

Test Report

Report No.: MTi240509008-08E2

Date of issue: 2024-06-03

Applicant: Shenzhen Baseus Technology Co., Ltd.

Product: Baseus SafeJourney Series Wireless CarPlay Adapter

Model(s): BS-CG027

FCC ID: 2A482-BSCG027

Shenzhen Microtest Co., Ltd. http://www.mtitest.cn



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| Test Result Certification | | | |
|---------------------------|--|--|--|
| Applicant: | Shenzhen Baseus Technology Co., Ltd. | | |
| Address: | 2nd Floor, Building B, Baseus Intelligence Park, No.2008, Xuegang Rd, Gangtou Community, Bantian Street, Longgang District, Shenzhen, China. | | |
| Manufacturer: | Shenzhen Baseus Technology Co., Ltd. | | |
| Address: | 2nd Floor, Building B, Baseus Intelligence Park, No.2008, Xuegang Rd, Gangtou Community, Bantian Street, Longgang District, Shenzhen, China. | | |
| Factory: | Shenzhen Anaijia Electronics Co. , Ltd. | | |
| Address: | Shenzhen Longhua district, Dalong Street, Hua Fan road, Quanxinyuan industrial zone, building 3 | | |
| Product description | | | |
| Product name: | Baseus SafeJourney Series Wireless CarPlay Adapter | | |
| Trademark: | baseus | | |
| Model name: | BS-CG027 | | |
| Series Model(s): | N/A | | |
| Standards: | 47 CFR Part 15E | | |
| Test Method: | KDB 789033 D02 General UNII Test Procedures New Rules v02r01 ANSI C63.10-2013 | | |
| Date of Test | | | |
| Date of test: | 2024-05-21 to 2024-05-31 | | |
| Test result: | Pass | | |

| Test Engineer : | : | Yanice Xie |
|-----------------|---|--------------|
| | | (Yanice.Xie) |
| Reviewed By : | : | David. Cee |
| | | (David Lee) |
| Approved By : | | leon chen |
| | | (Leon Chen) |



1 General Description

1.1 Description of the EUT

| • | |
|----------------------------|--|
| Product name: | Baseus SafeJourney Series Wireless CarPlay Adapter |
| Model name: | BS-CG027 |
| Series Model(s): | N/A |
| Model difference: | N/A |
| Electrical rating: | Input:5V 1A(Max) |
| Accessories: | N/A |
| Hardware version: | 2705-240416 |
| Software version: | BS-CG027-V01 20240401 |
| Test sample(s) number: | MTi240509008-08S1001 |
| RF specification | |
| Operating frequency range: | 802.11a/n(HT20): U-NII Band 1: 5180MHz to 5240MHz; 802.11n(HT40): U-NII Band 1: 5190MHz to 5230MHz; |
| Channel number: | 802.11a/n(HT20): U-NII Band 1: 4; 802.11n(HT40): U-NII Band 1: 2; |
| Modulation type: | 802.11a: OFDM(BPSK, QPSK, 16QAM, 64QAM); 802.11n: OFDM (BPSK, QPSK, 16QAM, 64QAM); |
| Antenna(s) type: | PCB Antenna |
| Antenna(s) gain: | 2.27 dBi |

1.2 Description of test modes

| No. | No. Emission test modes | |
|-------|-------------------------|--|
| Mode1 | 802.11a mode | |
| Mode2 | 802.11n20 mode | |
| Mode3 | 802.11n40 mode | |

1.2.1 Operation channel list

U-NII Band 1

| - ···· - ··· - · · · · · · · · · · · · | | | | | |
|--|-----------------|------------|-----------------|--|--|
| Bandwidth: | 20MHz | Bandwidth: | 40MHz | | |
| Channel | Frequency (MHz) | Channel | Frequency (MHz) | | |
| 36 | 5180 | 38 | 5190 | | |
| 40 | 5200 | 46 | 5230 | | |
| 44 | 5220 | 1 | 1 | | |
| 48 | 5240 | 1 | 1 | | |

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Test Channel List

Operation Band: 5150-5250 MHz

| Bandwidth | Lowest Channel (LCH) | Middle Channel (MCH) | Highest Channel (HCH) |
|-----------|----------------------|----------------------|-----------------------|
| (MHz) | (MHz) | (MHz) | (MHz) |
| 20 | 5180 | 5200 | 5240 |
| 40 | 5190 | / | 5230 |

Note: The test software provided by manufacturer is used to control EUT for working in engineering mode, that enables selectable channel, and capable of continuous transmitting mode.

