

# TEST REPORT

For

**144/430MHz DIGITAL/ANALOG TRANSCEIVER (Bluetooth)**

In conformity with

**FCC Part 15C / RSS-247 Issue 2**

**Model Name:** FT3DR

**FCC ID:** K6620725X20  
**ISED Cert No.:** 511B-20725X20

**Report No.:** WE190325BC1-14

**Issue Date:** 21 May 2019

## Prepared for

YAESU MUSEN CO.,LTD.  
Tennozu Parkside Building 2-5-8 Higashi-Shinagawa,  
Shinagawa-ku, Tokyo 140-0002 Japan

## Prepared by

SGS Japan Inc.  
3-5-23, Kitayamata, Tsuzuki-ku, Yokohama, 224-0021, Japan  
Telephone: +81+(0)45- 550-3520  
FAX: +81+(0)45- 592-7506

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## History

Report No.	Date	Revisions	Issued By
WE190325BC1-11	25 Apr. 2019	Initial Issue	T. Kato
WE190325BC1-12	26 Apr. 2019	Revise the operating mode (Sec 2.1)	T. Kato
WE190325BC1-13	13 May 2019	Add the test result of 99% OBW (Sec 2.1.1)	T. Kato
WE190325BC1-14	21 May 2019	Correct the report No. in the header	T. Kato

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# 1 General information


## 1.1 Product description

Test item	: 144/430MHz DIGITAL/ANALOG TRANSCEIVER (Bluetooth)
Manufacturer	: YAESU MUSEN CO., LTD.
Address	: Utsuroda, Morijuku, Sukagawa-shi, Fukushima-ken 962-0001 Japan
Model	: FT3DR
FCC ID	: K6620725X20
ISED No.	: 511B-20725X20
Serial number	: 9E010012 (for radiated test) ES3-1 (for conducted test)
Hardware version	: 9E01
Software version	: Ver. 88.73 (Main), Ver. 0.70 (Sub), Ver. 92.07 (DSP)
Operating frequency	: 2402 - 2480 MHz
Modulation	: GFSK, $\pi/4$ -DQPSK, 8DPSK (Bluetooth BR/EDR)
Antenna Gain	: +2.14 dBi
Receipt date of EUT	: 04 Apr. 2019
Nominal power source voltages	: DC 7.4 V (Battery)

## 1.2 Test(s) performed/ Summary of test result

Test specification(s)	: FCC CFR 47 Part 15 Subpart C RSS-247 Issue 2, RSS-Gen Issue 5
Test method(s)	: ANSI C63.10: 2013
Test(s) started	: 04 Apr. 2019
Test(s) completed	: 13 May 2019
Summary of test result	: <u>Complied</u>

Note: The above judgment is only based on the measurement data and it does not include the measurement uncertainty. Accordingly, the statement below is applied to the test result.  
The EUT complies with the limit required in the standard in case that the margin is not less than the measurement uncertainty in the Laboratory.  
Compliance of the EUT is more probable than non-compliance is case that the margin is less than the measurement uncertainty in the Laboratory.

Test engineer :   
T. Kato (Testing engineer, RF/EMC Lab.)

Reviewer :   
K. Onishi (Testing leader, RF/EMC Lab.)

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### 1.3 Test facility

The Federal Communications Commission has reviewed the technical characteristics of the test facilities at SGS Japan Inc., located in 472, Nippa-cho, Kohoku-ku, Yokohama, 223-0057, Japan, and has found these test facilities to be in compliance with the requirements of 47 CFR Part 15, section 2.948. The description of the test facilities has been filed under registration number 319924 at the Office of the Federal Communications Commission. The facility has been added to the list of laboratories performing these test services for the public on a fee basis.

The list of all public test facilities is available on the Internet at <http://www.fcc.gov>.

Registered by Innovation, Science and Economic Development Canada (ISED):  
The registered CAB identifier is JP0009.

Accredited by **National Voluntary Laboratory Accreditation Program (NVLAP)** for the emission tests stated in the scope of the certificate under Certificate Number 200780-0

This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the Federal Government.



### 1.4 Measurement uncertainty

The treatment of uncertainty is based on the general matters on the definition of uncertainty in “Guide to the expression of uncertainty in measurement (GUM)” published by ISO. The Lab’s uncertainty is determined by referring ETSI TR 100 028-1 V1.4.1.

The uncertainty of the measurement result in the level of confidence of approximately 95% (k=2) is as follows;

AC Conducted emission	: ± 3.3 dB (150 kHz - 30 MHz)
Radiated emission	: ± 5.0 dB (9 kHz - 30 MHz)
	: ± 5.2 dB (30 MHz - 1000 MHz)
	: ± 4.9 dB (1 GHz - 6 GHz)
	: ± 4.9 dB (6 GHz - 18 GHz)
	: ± 5.5 dB (18 GHz - 26 GHz)

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## 1.5 Summary of test results

Requirement	Section in FCC	Section in RSS-247	Result	Section in this report
Occupied Bandwidth (20 dB)	15.247 (a)(1)	6.7 (RSS-Gen)	Complied	2.1
Occupied Bandwidth (99 %)	-	6.7 (RSS-Gen)	Complied	2.1.1
Hopping Carrier Frequency Separation	15.247 (a)(1)	5.1 (b)	Complied	2.2
Number of Hopping Channel	15.247 (a)(1)(iii)	5.1 (d)	Complied	2.3
Average Time of Occupancy	15.247 (a)(1)(iii)	5.1 (d)	Complied	2.4
Peak Output Power	15.247 (b)(1)	5.4 (b)	Complied	2.5
Conducted Spurious Emissions	15.247(d)	5.5	Complied	2.6
Transmitter Radiated Spurious Emissions	15.205(b)/15.209	8.9/8.10 (RSS-Gen)	Complied	2.7
AC power line conducted emissions	15.207	8.8 (RSS-Gen)	N/A (*)	2.8
Radiated Emissions (Receiver)	-	7.3 (RSS-Gen)	Complied	2.9
AC power line conducted emissions (Receiver)	-	7.2 (RSS-Gen)	N/A (*)	2.10

(\*) The EUT operate with battery powered condition only.

## 1.6 Setup of equipment under test (EUT)

### 1.6.1 Test configuration of EUT

#### Equipment(s) under test

No.	Item	Manufacture	Model No.	Serial No.
1-1	144/430MHz DIGITAL/ANALOG TRANSCEIVER (for Radiated test)	YAESU MUSEN	FT3DR	9E010012
1-2	144/430MHz DIGITAL/ANALOG TRANSCEIVER (for Conducted test)	YAESU MUSEN	FT3DR	ES3-1

#### Support Equipment(s)

No.	Item	Manufacture	Model No.	Serial No.
2	Li-ion Battery Pack	YAESU MUSEN	SBR-14LI	Q37
3	Microphone	YAESU MUSEN	MH-34B4B	YTS07

#### Connected cable(s)

No.	Item	From	To	Cable Shielded	Ferrite Core	Length [m]
A	Mic. Cable	1	3	No	No	0.4
-	-	-	-	-	-	-

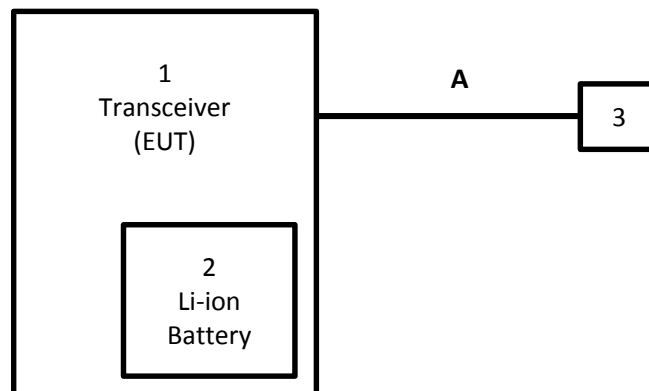
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### 1.6.2 Operating condition:

- Tx (2402MHz): The EUT is in normal transmission mode at 2402MHz (DH5/2DH5/3DH5)
- Tx (2440MHz): The EUT is in normal transmission mode at 2440MHz (DH5/2DH5/3DH5)
- Tx (2480MHz): The EUT is in normal transmission mode at 2480MHz (DH5/2DH5/3DH5)
  
- Rx (2402MHz): The EUT is in normal receiving mode at 2402MHz
- Rx (2440MHz): The EUT is in normal receiving mode at 2440MHz
- Rx (2480MHz): The EUT is in normal receiving mode at 2480MHz

### 1.6.3 Setup diagram of tested system



## 1.7 Equipment modifications

No modifications have been made to the equipment in order to achieve compliance with the applicable standards described in clause 1.2.

## 1.8 Deviation from the standard

No deviations from the standards described in clause 1.2.

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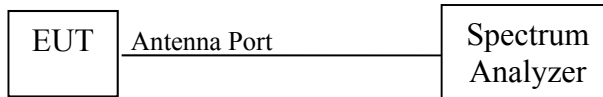
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## 2 Test procedure and test data

### 2.1 Occupied Bandwidth (20 dB)

#### Test setup

Test setup is the following drawing. The antenna port of EUT was connected to the spectrum analyzer.



#### Test procedure

Spectrum analyzer is set as below according to ANSI C63.10 clause 6.9.2

- RBW : 1 to 5 % of OBW
- VBW > 3 x RBW
- Span : OBW x 2 to 5
- Trace : Max hold

#### Limitation

There are no limitations.

The measurement value is used for the emission designator.

#### Test equipment used (refer to List of utilized test equipment)

TR06	CL31	-
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#### Test results

Tested sample: 1-2

Transmission Frequency [MHz]	Occupied Bandwidth [MHz] DH5	Occupied Bandwidth [MHz] 2DH5	Occupied Bandwidth [MHz] 3DH5
2402	0.810	1.181	1.203
2440	0.808	1.210	1.204
2480	0.811	1.180	1.204

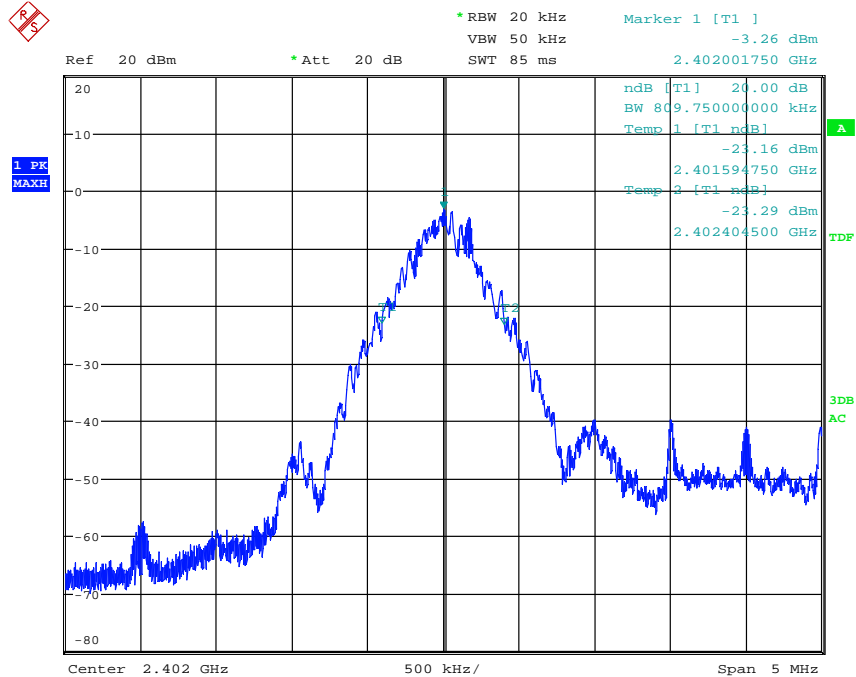
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[Chart]

Operating condition: Tx 2402 MHz DH5



Tested Date: 12 Apr. 2019  
Humidity: 33 %

Temperature: 21 degC  
Atmos. Press: 1018 hPa

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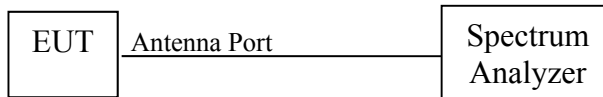
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### 2.1.1 Occupied Bandwidth (99 %)

#### Test setup

Test setup is the following drawing. The antenna port of EUT was connected to the spectrum analyzer.



#### Test procedure

Spectrum analyzer is set as below according to ANSI C63.10 clause 6.9.3

- RBW : 1 to 5 % of OBW
- VBW > 3 x RBW
- Span : OBW x 1.5 to 5
- Trace : Max hold

#### Limitation

There are no limitations.

The measurement value is used for the emission designator.

#### Test equipment used (refer to List of utilized test equipment)

TR06	CL31	-
------	------	---

#### Test results

Tested sample: 1-2

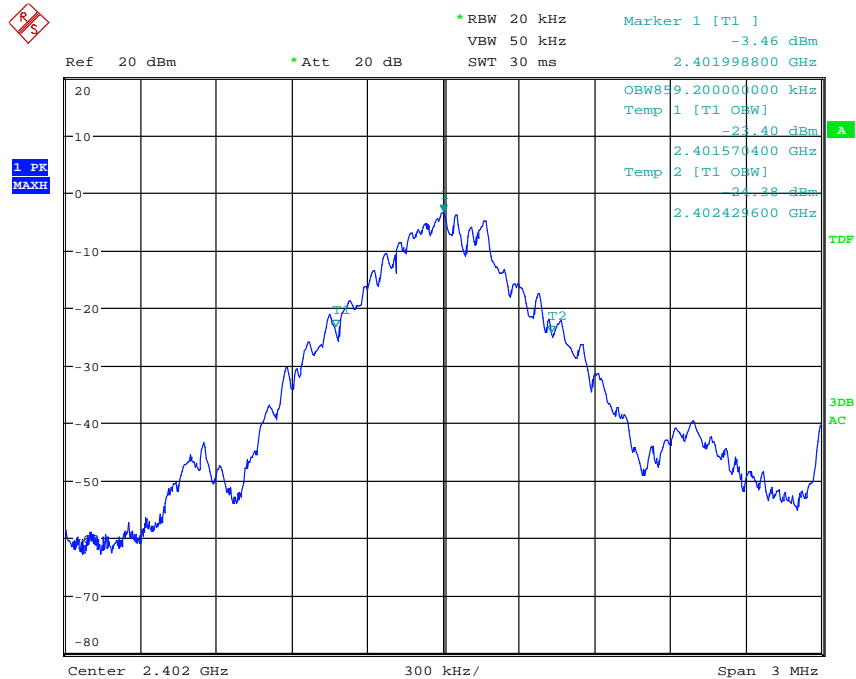
Transmission Frequency [MHz]	Occupied Bandwidth [MHz] DH5	Occupied Bandwidth [MHz] 2DH5	Occupied Bandwidth [MHz] 3DH5
2402	0.859	1.165	1.158
2440	0.854	1.165	1.158
2480	0.854	1.166	1.158

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[Chart]

Operating condition: Tx 2402 MHz DH5



Tested Date: 13 May 2019  
Humidity: 49 %

Temperature: 24 degC  
Atmos. Press: 1020 hPa

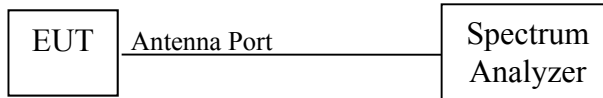
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## 2.2 Hopping Carrier Frequency Separation

### Test setup

Test setup is the following drawing. The antenna port of EUT was connected to the spectrum analyzer.



### Test procedure

Spectrum analyzer is set as below according to ANSI C63.10 clause 7.8.2

- RBW: about 30% of OBW
- VBW > RBW
- Trace : Max hold

### Applicable rule and limitation

FCC 15.247 (a)(1)  
RSS-247 Sec. 5.1 (b)

Frequency hopping systems operating in the 2400 - 2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater.

*Limit: more than 540 kHz (2/3 of 20 dB OBW)*

### Test equipment used (refer to List of utilized test equipment)

TR06	CL31	
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### Test results - Complied with requirement

### Test Data

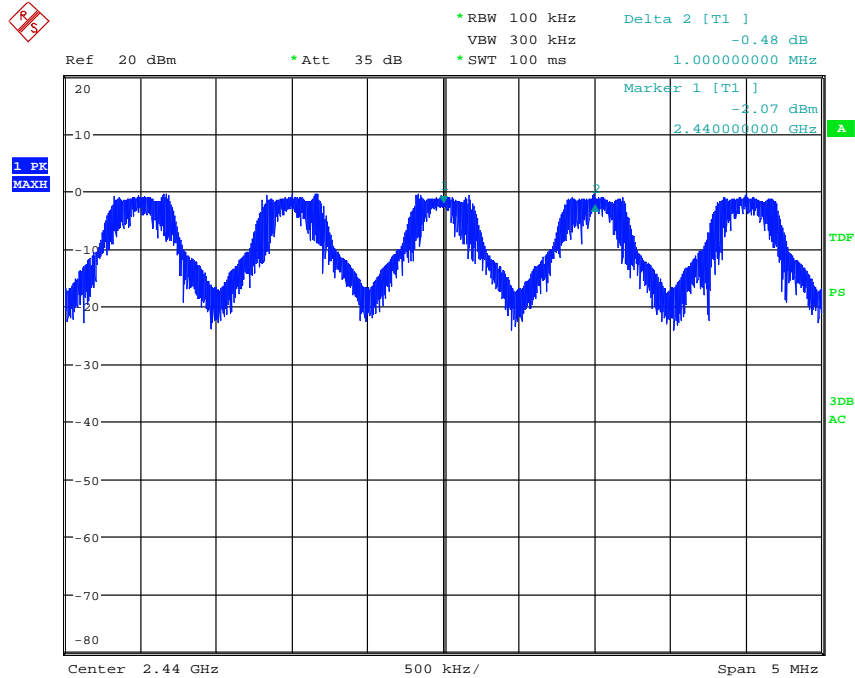
*Tested sample: 1-2*

Frequency Separation [kHz]	Result
1000	Pass

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[Chart]



Tested Date: 12 Apr. 2019  
Humidity: 33 %

Temperature: 21 degC  
Atmos. Press: 1018 hPa

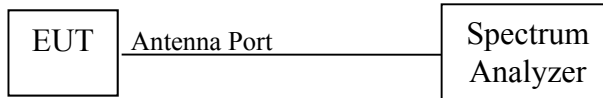
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## 2.3 Number of Hopping Channel

### Test setup

Test setup is the following drawing. The antenna port of EUT was connected to the spectrum analyzer.



