



FCC LISTED,  
REGISTRATION NUMBER:  
2764.01

ISED LISTED  
REGISTRATION NUMBER:  
23595-1

Test Report No:  
**4282ERM.002A2**

## Test Report

### USA FCC Part 15.247, 15.209, 15.207; & CANADA RSS-247, RSS-Gen

Radio Frequency Devices. Operation within the bands 902 - 928 MHz, 2400 - 2483.5 MHz, and 5725 - 5850 MHz

Digital Transmission Systems (DTSs), Frequency Hopping Systems (FHSs) and License-Exempt Local Area Network (LE-LAN) Devices.

(*) Identification of item tested	PCB w/ Elnk display that monitors the temperature of a room and uses that data to determine whether to spin a fan and let air out of an insulated cover over a radiator. The device has radio capabilities to allow smart monitoring of performance.
(*) Trademark	Cozy
(*) Model and /or type reference	Cozy 2023
Other identification of the product	FCC ID: 2BCKQ-COZY2023
(*) Features	LoRa
(*) Manufacturer	Kelvin Systems, Inc. 63 Flushing Ave Building 303, Suite 702 Brooklyn, NY 11205
Test method requested, standard	USA FCC Part 15.247, 10-1-20 Edition: Operation within the bands 902 - 928 MHz, 2400 -2483.5 MHz, and 5725 - 5850 MHz. / USA FCC Part 15.209, 10-1-20 Edition: Radiated emission limits; general requirements.  CANADA RSS-247 Issue 2 (February 2017). CANADA RSS-Gen Issue 4 (November 2014).  Guidance for Performing Compliance Measurements on Digital Transmission Systems (DTS) Operating Under §15.247 558074 D01 15.247 Meas Guidance v05r02 dated April 2, 2019.  ANSI C63.10-2013: American National Standard for Testing Unlicensed Wireless Devices.
Summary	IN COMPLIANCE
Approved by (name / position & signature)	Domingo Galvez EMC&RF Lab Manager
Date of issue	10-08-2024
Report template No	FDT08_23 (*) "Data provided by the client"

# Index

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Index.....	2
Acronyms.....	3
Competences and guarantees .....	3
General conditions .....	4
Uncertainty.....	4
Data provided by the client.....	4
Usage of samples .....	5
Test sample description .....	6
Identification of the client.....	7
Testing period and place.....	7
Document history .....	8
Environmental conditions .....	8
Remarks and comments .....	8
Testing verdicts.....	9
Summary .....	9
List of equipment used during the test.....	10
Appendix A: Test results .....	11

## Acronyms

Acronym ID	Acronym Description
# of Tx Chains	Number of Transmission Chains
26Ebw	Emission Bandwidth
Avg COT	Average Channel Occupancy Time
BW	Bandwidth
Equipment	Equipment Type
Freq	Frequency
Freq Sep	Frequency Separation
Inband Peak Lvl	Inband Peak Level
Lvl	Level
MP	Measurement Point
Mod	Modulation
NHC	Number of Hopping Channels
NHp	Number of hops over the period
Occ Ch BW	Occupied Channel Bandwidth
Peak Power	Maximum Peak Conducted Output Power
Port	Active Port

## Competences and guarantees

DEKRA Certification Inc. is a testing laboratory accredited by A2LA (The American Association for Laboratory Accreditation), to perform the tests indicated in the Certificate 2764.01

DEKRA Certification Inc. is a testing laboratory competent to carry out the tests described in this report.

In order to assure the traceability to other national and international laboratories, DEKRA Certification Inc. has a calibration and maintenance program for its measurement equipment.

DEKRA Certification Inc. guarantees the reliability of the data presented in this report, which is the result of the measurements and the tests performed to the item under test on the date and under the conditions stated on the report and, it is based on the knowledge and technical facilities available at DEKRA Testing and Certification at the time of performance of the test.

DEKRA Certification Inc. 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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## General conditions

1. This report is only referred to the item that has undergone the test.
2. This report does not constitute or imply on its own an approval of the product by the Certification Bodies or competent Authorities.
3. This document is only valid if complete; no partial reproduction can be made without previous written permission of DEKRA Certification Inc.
4. This test report cannot be used partially or in full for publicity and/or promotional purposes without previous written permission of DEKRA Certification Inc. and the Accreditation Bodies.

## Uncertainty

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

Test case	Frequency (MHz)	U(k=2)	Units
RF Power and PSD	2402-2483	<b>0.88</b>	dB
Occupied Bandwidth		<b>1.87</b>	%
Dwell Time		<b>0.01</b>	%
Band Edge	30-7000	<b>0.64</b>	dB
Conducted Spurious Emission	30 - 1000	<b>0.48</b>	dB
	1000 - 40000	<b>0.94</b>	dB
Radiated Spurious Emission	30-180	<b>4.27</b>	dB
	180-1000	<b>3.14</b>	dB
	1000-18000	<b>3.3</b>	dB
	18000-40000	<b>3.49</b>	dB

## Data 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 PCB w/ Elnk display that monitors the temperature of a room and uses that data to determine whether to spin a fan and let air out of an insulated cover over a radiator. The device has radio capabilities to allow smart monitoring of performance.

DEKRA declines any responsibility with respect to the information provided by the client and that may affect the validity of results.

## Usage of samples

Samples undergoing test have been selected by: The client.

Sample S/01 is composed of the following elements and accessories and auxiliary equipment:

Id	Control Number	Description	Model	Serial N°	Date of Reception	Application
S/01	4282/06	Cozy sample	Cozy 2023	-	11/27/2023	Element Under Test
S/01	4282/04	Flash Programmer	-	-	11/27/2023	Accessory
S/01	4282/07	AC adapter	-	-	11/27/2023	Accessory

Sample S/01 was used for the following test(s): 20 dB Bandwidth, Carrier Frequency Separation, Time of Occupancy (Dwell Time), Number of hopping channels, Band-edge emissions compliance (Transmitter) – Conducted and 99dBw Occupied Channel Bandwidth 99% indicated in appendix A.

Sample S/02 is composed of the following elements and accessories:

Id	Control Number	Description	Model	Serial N°	Date of Reception	Application
S/02	4282/01	Cozy sample	Cozy 2023	-	11/27/2023	Element Under Test
S/02	4282/04	Flash Programmer	-	-	11/27/2023	Accessory
S/02	4282/07	AC adapter	-	-	11/27/2023	Accessory

Sample S/02 was used for the following test(s): Maximum Peak Conducted output power & Antenna gain and Emissions compliance (Transmitter) indicated in appendix A.

## Test sample description

Ports..... :	Port name and description	Cable										
		Specified max length [m]	Attached during test	Shielded	Coupled to patient <sup>(3)</sup>							
	Cozy Power	4.88	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>							
	Fan2 Power	3.05	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>							
	Fan2 Thermistor	3.05	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>							
Supplementary information to the ports..... :	DS-TT-02-00 is used with thermocouples of RTD sensors, noise on cable may affect measurements.											
Rated power supply .....	Voltage and Frequency		Reference poles									
			L1	L2	L3	N	PE					
	<input type="checkbox"/>	AC:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
	<input type="checkbox"/>	AC:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
	<input checked="" type="checkbox"/>	DC: 12V										
	<input type="checkbox"/>	DC:										
Rated Power .....	18W											
Clock frequencies.....	32MHz											
Other parameters .....	Data not provided											
Software version .....	1											
Hardware version .....	main_RevB3, sensors_RevA2											
Dimensions in cm (W x H x D) .....	43 x 16.5 x 10 These are the EKit dimensions, not the Cozy.											
Mounting position .....	<input type="checkbox"/>	Table top equipment										
	<input type="checkbox"/>	Wall/Ceiling mounted equipment										
	<input type="checkbox"/>	Floor standing equipment										
	<input type="checkbox"/>	Hand-held equipment										
	<input type="checkbox"/>	Other: Variable equipment										

Modules/parts.....:	Module/parts of test item	Type	Manufacturer
	DC Power supply	TQ-1201500u	Shenzen Tianqin Electronics Co., Ltd
	Brushless DC Fan	TD05029HB-H	Dongguan Xuheng Electronics Co., Ltd
	Brushless DC Fan	TD05029HB-H	Dongguan Xuheng Electronics Co., Ltd
	eInk Display	GDEY029T94-FT	Good Display
Accessories (not part of the test item) :	Description	Type	Manufacturer
	Flash programmer and ribbon cable	STLINKV3	STMicroelectronics
	Laptop to reprogram flash during tests		
Documents as provided by the applicant .....	Description	File name	Issue date
	FDT30 information	FDT30_18 Declaration Equipment Data	10-09-2023
Copy of marking plate:			
No Marking Plate			

## Identification of the client

63 Flushing Ave  
Building 303, Suite 702  
Brooklyn, NY 11205

## Testing period and place

Test Location	DEKRA Certification Inc.
Date (start)	11-27-2023
Date (finish)	11-28-2023

## Document history

Report number	Date	Description
4282ERM.002	09-11-2024	First release.
4282ERM.002A1	09-27-2024	Second release. The FCC ID is updated on the cover page. This modified test report cancels and replaces the report 4282ERM.002
4282ERM.002A2	10-08-2024	Third release. The maximum conducted output power and antenna gain has been included in the maximum peak conducted output power and antenna gain test result section. This modified test report cancels and replaces the report 4282ERM.002A1.

## 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. = 30 % Max. = 75 %
Air pressure	Min. = 860mbar Max. = 1060mbar

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

Temperature	Min. = 15 °C Max. = 35 °C
Relative humidity	Min. = 30 % Max. = 75 %
Air pressure	Min. = 860mbar Max. = 1060mbar

In the chamber for conducted measurements, the following limits were not exceeded during the test:

Temperature	Min. = 15 °C Max. = 35 °C
Relative humidity	Min. = 30 % Max. = 75 %
Air pressure	Min. = 860mbar Max. = 1060mbar

## Remarks and comments

The tests have been performed by the technical personnel: Ivy Yousuf Moutushi, Qi Zhang and Koji Nishimoto.



