

Canadawide Sports Inc.

RF TEST REPORT

Report Type:

FCC Part 15.245 & ISSED RSS-210 RF report

Model:

HS-SPEED-SCAN-RADAR, IS31810

REPORT NUMBER:

260400032SHA-001

ISSUE DATE:

June 1, 2026

DOCUMENT CONTROL NUMBER:

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Applicant: Canadawide Sports Inc.
30 Craig St, Brantford, Ontario, N3R7J1, Canada

Manufacturer: Canadawide Sports Inc.
30 Craig St, Brantford, Ontario, N3R7J1, Canada

Product Name (PMN): Speed Scan Radar
Type/Model (HVIN): HS-SPEED-SCAN-RADAR, IS31810
FCC ID: 2BVWE-SPEEDSCAN01
IC: 35424-SPEEDSCAN01

SUMMARY:

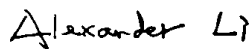
The equipment complies with the requirements according to the following standard(s) or Specification:

47CFR Part 15 (2024): Radio Frequency Devices (Subpart C)

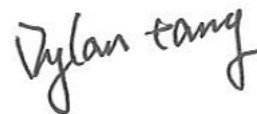
ANSI C63.10 (2020): American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices

RSS-210 Issue 11 (June 2024): Licence-exempt Radio Apparatus (All Frequency Bands): Category I Equipment

RSS-Gen Issue 5 (February 2021) Amendment 2: General Requirements for Compliance of Radio Apparatus

PREPARED BY:**REVIEWED BY:**

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TEST REPORT

Revision History

Report No.	Version	Description	Issued Date
260400032SHA-001	Rev. 01	Initial issue of report	June 1, 2026

Measurement result summary

TEST ITEM	FCC REFERENCE	RESULT
Field Strength and Radiated Spurious Emissions	15.209, 15.245(b) & RSS-210 Annex F.2 & RSS-Gen 88.9	Pass
Frequency Band Edge	15.245(3) & RSS-210 Annex F.2	Pass
20 dB & 99% Emission Bandwidth	2.1049, 15.215 & RSS-Gen 6.7	Pass
Power line conducted emission	15.207(a) & RSS-GEN 8.8	NA
Antenna requirement	15.203 & RSS-GEN 6.8	Pass

Notes: 1: NA =Not Applicable

2: Determination of the test conclusion is based on IEC Guide 115 in consideration of measurement uncertainty.

3: Additions, Deviations and Exclusions from Standards: None.

4: the EUT is powered by battery, which will not connect to AC mains.

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1 GENERAL INFORMATION

1.1 Description of Equipment Under Test (EUT)

Product name:	Speed Scan Radar
Model name:	HS-SPEED-SCAN-RADAR, IS31810
Description of EUT:	The EUT is a speed radar. Both models are identical except model name. After review, model HS-SPEED-SCAN-RADAR was selected to perform all tests.
Rating:	DC7.5V by battery
Brand Name:	Hockey Shot
EUT type:	☒ Table top ☐ Floor standing
Software Version:	/
Hardware Version:	/
Sample Identification No.:	A260507-02-001
Sample received date:	May 7, 2026
Date of test:	May 7, 2026 to May 22, 2026

1.2 Technical Specification

Frequency Band:	10500-10550 MHz
Type of Modulation:	CW
Channel Number:	1
Antenna Information:	PCB antenna

TEST REPORT

1.3 Description of Test Facility

Name:	Intertek Testing Services (Shanghai FTZ) Co., Ltd.
Address:	Building 86, No. 1198 Qinzhou Road(North), Shanghai 200233, P.R. China
Telephone:	86 21 61278200
Telefax:	86 21 54262353

The test facility is recognized, certified, or accredited by these organizations:	CNAS Accreditation Lab Registration No. CNAS L21189
	FCC Accredited Lab Designation Number: CN0175
	IC Registration Lab CAB identifier.: CN0014
	VCCI Registration Lab Registration No.: R-14243, G-10845, C-14723, T-12252
	A2LA Accreditation Lab Certificate Number: 3309.02

TEST REPORT

2 TEST SPECIFICATIONS

2.1 Standards or specification

47CFR Part 15 (2024)

ANSI C63.10 (2020)

RSS-210 Issue 11 (June 2024)

RSS-Gen Issue 5 (February 2021) Amendment 2

2.2 Mode of operation during the test

The channel was tested as below list.

Frequency Band (MHz)	Channel (MHz)
10500-10550	10525

2.3 Test software list

Test Items	Software	Manufacturer	Version
Conducted emission	ESxS-K1	R&S	V2.1.0
Radiated emission	ES-K1	R&S	V1.71

2.4 Test peripherals list

Item No.	Name	Brand and Model	Description
1	--	--	--

2.5 Test environment condition:

Test items	Temperature	Humidity
Minimum 6dB Bandwidth	25°C	54%RH
Maximum conducted output power and e.i.r.p.		
Power spectrum density		
Emission outside the frequency band		
Occupied bandwidth		
Radiated Emissions in restricted frequency bands	23°C	52%RH
Power line conducted emission	24°C	53%RH

