

## TEST REPORT

### Nr. R22007801

### Federal Communication Commission (FCC)

|                                                                                                                                                                                                            |                                                                     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|
| <b>Report Reference No.</b> .....                                                                                                                                                                          | R22007801                                                           |
| <b>Date of issue:</b> .....                                                                                                                                                                                | 24.06.2022                                                          |
| <b>Total number pages:</b> .....                                                                                                                                                                           | 29                                                                  |
| <b>Customer name</b> .....                                                                                                                                                                                 | Microgate S.r.l.                                                    |
| <b>Address</b> .....                                                                                                                                                                                       | Via Waltraud Gebert Deeg, 3e – 39100 Bolzano (BZ) – Italy           |
| <b>Test specification:</b>                                                                                                                                                                                 |                                                                     |
| <b>Standards</b> .....                                                                                                                                                                                     | FCC Rules & Regulations, Title 47:2020<br>Part 15 paragraph(s): 209 |
| <b>Non-standard test method</b> .....                                                                                                                                                                      | N/A                                                                 |
| <b>Test Report Form No.</b> .....                                                                                                                                                                          | 15-247_HoppingCMC                                                   |
| <b>Test Report Form(s) Originator</b> ..                                                                                                                                                                   | CMC Centro Misure Compatibilità S.r.l.                              |
| <b>Master TRF</b> .....                                                                                                                                                                                    | 2022-06                                                             |
| <b>General disclaimer:</b>                                                                                                                                                                                 |                                                                     |
| The test results presented in this report relate only to the object tested.<br>This report shall not be reproduced, except in full, without the written approval of CMC Centro Misure Compatibilità S.r.l. |                                                                     |
| <b>(*) Test item description</b> .....                                                                                                                                                                     | WITTYPRO SEM – Traffic Light                                        |
| <b>(*) Trademark</b> .....                                                                                                                                                                                 | Microgate                                                           |
| <b>(*) Manufacturer</b> .....                                                                                                                                                                              | Microgate S.r.l.                                                    |
| <b>(*) Model / Type reference</b> .....                                                                                                                                                                    | WIT205                                                              |
| <b>(*) FCC ID</b> .....                                                                                                                                                                                    | 2ADEOWIT205                                                         |
| <b>(*) Rating(s)</b> .....                                                                                                                                                                                 | 3,7 Vdc from battery                                                |
| <b>Report</b>                                                                                                                                                                                              |                                                                     |
| <b>Tested by (name + signature)</b> .....                                                                                                                                                                  | M. Segalla                                                          |
| <b>Approved by (name + signature)</b> .....                                                                                                                                                                | F. Marenda                                                          |

(\*) information provided by the customer

| 1 Summary |                                                                                     |
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|                                                                                                                                                    |                         |
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| <b>2 Reference standard</b>                                                                                                                        |                         |
| FCC Rules and Regulation Title 47 part 15:2020                                                                                                     | Radio frequency devices |
| <b>3 List of attachments</b>                                                                                                                       |                         |
| Attachment 1: Instruments list, measurement uncertainty, judgement of compliance and quality manual references                                     |                         |
| <b>4 Deviation(s) from test specification</b>                                                                                                      |                         |
| None                                                                                                                                               |                         |
| <b>5 Testing location</b>                                                                                                                          |                         |
| CMC Centro Misura Compatibilità S.r.l.<br>Via della Fisica, 20 – 36016 Thiene (VI) – Italy<br>Test site facility's FCC registration number: 182474 |                         |

| <i>Revision index</i> | <i>Date</i> | <i>Change history</i> |
|-----------------------|-------------|-----------------------|
| 1.0                   | 24.06.2022  | --                    |

|                                                                                                                                                                                                                                                                                                                                      |                                                          |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|
| <b>Testing and sampling:</b>                                                                                                                                                                                                                                                                                                         |                                                          |
| Date of receipt of test item.....                                                                                                                                                                                                                                                                                                    | 12.01.2022                                               |
| Testing start date .....                                                                                                                                                                                                                                                                                                             | 13.06.2022                                               |
| Testing end date .....                                                                                                                                                                                                                                                                                                               | 16.06.2022                                               |
| Sampling procedure.....                                                                                                                                                                                                                                                                                                              | Equipment used for testing was picked up by the customer |
| Internal identification .....                                                                                                                                                                                                                                                                                                        | Adhesive label with the product number P220029           |
| <b>General remarks:</b>                                                                                                                                                                                                                                                                                                              |                                                          |
| <p>This report shall not be reproduced, except in full, without the written approval of CMC.</p> <p>The test results presented in this report relate only to the object tested.</p> <p>“(see appended table)”: refers to a table appended to the report.</p> <p>Throughout this report a comma is used as the decimal separator.</p> |                                                          |
| <b>Possible test case verdicts:</b>                                                                                                                                                                                                                                                                                                  |                                                          |
| Test case does not apply to the test object:                                                                                                                                                                                                                                                                                         | N/A (Not Applicable)                                     |
| Test object does meet the requirement:                                                                                                                                                                                                                                                                                               | P (Pass)                                                 |
| Test object does not meet the requirement:                                                                                                                                                                                                                                                                                           | F (Fail)                                                 |
| Test object does not performed:                                                                                                                                                                                                                                                                                                      | N/E (Not Executed)                                       |
| <b>Definition of symbols used in this test report:</b>                                                                                                                                                                                                                                                                               |                                                          |
| <input checked="" type="checkbox"/> Indicates that the listed condition, standard or equipment is applicable for this report.<br><input type="checkbox"/> Indicates that the listed condition, standard or equipment is not applicable for this report.                                                                              |                                                          |

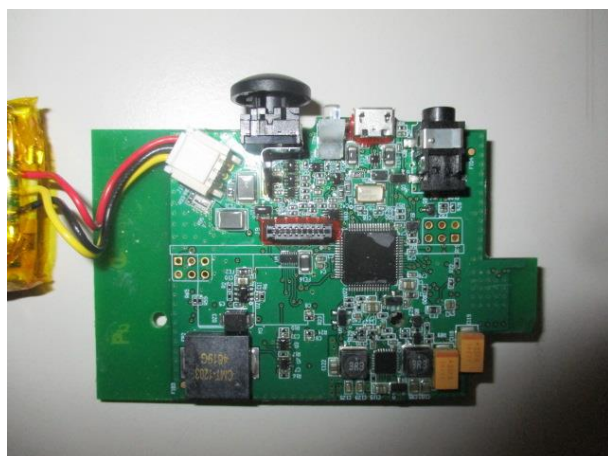
## 6 General description of tested item and testing condition(s)

|                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                               |                                              |                          |                          |                          |                          |
|-----------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|----------------------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Description .....                             | WITTYPRO SEM – Traffic Light                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                               |                                              |                          |                          |                          |                          |
| Model Number .....                            | WIT205                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                               |                                              |                          |                          |                          |                          |
| FCC ID .....                                  | 2ADEOWIT205                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                               |                                              |                          |                          |                          |                          |
| Serial Number .....                           | 000004                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                               |                                              |                          |                          |                          |                          |
| Brand name .....                              | Microgate                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                               |                                              |                          |                          |                          |                          |
| Test power supply.....                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Voltage and Frequency                                                                         | Reference poles                              |                          |                          |                          |                          |
|                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                               | N                                            | L1                       | L2                       | L3                       | PE                       |
|                                               | <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | AC:                                                                                           | <input type="checkbox"/>                     | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
|                                               | <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | AC:                                                                                           | <input type="checkbox"/>                     | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
|                                               | <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | DC: 3,7 V from battery                                                                        |                                              |                          |                          |                          | <input type="checkbox"/> |
| Type of equipment .....                       | <input checked="" type="checkbox"/> Transmitter unit<br><input checked="" type="checkbox"/> Receiver unit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                               |                                              |                          |                          |                          |                          |
| Type of station .....                         | <input type="checkbox"/> Portable station<br><input checked="" type="checkbox"/> Mobile station                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                               |                                              |                          |                          |                          |                          |
| Software version .....                        | Bootloader Version 2.0.3<br>Application Version 2.1.14                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                               |                                              |                          |                          |                          |                          |
| Test arrangements of EUT .....                | <i>Intended operational arrangement(s) of EUT</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                               | <i>Test arrangement (see basic standard)</i> |                          |                          |                          |                          |
|                                               | <input checked="" type="checkbox"/> Table-top only                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                               | Table-top                                    |                          |                          |                          |                          |
|                                               | <input type="checkbox"/> Floor-standing only                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                               | Floor-standing                               |                          |                          |                          |                          |
|                                               | <input type="checkbox"/> Can be floor-standing or table-top                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                               | Table-top                                    |                          |                          |                          |                          |
|                                               | <input type="checkbox"/> Rack mounted                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                               | In rack or table-top                         |                          |                          |                          |                          |
|                                               | <input type="checkbox"/> Other, for example wall mounted, ceiling mounted, handheld, body worn                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                               | Table-top                                    |                          |                          |                          |                          |
| Operating modes .....                         | No.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Operating mode of test item                                                                   |                                              |                          |                          |                          |                          |
|                                               | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | EUT in operation, 433 MHz transmission with auxiliary chronometer, BLE link with auxiliary PC |                                              |                          |                          |                          |                          |
| Accessories (not part of the test item) ..... | Accessory                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                               | Type                                         |                          | Manufacturer             |                          |                          |
|                                               | Chronometer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                               | WIT201                                       |                          | --                       |                          |                          |
|                                               | Notebook                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                               | --                                           |                          | --                       |                          |                          |
| Declination of responsibility .....           | <p>Information relating to the description of the sample, components list and software/hardware version (if reported) are provided by the customer. CMC Centro Misura Compatibilità S.r.l. cannot be considered responsible for these information, for any other document sent by the customer and for any difference between the software version present in the tested sample and that present in the object intended for final sale.</p> <p>In some cases, the software in the tested sample is in a version dedicated exclusively to the test, and therefore does not represent the software installed in the final version of the product.</p> |                                                                                               |                                              |                          |                          |                          |                          |

