth	$\pm 0.004\%$
RF Conducted Output Power	$\pm 0.689 \text{ dB}$
Power Spectral Density	$\pm 0.5 \text{ dB}$
Antenna Port Conducted Emissions	$\pm 2.717 \text{ dB}$
Radiated Emissions	$\pm 5.877 \text{ dB}$
Temperature	$\pm 0.860 \text{ }^{\circ}\text{C}$
Radio Frequency	$\pm 2.832 \times 10^{-8}$
AC Power Line Conducted Emissions	± 2.85

9 CONCLUSION

In the opinion of TÜV SÜD America Inc. the SensorPod-M, manufactured by ACCO Brands USA, LLC meets the requirements of FCC Part 15 subpart C and ISED Canada Radio Standards Specification: RSS-247 for the tests documented herein.

END REPORT