

ISED CABid: ES1909  
 Lab. Company Number: 4621A

Test Report No:  
 86261RRF.001

## Partial Test Report

USA FCC 15.31(h), 15.209, 15.247, 15.407  
 CANADA RSS-247, RSS-Gen

|                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| (*) Identification of item tested            | Bittium Tough Comnode™                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| (*) Trademark                                | Bittium Tough Comnode™                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| (*) Model and /or type reference             | Bittium Tough Comnode™, Product code 9404092<br>Type Designate TV0201                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| (*) Derived model not tested                 | Bittium Tough Field Phone™ 2, Product code 9404768,<br>Type Designate TV0201                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Other identification of the product          | FCC ID: V27-TV0201<br>IC: 3282B-TV0201                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| (*) Features                                 | BT for headset (Hands-Free Profile), WLAN 802.11 bgn<br>(2.4GHz)<br>HW version: 9304516A19<br>SW version: C2GB_2023w34_d2308                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Applicant                                    | Bittium Wireless Oy<br>Ritaharjuntie 1, 90590, Oulu, Finland                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Test method requested, standard              | USA FCC Part 15.31(h) (10-1-24 Edition): Measurement<br>standard.<br>USA FCC Part 15.209 (10-1-24 Edition): Radiated<br>emission limits; general requirements.<br>USA FCC Part 15.247 (10-1-24 Edition): Operation<br>within the bands 902 - 928 MHz, 2400 -2483.5 MHz, and<br>5725 - 5850 MHz.<br>CANADA RSS-247 Issue 4, Jul. 2025.<br>CANADA RSS-Gen Issue 5, Amendment 2, Feb. 2021.<br>- Emission limitations radiated with simultaneous<br>transmissions.<br>Guidance for Performing Compliance Measurements on<br>Digital Transmission System, Frequency Hopping<br>Spread Spectrum: System, and Hybrid Systems Devices<br>Operating Under Section 15.247 of the FCC Rules.<br>558074 D01 Meas Guidance v05r02 dated April 2, 2019.<br>ANSI C63.10-2020 + Cor.1-2023 + C63.10a-2024 +<br>Errata to C63.10a-2024: American National Standard for<br>Testing Unlicensed Wireless Devices. |
| Approved by (name / position &<br>signature) | José Manuel Gómez Galván<br>EMC Consumer & RF<br>Lab. Manager                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Date of issue                                | 2026-03-25                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Report template No.                          | FDT08_27                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|                                              | (*) "Data provided by the client"                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

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## Competences and guarantees

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

DEKRA Testing and Certification is an FCC-recognized accredited testing laboratory with appropriate scope of accreditation that covers the performed tests in this report.

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

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

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

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

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

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## General conditions

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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 Testing and Certification S.A.U.
4. This test report cannot be used partially or in full for publicity and/or promotional purposes without previous written permission of DEKRA Testing and Certification S.A.U. and the Accreditation Bodies.

## Uncertainty

---

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

The total uncertainty of the measurement system for the radiated emissions of the EUT from 30 MHz to 1 GHz is: Measurement uncertainty  $\leq \pm 5.35$  dB (with factor  $k=2$ ).

The total uncertainty of the measurement system for the radiated emissions of the EUT from 1 to 17 GHz is: Measurement uncertainty  $\leq \pm 4.32$  dB (with factor  $k=2$ ).

The total uncertainty of the measurement system for the radiated emissions of the EUT from 17 to 26 GHz is: Measurement uncertainty  $\leq \pm 5.51$  dB (with factor  $k=2$ ).

## Data provided by the client

---

The following data has been provided by the client:

1. Information relating to the description of the sample ("Identification of the item tested", "Trademark", "Model and/or type reference tested").
2. The sample consists of Bittium Tough Comnode™ is a versatile and rugged terminal and IP communication device for tactical networks. The device fulfils the data transfer needs for mobile troops by functioning for example as a VoIP phone (Voice over IP), an IP router (Internet Protocol), and an SHDSL repeater (Symmetrical High-speed Digital Subscriber Line).

