

Certification Radio test report

According to the standard:
CFR 47 FCC PART 15

Equipment under test:
NEXT MOTION REVOLUTION

FCC ID: 2AUI7-NMREV1

Company:
NEXT MOTION SAS

Distribution: Mr ELARD

(Company: NEXT MOTION SAS)

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DESIGNATION OF PRODUCT: NEXT MOTION REVOLUTION

Serial number (S/N): BD Address: E1:5C:C9:11:64:00

Reference / model (P/N): NEXT MOTION REVOLUTION

Software version: V4.0 R190122.01

Hardware version: V3.0 R170712

MANUFACTURER: NEXT MOTION SAS

COMPANY SUBMITTING THE PRODUCT:

Company: NEXT MOTION SAS

Address: 56 AVENUE SAINTE-MARIE
94160 ST MANDE
FRANCE

Responsible: Mr ELARD

DATES OF TEST: From 18-Jul-19 to 22-Jul-19

TESTING LOCATION: EMITECH ANGERS laboratory at JUIGNE SUR LOIRE (49) FRANCE
FCC Accredited under US-EU MRA Designation Number: FR0009
Test Firm Registration Number: 873677

TESTED BY: T. LEDRESSEUR

VISA:

A handwritten signature in black ink, appearing to be "T. LEDRESSEUR", written over a horizontal line.

WRITTEN BY: T. LEDRESSEUR

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1. INTRODUCTION

This report presents the results of radio test carried out on the following radio equipment: **NEXT MOTION REVOLUTION**, in accordance with normative reference.

The product integrates a BLE function and this test report concern only the measure for certification of this function.

2. PRODUCT DESCRIPTION

| | |
|----------------------------|------------------------------------------------------------|
| Class: | B |
| Utilization: | Residential use |
| Antenna type and gain: | 0 dBi / PCB antenna |
| Operating frequency range: | From 2402 MHz to 2480 MHz |
| Number of channels: | 37 + 3 advertising |
| Channel spacing: | 2 MHz |
| Modulation: | GFSK |
| Power source: | 3.7 Vdc internal battery rechargeable by a power bank only |

Power level, frequency range and channels characteristics are not user adjustable.
The details pictures of the product and the circuit boards are joined with this file.

3. **NORMATIVE REFERENCE**

The standards and testing methods related throughout this report are those listed below.

They are applied on the whole test report even though the extensions (version, date and amendment) are not repeated.

CFR 47 FCC Part 15 (2019) Radio Frequency Devices

ANSI C63.10 2013
Procedures for Compliance Testing of Unlicensed Wireless Devices.

558074 D01 DTS v05 r02 Guidance for compliance measurements on digital transmission system, frequency hopping spread spectrum system, and hybrid system devices operating under section 15.247 of the FCC rules.

447498 D01 General RF RF Exposure procedures and equipment authorization policies for mobile and
Exposure Guidance v06 portable equipment

4. **TEST METHODOLOGY**

Radio performance tests procedures given in CFR 47 part 15:

Subpart C – Intentional Radiators

Paragraph 203: Antenna requirement

Paragraph 205: Restricted bands of operation

Paragraph 207: Conducted limits

Paragraph 209: Radiated emission limits; general requirements

Paragraph 212: Modular transmitter

Paragraph 215: Additional provisions to the general radiated emission limitations

Paragraph 247: Operation within the bands 902-928 MHz, 2400-2483.5 MHz and 5725-5850 MHz

5. TEST EQUIPMENT CALIBRATION DATES

| Emitech Number | Model | Type | Last calibration | Calibration interval (years) | Next calibration due (1) |
|----------------|--------------------------------|-------------------------------------------|------------------|------------------------------|--------------------------|
| 0 | BAT-EMC V3.17.0.25 | Software | / | / | / |
| 1406 | EMCO 6502 | Loop antenna | 17/04/2019 | 1 | 16/04/2020 |
| 7190 | R&S HL223 | Antenna | 08/03/2019 | 3 | 07/03/2022 |
| 7240 | Emco 3110 | Biconical antenna | 08/03/2019 | 3 | 07/03/2022 |
| 7299 | Microtronics BRM50702 | Reject band filter | 13/11/2017 | 2 | 13/11/2019 |
| 8704 | LUCIX Corp S180265L3201 LNA | Low-noise amplifier | 09/08/2018 | 1 | 09/08/2019 |
| 8750 | La Crosse Technology WS-9232 | Meteo station | 24/09/2018 | 2 | 23/09/2020 |
| 8786 | ETS Lindgren 3160-09 | Antenna | 24/05/2019 | 3 | 24/05/2022 |
| 8896 | ACQUISYS GPS8 | Satellite synchronized frequency standard | / | / | / |
| 8974 | STORM MICROWAE k-20cm | cable | 19/11/2017 | 2 | 19/11/2019 |
| 8975 | STORM MICROWAE k-20cm | cable | 19/11/2017 | 2 | 19/11/2019 |
| 10730 | Mini-circuit ZFL-1000LN | Low-noise amplifier | 14/03/2019 | 1 | 13/03/2020 |
| 10759 | SIDT Cage 3 | Anechoic chamber | / | / | / |
| 10771 | EMCO 3117 | Antenna | 23/11/2016 | 3 | 23/11/2019 |
| 10789 | MATURO | Turntable and mat controller NCD | / | / | / |
| 11592 | R&S NRV-Z86 | Power Sensor | 10/08/2018 | 1 | 10/08/2019 |
| 12590 | LUCIX Corp S005180M3201 | Low-noise amplifier | 27/09/2018 | 1 | 27/09/2019 |
| 12912 | Huber + Suhner N-5m | cable | 29/03/2018 | 2 | 28/03/2020 |
| 14302 | SUCOFLEX N-1m | cable | 14/12/2018 | 2 | 13/12/2020 |
| 14303 | SUCOFLEX N-2m | cable | 14/12/2018 | 2 | 13/12/2020 |
| 14304 | SUCOFLEX N-2.5m | cable | 14/12/2018 | 2 | 13/12/2020 |
| 14831 | Fluke 177 | Multimeter | 12/01/2018 | 2 | 12/01/2020 |
| 15666 | R&S FSV40 | Spectrum Analyzer | 19/07/2018 | 2 | 18/07/2020 |
| - | R&S Power Viewer Plus V5.9 | Software | / | / | / |

(1) With a tolerance of 2 months for all equipments.

