

ISED CABid: ES1909

Lab. Company Number: 4621A

Test Report No:

85227RRF.006A1

Partial Test Report

USA FCC Part 15.31, 15.225, 15.247, 15.209
CANADA RSS-210, RSS-247, RSS-Gen

(*) Identification of item tested	Multi-functional RFID terminal
(*) Trademark	Gantner
(*) Model and /or type reference	GT7.1300
Other identification of the product	FCC ID: NC4-GEA2260296A IC: 11873A-2260296A
(*) Features	RFID 13.56 MHz, BLE HW version: 2.1 SW version: EMC APP 0.5.1
Applicant	Gantner Electronic GmbH Bundesstraße 12 6714 Nüziders, Austria
Test method requested, standard	USA FCC Part 15.31 (10-1-25 Edition): Measurement standard. USA FCC Part 15.225 (10-1-25 Edition): Operation within the band 13.110 -14.010. USA FCC Part 15.247 (10-1-25 Edition): Operation within the bands 902 - 928 MHz, 2400 -2483.5 MHz, and 5725 - 5850 MHz. USA FCC Part 15.209 (10-1-25 Edition): Radiated emission limits; general requirements. CANADA RSS-210 Issue 11 (June 2024). CANADA RSS-247 Issue 4 (July 2025). CANADA RSS-Gen Issue 5 Amendment 2 (February 2021). Guidance for Performing Compliance Measurements on Digital Transmission System, Frequency Hopping Spread Spectrum System, and Hybrid Systems Devices Operating Under Section 15.247 of the FCC Rules. 558074 D01 Meas Guidance v05r02 dated April 2, 2019. ANSI C63.10-2020 + Cor.1-2023 + C63.10a-2024 + Errata to C63.10a-2024: American National Standard for Testing Unlicensed Wireless Devices.
Approved by (name / position & signature)	José Manuel Gómez Galván EMC Consumer & RF Lab. Manager
Date of issue	2026-09-16
Report template No	FDT08_27 (*) "Data provided by the client"

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Competences and guarantees

DEKRA Testing and Certification S.A.U. is a testing laboratory accredited by the National Accreditation Body (ENAC - Entidad Nacional de Acreditación), to perform the tests indicated in the Certificate No. 51/LE 147.

DEKRA Testing and Certification S.A.U. is an FCC-recognized accredited testing laboratory with appropriate scope of accreditation that include testing performed in this test report.

DEKRA Testing and Certification S.A.U. is an ISED-recognized accredited testing laboratory, CABid: ES1909, Company Number: 4621A, with the appropriate scope of accreditation that covers the performed tests in this report.

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DEKRA Testing and Certification S.A.U. is liable to the client for the maintenance of the confidentiality of all information related to the item under test and the results of the test.

The results presented in this Test Report apply only to the particular item under test established in this document.

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Uncertainty

Uncertainty (factor $k=2$) was calculated according to the DEKRA Testing and Certification S.A.U. internal document PODT000.

The total uncertainty of the measurement system for the radiated emissions of EUT from 30 MHz to 1 GHz is:
Measurement uncertainty $\leq \pm 5,35$ dB with factor ($k = 2$).

The total uncertainty of the measurement system for the radiated emissions of EUT from 1 GHz to 17 GHz is:
Measurement uncertainty $\leq \pm 4,32$ dB with factor ($k = 2$).

The total uncertainty of the measurement system for the radiated emissions of EUT from 17 GHz to 26 GHz is:
Measurement uncertainty $\leq \pm 5,51$ dB with factor ($k = 2$).

Data provided by the client

The following data has been provided by the client:

1. Information relating to the description of the sample ("Identification of the item tested", "Trademark", "Model and/or type reference tested").
2. The sample consists of a Multi-functional RFID terminal. GT7 Lite, LEGIC Advant Reader, Color display 3.5 inch with Touchscreen, PoE, 1 Relay Output, 1 Optocoupler input.