## Testing verdicts

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

## Summary

### Annex A: FHSS mode

Requirement – Test case	FCC PART 15 PARAGRAPH / RSS-247	Verdict	Remark
RSS-247 5.1 (b) / FCC 15.247 (a) (1)(i) 20 dB Bandwidth		Pass	N/A
RSS-247 5.1 (b) / FCC 15.247 (a) (1) Carrier Frequency Separation		Pass	N/A
RSS-247 5.1 (d) / FCC 15.247 (a) (1) Time of Occupancy (Dwell Time)		Pass	N/A
RSS-247 5.1 (d) / FCC 15.247 (a) (1) (i) Number of hopping channels		Pass	N/A
RSS-247 5.4 (a) / FCC 15.247 (b) (2) Maximum Peak Conducted output power & Antenna gain		Pass	N/A
RSS-247 5.5 / FCC 15.247 (d) Band-edge emissions compliance (Transmitter) - Conducted		Pass	N/A
FCC 2.1049 / 99dBw Occupied Channel Bandwidth 99%		Pass	N/A
RSS-247 5.5 / FCC 15.247 (d) Emissions compliance (Transmitter) - Conducted		N/A	Refer 1
RSS-247 5.5 / FCC 15.247 (d) Emissions compliance (Transmitter) - Radiated		Pass	N/A
<b>Supplementary information and remarks:</b>			
1. DUT has an integral antenna, and no conducted testing is required			

## List of equipment used during the test

### FCC 47 CFR Part 15.247 / RSS-247

#### Conducted Measurements

CONTROL NUMBER	DESCRIPTION	Serial No	LAST CALIBRATION	NEXT CALIBRATION
1107	ETHERNET SNMP THERMOMETER	60038026952	2022-10-18	2024-10-18
1313	WIRELESS MEASUREMENT SOFTWARE R&S WMS32	-	N/A	N/A
1391	Signal Analyzer 50GHz	101281	2022-01-27	2024-01-27

#### Radiated Measurements

CONTROL NUMBER	DESCRIPTION	Serial No	LAST CALIBRATION	NEXT CALIBRATION
1012	ESR26 EMI TEST RECEIVER	101478	2022-04-12	2024-04-12
1014	FSV40 Signal Analyzer 40GHz	101626	2022-08-01	2024-08-01
1057	3115 Double-Ridged Waveguide Horn Antenna 1-18 GHz	211373	2023-07-18	2026-07-18
1064	3142E Biconilog Antenna	208600	2021-12-13	2024-12-13
1111	Ethernet SNMP Thermometer-SAC	60038026577	2022-10-18	2024-10-18
1179	SEMI-ANECHOIC CHAMBER	F169021	N/A	N/A
1314	WIRELESS MEASUREMENT SOFTWARE R&S EMC32	1040-OT102236	N/A	N/A
1461	Low Noise Preamplifier (1-18GHz)	BLMA0118-4A	2022-06-01	2024-06-01

## Appendix A: Test results

# Appendix A

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PRODUCT INFORMATION .....	13
DESCRIPTION OF TEST CONDITIONS .....	14
RSS-247 5.1 (b) / FCC 15.247 (a) (1)(i) 20 dB Bandwidth.....	16
RSS-247 5.1 (b) / FCC 15.247 (a) (1) Carrier Frequency Separation .....	19
RSS-247 5.1 (d) / FCC 15.247 (a) (1) Time of Occupancy (Dwell Time) .....	21
RSS-247 5.1 (d) / FCC 15.247 (a) (1) (i) Number of hopping channels .....	23
RSS-247 5.4 (a) / FCC 15.247 (b) (2) Maximum Peak Conducted output power & Antenna gain	25
RSS-247 5.5 / FCC 15.247 (d) Band-edge emissions compliance (Transmitter) - Conducted...	28
RSS-247 5.2 (a) / RSS-GEN 6.7 FCC 15.247 (a) (2) 99dBw Occupied Channel Bandwidth 99%	31
RSS-247 5.5 / FCC 15.247 (d) Emissions compliance (Transmitter) - Radiated.....	34

## PRODUCT INFORMATION

(\*): Data provided by the client.

Information	Description
Modulation	Chirp Spread Spectrum
Frequency band/Range	902.3-914.9 MHz
Maximum RF Output Power	14 dBm
Operation mode	
- Operating Frequency Range	902-928 MHz
- Channel Spacing	200 kHz
- Number of Channels	64
- Nominal Channel Bandwidth	125kHz
Antenna type	Chip antenna - Kyocera AVX M620720
Antenna gain	0.75dBi
Nominal Voltage	
- Supply Voltage	12 Vdc
- Type of power source	DC Voltage
Equipment type	LoRa

# DESCRIPTION OF TEST CONDITIONS

TEST CONDITIONS	DESCRIPTION
TC#01 FHSS MODE	<p><u>Power supply (V):</u> AC Adapter: 120 V.</p> <p><u>Temperature (°C):</u> <math>T_{nom} = +15 \text{ to } +35</math></p> <p>The subscript nom indicates normal test conditions.</p> <p><u>Test Frequencies for tests:</u> The Measurements were taken with a Spreading Factor of 10 as this constitutes the worst-case scenario.</p> <p>Lowest channel: 902.3 MHz Middle channel: 908.5 MHz Highest channel: 914.9 MHz</p>

## RADIATED MEASUREMENTS:

All radiated emissions tests were performed in a semi-anechoic chamber. The measurement antenna is situated at 3 m for the frequency range 30-1000 MHz (Bilog antenna) and 1-18 GHz Double ridge horn antennas.

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.

The field strength is calculated by adding correction factor to the measured level from the spectrum analyzer. This correction factor includes antenna factor, cable loss and pre-amplifiers gain.

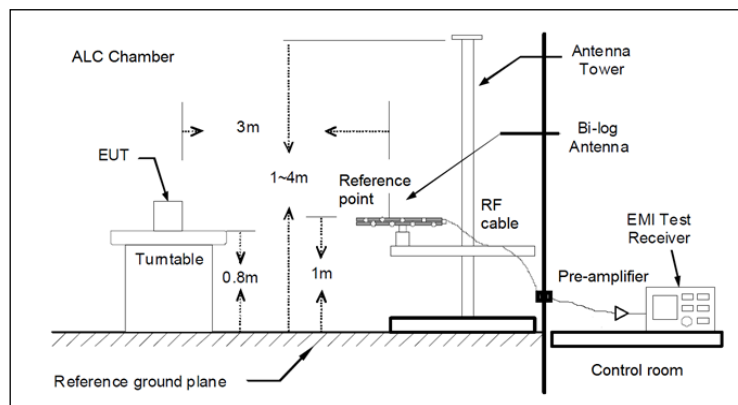


Fig A1: Radiated Emissions measurements Setup  $f < 1$  GHz

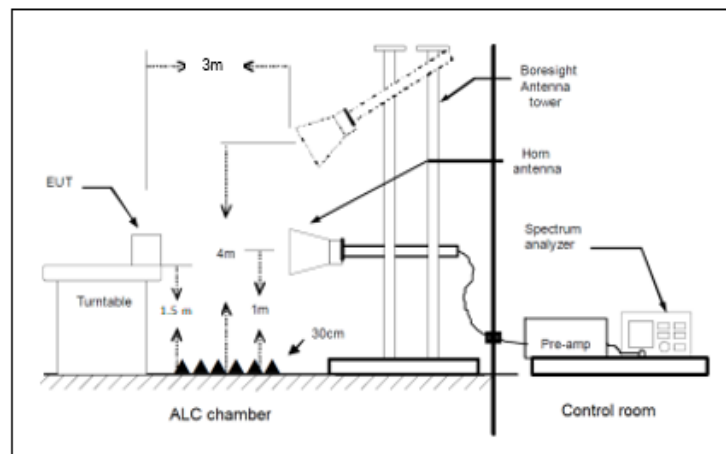


Fig A2: Radiated Emissions measurements setup  $f > 1$  GHz

# Test Cases Details

## RSS-247 5.1 (b) / FCC 15.247 (a) (1)(i) 20 dB Bandwidth

### Limits

For frequency hopping systems operating in the 902–928 MHz band: if the 20 dB bandwidth of the hopping channel is less than 250 kHz, the system shall use at least 50 hopping frequencies. The maximum allowed 20 dB bandwidth of the hopping channel is 500 kHz.

Test conditions modes: TC#01

### Results

	Lowest frequency 902.3 MHz	Middle frequency 908.7 MHz	Highest frequency 914.9 MHz
20dB Spectrum bandwidth (kHz)	138.013	138.567	138.856

