

RESOLUCION 737 - SUBTEL

Fecha de publicación: 12/3/2026

Información Comercial

Nombre comercial del equipo

| Código | Descripción |
|--------------|----------------------------------|
| 929002690312 | Wi-Fi BLE Portable SQUIRE Type C |

Fabricante: Signify (China) Investment Co., Ltd.

Importador o representante en Chile: SIGNIFY CHILENA S.A.

Domicilio: El Bosque Norte 0211, Las Condes - Santiago

Correo electrónico de contacto: tomas.aragona@signify.com

Sitio Web: wizconnected.com/es-cl

Características técnicas

| | |
|--------------------------|--|
| Tipo de equipo | Luminaria LED |
| Marca | WIZ |
| Modelo | Wi-Fi BLE Portable SQUIRE Type C |
| Módulo | ESP32-SOLO-1 |
| Tecnología o modulación | DSSS, OFDM |
| Frecuencias | BT: 2402-2480; WiFi: 2412-2472 MHz. |
| Ganancia de antena (dBi) | 3,71 dBi |
| P.I.R.E. (EIRP) | BT: 43,65 mW (16,4 dBm); WiFi 2,4G: 91,41 mW (19,61 dBm) |

Declaración de conformidad

“El equipo previamente individualizado cumple con las disposiciones establecidas en la Norma Técnica de Equipos de alcance reducido, aprobada por la resolución exenta N° 1.985, de 2017, de la Subsecretaría de Telecomunicaciones.”

Firma del Importador/Responsable:

Nombre de quien firma: Tomás Aragona



Cargo: Representante Legal

/DO N° 105822/F60

- ANT.: 1. Ingreso SUBTEL N° 35261 de 13.03.2024.
2. Resolución Exenta N° 1985 de 2017, y sus modificaciones, de la Subsecretaría de Telecomunicaciones
3. Resolución Exenta N° 3.103 de 2012, de la Subsecretaría de Telecomunicaciones.
4. Resolución Exenta N° 470 de fecha 13.02.2013, que faculta a los jefes de División y de Departamento para firmar "Por Orden del Subsecretario de Telecomunicaciones" y delega las facultades que indica.

MAT.: Certifica equipo de alcance reducido.

DE: SUBSECRETARÍA DE TELECOMUNICACIONES

A: MBSERVICES

1. De acuerdo a la información proporcionada por documento de ANT. 1), esta Subsecretaría de Estado extiende el presente certificado para operar dentro del país, condicionado al estricto cumplimiento de lo señalado en letra(s) j.1) del artículo 1° de la norma señalada en ANT. 2):

- Tipo de Equipo : Wi-Fi BLE Portable SQUIRE Type C (Lámpara Led).
- Marca : WIZ.
- Modelo(s) : 9290026903
- Fabricante : Signify (China) Investment Co., Ltd.
- Frecuencias de operación : BT: 2402-2480; WiFi: 2412-2472 MHz.
- Potencia máxima radiada : BT: 43,65 mW (16,4 dBm); WiFi 2,4G: 91,41 mW (19,61 dBm).
- Restricciones : Estos equipos deben emplear técnicas de compartición de frecuencias.

2. El incumplimiento de lo dispuesto por el presente certificado, será sancionado de acuerdo a las disposiciones legales vigentes. Estos equipos no deberán provocar interferencias a servicios de concesionarias de telecomunicaciones y no estarán protegidos respecto de interferencias que eventualmente puedan recibir.

Saluda atentamente a Ud.,
Por orden del Subsecretario de Telecomunicaciones

DISTRIBUCIÓN:

- MBSERVICES: Laboratorio@mbservices.cl
- Oficina de Partes.

Francisco Javier Pizarro Sepulveda
Jefe División Fiscalización
26/03/2024 16:22



Test report No: 4375492.53-RF

TEST REPORT

Radio Spectrum Matters (RF)

| | |
|---|--|
| Identification of item tested | LED luminaire |
| Trademark | PHILIPS, WiZ |
| Model and /or type reference | 9290026267, 9290026268, 9290031780, 9290026903, 9290026904, 9290026907 |
| Features | 100-240 Vac, 50/60 Hz, 9 W |
| Applicant's name / address | Signify (China) Investment Co., Ltd. Building no.9, Lane 888, Tianlin Road, Minhang District, Shanghai 200233, China |
| Test method requested, standard | ETSI EN 300 328 V2.2.2 (2019-07) |
| Verdict Summary | COMPLIANCE |
| Tested by (name / position & signature) | Harry Deng Project Manager  |
| Approved by (name / position & signature) | Tim Yan Project Manager  |
| Date of issue | 2021-07-01 |
| Report template No | TRF_EMCC 2017-06 |

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COMPETENCES AND GUARANTEES

DEKRA is a testing laboratory competent to carry out the tests described in this report.

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

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

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

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

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GENERAL CONDITIONS

1. This report is only referred to the item that has undergone the test.
2. This report does not constitute or imply on its own an approval of the product by the Certification Bodies or Competent Authorities.
3. This document is only valid if complete; no partial reproduction can be made without previous written permission of DEKRA.
4. This test report cannot be used partially or in full for publicity and/or promotional purposes without previous written permission of DEKRA.
5. This report will not be used for social proof function in China market.

UNCERTAINTY

For all measurements where guidance for the calculation of the instrumentation uncertainty of a measurement is specified in EN 55016-4-2 (CISPR 16-4-2), EN/IEC 61000-4 series or a product standard, the measurement instrumentation uncertainty has been calculated and applied in accordance with these standards.

Uncertainties have been calculated according to the DEKRA internal document. The reported expanded uncertainties are based on a standard uncertainty multiplied by a coverage factor of $k=2$, providing a level of confidence of approximately 95%.

ENVIRONMENTAL 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:

| | |
|-----------------------|------------------|
| Ambient temperature | 15 °C – 35 °C |
| Relative Humidity air | 30% - 60% |
| Atmospheric pressure | 86 kPa – 106 kPa |

If explicitly required in the basic standard or applied product / product family standard the climatic values are recorded and documented separately in this test report.

POSSIBLE TEST CASE VERDICTS

| | |
|---|-----------------|
| Test case does not apply to test object | N/A |
| Test object does meet requirement | P (Pass) / PASS |
| Test object does not meet requirement | F (Fail) / FAIL |
| Not measured | N/M |

DEFINITION OF SYMBOLS USED IN THIS TEST REPORT

| | | |
|--|---|------------------------------------|
| <input checked="" type="checkbox"/> Indicates that the listed condition, standard or equipment is applicable for this report/test/EUT. | | |
| <input type="checkbox"/> Indicates that the listed condition, standard or equipment is not applicable for this report/test/EUT. | | |
| Decimal separator used in this report | <input checked="" type="checkbox"/> Comma (,) | <input type="checkbox"/> Point (.) |

ABBREVIATIONS

For the purposes of the present document, the following abbreviations apply:

| | |
|-------|-------------------------------|
| EUT | : Equipment Under Test |
| QP | : Quasi-Peak |
| CAV | : CISPR Average |
| AV | : Average |
| CDN | : Coupling Decoupling Network |
| SAC | : Semi-Anechoic Chamber |
| OATS | : Open Area Test Site |
| BW | : Bandwidth |
| AM | : Amplitude Modulation |
| PM | : Pulse Modulation |
| HCP | : Horizontal Coupling Plane |
| VCP | : Vertical Coupling Plane |
| U_N | : Nominal voltage |
| Tx | : Transmitter |
| Rx | : Receiver |
| N/A | : Not Applicable |
| N/M | : Not Measured |

DOCUMENT HISTORY

| Report nr. | Date | Description |
|---------------|------------|----------------|
| 4375492.53-RF | 2021-07-01 | First release. |
| | | |

REMARKS AND COMMENTS

The equipment under test (EUT) does meet the essential requirements of the stated standard(s)/test(s).

1 GENERAL INFORMATION

1.1 General Description of the Item(s)

| | |
|-------------------------------|--|
| Description of the item | LED luminaire |
| Model / Type number | PHILIPS, WiZ |
| Trademark..... | 9290026267, 9290026268, 9290031780, 9290026903, 9290026904, 9290026907 |
| Ratings..... | 100-240 Vac, 50/60 Hz, 9 W |
| Manufacturer/Factory..... | Signify (China) Investment Co., Ltd. Building no.9, Lane 888, Tianlin Road, Minhang District, Shanghai 200233, China |

For WLAN

| | |
|-------------------------------------|---|
| Operating frequency range(s) – Tx.: | 2412-2472 MHz (802.11 b/g/n HT20); 2422-2462 MHz (802.11 n HT40); |
| Operating frequency range(s) – Rx : | 2412-2472 MHz (802.11 b/g/n HT20); 2422-2462 MHz (802.11 n HT40); |
| Type of Modulation | 802.11b:DSSS(DBPSK/DQPSK/CCK); 802.11g/n:OFDM(BPSK/QPSK/16QAM/64QAM) |
| Maximum RF output power..... | Max. 20 dBm |
| Antenna type..... | Integral Antenna |
| Antenna gain..... | 3,71 dBi |
| Number of channel | 13 (802.11 b/g/n HT20); 9 (802.11 n HT40); |
| Operating Temperature Range..... | -20 - 40 °C |

For BLE

| | |
|-------------------------------------|------------------|
| Operating frequency range(s) – Tx.: | 2402-2480 MHz |
| Operating frequency range(s) – Rx : | 2402-2480 MHz |
| Type of Modulation | GFSK |
| Maximum RF output power..... | Max. 9 dBm |
| Antenna type..... | Integral Antenna |
| Antenna gain..... | 3,71 dBi |
| Number of channel | 40 |
| Operating Temperature Range..... | -20 - 40 °C |

| | | | | | | | |
|--------------------------|-------------------------------------|--------------------------------|-------------------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|
| Rated power supply | Voltage and Frequency | | Reference poles | | | | |
| | | | L1 | L2 | L3 | N | PE |
| | <input checked="" type="checkbox"/> | AC: 220 – 240 V, 50/60 Hz | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| | <input type="checkbox"/> | DC: 12 V, 24 V, 12 / 24 V | | | | | |
| Mounting position..... | Battery: | | | | | | |
| | <input checked="" type="checkbox"/> | Table top equipment | | | | | |
| | <input type="checkbox"/> | Wall/Ceiling mounted equipment | | | | | |
| | <input type="checkbox"/> | Floor standing equipment | | | | | |
| | <input type="checkbox"/> | Hand-held equipment | | | | | |
| | <input type="checkbox"/> | Other: | | | | | |

| |
|---|
| Intended use of the Equipment Under Test (EUT) |
| The apparatus as supplied for the test is LED luminaire which intended for residential use, the product contains electronic control circuitry but without earth connection and no component susceptible to magnetic fields. |
| According to manufacturer's declaration, models have same electronic circuit but with different appearance and plug. |
| Hence, model 9290026903 was chosen for full test and the corresponding test data are also representative of the other models as well. |

| |
|-------------------------------|
| Copy of marking plate: |
| No provide. |

1.2 Test data

| | |
|----------------------------------|---|
| Test Location | DEKRA Testing and Certification (Shanghai) Ltd. Guangzhou Branch No.3, Qiyun Road, Huangpu District, Guangzhou, Guangdong, China |
| Date of receipt of test item | 2021-04-29 |
| Date (s) of performance of tests | 2021-04-29 to 2021-06-15 |

1.3 The environment(s) in which the EUT is intended to be used

The equipment under test (EUT) is intended to be used in the following environment(s):

| | |
|-------------------------------------|--|
| <input checked="" type="checkbox"/> | Residential (domestic) environment. |
| <input checked="" type="checkbox"/> | Commercial and light-industrial environment. |
| <input type="checkbox"/> | Industrial environment. |

1.4 Classification of Receivers according to ETSI EN 300328

The receivers were subdivided into 3 categories according to ETSI EN 300 328. For each category, the specific immunity requirements are formulated.

| | Receiver category | Definition |
|---|-------------------|---|
| √ | 1 | Adaptive equipment with a maximum RF output power greater than 10 dBm(e.i.r.p). |
| √ | 2 | Non-adaptive equipment with a Medium Utilization (MU) factor greater than 1 % and less than or equal to 10 % or adaptive equipment with a maximum RF output power of 10 dBm(e.i.r.p). |
| | 3 | Non-adaptive equipment with a maximum Medium Utilization (MU) factor of 1 % or adaptive equipment with a maximum RF output power of 0 dBm(e.i.r.p). |

Note:

Receiver category 1 is for WLAN mode and receiver category 2 is for BLE mode.

2 DESCRIPTION OF TEST SETUP

2.1 Operating mode(s) used for tests

During the tests the following operating mode(s) has(have) been used.

| Operating mode | Operating mode description | Used for methods | |
|-------------------------------|----------------------------|-------------------------------------|-------------------------------------|
| | | Conducted | Radiated |
| 1 | Transmitting @WLAN mode | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| 2 | Receiving @WLAN mode | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| 3 | | <input type="checkbox"/> | <input type="checkbox"/> |
| Supplemental information: --- | | | |

2.2 Support / Auxiliary equipment / unit / software for the EUT

The EUT has been tested with the following auxiliary equipment / unit / software:

| Auxiliary equipment / unit / software | Type / Version | Manufacturer | Supplied by |
|---------------------------------------|----------------|--------------|-------------|
| Laptop | Latitude 5488 | DELL | DEKRA |
| | | | |
| Supplemental information: --- | | | |

2.3 Test Configuration / Block diagram used for tests

Refer to Annex 3.

3 VERDICT SUMMARY SECTION

This chapter presents an overview of standards and results. Refer to the next chapters for details of measured test results and applied test levels.

3.1 Standards

| Standard | Year | Description |
|------------------------|---------|--|
| ETSI EN 300 328 V2.2.2 | 2019-07 | Wideband transmission systems; Data transmission equipment operating in the 2,4 GHz band; Harmonised Standard for access to radio spectrum |

3.2 Deviation(s) from the Standard(s) / Test Specification(s)

The following deviation(s) was / were made from the published requirements of the listed standards: N/A.

3.3 Overview of results

| TRANSMITTER TESTS | | |
|---|---------|--------|
| Requirement – Test case for Wide band modulation other than FHSS | Verdict | Remark |
| RF output power | PASS | --- |
| Power Spectral Density | PASS | --- |
| Duty Cycle, Tx-sequence, Tx-gap | N/A | See 1) |
| Medium Utilization (MU) factor | N/A | See 2) |
| Adaptivity | PASS | --- |
| Occupied Channel Bandwidth (BW) | PASS | --- |
| Transmitter unwanted emissions in the out-of-band domain | PASS | --- |
| Transmitter unwanted emissions in the spurious domain | PASS | --- |
| <u>Supplementary information:</u> | | |
| 1) These requirements apply to non-adaptive equipment or to adaptive equipment when operating in a non-adaptive mode. | | |
| 2) This requirement does not apply to adaptive equipment unless operating in a non-adaptive mode. | | |

| RECEIVER TESTS | | |
|--|---------|--------|
| Requirement | Verdict | Remark |
| Receiver spurious emission | PASS | -- |
| Receiver Blocking | PASS | --- |
| Geo-location capability | N/A | See 1) |
| <u>Supplementary information:</u> | | |
| 1) This requirement only applies to equipment with geo-location capability | | |

The measurement result is considered in conformance with the requirement if it is within the prescribed limit, It is not necessary to calculate the uncertainty associated with the measurement result.

