CFR 47 FCC PART 15 SUBPART C
ISED RSS-210 ISSUE 10

TEST REPORT

For

Smart Prado Dual Mode DM915 Baby Monitor

MODEL NUMBER: Smart Prado Dual Mode DM915

REPORT NUMBER: E01A23111147F01401

ISSUE DATE: March 5, 2024

FCC ID: 2BEHY-DM915

IC: 31445-DM915

Prepared for

MCD LIMITED

631, MY LOFT, 9 Hoi Wing Rd, Tuen Mun, Hong Kong, 999077,China

Prepared by

Guangdong GTG Testing Technology Co., Ltd.

1-2/F., Building A, and 1/F., Building B, No. 11, Zongbu 2nd Road, Songshan Lake High-Tech Industrial Development Zone, Dongguan, Guangdong, China

Revision History

Rev.	Issue Date	Revisions	Revised By
V0	March 5, 2024	Initial Issue	

Summary of Test Results			
Clause	Test Items	Rules	Test Results
1	20 dB Bandwidth 99 % Occupied Bandwidt	CFR 47 FCC §15.215 (c) ISED RSS-Gen Clause 6.7	Pass
2	Radiated Emission	CFR 47 FCC §15.249 (a)(d)(e) ISED RSS-210 Annex B B.10 CFR 47 FCC §15.205 and §15.209 RSS-GEN Clause 8.9 RSS-GEN Clause 8.10	Pass
3	Conducted Emission Test for AC Power Port	CFR 47 FCC §15.207 RSS-GEN Clause 8.8	Pass
4	Antenna Requirement	CFR 47 FCC §15.203 ISED RSS-Gen Clause 6.8	Pass
Note 1: This test report is only published to and used by the applicant, and it is not for evidence purpose in China. Note 2: The measurement result for the sample received is <Pass> according to < CFR 47 FCC PART 15 SUBPART C, ISED RSS-210 Issue 10 and ISED RSS-GEN Issue 5 > when <Accuracy Method> decision rule is applied.			

TABLE OF CONTENTS

1. ATTESTATION OF TEST RESULTS

Applicant Information

Company Name:	MCD LIMITED
Address:	631, MY LOFT, 9 Hoi Wing Rd, Tuen Mun, Hong Kong, 999077,China

Manufacturer Information

Company Name:	MC DEVICES CO., LTD.
Address:	The 23rd floor, Overseas Chinese Mansion II, Kejinanhuan Rd, Nanshan, Shenzhen, China

Factory Information

Company Name:	MC DEVICES CO., LTD.
Address:	The 23rd floor, Overseas Chinese Mansion II, Kejinanhuan Rd, Nanshan, Shenzhen, China

EUT Information

EUT Name:	Smart Prado Dual Mode DM915 Baby Monitor
Model:	Smart Prado Dual Mode DM915
Brand:	/
Sample Received Date:	December 25, 2023
Sample Status:	Normal
Sample ID:	A23111147 001
Date of Tested:	December 26, 2023 to March 2, 2024

APPLICABLE STANDARDS	
STANDARD	**TEST RESULTS**
CFR 47 FCC PART 15 SUBPART C	PASS
ISED RSS-210 Issue 10	PASS
ISED RSS-GEN Issue 5	PASS

Prepared By:

Rock Ning

Project Engineer

Checked By:

Dyson Dai

Laboratory Leader

Approved By:

Tiger Xu

Laboratory Manager

2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with KDB 414788 D01 Radiated Test Site v01r01, FCC CFR 47 Part 2, FCC CFR 47 Part 15, ANSI C63.10-2013, ISED RSS-210 Issue 10 and RSS-GEN Issue 5.

3. FACILITIES AND ACCREDITATION

Test Location	Guangdong GTG Testing Technology Co., Ltd. 1-2/F., Building A, and 1/F., Building B, No. 11, Zongbu 2nd Road, Songshan Lake High-Tech Industrial Development Zone, Dongguan, Guangdong, China
Accreditation Certificate	A2LA (Certificate No.: 4422.01) Dong Guan Anci Electronic Technology Co., Ltd. has been assessed and proved to be in compliance with A2LA. FCC (FCC Designation No.: CN1230) Dong Guan Anci Electronic Technology Co., Ltd. has been recognized to perform compliance testing on equipment subject to Supplier's Declaration of Conformity (SDoC) and Certification rules ISED (Company No.: 22768) Dong Guan Anci Electronic Technology Co., Ltd. has been registered and fully described in a report filed with ISED. The Company Number is 22768 and the test lab Conformity Assessment Body Identifier (CABID) is CN0079.

Note: All tests measurement facilities use to collect the measurement data except Radiated Immunity & Conducted Immunity are located at 1-2/F., Building A, and 1/F., Building B, No. 11, Zongbu 2nd Road, Songshan Lake High-Tech Industrial Development Zone, Dongguan, Guangdong, China.

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. MEASUREMENT UNCERTAINTY

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

Test Item	Measurement Frequency Range	K	U(dB)
AC Power Line Conducted Emission	0.009 MHz ~ 0.15 MHz	2	4.00
	0.15 MHz ~ 30 MHz	2	3.62
Radiated Band edge and Spurious Emission	9kHz ~ 30MHz	2	4.59
	30 MHz ~ 1 GHz	2	4.26
	1 GHz ~ 18 GHz	2	5.69
	18 GHz ~ 26.5 GHz	2	5.54
Conducted Output Power	/	2	0.73
20dB Bandwidth and 99% Occupied Bandwidth	/	2	9.2ppm
Power Spectral Density	/	2	1.84
Conducted Band edge and spurious emission	9kHz ~ 30MHz	2	0.95
	30 MHz ~ 1 GHz	2	1.49
	1 GHz ~ 18 GHz	2	1.75
	18 GHz ~ 26.5 GHz	2	2.06
Note: This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.			

5. EQUIPMENT UNDER TEST

5.1. DESCRIPTION OF EUT

EUT Name	Smart Prado Dual Mode DM915 Baby Monitor		
Model	Smart Prado Dual Mode DM915		
Product Description	Operation Frequency		914.2MHz, 915MHz
	Modulation Type		FM
Ratings	DC 5V		
Power Supply	DC	5V	

5.2. MAXIMUM FIELD STRENGTH

Frequency Range (MHz)	Frequency (MHz)	Channel Number	Max field strength (dBμV/m)
914.2 MHz	914.2 MHz	0	90.95
915 MHz	915 MHz	1	91.05

5.3. CHANNEL LIST

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
0	914.2 MHz	/	/	/	/	/	/
1	915 MHz	/	/	/	/	/	/
/	/	/	/	/	/	/	/
/	/	/	/	/	/	/	/
/	/	/	/	/	/	/	/
/	/	/	/	/	/	/	/
/	/	/	/	/	/	/	/
/	/	/	/	/	/	/	/

5.4. DESCRIPTION OF AVAILABLE ANTENNAS

Ant.	Frequency (MHz)	Antenna Type	Antenna Gain (dBi)
1	914.2-915 MHz	Internal Antenna	-5.04

Test Mode	Transmit and Receive Mode	Description
FM	☒1TX, 1RX	Antenna 1 can be used as transmitting/receiving antenna.

Note: The value of the antenna gain was declared by customer.

5.5. TEST CHANNEL CONFIGURATION

Test Mode	Test Channel	Frequency
FM	CH 0	914.2 MHz
FM	CH 1	915 MHz

5.6. THE WORSE CASE POWER SETTING PARAMETER

The Worse Case Power Setting Parameter			
Test Software		/	
Modulation Type	Transmit Antenna Number	Test Channel	
		CH 0	CH 1
FM	1	Default	Default

5.7. TEST ENVIRONMENT

Environment Parameter	Selected Values During Tests	
Relative Humidity	55 ~ 65 %	
Atmospheric Pressure:	101 kPa	
Temperature	TN	22 ~ 28 °C
Voltage:	VL	/
	VN	DC 5V
	VH	/

Note: VL= Lower Extreme Test Voltage
VN= Nominal Voltage
VH= Upper Extreme Test Voltage
TN= Normal Temperature

5.8. DESCRIPTION OF TEST SETUP

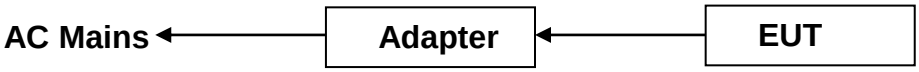
SUPPORT EQUIPMENT

Equipment	Manufacturer	Model No.
Adapter	Lulian	CD170

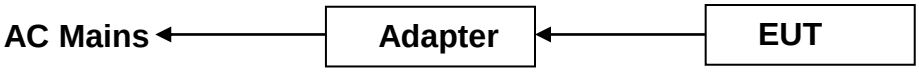
SETUP DIAGRAM FOR TEST

AC conducted emission :

Radiated Emission:



RF conducted:



5.9. MEASURING INSTRUMENT AND SOFTWARE USED

RF Conducted Measurement

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Due Date
Spectrum Analyzer	Rohde & Schwarz	FSV40N	102257	2023-09-18	2024-09-18
Spectrum Analyzer	KEYSIGHT	N9020A	MY51285127	2023-09-18	2024-09-17
WIDEBAND RADIO COMMUNICATION	Rohde & Schwarz	CMW500	157423	2023-12-13	2024-12-13
MXG Vector Signal Generator	KEYSIGHT	N5182B	MY61250185	2023-12-13	2024-12-13
EXG Analog Signal Generator	KEYSIGHT	N5173B	My61252603	2023-05-09	2024-05-09
RF Power detector box	MWRF-test	MW100-PSB	MW220912	2023-12-13	2024-12-13
Radio Frequency control box	MWRF-test	MW200-RFCB	MW220111	2023-12-13	2024-12-13
Radio Frequency control box	MWRF-test	MW200-RFCB 2#	/	2023-12-13	2024-12-13
RF Test Software	MWRF-test	MTS 8310(V.3.0)	N/A	N/A	N/A

Conducted Emission Measurement- AC mains power ports

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Due Date
LISN	ROHDE&SCHWARZ	ENV216	101413	2023-09-18	2024-09-18
EMI Test Receiver	ROHDE&SCHWARZ	ESCI	101358	2023-05-09	2024-05-09
Test Software	Farad	EZ-EMC 1.1.4.2	N/A	N/A	N/A

3m Radiated Emission Measurement 30M-1G

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Due Date
EMI Test Receiver	Rohde & Schwarz	ESCI	100302	2023-05-09	2024-05-09
Pre-Amplifier	Anritsu	MH648A	M57886	2023-05-09	2024-05-09
Bilog Antenna	Schwarzbeck	VULB9163	VULB9163-1290	2021-11-11	2024-11-11
Test Software	Farad	EZ-EMC 1.1.4.2	N/A	N/A	N/A

3m Radiated Emission Measurement above 1GHz

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Due Date
Spectrum Analyzer	Rohde & Schwarz	FSV40N	101413	2023-12-13	2024-12-13
Low noise Amplifiers	A-INFO	LA1018N4009	J1013130524001	2023-05-09	2024-05-09
Horn antenna	A-INFO	LB-10180-SF	J2031090612123	2022-05-14	2025-05-14
Pre-Amplifier	HzEMC	HPA-184057	HYPA21004	2023-05-09	2024-05-09
DRG Horn	ETS	3116C	00246265	2022-03-28	2025-03-28
Test Software	Farad	EZ-EMC 1.1.4.2	N/A	N/A	N/A

6. ANTENNA PORT TEST RESULTS

6.1. ON TIME AND DUTY CYCLE

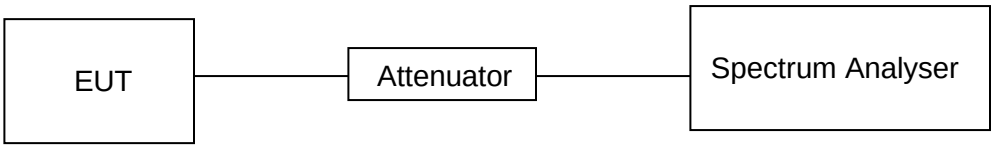
LIMITS

None; for reporting purposes only

PROCEDURE

KDB 558074 Zero-Span Spectrum Analyzer Method

TEST SETUP



TEST ENVIRONMENT

Temperature	25.3 °C	Relative Humidity	49%
Atmosphere Pressure	101 kPa	Test Voltage	AC 120V/60Hz