### Verdict

Pass

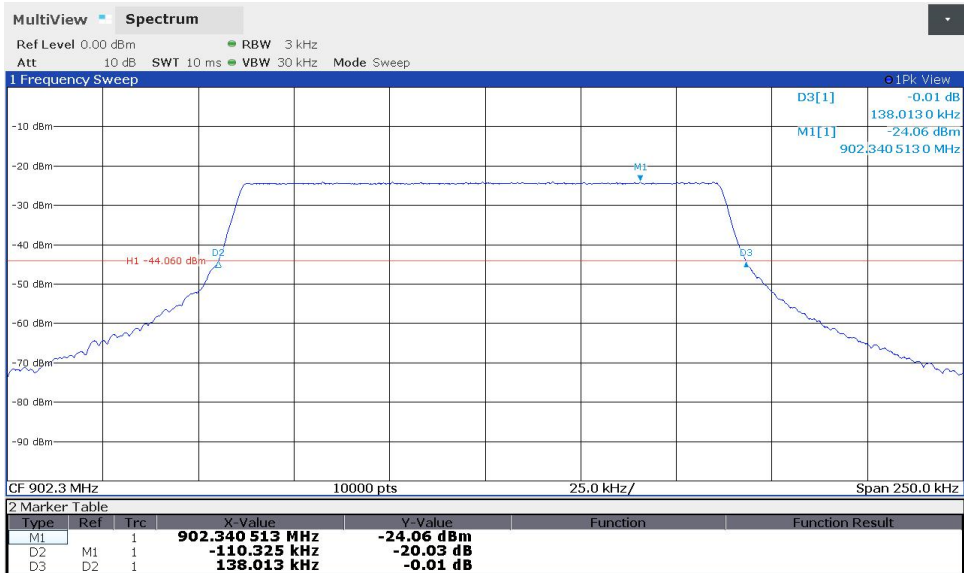


Results

Attachments

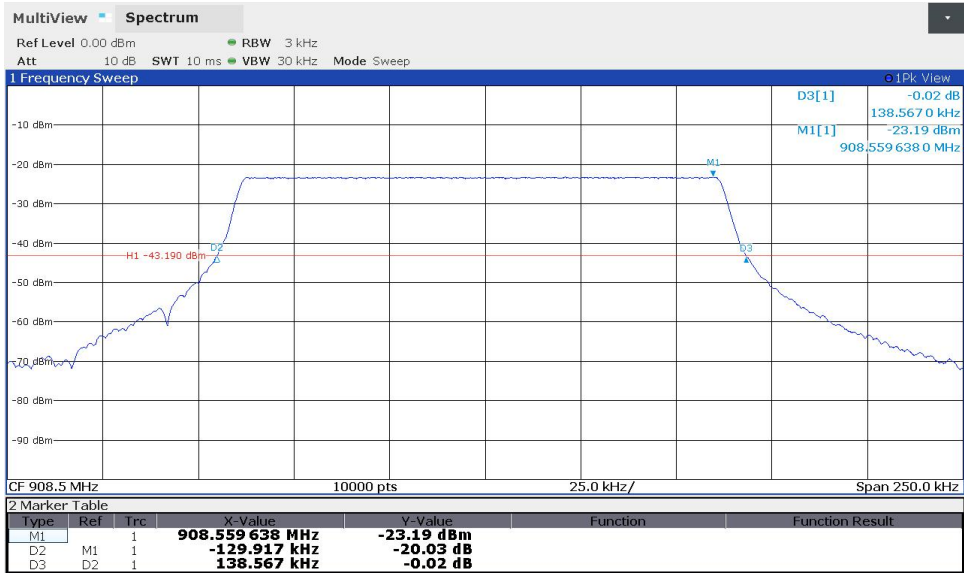
Frequency = 902.3 MHz, Bandwidth = 125 kHz

Images:



Frequency = 908.5 MHz, Bandwidth = 125 kHz

Images:



Frequency = 914.9 MHz, Bandwidth = 125 kHz

Images:



RSS-247 5.1 (b) / FCC 15.247 (a) (1) Carrier Frequency Separation

Limits

Frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or the 20 dB bandwidth of the hopping channel, whichever is greater.

Test conditions modes: TC#01

Results

Equipment	# of Tx Chains	Freq Sep (kHz)
Frequency Hopping Spread Spectrum systems	1	208.84

Verdict

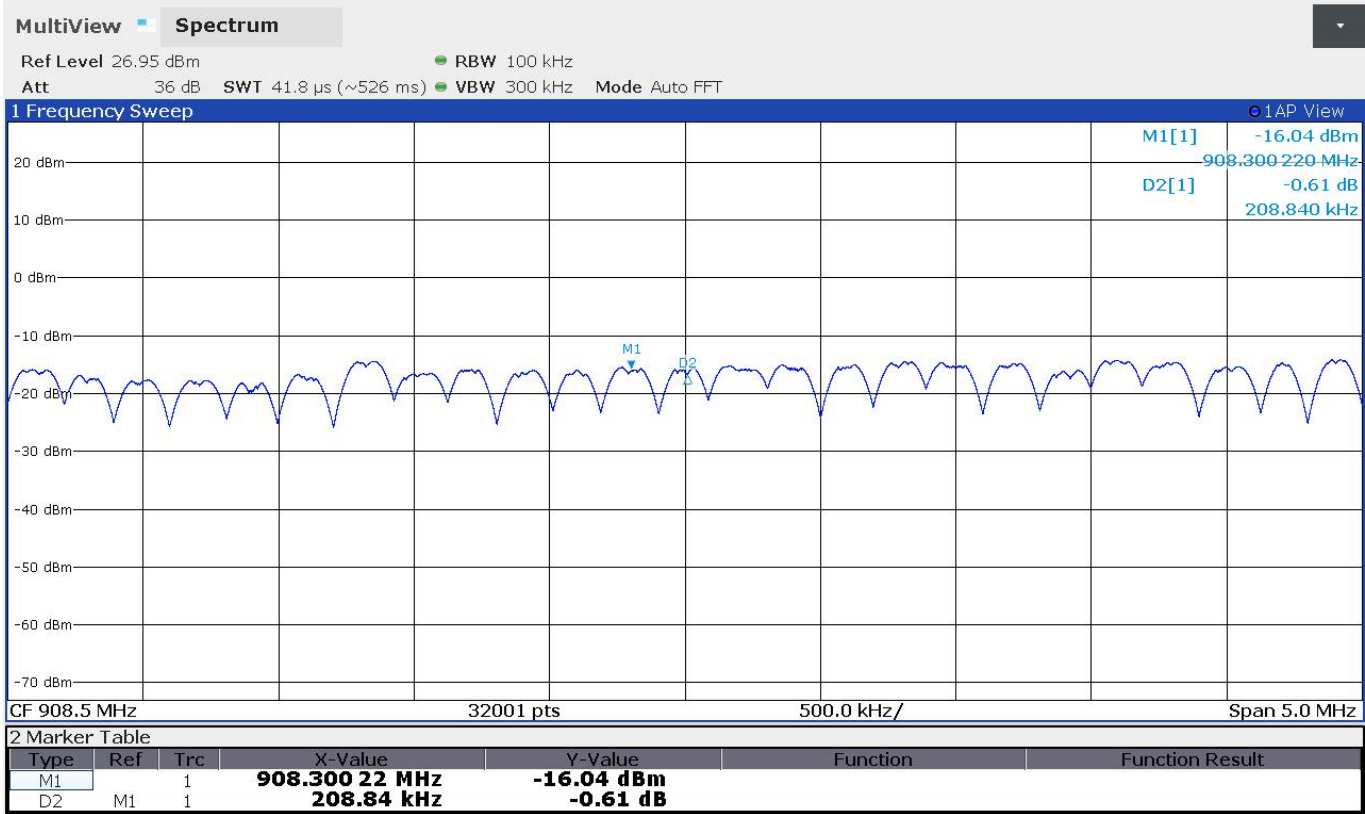
Pass

**Results**

**Attachment**

**Frequency Range = 902-928 MHz, Bandwidth = 125 kHz**

**Images:**



## RSS-247 5.1 (d) / FCC 15.247 (a) (1) Time of Occupancy (Dwell Time)

### Limits

The average time of occupancy on any channel shall not be greater than 0.4 seconds within a period of 0.4 seconds multiplied by the number of hopping channels employed.

Test conditions modes: TC#01

### Results

For 125 kHz BW, there are 64 hopping channels, when we multiply 64 with 0.4 seconds we get 25.6 seconds as time period, so the within the 25.6 seconds the average time of occupancy should not exceed the 0.4 seconds.

Average time of occupancy =  $204.271 \text{ ms} \times 1 \text{ hop} = 204.271 \text{ ms per } 25.6 \text{ s}$ .

### Verdict

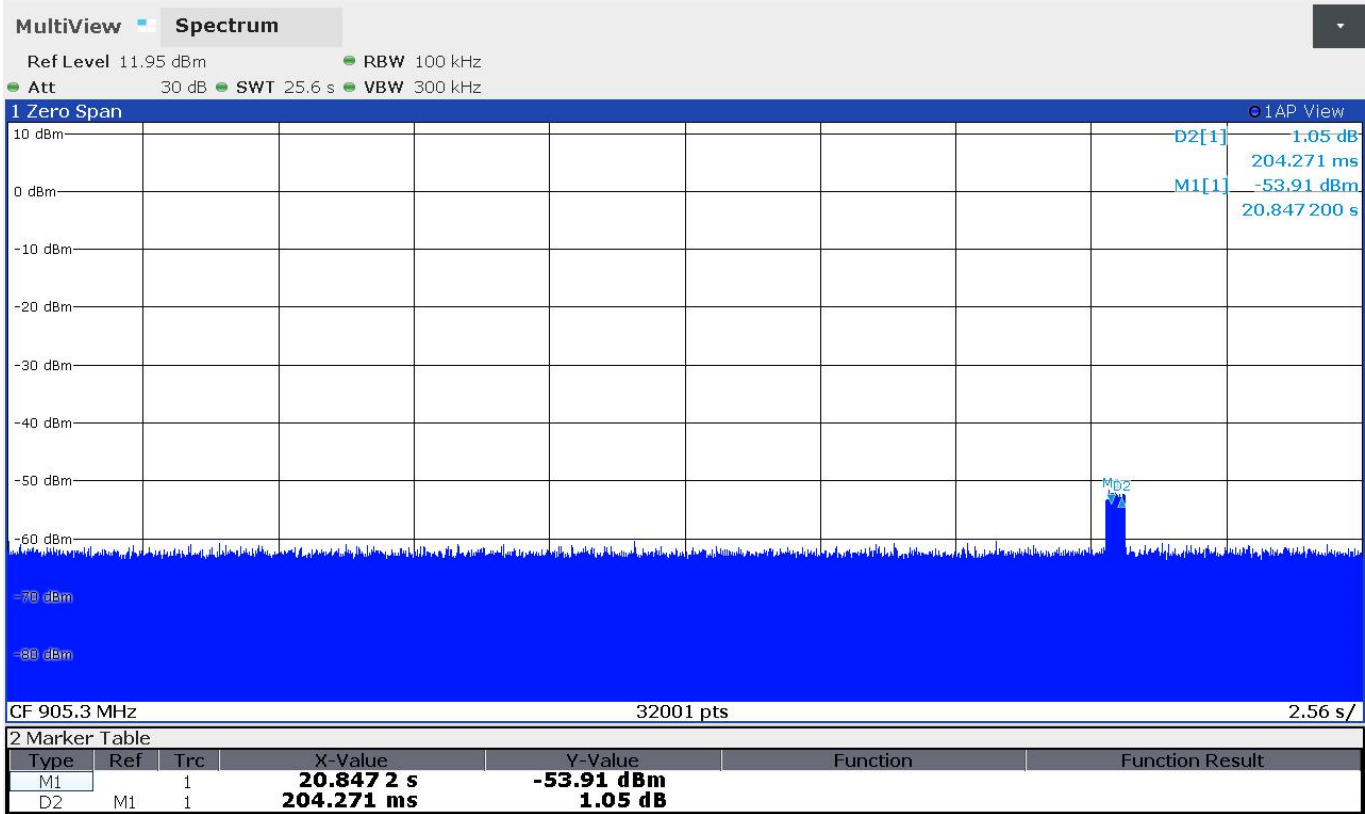
Pass

Results

Attachments

Frequency Range = 902-928 MHz, Bandwidth = 125 kHz

Images:



**RSS-247 5.1 (d) / FCC 15.247 (a) (1) (i) Number of hopping channels**

**Limits**

For frequency hopping systems operating in the 902–928 MHz band: if the 20 dB bandwidth of the hopping channel is less than 250 kHz, the system shall use at least 50 hopping frequencies.

Test conditions modes: TC#01

**Results**

Equipment	# of Tx Chains	NHC
Frequency Hopping Spread Spectrum systems	1	64

**Verdict**

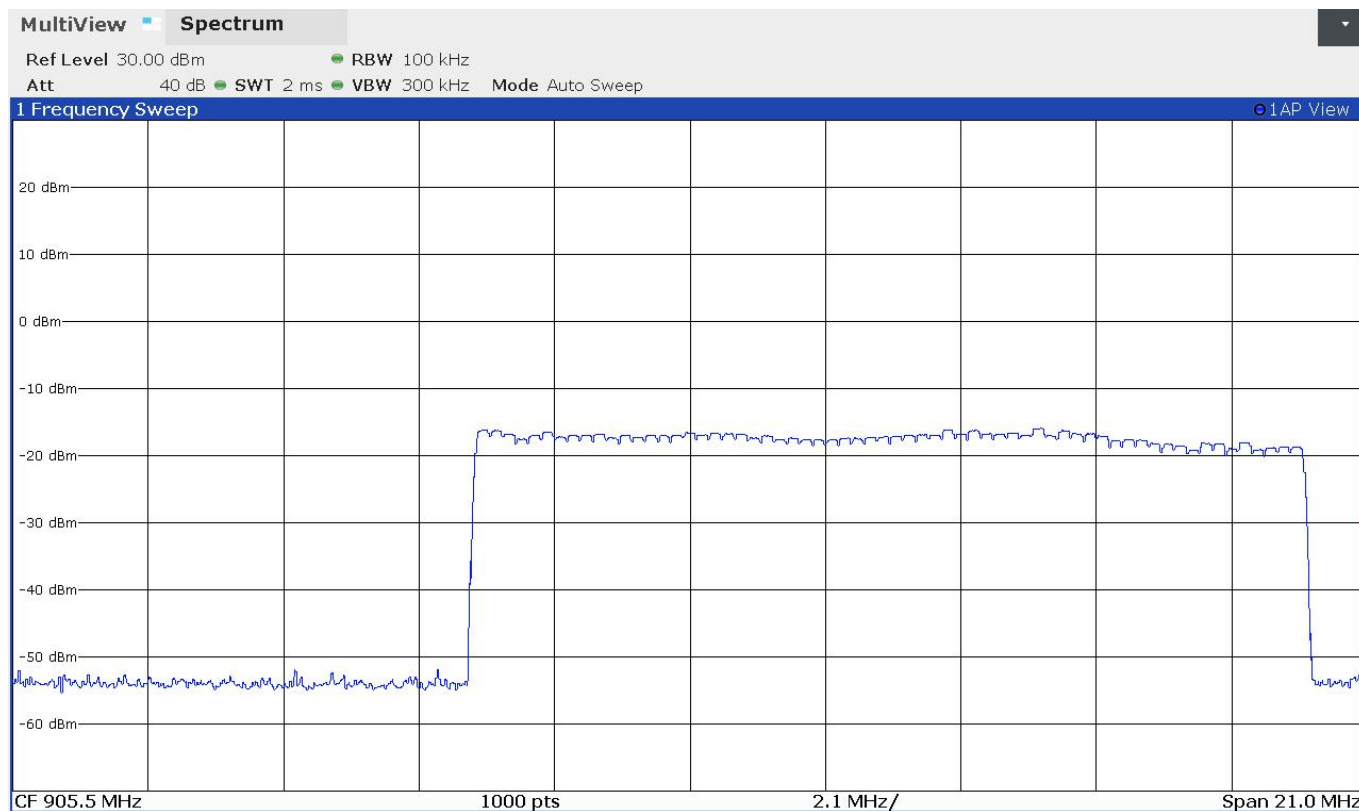
Pass

## Results

## Attachments

Frequency Range = 902-928 MHz, Bandwidth = 125 kHz

## Images:





## RSS-247 5.4 (a) / FCC 15.247 (b) (2) Maximum Peak Conducted output power & Antenna gain

### Limits

§15.247(b) (2): For frequency hopping systems operating in the 902-928 MHz band: 1 watt for systems employing at least 50 hopping channels; and, 0.25 watts for systems employing less than 50 hopping channels, but at least 25 hopping channels.

RSS-247 5.4(a): For FHSs operating in the band 902-928 MHz, the maximum peak conducted output power shall not exceed 1.0 W, and the e.i.r.p. shall not exceed 4 W if the hopset uses 50 or more hopping channels; the maximum peak conducted output power shall not exceed 0.25 W and the e.i.r.p. shall not exceed 1 W if the hopset uses less than 50 hopping channels.

The maximum peak conducted output power was measured using the method according to section 3 of Guidance for Performing Compliance Measurements on Digital Transmission Systems (DTS) Operating Under §15.247 558074 D01 DTS Meas Guidance v05 dated 04/02/2019.

Maximum declared antenna gain: 0.75 dBi

Test conditions modes: TC#01

### Results

	Lowest frequency 902.3 MHz	Middle frequency 908.7 MHz	Highest frequency 914.9 MHz
Maximum conducted power (dBm)	11.25	12.55	13.75
Maximum EIRP power (dBm)	12.00	13.30	14.50

### Verdict

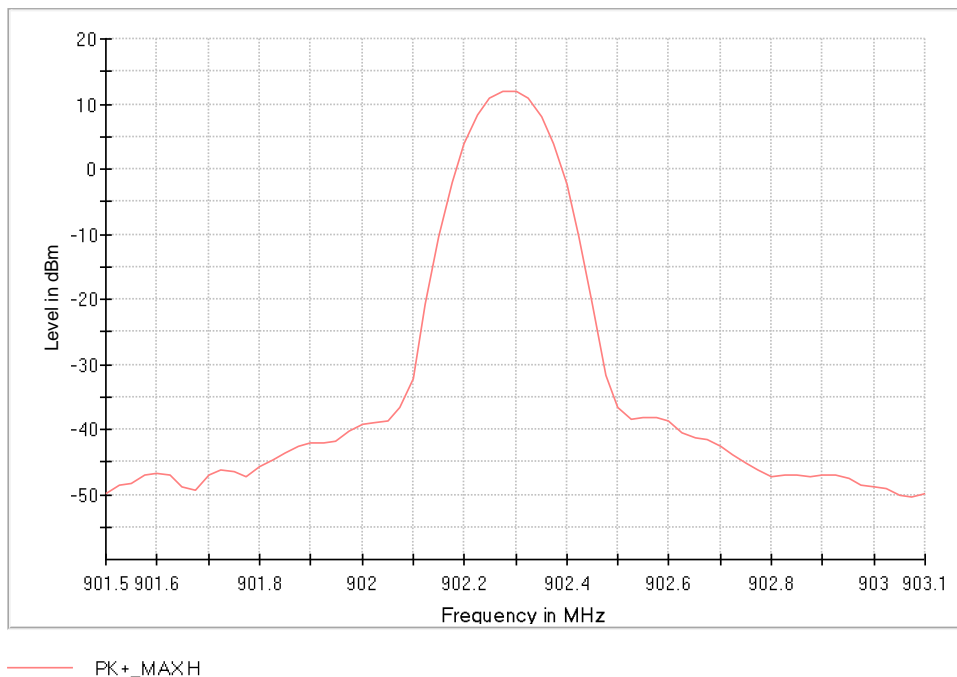
Pass

## Results

## Attachments

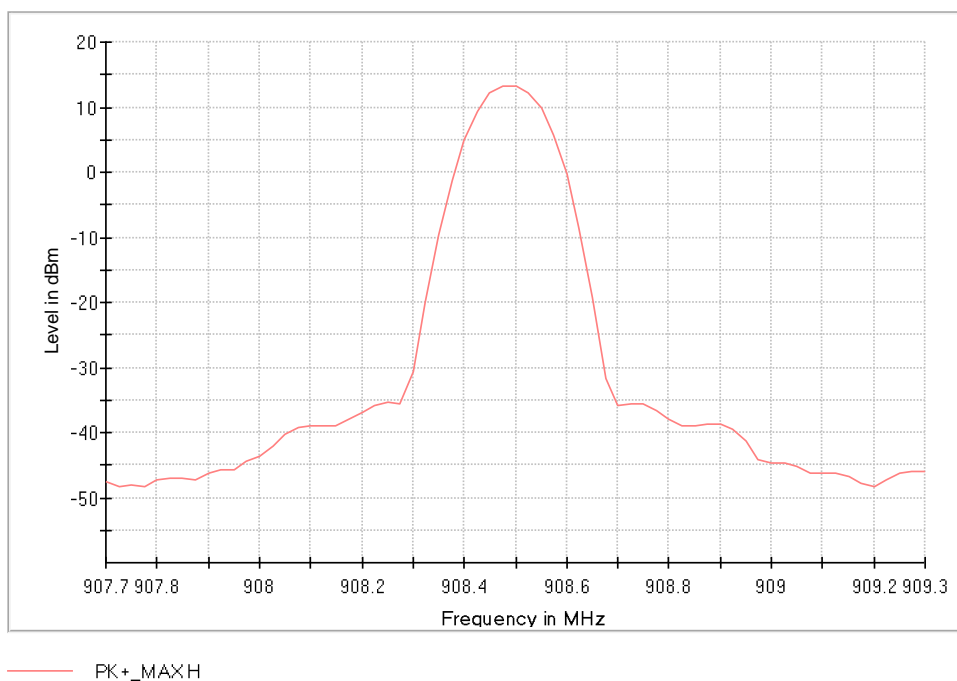
**Frequency = 902.3 MHz, Bandwidth = 125 kHz**

**Images:**



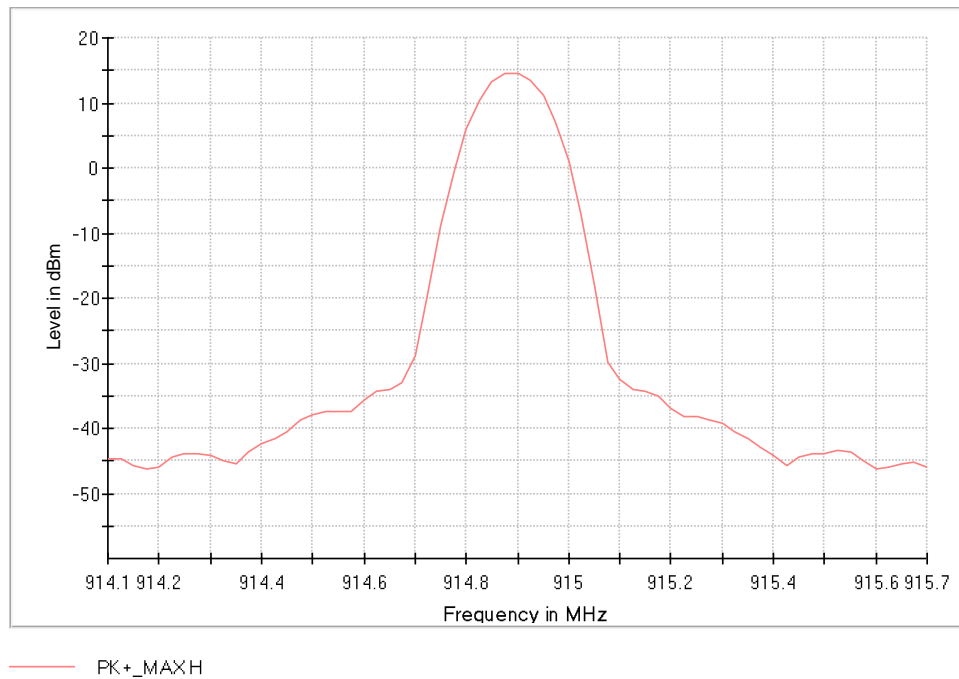
**Frequency = 908.5 MHz, Bandwidth = 125 kHz**

**Images:**



**Frequency = 914.9 MHz, Bandwidth = 125 kHz**

**Images:**



## RSS-247 5.5 / FCC 15.247 (d) Band-edge emissions compliance (Transmitter) - Conducted

### Limits

In any 100 kHz bandwidths outside the frequency band in which the intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, the attenuation required under this paragraph shall be 30 dB instead of 20 dB.

Note: Radiated measurements are also used to show compliance with the limits in the restricted bands 2.31-2.39 GHz and 2.4835-2.5 GHz.

Test conditions modes: TC#01

### Results

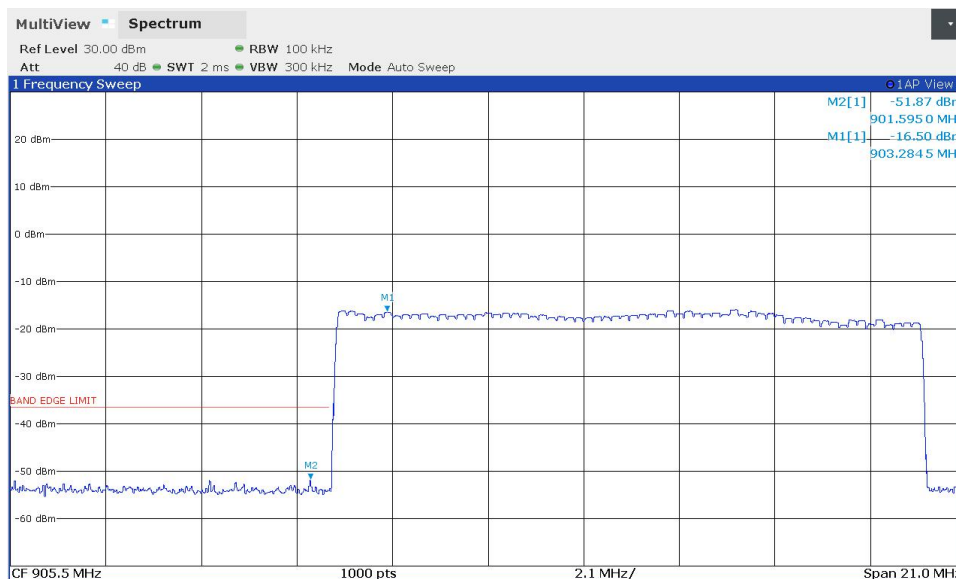
### Verdict

Pass

## Attachments

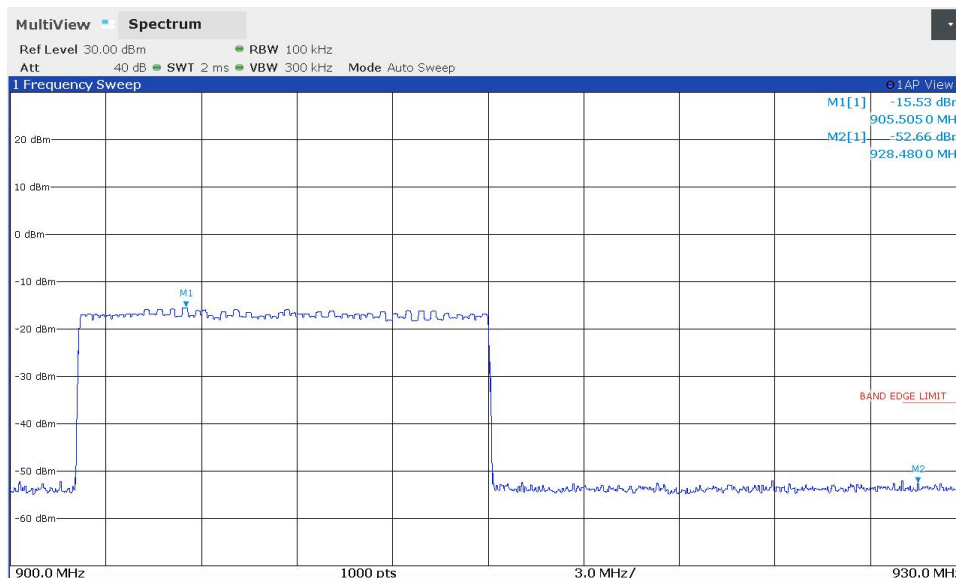
Frequency = 902-928 MHz, Bandwidth = 125 kHz

Images:



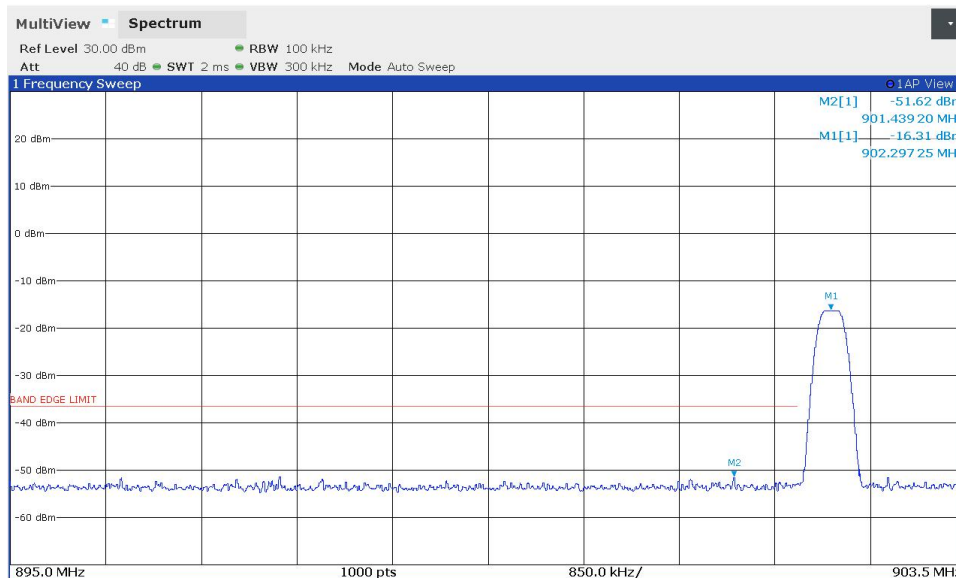
Frequency = 902-928 MHz, Bandwidth = 125 kHz

Images:



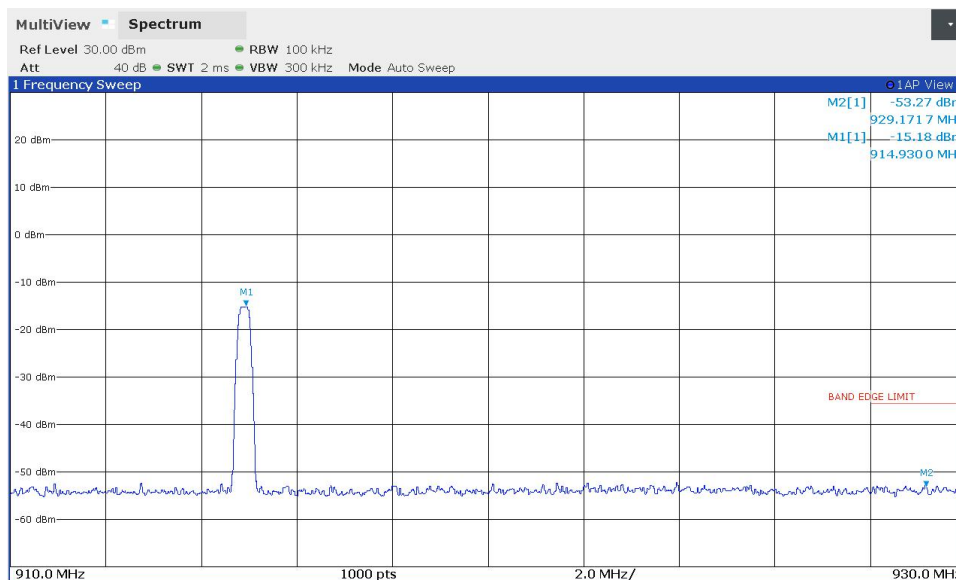
Frequency = 902.3 MHz, Bandwidth = 125 kHz

Images:



Frequency = 914.9 MHz, Bandwidth = 125 kHz

Images:



**RSS-247 5.2 (a) / RSS-GEN 6.7 FCC 15.247 (a) (2) 99dBw Occupied Channel Bandwidth 99%**

**Limits**

The occupied bandwidth shall be reported for all equipment in addition to the specified bandwidth required in the applicable RSSs.

Test conditions modes: TC#01

**Results**

	Lowest frequency 902.3 MHz	Middle frequency 908.7 MHz	Highest frequency 914.9 MHz
99% bandwidth (kHz)	127.05	126.95	127.18

**Verdict**

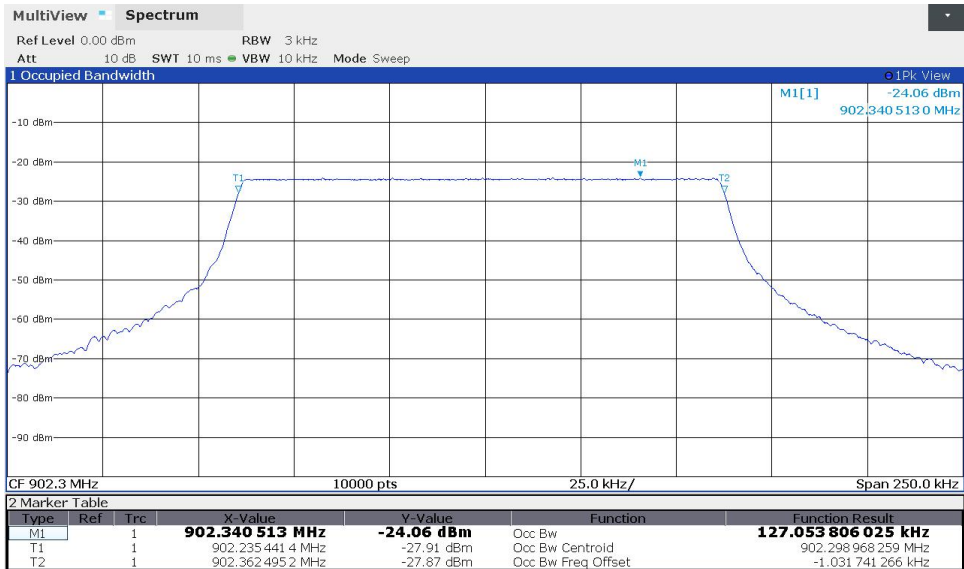
Pass

Results

Attachments

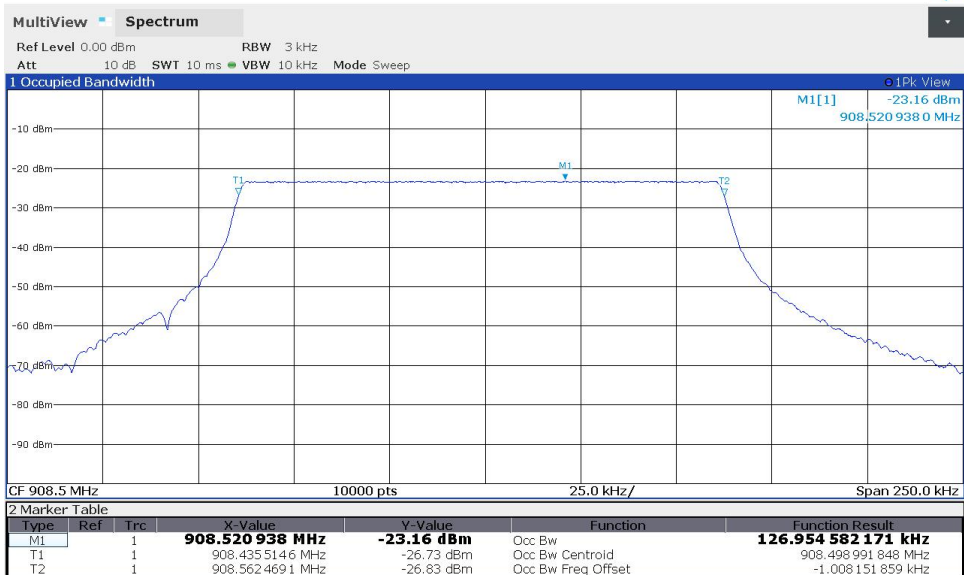
Frequency = 902.3 MHz, Bandwidth = 125 kHz

Images:



Frequency = 908.5 MHz, Bandwidth = 125 kHz

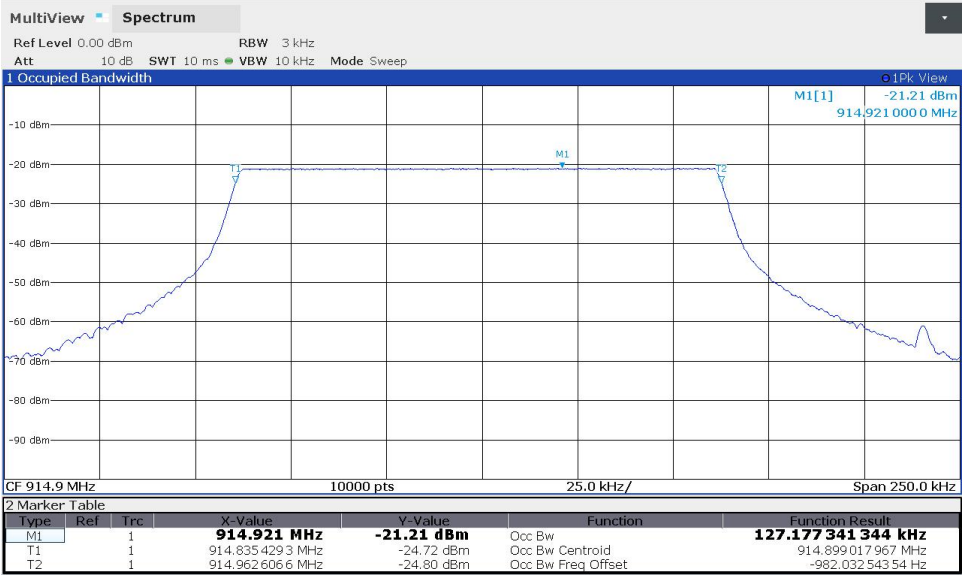
Images:





Frequency = 914.9 MHz, Bandwidth = 125 kHz

Images:



## RSS-247 5.5 / FCC 15.247 (d) Emissions compliance (Transmitter) - Radiated

### 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 (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.

### Verdict

Pass

Test conditions modes: TC#01

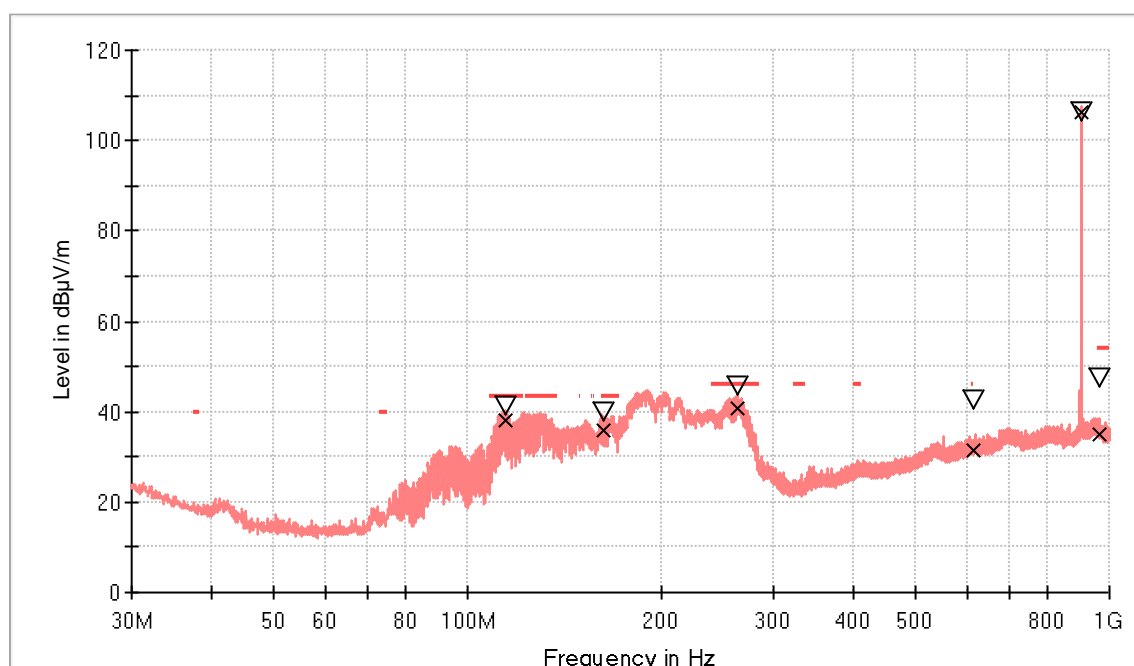
Results: Frequency range 0.03 - 1 GHz

Lowest Channel

Attachments

Frequency = 902.3 MHz, Bandwidth = 125 kHz, Frequency Range GHz = [0.03, 1]

Images:



— PK+ MAX H  
— TX limits to Spurious Emission FCC15.247 (30MHz to 1GHz) Restricted Bands QPK Limit  
▽ MaxPeak-PK+ (Single)  
× QuasiPeak-QPK (Single)

Frequency (MHz)	MaxPeak (dBμV/m)	QuasiPeak (dBμV/m)	Pol	Margin - QPK (dB)	Limit - QPK (dBμV/m)
114.584000	41.1	38.1	V	5.4	43.5
162.793000	40.0	35.7	V	7.8	43.5
263.479000	45.4	40.6	H	5.5	46.0
613.164000	42.5	31.4	H	14.6	46.0
902.321000	106.3	106.2	H	---	---
964.546500	47.2	34.9	H	19.1	54.0

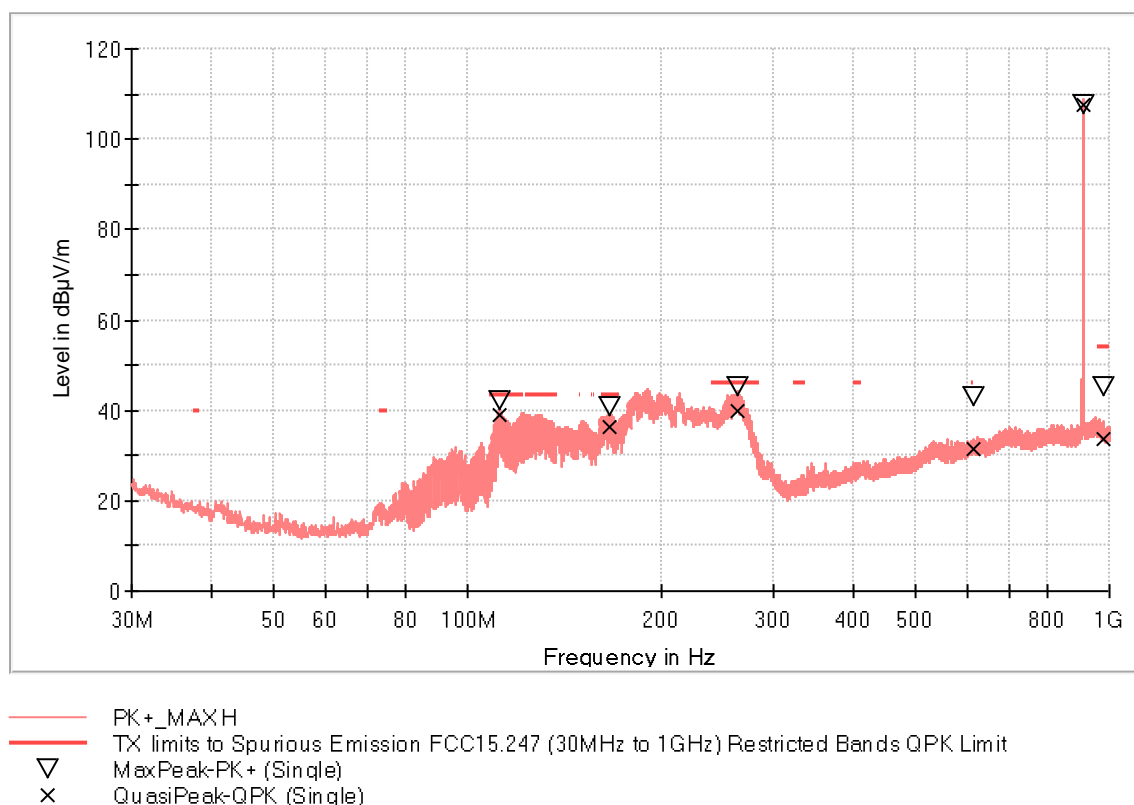
Results: Frequency range 0.03 - 1 GHz

## Middle Channel

## Attachments

Frequency = 908.5 MHz, Bandwidth = 125 kHz, Frequency Range GHz = [0.03, 1]

Images:



Frequency (MHz)	MaxPeak (dBμV/m)	QuasiPeak (dBμV/m)	Pol	Margin - QPK (dB)	Limit - QPK (dBμV/m)
112.062000	41.9	39.0	V	4.5	43.5
166.964000	40.5	36.4	V	7.1	43.5
263.042500	45.3	39.8	H	6.2	46.0
612.970000	43.1	31.4	V	14.6	46.0
908.529000	107.5	107.4	H	---	---
981.279000	45.4	33.8	H	20.2	54.0

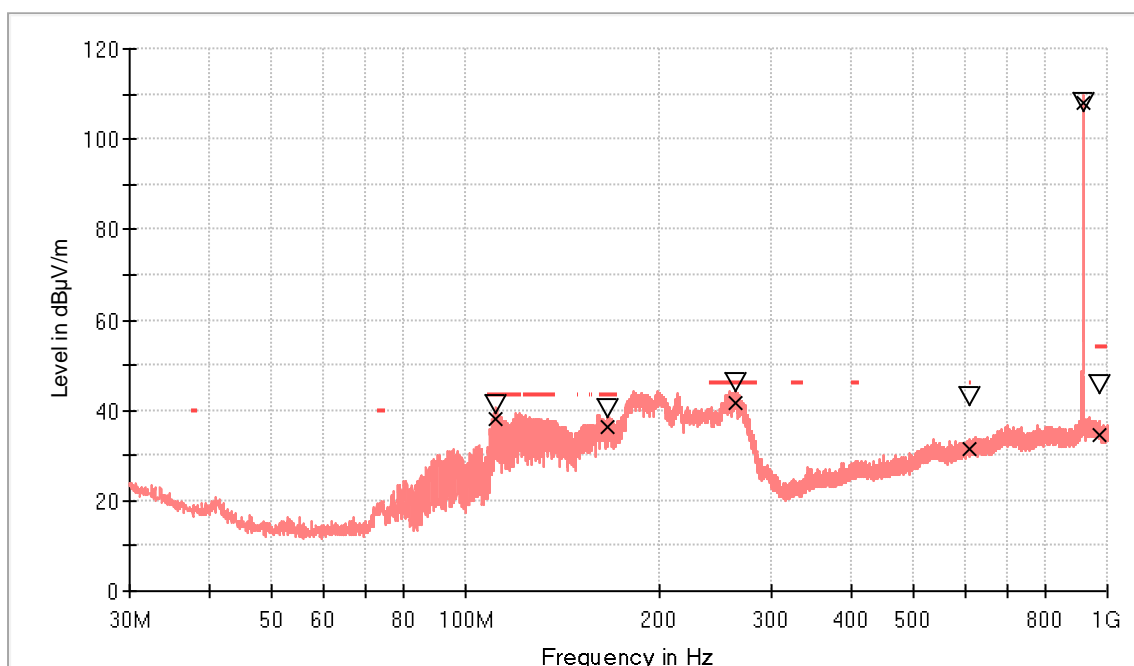
Results: Frequency range 0.03 - 1 GHz

Highest Channel

Attachments

Frequency = 914.9 MHz, Bandwidth = 125 kHz, Frequency Range GHz = [0.03, 1]

Images:



— PK+ \_MAX H  
— TX limits to Spurious Emission FCC15.247 (30MHz to 1GHz) Restricted Bands QPK Limit  
v MaxPeak-PK+ (Single)  
x QuasiPeak-QPK (Single)

Frequency (MHz)	MaxPeak (dBμV/m)	QuasiPeak (dBμV/m)	Pol	Margin - QPK (dB)	Limit - QPK (dBμV/m)
111.819500	41.1	38.0	V	5.6	43.5
166.867000	40.4	36.1	V	7.4	43.5
263.430500	46.2	41.6	H	4.4	46.0
610.981500	42.9	31.3	H	14.7	46.0
914.931000	108.0	107.9	H	---	---
971.627500	45.7	34.5	V	19.5	54.0