3.4 Measurement procedure

The EUT was controlled by a serial PCB which provided by manufacturer which connected to laptop through the com port. After connected, run the software “ESP_RF_test_tool_v2.5” supplied by manufacturer to control the EUT work in required test mode as below table.

| Mode | Frequency (MHz) | Power setting (attenuation level in software) |
|-------------|-----------------|---|
| WLAN b | 2412 | 14 |
| | 2442 | 14 |
| | 2472 | 14 |
| WLAN g | 2412 | 4 |
| | 2442 | 4 |
| | 2472 | 4 |
| WLAN n HT20 | 2412 | 4 |
| | 2442 | 4 |
| | 2472 | 4 |
| WLAN n HT40 | 2422 | 4 |
| | 2442 | 4 |
| | 2462 | 4 |

4 TRANSMITTER TEST RESULTS

| | |
|----------------------------|----------------------|
| 4.1 RF output power | VERDICT: PASS |
|----------------------------|----------------------|

| | |
|---|-----------------|
| Standard | ETSI EN 300 328 |
| <p>Limits: For adaptive equipment using wide band modulation other than FHSS, the maximum RF output power shall be 20 dBm.</p> <p>The maximum RF output power for non-adaptive equipment shall be declared by the supplier and shall not exceed 20 dBm. For non-adaptive equipment using wide band modulations other than FHSS, the maximum RF output power shall be equal to or less than the value declared by the supplier.</p> <p>This limit shall apply for any combination of power level and intended antenna assembly.</p> | |

Performed measurements

| | | |
|------------------------|---|-----------------------|
| Port under test | Antenna port | |
| Test method applied | <input checked="" type="checkbox"/> | Conducted measurement |
| | <input type="checkbox"/> | Radiated measurement |
| Test setup | Refer to the Annex 3 for test setup photo(s). | |
| Operating mode(s) used | Mode 1 | |
| Remark | --- | |

Results

| Temperature | Mode | Frequency (MHz) | Reading Level (dBm) | Antenna Gain (dBi) | RF output power (dBm) | Limit (dBm) |
|-------------|----------|-----------------|---------------------|--------------------|-----------------------|-------------|
| 25 °C | 802.11 b | 2412 | 14,70 | 3,71 | 18,41 | 20 |
| | | 2442 | 15,00 | 3,71 | 18,71 | 20 |
| | | 2472 | 14,40 | 3,71 | 18,11 | 20 |
| -20 °C | 802.11 b | 2412 | 14,54 | 3,71 | 18,25 | 20 |
| | | 2442 | 14,82 | 3,71 | 18,53 | 20 |
| | | 2472 | 14,32 | 3,71 | 18,03 | 20 |
| 40 °C | 802.11 b | 2412 | 14,63 | 3,71 | 18,34 | 20 |
| | | 2442 | 14,92 | 3,71 | 18,63 | 20 |
| | | 2472 | 14,29 | 3,71 | 18,00 | 20 |

| Temperature | Mode | Frequency (MHz) | Reading Level (dBm) | Antenna Gain (dBi) | RF output power (dBm) | Limit (dBm) |
|-------------|----------|-----------------|---------------------|--------------------|-----------------------|-------------|
| 25 °C | 802.11 g | 2412 | 15,60 | 3,71 | 19,31 | 20 |
| | | 2442 | 15,90 | 3,71 | 19,61 | 20 |
| | | 2472 | 15,30 | 3,71 | 19,01 | 20 |

| | | | | | | |
|--------|----------|------|-------|------|-------|----|
| -20 °C | 802.11 g | 2412 | 15,52 | 3,71 | 19,23 | 20 |
| | | 2442 | 15,75 | 3,71 | 19,46 | 20 |
| | | 2472 | 15,28 | 3,71 | 18,99 | 20 |
| 40 °C | 802.11 g | 2412 | 15,58 | 3,71 | 19,29 | 20 |
| | | 2442 | 15,41 | 3,71 | 19,12 | 20 |
| | | 2472 | 15,18 | 3,71 | 18,89 | 20 |

| Temperature | Mode | Frequency (MHz) | Reading Level (dBm) | Antenna Gain (dBi) | RF output power (dBm) | Limit (dBm) |
|-------------|------------------|-----------------|---------------------|--------------------|-----------------------|-------------|
| 25 °C | 802.11 n HT20 | 2412 | 15,20 | 3,71 | 18,91 | 20 |
| | | 2442 | 15,60 | 3,71 | 19,31 | 20 |
| | | 2472 | 15,00 | 3,71 | 18,71 | 20 |
| -20 °C | 802.11 n HT20 | 2412 | 15,10 | 3,71 | 18,81 | 20 |
| | | 2442 | 15,45 | 3,71 | 19,16 | 20 |
| | | 2472 | 14,92 | 3,71 | 18,63 | 20 |
| 40 °C | 802.11 n HT20 | 2412 | 15,11 | 3,71 | 18,82 | 20 |
| | | 2442 | 15,29 | 3,71 | 19,00 | 20 |
| | | 2472 | 14,82 | 3,71 | 18,53 | 20 |

| Temperature | Mode | Frequency (MHz) | Reading Level (dBm) | Antenna Gain (dBi) | RF output power (dBm) | Limit (dBm) |
|-------------|------------------|-----------------|---------------------|--------------------|-----------------------|-------------|
| 25 °C | 802.11 n HT40 | 2422 | 15,60 | 3,71 | 19,31 | 20 |
| | | 2442 | 15,60 | 3,71 | 19,31 | 20 |
| | | 2462 | 15,40 | 3,71 | 19,11 | 20 |
| -20 °C | 802.11 n HT40 | 2422 | 15,49 | 3,71 | 19,20 | 20 |
| | | 2442 | 15,59 | 3,71 | 19,30 | 20 |
| | | 2462 | 15,29 | 3,71 | 19,00 | 20 |
| 40 °C | 802.11 n HT40 | 2422 | 15,60 | 3,71 | 19,31 | 20 |
| | | 2442 | 15,49 | 3,71 | 19,20 | 20 |
| | | 2462 | 15,33 | 3,71 | 19,04 | 20 |

| | |
|-----------------------------------|----------------------|
| 4.2 Power Spectral Density | VERDICT: PASS |
|-----------------------------------|----------------------|

| | |
|--|-----------------|
| Standard | ETSI EN 300 328 |
| Limits: For equipment using wide band modulations other than FHSS, the maximum Power Spectral Density is limited to 10 dBm per MHz. | |

Performed measurements

| | |
|------------------------|---|
| Port under test | Antenna port |
| Test method applied | <input checked="" type="checkbox"/> Conducted measurement |
| | <input type="checkbox"/> Radiated measurement |
| Test setup | Refer to the Annex 3 for test setup photo(s). |
| Operating mode(s) used | Mode 1 |
| Remark | --- |

Results

| Mode | Frequency (MHz) | Power Spectral Density (dBm) | Limit (dBm/ MHz) |
|---------------|--------------------|---------------------------------|---------------------|
| 802.11 b | 2412 | 9,539 | 10 |
| | 2442 | 9,774 | |
| | 2472 | 9,219 | |
| 802.11 g | 2412 | 7,801 | |
| | 2442 | 8,132 | |
| | 2472 | 7,454 | |
| 802.11 n HT20 | 2412 | 8,174 | |
| | 2442 | 7,601 | |
| | 2472 | 6,928 | |
| 802.11 n HT40 | 2422 | 4,481 | |
| | 2442 | 4,717 | |
| | 2462 | 4,518 | |

| | |
|-----------------------|----------------------|
| 4.3 Adaptivity | VERDICT: PASS |
|-----------------------|----------------------|

| | |
|--|-----------------|
| Standard | ETSI EN 300 328 |
| <p>Adaptive equipment using modulation other than FHSS</p> <p>Load Based Equipment shall comply with the following requirements:</p> <ol style="list-style-type: none"> 1) Before a transmission or a burst of transmissions, the equipment shall perform a Clear Channel Assessment (CCA) check using energy detect. The equipment shall observe the operating channel for the duration of the CCA observation time which shall be not less than 18 μs. The channel shall be considered occupied if the energy level in the channel exceeds the threshold given in step 5) below. If the equipment finds the channel to be clear, it may transmit immediately. 2) If the equipment finds the channel occupied, it shall not transmit on this channel (see note 2). The equipment shall perform an Extended CCA check in which the channel is observed for a random duration in the range between 18 μs and at least 160 μs. If the extended CCA check has determined the channel to be no longer occupied, the equipment may resume transmissions on this channel. If the Extended CCA time has determined the channel still to be occupied, it shall perform new Extended CCA checks until the channel is no longer occupied. 3) The total time that an equipment makes use of a RF channel is defined as the Channel Occupancy Time. This Channel Occupancy Time shall be less than 13 ms, after which the device shall perform a new CCA as described in step 1) above. 4) The equipment, upon correct reception of a packet which was intended for this equipment can skip CCA and immediately (see note 3) proceed with the transmission of management and control frames (e.g. ACK and Block ACK frames are allowed but data frames are not allowed). A consecutive sequence of transmissions by the equipment without a new CCA shall not exceed the maximum channel occupancy time as defined in step 3) above. <p>The energy detection threshold for the CCA shall be proportional to the transmit power of the transmitter: for a 20 dBm e.i.r.p. transmitter the CCA threshold level (TL) shall be equal or less than -70 dBm/MHz at the input to the receiver (assuming a 0 dBi receive antenna). For power levels below 20 dBm e.i.r.p., the CCA threshold level may be relaxed to $TL = -70 \text{ dBm/MHz} + (20 \text{ dBm} - P_{out \text{ e.i.r.p.}})/1 \text{ MHz}$ (P_{out} in dBm).</p> | |

Performed measurements

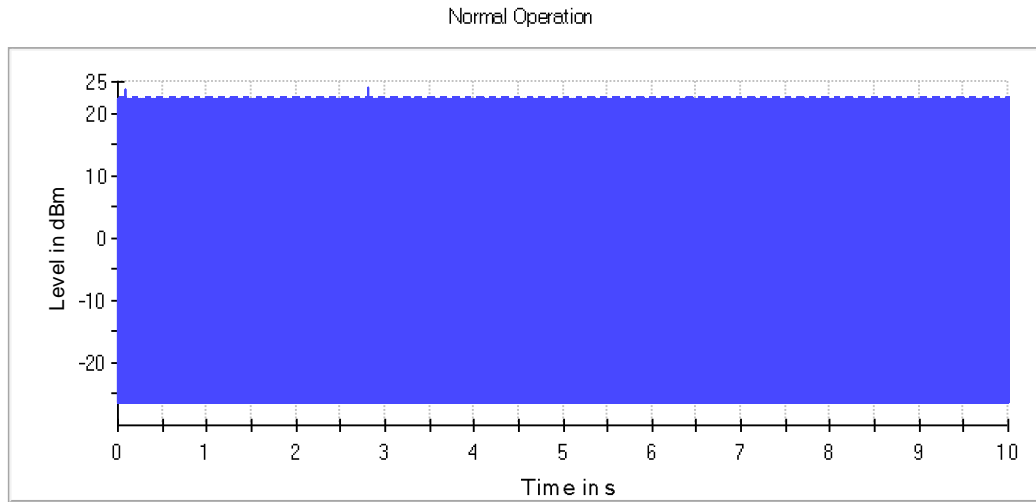
| | | |
|------------------------|---|-----------------------|
| Port under test | Antenna port | |
| Test method applied | <input checked="" type="checkbox"/> | Conducted measurement |
| | <input type="checkbox"/> | Radiated measurement |
| Test setup | Refer to the Annex 3 for test setup photo(s). | |
| Operating mode(s) used | Mode 1 | |
| Remark | --- | |

Results

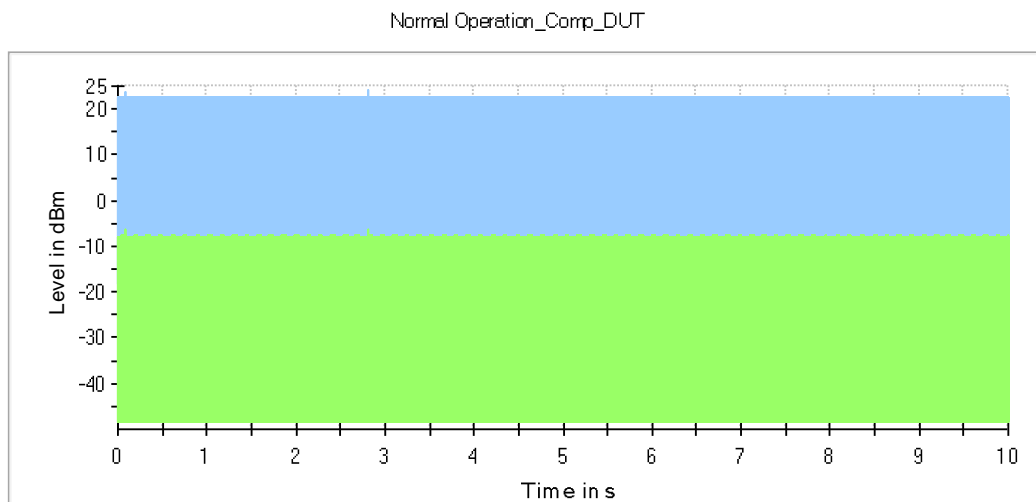
| Mode | Frequency (MHz) | CCA observation time (us) | Limit (us) | Channel Occupancy Time (COT) (ms) | Limit (ms) |
|---------------|-----------------|---------------------------|------------|-----------------------------------|------------|
| 802.11b | 2412 | 47,00 | ≥18 | 0,252 | ≤13 |
| | 2472 | 7,00 | | 0,252 | |
| 802.11g | 2412 | 23,00 | | 0,115 | |
| | 2472 | 23,00 | | 0,115 | |
| 802.11 n HT20 | 2412 | 48,00 | | 0,048 | |
| | 2472 | 48,00 | | 0,048 | |
| 802.11 n HT40 | 2422 | 41,00 | | 0,047 | |
| | 2462 | 41,00 | | 0,047 | |

| Mode | Frequency (MHz) | Short Signaling (%) | Limit (%) |
|---------------|-----------------|---------------------|-----------|
| 802.11b | 2412 | 0 | ≤10 |
| | 2472 | 0 | |
| 802.11g | 2412 | 0 | |
| | 2472 | 0 | |
| 802.11 n HT20 | 2412 | 0 | |
| | 2472 | 0 | |
| 802.11 n HT40 | 2422 | 0 | |
| | 2462 | 0 | |