### Test procedure

Spectrum analyzer is set as below according to ANSI C63.10 clause 7.8.3

- RBW: about 30% of OBW
- VBW > RBW
- Trace : Max hold

### Applicable rule and limitation

FCC 15.247 (a)(1)(iii)

RSS-247 Sec. 5.1 (d)

Frequency hopping systems in the 2400 - 2483.5 MHz band shall use at least 15 channels.

### Test equipment used (refer to List of utilized test equipment)

TR06	CL31	
------	------	--

### Test results - Complied with requirement

### Test Data

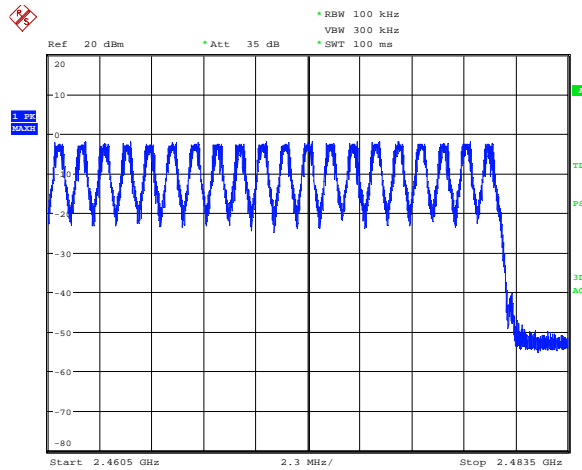
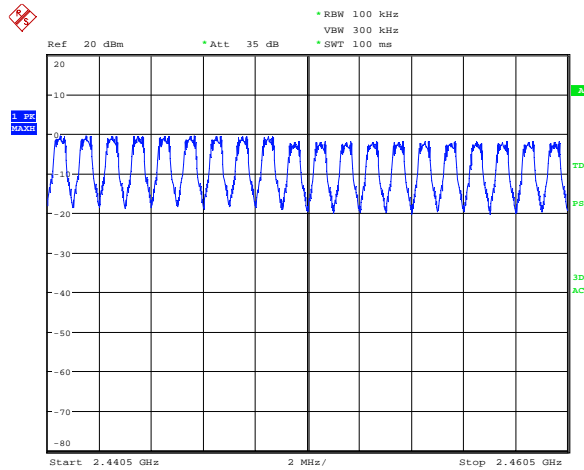
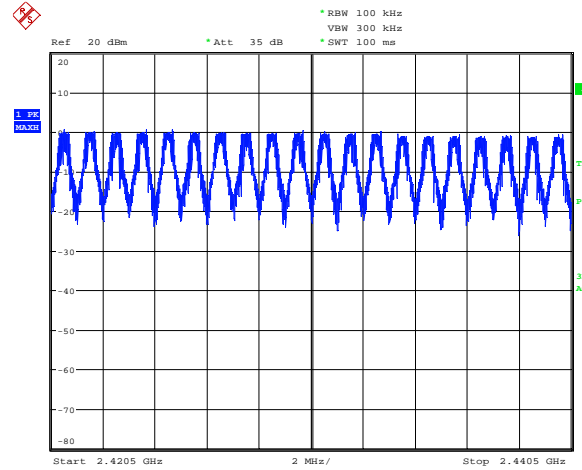
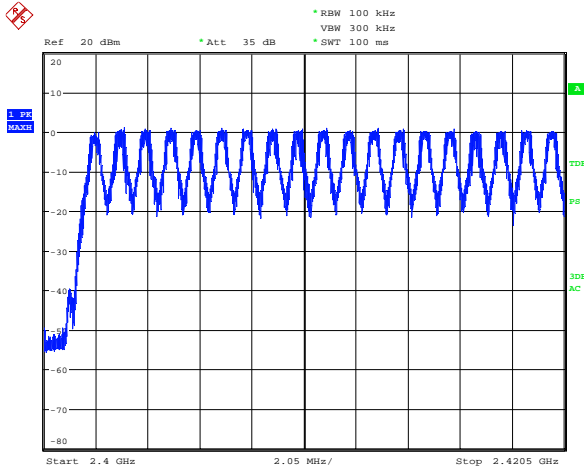
Tested sample: 1-2

Number of channel	Result
79	Pass

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[Chart]



Tested Date: 12 Apr. 2019  
Humidity: 33 %

Temperature: 21 degC  
Atmos. Press: 1018 hPa

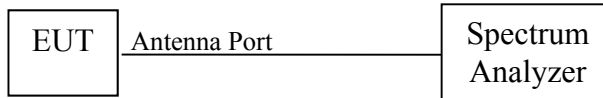
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## 2.4 Average Time of Occupancy

### Test setup

Test setup is the following drawing. The antenna port of EUT was connected to the spectrum analyzer.



### Test procedure

Spectrum analyzer is set as below according to ANSI C63.10 clause 7.8.4

- RBW < Channel separation
- Trace : Max hold

### Applicable rule and limitation

FCC 15.247 (a)(1)(iii)  
RSS-247 Sec. 5.1 (d)

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 equipment used (refer to List of utilized test equipment)

TR06	CL31	
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### Test results - Complied with requirement

### Test Data

Tested sample: 1-2

Observed Frequency	Pulse width [ms]	Observation Time [s]	The number of pulse (*)	Time of occupancy [s]	Result
2440 MHz (DM1)	0.369	31.6	32	0.118 (*)	Pass
2440 MHz (DH3)	1.618	31.6	16	0.259 (*)	Pass
2440 MHz (DH5)	2.886	31.6	11	0.317 (*)	Pass

- (\*) The number of pulse was captured within a period of 10% observation time.  
The test result was calculated as below

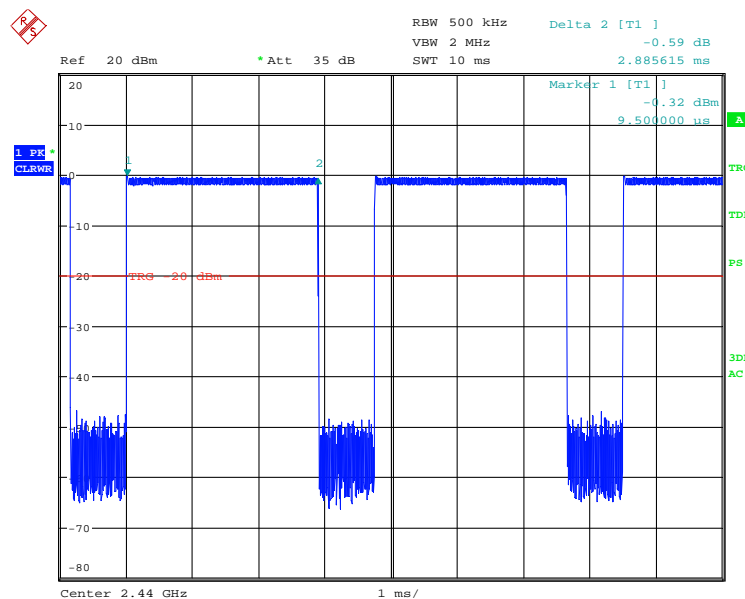
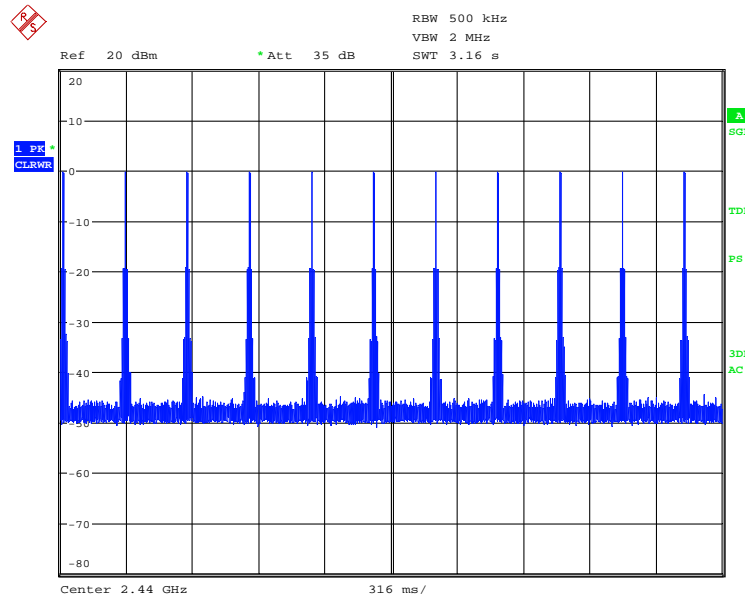
$$\text{Average time of occupancy} = (\text{The number of captured pulse}) \times (\text{Single Pulse width}) \times (100\% / 10\%)$$

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[Chart] DH5



Tested Date: 12 Apr. 2019  
Humidity: 33 %

Temperature: 21 degC  
Atmos. Press: 1018 hPa

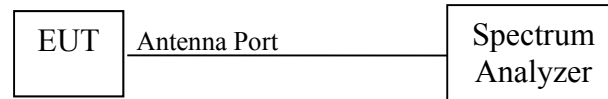
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## 2.5 Peak Output Power

### Test setup

Test setup is the following drawing. The antenna port of EUT was connected to the spectrum analyzer.



### Test procedure

Spectrum analyzer is set as below according to ANSI C63.10 clause 7.8.5

- RBW > OBW
- VBW > RBW
- Span: about 5 times of OBW
- Trace : Max hold

### Applicable rule and limitation

FCC 15.247(b)(1)  
RSS-247 Sec. 5.4 (b)

For frequency hopping systems operating in the 2400 - 2483.5 MHz band employing at least 75 non-overlapping hopping channels : 1 w (+30 dBm)

For all other frequency hopping systems in the 2400 -2483.5 MHz band : 0.125 w (+21 dBm)

### Test equipment used (refer to List of utilized test equipment)

TR06	CL31	
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### Test results - Complied with requirement

### Test Data

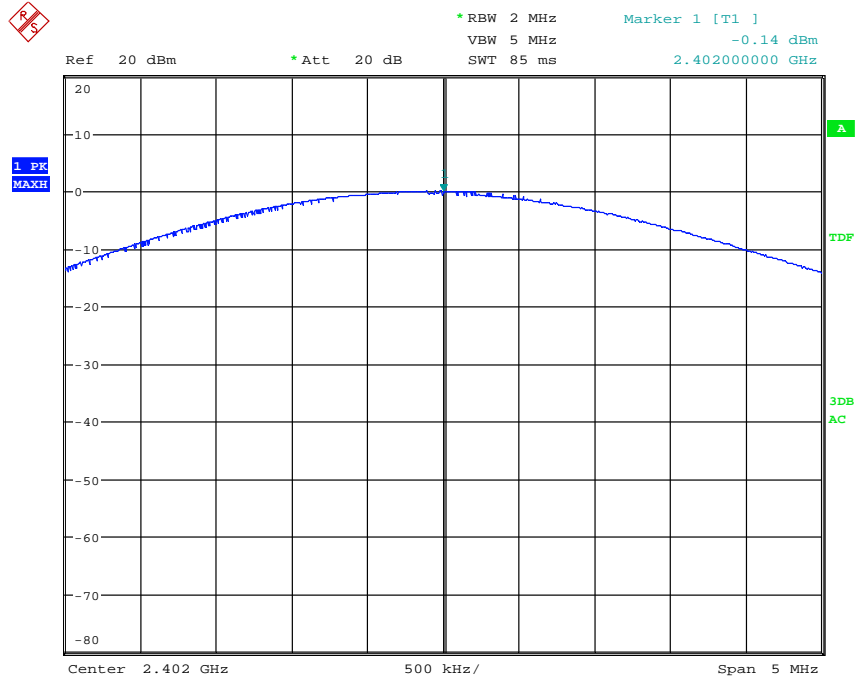
Tested sample: 1-2

Transmission Frequency [MHz]	Output Power DH5 [dBm]	Output Power 2DH5 [dBm]	Output Power 3DH5 [dBm]	Limit [dBm]	Result
2402	-2.0	-0.7	-0.1	30	Pass
2440	-0.2	-0.8	-0.2	30	Pass
2480	-3.6	-2.1	-1.6	30	Pass

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[Chart]



Tested Date: 12 Apr. 2019  
Humidity: 33 %

Temperature: 21 degC  
Atmos. Press: 1018 hPa

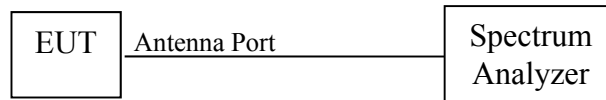
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## 2.6 Conducted Spurious Emissions

### Test setup

Test setup is the following drawing. The antenna port of EUT was connected to the spectrum analyzer.



### Test procedure

Spectrum analyzer is set as below according to ANSI C63.10 clause 7.8.8

- RBW : 100 kHz
- VBW : 300 kHz
- Detector : Peak
- Trace : Max hold

### Limitation

FCC 15.247(d)  
RSS-247 Sec. 5.5

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated 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.

### Test equipment used (refer to List of utilized test equipment)

TR06	CL31	
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### Test results - Complied with requirement

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## Test Data

Tested sample: 1-2

Operating mode: Tx 2402 MHz (DH5)

Frequency [MHz]	Spurious level [dBm]	Carrier level [dBm]	20dB below [dBm]
-	-	-	-
-	-	-	-

Note: All emissions have more than 20 dB margin.

Operating mode: Tx 2402 MHz (2DH5)

Frequency [MHz]	Spurious level [dBm]	Carrier level [dBm]	20dB below [dBm]
-	-	-	-
-	-	-	-

Note: All emissions have more than 20 dB margin.

Operating mode: Tx 2402 MHz (3DH5)

Frequency [MHz]	Spurious level [dBm]	Carrier level [dBm]	20dB below [dBm]
-	-	-	-
-	-	-	-

Note: All emissions have more than 20 dB margin.

Operating mode: Tx 2440 MHz (DH5)

Frequency [MHz]	Spurious level [dBm]	Carrier level [dBm]	20dB below [dBm]
-	-	-	-
-	-	-	-

Note: All emissions have more than 20 dB margin.

Operating mode: Tx 2440 MHz (2DH5)

Frequency [MHz]	Spurious level [dBm]	Carrier level [dBm]	20dB below [dBm]
-	-	-	-
-	-	-	-

Note: All emissions have more than 20 dB margin.

Operating mode: Tx 2440 MHz (3DH5)

Frequency [MHz]	Spurious level [dBm]	Carrier level [dBm]	20dB below [dBm]
-	-	-	-
-	-	-	-

Note: All emissions have more than 20 dB margin.

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Operating mode: Tx 2480 MHz (DH5)

Frequency [MHz]	Spurious level [dBm]	Carrier level [dBm]	20dB below [dBm]
-	-	-	-
-	-	-	-

Note: All emissions have more than 20 dB margin.

Operating mode: Tx 2480 MHz (2DH5)

Frequency [MHz]	Spurious level [dBm]	Carrier level [dBm]	20dB below [dBm]
-	-	-	-
-	-	-	-

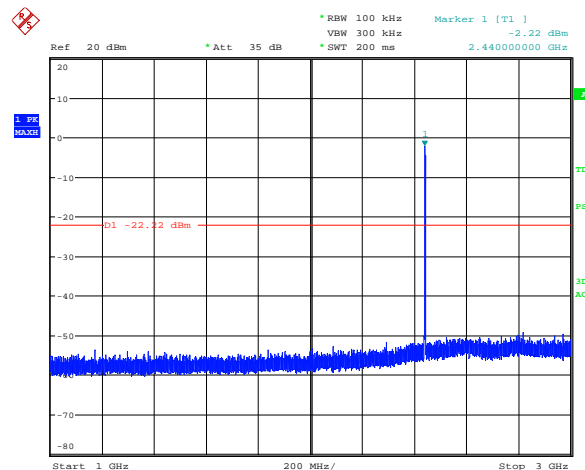
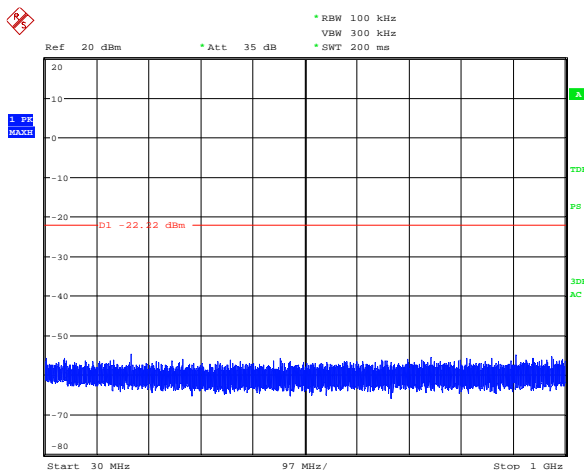
Note: All emissions have more than 20 dB margin.

