| | | | | |
|---|---|---|---|---|
| **Test report no.:** *Prüfbericht-Nr.:* | **CN23L27E 002** | **Order No.:** *Auftragsnr.:* | 168444521 | **Page 1 of 21** *Seite 1 von 21* |
| **Client reference no.:** *Kunden-Referenz-Nr.:* | N/A | **Order date:** *Auftragsdatum:* | 2023-09-15 | |
| **Client:** *Auftraggeber:* | **Vestel Elektronik Sanayi ve Ticaret A.S.** Organize Sanayi Bolgesi, 45030 Manisa TURKEY | | | |
| **Test item:** *Prüfgegenstand:* | Remote controlled colour TV | | | |
| **Identification / Type no.:** *Bezeichnung / Typ-Nr.:* | 32FHA570 | | | |
| **Order content:** *Auftrags-Inhalt***:** | Test Report | | | |
| **Test specification** *Prüfgrundlage:* | CFR47 FCC Part 15: Subpart C Section 15.247<br>RSS-247 Issue 3 August 2023 | | | |
| **Date of sample receipt:** *Wareneingangsdatum:* | 2023-09-20 | Please refer to Photo Document | | |
| **Test sample no:** *Prüfmuster-Nr.:* | A003545033-001~002 | | | |
| **Testing period:** *Prüfzeitraum:* | 2023-09-23 to 2023-12-15 | | | |
| **Place of testing:** *Ort der Prüfung:* | Refer to section 2.1 | | | |
| **Testing laboratory:** *Prüflaboratorium:* | TÜV Rheinland (Shenzhen) Co., Ltd. | | | |
| **Test result*:** *Prüfergebnis*:* | Pass | | | |

| | | | |
|---|---|---|---|
| **tested by:** *geprüft von:* | x Bell Hu<br>Signed by: Bell Hu | **authorized by:** *genehmigt von:* | x Jonathan Li<br>Signed by: Jonathan Li |
| **Date:** 2024-04-02 *Datum:* | | **Issue date:** 2024-04-02 *Ausstellungsdatum:* | |
| **Position** / *Stellung*: | Expert/Sachverständige(r) | **Position** / *Stellung*: | Expert/Sachverständige(r) |

**Other:** *Sonstiges:* FCC ID: 2AVQS-32FHA570, IC: 25888-32FHA570, HVIN: 32FHA570, PMN: Remote controlled colour TV

**Condition of the test item at delivery:** *Zustand des Prüfgegenstandes bei Anlieferung:* Test item complete and undamaged / Prüfmuster vollständig und unbeschädigt

| | | | | |
|---|---|---|---|---|
| * Legend: | P(ass) = passed a.m. test specification(s) | F(ail) = failed a.m. test specification(s) | N/A = not applicable | N/T = not tested |
| * Legende: | P(ass) = entspricht o.g. Prüfgrundlage(n) | F(ail) = entspricht nicht o.g. Prüfgrundlage(n) | N/A = nicht anwendbar | N/T = nicht getestet |