6. TESTS RESULTS SUMMARY

| Test procedure | Description of test | Respected criteria? | | | | Comment |
|-----------------|---------------------------------------------------------------------------|---------------------|----|-----|-----|---------|
| | | Yes | No | NAP | NAs | |
| FCC Part 15.203 | ANTENNA REQUIREMENT | X | | | | Note 1 |
| FCC Part 15.205 | RESTRICTED BANDS OF OPERATION | X | | | | |
| FCC Part 15.207 | CONDUCTED LIMITS | | | X | | |
| FCC Part 15.209 | RADIATED EMISSION LIMITS; general requirements | X | | | | Note 2 |
| FCC Part 15.212 | MODULAR TRANSMITTERS | | | X | | |
| FCC part 15.215 | ADDITIONAL PROVISIONS TO THE GENERAL RADIATED EMISSION LIMITATIONS | | | | | |
| | (a) Alternative to general radiated emission limits | X | | | | |
| | (b) Unwanted emissions outside of §15.247 frequency bands | X | | | | Note 3 |
| | (c) 20 dB bandwidth and band-edge compliance | X | | | | |
| FCC Part 15.247 | OPERATION WITHIN THE BANDS 902-928 MHz, 2400-2483.5 MHz and 5725-5850 MHz | | | | | |
| | (a) (1) Hopping systems | | | X | | |
| | (a) (2) Digital modulation techniques | X | | | | Note 5 |
| | (b) Maximum peak output power | X | | | | Note 4 |
| | (c) Operation with directional antenna gains > 6 dBi | | | X | | |
| | (d) Intentional radiator | X | | | | |
| | (e) Peak power spectral density | X | | | | Note 6 |
| | (f) Hybrid system | | | X | | |
| | (g) Frequency hopping requirements | | | X | | |
| | (h) Frequency hopping intelligence | | | X | | |
| | (i) RF exposure compliance | X | | | | |

NAP: Not Applicable

NAs: Not Asked

Note 1: Integral without connector.

Note 2: See FCC part 15.247 (d).

Note 3: See FCC part 15.209. Unwanted emissions levels are all below the fundamental emission field strength level.

Note 4: Conducted measurement is not possible (integral antenna), so we used the radiated method in open field.

Note 5: The minimum 6 dB bandwidth of the equipment is 680 kHz (see appendix 2).

Note 6: Due to the low level of the peak output power, only the results are reported on paragraph 12 and the plot are not integrated on this report.

According paragraph 11.10.1 of standard ANSI C63.10:

Where the measured power (peak conducted output power or maximum conducted output power) complies with the regulatory requirement for the PSD, then measurement of PSD is not required, provided that the PSD level is reported as being equal to the measured output power.

7. RF EXPOSURE:

In accordance with KDB 447498 D01 General RF Exposure Guidance v06, Paragraph 4.3.1.

Maximum measured EIRP = -7.6 dBm = 0.000174W at 2402 MHz
With antenna gain at 0 dBi

The test separation distance declared is 5 mm **(with a minimum value of 5 mm)**

The product must respect the exclusion limit for 10-g extremity SAR.

$$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] * [\sqrt{f(\text{GHz})}] \leq 7.5$$

According this formula:

Power threshold, mW = $[(7.5 * \text{min. test separation distance, mm}) / \sqrt{f(\text{GHz})}]$

Power threshold, mW = $[(7.5 * 5) / \sqrt{(2.402)}]$

Power threshold, mW = 24.2 mW

The maximum measured power is lower than 24.2 mW.

The equipment fulfils the requirements on maximum conducted or equivalent isotropically radiated power (e.i.r.p) for general population/uncontrolled exposure and therefore fulfils the requirements of 47 CFR §1.1310 at the distance greater than 5 mm between the user and the antenna.

8. MEASUREMENT UNCERTAINTY

To declare, or not, the compliance with the specifications, it was not explicitly taken into account of uncertainty associated with the result(s)

The reported expanded uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor $k=2$, which for normal distribution corresponds to a coverage probability of approximately 95%.

| Parameter | Emitech Uncertainty |
|------------------------------------|---------------------------------|
| RF power, conducted | $\pm 0.75\text{dB}$ |
| Radiated emission valid to 26 GHz | |
| F < 62.5 MHz: | $\pm 5.14\text{ dB}$ |
| 62.5 MHz < F < 1 GHz: | $\pm 5.13\text{ dB}$ |
| 1 GHz < F < 26 GHz: | $\pm 5.16\text{ dB}$ |
| AC Power Lines conducted emissions | $\pm 3.38\text{ dB}$ |
| Temperature | $\pm 1\text{ }^{\circ}\text{C}$ |
| Humidity | $\pm 5\%$ |

9. ADDITIONAL PROVISIONS TO THE GENERAL RADIATED EMISSION LIMITATIONS**Temperature (°C) :** 28**Humidity (%HR):** 45**Date :** July 19, 2019**Technician :** T. LEDRESSEUR**Standard:** FCC Part 15**Test procedure:** Paragraph 15.215**Test set up:**

Test realized in near field. All field strength measurements are correlated with the radiated maximum peak output power

Test operating condition of the equipment:

The equipment under test is blocked in continuous modulated transmission mode, at the highest output power level at which the transmitter is intended to operate.