RESULTS

914.2MHz

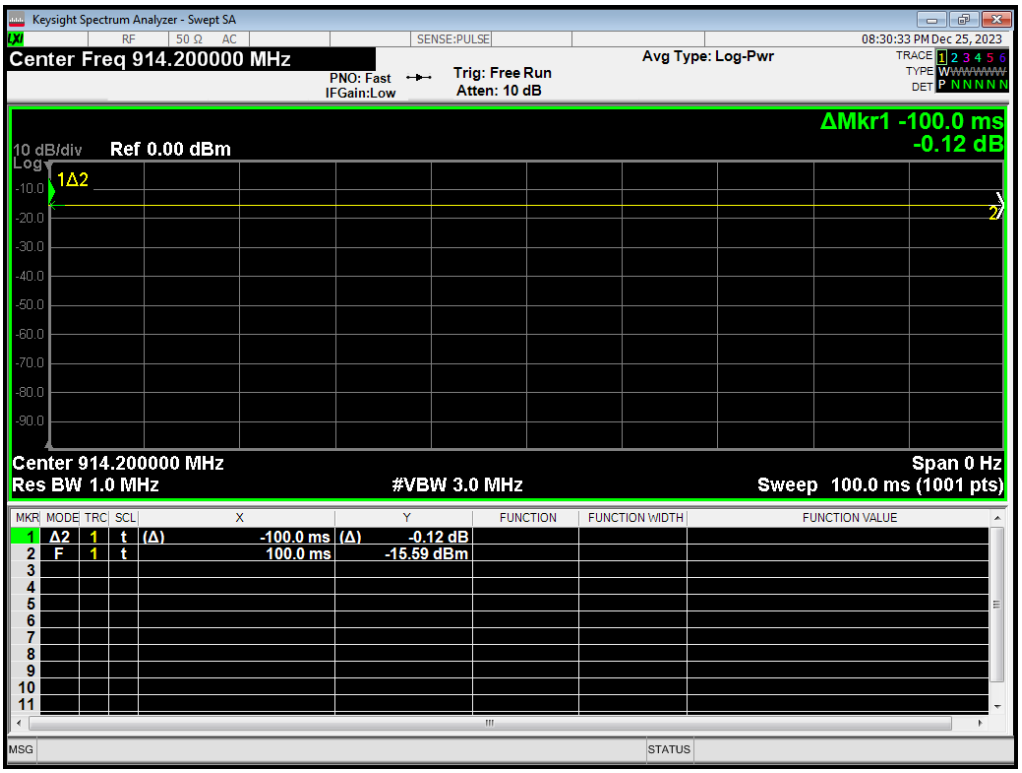
On Time (msec)	Period (msec)	Duty Cycle x (Linear)	Duty Cycle (%)	Duty Cycle Correction Factor (db)	1/T Minimum VBW (kHz)	Final setting For VBW (kHz)
100	100	1	100	0	0.01	1

915MHz

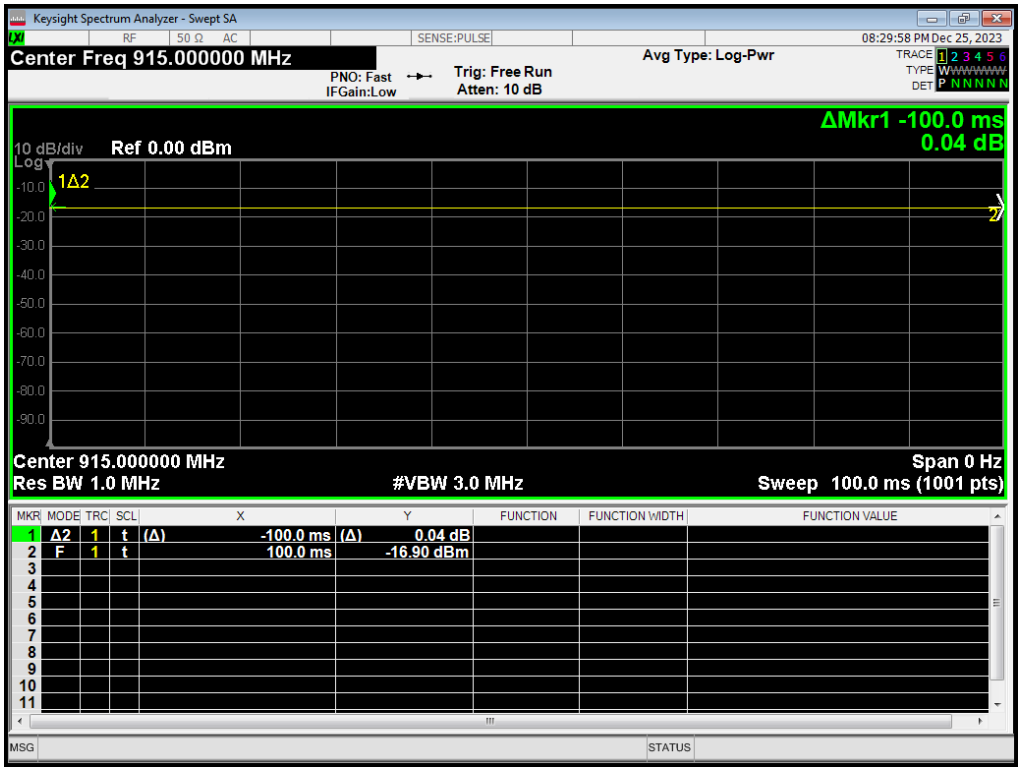
On Time (msec)	Period (msec)	Duty Cycle x (Linear)	Duty Cycle (%)	Duty Cycle Correction Factor (db)	1/T Minimum VBW (kHz)	Final setting For VBW (kHz)
100	100	1	100	0	0.01	1

Note:
Duty Cycle Correction Factor=10log(1/x).
Where: x is Duty Cycle (Linear)
Where: T is On Time (transmitting duration)
If that calculated VBW is not available on the analyzer then the next higher value should be used.

ON TIME AND DUTY CYCLE



914.2MHz



915MHz

6.2. 20 dB BANDWIDTH

LIMITS

CFR 47 FCC Part15 (15.249) Subpart C RSS-Gen Issue 5			
Section	Test Item	Limit	Frequency Range (MHz)
CFR 47 FCC §15.215 (c)	20 dB Bandwidth	for reporting purposes only	914.2, 915
ISED RSS-Gen Clause 6.7	99 % Occupied Bandwidth	For reporting purposes only.	914.2, 915

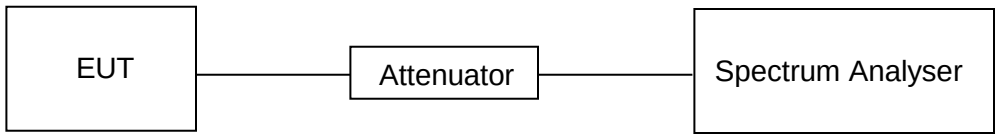
TEST PROCEDURE

Connect the UUT to the spectrum analyser and use the following settings:

Center Frequency	The center frequency of the channel under test
Detector	Peak
RBW	1 % to 5 % of the occupied bandwidth
VBW	approximately 3×RBW
Trace	Max hold
Sweep	Auto couple

Allow the trace to stabilize and measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 20 dB / 99 % relative to the maximum level measured in the fundamental emission.

TEST SETUP



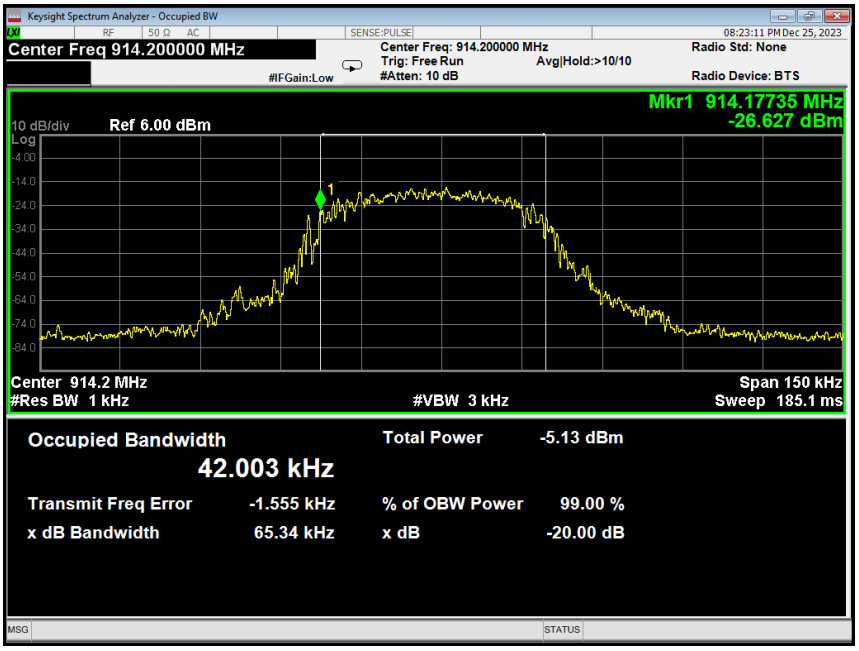
TEST ENVIRONMENT

Temperature	25.3 °C	Relative Humidity	49%
Atmosphere Pressure	101 kPa	Test Voltage	AC 120V/60Hz

RESULTS

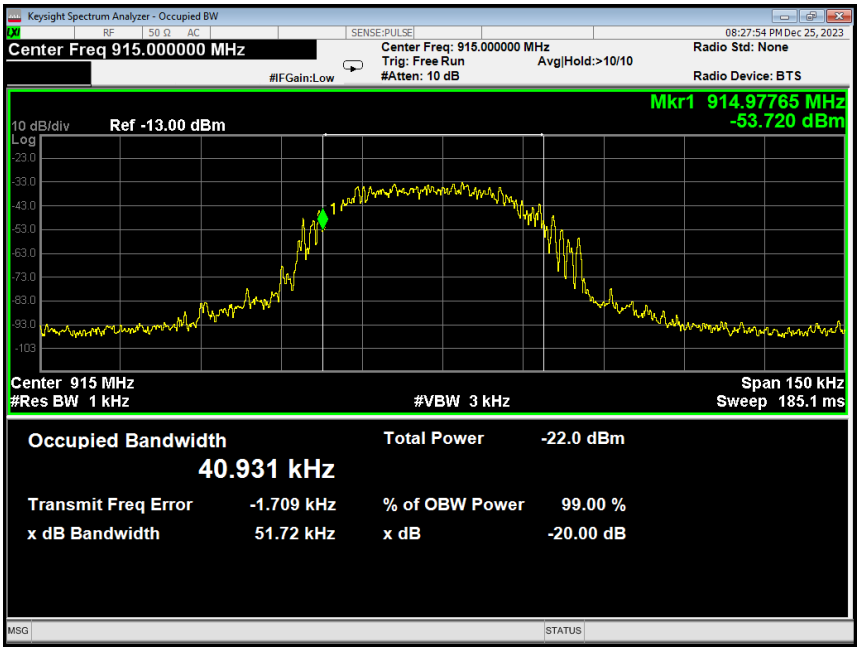
Channel	20dB bandwidth (kHz)	99 % bandwidth (kHz)	Limit (kHz)	Result
0	65.34	42.003	--	Pass

20 dB BANDWIDTH Channel 0



Channel	20dB bandwidth (kHz)	99 % bandwidth (kHz)	Limit (kHz)	Result
1	51.72	40.931	--	Pass

20 dB BANDWIDTH Channel 1



7. RADIATED TEST RESULTS

7.1. LIMITS AND PROCEDURE

LIMITS

CFR 47 FCC §15.205 and §15.209

CFR 47 FCC §15.249 (a)(d)(e)

ISED RSS-210 Issue 10 Annex B B.10

RSS-GEN Clause 8.9

The field strength of emissions from intentional radiators operated within these frequency bands			
Frequency (MHz)	Field strength of Fundamental	Field strength of Harmonics	Distance (m)
902 - 928	50 mV/m (94 dBuV/m)	500 uV/m (54 dBuV/m)	3
2400 – 2483.5	50 mV/m (94 dBuV/m)	500 uV/m (54 dBuV/m)	3
5725 – 5875	50 mV/m (94 dBuV/m)	500 uV/m (54 dBuV/m)	3

Emissions radiated outside of the specified frequency bands above 30MHz			
Frequency Range (MHz)	Field Strength Limit (uV/m) at 3 m	Field Strength Limit (dBuV/m) at 3 m	
		Quasi-Peak	
30 - 88	100	40	
88 - 216	150	43.5	
216 - 960	200	46	
Above 960	500	54	
Above 1000	500	Peak	Average
		74	54

Emissions radiated outside of the specified frequency bands below 30 MHz		
Frequency (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30

IC Restricted bands please refer to ISED RSS-GEN Clause 8.10

Table 7 – Restricted frequency bands[Note 1]		
MHz	**MHz**	**GHz**
0.090 - 0.110	149.9 - 150.05	9.0 - 9.2
0.495 - 0.505	156.52475 - 156.52525	9.3 - 9.5
2.1735 - 2.1905	156.7 - 156.9	10.6 - 12.7
3.020 - 3.026	162.0125 - 167.17	13.25 - 13.4
4.125 - 4.128	167.72 - 173.2	14.47 - 14.5
4.17725 - 4.17775	240 – 285	15.35 - 16.2
4.20725 - 4.20775	322 - 335.4	17.7 - 21.4
5.677 - 5.683	399.9 - 410	22.01 - 23.12
6.215 - 6.218	608 - 614	23.6 - 24.0
6.26775 - 6.26825	960 - 1427	31.2 - 31.8
6.31175 - 6.31225	1435 - 1626.5	36.43 - 36.5
8.291 - 8.294	1645.5 - 1646.5	Above 38.6
8.362 - 8.366	1660 - 1710	
8.37625 - 8.38675	1718.8 - 1722.2	
8.41425 - 8.41475	2200 - 2300	
12.29 - 12.293	2310 - 2390	
12.51975 - 12.52025	2483.5 - 2500	
12.57675 - 12.57725	2655 - 2900	
13.36 - 13.41	3260 – 3267	
16.42 - 16.423	3332 - 3339	
16.69475 - 16.69525	3345.8 - 3358	
16.80425 - 16.80475	3500 - 4400	
25.5 - 25.67	4500 - 5150	
37.5 - 38.25	5350 - 5460	
73 - 74.6	7250 - 7750	
74.8 - 75.2	8025 – 8500	
108 – 138		

Note 1: Certain frequency bands listed in table 7 and in bands above 38.6 GHz are designated for licence-exempt applications. These frequency bands and the requirements that apply to related devices are set out in the 200 and 300 series of RSSs.