Test figure



Trace



DUT Companion



Trace Threshold start of monitoring
 Trigger Blocker start of evaluation
 stop of evaluation

| | |
|---------------------------------------|----------------------|
| 4.4 Occupied Channel Bandwidth | VERDICT: PASS |
|---------------------------------------|----------------------|

| | |
|---|-----------------|
| Standard | ETSI EN 300 328 |
| Limits: The Occupied Channel Bandwidth shall fall completely within the band given in Clause 1 (2,4 GHz to 2,4835 GHz). | |
| In addition, for non-adaptive systems using wide band modulations other than FHSS and with e.i.r.p greater than 10 dBm, the occupied channel bandwidth shall be less than 20 MHz. | |

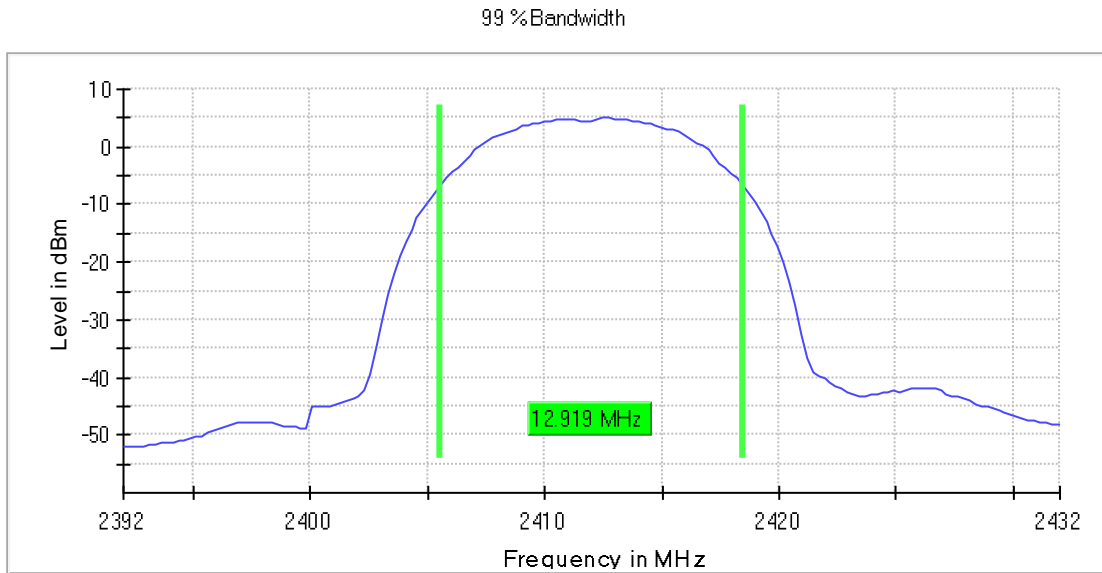
Performed measurements

| | | |
|------------------------|---|-----------------------|
| Port under test | Antenna port | |
| Test method applied | <input checked="" type="checkbox"/> | Conducted measurement |
| | <input type="checkbox"/> | Radiated measurement |
| Test setup | Refer to the Annex 3 for test setup photo(s). | |
| Operating mode(s) used | Mode 1 | |
| Remark | --- | |

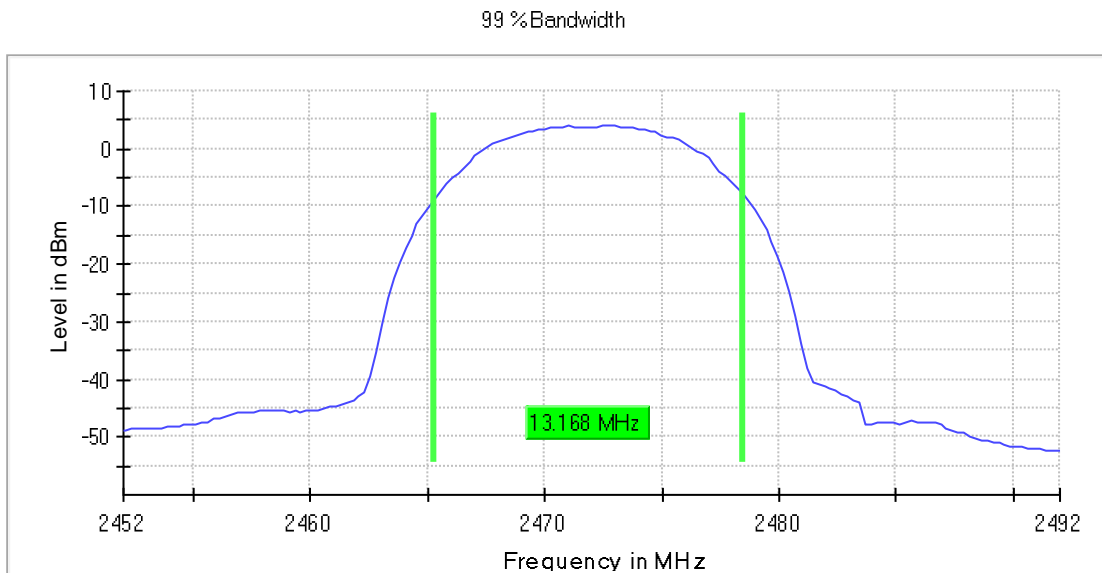
Results

| Mode | Frequency (MHz) | Bandwidth 99%(MHz) | FL (MHz) or FH (MHz) | Lower Limit (MHz) | Higher Limit |
|---------------|-----------------|--------------------|----------------------|-------------------|--------------|
| 802.11 b | 2412 | 12,919 | 2405,540 | > 2400,0 | N/A |
| | 2472 | 13,167 | 2478,459 | N/A | < 2483,5 |
| 802.11 g | 2412 | 16,645 | 2403,552 | > 2400,0 | N/A |
| | 2472 | 16,645 | 2480,198 | N/A | < 2483,5 |
| 802.11 n HT20 | 2412 | 17,639 | 2403,055 | > 2400,0 | N/A |
| | 2472 | 17,639 | 2480,695 | N/A | < 2483,5 |
| 802.11 n HT40 | 2422 | 36,770 | 2403,614 | > 2400,0 | N/A |
| | 2462 | 36,770 | 2480,385 | N/A | < 2483,5 |

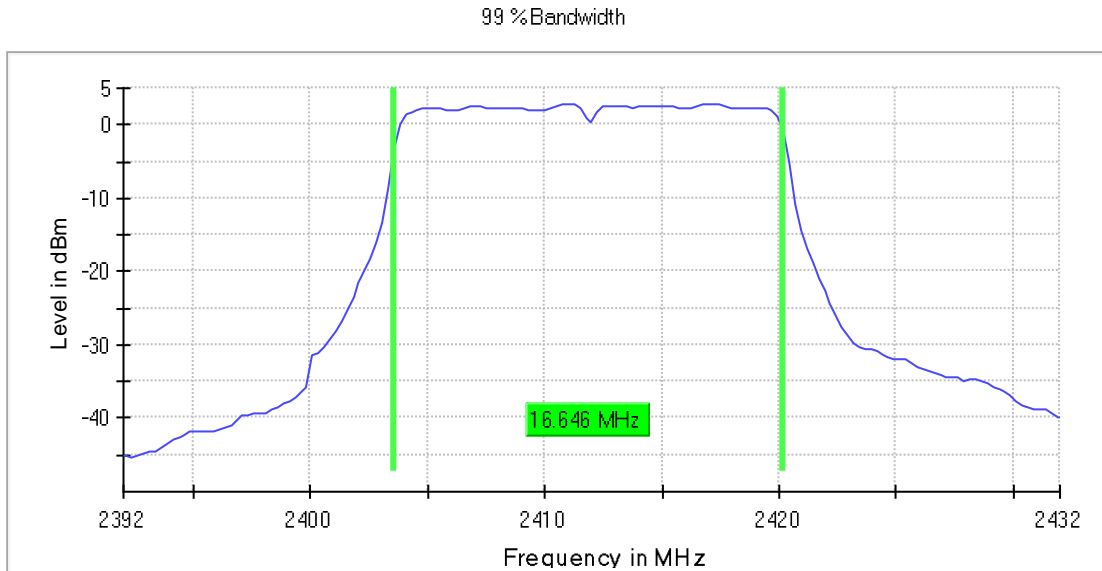
Test figure of 802.11 b mode
Channel 2412 MHz



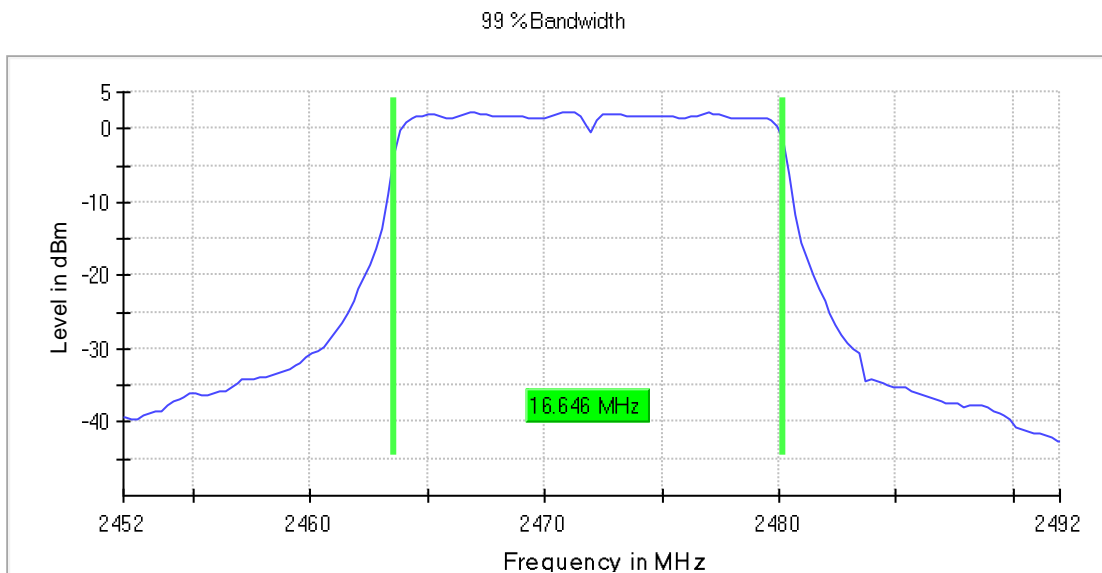
Channel 2472 MHz



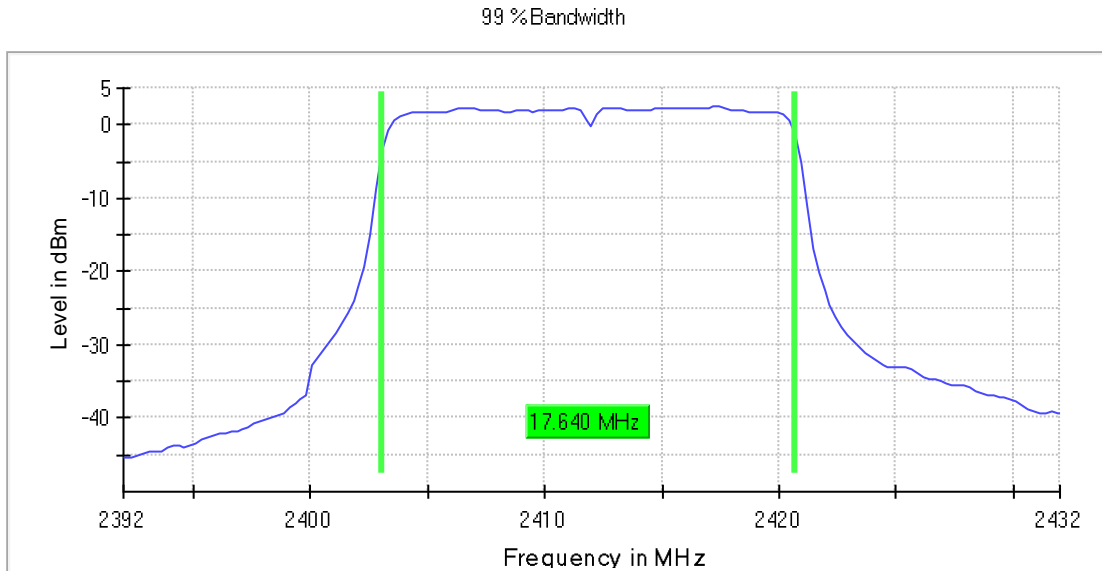
Test figure of 802.11 g mode
Channel 2412 MHz