We used for power source the internal fully charged battery:

Voltage at the beginning of test (Vdc): +5 Vdc

Results:

Lower Band Edge: From 2398 MHz to 2400 MHz

Upper Band Edge: From 2483.5 MHz to 2485.5 MHz

Sample N° 1

Channel 37 (2402 MHz)

| Fundamental frequency (MHz) | Field Strength Level of fundamental (dB μ V/m) | Detector (Peak or Average) | Frequency of maximum Band-edges Emission (MHz) | Delta Marker (dB) (1) | Limit (dBc) | Margin (dB) |
|-----------------------------|----------------------------------------------------|----------------------------|------------------------------------------------|-----------------------|-------------|-------------|
| 2402 | 87.63 | Peak | 2399.99 | -47.47 | -20 | 27.47 |

Channel 39 (2480 MHz)

| Fundamental frequency (MHz) | Field Strength Level of fundamental (dB μ V/m) | Detector (Peak or Average) | Frequency of maximum Band-edges Emission (MHz) | Delta Marker (dB) (1) | Calculated Max Out-of-Band Emission Level (dB μ V/m) | Limit (dB μ V/m) | Margin (dB) |
|-----------------------------|----------------------------------------------------|----------------------------|------------------------------------------------|-----------------------|----------------------------------------------------------|----------------------|-------------|
| 2480 | 85.43 | Peak | 2483.70 | -32.8 | 52.63 (2) | 74 | 21.37 |

(1) Marker-Delta method

(2) The peak level is lower than the average limit (54 dB μ V/m)

band-edge curves are given in appendix 4.

Test conclusion:

RESPECTED STANDARD

10. MAXIMUM PEAK CONDUCTED OUTPUT POWER

Temperature (°C) : 28

Humidity (%HR): 45

Date : July 19, 2019

Technician : T. LEDRESSEUR

Standard: FCC Part 15**Test procedure:** paragraph 15.247 (b)

PKPM1 Peak power meter method of paragraph 11.9.1.3 of ANSI C63.10

Test set up:

First an exploratory radiated measurement was performed. During this phase the product is oriented in this normal position.

The system is tested in anechoic chamber, the EUT is placed on a rotating table, 1.5 m from a ground plane.

Zero degree azimuths correspond to the front of the device under test.

See photos in appendix 2.

Distance of antenna: 3 meters**Antenna height:** 1.5 meter**Antenna polarization:** vertical and horizontal (only the highest level is recorded)

The measurement of the radiated electro-magnetic field is realized in radiated mode with a calibrated peak power meter.

Finally the radiated electro-magnetic field is converted in dBm with the following formula:

$$EIRP(dBm) = E (dB\mu V/m) + 20\log(D) - 104.8;$$

where D is the measurement distance in meters

The conducted power is then calculated

$$P = EIRP(dBm) - G$$

Where G is the antenna Gain = 0 dBi.

Equipment under test operating condition:

The equipment under test is blocked in continuous modulated transmission mode, at the highest output power level at which the transmitter is intended to operate

We used for power source the internal fully charged battery:

Voltage at the beginning of test (Vdc): +5 Vdc

Results:

Sample N° 1

Channel 37 (F = 2402 MHz)

| | Electro-magnetic field (dBμV/m): | Maximum Peak conducted output power | | Limit (W) |
|-------------------------------|-------------------------------------|----------------------------------------|----------|--------------|
| | | (dBm) | (W) | |
| Nominal supply voltage: | 87.63 | -7.6 | 0.000174 | 1 |

Polarization of test antenna: Vertical (height: 165cm)

Position of equipment: see photos in appendix 2 (azimuth: 0°)

Channel 19 (F = 2440 MHz)

| | Electro-magnetic field (dBμV/m): | Maximum Peak conducted output power | | Limit (W) |
|-------------------------------|-------------------------------------|----------------------------------------|----------|--------------|
| | | (dBm) | (W) | |
| Nominal supply voltage: | 87.13 | -8.1 | 0.000155 | 1 |

Polarization of test antenna: Vertical (height: 165cm)

Position of equipment: see photos in appendix 2 (azimuth: 0°)

Channel 39 (F = 2480 MHz)

| | Electro-magnetic field (dBμV/m): | Maximum Peak conducted output power | | Limit (W) |
|-------------------------------|-------------------------------------|----------------------------------------|----------|--------------|
| | | (dBm) | (W) | |
| Nominal supply voltage: | 85.43 | -9.8 | 0.000105 | 1 |

Polarization of test antenna: Vertical (height: 165cm)

Position of equipment: see photos in appendix 2 (azimuth: 0°)

Test conclusion:

RESPECTED STANDARD

11. INTENTIONAL RADIATOR**Temperature (°C) :** 28**Humidity (%HR):** 45**Date :** July 19, 2019**Technician :** T. LEDRESSEUR**Standard:** FCC Part 15**Test procedure:** paragraph 15.205, paragraph 15.209, paragraph 15.247 (d)

Emissions in non-restricted frequency bands method of paragraph 11.11 of ANSI C63.10

Emissions in restricted frequency bands method of paragraph 11.12 of ANSI C63.10

Test set up:

First an exploratory radiated measurement was performed. During this phase the product is oriented in this normal position.

The measure is realized on open area test site under 1 GHz and in anechoic chamber above 1 GHz.

When the system is tested in an open area test site (OATS), the EUT is placed on a rotating table, 0.8m from a ground plane.

When the system is tested in anechoic chamber, the EUT is placed on a rotating table, 1.5 m from a ground plane.

Zero degree azimuths correspond to the front of the device under test.

See photos in appendix 2.