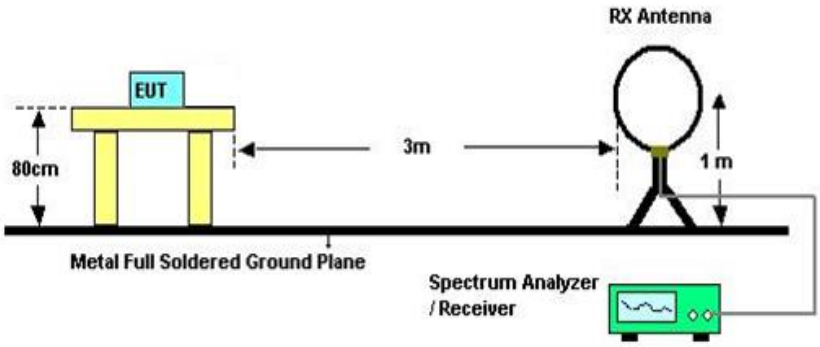
FCC Restricted bands of operation:

MHz	MHz	MHz	GHz
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
[1]0.495-0.505	16.69475-16.69525	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218	74.8-75.2	1660-1710	10.6-12.7
6.26775-6.26825	108-121.94	1718.8-1722.2	13.25-13.4
6.31175-6.31225	123-138	2200-2300	14.47-14.5
8.291-8.294	149.9-150.05	2310-2390	15.35-16.2
8.362-8.366	156.52475-156.52525	2483.5-2500	17.7-21.4
8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12
8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0
12.29-12.293	167.72-173.2	3332-3339	31.2-31.8
12.51975-12.52025	240-285	3345.8-3358	36.43-36.5
12.57675-12.57725	322-335.4	3600-4400	([2])
13.36-13.41			

Note: [1]Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz.
[2]Above 38.6c

TEST SETUP AND PROCEDURE

Below 30 MHz



The setting of the spectrum analyser

RBW	200 Hz (From 9 kHz to 0.15 MHz)/ 9 kHz (From 0.15 MHz to 30 MHz)
VBW	200 Hz (From 9 kHz to 0.15 MHz)/ 9 kHz (From 0.15 MHz to 30 MHz)
Sweep	Auto
Detector	Peak/QP/ Average
Trace	Max hold

1. The testing follows the guidelines in ANSI C63.10-2013.

2. The EUT was arranged to its worst case and then turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level. Both Horizontal, Face-on and Face-off polarizations of the antenna are set to make the measurement.

3. The EUT was placed on a turntable with 80cm meter above ground.

4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a 1m height antenna tower.

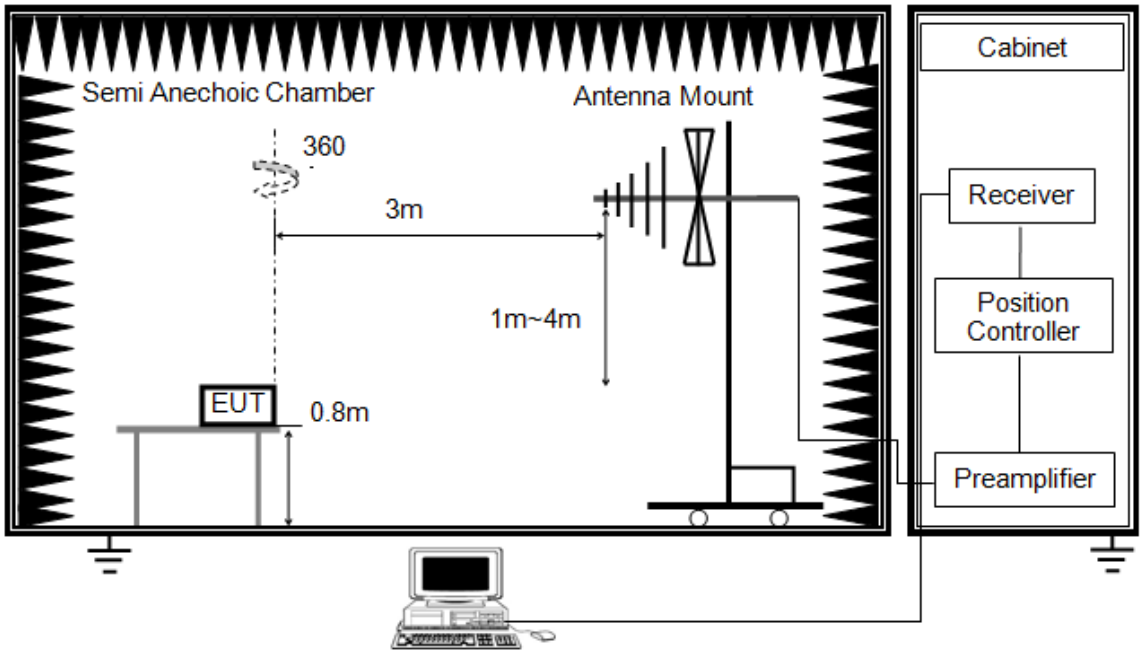
5. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.

6. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.

7. The radiated emission limits are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90 kHz, 110-490 kHz and above 1000MHz. Radiated emission limits in these three bands are based on measurements employing an average detector.

8. Although these tests were performed other than open area test site, adequate comparison measurements were confirmed against 30 m open field site. Therefore, the 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.

Below 1 GHz



The setting of the spectrum analyser

RBW	120 kHz
VBW	300 kHz
Sweep	Auto
Detector	Peak/QP
Trace	Max hold

1. The testing follows the guidelines in ANSI C63.10-2013.

2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

3. The EUT was placed on a turntable with 80 cm above ground.

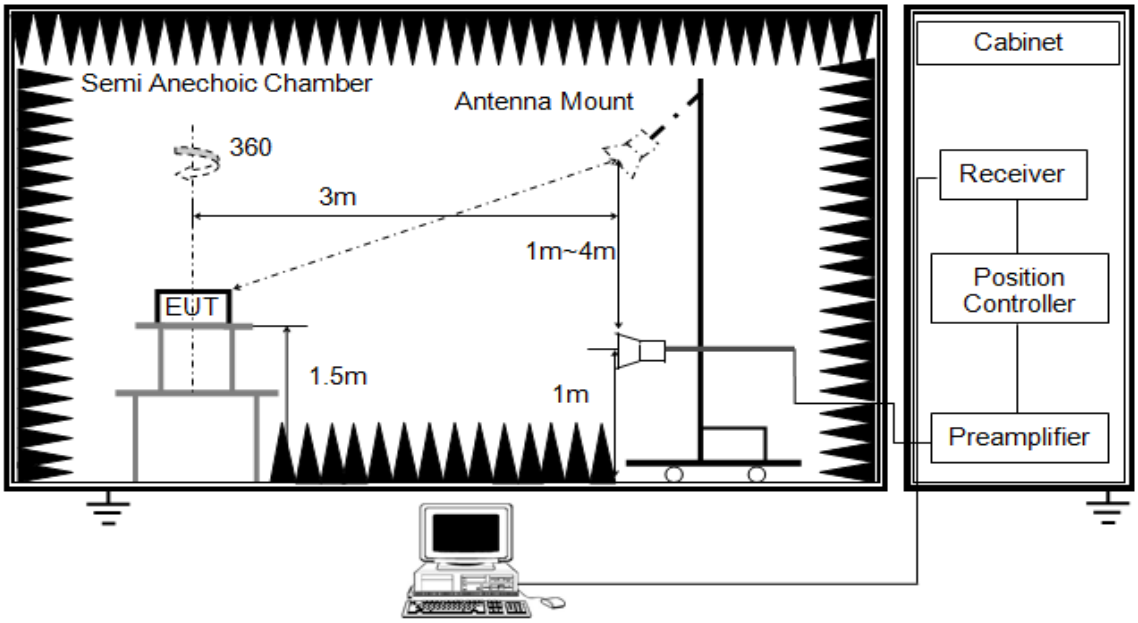
4. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.

5. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.

6. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.

7. The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.

Above 1 GHz



The setting of the spectrum analyser

RBW	1 MHz
VBW	PEAK: 3 MHz AVG: see note 6
Sweep	Auto
Detector	Peak
Trace	Max hold

1. The testing follows the guidelines in ANSI C63.10-2013.

2. The EUT was arranged to its worst case and then tune the antenna tower (1.5 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter or band reject filter are used for the test in order to get better signal level. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

3. The EUT was placed on a turntable with 80cm above ground.

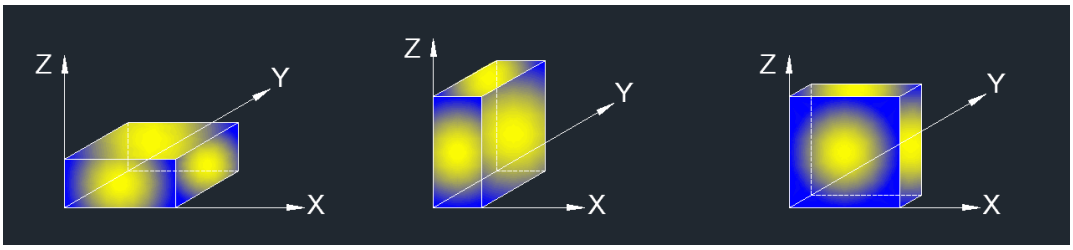
4. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.

5. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.

6. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.

7. For measurements above 1 GHz the resolution bandwidth is set to 1 MHz, then the video bandwidth is set to 3 MHz for peak measurements and 1 MHz resolution bandwidth with 1/T video bandwidth with peak detector for average measurements. For the Duty Cycle please refer to clause 6.1. ON TIME AND DUTY CYCLE.

X axis, Y axis, Z axis positions:



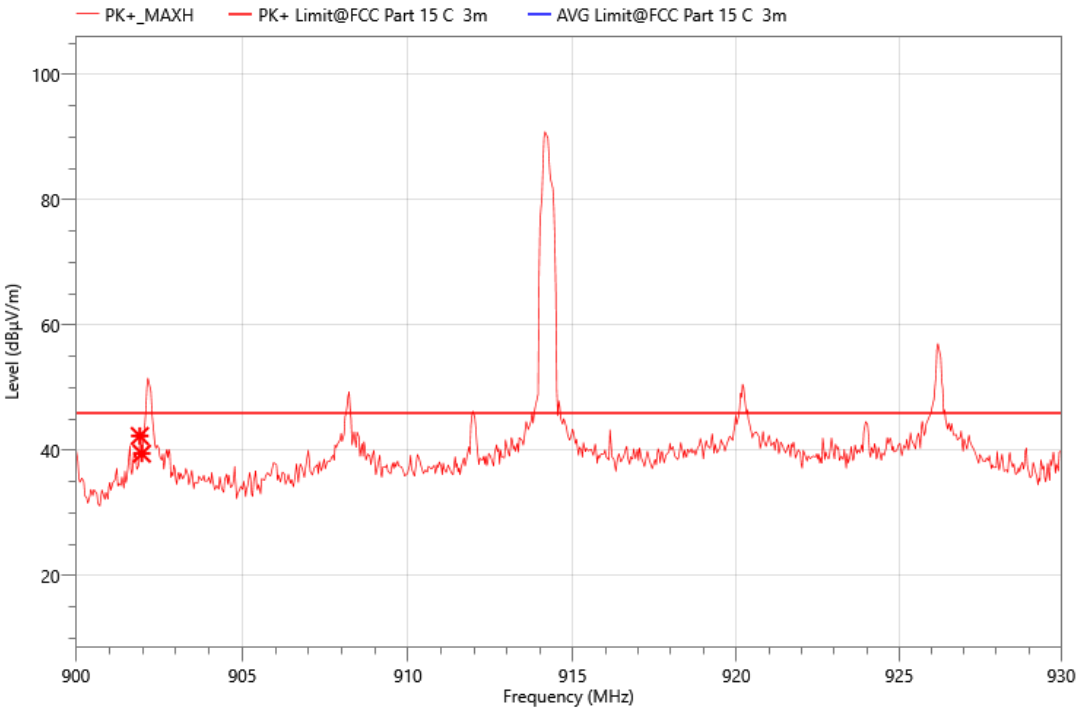
Note 1: For all radiated test, EUT in each of three orthogonal axis emissions had been tested, but only the worst case (X axis for horizontal and Y axis for vertical) data recorded in the report.

