



Test report issued under the responsibility of:  
EMITECH ILE DE FRANCE Laboratory  
MRA US-EU Designation Number: FR0004  
IC Assigned Code: 4379A

# RADIO TEST REPORT

FCC 47 CFR PART 15 : 2023 (§15.247)

RSS-247\_Issue 2 : 2017

RSS-Gen\_Issue 5 : 2018 / AMD1: 2019 / AMD2: 2021

**Company** ..... : **DAVEY BICKFORD**  
**Address**..... : Le Moulin Gaspard  
Chemin de la Pyrotechnie  
89550 HERY France

**Test item description.** ..... : **EDGE PU**  
**Trade Mark.** ..... : *DaveyTronic Edge*  
**Manufacturer**..... : *Davey Bickford SAS*  
**Model/Type reference**..... : *Not communicated*  
**Ratings**..... : *3.2 Vdc to 4.2 Vdc (battery)*

**Testing Laboratory** ..... : **EMITECH ILE DE France Laboratory**  
**Address**..... : 30-32, avenue des 3 Peuples  
78180 MONTIGNY LE BRETONNEUX  
FRANCE

**Report Reference No.**..... : **RRA-EMIESS23E175DAV-03A v0**  
**Test procedure.** ..... : FCC and CANADA marking  
**Diffusion**..... : Mr LO  
**Applicant's name.** ..... : DAVEY BICKFORD  
**Date of issue**..... : 27/11/2023  
**Total number of pages**..... : 63  
**Revision**..... : v0  
**Modified pages.** ..... : Creation  
**Compiled by**..... : F. LHEUREUX (Tests technician)  
**Technical verification.** ..... :

**Quality approval**..... :

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**REVISION HISTORY:**

| Revision | Date       | Modified pages | Modifications |
|----------|------------|----------------|---------------|
| v0       | 27/11/2023 | /              | Creation      |

## 1. GENERAL INFORMATION

This document submits the results of Radio tests performed on the equipment (denominated hereafter E.U.T.: equipment under test) according to documents listed in §2 of this test report.

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                       |     |                                  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|-----|----------------------------------|
| <b>TESTING PROCEDURE AND TESTING LOCATION:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                       |     |                                  |
| Testing Laboratory .....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <b>EMITECH ILE DE France Laboratory</b>                               |     |                                  |
| Address. ....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 30-32, avenue des 3 Peuples<br>78180 MONTIGNY LE BRETONNEUX<br>FRANCE |     |                                  |
| Test procedure. ....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | FCC and CANADA marking                                                |     |                                  |
| Tested by .....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | F. LHEUREUX / L. CHEVALIER                                            |     |                                  |
| Test supervisor .....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | B. PELLERIN                                                           |     |                                  |
| Date of receipt of test item .....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 02/11/2023                                                            |     |                                  |
| Dates of performance of tests .....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | From the 02/11/2023 to 17/11/2023                                     |     |                                  |
| <b>APPLICANT'S GENERAL INFORMATION:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                       |     |                                  |
| Company name .....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <b>DAVEY BICKFORD</b>                                                 |     |                                  |
| Company address. ....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Le Moulin Gaspard<br>Chemin de la Pyrotechnie<br>89550 HERY France    |     |                                  |
| Person present during the tests. ....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Mr LELANDAIS                                                          |     |                                  |
| Responsible .....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Mr LO                                                                 |     |                                  |
| <b>GENERAL REMARKS:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                       |     |                                  |
| <p><b>The test results presented in this report relate only to the object tested.</b></p> <p><b>The results contained in this report reflect the results for this particular model and serial number. It is the responsibility of the manufacturer to ensure that all production models meet the intent of the requirements detailed within this report.</b></p> <p>This report shall not be reproduced, except in full, without the written approval of the Issuing testing laboratory.</p> <p>"(see Enclosure #)" refers to additional information appended to the report.</p> <p>"(see appended table)" refers to a table appended to the report.</p> <p>Throughout this report the decimal separator is point.</p> |                                                                       |     |                                  |
| <b>POSSIBLE TEST CASE VERDICTS:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                       |     |                                  |
| Test case does not apply to the test object. . :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | N/A                                                                   |     |                                  |
| Test case not performed..... :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | N/P                                                                   |     |                                  |
| Test object does meet the requirement..... :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | P (Pass)                                                              |     |                                  |
| Test object does not meet the requirement.. :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | F (Fail)                                                              |     |                                  |
| Test object was not subjected to all tests..... :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | I (Inconclusive)                                                      |     |                                  |
| <b>DEFINITIONS AND ABBREVIATIONS:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                       |     |                                  |
| E.U.T.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Equipment under test                                                  | AE  | Auxiliary / Associated equipment |
| RBW                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Resolution bandwidth                                                  | VBW | Video bandwidth                  |
| OATS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Open area test site                                                   | FAR | Full anechoic room               |
| RF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Radio frequency                                                       | NTR | Nothing to report                |

## 2. REFERENCE DOCUMENTS

### NORMATIVE REFERENCES:

The following referenced documents are necessary for the application of the present test report.

***FCC 47 CFR Part 15 : 2023***

Code of federal regulations

Title 47- Telecommunication Chapter 1- Federal Communication Commission

Part 15- Radio frequency devices Subpart B- Unintentional Radiators

Limits and methods of measurement of radio disturbance

Characteristic of information technology equipment.

***RSS-247 Issue 2 : 2017***

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

***RSS-Gen\_Issue 5 : 2018 / AMD1: 2019 / AMD2: 2021***

General Requirements and Information for the Certification of Radio Apparatus.

***ANSI C63.4 : 2014***

Methods of Measurement of Radio-Noise Emissions from Low Voltage Electrical and Electronics Equipment in the range of 9 kHz to 40 GHz.

***KDB 558074 D01 DTS Meas Guidance V05 r02***

Guidance for performing compliance measurement on Digital Transmission Systems (DTS) operating under § 15.247.

***ANSI C63.10 : 2013***

American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices.

### INFORMATIVE REFERENCE:

/

### 3. EQUIPMENT TECHNICAL DESCRIPTION

#### 3.1. Test Conditions

Test item description. .... : *EDGE PU (Programming Unit)*  
Model/Type reference..... : *Not communicated*  
Trade Mark. .... : *DaveyTronic Edge*  
Serial number (S/N)..... : *0002W41/23*  
Part number (P/N). .... : *62501 / PU-E00A*  
Software version..... : *V.0.2.11*  
Firmware version. .... : *V.0.2.11*  
Fcc ID ..... : *2AUQC-EDGEPU*  
N°IC ..... : *25586-EDGEPU*  
Type of sample..... : *Prototype*  
Functions. .... : *Activation device for the Edge modules. Wake up and timing assignment.*  
Manufacturer name. .... : *Davey Bickford SAS*  
Address. .... : *Chemin de la Pyrotechnie*  
*Le Moulin Gaspard*  
*89550 HERY France*

**General product information:**

N/A

### 3.2.EUT Overview









### 3.3.EUT Marking Plate







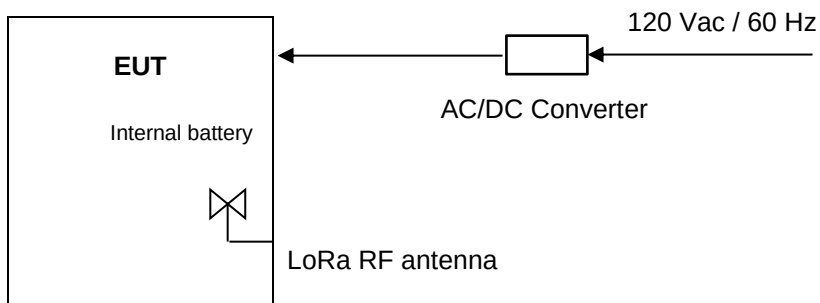
No photograph

|                                   |                                                                     |
|-----------------------------------|---------------------------------------------------------------------|
| Power supply. ....                | : 3.7 Vdc (battery)                                                 |
| Power supply range.....           | : 3.2 Vdc to 4.2 Vdc (battery)                                      |
| Power type.....                   | : Single phase (for power supply)<br>DC (for Edge Blasting Machine) |
| Power (W).....                    | : 5                                                                 |
| Nominal current (A). ....         | : 1                                                                 |
| Dimensions (L x W x H) (mm). .... | : 225 x 80 x 70                                                     |
| Weight (g). ....                  | : 320                                                               |
| Temperature range (°C). ....      | : -20 to +60                                                        |
| Ground bounding strap.....        | : No                                                                |

**Comments: -**

## No auxiliary equipment

### 3.7. EUT Input/Output ports



| PORT | NAME                         | TYPE  | LENGHT | CABLE TYPE | COMMENTS         |
|------|------------------------------|-------|--------|------------|------------------|
| 0    | Main frame                   | N/E   | -      | -          | -                |
| 1    | LoRa RF antenna              | RF    | -      | -          | Internal antenna |
| 2    | Power supply 120 Vac / 60 Hz | AC/DC | <3m    | Unshielded | ①                |

AC/DC : AC/DC Converter port    AC .....: Alternative current port    DC.....: Direct current port  
 I/O .....: Input or Output port    TP.....: Telecommunication port    RF .....: Radio frequency port  
 N/E .....: Non Electrical port

① : When loading the product, the radio part is non-functional.

### 3.8. EUT Radio Specifications

| a) GENERAL INFORMATIONS                                                                                                                                                                  |                                                                                                                      |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|
| According to manufacturer's declarations :                                                                                                                                               |                                                                                                                      |
| EUT type.....                                                                                                                                                                            | Transceiver                                                                                                          |
| Technology.....                                                                                                                                                                          | SRD (LoRa technology)                                                                                                |
| Environmental profile.....                                                                                                                                                               | Heavy industry                                                                                                       |
| Temperature range.....                                                                                                                                                                   | Low extremes conditions: -20°C<br>High extremes conditions: +60°C                                                    |
| Antenna type .....                                                                                                                                                                       | Dedicated                                                                                                            |
| Antenna Gain.....                                                                                                                                                                        | +1.4 dBi                                                                                                             |
| <b>Comments:</b>                                                                                                                                                                         |                                                                                                                      |
| <ul style="list-style-type: none"> <li>- The "LoRa" radio module is used as a hybrid system.</li> <li>- The radio part is non-functional during the tests conducted emission.</li> </ul> |                                                                                                                      |
| b) TRANSMITTER PARAMITERS (Tx)                                                                                                                                                           |                                                                                                                      |
| Frequency bands.....                                                                                                                                                                     | 915 - 928 MHz                                                                                                        |
| RF Power.....                                                                                                                                                                            | +14 dBm                                                                                                              |
| Number of channels / Separation.....                                                                                                                                                     | 8 / 125 kHz                                                                                                          |
| Modulation type .....                                                                                                                                                                    | LoRa                                                                                                                 |
| Duty cycle .....                                                                                                                                                                         | Not communicated                                                                                                     |
| Frequency plan.....                                                                                                                                                                      | 915.062 MHz<br>915.437 MHz<br>915.812 MHz<br>916.187 MHz<br>918.062 MHz<br>918.437 MHz<br>918.812 MHz<br>919.187 MHz |
| Tested frequency.....                                                                                                                                                                    | Lowest channel : 915.062 MHz<br>Middle channel : 918.062 MHz<br>Highest channel : 919.187 MHz                        |
| c) RECEIVER PARAMETERS (Rx)                                                                                                                                                              |                                                                                                                      |
| Frequency bands.....                                                                                                                                                                     | 915 - 928 MHz                                                                                                        |
| Category/Class .....                                                                                                                                                                     | Not communicated                                                                                                     |
| Bandwidth .....                                                                                                                                                                          | 125 kHz                                                                                                              |

#### 4. RESULT SUMMARY

Subpart B of the standard FCC part 15 – Unintentional radiators

| TEST DESIGNATION                                           | TEST PROCEDURE | VERDICT | COMMENTS |
|------------------------------------------------------------|----------------|---------|----------|
| <b>Measurement of conducted emission on AC mains ports</b> |                |         |          |
| - Power supply 120 Vac / 60 Hz                             | 15.107         | PASS    |          |
| <b>Radiated emission limits</b>                            | 15.109         | PASS    |          |

Subpart C of the standard FCC part 15 – Intentional radiators

| TEST DESIGNATION                                                                                                        | TEST PROCEDURE | VERDICT | COMMENTS |
|-------------------------------------------------------------------------------------------------------------------------|----------------|---------|----------|
| <b>Restriction bands of operation</b>                                                                                   | 15.205         | PASS    |          |
| <b>Measurement of conducted emission on AC mains ports</b>                                                              | 15.207         | N/A     |          |
| <b>Radiated emission limits; general requirements</b>                                                                   | 15.209         | PASS    |          |
| <b>Additional provision to the general radiated emission limitations</b>                                                | 15.215         | -       |          |
| - (a) Alternative to general radiated emission limits                                                                   |                | N/A     |          |
| - (b) Unwanted emissions outside of § 15.247 frequency bands                                                            | -              | N/A     |          |
| - (c) 20 dB bandwidth and band-edge compliance                                                                          |                | PASS    |          |
| <b>Intentional radiated emissions</b>                                                                                   | 15.247         | -       |          |
| - a) frequency hopping and digitally modulated                                                                          | -              | N/A     |          |
| - a) (1) hopping mode                                                                                                   | -              | N/A     |          |
| - a) (1) (i) frequency hopping in the band 902-928 MHz                                                                  | -              | PASS    |          |
| - a) (1) (ii) frequency hopping in the band 5725-5850 MHz                                                               | -              | N/A     |          |
| - a) (1) (iii) frequency hopping in the band 2400-2483.5 MHz                                                            | -              | N/A     |          |
| - a) (2) systems using digital modulation in the bands 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz (6 dB bandwidth) | -              | N/A     |          |
| - b) maximum peak conducted                                                                                             | -              | -       |          |
| - b) (1) frequency hopping in the bands 2400-2483.5 MHz or 5725-5850 MHz                                                | -              | N/A     |          |
| - b) (2) frequency hopping in the band 902-928 MHz                                                                      | -              | N/A     |          |
| - b) (3) systems using digital modulation in the bands 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz                  | -              | PASS    |          |
| - b) (4) maximum peak conducted > 6 dBi                                                                                 | -              | N/A     |          |
| - b) (4) (i) frequency hopping in the band 2400-2483.5 MHz                                                              | -              | N/A     |          |
| - b) (4) (ii) frequency hopping in the band 5725-5850 MHz                                                               | -              | N/A     |          |
| - b) (4) (iii) fixed, point-to-point                                                                                    | -              | N/A     |          |
| - c) directional antenna > 6 dBi                                                                                        | -              | N/A     |          |
| - c) (1) fixed, point-to-point operation                                                                                | -              | N/A     |          |
| - c) (1) (i) in the band 2400-2483.5 MHz                                                                                | -              | N/A     |          |
| - c) (1) (ii) in the band 5725-5850 MHz                                                                                 | -              | N/A     |          |
| - c) (1) (iii) fixed, point-to-point                                                                                    | -              | N/A     |          |

| TEST DESIGNATION                                                | TEST PROCEDURE | VERDICT | COMMENTS   |
|-----------------------------------------------------------------|----------------|---------|------------|
| - c) (2) multiple directional beams in the band 2400–2483.5 MHz | -              | N/A     | P < 500 mW |
| - c) (2) (i) information                                        | -              | N/A     |            |
| - c) (2) (ii) sum of the power supplied to all antennas         | -              | N/A     |            |
| - c) (2) (iii) one antenna for multiple directional beams       | -              | N/A     |            |
| - c) (2) (iv) single directional beam                           | -              | N/A     |            |
| - d) intentional radiator                                       | -              | PASS    |            |
| - e) peak power spectral density                                | -              | PASS    |            |
| - f) hybrid system                                              | -              | PASS    |            |
| - g) continuous data stream during the test                     | -              | N/A     |            |
| - h) to avoid hopping on occupied channels                      | -              | N/A     |            |
| - i) RF exposure compliance                                     | -              | N/A     |            |

Standard RSS-247 Issue 2 : 2017

| TEST DESIGNATION                                                       | TEST PROCEDURE | VERDICT | COMMENTS |
|------------------------------------------------------------------------|----------------|---------|----------|
| <b>3. Certification Requirements</b>                                   | -              | -       |          |
| - 3.1 RSS-gen compliance                                               | -              | N/A     |          |
| <b>5.2 Digital Modulation Systems</b>                                  | -              | -       |          |
| - (1) -6 dB bandwidth                                                  | -              | N/A     |          |
| - (2) transmitter power spectral density                               | -              | PASS    |          |
| <b>5.4 Transmitter Output Power and e.i.r.p. Requirement</b>           | -              | -       |          |
| - 1) 902-928 MHz frequency hopping systems output power / e.i.r.p.     | -              | N/A     |          |
| - 2) 2400-2483.5 MHz frequency hopping systems output power / e.i.r.p. | -              | N/A     |          |
| - 3) 5725-5850 MHz frequency hopping systems output power / e.i.r.p.   | -              | N/A     |          |
| - 4) Digital modulation systems output power / e.i.r.p.                | -              | PASS    |          |
| - 5) point-to-point systems (2400-2483.5 and 5725-5850 MHz)            | -              | N/A     |          |
| - 6) Multiple directional beams antenna systems (2400-2483.5 MHz)      | -              | N/A     |          |
| <b>5.5 Unwanted emission</b>                                           | -              | PASS    |          |



Standard RSS-Gen Issue 5 : 2018 / AMD1: 2019 / AMD2: 2021

| TEST DESIGNATION                                                                 | TEST PROCEDURE | VERDICT | COMMENTS |
|----------------------------------------------------------------------------------|----------------|---------|----------|
| <b>6 Technical Requirements</b>                                                  | -              |         |          |
| - 6.7 Occupied Bandwidth                                                         | -              | PASS    |          |
| - 6.9 CISPR Quasi-peak detector                                                  | -              | PASS    |          |
| - 6.12 Transmitter Output Power                                                  | -              | PASS    |          |
| - 6.13 Transmitter unwanted emissions                                            | -              | PASS    |          |
| <b>7.2 Measurement Methods and Standard Specifications</b>                       | -              | -       |          |
| - 7.2.1 Measurement Bandwidths and Detector Functions                            | -              | N/A     |          |
| - 7.2.2 Emissions Falling Within Restricted Frequency Bands                      | -              | N/A     |          |
| - 7.2.3 Devices Employing Pulsed Operation                                       | -              | N/A     |          |
| - 7.2.4 AC Power Line Conducted Emissions Limits                                 | -              | PASS    |          |
| - 7.2.5 Transmitter Spurious Emission Limits                                     | -              | N/A     |          |
| - 7.2.6 Transmitter Frequency Stability                                          | -              | N/A     |          |
| - 7.2.7 Measurement Distance                                                     | -              | N/A     |          |
| <b>8.Licence-Exempt radio Apparatus</b>                                          | -              | -       |          |
| - 8.8 AC Power Line Conducted Emission Limits for licence-Exempt Radio Apparatus | -              | N/A     |          |

Sample subject to the test **complies** with the requirements of the reference document listed in §2 of this test report and, where applicable, with deviations specified in this document.

