

Test report nr. 20811FCC17

Measurements performed in accordance with:

**FCC Rules: code of Federal Regulations (CFR) no. 47
PART 15 – RADIO FREQUENCY DEVICES**

Product: LPD transmitter

Tested model: W11/U, W1SI/U, W6I/U, W6SI/U

FCC ID PMLERAWIU

Applicant: Nice S.p.A.
Via Pezza Alta, 13 I-31046 Rustignè di Oderzo (TV)

Manufacturer: Nice S.p.A.
Via Pezza Alta, 13 I-31046 Rustignè di Oderzo (TV)

Trademark: Nice

Testing Laboratory Nice Laboratory

Registration number: 771316

Date of receipt sample: 13th March 2017

Testing date: 13th March 2016 to 17th March 2017

Issue date: 5 May 2017

Tested by: L. Pastres *L. Pastres*

Checked by: E. Campion *E. Campion*

Notice: The result of tests and checks reported in this Test Report refer exclusively to the samples tested and described in the Report itself.
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Contents

| | |
|--|-----------|
| Contents | 2 |
| 1 General Description of Equipment under Test..... | 3 |
| 1.1 Applicant | 3 |
| 1.2 Manufacturer..... | 3 |
| 1.3 Equipment classification..... | 3 |
| 1.4 Basic Description of equipment under test..... | 4 |
| 1.5 Feature of equipment under test | 5 |
| 2 Test configuration of equipment under test..... | 6 |
| 2.1 Environmental conditions | 6 |
| 2.2 Description of support equipment..... | 6 |
| 2.3 Interface identification and connection diagram of test system | 7 |
| 3 Operation of equipment under test | 8 |
| 3.1 Operating test conditions | 8 |
| 4 Tests identification and result | 9 |
| 4.1 Methods of measurement | 9 |
| 4.2 Frequency range investigated | 9 |
| 5 Tests | 10 |
| 5.1 Antenna requirements..... | 10 |
| 5.2 Conduced emission..... | 11 |
| 5.3 Radiated emission..... | 12 |
| 5.4 Timing of the transmitter | 17 |
| 5.5 Transmit behaviour after releasing the TX-button | 19 |
| 5.6 Radiated output power | 21 |
| 5.8 Compliance with the limit of FCC | 24 |
| 5.9 Spurious emission - radiated..... | 25 |
| 5.10 Occupied bandwidth | 26 |
| 6 Measurement and Test Equipment instrumentation..... | 28 |
| 7 Photographic Documentation..... | 31 |
| 8.1 EUT Identification..... | 31 |
| 8.2 Test Set-up | 41 |
| Annex 1 | 44 |

1

General Description of Equipment under Test**1.1 Applicant**

Name: Nice S.p.A.
Address: via Pezza alta, 13 I-31046 Rustignè di Oderzo (TV)
Country: ITALY

1.2 Manufacturer

Name: Nice S.p.A.
Address: via Pezza alta, 13 I-31046 Rustignè di Oderzo (TV)
Country: ITALY

1.3 Equipment classification

According to definition 15.3 (o) is an intentional Radiator operating within the Frequency: 433.92MHz.

So it shall fulfil provisions of 47CFR Part 15 Subpart C – international radiators – and Section 15.209.

According to definition 15.3 (z) is an unintentional Radiator:

So it shall fulfil provisions of 47CFR Part 15 Subpart B – Unintentional radiator and section 15.231.

1.4 Basic Description of equipment under test

| Parameters | Value |
|-----------------------|----------------------------|
| Type of equipment: | LPD transmitter |
| Model: | W6SI/U |
| FCC ID: | PMLERAWIU |
| Trade Name: | Nice |
| Data cable: | N/A |
| Telecom cable: | N/A |
| Power supply type: | Battery, 2 x 1.5V type AAA |
| AC power input cable: | N/A |
| DC power input cable: | N/A |

| Model | Description |
|---------------|--|
| W6SI/U | Reference product with 13 buttons (6 channels and climate sensor). This version was tested because complete of all components. |
| W6I/U | Same of complete model W6SI/U without buttons for climate sensor |
| W1SI/U | Same of complete model W6SI/U with one channel |
| W1I/U | Same of complete model W6SI/U with one channel and without buttons for climate sensor |

1.5 Feature of equipment under test

| Parameters | Value |
|--|--|
| Power specification | LPD transmitter for tubular motor application Nice |
| Operating frequency: | 433.92MHz |
| Maximum RF output power: | 92.71 dB μ V/m (Peak) @ 3m 77.66 dB μ V/m (Average after correction) = 10.7 μ W |
| Occupied Bandwidth (99% BW): | 72.61kHz |
| Emission Designator (ITU): | 72K6F1D |
| Modulation: | FSK |
| Channel spacing: | No channel |
| Antenna: | Integral |
| Rx Sensitivity: | N/A |
| Main SW identification: | N/A |
| Main HW board identification: | N/A |
| Peripherals included (for system application): | N/A |
| Interfaces: | N/A |
| Integrated interfaces | N/A |
| AC adapter: | N/A |

2

Test configuration of equipment under test

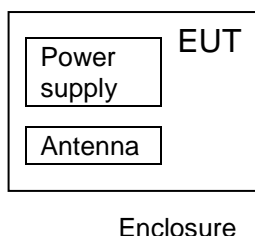
2.1 Environmental conditions

| Test conditions | Measured |
|-----------------------|--------------|
| Ambient temperature: | 20 ÷ 25°C |
| Relative humidity: | 50 ÷ 60% |
| Atmospheric pressure: | 900 ÷ 1010mb |

2.2 Description of support equipment

| Equipment | Manufacturer | Model |
|-----------|--------------|-------|
| - | - | - |
| | | |
| | | |

2.3 Interface identification and connection diagram of test system



| # | Interface | Description | Maximum length | Ref. Document |
|---|-----------------------|----------------------------|----------------|---------------|
| 1 | Enclosure | Plastic | - | - |
| 2 | AC mains power input | N/A | - | - |
| 3 | DC power port | 3Vdc (2 x 1.5Vdc type AAA) | - | - |
| 4 | Signal / control port | N/A | - | - |
| 5 | Antenna port | Integral | - | - |
| 6 | Telecommunication | N/A | - | - |

3

Operation of equipment under test

3.1 Operating test conditions

| # | Description |
|---|-------------------|
| 1 | Standby mode |
| 2 | Transmission mode |

4

Tests identification and result

| CFR47 Part 15 Section | Title | Operating condition | Result |
|-----------------------------|--|------------------------|--------|
| 15.203 15.247 (b)(4)(i) | Antenna requirements | - | N/A |
| 15.207 (a) | Conducted emission | - | N/A |
| 15.209 (a) (f) | Radiated emission | #1, #2 | PASS |
| 15.35 (c) | Timing of the transmitter | #2 | PASS |
| 15.231 (a) | Transmit behaviour after releasing the TX-button | - | PASS |
| 15.231 (b) | Radiated output power | #2 | PASS |
| 15.35 (c) | Typical pulse train of a signal | #2 | PASS |
| 15.231 (c) | Compliance with the limit of FCC | #2 | PASS |
| 15.231 (a) | Spurious emission - radiated | #2 | PASS |
| 15.231 (a) | Occupied bandwidth | #2 | PASS |

4.1 Methods of measurement

All compliance measurements has been carried out using the procedures described in the standard ANSI C63.4-2014 (excluding sub-par. 4.1.5.2, 5.7.9 and 14), C63.10-2013 and Section 15.31 of CFR47 Part 15 – Subpart A (General).

4.2 Frequency range investigated

- a) Conducted emission tests: from 9kHz to 30MHz.
- b) Radiated emission tests: from 30MHz to tenth harmonic of fundamental.

5 Tests

5.1 Antenna requirements

Specify:

| | |
|----------------|---------------------------------------|
| Base standard: | 47CFR Part 15 Sections 15.203, 15.204 |
|----------------|---------------------------------------|

~~An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this Section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited. This requirements does not apply to carrier current devices or to devices operated under the provisions of Sections 15.211, 15.213, 15.217, 15.219 or 15.221. Further, this requirements does not apply to intentional radiators which, in accordance with Section 15.31 (d), must be measured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this Part are not exceeded.~~

Antenna Specification:

| | |
|--------------------------------|----------|
| N° of authorized antenna type: | - |
| Antenna type: | Integral |
| Maximum total gain: | 0dB |
| External power amplifiers: | - |

Antenna description:

| No. | Manufacturer | Model Type |
|-----|--------------|------------|
| - | - | - |
| | | |
| | | |

Comments:

The antenna is integral, therefore this test was not performed

5.2 Conduced emission

Specify:

| | |
|----------------|------------------------------|
| Base standard: | 47CFR Part 15 Section 15.207 |
|----------------|------------------------------|

- 1) The EUT was placed on wooden table size 80cm, raised 80cm in which is located 40cm away from the vertical wall shielded room.
- 2) Each EUT powered input cord was individually connected through a 50Ω/50μH LISN to the input power source.
- 3) Exploratory measurements were made identify the frequency of the emission that had the highest amplitude relative to the limit by operating the EUT in a range of typical modes operation, cable position, and with a typical system equipment configuration and arrangement. Based on the exploratory tests of the EUT, the one EUT cable configuration and arrangement and mode of operation that had produced the emission with the highest amplitude relative to the limit was selected for the final measurement.
- 4) The final test on all current-carrying conductors of all of the power cords to the equipment that comprises the EUT (but not the cords associated with other non-EUT equipment is the system) was than performed over the frequency range of 0,15MHz to 30MHz.
- 5) The measurements were made with the detector set to PEAK and AVERAGE amplitude within a bandwidth of 10kHz during the measurements.
- 6) The measurements with Quasi-Peak detector are performed only for frequencies for which the Peak values are \geq (Q.P. limit - 6dB)

Test Requirements:

| | |
|--|-----------------------------|
| Test Setup: | ANSI C63.4 |
| Limit of mains terminal disturbance voltage: | 15.207 (a) |
| Frequency range: | 9kHz—150kHz 150kHz—30MHz |
| IF Bandwidth: | 200Hz 9kHz |
| EMC class | B |
| Uncertainty: | 2,3dB |

Limits⁽¹⁾:

| Frequency [MHz] | Quasi-Peak (dBμV) | Average (dBμV) |
|-----------------|-------------------|----------------|
| 0,15—0,5 | 66—56 | 56—46 |
| 0,5—5 | 56 | 46 |
| 5—30 | 60 | 50 |

Note: (1) The lower limit shall apply at the transition frequencies.

(2) The limit decreases linearly with the logarithm of the frequency in the range 0,15 MHz to 0,50 MHz.