V05

## Remarks
*Anmerkungen*

| | |
|---|---|
| **1** | The equipment used during the specified testing period was calibrated according to our test laboratory calibration program. The equipment fulfils the requirements included in the relevant standards. The traceability of the test equipment used is ensured by compliance with the regulations of our management system.<br>Detailed information regarding test conditions, equipment and measurement uncertainty is available in the test laboratory and could be provided on request.<br><br>*Alle eingesetzten Prüfmittel waren zum angegebenen Prüfzeitraum gemäß eines festgelegten Kalibrierungsprogramms unseres Prüfhauses kalibriert. Sie entsprechen den in den Prüfprogrammen hinterlegten Anforderungen. Die Rückverfolgbarkeit der eingesetzten Prüfmittel ist durch die Einhaltung der Regelungen unseres Managementsystems gegeben.*<br>*Detaillierte Informationen bezüglich Prüfkonditionen, Prüfequipment und Messunsicherheiten sind im Prüflabor vorhanden und können auf Wunsch bereitgestellt werden.* |
| **2** | As contractually agreed, this document has been signed digitally only. TUV Rheinland has not verified and unable to verify which legal or other pertaining requirements are applicable for this document. Such verification is within the responsibility of the user of this document. Upon request by its client, TUV Rheinland can confirm the validity of the digital signature by a separate document. Such request shall be addressed to our Sales department. An environmental fee for such additional service will be charged.<br><br>*Wie vertraglich vereinbart, wurde dieses Dokument nur digital unterzeichnet. Der TÜV Rheinland hat nicht überprüft, welche rechtlichen oder sonstigen diesbezüglichen Anforderungen für dieses Dokument gelten. Diese Überprüfung liegt in der Verantwortung des Benutzers dieses Dokuments. Auf Verlangen des Kunden kann der TÜV Rheinland die Gültigkeit der digitalen Signatur durch ein gesondertes Dokument bestätigen. Diese Anfrage ist an unseren Vertrieb zu richten. Eine Umweltgebühr für einen solchen zusätzlichen Service wird erhoben.* |
| **3** | Test clauses with remark of * are subcontracted to qualified subcontractors and descripted under the respective test clause in the report. Deviations of testing specification(s) or customer requirements are listed in specific test clause in the report.<br><br>*Prüfklausel mit der Note * wurden an qualifizierte Unterauftragnehmer vergeben und sind unter der jeweiligen Prüfklausel des Berichts beschrieben. Abweichungen von Prüfspezifikation(en) oder Kundenanforderungen sind in der jeweiligen Prüfklausel im Bericht aufgeführt.* |
| **4** | The decision rule for statements of conformity, based on numerical measurement results, in this test report is based on the “Zero Guard Band Rule” and “Simple Acceptance” in accordance with ILAC G8:2019 and IEC Guide 115:2021, unless otherwise specified in the applied standard mentioned on Page 1 of this report or requested by the customer. This means that measurement uncertainty is not taken in account and hence also not declared in the test report. For additional information to the resulting risk based of this decision rule please refer to ILAC G8:2019.<br><br>*Die Entscheidungsregel für Konformitätserklärungen basierend auf numerischen Messergebnisen in diesem Prüfbericht basiert auf der "Null-Grenzwert-Regel" und der "Einfachen Akzeptanz" gemäß ILAC G8:2019 und IEC Guide 115:2021, es sei denn, in der auf Seite 1 dieses Berichts genannten angewandten Norm ist etwas anderes festgelegt oder vom Kunden gewünscht. Dies bedeutet, dass die Messunsicherheit nicht berücksichtigt wird und daher auch nicht im Prüfbericht angegeben wird. Zu weiteren Informationen bezueglich des Risikos durch diese Entscheidungsregel siehe ILAC G8:2019.* |

# *Test Summary*

**5.1.1 ANTENNA REQUIREMENT**
*RESULT: Pass*

**5.1.2 MAXIMUM PEAK CONDUCTED OUTPUT POWER**
*RESULT: Pass*

**5.1.3 CONDUCTED POWER SPECTRAL DENSITY**
*RESULT: Pass*

**5.1.4 6DB BANDWIDTH**
*RESULT: Pass*

**5.1.5 99% BANDWIDTH**
*RESULT: Pass*

**5.1.6 CONDUCTED SPURIOUS EMISSIONS MEASURED IN 100 KHZ BANDWIDTH**
*RESULT: Pass*

**5.1.7 RADIATED SPURIOUS EMISSION**
*RESULT: Pass*

**5.1.8 AC CONDUCTED EMISSION**
*RESULT: Pass*

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# 1 General Remarks

## 1.1 Complementary Materials

All attachments are integral parts of this test report. This applies especially to the following appendix:

Appendix A: Photographs of Test Set-up

Appendix B: Test Results of Wi-Fi 802.11 b/g/n

# 2 Test Sites

## 2.1 Test Facilities

**TÜV Rheinland (Shenzhen) Co., Ltd.**

362 Huanguan Road Middle Longhua District, Shenzhen 518110 People's Republic of China

FCC Registration No.: 694916

ISED wireless device testing laboratory: 25069

**TÜV Rheinland (Guangdong) Ltd. EMC Laboratory**
No.102, 1F of Southwest and No.205, 2F of West Warehouse Building, No.767 Tianyuan Road, Tianhe District, Guangzhou, Guangdong, P.R.China

FCC Registration No.: CN1207
ISED wireless device testing laboratory: 2932C

Note: Except for AC power-line conducted emissions, all test items performed in TÜV Rheinland (Shenzhen) Co., Ltd.