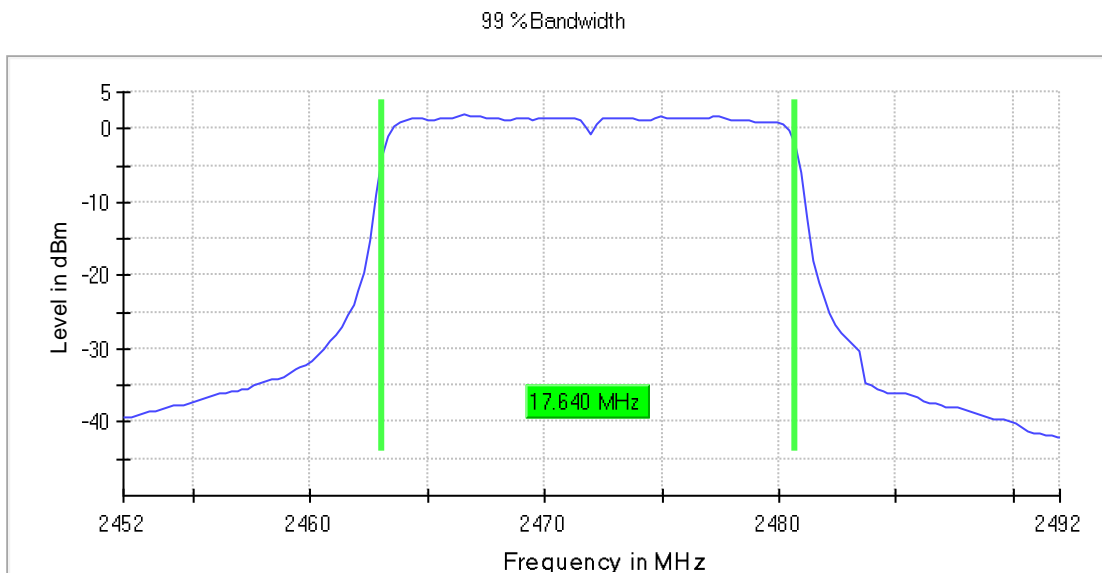
Channel 2472 MHz



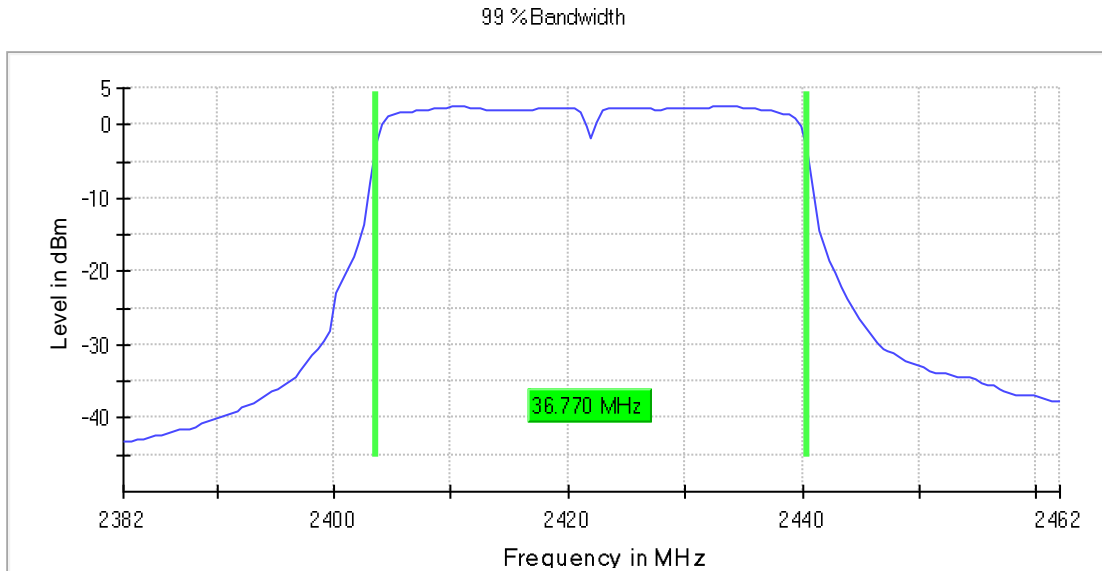
Test figure of 802.11 n HT20 mode
Channel 2412 MHz



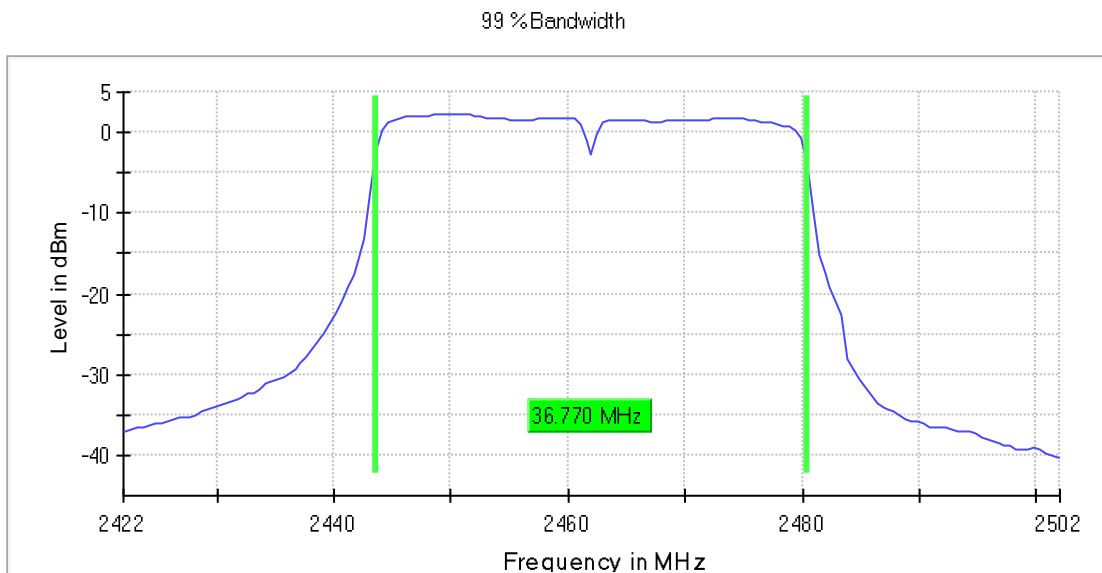
Channel 2472 MHz



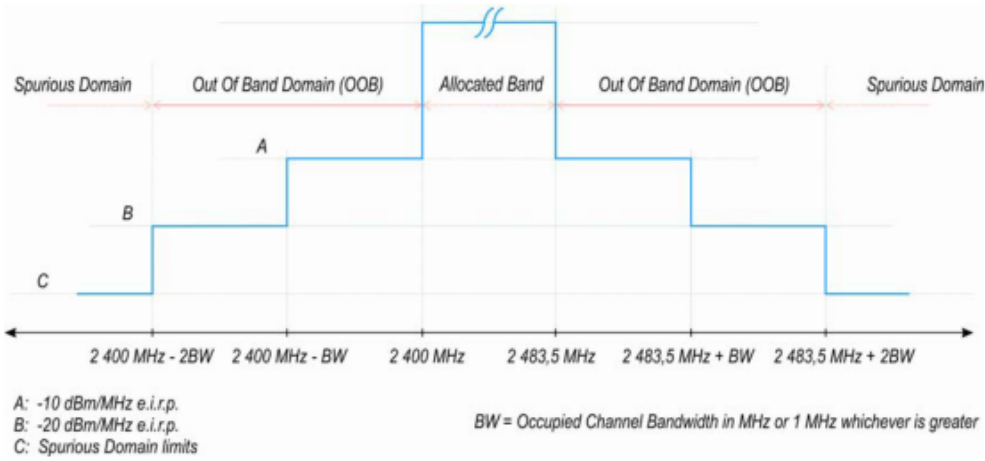
Test figure of 802.11 n HT40 mode
Channel 2422 MHz



Channel 2462 MHz



| | | |
|------------|---|----------------------|
| 4.5 | Transmitter unwanted emissions in the out-of-band domain | VERDICT: PASS |
|------------|---|----------------------|

| | |
|--|-----------------|
| Standard | ETSI EN 300 328 |
| Limits: | |
| <p>The transmitter unwanted emissions in the out-of-band domain but outside the allocated band, shall not exceed the values provided by the mask in figure 3.</p> <p>NOTE: Within the 2 400 MHz to 2 483,5 MHz band, the Out-of-band emissions are fulfilled by compliance with the Occupied Channel Bandwidth requirement in clause 4.3.2.6.</p> | |
|  <p style="text-align: center;">A: -10 dBm/MHz e.i.r.p. B: -20 dBm/MHz e.i.r.p. C: Spurious Domain limits</p> <p style="text-align: center;">BW = Occupied Channel Bandwidth in MHz or 1 MHz whichever is greater</p> | |
| Figure 3: Transmit mask | |

Performed measurements

| | |
|------------------------|---|
| Port under test | Antenna port |
| Test method applied | <input checked="" type="checkbox"/> Conducted measurement |
| | <input type="checkbox"/> Radiated measurement |
| Test setup | Refer to the Annex 3 for test setup photo(s). |
| Operating mode(s) used | Mode 1 |
| Remark | --- |

Results
802.11 b, 2412 MHz

| Frequency (MHz) | Level (dBm) | Limit (dBm) | Result |
|-----------------|-------------|-------------|--------|
| 2374.661492 | -50.3 | -20.0 | PASS |
| 2375.580746 | -50.3 | -20.0 | PASS |
| 2376.580746 | -50.4 | -20.0 | PASS |
| 2377.580746 | -50.4 | -20.0 | PASS |
| 2378.580746 | -50.4 | -20.0 | PASS |
| 2379.580746 | -50.4 | -20.0 | PASS |
| 2380.580746 | -50.4 | -20.0 | PASS |
| 2381.580746 | -50.4 | -20.0 | PASS |
| 2382.580746 | -50.3 | -20.0 | PASS |
| 2383.580746 | -50.1 | -20.0 | PASS |
| 2384.580746 | -50.0 | -20.0 | PASS |
| 2385.580746 | -49.8 | -20.0 | PASS |
| 2386.580746 | -49.9 | -20.0 | PASS |
| 2387.580746 | -50.0 | -10.0 | PASS |
| 2388.500000 | -50.1 | -10.0 | PASS |
| 2389.500000 | -50.2 | -10.0 | PASS |
| 2390.500000 | -50.1 | -10.0 | PASS |
| 2391.500000 | -50.1 | -10.0 | PASS |
| 2392.500000 | -49.9 | -10.0 | PASS |
| 2393.500000 | -49.4 | -10.0 | PASS |
| 2394.500000 | -48.7 | -10.0 | PASS |
| 2395.500000 | -47.6 | -10.0 | PASS |
| 2396.500000 | -45.9 | -10.0 | PASS |
| 2397.500000 | -45.4 | -10.0 | PASS |
| 2398.500000 | -45.7 | -10.0 | PASS |
| 2399.500000 | -46.4 | -10.0 | PASS |
| 2484.000000 | -50.6 | -10.0 | PASS |
| 2485.000000 | -50.6 | -10.0 | PASS |
| 2486.000000 | -50.5 | -10.0 | PASS |
| 2487.000000 | -50.6 | -10.0 | PASS |
| 2488.000000 | -50.6 | -10.0 | PASS |
| 2489.000000 | -50.6 | -10.0 | PASS |
| 2490.000000 | -50.6 | -10.0 | PASS |
| 2491.000000 | -50.6 | -10.0 | PASS |
| 2492.000000 | -50.6 | -10.0 | PASS |
| 2493.000000 | -50.6 | -10.0 | PASS |
| 2494.000000 | -50.6 | -10.0 | PASS |
| 2495.000000 | -50.7 | -10.0 | PASS |
| 2495.919254 | -50.7 | -10.0 | PASS |
| 2496.919254 | -50.7 | -20.0 | PASS |
| 2497.919254 | -50.6 | -20.0 | PASS |
| 2498.919254 | -50.6 | -20.0 | PASS |
| 2499.919254 | -50.6 | -20.0 | PASS |

| | | | |
|-------------|-------|-------|------|
| 2500.919254 | -50.6 | -20.0 | PASS |
| 2501.919254 | -50.6 | -20.0 | PASS |
| 2502.919254 | -50.6 | -20.0 | PASS |
| 2503.919254 | -50.6 | -20.0 | PASS |
| 2504.919254 | -50.6 | -20.0 | PASS |
| 2505.919254 | -50.6 | -20.0 | PASS |
| 2506.919254 | -50.6 | -20.0 | PASS |
| 2507.919254 | -49.3 | -20.0 | PASS |
| 2508.838508 | -50.6 | -20.0 | PASS |

802.11 b, 2472 MHz

| Frequency (MHz) | Level (dBm) | Limit (dBm) | Result |
|-----------------|-------------|-------------|--------|
| 2374.164596 | -50.6 | -20.0 | PASS |
| 2374.332298 | -50.6 | -20.0 | PASS |
| 2375.332298 | -50.6 | -20.0 | PASS |
| 2376.332298 | -50.7 | -20.0 | PASS |
| 2377.332298 | -50.6 | -20.0 | PASS |
| 2378.332298 | -50.6 | -20.0 | PASS |
| 2379.332298 | -50.6 | -20.0 | PASS |
| 2380.332298 | -50.7 | -20.0 | PASS |
| 2381.332298 | -50.5 | -20.0 | PASS |
| 2382.332298 | -50.6 | -20.0 | PASS |
| 2383.332298 | -50.6 | -20.0 | PASS |
| 2384.332298 | -50.6 | -20.0 | PASS |
| 2385.332298 | -50.6 | -20.0 | PASS |
| 2386.332298 | -50.6 | -20.0 | PASS |
| 2387.332298 | -50.6 | -10.0 | PASS |
| 2387.500000 | -50.6 | -10.0 | PASS |
| 2388.500000 | -50.6 | -10.0 | PASS |
| 2389.500000 | -50.6 | -10.0 | PASS |
| 2390.500000 | -50.6 | -10.0 | PASS |
| 2391.500000 | -50.6 | -10.0 | PASS |
| 2392.500000 | -50.6 | -10.0 | PASS |
| 2393.500000 | -50.6 | -10.0 | PASS |
| 2394.500000 | -50.5 | -10.0 | PASS |
| 2395.500000 | -50.6 | -10.0 | PASS |
| 2396.500000 | -50.6 | -10.0 | PASS |
| 2397.500000 | -50.6 | -10.0 | PASS |
| 2398.500000 | -50.6 | -10.0 | PASS |
| 2399.500000 | -50.4 | -10.0 | PASS |
| 2484.000000 | -45.4 | -10.0 | PASS |
| 2485.000000 | -45.3 | -10.0 | PASS |
| 2486.000000 | -45.1 | -10.0 | PASS |
| 2487.000000 | -45.9 | -10.0 | PASS |
| 2488.000000 | -47.4 | -10.0 | PASS |
| 2489.000000 | -48.5 | -10.0 | PASS |
| 2490.000000 | -49.4 | -10.0 | PASS |
| 2491.000000 | -49.9 | -10.0 | PASS |
| 2492.000000 | -50.2 | -10.0 | PASS |
| 2493.000000 | -50.2 | -10.0 | PASS |
| 2494.000000 | -50.3 | -10.0 | PASS |
| 2495.000000 | -50.2 | -10.0 | PASS |
| 2496.000000 | -50.2 | -10.0 | PASS |
| 2496.167702 | -50.0 | -10.0 | PASS |
| 2497.167702 | -49.9 | -20.0 | PASS |

| | | | |
|-------------|-------|-------|------|
| 2498.167702 | -49.9 | -20.0 | PASS |
| 2499.167702 | -50.0 | -20.0 | PASS |
| 2500.167702 | -50.1 | -20.0 | PASS |
| 2501.167702 | -50.3 | -20.0 | PASS |
| 2502.167702 | -50.3 | -20.0 | PASS |
| 2503.167702 | -50.4 | -20.0 | PASS |
| 2504.167702 | -50.3 | -20.0 | PASS |
| 2505.167702 | -50.4 | -20.0 | PASS |
| 2506.167702 | -50.4 | -20.0 | PASS |
| 2507.167702 | -50.4 | -20.0 | PASS |
| 2508.167702 | -50.2 | -20.0 | PASS |
| 2509.167702 | -50.1 | -20.0 | PASS |
| 2509.335404 | -50.3 | -20.0 | PASS |