Test Data:

| Port under test | Operating condition | Result |
|-----------------|---------------------|--------|
| | | |

Comments:

The equipment is supplied with battery, therefore this test was not performed

5.3 Radiated emission

Specify:

| | |
|----------------|------------------------------|
| Base standard: | 47CFR Part 15 Section 15.209 |
|----------------|------------------------------|

- 1) The EUT was placed on turntable which is 0,8m above the ground plane.
- 2) The turntable shall rotate from 0° to 360° degrees to determine the position of maximum emission level.
- 3) The EUT is positioned 3m away from the receiving antenna which varied from 1 to 4m to find the highest emission.
- 4) The measurements were made with the detector set to PEAK and AVERAGE amplitude within a bandwidth of 100kHz below 1000MHz and 1MHz above 1000MHz.
- 5) The receiving antenna was positioned in both horizontal and vertical polarization.
- 6) The measurements with Quasi-Peak detector, below 1000MHz are performed only for frequencies for which the Peak values are \geq (Q.P. limit – 6dB).

Test Requirements:

| | |
|-----------------------------------|----------------------------------|
| Test Setup: | ANSI C63.4 |
| Test facility: | Anechoic chamber |
| Test distance: | 3m |
| Limits for radiated disturbances: | 15.209 (a) |
| Frequency range: | 30MHz to 6GHz |
| IF bandwidth (below 30MHz): | 9kHz |
| IF bandwidth (below 1000MHz): | 120kHz |
| IF bandwidth (above 1000MHz): | 1MHz |
| EMC class: | B |
| Uncertainty: | 4.6dB (< 1GHz) 4.7dB (> 1GHz) |

Limits ⁽¹⁾:

| Frequency [MHz] | Field Strength (μ V/m) | Measurement distance (m) |
|-----------------|-----------------------------|--------------------------|
| 0,0009 – 0,490 | 2400/F(kHz) | 300 |
| 0,490 – 1,750 | 24000/F(kHz) | 30 |
| 1,750 - 30 | 30 | 30 |
| 30 - 88 | 100 | 30 |
| 88 -216 | 150 | 3 |
| 216 - 960 | 200 | 3 |
| above 960 | 500 | 3 |

Note: ⁽¹⁾ to convert the measuring distance from 3m to 300m and 30m to 300m a correction factor from 40dB/decade was used

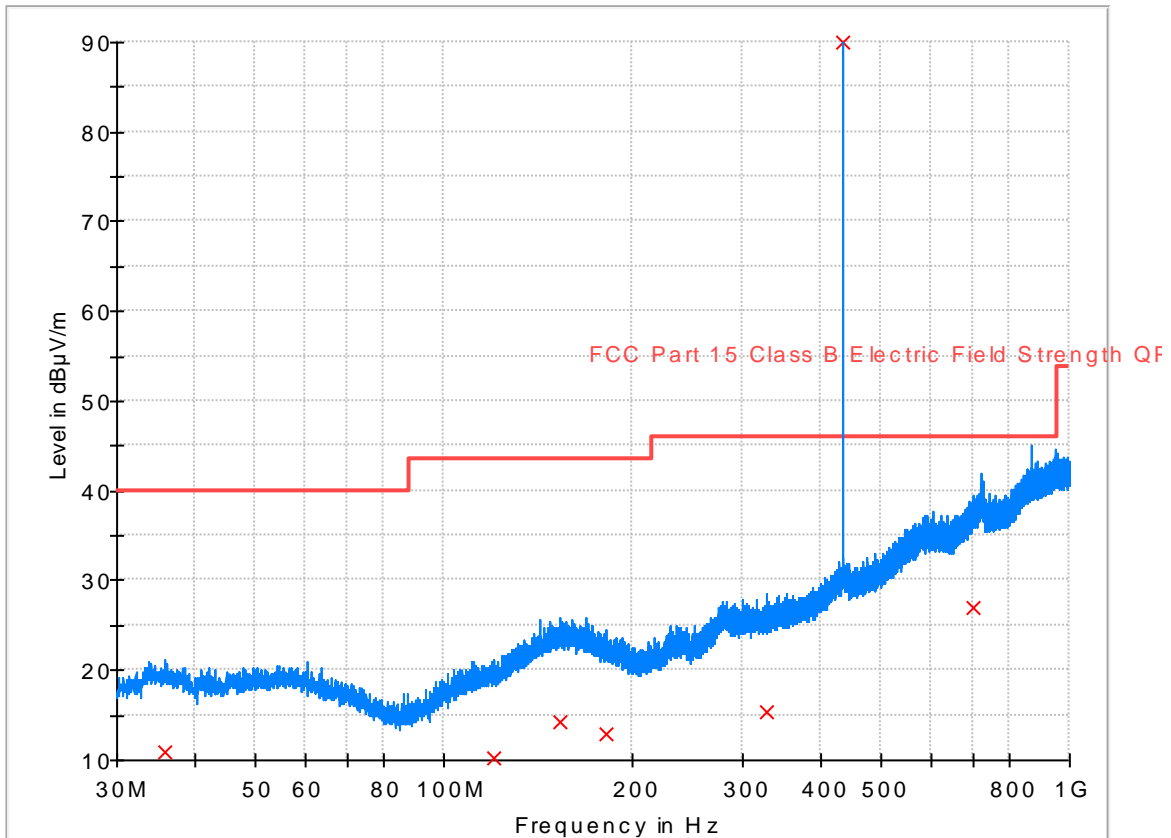
Test Data.:

| Port under test | Operating condition | Result |
|-----------------|---------------------|----------|
| Enclosure | #1, #2 | Complies |

Comments:

The results represent the worst case of emissions between three polarizations verified (X, Y and Z). The table was rotate of 360° and antenna receiving moved from 1m to 4m to find the maximum emission.

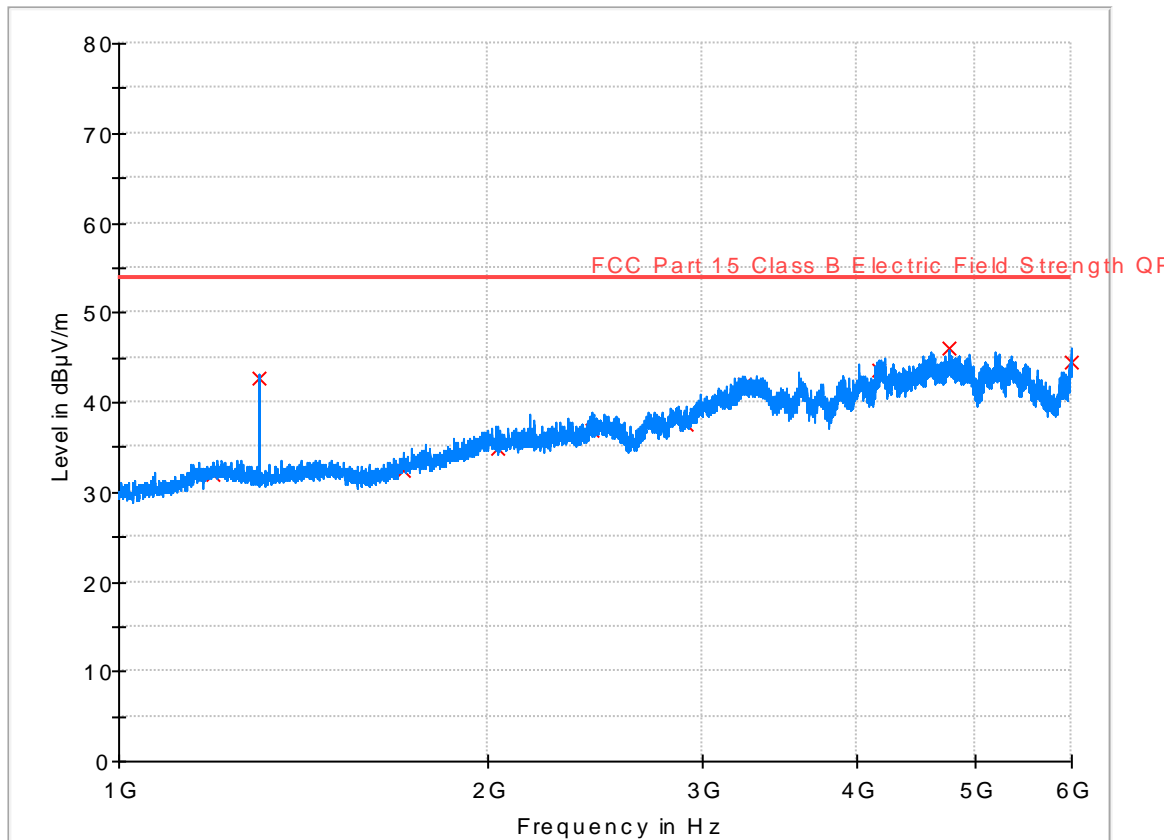
Transmission



Result Table_Single

| Frequency (MHz) | QuasiPeak (dBµV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) | Comment |
|-----------------|--------------------|-----------------|-----------------|-------------|-----|---------------|------------|---------|
| 35.800000 | 10.9 | 1000.0 | 120.000 | 100.0 | H | 0.0 | 12.8 | |
| 54.360000 | 9.9 | 1000.0 | 120.000 | 100.0 | H | 0.0 | 13.7 | |
| 60.640000 | 9.5 | 1000.0 | 120.000 | 100.0 | H | 0.0 | 13.3 | |
| 119.840000 | 10.2 | 1000.0 | 120.000 | 100.0 | H | 0.0 | 13.4 | |
| 152.880000 | 14.3 | 1000.0 | 120.000 | 100.0 | H | 0.0 | 17.1 | |
| 181.160000 | 12.9 | 1000.0 | 120.000 | 100.0 | H | 0.0 | 15.5 | |
| 328.520000 | 15.4 | 1000.0 | 120.000 | 100.0 | H | 0.0 | 19.4 | |
| 433.920000 | 89.9 | 1000.0 | 120.000 | 100.0 | H | 0.0 | 23.1 | |
| 701.600000 | 26.9 | 1000.0 | 120.000 | 100.0 | H | 0.0 | 29.3 | |
| 867.880000 | 40.2 | 1000.0 | 120.000 | 100.0 | H | 0.0 | 33.7 | |

