Certification Test Report

FCC ID: QZC-NXCM
IC: 4557A-NXCM

FCC Rule Part: 15.247
ISED Canada's Radio Standards Specification: RSS-247

TÜV SÜD Report Number: RD72162542.200

Manufacturer: Elster Solutions, LLC
Model: NXCM

Test Begin Date: October 12, 2020
Test End Date: October 27, 2020

Report Issue Date: October 28, 2020

A2LA Cert. No. 2955.18

FOR THE SCOPE OF ACCREDITATION UNDER LAB Code 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.

Prepared by:

Chris Gormley
RF Wireless Engineer
TÜV SÜD America Inc.

Reviewed by:

Kirby Munroe
EMC Technical Manager, North America
TÜV SÜD America Inc.

This report contains 39 pages

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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 ISED Canada's Radio Standards Specification RSS-247 Certification for limited modular approval (LMA). Limited modular approval applies due to the absence of onboard voltage regulation and battery only operation.

1.2 Product description

The limited module NXCM Printed Circuit Board Assembly (PCBA) contains a frequency hopping spread spectrum (FHSS) radio operating in the 902-928MHz ISM frequency band. It also contains a cellular radio (FCC ID: XMR2020BG95M2) that is documented in another report. The NXCM provides metrology and communications for natural gas meters.

Technical Information:

Mode of Operation	Frequency Range (MHz)	Number of Channels	Data Rates Supported (kbps)
EA Moe	902.4 – 927.6	25	35.5, 142.2

Modulation Format: 2FSK
Antenna Type / Gain: Embedded Ceramic / 0.75dBi
Operating Voltage: 3.6VDC

Manufacturer Information:
Elster Solutions, LLC
208 S. Rogers Lane
Raleigh, NC 27610

EUT Serial Numbers:
Conducted Sample: 310
Radiated Sample: 378

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

1.3 Test Methodology and Considerations

The NXCM LMA can be integrated into an enclosure that supports direct mounting to a gas meter. Due to LMA classification, the module was integrated into the host enclosure for full evaluation.

All modes of operation, including all available data rates were evaluated for each mode. The data presented in this report represents the worst case where applicable.

A DC power supply set to 3.6VDC (nominal battery voltage) was used to support testing due to the batteries being unable to support continuous transmit. Spot checks utilizing the internal battery were performed to ensure the voltage supplied by the power supply was representative of the battery and no differences were found.

Based on radiated measurements of all data rates, the worst-case data rate was 35.5kbps due to no possibility of duty cycle correction of the average value.

The module is designed to only operate with battery power devices. Therefore, AC Mains Conducted Emissions was not performed.

The 900 MHz FHSS addressed in this report cannot transmit simultaneously with the collocated LTE radio FCC ID: XMR2020BG95M2, therefore a simultaneous transmission evaluation was not performed.

Software power settings during test: 200

1.4 Modifications

No modifications were required.

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:

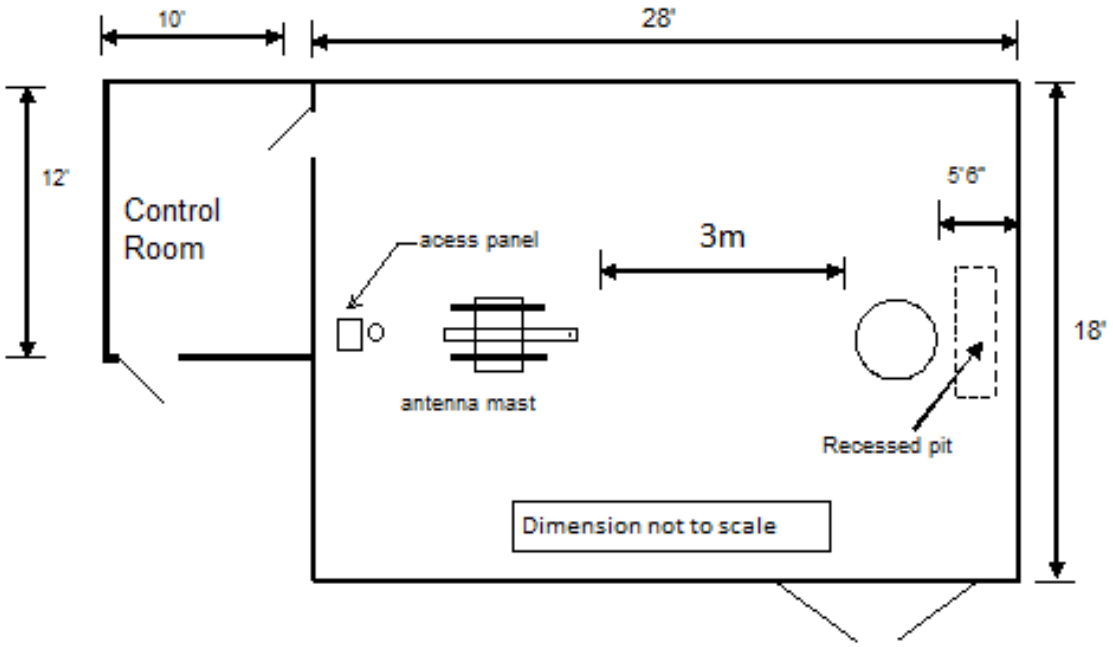


Figure 2.3-1: Semi-Anechoic Chamber Test Site

3 APPLICABLE STANDARD REFERENCES

The following standards were used:

- ANSI C63.4-2014: American National Standard for Methods of Measurement of Radio-Noise Emissions from low-voltage electrical and electronic equipment in the range of 9kHz to 40 GHz.
- 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, 2019
- US Code of Federal Regulations (CFR): Title 47, Part 15, Subpart C: Radio Frequency Devices, Intentional Radiators, 2020
- FCC KDB 558074 D01 15.247 Meas Guidance v05r02 - Guidance for compliance measurements on digital transmission system, frequency hopping spread spectrum system, and hybrid systems 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, March 2019 Amendment 1

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
DEMC3008	Rohde & Schwarz	NRP2	Meter	103131	2/11/2020	2/11/2021
DEMC3009	Rohde & Schwarz	NRP-Z81	Meter	102397	2/11/2020	2/11/2021
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
DEMC3029	Micro-Tronics	HPM50108	900MHz HP Filter	134	1/27/2020	1/27/2021
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
DEMC3046	Aeroflex Inmet	26AH-10	Attenuator	1443	1/23/2020	1/23/2021
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
Asset DEMC3085: Instrument Firmware 2.90 SP1

5 SUPPORT EQUIPMENT

Table 5-1: Support Equipment

Item	Equipment Type	Manufacturer	Model Number	Serial Number
1	EUT	Elster Solutions	NXCM	See Section 1.2
2	DC Power Supply	Sorensen	QRD20-4	2716
3	Host	Elster Solutions	Integral Gas Enclosure	17279253

Table 5-2: Cable Description

Cable #	Cable Type	Length	Shield	Termination
C	Power	40cm	No	2 - 1

6 EQUIPMENT UNDER TEST SETUP BLOCK DIAGRAM

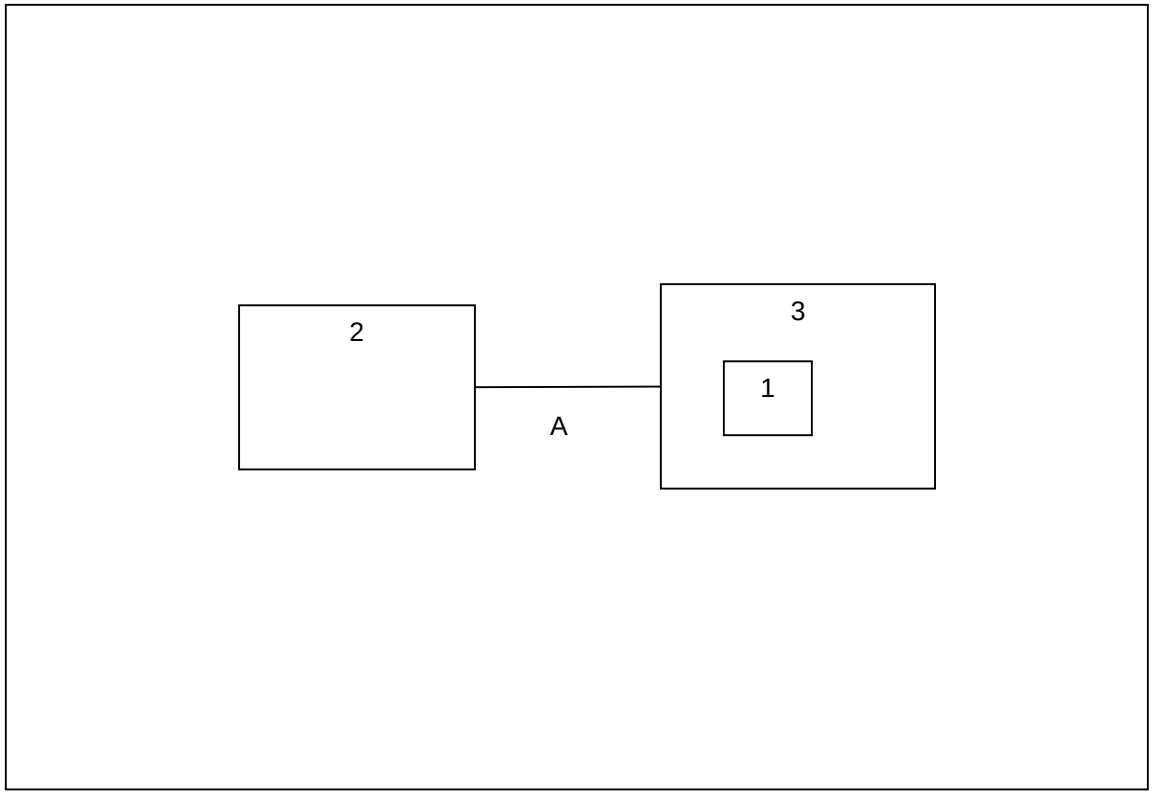


Figure 6-1: Test Setup Block Diagram

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 an Embedded Ceramic antenna (0.75dBi gain) that is integral to the module.

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

The module will always operate while powered via a battery, therefore AC Mains Conducted Emissions is not required.

7.3 Peak Output Power – FCC: 15.247(b)(2); ISED Canada: RSS-247

7.3.1 Measurement Procedure (Conducted Method)

The RF output port of the EUT was directly connected to the input of a power meter using 10.03dB of passive attenuation. The device employs <50 channels at any given time and is therefore the power is limited to 0.25W.

7.3.2 Measurement Results

Performed by: Chris Gormley

Table 7.3.2-1: RF Output Power

Frequency (MHz)	Level (dBm)	Limit (dBm)	Data Rate (kbps)
902.4	19.639	23.98	35.5
902.4	19.651	23.98	142.2
915.2	19.742	23.98	35.5
915.2	19.746	23.98	142.2
927.6	19.802	23.98	35.5
927.6	19.806	23.98	142.2

7.4 Channel Usage Requirements

7.4.1 Carrier Frequency Separation – FCC: 15.247(a)(1); ISED Canada: RSS-247

7.4.1.1 Measurement Procedure

The RF output port of the EUT was connected via 10.03dB of passive attenuation to the input of the spectrum analyzer. The span of the spectrum analyzer was set wide enough to capture two adjacent peaks and the RBW was set to approximately 30% of the channel spacing and adjusted as necessary to best identify the center of each individual channel. The VBW was set to ≥ RBW.