## 6.1 Photos of the test item







**7 Verdict summary section**

| FCC Rules & Regulations, Title 47:2020<br>Part 15 paragraph(s): 209 |                                          |                |          |
|---------------------------------------------------------------------|------------------------------------------|----------------|----------|
| Clause                                                              | Requirement – Test case                  | Basic standard | Verdict  |
| Part 15.209                                                         | Radiated emissions and spurious emission | ANSI C63.10    | <b>P</b> |



| Normative references                           |                                                                                                                                                                                          |
|------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Reference no.                                  | Description                                                                                                                                                                              |
| FCC Rules and Regulation Title 47 part 15:2020 | --                                                                                                                                                                                       |
| KDB 558074 D01 15.247 Meas Guidance v05r02     | Guidance for compliance measurements on Digital Transmission System, Frequency Hopping Spread Spectrum System, and Hybrid System Devices operating under section 15.247 of the FCC rules |
| ANSI C63.10:2013                               | American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices                                                                                           |

## 8 Test conditions

### 8.1 General

|                                          |                                                                                                                                                          |                 |                             |
|------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|-----------------------------|
| Environmental reference conditions.....: | The climatic conditions during the tests are within the limits specified by the manufacturer for the operation of the EUT and the test equipment.        |                 |                             |
|                                          | The climatic conditions during the tests were within the following limits:                                                                               |                 |                             |
|                                          | <b>Temperature</b>                                                                                                                                       | <b>Humidity</b> | <b>Atmospheric pressure</b> |
|                                          | 15 °C – 35 °C                                                                                                                                            | 30 % - 60 %     | 800 hPa – 1060 hPa          |
|                                          | If explicitly required in the basic standard or applied product standard the climatic values are recorded and documented separately in this test report. |                 |                             |
| Measurement uncertainties .....          | Attachment 1                                                                                                                                             |                 |                             |

## 9 Test results

### 9.1 Emissions in restricted frequency bands and in unrestricted frequency bands

|                                             |                                                                                           |                                                                                                              |
|---------------------------------------------|-------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|
| Tested by .....                             | M. Segalla                                                                                |                                                                                                              |
| Test date .....                             | 13.06.2022                                                                                |                                                                                                              |
| Test location (stand) .....                 | Semi-anechoic chamber (CMC A070)                                                          |                                                                                                              |
| Reference standards .....                   | FCC Rules and Regulation; Titles 47 Part. 15.209<br>ANSI C63.10 cl. 6.3, 6.4, 6.5 and 6.6 |                                                                                                              |
| Test set-up description .....               | <input checked="" type="checkbox"/>                                                       | Table top equipment set-up (80 cm above the reference ground plane)                                          |
|                                             | <input type="checkbox"/>                                                                  | Floor standing equipment set-up (insulating material up to 12 mm thick)                                      |
|                                             | <input type="checkbox"/>                                                                  | False floor installation equipment set-up (insulating material up to 34 cm above the reference ground plane) |
| Supplementary test set-up description ..... | --                                                                                        |                                                                                                              |
| Test method applied .....                   | SAC with measurement distance [m]: 10                                                     |                                                                                                              |
| Supplementary information.....              | --                                                                                        |                                                                                                              |

#### Acceptance limits

| <b>Acceptance limits for emissions in restricted frequency bands (<math>f &lt; 1000</math> MHz)</b> |                   |                         |
|-----------------------------------------------------------------------------------------------------|-------------------|-------------------------|
| Frequency range (MHz)                                                                               | Test distance (m) | Limits [dB( $\mu$ V/m)] |
| 0,009 to 0,490                                                                                      | 300               | 48,5 to 13,8            |
| 0,490 to 1,705                                                                                      | 30                | 33,8 to 22,9            |
| 1,705 to 30                                                                                         | 30                | 29,5                    |
| 30 to 88                                                                                            | 3                 | 40                      |
| 88 to 216                                                                                           | 3                 | 43,5                    |
| 216 to 960                                                                                          | 3                 | 46,0                    |
| 960 to 1000                                                                                         | 3                 | 54                      |

**Remarks:** The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9–90 kHz and 110–490 kHz. Radiated emission limits in these two bands are based on measurements employing an average detector. The results have been extrapolated to the specified distance using an extrapolation factor

| <b>Acceptance limits for emissions in restricted frequency bands (<math>f \geq 1000</math> MHz)</b> |                   |                            |                              |
|-----------------------------------------------------------------------------------------------------|-------------------|----------------------------|------------------------------|
| Frequency (MHz)                                                                                     | Test distance (m) | AV limits [dB( $\mu$ V/m)] | Peak limits [dB( $\mu$ V/m)] |
| > 1000                                                                                              | 3                 | 54                         | 74                           |

The restricted frequency bands are listed in the following table

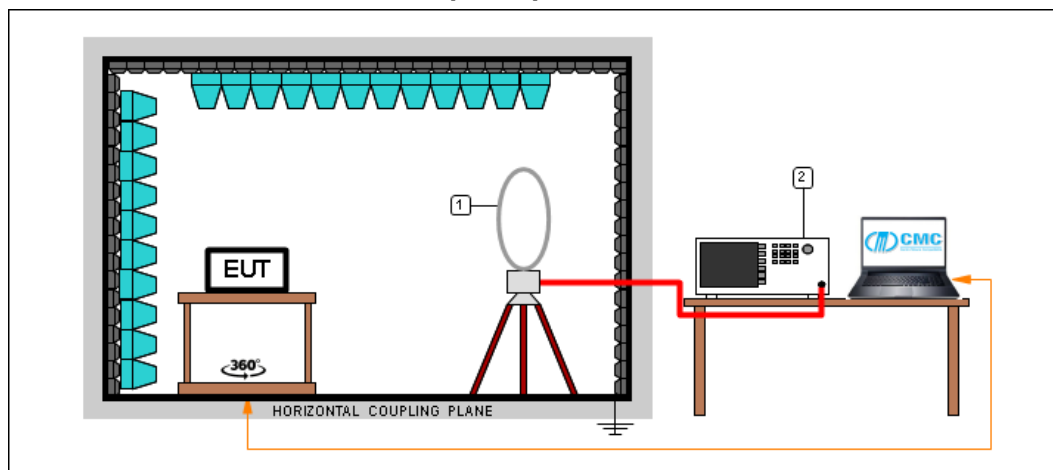
| MHz                 | MHz                   | MHz             | GHz           |
|---------------------|-----------------------|-----------------|---------------|
| 0,090 – 0,110       | 16,42 – 16,423        | 399,9 – 410     | 4,5 – 5,15    |
| 0,495 – 0,505       | 16,69475 – 16,69525   | 608 – 614       | 5,35 – 5,46   |
| 2,1735 – 2,1905     | 16,80425 – 16,80475   | 960 – 1240      | 7,25 – 7,75   |
| 4,125 – 4,128       | 25,5 – 25,67          | 1300 – 1427     | 8,025 – 8,5   |
| 4,17725 – 4,17775   | 37,5 – 38,25          | 1435 – 1626,5   | 9,0 – 9,2     |
| 4,20725 – 4,20775   | 73 – 74,6             | 1645,5 – 1646,5 | 9,3 – 9,5     |
| 6,215 – 6,218       | 74,8 – 75,2           | 1660 – 1710     | 10,6 – 12,7   |
| 6,26775 – 6,26825   | 108 – 121,94          | 1718,8 – 1722,2 | 13,25 – 13,4  |
| 6,31175 – 6,31225   | 123 – 138             | 2200 – 2300     | 14,47 – 14,5  |
| 8,291 – 8,294       | 149,9 – 150,05        | 2310 – 2390     | 15,35 – 16,2  |
| 8,362 – 8,366       | 156,52475 – 156,52525 | 2483,5 – 2500   | 17,7 – 21,4   |
| 8,37625 – 8,38675   | 156,7 – 156,9         | 2690 – 2900     | 22,01 – 23,12 |
| 8,41425 – 8,41475   | 162,0125 – 167,17     | 3260 – 3267     | 23,6 – 24,0   |
| 12,29 – 12,293      | 167,72 – 173,2        | 3332 – 3339     | 31,2 – 31,8   |
| 12,51975 – 12,52025 | 240 – 285             | 3345,8 – 3358   | 36,43 – 36,5  |
| 12,57675 – 12,57725 | 322 – 335,4           | 3600 – 4400     | Above 38,6    |
| 13,36 – 13,41       |                       |                 |               |

#### **Acceptance limits for emissions in non-restricted frequency bands**

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits.

## Test setup

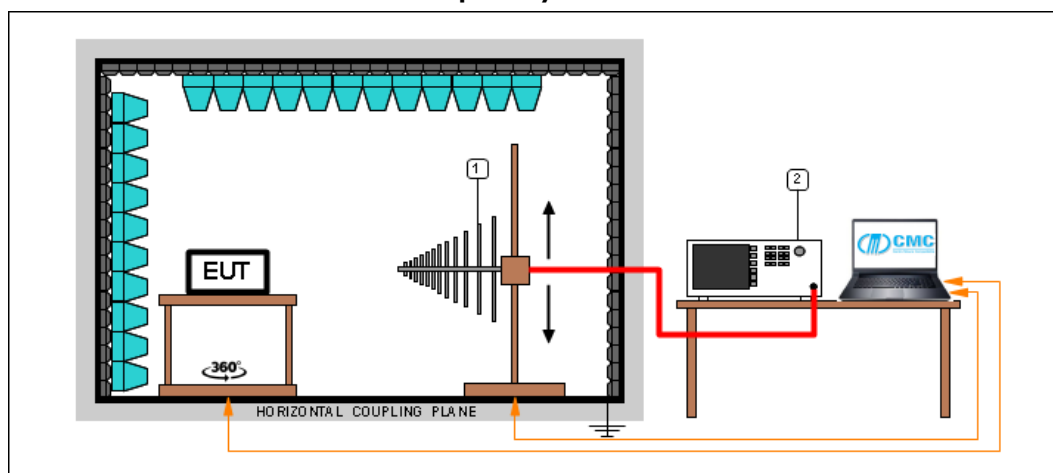
### Frequency $\leq 30$ MHz



Test setup PE004\_01

| Nr. | Id. Number | Manufacturer    | Model   | Description                       |
|-----|------------|-----------------|---------|-----------------------------------|
| 2   | CMC S353   | Rohde & Schwarz | ESW26   | EMI Test Receiver 1 Hz - 26.5 GHz |
| 1   | CMC S127   | Schaffner       | HLA6120 | Loop Antenna 9kHz - 30MHz         |