TEST ENVIRONMENT

Temperature	23 °C	Relative Humidity	47%
Atmosphere Pressure	101 kPa	Test Voltage	AC 120V/60Hz

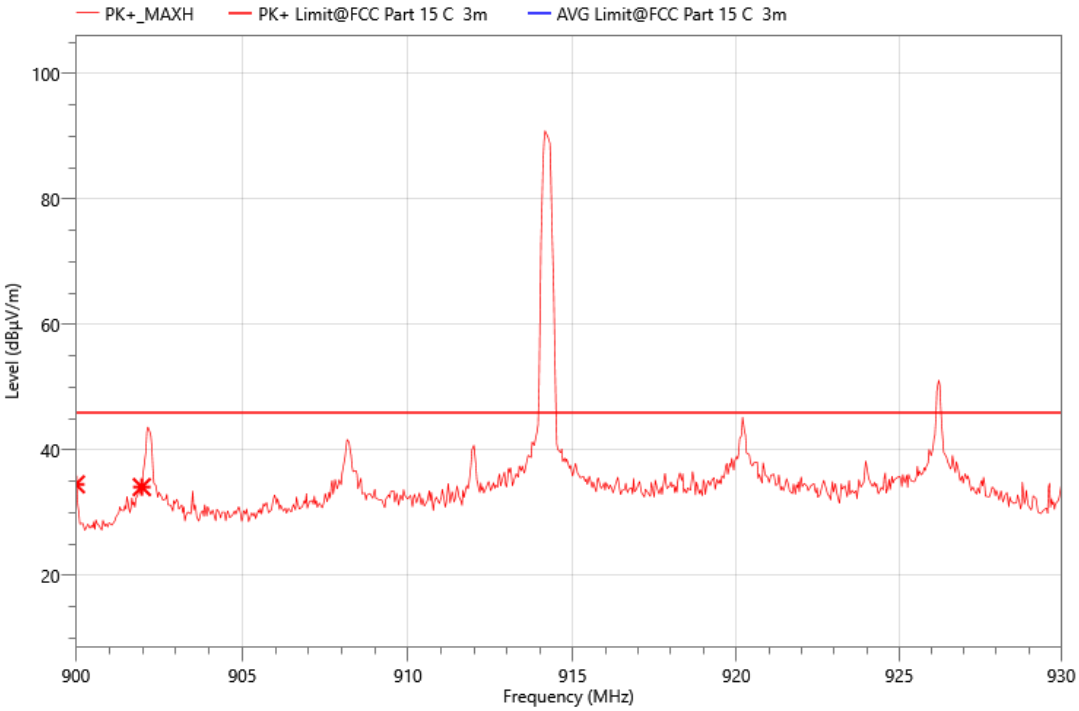
7.2. RESTRICTED BANDEDGE AND FIELD STRENGTH OF INTENTIONAL EMISSIONS

RESTRICTED BANDEDGE AND FIELD STRENGTH OF INTENTIONAL EMISSIONS (914.2 MHz)



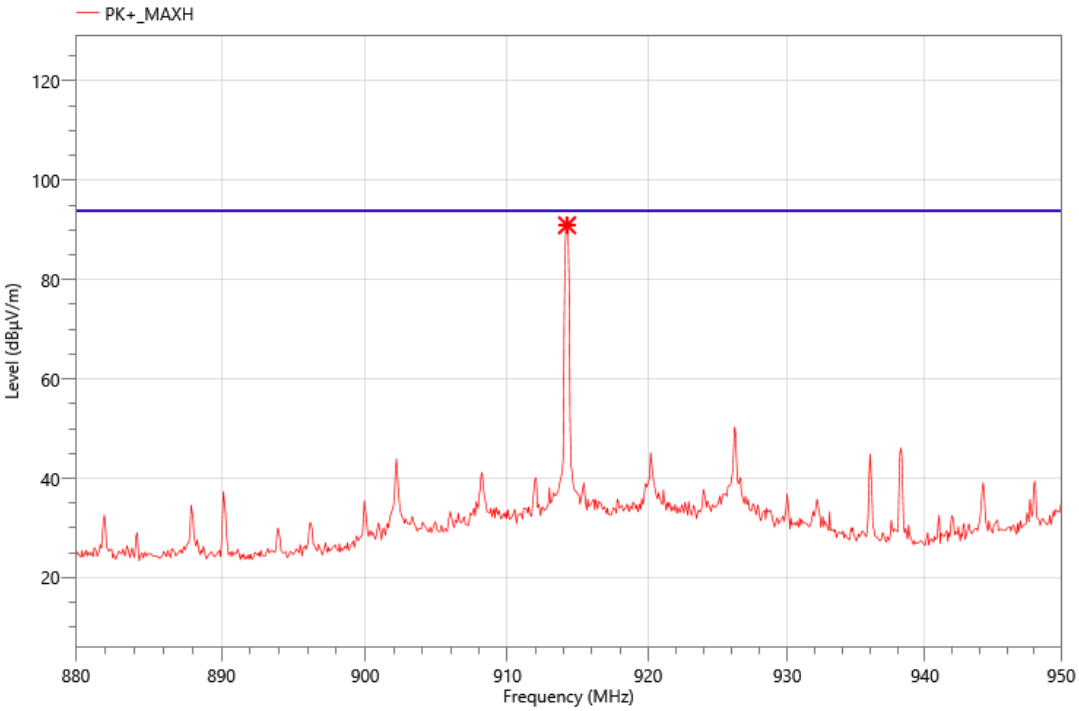
No.	Freq. (MHz)	Reading (dBµV)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dBµV/m)	Det.	Pol.	Corr. (dB)
1	901.920	47.35	42.31	46.00	3.69	PK+	H	-5.04
2	901.980	44.52	39.49	46.00	6.51	PK+	H	-5.03

Note: 1. Measurement = Reading Level + Correct Factor.
2. Peak: Peak detector.
3. Only the worst emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



No.	Freq. (MHz)	Reading (dBµV)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dBµV/m)	Det.	Pol.	Corr. (dB)
1	900.000	39.64	34.54	46.00	11.46	PK+	V	-5.1
2	901.980	39.13	34.10	46.00	11.90	PK+	V	-5.03

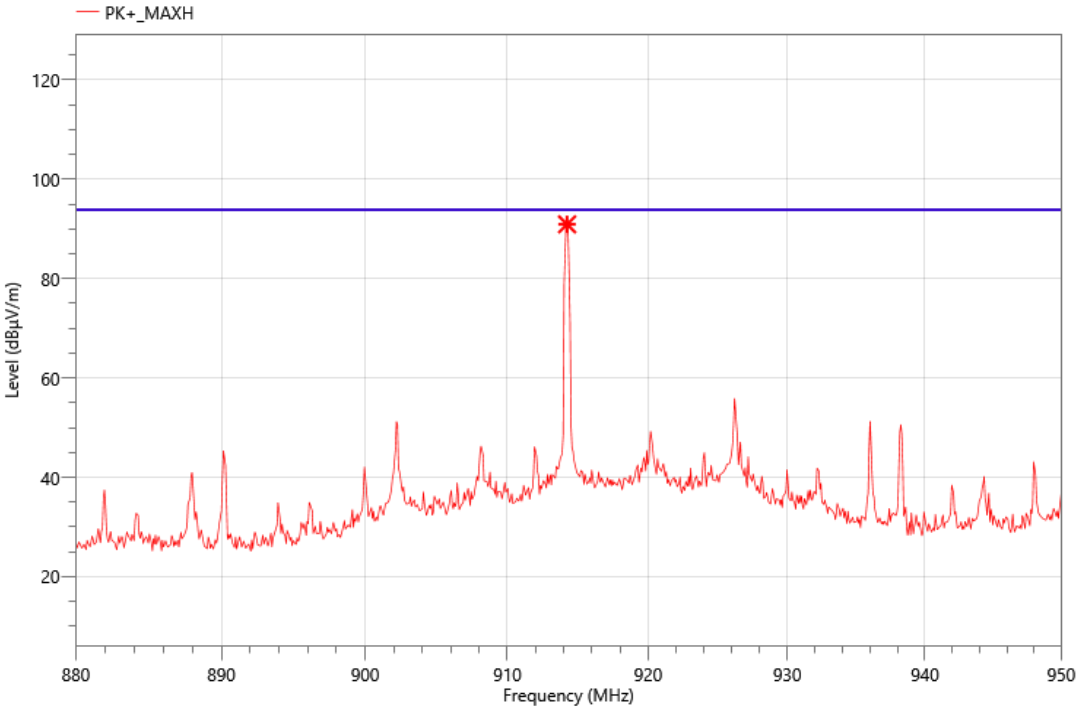
Note: 1. Measurement = Reading Level + Correct Factor.
2. Peak: Peak detector.
3. Only the worst emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



No.	Freq. (MHz)	Reading (dBµV)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dBµV/m)	Det.	Pol.	Corr. (dB)
1	914.230	94.98	90.95	94.00	3.05	QP	V	-4.03

Note: 1. Measurement = Reading Level + Correct Factor.

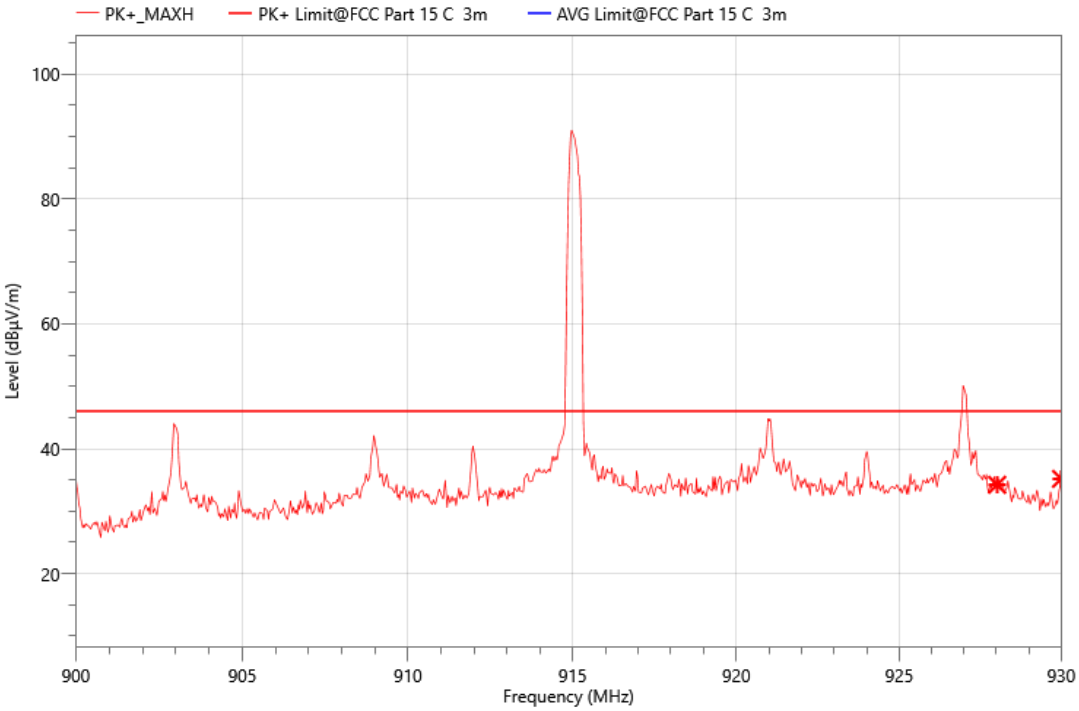
.