Test Software:

For power setting, refer to below table.

| Mode | LCH | MCH | HCH |
|---------------|-----|-----|-----|
| 802.11a | 105 | 105 | 105 |
| 802.11n(HT20) | 105 | 105 | 105 |
| 802.11n(HT40) | 105 | 105 | 105 |



1.3 Environmental Conditions

During the measurement the environmental conditions were within the listed ranges:

| Temperature: | 15°C ~ 35°C |
|-----------------------|------------------|
| Humidity: | 20% RH ~ 75% RH |
| Atmospheric pressure: | 98 kPa ~ 101 kPa |

1.4 Description of support units

| Support equipment list | | | | | |
|------------------------|--------------|----------------|--------------|--|--|
| Description | Model | Serial No. | Manufacturer | | |
| HUAWEI CHARGE(10W) | HW-050200C02 | K95212KA103561 | HUAWEI | | |
| Support cable list | | | | | |
| Description | Length (m) | From | То | | |
| 1 | 1 | 1 | / | | |

1.5 Measurement uncertainty

| Measurement | Uncertainty |
|--|-------------|
| Conducted emissions (AMN 150kHz~30MHz) | ±3.1dB |
| Time | ±1 % |
| RF output power, conducted | ±1 dB |
| Power Spectral Density, conducted | ±1 dB |
| Occupied channel bandwidth | ±3 % |
| Radiated spurious emissions (above 1GHz) | ±5.3dB |
| Radiated spurious emissions (9kHz~30MHz) | ±4.3dB |
| Radiated spurious emissions (30MHz~1GHz) | ±4.7dB |
| Temperature | ±1 °C |
| Humidity | ± 5 % |

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.



2 Summary of Test Result

| No. | Item | Requirement | Result |
|-----|---|---|--------|
| 1 | Antenna requirement | Part 15.203 | Pass |
| 2 | Conducted Emission at AC power line | 47 CFR Part 15.207(a) | N/A |
| 3 | Duty Cycle | | Pass |
| 4 | Maximum conducted output power | 47 CFR Part 15.407(a)(1)(ii) 47 CFR Part 15.407(a)(1)(iii) 47 CFR Part 15.407(a)(1)(iv) | Pass |
| 5 | Power spectral density | 47 CFR Part 15.407(a)(1)(ii) 47 CFR Part 15.407(a)(1)(iii) 47 CFR Part 15.407(a)(1)(iv) | Pass |
| 6 | Emission bandwidth and occupied bandwidth | U-NII 1, U-NII 2A, U-NII 2C: No limits, only for report use. | Pass |
| 7 | Band edge emissions (Radiated) | 47 CFR Part 15.407(b)(1) 47 CFR Part 15.407(b)(10) | Pass |
| 8 | Undesirable emission limits (below 1GHz) | 47 CFR Part 15.407(b)(9) | Pass |
| 9 | Undesirable emission limits (above 1GHz) | 47 CFR Part 15.407(b)(1) 47 CFR Part 15.407(b)(10) | Pass |

Notes:

- 1.N/A means not applicable.
- 2. Since the EUT power by DC supply, therefore AC power line conducted emissions test is not required.



3 Test Facilities and accreditations

3.1 Test laboratory

| Test laboratory: | Shenzhen Microtest Co., Ltd. |
|------------------------|--|
| Test site location: | 101, No.7, Zone 2, Xinxing Industrial Park, Fuhai Avenue, Xinhe Community, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China |
| Telephone: | (86-755)88850135 |
| Fax: | (86-755)88850136 |
| CNAS Registration No.: | CNAS L5868 |
| FCC Registration No.: | 448573 |
| IC Registration No.: | 21760 |
| CABID: | CN0093 |