7.4.1.2 Measurement Results

Performed by: Chris Gormley

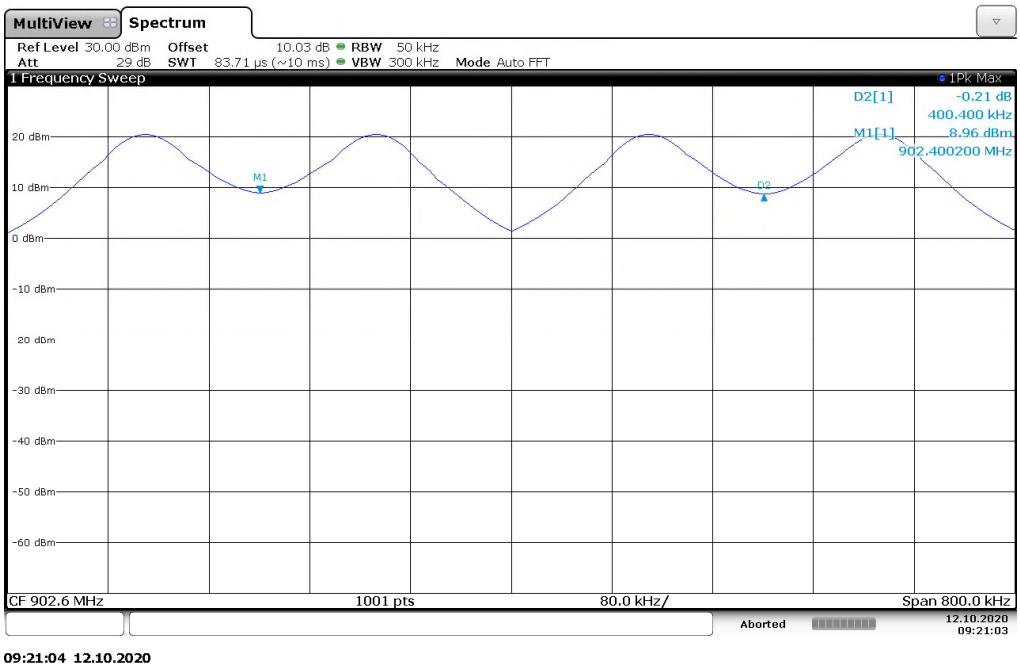


Figure 7.4.1.2-1: Carrier Frequency Separation – 35.5kbps

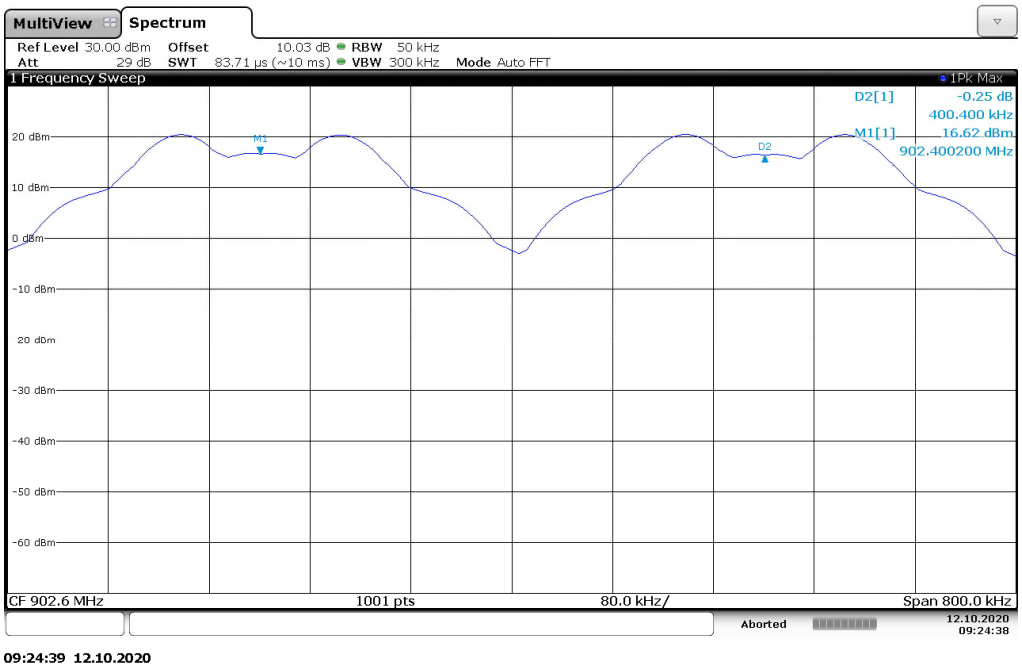


Figure 7.4.1.2-2: Carrier Frequency Separation – 142.2kbps

7.4.2 Number of Hopping Channels – FCC: 15.247(a)(1)(i); ISED Canada: RSS-247

7.4.2.1 Measurement Procedure

The RF output port of the EUT was connected via 10.03dB of passive attenuation to the input of the spectrum analyzer. The span of the spectrum analyzer was set wide enough to capture the frequency band of operation. The RBW was set to less than 30% of the channel spacing and VBW set to ≥ RBW.

The EUT operates using multiple 25 channel hopping tables within the range 902.4 – 927.6 MHz. Only one hopping table was chosen for this evaluation to show compliance with the number of hopping channels.

7.4.2.2 Measurement Results

Performed by: Chris Gormley

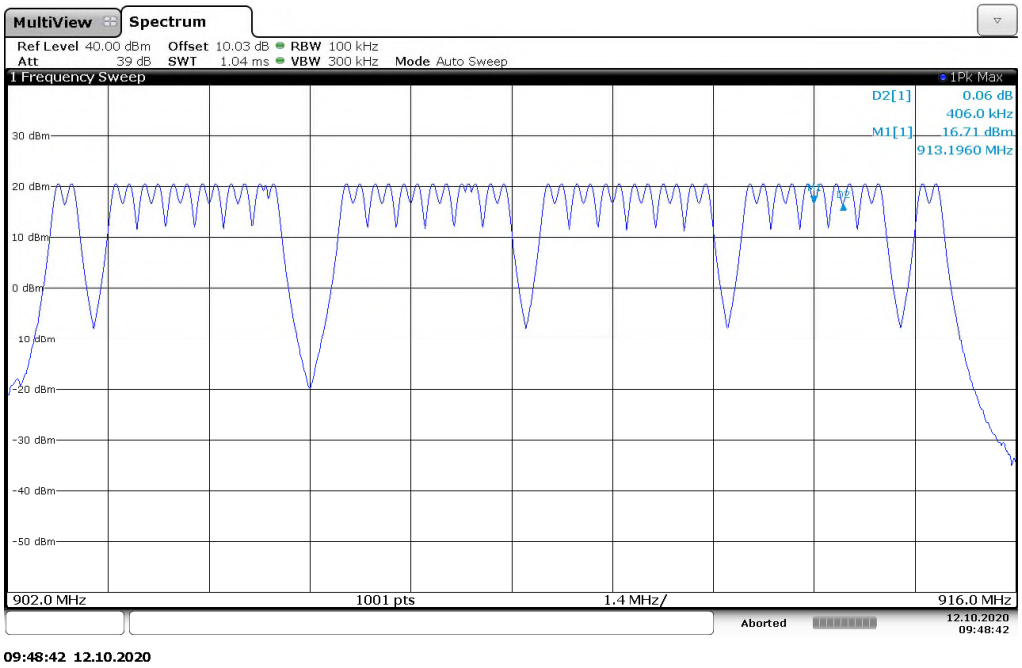


Figure 7.4.2.2-1: Number of Hopping Channels – 35.5kbps

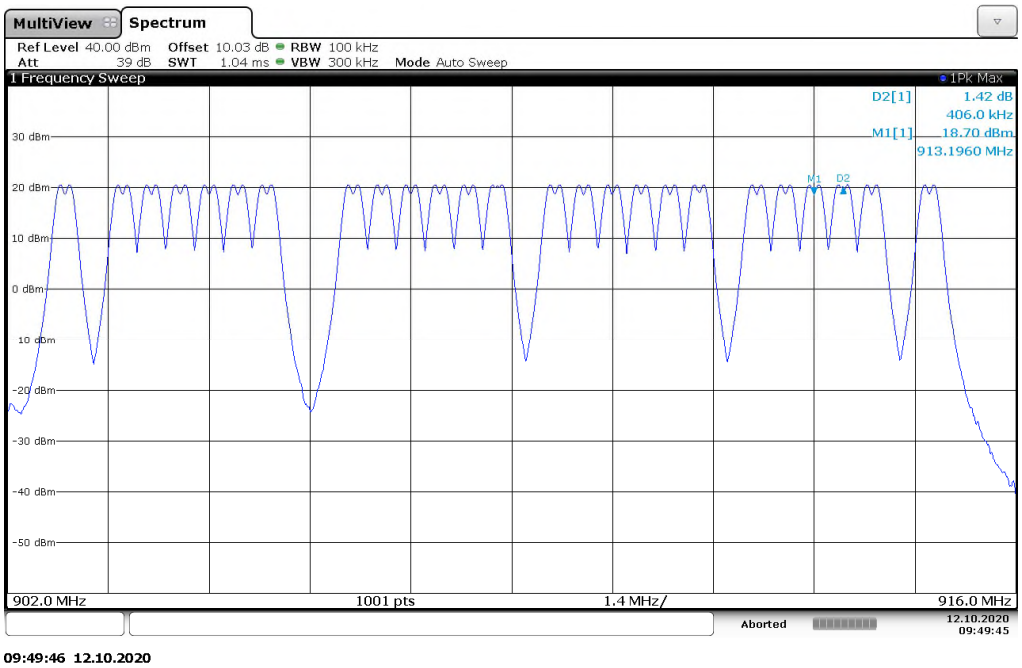


Figure 7.4.2.2-2: Number of Hopping Channels – 142.2kbps

7.4.3 Channel Dwell Time – FCC: 15.247(a)(1)(i); ISED Canada: RSS-247

7.4.3.1 Measurement Procedure

The RF output port of the EUT was connected via 10.03dB of passive attenuation to the input of the spectrum analyzer. The span of the spectrum analyzer display was set 0 Hz centered on a hopping channel. The RBW of the spectrum analyzer was set to 100kHz and VBW set to ≥ RBW. The Marker Delta function of the analyzer was utilized to determine the dwell time.

7.4.3.2 Measurement Results

Performed by: Chris Gormley

Table 7.4.3.2-1: Channel Dwell Time

Data Rate (kbps)	Single Occurrence	Number of Occurrences	Total Dwell Time (ms)	Evaluation Period (s)
35.5	99.650	2	199.3	10
142.2	26.6	7	186.2	10