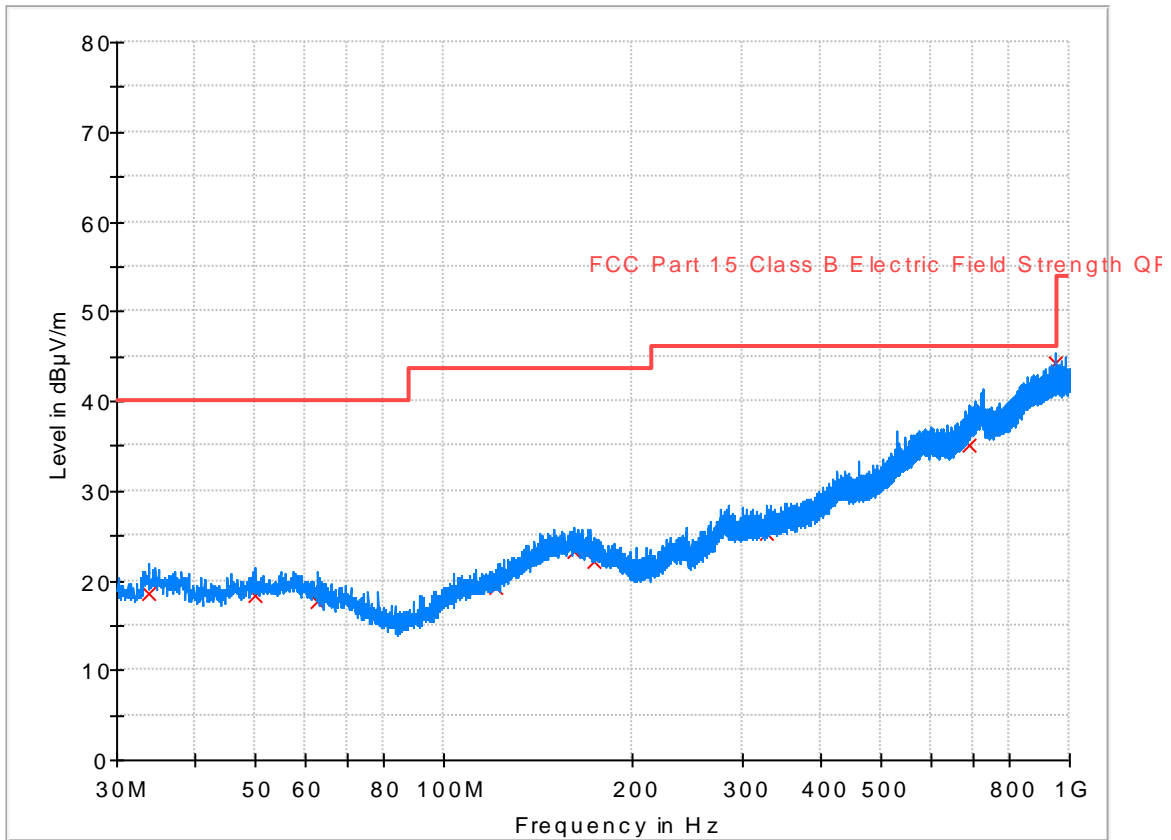
Note: transmission continuous at 433.92MHz for test.



Result Table_Single

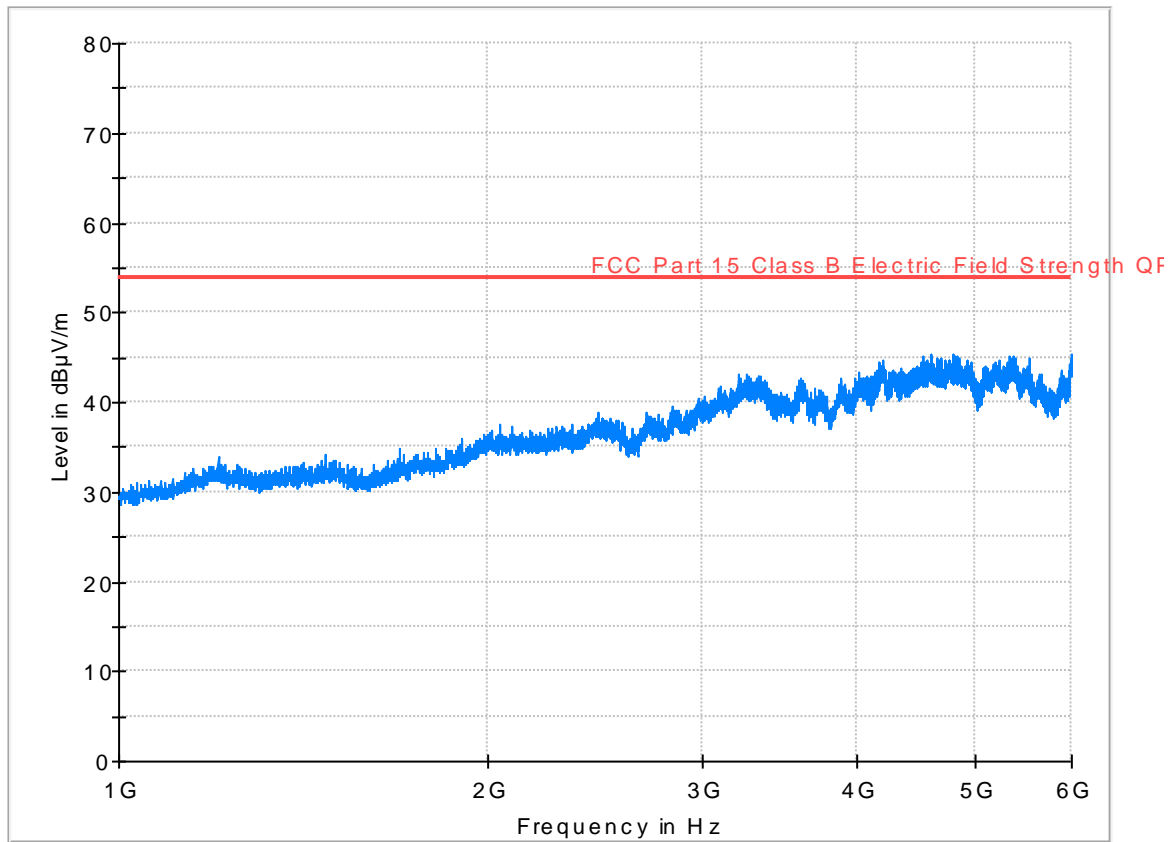
| Frequency (MHz) | MaxPeak (dBµV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) | Comment |
|-----------------|------------------|-----------------|-----------------|-------------|-----|---------------|------------|---------|
| 1194.000000 | 32.0 | 10.0 | 1000.000 | 100.0 | V | 0.0 | -9.1 | |
| 1302.000000 | 42.7 | 10.0 | 1000.000 | 100.0 | V | 0.0 | -10.2 | |
| 1710.000000 | 32.5 | 10.0 | 1000.000 | 100.0 | V | 0.0 | -8.4 | |
| 2042.400000 | 34.9 | 10.0 | 1000.000 | 100.0 | V | 0.0 | -5.4 | |
| 2434.400000 | 36.9 | 10.0 | 1000.000 | 100.0 | V | 0.0 | -3.7 | |
| 2910.400000 | 37.6 | 10.0 | 1000.000 | 100.0 | V | 0.0 | -1.7 | |
| 3250.400000 | 41.9 | 10.0 | 1000.000 | 100.0 | V | 0.0 | 1.8 | |
| 4182.800000 | 43.5 | 10.0 | 1000.000 | 100.0 | V | 0.0 | 4.9 | |
| 4773.200000 | 46.1 | 10.0 | 1000.000 | 100.0 | V | 0.0 | 6.1 | |
| 5998.400000 | 44.6 | 10.0 | 1000.000 | 100.0 | V | 0.0 | 11.6 | |

Standby



Result Table_Single

| Frequency (MHz) | MaxPeak (dBµV/m) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) | Comment |
|-----------------|------------------|-----------------|-----------------|-------------|-----|---------------|------------|---------|
| 33.760000 | 18.5 | 10.0 | 120.000 | 100.0 | V | 0.0 | 12.6 | |
| 50.040000 | 18.3 | 10.0 | 120.000 | 100.0 | V | 0.0 | 13.6 | |
| 62.960000 | 17.6 | 10.0 | 120.000 | 100.0 | V | 0.0 | 12.7 | |
| 121.440000 | 19.3 | 10.0 | 120.000 | 100.0 | V | 0.0 | 13.6 | |
| 161.400000 | 23.1 | 10.0 | 120.000 | 100.0 | V | 0.0 | 17.3 | |
| 173.480000 | 22.2 | 10.0 | 120.000 | 100.0 | V | 0.0 | 16.3 | |
| 327.200000 | 25.3 | 10.0 | 120.000 | 100.0 | V | 0.0 | 19.3 | |
| 461.960000 | 30.3 | 10.0 | 120.000 | 100.0 | V | 0.0 | 23.2 | |
| 692.120000 | 35.2 | 10.0 | 120.000 | 100.0 | V | 0.0 | 28.8 | |
| 949.920000 | 44.1 | 10.0 | 120.000 | 100.0 | V | 0.0 | 35.2 | |



5.4 Timing of the transmitter

Specify:

| | |
|----------------|---------------------------------|
| Base standard: | CFR47 Part 15 Section 15.35 (c) |
|----------------|---------------------------------|

Unless otherwise specified, e.g. Section 15.225 (b), when the radiated emission limits are expressed in term of the average value of the emission, and pulsed operation is employed, the measurement field strength shall be determined by averaging over one complete pulse train, including blanking intervals, as long as the pulse train does not exceed 0,1 seconds. As an alternative (provided the transmitter operates for longer than 0,1 seconds) or in cases where the pulse exceeds 0,1 seconds, the measured field strength shall be determined from the average absolute voltage during a 0,1 second interval strength shall be submitted with any application for certification or shall be retained in the measurement data file for equipment subjected to notification or verification.

Test requirements:

| | |
|--------------|---------------------------------|
| Test Setup: | CFR47 Part 15 Section 15.35 (c) |
| RBW: | 300kHz |
| VBW: | 1MHz |
| Uncertainty: | 0.2 μ s |

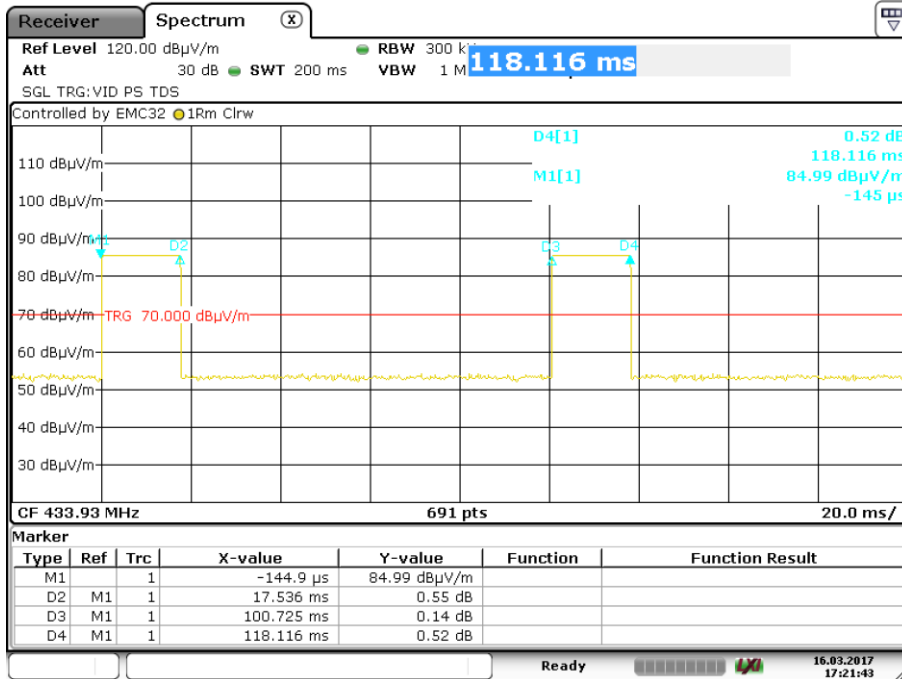
Test Data:

| | |
|---------------------|-----------|
| Frequency: | 433.92MHz |
| Frame period: | - |
| Pause: | - |
| Pulse train length: | - |
| ON Time: | 17.6ms |
| OFF Time: | 83.2ms |