## 2.2 List of Test and Measurement Instruments

**Table 1: List of Test and Measurement Equipment**

| **Radio Spectrum Testing (SRD-Tonscend)** | | | | |
|---|---|---|---|---|
| **Equipment** | **Manufacturer** | **Model** | **Serial No.** | **Cal. until** |
| EXA Signal Analyzer, Multi-touch | Keysight | N9010B | MY60241175 | 21.09.2024 |
| MXG X-Series RF Vector Signal Generator | Keysight | N5182B | MY61250137 | 21.09.2024 |
| EXG X-Series Microwave Analog Signal Generator | Keysight | N5173B | MY61250141 | 21.09.2024 |
| DC Power Supply | Keysight | E3642A | MY61276100 | 21.09.2024 |
| Wireless Connectivity Tester | R&S | CMW270 | 102505 | 21.09.2024 |
| Power Control Unit | Tonscend | JS0806-4ADC | N/A | 21.09.2024 |
| Automation Control Unit | Tonscend | JS0806-2 | 21C8060396 | 21.09.2024 |
| Test Software | Tonscend | JS1120-3 | N/A | N/A |
| Control PC | Lenovo | TianYi510S-071MB | YLX23JMF | N/A |
| **Unwanted Emission Testing (TS9975)** | | | | |
| **Equipment** | **Manufacturer** | **Model** | **Serial No.** | **Cal. until** |
| EMI Test Receiver | R&S | ESR 7 | 102021 | 25.07.2024 |
| Signal Analyzer | R&S | FSV 40 | 101439 | 25.07.2024 |
| System Controller Interface | R&S | SCI-100 | S10010038 | N/A |
| Filterbank | R&S | Wlan | 100759 | 25.07.2024 |
| OSP | R&S | OSP 120 | 102040 | N/A |
| Pre-amplifier | R&S | SCU08F1 | 08320031 | 25.07.2024 |
| Amplifier | R&S | SCU-18F | 180070 | 25.07.2024 |
| Amplifier | R&S | SCU40A | 100475 | 25.07.2024 |
| Trilog Broadband Antenna (30 MHz - 7 GHz) | Schwarzbeck | VULB 9162 | 193 | 06.08.2024 |
| Double-Ridged Antenna (1 -18 GHz) | ETS-LINDGREN | 3117 | 00218717 | 06.08.2024 |
| Wideband Ridged Horn Antenna (18-40 GHz) | Steatite | QMS-00880 | 19067 | 27.08.2024 |
| Active Loop Antenna | Schwarzbeck | FMZB 1513 | 302 | 06.08.2024 |
| Test software | R&S | EMC32 (V10.60.10) | N/A | N/A |
| Control PC | Dell | OptiPlex 7050 | 36NV9P2 | N/A |
| 3m Semi-Anechoic Chamber | Albatross | SAC-3m | APC17151-SAC | 22.06.2024 |

| Conducted Emissions | | | | |
|---|---|---|---|---|
| **Equipment** | **Manufacturer** | **Model No.** | **Serial No.** | **Cal. Until** |
| EMI Test Receiver | R&S | ESU 26 | 100209 | 2024-03-01 |
| Artificial Mains Network | R&S | ENV216 | 100195 | 2024-05-25 |
| EMC32 test software | R&S | EMC32(Ver.10.50.00) | N/A | N/A |

## 2.3 Traceability

All measurement equipment calibrations are traceable to NIM (National Institute of Metrology) or where calibration is performed in other countries, to equivalent nationally recognized standards organizations.