802.11 g, 2412 MHz

| Frequency (MHz) | Level (dBm) | Limit (dBm) | Result |
|-----------------|-------------|-------------|--------|
| 2367.208074 | -50.5 | -20.0 | PASS |
| 2367.854037 | -50.5 | -20.0 | PASS |
| 2368.854037 | -50.5 | -20.0 | PASS |
| 2369.854037 | -50.4 | -20.0 | PASS |
| 2370.854037 | -50.4 | -20.0 | PASS |
| 2371.854037 | -50.4 | -20.0 | PASS |
| 2372.854037 | -50.4 | -20.0 | PASS |
| 2373.854037 | -50.4 | -20.0 | PASS |
| 2374.854037 | -50.4 | -20.0 | PASS |
| 2375.854037 | -50.3 | -20.0 | PASS |
| 2376.854037 | -50.3 | -20.0 | PASS |
| 2377.854037 | -50.3 | -20.0 | PASS |
| 2378.854037 | -50.3 | -20.0 | PASS |
| 2379.854037 | -50.2 | -20.0 | PASS |
| 2380.854037 | -50.2 | -20.0 | PASS |
| 2381.854037 | -50.1 | -20.0 | PASS |
| 2382.854037 | -50.1 | -20.0 | PASS |
| 2383.854037 | -50.1 | -10.0 | PASS |
| 2384.500000 | -50.1 | -10.0 | PASS |
| 2385.500000 | -50.0 | -10.0 | PASS |
| 2386.500000 | -50.0 | -10.0 | PASS |
| 2387.500000 | -49.8 | -10.0 | PASS |
| 2388.500000 | -48.8 | -10.0 | PASS |
| 2389.500000 | -47.0 | -10.0 | PASS |
| 2390.500000 | -45.6 | -10.0 | PASS |
| 2391.500000 | -43.5 | -10.0 | PASS |
| 2392.500000 | -42.5 | -10.0 | PASS |
| 2393.500000 | -41.7 | -10.0 | PASS |
| 2394.500000 | -39.8 | -10.0 | PASS |
| 2395.500000 | -39.1 | -10.0 | PASS |
| 2396.500000 | -38.1 | -10.0 | PASS |
| 2397.500000 | -36.9 | -10.0 | PASS |
| 2398.500000 | -35.9 | -10.0 | PASS |
| 2399.500000 | -34.1 | -10.0 | PASS |
| 2484.000000 | -50.6 | -10.0 | PASS |
| 2485.000000 | -50.6 | -10.0 | PASS |
| 2486.000000 | -50.6 | -10.0 | PASS |
| 2487.000000 | -50.6 | -10.0 | PASS |
| 2488.000000 | -50.7 | -10.0 | PASS |
| 2489.000000 | -50.6 | -10.0 | PASS |
| 2490.000000 | -50.6 | -10.0 | PASS |
| 2491.000000 | -50.7 | -10.0 | PASS |
| 2492.000000 | -50.6 | -10.0 | PASS |

| | | | |
|-------------|-------|-------|------|
| 2493.000000 | -50.6 | -10.0 | PASS |
| 2494.000000 | -50.7 | -10.0 | PASS |
| 2495.000000 | -50.6 | -10.0 | PASS |
| 2496.000000 | -50.6 | -10.0 | PASS |
| 2497.000000 | -50.6 | -10.0 | PASS |
| 2498.000000 | -50.6 | -10.0 | PASS |
| 2499.000000 | -50.7 | -10.0 | PASS |
| 2499.645963 | -50.6 | -10.0 | PASS |
| 2500.645963 | -50.6 | -20.0 | PASS |
| 2501.645963 | -50.6 | -20.0 | PASS |
| 2502.645963 | -50.6 | -20.0 | PASS |
| 2503.645963 | -50.7 | -20.0 | PASS |
| 2504.645963 | -50.6 | -20.0 | PASS |
| 2505.645963 | -50.7 | -20.0 | PASS |
| 2506.645963 | -50.6 | -20.0 | PASS |
| 2507.645963 | -50.7 | -20.0 | PASS |
| 2508.645963 | -50.6 | -20.0 | PASS |
| 2509.645963 | -50.7 | -20.0 | PASS |
| 2510.645963 | -49.2 | -20.0 | PASS |
| 2511.645963 | -50.6 | -20.0 | PASS |
| 2512.645963 | -50.6 | -20.0 | PASS |
| 2513.645963 | -50.6 | -20.0 | PASS |
| 2514.645963 | -50.6 | -20.0 | PASS |
| 2515.645963 | -50.7 | -20.0 | PASS |
| 2516.291926 | -50.6 | -20.0 | PASS |

802.11 g, 2472 MHz

| Frequency (MHz) | Level (dBm) | Limit (dBm) | Result |
|-----------------|-------------|-------------|--------|
| 2367.208074 | -50.7 | -20.0 | PASS |
| 2367.854037 | -50.6 | -20.0 | PASS |
| 2368.854037 | -50.6 | -20.0 | PASS |
| 2369.854037 | -50.7 | -20.0 | PASS |
| 2370.854037 | -50.7 | -20.0 | PASS |
| 2371.854037 | -50.7 | -20.0 | PASS |
| 2372.854037 | -50.7 | -20.0 | PASS |
| 2373.854037 | -50.6 | -20.0 | PASS |
| 2374.854037 | -50.7 | -20.0 | PASS |
| 2375.854037 | -50.7 | -20.0 | PASS |
| 2376.854037 | -50.6 | -20.0 | PASS |
| 2377.854037 | -50.6 | -20.0 | PASS |
| 2378.854037 | -50.6 | -20.0 | PASS |
| 2379.854037 | -50.7 | -20.0 | PASS |
| 2380.854037 | -50.6 | -20.0 | PASS |
| 2381.854037 | -50.6 | -20.0 | PASS |
| 2382.854037 | -50.6 | -20.0 | PASS |
| 2383.854037 | -50.6 | -10.0 | PASS |
| 2384.500000 | -50.6 | -10.0 | PASS |
| 2385.500000 | -50.6 | -10.0 | PASS |
| 2386.500000 | -50.6 | -10.0 | PASS |
| 2387.500000 | -50.6 | -10.0 | PASS |
| 2388.500000 | -50.6 | -10.0 | PASS |
| 2389.500000 | -50.6 | -10.0 | PASS |
| 2390.500000 | -50.6 | -10.0 | PASS |
| 2391.500000 | -50.6 | -10.0 | PASS |
| 2392.500000 | -50.6 | -10.0 | PASS |
| 2393.500000 | -50.6 | -10.0 | PASS |
| 2394.500000 | -50.6 | -10.0 | PASS |
| 2395.500000 | -50.6 | -10.0 | PASS |
| 2396.500000 | -50.6 | -10.0 | PASS |
| 2397.500000 | -50.5 | -10.0 | PASS |
| 2398.500000 | -50.6 | -10.0 | PASS |
| 2399.500000 | -50.4 | -10.0 | PASS |
| 2484.000000 | -32.0 | -10.0 | PASS |
| 2485.000000 | -32.8 | -10.0 | PASS |
| 2486.000000 | -34.1 | -10.0 | PASS |
| 2487.000000 | -35.0 | -10.0 | PASS |
| 2488.000000 | -35.2 | -10.0 | PASS |
| 2489.000000 | -36.0 | -10.0 | PASS |
| 2490.000000 | -37.8 | -10.0 | PASS |
| 2491.000000 | -39.2 | -10.0 | PASS |
| 2492.000000 | -40.7 | -10.0 | PASS |

| | | | |
|-------------|-------|-------|------|
| 2493.000000 | -42.0 | -10.0 | PASS |
| 2494.000000 | -44.4 | -10.0 | PASS |
| 2495.000000 | -46.6 | -10.0 | PASS |
| 2496.000000 | -49.0 | -10.0 | PASS |
| 2497.000000 | -49.8 | -10.0 | PASS |
| 2498.000000 | -49.8 | -10.0 | PASS |
| 2499.000000 | -49.8 | -10.0 | PASS |
| 2499.645963 | -49.9 | -10.0 | PASS |
| 2500.645963 | -49.9 | -20.0 | PASS |
| 2501.645963 | -50.0 | -20.0 | PASS |
| 2502.645963 | -50.0 | -20.0 | PASS |
| 2503.645963 | -50.1 | -20.0 | PASS |
| 2504.645963 | -50.2 | -20.0 | PASS |
| 2505.645963 | -50.3 | -20.0 | PASS |
| 2506.645963 | -50.3 | -20.0 | PASS |
| 2507.645963 | -50.3 | -20.0 | PASS |
| 2508.645963 | -50.4 | -20.0 | PASS |
| 2509.645963 | -50.4 | -20.0 | PASS |
| 2510.645963 | -49.1 | -20.0 | PASS |
| 2511.645963 | -50.4 | -20.0 | PASS |
| 2512.645963 | -50.3 | -20.0 | PASS |
| 2513.645963 | -50.5 | -20.0 | PASS |
| 2514.645963 | -50.4 | -20.0 | PASS |
| 2515.645963 | -50.5 | -20.0 | PASS |
| 2516.291926 | -50.4 | -20.0 | PASS |

802.11 n HT20, 2412 MHz

| Frequency (MHz) | Level (dBm) | Limit (dBm) | Result |
|-----------------|-------------|-------------|--------|
| 2365.220498 | -50.5 | -20.0 | PASS |
| 2365.860249 | -50.5 | -20.0 | PASS |
| 2366.860249 | -50.5 | -20.0 | PASS |
| 2367.860249 | -50.5 | -20.0 | PASS |
| 2368.860249 | -50.5 | -20.0 | PASS |
| 2369.860249 | -50.4 | -20.0 | PASS |
| 2370.860249 | -50.4 | -20.0 | PASS |
| 2371.860249 | -50.4 | -20.0 | PASS |
| 2372.860249 | -50.4 | -20.0 | PASS |
| 2373.860249 | -50.3 | -20.0 | PASS |
| 2374.860249 | -50.3 | -20.0 | PASS |
| 2375.860249 | -50.3 | -20.0 | PASS |
| 2376.860249 | -50.2 | -20.0 | PASS |
| 2377.860249 | -50.1 | -20.0 | PASS |
| 2378.860249 | -50.1 | -20.0 | PASS |
| 2379.860249 | -50.0 | -20.0 | PASS |
| 2380.860249 | -49.9 | -20.0 | PASS |
| 2381.860249 | -49.8 | -20.0 | PASS |
| 2382.860249 | -49.8 | -10.0 | PASS |
| 2383.500000 | -49.7 | -10.0 | PASS |
| 2384.500000 | -49.7 | -10.0 | PASS |
| 2385.500000 | -49.6 | -10.0 | PASS |
| 2386.500000 | -48.9 | -10.0 | PASS |
| 2387.500000 | -47.3 | -10.0 | PASS |
| 2388.500000 | -45.0 | -10.0 | PASS |
| 2389.500000 | -43.0 | -10.0 | PASS |
| 2390.500000 | -41.5 | -10.0 | PASS |
| 2391.500000 | -40.2 | -10.0 | PASS |
| 2392.500000 | -39.3 | -10.0 | PASS |
| 2393.500000 | -38.4 | -10.0 | PASS |
| 2394.500000 | -37.7 | -10.0 | PASS |
| 2395.500000 | -36.6 | -10.0 | PASS |
| 2396.500000 | -35.7 | -10.0 | PASS |
| 2397.500000 | -35.0 | -10.0 | PASS |
| 2398.500000 | -34.1 | -10.0 | PASS |
| 2399.500000 | -32.3 | -10.0 | PASS |
| 2484.000000 | -50.6 | -10.0 | PASS |
| 2485.000000 | -50.6 | -10.0 | PASS |
| 2486.000000 | -50.6 | -10.0 | PASS |
| 2487.000000 | -50.6 | -10.0 | PASS |
| 2488.000000 | -50.6 | -10.0 | PASS |
| 2489.000000 | -50.6 | -10.0 | PASS |
| 2490.000000 | -50.6 | -10.0 | PASS |

| | | | |
|-------------|-------|-------|------|
| 2491.000000 | -50.6 | -10.0 | PASS |
| 2492.000000 | -50.6 | -10.0 | PASS |
| 2493.000000 | -50.6 | -10.0 | PASS |
| 2494.000000 | -50.7 | -10.0 | PASS |
| 2495.000000 | -50.6 | -10.0 | PASS |
| 2496.000000 | -50.6 | -10.0 | PASS |
| 2497.000000 | -50.6 | -10.0 | PASS |
| 2498.000000 | -50.6 | -10.0 | PASS |
| 2499.000000 | -50.7 | -10.0 | PASS |
| 2500.000000 | -50.6 | -10.0 | PASS |
| 2500.639751 | -50.7 | -10.0 | PASS |
| 2501.639751 | -50.6 | -20.0 | PASS |
| 2502.639751 | -50.6 | -20.0 | PASS |
| 2503.639751 | -50.6 | -20.0 | PASS |
| 2504.639751 | -50.6 | -20.0 | PASS |
| 2505.639751 | -50.6 | -20.0 | PASS |
| 2506.639751 | -50.6 | -20.0 | PASS |
| 2507.639751 | -50.7 | -20.0 | PASS |
| 2508.639751 | -50.6 | -20.0 | PASS |
| 2509.639751 | -50.7 | -20.0 | PASS |
| 2510.639751 | -49.3 | -20.0 | PASS |
| 2511.639751 | -50.6 | -20.0 | PASS |
| 2512.639751 | -50.6 | -20.0 | PASS |
| 2513.639751 | -50.7 | -20.0 | PASS |
| 2514.639751 | -50.6 | -20.0 | PASS |
| 2515.639751 | -50.6 | -20.0 | PASS |
| 2516.639751 | -50.7 | -20.0 | PASS |
| 2517.639751 | -50.6 | -20.0 | PASS |
| 2518.279502 | -50.6 | -20.0 | PASS |