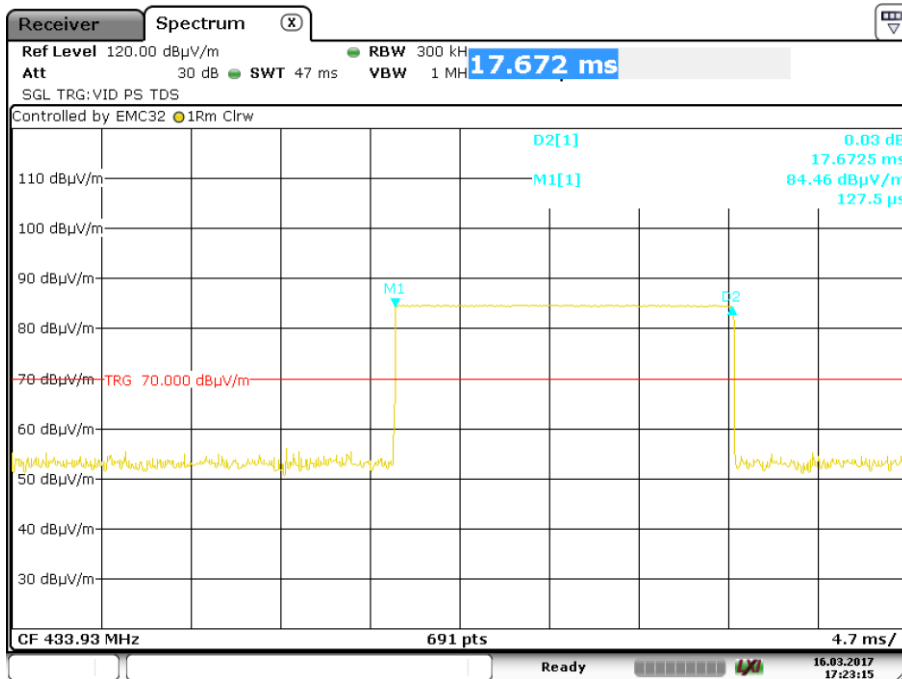
Comments:

-

FCC test report



Date: 16.MAR.2017 17:21:44



Date: 16.MAR.2017 17:23:15

5.5 Transmit behaviour after releasing the TX-button

Specify:

| | |
|----------------|----------------------------------|
| Base standard: | 47CFR Part 15 Section 15.231 (a) |
|----------------|----------------------------------|

Test requirements:

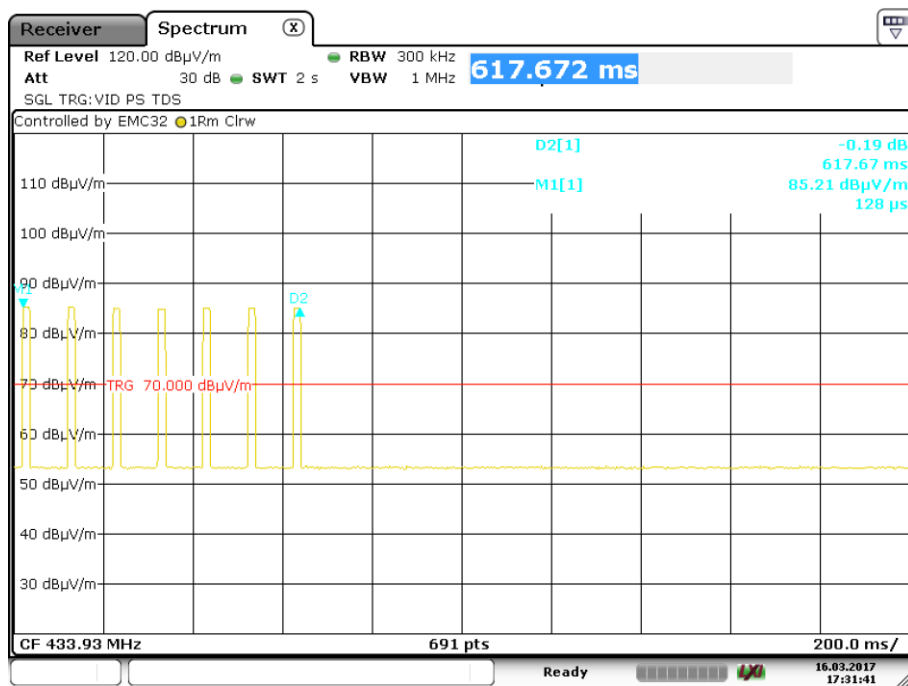
| | |
|--------------|---------------------------------|
| Test Setup: | 47CFR Part 15 Section 15.35 (c) |
| RBW: | 300kHz |
| VBW: | 1MHz |
| Uncertainty: | 0.2 μ s |

Test data:

| | |
|--------|------------|
| T1: | - |
| T2: | - |
| T2-T1: | 617ms < 5s |

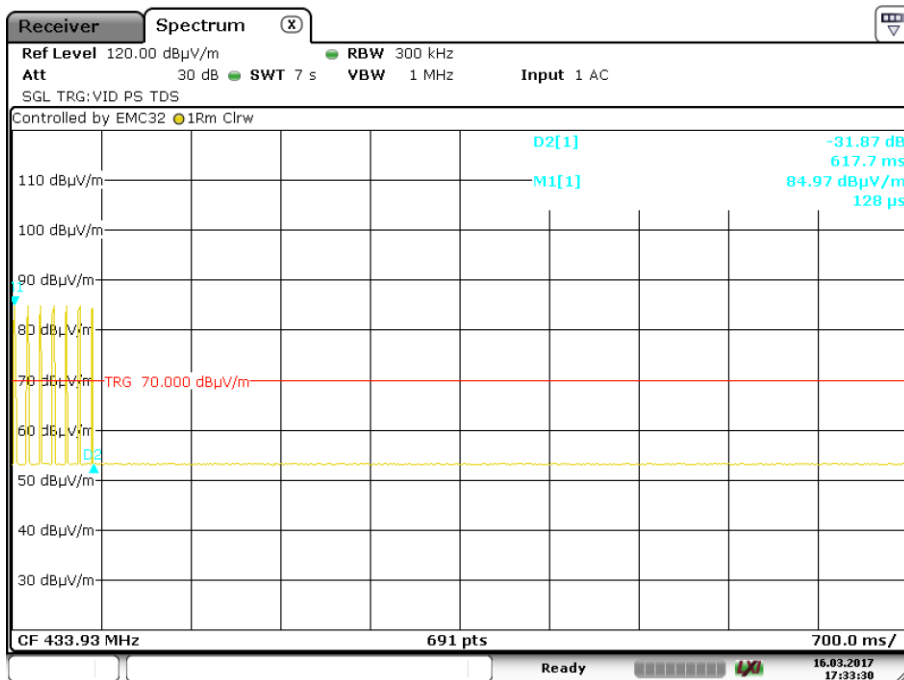
Comments:

After activation of transmission the equipment send 13 pulses train and then goes in standby mode



Date: 16.MAR.2017 17:31:40

FCC test report



Date: 16.MAR.2017 17:33:30

5.6 Radiated output power

Specify:

Base standard: FCC 15.231 (b)

Test Requirements:

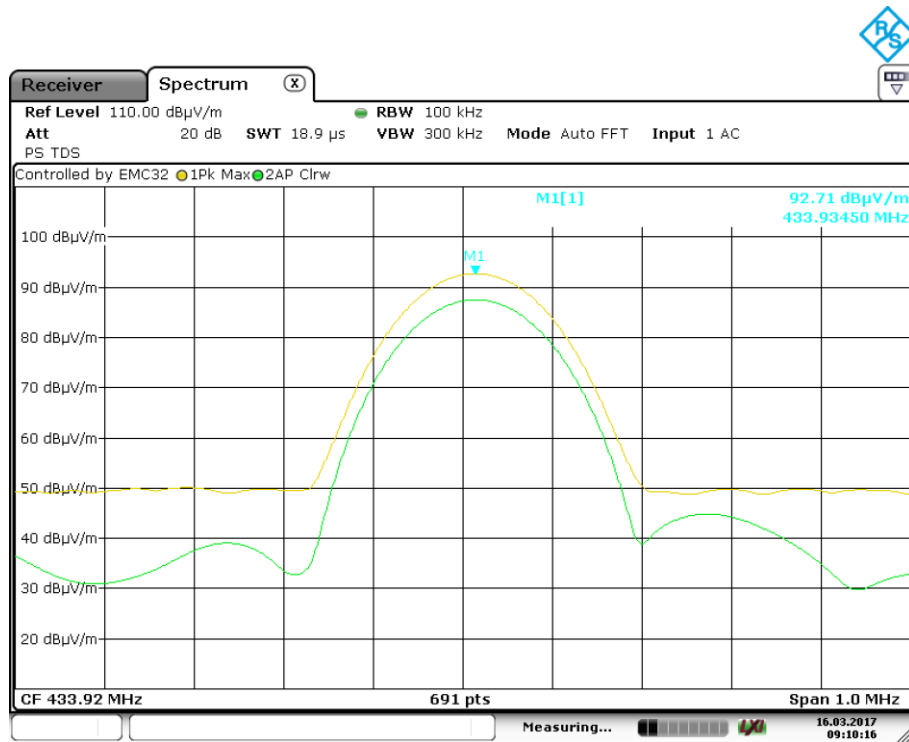
| | |
|--------------|---|
| RBW / VBW: | 200Hz ($f < 150\text{kHz}$) 9kHz ($150\text{kHz} < f < 30\text{MHz}$) 120kHz ($30\text{MHz} < f < 1000\text{MHz}$) 1MHz ($f > 1000\text{MHz}$) |
| Uncertainty: | 3.7dB |

Test data:

Output radiated power (3m of distance): 92.71 dB μ V/m (Peak) @ 3m

Comments:

The results represent the worst case of emissions between three polarizations verified (X, Y and Z). The table was rotate of 360° and antenna receiving moved from 1m to 4m to find the maximum emission.