4 List of test equipment

| No. | Equipment | Manufacturer | Model | Serial No. | Cal. date | Cal. Due | | | | |
|-----|---|------------------------------|--------------------------------------|------------|------------|------------|--|--|--|--|
| | | Conducted En | nission at AC po | wer line | <u> </u> | | | | | |
| 1 | EMI Test Receiver | Rohde&schwarz | ESCI3 | 101368 | 2024-03-20 | 2025-03-19 | | | | |
| 2 | Artificial mains network | Schwarzbeck | NSLK 8127 | 183 | 2024-03-21 | 2025-03-20 | | | | |
| 3 | Artificial Mains Network | Rohde & Schwarz | ESH2-Z5 | 100263 | 2024-03-20 | 2025-03-19 | | | | |
| | Duty Cycle Maximum conducted output power Power spectral density Emission bandwidth and occupied bandwidth | | | | | | | | | |
| 1 | Wideband Radio Communication Tester | Rohde&schwarz | CMW500 | 149155 | 2024-03-20 | 2025-03-19 | | | | |
| 2 | ESG Series Analog Ssignal Generator | Agilent | E4421B | GB40051240 | 2024-03-21 | 2025-03-20 | | | | |
| 3 | PXA Signal Analyzer | Agilent | N9030A | MY51350296 | 2024-03-21 | 2025-03-20 | | | | |
| 4 | Synthesized Sweeper | Agilent | 83752A | 3610A01957 | 2024-03-21 | 2025-03-20 | | | | |
| 5 | MXA Signal Analyzer | Agilent | N9020A | MY50143483 | 2024-03-21 | 2025-03-20 | | | | |
| 6 | RF Control Unit | Tonscend | JS0806-1 | 19D8060152 | 2024-03-21 | 2025-03-20 | | | | |
| 7 | Band Reject Filter Group | Tonscend | JS0806-F | 19D8060160 | 2024-03-21 | 2025-03-20 | | | | |
| 8 | ESG Vector Signal Generator | Agilent | N5182A | MY50143762 | 2024-03-20 | 2025-03-19 | | | | |
| 9 | DC Power Supply | Agilent | E3632A | MY40027695 | 2024-03-21 | 2025-03-20 | | | | |
| | | Band edge Undesirable emi | emissions (Radi ssion limits (abo | | | | | | | |
| 1 | EMI Test Receiver | Rohde&schwarz | ESCI7 | 101166 | 2024-03-20 | 2025-03-19 | | | | |
| 2 | Double Ridged Broadband Horn Antenna | schwarabeck | BBHA 9120 D | 2278 | 2023-06-17 | 2025-06-16 | | | | |
| 3 | Amplifier | Agilent | 8449B | 3008A01120 | 2024-03-20 | 2025-03-19 | | | | |
| 4 | MXA signal analyzer | Agilent | N9020A | MY54440859 | 2024-03-21 | 2025-03-20 | | | | |
| 5 | PXA Signal Analyzer | Agilent | N9030A | MY51350296 | 2024-03-21 | 2025-03-20 | | | | |
| 6 | Horn antenna | Schwarzbeck | BBHA 9170 | 00987 | 2023-06-17 | 2025-06-16 | | | | |
| 7 | Pre-amplifier | Space-Dtronics | EWLAN1840 G | 210405001 | 2024-03-21 | 2025-03-20 | | | | |
| | Undesirable emission limits (below 1GHz) | | | | | | | | | |
| 1 | EMI Test Receiver | Rohde&schwarz | ESCI7 | 101166 | 2024-03-20 | 2025-03-19 | | | | |
| 2 | TRILOG Broadband Antenna | schwarabeck | VULB 9163 | 9163-1338 | 2023-06-11 | 2025-06-10 | | | | |
| 3 | Active Loop Antenna | Schwarzbeck | FMZB 1519 B | 00066 | 2024-03-23 | 2025-03-22 | | | | |
| 4 | Amplifier | Hewlett-Packard | 8447F | 3113A06184 | 2024-03-20 | 2025-03-19 | | | | |



5 Evaluation Results (Evaluation)

5.1 Antenna requirement

| Test Requirement: | Refer to 47 CFR Part 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. |
|-------------------|---|
|-------------------|---|

5.1.1 Conclusion:

The antenna of the EUT is permanently attached.
The EUT complies with the requirement of FCC PART 15.203.