No.	Freq. (MHz)	Reading (dBµV)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dBµV/m)	Det.	Pol.	Corr. (dB)
1	914.230	94.96	90.93	94.00	3.07	QP	H	-4.03

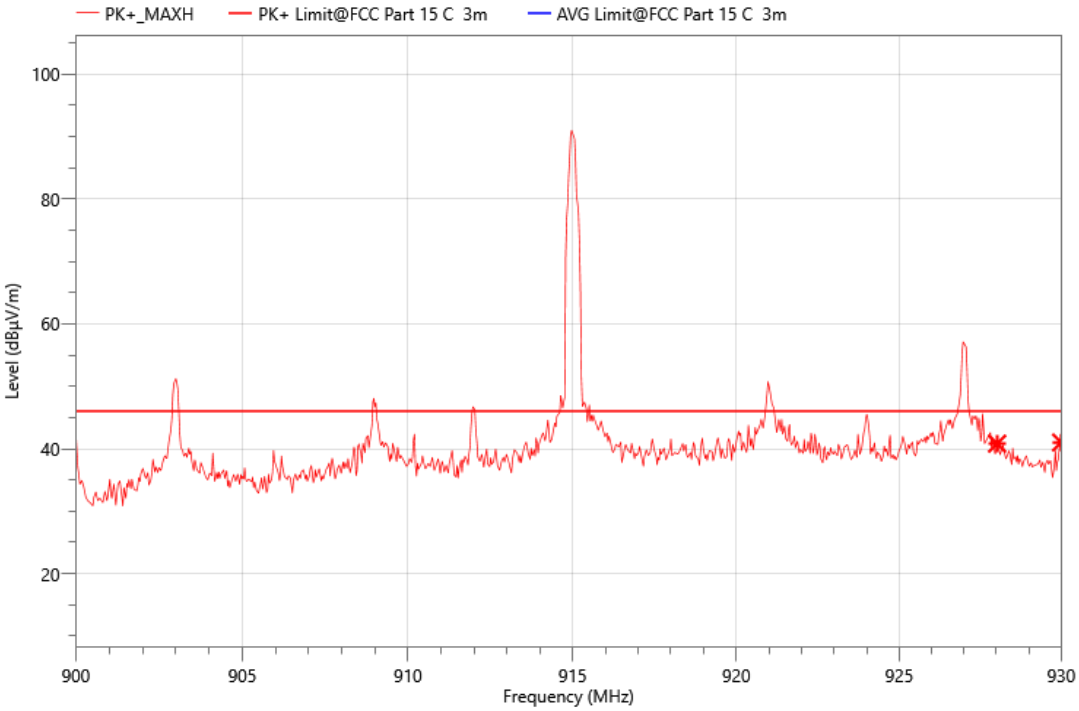
Note: 1. Measurement = Reading Level + Correct Factor.

RESTRICTED BANDEDGE AND FIELD STRENGTH OF INTENTIONAL EMISSIONS (915 MHz)



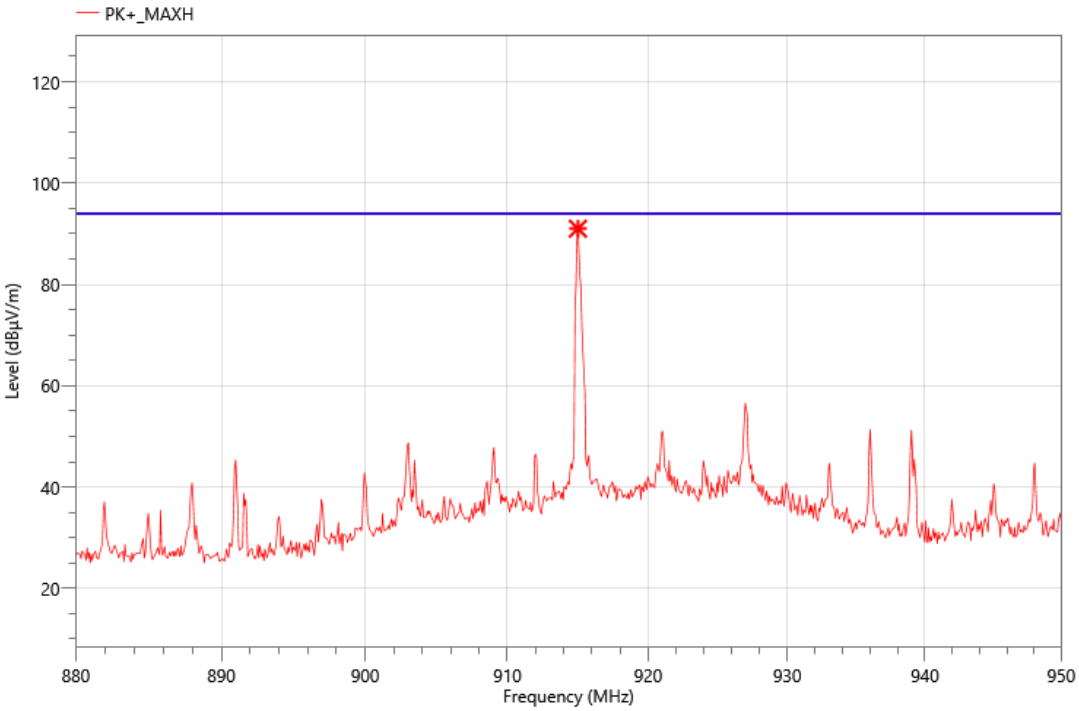
No.	Freq. (MHz)	Reading (dBµV)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dBµV/m)	Det.	Pol.	Corr. (dB)
1	928.020	37.32	42.31	46.00	3.69	PK+	H	-5.04
2	930.000	38.12	39.49	46.00	6.51	PK+	H	-5.03

Note: 1. Measurement = Reading Level + Correct Factor.
2. Peak: Peak detector.
3. Only the worst emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



No.	Freq. (MHz)	Reading (dBµV)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dBµV/m)	Det.	Pol.	Corr. (dB)
1	928.020	43.91	40.82	46.00	5.18	PK+	H	-3.09
2	930.000	43.95	41.00	46.00	5.00	PK+	H	-2.95

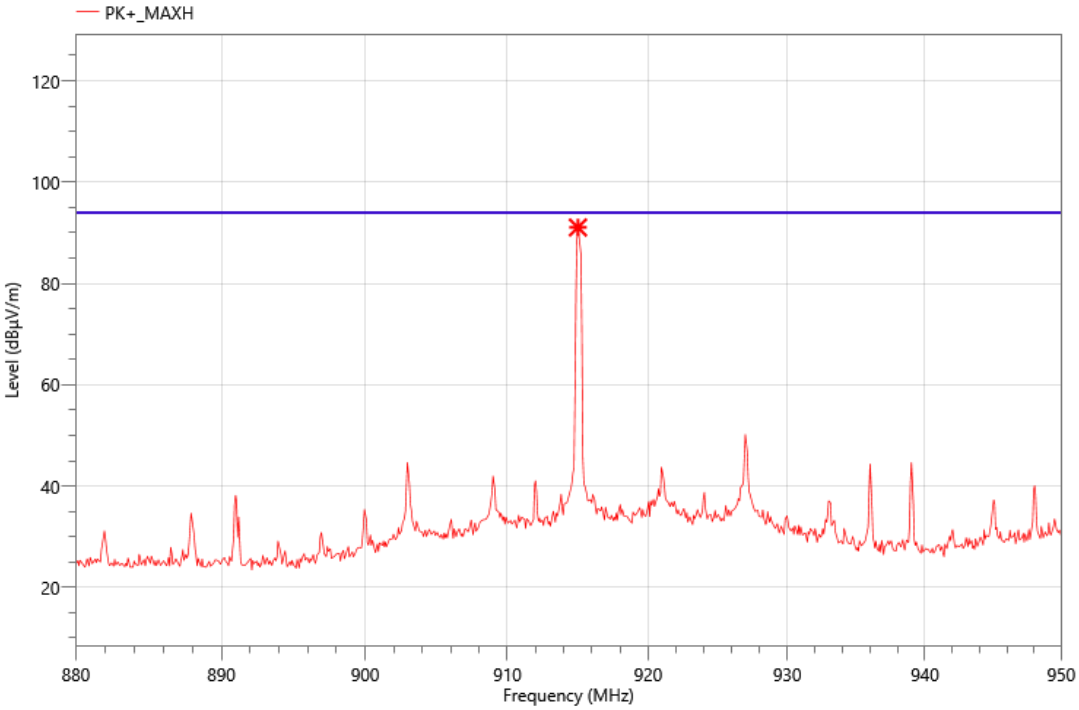
Note: 1. Measurement = Reading Level + Correct Factor.
2. Peak: Peak detector.
3. Only the worst emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



No.	Freq. (MHz)	Reading (dBµV)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dBµV/m)	Det.	Pol.	Corr. (dB)
1	915.000	94.95	91.01	94.00	2.99	QP	H	-3.94

Note: 1. Measurement = Reading Level + Correct Factor.

.



No.	Freq. (MHz)	Reading (dBµV)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dBµV/m)	Det.	Pol.	Corr. (dB)
1	915.000	94.99	91.05	94.00	2.95	QP	V	-3.94

Note: 1. Measurement = Reading Level + Correct Factor.

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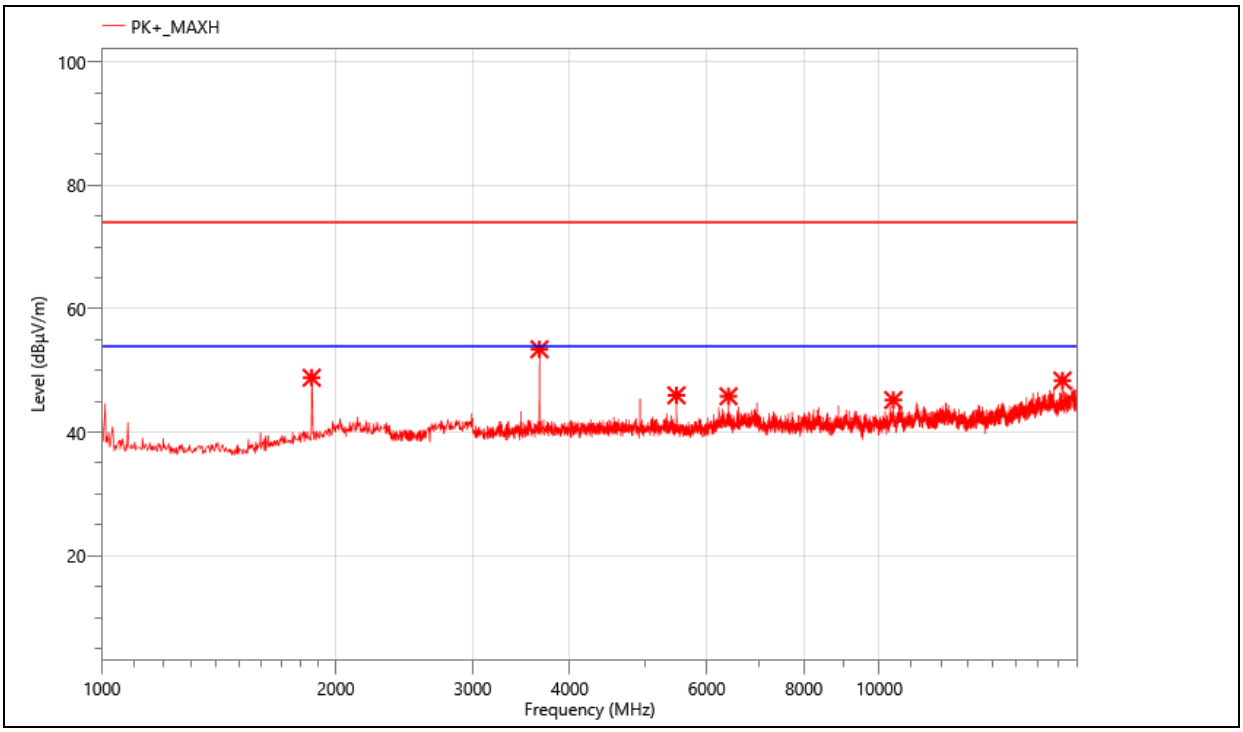
7.3. SPURIOUS EMISSIONS (Above 1000MHz~10th Harmonics)