Date: 16.MAR.2017 09:10:16

5.7 Typical pulse train of a signal

Specify:

Base standard: 47CFR Part 15 Section 15.35 (c)

Test Setup:

RBW: 300kHz

VBW: 1MHz

Uncertainty: 0.2 μ s

Test Data:

Duty-cycle 17.67%

TX on 17.67ms

TX off 100.725ms

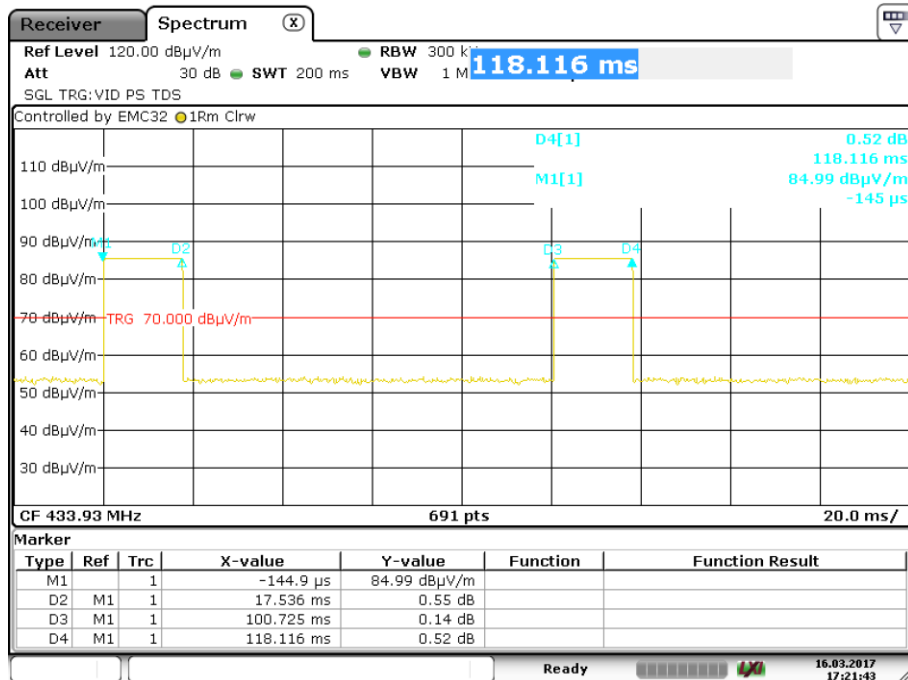
Average correction factor (20*log (duty cycle):
20 x log (17.67 / 100) = -15.05dB

Comments:

The impulse contain a train of 17.67ms and pause of 100.725ms.

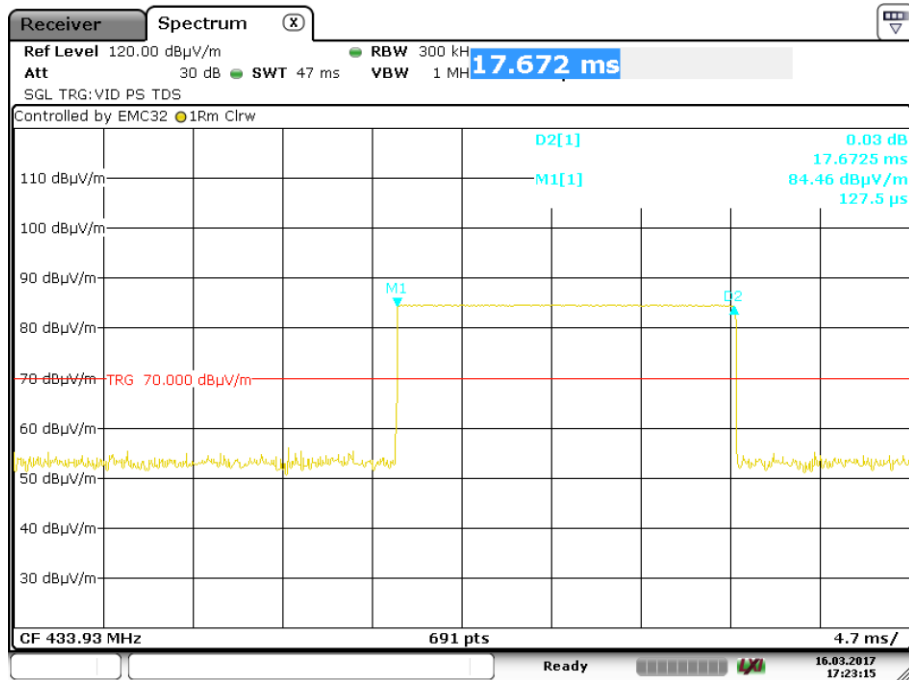
Duty-cycle in 100ms = 17.67 / 100 = 0.1767

Correction for average = 20 x log (0.1767) = -15.05dB



Date: 16.MAR.2017 17:21:44

FCC test report



Date: 16.MAR.2017 17:23:15

5.8 Compliance with the limit of FCC

Specify:

| | |
|----------------|-----------------------------------|
| Base standard: | 47CFRF Part 15 Section 15.231 (c) |
|----------------|-----------------------------------|

Test Setup:

| | |
|--------------|---|
| RBW / VBW: | 200Hz (f < 150kHz) 9kHz (150kHz < f < 30MHz) 120kHz (30MHz < f < 1000MHz) 1MHz (f > 1000MHz) |
| Uncertainty: | 3.7dB |

Limits:

| Frequency [MHz] | Field Strength of the fundamental | Field Strength of spurious emissions |
|-----------------|--|---|
| 40,66 – 40,70 | 2 250 μ V/m / 67dB μ V/m | 225 μ V/m / 47dB μ V/m |
| 70 – 130 | 1 250 μ V/m / 62dB μ V/m | 125 μ V/m / 42dB μ V/m |
| 130 - 174 | 1 250 μ V/m to 3 750 μ V/m ⁽¹⁾ 62 μ V/m to 71,5 μ V/m | 125 μ V/m to 375 μ V/m ⁽¹⁾ 42dB μ V/m to 51,5dB μ V/m |
| 174 – 260 | 3 750 μ V/m / 71,5dB μ V/m | 375 μ V/m / 51,5dB μ V/m |
| 260 – 470 | 3 750 μ V/m to 12 500 μ V/m ⁽¹⁾ 71,5 dB μ V/m to 82 dB μ V/m | 375 μ V/m to 1 250 μ V/m ⁽¹⁾ 51,5dB μ V/m to 62dB μ V/m |
| above 470 | 12 500 μ V/m / 82dB μ V/m | 1 250 μ V/m / 62dB μ V/m |

Note: ⁽¹⁾ linear interpolations
for 130 to 174MHz the interpolation is: 56,8182*f – 6136,36 (f in MHz)
for 260 to 470MHz the interpolation is: 41,667*f – 7083,33 (f in MHz)

Test Result:

| | |
|--------------------------------------|--------------------------------------|
| Frequency: | 433.92MHz |
| Calculated average (3m of distance): | (92.71 – 15.05) = 77.66 dB μ V/m |

Comments:

The results represent the worst case of emissions between three polarizations verified (X, Y and Z). The table was rotate of 360° and antenna receiving moved from 1m to 4m to find the maximum emission.

5.9 Spurious emission - radiated

Specify:

Base standard: 47CFR Part 15 Section 15.231 (a)

Test Setup:

Uncertainty : 3.9dB

Limits:

| Frequency [MHz] | Field Strength of the fundamental | Field Strength of spurious emissions |
|-----------------|--|---|
| 40,66 – 40,70 | 2 250 μ V/m / 67dB μ V/m | 225 μ V/m / 47dB μ V/m |
| 70 – 130 | 1 250 μ V/m / 62dB μ V/m | 125 μ V/m / 42dB μ V/m |
| 130 – 174 | 1 250 μ V/m to 3 750 μ V/m ⁽¹⁾ 62 μ V/m to 71,5 μ V/m | 125 μ V/m to 375 μ V/m ⁽¹⁾ 42dB μ V/m to 51,5dB μ V/m |
| 174 – 260 | 3 750 μ V/m / 71,5dB μ V/m | 375 μ V/m / 51,5dB μ V/m |
| 260 – 470 | 3 750 μ V/m to 12 500 μ V/m ⁽¹⁾ 71,5 dB μ V/m to 82 dB μ V/m | 375 μ V/m to 1 250 μ V/m ⁽¹⁾ 51,5dB μ V/m to 62dB μ V/m |
| above 470 | 12 500 μ V/m / 82dB μ V/m | 1 250 μ V/m / 62dB μ V/m |

Note: ⁽¹⁾ linear interpolations
 for 130 to 174MHz the interpolation is: $56,8182 \cdot f - 6136,36$ (f in MHz)
 for 260 to 470MHz the interpolation is: $41,667 \cdot f - 7083,33$ (f in MHz)

Test Result:

| Frequency [MHz] | Peak Amplitude of emission (dB μ V/m) | Average Amplitude of emission (dB μ V/m) | Limit maximum allowed emission power | Actual attenuation below frequency of operation (dB) | Results |
|-----------------|---|--|--------------------------------------|--|---------------------|
| 433.9345 | 92.71 | 77.66 | 80.83dB μ V/m | 3.17 | operating frequency |
| 867.827 | 30.75 | 15.07 | 60.83 dB μ V/m (-20dBc) | 45.13 | Complies |
| 1301.795 | 45.73 | 30.68 | 54.0dB μ V/m | 23.32 | Complies |
| 1733.705 | 37.49 | 22.44 | 60.83 dB μ V/m (-20dBc) | 37.86 | Complies |
| 2169.480 | 44.33 | 29.28 | 60.83 dB μ V/m (-20dBc) | 31.02 | Complies |
| 2601.365 | 39.52 | 24.47 | 60.83 dB μ V/m (-20dBc) | 36.36 | Complies |
| 3038.035 | 44.59 | 29.54 | 60.83 dB μ V/m (-20dBc) | 31.29 | Complies |
| 3470.495 | 45.21 | 30.16 | 60.83 dB μ V/m (-20dBc) | 30.14 | Complies |
| 3905.490 | 49.94 | 34.89 | 54.0dB μ V/m | 19.11 | Complies |
| 4341.335 | 45.90 | 30.85 | 54.0dB μ V/m | 23.15 | Complies |

Comments:

The results represent the worst case of emissions between three polarizations verified (X, Y and Z). The table was rotate of 360° and antenna receiving moved from 1m to 4m to find the maximum emission.

5.10 Occupied bandwidth

Specify:

Base standard: 47CFR Part 15.231 (c)

The bandwidth of the emission shall be no wider than 0,25% of the center frequency for devices operating above 70MHz and below 900MHz. For devices operating above 900MHz, the emission shall be no wider than 0,5% of the center frequency. Bandwidth is determined at the points 20dB down from the modulated carrier.