6 Radio Spectrum Matter Test Results (RF)

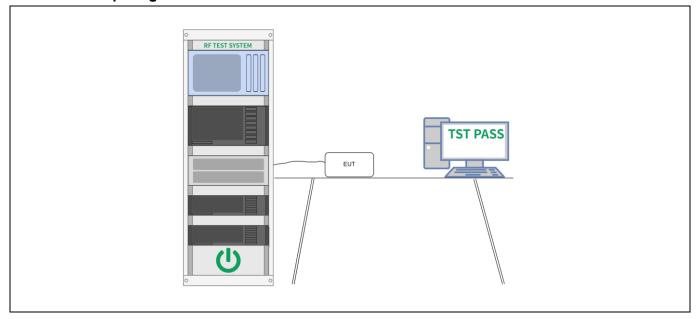
6.1 Duty Cycle

| Test Requirement: | All measurements are to be performed with the EUT transmitting at 100% duty cycle at its maximum power control level; however, if 100% duty cycle cannot be achieved, measurements of duty cycle, x, and maximum-power transmission duration, T, are required for each tested mode of operation. |
|-------------------|--|
| Test Limit: | No limits, only for report use. |
| Test Method: | ANSI C63.10-2013 section 12.2 (b) |
| Procedure: | i) Set the center frequency of the instrument to the center frequency of the transmission. ii) Set RBW >= EBW if possible; otherwise, set RBW to the largest available value. iii) Set VBW >= RBW. iv) Set detector = peak. v) The zero-span measurement method shall not be used unless both RBW and VBW are > 50/T, where T is defined in item a1) of 12.2, and the number of sweep points across duration T exceeds 100. |

6.1.1 E.U.T. Operation:

| Operating Envi | Operating Environment: | | | | | | | | |
|-----------------|--------------------------------------|--|-----------|--------|--|-----------------------|---------|--|--|
| Temperature: | 28 °C | | Humidity: | 35.5 % | | Atmospheric Pressure: | 100 kPa | | |
| Pre test mode: | Pre test mode: Mode1, Mode2, Mode3 | | | | | | | | |
| Final test mode | Final test mode: Mode1, Mode2, Mode3 | | | | | | | | |

6.1.2 Test Setup Diagram:



6.1.3 Test Data:

Please Refer to Appendix for Details.



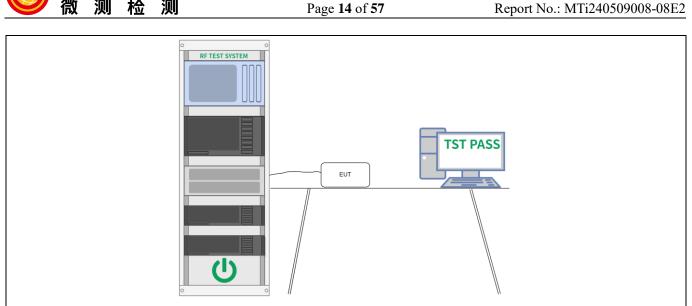
6.2 Maximum conducted output power

| Test Requirement: | 47 CFR Part 15.407(a)(1)(ii) 47 CFR Part 15.407(a)(1)(iii) 47 CFR Part 15.407(a)(1)(iv) |
|-------------------------|---|
| Test Limit: | For an indoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. |
| | For fixed point-to-point access points operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. |
| | Fixed point-to-point U-NII devices may employ antennas with directional gain up to 23 dBi without any corresponding reduction in the maximum conducted output power. |
| | For fixed point-to-point transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in maximum conducted output power is required for each 1 dB of antenna gain in excess of 23 dBi. |
| | Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations. |
| | For client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum conducted output power shall be reduced by the amount in dB that |
| Toot Mothed: | the directional gain of the antenna exceeds 6 dBi. ANSI C63.10-2013, section 12.3.2.2 |
| Test Method: Procedure: | Refer to ANSI C63.10-2013 section 12.3.2.2 |

6.2.1 E.U.T. Operation:

| Operating Environment: | | | | | | | | |
|------------------------|-------|------------|------------|--------|----|----------------------|---------|--|
| Temperature: | 28 °C | | Humidity: | 35.5 % | A. | tmospheric Pressure: | 100 kPa | |
| Pre test mode: | | | e1, Mode2, | Mode3 | | | | |
| Final test mode | Mode | e1, Mode2, | Mode3 | | | | | |

6.2.2 Test Setup Diagram:



6.2.3 Test Data:

Please Refer to Appendix for Details.