Frequency range: From 9 kHz to 10th harmonic of the highest fundamental frequency (25 GHz)**Detection mode:** Quasi-peak ($F < 1 \text{ GHz}$)Peak / Average ($F > 1 \text{ GHz}$)**Bandwidth:** 200Hz ($9 \text{ kHz} < F < 150\text{kHz}$)
9 kHz ($150 \text{ kHz} < F < 30\text{MHz}$)
120 kHz ($30 \text{ MHz} < F < 1 \text{ GHz}$)
100 kHz / 1 MHz ($F > 1 \text{ GHz}$)**Distance of antenna:** 3 meters**Antenna height:** 1.5 meter**Antenna polarization:** vertical and horizontal (only the highest level is recorded)**Equipment under test operating condition:**

The equipment under test is blocked in continuous modulated transmission mode, at the highest output power level at which the transmitter is intended to operate

We used for power source the internal fully charged battery:

Voltage at the beginning of test (Vdc): +5 Vdc

Results:

Sample N° 1

Channel 37 (F = 2402 MHz)

| Frequencies (MHz) | Detector P QP Av | Antenna height (cm) | RBW (kHz) | Polarization H: Horizontal V: Vertical | Field strength Measured at 3 m (dB μ V/m) | Limits (dB μ V/m) or (dBm) | Margin (dB) |
|-------------------|---------------------------|---------------------|-----------|----------------------------------------------|-----------------------------------------------|--------------------------------|-------------|
| 4802.1 (1) | P | 150 | 1000 | V | 48.53 (2) | 74 | 25.47 |
| 7206 | P | 150 | 100 | V | 52.85 | 66 | 13.15 |
| 12010.1 (1) | P | 150 | 1000 | V | 51.55 (2) | 74 | 22.45 |

P= Peak, QP=Quasi-peak, Av=Average

(1) Restricted bands of operation in 15.205

(2) The peak level is lower than the average limit (54 dB μ V/m)

Channel 19 (F = 2440 MHz)

| Frequencies (MHz) | Detector P QP Av | Antenna height (cm) | RBW (kHz) | Polarization H: Horizontal V: Vertical | Field strength Measured at 3/10 m (dB μ V/m) | Limits (dB μ V/m) or (dBm) | Margin (dB) |
|-------------------|---------------------------|---------------------|-----------|----------------------------------------------|--------------------------------------------------|--------------------------------|-------------|
| 4879.1 (1) | P | 150 | 1000 | V | 49.10 (2) | 74 | 24.9 |
| 7321.2 (1) | P | 150 | 1000 | V | 53.51 (2) | 74 | 20.49 |
| 12200 (1) | P | 150 | 1000 | V | 53.00 (2) | 74 | 21 |

P= Peak, QP=Quasi-peak, Av=Average

(1) Restricted bands of operation in 15.205

(2) The peak level is lower than the average limit (54 dB μ V/m)

Channel 39 (F = 2480 MHz)

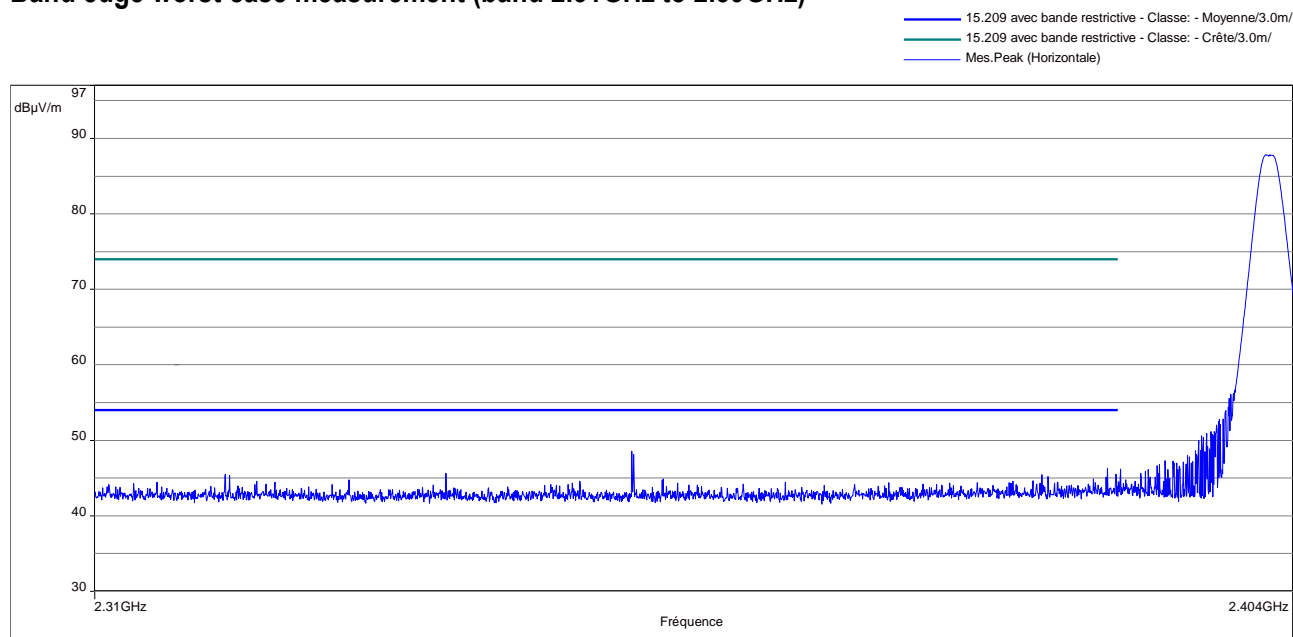
| Frequencies (MHz) | Detector P QP Av | Antenna height (cm) | RBW (kHz) | Polarization H: Horizontal V: Vertical | Field strength Measured at 3/10 m (dB μ V/m) | Limits (dB μ V/m) | Margin (dB) |
|-------------------|---------------------------|---------------------|-----------|----------------------------------------------|--------------------------------------------------|-----------------------|-------------|
| 4959.84 (1) | P | 150 | 1000 | V | 51.40 (2) | 74 | 22.6 |
| 7440 (1) | P | 150 | 1000 | V | 53.21 (2) | 74 | 20.79 |
| 12400.1 (1) | P | 150 | 1000 | V | 55.77 | 74 | 18.23 |
| 12400.1 (1) | Av | 150 | 1000 | V | 52.37 | 54 | 21.63 |

P= Peak, QP=Quasi-peak, Av=Average

(1) Restricted bands of operation in 15.205

(2) The peak level is lower than the average limit (54 dB μ V/m)

Band edge worst case measurement (band 2.31GHz to 2.39GHz)



Applicable limits: 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.