To declare, or not, the compliance with the specifications, it was not explicitly taken account of uncertainty associated with the results.

Modifications : No

## 5. MEASUREMENT UNCERTAINTY

| PARAMETER                                           | MAXIMAL EMITECH UNCERTAINTY      | MINIMAL STANDARD UNCERTAINTY |
|-----------------------------------------------------|----------------------------------|------------------------------|
| Radio frequency                                     | $\pm 1 \times 10^{-7}$           | $\pm 1 \times 10^{-7}$       |
| RF power, conducted                                 |                                  |                              |
| RF power                                            | $\pm 0.8\text{dB}$               | $\pm 1 \text{ dB}$           |
| RF power (EN 300328 / EN 301893)                    | $\pm 1.3\text{dB}$               | $\pm 1.5 \text{ dB}$         |
| Power spectral density                              | $\pm 2.3\text{dB}$               | $\pm 3 \text{ dB}$           |
| Occupied bandwidth                                  |                                  |                              |
| RF power                                            | $\pm 3.8 \%$                     | $\pm 5 \%$                   |
| RF power (EN 300328 / EN 301893)                    | $\pm 3.8 \%$                     | $\pm 5 \%$                   |
| Maximum frequency deviation                         |                                  |                              |
| 300 Hz < audio frequency < 6 kHz                    | $\pm 1.2 \%$                     | $\pm 5 \%$                   |
| 6 kHz < audio frequency < 25 kHz                    | $\pm 1.2 \%$                     | $\pm 3 \text{ dB}$           |
| Adjacent channel power                              | $\pm 1.6 \text{ dB}$             | $\pm 3 \text{ dB}$           |
| Sensibility of receiver (conducted)                 | $\pm 2.0 \text{ dB}$             | $\pm 3 \text{ dB}$           |
| Blocking                                            | $\pm 4.0 \text{ dB}$             | $\pm 4 \text{ dB}$           |
| Transitoire                                         |                                  |                              |
| Amplitude                                           | $\pm 8.5 \%$                     | $\pm 20 \%$                  |
| At the frequency                                    | $\pm 166 \text{ Hz}$             | $\pm 250 \text{ Hz}$         |
| Conducted emission (spurious)                       |                                  |                              |
| $f \leq 1 \text{ GHz}$                              | $\pm 0.8 \text{ dB}$             | $\pm 3 \text{ dB}$           |
| 1 GHz - 12.75 GHz                                   | $\pm 1.6 \text{ dB}$             |                              |
| Radiated emission (PAR / PIRE / RNE)                |                                  |                              |
| $f \leq 62.5 \text{ MHz}$                           | $\pm 5.1 \text{ dB}$             | $\pm 6 \text{ dB}$           |
| 62.5 MHz - 1 GHz                                    | $\pm 5.1 \text{ dB}$             | $\pm 6 \text{ dB}$           |
| 1 GHz - 18 GHz                                      | $\pm 5.2 \text{ dB}$             | $\pm 6 \text{ dB}$           |
| 18 GHz – 26 GHz                                     | $\pm 5.1 \text{ dB}$             | $\pm 6 \text{ dB}$           |
| 26 GHz – 40 GHz                                     | $\pm 5.4 \text{ dB}$             | $\pm 6 \text{ dB}$           |
| RF power (EN 300328 / EN 301893)                    | $\pm 5.3 \text{ dB}$             | $\pm 6 \text{ dB}$           |
| PIRE and power spectral density with diode          | $\pm 5.4 \text{ dB}$             | $\pm 6 \text{ dB}$           |
| Radiated emission (magnetic field)                  |                                  |                              |
| 9kHz – 30MHz                                        | $\pm 3 \text{ dB}$               | $\pm 6 \text{ dB}$           |
| RF level for a given BER                            | $\pm 0.8 \text{ dB}$             | $\pm 1.5 \text{ dB}$         |
| Supply voltages                                     | $\pm 3 \%$                       | $\pm 3 \%$                   |
| Temperature                                         | $\pm 1 \text{ }^{\circ}\text{C}$ | $\pm 1^{\circ}\text{C}$      |
| Humidity                                            | $\pm 5 \%$                       | $\pm 5 \%$                   |
| Time / Duty cycle                                   | $\pm 4.4 \%$                     | $\pm 5 \%$                   |
| Adaptivity                                          | $\pm 2.9 \text{ dB}$             | /                            |
| Radiated emission (electric field for FCC standard) |                                  |                              |
| 9kHz – 30MHz                                        | $\pm 2.7 \text{ dB}$             | /                            |
| 30MHz – 1GHz                                        | $\pm 5.0 \text{ dB}$             | /                            |
| 1GHz – 18GHz                                        | $\pm 5.6 \text{ dB}$             | /                            |
| 18GHz – 26GHz                                       | $\pm 5.7 \text{ dB}$             | /                            |
| 26GHz – 40GHz                                       | $\pm 5.7 \text{ dB}$             | /                            |

For the calcul of expanded uncertainty, the confidence interval is 95 % (k=2).

## 6. TEST CONDITIONS AND RESULTS

### 6.1. Measurement of conducted emission on AC mains ports

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                     |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| <b>Reference standard:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | FCC 47 CFR PART 15 : 2023<br>RSS-Gen Issue 5 : 2018 / AMD1: 2019 / AMD2: 2021                       |
| <b>Test method:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | §15.107 of FCC 47 CFR PART 15 : 2023<br>§ 7.2.4 of RSS-Gen Issue 5 : 2018 / AMD1: 2019 / AMD2: 2021 |
| <p><b>General test setup:</b> E.U.T. is set on an insulating support at 80 cm above the ground reference plane. All power was connected to the system through Artificial Mains Network (AMN). The AMN is placed at 40 cm from the boundary of the EUT and bonded to a ground reference plane.</p> <p>All tested telecommunications lines (if applicable) were connected to an Asymmetric Artificial Network (AAN) and conducted voltage measurements on telecommunications lines were made at the output of the AAN.</p> <p>Where an AAN was not appropriate or available, measurements were made using a Capacitive Voltage Probe and/or a Current probe.</p> |                                                                                                     |

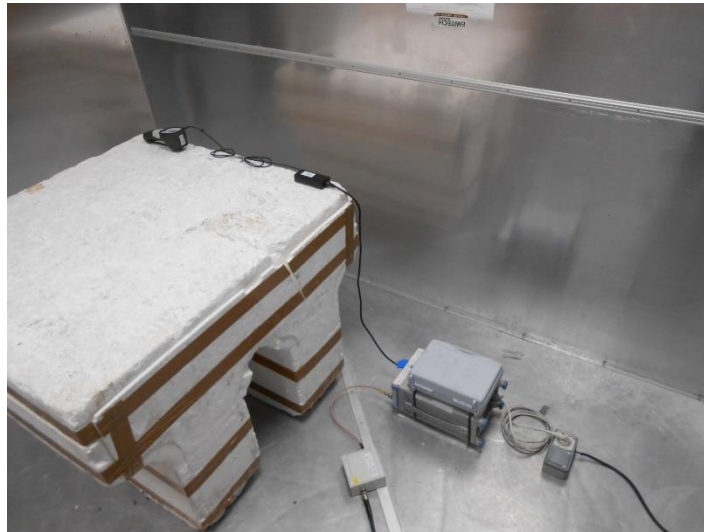
| TESTED CABLE                 | PARAMETER    | SEVERITY | VERDICT |
|------------------------------|--------------|----------|---------|
| Power supply 120 Vac / 60 Hz | 150kHz-30MHz | Class A  | -       |

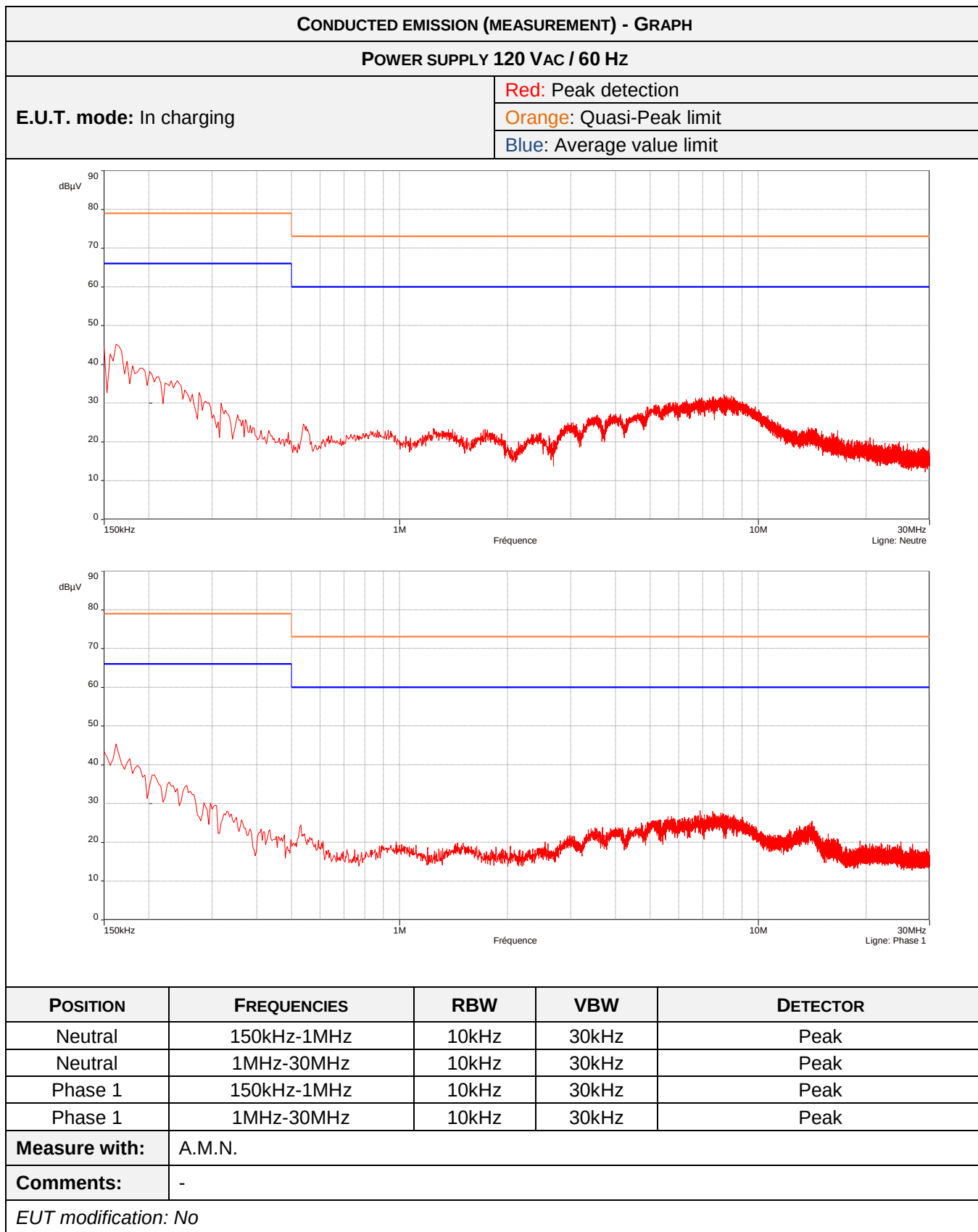
| LABORATORY PARAMETERS:                                                           | REQUIRED PRIOR TO THE TEST | DURING THE TEST |
|----------------------------------------------------------------------------------|----------------------------|-----------------|
| Ambient Temperature                                                              | 15 to 35 °C                | 22 °C           |
| Relative Humidity                                                                | 30 to 60 %                 | 45 %            |
| Atmospheric pressure                                                             | N/A                        | N/A             |
| <b>Test method deviation:</b> No.                                                |                            |                 |
| Supplementary information: The radio part is non-functional during the charging. |                            |                 |

| TEST EQUIPMENT USED |                |                 |                            |                    |                    |
|---------------------|----------------|-----------------|----------------------------|--------------------|--------------------|
| Order Nr            | Category       | Manufacturer    | Type                       | Last validity date | Next validity date |
| 16503               | Cable          | C&C             | BNC-0.5m                   | 25/02/2022         | 25/04/2024         |
| 11514               | Cable          | Micro-Coax      | N-2m                       | 20/06/2022         | 20/08/2024         |
| 09492               | Cable          | Emitech         | Absorbeur courant de gaine | 09/02/2023         | 09/04/2025         |
| 14565               | LISN           | Rohde & Schwarz | ENV216                     | 01/06/2023         | 01/08/2025         |
| 10067               | PE coil        | Emitech         | CISPR 16-2-1 : 2008        |                    |                    |
| 02102               | Power supply   | Secas           | CF1000 50/60               |                    |                    |
| 06089               | Receiver       | Rohde & Schwarz | ESIB26                     | 15/11/2022         | 15/01/2025         |
| 00000               | Software       | Nexio           | BAT EMC                    |                    |                    |
| 14875               | Test enclosure | Emitech         | HC1                        |                    |                    |

BAT-EMC software version: V3.18.0.26  
Blank cells = Permanent validity

TEST SETUP PHOTOS - POWER SUPPLY 120 VAC / 60 Hz





## 6.2.20 dB bandwidth and 99% bandwidth

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|
| <b>Reference standard:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | FCC 47 CFR PART 15 : 2023<br>RSS-Gen Issue 5 : 2018 / AMD1: 2019 / AMD2: 2021                                  |
| <b>Test method:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | § 15.247 (a) (1) (i) of FCC 47 CFR PART 15 : 2023<br>§ 6.7 of RSS-Gen Issue 5 : 2018 / AMD1: 2019 / AMD2: 2021 |
| <p><b>General test setup:</b> E.U.T. is set on an insulating support at 80 cm above the ground reference plane. Measurement are done on a normalized test site by the substitution method.</p> <p>The test antenna is oriented in the two polarizations (vertical and horizontal), and the product is rotated at 360° in the horizontal plane (See photo(s) for initial position of the EUT(0°)). If applicable the test antenna was raised and lowered through the specified range of height until a maximum signal level is detected.</p> <p>For portable equipments a research of maximum level is done on the 3 axes. Only the highest levels are recorded.</p> |                                                                                                                |

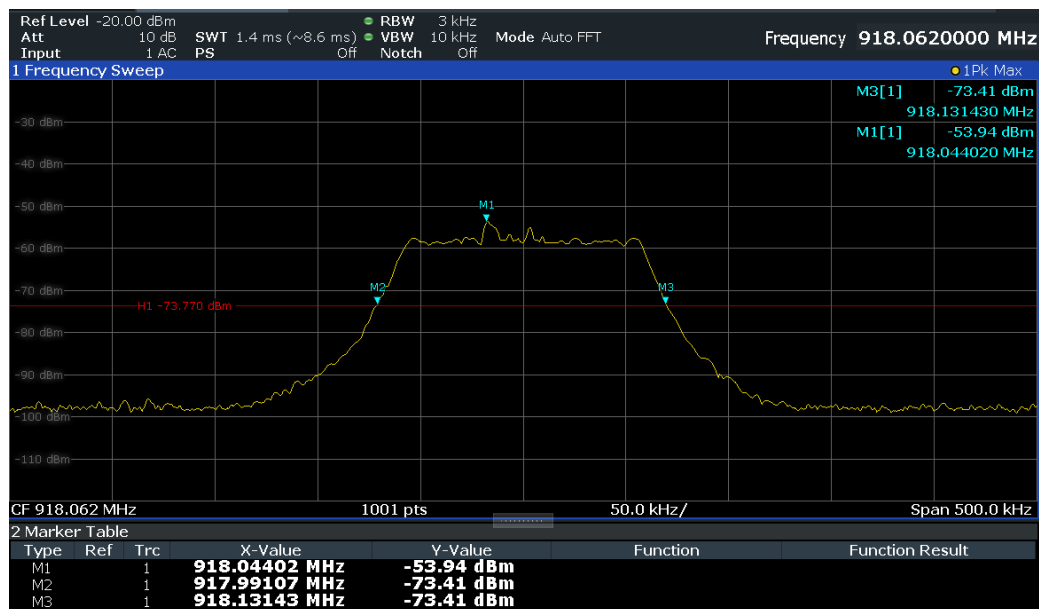
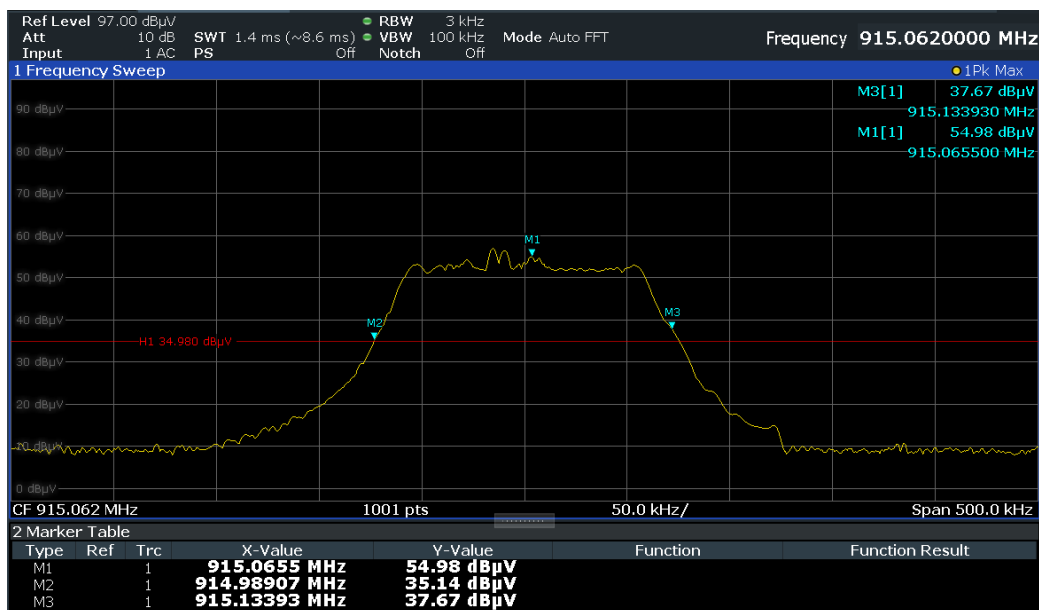
| LABORATORY PARAMETERS:           | REQUIRED PRIOR TO THE TEST | DURING THE TEST |
|----------------------------------|----------------------------|-----------------|
| Ambient Temperature              | 10 to 40 °C                | 22°C            |
| Relative Humidity                | 10 to 90 %                 | 45%             |
| Atmospheric pressure             | N/A                        | N/A             |
| <b>Test method deviation:</b> No |                            |                 |
| Supplementary information: -     |                            |                 |

| TEST EQUIPMENT USED |                    |                 |        |                    |                    |
|---------------------|--------------------|-----------------|--------|--------------------|--------------------|
| Order Nr            | Category           | Manufacturer    | Type   | Last validity date | Next validity date |
| 00294               | Antenna            | Rohde & Schwarz | HL223  | 05/05/2023         | 05/07/2026         |
| 11184               | Cable              | C&C             | N-5M   | 22/06/2023         | 22/08/2024         |
| 17269               | Cable              | Huber + Suhner  | N-6M   | 29/08/2022         | 29/10/2024         |
| 06089               | Receiver           | Rohde & Schwarz | ESIB26 | 15/11/2022         | 15/01/2025         |
| 14622               | Shielded enclosure | Comtest         | SAC 3M | 27/04/2022         | 27/06/2025         |