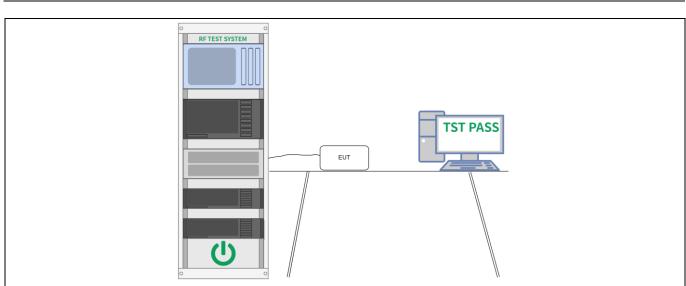
6.3 Power spectral density

| Test Requirement: | 47 CFR Part 15.407(a)(1)(ii) 47 CFR Part 15.407(a)(1)(iii) | | | | | | |
|-------------------|--|--|--|--|--|--|--|
| • | 47 CFR Part 15.407(a)(1)(iv) | | | | | | |
| Test Limit: | For an indoor access point operating in the band 5.15-5.25 GHz, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. | | | | | | |
| | For fixed point-to-point access points operating in the band 5.15-5.25 GHz, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. | | | | | | |
| | Fixed point-to-point U-NII devices may employ antennas with directional gain up to 23 dBi without any corresponding reduction in the maximum power spectral density. For fixed point-to-point transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in maximum power spectral density is required for each 1 dB of antenna gain in excess of 23 dBi. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations. | | | | | | |
| | For client devices in the 5.15-5.25 GHz band, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. | | | | | | |
| Test Method: | ANSI C63.10-2013, section 12.5 | | | | | | |
| Procedure: | Refer to ANSI C63.10-2013, section 12.5 | | | | | | |

6.3.1 E.U.T. Operation:

| Operating Environment: | | | | | | | | | |
|------------------------|---|--|--|--|--|--|--|--|--|
| Temperature: | Temperature: 28 °C Humidity: 35.5 % Atmospheric Pressure: 100 kPa | | | | | | | | |
| Pre test mode: | Pre test mode: Mode1, Mode2, Mode3 | | | | | | | | |
| Final test mode | Final test mode: Mode1, Mode2, Mode3 | | | | | | | | |

6.3.2 Test Setup Diagram:



6.3.3 Test Data:

Please Refer to Appendix for Details.



6.4 Emission bandwidth and occupied bandwidth

| Test Requirement: | U-NII 1, U-NII 2A, U-NII 2C: No limits, only for report use. |
|-------------------|--|
| Test Limit: | U-NII 1, U-NII 2A, U-NII 2C: No limits, only for report use. |
| Test Method: | ANSI C63.10-2013, section 6.9 & 12.4 |
| Procedure: | Emission bandwidth: a) Set RBW = approximately 1% of the emission bandwidth. b) Set the VBW > RBW. c) Detector = peak. d) Trace mode = max hold. e) Measure the maximum width of the emission that is 26 dB down from the peak of the emission. Compare this with the RBW setting of the instrument. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%. |
| | Occupied bandwidth: a) The instrument center frequency is set to the nominal EUT channel center frequency. The frequency span for the spectrum analyzer shall be between 1.5 times and 5.0 times the OBW. b) The nominal IF filter bandwidth (3 dB RBW) shall be in the range of 1% to |
| | 5% of the OBW, and VBW shall be approximately three times the RBW, unless otherwise specified by the |
| | applicable requirement. c) Set the reference level of the instrument as required, keeping the signal from exceeding the maximum input mixer level for linear operation. In general, the peak of the |
| | spectral envelope shall be more than [10 log (OBW/RBW)] below the reference level. Specific guidance is given |
| | in 4.1.5.2. d) Step a) through step c) might require iteration to adjust within the specified range. |
| | e) Video averaging is not permitted. Where practical, a sample detection and single sweep mode |
| | shall be used. Otherwise, peak detection and max hold mode (until the trace stabilizes) shall be |
| | used. f) Use the 99% power bandwidth function of the instrument (if available) and report the measured bandwidth. |
| | g) If the instrument does not have a 99% power bandwidth function, then the trace data points are recovered and directly summed in linear power terms. The recovered |
| | amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5% of the total is reached; |
| | that frequency is recorded as the lower frequency. The process is repeated until 99.5% of the total is reached; that frequency is recorded as the upper frequency. The 99% |
| | power bandwidth is the difference between these two frequencies. h) The occupied bandwidth shall be reported by providing plot(s) of the measuring instrument display; the plot axes and the scale units per division shall be clearly labeled. |