DEKRA Testing and Certification S.A.U. declines any responsibility with respect to the information provided by the client and that may affect the validity of results. The laboratory is not responsible for such information and it is not covered by accreditation.

Usage of samples

Samples undergoing test have been selected by: The client.

Id	Control Number	Description	Model	Serial N°	Date of Reception	Application
S/01	85227_7.1	Multi-functional RFID terminal	GT7.1300	2605010083	2026-03-19	Element Under Test
S/01	85227_16.1	Gigabit POE injector	POE150S	2251412013638	2026-03-19	Auxiliary Element
S/01	85227_17.1	Ethernet cable	--	--	2026-03-19	Auxiliary Element
S/01	85227_18.1	AC/DC adapter	--	--	2026-03-19	Auxiliary Element

Notes referenced to samples during the project:

Id	Note
S/01	Samples used for testing.

Test sample description

Ports..... :	Port name and description		Cable				
			Specified max length [m]	Attached during test	Shielded		
	Ethernet	< 100m	[X]	[X]			
.....		[]	[]				
Supplementary information to the ports..... :							
Rated power supply	Voltage and Frequency			Reference poles			
				L1	L2	L3	N
	[]	AC:	[]	[]	[]	[]	[]
	[X]	DC: PoE conf. to IEEE 802.3af, performance class 0					
Rated Power	PoE: DC 36 - 57 V						
Clock frequencies..... :	Q1: 40 MHz, Q2:32.768 kHz						
Other parameters							
Software version	EMC APP 0.5.1						
Hardware version	2.1						
Dimensions in cm (W x H x D)	152 x 152 x 50 mm						
Mounting position	[]	Table top equipment					
	[X]	Wall/Ceiling mounted equipment					
	[]	Floor standing equipment					
	[]	Hand-held equipment					
	[]	Other:					
Modules/parts..... :	Module/parts of test item			Type		Manufacturer	
							
Accessories (not part of the test item)	Description			Type		Manufacturer	
							
Documents as provided by the applicant..... :	Description			File name		Issue date	
							

Identification of the client

Gantner Electronic GmbH
Bundesstraße 12
6714 Nüziders, Austria

Testing period and place

Test Location	DEKRA Testing and Certification S.A.U. C/ Severo Ochoa, 6 - Parque Tecnológico de Andalucía; 29590 Campanillas (Málaga) (Location B)
Date (start)	2026-06-11
Date (finish)	2026-06-12

Document history

Report number	Date	Description
85227RRF.006	2026-06-25	First release.
85227RRF.006A1	2026-09-16	Second release. Modification due to standard update. This test report cancels and replaces to report 85227RRF.006

Environmental conditions

In the control chamber, the following limits were not exceeded during the test:

Temperature	Min. = 15 °C Max. = 35 °C
Relative humidity	Min. = 20 % Max. = 75 %

In the semianechoic chamber, the following limits were not exceeded during the test.

Temperature	Min. = 15 °C Max. = 35 °C
Relative humidity	Min. = 20 % Max. = 75 %

Remarks and comments

The tests have been performed by the technical personnel: Miguel Manuel López Guzmán.

Used instrumentation:

Control No.	Equipment	Model	Manufacturer	Next Calibration
06064	SEMIANECHOIC ABSORBER LINED CHAMBER	SAC-3	FRANKONIA	N/A
06329	SHIELDED ROOM	--	FRANKONIA	N/A
06132	ETHERNET TEMPERATURE AND HUMIDITY LOGGER	HWg-STE	HW GROUP	2027-05-12
06126	ETHERNET TEMPERATURE AND HUMIDITY LOGGER	HWg-STE	HW GROUP	2027-04-30
00242	ACTIVE LOOP ANTENNA 9 kHz-30 MHz	11966A	HEWLETT PACKARD	2027-08-06
05641	HYBRID BILOG ANTENNA 30MHz-6GHz	3142E	ETS LINDGREN	2027-10-23
07414	PREAMPLIFIER BOX	--	INTERNAL	2027-01-14
08866	EMI TEST RECEIVER 2Hz-44GHz	ESW44	ROHDE AND SCHWARZ	2026-06-12
04612	HORN ANTENNA 1-18GHz	BBHA 9120 D	SCHWARZBECK MESS-ELEKTRONIK	2027-10-15
09360	PRE-AMPLIFIER G>40dB 1-18 GHz	BLMA 0118-1M	BONN ELEKTRONIK	2026-09-19
06157	SIGNAL AND SPECTRUM ANALYZER 10Hz-40GHz	FSV40	ROHDE AND SCHWARZ	2027-03-17
04657	HORN ANTENNA 18-40GHz	BBHA 9170	SCHWARZBECK	2026-06-12
10573	PRE-AMPLIFIER G>46dB 18-40 GHz	BLMA 1840-5G	BONN ELEKTRONIK	2027-04-07
04848	SOFTWARE FOR EMC/RF TESTING	EMC32	ROHDE AND SCHWARZ	N/A

Testing verdicts

Fail	F
Inconclusive	I
Not applicable	N/A
Not measured	N/M
Pass	P

Summary

FCC PART 15 PARAGRAPH / RSS-Gen/ RSS-210/ RSS-247		
Requirement – Test case	Verdict	Remark
FCC 15.31 (h), FCC 15.209 (a), 15.225 (d), 15.247 (d) / RSS-Gen 8.9, RSS-210 B.6 (a)(iv), RSS-247 5.5: - Emission limitations radiated (Transmitter)	P	(1)
<u>Supplementary information and remarks:</u> (1) Only simultaneous mode radiated spurious emission test was requested.		

Appendix A: Test results

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TEST CONDITIONS

(*) Declared by the Applicant

POWER SUPPLY (*):

Vnominal: 48Vdc

Type of Power Supply: External power supply (PoE injector)

ANTENNA (*):

Technology	Maximum Declared Antenna Gain	Type of Antenna
Bluetooth Low Energy	+2.3 dBi	Integral antenna (PCB)
RFID	N/A	Integral antenna (PCB)

RADIOS AND CHANNELS TESTED (worst case):

Bluetooth Low Energy / DTS		
Mode:	1Mbit/s	
Channel Spacing:	2 MHz	
Frequency Range:	2402 MHz to 2480 MHz	
Transmit Channel:	Channel	Channel Frequency (MHz)
	17	2440

RFID 13.56 MHz ISO 14443A / ASK 100%, OOK (subcarrier fc/16)		
Mode:	ISO 14443A	
Channel Spacing:	Not Applicable	
Frequency Range:	13.553 - 13.567 MHz	
Transmit Channel:	Channel	Channel Frequency (MHz)
	Single Channel	13.56

TESTED SIMULTANEOUS TRANSMISSION MODES:

Operation mode 1:

* **Simultaneous transmission mode, Bluetooth Low Energy and RFID 13.56 MHz ISO 14443A**, with the EUT configured to simultaneously transmit two signals at maximum output power:

- Bluetooth Low Energy / Middle Channel (2440 MHz, GFSK 1Mbit/s)
- RFID 13.56 MHz ISO 14443A Single Channel