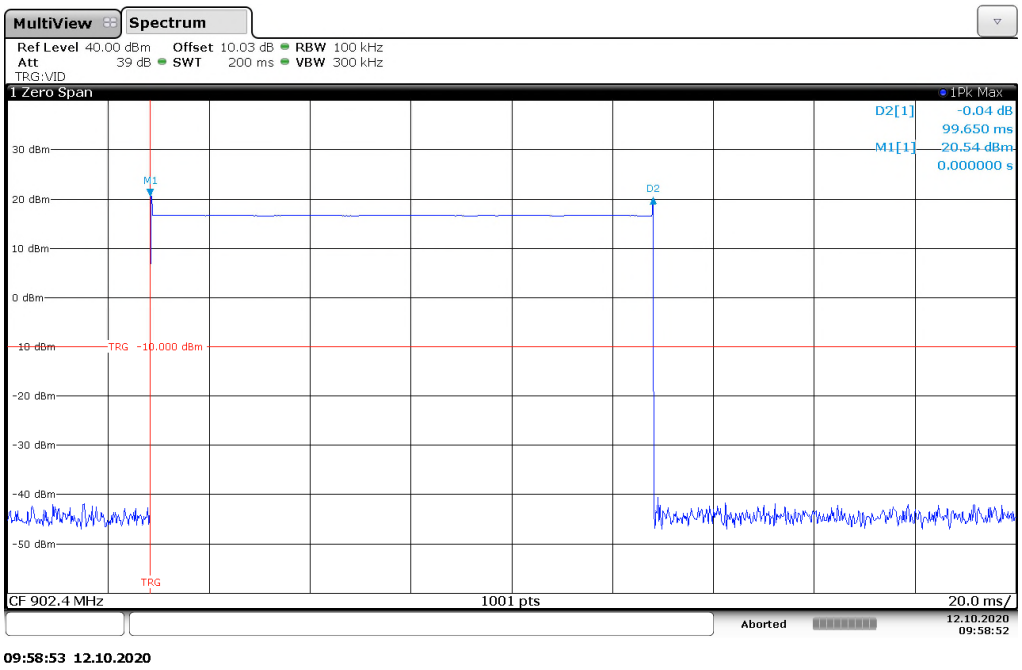


Figure 7.4.3.2-1: Dwell Time – 35.5kbps - Duration

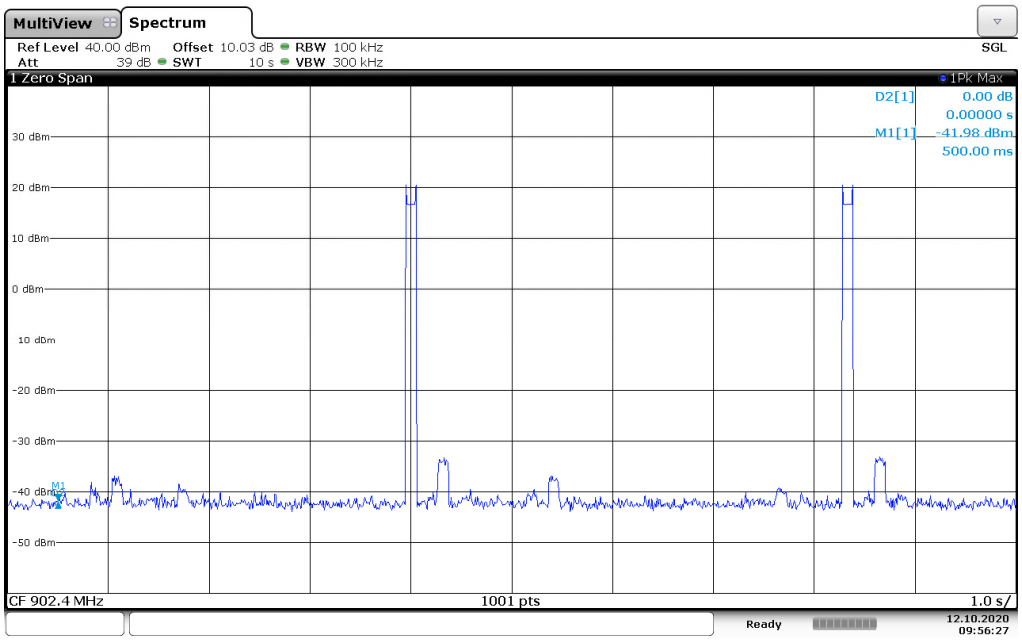


Figure 7.4.3.2-2: Dwell Time – 35.5kbps – Number of Occurrences

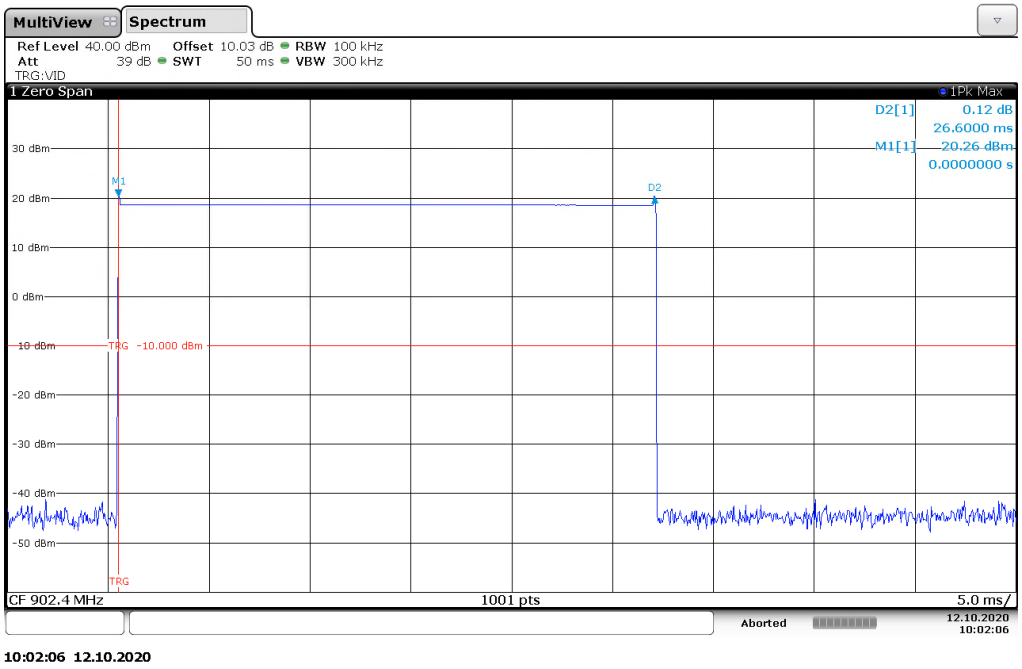


Figure 7.4.3.2-3: Dwell Time – 142.2kbps - Duration

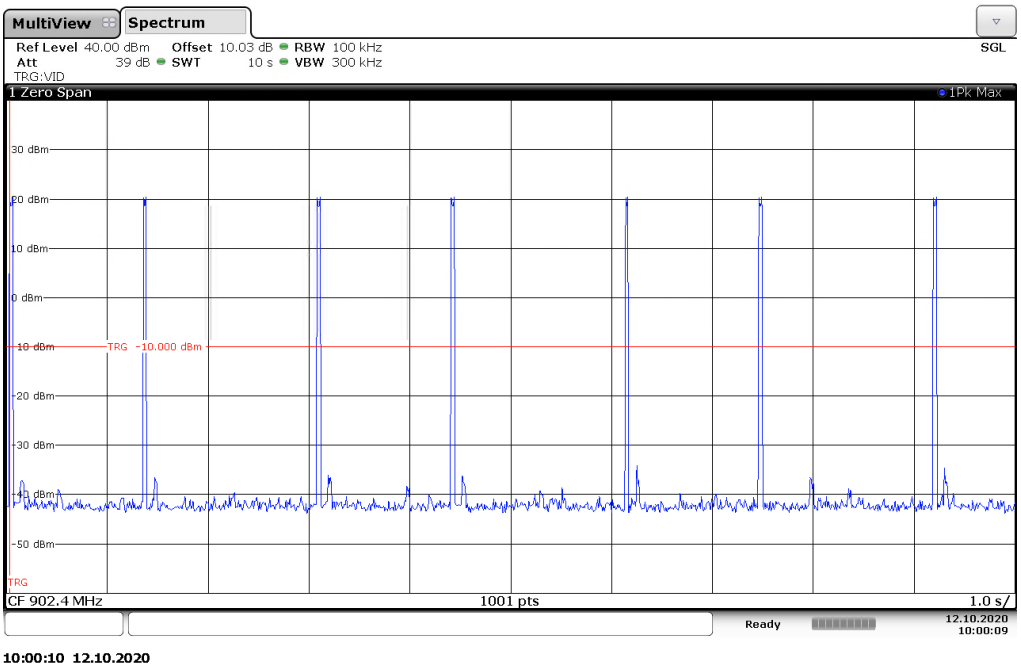


Figure 7.4.3.2-4: Dwell Time – 142.2kbps – Number of Occurrences

7.4.4 20dB / 99% Bandwidth – FCC: 15.247(a)(1)(i), ISED Canada: RSS-247

7.4.4.1 Measurement Procedure

The RF output port of the EUT was connected via 10.03dB of passive attenuation to the input of the spectrum analyzer. The span of the spectrum analyzer display was set between two times and five times the occupied bandwidth (OBW) of the emission. The RBW of the spectrum analyzer was set to approximately 1 % to 5 % of the OBW. The trace was set to max hold with a peak detector active. The Delta and ndB down functions of the analyzer were utilized to determine the 20 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.

7.4.4.2 Measurement Results

Performed by: Randle Sherian or Jean Tezil

Table 7.4.4.2-1: 20dB / 99% Bandwidth

Frequency (MHz)	20dB Bandwidth (kHz)	99% Bandwidth (kHz)	Data Rate (kbps)
902.4	294.366	300.747	35.5
902.4	315.92	312.247	142.2
916.0	294.116	295.097	35.5
916.0	317.14	307.146	142.2
927.6	294.066	294.940	35.5
927.6	316.67	307.059	142.2