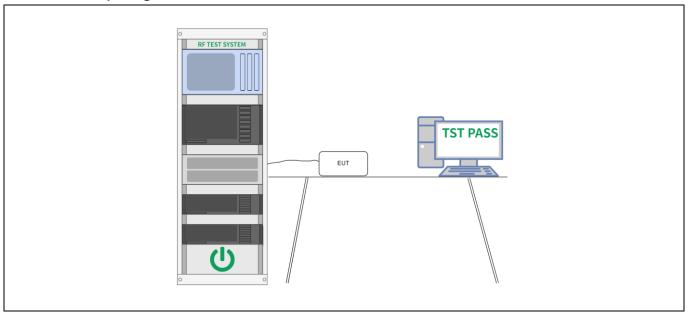


| Tabular data may be reported in addition to the plot(s). |
|--|
| be reported in addition to the plot(s). |

6.4.1 E.U.T. Operation:

| Operating Environment: | | | | | | | | | |
|------------------------|--------------------------------------|--|-----------|--------|--|-----------------------|---------|--|--|
| Temperature: | 28 °C | | Humidity: | 35.5 % | | Atmospheric Pressure: | 100 kPa | | |
| Pre test mode: | Pre test mode: Mode1, Mode2, Mode3 | | | | | | | | |
| Final test mode | Final test mode: Mode1, Mode2, Mode3 | | | | | | | | |

6.4.2 Test Setup Diagram:



6.4.3 Test Data:

Please Refer to Appendix for Details.



6.5 Band edge emissions (Radiated)

| Test Requirement: | 47 CFR Part 15.407(b)(1) 47 CFR Part 15.407(b)(10) |
|-------------------|---|
| _ , | |

Test Limit:

For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.

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| of the 5.15-5.55 Of 12 band shall not exceed an e.i.i.p. of 27 dbm/milz. | | | | | | |
|--|-----------------|-------------|-------------|--|--|--|
| MHz | MHz | MHz | GHz | | | |
| 0.090-0.110 | 16.42-16.423 | 399.9-410 | 4.5-5.15 | | | |
| ¹ 0.495-0.505 | 16.69475- | 608-614 | 5.35-5.46 | | | |
| | 16.69525 | | | | | |
| 2.1735-2.1905 | 16.80425- | 960-1240 | 7.25-7.75 | | | |
| | 16.80475 | | | | | |
| 4.125-4.128 | 25.5-25.67 | 1300-1427 | 8.025-8.5 | | | |
| 4.17725-4.17775 | 37.5-38.25 | 1435-1626.5 | 9.0-9.2 | | | |
| 4.20725-4.20775 | 73-74.6 | 1645.5- | 9.3-9.5 | | | |
| | | 1646.5 | | | | |
| 6.215-6.218 | 74.8-75.2 | 1660-1710 | 10.6-12.7 | | | |
| 6.26775-6.26825 | 108-121.94 | 1718.8- | 13.25-13.4 | | | |
| | | 1722.2 | | | | |
| 6.31175-6.31225 | 123-138 | 2200-2300 | 14.47-14.5 | | | |
| 8.291-8.294 | 149.9-150.05 | 2310-2390 | 15.35-16.2 | | | |
| 8.362-8.366 | 156.52475- | 2483.5-2500 | 17.7-21.4 | | | |
| | 156.52525 | | | | | |
| 8.37625-8.38675 | 156.7-156.9 | 2690-2900 | 22.01-23.12 | | | |
| 8.41425-8.41475 | 162.0125-167.17 | 3260-3267 | 23.6-24.0 | | | |
| 12.29-12.293 | 167.72-173.2 | 3332-3339 | 31.2-31.8 | | | |
| 12.51975- | 240-285 | 3345.8-3358 | 36.43-36.5 | | | |
| 12.52025 | | | | | | |
| 12.57675- | 322-335.4 | 3600-4400 | (2) | | | |
| 12.57725 | | | | | | |
| 13.36-13.41 | | | | | | |
| · · · · · · · · · · · · · · · · · · · | · | · | · | | | |

¹Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz.