TEST SETUP

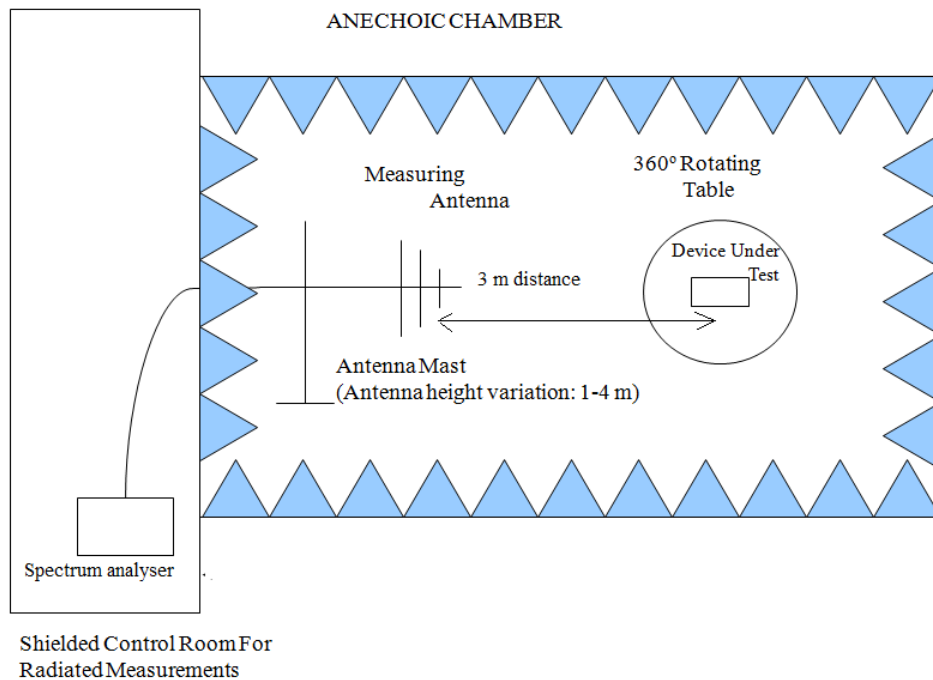
RADIATED MEASUREMENTS:

All radiated tests were performed in a semi-anechoic chamber. The measurement antenna is situated at a distance of 3 m (Bilog antenna for 30 MHz to 1000 MHz, Double ridge horn antenna 1 GHz-17 GHz and horn antenna 17 GHz-26 GHz), at distance of 1.5 m for the frequency range 17 GHz-26 GHz.

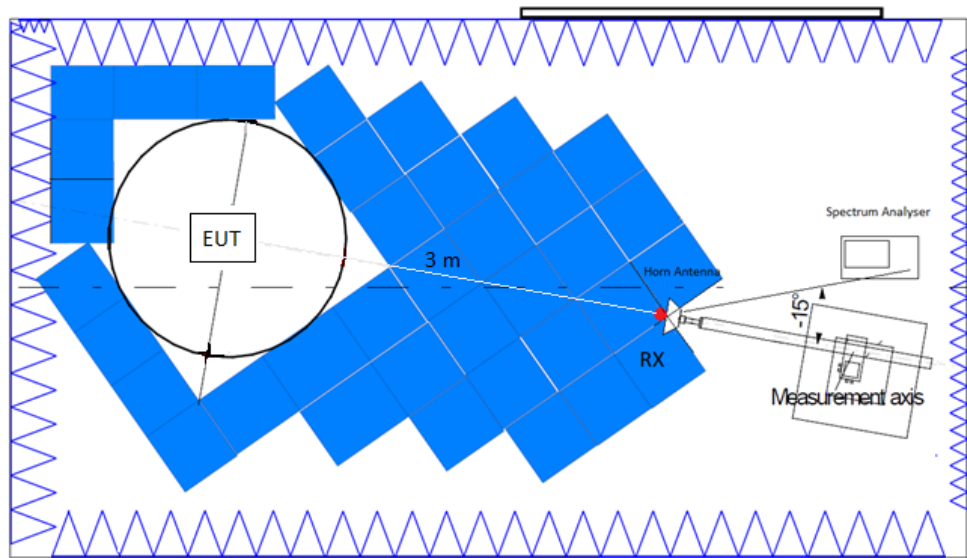
The equipment under test was set up on a non-conductive platform above the ground plane and the situation and orientation was varied to find the maximum radiated emission. It was also rotated 360° and the antenna height was varied from 1 to 4 meters to find the maximum radiated emission.

Measurements were made in both horizontal and vertical planes of polarization.