The highest level recorded in a 100 kHz bandwidth is 86 dBμV/m on channel 37.

So the applicable limit is 66 dBμV/m.

In addition, radiated emissions which fall in the restricted band, as defined in section 15.205 (a), must also comply with the radiated emission limits specified in section 15.209 (a) (see section 15.205 (c)).

Note: any spurious which has more than 20 dB of margin compared to the applicable limit is not necessarily reported.

Test conclusion:

RESPECTED STANDARD

12. MAXIMUM PEAK CONDUCTED POWER DENSITY**Temperature (°C) :** 28**Humidity (%HR):** 45**Date :** July 19, 2019**Technician :** T. LEDRESSEUR**Standard:** FCC Part 15

Test procedure: paragraph 15.247 (e), paragraph 15.247 (f)
PKPSD (Peak PSD) method of paragraph 11.10.2 of ANSI C63.10

Test set up:

First an exploratory radiated measurement was performed. During this phase the product is oriented in this normal position.

The system is tested in anechoic chamber, the EUT is placed on a rotating table, 1.5 m from a ground plane.

Zero degree azimuths correspond to the front of the device under test.

See photos in appendix 2.

Distance of antenna: 3 meters**Antenna height:** 1.5 meter**Antenna polarization:** vertical and horizontal (only the highest level is recorded)

The measurement of the radiated electro-magnetic field is realized with an analyser.

Span: 2MHz

Resolution bandwidth: 3kHz

Video bandwidth: 10 kHz

Detector: Peak

Number of points: 10001

Sweep time: auto

Trace mode: max hold

Then the peak marker function is used.

Finally the radiated electro-magnetic field is converted in dBm with the following formula:

$$EIRP(dBm) = E (dB\mu V/m) + 20\log(D) - 104.8;$$

where D is the measurement distance in meters

The conducted power is then calculated

$$P = EIRP(dBm) - G$$

Where G is the antenna Gain = 0 dBi.

Equipment under test operating condition:

The equipment under test is blocked in continuous modulated transmission mode, at the highest output power level at which the transmitter is intended to operate

We used for power source the internal fully charged battery:

Voltage at the beginning of test (Vdc): +5 Vdc

Results:Sample N° 1

Channel 37 (F = 2402 MHz)

| Electro-magnetic field (dB μ V/m): | Maximum Peak conducted power density (dBm / 3 kHz) | Limit (dBm / 3 kHz) |
|-------------------------------------------|----------------------------------------------------------|------------------------|
| 72.43 | -22.8 | 8 |

Polarization of test antenna: Vertical (height: 165cm)

Position of equipment: see photos in appendix 2 (azimuth: 0°)

Channel 19 (F = 2440 MHz)

| Electro-magnetic field (dB μ V/m): | Maximum Peak conducted power density (dBm / 3 kHz) | Limit (dBm / 3 kHz) |
|-------------------------------------------|----------------------------------------------------------|------------------------|
| 71.93 | -23.3 | 8 |

Polarization of test antenna: Vertical (height: 165cm)

Position of equipment: see photos in appendix 2 (azimuth: 0°)

Channel 39 (F = 2480 MHz)

| Electro-magnetic field (dB μ V/m): | Maximum Peak conducted power density (dBm / 3 kHz) | Limit (dBm / 3 kHz) |
|-------------------------------------------|----------------------------------------------------------|------------------------|
| 70.23 | -25 | 8 |

Polarization of test antenna: Vertical (height: 165cm)

Position of equipment: see photos in appendix 2 (azimuth: 0°)

Test conclusion:

RESPECTED STANDARD

□□□ End of report, (3) annexes to be forwarded □□□

APPENDIX 1: Test equipment list

Additional provisions to the general radiated emission limitations

| TYPE | MANUFACTURER | EMITECH NUMBER |
|------------------------------------------------|----------------------|----------------|
| Full anechoic chamber | EMITECH | 10759 |
| Turntable and mat controller NCD | MATURO | 10789 |
| Satellite synchronized frequency standard GPS8 | ACQUISYS | 8896 |
| Spectrum Analyzer FSV40 | Rohde & Schwarz | 15666 |
| Antenna 3117 | ETS-Lindgren | 10771 |
| Low-noise amplifier PAM-118A | COM-POWER | 15812 |
| N-1M Cable | SUCOFLEX | 14302 |
| N-2M Cable | SUCOFLEX | 14303 |
| N-2.5M Cable | SUCOFLEX | 14304 |
| N-5M Cable | Huber + Suhner | 12912 |
| Multimeter 177 | Fluke | 14831 |
| Meteo station WS-9232 | La Crosse Technology | 8750 |
| Software | BAT-EMC V3.17.0.25 | 0000 |