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2.6 Instrument list

Radiated Emission					
Used	Equipment	Manufacturer	Type	Internal no.	Due date
☒	Test Receiver	R&S	ESIB 26	EC 3045	2026-08-18
☒	Test Receiver	R&S	ESR	EC 6501	2026-09-10
☒	Bilog Antenna	TESEQ	CBL 6112B	EC 6411	2026-09-11
☒	TRILOG broadband Antenna	Schwarzbeck	VULB9168	EC 6402	2027-03-19
☒	Pre-amplifier	R&S	AFS42-00101800-25-S-42	EC 5262	2026-11-06
☐	Pre-amplifier	Tonscend	tap01018050	EC 6432-1	2026-12-03
☐	Horn antenna	Tonscend	bha9120d	EC 6432-2	2027-03-20
☒	Horn antenna	ETS	3117	EC 4792-1	2026-09-13
☒	Horn antenna	TOYO	HAP18-26W	EC 4792-3	2026-09-12
☐	Active loop antenna	Schwarzbeck	FMZB1519	EC 5345	2026-08-10
☒	Horn antenna	ETS	3116c	EC 5955	2026-08-14
☒	WW wave antenna (60-90G)	HengDa	M12RH	EC 6382-1	2027-03-14
☒	Mixer (60-90G)	VDi		EC 6382	2027-03-24
☒	WW wave antenna (90-140G)	HengDa	M15RH	EC 6381-1	2027-03-12
☒	Mixer (90-140G)	VDi		EC 6381	2027-03-24
☒	WW wave antenna (40-60G)	HengDa	M19RH	EC 6529-1	2027-03-09
☒	Mixer (40-60G)	VDi		EC 6529	2027-03-24
☐	WW wave antenna (140-220G)	HengDa	M5RH	EC 6384-1	2027-03-28
☐	Mixer (140-220G)	VDi		EC 6384	2027-03-24
Tet Site					
Used	Equipment	Manufacturer	Type	Internal no.	Due date
☒	Semi-anechoic chamber	Albatross project	-	EC 3048	2026-07-11
☐	Fully-anechoic chamber	Albatross project	-	EC 3047	2026-07-11
Additional instrument					
Used	Equipment	Manufacturer	Type	Internal no.	Due date
☒	Thermo-Hygrograph	Testo	175h1	EC 6640	2026-08-29
☐	Pressure meter	YM3	Shanghai Mengde	EC 3320	2026-08-16

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2.7 Measurement uncertainty

The measurement uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

Test item	Measurement uncertainty
Maximum peak output power	$\pm 0.74\text{dB}$
Radiated Emissions in restricted frequency bands below 1GHz	$\pm 4.90\text{dB}$
Radiated Emissions in restricted frequency bands above 1GHz	$\pm 5.02\text{dB}$
Emission outside the frequency band	$\pm 2.89\text{dB}$
Power line conducted emission	$\pm 3.19\text{dB}$

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3 Field Strength and Radiated Spurious Emissions

Test result: Pass

3.1 Limit

As per FCC §15.209(a): Except as provided elsewhere in this Subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Frequencies (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
30 ~ 88	100	3
88 ~ 216	150	3
216 ~ 960	200	3
Above 960	500	3

As per FCC 15.245 (b) and RSS 210 Annex F.2 The field strength of emissions from intentional radiators operated within these frequency bands shall comply with the following:

Fundamental frequency (MHz)	Field strength (mV/m) for fundamental emissions	Field strength (mV/m) for harmonic emissions, but see F.2(b) and F.2(c)
10500-10550	2500	25
24075-24175	2500	25
33400- 36000	2500	80

(b) Harmonic emissions falling into restricted frequency bands listed in RSS-Gen and that are below 17.7 GHz shall meet the general field strength limits specified in RSS-Gen, regardless of the limits given in table F2.

(c) Harmonic emissions falling into restricted frequency bands listed in RSS-Gen and that are at or above 17.7 GHz shall not exceed the following field strength limits measured at a distance of 3 m using an average detector:

i: 25 mV/m for the second and third harmonic emissions of devices operating in the band 24.075-24.175 GHz and for the second harmonic emission of devices operating in the band 33.4-36.0 GHz.

ii: 7.5 mV/m for all other harmonic emissions of FDS units operating in 24.075-24.175 GHz and 33.4-36.0 GHz bands and for other type of speed radar meters.

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Emissions radiated outside of the specified frequency bands, except for harmonic emissions, shall be attenuated by at least 50 dB below the level of the fundamental emissions or the general field strength limits specified in RSS-Gen, whichever is less stringent.

3.2 Measurement Procedure

The EUT was tested according to Subclause 11.12 of ANSI C63.10-2020.

For Radiated emission below 30MHz:

- a) The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meters chamber room. For the floor-standing devices, the EUT was placed on the top of a rotating table 0.1 meters above the ground at 3 meters chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
- b) The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c) Both X and Y axes of the antenna are set to make the measurement.
- d) For each suspected emission, the EUT was arranged to its worst case and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e) The test-receiver system was set to Quasi-Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

NOTE:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 9kHz at frequency below 30MHz.

For Radiated emission above 30MHz:

- a) The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meters chamber room. For the floor-standing devices, the EUT was placed on the top of a rotating table 0.1 meters above the ground at 3 meters chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
- b) The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c) The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d) For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e) The test-receiver system was set to quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.
- f) The test-receiver system was set to peak and average detector function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz. If the peak reading value also meets average limit, measurement with the average detector is unnecessary.