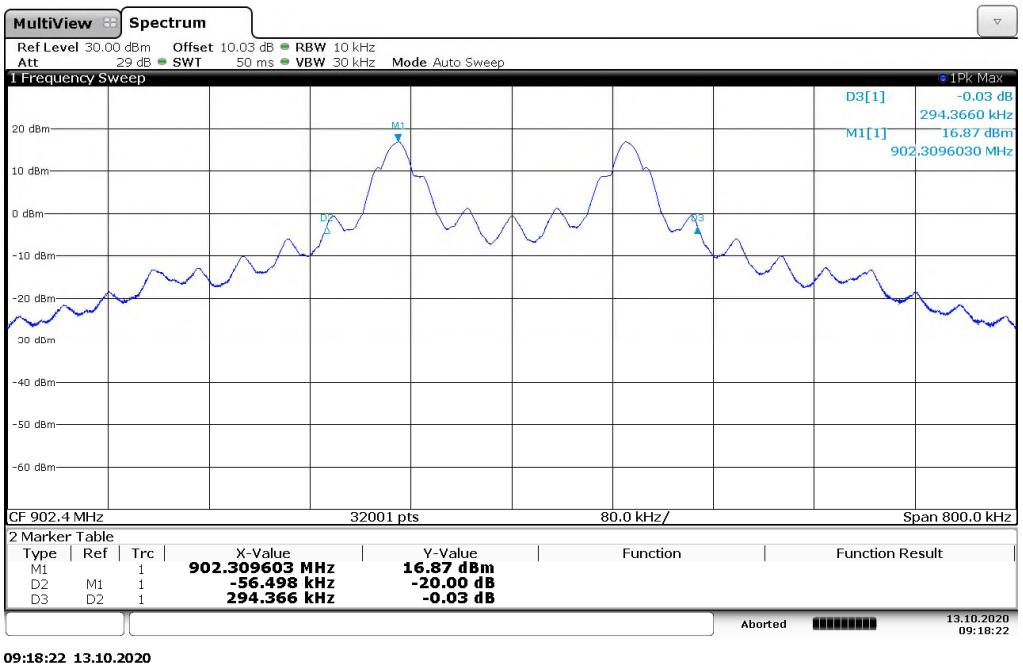


Figure 7.4.4.2-1: 20dB BW Low Channel – 35.5kbps

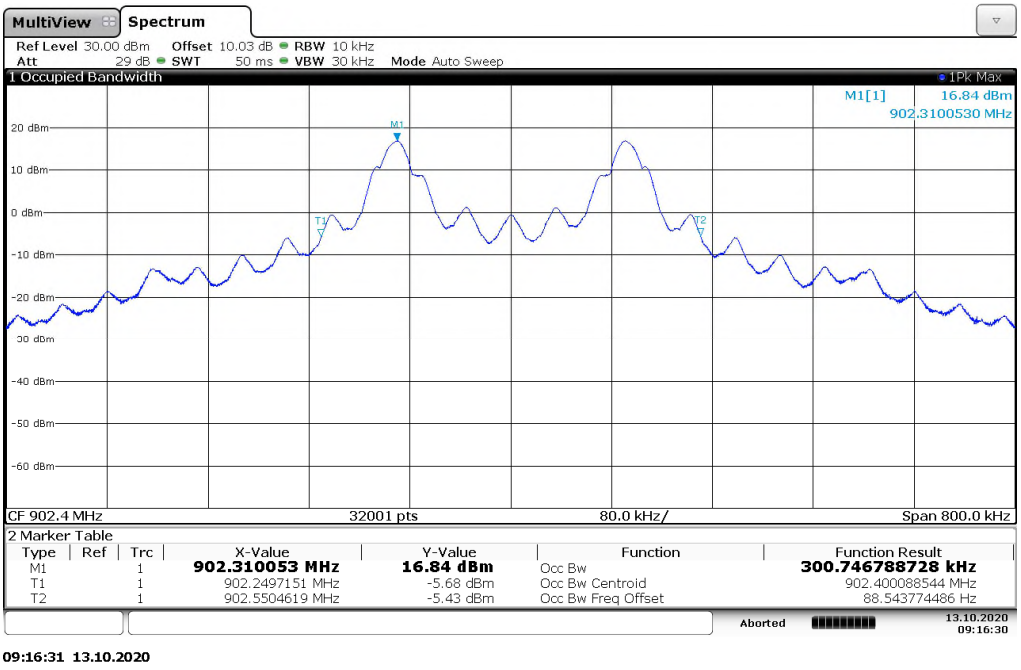


Figure 7.4.4.2-2: 99% OBW Low Channel – 35.5kbps

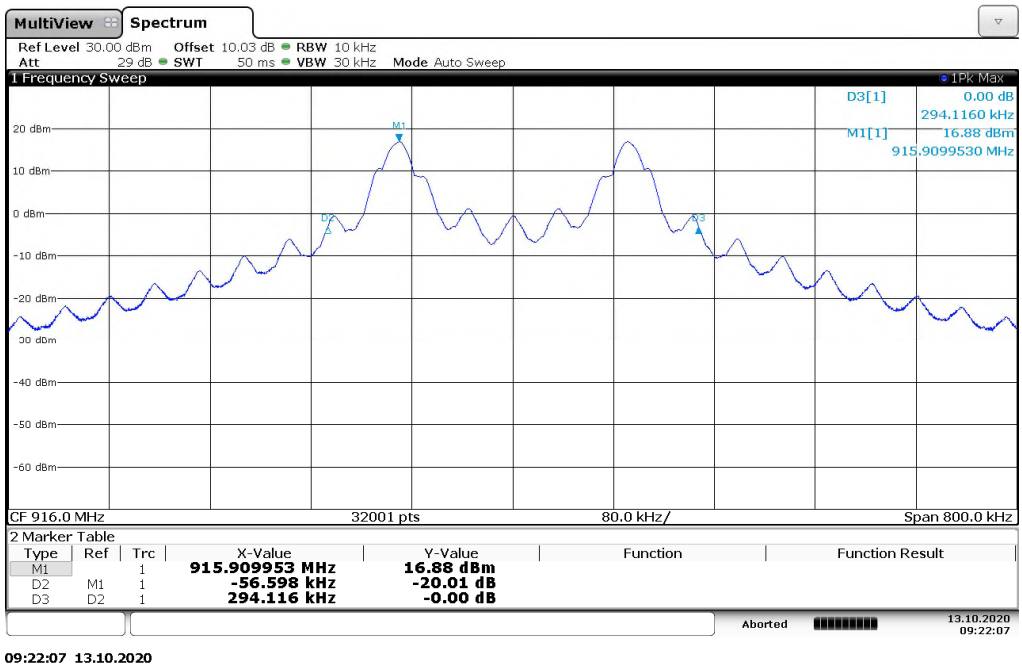


Figure 7.4.4.2-3: 20dB BW Mid Channel – 35.5kbps

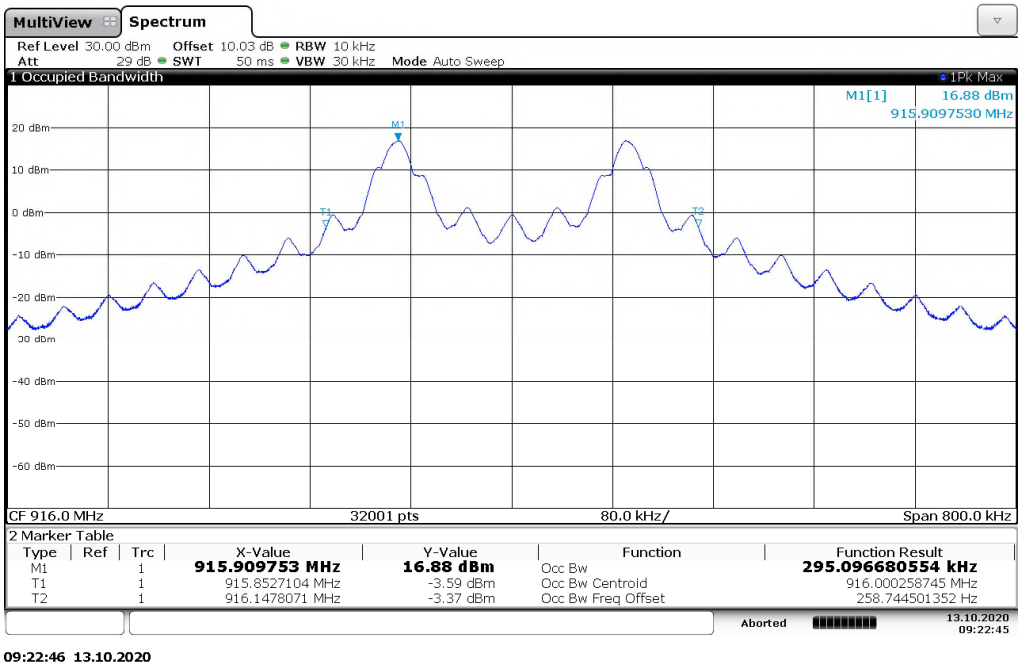


Figure 7.4.4.2-4: 99% OBW Mid Channel – 35.5kbps

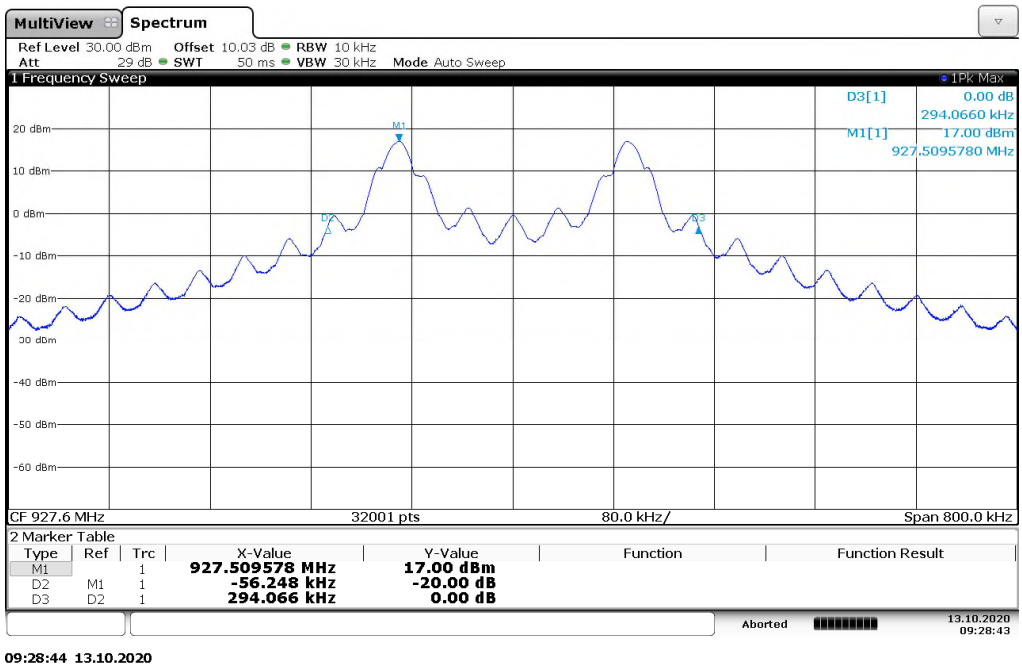


Figure 7.4.4.2-5: 20dB BW High Channel – 35.5kbps

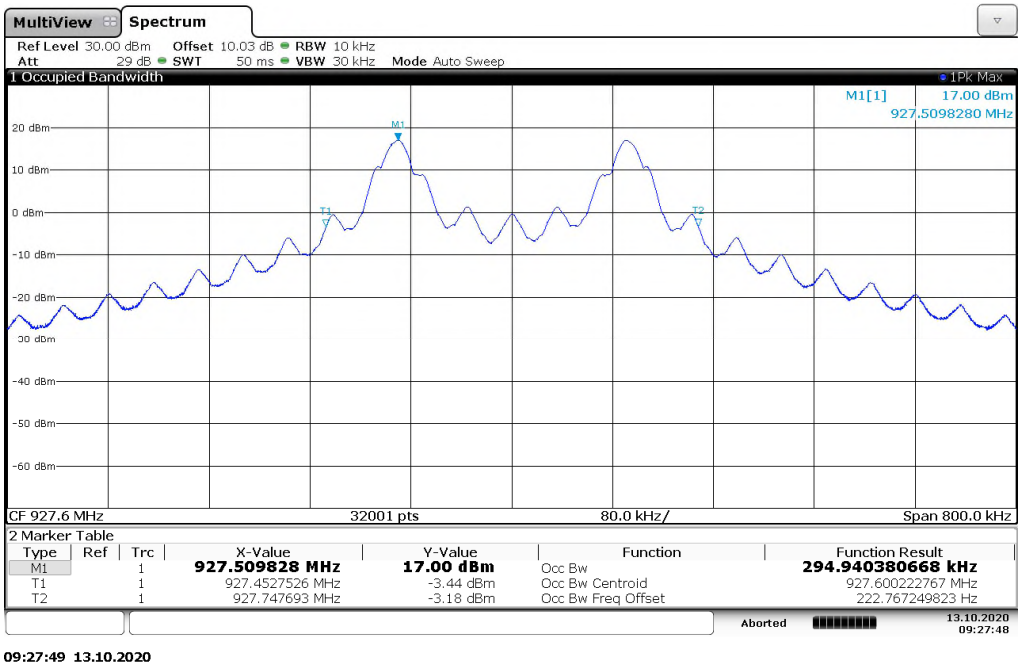


Figure 7.4.4.2-6: 99% OBW High Channel – 35.5kbps

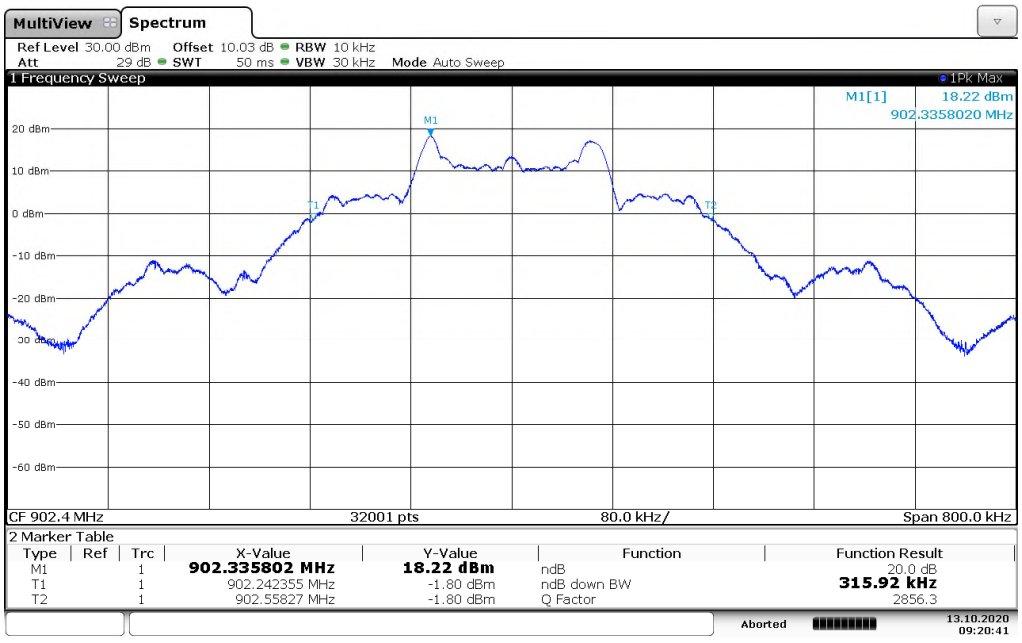


Figure 7.4.4.2-6: 20dB BW Low Channel – 142.2kbps

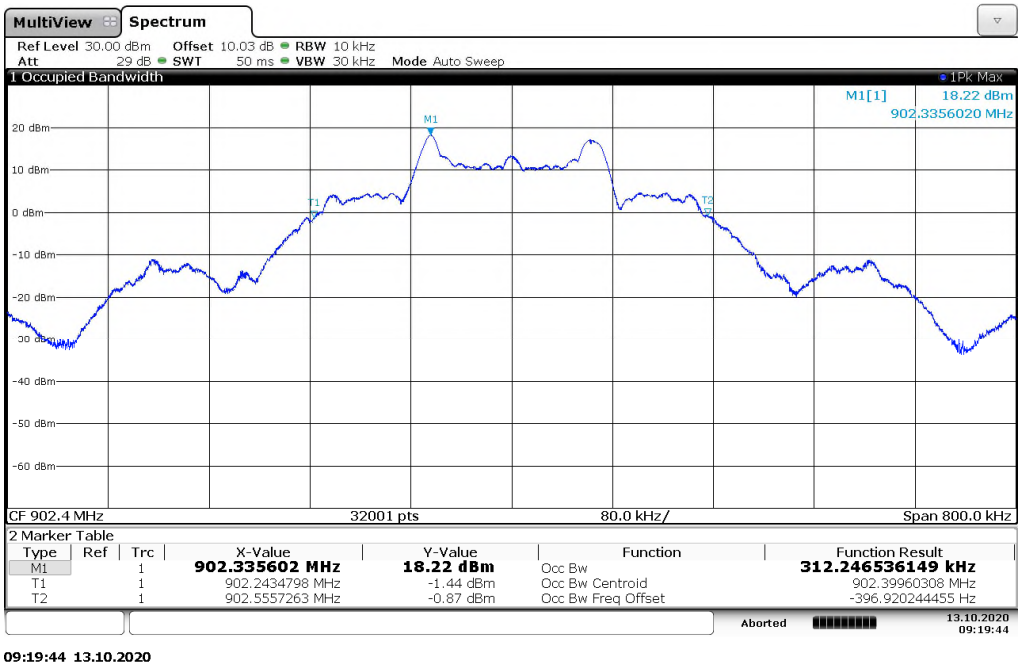


Figure 7.4.4.2-7: 99% OBW Low Channel – 142.2kbps

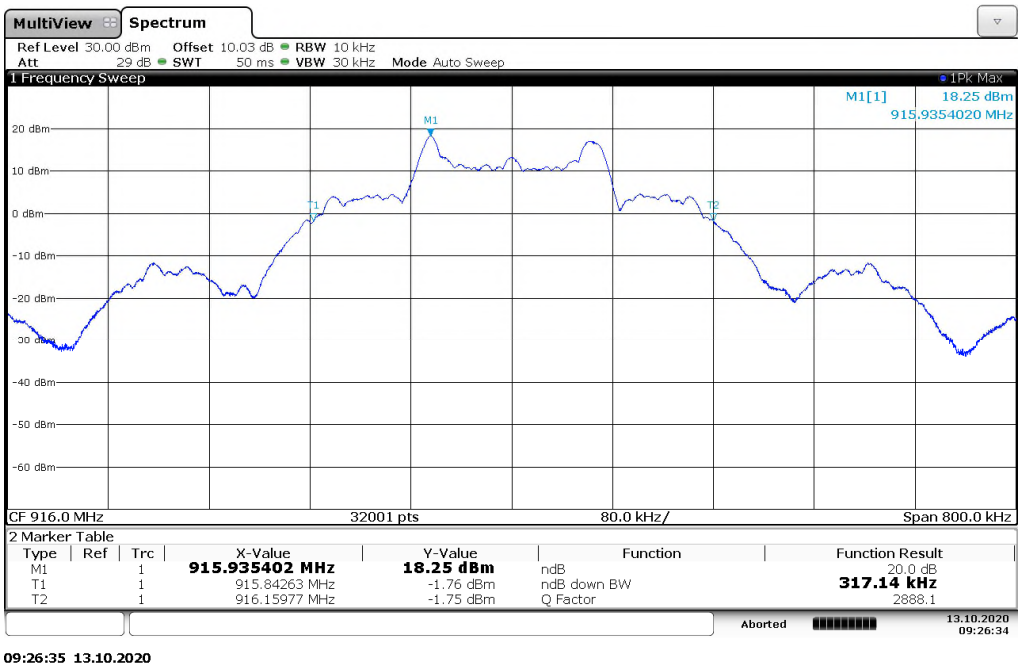


Figure 7.4.4.2-8: 20dB BW Mid Channel – 142.2kbps