Maximum peak conducted output power

| TYPE | MANUFACTURER | EMITECH NUMBER |
|------------------------------------------------|----------------------------|----------------|
| Full anechoic chamber | EMITECH | 10759 |
| Turntable and mat controller NCD | MATURO | 10789 |
| Satellite synchronized frequency standard GPS8 | ACQUISYS | 8896 |
| Spectrum Analyzer FSV40 | Rohde & Schwarz | 15666 |
| Wideband sensor Z86 | Rohde & Schwarz | 11592 |
| Antenna 3117 | ETS-Lindgren | 10771 |
| Low-noise amplifier PAM-118A | COM-POWER | 15812 |
| N-1M Cable | SUCOFLEX | 14302 |
| N-2M Cable | SUCOFLEX | 14303 |
| N-2.5M Cable | SUCOFLEX | 14304 |
| N-5M Cable | Huber + Suhner | 12912 |
| Multimeter 177 | Fluke | 14831 |
| Meteo station WS-9232 | La Crosse Technology | 8750 |
| Software | R&S Power Viewer Plus V5.9 | - |

Intentional radiator

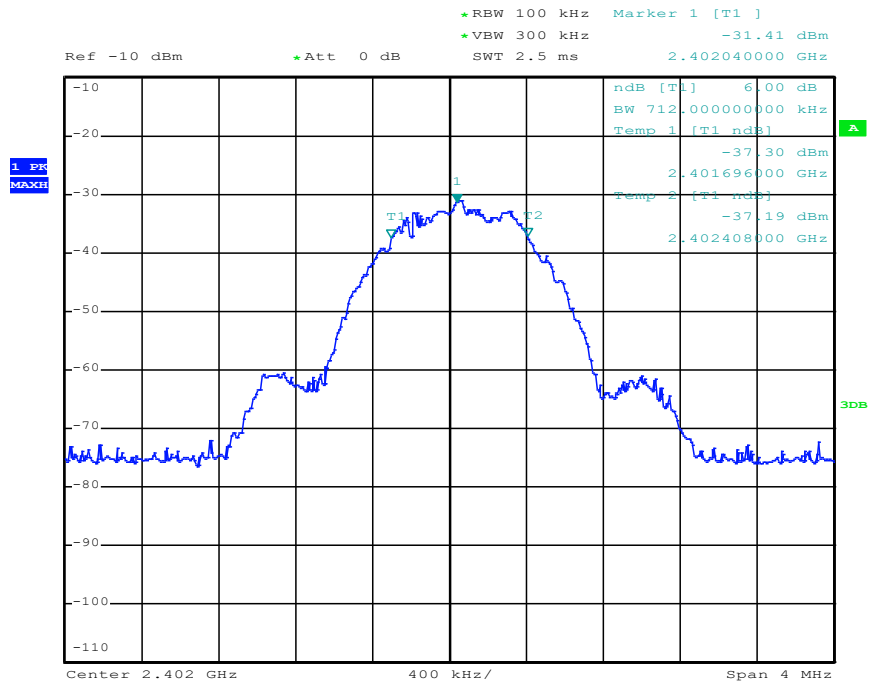
| TYPE | MANUFACTURER | EMITECH NUMBER |
|------------------------------------------------|----------------------|----------------|
| Full anechoic chamber | EMITECH | 10759 |
| Turntable and mat controller NCD | MATURO | 10789 |
| Satellite synchronized frequency standard GPS8 | ACQUISYS | 8896 |
| Spectrum Analyzer FSV40 | Rohde & Schwarz | 15666 |
| Loop antenna 6502 | EMCO | 1406 |
| Biconical antenna 3110 | Emco | 7240 |
| Log periodic antenna HL223 | Rohde & Schwarz | 7190 |
| Antenna 3117 | ETS-Lindgren | 10771 |
| Antenna 3160-09 | ETS Lindgren | 8786 |
| Low-noise amplifier ZFL-1000LN | Mini-circuit | 10730 |
| Low-noise amplifier S005180M3201 | LUCIX Corp. | 12590 |
| Low-noise amplifier S180265L3201 | LUCIX Corp. | 8704 |
| N-1M Cable | SUCOFLEX | 14302 |
| N-2M Cable | SUCOFLEX | 14303 |
| N-2.5M Cable | SUCOFLEX | 14304 |
| N-5M Cable | Huber + Suhner | 12912 |
| Cable k-20cm | STORM MICROWAE | 8974 |
| Cable k-20cm | STORM MICROWAE | 8975 |
| Reject band filter BRM50702 | Microtronics | 7299 |
| Multimeter 177 | Fluke | 14831 |
| Meteo station WS-9232 | La Crosse Technology | 8750 |
| Software | BAT-EMC V3.6.0.32 | 0000 |