### Frequency $\leq 1$ GHz



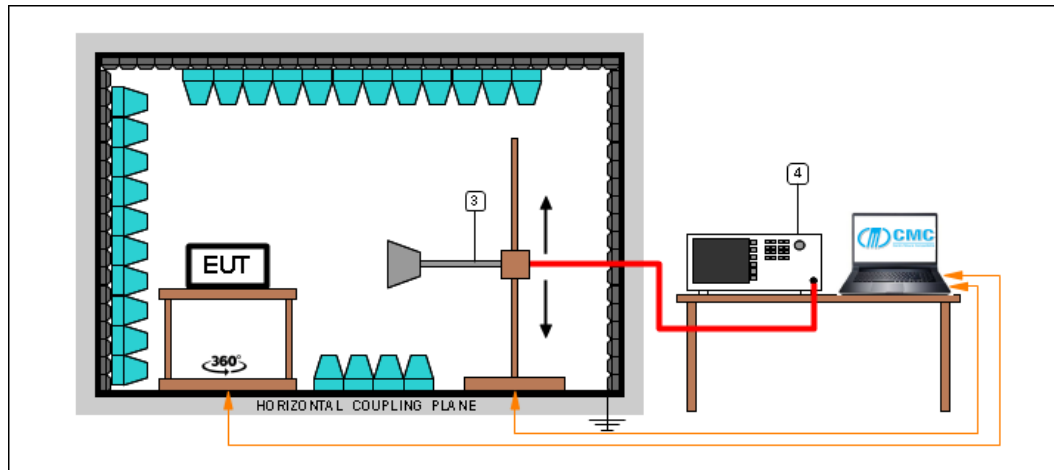
Test setup PE004\_02

| Nr. | Id. Number | Manufacturer    | Model                | Description                       |
|-----|------------|-----------------|----------------------|-----------------------------------|
| 2   | CMC S353   | Rohde & Schwarz | ESW26                | EMI Test Receiver 1 Hz - 26.5 GHz |
| 1   | CMC S271   | Schwarzbeck     | BBA 9106 + VHBB 9124 | Broadband Antenna                 |

Test setup PE004\_03

| Nr. | Id. Number | Manufacturer    | Model       | Description                       |
|-----|------------|-----------------|-------------|-----------------------------------|
| 2   | CMC S353   | Rohde & Schwarz | ESW26       | EMI Test Receiver 1 Hz - 26.5 GHz |
| 1   | CMC S287   | Schwarzbeck     | VUSLP 9111B | Broadband Antenna                 |

### Frequency > 1 GHz



Test setup PE004\_04

| Nr. | Id. Number | Manufacturer    | Model | Description                       |
|-----|------------|-----------------|-------|-----------------------------------|
| 4   | CMC S353   | Rohde & Schwarz | ESW26 | EMI Test Receiver 1 Hz - 26.5 GHz |
| 3   | CMC S108   | Emco            | 3115  | Waveguide antenna                 |

Test setup PE004\_05

| Nr. | Id. Number | Manufacturer    | Model     | Description                       |
|-----|------------|-----------------|-----------|-----------------------------------|
| 4   | CMC S353   | Rohde & Schwarz | ESW26     | EMI Test Receiver 1 Hz - 26.5 GHz |
| 3   | CMC S290   | Schwarzbeck     | BBHA 9170 | Horn Antenna (15-40 GHz)          |

### Result

| Polarization | Frequency Range (MHz) | Graphs    | Remarks | Result |
|--------------|-----------------------|-----------|---------|--------|
| H            | 30 – 300              | G22007650 | --      | P      |
| V            | 30 – 300              | G22007651 | --      | P      |
| V            | 300 – 1000            | G22007652 | --      | P      |
| H            | 300 – 1000            | G22007653 | --      | P      |
| Loop         | 0,009 – 30            | G22007659 | --      | P      |
| V            | 1000 – 3000           | G22007660 | --      | P      |
| H            | 1000 – 3000           | G22007661 | --      | P      |
| H            | 3000 – 18000          | G22007662 | --      | P      |
| V            | 3000 – 18000          | G22007663 | --      | P      |
| V            | 18000 – 26000         | G22007664 | --      | P      |
| H            | 18000 – 26000         | G22007665 | --      | P      |

**Remarks:** EUT was tested in 3 orthogonal planes, graphs are related to the highest detected levels. Peaks above the limits are due to the main transmitting frequencies

### Graphs Legend

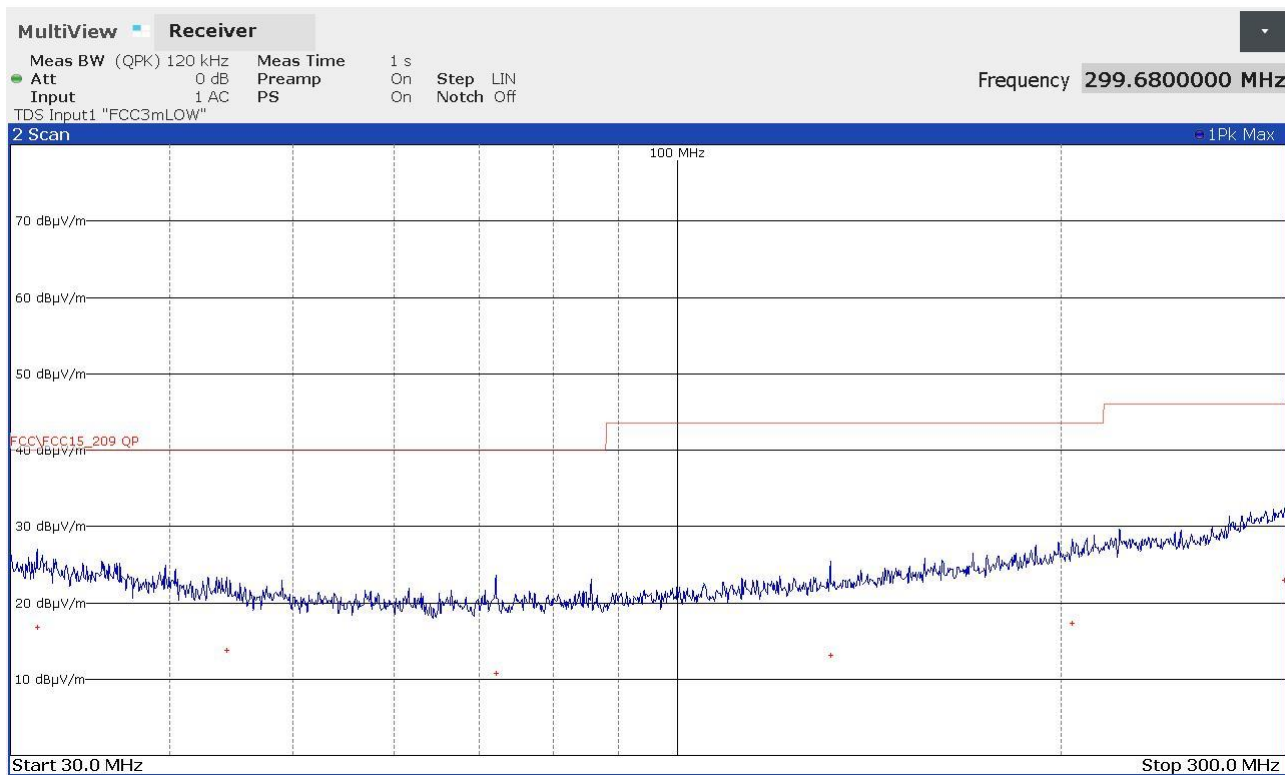
PK: Peak; QP [1s] (quasi-peak at 1 second) values are marked with a +