Operating mode: Tx 2480 MHz (3DH5)

Frequency [MHz]	Spurious level [dBm]	Carrier level [dBm]	20dB below [dBm]
-	-	-	-
-	-	-	-

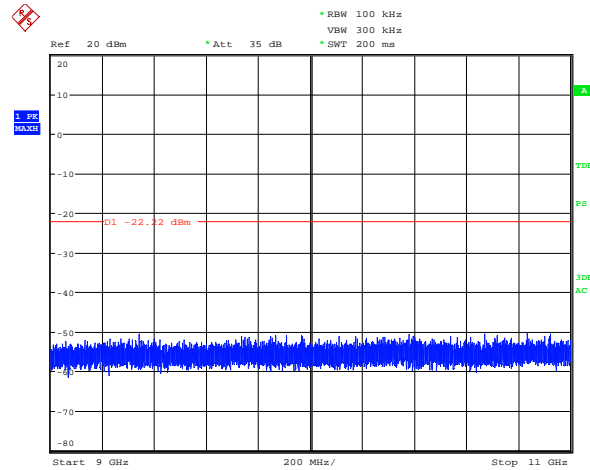
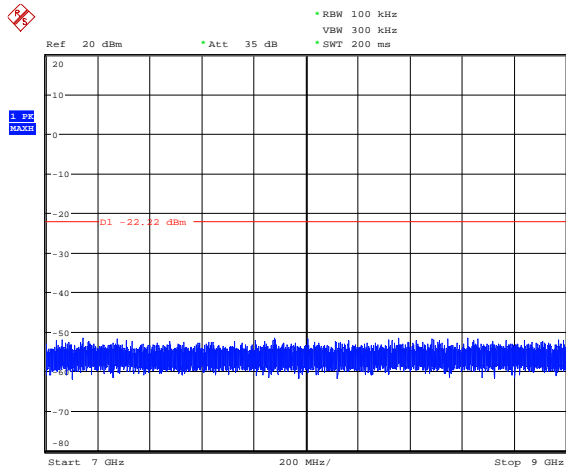
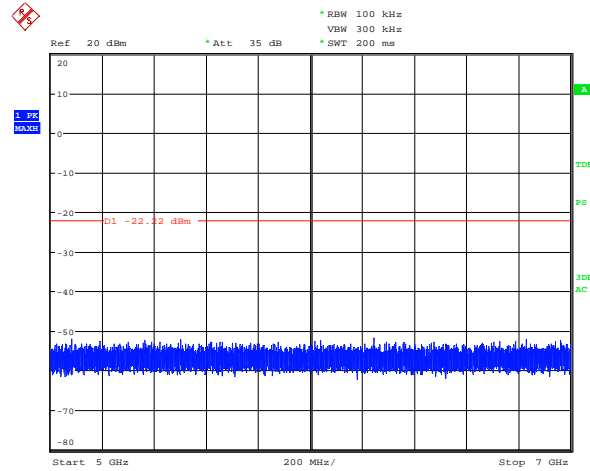
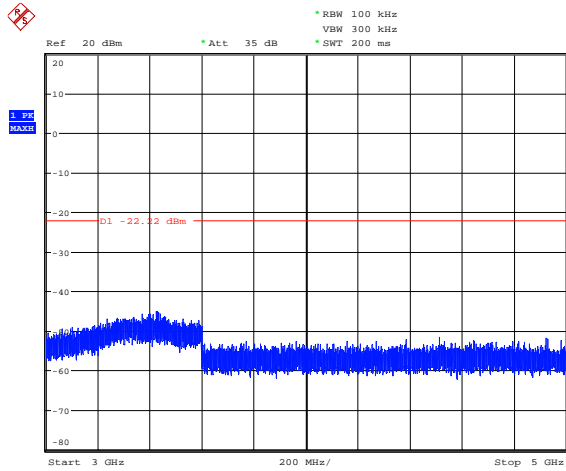
Note: All emissions have more than 20 dB margin.

[Chart] Tx 2440MHz (3DH5)



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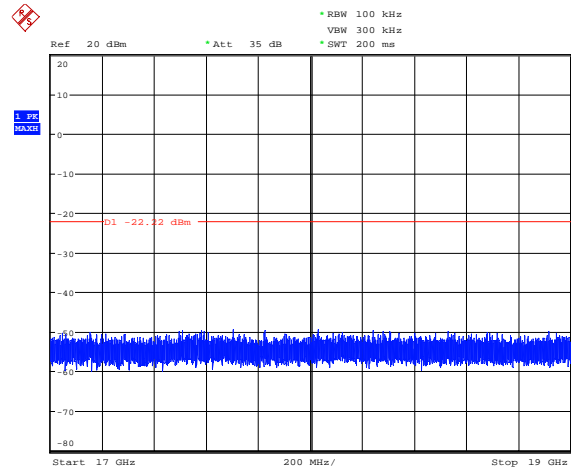
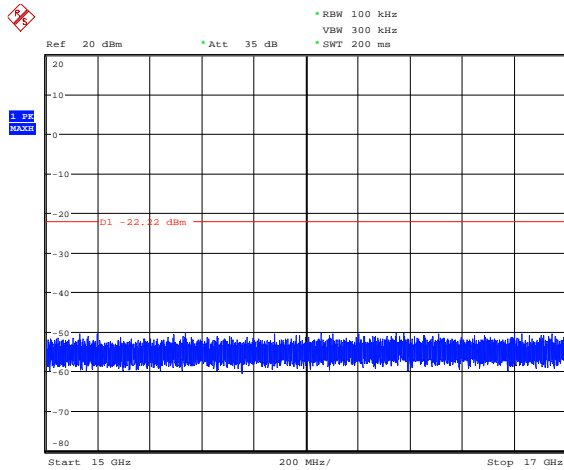
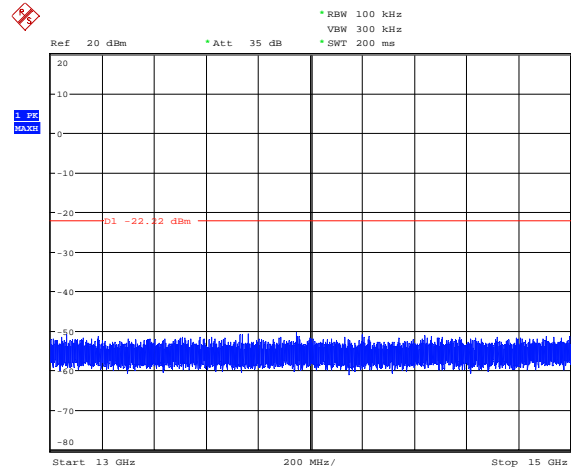
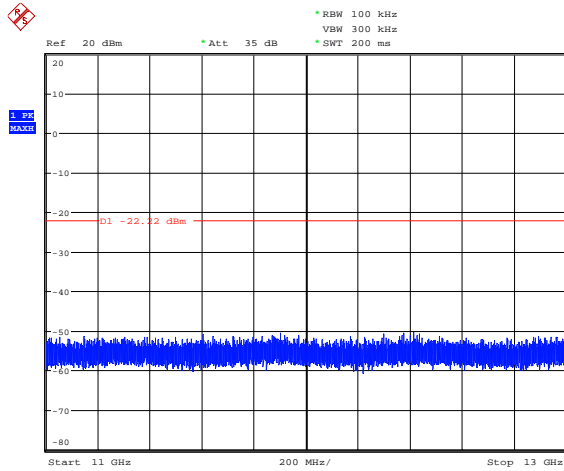
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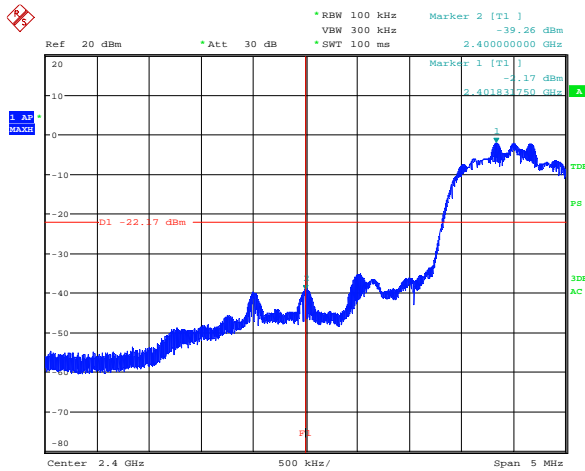
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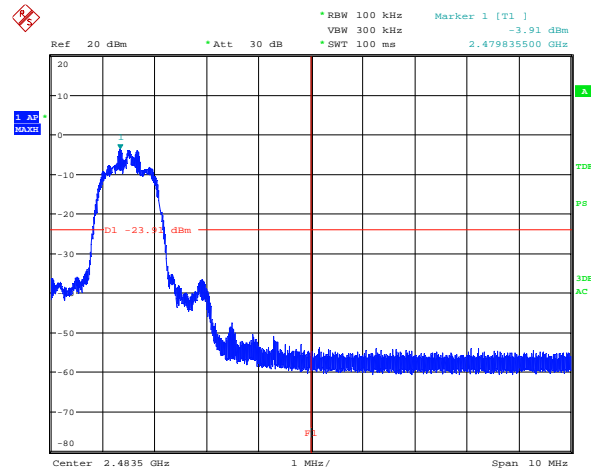




Tx 2402 MHz 3DH5



Tx 2480MHz 3DH5



Tested Date: 12 Apr. 2019  
Humidity: 33 %

Temperature: 21 degC  
Atmos. Press: 1018 hPa

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## 2.7 Radiated emissions (for restricted frequency band)

### Test setup

Test setup was implemented according to the method of ANSI C63.10 clause 6.

### Test procedure

Measurement procedures were implemented according to the method of ANSI C63.10 clauses 6.

The test receiver is set as below

[9 - 150 kHz]

RBW: 200 Hz, Detector: QP

[150 kHz - 30 MHz]

RBW: 9 kHz, Detector: QP

[30 - 1000 MHz]

RBW: 120 kHz, Detector: QP

[above 1000 MHz]

RBW: 1 MHz, Detector: Ave/PK

### Applicable rule and limitation

RSS-Gen Sec. 8.10

FCC 15.205 restricted bands of operation

Except as shown in paragraph 15.205 (d) of this section, only spurious emissions are permitted in any of the frequency bands listed below:

MHz	MHz	MHz	GHz
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
0.490 - 0.510	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.025 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 - 1710	10.6 - 12.7
6.26775 - 6.26825	108 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 - 14.5
8.291 - 8.294	149.9 - 150.05	2310 - 2390	15.35 - 16.2
8.362 - 8.366	156.52475 - 156.52525	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.7 - 156.9	2690 - 2900	22.01 - 23.12
8.41425 - 8.41475	162.0125 - 167.17	3260 - 3267	23.6 - 24.0
12.29 - 12.293	167.72 - 173.2	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	240 - 285	3345.8 - 3358	36.43 - 36.5
12.57675 - 12.57725	322 - 335.4	3600 - 4400	38.6 -

The field strength of emissions appearing within these frequency bands shall not exceed the limits shown in FCC 15.209. At frequencies equal to or less than 1000 MHz, compliance with the limits in FCC 15.209 shall be demonstrated using measurement instrumentation employing a CISPR quasi-peak detector. Above 1000 MHz, compliance with the emission limits in Section 15.209 shall be demonstrated based on the average value of the measured emissions.

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FCC 15.209 / RSS-Gen Sec. 8.9 Field strength limits

Frequency [MHz]	Field Strength [μV/m]	Measurement Distance [m]	Field Strength [dBμV/m]
30 – 88	100	3	40.0
88 – 216	150	3	43.5
216 – 960	200	3	46.0
Above 960	500	3	53.9

In the emission table above, the tighter limit applies at the band edges.

The emission limits shown in the above table are based on measurements employing a quasi-peak detector.

**Test results - Complied with requirement**

**Test equipment used (refer to List of utilized test equipment)**

AC01	CL11	TR06	PR21	BA07	CL30	CL38	PR12
DH06	CH01	SH01	LP06	LPF1	HPF4		

**Test software used**

EMI1 Ver. 5.9

**Calculation method**

The Correction Factor and Result are calculated as followings.

Correction Factor [dB/m] = Ant. Factor [dB/m] + Loss [dB] – Gain [dB]

Result [dBμV/m] = Reading [dBμV] + Correction Factor [dB/m]

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## Test Data (below 30MHz)

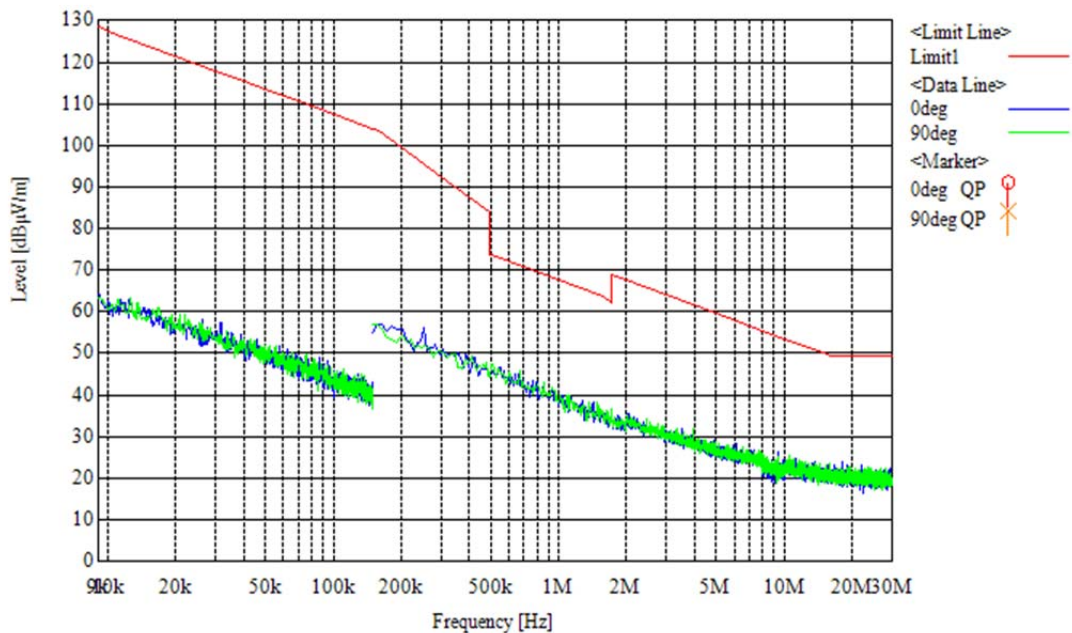
Tested sample: I-1  
Worst operating mode: Tx 2440MHz DH5 Z-plane

### [Emission level]

No.	Frequency [MHz]	Reading [dBμV]	Factor [dB/m]	Loss [dB]	Gain [dB]	Result [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Ant.
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-

Note: All emissions were under noise floor.

### [Chart]



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## Test Data (30 - 1000MHz)

Tested sample: 1-1

Operating mode: Tx 2402MHz DH5 X-plane  
[Emission level]

No.	Frequency [MHz]	Reading [dBμV]	Factor [dB/m]	Loss [dB]	Gain [dB]	Result [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Ant.
1	375.850	36.4	15.7	10.3	30.2	32.2	46.0	13.8	Hori.
2	531.925	23.3	17.8	11.3	30.1	22.3	46.0	23.7	Hori.
3	873.719	24.6	20.3	13.0	29.5	28.4	46.0	17.6	Hori.

Note: All other emissions are under noise floor.

Operating mode: Tx 2402MHz DH5 Y-plane  
[Emission level]

No.	Frequency [MHz]	Reading [dBμV]	Factor [dB/m]	Loss [dB]	Gain [dB]	Result [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Ant.
1	375.850	31.7	15.7	10.3	30.2	27.5	46.0	18.5	Hori.
2	543.998	23.7	17.9	11.4	30.1	22.9	46.0	23.1	Hori.
3	535.997	27.9	17.8	11.4	30.1	27.0	46.0	19.0	Vert.

Note: All other emissions are under noise floor.

Operating mode: Tx 2402MHz DH5 Z-plane  
[Emission level]

No.	Frequency [MHz]	Reading [dBμV]	Factor [dB/m]	Loss [dB]	Gain [dB]	Result [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Ant.
1	551.905	22.5	18.0	11.4	30.1	21.8	46.0	24.2	Hori.
2	543.997	30.1	17.9	11.4	30.1	29.3	46.0	16.7	Vert.

Note: All other emissions are under noise floor.

Operating mode: Tx 2402MHz 2DH5 X-plane  
[Emission level]

No.	Frequency [MHz]	Reading [dBμV]	Factor [dB/m]	Loss [dB]	Gain [dB]	Result [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Ant.
1	375.850	35.9	15.7	10.3	30.2	31.7	46.0	14.3	Hori.
2	527.948	23.8	17.7	11.3	30.1	22.7	46.0	23.3	Hori.
3	904.659	23.6	20.5	13.1	29.2	28.0	46.0	18.0	Hori.

Note: All other emissions are under noise floor.

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Operating mode: Tx 2402MHz 2DH5 Y-plane  
[Emission level]

No.	Frequency [MHz]	Reading [dBμV]	Factor [dB/m]	Loss [dB]	Gain [dB]	Result [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Ant.
1	375.850	31.7	15.7	10.3	30.2	27.5	46.0	18.5	Hori.
2	415.999	25.3	16.5	10.6	30.2	22.2	46.0	23.8	Hori.
3	487.997	24.2	17.2	11.1	30.2	22.3	46.0	23.7	Hori.
4	587.997	27.5	18.5	11.6	30.1	27.5	46.0	18.5	Vert.

Note: All other emissions are under noise floor.

Operating mode: Tx 2402MHz 2DH5 Z-plane  
[Emission level]

No.	Frequency [MHz]	Reading [dBμV]	Factor [dB/m]	Loss [dB]	Gain [dB]	Result [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Ant.
1	587.306	21.8	18.4	11.6	30.1	21.7	46.0	24.3	Hori.
2	375.850	29.9	15.7	10.3	30.2	25.7	46.0	20.3	Vert.
3	407.998	29.9	16.4	10.6	30.2	26.7	46.0	19.3	Vert.
4	551.998	30.1	18.0	11.4	30.1	29.4	46.0	16.6	Vert.

Note: All other emissions are under noise floor.