Maximum Peak conducted power density

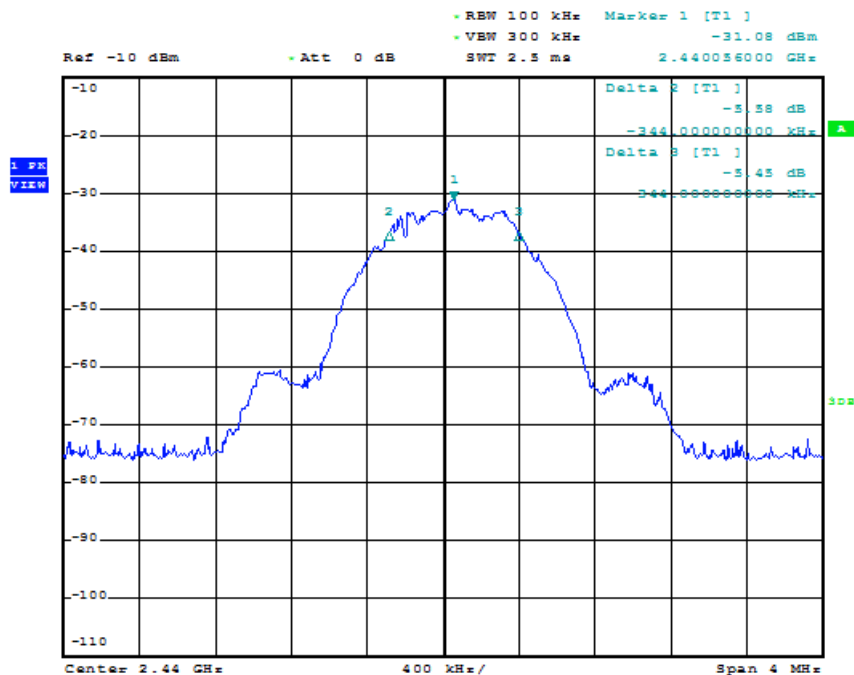
| TYPE | MANUFACTURER | EMITECH NUMBER |
|------------------------------------------------|----------------------|----------------|
| Full anechoic chamber | EMITECH | 10759 |
| Turntable and mat controller NCD | MATURO | 10789 |
| Satellite synchronized frequency standard GPS8 | ACQUISYS | 8896 |
| Spectrum Analyzer FSV40 | Rohde & Schwarz | 15666 |
| Antenna 3117 | ETS-Lindgren | 10771 |
| Low-noise amplifier PAM-118A | COM-POWER | 15812 |
| N-1M Cable | SUCOFLEX | 14302 |
| N-2M Cable | SUCOFLEX | 14303 |
| N-2.5M Cable | SUCOFLEX | 14304 |
| N-5M Cable | Huber + Suhner | 12912 |
| Multimeter 177 | Fluke | 14831 |
| Meteo station WS-9232 | La Crosse Technology | 8750 |
| Software | BAT-EMC V3.17.0.25 | 0000 |