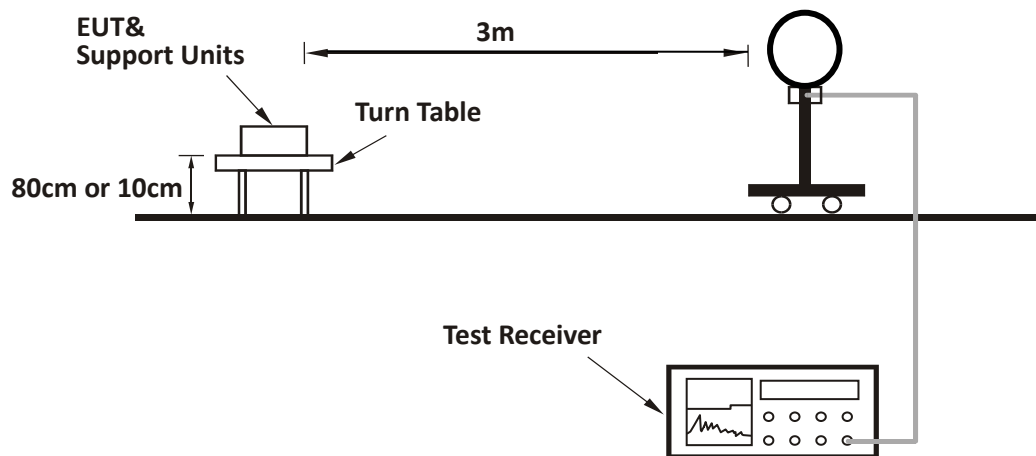
TEST REPORT

Note:

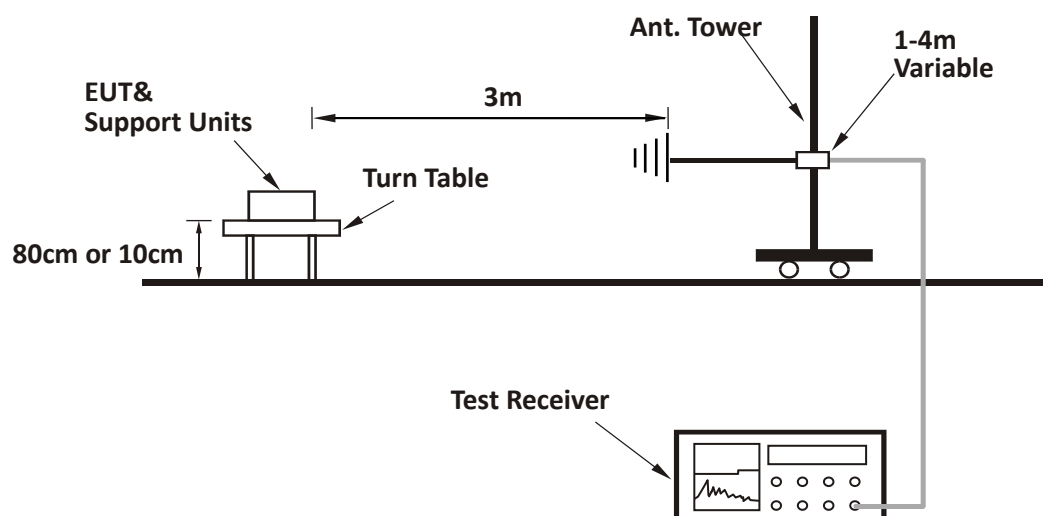
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is $\geq 1/T$ (Duty cycle $< 98\%$) or $3 \times \text{RBW}$ (Duty cycle $\geq 98\%$) for Average detection (AV) at frequency above 1GHz.
4. All modes of operation were investigated and the worst-case emissions were reported.

3.3 Test Configuration

For Radiated emissions below 30MHz:

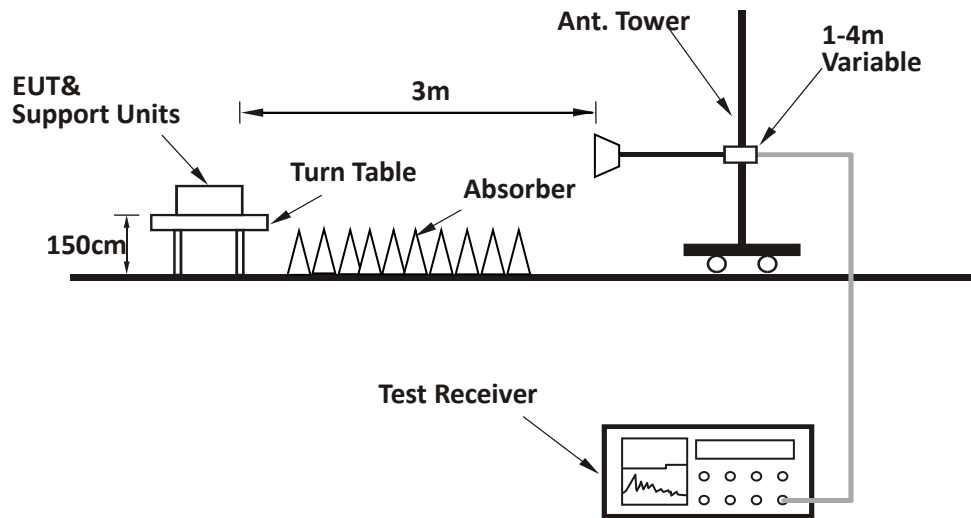


For Radiated emissions 30MHz to 1GHz:

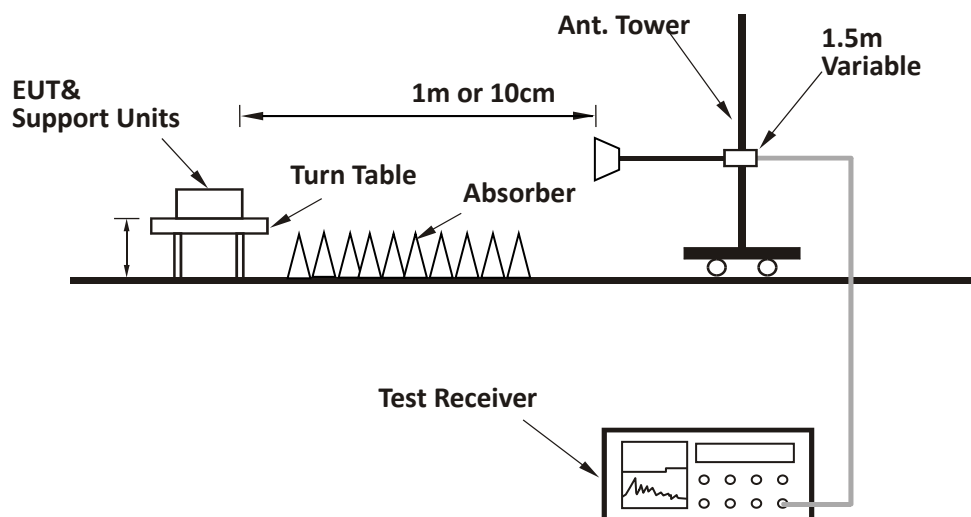


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For Radiated emissions 1GHz-40GHz:



For Radiated emissions above 40GHz:

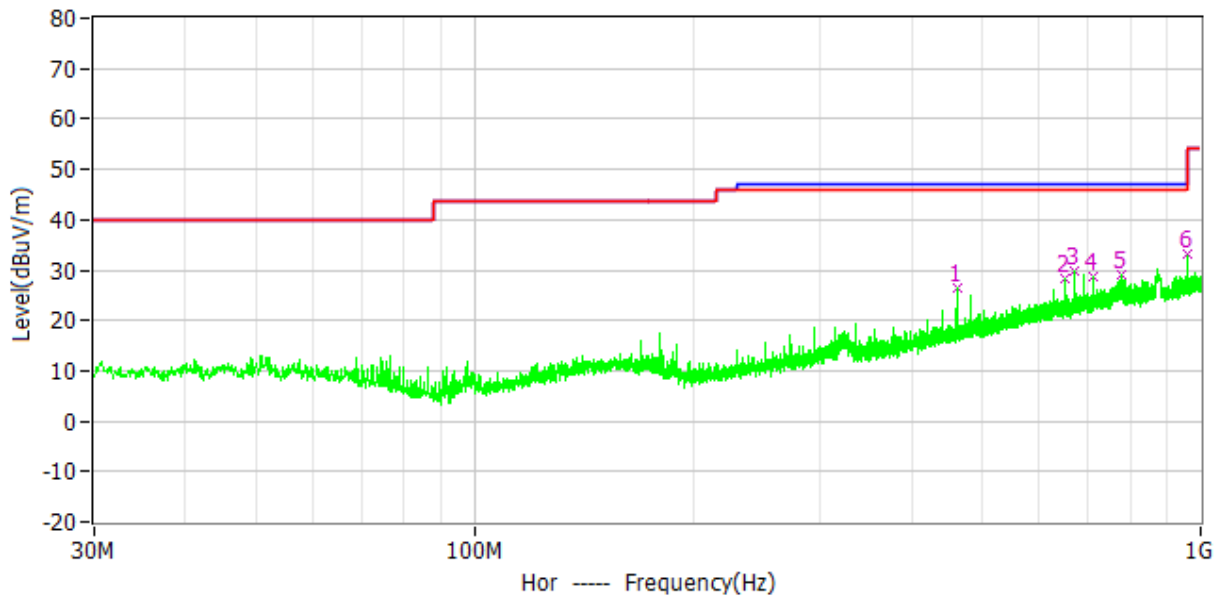


TEST REPORT

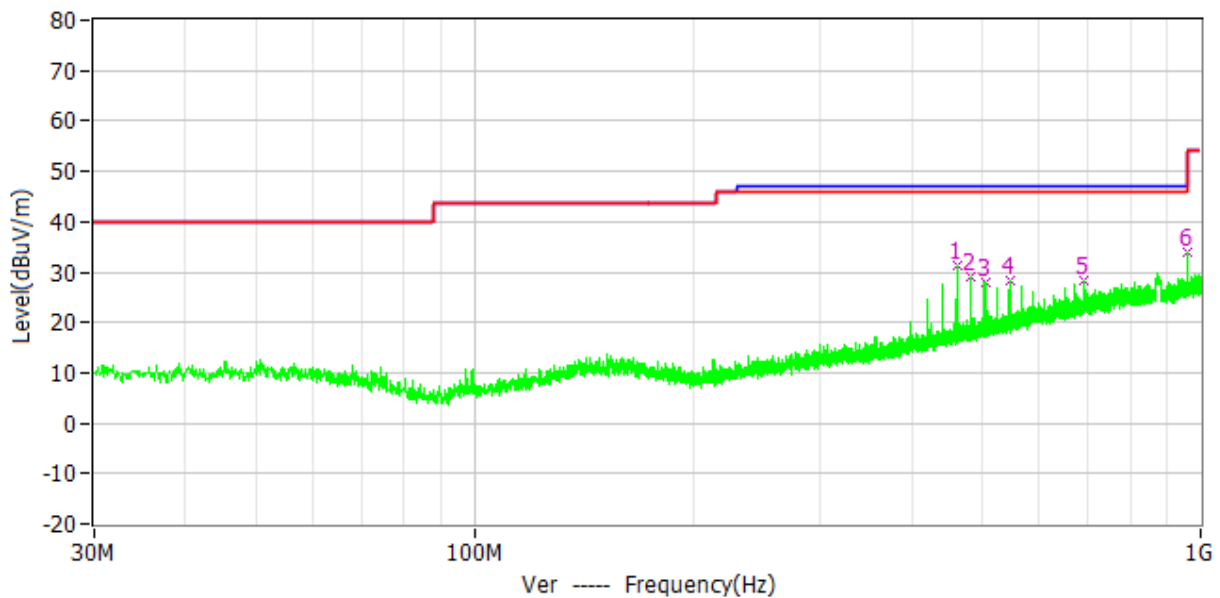
3.4 Test Results of Radiated Emissions

The low frequency, which started from 9 kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit line per 15.31(o) was not reported.

Horizontal



Vertical



TEST REPORT

Test data below 1GHz

Antenna	Frequency	Corrected Reading (dBuV/m)	Correct Factor (dB/m)	Limit (dBuV/m)	Margin (dB)	Detector
Hor	461.359MHz	26.5	20.1	46.0	19.5	QP
Hor	650.218MHz	28.4	24.8	46.0	17.6	QP
Hor	671.170MHz	29.9	24.8	46.0	16.1	QP
Hor	713.074MHz	28.6	25.5	46.0	17.4	QP
Hor	777.482MHz	29.1	26.8	46.0	16.9	QP
Hor	959.745MHz	33.0	28.3	46.0	13.0	QP
Ver	462.523MHz	31.3	20.1	46.0	14.7	QP
Ver	483.572MHz	29.0	20.6	46.0	17.0	QP
Ver	504.621MHz	28.0	21.3	46.0	18.0	QP
Ver	546.622MHz	28.2	22.3	46.0	17.8	QP
Ver	692.122MHz	28.3	25.2	46.0	17.7	QP
Ver	959.745MHz	33.8	28.3	46.0	12.2	QP

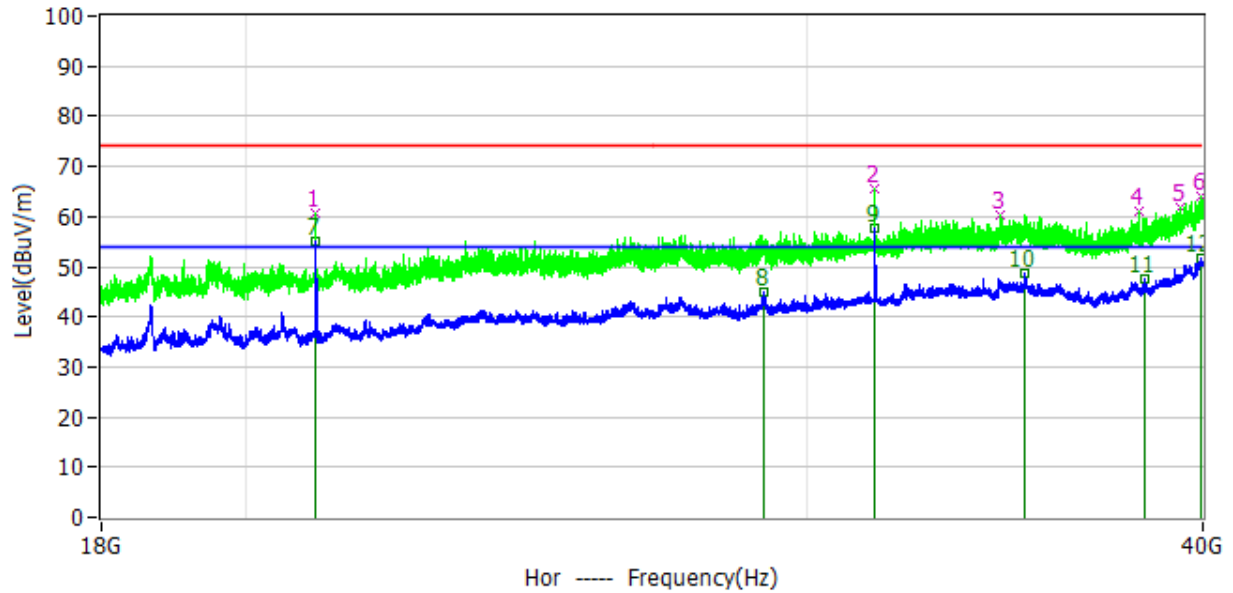
Remark: 1. Correct Factor = Antenna Factor + Cable Loss (- Amplifier, for higher than 1GHz), the value was added to Original Receiver Reading by the software automatically.
 2. Corrected Reading = Original Receiver Reading + Correct Factor
 3. Margin = Limit - Corrected Reading
 4. If the PK Corrected Reading is lower than AV limit, the AV test can be elided.