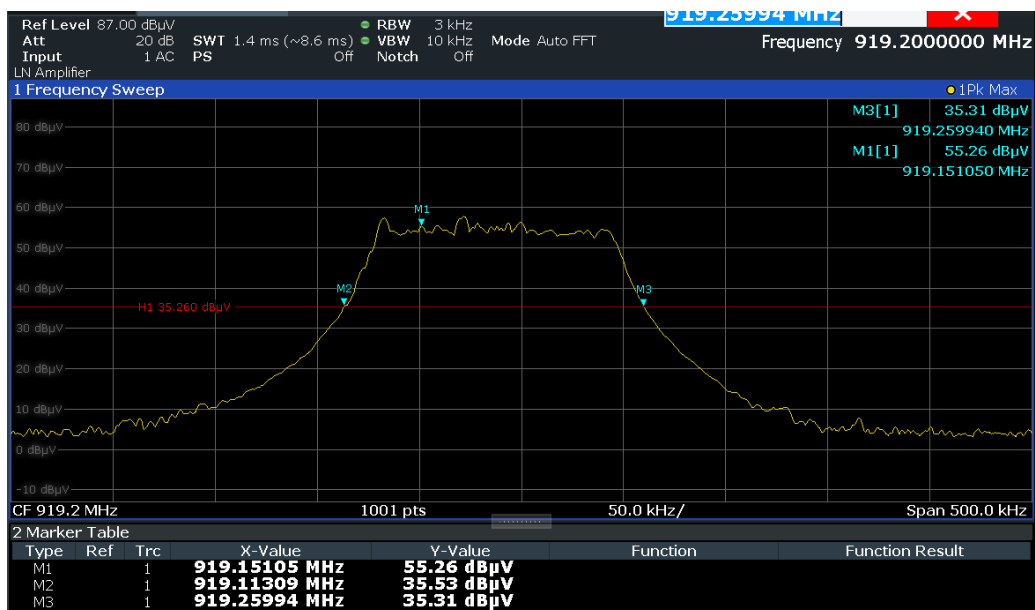
Blank cells = Permanent validity

20 dB Bandwidth

| Frequency   | Results (kHz) | Limit (kHz) |
|-------------|---------------|-------------|
| 915.062 MHz | 144.86        | 500         |
| 918.062 MHz | 140.36        | 500         |
| 919.187 MHz | 146.85        | 500         |

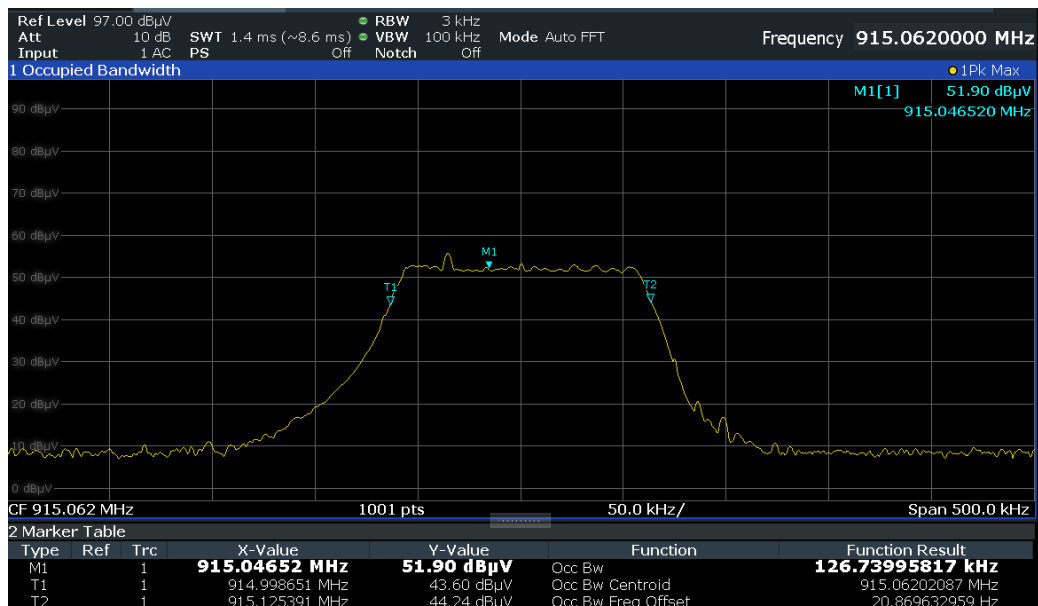


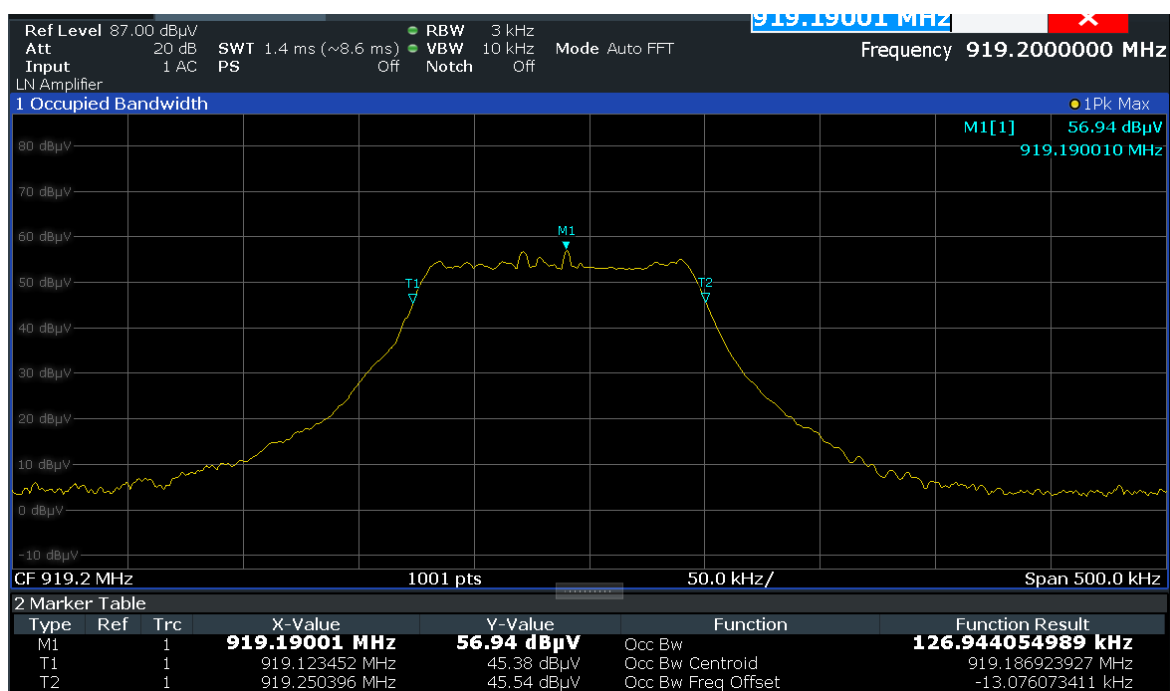
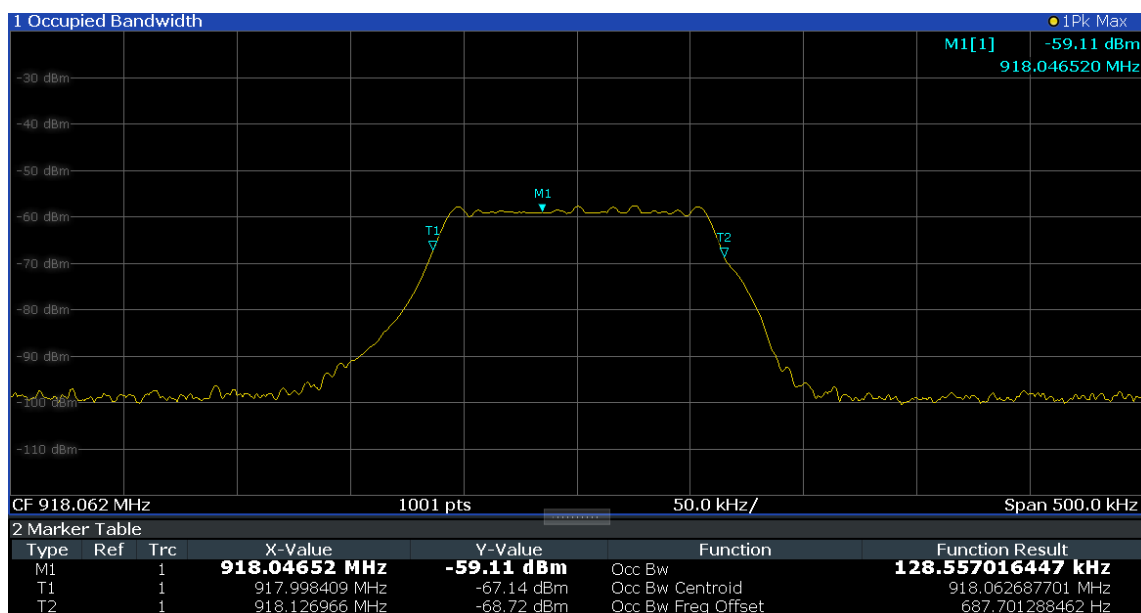




99% Bandwidth

| Frequency   | Results (kHz) |
|-------------|---------------|
| 915.062 MHz | 126.7         |
| 918.062 MHz | 128.5         |
| 919.187 MHz | 126.9         |





### 6.3. Carrier Frequency Separation

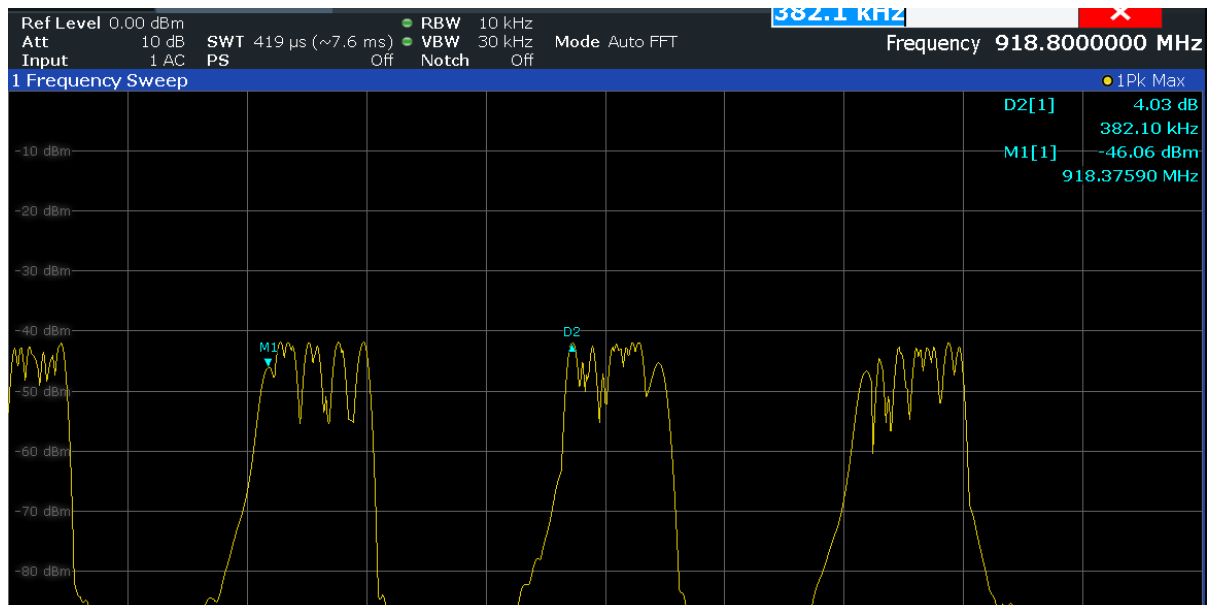
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                    |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| <b>Reference standard:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | FCC 47 CFR PART 15 : 2023<br>RSS-247 Issue 2 : 2017                                |
| <b>Test method:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | § 15.247 a) (1) of FCC 47 CFR PART 15 : 2023<br>§ 5.1 a) of RSS-247 Issue 2 : 2017 |
| <p><b>General test setup:</b> E.U.T. is set on an insulating support at 80 cm above the ground reference plane. Measurement are done on a normalized test site.</p> <p>The test antenna is oriented in the two polarizations (vertical and horizontal), and the product is rotated at 360° in the horizontal plane (See photo(s) for initial position of the EUT(0°)). If applicable the test antenna was raised and lowered through the specified range of height until a maximum signal level is detected.</p> <p>For portable equipments a research of maximum level is done on the 3 axes. Only the highest levels are recorded.</p> |                                                                                    |

| LABORATORY PARAMETERS:           | REQUIRED PRIOR TO THE TEST | DURING THE TEST |
|----------------------------------|----------------------------|-----------------|
| Ambient Temperature              | 10 to 40 °C                | 22°C            |
| Relative Humidity                | 10 to 90 %                 | 45%             |
| Atmospheric pressure             | N/A                        | N/A             |
| <b>Test method deviation:</b> No |                            |                 |
| Supplementary information: -     |                            |                 |

| TEST EQUIPMENT USED |                    |                 |        |                    |                    |
|---------------------|--------------------|-----------------|--------|--------------------|--------------------|
| Order Nr            | Category           | Manufacturer    | Type   | Last validity date | Next validity date |
| 00294               | Antenna            | Rohde & Schwarz | HL223  | 05/05/2023         | 05/07/2026         |
| 11184               | Cable              | C&C             | N-5M   | 22/06/2023         | 22/08/2024         |
| 17269               | Cable              | Huber + Suhner  | N-6M   | 29/08/2022         | 29/10/2024         |
| 06089               | Receiver           | Rohde & Schwarz | ESIB26 | 15/11/2022         | 15/01/2025         |
| 14622               | Shielded enclosure | Comtest         | SAC 3M | 27/04/2022         | 27/06/2025         |

Blank cells = Permanent validity

| Channel separation<br>Results (kHz) | Limit (kHz) |
|-------------------------------------|-------------|
| 382.1                               | > 25        |



## 6.4. Number of Hopping Channel

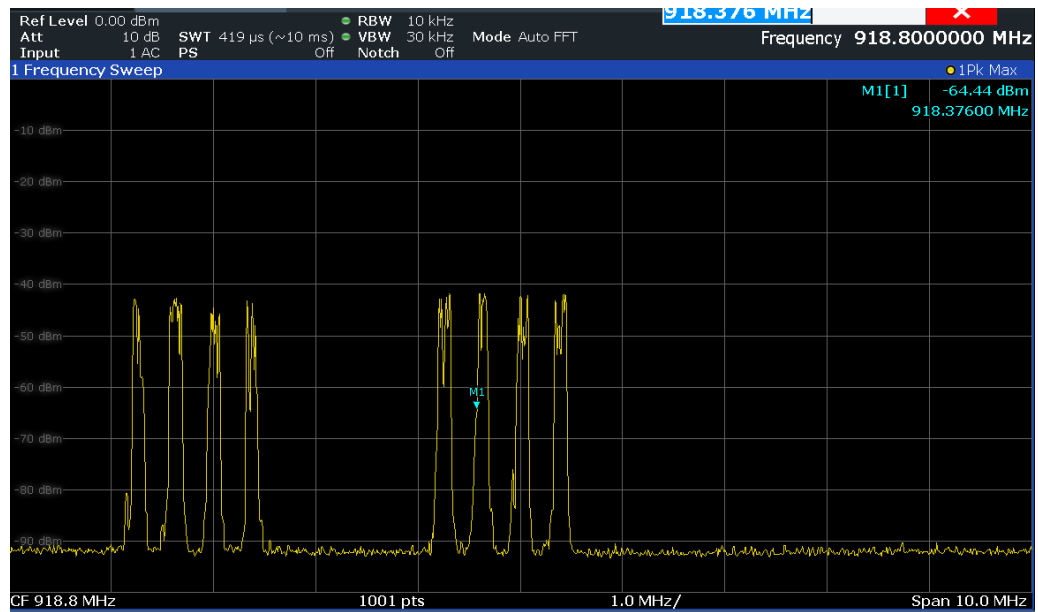
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|
| <b>Reference standard:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | FCC 47 CFR PART 15 : 2023<br>RSS-247 Issue 2 : 2017                            |
| <b>Test method:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | § 15.247 f) of FCC 47 CFR PART 15 : 2023<br>§ 5.1 c) of RSS-247 Issue 2 : 2017 |
| <p><b>General test setup:</b> E.U.T. is set on an insulating support at 80 cm above the ground reference plane. Measurement are done on a normalized test site.</p> <p>The test antenna is oriented in the two polarizations (vertical and horizontal), and the product is rotated at 360° in the horizontal plane (See photo(s) for initial position of the EUT(0°)). If applicable the test antenna was raised and lowered through the specified range of height until a maximum signal level is detected.</p> <p>For portable equipments a research of maximum level is done on the 3 axes. Only the highest levels are recorded.</p> |                                                                                |

| LABORATORY PARAMETERS:           | REQUIRED PRIOR TO THE TEST | DURING THE TEST |
|----------------------------------|----------------------------|-----------------|
| Ambient Temperature              | 10 to 40 °C                | 22°C            |
| Relative Humidity                | 10 to 90 %                 | 45%             |
| Atmospheric pressure             | N/A                        | N/A             |
| <b>Test method deviation:</b> No |                            |                 |
| Supplementary information: -     |                            |                 |

| TEST EQUIPMENT USED |                    |                 |        |                    |                    |
|---------------------|--------------------|-----------------|--------|--------------------|--------------------|
| Order Nr            | Category           | Manufacturer    | Type   | Last validity date | Next validity date |
| 00294               | Antenna            | Rohde & Schwarz | HL223  | 05/05/2023         | 05/07/2026         |
| 11184               | Cable              | C&C             | N-5M   | 22/06/2023         | 22/08/2024         |
| 17269               | Cable              | Huber + Suhner  | N-6M   | 29/08/2022         | 29/10/2024         |
| 06089               | Receiver           | Rohde & Schwarz | ESIB26 | 15/11/2022         | 15/01/2025         |
| 14622               | Shielded enclosure | Comtest         | SAC 3M | 27/04/2022         | 27/06/2025         |

Blank cells = Permanent validity

| Number of hopping channels<br>Results | Limit |
|---------------------------------------|-------|
| 8                                     | -     |