Operating mode: Tx 2402MHz 3DH5 X-plane  
[Emission level]

No.	Frequency [MHz]	Reading [dBμV]	Factor [dB/m]	Loss [dB]	Gain [dB]	Result [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Ant.
1	375.850	35.9	15.7	10.3	30.2	31.7	46.0	14.3	Hori.
2	559.955	22.3	18.1	11.4	30.1	21.7	46.0	24.3	Hori.

Note: All other emissions are under noise floor.

Operating mode: Tx 2402MHz 3DH5 Y-plane  
[Emission level]

No.	Frequency [MHz]	Reading [dBμV]	Factor [dB/m]	Loss [dB]	Gain [dB]	Result [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Ant.
1	375.850	31.7	15.7	10.3	30.2	27.5	46.0	18.5	Hori.
2	656.945	22.5	18.7	12.0	30.2	23.0	46.0	23.0	Vert.

Note: All other emissions are under noise floor.

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Operating mode: Tx 2402MHz 3DH5 Z-plane  
[Emission level]

No.	Frequency [MHz]	Reading [dBμV]	Factor [dB/m]	Loss [dB]	Gain [dB]	Result [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Ant.
1	375.850	30.2	15.7	10.3	30.2	26.0	46.0	20.0	Hori.
2	416.700	21.7	16.5	10.6	30.2	18.6	46.0	27.4	Hori.
3	618.149	21.5	18.6	11.7	30.2	21.6	46.0	24.4	Hori.
4	375.850	28.7	15.7	10.3	30.2	24.5	46.0	21.5	Vert.
5	559.997	29.7	18.1	11.4	30.1	29.1	46.0	16.9	Vert.

Note: All other emissions are under noise floor.

Operating mode: Tx 2440MHz DH5 X-plane  
[Emission level]

No.	Frequency [MHz]	Reading [dBμV]	Factor [dB/m]	Loss [dB]	Gain [dB]	Result [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Ant.
1	375.850	34.9	15.7	10.3	30.2	30.7	46.0	15.3	Hori.
2	416.004	31.5	16.5	10.6	30.2	28.4	46.0	17.6	Hori.
3	535.998	24.1	17.8	11.4	30.1	23.2	46.0	22.8	Hori.

Note: All other emissions are under noise floor.

Operating mode: Tx 2440MHz DH5 Y-plane  
[Emission level]

No.	Frequency [MHz]	Reading [dBμV]	Factor [dB/m]	Loss [dB]	Gain [dB]	Result [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Ant.
1	375.850	31.6	15.7	10.3	30.2	27.4	46.0	18.6	Hori.
2	479.998	26.9	17.2	11.1	30.2	25.0	46.0	21.0	Hori.
3	536.004	27.6	17.8	11.4	30.1	26.7	46.0	19.3	Vert.

Note: All other emissions are under noise floor.

Operating mode: Tx 2440MHz DH5 Z-plane  
[Emission level]

No.	Frequency [MHz]	Reading [dBμV]	Factor [dB/m]	Loss [dB]	Gain [dB]	Result [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Ant.
1	375.850	31.5	15.7	10.3	30.2	27.3	46.0	18.7	Hori.
2	527.851	22.4	17.7	11.3	30.1	21.3	46.0	24.7	Hori.
3	217.191	22.5	11.9	9.0	30.2	13.2	46.0	32.8	Vert.
4	375.850	30.8	15.7	10.3	30.2	26.6	46.0	19.4	Vert.
5	544.004	30.3	17.9	11.4	30.1	29.5	46.0	16.5	Vert.

Note: All other emissions are under noise floor.

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Operating mode: Tx 2440MHz 2DH5 X-plane  
[Emission level]

No.	Frequency [MHz]	Reading [dBμV]	Factor [dB/m]	Loss [dB]	Gain [dB]	Result [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Ant.
1	375.850	35.2	15.7	10.3	30.2	31.0	46.0	15.0	Hori.
2	408.004	28.7	16.4	10.6	30.2	25.5	46.0	20.5	Hori.
3	488.004	28.9	17.2	11.1	30.2	27.0	46.0	19.0	Hori.
4	508.002	26.9	17.4	11.2	30.1	25.4	46.0	20.6	Hori.

Note: All other emissions are under noise floor.

Operating mode: Tx 2440MHz 2DH5 Y-plane  
[Emission level]

No.	Frequency [MHz]	Reading [dBμV]	Factor [dB/m]	Loss [dB]	Gain [dB]	Result [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Ant.
1	375.850	31.7	15.7	10.3	30.2	27.5	46.0	18.5	Hori.
2	404.003	25.2	16.4	10.5	30.2	21.9	46.0	24.1	Hori.
3	552.005	27.0	18.0	11.4	30.1	26.3	46.0	19.7	Vert.

Note: All other emissions are under noise floor.

Operating mode: Tx 2440MHz 2DH5 Z-plane  
[Emission level]

No.	Frequency [MHz]	Reading [dBμV]	Factor [dB/m]	Loss [dB]	Gain [dB]	Result [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Ant.
1	451.617	21.7	16.9	10.9	30.2	19.3	46.0	26.7	Hori.
2	375.850	29.5	15.7	10.3	30.2	25.3	46.0	20.7	Vert.
3	416.001	27.9	16.5	10.6	30.2	24.8	46.0	21.2	Vert.
4	531.998	30.1	17.8	11.3	30.1	29.1	46.0	16.9	Vert.
5	552.002	31.0	18.0	11.4	30.1	30.3	46.0	15.7	Vert.
6	559.998	29.8	18.1	11.4	30.1	29.2	46.0	16.8	Vert.

Note: All other emissions are under noise floor.

Operating mode: Tx 2440MHz 3DH5 X-plane  
[Emission level]

No.	Frequency [MHz]	Reading [dBμV]	Factor [dB/m]	Loss [dB]	Gain [dB]	Result [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Ant.
1	375.850	35.5	15.7	10.3	30.2	31.3	46.0	14.7	Hori.
2	412.002	28.2	16.5	10.6	30.2	25.1	46.0	20.9	Hori.
3	809.996	22.0	19.9	12.7	29.9	24.7	46.0	21.3	Hori.
4	893.408	23.3	20.4	13.1	29.3	27.5	46.0	18.5	Hori.

Note: All other emissions are under noise floor.

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Operating mode: Tx 2440MHz 3DH5 Y-plane  
[Emission level]

No.	Frequency [MHz]	Reading [dBμV]	Factor [dB/m]	Loss [dB]	Gain [dB]	Result [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Ant.
1	375.850	31.7	15.7	10.3	30.2	27.5	46.0	18.5	Hori.
2	750.444	22.0	19.3	12.4	30.2	23.5	46.0	22.5	Hori.

Note: All other emissions are under noise floor.

Operating mode: Tx 2440MHz 3DH5 Z-plane  
[Emission level]

No.	Frequency [MHz]	Reading [dBμV]	Factor [dB/m]	Loss [dB]	Gain [dB]	Result [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Ant.
1	745.013	22.0	19.2	12.4	30.2	23.4	46.0	22.6	Hori.
2	932.883	21.5	20.7	13.3	28.9	26.6	46.0	19.4	Hori.
3	375.850	30.2	15.7	10.3	30.2	26.0	46.0	20.0	Vert.
4	408.004	26.7	16.4	10.6	30.2	23.5	46.0	22.5	Vert.
5	531.997	30.5	17.8	11.3	30.1	29.5	46.0	16.5	Vert.
6	552.001	30.7	18.0	11.4	30.1	30.0	46.0	16.0	Vert.

Note: All other emissions are under noise floor.

Operating mode: Tx 2480MHz DH5 X-plane  
[Emission level]

No.	Frequency [MHz]	Reading [dBμV]	Factor [dB/m]	Loss [dB]	Gain [dB]	Result [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Ant.
1	375.850	32.5	15.7	10.3	30.2	28.3	46.0	17.7	Hori.
2	524.000	26.6	17.7	11.3	30.1	25.5	46.0	20.5	Hori.
3	607.577	21.5	18.6	11.6	30.1	21.6	46.0	24.4	Hori.
4	946.364	24.8	20.8	13.4	28.7	30.3	46.0	15.7	Hori.
5	217.773	22.2	11.9	9.0	30.2	12.9	46.0	33.1	Vert.

Note: All other emissions are under noise floor.

Operating mode: Tx 2480MHz DH5 Y-plane  
[Emission level]

No.	Frequency [MHz]	Reading [dBμV]	Factor [dB/m]	Loss [dB]	Gain [dB]	Result [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Ant.
1	375.850	32.6	15.7	10.3	30.2	28.4	46.0	17.6	Hori.
2	455.998	22.6	16.9	11.0	30.2	20.3	46.0	25.7	Hori.
3	559.996	28.0	18.1	11.4	30.1	27.4	46.0	18.6	Vert.
4	624.001	25.7	18.6	11.8	30.2	25.9	46.0	20.1	Vert.

Note: All other emissions are under noise floor.

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Operating mode: Tx 2480MHz DH5 Z-plane  
[Emission level]

No.	Frequency [MHz]	Reading [dBμV]	Factor [dB/m]	Loss [dB]	Gain [dB]	Result [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Ant.
1	352.001	31.2	15.0	10.1	30.2	26.1	46.0	19.9	Hori.
2	375.850	31.5	15.7	10.3	30.2	27.3	46.0	18.7	Hori.
3	954.899	22.8	20.9	13.4	28.6	28.5	46.0	17.5	Hori.
4	352.002	29.9	15.0	10.1	30.2	24.8	46.0	21.2	Vert.
5	375.850	30.7	15.7	10.3	30.2	26.5	46.0	19.5	Vert.
6	412.002	27.9	16.5	10.6	30.2	24.8	46.0	21.2	Vert.
7	552.003	29.9	18.0	11.4	30.1	29.2	46.0	16.8	Vert.

Note: All other emissions are under noise floor.

Operating mode: Tx 2480MHz 2DH5 X-plane  
[Emission level]

No.	Frequency [MHz]	Reading [dBμV]	Factor [dB/m]	Loss [dB]	Gain [dB]	Result [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Ant.
1	344.003	28.5	14.8	10.1	30.2	23.2	46.0	22.8	Hori.
2	375.850	36.6	15.7	10.3	30.2	32.4	46.0	13.6	Hori.
3	424.004	30.6	16.6	10.7	30.2	27.7	46.0	18.3	Hori.

Note: All other emissions are under noise floor.

Operating mode: Tx 2480MHz 2DH5 Y-plane  
[Emission level]

No.	Frequency [MHz]	Reading [dBμV]	Factor [dB/m]	Loss [dB]	Gain [dB]	Result [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Ant.
1	375.850	32.4	15.7	10.3	30.2	28.2	46.0	17.8	Hori.
2	572.010	23.1	18.3	11.5	30.1	22.8	46.0	23.2	Hori.
3	568.001	27.7	18.2	11.5	30.1	27.3	46.0	18.7	Vert.

Note: All other emissions are under noise floor.

Operating mode: Tx 2480MHz 2DH5 Z-plane  
[Emission level]

No.	Frequency [MHz]	Reading [dBμV]	Factor [dB/m]	Loss [dB]	Gain [dB]	Result [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Ant.
1	375.850	32.2	15.7	10.3	30.2	28.0	46.0	18.0	Hori.
2	756.166	22.3	19.4	12.4	30.2	23.9	46.0	22.1	Hori.
3	375.850	31.3	15.7	10.3	30.2	27.1	46.0	18.9	Vert.
4	528.006	29.1	17.7	11.3	30.1	28.0	46.0	18.0	Vert.

Note: All other emissions are under noise floor.

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Operating mode: Tx 2480MHz 3DH5 X-plane  
[Emission level]

No.	Frequency [MHz]	Reading [dBμV]	Factor [dB/m]	Loss [dB]	Gain [dB]	Result [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Ant.
1	375.850	35.0	15.7	10.3	30.2	30.8	46.0	15.2	Hori.
2	404.000	28.2	16.4	10.5	30.2	24.9	46.0	21.1	Hori.
3	500.004	26.9	17.3	11.2	30.1	25.3	46.0	20.7	Hori.

Note: All other emissions are under noise floor.

Operating mode: Tx 2480MHz 3DH5 Y-plane  
[Emission level]

No.	Frequency [MHz]	Reading [dBμV]	Factor [dB/m]	Loss [dB]	Gain [dB]	Result [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Ant.
1	375.850	32.2	15.7	10.3	30.2	28.0	46.0	18.0	Hori.
2	412.004	25.5	16.5	10.6	30.2	22.4	46.0	23.6	Hori.
3	528.004	29.6	17.7	11.3	30.1	28.5	46.0	17.5	Vert.
4	544.002	28.8	17.9	11.4	30.1	28.0	46.0	18.0	Vert.
5	572.005	28.4	18.3	11.5	30.1	28.1	46.0	17.9	Vert.

Note: All other emissions are under noise floor.

Operating mode: Tx 2480MHz 3DH5 Z-plane  
[Emission level]

No.	Frequency [MHz]	Reading [dBμV]	Factor [dB/m]	Loss [dB]	Gain [dB]	Result [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Ant.
1	375.850	32.5	15.7	10.3	30.2	28.3	46.0	17.7	Hori.
2	568.005	23.1	18.2	11.5	30.1	22.7	46.0	23.3	Hori.
3	375.850	30.4	15.7	10.3	30.2	26.2	46.0	19.8	Vert.
4	520.003	28.3	17.6	11.3	30.1	27.1	46.0	18.9	Vert.
5	544.002	29.7	17.9	11.4	30.1	28.9	46.0	17.1	Vert.

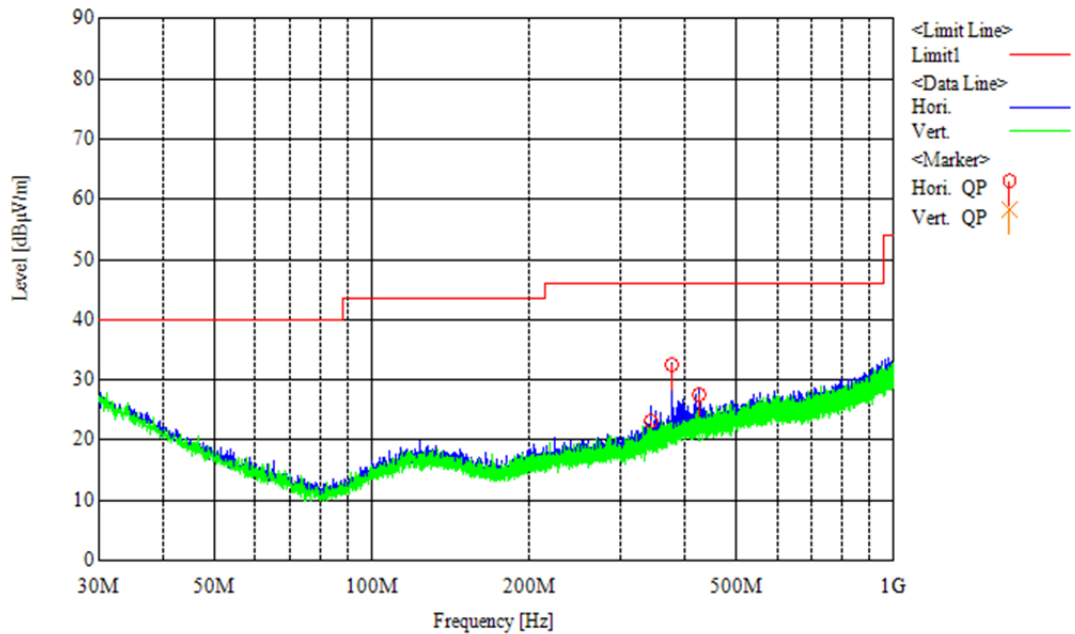
Note: All other emissions are under noise floor.

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[Chart] Tx 2402MHz DH5 X-plane



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## Test Data (1 - 12GHz)

Tested sample: 1-1

Operating mode: Tx 2402MHz DH5 X-plane  
[Emission level]

No.	Frequency [MHz]	Reading PK [dBμV]	Reading Ave [dBμV]	C.Factor [dB]	Result PK [dBμV/m]	Result Ave [dBμV/m]	Limit PK [dBμV/m]	Limit Ave [dBμV/m]	Margin PK [dB]	Margin Ave [dB]	Ant.
1	3678.014	51.7	48.3	-0.2	51.5	48.1	73.9	53.9	22.4	5.8	Hori.
2	4804.000	49.8	44.9	3.2	53.0	48.1	73.9	53.9	20.9	5.8	Hori.
3	3678.035	52.0	48.7	-0.2	51.8	48.5	73.9	53.9	22.1	5.4	Vert.
4	4804.000	49.4	44.9	3.2	52.6	48.1	73.9	53.9	21.3	5.8	Vert.

Note: All other emissions have more than 20 dB margin.

Operating mode: Tx 2402MHz DH5 Y-plane  
[Emission level]

No.	Frequency [MHz]	Reading PK [dBμV]	Reading Ave [dBμV]	C.Factor [dB]	Result PK [dBμV/m]	Result Ave [dBμV/m]	Limit PK [dBμV/m]	Limit Ave [dBμV/m]	Margin PK [dB]	Margin Ave [dB]	Ant.
1	3677.995	54.8	52.8	-0.2	54.6	52.6	73.9	53.9	19.3	1.3	Hori.
2	4804.000	50.3	46.2	3.2	53.5	49.4	73.9	53.9	20.4	4.5	Hori.
3	8361.864	42.5	29.8	8.7	51.2	38.5	73.9	53.9	22.7	15.4	Hori.
4	3677.994	49.6	45.8	-0.2	49.4	45.6	73.9	53.9	24.5	8.3	Vert.
5	4804.000	49.7	45.2	3.2	52.9	48.4	73.9	53.9	21.0	5.5	Vert.

Note: All other emissions have more than 20 dB margin.

Operating mode: Tx 2402MHz DH5 Z-plane  
[Emission level]

No.	Frequency [MHz]	Reading PK [dBμV]	Reading Ave [dBμV]	C.Factor [dB]	Result PK [dBμV/m]	Result Ave [dBμV/m]	Limit PK [dBμV/m]	Limit Ave [dBμV/m]	Margin PK [dB]	Margin Ave [dB]	Ant.
1	3678.032	51.6	48.1	-0.2	51.4	47.9	73.9	53.9	22.5	6.0	Hori.
2	4804.000	49.5	44.7	3.2	52.7	47.9	73.9	53.9	21.2	6.0	Hori.
3	3678.022	51.5	48.5	-0.2	51.3	48.3	73.9	53.9	22.6	5.6	Vert.
4	4804.000	51.1	47.2	3.2	54.3	50.4	73.9	53.9	19.6	3.5	Vert.

Note: All other emissions have more than 20 dB margin.

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Operating mode: Tx 2402MHz 2DH5 X-plane  
[Emission level]

No.	Frequency [MHz]	Reading PK [dBμV]	Reading Ave [dBμV]	C.Factor [dB]	Result PK [dBμV/m]	Result Ave [dBμV/m]	Limit PK [dBμV/m]	Limit Ave [dBμV/m]	Margin PK [dB]	Margin Ave [dB]	Ant.
1	3678.058	51.9	49.2	-0.2	51.7	49.0	73.9	53.9	22.2	4.9	Hori.
2	4804.000	46.7	38.2	3.2	49.9	41.4	73.9	53.9	24.0	12.5	Hori.
3	3678.065	52.1	49.0	-0.2	51.9	48.8	73.9	53.9	22.0	5.1	Vert.
4	4804.000	48.6	41.1	3.2	51.8	44.3	73.9	53.9	22.1	9.6	Vert.

Note: All other emissions have more than 20 dB margin.

Operating mode: Tx 2402MHz 2DH5 Y-plane  
[Emission level]

No.	Frequency [MHz]	Reading PK [dBμV]	Reading Ave [dBμV]	C.Factor [dB]	Result PK [dBμV/m]	Result Ave [dBμV/m]	Limit PK [dBμV/m]	Limit Ave [dBμV/m]	Margin PK [dB]	Margin Ave [dB]	Ant.
1	3678.057	54.4	52.3	-0.2	54.2	52.1	73.9	53.9	19.7	1.8	Hori.
2	4804.000	47.9	40.4	3.2	51.1	43.6	73.9	53.9	22.8	10.3	Hori.
3	3678.064	51.5	48.6	-0.2	51.3	48.4	73.9	53.9	22.6	5.5	Vert.
4	4804.000	47.4	39.4	3.2	50.6	42.6	73.9	53.9	23.3	11.3	Vert.

Note: All other emissions have more than 20 dB margin.

Operating mode: Tx 2402MHz 2DH5 Z-plane  
[Emission level]

No.	Frequency [MHz]	Reading PK [dBμV]	Reading Ave [dBμV]	C.Factor [dB]	Result PK [dBμV/m]	Result Ave [dBμV/m]	Limit PK [dBμV/m]	Limit Ave [dBμV/m]	Margin PK [dB]	Margin Ave [dB]	Ant.
1	3678.066	53.9	51.7	-0.2	53.7	51.5	73.9	53.9	20.2	2.4	Hori.
2	4804.000	48.2	40.6	3.2	51.4	43.8	73.9	53.9	22.5	10.1	Hori.
3	3678.062	50.7	47.2	-0.2	50.5	47.0	73.9	53.9	23.4	6.9	Vert.
4	4804.000	48.9	41.3	3.2	52.1	44.5	73.9	53.9	21.8	9.4	Vert.

Note: All other emissions have more than 20 dB margin.

Operating mode: Tx 2402MHz 3DH5 X-plane  
[Emission level]

No.	Frequency [MHz]	Reading PK [dBμV]	Reading Ave [dBμV]	C.Factor [dB]	Result PK [dBμV/m]	Result Ave [dBμV/m]	Limit PK [dBμV/m]	Limit Ave [dBμV/m]	Margin PK [dB]	Margin Ave [dB]	Ant.
1	3678.103	51.4	48.6	-0.2	51.2	48.4	73.9	53.9	22.7	5.5	Hori.
2	4804.000	46.8	38.6	3.2	50.0	41.8	73.9	53.9	23.9	12.1	Hori.
3	3678.106	51.9	49.2	-0.2	51.7	49.0	73.9	53.9	22.2	4.9	Vert.
4	4804.000	50.2	43.1	3.2	53.4	46.3	73.9	53.9	20.5	7.6	Vert.

Note: All other emissions have more than 20 dB margin.

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Operating mode: Tx 2402MHz 3DH5 Y-plane  
[Emission level]

No.	Frequency [MHz]	Reading PK [dBμV]	Reading Ave [dBμV]	C.Factor [dB]	Result PK [dBμV/m]	Result Ave [dBμV/m]	Limit PK [dBμV/m]	Limit Ave [dBμV/m]	Margin PK [dB]	Margin Ave [dB]	Ant.
1	3678.061	54.6	52.7	-0.2	54.4	52.5	73.9	53.9	19.5	1.4	Hori.
2	4804.000	50.2	43.2	3.2	53.4	46.4	73.9	53.9	20.5	7.5	Hori.
3	3678.016	50.5	47.0	-0.2	50.3	46.8	73.9	53.9	23.6	7.1	Vert.
4	4804.000	47.5	39.3	3.2	50.7	42.5	73.9	53.9	23.2	11.4	Vert.

Note: All other emissions have more than 20 dB margin.

Operating mode: Tx 2402MHz 3DH5 Z-plane  
[Emission level]

No.	Frequency [MHz]	Reading PK [dBμV]	Reading Ave [dBμV]	C.Factor [dB]	Result PK [dBμV/m]	Result Ave [dBμV/m]	Limit PK [dBμV/m]	Limit Ave [dBμV/m]	Margin PK [dB]	Margin Ave [dB]	Ant.
1	3678.023	53.3	51.1	-0.2	53.1	50.9	73.9	53.9	20.8	3.0	Hori.
2	4804.000	48.3	40.5	3.2	51.5	43.7	73.9	53.9	22.4	10.2	Hori.
3	3677.990	49.3	45.4	-0.2	49.1	45.2	73.9	53.9	24.8	8.7	Vert.
4	4804.000	49.6	42.3	3.2	52.8	45.5	73.9	53.9	21.1	8.4	Vert.

Note: All other emissions have more than 20 dB margin.

Operating mode: Tx 2440MHz DH5 X-plane  
[Emission level]

No.	Frequency [MHz]	Reading PK [dBμV]	Reading Ave [dBμV]	C.Factor [dB]	Result PK [dBμV/m]	Result Ave [dBμV/m]	Limit PK [dBμV/m]	Limit Ave [dBμV/m]	Margin PK [dB]	Margin Ave [dB]	Ant.
1	3678.057	52.4	49.6	-0.2	52.2	49.4	73.9	53.9	21.7	4.5	Hori.
2	4880.000	50.0	45.5	3.6	53.6	49.1	73.9	53.9	20.3	4.8	Hori.
3	3678.069	52.2	49.7	-0.2	52.0	49.5	73.9	53.9	21.9	4.4	Vert.
4	4880.000	52.2	48.6	3.6	55.8	52.2	73.9	53.9	18.1	1.7	Vert.
5	7320.000	41.7	31.4	7.8	49.5	39.2	73.9	53.9	24.4	14.7	Vert.

Note: All other emissions have more than 20 dB margin.

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Operating mode: Tx 2440MHz DH5 Y-plane  
[Emission level]

No.	Frequency [MHz]	Reading PK [dBμV]	Reading Ave [dBμV]	C.Factor [dB]	Result PK [dBμV/m]	Result Ave [dBμV/m]	Limit PK [dBμV/m]	Limit Ave [dBμV/m]	Margin PK [dB]	Margin Ave [dB]	Ant.
1	3678.074	55.6	53.9	-0.2	55.4	53.7	73.9	53.9	18.5	0.2	Hori.
2	4880.000	51.1	47.2	3.6	54.7	50.8	73.9	53.9	19.2	3.1	Hori.
3	7320.000	40.8	30.0	7.8	48.6	37.8	73.9	53.9	25.3	16.1	Hori.
4	8347.266	43.0	29.9	8.6	51.6	38.5	73.9	53.9	22.3	15.4	Hori.
5	3678.077	49.9	46.3	-0.2	49.7	46.1	73.9	53.9	24.2	7.8	Vert.
6	4880.000	52.2	48.7	3.6	55.8	52.3	73.9	53.9	18.1	1.6	Vert.
7	7320.000	41.5	30.3	7.8	49.3	38.1	73.9	53.9	24.6	15.8	Vert.

Note: All other emissions have more than 20 dB margin.

Operating mode: Tx 2440MHz DH5 Z-plane  
[Emission level]

No.	Frequency [MHz]	Reading PK [dBμV]	Reading Ave [dBμV]	C.Factor [dB]	Result PK [dBμV/m]	Result Ave [dBμV/m]	Limit PK [dBμV/m]	Limit Ave [dBμV/m]	Margin PK [dB]	Margin Ave [dB]	Ant.
1	3677.997	52.8	50.4	-0.2	52.6	50.2	73.9	53.9	21.3	3.7	Hori.
2	4880.000	50.3	46.1	3.6	53.9	49.7	73.9	53.9	20.0	4.2	Hori.
3	7320.000	42.0	30.4	7.8	49.8	38.2	73.9	53.9	24.1	15.7	Hori.
4	3677.981	51.5	48.3	-0.2	51.3	48.1	73.9	53.9	22.6	5.8	Vert.
5	4880.000	51.8	47.9	3.6	55.4	51.5	73.9	53.9	18.5	2.4	Vert.
6	7320.000	41.5	29.8	7.8	49.3	37.6	73.9	53.9	24.6	16.3	Vert.

Note: All other emissions have more than 20 dB margin.

Operating mode: Tx 2440MHz 2DH5 X-plane  
[Emission level]

No.	Frequency [MHz]	Reading PK [dBμV]	Reading Ave [dBμV]	C.Factor [dB]	Result PK [dBμV/m]	Result Ave [dBμV/m]	Limit PK [dBμV/m]	Limit Ave [dBμV/m]	Margin PK [dB]	Margin Ave [dB]	Ant.
1	3678.050	52.1	49.0	-0.2	51.9	48.8	73.9	53.9	22.0	5.1	Hori.
2	4880.000	48.1	40.7	3.6	51.7	44.3	73.9	53.9	22.2	9.6	Hori.
3	3678.050	52.7	50.4	-0.2	52.5	50.2	73.9	53.9	21.4	3.7	Vert.
4	4880.000	48.3	41.1	3.6	51.9	44.7	73.9	53.9	22.0	9.2	Vert.

Note: All other emissions have more than 20 dB margin.

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Operating mode: Tx 2440MHz 2DH5 Y-plane  
[Emission level]

No.	Frequency [MHz]	Reading PK [dBμV]	Reading Ave [dBμV]	C.Factor [dB]	Result PK [dBμV/m]	Result Ave [dBμV/m]	Limit PK [dBμV/m]	Limit Ave [dBμV/m]	Margin PK [dB]	Margin Ave [dB]	Ant.
1	3678.083	54.5	52.4	-0.2	54.3	52.2	73.9	53.9	19.6	1.7	Hori.
2	4880.000	50.2	43.3	3.6	53.8	46.9	73.9	53.9	20.1	7.0	Hori.
3	3678.071	51.5	48.7	-0.2	51.3	48.5	73.9	53.9	22.6	5.4	Vert.
4	4880.000	49.9	42.9	3.6	53.5	46.5	73.9	53.9	20.4	7.4	Vert.

Note: All other emissions have more than 20 dB margin.

Operating mode: Tx 2440MHz 2DH5 Z-plane  
[Emission level]

No.	Frequency [MHz]	Reading PK [dBμV]	Reading Ave [dBμV]	C.Factor [dB]	Result PK [dBμV/m]	Result Ave [dBμV/m]	Limit PK [dBμV/m]	Limit Ave [dBμV/m]	Margin PK [dB]	Margin Ave [dB]	Ant.
1	3678.088	53.3	51.0	-0.2	53.1	50.8	73.9	53.9	20.8	3.1	Hori.
2	4880.000	48.4	40.7	3.6	52.0	44.3	73.9	53.9	21.9	9.6	Hori.
3	3678.093	49.1	44.8	-0.2	48.9	44.6	73.9	53.9	25.0	9.3	Vert.
4	4880.000	48.9	41.8	3.6	52.5	45.4	73.9	53.9	21.4	8.5	Vert.

Note: All other emissions have more than 20 dB margin.

Operating mode: Tx 2440MHz 3DH5 X-plane  
[Emission level]

No.	Frequency [MHz]	Reading PK [dBμV]	Reading Ave [dBμV]	C.Factor [dB]	Result PK [dBμV/m]	Result Ave [dBμV/m]	Limit PK [dBμV/m]	Limit Ave [dBμV/m]	Margin PK [dB]	Margin Ave [dB]	Ant.
1	3678.046	51.3	48.3	-0.2	51.1	48.1	73.9	53.9	22.8	5.8	Hori.
2	4880.000	49.9	42.7	3.6	53.5	46.3	73.9	53.9	20.4	7.6	Hori.
3	3678.023	52.1	49.4	-0.2	51.9	49.2	73.9	53.9	22.0	4.7	Vert.
4	4880.000	51.2	44.2	3.6	54.8	47.8	73.9	53.9	19.1	6.1	Vert.

Note: All other emissions have more than 20 dB margin.

Operating mode: Tx 2440MHz 3DH5 Y-plane  
[Emission level]

No.	Frequency [MHz]	Reading PK [dBμV]	Reading Ave [dBμV]	C.Factor [dB]	Result PK [dBμV/m]	Result Ave [dBμV/m]	Limit PK [dBμV/m]	Limit Ave [dBμV/m]	Margin PK [dB]	Margin Ave [dB]	Ant.
1	3677.987	54.5	52.7	-0.2	54.3	52.5	73.9	53.9	19.6	1.4	Hori.
2	4880.000	50.2	43.2	3.6	53.8	46.8	73.9	53.9	20.1	7.1	Hori.
3	3678.084	50.6	47.4	-0.2	50.4	47.2	73.9	53.9	23.5	6.7	Vert.
4	4880.000	49.6	42.5	3.6	53.2	46.1	73.9	53.9	20.7	7.8	Vert.

Note: All other emissions have more than 20 dB margin.

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Operating mode: Tx 2440MHz 3DH5 Z-plane  
[Emission level]

No.	Frequency [MHz]	Reading PK [dBμV]	Reading Ave [dBμV]	C.Factor [dB]	Result PK [dBμV/m]	Result Ave [dBμV/m]	Limit PK [dBμV/m]	Limit Ave [dBμV/m]	Margin PK [dB]	Margin Ave [dB]	Ant.
1	3678.039	53.0	50.7	-0.2	52.8	50.5	73.9	53.9	21.1	3.4	Hori.
2	4880.000	48.0	40.7	3.6	51.6	44.3	73.9	53.9	22.3	9.6	Hori.
3	3678.010	50.3	47.0	-0.2	50.1	46.8	73.9	53.9	23.8	7.1	Vert.
4	4880.000	50.9	43.7	3.6	54.5	47.3	73.9	53.9	19.4	6.6	Vert.

Note: All other emissions have more than 20 dB margin.

Operating mode: Tx 2480MHz DH5 X-plane  
[Emission level]

No.	Frequency [MHz]	Reading PK [dBμV]	Reading Ave [dBμV]	C.Factor [dB]	Result PK [dBμV/m]	Result Ave [dBμV/m]	Limit PK [dBμV/m]	Limit Ave [dBμV/m]	Margin PK [dB]	Margin Ave [dB]	Ant.
1	3678.054	51.1	48.0	-0.2	50.9	47.8	73.9	53.9	23.0	6.1	Hori.
2	4960.000	51.6	47.8	3.8	55.4	51.6	73.9	53.9	18.5	2.3	Hori.
3	3678.060	52.0	49.2	-0.2	51.8	49.0	73.9	53.9	22.1	4.9	Vert.
4	4960.000	50.7	46.8	3.8	54.5	50.6	73.9	53.9	19.4	3.3	Vert.

Note: All other emissions have more than 20 dB margin.

Operating mode: Tx 2480MHz DH5 Y-plane  
[Emission level]

No.	Frequency [MHz]	Reading PK [dBμV]	Reading Ave [dBμV]	C.Factor [dB]	Result PK [dBμV/m]	Result Ave [dBμV/m]	Limit PK [dBμV/m]	Limit Ave [dBμV/m]	Margin PK [dB]	Margin Ave [dB]	Ant.
1	3678.054	55.5	53.8	-0.2	55.3	53.6	73.9	53.9	18.6	0.3	Hori.
2	4960.000	53.3	49.7	3.8	57.1	53.5	73.9	53.9	16.8	0.4	Hori.
3	7440.000	43.4	32.8	8.0	51.4	40.8	73.9	53.9	22.5	13.1	Hori.
4	3678.055	49.6	45.4	-0.2	49.4	45.2	73.9	53.9	24.5	8.7	Vert.
5	4960.000	49.8	45.6	3.8	53.6	49.4	73.9	53.9	20.3	4.5	Vert.
6	7440.000	42.3	31.0	8.0	50.3	39.0	73.9	53.9	23.6	14.9	Vert.

Note: All other emissions have more than 20 dB margin.

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Operating mode: Tx 2480MHz DH5 Z-plane  
[Emission level]

No.	Frequency [MHz]	Reading PK [dBμV]	Reading Ave [dBμV]	C.Factor [dB]	Result PK [dBμV/m]	Result Ave [dBμV/m]	Limit PK [dBμV/m]	Limit Ave [dBμV/m]	Margin PK [dB]	Margin Ave [dB]	Ant.
1	3678.081	52.7	50.2	-0.2	52.5	50.0	73.9	53.9	21.4	3.9	Hori.
2	4960.000	51.2	47.2	3.8	55.0	51.0	73.9	53.9	18.9	2.9	Hori.
3	7440.000	41.9	30.3	8.0	49.9	38.3	73.9	53.9	24.0	15.6	Hori.
4	3678.049	50.8	47.3	-0.2	50.6	47.1	73.9	53.9	23.3	6.8	Vert.
5	4960.000	52.3	48.8	3.8	56.1	52.6	73.9	53.9	17.8	1.3	Vert.

Note: All other emissions have more than 20 dB margin.

Operating mode: Tx 2480MHz 2DH5 X-plane  
[Emission level]

No.	Frequency [MHz]	Reading PK [dBμV]	Reading Ave [dBμV]	C.Factor [dB]	Result PK [dBμV/m]	Result Ave [dBμV/m]	Limit PK [dBμV/m]	Limit Ave [dBμV/m]	Margin PK [dB]	Margin Ave [dB]	Ant.
1	3678.030	52.4	49.7	-0.2	52.2	49.5	73.9	53.9	21.7	4.4	Hori.
2	4960.000	48.2	40.8	3.8	52.0	44.6	73.9	53.9	21.9	9.3	Hori.
3	3678.039	51.7	48.8	-0.2	51.5	48.6	73.9	53.9	22.4	5.3	Vert.
4	4960.000	48.3	40.7	3.8	52.1	44.5	73.9	53.9	21.8	9.4	Vert.

Note: All other emissions have more than 20 dB margin.

Operating mode: Tx 2480MHz 2DH5 Y-plane  
[Emission level]

No.	Frequency [MHz]	Reading PK [dBμV]	Reading Ave [dBμV]	C.Factor [dB]	Result PK [dBμV/m]	Result Ave [dBμV/m]	Limit PK [dBμV/m]	Limit Ave [dBμV/m]	Margin PK [dB]	Margin Ave [dB]	Ant.
1	3678.027	54.3	52.4	-0.2	54.1	52.2	73.9	53.9	19.8	1.7	Hori.
2	4134.351	43.2	33.2	1.4	44.6	34.6	73.9	53.9	29.3	19.3	Hori.
3	4960.000	49.2	42.2	3.8	53.0	46.0	73.9	53.9	20.9	7.9	Hori.
4	3678.037	48.9	44.6	-0.2	48.7	44.4	73.9	53.9	25.2	9.5	Vert.
5	4960.000	47.5	39.5	3.8	51.3	43.3	73.9	53.9	22.6	10.6	Vert.

Note: All other emissions have more than 20 dB margin.

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Operating mode: Tx 2480MHz 2DH5 Z-plane  
[Emission level]

No.	Frequency [MHz]	Reading PK [dBμV]	Reading Ave [dBμV]	C.Factor [dB]	Result PK [dBμV/m]	Result Ave [dBμV/m]	Limit PK [dBμV/m]	Limit Ave [dBμV/m]	Margin PK [dB]	Margin Ave [dB]	Ant.
1	3678.033	52.8	50.2	-0.2	52.6	50.0	73.9	53.9	21.3	3.9	Hori.
2	4960.000	49.2	41.8	3.8	53.0	45.6	73.9	53.9	20.9	8.3	Hori.
3	3678.029	48.8	44.4	-0.2	48.6	44.2	73.9	53.9	25.3	9.7	Vert.
4	4960.000	49.6	42.3	3.8	53.4	46.1	73.9	53.9	20.5	7.8	Vert.

Note: All other emissions have more than 20 dB margin.

Operating mode: Tx 2480MHz 3DH5 X-plane  
[Emission level]

No.	Frequency [MHz]	Reading PK [dBμV]	Reading Ave [dBμV]	C.Factor [dB]	Result PK [dBμV/m]	Result Ave [dBμV/m]	Limit PK [dBμV/m]	Limit Ave [dBμV/m]	Margin PK [dB]	Margin Ave [dB]	Ant.
1	3678.015	51.5	48.8	-0.2	51.3	48.6	73.9	53.9	22.6	5.3	Hori.
2	4960.000	47.1	38.8	3.8	50.9	42.6	73.9	53.9	23.0	11.3	Hori.
3	3678.033	52.3	49.6	-0.2	52.1	49.4	73.9	53.9	21.8	4.5	Vert.
4	4960.000	48.1	40.4	3.8	51.9	44.2	73.9	53.9	22.0	9.7	Vert.

Note: All other emissions have more than 20 dB margin.

Operating mode: Tx 2480MHz 3DH5 Y-plane  
[Emission level]

No.	Frequency [MHz]	Reading PK [dBμV]	Reading Ave [dBμV]	C.Factor [dB]	Result PK [dBμV/m]	Result Ave [dBμV/m]	Limit PK [dBμV/m]	Limit Ave [dBμV/m]	Margin PK [dB]	Margin Ave [dB]	Ant.
1	3677.990	54.0	52.1	-0.2	53.8	51.9	73.9	53.9	20.1	2.0	Hori.
2	4960.000	51.1	44.0	3.8	54.9	47.8	73.9	53.9	19.0	6.1	Hori.
3	3677.995	50.5	46.9	-0.2	50.3	46.7	73.9	53.9	23.6	7.2	Vert.
4	4960.000	47.9	40.0	3.8	51.7	43.8	73.9	53.9	22.2	10.1	Vert.

Note: All other emissions have more than 20 dB margin.

Operating mode: Tx 2480MHz 3DH5 Z-plane  
[Emission level]

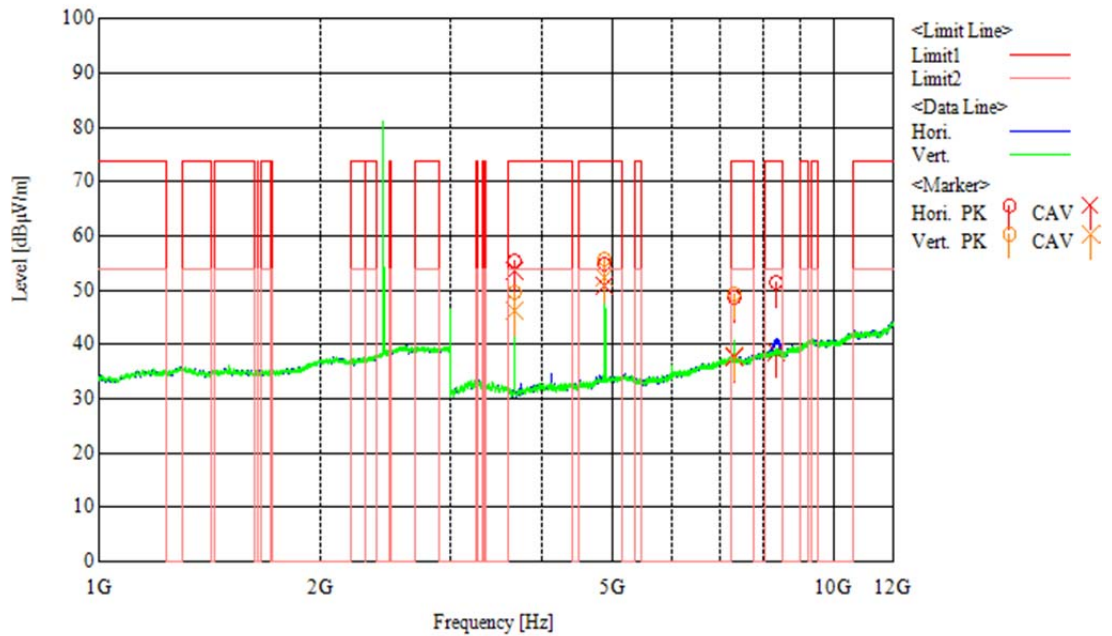
No.	Frequency [MHz]	Reading PK [dBμV]	Reading Ave [dBμV]	C.Factor [dB]	Result PK [dBμV/m]	Result Ave [dBμV/m]	Limit PK [dBμV/m]	Limit Ave [dBμV/m]	Margin PK [dB]	Margin Ave [dB]	Ant.
1	3678.009	53.1	50.9	-0.2	52.9	50.7	73.9	53.9	21.0	3.2	Hori.
2	4960.000	49.7	41.9	3.8	53.5	45.7	73.9	53.9	20.4	8.2	Hori.
3	3677.996	50.0	46.9	-0.2	49.8	46.7	73.9	53.9	24.1	7.2	Vert.
4	4960.000	49.8	42.1	3.8	53.6	45.9	73.9	53.9	20.3	8.0	Vert.

Note: All other emissions have more than 20 dB margin.

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[Chart] TX 2440MHz DH5 Y-plane



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## Test Data (above 12GHz)

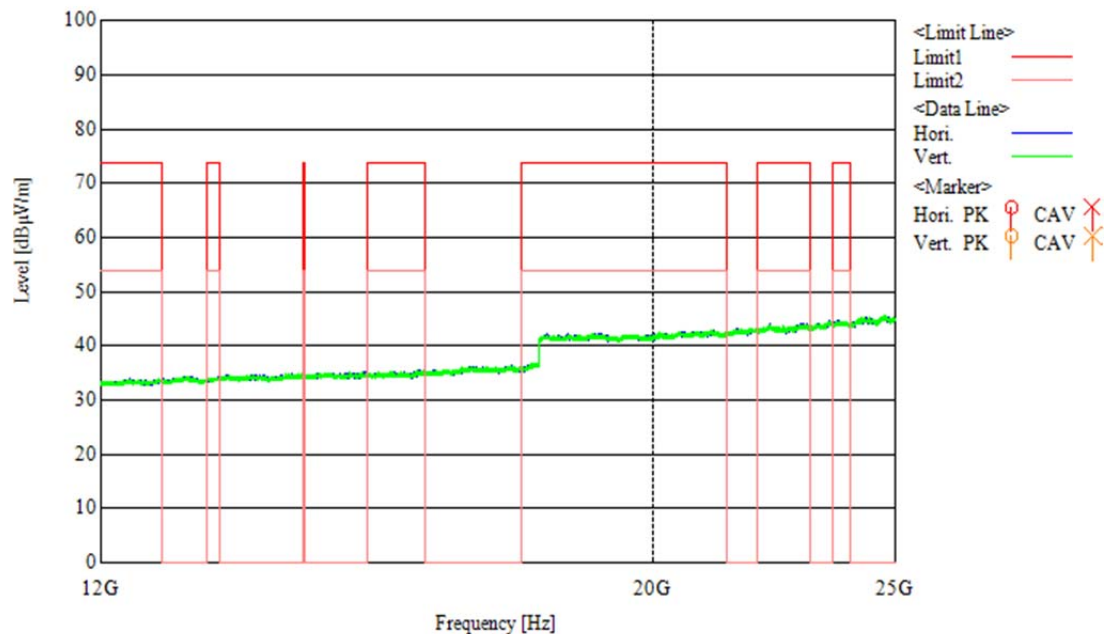
Tested sample: I-1  
Worst operating mode: Tx 2440MHz DH5 Z-plane

### [Emission level]

No.	Frequency [MHz]	Reading PK [dBμV]	Reading Ave [dBμV]	C.Factor [dB]	Result PK [dBμV/m]	Result Ave [dBμV/m]	Limit PK [dBμV/m]	Limit Ave [dBμV/m]	Margin PK [dB]	Margin Ave [dB]	Ant.
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-

Note: All emissions were under noise floor.

### [Chart]



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## Restricted bandedge measurement

Tested sample: 1-1

Operating mode: Tx 2402MHz, DH5 X-plane  
[Emission level]

No.	Frequency [MHz]	Reading PK [dBμV]	Reading Ave [dBμV]	C.Factor [dB]	Result PK [dBμV/m]	Result Ave [dBμV/m]	Limit PK [dBμV/m]	Limit Ave [dBμV/m]	Margin PK [dB]	Margin Ave [dB]	Ant.
1	2390.000	43.9	30.1	5.3	49.2	35.4	73.9	53.9	24.7	18.5	Hori.

Operating mode: Tx 2402MHz, DH5 Y-plane  
[Emission level]

No.	Frequency [MHz]	Reading PK [dBμV]	Reading Ave [dBμV]	C.Factor [dB]	Result PK [dBμV/m]	Result Ave [dBμV/m]	Limit PK [dBμV/m]	Limit Ave [dBμV/m]	Margin PK [dB]	Margin Ave [dB]	Ant.
1	2390.000	44.3	30.1	5.3	49.6	35.4	73.9	53.9	24.3	18.5	Vert.

Operating mode: Tx 2402MHz, DH5 Z-plane  
[Emission level]

No.	Frequency [MHz]	Reading PK [dBμV]	Reading Ave [dBμV]	C.Factor [dB]	Result PK [dBμV/m]	Result Ave [dBμV/m]	Limit PK [dBμV/m]	Limit Ave [dBμV/m]	Margin PK [dB]	Margin Ave [dB]	Ant.
1	2390.000	43.7	30.1	5.3	49.0	35.4	73.9	53.9	24.9	18.5	Hori.

Operating mode: Tx 2402MHz, 2DH5 X-plane  
[Emission level]

No.	Frequency [MHz]	Reading PK [dBμV]	Reading Ave [dBμV]	C.Factor [dB]	Result PK [dBμV/m]	Result Ave [dBμV/m]	Limit PK [dBμV/m]	Limit Ave [dBμV/m]	Margin PK [dB]	Margin Ave [dB]	Ant.
1	2390.000	43.8	30.1	5.3	49.1	35.4	73.9	53.9	24.8	18.5	Vert.

Operating mode: Tx 2402MHz, 2DH5 Y-plane  
[Emission level]

No.	Frequency [MHz]	Reading PK [dBμV]	Reading Ave [dBμV]	C.Factor [dB]	Result PK [dBμV/m]	Result Ave [dBμV/m]	Limit PK [dBμV/m]	Limit Ave [dBμV/m]	Margin PK [dB]	Margin Ave [dB]	Ant.
1	2390.000	43.9	30.2	5.3	49.2	35.5	73.9	53.9	24.7	18.4	Vert.

Operating mode: Tx 2402MHz, 2DH5 Z-plane  
[Emission level]

No.	Frequency [MHz]	Reading PK [dBμV]	Reading Ave [dBμV]	C.Factor [dB]	Result PK [dBμV/m]	Result Ave [dBμV/m]	Limit PK [dBμV/m]	Limit Ave [dBμV/m]	Margin PK [dB]	Margin Ave [dB]	Ant.
1	2390.000	43.6	30.2	5.3	48.9	35.5	73.9	53.9	25.0	18.4	Hori.

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Operating mode: Tx 2402MHz 3DH5 X-plane  
[Emission level]

No.	Frequency [MHz]	Reading PK [dBμV]	Reading Ave [dBμV]	C.Factor [dB]	Result PK [dBμV/m]	Result Ave [dBμV/m]	Limit PK [dBμV/m]	Limit Ave [dBμV/m]	Margin PK [dB]	Margin Ave [dB]	Ant.
1	2390.000	43.8	30.0	5.3	49.1	35.3	73.9	53.9	24.8	18.6	Vert.

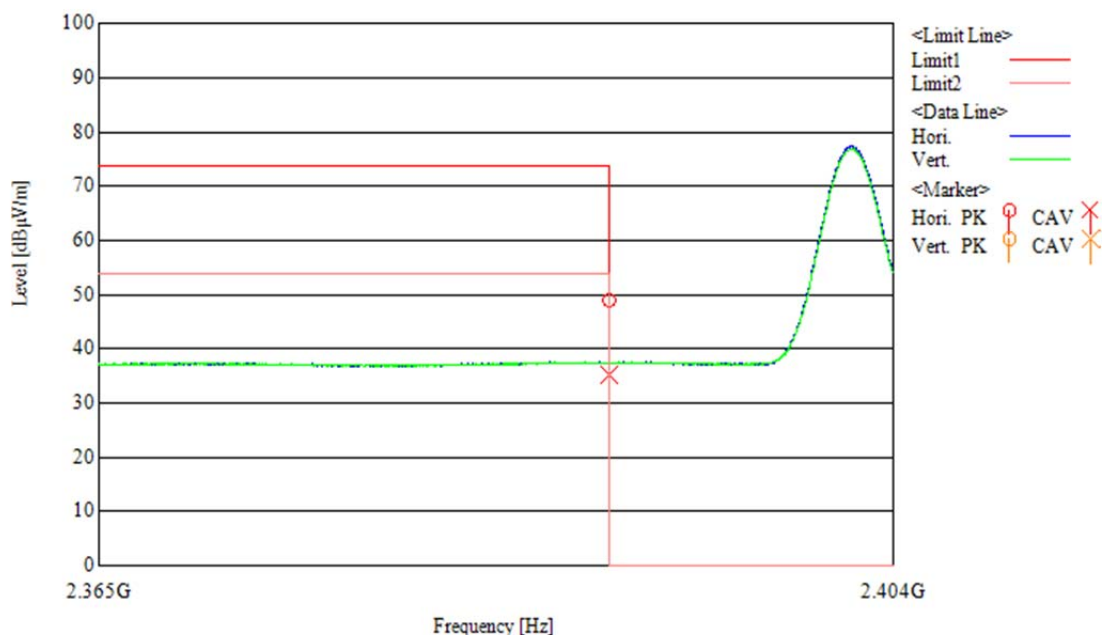
Operating mode: Tx 2402MHz 3DH5 Y-plane  
[Emission level]

No.	Frequency [MHz]	Reading PK [dBμV]	Reading Ave [dBμV]	C.Factor [dB]	Result PK [dBμV/m]	Result Ave [dBμV/m]	Limit PK [dBμV/m]	Limit Ave [dBμV/m]	Margin PK [dB]	Margin Ave [dB]	Ant.
1	2390.000	44.4	30.0	5.3	49.7	35.3	73.9	53.9	24.2	18.6	Vert.

Operating mode: Tx 2402MHz 3DH5 Z-plane  
[Emission level]

No.	Frequency [MHz]	Reading PK [dBμV]	Reading Ave [dBμV]	C.Factor [dB]	Result PK [dBμV/m]	Result Ave [dBμV/m]	Limit PK [dBμV/m]	Limit Ave [dBμV/m]	Margin PK [dB]	Margin Ave [dB]	Ant.
1	2390.000	43.6	29.9	5.3	48.9	35.2	73.9	53.9	25.0	18.7	Hori.

[Chart] Tx 2402MHz 2DH5 Z-plane



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Tested sample: 1-1

Operating mode: Tx 2480MHz DH5 X-plane

[Emission level]

No.	Frequency [MHz]	Reading PK [dBμV]	Reading Ave [dBμV]	C.Factor [dB]	Result PK [dBμV/m]	Result Ave [dBμV/m]	Limit PK [dBμV/m]	Limit Ave [dBμV/m]	Margin PK [dB]	Margin Ave [dB]	Ant.
1	2483.500	43.8	30.2	6.0	49.8	36.2	73.9	53.9	24.1	17.7	Vert.

Operating mode: Tx 2480MHz DH5 Y-plane

[Emission level]

No.	Frequency [MHz]	Reading PK [dBμV]	Reading Ave [dBμV]	C.Factor [dB]	Result PK [dBμV/m]	Result Ave [dBμV/m]	Limit PK [dBμV/m]	Limit Ave [dBμV/m]	Margin PK [dB]	Margin Ave [dB]	Ant.
1	2483.500	43.8	30.1	6.0	49.8	36.1	73.9	53.9	24.1	17.8	Vert.

Operating mode: Tx 2480MHz DH5 Z-plane

[Emission level]

No.	Frequency [MHz]	Reading PK [dBμV]	Reading Ave [dBμV]	C.Factor [dB]	Result PK [dBμV/m]	Result Ave [dBμV/m]	Limit PK [dBμV/m]	Limit Ave [dBμV/m]	Margin PK [dB]	Margin Ave [dB]	Ant.
1	2483.500	43.7	30.2	6.0	49.7	36.2	73.9	53.9	24.2	17.7	Hori.

Operating mode: Tx 2480MHz 2DH5 X-plane

[Emission level]

No.	Frequency [MHz]	Reading PK [dBμV]	Reading Ave [dBμV]	C.Factor [dB]	Result PK [dBμV/m]	Result Ave [dBμV/m]	Limit PK [dBμV/m]	Limit Ave [dBμV/m]	Margin PK [dB]	Margin Ave [dB]	Ant.
1	2483.500	43.6	30.1	6.0	49.6	36.1	73.9	53.9	24.3	17.8	Vert.

Operating mode: Tx 2480MHz 2DH5 Y-plane

[Emission level]

No.	Frequency [MHz]	Reading PK [dBμV]	Reading Ave [dBμV]	C.Factor [dB]	Result PK [dBμV/m]	Result Ave [dBμV/m]	Limit PK [dBμV/m]	Limit Ave [dBμV/m]	Margin PK [dB]	Margin Ave [dB]	Ant.
1	2483.500	43.8	30.1	6.0	49.8	36.1	73.9	53.9	24.1	17.8	Vert.

Operating mode: Tx 2480MHz 2DH5 Z-plane

[Emission level]

No.	Frequency [MHz]	Reading PK [dBμV]	Reading Ave [dBμV]	C.Factor [dB]	Result PK [dBμV/m]	Result Ave [dBμV/m]	Limit PK [dBμV/m]	Limit Ave [dBμV/m]	Margin PK [dB]	Margin Ave [dB]	Ant.
1	2483.500	43.7	30.1	6.0	49.7	36.1	73.9	53.9	24.2	17.8	Hori.

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Operating mode: Tx 2480MHz 3DH5 X-plane  
[Emission level]

No.	Frequency [MHz]	Reading PK [dBμV]	Reading Ave [dBμV]	C.Factor [dB]	Result PK [dBμV/m]	Result Ave [dBμV/m]	Limit PK [dBμV/m]	Limit Ave [dBμV/m]	Margin PK [dB]	Margin Ave [dB]	Ant.
1	2483.500	43.5	29.9	6.0	49.5	35.9	73.9	53.9	24.4	18.0	Vert.

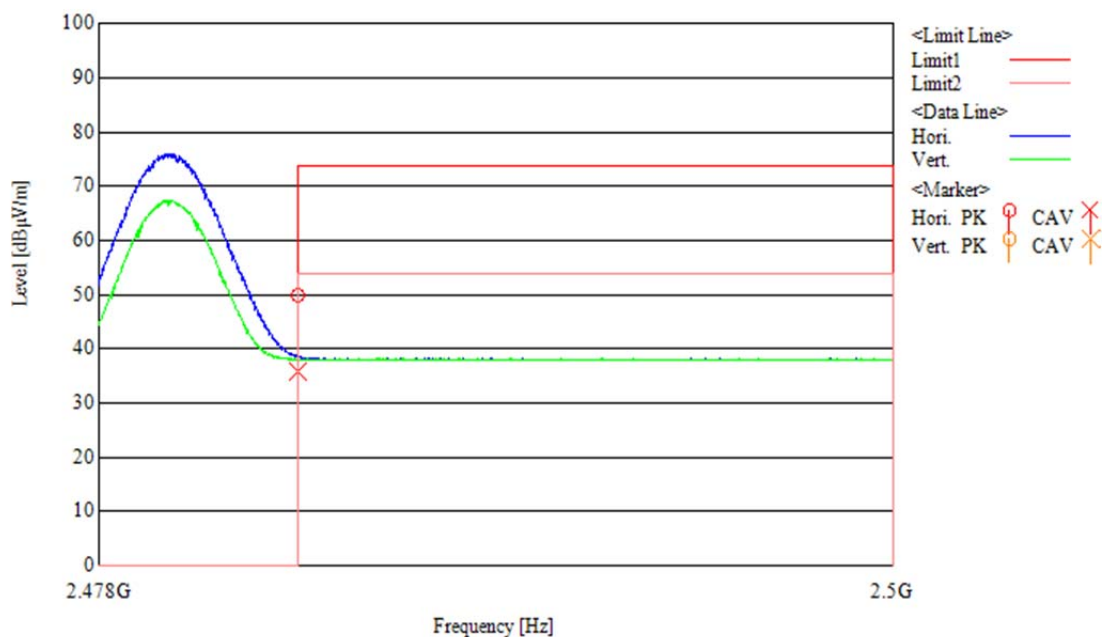
Operating mode: Tx 2480MHz 3DH5 Y-plane  
[Emission level]

No.	Frequency [MHz]	Reading PK [dBμV]	Reading Ave [dBμV]	C.Factor [dB]	Result PK [dBμV/m]	Result Ave [dBμV/m]	Limit PK [dBμV/m]	Limit Ave [dBμV/m]	Margin PK [dB]	Margin Ave [dB]	Ant.
1	2483.500	43.5	29.9	6.0	49.5	35.9	73.9	53.9	24.4	18.0	Vert.

Operating mode: Tx 2480MHz 3DH5 Z-plane  
[Emission level]

No.	Frequency [MHz]	Reading PK [dBμV]	Reading Ave [dBμV]	C.Factor [dB]	Result PK [dBμV/m]	Result Ave [dBμV/m]	Limit PK [dBμV/m]	Limit Ave [dBμV/m]	Margin PK [dB]	Margin Ave [dB]	Ant.
1	2483.500	43.8	29.9	6.0	49.8	35.9	73.9	53.9	24.1	18.0	Hori.

[Chart] Tx 2480MHz DH5 Z-plane



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[Test Day1]

Tested Date:	04 Apr. 2019	Temperature:	17 degC
Humidity:	29 %	Atmos. Press:	1017 hPa

[Test Day2]

Tested Date:	05 Apr. 2019	Temperature:	18 degC
Humidity:	36 %	Atmos. Press:	1009 hPa

[Test Day3]

Tested Date:	08 Apr. 2019	Temperature:	20 degC
Humidity:	43 %	Atmos. Press:	1009 hPa

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## 2.8 AC power line conducted emissions

### Test setup

Test setup was implemented according to the method of ANSI C63.10 clause 6.2 .

### Test procedure

Measurement procedures were implemented according to the method of ANSI C63.10 clause 6.2.

### Applicable rule and limitation

FCC 15.207

RSS-Gen Sec. 8.8

#### AC power line conducted emissions limits

Frequency of Emission [MHz]	Conducted emissions Limit [dBμV]	
	Quasi-peak	Average
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. The lower limit applies at the band edges.

### Test equipment used (refer to List of utilized test equipment)

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### Test software used

EMI Ver. 5.9

### Calculation method

The Correction Factor and Result are calculated as followings.

Correction Factor [dB] = ISN Factor [dB] + Loss [dB]

Result [dBμV] = Reading [dBμV] + Correction Factor [dB]

### Test results - *This item was not tested.*

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## Test Data

Tested sample: -

Operating mode: -

## [Emission level]

	Freq. [MHz]	Reading QP [dBμV]	Reading Ave [dBμV]	Factor [dB]	Result QP [dBμV]	Result Ave [dBμV]	Limit QP [dBμV]	Limit Ave [dBμV]	Margin QP [dB]	Margin Ave [dB]	Line

## [Chart]

Tested Date: -

Humidity: - %

Temperature: - degC

Atmos. Press: - hPa

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## 2.9 Radiated emissions (Receiver)

### Test setup

Test setup was implemented according to the method of ANSI C63.4 clause 6 “General requirements for EUT equipment arrangements and operation”, clause 8.2 and Annex H.3 “Radiated emission measurements setup”.

### Test procedure

Measurement procedures were implemented according to the method of ANSI C63.4 clauses 8.2.

The EUT is placed on a non-conducted table which is 0.8 m height from a ground plane and the measurement antenna to EUT distance is 3 meters. The turn table is rotated for 360 degrees to determine the maximum emission level.

The antenna height scanned between 1 m and 4 m, and the antenna rotated to repeat the measurements for both the horizontal and vertical antenna polarizations.

The spectrum analyzer and receiver are set to the followings;

RBW=100 kHz (up to 1000 MHz) or 1 MHz (above 1000 MHz) ,

VBW= 300 kHz (up to 1000 MHz) or 3 MHz (above 1000 MHz)

Final measurement is carried out with a receiver RBW of 120 kHz (up to 1000 MHz), or 1 MHz (above 1000 MHz).

### Applicable rule and limitation

RSS-Gen Sec.7.3 Radiated emissions limits

Frequency [MHz]	Field Strength [μV/m]	Measurement Distance [m]	Field Strength [dBμV/m]
30 – 88	100	3	40.0
88 – 216	150	3	43.5
216 – 960	200	3	46.0
Above 960	500	3	53.9

In the emission table above, the tighter limit applies at the band edges.

The emission limits shown in the above table are based on measurements employing a QP detector (up to 1000 MHz) or AVE/PEAK detector (above 1000 MHz).

### Test results - Complied with requirement

### Test equipment used (refer to List of utilized test equipment)

AC01	TR06	CL11	PR12	BA07	CL30	CL38	PR12
DH06							

### Test software used

EMI1 Ver. 5.9

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## Calculation method

The Correction Factor and Result are calculated as followings.

$$\text{Correction Factor [dB/m]} = \text{Ant. Factor [dB/m]} + \text{Loss [dB]} - \text{Gain [dB]}$$

$$\text{Result [dB}\mu\text{V/m]} = \text{Reading [dB}\mu\text{V]} + \text{Correction Factor [dB/m]}$$

## Test Data (below 1GHz)

Tested sample: 1-1

Operating mode: Rx 2402MHz X-plane  
[Emission level]

No.	Frequency [MHz]	Reading [dB $\mu$ V]	Factor [dB/m]	Loss [dB]	Gain [dB]	Result [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]	Ant.
1	220.295	24.7	12.0	8.8	30.2	15.3	46.0	30.7	Hori.
2	375.850	36.0	15.7	10.0	30.2	31.5	46.0	14.5	Hori.
3	407.971	30.9	16.4	10.3	30.2	27.4	46.0	18.6	Hori.

Note: All other emissions were under noise floor.

Operating mode: Rx 2402MHz Y-plane  
[Emission level]

No.	Frequency [MHz]	Reading [dB $\mu$ V]	Factor [dB/m]	Loss [dB]	Gain [dB]	Result [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]	Ant.
1	375.850	31.9	15.7	10.0	30.2	27.4	46.0	18.6	Hori.

Note: All other emissions were under noise floor.

Operating mode: Rx 2402MHz Z-plane  
[Emission level]

No.	Frequency [MHz]	Reading [dB $\mu$ V]	Factor [dB/m]	Loss [dB]	Gain [dB]	Result [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]	Ant.
1	527.948	28.0	17.7	11.0	30.1	26.6	46.0	19.4	Vert.
2	539.393	26.0	17.9	11.1	30.1	24.9	46.0	21.1	Vert.
3	555.978	30.6	18.1	11.2	30.1	29.8	46.0	16.2	Vert.

Note: All other emissions were under noise floor.

Operating mode: Rx 2440MHz X-plane  
[Emission level]

No.	Frequency [MHz]	Reading [dB $\mu$ V]	Factor [dB/m]	Loss [dB]	Gain [dB]	Result [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]	Ant.
1	206.425	22.1	11.7	8.7	30.2	12.3	43.5	31.2	Hori.
2	375.850	34.1	15.7	10.0	30.2	29.6	46.0	16.4	Hori.
3	547.928	22.2	18.0	11.2	30.1	21.3	46.0	24.7	Hori.

Note: All other emissions were under noise floor.

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Operating mode: Rx 2440MHz Y-plane  
[Emission level]

No.	Frequency [MHz]	Reading [dBμV]	Factor [dB/m]	Loss [dB]	Gain [dB]	Result [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Ant.
1	375.850	30.5	15.7	10.0	30.2	26.0	46.0	20.0	Hori.
2	391.998	28.5	16.1	10.1	30.2	24.5	46.0	21.5	Hori.

Note: All other emissions were under noise floor.

Operating mode: Rx 2440MHz Z-plane  
[Emission level]

No.	Frequency [MHz]	Reading [dBμV]	Factor [dB/m]	Loss [dB]	Gain [dB]	Result [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Ant.
1	339.981	28.4	14.6	9.7	30.2	22.5	46.0	23.5	Hori.
2	375.850	30.4	15.7	10.0	30.2	25.9	46.0	20.1	Vert.
3	555.997	29.9	18.1	11.2	30.1	29.1	46.0	16.9	Vert.

Note: All other emissions were under noise floor.

Operating mode: Rx 2480MHz X-plane  
[Emission level]

No.	Frequency [MHz]	Reading [dBμV]	Factor [dB/m]	Loss [dB]	Gain [dB]	Result [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Ant.
1	375.850	35.9	15.7	10.0	30.2	31.4	46.0	14.6	Hori.
2	900.682	24.6	20.4	12.6	29.3	28.3	46.0	17.7	Hori.

Note: All other emissions were under noise floor.

Operating mode: Rx 2480MHz Y-plane  
[Emission level]

No.	Frequency [MHz]	Reading [dBμV]	Factor [dB/m]	Loss [dB]	Gain [dB]	Result [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Ant.
1	375.850	32.1	15.7	10.0	30.2	27.6	46.0	18.4	Hori.

Note: All other emissions were under noise floor.

Operating mode: Rx 2480MHz Z-plane  
[Emission level]

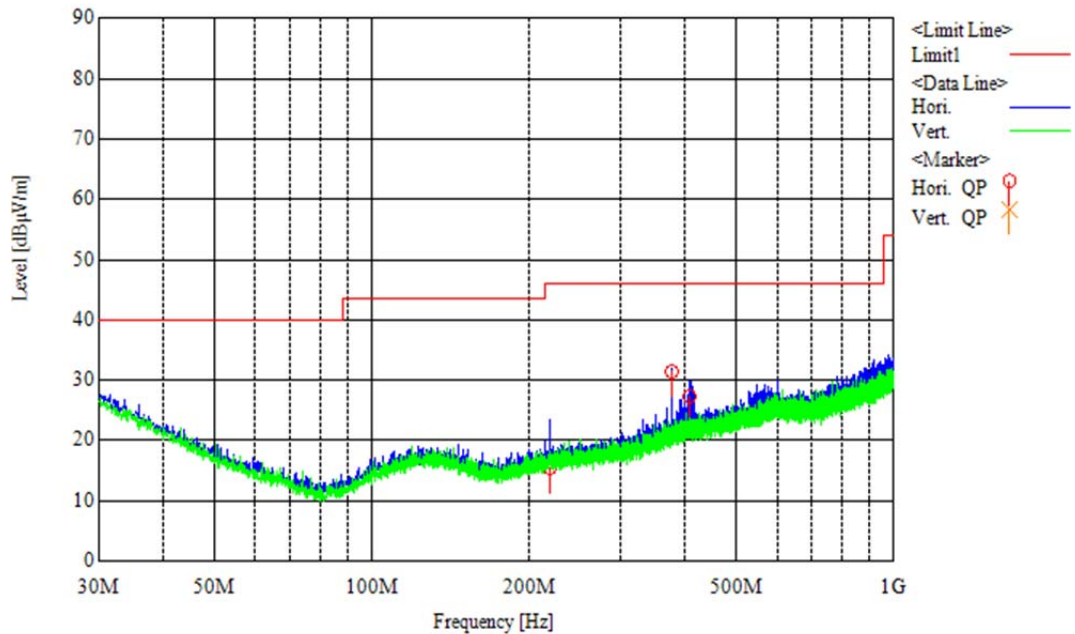
No.	Frequency [MHz]	Reading [dBμV]	Factor [dB/m]	Loss [dB]	Gain [dB]	Result [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Ant.
1	375.850	30.3	15.7	10.0	30.2	25.8	46.0	20.2	Hori.
2	375.850	30.2	15.7	10.0	30.2	25.7	46.0	20.3	Vert.
3	547.998	29.9	18.0	11.2	30.1	29.0	46.0	17.0	Vert.

Note: All other emissions were under noise floor.

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[Chart] Rx 2402MHz X-plane



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## Test Data (Above 1000MHz)

Tested sample: 1-1

Operating mode: Rx 2402MHz X-plane  
[Emission level]

No.	Frequency [MHz]	Reading PK [dBμV]	Reading Ave [dBμV]	C.Factor [dB]	Result PK [dBμV/m]	Result Ave [dBμV/m]	Limit PK [dBμV/m]	Limit Ave [dBμV/m]	Margin PK [dB]	Margin Ave [dB]	Ant.
1	3006.800	48.7	43.8	-2.6	46.1	41.2	73.9	53.9	27.8	12.7	Hori.
2	3678.023	51.7	49.3	-1.0	50.7	48.3	73.9	53.9	23.2	5.6	Hori.
3	3006.800	51.5	48.3	-2.6	48.9	45.7	73.9	53.9	25.0	8.2	Vert.
4	3678.080	52.4	50.3	-1.0	51.4	49.3	73.9	53.9	22.5	4.6	Vert.
5	6013.601	42.6	34.0	4.4	47.0	38.4	73.9	53.9	26.9	15.5	Vert.
6	8353.638	41.4	28.6	8.0	49.4	36.6	73.9	53.9	24.5	17.3	Vert.

Operating mode: Rx 2402MHz Y-plane  
[Emission level]

No.	Frequency [MHz]	Reading PK [dBμV]	Reading Ave [dBμV]	C.Factor [dB]	Result PK [dBμV/m]	Result Ave [dBμV/m]	Limit PK [dBμV/m]	Limit Ave [dBμV/m]	Margin PK [dB]	Margin Ave [dB]	Ant.
1	3006.800	48.2	43.1	-2.6	45.6	40.5	73.9	53.9	28.3	13.4	Hori.
2	3678.023	54.2	52.4	-1.0	53.2	51.4	73.9	53.9	20.7	2.5	Hori.
3	6013.601	42.4	33.3	4.4	46.8	37.7	73.9	53.9	27.1	16.2	Hori.
4	8344.166	41.9	29.3	8.0	49.9	37.3	73.9	53.9	24.0	16.6	Hori.
5	3006.800	52.0	49.2	-2.6	49.4	46.6	73.9	53.9	24.5	7.3	Vert.
6	3678.080	49.7	46.6	-1.0	48.7	45.6	73.9	53.9	25.2	8.3	Vert.
7	6013.601	41.9	31.9	4.4	46.3	36.3	73.9	53.9	27.6	17.6	Vert.

Operating mode: Rx 2402MHz Z-plane  
[Emission level]

No.	Frequency [MHz]	Reading PK [dBμV]	Reading Ave [dBμV]	C.Factor [dB]	Result PK [dBμV/m]	Result Ave [dBμV/m]	Limit PK [dBμV/m]	Limit Ave [dBμV/m]	Margin PK [dB]	Margin Ave [dB]	Ant.
1	3006.801	51.9	49.1	-2.6	49.3	46.5	73.9	53.9	24.6	7.4	Hori.
2	3678.043	52.7	50.7	-1.0	51.7	49.7	73.9	53.9	22.2	4.2	Hori.
3	6013.601	42.7	34.2	4.4	47.1	38.6	73.9	53.9	26.8	15.3	Hori.
4	3006.801	48.9	44.0	-2.6	46.3	41.4	73.9	53.9	27.6	12.5	Vert.
5	3678.075	49.6	46.2	-1.0	48.6	45.2	73.9	53.9	25.3	8.7	Vert.
6	6013.601	41.6	31.3	4.4	46.0	35.7	73.9	53.9	27.9	18.2	Vert.
7	8350.814	41.7	28.5	8.0	49.7	36.5	73.9	53.9	24.2	17.4	Vert.

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Operating mode: Rx 2440MHz X-plane  
[Emission level]

No.	Frequency [MHz]	Reading PK [dBμV]	Reading Ave [dBμV]	C.Factor [dB]	Result PK [dBμV/m]	Result Ave [dBμV/m]	Limit PK [dBμV/m]	Limit Ave [dBμV/m]	Margin PK [dB]	Margin Ave [dB]	Ant.
1	3006.801	47.5	42.5	-2.6	44.9	39.9	73.9	53.9	29.0	14.0	Hori.
2	3678.082	51.2	48.7	-1.0	50.2	47.7	73.9	53.9	23.7	6.2	Hori.
3	6013.601	41.3	30.5	4.4	45.7	34.9	73.9	53.9	28.2	19.0	Hori.
4	3006.801	52.1	49.4	-2.6	49.5	46.8	73.9	53.9	24.4	7.1	Vert.
5	3678.092	53.0	50.9	-1.0	52.0	49.9	73.9	53.9	21.9	4.0	Vert.
6	6013.601	42.2	33.6	4.4	46.6	38.0	73.9	53.9	27.3	15.9	Vert.

Operating mode: Rx 2440MHz Y-plane  
[Emission level]

No.	Frequency [MHz]	Reading PK [dBμV]	Reading Ave [dBμV]	C.Factor [dB]	Result PK [dBμV/m]	Result Ave [dBμV/m]	Limit PK [dBμV/m]	Limit Ave [dBμV/m]	Margin PK [dB]	Margin Ave [dB]	Ant.
1	3006.801	47.7	42.6	-2.6	45.1	40.0	73.9	53.9	28.8	13.9	Hori.
2	3678.082	54.0	52.3	-1.0	53.0	51.3	73.9	53.9	20.9	2.6	Hori.
3	6013.601	42.3	33.1	4.4	46.7	37.5	73.9	53.9	27.2	16.4	Hori.
4	8331.816	41.9	28.8	8.0	49.9	36.8	73.9	53.9	24.0	17.1	Hori.
5	3006.801	51.9	49.0	-2.6	49.3	46.4	73.9	53.9	24.6	7.5	Vert.
6	3678.092	50.0	46.5	-1.0	49.0	45.5	73.9	53.9	24.9	8.4	Vert.
7	6013.601	41.9	32.0	4.4	46.3	36.4	73.9	53.9	27.6	17.5	Vert.

Operating mode: Rx 2440MHz Z-plane  
[Emission level]

No.	Frequency [MHz]	Reading PK [dBμV]	Reading Ave [dBμV]	C.Factor [dB]	Result PK [dBμV/m]	Result Ave [dBμV/m]	Limit PK [dBμV/m]	Limit Ave [dBμV/m]	Margin PK [dB]	Margin Ave [dB]	Ant.
1	3006.801	52.1	49.4	-2.6	49.5	46.8	73.9	53.9	24.4	7.1	Hori.
2	3678.082	53.7	51.9	-1.0	52.7	50.9	73.9	53.9	21.2	3.0	Hori.
3	6013.601	42.2	33.3	4.4	46.6	37.7	73.9	53.9	27.3	16.2	Hori.
4	3006.801	47.8	42.7	-2.6	45.2	40.1	73.9	53.9	28.7	13.8	Vert.
5	3678.092	49.9	46.7	-1.0	48.9	45.7	73.9	53.9	25.0	8.2	Vert.
6	6013.601	42.0	32.0	4.4	46.4	36.4	73.9	53.9	27.5	17.5	Vert.
7	8339.416	41.8	28.9	8.0	49.8	36.9	73.9	53.9	24.1	17.0	Vert.

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Operating mode: Rx 2480MHz X-plane  
[Emission level]

No.	Frequency [MHz]	Reading PK [dBμV]	Reading Ave [dBμV]	C.Factor [dB]	Result PK [dBμV/m]	Result Ave [dBμV/m]	Limit PK [dBμV/m]	Limit Ave [dBμV/m]	Margin PK [dB]	Margin Ave [dB]	Ant.
1	3006.801	47.8	42.8	-2.6	45.2	40.2	73.9	53.9	28.7	13.7	Hori.
2	3678.082	51.5	49.2	-1.0	50.5	48.2	73.9	53.9	23.4	5.7	Hori.
3	6013.601	41.0	29.9	4.4	45.4	34.3	73.9	53.9	28.5	19.6	Hori.
4	3006.801	51.4	48.4	-2.6	48.8	45.8	73.9	53.9	25.1	8.1	Vert.
5	3678.092	52.9	50.7	-1.0	51.9	49.7	73.9	53.9	22.0	4.2	Vert.
6	6013.601	42.6	32.6	4.4	47.0	37.0	73.9	53.9	26.9	16.9	Vert.

Operating mode: Rx 2480MHz Y-plane  
[Emission level]

No.	Frequency [MHz]	Reading PK [dBμV]	Reading Ave [dBμV]	C.Factor [dB]	Result PK [dBμV/m]	Result Ave [dBμV/m]	Limit PK [dBμV/m]	Limit Ave [dBμV/m]	Margin PK [dB]	Margin Ave [dB]	Ant.
1	3006.801	48.0	43.0	-2.6	45.4	40.4	73.9	53.9	28.5	13.5	Hori.
2	3678.082	53.7	52.0	-1.0	52.7	51.0	73.9	53.9	21.2	2.9	Hori.
3	6013.601	42.0	32.6	4.4	46.4	37.0	73.9	53.9	27.5	16.9	Hori.
4	8338.466	42.4	29.3	8.0	50.4	37.3	73.9	53.9	23.5	16.6	Hori.
5	3006.801	50.0	46.3	-2.6	47.4	43.7	73.9	53.9	26.5	10.2	Vert.
6	3678.092	49.3	45.5	-1.0	48.3	44.5	73.9	53.9	25.6	9.4	Vert.
7	6013.601	42.5	31.3	4.4	46.9	35.7	73.9	53.9	27.0	18.2	Vert.

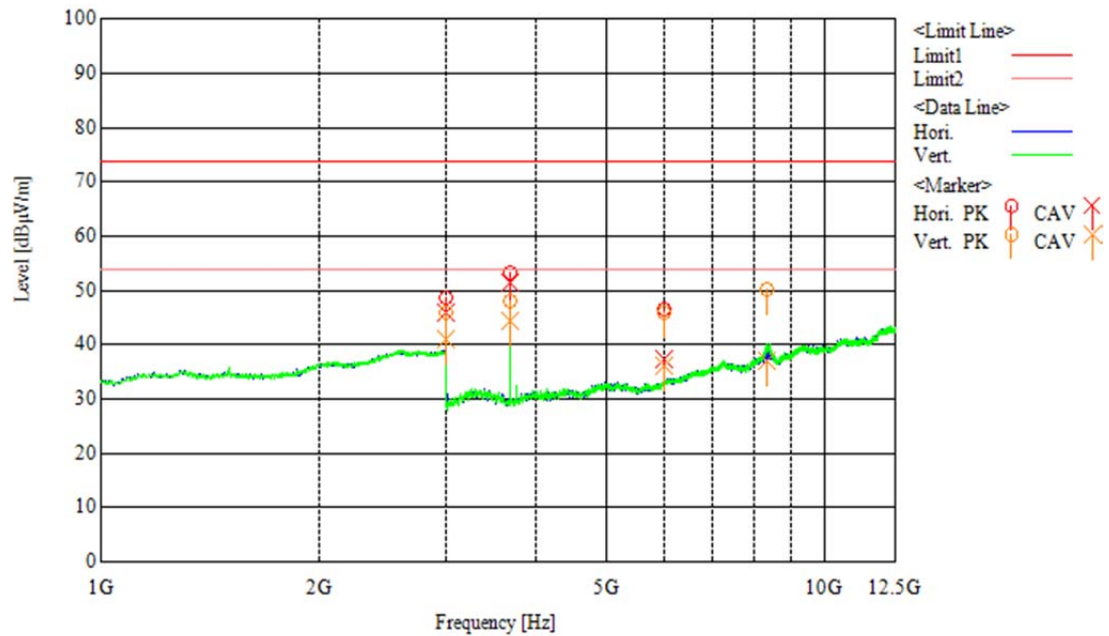
Operating mode: Rx 2480MHz Z-plane  
[Emission level]

No.	Frequency [MHz]	Reading PK [dBμV]	Reading Ave [dBμV]	C.Factor [dB]	Result PK [dBμV/m]	Result Ave [dBμV/m]	Limit PK [dBμV/m]	Limit Ave [dBμV/m]	Margin PK [dB]	Margin Ave [dB]	Ant.
1	3006.801	51.4	48.4	-2.6	48.8	45.8	73.9	53.9	25.1	8.1	Hori.
2	3678.082	54.2	52.4	-1.0	53.2	51.4	73.9	53.9	20.7	2.5	Hori.
3	6013.601	42.1	33.1	4.4	46.5	37.5	73.9	53.9	27.4	16.4	Hori.
4	3006.801	48.4	43.6	-2.6	45.8	41.0	73.9	53.9	28.1	12.9	Vert.
5	3678.092	49.1	45.3	-1.0	48.1	44.3	73.9	53.9	25.8	9.6	Vert.
6	6013.601	41.4	31.7	4.4	45.8	36.1	73.9	53.9	28.1	17.8	Vert.
7	8334.666	42.1	29.0	8.0	50.1	37.0	73.9	53.9	23.8	16.9	Vert.

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[Chart] Rx 2480MHz Z-plane



[Test Day1]

Tested Date: 04 Apr. 2019      Temperature: 17 degC  
Humidity: 29 %      Atmos. Press: 1017 hPa

[Test Day2]

Tested Date: 08 Apr. 2019      Temperature: 20 degC  
Humidity: 43 %      Atmos. Press: 1009 hPa

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## 2.10 AC power line conducted emissions (Receiver)

### Test setup

Test setup was implemented according to the method of ANSI C63.4 clause 6 “General requirements for EUT equipment arrangements and operation” and Annex H.1 “AC power line conducted emission measurements setup”.

### Test procedure

Measurement procedures were implemented according to the method of ANSI C63.4 clauses 7, clause 13.1.3 and Annex H.2 “AC power line conducted emission measurements”.

Exploratory measurements were used the spectrum analyzer to identify the frequency of the emission that has the highest amplitude relative to the limit by operating the EUT in a range of typical modes of operation, cable positions, and with a typical system equipment configuration and arrangement.

Final ac power line conducted emission measurements were performed based on the exploratory tests.

The EUT cable configuration and arrangement and mode of operation that produced the emission with the highest amplitude relative to the limit are selected for the final measurement.

When the measurement value is greater than average limitation the average detection measurements were performed.

### Applicable rule and limitation

RSS-Gen Sec.7.3 AC power line conducted emissions limits

Frequency of Emission [MHz]	Conducted emissions Limit [dBμV]	
	Quasi-peak	Average
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. The lower limit applies at the band edges.

### Test equipment used (refer to List of utilized test equipment)

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### Test software used

EMI Ver. 5.9

### Calculation method

The Correction Factor and Result are calculated as followings.

Correction Factor [dB] = ISN Factor [dB] + Loss [dB]

Result [dBμV] = Reading [dBμV] + Correction Factor [dB]

### Test results - *This item was not tested.*

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## Test Data

Tested sample: -

Operating mode: -

### [Emission level]

	Freq. [MHz]	Reading QP [dBμV]	Reading Ave [dBμV]	Factor [dB]	Result QP [dBμV]	Result Ave [dBμV]	Limit QP [dBμV]	Limit Ave [dBμV]	Margin QP [dB]	Margin Ave [dB]	Line
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-

### [Chart]

Tested Date: -

Humidity: - %

Temperature: - degC

Atmos. Press: - hPa

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## 4 List of utilized test equipment / calibration

ID No.	Kind of Equipment	Manufacturer	Model No.	Serial Number	Cal. Date	Cal. until
AC01(EM)	Anechoic Chamber (1st test room)	JSE	203397C	-	2018/4/14	2019/4/30
AC01(EG)	Anechoic Chamber (1st test room)	JSE	203397C	-	2019/3/30	2020/3/31
BA07	Biological Antenna	TESEQ	CBL6143A	26670	2018/12/7	2019/12/31
CH01	Conical Horn Antenna (12-18GHz)	ETS-Lindgren	3163-05	00126641	2019/3/4	2021/3/31
CL11	RF Cable for RE	RFT	-	-	2019/3/19	2020/3/31
CL30	RF Cable 5 m	SUHNER	SUCOFLEX104PE	MY3599	2019/1/23	2020/1/31
CL31	RF Cable 1 m	Junkosha	MWX221	1303S118	2019/1/23	2020/1/31
CL38	RF Cable 2 m	Junkosha	MWX221	1603S626	2019/1/23	2020/1/31
DH06	DRG Horn Antenna	A.H. Systems	SAS-571	1339	2018/6/19	2020/6/30
HPF4	High Pass Filter (3000MHz)	Tokyo KEIKI	TF23LCCZGA	9001	2018/12/4	2019/12/31
LP06	Loop Antenna	ETS-Lindgren	6502	00164299	2018/4/3	2019/4/30
LPF1	Low Pass Filter (1000MHz)	M-City	LPF1000-04	RF0012-01	2019/3/20	2020/3/31
PR12	Pre. Amplifier (1-26G)	Agilent Technologies	8449B	3008A02513	2019/1/23	2020/1/31
PR21	Pre. Amplifier	Anritsu	MH648A	6200467119	2018/12/4	2019/12/31
SH01	Standard Horn Antenna (18-26G)	A.H. Systems	SAS-572	208	2018/7/12	2020/7/31
TR06	Test Receiver (F/W : 4.73 SP4)	Rohde & Schwarz	ESU26	100002	2018/10/11	2019/10/31
AT33	Attenuator 10dB 26GHz	INMET	26A-10	-	2018/7/13	2019/7/31

The measuring equipment, which was utilized in performing the tests documented herein, has been calibrated in accordance with the manufacturer's recommendations for utilizing calibration equipment, which is traceable to recognized national standards.

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