802.11 n HT20, 2472 MHz

| Frequency (MHz) | Level (dBm) | Limit (dBm) | Result |
|-----------------|-------------|-------------|--------|
| 2365.220498 | -50.7 | -20.0 | PASS |
| 2365.860249 | -50.6 | -20.0 | PASS |
| 2366.860249 | -50.6 | -20.0 | PASS |
| 2367.860249 | -50.6 | -20.0 | PASS |
| 2368.860249 | -50.7 | -20.0 | PASS |
| 2369.860249 | -50.6 | -20.0 | PASS |
| 2370.860249 | -50.7 | -20.0 | PASS |
| 2371.860249 | -50.7 | -20.0 | PASS |
| 2372.860249 | -50.7 | -20.0 | PASS |
| 2373.860249 | -50.6 | -20.0 | PASS |
| 2374.860249 | -50.7 | -20.0 | PASS |
| 2375.860249 | -50.6 | -20.0 | PASS |
| 2376.860249 | -50.6 | -20.0 | PASS |
| 2377.860249 | -50.6 | -20.0 | PASS |
| 2378.860249 | -50.6 | -20.0 | PASS |
| 2379.860249 | -50.6 | -20.0 | PASS |
| 2380.860249 | -50.6 | -20.0 | PASS |
| 2381.860249 | -50.6 | -20.0 | PASS |
| 2382.860249 | -50.6 | -10.0 | PASS |
| 2383.500000 | -50.6 | -10.0 | PASS |
| 2384.500000 | -50.6 | -10.0 | PASS |
| 2385.500000 | -50.6 | -10.0 | PASS |
| 2386.500000 | -50.6 | -10.0 | PASS |
| 2387.500000 | -50.6 | -10.0 | PASS |
| 2388.500000 | -50.5 | -10.0 | PASS |
| 2389.500000 | -50.6 | -10.0 | PASS |
| 2390.500000 | -50.6 | -10.0 | PASS |
| 2391.500000 | -50.6 | -10.0 | PASS |
| 2392.500000 | -50.6 | -10.0 | PASS |
| 2393.500000 | -50.6 | -10.0 | PASS |
| 2394.500000 | -50.5 | -10.0 | PASS |
| 2395.500000 | -50.6 | -10.0 | PASS |
| 2396.500000 | -50.5 | -10.0 | PASS |
| 2397.500000 | -50.6 | -10.0 | PASS |
| 2398.500000 | -50.6 | -10.0 | PASS |
| 2399.500000 | -50.4 | -10.0 | PASS |
| 2484.000000 | -32.8 | -10.0 | PASS |
| 2485.000000 | -33.8 | -10.0 | PASS |
| 2486.000000 | -34.6 | -10.0 | PASS |
| 2487.000000 | -35.5 | -10.0 | PASS |
| 2488.000000 | -36.0 | -10.0 | PASS |
| 2489.000000 | -37.1 | -10.0 | PASS |
| 2490.000000 | -37.7 | -10.0 | PASS |

| | | | |
|-------------|-------|-------|------|
| 2491.000000 | -39.4 | -10.0 | PASS |
| 2492.000000 | -39.9 | -10.0 | PASS |
| 2493.000000 | -41.2 | -10.0 | PASS |
| 2494.000000 | -42.3 | -10.0 | PASS |
| 2495.000000 | -44.3 | -10.0 | PASS |
| 2496.000000 | -46.4 | -10.0 | PASS |
| 2497.000000 | -48.4 | -10.0 | PASS |
| 2498.000000 | -49.6 | -10.0 | PASS |
| 2499.000000 | -49.8 | -10.0 | PASS |
| 2500.000000 | -49.8 | -10.0 | PASS |
| 2500.639751 | -49.8 | -10.0 | PASS |
| 2501.639751 | -49.9 | -20.0 | PASS |
| 2502.639751 | -50.0 | -20.0 | PASS |
| 2503.639751 | -50.0 | -20.0 | PASS |
| 2504.639751 | -50.1 | -20.0 | PASS |
| 2505.639751 | -50.1 | -20.0 | PASS |
| 2506.639751 | -50.2 | -20.0 | PASS |
| 2507.639751 | -50.2 | -20.0 | PASS |
| 2508.639751 | -50.3 | -20.0 | PASS |
| 2509.639751 | -50.3 | -20.0 | PASS |
| 2510.639751 | -49.1 | -20.0 | PASS |
| 2511.639751 | -50.4 | -20.0 | PASS |
| 2512.639751 | -50.4 | -20.0 | PASS |
| 2513.639751 | -50.4 | -20.0 | PASS |
| 2514.639751 | -50.4 | -20.0 | PASS |
| 2515.639751 | -50.5 | -20.0 | PASS |
| 2516.639751 | -50.4 | -20.0 | PASS |
| 2517.639751 | -50.4 | -20.0 | PASS |
| 2518.279502 | -50.5 | -20.0 | PASS |

802.11 n HT40, 2422 MHz

| Frequency (MHz) | Level (dBm) | Limit (dBm) | Result |
|-----------------|-------------|-------------|--------|
| 2326.959628 | -50.6 | -20.0 | PASS |
| 2327.729814 | -50.6 | -20.0 | PASS |
| 2328.729814 | -50.5 | -20.0 | PASS |
| 2329.729814 | -50.6 | -20.0 | PASS |
| 2330.729814 | -50.6 | -20.0 | PASS |
| 2331.729814 | -50.5 | -20.0 | PASS |
| 2332.729814 | -50.6 | -20.0 | PASS |
| 2333.729814 | -50.5 | -20.0 | PASS |
| 2334.729814 | -50.5 | -20.0 | PASS |
| 2335.729814 | -50.5 | -20.0 | PASS |
| 2336.729814 | -50.5 | -20.0 | PASS |
| 2337.729814 | -50.5 | -20.0 | PASS |
| 2338.729814 | -50.5 | -20.0 | PASS |
| 2339.729814 | -50.5 | -20.0 | PASS |
| 2340.729814 | -50.5 | -20.0 | PASS |
| 2341.729814 | -50.5 | -20.0 | PASS |
| 2342.729814 | -50.4 | -20.0 | PASS |
| 2343.729814 | -50.5 | -20.0 | PASS |
| 2344.729814 | -50.5 | -20.0 | PASS |
| 2345.729814 | -50.4 | -20.0 | PASS |
| 2346.729814 | -50.4 | -20.0 | PASS |
| 2347.729814 | -50.4 | -20.0 | PASS |
| 2348.729814 | -50.4 | -20.0 | PASS |
| 2349.729814 | -50.3 | -20.0 | PASS |
| 2350.729814 | -50.3 | -20.0 | PASS |
| 2351.729814 | -50.3 | -20.0 | PASS |
| 2352.729814 | -50.3 | -20.0 | PASS |
| 2353.729814 | -50.2 | -20.0 | PASS |
| 2354.729814 | -50.2 | -20.0 | PASS |
| 2355.729814 | -50.2 | -20.0 | PASS |
| 2356.729814 | -50.2 | -20.0 | PASS |
| 2357.729814 | -50.2 | -20.0 | PASS |
| 2358.729814 | -50.1 | -20.0 | PASS |
| 2359.729814 | -50.1 | -20.0 | PASS |
| 2360.729814 | -50.1 | -20.0 | PASS |
| 2361.729814 | -50.1 | -20.0 | PASS |
| 2362.729814 | -50.0 | -20.0 | PASS |
| 2363.729814 | -50.0 | -10.0 | PASS |
| 2364.500000 | -50.0 | -10.0 | PASS |
| 2365.500000 | -50.0 | -10.0 | PASS |
| 2366.500000 | -50.0 | -10.0 | PASS |
| 2367.500000 | -50.0 | -10.0 | PASS |
| 2368.500000 | -49.9 | -10.0 | PASS |

| | | | |
|-------------|-------|-------|------|
| 2369.500000 | -49.7 | -10.0 | PASS |
| 2370.500000 | -49.4 | -10.0 | PASS |
| 2371.500000 | -48.9 | -10.0 | PASS |
| 2372.500000 | -48.6 | -10.0 | PASS |
| 2373.500000 | -47.9 | -10.0 | PASS |
| 2374.500000 | -47.6 | -10.0 | PASS |
| 2375.500000 | -46.9 | -10.0 | PASS |
| 2376.500000 | -46.4 | -10.0 | PASS |
| 2377.500000 | -46.0 | -10.0 | PASS |
| 2378.500000 | -45.6 | -10.0 | PASS |
| 2379.500000 | -45.1 | -10.0 | PASS |
| 2380.500000 | -44.6 | -10.0 | PASS |
| 2381.500000 | -44.1 | -10.0 | PASS |
| 2382.500000 | -43.9 | -10.0 | PASS |
| 2383.500000 | -43.4 | -10.0 | PASS |
| 2384.500000 | -43.0 | -10.0 | PASS |
| 2385.500000 | -42.6 | -10.0 | PASS |
| 2386.500000 | -42.1 | -10.0 | PASS |
| 2387.500000 | -42.0 | -10.0 | PASS |
| 2388.500000 | -41.5 | -10.0 | PASS |
| 2389.500000 | -40.9 | -10.0 | PASS |
| 2390.500000 | -40.2 | -10.0 | PASS |
| 2391.500000 | -39.6 | -10.0 | PASS |
| 2392.500000 | -38.7 | -10.0 | PASS |
| 2393.500000 | -38.3 | -10.0 | PASS |
| 2394.500000 | -36.8 | -10.0 | PASS |
| 2395.500000 | -36.0 | -10.0 | PASS |
| 2396.500000 | -35.0 | -10.0 | PASS |
| 2397.500000 | -33.2 | -10.0 | PASS |
| 2398.500000 | -31.3 | -10.0 | PASS |
| 2399.500000 | -28.9 | -10.0 | PASS |
| 2484.000000 | -50.3 | -10.0 | PASS |
| 2485.000000 | -50.3 | -10.0 | PASS |
| 2486.000000 | -50.4 | -10.0 | PASS |
| 2487.000000 | -50.3 | -10.0 | PASS |
| 2488.000000 | -50.3 | -10.0 | PASS |
| 2489.000000 | -50.3 | -10.0 | PASS |
| 2490.000000 | -50.4 | -10.0 | PASS |
| 2491.000000 | -50.3 | -10.0 | PASS |
| 2492.000000 | -50.3 | -10.0 | PASS |
| 2493.000000 | -50.3 | -10.0 | PASS |
| 2494.000000 | -50.4 | -10.0 | PASS |
| 2495.000000 | -50.4 | -10.0 | PASS |
| 2496.000000 | -50.4 | -10.0 | PASS |
| 2497.000000 | -50.4 | -10.0 | PASS |
| 2498.000000 | -50.4 | -10.0 | PASS |

| | | | |
|-------------|-------|-------|------|
| 2499.000000 | -50.5 | -10.0 | PASS |
| 2500.000000 | -50.4 | -10.0 | PASS |
| 2501.000000 | -50.4 | -10.0 | PASS |
| 2502.000000 | -50.5 | -10.0 | PASS |
| 2503.000000 | -50.5 | -10.0 | PASS |
| 2504.000000 | -50.5 | -10.0 | PASS |
| 2505.000000 | -50.5 | -10.0 | PASS |
| 2506.000000 | -50.5 | -10.0 | PASS |
| 2507.000000 | -50.5 | -10.0 | PASS |
| 2508.000000 | -49.2 | -10.0 | PASS |
| 2509.000000 | -50.4 | -10.0 | PASS |
| 2510.000000 | -49.1 | -10.0 | PASS |
| 2511.000000 | -50.4 | -10.0 | PASS |
| 2512.000000 | -50.5 | -10.0 | PASS |
| 2513.000000 | -50.5 | -10.0 | PASS |
| 2514.000000 | -50.5 | -10.0 | PASS |
| 2515.000000 | -50.5 | -10.0 | PASS |
| 2516.000000 | -50.5 | -10.0 | PASS |
| 2517.000000 | -50.5 | -10.0 | PASS |
| 2518.000000 | -50.5 | -10.0 | PASS |
| 2519.000000 | -50.5 | -10.0 | PASS |
| 2519.770186 | -50.5 | -10.0 | PASS |
| 2520.770186 | -50.5 | -20.0 | PASS |
| 2521.770186 | -50.5 | -20.0 | PASS |
| 2522.770186 | -50.5 | -20.0 | PASS |
| 2523.770186 | -50.5 | -20.0 | PASS |
| 2524.770186 | -50.5 | -20.0 | PASS |
| 2525.770186 | -50.5 | -20.0 | PASS |
| 2526.770186 | -50.5 | -20.0 | PASS |
| 2527.770186 | -50.5 | -20.0 | PASS |
| 2528.770186 | -50.5 | -20.0 | PASS |
| 2529.770186 | -50.5 | -20.0 | PASS |
| 2530.770186 | -50.5 | -20.0 | PASS |
| 2531.770186 | -50.5 | -20.0 | PASS |
| 2532.770186 | -50.5 | -20.0 | PASS |
| 2533.770186 | -50.5 | -20.0 | PASS |
| 2534.770186 | -50.5 | -20.0 | PASS |
| 2535.770186 | -50.5 | -20.0 | PASS |
| 2536.770186 | -50.5 | -20.0 | PASS |
| 2537.770186 | -50.5 | -20.0 | PASS |
| 2538.770186 | -50.5 | -20.0 | PASS |
| 2539.770186 | -50.5 | -20.0 | PASS |
| 2540.770186 | -50.5 | -20.0 | PASS |
| 2541.770186 | -50.5 | -20.0 | PASS |
| 2542.770186 | -50.5 | -20.0 | PASS |
| 2543.770186 | -50.5 | -20.0 | PASS |

| | | | |
|-------------|-------|-------|------|
| 2544.770186 | -50.5 | -20.0 | PASS |
| 2545.770186 | -50.5 | -20.0 | PASS |
| 2546.770186 | -50.5 | -20.0 | PASS |
| 2547.770186 | -50.5 | -20.0 | PASS |
| 2548.770186 | -50.5 | -20.0 | PASS |
| 2549.770186 | -50.5 | -20.0 | PASS |
| 2550.770186 | -50.5 | -20.0 | PASS |
| 2551.770186 | -50.5 | -20.0 | PASS |
| 2552.770186 | -50.5 | -20.0 | PASS |
| 2553.770186 | -50.5 | -20.0 | PASS |
| 2554.770186 | -50.5 | -20.0 | PASS |
| 2555.770186 | -50.5 | -20.0 | PASS |
| 2556.540372 | -50.5 | -20.0 | PASS |