## 6.5. Dwell Time

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                        |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| <b>Reference standard:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | FCC 47 CFR PART 15 : 2023<br>RSS-247 Issue 2 : 2017                                    |
| <b>Test method:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | § 15.247 a) (1) (i) of FCC 47 CFR PART 15 : 2023<br>§ 5.1 c) of RSS-247 Issue 2 : 2017 |
| <p><b>General test setup:</b> E.U.T. is set on an insulating support at 80 cm above the ground reference plane. Measurement are done on a normalized test site.</p> <p>The test antenna is oriented in the two polarizations (vertical and horizontal), and the product is rotated at 360° in the horizontal plane (See photo(s) for initial position of the EUT(0°)). If applicable the test antenna was raised and lowered through the specified range of height until a maximum signal level is detected.</p> <p>For portable equipments a research of maximum level is done on the 3 axes. Only the highest levels are recorded.</p> |                                                                                        |

| LABORATORY PARAMETERS:           | REQUIRED PRIOR TO THE TEST | DURING THE TEST |
|----------------------------------|----------------------------|-----------------|
| Ambient Temperature              | 10 to 40 °C                | 22°C            |
| Relative Humidity                | 10 to 90 %                 | 45%             |
| Atmospheric pressure             | N/A                        | N/A             |
| <b>Test method deviation:</b> No |                            |                 |
| Supplementary information: -     |                            |                 |

| TEST EQUIPMENT USED |                    |                 |        |                    |                    |
|---------------------|--------------------|-----------------|--------|--------------------|--------------------|
| Order Nr            | Category           | Manufacturer    | Type   | Last validity date | Next validity date |
| 00294               | Antenna            | Rohde & Schwarz | HL223  | 05/05/2023         | 05/07/2026         |
| 11184               | Cable              | C&C             | N-5M   | 22/06/2023         | 22/08/2024         |
| 17269               | Cable              | Huber + Suhner  | N-6M   | 29/08/2022         | 29/10/2024         |
| 06089               | Receiver           | Rohde & Schwarz | ESIB26 | 15/11/2022         | 15/01/2025         |
| 14622               | Shielded enclosure | Comtest         | SAC 3M | 27/04/2022         | 27/06/2025         |

Blank cells = Permanent validity



| Dwell time<br>Results (ms) | Pulse's on time<br>(ms) | Total hops | Limit (ms) |
|----------------------------|-------------------------|------------|------------|
| 121.6                      | 121.6                   | 1          | < 400      |



## 6.6. Transmitter output power

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                 |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|
| <b>Reference standard:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | FCC 47 CFR PART 15 : 2023<br>RSS-247 Issue 2 : 2017                             |
| <b>Test method:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | § 15.247 b) (3) of FCC 47 CFR PART 15 : 2023<br>§ 5.4 of RSS-247 Issue 2 : 2017 |
| <p><b>General test setup:</b> E.U.T. is set on an insulating support at 80 cm above the ground reference plane. Measurement are done on a normalized test site by the substitution method.</p> <p>The test antenna is oriented in the two polarizations (vertical and horizontal), and the product is rotated at 360° in the horizontal plane (See photo(s) for initial position of the EUT(0°)). If applicable the test antenna was raised and lowered through the specified range of height until a maximum signal level is detected.</p> <p>For portable equipments a research of maximum level is done on the 3 axes. Only the highest levels are recorded.</p> |                                                                                 |

| LABORATORY PARAMETERS:           | REQUIRED PRIOR TO THE TEST | DURING THE TEST |
|----------------------------------|----------------------------|-----------------|
| Ambient Temperature              | 10 to 40 °C                | 22°C            |
| Relative Humidity                | 10 to 90 %                 | 45%             |
| Atmospheric pressure             | N/A                        | N/A             |
| <b>Test method deviation:</b> No |                            |                 |
| Supplementary information: -     |                            |                 |

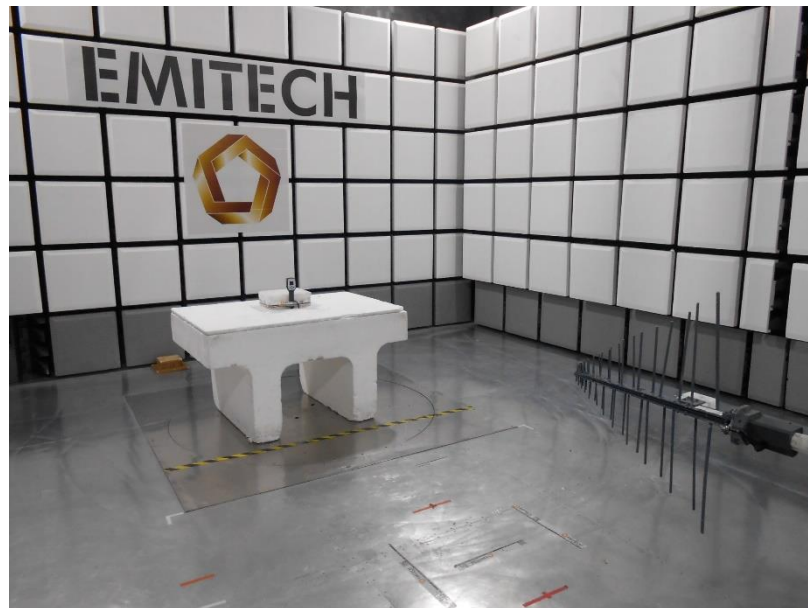
| TEST EQUIPMENT USED |                    |                 |        |                    |                    |
|---------------------|--------------------|-----------------|--------|--------------------|--------------------|
| Order Nr            | Category           | Manufacturer    | Type   | Last validity date | Next validity date |
| 00294               | Antenna            | Rohde & Schwarz | HL223  | 05/05/2023         | 05/07/2026         |
| 11184               | Cable              | C&C             | N-5M   | 22/06/2023         | 22/08/2024         |
| 17269               | Cable              | Huber + Suhner  | N-6M   | 29/08/2022         | 29/10/2024         |
| 06089               | Receiver           | Rohde & Schwarz | ESIB26 | 15/11/2022         | 15/01/2025         |
| 14622               | Shielded enclosure | Comtest         | SAC 3M | 27/04/2022         | 27/06/2025         |

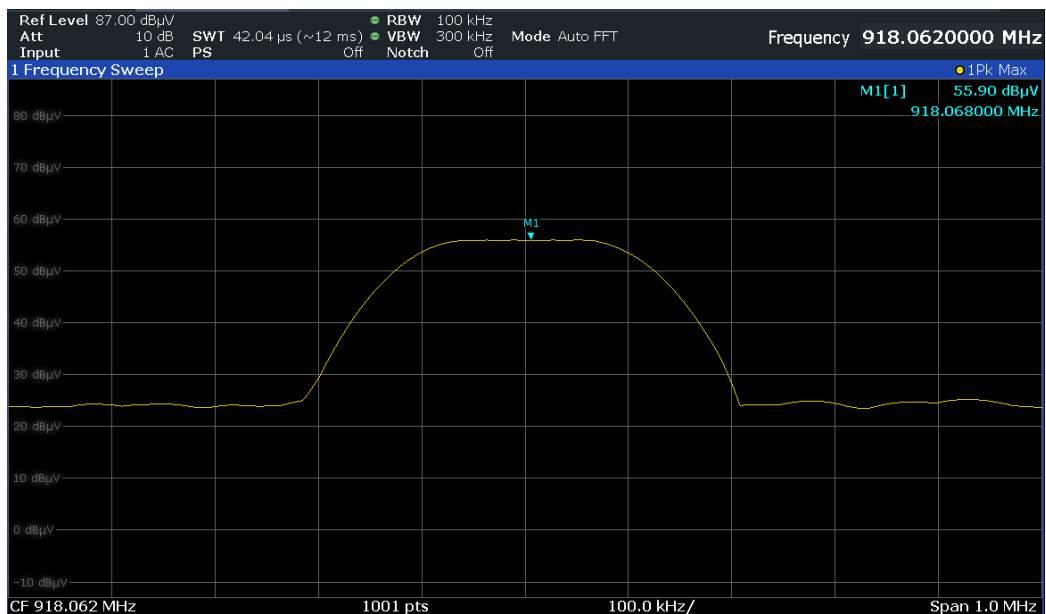
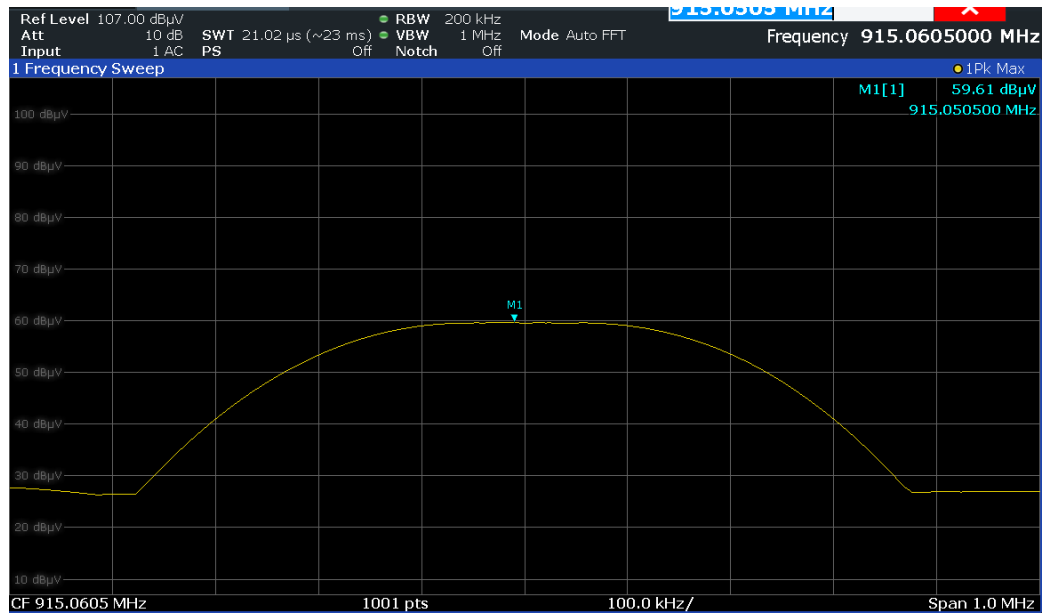
Blank cells = Permanent validity

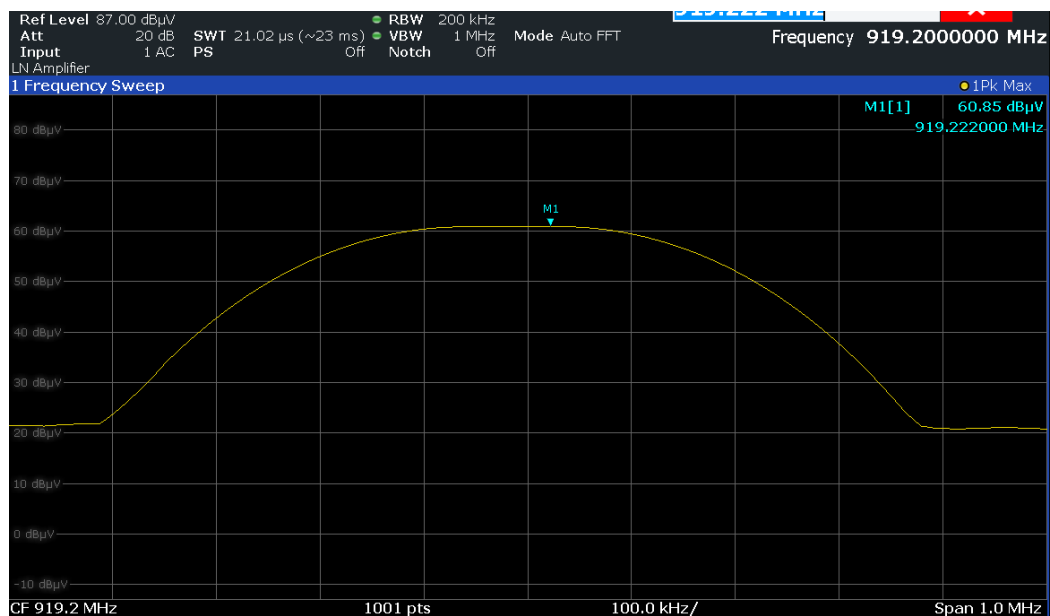
| Frequency   | Electro-magnetic field<br>(dB $\mu$ V/m) | TP* (dBm) | Limit (dBm) |
|-------------|------------------------------------------|-----------|-------------|
| 915.062 MHz | 87.21                                    | - 10.2    | + 30.0      |
| 918.062 MHz | 83.50                                    | - 13.9    | + 30.0      |
| 919.187 MHz | 88.45                                    | - 8.9     | + 30.0      |

\* TP = (E x d)<sup>2</sup> / (30 x 1.64) for d = 3 m

E.U.T. position:







## 6.7. Peak power spectral density

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|
| <b>Reference standard:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | FCC 47 CFR PART 15 : 2023<br>RSS-247 Issue 2 : 2017                            |
| <b>Test method:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | § 15.247 f) of FCC 47 CFR PART 15 : 2023<br>§ 5.2 b) of RSS-247 Issue 2 : 2017 |
| <p><b>General test setup:</b> E.U.T. is set on an insulating support at 80 cm above the ground reference plane. Measurement are done on a normalized test site by the substitution method.</p> <p>The test antenna is oriented in the two polarizations (vertical and horizontal), and the product is rotated at 360° in the horizontal plane (See photo(s) for initial position of the EUT(0°)). If applicable the test antenna was raised and lowered through the specified range of height until a maximum signal level is detected.</p> <p>For portable equipments a research of maximum level is done on the 3 axes. Only the highest levels are recorded.</p> |                                                                                |

| LABORATORY PARAMETERS:           | REQUIRED PRIOR TO THE TEST | DURING THE TEST |
|----------------------------------|----------------------------|-----------------|
| Ambient Temperature              | 10 to 40 °C                | 22°C            |
| Relative Humidity                | 10 to 90 %                 | 45%             |
| Atmospheric pressure             | N/A                        | N/A             |
| <b>Test method deviation:</b> No |                            |                 |
| Supplementary information: -     |                            |                 |

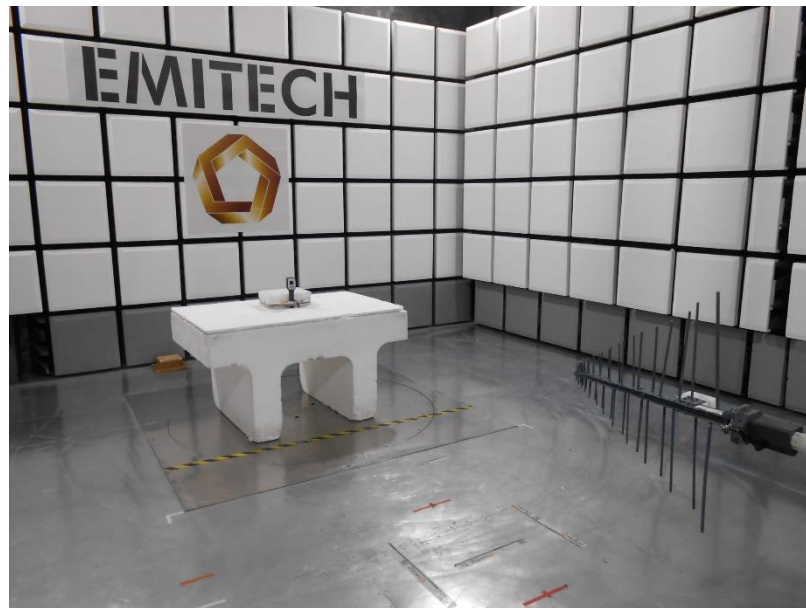
| TEST EQUIPMENT USED |                    |                 |        |                    |                    |
|---------------------|--------------------|-----------------|--------|--------------------|--------------------|
| Order Nr            | Category           | Manufacturer    | Type   | Last validity date | Next validity date |
| 00294               | Antenna            | Rohde & Schwarz | HL223  | 05/05/2023         | 05/07/2026         |
| 11184               | Cable              | C&C             | N-5M   | 22/06/2023         | 22/08/2024         |
| 17269               | Cable              | Huber + Suhner  | N-6M   | 29/08/2022         | 29/10/2024         |
| 06089               | Receiver           | Rohde & Schwarz | ESIB26 | 15/11/2022         | 15/01/2025         |
| 14622               | Shielded enclosure | Comtest         | SAC 3M | 27/04/2022         | 27/06/2025         |

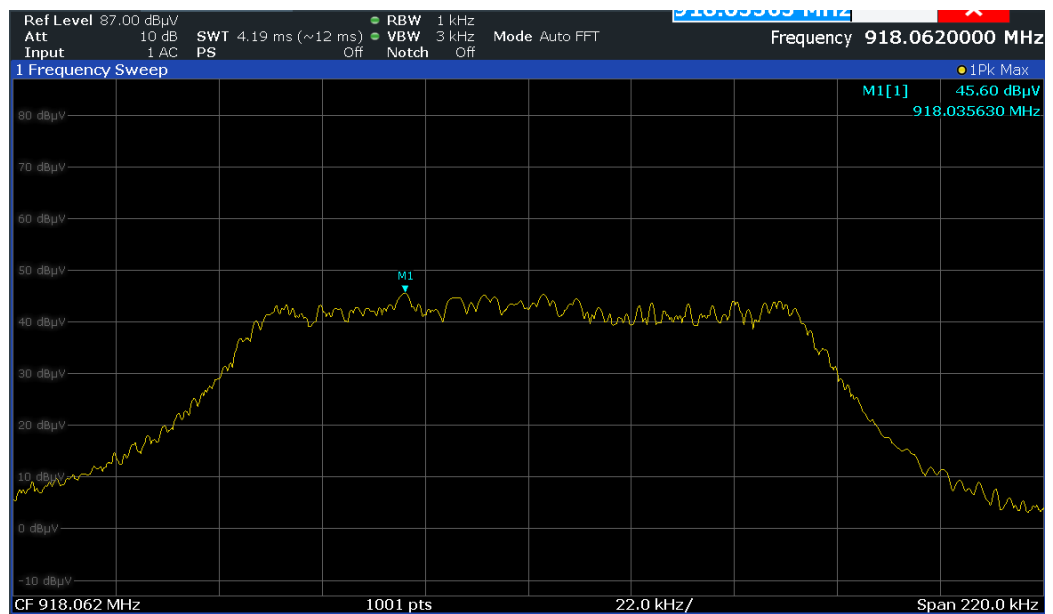
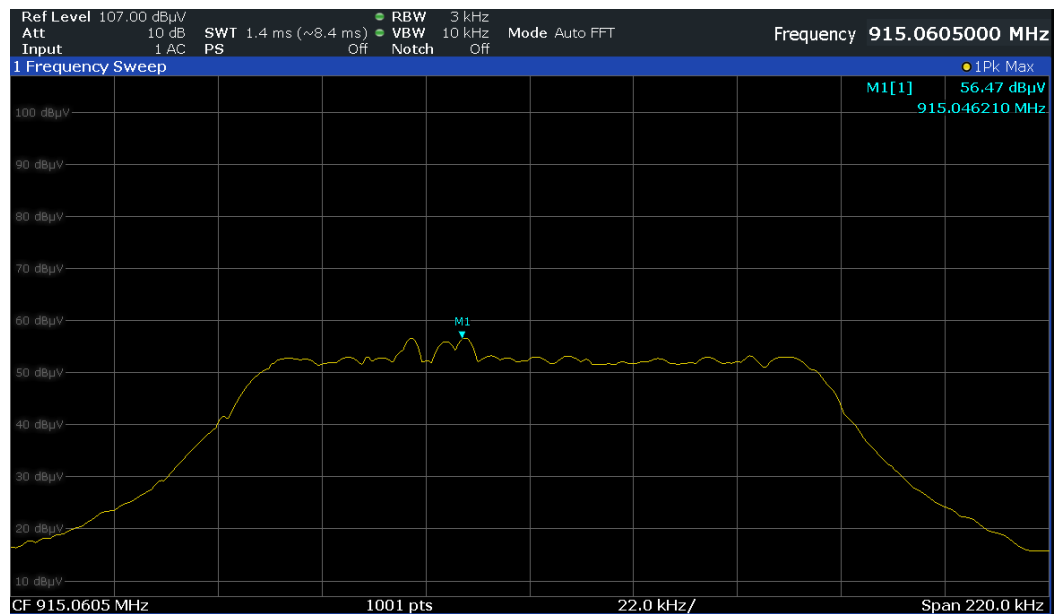
Blank cells = Permanent validity

| Frequency   | Electro-magnetic field (dBμV/m) | TP* (dBm) | Limit (dBm) |
|-------------|---------------------------------|-----------|-------------|
| 915.062 MHz | 84.07                           | - 13.3    | + 8.0       |
| 918.062 MHz | 73.20                           | - 24.2    | + 8.0       |
| 919.187 MHz | 85.90                           | - 11.5    | + 8.0       |