Bittium Tough VoIP Field Phone™ 2 is a robust VoIP phone that has been designed for tactical networks with PTT functionality. It provides IP telecommunication either with Bittium Tough VoIP Service™ or 3rd party SIP servers.

### 3. Declaration of equivalence between models:

**Bittium**

Confidential

#### STATEMENT OF MODEL DIFFERENCES

|                               |                                                                                                              |
|-------------------------------|--------------------------------------------------------------------------------------------------------------|
| Model and /or type reference: | Bittium Tough Comnode™<br>Product code 9404092<br>Type Designate TV0201<br>HW version: 9304516A19            |
| Derived Model:                | Bittium Tough VoIP Field Phone™ 2<br>Product code 9404768<br>Type Designate TV0201<br>HW version: 9304516A19 |

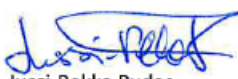
The type designate identifies different product codes (variants) which can be seen as the same product from type approval point of view. The same type designate is used for two or several products when there are no significant functional or performance differences between these variants.

From hardware point of view the models Bittium Tough VoIP Field Phone™ 2 and Bittium Tough Comnode™ are the same. Difference between models are software features.

Bittium Tough Comnode™ is a versatile and rugged terminal and IP communication device for tactical networks. The device fulfils the data transfer needs for mobile troops by functioning for example as a VoIP phone (Voice over IP), an IP router (Internet Protocol), and an SHDSL repeater (Symmetrical Highspeed Digital Subscriber Line).

Bittium Tough VoIP Field Phone™ 2 is a robust VoIP phone that has been designed for tactical networks with PTT functionality. It provides IP telecommunication either with Bittium Tough VoIP Service™ or 3rd party SIP servers.

Tampere 10.11.2023

  
Jussi-Pekka Pudas  
Product Manager

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

## Usage of samples

Samples undergoing test have been selected by: The client.

| Id   | Control Number | Description            | Model                                                               | Serial N°           | Date of Reception | Application        |
|------|----------------|------------------------|---------------------------------------------------------------------|---------------------|-------------------|--------------------|
| S/01 | 75900B_2.1     | Bittium Tough Comnode™ | Bittium Tough Comnode™, Product code 9404092, Type Designate TV0201 | 9304516A19-23340024 | 2023-10-23        | Element Under Test |
|      | 75900B_1.1     | Telephone handset      | --                                                                  | --                  | 2023-10-23        | Auxiliary Element  |
|      | 75900B_7.1     | Shell                  | --                                                                  | --                  | 2023-10-23        | Auxiliary Element  |

Notes referenced to samples during the project:

| Id   | Type                      |
|------|---------------------------|
| S/01 | Samples used for testing. |