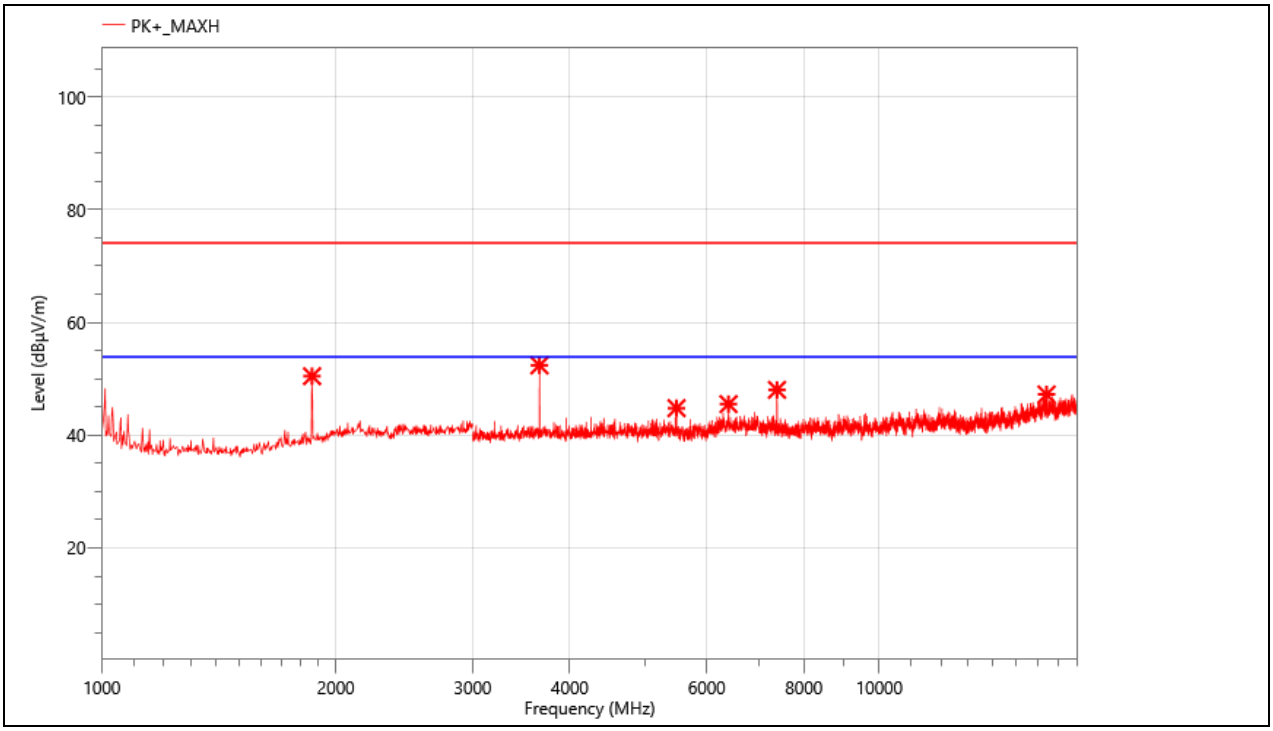
HARMONICS AND SPURIOUS EMISSIONS (914.2 MHz, HORIZONTAL)



No.	Freq. (MHz)	Reading (dBµV)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dBµV/m)	Det.	Pol.	Corr. (dB)
1	1862.000	23.76	48.83	74.00	25.17	PK+	H	25.07
2	3655.500	66.75	53.43	74.00	20.57	PK+	H	-13.32
3	5484.000	55.81	45.98	74.00	28.02	PK+	H	-9.83
4	6399.000	53.95	45.83	74.00	28.17	PK+	H	-8.12
5	10425.000	50.89	45.22	74.00	28.78	PK+	H	-5.67
6	17203.500	49.47	48.38	74.00	25.62	PK+	H	-1.09

Note: 1. Peak Result = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Filter losses were only considered in then spurious frequency bands and the authorized band was not corrected for BRF losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.

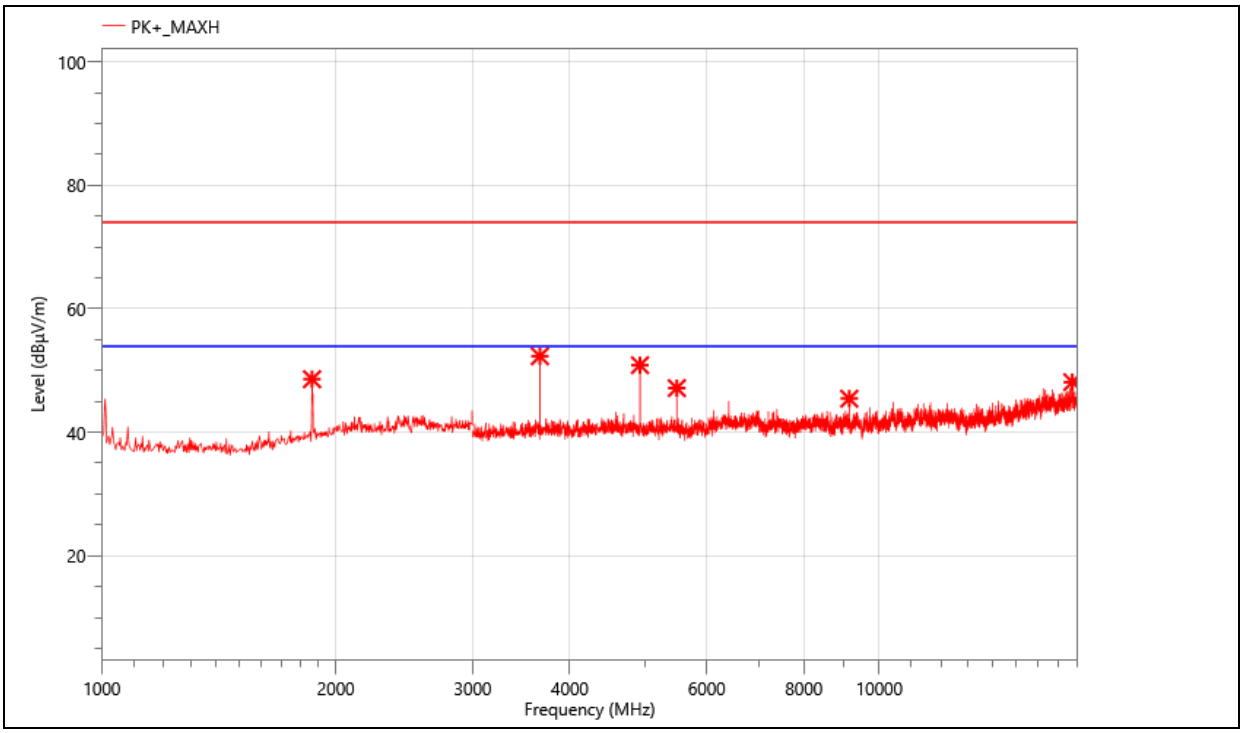
HARMONICS AND SPURIOUS EMISSIONS (914.2 MHz, VERTICAL)



No.	Freq. (MHz)	Reading (dBµV)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dBµV/m)	Det.	Pol.	Corr. (dB)
1	1864.000	25.39	50.47	74.00	23.53	PK+	V	25.08
2	3655.500	65.70	52.38	74.00	21.62	PK+	V	-13.32
3	5485.500	54.61	44.80	74.00	29.20	PK+	V	-9.81
4	6399.000	53.64	45.52	74.00	28.48	PK+	V	-8.12
5	7387.500	56.34	48.05	74.00	25.95	PK+	V	-8.29
6	16410.000	48.48	47.24	74.00	26.76	PK+	V	-1.24

Note: 1. Peak Result = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Filter losses were only considered in then spurious frequency bands and the authorized band was not corrected for BRF losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.

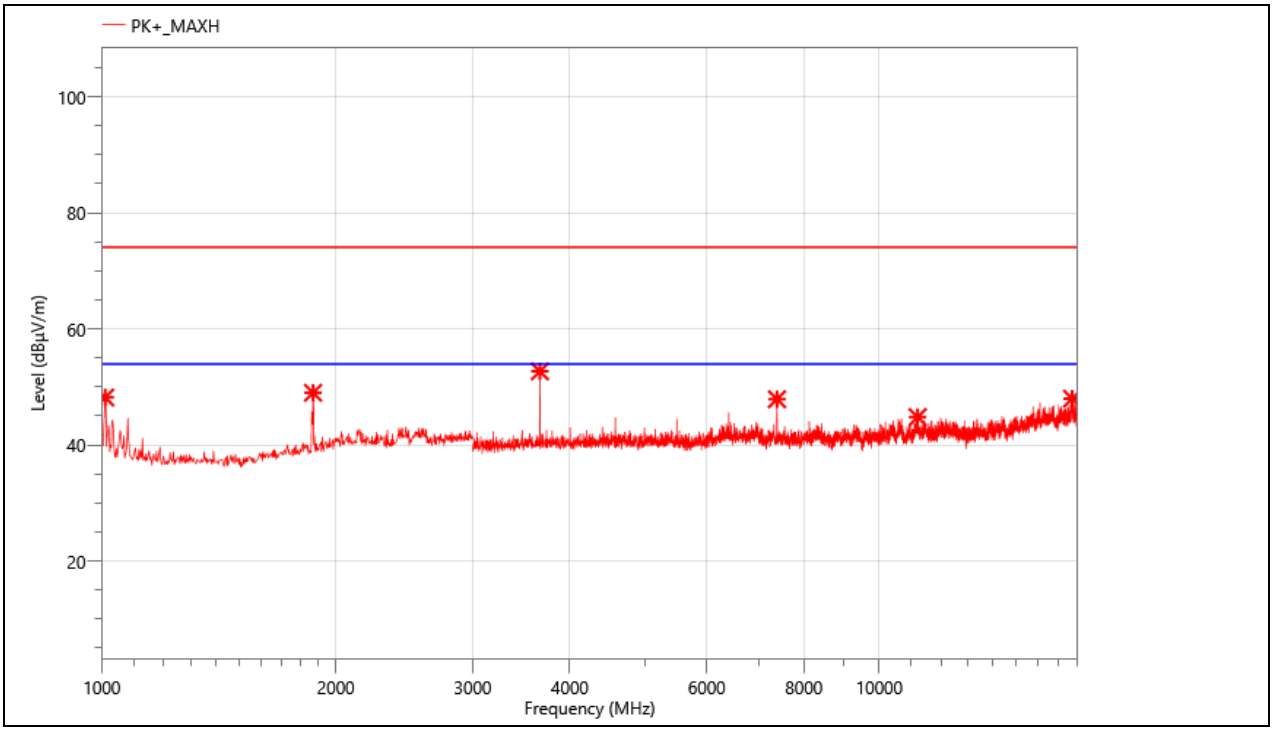
HARMONICS AND SPURIOUS EMISSIONS (915 MHz, HORIZONTAL)



No.	Freq. (MHz)	Reading (dBµV)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dBµV/m)	Det.	Pol.	Corr. (dB)
1	1864.000	23.51	48.59	74.00	25.41	PK+	H	25.08
2	3660.000	65.67	52.31	74.00	21.69	PK+	H	-13.36
3	4923.000	61.97	50.86	74.00	23.14	PK+	H	-11.11
4	5490.000	56.93	47.15	74.00	26.85	PK+	H	-9.78
5	9150.000	52.72	45.44	74.00	28.56	PK+	H	-7.28
6	17715.000	48.26	48.12	74.00	25.88	PK+	H	-0.14

Note: 1. Peak Result = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Filter losses were only considered in then spurious frequency bands and the authorized band was not corrected for BRF losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.

HARMONICS AND SPURIOUS EMISSIONS (915 MHz, VERTICAL)

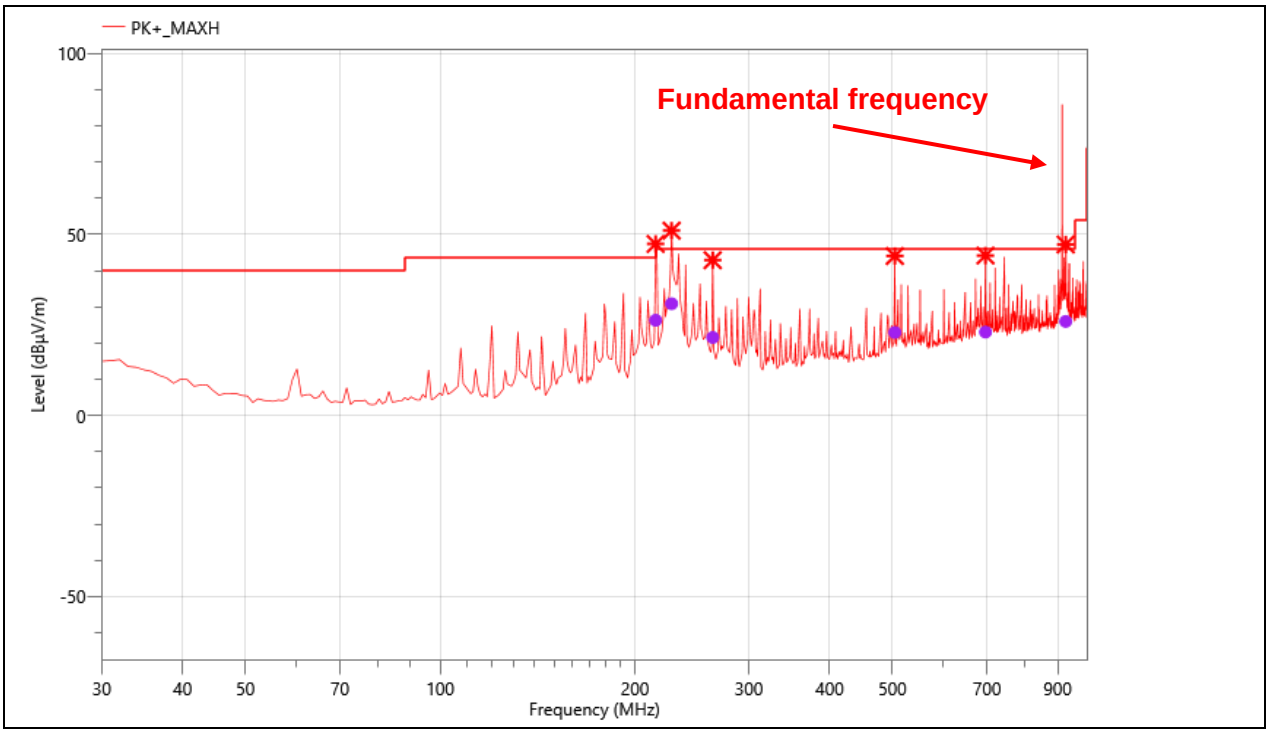


No.	Freq. (MHz)	Reading (dBµV)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dBµV/m)	Det.	Pol.	Corr. (dB)
1	1010.000	24.93	48.18	74.00	25.82	PK+	V	23.25
2	1870.000	23.86	48.99	74.00	25.01	PK+	V	25.13
3	3660.000	66.04	52.68	74.00	21.32	PK+	V	-13.36
4	7387.500	56.17	47.88	74.00	26.12	PK+	V	-8.29
5	11202.000	49.20	44.80	74.00	29.20	PK+	V	-4.4
6	17701.500	47.83	47.97	74.00	26.03	PK+	V	0.14

Note: 1. Peak Result = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Filter losses were only considered in then spurious frequency bands and the authorized band was not corrected for BRF losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.