TEST REPORT

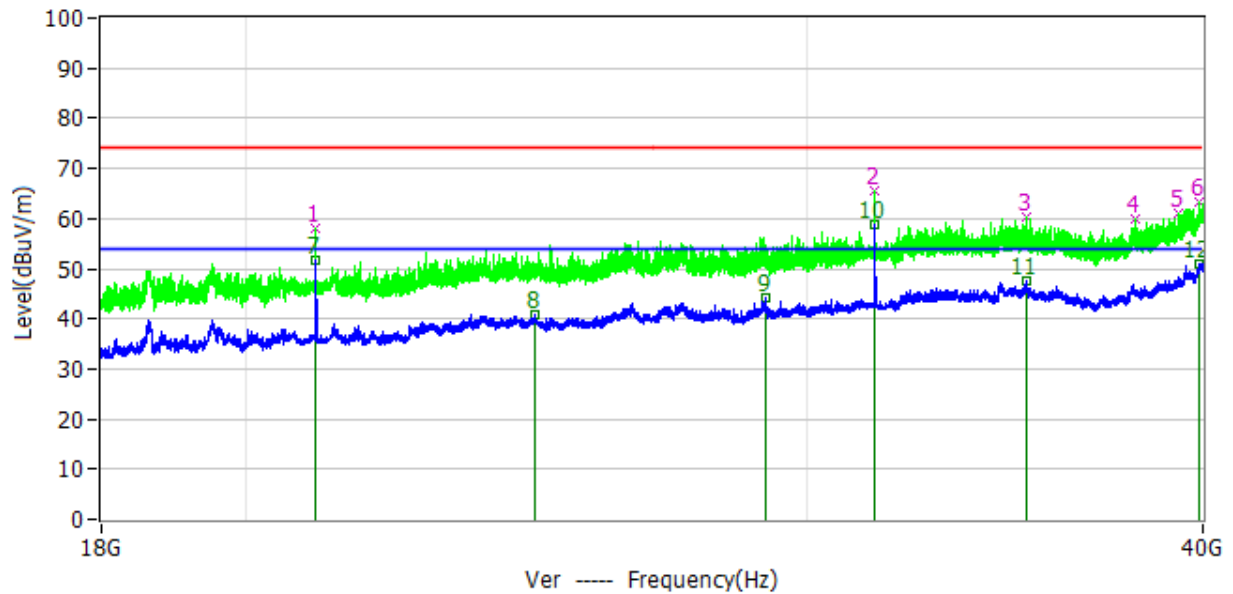
Test result above 1GHz:

The test plots of the worst case were recorded.

Horizontal



Vertical



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The emission was conducted from 1GHz to 40GHz

Fundamental					
Antenna	Frequency	Corrected Reading (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
Hor	10.525GHz	112.22	--	--	PK
Hor	10.525GHz	82.89	127.96	45.07	AV
Hor	10.525GHz	104.69	--	--	PK
Hor	10.525GHz	75.66	127.96	52.30	AV

Antenna	Frequency	Corrected Reading (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
Hor	21.05GHz	60.84	107.96	47.12	PK
Hor	31.575GHz	65.35	107.96	42.61	PK
Hor	34.520GHz	60.23	74.00	13.77	PK
Hor	38.209GHz	60.97	74.00	13.03	PK
Hor	39.375GHz	61.88	74.00	12.12	PK
Hor	39.941GHz	63.86	74.00	10.14	PK
Hor	21.05GHz	55.02	87.96	32.94	AV
Hor	29.088GHz	44.82	54.00	9.18	AV
Hor	31.575GHz	57.78	87.96	30.18	AV
Hor	35.134GHz	48.57	54.00	5.43	AV
Hor	38.359GHz	47.66	54.00	6.34	AV
Hor	39.930GHz	51.79	54.00	2.21	AV
Ver	21.05GHz	58.07	107.96	49.89	PK
Ver	31.575GHz	65.50	107.96	42.46	PK
Ver	35.189GHz	60.29	74.00	13.71	PK
Ver	38.073GHz	60.05	74.00	13.95	PK
Ver	39.287GHz	60.95	74.00	13.05	PK
Ver	39.894GHz	63.37	74.00	10.63	PK
Ver	21.05GHz	51.82	87.96	36.14	AV
Ver	24.644GHz	40.81	54.00	13.19	AV

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Ver	29.123GHz	44.13	54.00	9.87	AV
Ver	31.575GHz	58.66	87.96	29.30	AV
Ver	35.200GHz	47.38	54.00	6.62	AV
Ver	39.912GHz	51.10	54.00	2.90	AV

Remark: 1. Correct Factor = Antenna Factor + Cable Loss (+ Amplifier, for higher than 1GHz), the value was added to Original Receiver Reading by the software automatically.
 2. Corrected Reading = Original Receiver Reading + Correct Factor
 3. Margin = Limit - Corrected Reading
 4. If the PK Corrected Reading is lower than AV limit, the AV test can be elided.