AV: Average; AV [1s] (average at 1 second) values are marked with a X



## Graphs

Segalla 22007650

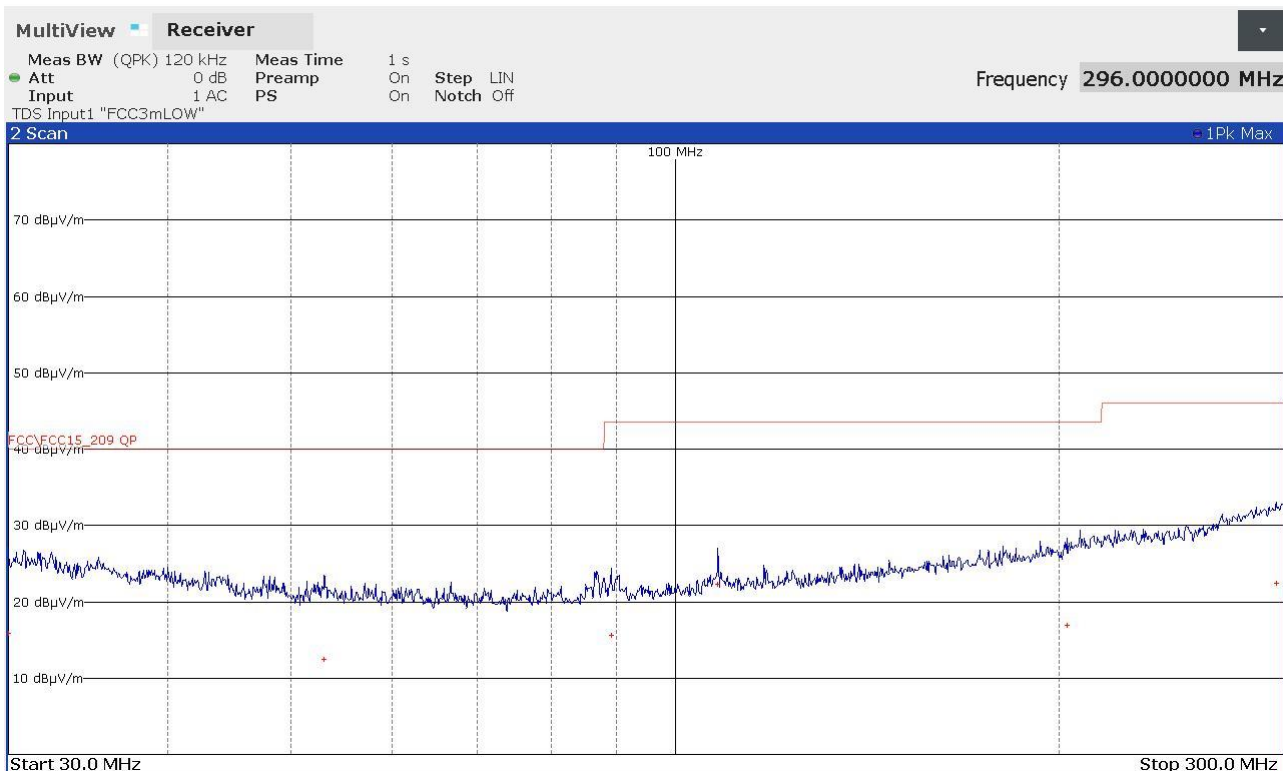


FINAL RESULT TABLE

| QUASI PEAK |            |           |
|------------|------------|-----------|
| Freq Hz    | Lev dBuV/m | Margin dB |
| 31480000   | +16,84     | -23,16    |
| 44320000   | +13,78     | -26,22    |
| 72080000   | +10,81     | -29,19    |
| 131920000  | +13,09     | -30,43    |
| 204160000  | +17,37     | -26,15    |
| 299680000  | +22,95     | -23,07    |

22007650\_2

Segalla 22007651



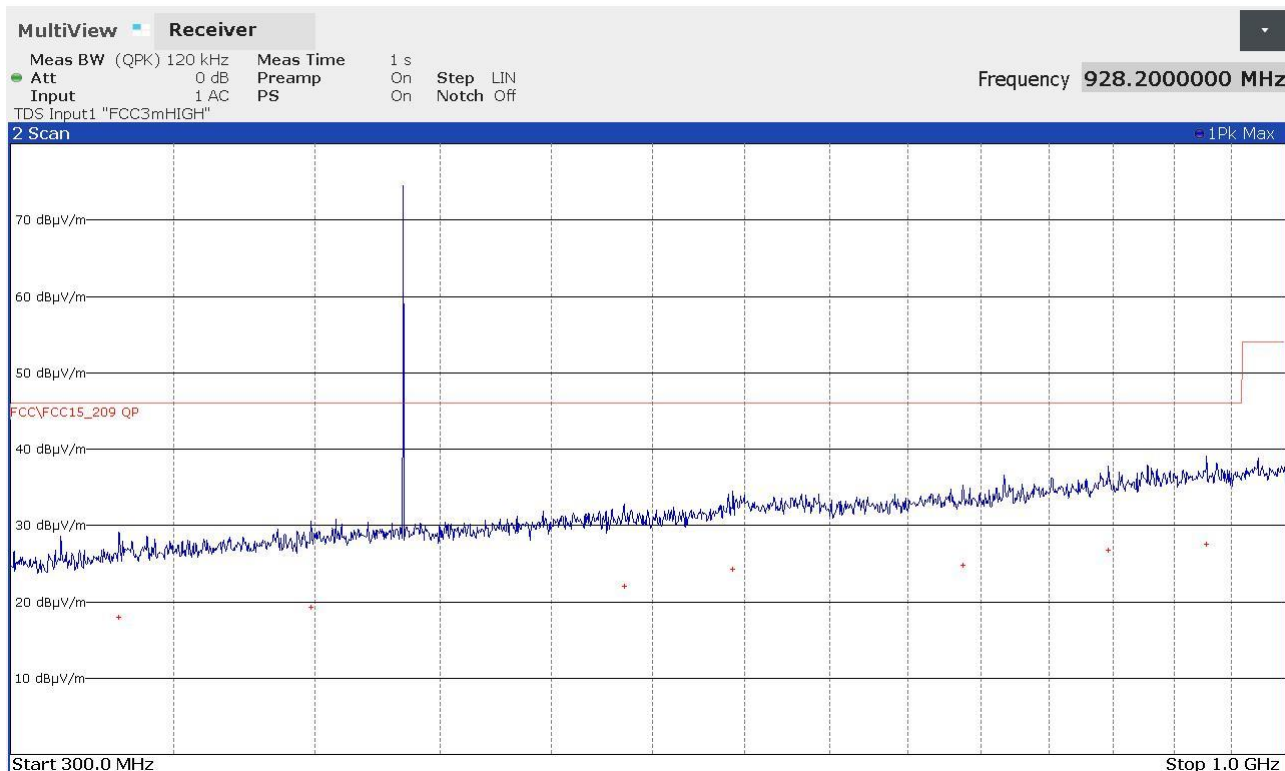
### FINAL RESULT TABLE

#### QUASI PEAK

| Freq Hz   | Lev dBuV/m | Margin dB |
|-----------|------------|-----------|
| 30000000  | +15,88     | -24,12    |
| 53080000  | +12,45     | -27,55    |
| 89120000  | +15,63     | -27,89    |
| 108000000 | +22,23     | -21,29    |
| 203000000 | +16,90     | -26,62    |
| 296000000 | +22,37     | -23,65    |

22007651\_2

Segalla 22007652



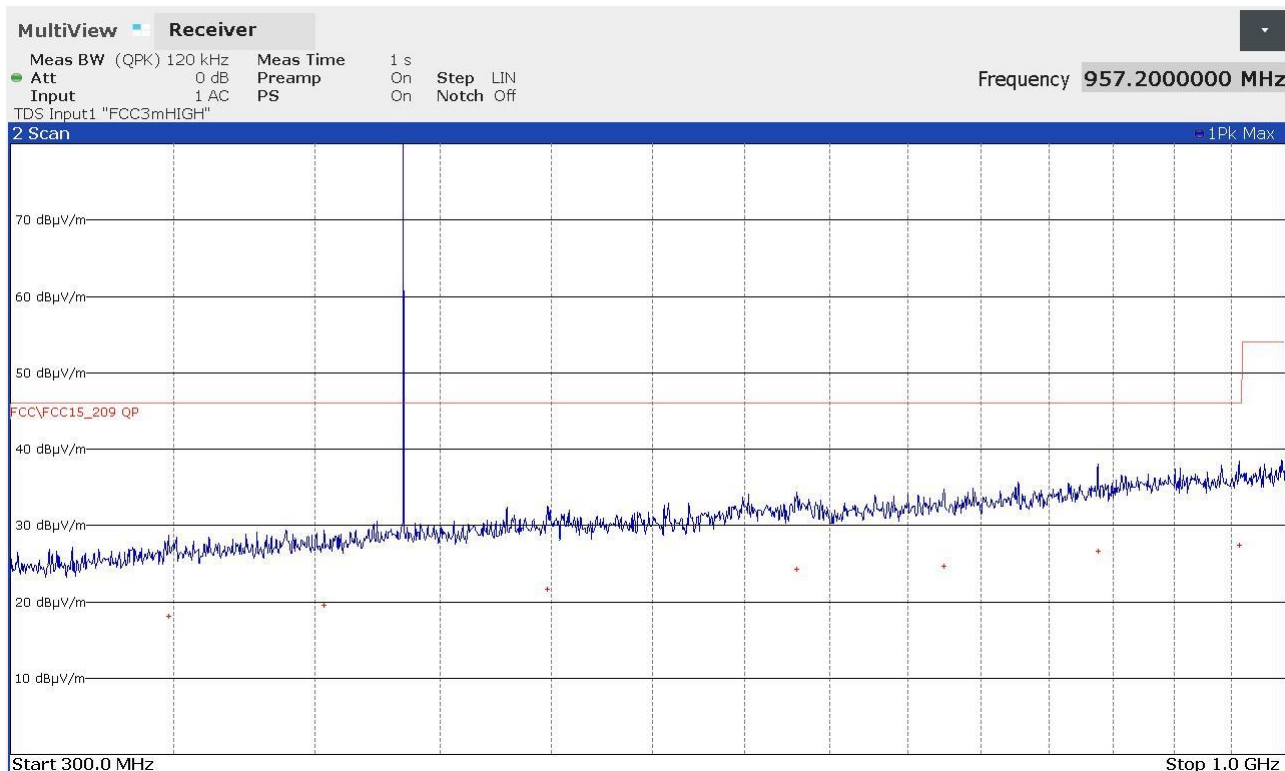
### FINAL RESULT TABLE

#### QUASI PEAK

| Freq Hz   | Lev dBuV/m | Margin dB |
|-----------|------------|-----------|
| 332400000 | +17,94     | -28,08    |
| 398480000 | +19,23     | -26,79    |
| 535560000 | +22,01     | -24,01    |
| 593400000 | +24,25     | -21,77    |
| 737480000 | +24,79     | -21,23    |
| 845840000 | +26,80     | -19,22    |
| 928200000 | +27,55     | -18,47    |