Test Setup:

RBW: 1Hz

VBW: 3kHz

Uncertainty: 20Hz

Limits:

< 0,25% of the centre frequency, here 4.57MHz

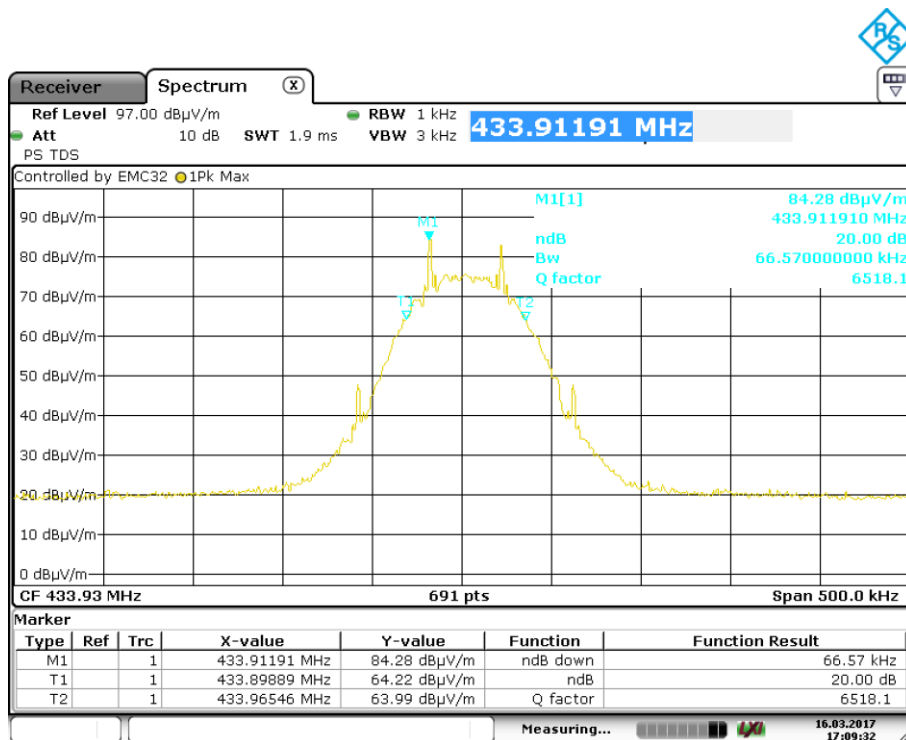
Test Data:

Occupied bandwidth at -20dB: 66.57kHz < 1.08MHz

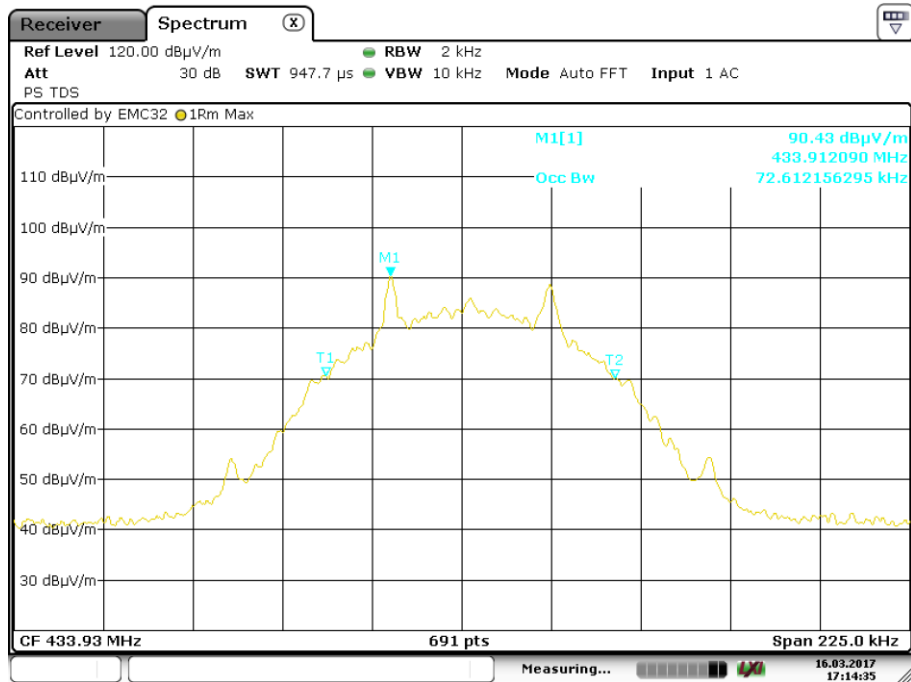
Occupied bandwidth at 99%: 72.61kHz

Comments:

-



Date: 16.MAR.2017 17:09:33



Date: 16.MAR.2017 17:14:36

6

Measurement and Test Equipment instrumentation

| Code | nr. | Manufacturer | Model | Serial number | Date of Calibration | Calibration Due |
|------|-----|-----------------|---------------|---------------|---------------------|-----------------|
| ANA | 7 | Agilent | N9020A | MY48011101 | 16/04/2016 | 16/04/2018 |
| ANT | 3 | Schwarzbeck | VULB9160 | 3180 | 24/07/2015 | 23/07/2017 |
| ANT | 4 | AH System | SAS-571 | 684 | 23/07/2015 | 22/07/2017 |
| ANT | 6 | AH System | SAS-571 | 1025 | 23/07/2015 | 22/07/2017 |
| ANT | 7 | Aaronia | BicoLOG 30100 | 1293 | 23/07/2015 | 22/07/2017 |
| CAV | 1 | Rohde & Schwarz | HFU2-Z5 | - | 18/09/2013 | 17/09/2017 |
| CAV | 2 | Rohde & Schwarz | HFU2-Z4 | - | 18/09/2013 | 17/09/2017 |
| CAV | 3 | TESEO | CAVO A | - | 18/09/2013 | 17/09/2017 |
| CAV | 5 | TESEO | CAVO C | - | 18/09/2013 | 17/09/2017 |
| CAV | 6 | TESEO | CAVO D | - | 18/09/2013 | 17/09/2017 |
| CAV | 7 | TESEO | CAVO E | - | 18/09/2013 | 17/09/2017 |

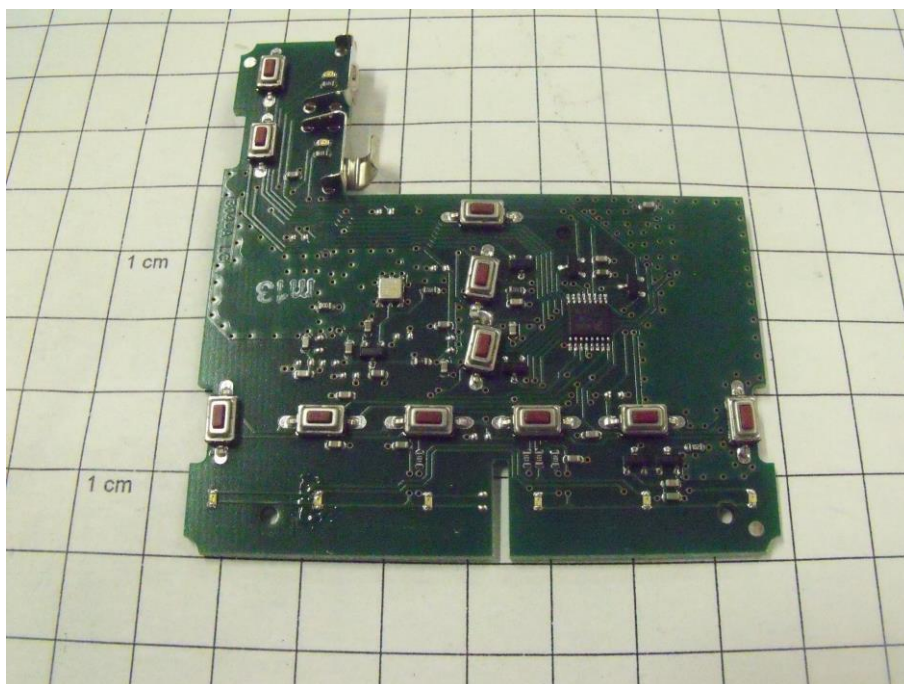
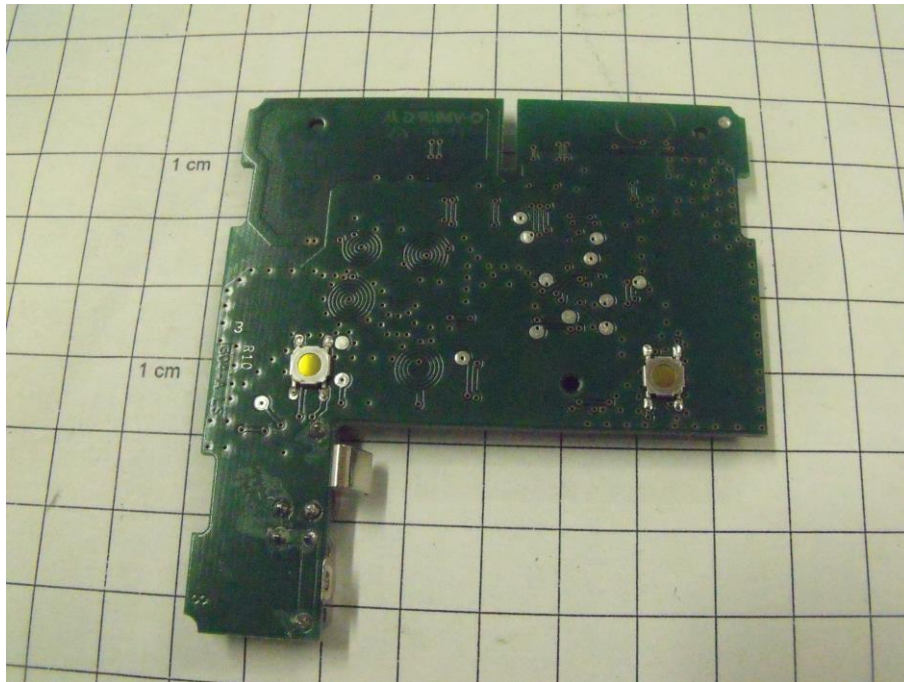
| Code | nr. | Manufacturer | Model | Serial number | Date of Calibration | Calibration Due |
|------|-----|-----------------|-------------------------|----------------------|---------------------|-----------------|
| CAV | 13 | TESEO | CAVO G | - | 18/09/2013 | 17/09/2017 |
| CAV | 14 | TESEO | CAVO H | - | 18/09/2013 | 17/09/2017 |
| CAV | 15 | TESEO | CAVO I | - | 18/09/2013 | 17/09/2017 |
| CAV | 16 | Rohde & Schwarz | 9111505/200 (CAVO J) | 5995-12-161- 6890 | 18/09/2013 | 17/09/2017 |
| CAV | 17 | Nice | CAVO K | - | 18/09/2013 | 17/09/2017 |
| CAV | 18 | Nice | CAVO L | - | 18/09/2013 | 17/09/2017 |
| CAV | 19 | Nice | Cavo M | - | 18/09/2013 | 17/09/2017 |
| CAV | 20 | Nice | Cavo N | - | 18/09/2013 | 17/09/2017 |
| CAV | 21 | Nice | Cavo P | - | 18/09/2013 | 17/09/2017 |
| CAV | 22 | Nice | Cavo R | - | 18/09/2013 | 17/09/2017 |
| CSA | 1 | TESEO | EN 55022 EN 61004-3 | NSA | 11/07/2016 | 11/07/2017 |

| Code | nr. | Manufacturer | Model | Serial number | Date of Calibration | Calibration Due |
|------|-----|-----------------|-------------------------|---------------|---------------------|-----------------|
| CSA | 1 | TESEO | EN 55022 EN 610004-3 | CISPR 16-1-4 | 11/08/2016 | 11/08/2017 |
| CSA | 1 | TESEO | EN 55022 EN 610004-3 | EN 61000-4-3 | 13/05/2016 | 13/05/2017 |
| PRE | 2 | Schwarzbeck | BBV 9718 | 9718-178 | 04/08/2016 | 04/08/2018 |
| RIC | 1 | Rohde & Schwarz | ESCI | 100140 | | |
| RIC | 2 | Rohde & Schwarz | ESR 7 | 101498 | 15/11/2016 | 15/11/2017 |
| SOF | 1 | Rohde & Schwarz | EMC32 | V10.0 | | |