## Test sample description

|                                               |                                                                                                            |                                 |                             |           |                       |           |
|-----------------------------------------------|------------------------------------------------------------------------------------------------------------|---------------------------------|-----------------------------|-----------|-----------------------|-----------|
| Ports..... :                                  | <b>Port name and description</b>                                                                           | <b>Cable</b>                    |                             |           |                       |           |
|                                               |                                                                                                            | <b>Specified max length [m]</b> | <b>Attached during test</b> |           | <b>Shielded</b>       |           |
|                                               | Two ITU-T G991.2 (G.SHDSL) interfaces, push-and-release connector                                          | NA                              | [X]                         |           | [ ]                   |           |
|                                               | Two 10BASE-T/100BASE-TX interfaces with PoE 802.3af input                                                  | NA                              | [X]                         |           | [ ]                   |           |
|                                               | Power supply port 12-32VDC (tested with 28V)                                                               | 5m                              | [X]                         |           | [ ]                   |           |
|                                               | Audio/serial interface for connecting handset/headset/CNR, incl. two serial ports and push-to-talk signals | 0.8m                            | [X]                         |           | [X]                   |           |
| USBv2.0 host port / USB power input           | 5m                                                                                                         | [ ]                             |                             | [ ]       |                       |           |
| Supplementary information to the ports..... : | -                                                                                                          |                                 |                             |           |                       |           |
| Rated power supply .....                      | <b>Voltage and Frequency</b>                                                                               |                                 | <b>Reference poles</b>      |           |                       |           |
|                                               |                                                                                                            | <b>L1</b>                       | <b>L2</b>                   | <b>L3</b> | <b>N</b>              | <b>PE</b> |
|                                               | [ ] AC:                                                                                                    |                                 |                             |           |                       |           |
|                                               | [X] DC: 12 - 32 VDC                                                                                        |                                 |                             |           |                       |           |
| Rated Power..... :                            | Power consumption 7W                                                                                       |                                 |                             |           |                       |           |
| Clock frequencies..... :                      | 20.48 MHz, 25 MHz, 100MHz , 32.768kHz, 26 MHz                                                              |                                 |                             |           |                       |           |
| Other parameters .....                        | -                                                                                                          |                                 |                             |           |                       |           |
| Software version..... :                       | C2GB_2023w34_d2308                                                                                         |                                 |                             |           |                       |           |
| Hardware version .....                        | 9304516A19                                                                                                 |                                 |                             |           |                       |           |
| Dimensions in cm (W x H x D) ... :            | 180 x 90 x 30 mm (without handset and handset holder)                                                      |                                 |                             |           |                       |           |
| Mounting position .....                       | [ ]                                                                                                        | Table top equipment             |                             |           |                       |           |
|                                               | [ ]                                                                                                        | Wall/Ceiling mounted equipment  |                             |           |                       |           |
|                                               | [ ]                                                                                                        | Floor standing equipment        |                             |           |                       |           |
|                                               | [X]                                                                                                        | Hand-held equipment             |                             |           |                       |           |
|                                               | [X]                                                                                                        | Other: Mount kit                |                             |           |                       |           |
| Modules/parts..... :                          | <b>Module/parts of test item</b>                                                                           |                                 | <b>Type</b>                 |           | <b>Manufacturer</b>   |           |
|                                               | Bittium Tough Comnode™                                                                                     |                                 | 9404092/TV 0201             |           | Bittium               |           |
|                                               | Bittium Tough VoIP Field Phone™ 2                                                                          |                                 | 9404768/TV 0201             |           | Bittium               |           |
| Accessories (not part of the test item) ..... | <b>Description</b>                                                                                         |                                 | <b>Type</b>                 |           | <b>Manufacturer</b>   |           |
|                                               | Handset 9304639A01                                                                                         |                                 | H-350/U                     |           | CJ Component Products |           |
|                                               | Cable DC Powering 5.0m, 5500959A02                                                                         |                                 | Cable                       |           | Bittium               |           |

|                                              |                                      |                  |                   |
|----------------------------------------------|--------------------------------------|------------------|-------------------|
|                                              | Cable Ethernet 0.4m Dual, 5500961A05 | Cable            | Bittium           |
|                                              | Cable DC Powering 2.0m, 5500959A02   | Cable            | Bittium           |
| Documents as provided by the applicant ..... | <b>Description</b>                   | <b>File name</b> | <b>Issue date</b> |
|                                              | -                                    | -                | -                 |

## Identification of the client

Bittium Wireless Oy  
Ritaharjuntie 1, 90590, Oulu, Finland

## Testing period and place

|                      |                                                                                                                                            |
|----------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Test Location</b> | DEKRA TESTING AND CERTIFICATION S.A.U.<br>C/ Severo Ochoa, 6 - Parque Tecnológico de Andalucía; 29590 Campanillas (Málaga)<br>(Location B) |
| <b>Date (start)</b>  | 2026-03-13                                                                                                                                 |
| <b>Date (finish)</b> | 2026-03-13                                                                                                                                 |

## Document history

| Report number | Date       | Description    |
|---------------|------------|----------------|
| 86261RRF.001  | 2026-03-25 | First release. |

## Environmental conditions

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

|                          |                              |
|--------------------------|------------------------------|
| <b>Temperature</b>       | Min. = 15 °C<br>Max. = 35 °C |
| <b>Relative humidity</b> | Min. = 20 %<br>Max. = 75 %   |

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

|                          |                              |
|--------------------------|------------------------------|
| <b>Temperature</b>       | Min. = 15 °C<br>Max. = 35 °C |
| <b>Relative humidity</b> | Min. = 20 %<br>Max. = 75 %   |

## Remarks and comments

The tests have been performed by the technical personnel: Antonio Maireles.