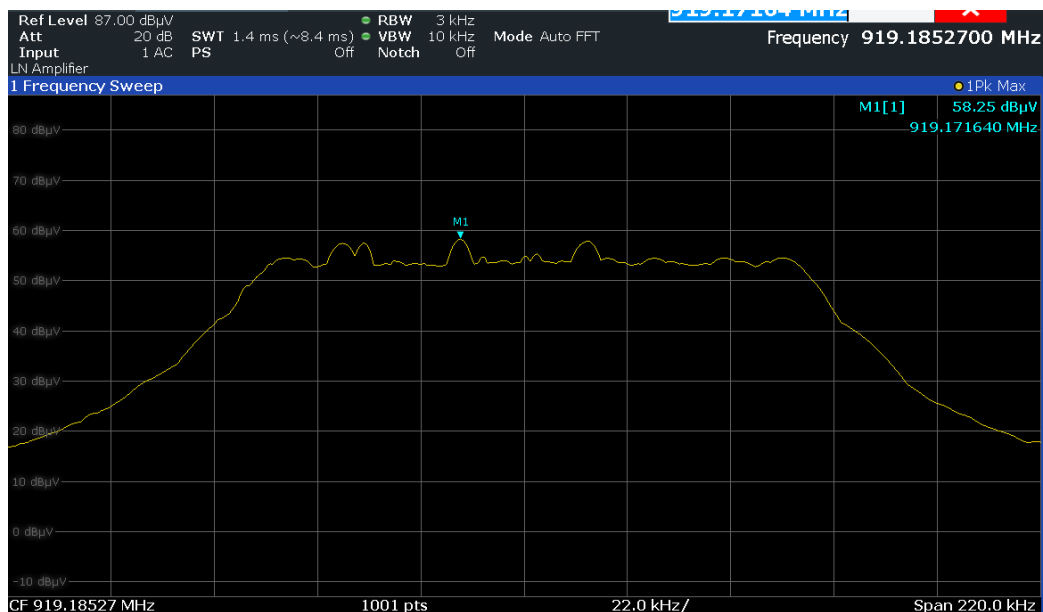
\* TP =  $(E \times d)^2 / (30 \times 1.64)$  for d = 3 m

E.U.T. position:









## 6.8. Additional provisions to the general radiated emissions limitation

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                             |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|
| <b>Reference standard:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | FCC 47 CFR PART 15 : 2023<br>RSS-247 Issue 2 : 2017                                         |
| <b>Test method:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | § 15.215 b) and § 15.247 d) of FCC 47 CFR PART 15 : 2023<br>§ 5.5 of RSS-247 Issue 2 : 2017 |
| <p><b>General test setup:</b> E.U.T. is set on an insulating support at 80 cm above the ground reference plane. Measurement are done on a normalized test site by the substitution method.</p> <p>The test antenna is oriented in the two polarizations (vertical and horizontal), and the product is rotated at 360° in the horizontal plane (See photo(s) for initial position of the EUT(0°)). If applicable the test antenna was raised and lowered through the specified range of height until a maximum signal level is detected.</p> <p>For portable equipments a research of maximum level is done on the 3 axes. Only the highest levels are recorded.</p> |                                                                                             |

| LABORATORY PARAMETERS:           | REQUIRED PRIOR TO THE TEST | DURING THE TEST |
|----------------------------------|----------------------------|-----------------|
| Ambient Temperature              | 10 to 40 °C                | 22°C            |
| Relative Humidity                | 10 to 90 %                 | 45%             |
| Atmospheric pressure             | N/A                        | N/A             |
| <b>Test method deviation:</b> No |                            |                 |
| Supplementary information: -     |                            |                 |

| TEST EQUIPMENT USED |                    |                 |        |                    |                    |
|---------------------|--------------------|-----------------|--------|--------------------|--------------------|
| Order Nr            | Category           | Manufacturer    | Type   | Last validity date | Next validity date |
| 00294               | Antenna            | Rohde & Schwarz | HL223  | 05/05/2023         | 05/07/2026         |
| 11184               | Cable              | C&C             | N-5M   | 22/06/2023         | 22/08/2024         |
| 17269               | Cable              | Huber + Suhner  | N-6M   | 29/08/2022         | 29/10/2024         |
| 06089               | Receiver           | Rohde & Schwarz | ESIB26 | 15/11/2022         | 15/01/2025         |
| 14622               | Shielded enclosure | Comtest         | SAC 3M | 27/04/2022         | 27/06/2025         |

Blank cells = Permanent validity

Band Edge measurement :

Polarization of test antenna: Vertical (height = 280 cm)  
Position of equipment: azimuth = 170°

} For 915.062 MHz

Polarization of test antenna: Vertical (height = 280 cm)  
Position of equipment: azimuth = 170°

} For 918.062 MHz

Polarization of test antenna: Vertical (height = 280 cm)  
Position of equipment: azimuth = 170°

} For 919.187 MHz

| Frequency (MHz) | Field Strength Level of fundamental (dBμV/m) | Detector (Peak or Average) | Frequency of maximum Band-edges Emission (MHz) | Calculated Max Out of Band Emission Level (dBμV/m) | Limit (dBμV/m) | Margin (dB) |
|-----------------|----------------------------------------------|----------------------------|------------------------------------------------|----------------------------------------------------|----------------|-------------|
| 915.62          | 87.21                                        | Peak                       | ①                                              | -                                                  | 54.0           | -           |
| 918.062         | 83.50                                        | Peak                       | ①                                              | -                                                  |                | -           |
| 919.187         | 88.45                                        | Peak                       | ①                                              | -                                                  |                | -           |

① : No frequencies were observed above the measurement noise.

## 6.9. Unintentional radiated emissions and transmitter unwanted emission in the band 9 kHz – 10 GHz

|                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                            |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|
| <b>Reference standard:</b>                                                                                                                                                                                                                                                                                                                                                   | FCC 47 CFR PART 15 : 2023<br>RSS-Gen Issue 5 : 2018 / AMD1: 2019 / AMD2: 2021                                              |
| <b>Test method:</b>                                                                                                                                                                                                                                                                                                                                                          | § 15.205; § 15.209 and § 15.247 of FCC 47 CFR PART 15 : 2023<br>§ 6.13 of RSS-Gen Issue 5 : 2018 / AMD1: 2019 / AMD2: 2021 |
| <b>General test setup:</b> E.U.T. is set on an insulating support at 0.8 m (<1GHz) and 1.5 m (>1GHz) above the ground reference plane.<br>For maximum meter reading at each frequency, the antenna height is adjusted between 1 m and 4 m above the ground plane for 9 kHz - 10 GHz. A 360 degrees rotation of the EUT is performed in vertical and horizontal polarization. |                                                                                                                            |

| TESTED CONFIGURATION          | PARAMETER  | VERDICT     |
|-------------------------------|------------|-------------|
| Maxhold 360° - Tx 915.062 MHz | 9kHz-30MHz | <b>PASS</b> |
| Maxhold 360° - Tx 918.062 MHz | 9kHz-30MHz | <b>PASS</b> |
| Maxhold 360° - Tx 919.187 MHz | 9kHz-30MHz | <b>PASS</b> |
| Maxhold 360° - Tx 915.062 MHz | 30MHz-1GHz | <b>PASS</b> |
| Maxhold 360° - Tx 918.062 MHz | 30MHz-1GHz | <b>PASS</b> |
| Maxhold 360° - Tx 919.187 MHz | 30MHz-1GHz | <b>PASS</b> |
| Maxhold 360° - Tx 915.062 MHz | 1GHz-10GHz | <b>PASS</b> |
| Maxhold 360° - Tx 918.062 MHz | 1GHz-10GHz | <b>PASS</b> |
| Maxhold 360° - Tx 919.187 MHz | 1GHz-10GHz | <b>PASS</b> |

| LABORATORY PARAMETERS:           | REQUIRED PRIOR TO THE TEST | DURING THE TEST |
|----------------------------------|----------------------------|-----------------|
| Ambient Temperature              | 10 to 40 °C                | 23°C            |
| Relative Humidity                | 10 to 90 %                 | 37%             |
| Atmospheric pressure             | N/A                        | N/A             |
| <b>Test method deviation:</b> No |                            |                 |
| Supplementary information: -     |                            |                 |

| TEST EQUIPMENT USED |                        |                |            |            |            |
|---------------------|------------------------|----------------|------------|------------|------------|
| CATEGORY            | BRAND                  | TYPE           | IDENTIFIER | CAL. DATE  | CAL. DUE   |
| Amplifier           | Mini-Circuit           | ZFL-1000LN     | 00364      | 15/02/2023 | 15/04/2024 |
| Amplifier           | Agilent                | 8449B          | 14487      | 12/09/2023 | 12/11/2024 |
| Antenna             | Rohde & Schwarz        | HL223          | 00294      | 05/05/2023 | 05/07/2026 |
| Antenna             | Rohde & Schwarz        | HK116          | 00293      | 30/09/2021 | 30/11/2024 |
| Antenna             | Eaton                  | 96009/2        | 04713      | 22/02/2023 | 22/04/2025 |
| Antenna             | Emco                   | 3115           | 00941      | 01/03/2022 | 01/05/2025 |
| Cable               | C&C                    | N-5M           | 11184      | 22/06/2023 | 22/08/2024 |
| Cable               | C&C                    | N-4M           | 14226      | 26/06/2023 | 26/08/2024 |
| Cable               | Câbles Et Connectiques | N-2M           | 02451      | 29/08/2022 | 29/10/2024 |
| Cable               | Huber + Suhner         | N-6M           | 17269      | 29/08/2022 | 29/10/2024 |
| Filter              | Trilithic              | 6HC1300-2.5-KK | 01097      | 13/06/2022 | 13/08/2025 |
| Receiver            | Rohde & Schwarz        | ESIB26         | 006089     | 15/11/2022 | 15/01/2025 |
| Receiver            | Rohde & Schwarz        | ESW44          | 17058      | 15/06/2023 | 15/08/2024 |
| Shielded enclosure  | Comtest                | SAC 3M         | 14622      | 27/04/2022 | 27/06/2025 |
| Software            | Nexio                  | BAT EMC        | 0000       |            |            |