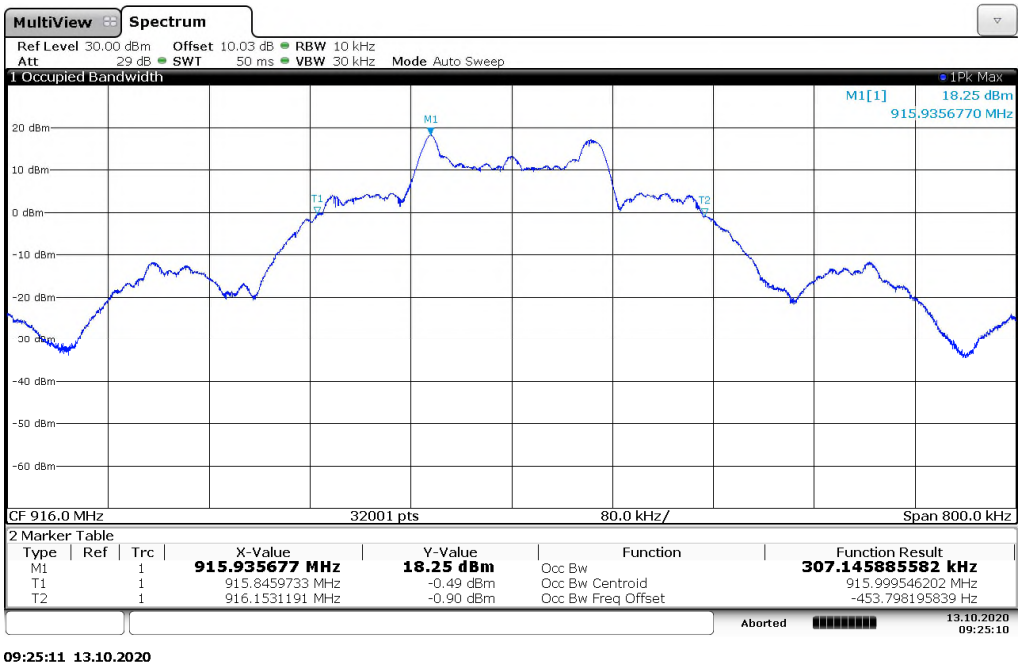


Figure 7.4.4.2-9: 99% OBW Mid Channel – 142.2kbps

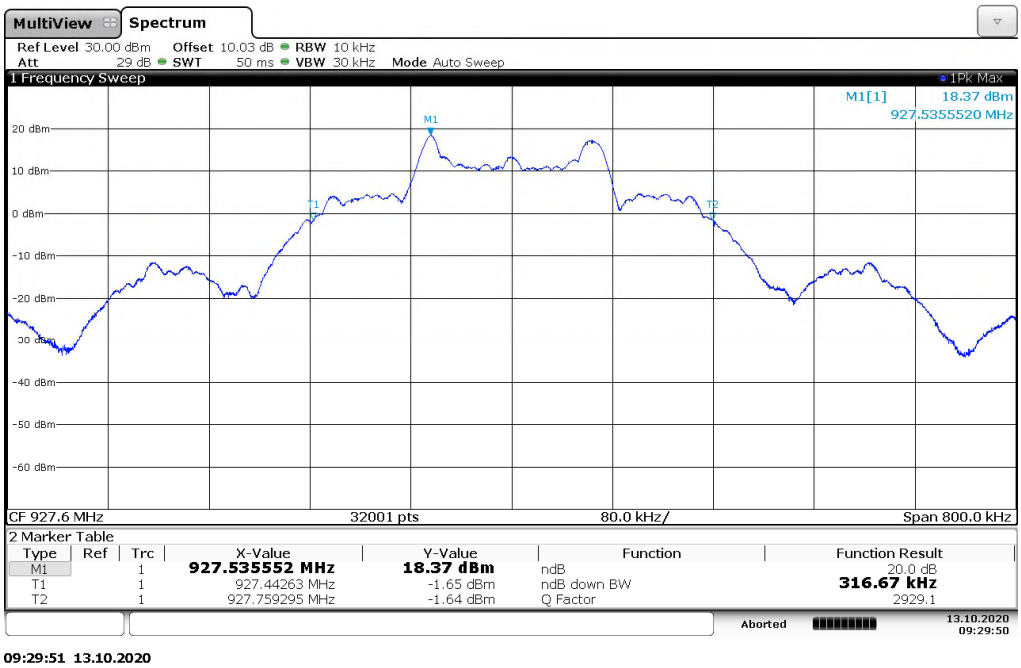


Figure 7.4.4.2-10: 20dB BW High Channel – 142.2kbps

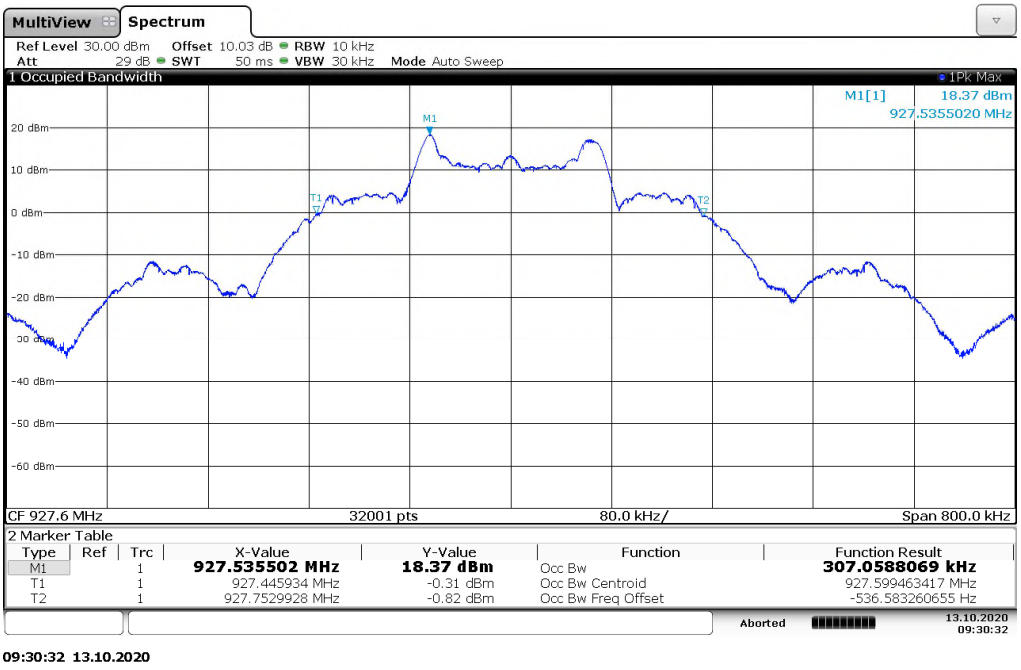


Figure 7.4.4.2-11: 99% OBW High Channel – 142.2kbps

7.5 Band-Edge Compliance and Spurious Emissions

7.5.1 Band-Edge Compliance of RF Conducted Emissions – FCC: 15.247(d); ISED Canada RSS-247

7.5.1.1 Measurement Procedure

The RF output port of the EUT was connected via 10.03dB of passive attenuation to the input of the spectrum analyzer. The EUT was investigated at the lowest and highest channel available to determine band-edge compliance. For each measurement the spectrum analyzer's RBW was set to 100 kHz, and the VBW was set to >> RBW.

7.5.1.2 Measurement Results

Performed by: Chris Gormley

NON-HOPPING MODE:

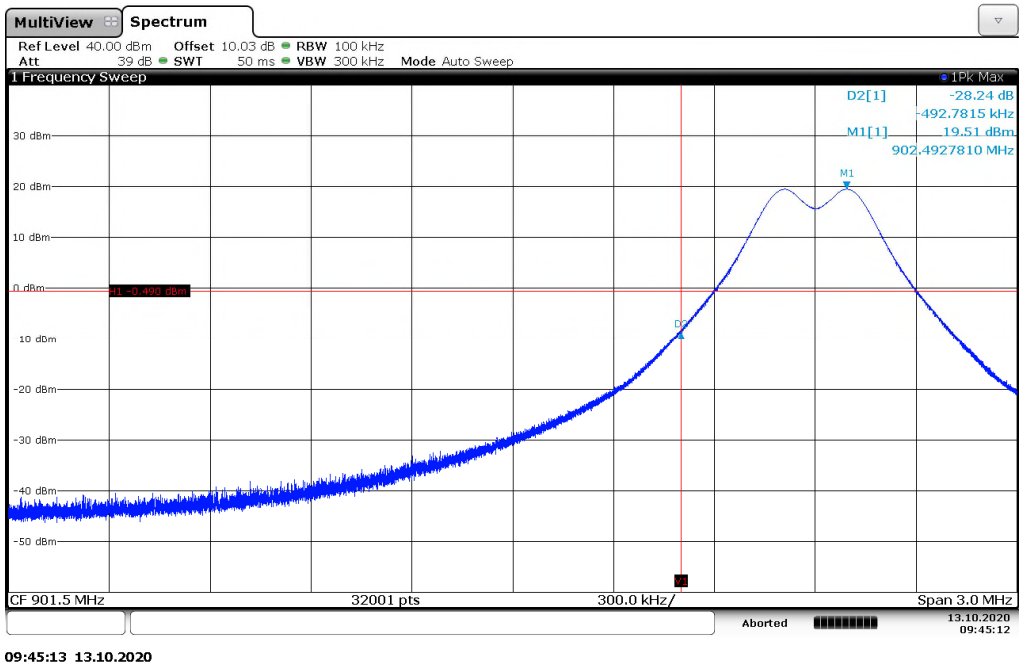


Figure 7.5.1.2-1: Lower Band-edge – 35.5kbps

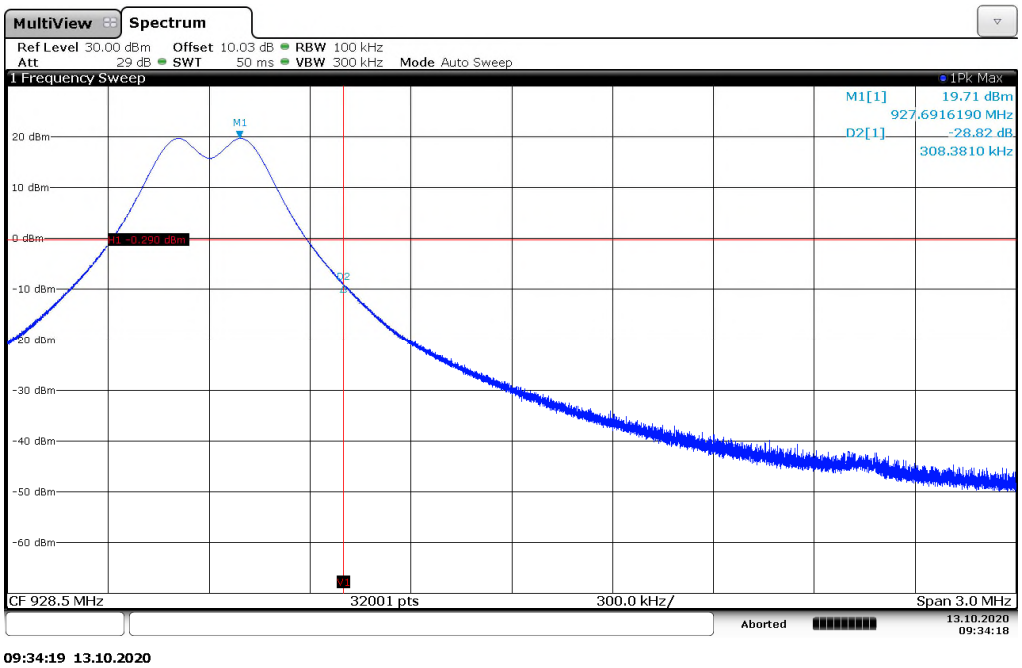


Figure 7.5.1.2-2: Upper Band-edge – 35.5kbps

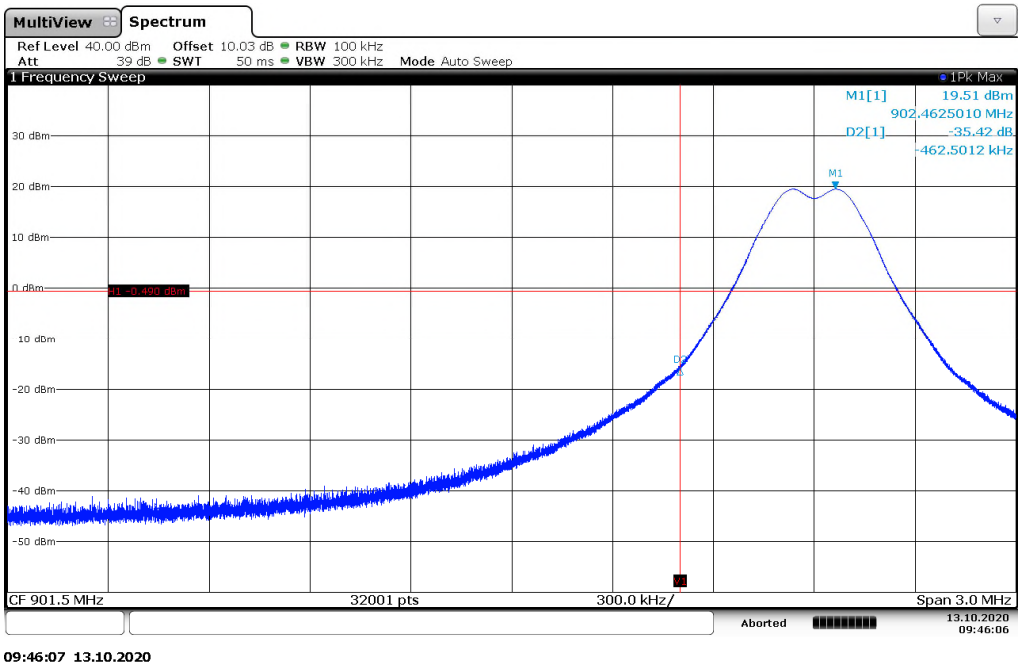


Figure 7.5.1.2-3: Lower Band-edge – 142.2kbps

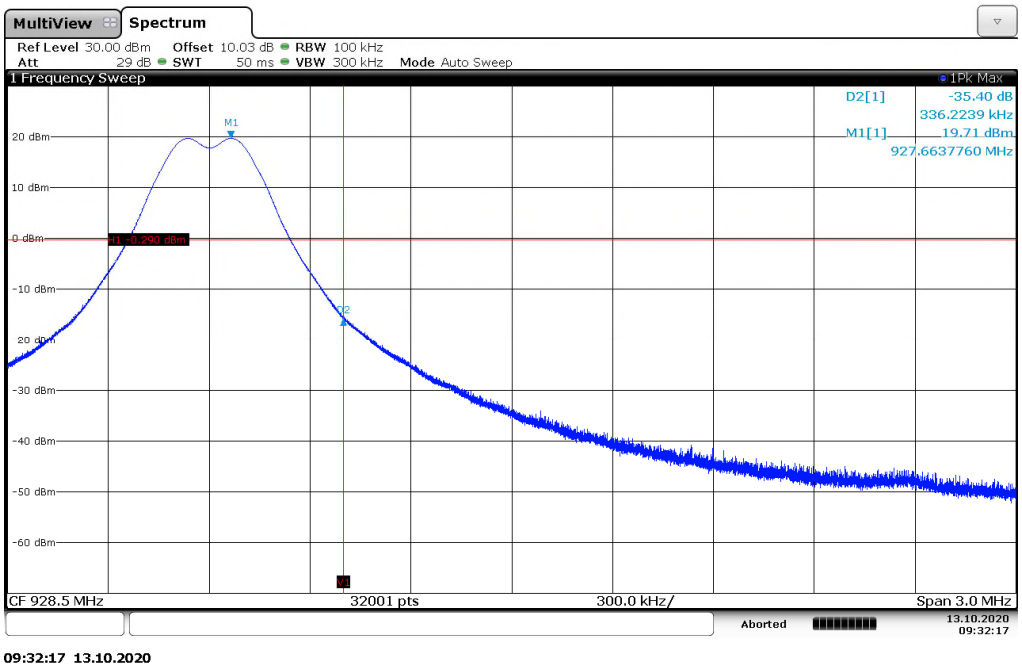


Figure 7.5.1.2-4: Upper Band-edge – 142.2kbps

HOPPING MODE:

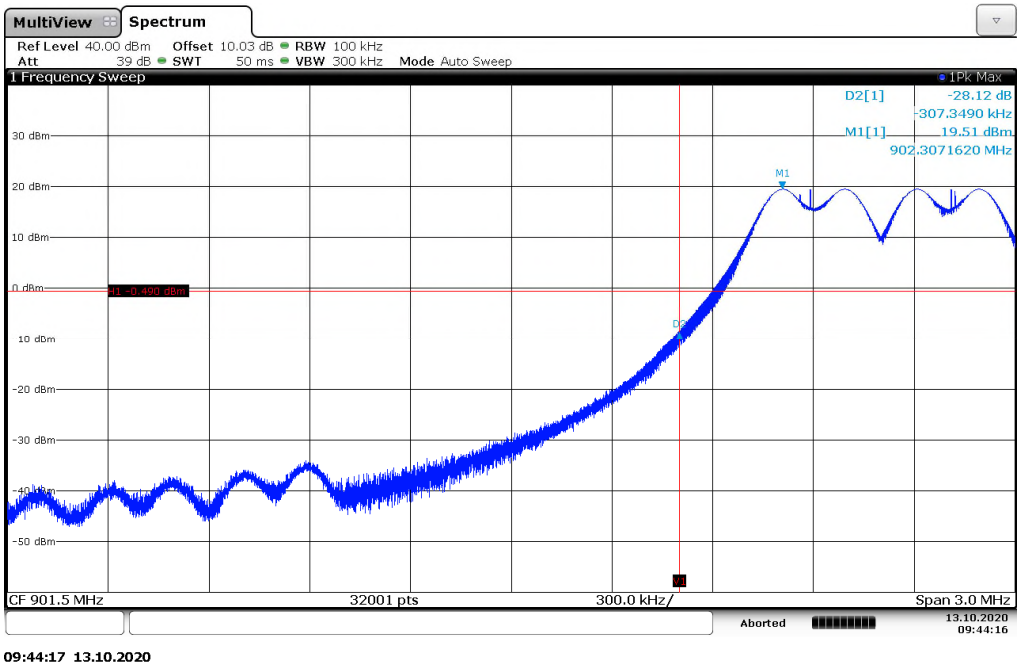


Figure 7.5.1.2-5: Lower Band-edge – 35.5kbps

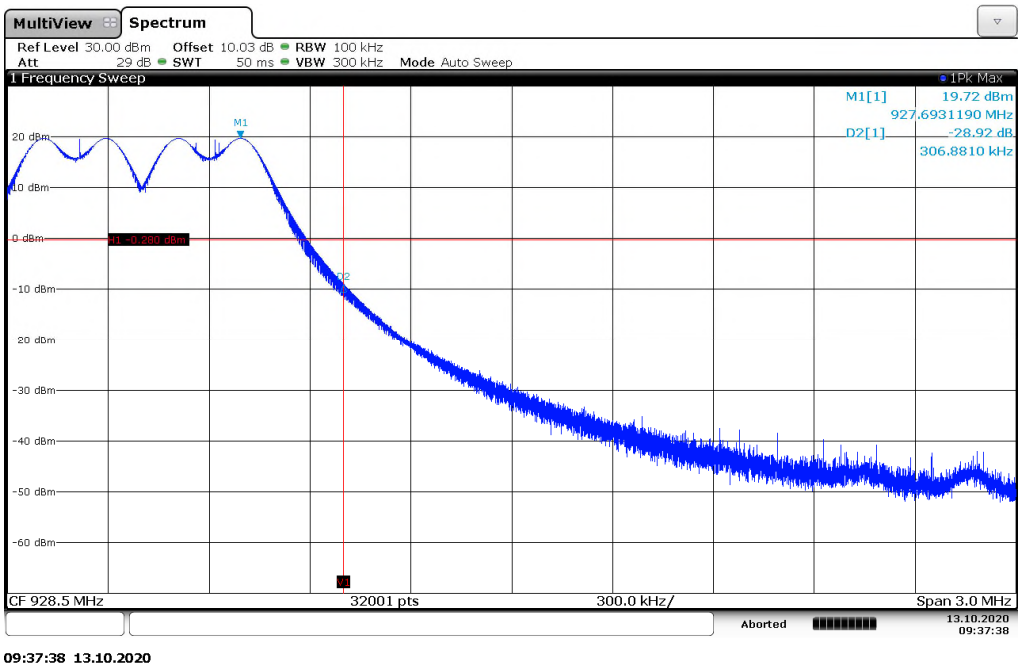


Figure 7.5.1.2-6: Upper Band-edge – 35.5kbps

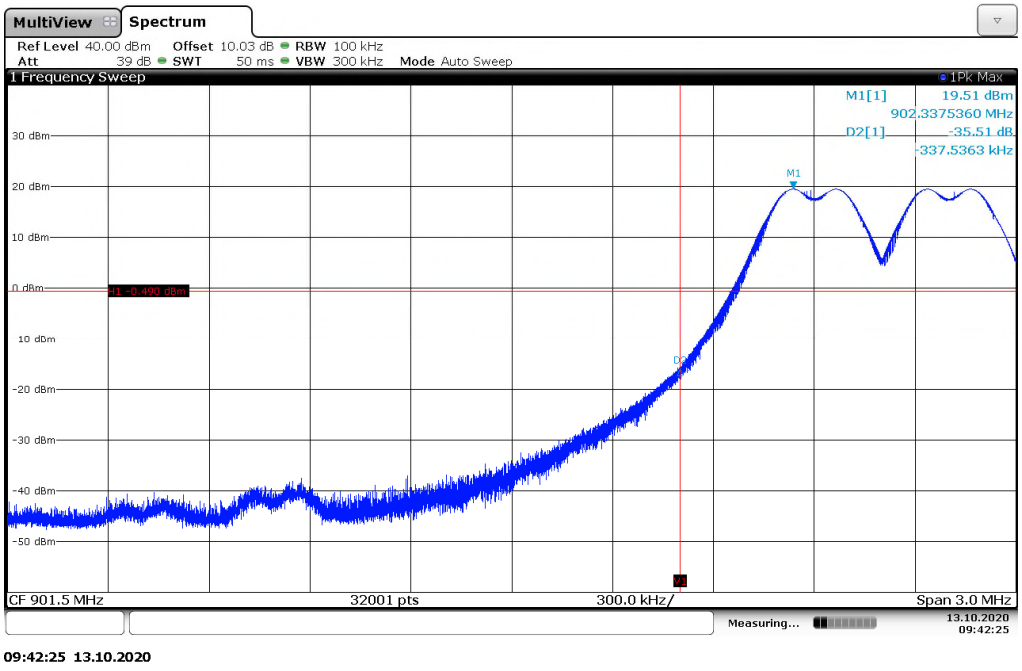


Figure 7.5.1.2-7: Lower Band-edge – 142.2kbps

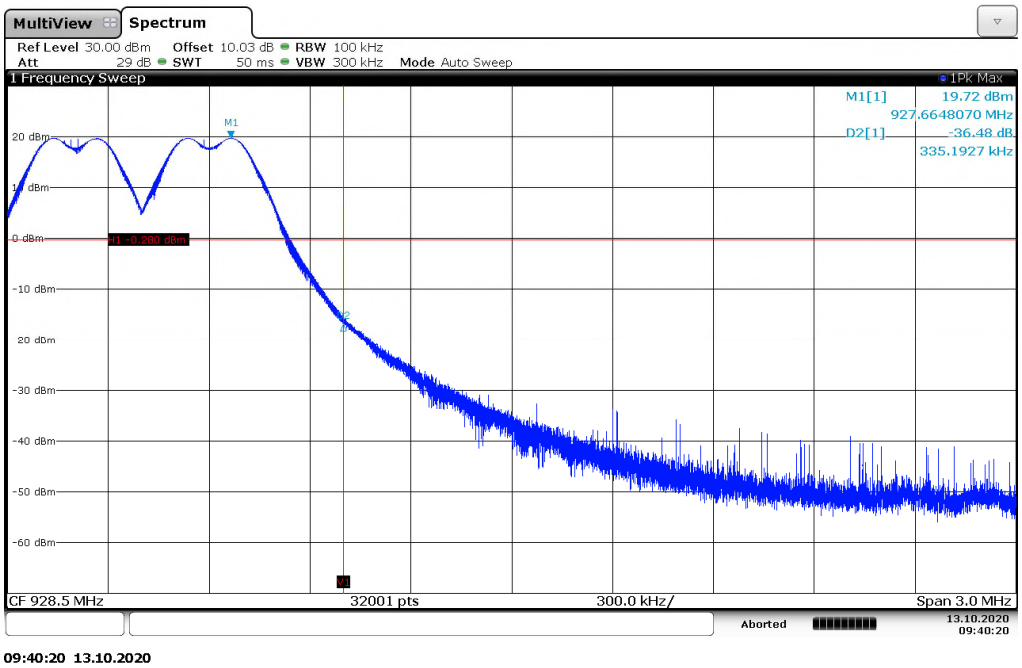


Figure 7.5.1.2-8: Upper Band-edge – 142.2kbps

7.5.2 RF Conducted Spurious Emissions – FCC: 15.247(d); ISED Canada RSS-247

7.5.2.1 Measurement Procedure

The RF output port of the EUT was connected via 10.03dB of passive attenuation to the input of the spectrum analyzer. The EUT was investigated for conducted spurious emissions from 30MHz to 10GHz, 10 times the highest fundamental frequency. Measurements were made at the low, center and high channels of the EUT. For each measurement, the spectrum analyzer's RBW was set to 100kHz. A peak detector function was used with the trace set to max hold.

7.5.2.2 Measurement Results

Performed by: Chris Gormley

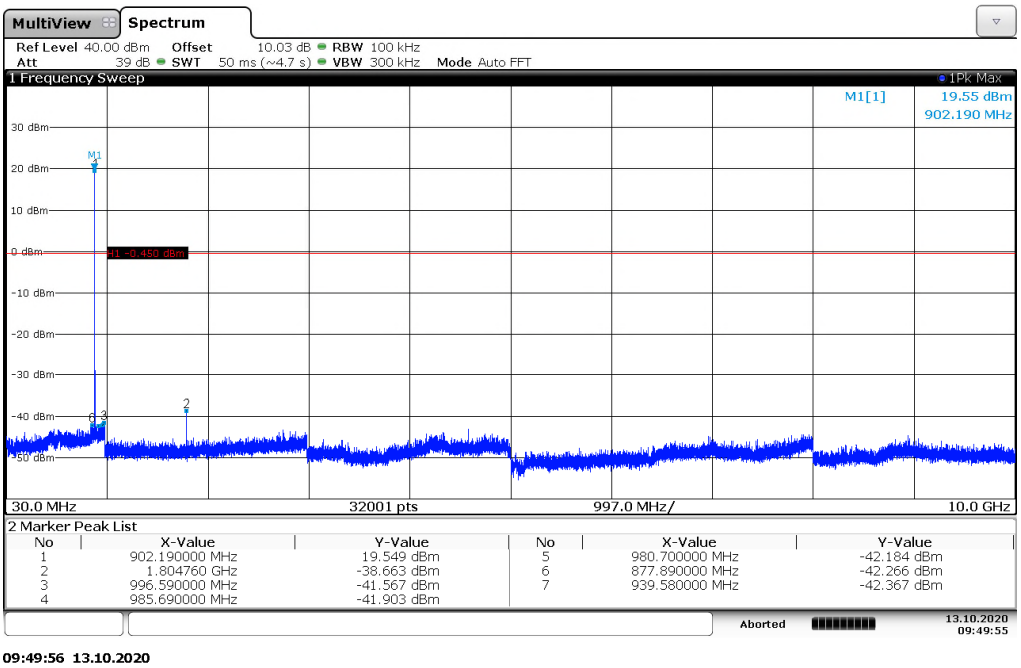
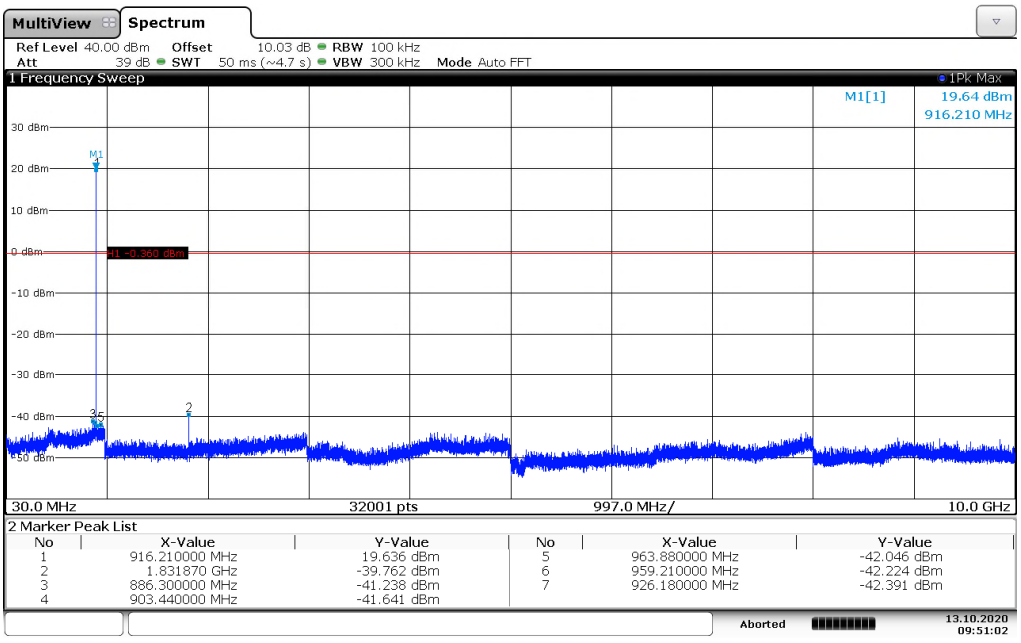
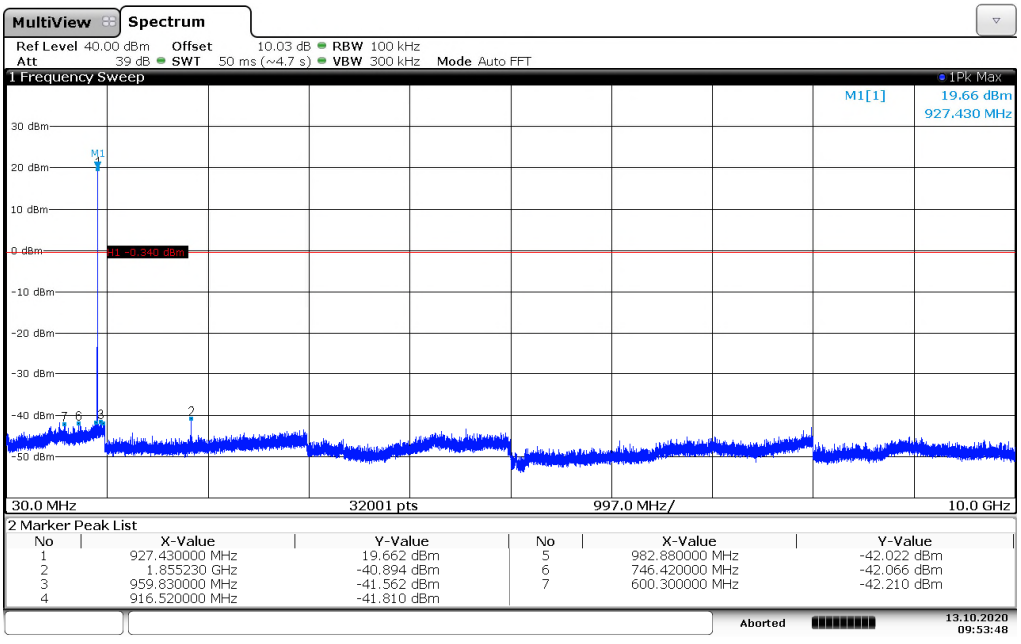