22007652\_2

Segalla 22007653



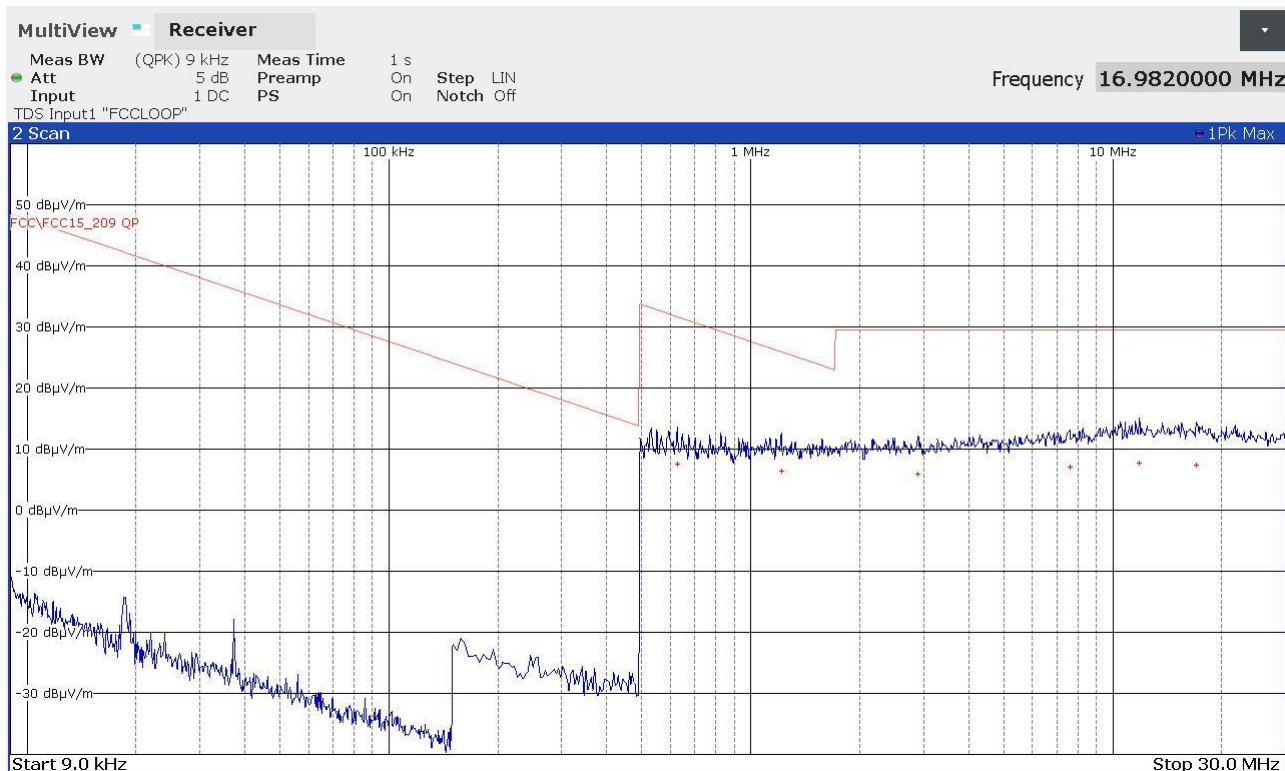
### FINAL RESULT TABLE

#### QUASI PEAK

| Freq Hz   | Lev dBuV/m | Margin dB |
|-----------|------------|-----------|
| 348280000 | +18,10     | -27,92    |
| 403480000 | +19,58     | -26,44    |
| 498280000 | +21,62     | -24,40    |
| 630440000 | +24,29     | -21,73    |
| 724280000 | +24,64     | -21,38    |
| 837560000 | +26,61     | -19,41    |
| 957200000 | +27,47     | -18,55    |

22007653\_2

Segalla 22007659



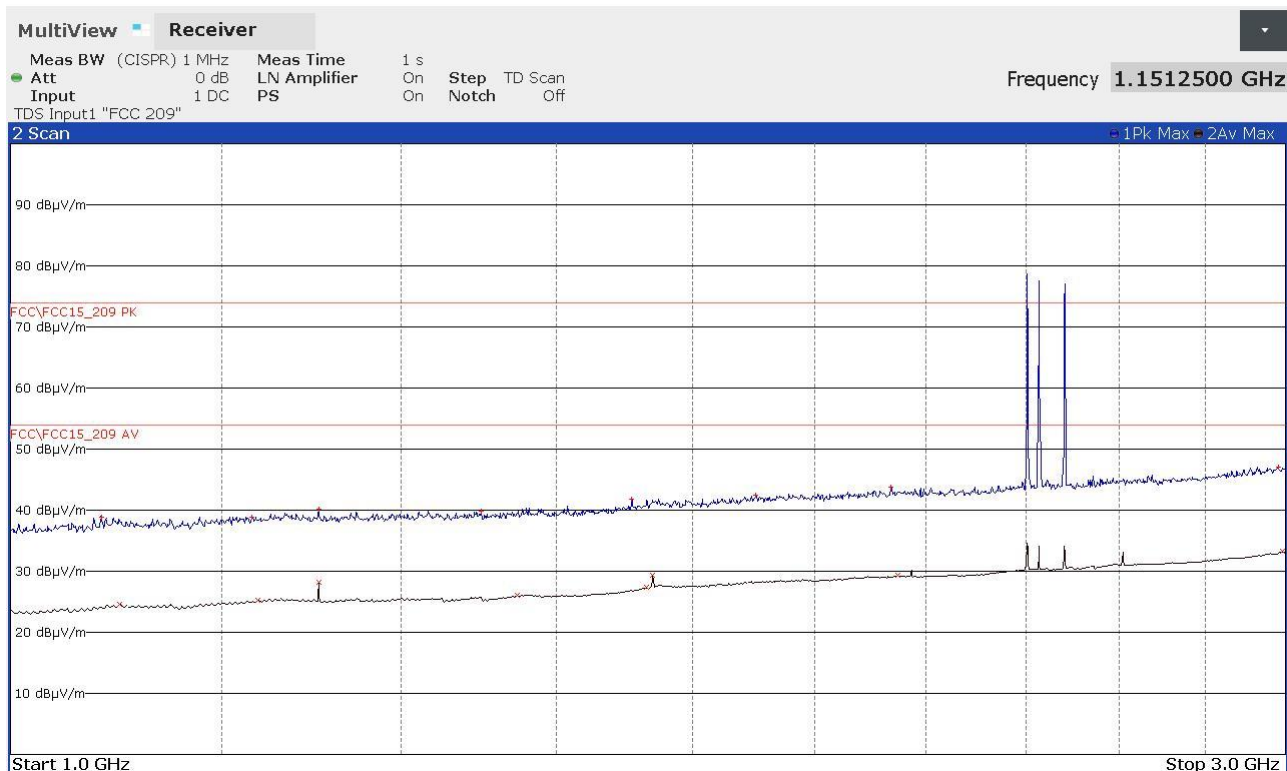
### FINAL RESULT TABLE

#### QUASI PEAK

| Freq Hz  | Lev dBuV/m | Margin dB |
|----------|------------|-----------|
| 626000   | +7,55      | -24,12    |
| 1214000  | +6,34      | -19,58    |
| 2902000  | +5,93      | -23,61    |
| 7602000  | +7,11      | -22,43    |
| 11858000 | +7,66      | -21,88    |
| 16982000 | +7,38      | -22,16    |

22007659\_2

Segalla 22007660



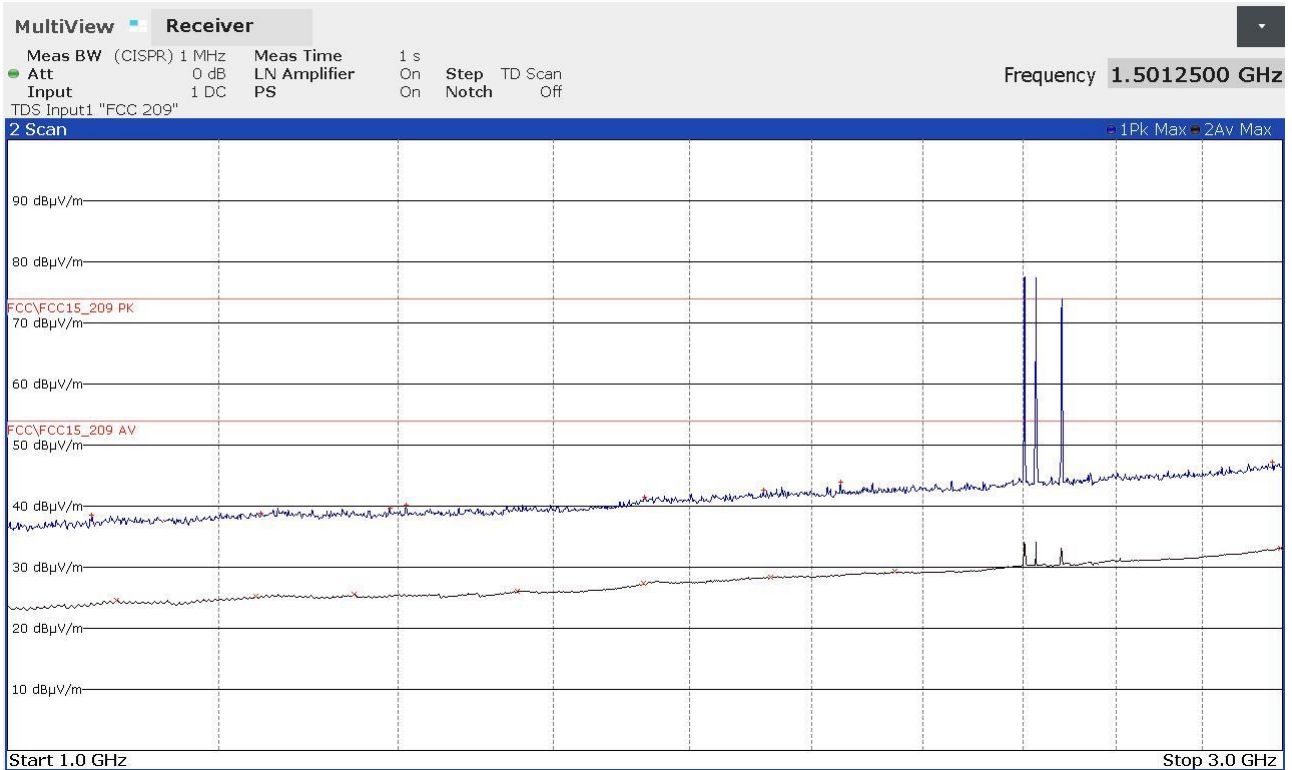
FINAL RESULT TABLE

| MAX PEAK   |            |           | AVERAGE    |            |           |
|------------|------------|-----------|------------|------------|-----------|
| Freq Hz    | Lev dBuV/m | Margin dB | Freq Hz    | Lev dBuV/m | Margin dB |
| 1081250000 | +38,78     | -35,20    | 1099000000 | +24,65     | -29,33    |
| 1231250000 | +38,89     | -35,09    | 1238000000 | +25,30     | -28,68    |
| 1304250000 | +40,10     | -33,88    | 1304250000 | +28,26     | -25,72    |
| 1499750000 | +39,87     | -34,11    | 1547500000 | +26,00     | -27,98    |
| 1708250000 | +41,84     | -32,14    | 1730000000 | +27,30     | -26,68    |
| 1900750000 | +42,45     | -31,53    | 1738750000 | +29,37     | -24,61    |
| 2135750000 | +43,76     | -30,22    | 2148500000 | +29,31     | -24,67    |
| 2981500000 | +47,07     | -26,91    | 2993500000 | +33,20     | -20,78    |