BAT-EMC software version: V3.18.0.26  
Blank cells = Permanent validity

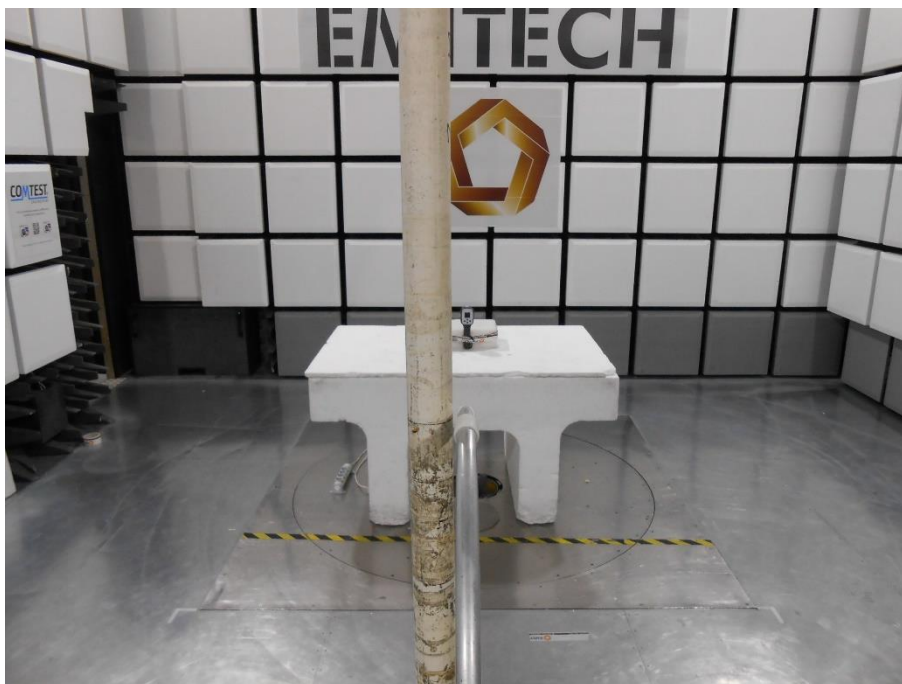
TEST SETUP PHOTOS

9 kHz – 30 MHz



TEST SETUP PHOTOS

9 kHz – 30 MHz



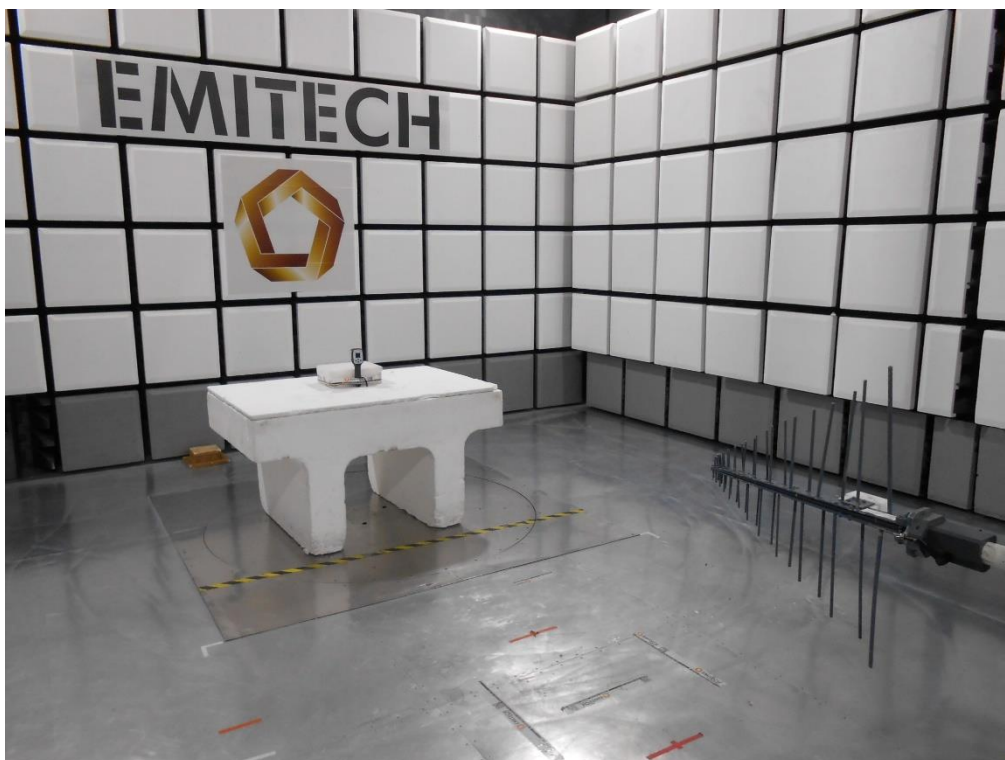


TEST SETUP PHOTOS  
30 MHz – 1 GHz

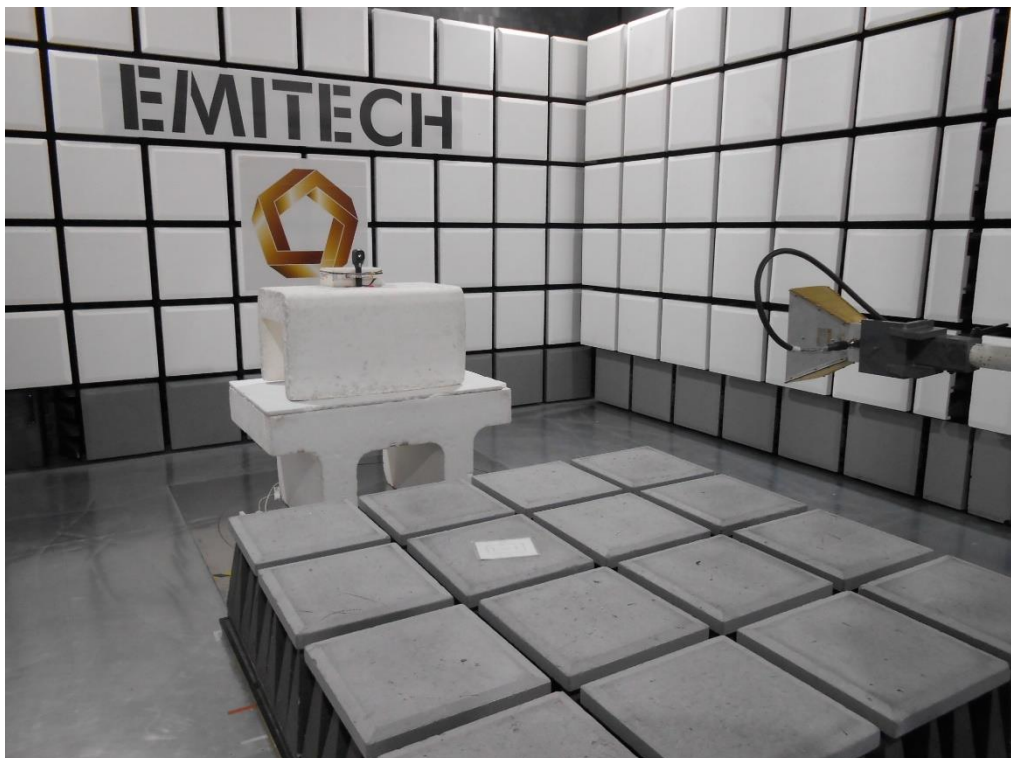


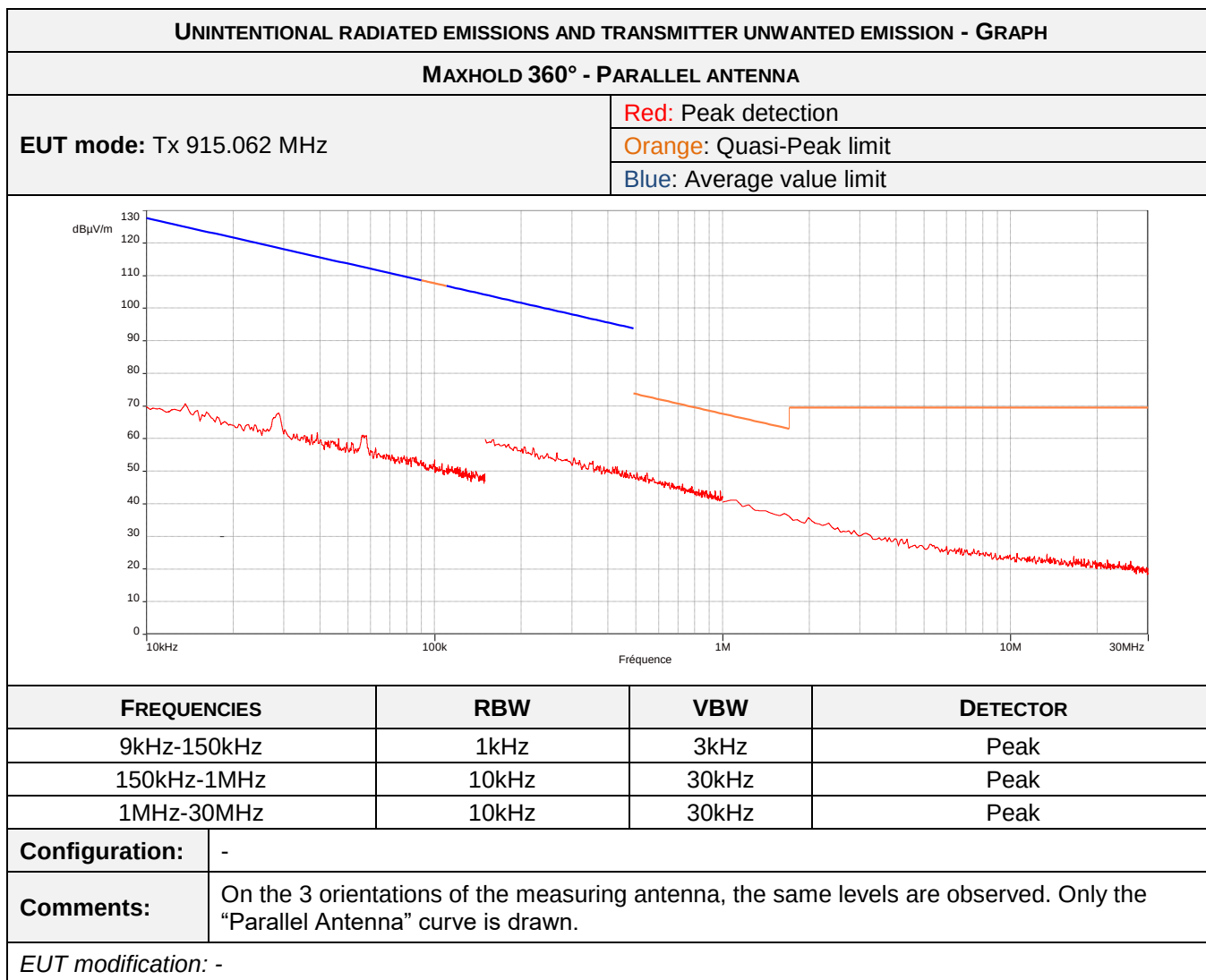


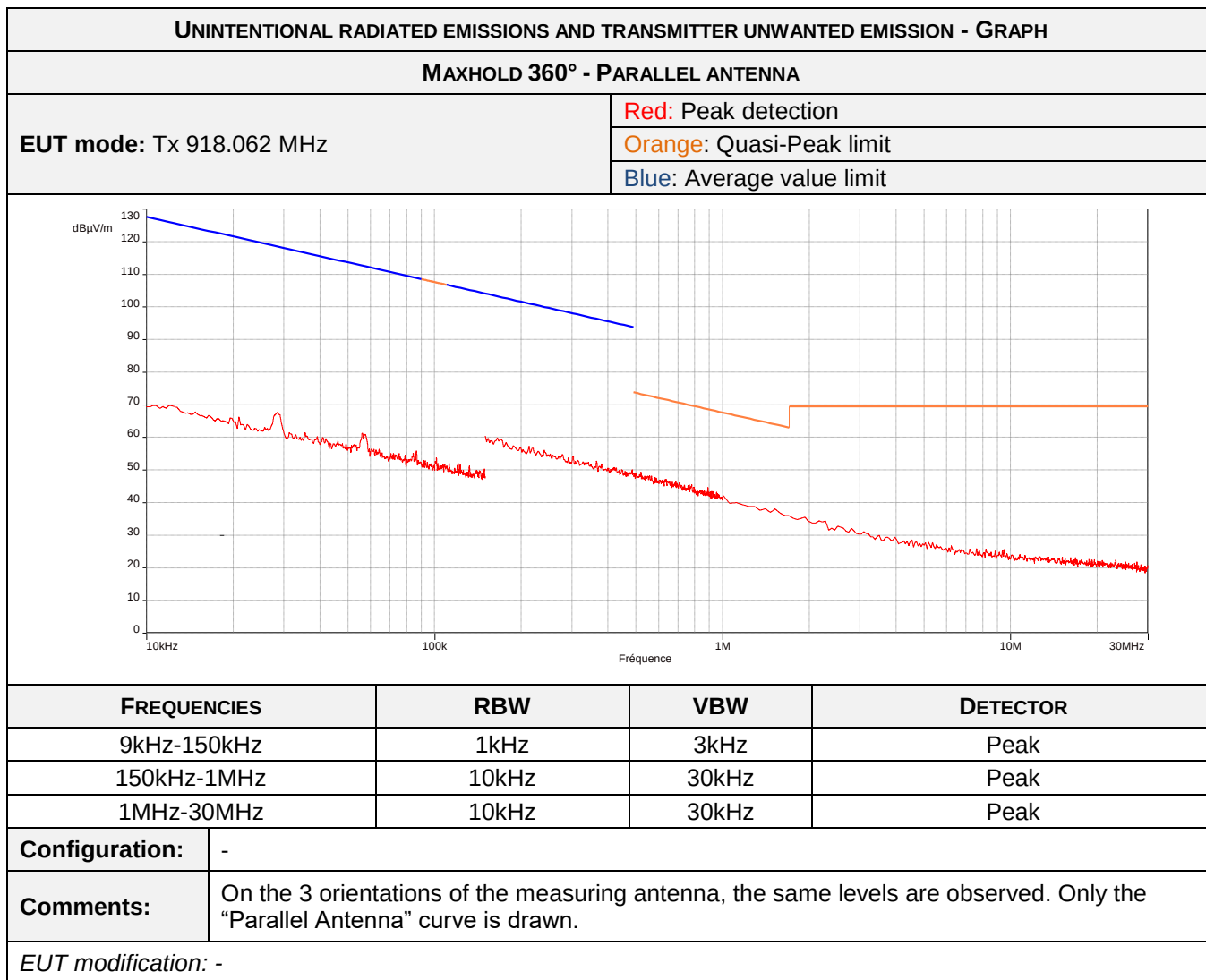
TEST SETUP PHOTOS  
30 MHz – 1 GHz

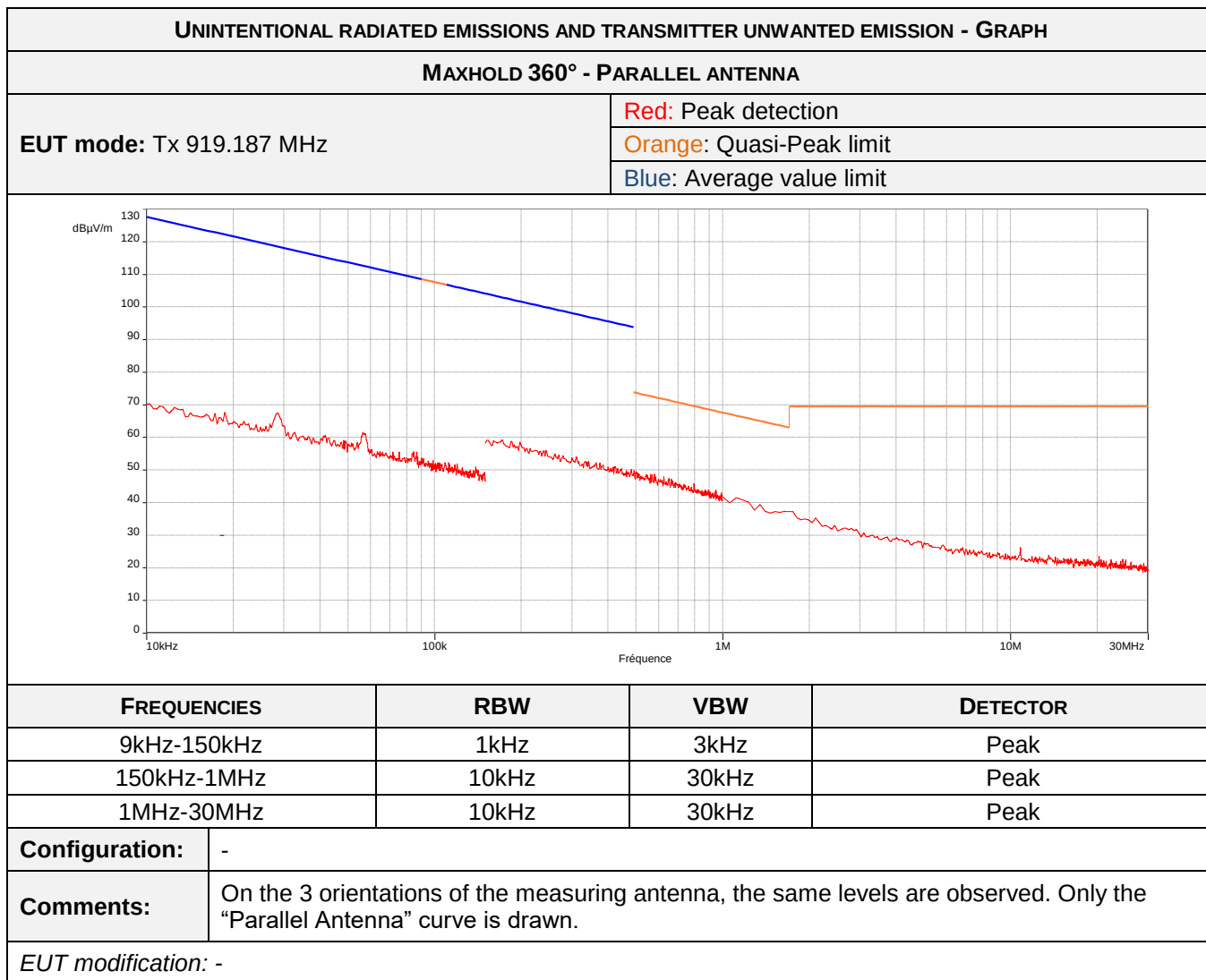


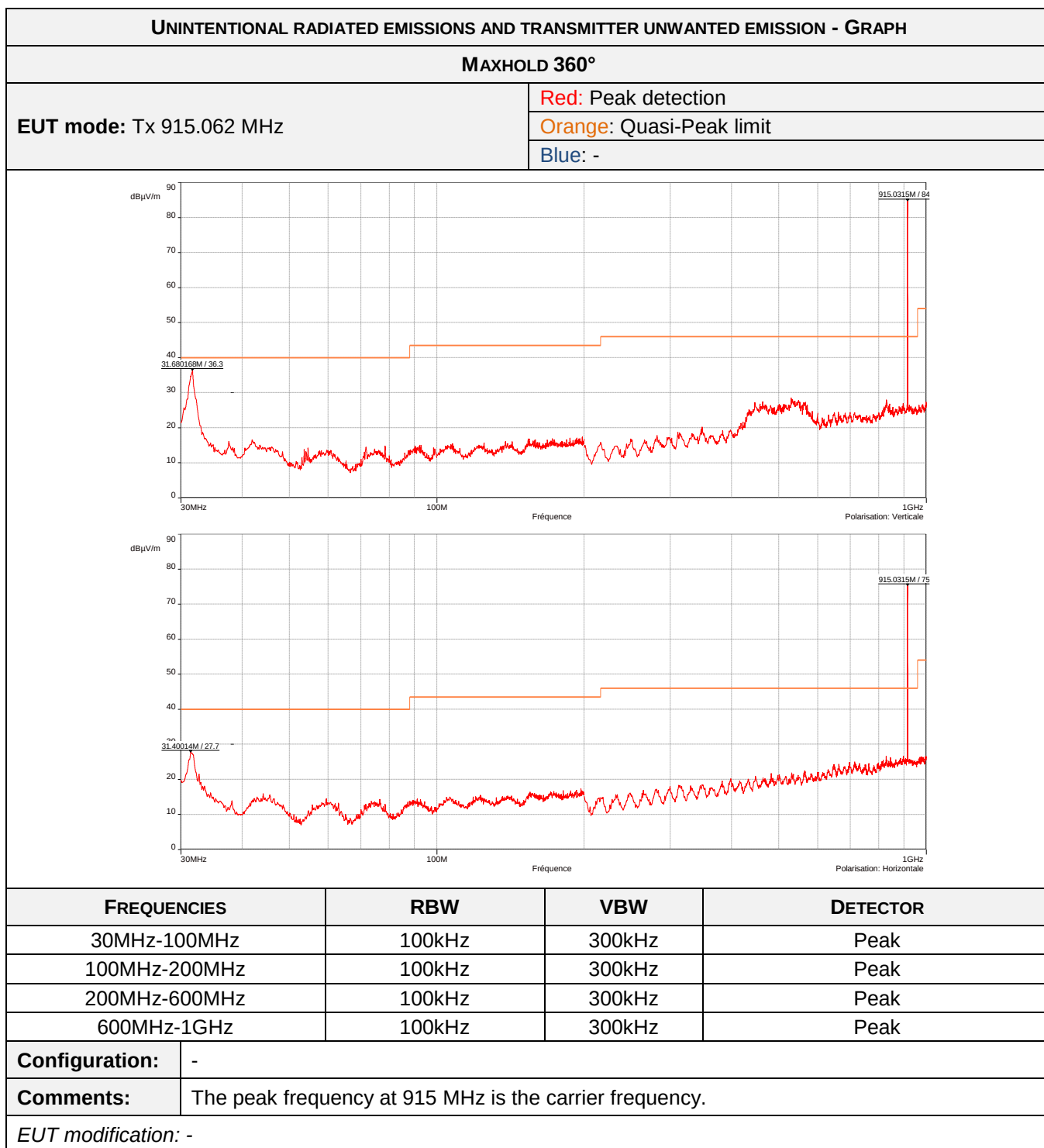
TEST SETUP PHOTOS  
1 GHz – 10 GHz





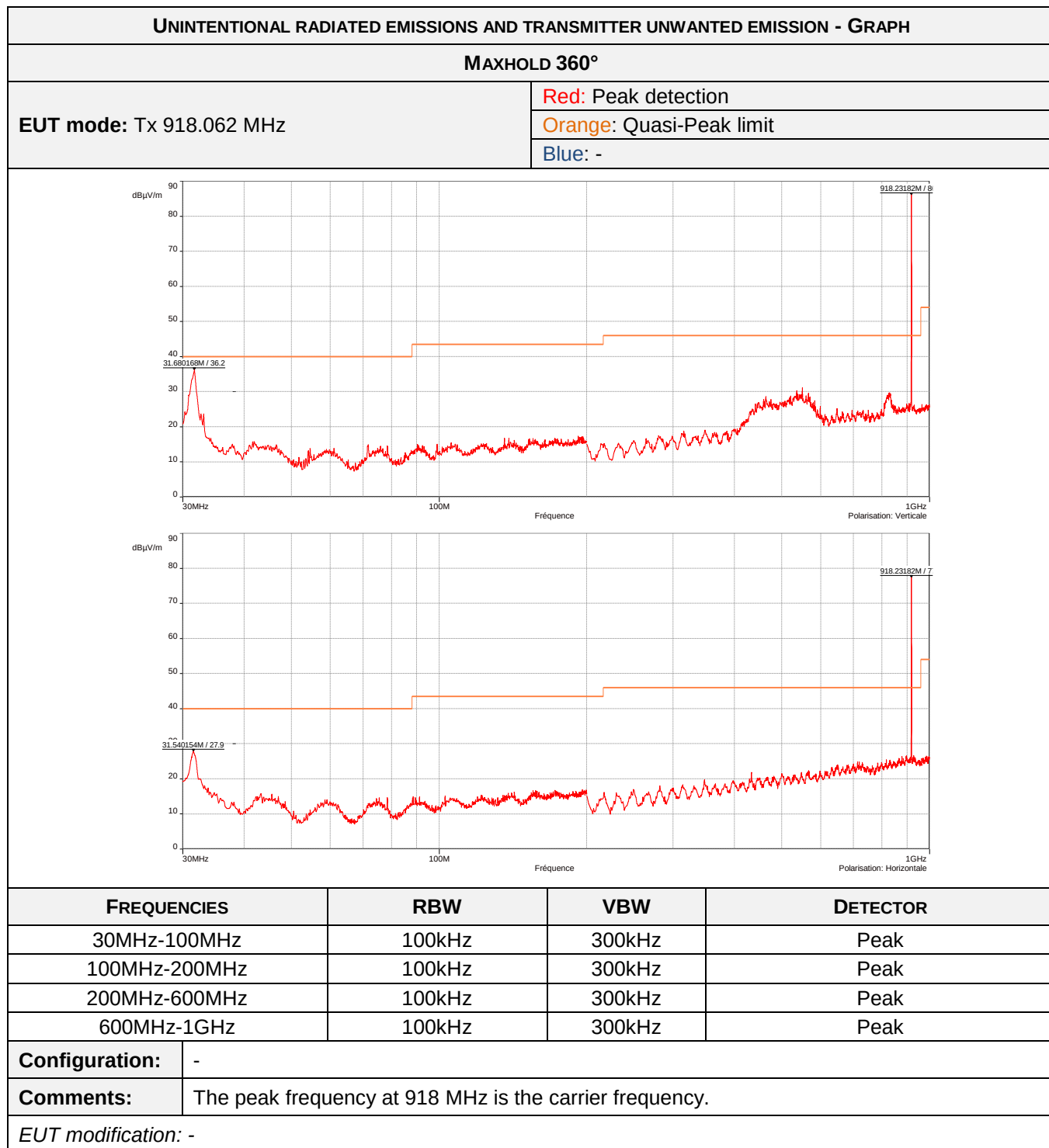






| Frequency (GHz) | Height (cm) | Polarization (H or V) | Azimuth (°) | Electro-magnetic field (dBμV/m) | Limit (dBμV/m) | Margin (dB) |
|-----------------|-------------|-----------------------|-------------|---------------------------------|----------------|-------------|
| 31.673          | 100         | V                     | 0           | 29.2                            | 40.0           | 10.8        |