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The emission was conducted from 40GHz to 60GHz

Antenna	Frequency (GHz)	E (dBμV/m)	Limit (dBuV/m)	Margin (dB)	Detector
Hor	40.5	62.10	74.00	11.9	PK
Hor	40.5	48.20	54.00	5.80	AV
Hor	58.6	62.90	74.00	11.10	PK
Hor	58.6	47.70	54.00	6.30	AV
Ver	40.5	64.50	74.00	9.50	PK
Ver	40.5	49.16	54.00	4.84	AV
Ver	58.6	64.78	74.00	9.22	PK
Ver	58.6	49.40	54.00	4.60	AV

Remark: 1. Correct Factor = Antenna Factor + Cable Loss + Mixer Conversion Loss, the value was added to Original Receiver Reading by the software automatically.

2. Sample calculation.

$$E = 126.8 - 20\log(\lambda) + P - G$$

Where:

E is the field strength of the emission at the measurement distance, in dBμV/m.

P is the power measured at the output of the test antenna, in dBm.

λ is the wavelength of the emission under investigation [300/fMHz], in m.

G is the gain of the test antenna, in dBi.

4 20 dB & 99% Emission Bandwidth

Test result: Pass

4.1 Limit

Intentional radiators must be designed to ensure that the 20 dB bandwidth of the emission is contained within the allocated frequency band.

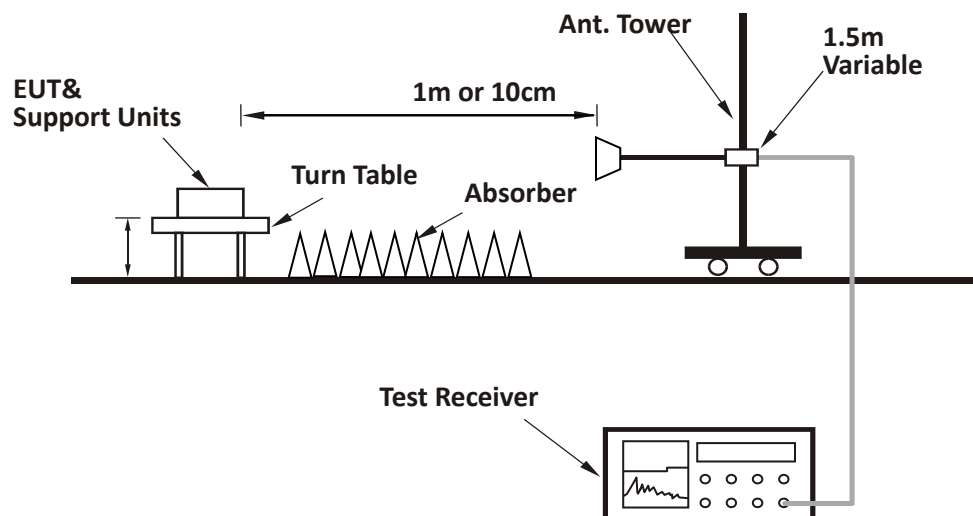
4.2 Measurement Procedure

The 20dB Bandwidth is measured using the Spectrum Analyzer.

Set Span = 2 to 3 times the 20 dB bandwidth, RBW = approximately 1% of the 20 dB bandwidth, VBW>RBW, Sweep = auto, Detector = peak, Trace = max hold.

The test was performed at 3 channels (lowest, middle and highest channel).