22007660\_2



Segalla 22007661



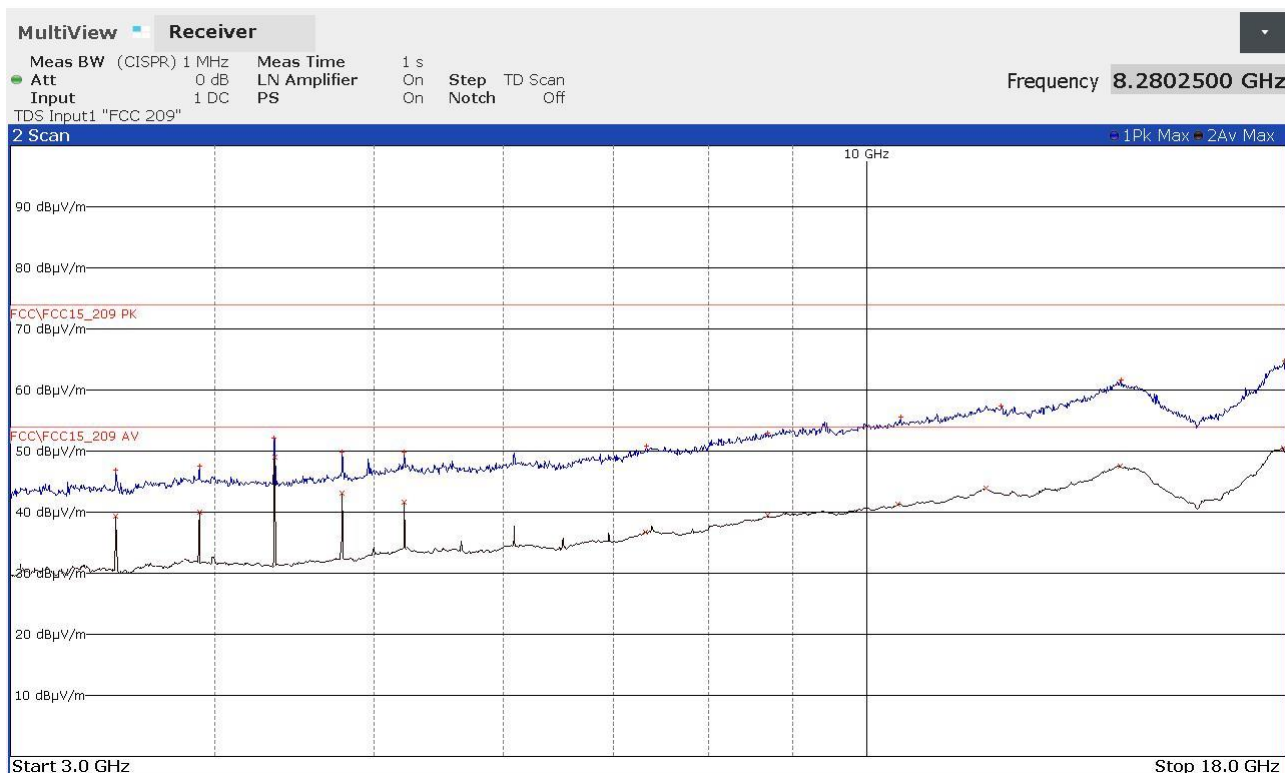
FINAL RESULT TABLE

| MAX PEAK   |            |           | AVERAGE    |            |           |
|------------|------------|-----------|------------|------------|-----------|
| Freq Hz    | Lev dBuV/m | Margin dB | Freq Hz    | Lev dBuV/m | Margin dB |
| 1075500000 | +38,49     | -35,49    | 1099000000 | +24,65     | -29,33    |
| 1244500000 | +38,93     | -35,05    | 1238250000 | +25,30     | -28,68    |
| 1390000000 | +39,73     | -34,25    | 1347750000 | +25,61     | -28,37    |
| 1409750000 | +40,19     | -33,79    | 1551750000 | +26,01     | -27,97    |
| 1730750000 | +41,52     | -32,46    | 1730000000 | +27,30     | -26,68    |
| 1918500000 | +42,61     | -31,37    | 1929750000 | +28,42     | -25,56    |
| 2049750000 | +43,91     | -30,07    | 2148750000 | +29,30     | -24,68    |
| 2974250000 | +47,23     | -26,75    | 2994250000 | +33,19     | -20,79    |

22007661\_2



Segalla 22007662

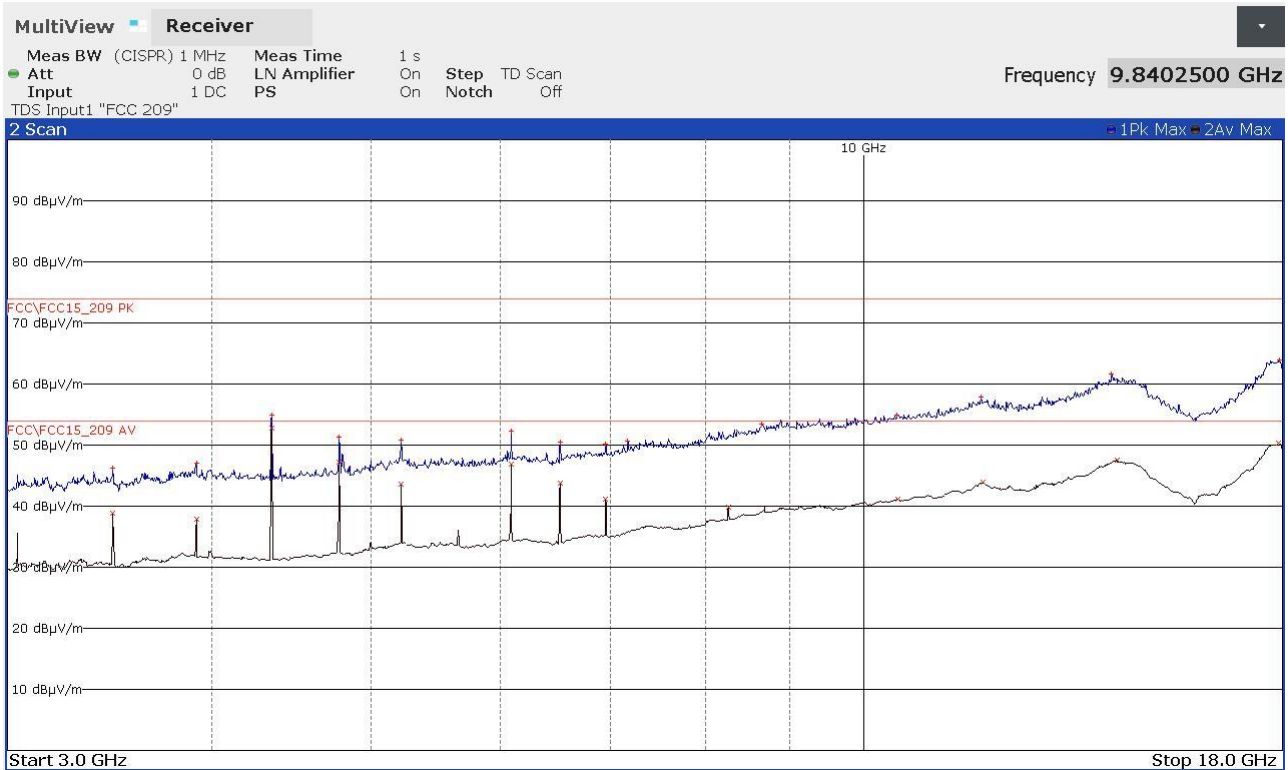


FINAL RESULT TABLE

| MAX PEAK    |            |           | AVERAGE     |            |           |
|-------------|------------|-----------|-------------|------------|-----------|
| Freq Hz     | Lev dBuV/m | Margin dB | Freq Hz     | Lev dBuV/m | Margin dB |
| 3477750000  | +46,81     | -27,17    | 3477750000  | +39,39     | -14,59    |
| 3912500000  | +47,52     | -26,46    | 3912500000  | +39,93     | -14,05    |
| 4347000000  | +52,15     | -21,83    | 4347250000  | +49,03     | -4,95     |
| 4781750000  | +49,82     | -24,16    | 4781750000  | +43,14     | -10,84    |
| 5216500000  | +49,82     | -24,16    | 5216500000  | +41,67     | -12,31    |
| 7332000000  | +50,85     | -23,13    | 7322250000  | +36,70     | -17,28    |
| 8695500000  | +53,00     | -20,98    | 8694250000  | +39,57     | -14,41    |
| 10483000000 | +55,55     | -18,43    | 10440000000 | +41,30     | -12,68    |
| 12072000000 | +57,43     | -16,55    | 11819000000 | +43,97     | -10,01    |
| 14280000000 | +61,61     | -12,37    | 14260000000 | +47,59     | -6,39     |
| 17971000000 | +64,68     | -9,30     | 17939250000 | +50,51     | -3,47     |