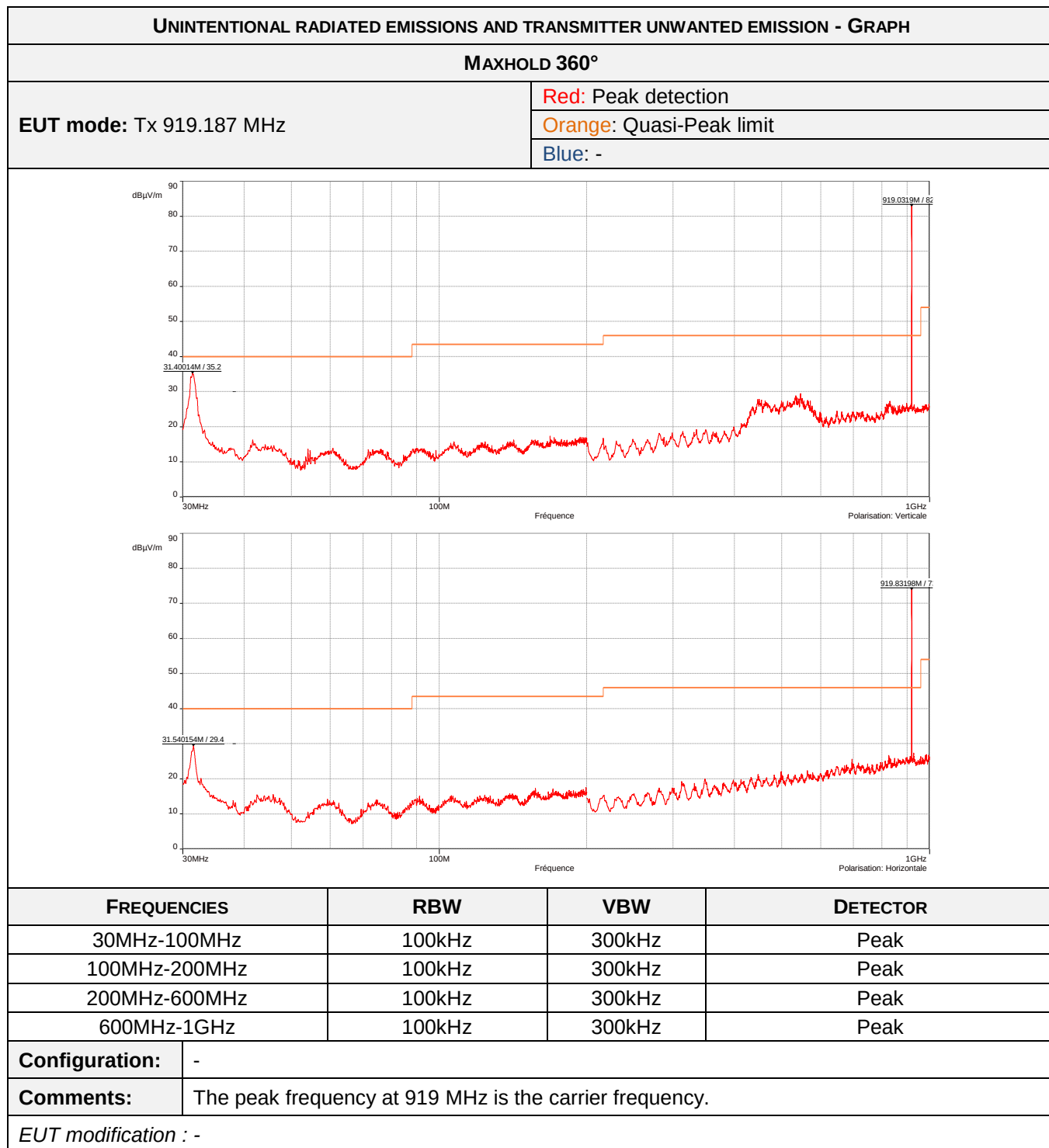
H : Horizontal – V : Vertical



| Frequency (GHz) | Height (cm) | Polarization (H or V) | Azimuth (°) | Electro-magnetic field (dBμV/m) | Limit (dBμV/m) | Margin (dB) |
|-----------------|-------------|-----------------------|-------------|---------------------------------|----------------|-------------|
| 31.673          | 100         | V                     | 0           | 29.2                            | 40.0           | 10.8        |

H : Horizontal – V : Vertical

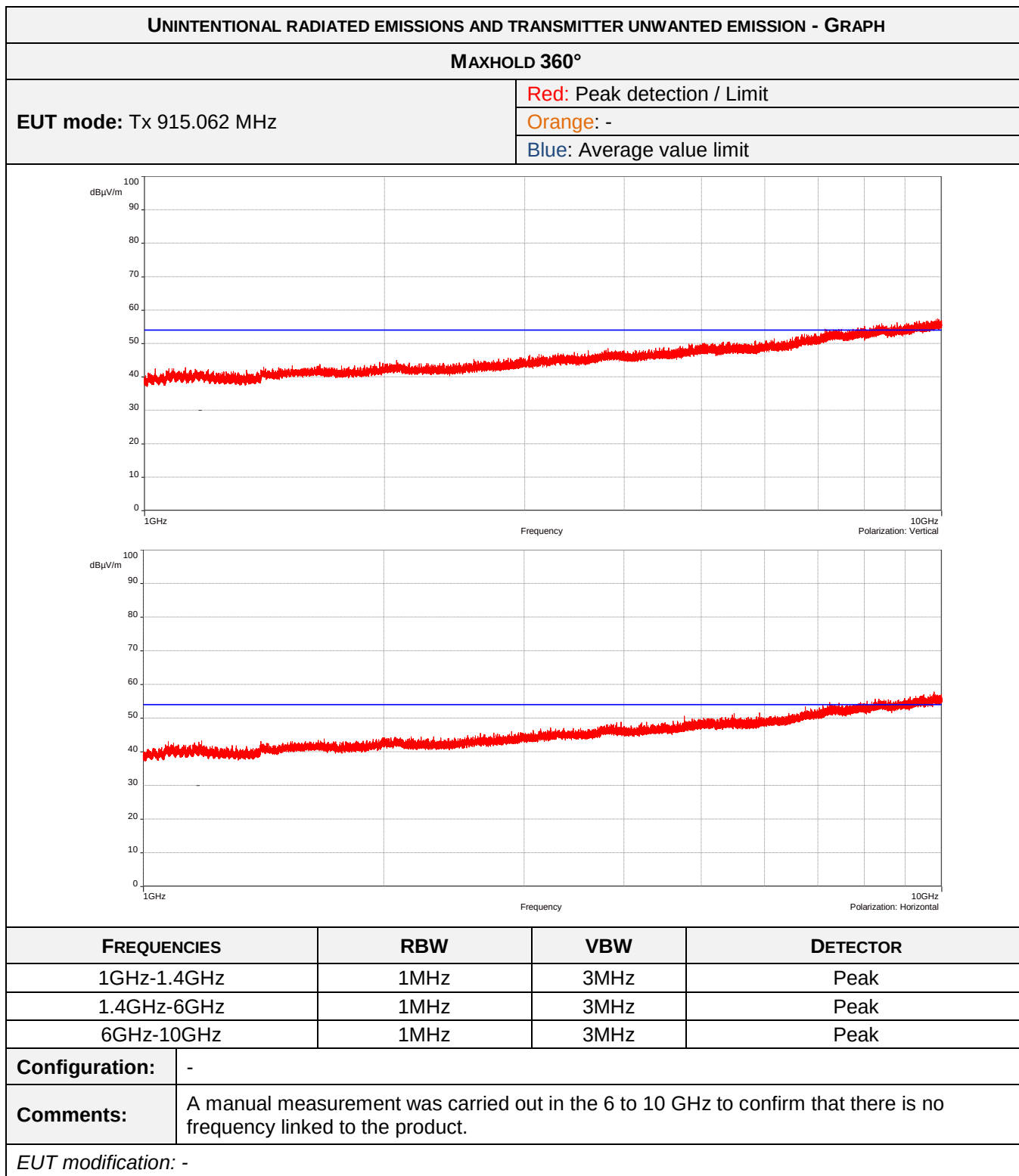




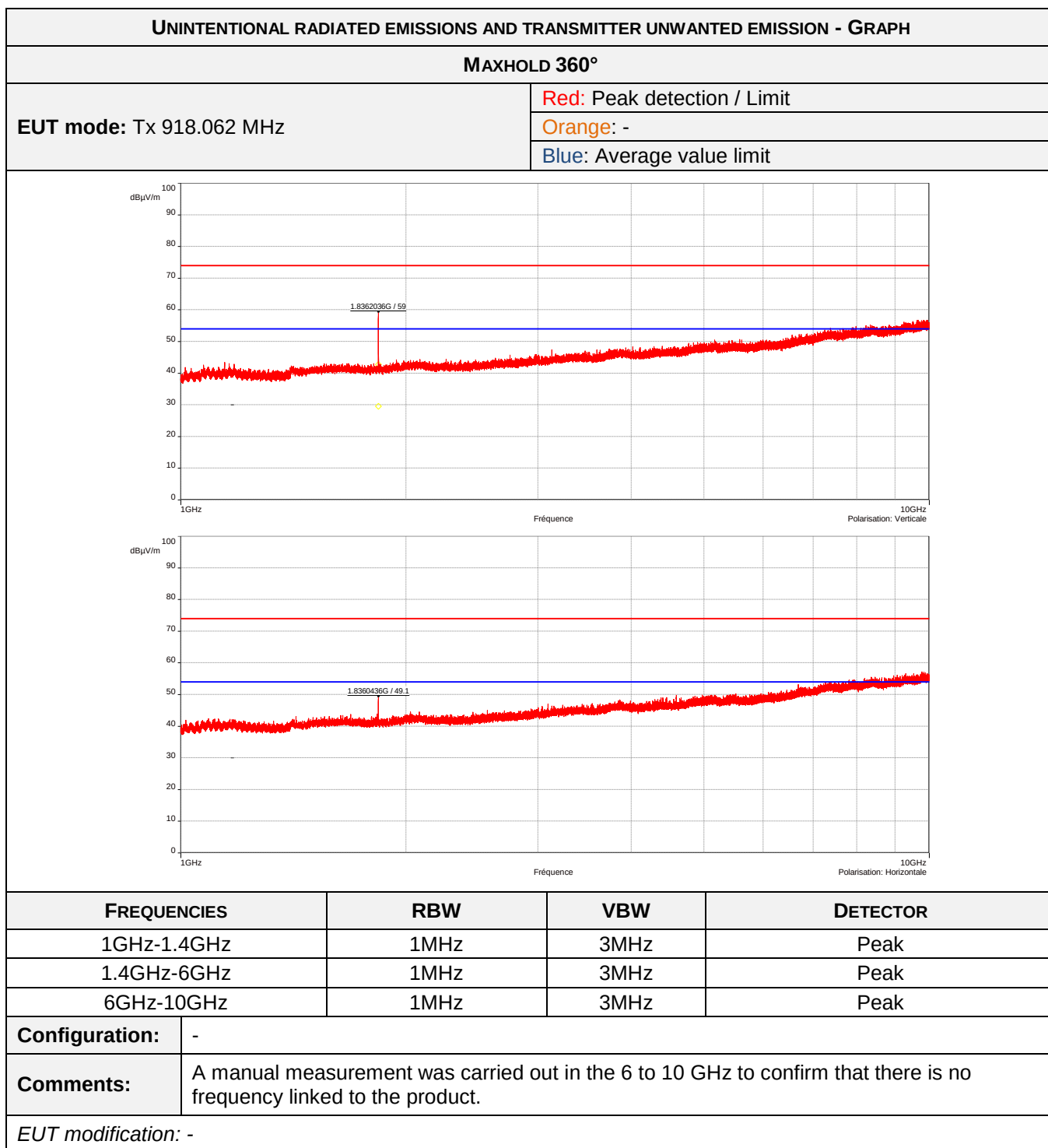
| Frequency (GHz) | Height (cm) | Polarization (H or V) | Azimuth (°) | Electro-magnetic field (dBμV/m) | Limit (dBμV/m) | Margin (dB) |
|-----------------|-------------|-----------------------|-------------|---------------------------------|----------------|-------------|
| 31.673          | 100         | V                     | 0           | 29.2                            | 40.0           | 10.8        |

H : Horizontal – V : Vertical



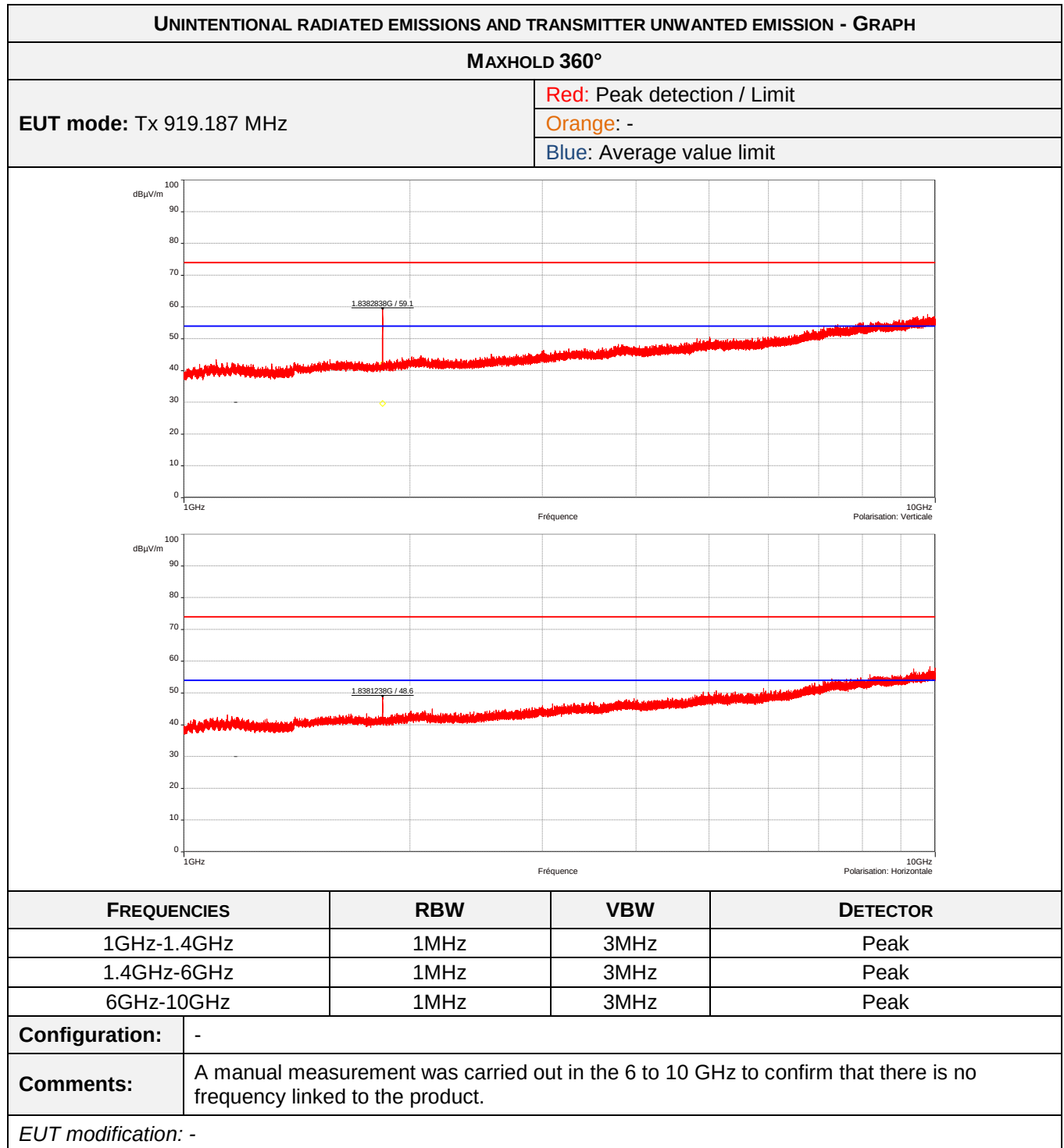


No significant frequencies were found above the measurement noise between 1 GHz and 10 GHz.



| Frequency (GHz) | Height (cm) | Polarization (H or V) | Azimuth (°) | Electro-magnetic field (dBµV/m) | Limit (dBµV/m) | Margin (dB) |
|-----------------|-------------|-----------------------|-------------|---------------------------------|----------------|-------------|
| 1836.00         | 150         | V                     | 170         | 29.6                            | 54.0           | 24.4        |

H : Horizontal – V : Vertical



| Frequency (GHz) | Height (cm) | Polarization (H or V) | Azimuth (°) | Electro-magnetic field (dBμV/m) | Limit (dBμV/m) | Margin (dB) |
|-----------------|-------------|-----------------------|-------------|---------------------------------|----------------|-------------|
| 1838.45         | 150         | V                     | 170         | 29.6                            | 54.0           | 24.4        |

H : Horizontal – V : Vertical

## 6.10. Unintentional radiated emissions in the band 30 MHz – 5 GHz

|                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| <b>Reference standard:</b>                                                                                                                                                                                                                                                                                                                                                   | FCC 47 CFR PART 15 : 2023<br>RSS-Gen Issue 5 : 2018 / AMD1: 2019 / AMD2: 2021                       |
| <b>Test method:</b>                                                                                                                                                                                                                                                                                                                                                          | § 15.109 of FCC 47 CFR PART 15 : 2023<br>§ 6.13 of RSS-Gen Issue 5 : 2018 / AMD1: 2019 / AMD2: 2021 |
| <b>General test setup:</b> E.U.T. is set on an insulating support at 0.8 m (<1GHz) and 1.5 m (>1GHz) above the ground reference plane.<br>For maximum meter reading at each frequency, the antenna height is adjusted between 1 m and 4 m above the ground plane for 30 MHz - 5 GHz. A 360 degrees rotation of the EUT is performed in vertical and horizontal polarization. |                                                                                                     |

| TESTED CONFIGURATION     | PARAMETER  | VERDICT     |
|--------------------------|------------|-------------|
| Maxhold 360° - Radio OFF | 30MHz-1GHz | <b>PASS</b> |
| Maxhold 360° - RADIO OFF | 1GHz-5GHz  | <b>PASS</b> |

| LABORATORY PARAMETERS:                                                           | REQUIRED PRIOR TO THE TEST | DURING THE TEST |
|----------------------------------------------------------------------------------|----------------------------|-----------------|
| Ambient Temperature                                                              | 10 to 40 °C                | 23°C            |
| Relative Humidity                                                                | 10 to 90 %                 | 37%             |
| Atmospheric pressure                                                             | N/A                        | N/A             |
| <b>Test method deviation:</b> No                                                 |                            |                 |
| Supplementary information: The radio part is non-functional during the charging. |                            |                 |