Used instrumentation:

| Control No. | Equipment                              | Model          | Manufacturer                | Next Calibration |
|-------------|----------------------------------------|----------------|-----------------------------|------------------|
| 04825       | SEMIANECHOIC ABSORBER LINED CHAMBER II | FACT 3 200 STP | ETS LINDGREN                | N/A              |
| 04826       | SHIELDED ROOM                          | S101           | ETS LINDGREN                | N/A              |
| 07547       | TEMPERATURE AND HUMIDITY PROBE         | HWg-STE        | HW GROUP                    | 2026-04-22       |
| 07548       | TEMPERATURE AND HUMIDITY PROBE         | HWg-STE        | HW GROUP                    | 2026-04-22       |
| 07817       | EMI TEST RECEIVER 2 Hz - 44 GHz        | ESW44          | ROHDE AND SCHWARZ           | 2026-07-01       |
| 06142       | PRE-AMPLIFIER, $G > 38$ dB, 30MHz-6GHz | BLNA 0360-01N  | BONN ELEKTRONIK             | 2026-07-30       |
| 06143       | HYBRID BILOG ANTENNA 30 MHz - 6 GHz    | 3142E          | ETS LINDGREN                | 2027-01-22       |
| 06021       | ATTENUATOR 3 dB, 2 W, DC - 6 GHz       | 50HN-03        | JFW                         | 2026-02-07       |
| 03783       | PRE-AMPLIFIER $G > 30$ dB, 1-18 GHz    | BLMA 0118-3A   | BONN ELEKTRONIK             | 2026-03-15       |
| 06496       | HORN ANTENNA 1-18 GHz                  | BBHA 9120 D    | SCHWARZBECK MESS-ELEKTRONIK | 2026-12-01       |
| 08856       | PRE-AMPLIFIER $G > 30$ dB, 17-40 GHz   | BLMA 1840-4A   | BONN ELEKTRONIK             | 2026-02-27       |
| 04657       | HORN ANTENNA 18-40 GHz                 | BBHA 9170      | SCHWARZBECK MESS-ELEKTRONIK | 2026-06-12       |
| 04848       | SOFTWARE FOR EMC/RF TESTING            | EMC32          | ROHDE AND SCHWARZ           | N/A              |

## Sample Calculation

For radiated measurements:

Values measures by the test receiver / analyzer are converted to field strength, in dBuV/m, at the regulatory distance using the following calculation:

$$\text{Unwanted Lvl (dBuV/m)} = \text{Raw Rec (dBuV)} + \text{Preamp (dB)} + \text{Trd Corre. (dB/m)} + \text{SigPath (dB)}$$

Where,

Raw Rec (dBuV): Measured voltage in the receiver / spectrum analyzer in dBuV

Preamp (dB): Path losses due to preamplifier

Trd Corr. (dB/m): Antenna factor in dB/m

SigPath (dB) = Cable loss (dB) – External Gain amplifier (dB) – Distance factor (dB)

Cable loss (dB): Cable loss

External Gain amplifier (dB): Gain from external amplifier (when used)

Distance factor (dB): Distance factor in dB. When measurement distance is different to limit distance

The field strength, calculated by this way is compared with the regulatory limit.

## Testing verdicts

|                 |     |
|-----------------|-----|
| Not applicable: | N/A |
| Pass:           | P   |
| Fail:           | F   |
| Not measured:   | N/M |

## Summary

| FCC 15 / CANADA RSS-247, RSS-Gen PARAGRAPH                                                                                         |         |        |
|------------------------------------------------------------------------------------------------------------------------------------|---------|--------|
| Requirement – Test case                                                                                                            | Verdict | Remark |
| FCC 15.31 (h), 15.209 (a), 15.247 (d), 15.407 (b) /<br>RSS-247 6.6, RSS-Gen 8.9                                                    | P       | (1)    |
| <u>Supplementary information and remarks:</u><br>(1) Only simultaneous transmission radiated spurious emission test was requested. |         |        |

## Appendix A: Test results

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FCC 15.209 (a), 15.247 (d) / RSS-Gen 8.9, RSS-247 6.6 Emission limitations radiated (Transmitter).18

TEST CONDITIONS

(\*): Data provided by the Applicant.

POWER SUPPLY (\*):

Vnominal: 28 Vdc  
Type of Power Supply: External DC (PoE).

ANTENNA (\*):

Type of Antenna Bluetooth EDR: Internal (Monopole).  
Maximum Declared Antenna Gain Bluetooth EDR: -0.5 dBi  
Type of Antenna WLAN 2.4 GHz: Internal (Monopole).  
Maximum Declared Antenna Gain WLAN 2.4 GHz: -0.5 dBi

TEST FREQUENCIES:

| Frequency range | Technologies  | Modulations                             | Worst case                              |
|-----------------|---------------|-----------------------------------------|-----------------------------------------|
| 2.4 GHz         | Bluetooth EDR | Bluetooth EDR (GFSK, Pi/4-DQPSK, 8DPSK) | Bluetooth EDR (High Channel, GFSK)      |
|                 | WLAN 2.4 GHz  | WLAN 2.4 GHz (802.11 bgn20)             | WLAN 2.4 GHz (Middle Channel, 802.11 g) |

The EUT was tested in the following operating mode:

- Continuous transmission with a modulated carrier at maximum power in all required channels selecting the supported data rates/modulations types.

During transmitter test the EUT was being controlled by the SW tool to operate in a continuous transmit mode on the test channel as required and in each of the different modulation modes.

## TEST FREQUENCIES FOR SIMULTANEOUS TRANSMISSION MODE RADIATED TESTS:

The EUT was configured to simultaneously transmit the following signals at maximum output power:

- **Operation Mode 1:**

**Simultaneous transmission mode Bluetooth EDR, WLAN 2.4 GHz, WLAN 5 GHz U-NII-3:**

|                |                                             |
|----------------|---------------------------------------------|
| Bluetooth EDR: | High Channel (2480 MHz). GFSK (1-DH5).      |
| WLAN 2.4 GHz:  | Middle Channel (2437 MHz). 802.11 g (OFDM). |

### **Method:**

The measurement was performed with the EUT inside a semi-anechoic chamber.

The spectrum was scanned from 30 MHz to at least the 10th harmonic of the highest frequency of the co-located radios up to 40 GHz.

The EUT was placed on a non-conductive stand at a 3-meter distance from the measuring antenna for measurements up to 17 GHz and at 1.5-meter distance for measurements above 17 GHz.

Detected emissions were maximized at each frequency by rotating the EUT and adjusting the measuring antenna height and polarization. The maximum meter reading was recorded. Measurements were made in both horizontal and vertical planes of polarization.

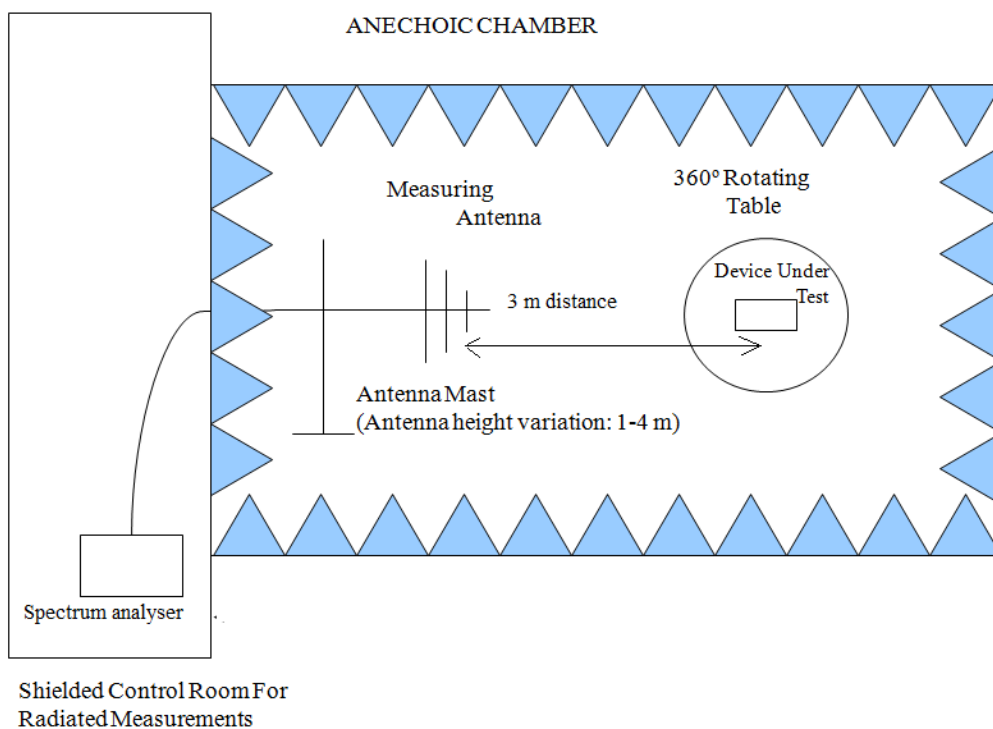
The field strength is calculated by adding correction factor to the measured level from the spectrum analyzer. This correction factor includes antenna factor, cable loss and pre-amplifiers gain.

For radiated measurements above 17 GHz performed at a distance closer than the distance specified in standard, an inverse proportionality factor of 20 dB per decade is used to normalize the measured data for determining compliance.

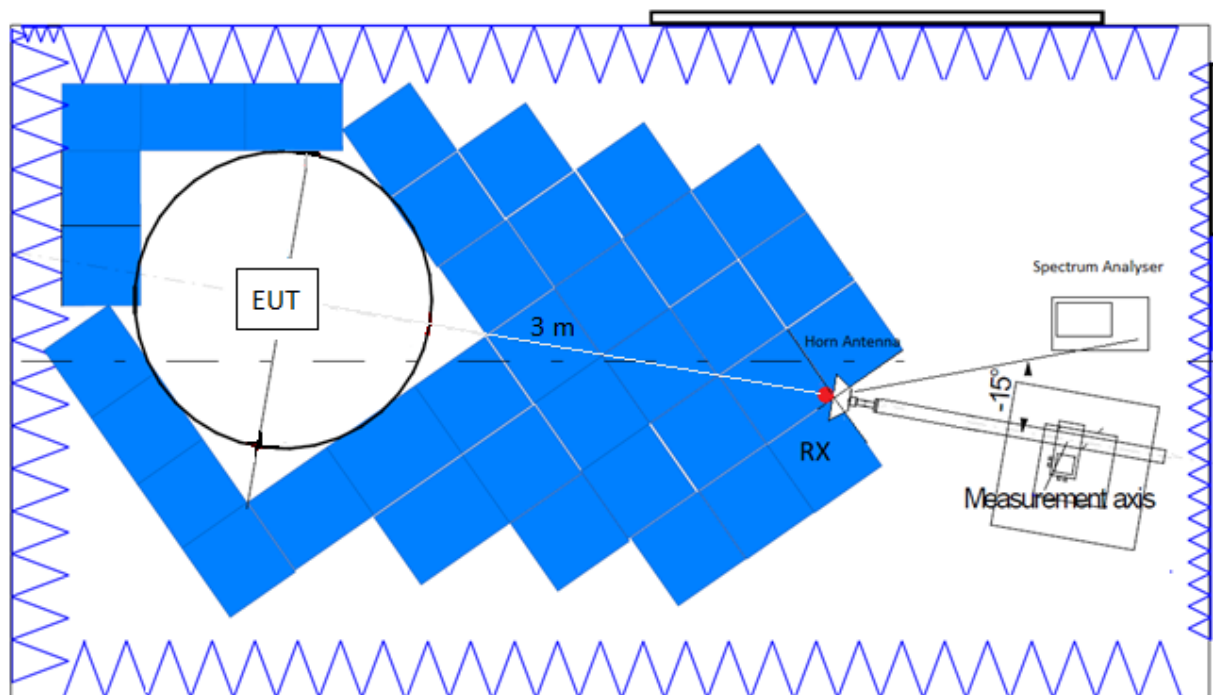
These measurements have been performed in order to check the impact of the Co-Location of all radio interfaces (that can transmit simultaneously).

### Test setup:

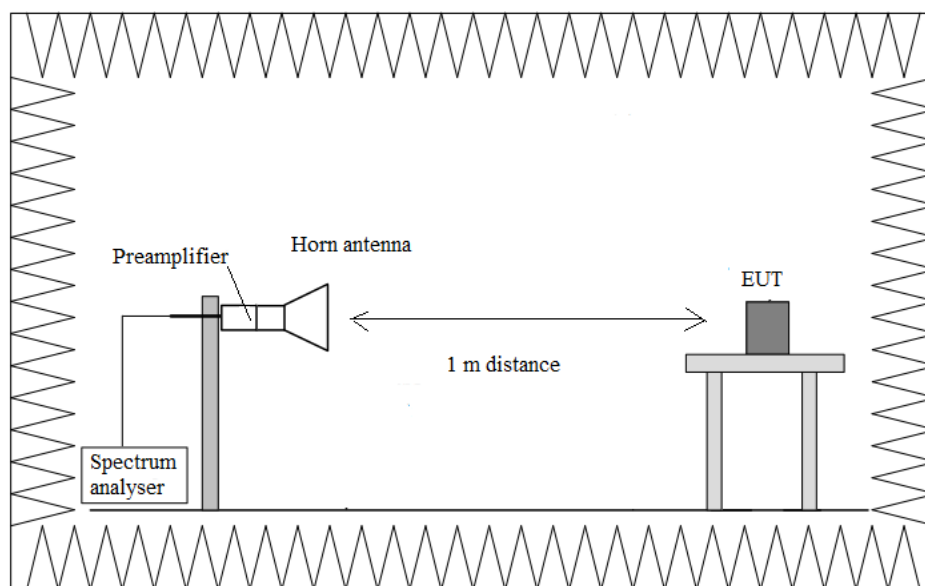
Radiated measurements below 1 GHz.



Radiated measurements between 1 GHz and 17 GHz.



## Radiated measurements above 17 GHz up to 26 GHz:



## FCC 15.209 (a), 15.247 (d) / RSS-Gen 8.9, RSS-247 6.6 Emission limitations radiated (Transmitter)

### Limits:

#### Bluetooth EDR, WLAN 2.4 GHz:

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 ( $\mu\text{V/m}$ ) | Field strength ( $\text{dB}\mu\text{V/m}$ ) | Measurement distance (m) |
|-----------------------|------------------------------------|---------------------------------------------|--------------------------|
| 0.009-0.490           | 2400/F(kHz)                        | -                                           | 300                      |
| 0.490-1.705           | 24000/F(kHz)                       | -                                           | 30                       |
| 1.705 - 30.0          | 30                                 | -                                           | 30                       |
| 30 - 88               | 100                                | 40                                          | 3                        |
| 88 - 216              | 150                                | 43.5                                        | 3                        |
| 216 - 960             | 200                                | 46                                          | 3                        |
| 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 specified when measuring with peak detector function corresponding to 20 dB above the indicated values in the table above.

For transmitters operating in the 5.725-5.85 GHz band: All emissions shall be limited to a level of -27 dBm/MHz (68.23 dB $\mu\text{V/m}$  at 3 m distance) at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

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

#### Frequency range tested for Radiated emissions:

Start frequency: no radiofrequency signal generated in the device found below 10th sub-harmonic, no further investigation required.

Stop frequency: it has been performed the radiated spurious emissions until 10th harmonic.

**Results**

- **Operation Mode 1**

**Frequency range 30 MHz - 1 GHz:**

The spurious emissions below 1 GHz do not depend on either the operating channel or the modulation mode.

No spurious frequencies detected closest to the limit.

**Frequency range 1 - 26 GHz:**

No spurious frequencies detected closest to the limit.

**Verdict**

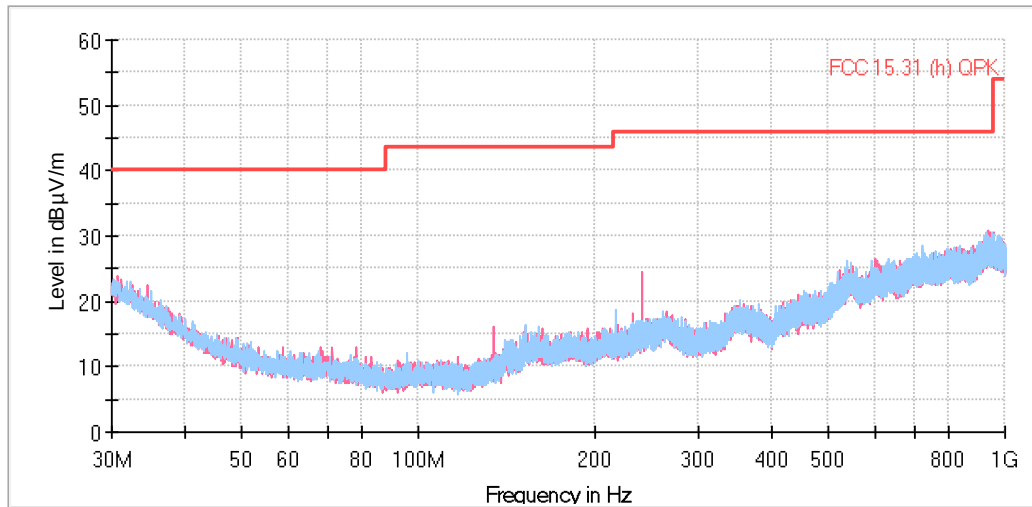
Pass

**Attachments**

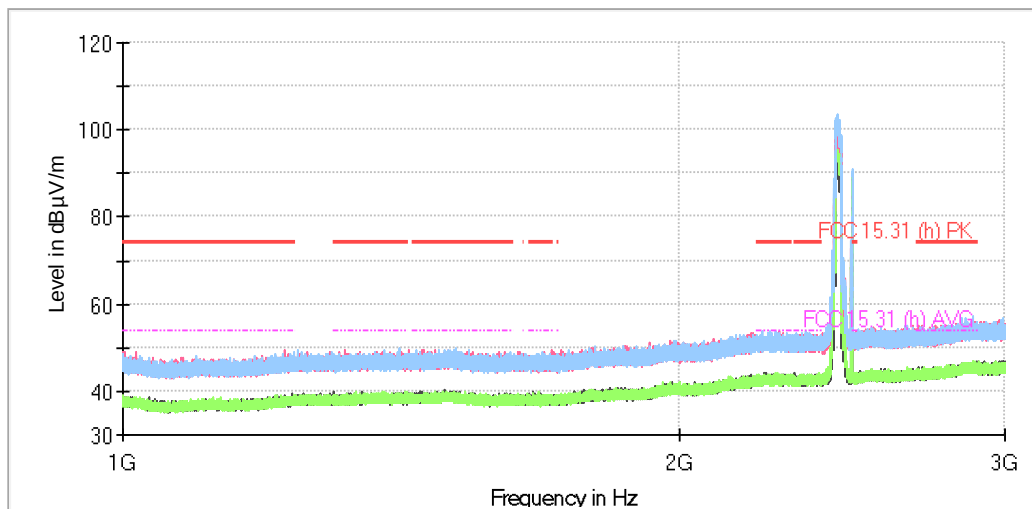
The setting for each range of frequency is indicated in the following tables:

| Subrange        | Step Size  | Detectors | Bandwidth | Sweep Time | Preamp |
|-----------------|------------|-----------|-----------|------------|--------|
| 30 MHz - 1 GHz  | 30.312 kHz | PK+       | 100 kHz   | 1 s        | 0 dB   |
| 1 GHz - 3 GHz   | 30,769 kHz | PK+ ; AVG | 1 MHz     | 1 s        | 0 dB   |
| 3 GHz - 17 GHz  | 140 kHz    | PK+ ; AVG | 1 MHz     | 1 s        | 30 dB  |
| 17 GHz - 40 GHz | 300 kHz    | PK+ ; AVG | 1 MHz     | 1 s        | 0 dB   |

### FREQUENCY RANGE 30 MHz - 1 GHz (worst-case):



### FREQUENCY RANGE 1 - 26 GHz (worst-case):



The peaks above the highest limit are the Bluetooth EDR and WLAN 2.4 GHz carrier frequencies.