APPENDIX 2: 6 dB bandwidth

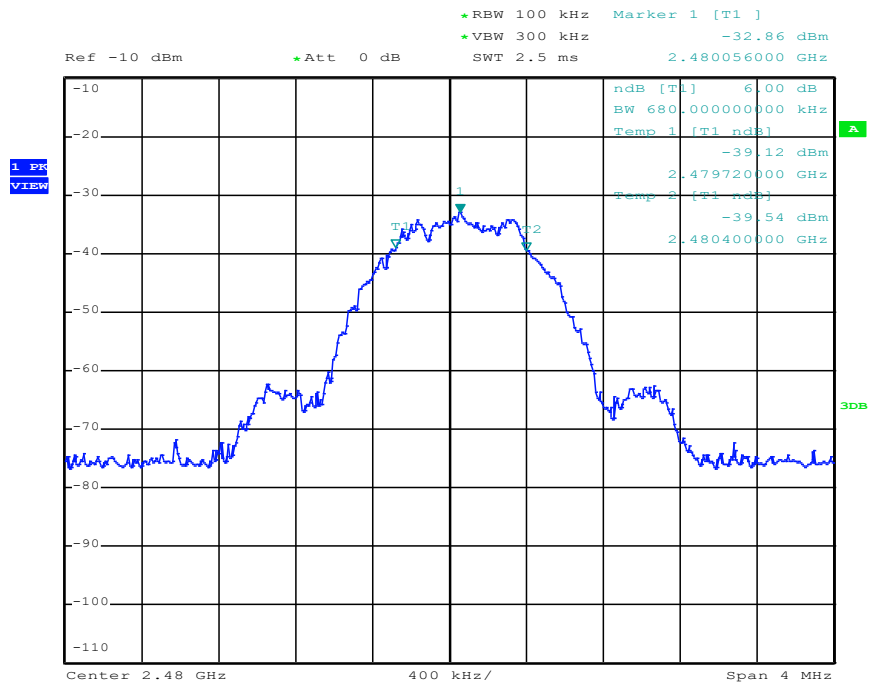
Low channel



Central channel

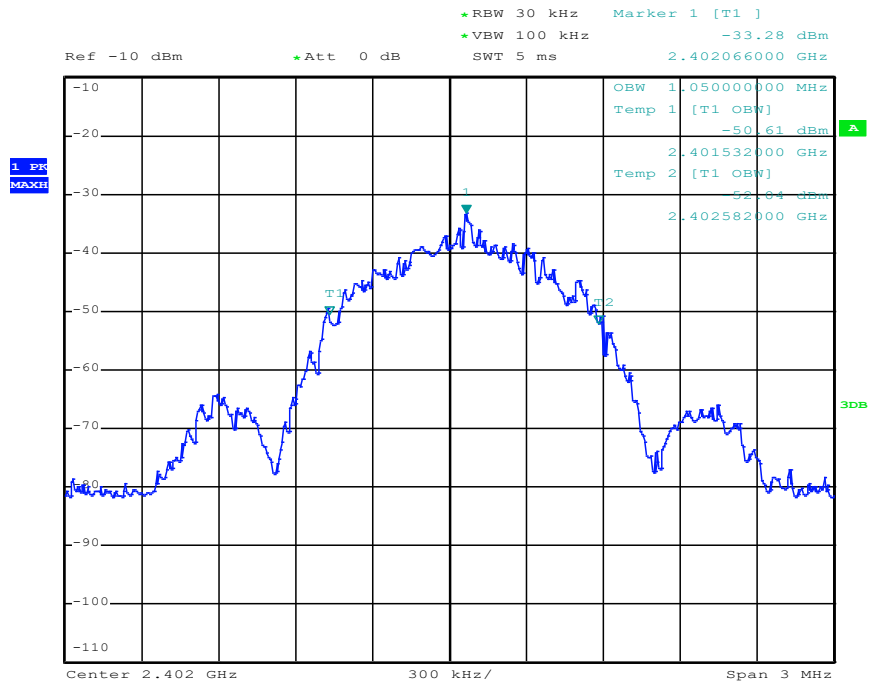


High channel

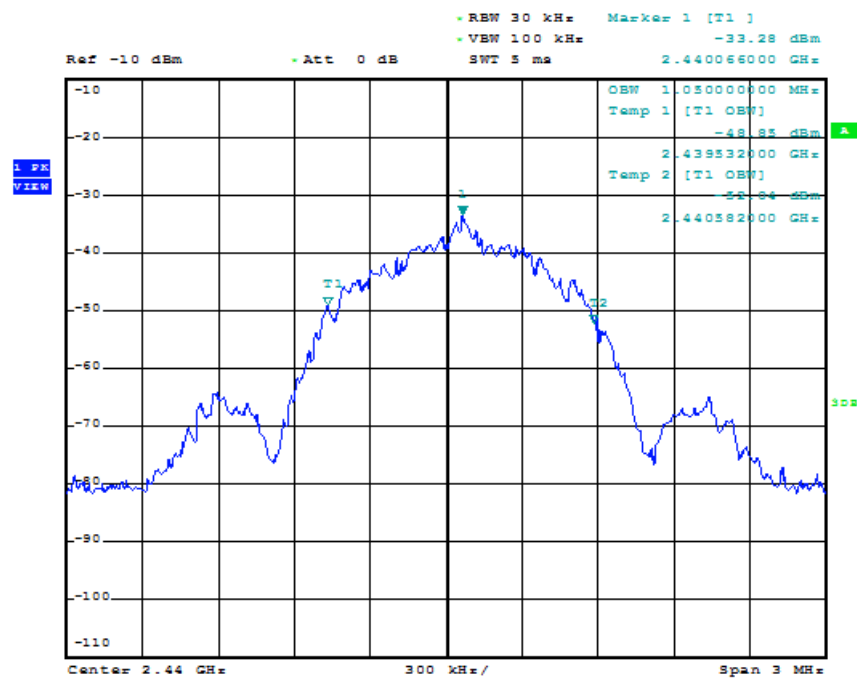


APPENDIX 3: 99% bandwidth

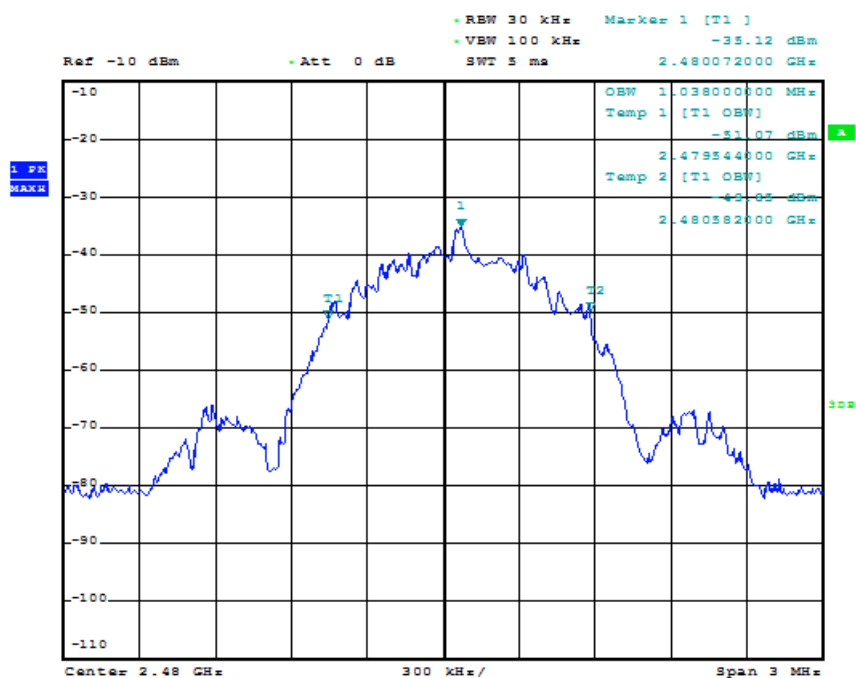
Low channel



Central channel

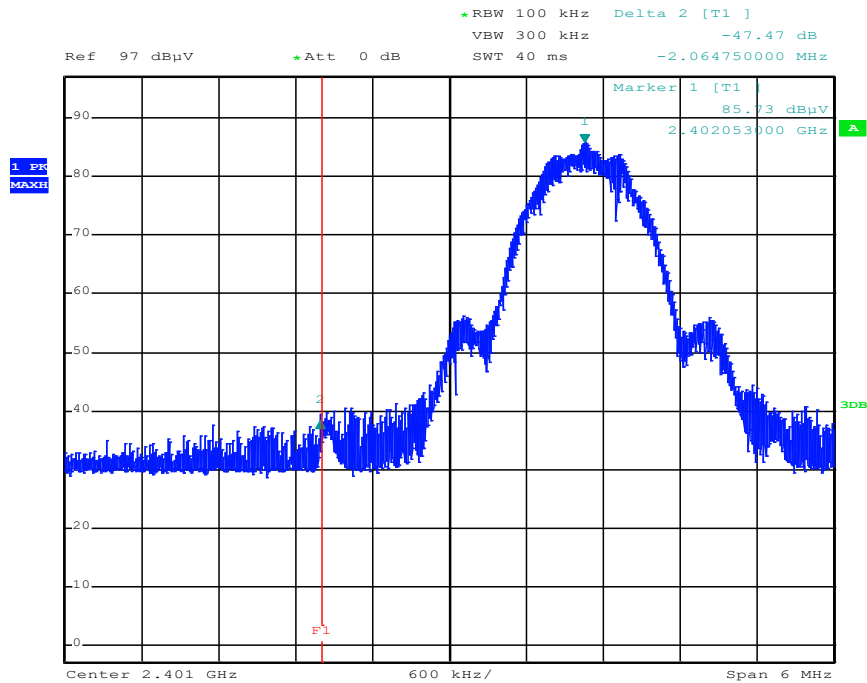


High channel



APPENDIX 4: Band edge

Low channel



High channel