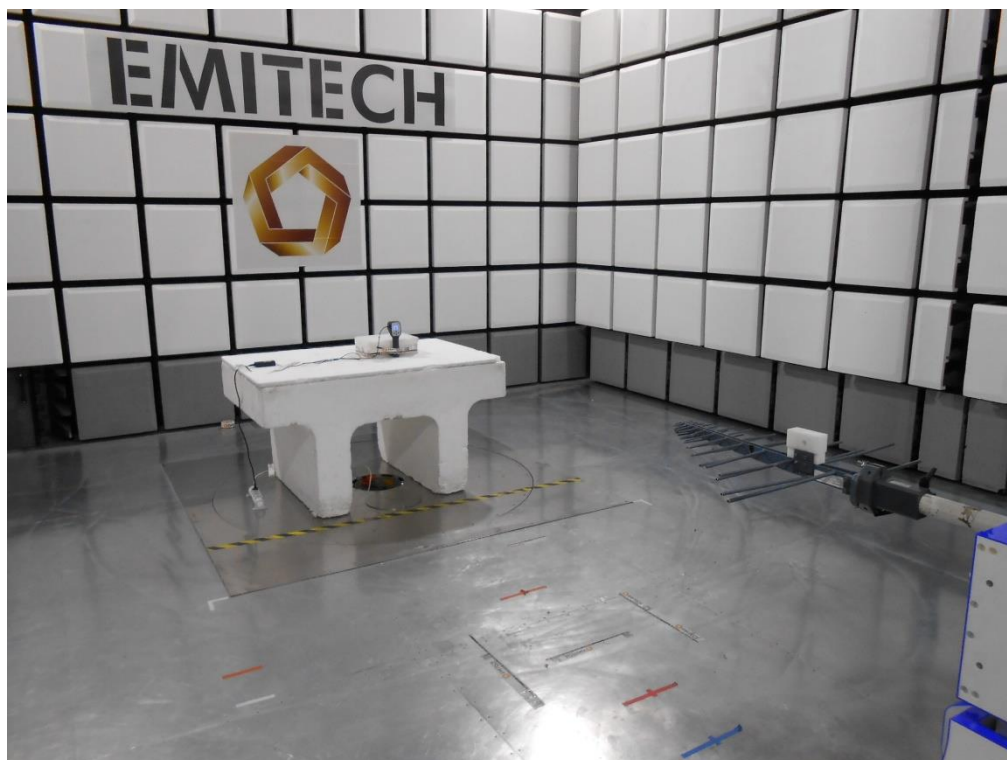
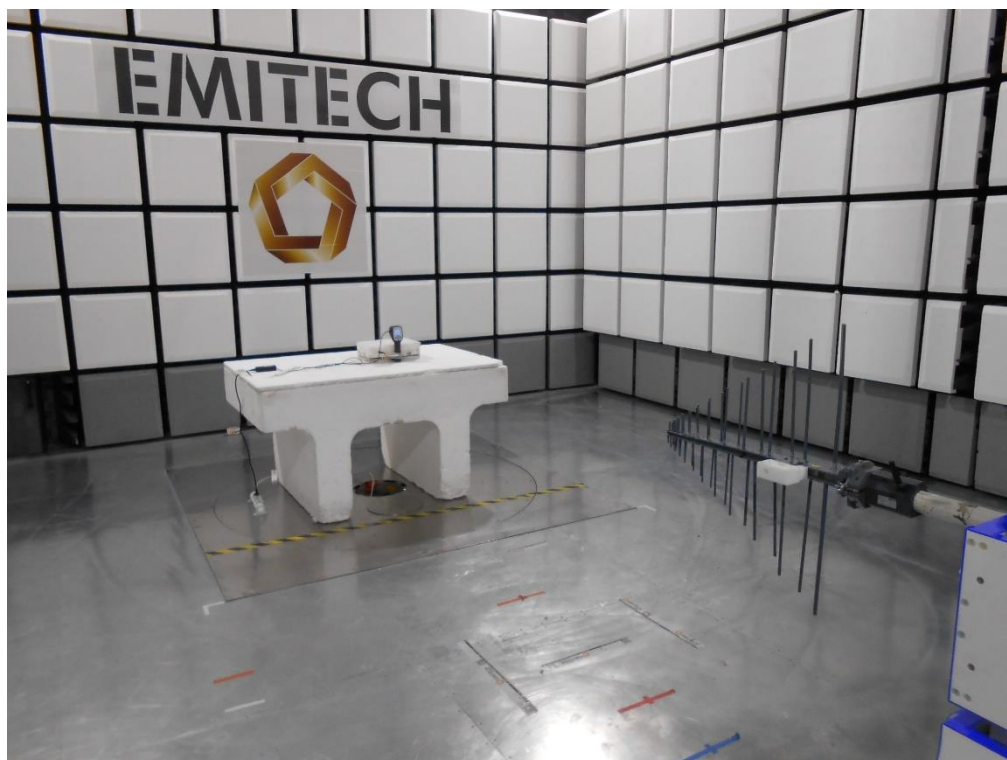
| TEST EQUIPMENT USED |                        |            |            |            |            |
|---------------------|------------------------|------------|------------|------------|------------|
| CATEGORY            | BRAND                  | TYPE       | IDENTIFIER | CAL. DATE  | CAL. DUE   |
| Amplifier           | Mini-Circuit           | ZFL-1000LN | 0364       | 15/02/2023 | 15/04/2024 |
| Amplifier           | Agilent                | 8449B      | 14487      | 12/09/2023 | 12/11/2024 |
| Antenna             | Rohde & Schwarz        | HL223      | 0294       | 05/05/2023 | 05/07/2026 |
| Antenna             | Rohde & Schwarz        | HK116      | 0293       | 30/09/2021 | 30/11/2024 |
| Antenna             | Emco                   | 3115       | 0941       | 01/03/2022 | 01/05/2025 |
| Cable               | C&C                    | N-5M       | 11184      | 22/06/2023 | 22/08/2024 |
| Cable               | C&C                    | N-4M       | 14226      | 26/06/2023 | 26/08/2024 |
| Cable               | Câbles Et Connectiques | N-2M       | 2451       | 29/08/2022 | 29/10/2024 |
| Cable               | Huber + Suhner         | N-6M       | 17269      | 29/08/2022 | 29/10/2024 |
| Receiver            | Rohde & Schwarz        | ESIB26     | 6089       | 15/11/2022 | 15/01/2025 |
| Receiver            | Rohde & Schwarz        | ESW44      | 17058      | 15/06/2023 | 15/08/2024 |
| Shielded enclosure  | Comtest                | SAC 3M     | 14622      | 27/04/2022 | 27/06/2025 |
| Software            | Nexio                  | BAT EMC    | 0000       |            |            |

BAT-EMC software version: V3.18.0.26  
 Blank cells = Permanent validity

TEST SETUP PHOTOS  
30 MHz – 1 GHz

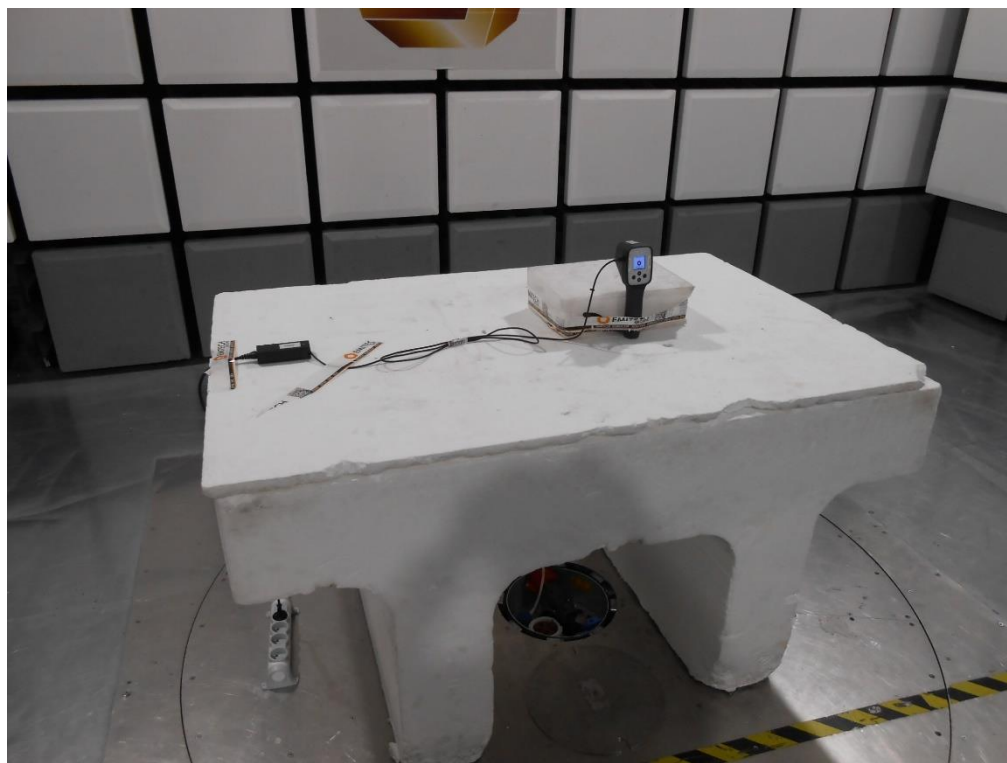


TEST SETUP PHOTOS  
30 MHz – 1 GHz



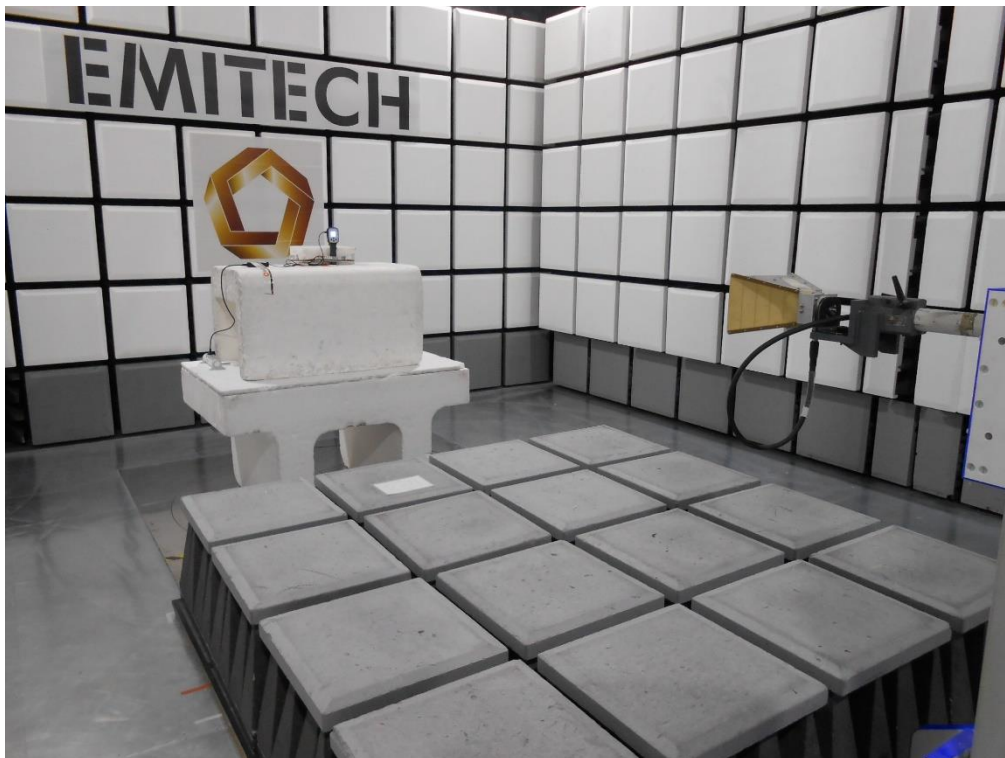


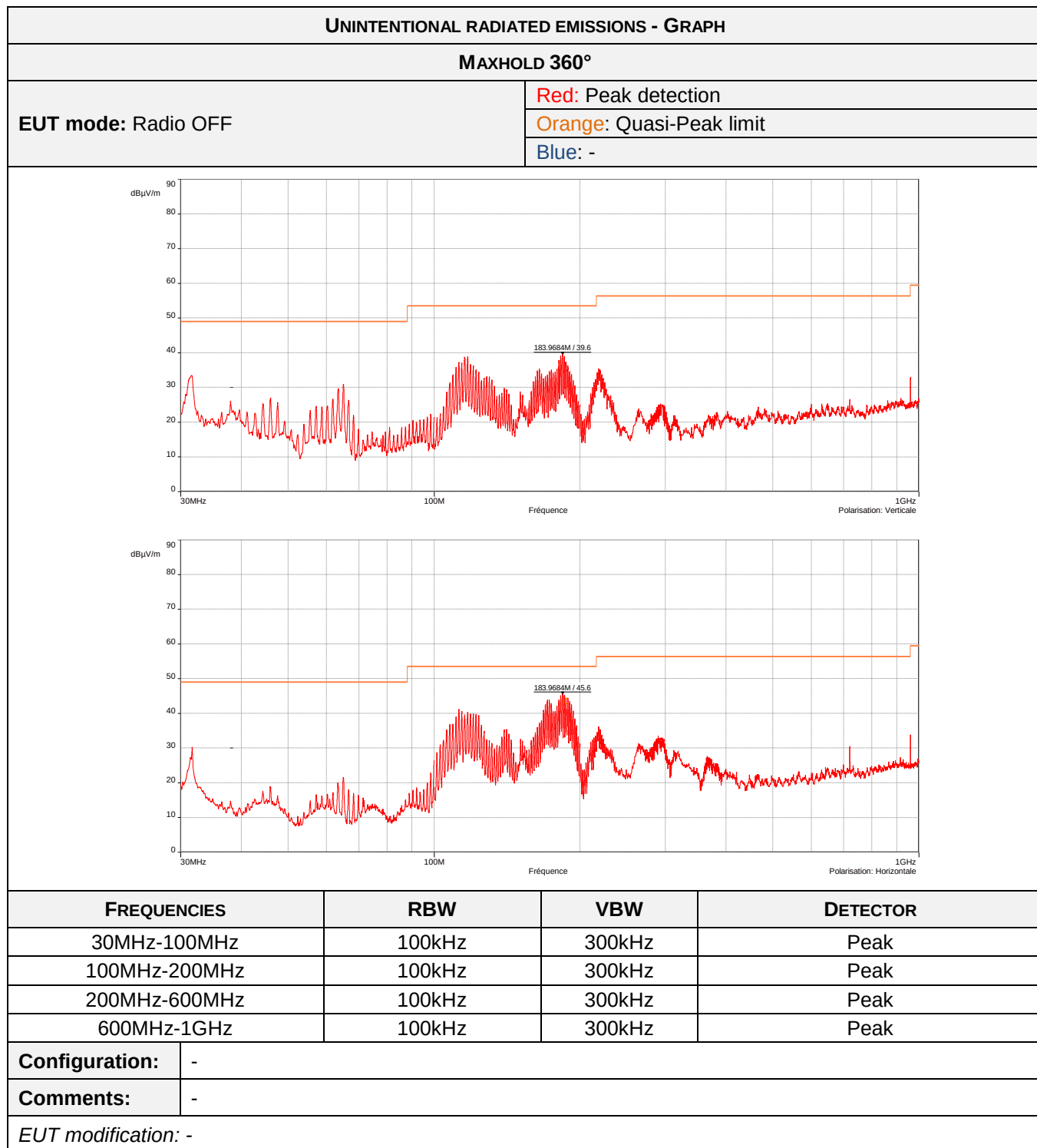
TEST SETUP PHOTOS  
30 MHz – 1 GHz





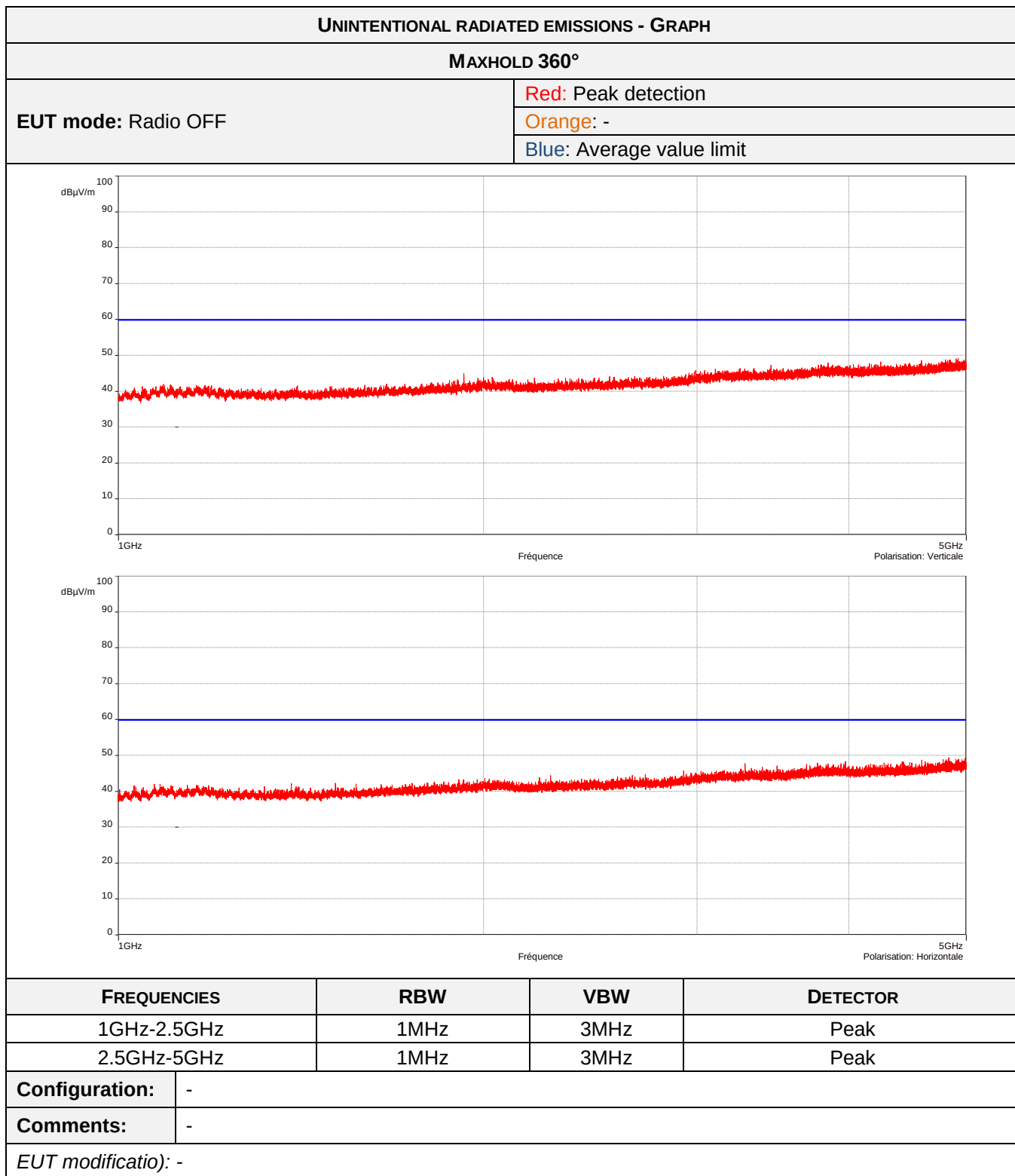
TEST SETUP PHOTOS  
1 GHz – 5 GHz





| Frequency (GHz) | Height (cm) | Polarization (H or V) | Azimuth (°) | Electro-magnetic field (dBµV/m) | Limit (dBµV/m) | Margin (dB) |
|-----------------|-------------|-----------------------|-------------|---------------------------------|----------------|-------------|
| 185.406         | 200         | H                     | 210         | 42.8                            | 53.5           | 10.7        |

H : Horizontal – V : Vertical



No significant frequencies were found above the measurement noise between 1 GHz and 5 GHz.

End of test report