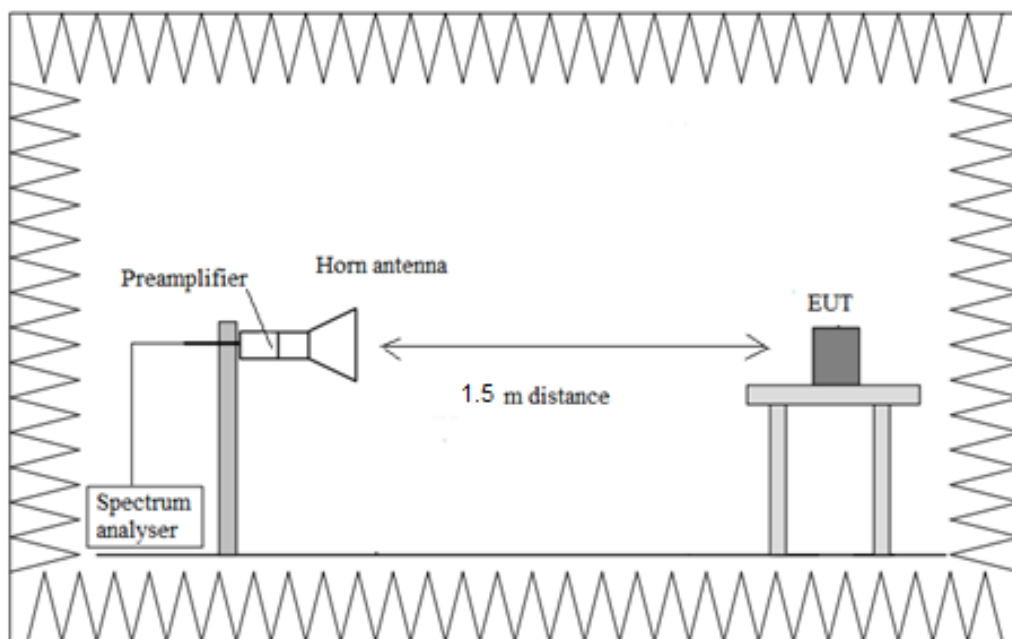
Radiated measurements setup 30 MHz < f < 1 GHz:



Radiated measurements setup $f > 1$ GHz up to 17 GHz:



Radiated measurements setup $f > 17$ GHz:



TEST CASES

Radiated emissions

Limits:

Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)/RSS-Gen):

Frequency Range (MHz)	Field strength ($\mu\text{V/m}$)	Field strength ($\text{dB}\mu\text{V/m}$)	Measurement distance (m)
0.009-0.490	2400/F(kHz)	-	300
0.490-1.705	24000/F(kHz)	-	30
1.705 - 30.0	30	-	30
30 - 88	100	40	3
88 - 216	150	43.5	3
216 - 960	200	46	3
Above 960	500	54	3

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

For average radiated emission measurements above 1000 MHz, there is also a limit corresponding to 20 dB above the indicated values in the table is specified when measuring with peak detector function.

RSS-247: Attenuation below the general field strength limits specified in RSS-Gen is not required.

Results:

- Operation mode 1:**

Frequency range 9 kHz - 30 MHz:

No spurious frequencies detected at less than 20 dB below the limit.

Frequency range 30 MHz - 1 GHz

Spurious frequencies detected at less than 20 dB below the limit:

Unwanted Freq (MHz)	Unwanted Lvl (dBμV/m)	Pol	Detector	Sig Path (dB)	Preamp (dB)	Trd Corr. (dB/m)	Raw Rec (dBμV)
40.670	32.26	V	PK	-43.1	3.0	10.1	62.3
	30.50	V	QP	-43.1	3.0	10.1	60.5
127.259	35.52	V	PK	-42.1	3.0	7.8	59.2
	27.99	V	QP	-42.1	3.0	7.8	66.8
139.287	35.62	V	PK	-42.0	3.0	8.5	58.8
	28.25	V	QP	-42.0	3.0	8.5	66.1
148.728	35.50	V	PK	-41.9	3.0	9.2	65.2
	30.68	V	QP	-41.9	3.0	9.2	60.4
175.241	39.09	H	PK	-41.8	3.0	10.0	63.4
	34.59	H	QP	-41.8	3.0	10.0	67.9
181.255	41.07	H	PK	-41.8	3.0	10.2	69.7
	36.74	H	QP	-41.8	3.0	10.2	65.3
193.219	39.52	H	PK	-41.7	3.0	9.4	64.0
	34.68	H	QP	-41.7	3.0	9.4	68.8
211.325	37.33	V	PK	-41.6	3.0	10.9	65.0
	28.72	V	QP	-41.6	3.0	10.9	56.4
229.885	32.52	V	PK	-41.4	3.0	11.6	50.4
	23.64	V	QP	-41.4	3.0	11.6	59.3
249.964	39.90	H	PK	-41.3	3.0	12.2	62.8
	36.74	H	QP	-41.3	3.0	12.2	65.9

Frequency range 1 - 26 GHz

Spurious frequencies with peak levels above the average limit (54 dBµV/m at 3 m) are measured with average detector for checking compliance with the average limit.

Spurious frequencies detected at less than 20 dB below the limit:

Freq Rng (GHz)	Unwanted Freq (MHz)	Unwanted Lvl (dBµV/m)	Pol	Detector	Sig Path (dB)	Preamp (dB)	Trd Corr. (dB/m)	Raw Rec (dBµV)
[1, 3]	1600.000	53.66	H	PK	4.0	0.0	25.2	24.4
[3, 17]	4400.000	41.27	V	PK	-35.8	0.0	30.5	46.6
	4599.733	43.72	V	PK	-35.7	0.0	31.0	48.5
	4880.200	42.10	V	PK	-35.7	0.0	31.2	46.6
	7319.933	48.39	H	PK	-34.2	0.0	36.4	46.2
	8399.800	49.89	V	PK	-32.6	0.0	36.5	46.1
[17, 26]	17999.900	44.37	V	PK	-59.0	0.0	37.6	65.8
	20399.600	47.27	V	PK	-55.0	0.0	37.7	64.5
	22799.900	41.84	H	PK	-52.6	0.0	38.4	56.0

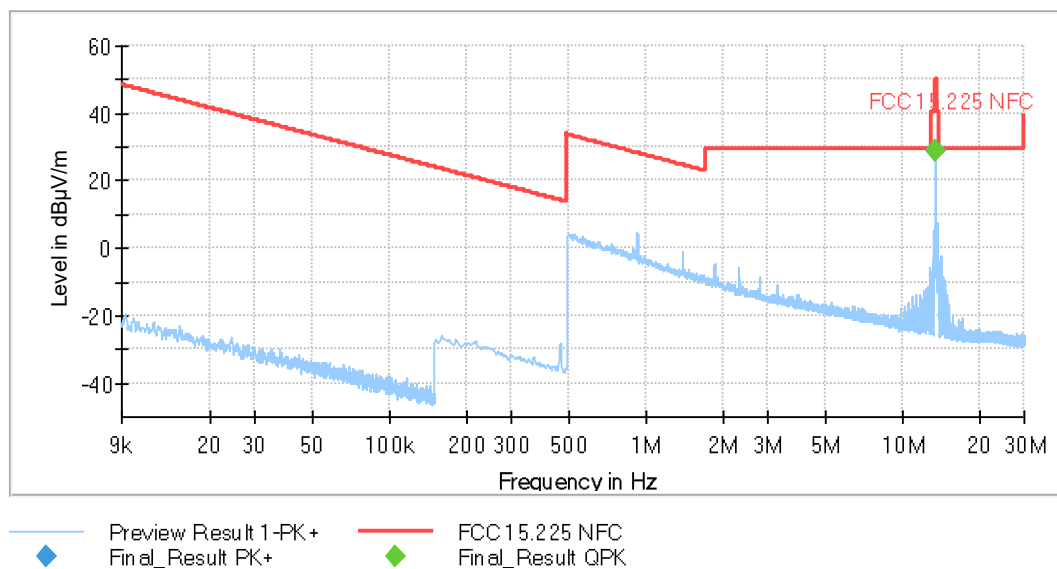
Verdict
Pass

Attachments

Spectrum Analyzer Parameters:

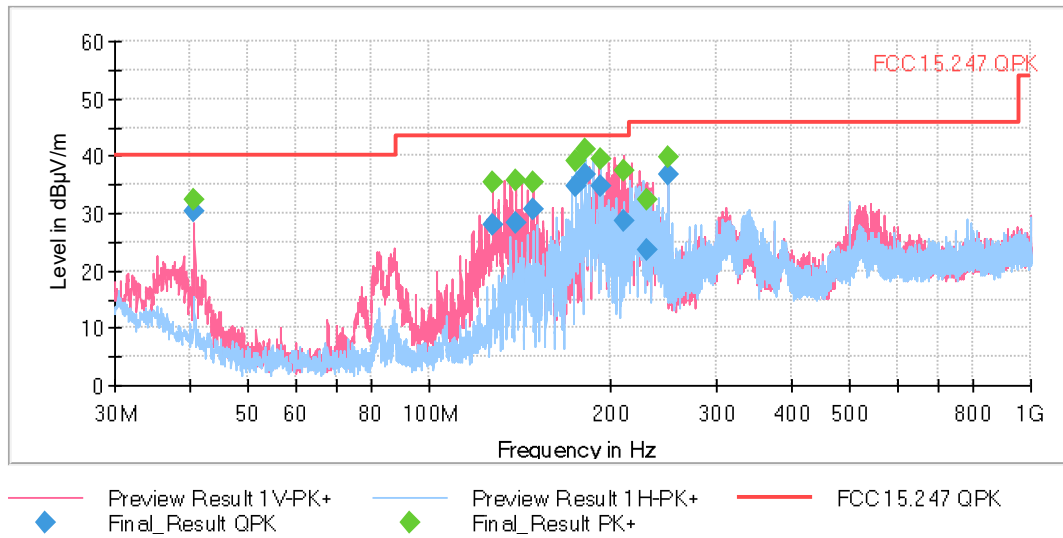
Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
9 kHz - 150 kHz	50 Hz	PK+	200 Hz	0,1 s	0 dB
150 kHz - 6,765 MHz	2,25 kHz	PK+	9 kHz	0,1 s	0 dB
6,765 MHz - 6,795 MHz	50 Hz	PK+	200 Hz	0,1 s	0 dB
6,795 MHz - 11,81 MHz	2,25 kHz	PK+	9 kHz	0,1 s	0 dB
11,81 MHz - 15,31 MHz	50 Hz	PK+	200 Hz	0,1 s	0 dB
15,31 MHz - 30 MHz	2,25 kHz	PK+	9 kHz	1 s	0 dB
30 MHz - 1 GHz	32,333 kHz	PK+	100 kHz	Coupled	0 dB
1 GHz - 3 GHz	200 kHz	PK+ ; AVG	1 MHz	1 s	0 dB
3 GHz - 17 GHz	466,667 kHz	PK+ ; AVG	1 MHz	1 s	0 dB
17 GHz - 26 GHz	300 kHz	PK+ ; AVG	1 MHz	1 s	0 dB

FREQUENCY RANGE 9 kHz- 30 MHz:

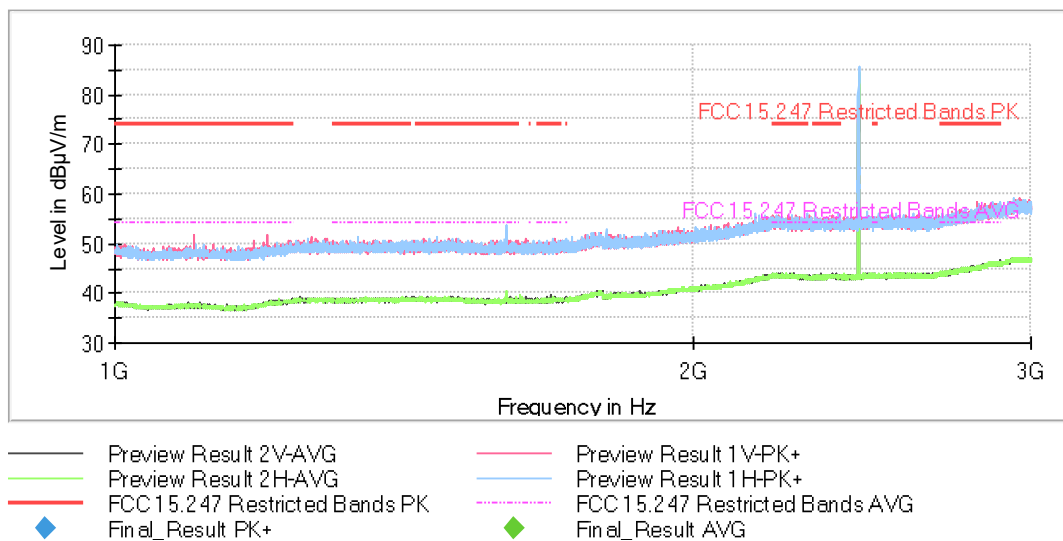


The worst-case result during scan with peak detector. The highest peak is the RFID carrier frequency.

FREQUENCY RANGE 30 MHz - 1 GHz:

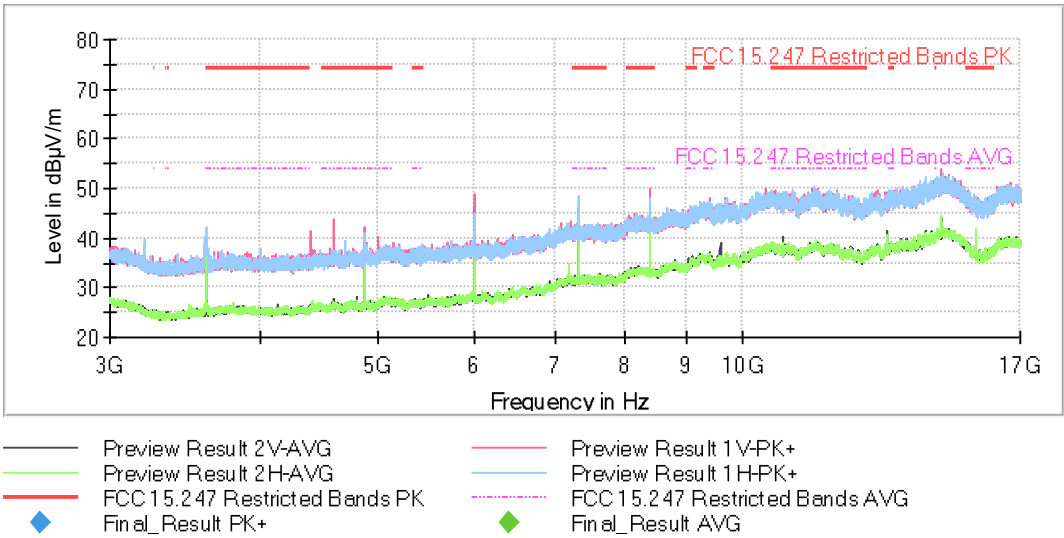


FREQUENCY RANGE 1 - 3 GHz:



The peaks above the limit are the BLE carrier frequency.

FREQUENCY RANGE 3 - 17 GHz:



FREQUENCY RANGE 17 - 26 GHz:

