DEKRA Certification, Inc.
405 Glenn Dr. Suite 12,
Sterling, VA 20164
United States of America

DEKRA

ACCREDITED
CERTIFICATE #2764.01

Test Report No:
3492ERM.022A2

Partial Test report

USA FCC Part 15.247, 15.407 15.209, 15.207
CANADA RSS-247, RSS-Gen

(*) Identification of item tested	Motorcycle cockpit domain controller, called Infotainment Front Control Unit (IFCU) of 12.3 inch
(*) Trademark	Visteon
(*) Model and /or type reference	HARLEYIFCU
Other identification of the product	FCC ID: NT8- HARLEYIFCU IC: 3043A- HARLEYIFCU HW Version : 1.E / 1.F / 1.G SW Version : v1315 FVIN : 1.0 HVIN : 1.E / 1.F / 1.G
(*) Features	Audio, Tuner (FM, MW, LW, DAB+, AM WB, HD Radio), Bluetooth (Dual HFP), USB (C Type), Wi-Fi (Access Point / Master 5GHz - STA / Slave mode 2.4GHz & 5GHz), A2B (RF Link), GNSS, Display (Capacitive, 12.7") 1.E Variant: AM/FM HD, Tuner and water band 1.G Variant: AM/FM, Tuner 1.F: AM/FM, DAB Tuner and Radio
Manufacturer	Visteon Corporation One Village Center Drive, Van Buren Township, MI 48111, USA
Test method requested, standard	USA FCC Part 15.247, 10-1-21 Edition: Operation within the bands 902 - 928 MHz, 2400 -2483.5 MHz, and 5725 - 5850 MHz USA FCC Part 15.407 10-1-21 Edition : Unlicensed National Information Infrastructure Devices. General technical requirements. USA FCC Part 15.209 10-1-21 Edition: Radiated emission limits; general requirements. CANADA RSS-247 Issue 2 (February 2017). CANADA RSS-Gen Issue 5 amendment 1 (March 2019). 558074 D01 15.247 Meas Guidance v05r02. Guidance for Compliance Measurements on Digital Transmission Systems, Frequency Hopping Spread Spectrum System, and Hybrid System Devices Operating Under section §15.247 of the FCC Rules 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 Digitally signed by Domingo Galvez DN: cn=Domingo Galvez, o=DEKRA Certification Inc., ou=Regulatory Lab, email=dgalvez@dekra.com, c=US
Date of issue	04-20-2023
Report template No	FDT08_23 (*) "Data provided by the client"

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Acronyms

Acronym ID	Acronym Description
# of Tx Chains	Number of Transmission Chains
BEL	Band Edge Left
BER	Band Edge Right
DC	Duty Cycle
Freq	Frequency
Freq Rng	Frequency Range
Lvl Meas Pk	Level Pre Measurement Peak
MP	Measurement Point
MU	Medium Utilization Factor
Max EIRP	Maximum Burst EIRP
Max RMS	Maximum Burst RMS
Max Tx Seq	Maximum Transmission Sequence Time
Min Tx Gap	Minimum Transmission Gap Time
Mod	Modulation
Occ Ch BW	Occupied Channel Bandwidth
PSD	Power Spectrum Density
Port	Active Port
T	Temperature
Unwanted Freq	Unwanted Emissions Frequency
Unwanted Lvl	Unwanted Emissions Level

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 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.

IMPORTANT: No parts of this report may be reproduced or quoted out of context, in any form or by any means, except in full, without the previous written permission of DEKRA Certification Inc.

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 Certification internal document PODT000.

Test case	Frequency (MHz)	U (k=2)	Units
Radiated Spurious Emission	30-180	4.27	dB
	180-1000	3.14	dB
	1000-18000	3.30	dB
	18000-40000	3.49	dB

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 Instrument cluster functionality with Speedometer, Tachometer, Battery, Fuel Main Gages plus common warning lights. Infotainment functionality as included HD Radio NA, DAB Radio EU, or FM/AM Radio RoW, plus connectivity (USB, Bluetooth and Wi-Fi connections for Cellphone and Helmets).
3. Applicant’s declaration letter shown below for model similarity

Visteon

Name
Heidi Sepanik
Corporate Secretary

Visteon Corporation
One Village Center Drive
Van Buren Township, MI, 48111
Tel 734.710.4672
Fax 734.736.5540
hdiebol@visteon.com

Date: March 20, 2023

To:	From:
Regulatory Certification Body DEKRA Testing and Certification, S.A.U. Parque Tecnológico de Andalucía C/ Severo Ochoa 2 & 6, 29590,Málaga, España	**Visteon Corporation** One Village Center Drive, Van Buren Township, MI, USA. Postcode/Zip Code: 48111

Ref: EU-TEC/FCC/ISED update related to product:

Type of equipment:	Infotainment Control Unit
Brand name:	Visteon
Model name:	HARLEYIFCU

To whom it may concern,

Model name:	HARLEYIFCU	**CHANGES**
HW version:	1.E	Audio Hub, Audio Processing, HD digital radio and weather band
HW version:	1.F	Audio Hub, Audio Processing, DAB digital radio and Radion
HW version:	1.G	Audio Hub and Audio Processing
SW version:	v1315	Same for 3 HW versions

*Same PCB, different Tunner Specs, weather band only populated on 1.E variant and Radion only populated on 1.F variant.
*Same electrical and mechanical features.
*Same PCB board is used on the 3 Hardware versions. However, only the 1.F Hardware has the DAB digital radio populated and therefore is being considered as the most complex hardware for RED certification. 1.E hardware has HD radio and water band, which make if the most complex one for FCC.
*For RED certification, partial tests have been performed over 1.E and 1.G hardware to corroborate the behaviour is the same as on 1.F hardware, test report results for 1.F product version are valid and representative for the rest of hardware versions 1.E and 1.G and partial test reports were performer for each variant depending on the product features.
*For FCC/ISED certification, partial tests have been performed over 1.F and 1.G hardware to corroborate the behaviour is the same as on 1.E hardware, test report results for 1.E product version are valid and representative for the rest of hardware versions 1.F and 1.G and partial test reports were performer for each variant depending on the product features.
*According to the geolocation of the product, the features available will be automatically activates or deactivated.

Sincerely,

By:	Heidi Sepanik	Heidi A Sepanik
Title:	Corporate Secretary	
Company:	Visteon Corporation	
Telephone:	734.710.4672	
e-mail:	hdiebol@visteon.com	**Signature**

Visteon Corporation CORPORATE SEAL JAN. 5, 2000 DELAWARE

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, accessories and auxiliary equipment:

Id	Control Number	Description	Manufacturer / Model	Serial Nº	Date of Reception	Application
S/03	3492/88	IFCU-HD (NA)	Visteon / HARLEYIFCU	P70901090_C23260087	2023-01-04	Element Under Test
S/03	3492/02	GPS antenna	PKG001238	-	2022-11-14	Element Under Test
S/03	3492/28	Break out board & Main harness	-	-	2022-11-14	Accessory
S/03	3492/38	FM/AM/DAB Antenna	NEXTIUM	-	2022-11-14	Accessory
S/03	3492/06	Amplifier Harness	-	-	2022-11-14	Accessory
S/03	3492/09	Audio Amplifier	ROCKFORDFOSGATE / DV3	6300000207-71	2022-11-14	Accessory
S/03	3492/12	HSD to USB Cable	Visteon	-	2022-11-14	Accessory
S/03	3492/17	USB type A (male) to USB type A (male) Cable	-	-	2022-11-14	Accessory
S/03	3492/33	Speaker	Kicker / DSC50	40214091010343	2022-11-14	Accessory
S/03	3492/62	VCAN	V-CAN / FV 5.2	4280922	2022-11-14	Accessory
S/03	DEKRA 53	USB type A (male) to USB type A (Female) Cable	-	-	-	Auxiliary
S/03	1484	Laptop	LENOVO / V14 G2 ITL	PF3Q2NKL	-	Auxiliary

1. Sample S/01 was used for the test(s): All Radiated test(S) indicated in appendix A.

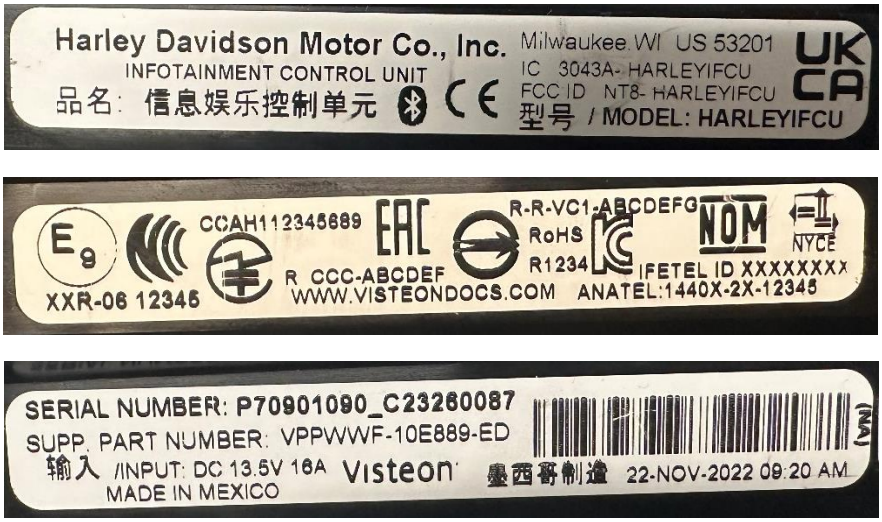
Test sample description

Test Sample description (compulsory information for EMC and RF testing services

Ports…… :	Port name and description	Cable				
		Specified length [m]	Attached during test	Shielded	Coupled to patient	
	Main Connector Harness	1.5	☒	☐	☐	
	AM/FM Antenna Connector	0.1	☒	☐	☐	
	GPS Antenna Connector	0.1	☒	☐	☐	
	USB Connector	0.1	☒	☐	☐	
			☐	☐	☐	
Supplementary information to the ports…… :	No Data Provided					
Rated power supply ..... :	Voltage and Frequency	Reference poles				
		L1	L2	L3	N	PE
	☐ AC:	☐	☐	☐	☐	☐
	☐ AC:	☐	☐	☐	☐	☐
	☒ DC: 13.5 Vdc					
	☐ DC:					
Rated Power ..... :	16A					
Clock frequencies ..... :	40 MHz, 8MHz, 38.4MHz, 55.4667MHz					
Other parameters..... :	No Data Provided					
Software version ..... :	v1315					
Hardware version..... :	1.E / 1.F / 1.G					
Dimensions in cm (W x H x D)..... :	36.8 x 15.4 x 6.3					
Mounting position..... :	☐ *Table top equipment*					
	☐ *Wall/Ceiling mounted equipment*					
	☐ *Floor standing equipment*					
	☐ *Hand-held equipment*					
	☒ *Other: Installed in a Motorcycle*					
Modules/parts ..... :	Module/parts of test item	Type	Manufacturer			
	No Data Provided					
Accessories (not part of the test item) ..... :	Description	Type	Manufacturer			
	Break Out Board + Main harness					
	Amplifier + Amplifier Harness + Speaker					
	AM/FM or AM/FM/DAF Antenna					
	GPS Antenna					
	VCAN + VCAN Connection					

	Wireless Headset		
	Description	File name	Issue date
	Declaration Equipment Data	FDT30_18 Declaration Equipment Data – R4	03/08/2023
	Test Instructions		
	Technical Files		
	DUT Manual		

Copy of marking plate:



Identification of the client

VISTEON CORPORATION
One Village Center Drive,
Van Buren Township, MI 48111,
USA

Testing period and place

Test Location	DEKRA Certification Inc.
Date (start)	02-06-2023
Date (finish)	02-28-2023

Document history

Report number	Date	Description
3492ERM.022	03-21-2023	First release
3492ERM.022A1	04-17-2023	Second release.
3492ERM.022A2	04-20-2023	Third release. Typo was detected for Antenna gain information and it is updated to show correct gain value. This modification of test report cancels and replaces the test report 3492ERM.022A1.

Environmental conditions

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

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

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

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

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

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

Remarks and comments

The tests have been performed by the technical personnel: Qi Zhang, Koji Nishimoto, and Victor Albrecht.

List of equipment used during the test

Radiated Measurements

CONTROL NUMBER	DESCRIPTION	MANUFACTURER	MODEL	LAST CALIBRATION	NEXT CALIBRATION
1012	EMI Test Receiver	Rohde & Schwarz	ESR26	2022/04	2024/04
1014	FSV40 Signal Analyzer 40GHz	Rohde & Schwarz	FSV40	2021/05	2023/05
1055	Double-Ridged Waveguide Horn Antenna 1-18 GHz	Rohde & Schwarz	3116C	2023-02-06	2026-02-06
1057	Double-ridge Waveguide Horn antenna	ETS Lindgren	3115	2020/06	2023/06
1065	Biconical Log antenna	ETS Lindgren	3142E	2020/08	2023/08
1108	Ethernet SNMP Thermometer- CR Room	HW Group	HWg-STE Plain	2022/10	2024/10
1111	Ethernet SNMP T Thermometer	HW Group	HWg-STE Plain	2022/10	2024/10
1179	Semi anechoic Absorber Lined Chamber	Frankonia	SAC 3 plus “L”	N/A	N/A
1314	Wireless Measurement Software R&S EMC32	Rohde & Schwarz	N/A	N/A	N/A
1461	Low Noise Preamplifier	Bonn Elektronik	BLMA0118-4A	2022/06	2024/06

Testing verdicts

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

Summary

FCC PART 15 PARAGRAPH / RSS-247 (Bluetooth BR/EDR)					
Report Section	**15.247 Spec Clause**	**RSS Spec Clause**	**Test Description**	**Verdict**	**Remark**
-	§ 2.1049 & § 15.247 (a) (1)	RSS-247 5.1 (b)	20dB Emission Bandwidth, Occupied Bandwidth & Carrier Frequency Separation	N/M	Refer 1
-	§ 15.247 (a) (1) (iii)	RSS-247 5.1 (d)	Number of hopping channels	N/M	Refer 1
-	§ 15.247 (a) (1) (iii)	RSS-247 5.1 (d)	Time of Occupancy (Dwell Time)	N/M	Refer 1
-	§ 15.247 (b) (3)	RSS-247 5.4 (b)	Maximum peak conducted output power and antenna gain	N/M	Refer 1
-	§ 15.247 (d)	RSS-247 5.5	Band-edge conducted emissions compliance (Transmitter)	N/M	Refer 1
-	§ 15.247 (d)	RSS-247 5.5	Emission limitations Conducted (Transmitter)	N/M	Refer 1
A.1	§ 15.247 (d)	RSS-247 5.5	Emission limitations Radiated (Transmitter)	P	N/A
Supplementary information and remarks: 1) Please refer to the test report 3492ERM.023					

FCC PART 15 PARAGRAPH (Wi-Fi 2.4GHz)					
Report Section	**15.247 Spec Clause**	**RSS Spec Clause**	**Test Description**	**Verdict**	**Remark**
-	§ 2.1049 & §15.247 (a) (2)	RSS-247 5.2 (a)	99% Occupied Bandwidth & 6dB Bandwidth	N/M	Refer 1
-	§ 15.247 (b)	RSS-247 5.4 (d)	Maximum Output Power and antenna gain	N/M	Refer 1
-	§ 15.247 (d)	RSS-247 5.5	Band-edge conducted emissions compliance (Transmitter)	N/M	Refer 1
-	§ 15.247 (e)	RSS-247 5.2 (b)	Power Spectral Density	N/M	Refer 1
-	§15.247(d)	RSS-247 5.5	Emission limitations Conducted (Transmitter)	N/M	Refer 1
A.1	§15.247 (d)	RSS-247 5.5	Emission limitations Radiated (Transmitter)	P	N/A
Supplementary information and remarks: 1) Please refer to the test report 3492ERM.023					

FCC PART 15 PARAGRAPH / RSS-247 (Wi-Fi 5GHz) UNII-1 5.150 - 5.250 GHz Band, UNII-3 5.725 - 5.825 GHz Band					
Report Section	**15.407 Spec Clause**	**RSS Spec Clause**	**Test Description**	**Verdict**	**Remark**
	§ 15.403 KDB 789033 D02	RSS 247 6.2.4	26dB Emission Bandwidth & Occupied Bandwidth	N/M	Refer 1
	§ 15.407 (e)	RSS 247 6.2.4.1	6dB Bandwidth	N/M	Refer 1
	§ 15.407 (a)(3)	RSS 247 6.2.4.1	Power Limits. Maximum Output Power	N/M	Refer 1
	§ 15.407 (a)(3)	RSS-247 6.2.4.1	Maximum Power Spectral Density	N/M	Refer 1
	§ 15.407 (b)(4)	RSS-247 6.2.4.2	Band-edge conducted emissions compliance (Transmitter)	N/M	Refer 1
	§ 15.407 (b)(6) § 15.207	RSS-Gen 8.8	Emission limitations Conducted (Transmitter)	N/M	Refer 1
A.1	§ 15.407 (b)(4),(7) § 15.209 § 15.205	RSS-247 6.2.4.2 RSS-Gen 8.9 & 8.10	Undesirable radiated emissions (Transmitter)	P	N/A
	§ 15.407 (g)	RSS-Gen 6.11 & 8.11	Frequency Stability	N/M	Refer 1

Supplementary information and remarks:

1) Only multi-transmitter radiated spurious emission test was requested.

Appendix A: Test results (Multi-transmitter)

Appendix A Content

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TEST A.1: EMISSION LIMITATIONS RADIATED (TRANSMITTER) 17

PRODUCT INFORMATION

The following information is provided by the supplier, in accordance with clause 5.4.1:

Information	Description
Modulation	BR/EDR: GFSK, π/4-DQPSK, 8-DPSK Wi-Fi 2.4 GHz: DSSS, OFDM Wi-Fi 5 GHz: DSSS, OFDM
Operation mode 1: Single Antenna Equipment	
- Operating Frequency Range	BR/EDR: 2400 - 2483.5 MHz Wi-Fi 2.4 GHz: 2.402 - 2.483.5 GHz Wi-Fi 5 GHz: 5.150 - 5.250 GHz 5.725 - 5.875 GHz
- Nominal Channel Bandwidth	BR/EDR: 1 MHz Wi-Fi 2.4 GHz: 20MHz, 40MHz Wi-Fi 5GHz: 20MHz, 40MHz, 80MHz
- RF Output Power	BR/EDR: 4 dBm Wi-Fi 2.4 GHz: 20 dBm Wi-Fi 5 GHz: 21 dBm
Extreme operating conditions	
- Temperature range	-40 ºC to +65 ºC
Antenna type	Integral Antenna
Antenna gain	BR/EDR: 1.5 dBi Wi-Fi 2.4 GHz: 1.5 dBi Wi-Fi 5 GHz: 2.6 dBi
Nominal Voltage	
- Supply Voltage	13.5 Vdc
- Type of power source	DC voltage
Equipment type	Bluetooth, Wi-Fi 2.4 GHz, and Wi-Fi 5 GHz
Geo-location capability	No

TEST CONDITIONS

(*): Data provided by the client.

<table>
<tr><th>TEST CONDITIONS</th><th>DESCRIPTION</th></tr>
<tr><td>TC/01(1)</td><td>
<u>Power supply (V):</u> DC 13.5 V

<u>Test Frequencies for Radiated tests:</u>
<table>
<tr><th>Technology</th><th>Tested Frequency</th><th>BW (MHz)</th><th>Modulation</th><th>Mode</th></tr>
<tr><td>Bluetooth-1</td><td>2402</td><td>2</td><td>PI4DQPSK</td><td>-</td></tr>
<tr><td>Bluetooth-2</td><td>2480</td><td>2</td><td>PI4DQPSK</td><td>-</td></tr>
<tr><td>Wi-Fi 2.4 GHz SISO</td><td>2412</td><td>20</td><td>OFDM</td><td>b mode</td></tr>
</table>

The test was performed with the equipment transmitting with Bluetooth chipsets 1 and 2, Wi-Fi 2.4GHz radios simultaneously. These measurements have been performed in order to check the impact of the multi-transmitter of all radio interfaces that can be transmitting simultaneously.
</td></tr>
<tr><td>TC/02(1)</td><td>
<u>Power supply (V):</u> DC 13.5 V

<u>Test Frequencies for Radiated tests:</u>
<table>
<tr><th>Technology</th><th>Tested Frequency</th><th>BW (MHz)</th><th>Modulation</th><th>Mode</th></tr>
<tr><td>Bluetooth-1</td><td>2402</td><td>2</td><td>PI4DQPSK</td><td>-</td></tr>
<tr><td>Bluetooth-2</td><td>2480</td><td>2</td><td>PI4DQPSK</td><td>-</td></tr>
<tr><td>Wi-Fi 5 GHz SISO</td><td>5200</td><td>20</td><td>OFDM</td><td>ac mode</td></tr>
</table>

The test was performed with the equipment transmitting with Bluetooth chipsets 1 and 2, Wi-Fi 5GHz radios simultaneously. These measurements have been performed in order to check the impact of the multi-transmitter of all radio interfaces that can be transmitting simultaneously.
</td></tr>
</table>

Note (1): Preliminary scan was performed to determine the worst case and the following tables and plots show the results for the worst case in BT + Wi-Fi 2.4 GHz + Wi-Fi 5 GHz.

TEST A.1: EMISSION LIMITATIONS RADIATED (TRANSMITTER)

LIMITS:	Product standard:	Part 15 Subpart C §15.247, 15.407, Part 15.31(h), and RSS-247
	Test standard:	Part 15 Subpart C §15.247 (d), 15.407 (b), and RSS-Gen 8.9 and 8.10

LIMITS

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

Frequency Range (MHz)	Field strength (µV/m)	Field strength (dBµV/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
960 - 25000	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.

TEST SETUP

All radiated 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 antenna), and 1m for the frequency range 18 GHz- 40 GHz (Double ridge horn antenna).

For radiated emissions in the range 18 - 40 GHz that is performed at a distance closer than the specified distance, an inverse proportionality factor of 20 dB per decade is used to normalize the measured data for determining compliance.

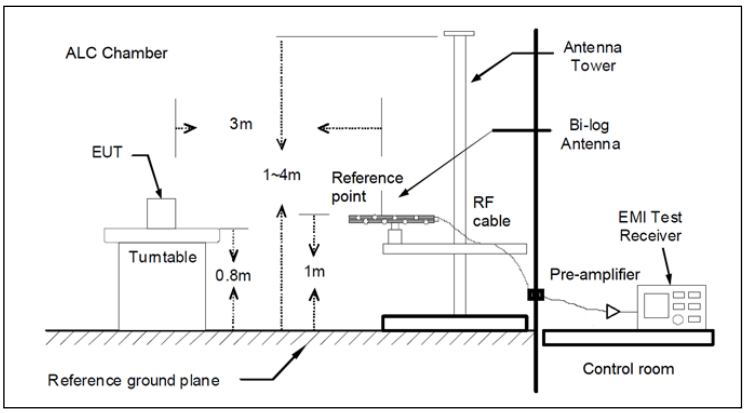
The equipment under test was set up on a non-conductive platform above the ground plane and the situation and orientation was varied to find the maximum radiated emission. It was also rotated 360º and the antenna height was varied from 1 to 4 meters to find the maximum radiated emission.

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

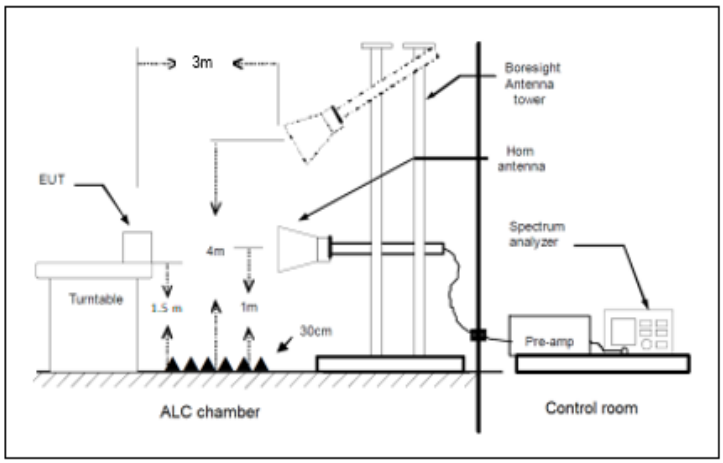
The field strength is calculated by adding correction factor to the measured level from the spectrum analyzer. This correction factor includes antenna factor, cable loss and pre-amplifiers gain.

TEST SETUP (CONT.)

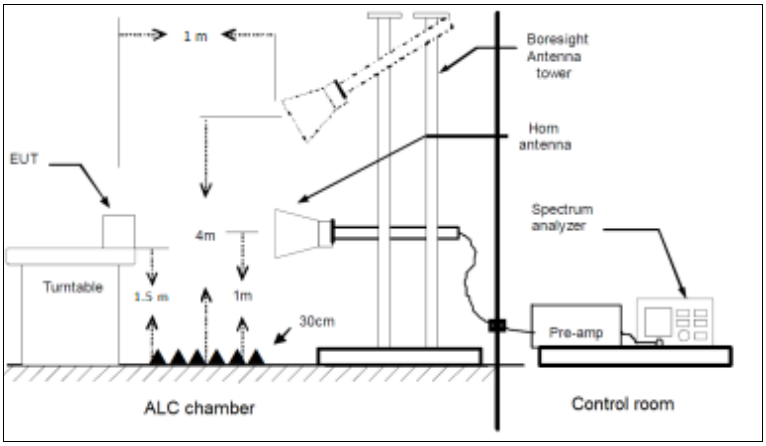
Radiated measurements Setup f < 1 GHz



Radiated measurements setup f > 1-18 GHz



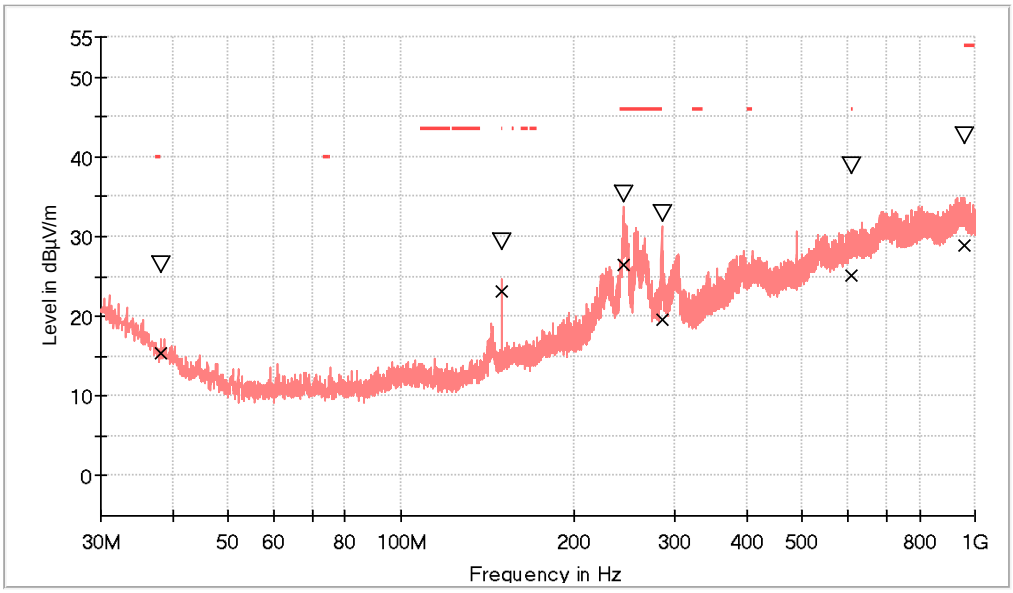
Radiated measurements setup f > 18 GHz



TESTED SAMPLES:	S/01
TESTED CONDITIONS MODES:	TC/01
TEST RESULTS :	30-1000 MHz
VERDICT:	PASS

Frequency range 30 MHz – 1000 MHz

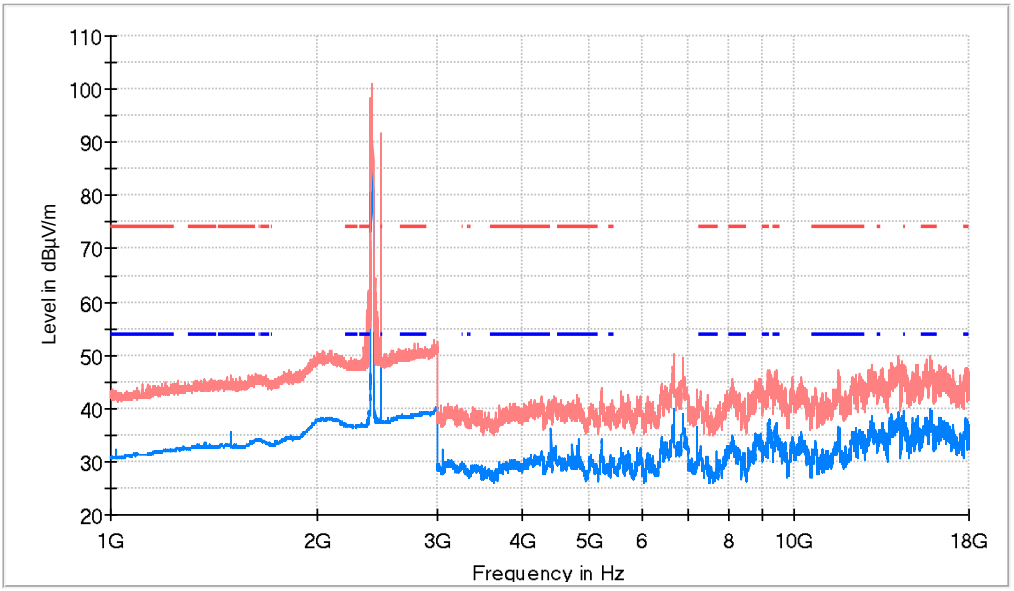
The spurious emissions below 1 GHz do not depend on the operating channel and mode selected in the EUT.