802.11 n HT40, 2462 MHz

| Frequency (MHz) | Level (dBm) | Limit (dBm) | Result |
|-----------------|-------------|-------------|--------|
| 2326.959628 | -50.6 | -20.0 | PASS |
| 2327.729814 | -50.6 | -20.0 | PASS |
| 2328.729814 | -50.6 | -20.0 | PASS |
| 2329.729814 | -50.6 | -20.0 | PASS |
| 2330.729814 | -50.6 | -20.0 | PASS |
| 2331.729814 | -50.6 | -20.0 | PASS |
| 2332.729814 | -50.6 | -20.0 | PASS |
| 2333.729814 | -50.6 | -20.0 | PASS |
| 2334.729814 | -50.5 | -20.0 | PASS |
| 2335.729814 | -50.5 | -20.0 | PASS |
| 2336.729814 | -50.6 | -20.0 | PASS |
| 2337.729814 | -50.6 | -20.0 | PASS |
| 2338.729814 | -50.6 | -20.0 | PASS |
| 2339.729814 | -50.6 | -20.0 | PASS |
| 2340.729814 | -50.6 | -20.0 | PASS |
| 2341.729814 | -50.6 | -20.0 | PASS |
| 2342.729814 | -50.6 | -20.0 | PASS |
| 2343.729814 | -50.6 | -20.0 | PASS |
| 2344.729814 | -50.6 | -20.0 | PASS |
| 2345.729814 | -50.6 | -20.0 | PASS |
| 2346.729814 | -50.5 | -20.0 | PASS |
| 2347.729814 | -50.6 | -20.0 | PASS |
| 2348.729814 | -50.6 | -20.0 | PASS |
| 2349.729814 | -50.6 | -20.0 | PASS |
| 2350.729814 | -50.6 | -20.0 | PASS |
| 2351.729814 | -50.5 | -20.0 | PASS |
| 2352.729814 | -50.5 | -20.0 | PASS |
| 2353.729814 | -50.6 | -20.0 | PASS |
| 2354.729814 | -50.6 | -20.0 | PASS |
| 2355.729814 | -50.6 | -20.0 | PASS |
| 2356.729814 | -50.6 | -20.0 | PASS |
| 2357.729814 | -50.5 | -20.0 | PASS |
| 2358.729814 | -50.5 | -20.0 | PASS |
| 2359.729814 | -50.5 | -20.0 | PASS |
| 2360.729814 | -50.6 | -20.0 | PASS |
| 2361.729814 | -50.6 | -20.0 | PASS |
| 2362.729814 | -50.6 | -20.0 | PASS |
| 2363.729814 | -50.6 | -10.0 | PASS |
| 2364.500000 | -50.6 | -10.0 | PASS |
| 2365.500000 | -50.6 | -10.0 | PASS |
| 2366.500000 | -50.6 | -10.0 | PASS |
| 2367.500000 | -50.5 | -10.0 | PASS |
| 2368.500000 | -50.6 | -10.0 | PASS |

| | | | |
|-------------|-------|-------|------|
| 2369.500000 | -50.5 | -10.0 | PASS |
| 2370.500000 | -50.5 | -10.0 | PASS |
| 2371.500000 | -50.5 | -10.0 | PASS |
| 2372.500000 | -50.5 | -10.0 | PASS |
| 2373.500000 | -50.5 | -10.0 | PASS |
| 2374.500000 | -50.5 | -10.0 | PASS |
| 2375.500000 | -50.5 | -10.0 | PASS |
| 2376.500000 | -50.5 | -10.0 | PASS |
| 2377.500000 | -50.5 | -10.0 | PASS |
| 2378.500000 | -50.5 | -10.0 | PASS |
| 2379.500000 | -50.5 | -10.0 | PASS |
| 2380.500000 | -50.4 | -10.0 | PASS |
| 2381.500000 | -50.5 | -10.0 | PASS |
| 2382.500000 | -50.4 | -10.0 | PASS |
| 2383.500000 | -50.4 | -10.0 | PASS |
| 2384.500000 | -50.4 | -10.0 | PASS |
| 2385.500000 | -50.4 | -10.0 | PASS |
| 2386.500000 | -50.3 | -10.0 | PASS |
| 2387.500000 | -50.3 | -10.0 | PASS |
| 2388.500000 | -50.3 | -10.0 | PASS |
| 2389.500000 | -50.3 | -10.0 | PASS |
| 2390.500000 | -50.2 | -10.0 | PASS |
| 2391.500000 | -50.1 | -10.0 | PASS |
| 2392.500000 | -50.1 | -10.0 | PASS |
| 2393.500000 | -50.1 | -10.0 | PASS |
| 2394.500000 | -50.0 | -10.0 | PASS |
| 2395.500000 | -50.0 | -10.0 | PASS |
| 2396.500000 | -49.8 | -10.0 | PASS |
| 2397.500000 | -49.9 | -10.0 | PASS |
| 2398.500000 | -49.8 | -10.0 | PASS |
| 2399.500000 | -49.6 | -10.0 | PASS |
| 2484.000000 | -29.0 | -10.0 | PASS |
| 2485.000000 | -31.6 | -10.0 | PASS |
| 2486.000000 | -33.5 | -10.0 | PASS |
| 2487.000000 | -34.9 | -10.0 | PASS |
| 2488.000000 | -35.0 | -10.0 | PASS |
| 2489.000000 | -36.2 | -10.0 | PASS |
| 2490.000000 | -36.4 | -10.0 | PASS |
| 2491.000000 | -37.4 | -10.0 | PASS |
| 2492.000000 | -37.2 | -10.0 | PASS |
| 2493.000000 | -37.5 | -10.0 | PASS |
| 2494.000000 | -37.6 | -10.0 | PASS |
| 2495.000000 | -38.2 | -10.0 | PASS |
| 2496.000000 | -38.8 | -10.0 | PASS |
| 2497.000000 | -39.2 | -10.0 | PASS |
| 2498.000000 | -39.7 | -10.0 | PASS |

| | | | |
|-------------|-------|-------|------|
| 2499.000000 | -40.0 | -10.0 | PASS |
| 2500.000000 | -39.8 | -10.0 | PASS |
| 2501.000000 | -40.7 | -10.0 | PASS |
| 2502.000000 | -41.0 | -10.0 | PASS |
| 2503.000000 | -41.3 | -10.0 | PASS |
| 2504.000000 | -42.1 | -10.0 | PASS |
| 2505.000000 | -42.5 | -10.0 | PASS |
| 2506.000000 | -43.0 | -10.0 | PASS |
| 2507.000000 | -43.9 | -10.0 | PASS |
| 2508.000000 | -43.7 | -10.0 | PASS |
| 2509.000000 | -44.7 | -10.0 | PASS |
| 2510.000000 | -45.1 | -10.0 | PASS |
| 2511.000000 | -46.5 | -10.0 | PASS |
| 2512.000000 | -47.4 | -10.0 | PASS |
| 2513.000000 | -48.2 | -10.0 | PASS |
| 2514.000000 | -49.0 | -10.0 | PASS |
| 2515.000000 | -49.6 | -10.0 | PASS |
| 2516.000000 | -49.9 | -10.0 | PASS |
| 2517.000000 | -50.1 | -10.0 | PASS |
| 2518.000000 | -50.0 | -10.0 | PASS |
| 2519.000000 | -50.1 | -10.0 | PASS |
| 2519.770186 | -50.0 | -10.0 | PASS |
| 2520.770186 | -50.0 | -20.0 | PASS |
| 2521.770186 | -50.0 | -20.0 | PASS |
| 2522.770186 | -50.0 | -20.0 | PASS |
| 2523.770186 | -50.0 | -20.0 | PASS |
| 2524.770186 | -50.1 | -20.0 | PASS |
| 2525.770186 | -50.2 | -20.0 | PASS |
| 2526.770186 | -50.2 | -20.0 | PASS |
| 2527.770186 | -50.2 | -20.0 | PASS |
| 2528.770186 | -50.2 | -20.0 | PASS |
| 2529.770186 | -50.2 | -20.0 | PASS |
| 2530.770186 | -50.2 | -20.0 | PASS |
| 2531.770186 | -50.2 | -20.0 | PASS |
| 2532.770186 | -50.2 | -20.0 | PASS |
| 2533.770186 | -50.3 | -20.0 | PASS |
| 2534.770186 | -50.3 | -20.0 | PASS |
| 2535.770186 | -50.3 | -20.0 | PASS |
| 2536.770186 | -50.3 | -20.0 | PASS |
| 2537.770186 | -50.3 | -20.0 | PASS |
| 2538.770186 | -50.3 | -20.0 | PASS |
| 2539.770186 | -50.4 | -20.0 | PASS |
| 2540.770186 | -50.3 | -20.0 | PASS |
| 2541.770186 | -50.4 | -20.0 | PASS |
| 2542.770186 | -50.4 | -20.0 | PASS |
| 2543.770186 | -50.4 | -20.0 | PASS |

| | | | |
|-------------|-------|-------|------|
| 2544.770186 | -50.4 | -20.0 | PASS |
| 2545.770186 | -50.4 | -20.0 | PASS |
| 2546.770186 | -50.4 | -20.0 | PASS |
| 2547.770186 | -50.4 | -20.0 | PASS |
| 2548.770186 | -50.5 | -20.0 | PASS |
| 2549.770186 | -50.5 | -20.0 | PASS |
| 2550.770186 | -50.4 | -20.0 | PASS |
| 2551.770186 | -50.4 | -20.0 | PASS |
| 2552.770186 | -50.3 | -20.0 | PASS |
| 2553.770186 | -50.4 | -20.0 | PASS |
| 2554.770186 | -50.4 | -20.0 | PASS |
| 2555.770186 | -50.4 | -20.0 | PASS |
| 2556.540372 | -50.4 | -20.0 | PASS |

| | | |
|------------|--|----------------------|
| 4.6 | Transmitter unwanted emissions in the spurious domain | VERDICT: PASS |
|------------|--|----------------------|

| | | |
|------------------------|--|------------------|
| Standard | ETSI EN 300 328 | |
| Limits: | | |
| Frequency range | Maximum power e.r.p. (≤ 1 GHz) e.i.r.p. (> 1 GHz) | Bandwidth |
| 30 MHz to 47 MHz | -36 dBm | 100 kHz |
| 47 MHz to 74 MHz | -54 dBm | 100 kHz |
| 74 MHz to 87,5 MHz | -36 dBm | 100 kHz |
| 87,5 MHz to 118 MHz | -54 dBm | 100 kHz |
| 118 MHz to 174 MHz | -36 dBm | 100 kHz |
| 174 MHz to 230 MHz | -54 dBm | 100 kHz |
| 230 MHz to 470 MHz | -36 dBm | 100 kHz |
| 470 MHz to 694 MHz | -54 dBm | 100 kHz |
| 694 MHz to 1 GHz | -36 dBm | 100 kHz |
| 1 GHz to 12,75 GHz | -30 dBm | 1 MHz |

Performed measurements

| | | |
|------------------------|---|-----------------------|
| Port under test | Enclosure port | |
| Test method applied | <input type="checkbox"/> | Conducted measurement |
| | <input checked="" type="checkbox"/> | Radiated measurement |
| Test setup | Refer to the Annex 3 for test setup photo(s). | |
| Operating mode(s) used | Mode 1 (802.11 b) the worst case | |
| Remark | --- | |

Results

| Channel (MHz) | Polarity | Frequency (MHz) | Reading (dBm) | Attenuation (dB) | Result (dBm) | Limit (dBm) | Verdict |
|---------------|----------|-----------------|---------------|------------------|--------------|-------------|---------|
| 2412 | H | 4824,32 | -49,14 | 7,54 | -41,60 | -30,00 | PASS |
| | V | 4824,32 | -56,20 | 7,83 | -48,37 | -30,00 | PASS |
| 2472 | H | 4944,76 | -53,84 | 8,05 | -45,79 | -30,00 | PASS |
| | V | 4944,76 | -55,55 | 8,19 | -47,36 | -30,00 | PASS |

5 RECEIVER TEST RESULTS

| | |
|---------------------------------|---------------|
| 5.1 Receiver spurious emissions | VERDICT: PASS |
|---------------------------------|---------------|

| | | |
|--------------------|--|-----------------------|
| Standard | ETSI EN 300 328 | |
| Limits: | | |
| Frequency range | Maximum power e.r.p. (≤ 1 GHz) e.i.r.p. (> 1 GHz) | Measurement bandwidth |
| 30 MHz to 1 GHz | -57 dBm | 100 kHz |
| 1 GHz to 12,75 GHz | -47 dBm | 1 MHz |

Performed measurements

| | | |
|------------------------|---|-----------------------|
| Port under test | Enclosure port | |
| Test method applied | <input type="checkbox"/> | Conducted measurement |
| | <input checked="" type="checkbox"/> | Radiated measurement |
| Test setup | Refer to the Annex 3 for test setup photo(s). | |
| Operating mode(s) used | Mode 2 | |
| Remark | --- | |

Results

| Channel (MHz) | Polarity | Frequency (MHz) | Reading (dBm) | Attenuation (dB) | Result (dBm) | Limit (dBm) | Verdict |
|---------------|----------|--|---------------|------------------|--------------|-------------|---------|
| 2412 | H | No significant emissions were measured at the frequency range of interest employing the PK detectors (more than 20 dB below limits). | | | | | PASS |
| | V | | | | | | PASS |
| 2472 | H | No significant emissions were measured at the frequency range of interest employing the PK detectors (more than 20 dB below limits). | | | | | PASS |
| | V | | | | | | PASS |

| | |
|------------------------------|----------------------|
| 5.2 Receiver Blocking | VERDICT: PASS |
|------------------------------|----------------------|

| Standard | ETSI EN 300 328 | | | | | | | | | | |
|---|--|--|---------------------------------|--|-------------------------|---|----------------|-----|----|---|--|
| Limits: | | | | | | | | | | | |
| <p>Table 6: Receiver Blocking parameters for Receiver Category 1 equipment</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="padding: 5px;">Wanted signal mean power from companion device (dBm) (see notes 1 and 4)</th> <th style="padding: 5px;">Blocking signal frequency (MHz)</th> <th style="padding: 5px;">Blocking signal power (dBm) (see note 4)</th> <th style="padding: 5px;">Type of blocking signal</th> </tr> </thead> <tbody> <tr> <td style="padding: 5px;">(-133 dBm + 10 × log₁₀(OCBW)) or -68 dBm whichever is less (see note 2)</td> <td style="padding: 5px;">2 380 2 504</td> <td rowspan="2" style="padding: 5px; text-align: center;">-34</td> <td rowspan="2" style="padding: 5px; text-align: center;">CW</td> </tr> <tr> <td style="padding: 5px;">(-139 dBm + 10 × log₁₀(OCBW)) or -74 dBm whichever is less (see note 3)</td> <td style="padding: 5px;">2 300 2 330 2 360 2 524 2 584 2 674</td> </tr> </tbody> </table> <p>NOTE 1: OCBW is in Hz. NOTE 2: In case of radiated measurements using a companion device and the level of the wanted signal from the companion device cannot be determined, a relative test may be performed using a wanted signal up to P_{min} + 26 dB where P_{min} is the minimum level of wanted signal required to meet the minimum performance criteria as defined in clause 4.3.1.12.3 in the absence of any blocking signal. NOTE 3: In case of radiated measurements using a companion device and the level of the wanted signal from the companion device cannot be determined, a relative test may be performed using a wanted signal up to P_{min} + 20 dB where P_{min} is the minimum level of wanted signal required to meet the minimum performance criteria as defined in clause 4.3.1.12.3 in the absence of any blocking signal. NOTE 4: The level specified is the level at the UUT receiver input assuming a 0 dBi antenna assembly gain. In case of conducted measurements, this level has to be corrected for the (in-band) antenna assembly gain (G). In case of radiated measurements, this level is equivalent to a power flux density (PFD) in front of the UUT antenna with the UUT being configured/positioned as recorded in clause 5.4.3.2.2.</p> | | Wanted signal mean power from companion device (dBm) (see notes 1 and 4) | Blocking signal frequency (MHz) | Blocking signal power (dBm) (see note 4) | Type of blocking signal | (-133 dBm + 10 × log ₁₀ (OCBW)) or -68 dBm whichever is less (see note 2) | 2 380 2 504 | -34 | CW | (-139 dBm + 10 × log ₁₀ (OCBW)) or -74 dBm whichever is less (see note 3) | 2 300 2 330 2 360 2 524 2 584 2 674 |
| Wanted signal mean power from companion device (dBm) (see notes 1 and 4) | Blocking signal frequency (MHz) | Blocking signal power (dBm) (see note 4) | Type of blocking signal | | | | | | | | |
| (-133 dBm + 10 × log ₁₀ (OCBW)) or -68 dBm whichever is less (see note 2) | 2 380 2 504 | -34 | CW | | | | | | | | |
| (-139 dBm + 10 × log ₁₀ (OCBW)) or -74 dBm whichever is less (see note 3) | 2 300 2 330 2 360 2 524 2 584 2 674 | | | | | | | | | | |