7.4. SPURIOUS EMISSIONS BELOW 1 GHz AND ABOVE 30 MHz

SPURIOUS EMISSIONS (915 MHz, HORIZONTAL)

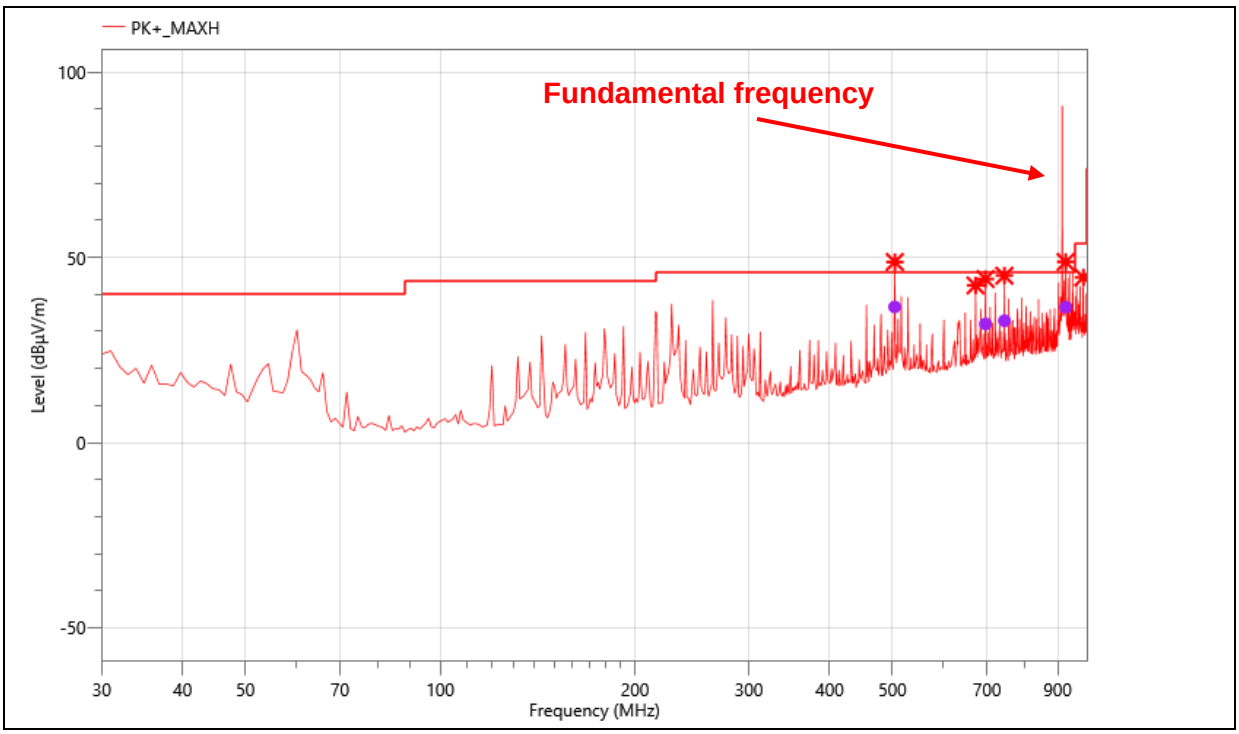


No.	Freq. (MHz)	Reading (dBµV)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dBµV/m)	Det.	Pol.	Corr. (dB)
1	215.270	68.40	47.40	43.50	-3.90	PK+	H	-21
2	227.880	71.48	51.08	46.00	-5.08	PK+	H	-20.4
3	263.770	61.24	42.92	46.00	3.08	PK+	H	-18.32
4	504.330	56.05	44.06	46.00	1.94	PK+	H	-11.99
5	696.390	51.75	44.20	46.00	1.80	PK+	H	-7.55
6	926.280	50.44	47.26	46.00	-1.26	PK+	H	-3.18

No.	Freq. (MHz)	Reading (dBµV)	Corr. (dB)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Det.	Pol.	Verdict
1	215.270	47.33	-21	26.33	43.50	17.17	QP	H	PASS
2	227.880	51.29	-20.4	30.89	46.00	15.11	QP	H	PASS
3	263.770	39.90	-18.32	21.58	46.00	24.42	QP	H	PASS
4	504.330	34.95	-11.99	22.96	46.00	23.04	QP	H	PASS
5	696.390	30.62	-7.55	23.07	46.00	22.93	QP	H	PASS
6	926.280	29.19	-3.18	26.01	46.00	19.99	QP	H	PASS

Note: 1. Result Level = Read Level + Correct Factor.

SPURIOUS EMISSIONS (915 MHz, VERTICAL)



No.	Freq. (MHz)	Reading (dBµV)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dBµV/m)	Det.	Pol.	Corr. (dB)
1	504.330	60.76	48.77	46.00	-2.77	PK+	V	-11.99
2	672.140	50.42	42.44	46.00	3.56	PK+	V	-7.98
3	696.390	51.74	44.19	46.00	1.81	PK+	V	-7.55
4	744.890	52.25	45.08	46.00	0.92	PK+	V	-7.17
5	926.280	51.96	48.78	46.00	-2.78	PK+	V	-3.18
6	986.420	48.36	44.59	53.90	9.31	PK+	V	-3.77

No.	Freq. (MHz)	Reading (dBµV)	Corr. (dB)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Det.	Pol.	Verdict
1	503.997	48.64	-12.01	36.63	46.00	9.37	QP	V	PASS
2	696.390	39.60	-7.55	32.05	46.00	13.95	QP	V	PASS
3	744.890	40.08	-7.17	32.91	46.00	13.09	QP	V	PASS
4	926.280	39.76	-3.18	36.58	46.00	9.42	QP	V	PASS

Note: 1. Result Level = Read Level + Correct Factor.
2. If Peak Result complies with QP limit, QP Result is deemed to comply with QP limit.

Note: All test modes had been tested, only the worst data record in the report.

8. AC POWER LINE CONDUCTED EMISSIONS

LIMITS

Please refer to CFR 47 FCC §15.207 (a) and ISED RSS-Gen Clause 8.8

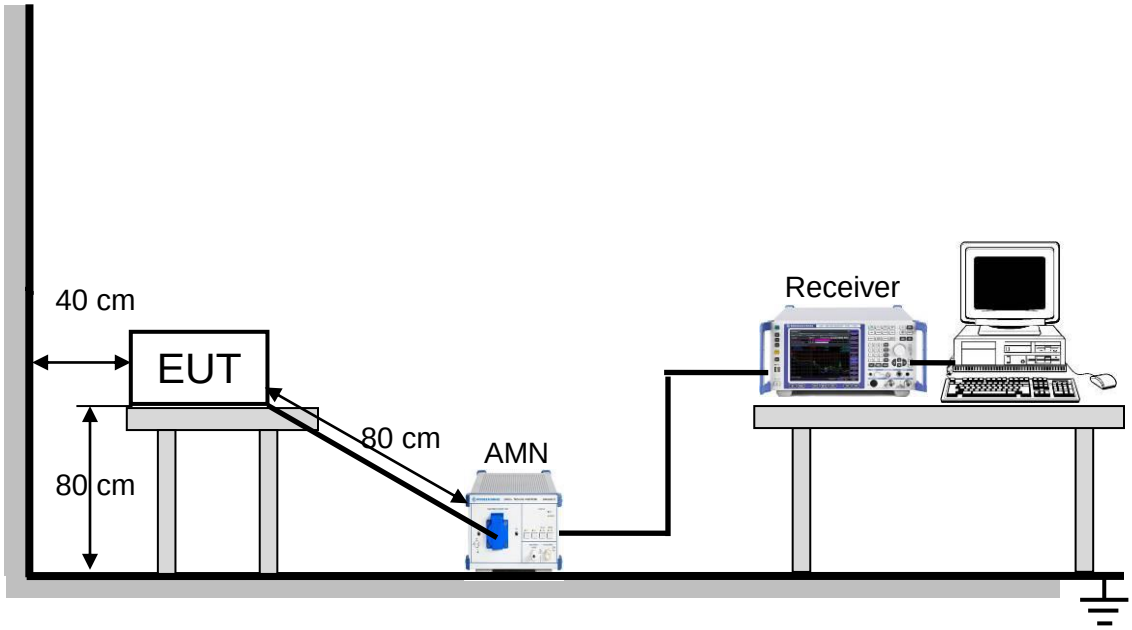
FREQUENCY (MHz)	Quasi-peak	Average
0.15 -0.5	66 - 56 *	56 - 46 *
0.50 -5.0	56.00	46.00
5.0 -30.0	60.00	50.00

Note:

(1) The tighter limit applies at the band edges.

(2) The limit of " * " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.

TEST SETUP AND PROCEDURE



The following table is the setting of the receiver

Receiver Parameters	Setting
Attenuation	10 dB
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 kHz

1. The testing follows the guidelines in ANSI C63.10-2013.

2. The EUT was placed on the top of a rotating table 0.8 meters above the horizontal ground plane and being connected to the power mains through a line impedance stabilization network (LISN). All other support equipment powered from additional LISN(s). The LISN provide 50 ohm/ 50 uH of coupling impedance for the measuring instrument.

3. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.

4. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.

5. LISN at least 80 cm from nearest part of EUT chassis.

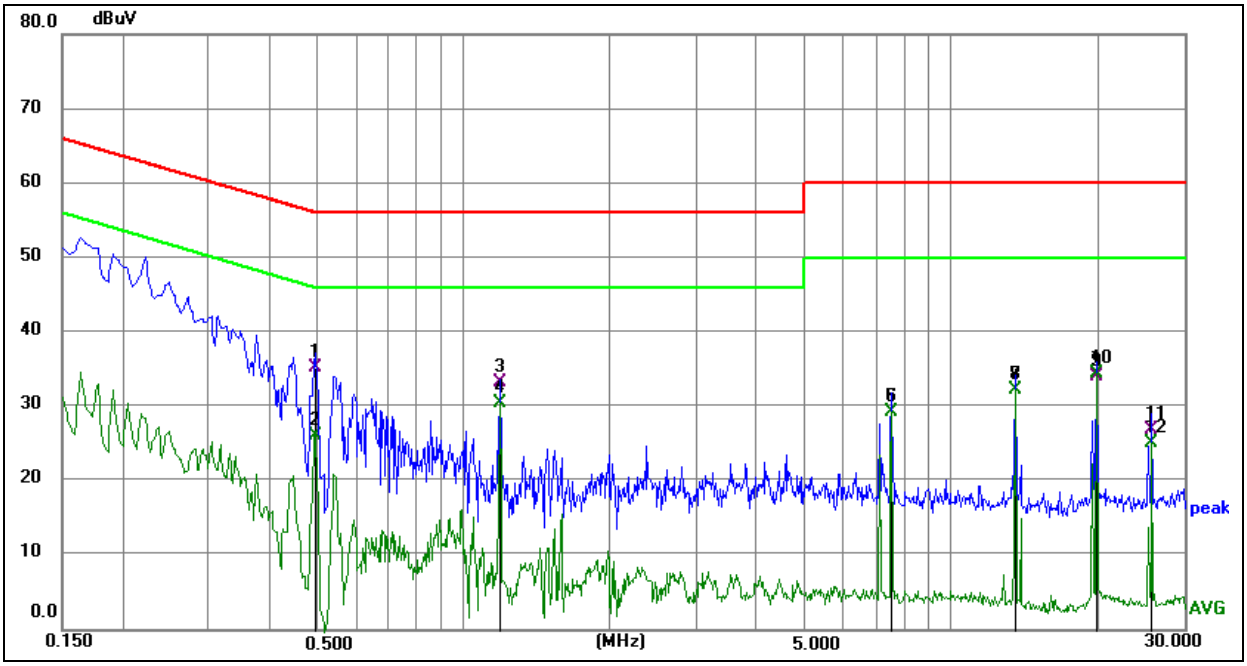
6. Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30MHz using CISPR Quasi-Peak and average detector mode.