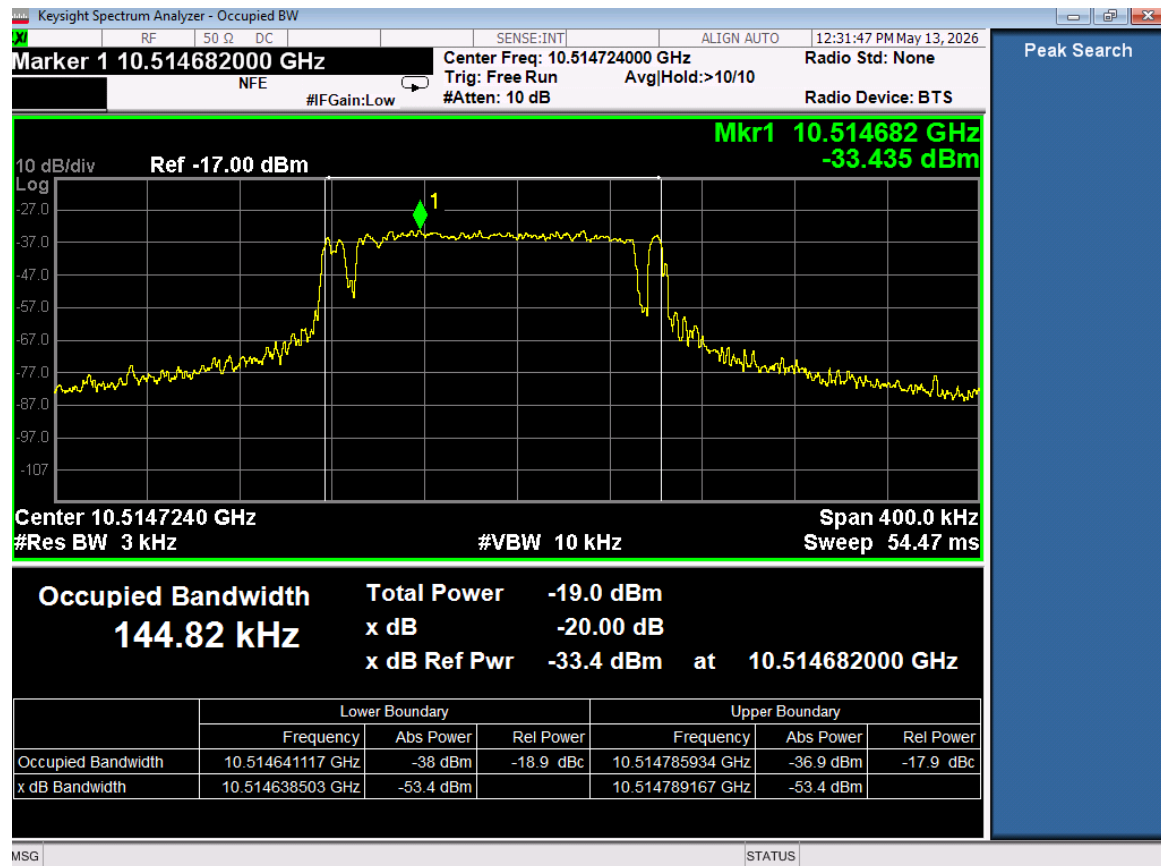
4.3 Test Configuration



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4.4 The results

Frequency (MHz)	20dB Bandwidth (kHz)	99% Bandwidth (kHz)	F _L at 20dB BW (MHz)	F _H at 20dB BW (MHz)
10525	144.82	150.66	10500	10550
Result	Complied			



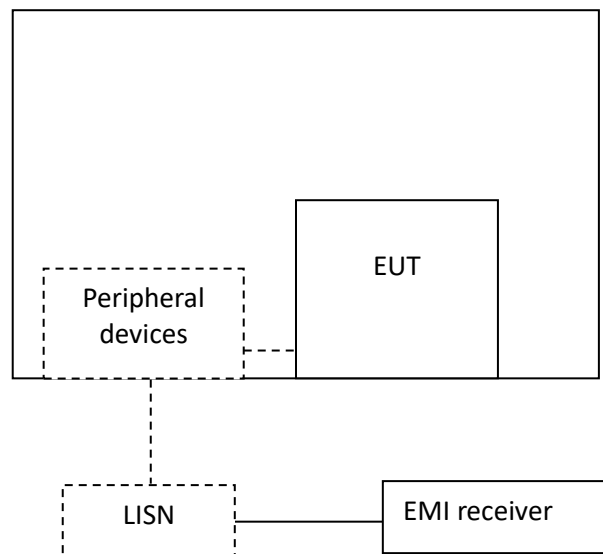
5 Power line conducted emission

Test result: NA

5.1 Limit

Frequency of Emission (MHz)	Conducted Limit (dBuV)	
	QP	AV
0.15-0.5	66 to 56*	56 to 46 *
0.5-5	56	46
5-30	60	50
* Decreases with the logarithm of the frequency.		

5.2 Test Configuration



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Measured levels of ac power-line conducted emission shall be the emission voltages from the voltage probe, where permitted, or across the 50 Ω LISN port (to which the EUT is connected), where permitted, terminated into a 50 Ω measuring instrument. All emission voltage and current measurements shall be made on each current-carrying conductor at the plug end of the EUT power cord by the use of mating plugs and receptacles on the LISN, if used. Equipment shall be tested with power cords that are normally supplied or recommended by the manufacturer and that have electrical and shielding characteristics that are the same as those cords normally supplied or recommended by the manufacturer. For those measurements using a LISN, the 50 Ω measuring port is terminated by a measuring instrument having 50 Ω input impedance. All other ports are terminated in 50 Ω loads.

Tabletop devices shall be placed on a platform of nominal size 1 m by 1.5 m, raised 80 cm above the reference ground plane. The vertical conducting plane or wall of an RF-shielded (screened) room shall be located 40 cm to the rear of the EUT. Floor-standing devices shall be placed either directly on the reference ground-plane or on insulating material as described in ANSI C63.4. All other surfaces of tabletop or floor-standing EUTs shall be at least 80 cm from any other grounded conducting surface, including the case or cases of one or more LISNs.

The bandwidth of the test receiver is set at 9 kHz.

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5.4 Test Results of Power line conducted emission

None

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6 Antenna requirement

Requirement:

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.

Result:

EUT uses permanently attached antenna to the intentional radiator, so it can comply with the provisions of this section.

***** END *****