7

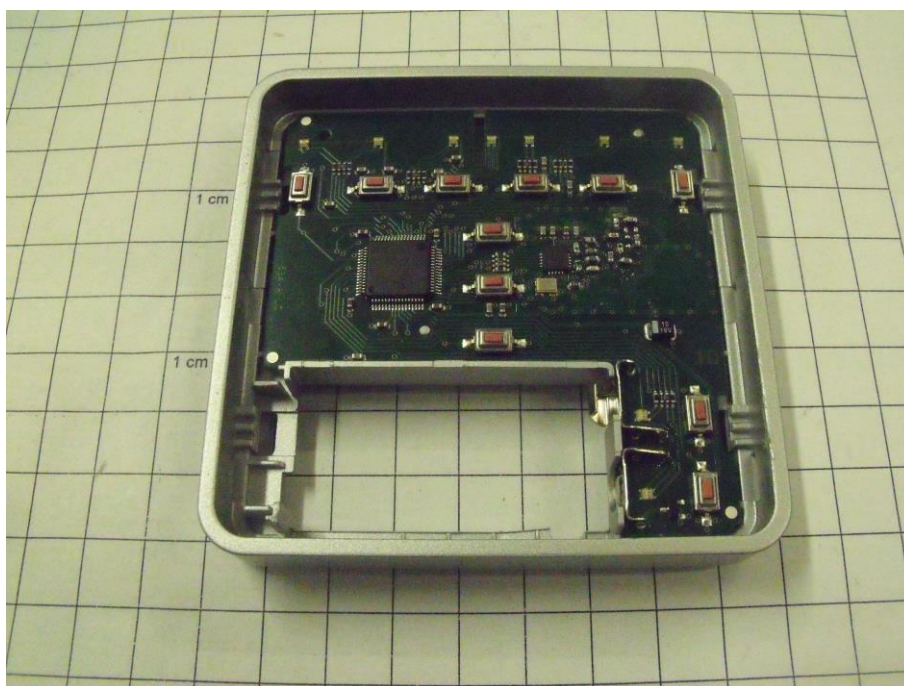
Photographic Documentation

8.1 EUT Identification





FCC test report



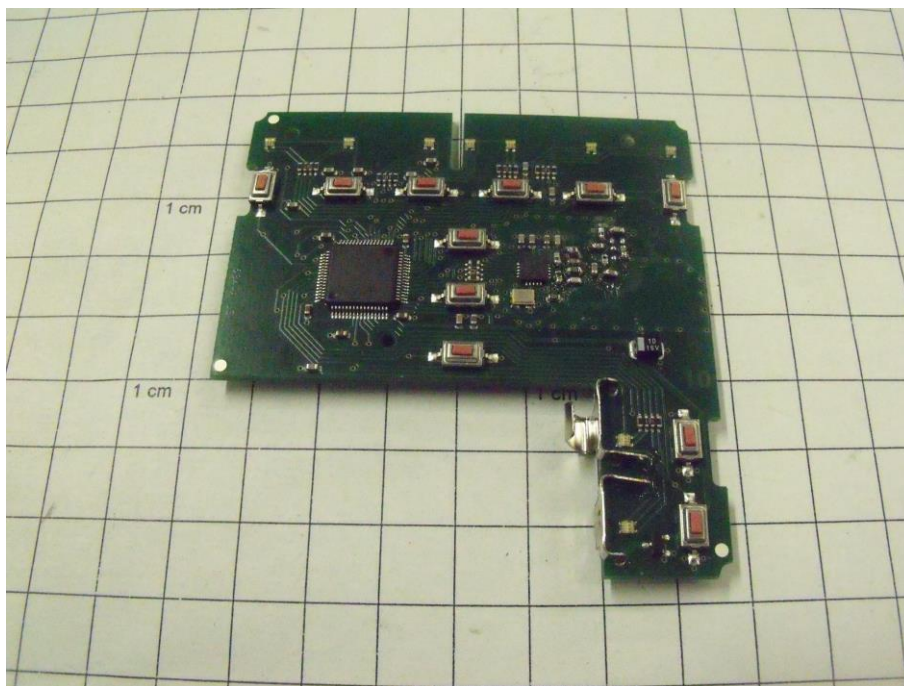




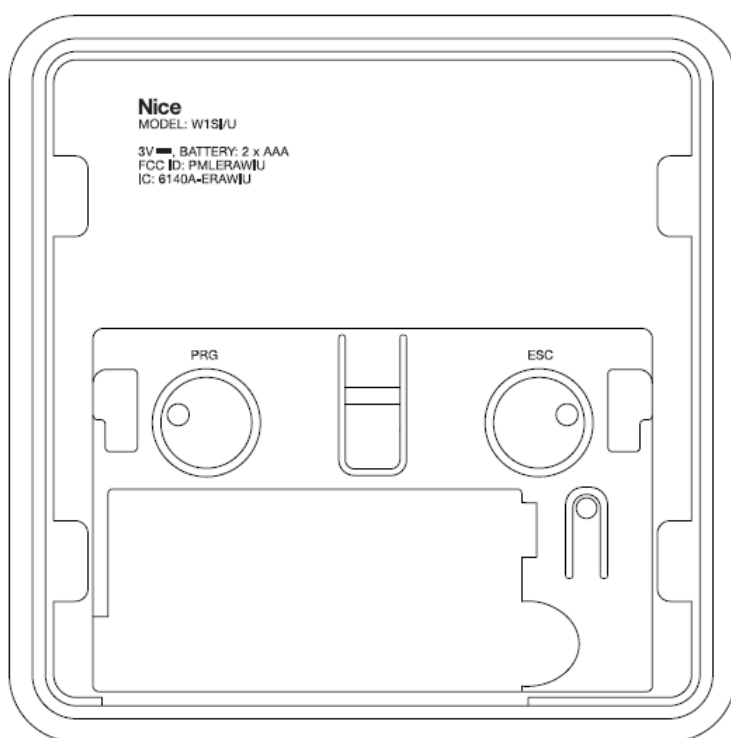
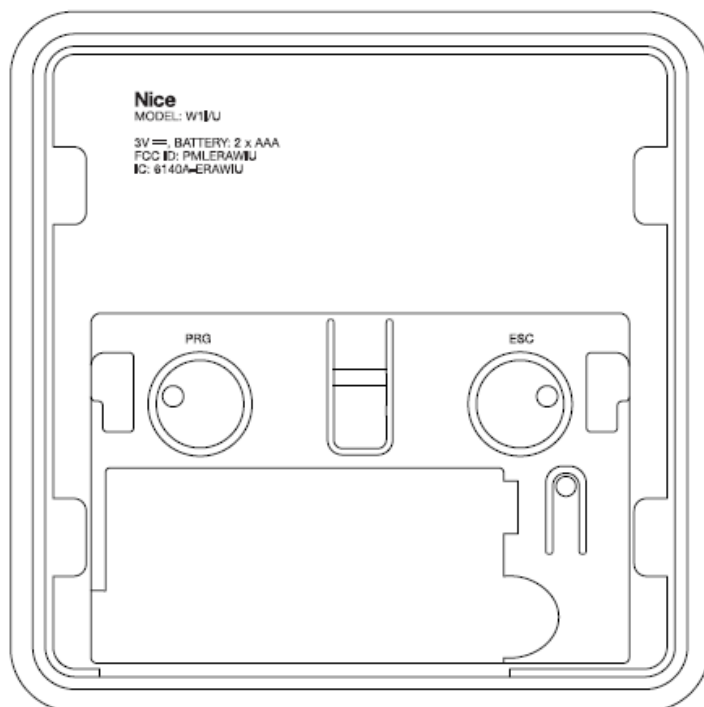
FCC test report

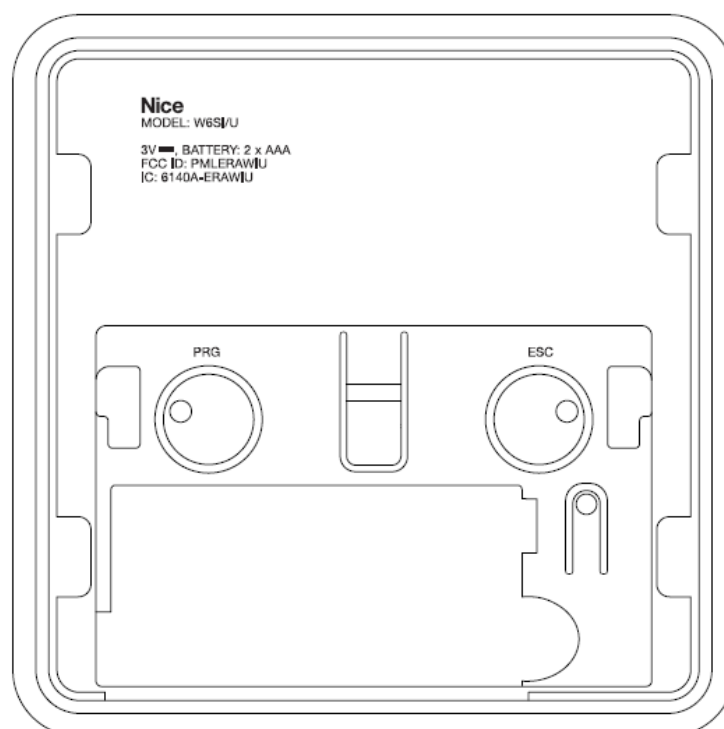
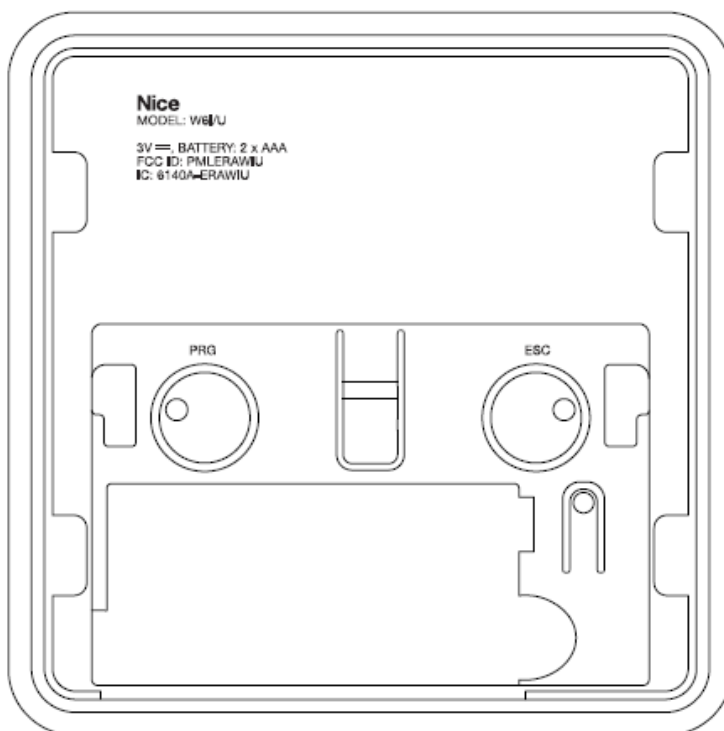