Figure 7.5.2.2-1: 30 MHz – 10 GHz – Low Channel – 35.5kbps



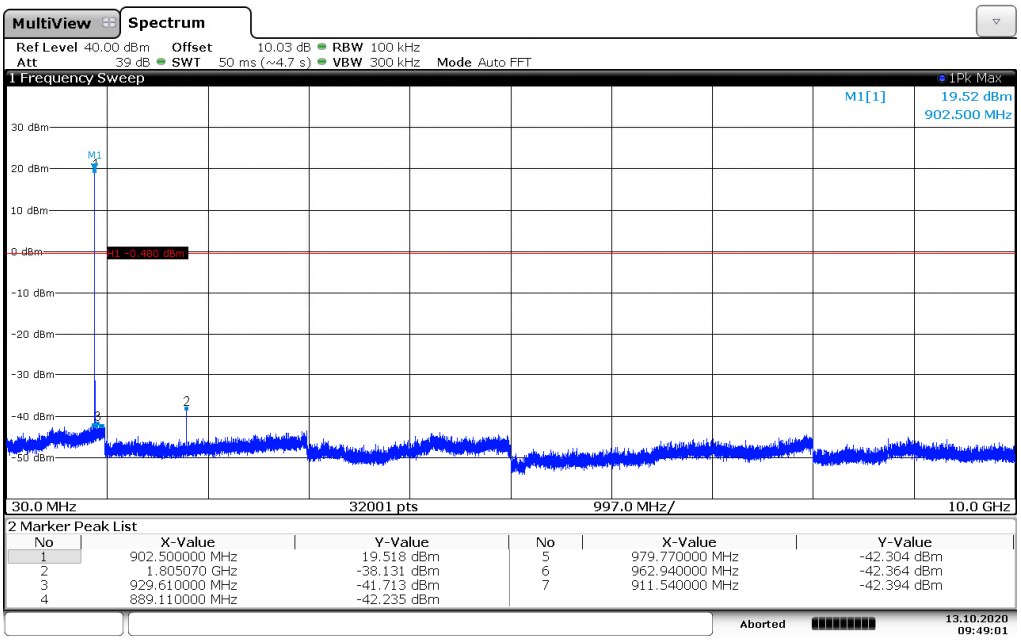
09:51:02 13.10.2020

Figure 7.5.2.2-2: 30 MHz – 10 GHz – Mid Channel – 35.5kbps



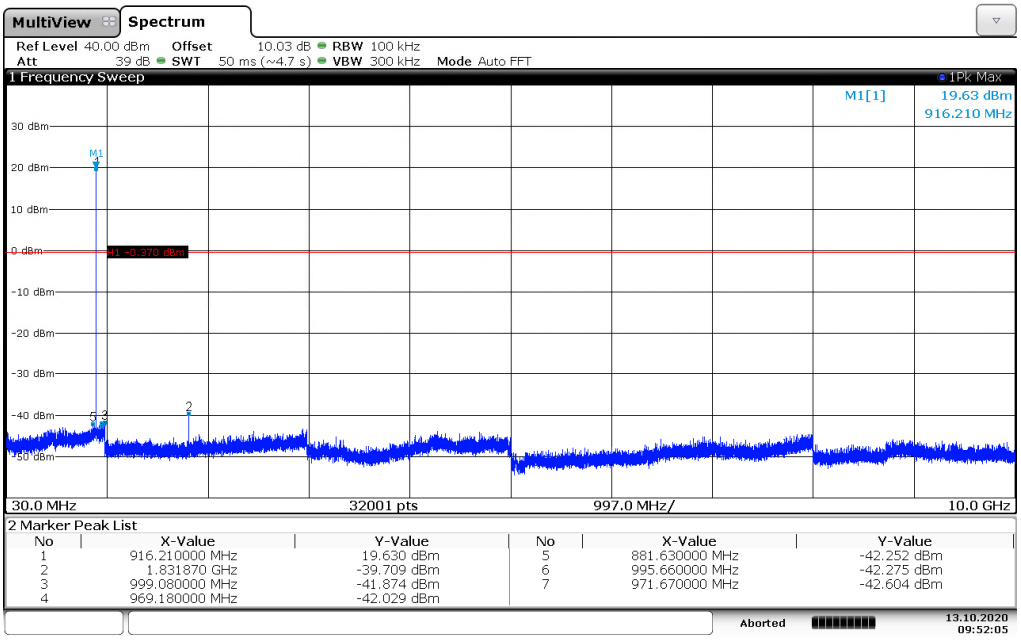
09:53:49 13.10.2020

Figure 7.5.2.2-3: 30 MHz – 10 GHz – High Channel – 35.5kbps



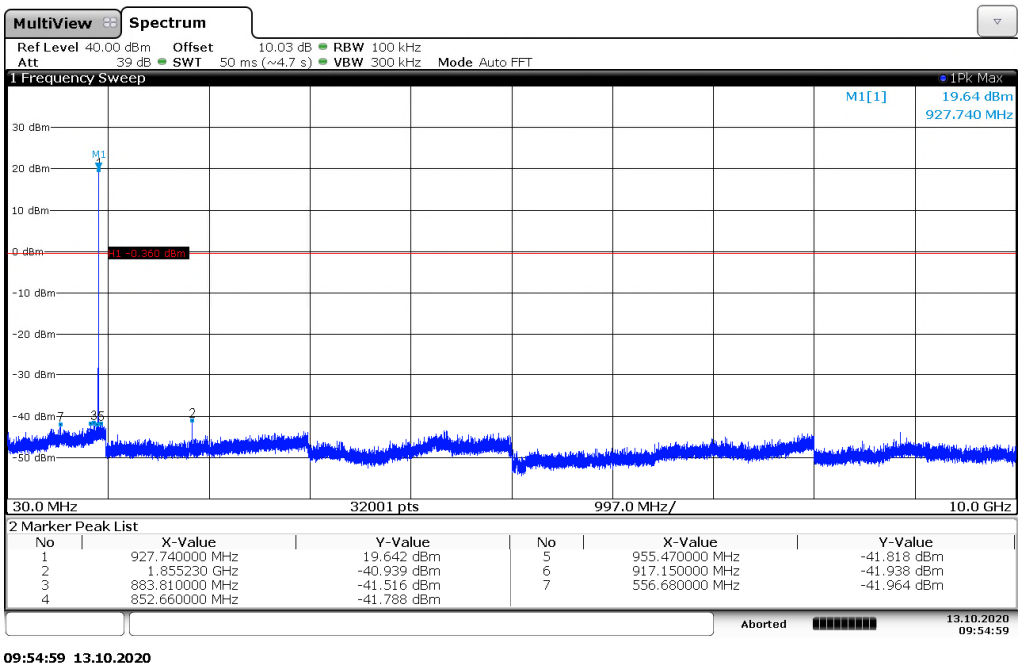
09:49:01 13.10.2020

Figure 7.5.2.2-4: 30 MHz – 10 GHz – Low Channel – 142.2kbps



09:52:05 13.10.2020

Figure 7.5.2.2-5: 30 MHz – 10 GHz – Mid Channel – 142.2kbps



09:54:59 13.10.2020

Figure 7.5.2.2-6: 30 MHz – 10 GHz – High Channel – 142.2kbps

7.5.3 Radiated Spurious Emissions – FCC: 15.205, 15.209; ISED Canada RSS-247, RSS-Gen 8.9/8.10

7.5.3.1 Measurement Procedure

Radiated emissions tests were made over the frequency range of 30MHz to 10GHz, 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 resolution bandwidth RBW of 120 kHz and a video bandwidth VBW of 300 kHz. For frequencies above 1000MHz, peak and average measurements were made with RBW and VBW of 1 MHz and 3MHz respectively. The average emissions were further corrected by applying the duty cycle correction of the EUT for comparison to the average limit.

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.

7.5.3.2 Duty Cycle Correction

No duty cycle correction was used.

7.5.3.3 Measurement Results

Performed by: Chris Gormley

Table 7.5.3.3-1: Radiated Spurious Emissions Tabulated Data – 35.5kbps

Frequency	Level (dBuV)		Antenna Polarity (H/V)	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										
2707.2	49.50	46.10	V	-2.02	47.48	44.08	74.0	54.0	26.52	9.92
3609.6	55.50	52.10	V	1.14	56.64	53.24	74.0	54.0	17.36	0.76
4512	44.10	36.30	V	3.72	47.82	40.02	74.0	54.0	26.18	13.98
5414.4	46.50	38.10	V	4.22	50.72	42.32	74.0	54.0	23.28	11.68
8121.6	37.50	22.90	H	10.05	47.55	32.95	74.0	54.0	26.45	21.05
9024	36.80	23.70	H	11.12	47.92	34.82	74.0	54.0	26.08	19.18
Middle Channel										
2748	54.00	51.70	H	-1.89	52.11	49.81	74.0	54.0	21.89	4.19
3664	51.70	48.00	H	1.31	53.01	49.31	74.0	54.0	20.99	4.69
4580	49.50	44.20	H	3.73	53.23	47.93	74.0	54.0	20.77	6.07
7328	39.80	26.20	V	8.69	48.49	34.89	74.0	54.0	25.51	19.11
8244	37.80	23.80	H	10.55	48.35	34.35	74.0	54.0	25.65	19.65
9160	38.20	24.00	H	10.80	49.00	34.80	74.0	54.0	25.00	19.20
High Channel										
2782.8	49.20	46.00	H	-1.78	47.42	44.22	74.0	54.0	26.58	9.78
3710.4	48.30	43.30	V	1.45	49.75	44.75	74.0	54.0	24.25	9.25
4638	40.10	29.10	V	3.75	43.85	32.85	74.0	54.0	30.15	21.15
7420.8	38.20	24.50	V	9.08	47.28	33.58	74.0	54.0	26.72	20.42
8348.4	36.90	23.60	H	10.98	47.88	34.58	74.0	54.0	26.12	19.42

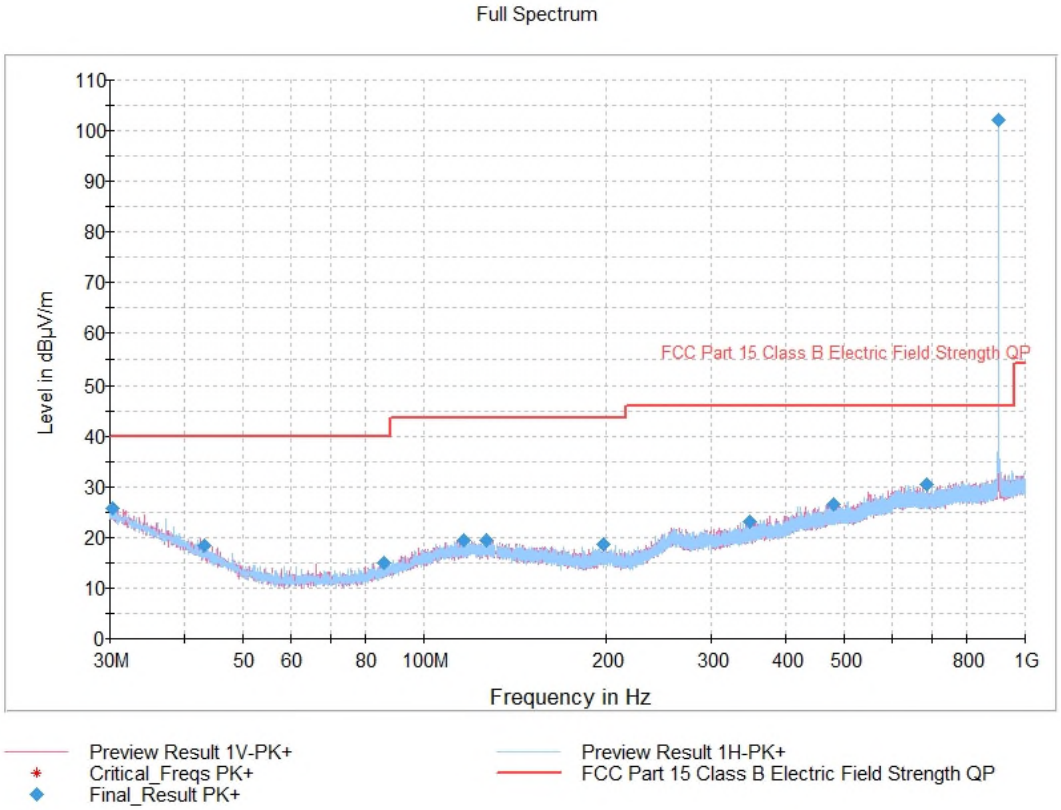


Figure 7.5.3.3-1: Radiated Spurious Emissions Prescan – 30MHz to 1GHz

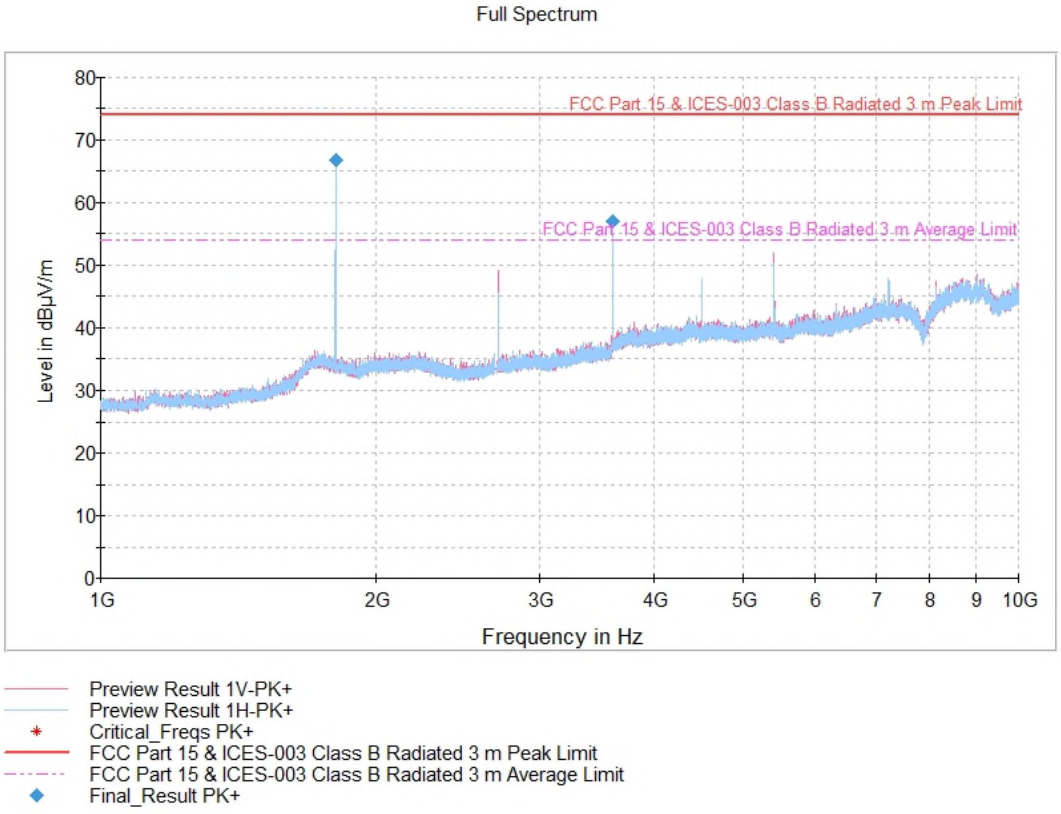


Figure 7.5.3.3-2: Radiated Spurious Emissions Prescan – Above 1GHz

7.5.3.4 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: 36.90 - 10.98 = 47.88dBuV/m
Margin: 74dBuV/m – 47.88dBuV/m = 26.12dB

Example Calculation: Average

Corrected Level: 23.60 - 10.98 = 34.58dBuV
Margin: 54dBuV – 34.58dBuV = 19.42dB

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	**± 0.004%**
RF Conducted Output Power	**± 0.689 dB**
Power Spectral Density	**±0.5 dB**
Antenna Port Conducted Emissions	**± 2.717 dB**
Radiated Emissions	**± 5.877 dB**
Temperature	**± 0.860 °C**
Radio Frequency	**±2.832 x 10-8**
AC Power Line Conducted Emissions	**±2.85**

9 CONCLUSION

In the opinion of TÜV SÜD America Inc. the NXCM, manufactured by Elster Solutions LLC meets the requirements of FCC Part 15 subpart C and ISED Canada's Radio Standards Specification RSS-247 for the tests documented herein.

END REPORT