Test conditions modes: TC#01

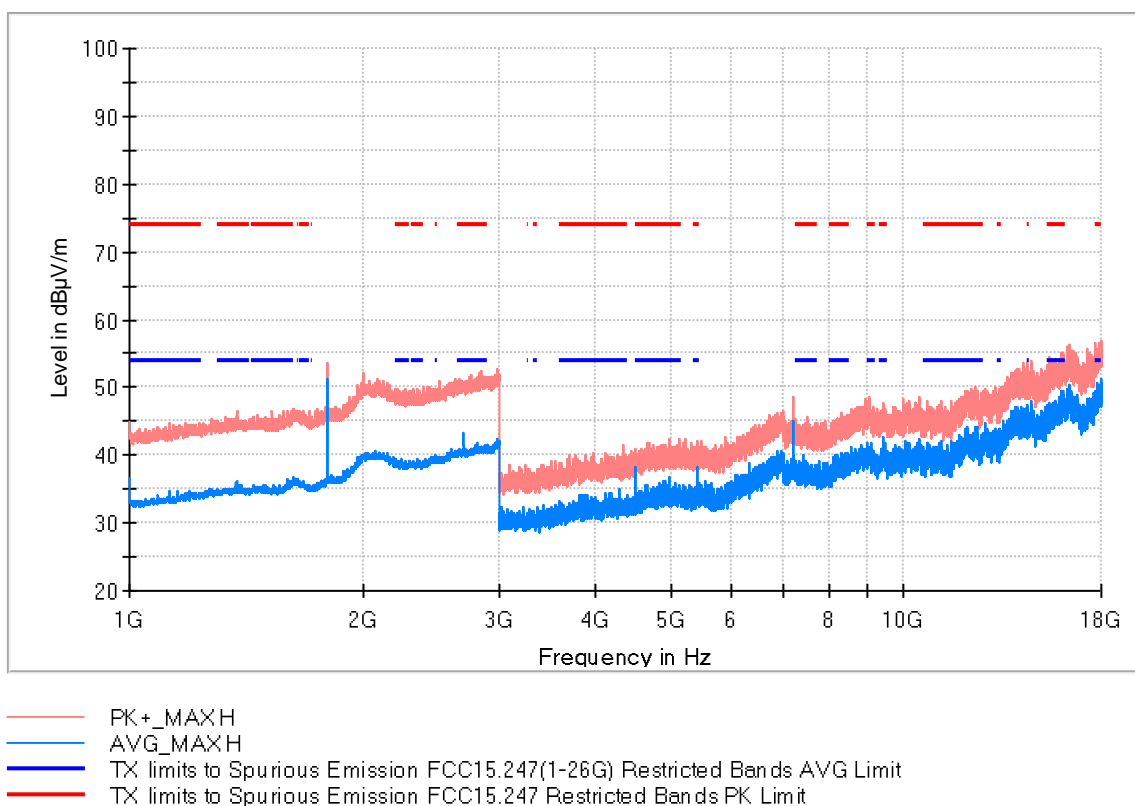
**Results: Frequency range 1 - 18 GHz**

**Lowest Channel**

**Attachments**

**Frequency = 902.3 MHz, Bandwidth = 125 kHz, Frequency Range GHz = [1, 18]**

**Images:**



Frequency (MHz)	PK+_MAXH (dBμV/m)	AVG_MAXH (dBμV/m)	PoI	Margin - AVG (dB)	Limit - AVG (dBμV/m)	Comment
2707.000000	50.8	43.4	H	10.6	54.0	3 <sup>rd</sup> Harmonic
15991.50000	52.8	49.6	H	4.4	54.0	
17957.50000	55.6	51.3	H	2.7	54.0	

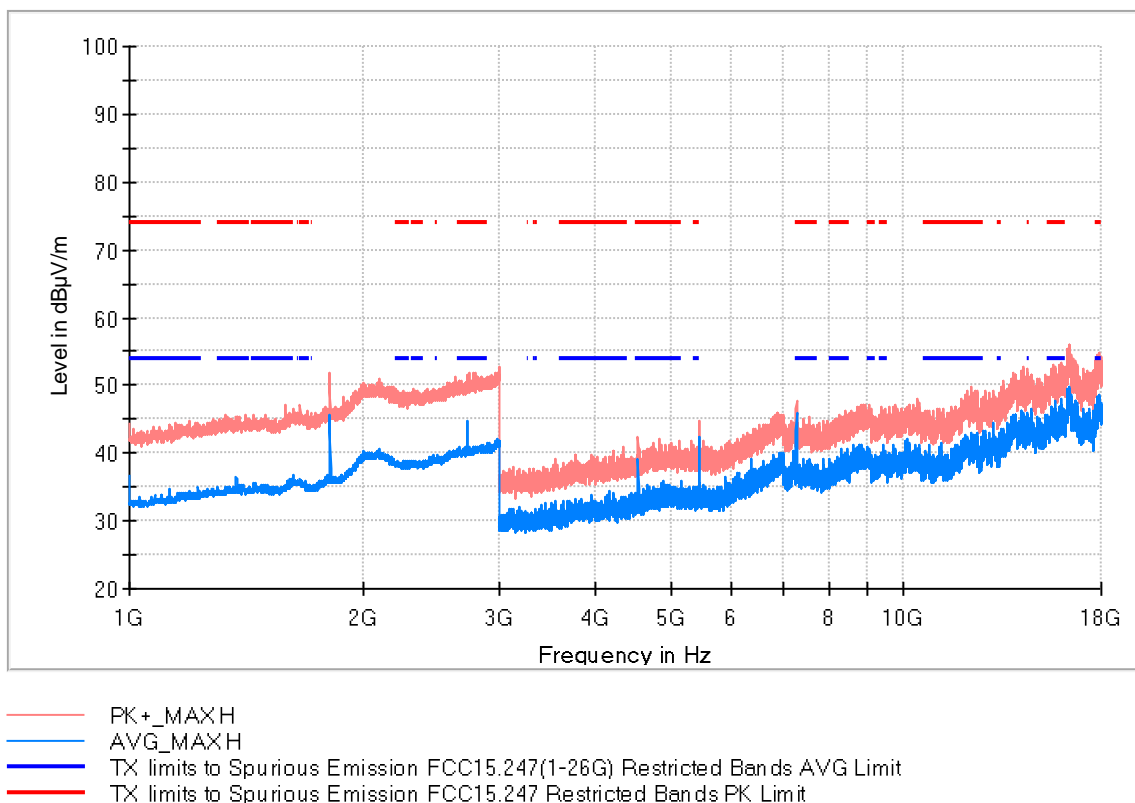
**Results: Frequency range 1 - 18 GHz**

## Middle Channel

## Attachments

Frequency = 908.5 MHz, Bandwidth = 125 kHz, Frequency Range GHz = [1, 18]

## Images:



Frequency (MHz)	PK+_MAXH (dBμV/m)	AVG_MAXH (dBμV/m)	Pol	Margin - AVG (dB)	Limit - AVG (dBμV/m)	Comment
2725.500000	50.8	44.9	H	9.1	54.0	3 <sup>rd</sup> Harmonic
4542.500000	42.5	39.2	H	14.8	54.0	5 <sup>th</sup> Harmonic
5451.000000	43.5	42.4	H	11.6	54.0	6 <sup>th</sup> Harmonic
7268.000000	47.6	46.0	V	8.0	54.0	8 <sup>th</sup> Harmonic
15681.500000	51.3	47.9	V	6.1	54.0	
17874.000000	53.1	48.5	H	5.5	54.0	

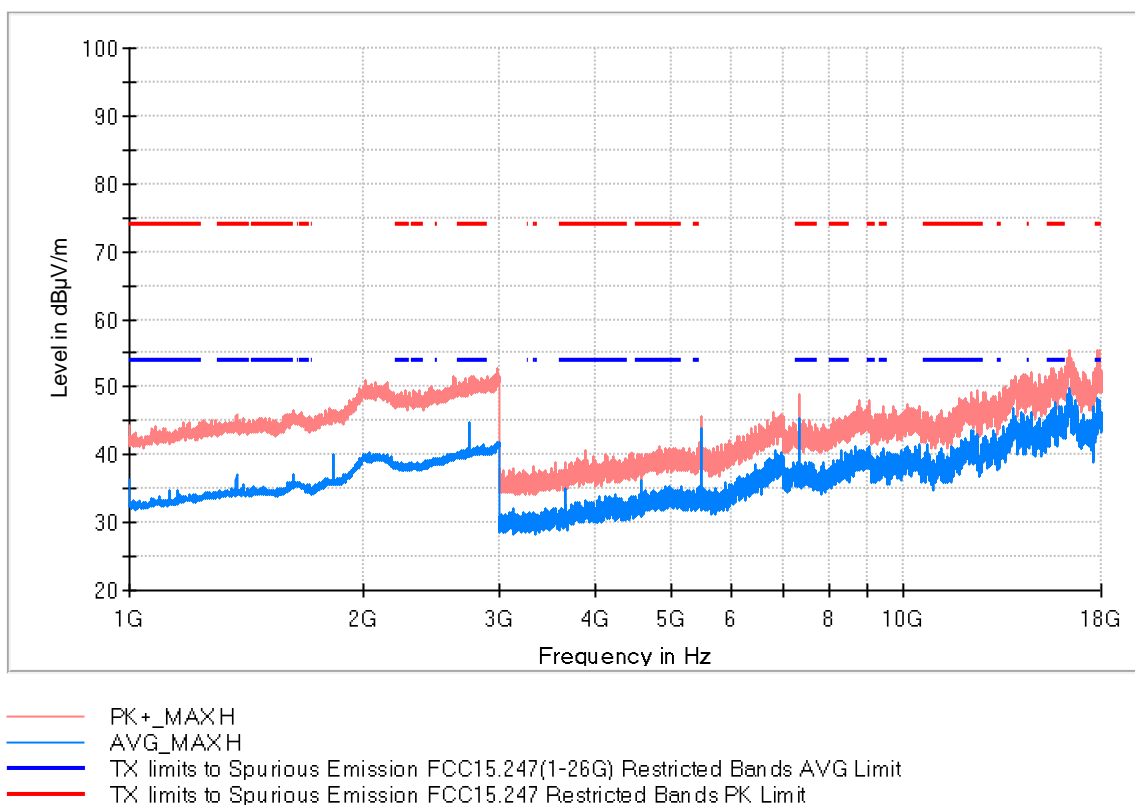
## Results: Frequency range 1 - 18 GHz

### Highest Channel

### Attachments

Frequency = 914.9 MHz, Bandwidth = 125 kHz, Frequency Range GHz = [1, 18]

### Images:



Frequency (MHz)	PK+_MAXH (dBμV/m)	AVG_MAXH (dBμV/m)	Pol	Margin - AVG (dB)	Limit - AVG (dBμV/m)	Comment
2745.000000	51.4	44.7	H	9.3	54.0	3 <sup>rd</sup> Harmonic
3659.500000	38.8	35.2	H	18.8	54.0	4 <sup>th</sup> Harmonic
4574.500000	40.0	36.3	H	17.7	54.0	5 <sup>th</sup> Harmonic
5489.500000	45.7	44.1	V	---	---	6 <sup>th</sup> Harmonic
7319.000000	48.8	45.3	H	8.7	54.0	8 <sup>th</sup> Harmonic
15661.500000	51.8	47.6	H	6.4	54.0	
17835.500000	52.0	48.3	V	5.7	54.0	