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

Frequency (MHz)	MaxPeak (dBµV/m)	QuasiPeak (dBµV/m)	Pol	Margin - QPK (dB)	Limit - QPK (dBµV/m)
38.099500	26.5	15.5	V	24.6	40.0
149.989000	29.3	23.2	V	20.4	43.5
244.079000	35.2	26.3	V	19.7	46.0
284.431000	32.8	19.5	V	26.5	46.0
611.030000	38.8	25.1	H	20.9	46.0
960.957500	42.6	28.8	V	25.2	54.0

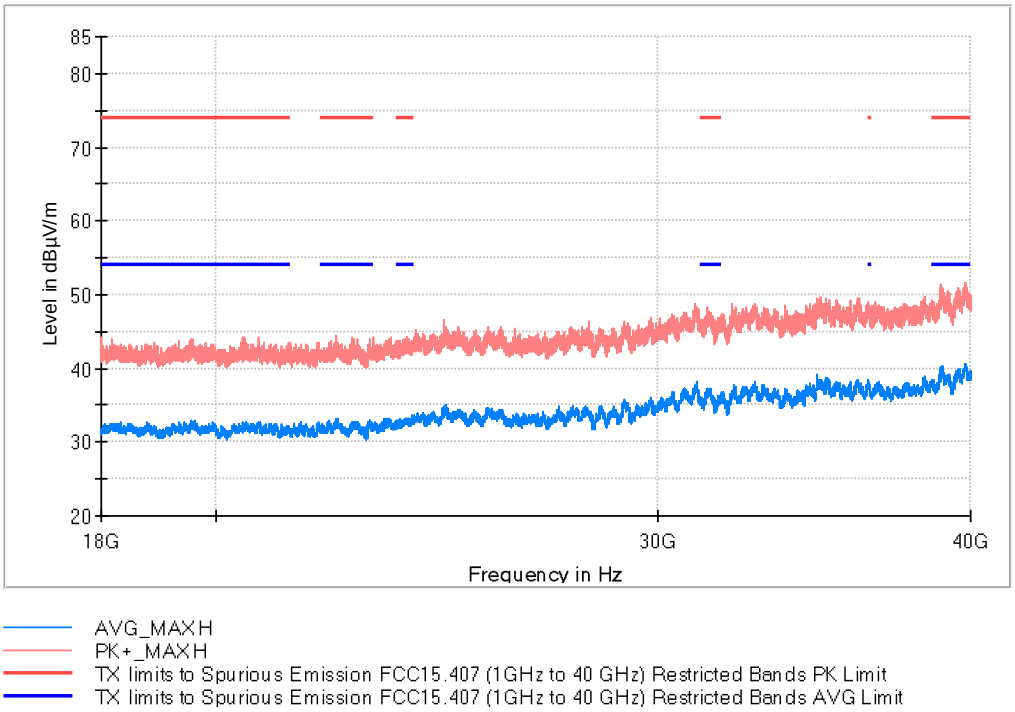
TEST RESULTS (Cont.):	1-18 GHz



AVG_MAXH
PK+_MAXH
TX limits to Spurious Emission FCC15.247 (1-26 GHz) Restricted Bands PK Limit
TX limits to Spurious Emission FCC15.247 (1-26 GHz) Restricted Bands AVG Limit

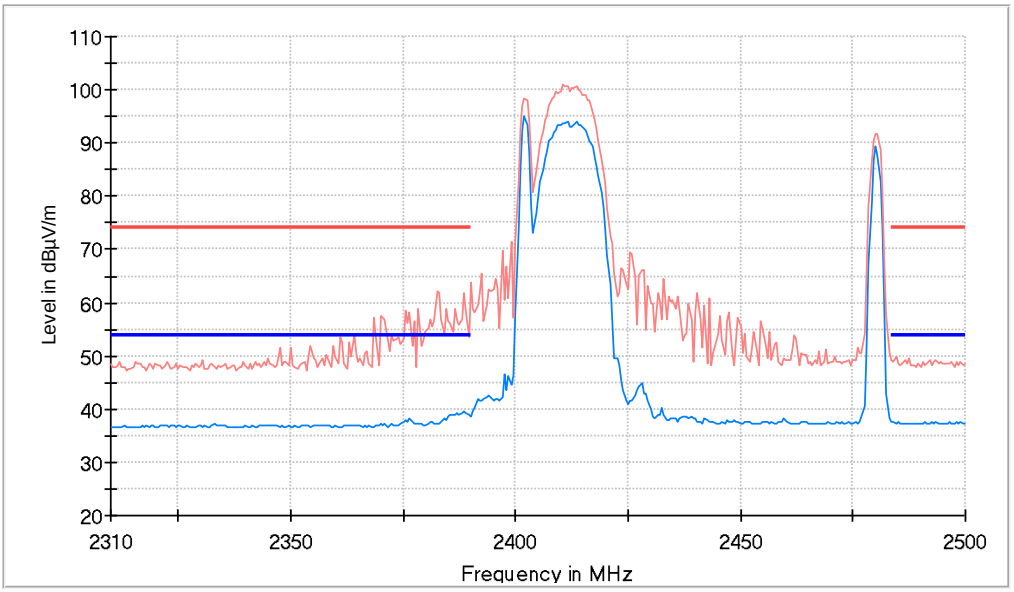
Frequency (MHz)	PK+_MAXH (dBµV/m)	AVG_MAXH (dBµV/m)	Pol	Margin - AVG (dB)	Limit - AVG (dBµV/m)	Comment
2402.000000	98.3	95.0	H	---	---	Fundamental
2411.500000	100.6	94.2	H	---	---	Fundamental
2480.000000	91.7	89.4	V	---	---	Fundamental
9168.000000	46.9	37.4	V	16.6	54.0	
15811.000000	48.3	39.9	H	14.1	54.0	

TEST RESULTS (Cont.):	18-40 GHz



Frequency (MHz)	PK+_MAXH (dBµV/m)	AVG_MAXH (dBµV/m)	Pol	Margin - AVG (dB)	Limit - AVG (dBµV/m)
38675.200000	52.1	41.4	H	11.4	54.0

TEST RESULTS (Cont.):	Restricted Bands (2.31 GHz – 2.5 GHz)