## 2.4 Calibration

Equipment requiring calibration is calibrated periodically by the manufacturer or according to manufacturer's specifications. Additionally all equipment is verified for proper performance on a regular basics using in house standards or comparisons.

## 2.5 Measurement Uncertainty

The estimated combined standard uncertainty for radiated emissions and conducted emissions measurements as below table.

| Parameter | Uncertainty |
|---|---|
| Radio Frequency | ±1 x 10-7 |
| RF Power (conducted) | ±2.5 dB |
| Radiated Emission of Transmitter, valid up to 26.5 GHz | ±6 dB |
| Radiated Emission of Receiver, valid up to 26.5 GHz | ±6 dB |
| Temperature | ±1 °C |
| Humidity | ±5 % |
| Voltage (DC) | ±1 % |
| Voltage (AC, <10kHz) | ±2 % |

## 2.6 Location of Original Data

The original copies of all test data taken during actual testing were attached at Appendix A & B of this report and delivered to the applicant. A copy has been retained in the TÜV Rheinland (Shenzhen) Co., Ltd. file for certification follow-up purposes.

## 2.7 Status of Facility Used for Testing

The TÜV Rheinland (Shenzhen) Co., Ltd. Test facility located at 362 Huanguan Road Middle Longhua District, Shenzhen 518110 People's Republic of China is listed on the US Federal Communications Commission list of facilities approved to perform measurements.

# 3 General Product Information

## 3.1 Product Function and Intended Use

The Product is Remote controlled colour TV, which supports Bluetooth, 2.4GHz Wi-Fi 802.11 b/g/n and 5GHz Wi-Fi 802.11a/b/g/n/ac wireless technology.

For details refer to the User Manual, Technical Description and Circuit Diagram.

## 3.2 Ratings and System Details

**Table 2: Technical Specification of EUT**

| **General Information of EUT** | **Value** |
|---|---|
| Kind of Equipment: | Remote controlled colour TV |
| Type Designation: | 32FHA570 |
| FCC ID: | 2AVQS-32FHA570 |
| IC: | 25888-32FHA570 |
| PMN: | Remote controlled colour TV |
| HVIN: | 32FHA570 |
| Operating Voltage: | AC 100-240V, 50/60Hz |
| Antenna Type: | Integral Antennas |
| Antenna Gain: | **Wi-Fi Antenna 1#:**<br>Max gain 3.4dBi for 2.4GHz Wi-Fi<br>Max gain 2.97dBi for 5GHz Wi-Fi U-NII-1 and U-NII-2A<br>Max gain 3.69dBi for 5GHz Wi-Fi U-NII-2C<br>Max gain 2.89dBi for 5GHz Wi-Fi U-NII-3<br>**Wi-Fi Antenna 2#:**<br>Max gain 2.14dBi for 2.4GHz Wi-Fi<br>Max gain 3.7dBi for 5GHz Wi-Fi U-NII-1 and U-NII-2A<br>Max gain 3.68dBi for 5GHz Wi-Fi U-NII-2C<br>Max gain 2.83dBi for 5GHz Wi-Fi U-NII-3<br>**BT Antenna #:**<br>Max gain 0.29dBi for Bluetooth |
| **Technical Specification of** Bluetooth (Dual Mode) | |
| Operating Frequency: | 2402 MHz to 2480 MHz |
| Type of Modulation: | GFSK, π/4-DQPSK, 8DPSK |
| Channel Number: | 79 channels, BDR & EDR<br>40 channels, BLE |
| Channel Separation: | 1MHz (for EDR & BDR), 2MHz (for BLE) |
| **Technical Specification of Wi-Fi 802.11 b/g/n** | |
| Operating Frequency: | 2412 - 2462 MHz for 802.11b/g/n(HT20)<br>2422 - 2452 MHz for 802.11n(HT40) |
| Type of Modulation: | DSSS(DBPSK/DQPSK/CCK)<br>OFDM(BPSK/QPSK/16QAM/64QAM) |
| Data Rate: | 1/2/5.5/11 Mbps for 802.11b<br>6/9/12/18/24/36/48/54 Mbps for 802.11g<br>MCS0 ~ MCS7 for 802.11n |