Performed measurements

| | |
|------------------------|--|
| Port under test | Antenna port |
| Test method applied | <input checked="" type="checkbox"/> Conducted measurement <input type="checkbox"/> Radiated measurement |
| Test setup | Refer to the Annex 3 for test setup photo(s). |
| Operating mode(s) used | Mode 2 |
| Remark | --- |

Results

| Test mode | Test Channel | Freq [MHz] | Wanted Signal Level [dBm] | CW Level [dBm] | PER [%] | Limit [%] | Verdict |
|-----------|--------------|-------------|---------------------------|----------------|---------|-----------|---------|
| 802.11 b | 2412 | 2380.000000 | -68 | -34 | 0.00 | <=10 | PASS |
| | 2412 | 2300.000000 | -74 | -34 | 0.00 | <=10 | PASS |
| | 2412 | 2330.000000 | -74 | -34 | 0.00 | <=10 | PASS |
| | 2412 | 2360.000000 | -74 | -34 | 0.00 | <=10 | PASS |
| | 2472 | 2504.000000 | -68 | -34 | 0.00 | <=10 | PASS |
| | 2472 | 2524.000000 | -74 | -34 | 0.00 | <=10 | PASS |
| | 2472 | 2584.000000 | -74 | -34 | 0.00 | <=10 | PASS |
| | 2472 | 2674.000000 | -74 | -34 | 0.00 | <=10 | PASS |

6 IDENTIFICATION OF THE EQUIPMENT UNDER TEST

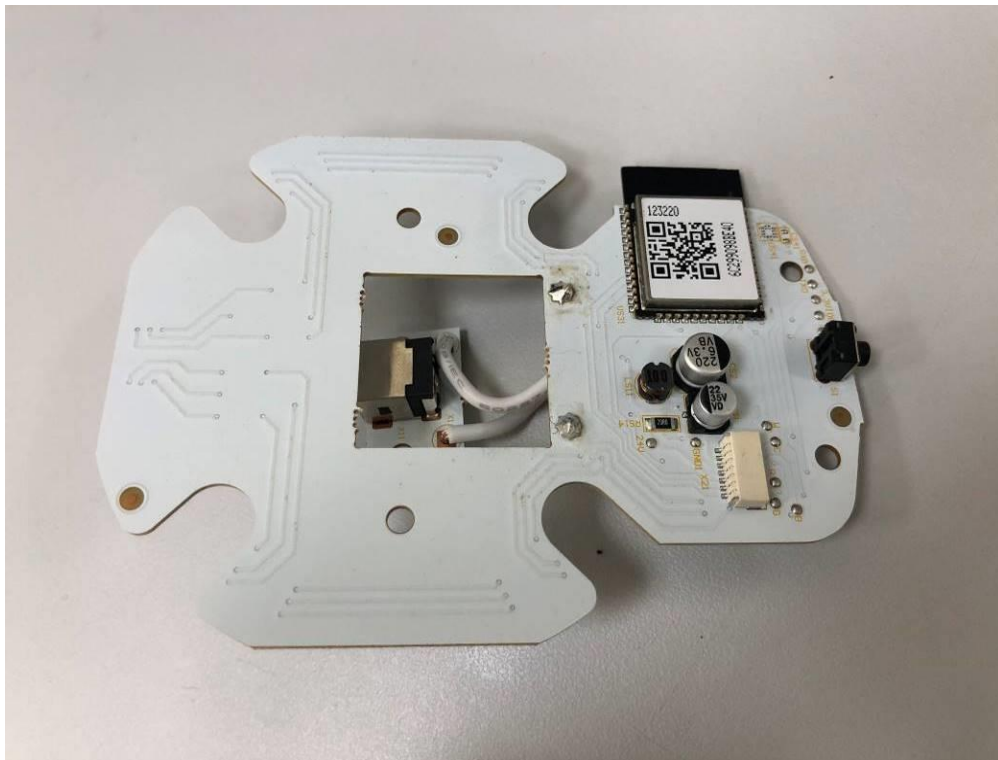
The photographs show the tested device.



Model 9290026903



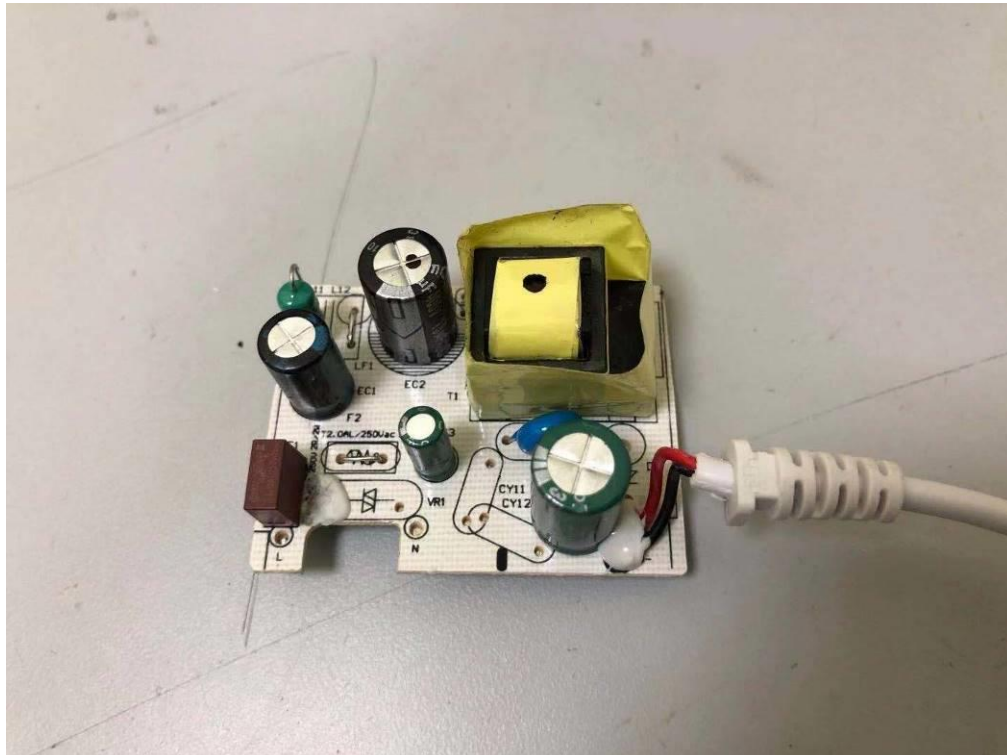
PCB



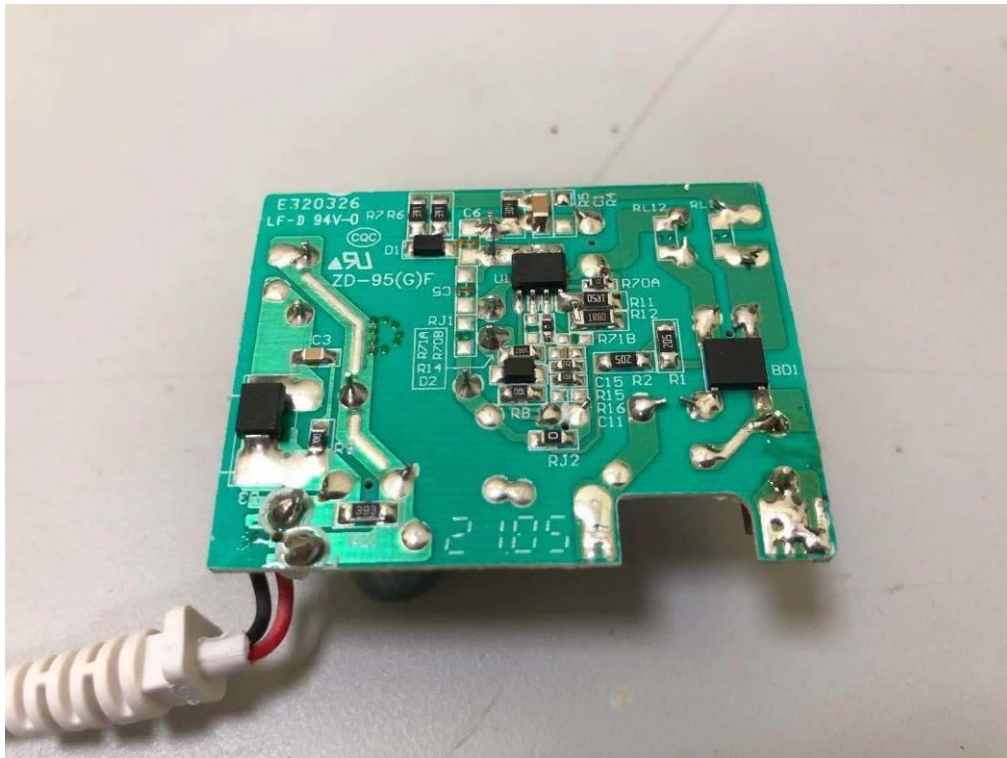
PCB



Adaptor



PCB of adaptor



PCB of adaptor

ANNEX 1 – MEASUREMENT UNCERTAINTY

| Test Item | Uncertainty |
|-----------------------------------|--------------------|
| Occupied Channel Bandwidth | $\pm 0,7\%$ |
| RF Output power, conducted | $\pm 0,6\text{dB}$ |
| Power Spectral Density, Conducted | $\pm 0,6\text{dB}$ |
| Unwanted Emissions, Conducted | $\pm 0.7\text{dB}$ |
| Spurious (30-1000MHz) | $\pm 4,4\text{dB}$ |
| Spurious (1-12,75GHz) | $\pm 4,4\text{dB}$ |

ANNEX 2 - USED EQUIPMENT

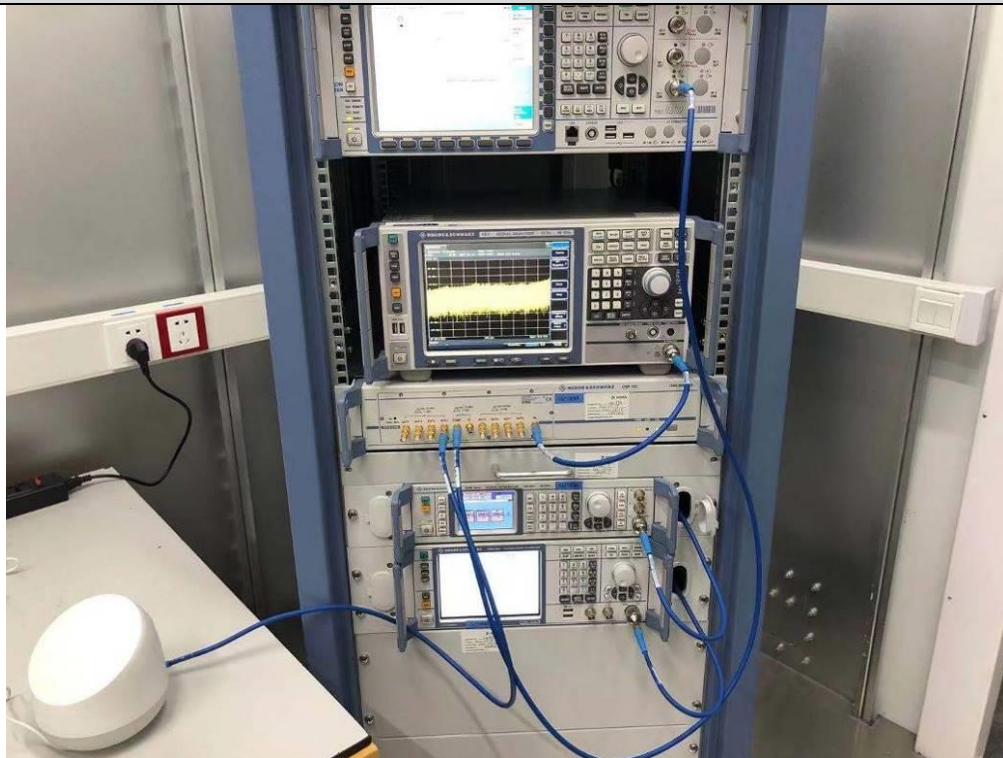
| Item | Instrumentation | Manufacturer | Model | Serial no. | DEKRA No. | Cal Due date |
|------|---|--------------|----------|------------|-----------|--------------|
| 1 | EMI receiver | R&S | ESCI | 101205 | G/L857 | 2021/08/21 |
| 2 | Antenna (30MHz-3GHz) | SCHWARZBECK | VULB9163 | 506 | G/L864 | 2021/11/02 |
| 3 | Antenna (1GHz-18GHz) | R&S | HF907 | 102306 | G/L1236 | 2022/02/23 |
| 4 | Horn antenna preamplifier | Schwarzbeek | SCU-18 | 102234 | G/L1236-1 | 2022/02/21 |
| 5 | Spectrum analyzer | R&S | FSV | SN101012 | G/L1235 | 2022/02/04 |
| 6 | Chamber | ETS | / | / | G/L856 | 2021/06/19 |
| 7 | OSP | R&S | OSP 150 | 101907 | GZ1893 | 2022/05/19 |
| 8 | Signal generator | R&S | SMB 100A | 181317 | GZ1895 | 2022/05/19 |
| 9 | Vector signal generator | R&S | SMBV100A | 263671 | GZ1896 | 2022/05/19 |
| 10 | Wireless connectivity tester | R&S | CMW 270 | 100990 | GZ1894 | 2022/05/19 |
| 11 | Programmable Temperature & Humidity Chamber | ESPEC | EL-10KA | 08107561 | G/L466 | 2021/10/19 |

ANNEX 3 - TEST PHOTOS

Radiated measurements



Conducted measurements



Normal temperature



Extreme temperature

--- END ---