22007662\_2

Segalla 22007663

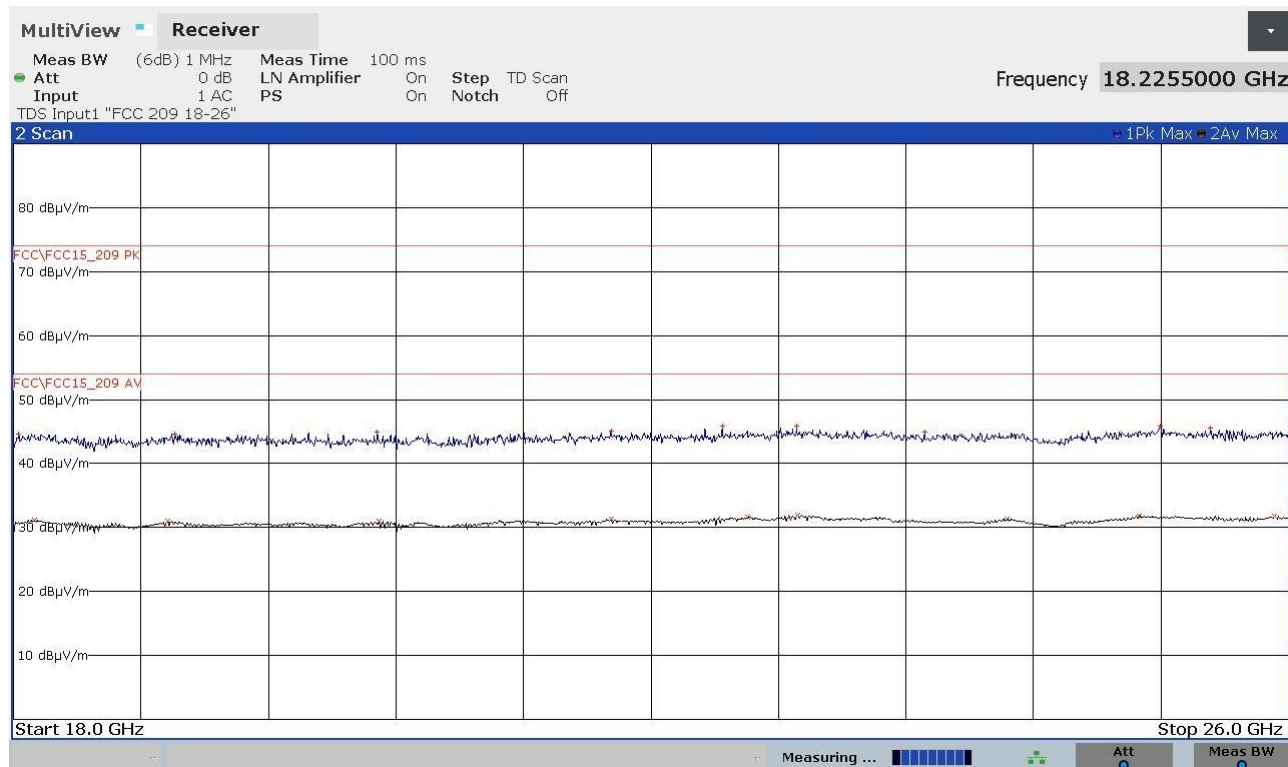


FINAL RESULT TABLE

| MAX PEAK    |            |           | AVERAGE     |            |           |
|-------------|------------|-----------|-------------|------------|-----------|
| Freq Hz     | Lev dBuV/m | Margin dB | Freq Hz     | Lev dBuV/m | Margin dB |
| 3477750000  | +46,23     | -27,75    | 3477750000  | +38,80     | -15,18    |
| 3912500000  | +47,08     | -26,90    | 3912500000  | +37,85     | -16,13    |
| 4347250000  | +54,93     | -19,05    | 4347250000  | +52,71     | -1,27     |
| 4781750000  | +51,39     | -22,59    | 4781750000  | +47,27     | -6,71     |
| 5216500000  | +50,84     | -23,14    | 5216500000  | +43,62     | -10,36    |
| 6086000000  | +52,32     | -21,66    | 6086000000  | +46,88     | -7,10     |
| 6520750000  | +50,45     | -23,53    | 6520750000  | +43,82     | -10,16    |
| 6955250000  | +50,21     | -23,77    | 6955500000  | +41,21     | -12,77    |
| 7174500000  | +50,69     | -23,29    | 8259500000  | +39,83     | -14,15    |
| 8661750000  | +53,37     | -20,61    | 10480000000 | +41,18     | -12,80    |
| 10474500000 | +54,90     | -19,08    | 11820000000 | +43,88     | -10,10    |
| 11789250000 | +57,92     | -16,06    | 14260000000 | +47,51     | -6,47     |
| 14157750000 | +61,62     | -12,36    | 17896500000 | +50,32     | -3,66     |
| 17917250000 | +64,00     | -9,98     |             |            |           |

22007663\_2

Segalla 22007664

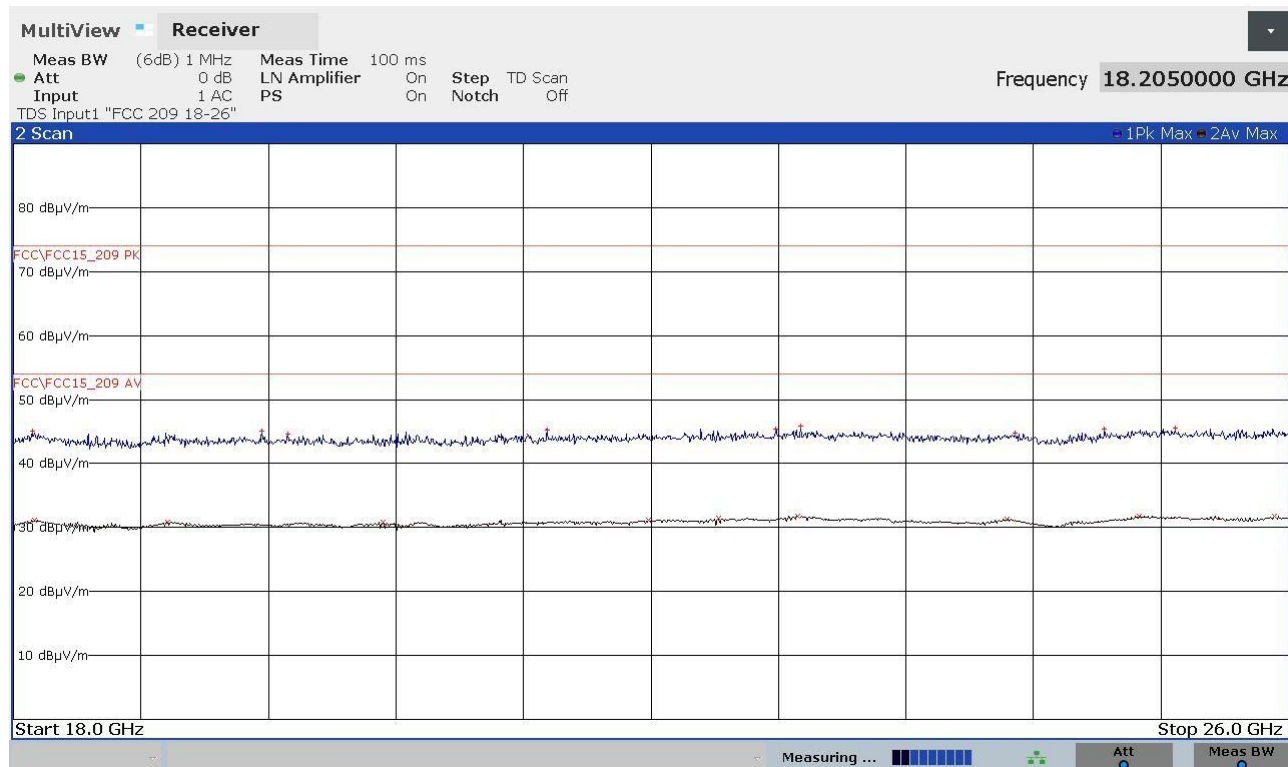


### FINAL RESULT TABLE

| MAX PEAK    |            |           | AVERAGE     |            |           |
|-------------|------------|-----------|-------------|------------|-----------|
| Freq Hz     | Lev dBuV/m | Margin dB | Freq Hz     | Lev dBuV/m | Margin dB |
| 18033000000 | +44,64     | -29,34    | 18131500000 | +31,19     | -22,79    |
| 19014000000 | +44,55     | -29,43    | 18967250000 | +31,02     | -22,96    |
| 20282250000 | +44,85     | -29,13    | 20293750000 | +31,00     | -22,98    |
| 21748750000 | +45,10     | -28,88    | 21749000000 | +31,30     | -22,68    |
| 22448000000 | +45,84     | -28,14    | 22607750000 | +31,56     | -22,42    |
| 22912500000 | +45,88     | -28,10    | 22919500000 | +31,97     | -22,01    |
| 23717500000 | +45,00     | -28,98    | 24234750000 | +31,38     | -22,60    |
| 25194000000 | +45,82     | -28,16    | 25066750000 | +31,85     | -22,13    |
| 25510500000 | +45,62     | -28,36    | 25910750000 | +31,80     | -22,18    |

22007664\_2

Segalla 22007665



### FINAL RESULT TABLE

| MAX PEAK    |            |           | AVERAGE     |            |           |
|-------------|------------|-----------|-------------|------------|-----------|
| Freq Hz     | Lev dBuV/m | Margin dB | Freq Hz     | Lev dBuV/m | Margin dB |
| 18120250000 | +45,03     | -28,95    | 18132000000 | +31,15     | -22,83    |
| 19557250000 | +45,08     | -28,90    | 18965500000 | +30,89     | -23,09    |
| 19721500000 | +44,67     | -29,31    | 20319000000 | +30,80     | -23,18    |
| 21347000000 | +45,16     | -28,82    | 21983500000 | +31,09     | -22,89    |
| 22784750000 | +45,40     | -28,58    | 22423750000 | +31,43     | -22,55    |
| 22939250000 | +45,93     | -28,05    | 22919500000 | +31,80     | -22,18    |
| 24283250000 | +44,70     | -29,28    | 24233250000 | +31,31     | -22,67    |
| 24844250000 | +45,34     | -28,64    | 25066250000 | +31,82     | -22,16    |
| 25288000000 | +45,47     | -28,51    | 25911250000 | +31,78     | -22,20    |