| | |
|---|---|
| Channel Number: | 11 channels for 802.11b/g/n(HT20)<br>7 channels for 802.11n(HT40) |
| Channel Separation: | 5 MHz |
| MIMO and SISO mode: | SISO for 802.11b/g; MIMO and SISO for 802.11n |
| Beamforming: | N/A |
| **Technical Specification of Wi-Fi 802.11 a/n/ac** | |
| Operating Frequency: | 5180-5320MHz, 5500-5700MHz, 5745-5825MHz |
| Type of Modulation: | OFDM(BPSK/QPSK/16QAM/64QAM/256QAM) |
| Operating Modes: | 802.11 a/n20/n40/ac20/ac40/ac80 |
| Channel Separation | 5 MHz |
| MIMO and SISO mode: | SISO for 802.11a; MIMO and SISO for 802.11n/ac |
| Beamforming: | N/A |
| DFS: | Slave without DFS Detection |

## 3.3 Independent Operation Modes

The basic operation modes are:

A. On, Wi-Fi 802.11 b/g/n wireless transmitting mode
   1) Low Channel
   2) Middle Channel
   3) High Channel

B. On, Wi-Fi 802.11 b/g/n connecting mode

C. Off

## 3.4 Noise Generating and Noise Suppressing Parts

Refer to Circuit Diagram for further details.

## 3.5 Submitted Documents

- Application Form
- Block Diagram
- User Manual
- Operation Description

# 4 Test Set-up and Operation Modes

## 4.1 Principle of Configuration Selection

**Radio Spectrum:** The equipment under test (EUT) was configured at its highest power output in order to measure its highest possible radiation and conducted level. The test modes were adapted accordingly in reference to the instructions for use.

**Emission:** The equipment under test (EUT) was configured to measure its highest possible radiation level. The test modes were adapted accordingly in reference to the instructions for use.

## 4.2 Test Operation and Test Software

Test operation refers to test setup in chapter 5. All tests were performed according to the procedures in ANSI C63.10: 2013.

According to clause 3.1, all tests were performed in this report.

**Table 3: Test environments**

| Environment Parameter | Selected Values During Tests | | |
|---|---|---|---|
| | Temperature | Voltage | Relative Humidity |
| NTNV | 24.6°C | DC 5.0V for conducted signal test<br>AC 120V for Radiated test and AC power-line conducted emissions | Ambient |

**Table 4: Test channel and frequency**

| Mode | Test Channels |
|---|---|
| 802.11b/g/n(HT20) | L: CH01, 2412MHz; M: CH06, 2437MHz; H: CH11, 2462MHz |
| 802.11b/g/n(HT40) | L: CH03, 2422MHz; M: CH06, 2437MHz; H: CH09, 2452MHz |

## 4.3 Special Accessories and Auxiliary Equipment

**Table 5: Auxiliary Equipment Used during Test**

| Description | Manufacturer | Model | S/N | Rating |
|---|---|---|---|---|
| Laptop | Lenovo | T480 | PF-16A6N8 | N/A |
| Test jig | Vestel Elektronik Sanayi ve Ticaret A.S. | 17WFM26Y | N/A | DC 5V |

## 4.4 Countermeasures to Achieve EMC Compliance

The test sample which has been tested contained the noise suppression parts as described in the Technical Construction File (TCF).

No additional measures were employed to achieve compliance.