7. The arrangement of the equipment is installed to meet the standards and operating in a manner, which tends to maximize its emission characteristics in a normal application.

TEST ENVIRONMENT

Temperature	25.3°C	Relative Humidity	52 %
Atmosphere Pressure	101 kPa	Test Voltage	AC 120V/60Hz

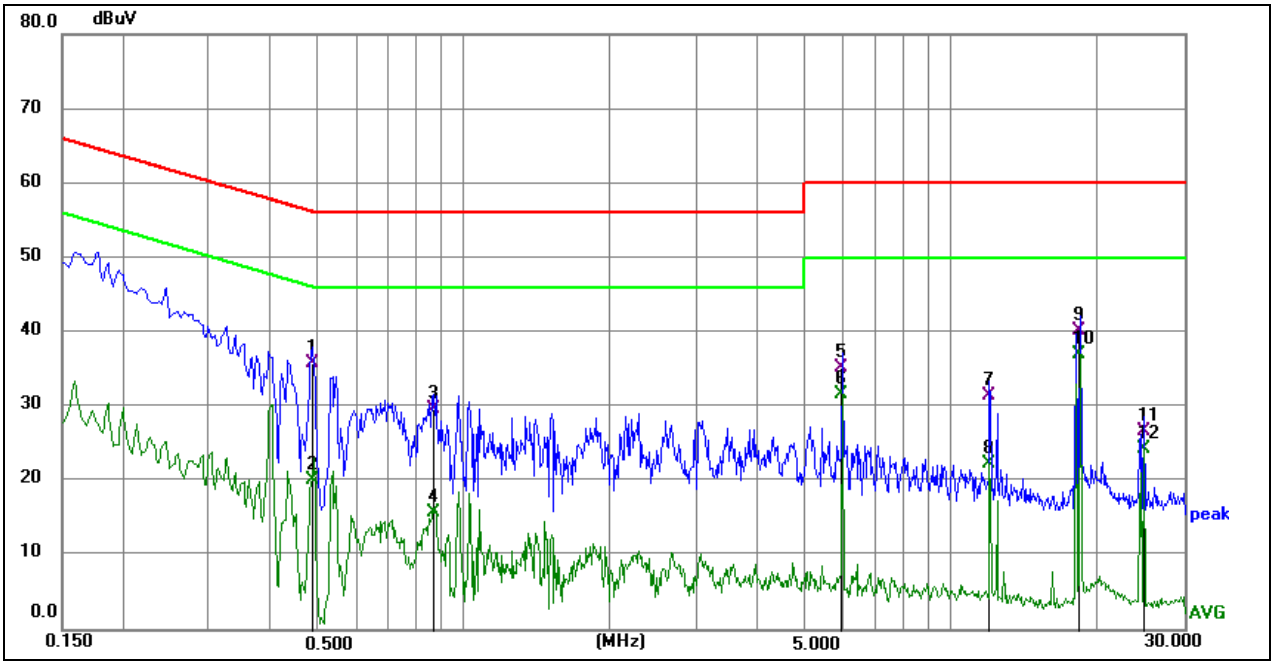
LINE N RESULTS (915 MHz)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.4965	25.33	9.84	35.17	56.06	-20.89	QP
2	0.4965	16.21	9.84	26.05	46.06	-20.01	AVG
3	1.1895	23.19	10.05	33.24	56.00	-22.76	QP
4	1.1895	20.39	10.05	30.44	46.00	-15.56	AVG
5	7.5300	18.72	10.65	29.37	60.00	-30.63	QP
6	7.5300	18.68	10.65	29.33	50.00	-20.67	AVG
7	13.4880	21.19	10.97	32.16	60.00	-27.84	QP
8	13.4880	21.27	10.97	32.24	50.00	-17.76	AVG
9	19.8600	22.87	11.18	34.05	60.00	-25.95	QP
10	19.8600	23.24	11.18	34.42	50.00	-15.58	AVG
11	25.8405	15.96	11.03	26.99	60.00	-33.01	QP
12	25.8405	14.17	11.03	25.20	50.00	-24.80	AVG

Note: 1. Result = Reading +Correct Factor.

LINE L1 RESULTS (915 MHz)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.4875	26.09	9.84	35.93	56.21	-20.28	QP
2	0.4875	10.40	9.84	20.24	46.21	-25.97	AVG
3	0.8700	19.62	10.07	29.69	56.00	-26.31	QP
4	0.8700	5.81	10.07	15.88	46.00	-30.12	AVG
5	5.9909	24.84	10.40	35.24	60.00	-24.76	QP
6	5.9909	21.25	10.40	31.65	50.00	-18.35	AVG
7	11.9760	20.47	10.99	31.46	60.00	-28.54	QP
8	11.9760	11.38	10.99	22.37	50.00	-27.63	AVG
9	18.3974	29.02	11.11	40.13	60.00	-19.87	QP
10	18.3974	25.89	11.11	37.00	50.00	-13.00	AVG
11	24.8100	15.76	10.97	26.73	60.00	-33.27	QP
12	24.8100	13.25	10.97	24.22	50.00	-25.78	AVG

Note: 1. Result = Reading +Correct Factor.

Note: All test modes had been tested, only the worst data record in the report.

9. ANTENNA REQUIREMENTS

APPLICABLE REQUIREMENTS

Please refer to FCC §15.203
An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

Please refer to FCC §15.247(b)(4)
The conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1), (b)(2), and (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

Standard	Requirement
RSS-Gen issue 5 6.8.	The applicant for equipment certification shall provide a list of all antenna types that may be used with the transmitter, where applicable (i.e. for transmitters with detachable antenna), indicating the maximum permissible antenna gain (in dBi) and the required impedance for each antenna. The test report shall demonstrate the compliance of the transmitter with the limit for maximum equivalent isotropically radiated power (e.i.r.p.) specified in the applicable RSS, when the transmitter is equipped with any antenna type, selected from this list. For expediting the testing, measurements may be performed using only the antenna with highest gain of each combination of transmitter and antenna type, with the transmitter output power set at the maximum level. However, the transmitter shall comply with the applicable requirements under all operational conditions and when in combination with any type of antenna from the list provided in the test report (and in the notice to be included in the user manual, provided below). When measurements at the antenna port are used to determine the RF output power, the effective gain of the device's antenna shall be stated, based on a measurement or on data from the antenna's manufacturer. The test report shall state the RF power, output power setting and spurious emission measurements with each antenna type that is used with the transmitter being tested. For licence-exempt equipment with detachable antennas, the user manual shall also contain the following notice in a conspicuous location: This radio transmitter [enter the device's ISED certification number] has been approved by Innovation, Science and Economic Development Canada to operate with the antenna types listed below, with the maximum permissible gain indicated. Antenna types not included in this list that have a gain greater

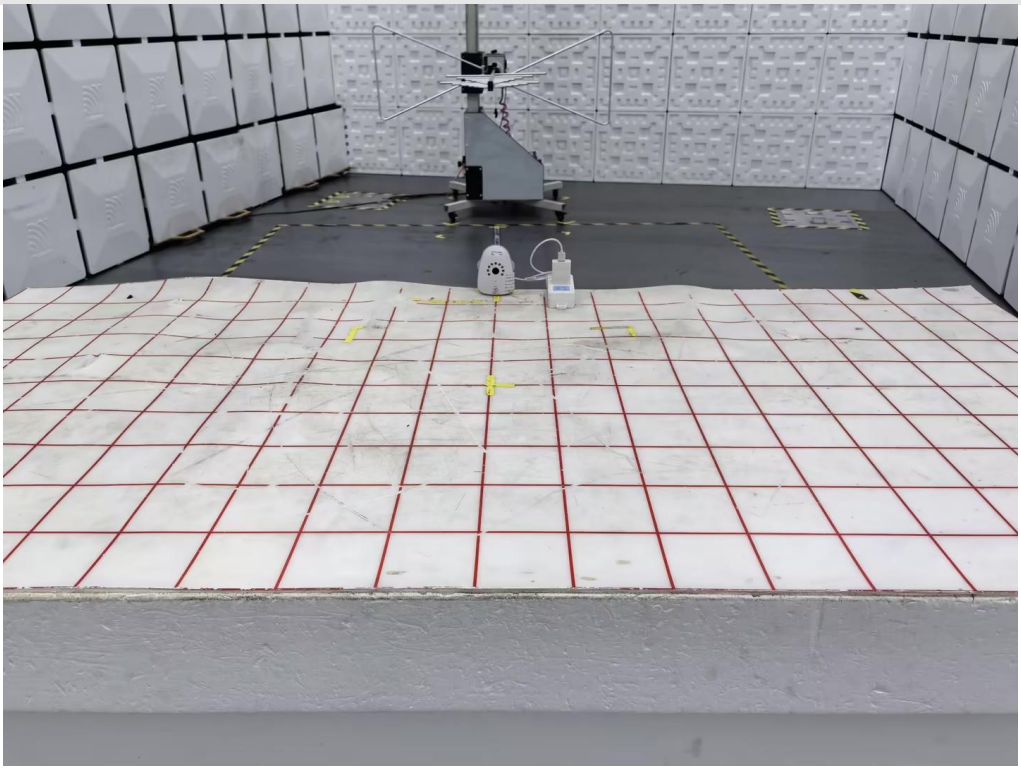
	than the maximum gain indicated for any type listed are strictly prohibited for use with this device. Immediately following the above notice, the manufacturer shall provide a list of all antenna types which can be used with the transmitter, indicating the maximum permissible antenna gain (in dBi) and the required impedance for each antenna type.

RESULTS

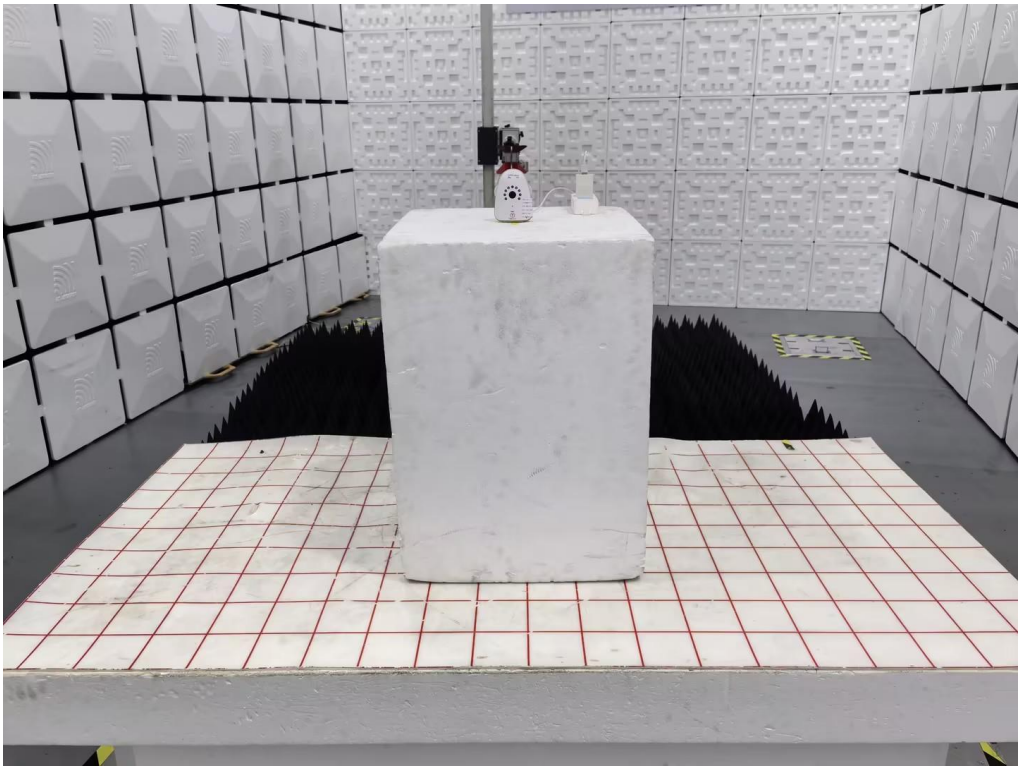
Pass

10. PHOTOGRAPHS OF TEST CONFIGURATION

Radiated emissions below 1GHz



Radiated emissions above 1GHz



AC Power Line Conducted Emission

END OF REPORT