FCC test report



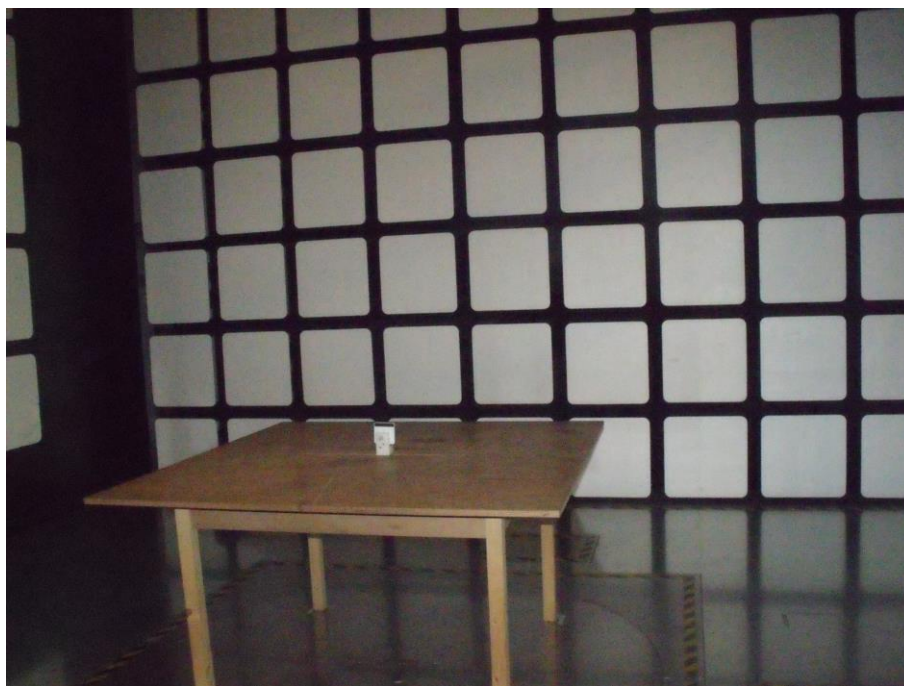


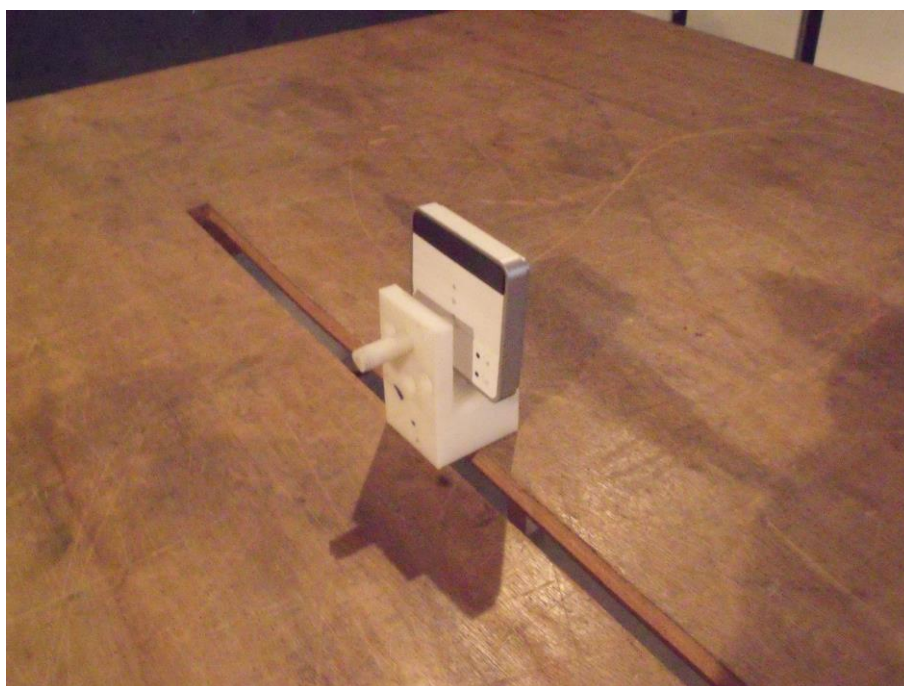


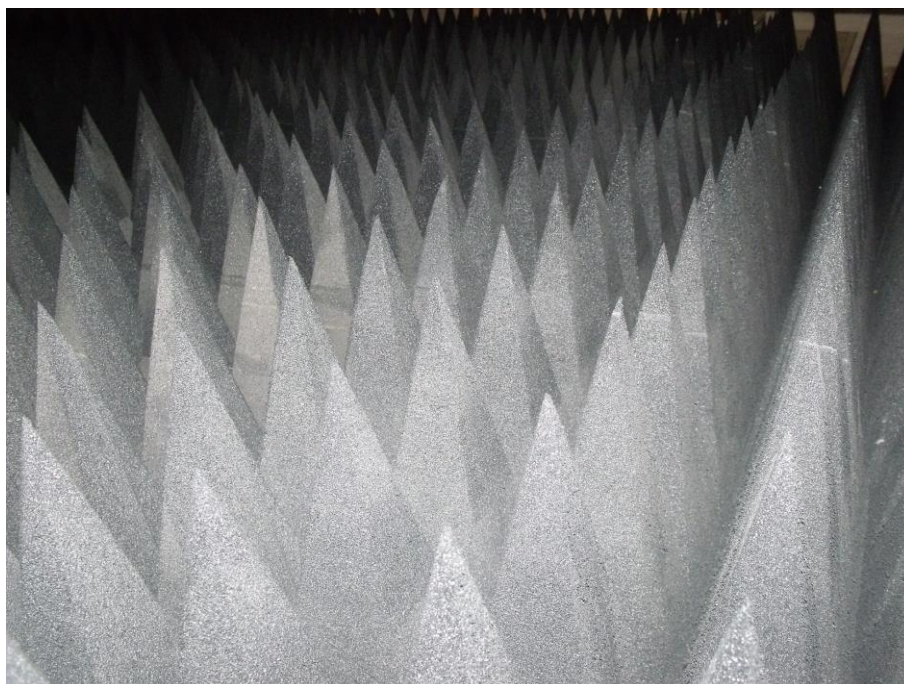
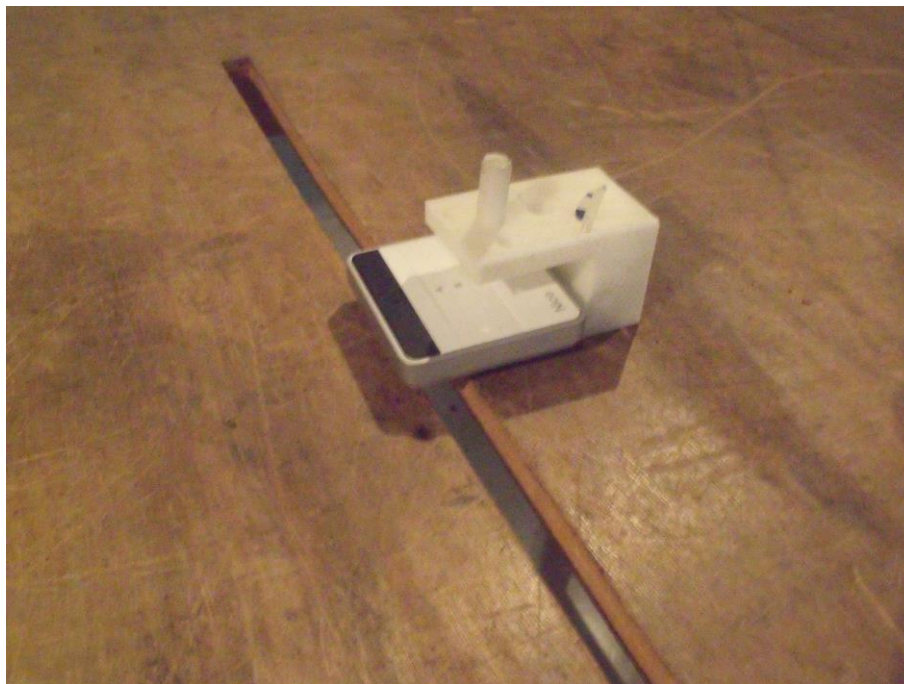


8.2 Test Set-up

Radiated emissions:







Absorbers on the floor for frequency > 1GHz according to C63.10 (2013)

Annex 1

FEDERAL COMMUNICATIONS COMMISSION

Laboratory Division
7435 Oakland Mills Road
Columbia, MD 21046

July 22, 2016

Registration Number: 771316

NICE S.p.A.
Via Pezza Alta, 13,
Oderzo, 31046
Italy

Attention: Enrico Campion, Mr.

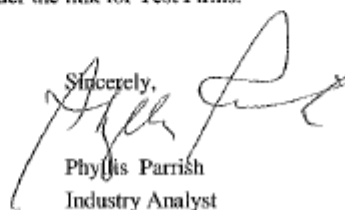
Re: Measurement facility located at Via Pezza Alta, 13 - I-31046 Oderzo
Anechoic chamber (3 meter)
Date of Renewal: July 22, 2016

Dear Sir or Madam:

Your request for renewal of the registration of the subject measurement facility has been received. The information submitted has been placed in your file and the registration has been renewed. The name of your organization will remain on the list of facilities whose measurement data will be accepted in conjunction with applications for Certification under Parts 15 or 18 of the Commission's Rules. Please note that pursuant to FCC Report and Order 14-208 this registration program will end July 12, 2017 and all testing for products subject to equipment authorization type Certification will be required to be tested at a testing facility that is accredited and recognized by the FCC as accredited.

Measurement facilities that have indicated that they are available to the public to perform measurement services on a fee basis may be found on the FCC website www.fcc.gov/eas under the link for Test Firms.

Sincerely,



Phyllis Parrish
Industry Analyst