# 4.5 Test Setup Diagram

**Diagram of Measurement Configuration for Radiation Test (Below 1GHz)**

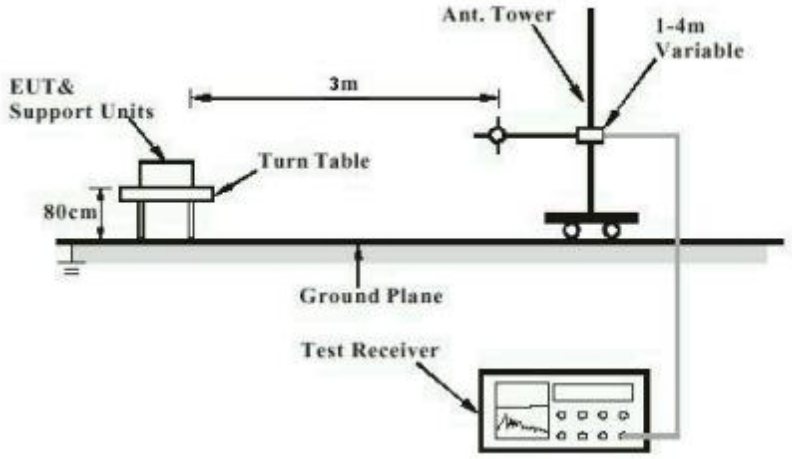



**Diagram of Measurement Configuration for Radiation Test (Above 1GHz)**

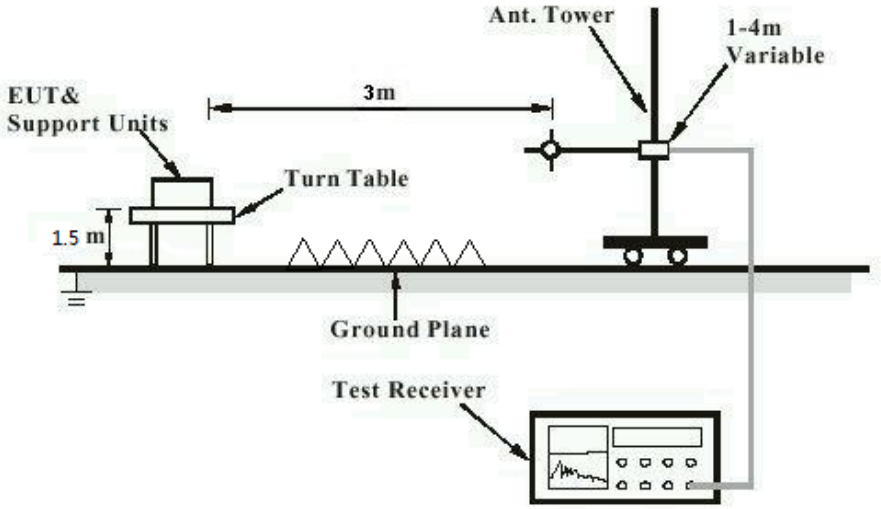
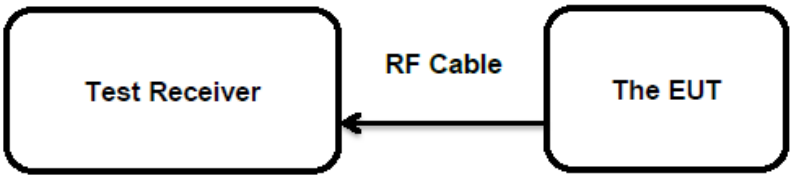



**Diagram of Measurement Configuration for Conducted Transmitter Measurement**



# 5 Test Results

## 5.1 Transmitter Requirement & Test Suites

### 5.1.1 Antenna Requirement

**RESULT:** **Pass**

**Test Specification**

Test standard : FCC Part 15.247(b)(4) and Part 15.203
RSS-Gen Clause 6.8

The EUT has integral antennas with a unique connector, which is designed with permanent attachment and no consideration of replacement. The maximum antenna gain is 3.4 dBi.

Therefore, the EUT is considered sufficient to comply with the provision.

Refer to EUT Photo for further details.