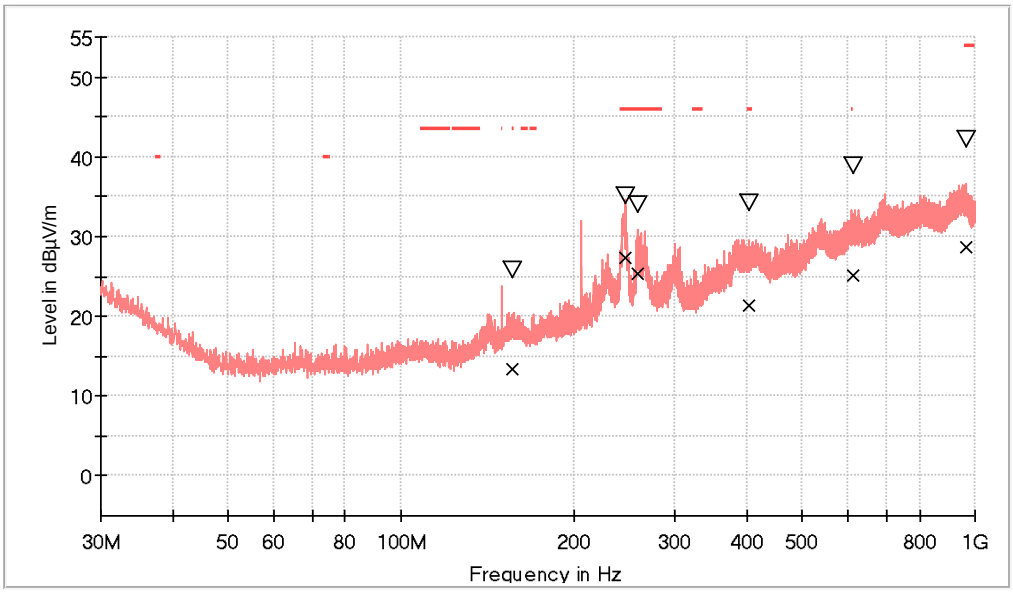


AVG_MAXH
PK+_MAXH
TX limits to Spurious Emission FCC15.247 (1-26 GHz) Restricted Bands PK Limit
TX limits to Spurious Emission FCC15.247 (1-26 GHz) Restricted Bands AVG Limit

TESTED SAMPLES:	S/01
TESTED CONDITIONS MODES:	TC/02
TEST RESULTS :	30-1000 MHz
VERDICT:	PASS

Frequency range 30 MHz – 1000 MHz

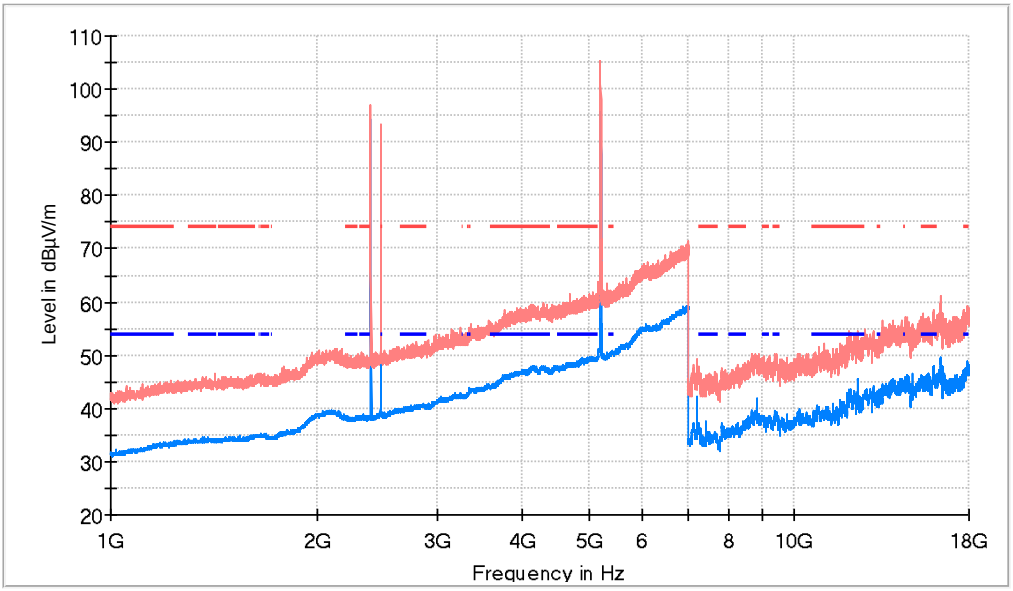
The spurious emissions below 1 GHz do not depend on the operating channel and mode selected in the EUT.



TX limits to Spurious Emission FCC15.407 (30MHz to 1GHz) Restricted Bands QPK Limit
PK+_MAXH
▽ MaxPeak-PK+ (Single)
× QuasiPeak-QPK (Single)

Frequency (MHz)	MaxPeak (dBµV/m)	QuasiPeak (dBµV/m)	Pol	Margin - QPK (dB)	Limit - QPK (dBµV/m)
156.779000	25.8	13.3	V	30.2	43.5
245.340000	35.1	27.3	V	18.7	46.0
258.920000	34.0	25.3	V	20.7	46.0
402.577000	34.1	21.4	H	24.6	46.0
613.649000	38.9	25.2	V	20.8	46.0
962.558000	42.2	28.7	H	25.3	54.0

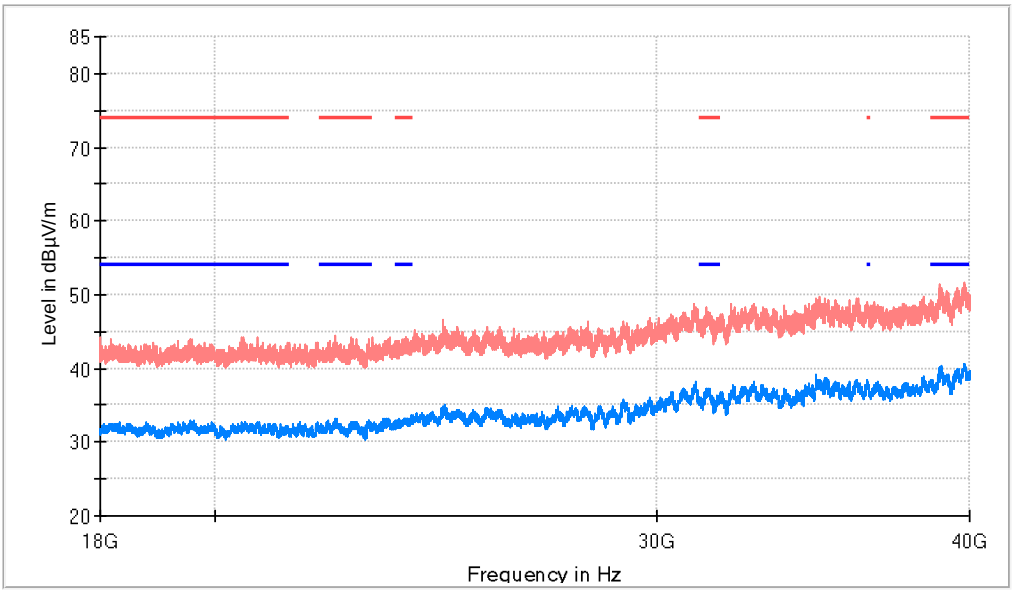
TEST RESULTS (Cont.):	1-18 GHz



AVG_MAXH
PK+_MAXH
TX limits to Spurious Emission FCC15.407 (1GHz to 40 GHz) Restricted Bands PK Limit
TX limits to Spurious Emission FCC15.407 (1GHz to 40 GHz) Restricted Bands AVG Limit