22007665\_2

## Attachment 1

### Instruments list

| <i><b>Id. number</b></i> | <i><b>Manufacturer</b></i> | <i><b>Model</b></i>  | <i><b>Description</b></i>           | <i><b>Serial number</b></i> | <i><b>Last calibration</b></i> | <i><b>Due date calibration</b></i> |
|--------------------------|----------------------------|----------------------|-------------------------------------|-----------------------------|--------------------------------|------------------------------------|
| CMC S010                 | Rohde & Schwarz            | ESH3-Z2              | Impulses Limiting Device            | - - -                       | January '22                    | January '23                        |
| CMC S108                 | EMCO                       | 3115                 | Horn Antenna                        | 9811-5622                   | June '22                       | June '25                           |
| CMC S127                 | Schaffner                  | HLA6120              | Loop Antenna                        | 1191                        | November '18                   | November '23                       |
| CMC S200                 | Schwarzbeck                | NSLK 8128            | V-LISN                              | 8128-273                    | January '22                    | January '23                        |
| CMC S206                 | Rohde & Schwarz            | ESCI 7               | EMC Receiver 9KHz-7GHz              | 100781                      | January '22                    | January '23                        |
| CMC S260                 | CMC                        | Wfr_N                | Shielded Cable                      | Wfr_ant10-1                 | November '21                   | November '22                       |
| CMC S261                 | CMC                        | Wfr_N                | Shielded Cable                      | Wfr_ant20-1                 | November '21                   | November '22                       |
| CMC S262                 | CMC                        | Wfr_N_fix            | Shielded Cable                      | Wfr_fix32-1                 | November '21                   | November '22                       |
| CMC S263                 | CMC                        | Wfr_N_fix            | Shielded Cable                      | Wfr_fix31-1                 | November '21                   | November '22                       |
| CMC S264                 | CMC                        | Wfr_N                | Shielded Cable                      | Wfr_ext03-1                 | November '21                   | November '22                       |
| CMC S271                 | Schwarzbeck                | BBA 9106 + VHBB 9124 | Biconical Antenna (30-300MHz)       | 831                         | June '22                       | June '25                           |
| CMC S287                 | Schwarzbeck                | VUSLP 9111B          | Log-periodic Antenna (200 MHz-3Ghz) | 9111B-203                   | June '22                       | June '25                           |
| CMC S288                 | CMC                        | W_sma_white          | Joint Shielded Cable                | W_001                       | November '21                   | November '22                       |
| CMC S295                 | Rohde & Schwarz            | FSW43                | Spectrum Analyzer 43GHz             | 104059                      | November '19                   | November '22                       |
| CMC S353                 | Rohde & Schwarz            | ESW26                | Emi Test Receiver 1 Hz - 26.5 GHz   | 101492                      | September '20                  | September '22                      |

## Attachment 1

### Measurement uncertainty

| Test                                                      | Test Setup | Expanded uncertainty     | Note |
|-----------------------------------------------------------|------------|--------------------------|------|
| Conducted emission CISPR 16<br>LISN 50uH 0,009-0,0150 MHz | PE001_01   | 3,4 dB                   | 1    |
| Conducted emission CISPR 16<br>LISN 50uH 0,150-30,0 MHz   | PE001_01   | 3,0 dB                   | 1    |
| Conducted emission CISPR 16<br>Voltage Probe 0,15-30 MHz  | PE001_02   | 2,3 dB                   | 1    |
| Conducted emission CISPR 16<br>Current Probe 0,15-30 MHz  | PE001_03   | 2,6 dB                   | 1    |
| Conducted emission CISPR 16<br>ISN 0,15-30 MHz            | PE001_04   | 4,7 dB                   | 1    |
| Clic CISPR 16<br>LISN 50uH 0,150-30,0 MHz                 | PE001_05   | 2,9 dB                   | 1    |
| Radiated Emission CDNE<br>30-300 MHz                      | PE001_06   | 3,3 dB                   | 1    |
| Disturbance Power<br>30-300 MHz                           | PE002_01   | 3,8 dB                   | 1    |
| Radiated Emission LAS<br>0,15-30 MHz                      | PE003_01   | 2,0 dB                   | 1    |
| Radiated Emission CISPR 16<br>Loop Ant. 0,15-30 MHz       | PE004_01   | 4,1 dB                   | 1    |
| Radiated Emission CISPR 16<br>Bicon. Ant. 30-300 MHz      | PE004_02   | 4,7 dB                   | 1    |
| Radiated Emission CISPR 16<br>LogP. Ant. 300-1000 MHz     | PE004_03   | 4,6 dB                   | 1    |
| Radiated Emission CISPR 16<br>Horn Ant. 1-18 GHz          | PE004_04   | 4,7 dB                   | 1    |
| Human Exposure to electromagnetic fields                  | PE005_01   | 16,7 %                   | 1    |
| Harmonics                                                 | PE006_01   | 10 mA + 2,9 %            | 1    |
| Flicker                                                   | PE007_01   | 4,15 %                   | 1    |
| Radiated Immunity<br>80 MHz - 6 GHz                       | PE102_XX   | 2,20 dB 0,86 V/m a 3V/m  | 1    |
| Conducted Immunity<br>0,15 - 230 MHz                      | PE105_XX   | 1,20 dB 0,44 V a 3V      | 1    |
| AC Magnetic field                                         | PE106_01   | 1,55 % 0,15 A/m a 10A/m  | 1    |
| Pulse Magnetic field                                      | PE107_01   | 6,23 % 18,7 A/m a 300A/m | 1    |
| Dumped Magnetic field                                     | PE108_01   | 6,23 % 1,87 A/m a 30A/m  | 1    |
| Common mode conducted immunity                            | PE112_01   | 2,16 % 0,22 V a 10V      | 1    |



## Attachment 1

| Test                                       | Test Setup  | Expanded uncertainty | Note |
|--------------------------------------------|-------------|----------------------|------|
| Power/Spurious<br>9kHz-30MHz               | PR001_01    | 4,1 dB               | 1    |
| Power/Spurious ERP<br>30-1000MHz d=10m     | PR001_02+03 | 4,7 dB               | 1    |
| Misura della potenza EIRP<br>1-18GHz d=3m  | PR001_04+05 | 4,7 dB               | 1    |
| Misura della potenza EIRP<br>18-40GHz d=3m | PR001_06    | 5,4 dB               | 1    |
| Frequency error                            | PR002_01+02 | $< 1 \times 10^{-7}$ | 1    |
| Timing zero span (1001pts.)                | PR002_01+02 | 0,2 % SWT            | 1    |
| Modulation bandwidth                       | PR002_01+02 | $< 1 \times 10^{-7}$ | 1    |
| Conducted RF power and spurious emission   | PR002_01+02 | 1,1 dB               | 1    |
| Adjacent channel power                     | PR002_01+02 | 1,1 dB               | 1    |
| Blocking                                   | PR002_01+02 | 1,1 dB               | 1    |

| Test                                             | Test Setup | Expanded uncertainty | Note |
|--------------------------------------------------|------------|----------------------|------|
| Electrostatic discharge immunity test            | PE101_0X   |                      | 2    |
| Electrical fast transients / burst immunity test | PE103_0X   |                      | 2    |
| Surge immunity test                              | PE104_0X   |                      | 2    |
| Short interruption immunity test                 | PE109_01   |                      | 2    |
| Ring Wave immunity test                          | PE110_01   |                      | 2    |
| Low frequency immunity test                      | PE111_01   |                      | 2    |
| Dumped Oscillatory immunity test                 | PE113_01   |                      | 2    |
| Rev_22_01 date 31/01/2022                        |            |                      |      |

### Note 1:

The expanded uncertainty reported according to the document EA-4-02 is based on a standard uncertainty multiplied by a coverage factor of  $k=2$ , providing a level of confidence of  $p = 95\%$

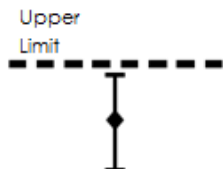
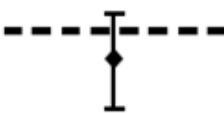
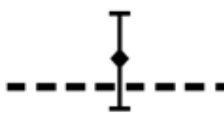
### Note 2:

It has been demonstrated that the used test equipment meets the specified requirements in the standard with at least a 95% confidence, covering factor  $k=2$



## Attachment 1

### Judgement of compliance

| Case 1                                                                                                                                                                                                                                                       | Case 2                                                                                                                                                                                                                                                                                              | Case 3                                                                                                                                                                                                                                                                                                  | Case 4                                                                                                                                                                                                                                                                 |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  <p>The sample complies with the requirements.</p> <p>The measurement results is within the specification limit when the measurement uncertainty is taken into account.</p> |  <p>The sample complies with the requirements.</p> <p>It is not possible to state compliance using a 95% coverage probability for the expanded uncertainty although the measurement result is below the limit.</p> |  <p>The sample does not comply with the requirements.</p> <p>It is not possible to state compliance using a 95% coverage probability for the expanded uncertainty also the measurement result is upper the limit.</p> |  <p>The sample does not comply with the requirements.</p> <p>The measurement results is outside the specification limit when the measurement uncertainty is taken into account.</p> |

In agreement with ILAC-G8:09/2019 cl.4.2.1 Guidelines on Decision Rules and Statements of Conformity

### Quality manual references – Internal procedure

|                                                          |                                     |
|----------------------------------------------------------|-------------------------------------|
| Internal Procedure PM001 rev. 3.1 (Quality Manual) ..... | Measure procedure                   |
| Internal Procedure INC_M rev. 9.7 (Quality Manual) ..... | Measurement uncertainty calculation |