## 5.1.2 Maximum Peak Conducted Output Power

**RESULT:** **Pass**

**Test Specification**

| | | |
|---|---|---|
| Test standard | : | FCC Part 15.247(b)(3)<br>RSS-247 Clause 5.4(d) |
| Basic standard | : | ANSI C63.10: 2013 |
| Limits | : | 1.0 Watts |
| Kind of test site | : | Shielded Room |

**Test Setup**

| | | |
|---|---|---|
| Date of testing | : | 2023-10-02 to 2023-10-20 |
| Input voltage | : | DC 5.0V |
| Operation mode | : | A |
| Test channel | : | Low / Middle / High |
| Ambient temperature | : | 24.6 ℃ |
| Relative humidity | : | 55 % |
| Atmospheric pressure | : | 101 kPa |

**Table 6: Test Result of Maximum Peak Output Power, Wi-Fi 802.11 b/g/n**

| Test Mode | Test Channel (MHz) | Maximum Peak output power | | | Maximum Average Conducted output power (For reference only) | | | Limit (W) |
|---|---|---|---|---|---|---|---|---|
| | | SISO Ant 1# (dBm) | SISO Ant 2# (dBm) | MIMO (Ant 1#+ Ant 2#) (dBm) | SISO Ant 1# (dBm) | SISO Ant 2# (dBm) | MIMO (Ant 1#+ Ant 2#) (dBm) | |
| 802.11b | 2412 | 18.86 | 18.85 | / | 16.45 | 16.57 | / | < 1.0 |
| | 2437 | 20.41 | 19.72 | / | 17.82 | 17.14 | / | |
| | 2462 | 19.19 | 19.10 | / | 16.71 | 16.50 | / | |
| 802.11g | 2412 | 24.25 | 24.60 | / | 17.00 | 17.11 | / | |
| | 2437 | 24.94 | 24.63 | / | 17.99 | 17.68 | / | |
| | 2462 | 24.05 | 24.08 | / | 16.98 | 16.95 | / | |
| 802.11n (HT20) | 2412 | 22.76 | 23.12 | 25.95 | 15.99 | 16.07 | 19.04 | |
| | 2437 | 23.69 | 23.45 | 26.58 | 17.12 | 16.33 | 19.75 | |
| | 2462 | 22.73 | 22.89 | 25.82 | 15.92 | 15.85 | 18.90 | |
| 802.11n (HT40) | 2422 | 19.99 | 20.26 | 23.14 | 13.12 | 12.95 | 16.05 | |
| | 2437 | 21 | 20.89 | 23.96 | 14.26 | 13.51 | 16.91 | |
| | 2452 | 21.16 | 20.88 | 24.03 | 14.07 | 13.29 | 16.71 | |
| **Maximum Measured Value** | | 26.58 dBm | | | | | | |

Note:
1) The cable loss is taken into account in results.
2) e.i.r.p.=$P_{(Peak\ power)}$+ G, which is below the 4 W

## 5.1.3 Conducted Power Spectral Density

**RESULT:** **Pass**

**Test Specification**

| | | |
|---|---|---|
| Test standard | : | FCC Part 15.247(e)<br>RSS-247 Clause 5.2(b) |
| Basic standard | : | ANSI C63.10: 2013 |
| Limits | : | < 8 dBm / 3kHz |
| Kind of test site | : | Shielded Room |

**Test Setup**

| | | |
|---|---|---|
| Date of testing | : | 2023-10-07 |
| Input voltage | : | DC 5.0V |
| Operation mode | : | A |
| Test channel | : | Low / Middle / High |
| Ambient temperature | : | 24.6 ℃ |
| Relative humidity | : | 55 % |
| Atmospheric pressure | : | 101 kPa |

For the measurement records, refer to the appendix B.

## 5.1.4 6dB Bandwidth

**RESULT:** **Pass**

**Test Specification**

| | | |
|---|---|---|
| Test standard | : | FCC Part 15.247(a)(2)<br>RSS-247 Clause 5.2(a) |
| Basic standard | : | ANSI C63.10: 2013 |
| Limits | : | > 500 KHz |
| Kind of test site | : | Shielded Room |

**Test Setup**

| | | |
|---|---|---|
| Date of testing | : | 2023-10-07 |
| Input voltage | : | DC 5.0V |
| Operation mode | : | A |
| Test channel | : | Low / Middle / High |
| Ambient temperature | : | 24.6 ℃ |
| Relative humidity | : | 55 % |
| Atmospheric pressure | : | 101 kPa |

For the measurement records, refer to the appendix B.