Frequency (MHz)	PK+_MAXH (dBuV/m)	AVG_MAXH (dBuV/m)	Pol	Margin - AVG (dB)	Limit - AVG (dBuV/m)	Comment
2402.000000	97.0	94.4	H	---	---	Fundamental
2480.000000	93.5	90.1	H	---	---	Fundamental
5201.000000	104.5	95.3	H	---	---	Fundamental
5458.000000	62.2	50.4	V	3.6	54.0	
17869.500000	59.1	47.8	H	6.2	54.0	

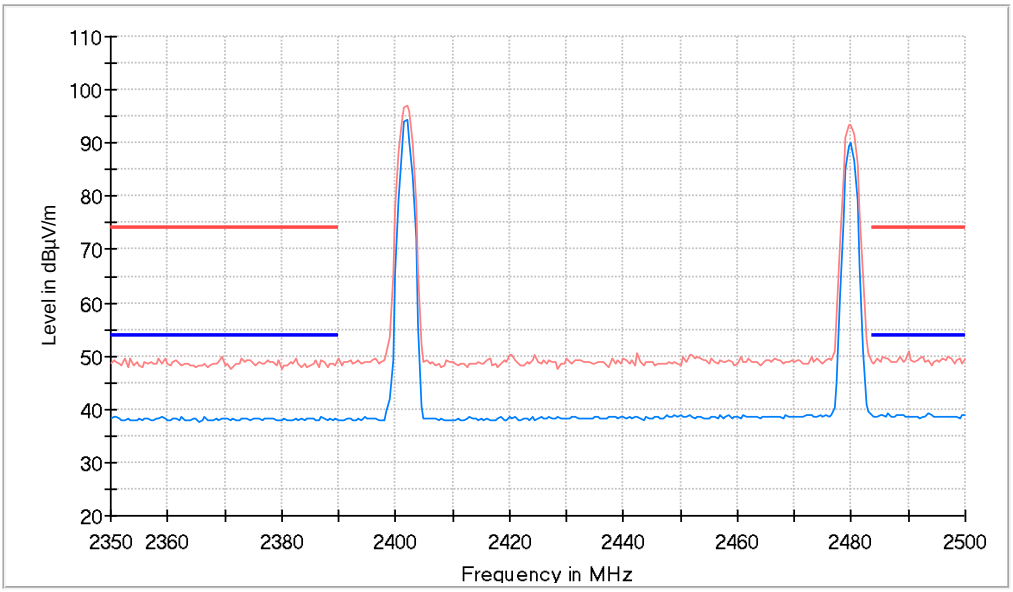
TEST RESULTS (Cont.):	18-40 GHz



AVG_MAXH
PK+_MAXH
TX limits to Spurious Emission FCC15.407 (1GHz to 40 GHz) Restricted Bands PK Limit
TX limits to Spurious Emission FCC15.407 (1GHz to 40 GHz) Restricted Bands AVG Limit

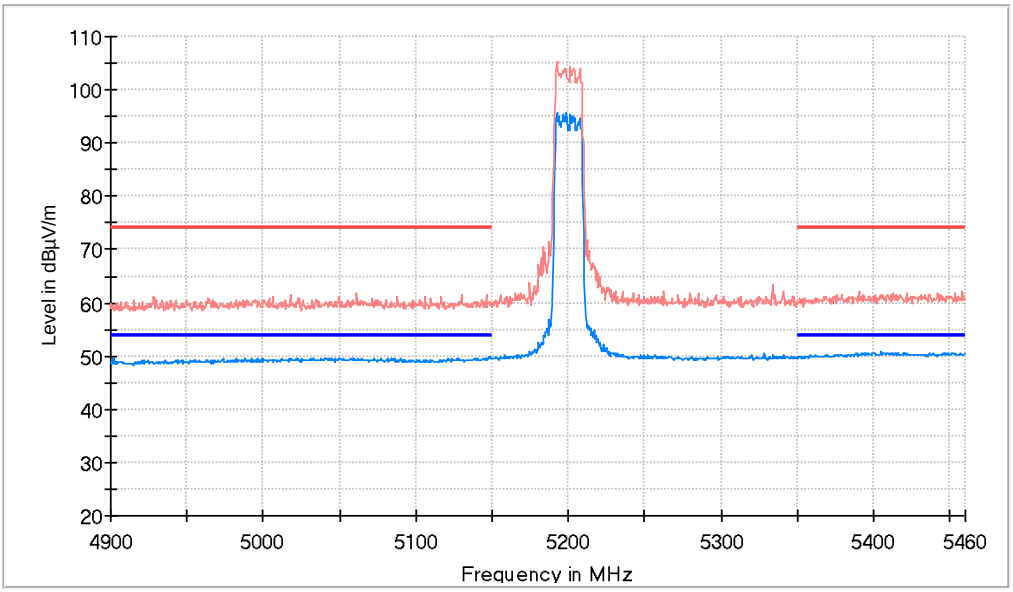
Frequency (MHz)	PK+_MAXH (dBµV/m)	AVG_MAXH (dBµV/m)	Pol	Margin - AVG (dB)	Limit - AVG (dBµV/m)
38675.200000	52.1	41.4	H	11.4	54.0

TEST RESULTS (Cont.):	Restricted Bands (2.31 GHz – 2.5 GHz)



AVG_MAXH
PK+_MAXH
TX limits to Spurious Emission FCC15.407 (1GHz to 40 GHz) Restricted Bands PK Limit
TX limits to Spurious Emission FCC15.407 (1GHz to 40 GHz) Restricted Bands AVG Limit

TEST RESULTS (Cont.):	Restricted Bands (4.90 GHz – 5.46 GHz)



AVG_MAXH
PK+_MAXH
TX limits to Spurious Emission FCC15.407 (1GHz to 40 GHz) Restricted Bands PK Limit
TX limits to Spurious Emission FCC15.407 (1GHz to 40 GHz) Restricted Bands AVG Limit