## 5.1.5 99% Bandwidth

**RESULT:** **Pass**

**Test Specification**

| | | |
|---|---|---|
| Test standard | : | FCC Part 15.247(a)<br>RSS-Gen Clause 6.7 |
| Basic standard | : | ANSI C63.10: 2013 |
| Kind of test site | : | Shielded Room |

**Test Setup**

| | | |
|---|---|---|
| Date of testing | : | 2023-10-07 |
| Input voltage | : | DC 5.0V |
| Operation mode | : | A |
| Test channel | : | Low / Middle / High |
| Ambient temperature | : | 24.6 ℃ |
| Relative humidity | : | 55 % |
| Atmospheric pressure | : | 101 kPa |

For the measurement records, refer to the appendix B.

## 5.1.6 Conducted Spurious Emissions Measured in 100 kHz Bandwidth

**RESULT:** **Pass**

**Test Specification**

| | | |
|---|---|---|
| Test standard | : | FCC Part 15.247(d)<br>RSS-247 Clause 5.1(b) |
| Basic standard | : | ANSI C63.10: 2013 |
| Limits | : | If the tested output power based on peak test:<br>At least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power.<br><br>If the tested output power based on RMS averaging over a time interval:<br>At least 30 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power.<br>In addition, radiated emissions which fall in the restricted bands, must also comply with the radiated emission limits specified in 15.209(a) |
| Kind of test site | : | Shielded Room |

**Test Setup**

| | | |
|---|---|---|
| Date of testing | : | 2023-10-07 |
| Input voltage | : | DC 5.0V |
| Operation mode | : | A |
| Test channel | : | Low / Middle / High |
| Ambient temperature | : | 24.6 ℃ |
| Relative humidity | : | 55 % |
| Atmospheric pressure | : | 101 kPa |

Test results of 100kHz Bandwidth of Frequency Band Edge by Conducted method refer to test plots, and compliance is achieved as well.
For the measurement records, refer to the appendix B.

## 5.1.7 Radiated Spurious Emission

**RESULT:** **Pass**

**Test Specification**

| | | |
|---|---|---|
| Test standard | : | FCC Part 15.247(d) & FCC Part 15.205<br>RSS-247 Clause 3.3 |
| Basic standard | : | ANSI C63.10: 2013 |
| Limits | : | Refer to 15.209(a) of FCC part 15.247(d)<br>RSS-Gen Table 5 |
| Kind of test site | : | 3m Semi-anechoic Chamber |

**Test Setup**

| | | |
|---|---|---|
| Date of testing | : | 2023-11-21 to 2023-11-25 |
| Input voltage | : | 120V AC |
| Operation mode | : | A |
| Test channel | : | Low / Middle / High |
| Ambient temperature | : | Refer to test result |
| Relative humidity | : | Refer to test result |
| Atmospheric pressure | : | 101 kPa |

Remark:
Testing was carried out within frequency range 9kHz to the tenth harmonics. Only the worst-case spurious emissions configuration of the each mode were reported.

For the measurement records, refer to the appendix B.

## 5.1.8 AC Conducted Emission

**RESULT:** **Pass**

**Test Specification**

| | | |
|---|---|---|
| Test standard | : | FCC Part 15.207(a)<br>RSS-GEN clause 8.8 |
| Basic standard | : | ANSI C63.10: 2013 |
| Frequency range | : | 0.15 – 30MHz |
| Limits | : | FCC Part 15.207(a) |
| Kind of test site | : | Shielded Room |

**Test Setup**

| | | |
|---|---|---|
| Date of testing | : | 2023-11-25 |
| Input voltage | : | 120V AC |
| Operation mode | : | B |
| Earthing | : | Not connected |
| Ambient temperature | : | Refer to test result |
| Relative humidity | : | Refer to test result |
| Atmospheric pressure | : | 101 kPa |

For the measurement records, refer to the appendix B .
All modes tested, only the worst-case reported.

# 6 Photographs of the Test Set-Up

For photographs of the test set-up, refer to the appendix A.

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