The field strength of emissions appearing within these frequency bands shall not exceed the limits shown in § 15.209. At frequencies equal to or less than 1000 MHz, compliance with the limits in § 15.209shall be demonstrated using measurement instrumentation employing a CISPR quasi-peak detector. Above 1000 MHz, compliance with the emission limits in § 15.209shall be demonstrated based on the average value of the measured emissions. The provisions in § 15.35apply to these measurements.

Except as provided elsewhere in this subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

| Frequency (MHz) | Field strength | Measuremen |
|-----------------|--------------------|------------|
| | (microvolts/meter) | t distance |
| | | (meters) |
| 0.009-0.490 | 2400/F(kHz) | 300 |
| 0.490-1.705 | 24000/F(kHz) | 30 |
| 1.705-30.0 | 30 | 30 |
| 30-88 | 100 ** | 3 |
| 88-216 | 150 ** | 3 |
| 216-960 | 200 ** | 3 |

²Above 38.6



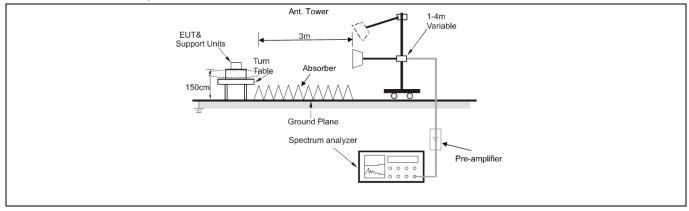
| | | | • | |
|--------------|--|---|---|---|
| | Above 960 | 500 | 3 | |
| | ** Except as provintentional radiate frequency bands However, operatisections of this part in the emission to the emission lime employing a CISI kHz, 110–490 kHz | ided in paragraph (g), fur ors operating under this s 54-72 MHz, 76-88 MHz, on within these frequency art, e.g., §§ 15.231 and 1 able above, the tighter limits its shown in the above ta PR quasi-peak detector e z and above 1000 MHz. | ndamental emissions from ection shall not be located in t 174-216 MHz or 470-806 MHz bands is permitted under oth | er ets 9–90 ese |
| Test Method: | ANSI C63.10-20 | 3, section 12.7.4, 12.7.6 | , 12.7.7 | |
| Procedure: | Above 1GHz: a. For above 1GH meters above the rotated 360 degre b. The EUT was which was mount c. The antenna h ground to determ and vertical polar d. For each susp then the antenna frequency of belo the rotatable tabl maximum reading e. The test-receiv Bandwidth with N f. If the emission specified, then te would be re-teste and then reporte g. Test the EUT in channel. h. The radiation r Transmitting mod case. i. Repeat above p Remark: 1. Level= Read L 2. Scan from 180 The points marke when testing, so spurious emissio below the limit ne 3. As shown in th limits are based of emission shall no above by more th emissions whose measurement is 4. The disturbance | Itz, the EUT was placed of ground at a 3 meter fully sees to determine the positive on the top of a variable eight is varied from one mine the maximum value of izations of the antenna a sected emission, the EUT was tuned to heights from 30MHz, the antenna we was turned from 0 degres. The was turned from 0 degres is set to Pealaximum Hold Mode. Hevel of the EUT in peak is sting could be stopped and Otherwise the emission of one by one using peak in a data sheet. In the lowest channel, the measurements are performed, and found the X axis performed by the control of the reduction | on the top of a rotating table 1./ -anechoic chamber. The table tion of the highest radiation. ne interference-receiving anter | e was nna, ontal ent. e and test ind ed e limit gin ed for e. low. und f dB th yed k e the |



6.5.1 E.U.T. Operation:

| Operating Environment: | | | | | | | |
|--|-------|--|---------------------|------|-----------------------|---------|--|
| Temperature: | 24 °C | | Humidity: | 54 % | Atmospheric Pressure: | 101 kPa | |
| Pre test mode: M | | | Mode1, Mode2, Mode3 | | | | |
| Final test mode: All of the listed pre-test mode were tested, only the data of the worst mode (Mode2) is recorded in the report | | | | | of the worst mode | | |

6.5.2 Test Setup Diagram:





6.5.3 Test Data:

Mode2 / Polarization: Horizontal / BW: 20 / CH: L

Reading Correct Measure-

| No. | Mk. | Freq. | Reading Level | Correct Factor | Measure- ment | Limit | Over | |
|-----|-----|----------|------------------|-------------------|------------------|--------|--------|----------|
| | | MHz | dBuV | dB | dBuV/m | dBuV/m | dB | Detector |
| 1 | | 4500.000 | 49.02 | -8.74 | 40.28 | 74.00 | -33.72 | peak |
| 2 | | 4500.000 | 39.19 | -8.74 | 30.45 | 54.00 | -23.55 | AVG |
| 3 | | 5150.000 | 70.95 | -6.13 | 64.82 | 74.00 | -9.18 | peak |
| 4 | * | 5150.000 | 55.88 | -6.13 | 49.75 | 54.00 | -4.25 | AVG |

Mode2 / Polarization: Vertical / BW: 20 / CH: L

| Mk. | Freq. | Reading Level | Correct Factor | Measure- ment | Limit | Over | |
|-----|----------|---|---|---|---|--|---|
| | MHz | dBuV | dB | dBuV/m | dBuV/m | dB | Detector |
| | 4500.000 | 49.34 | -8.74 | 40.60 | 74.00 | -33.40 | peak |
| | 4500.000 | 39.17 | -8.74 | 30.43 | 54.00 | -23.57 | AVG |
| | 5150.000 | 65.51 | -6.13 | 59.38 | 74.00 | -14.62 | peak |
| * | 5150.000 | 50.29 | -6.13 | 44.16 | 54.00 | -9.84 | AVG |
| | | MHz 4500.000 4500.000 5150.000 | Mk. Freq. Level MHz dBuV 4500.000 49.34 4500.000 39.17 5150.000 65.51 | Mk. Freq. Level Factor MHz dBuV dB 4500.000 49.34 -8.74 4500.000 39.17 -8.74 5150.000 65.51 -6.13 | Mk. Freq. Level Factor ment MHz dBuV dB dBuV/m 4500.000 49.34 -8.74 40.60 4500.000 39.17 -8.74 30.43 5150.000 65.51 -6.13 59.38 | Mk. Freq. Level Factor ment Limit MHz dBuV dB dBuV/m dBuV/m 4500.000 49.34 -8.74 40.60 74.00 4500.000 39.17 -8.74 30.43 54.00 5150.000 65.51 -6.13 59.38 74.00 | Mk. Freq. Level Factor ment Limit Over MHz dBuV dB dBuV/m dBuV/m dB 4500.000 49.34 -8.74 40.60 74.00 -33.40 4500.000 39.17 -8.74 30.43 54.00 -23.57 5150.000 65.51 -6.13 59.38 74.00 -14.62 |



Mode2 / Polarization: Horizontal / BW: 20 / CH: H Reading Correct Measure-Limit Over No. Mk. Freq. Level Factor ment dBuV dBuV/m MHz dB dBuV/m dB Detector -30.72 5350.000 48.91 -5.6343.28 74.00 1 peak 2 5350.000 39.01 -5.6333.38 54.00 -20.62 AVG 3 5460.000 49.51 -5.6343.88 74.00 -30.12peak 4 5460.000 39.28 -5.6333.65 54.00 -20.35AVG

| No. | Mk. | Freq. | Reading Level | Correct Factor | Measure- ment | Limit | Over | |
|-----|-----|----------|------------------|-------------------|------------------|--------|--------|----------|
| | | MHz | dBuV | dB | dBuV/m | dBuV/m | dB | Detector |
| 1 | | 5350.000 | 49.49 | -5.63 | 43.86 | 74.00 | -30.14 | peak |
| 2 | | 5350.000 | 39.28 | -5.63 | 33.65 | 54.00 | -20.35 | AVG |
| 3 | | 5460.000 | 49.17 | -5.63 | 43.54 | 74.00 | -30.46 | peak |
| 4 | * | 5460.000 | 39.43 | -5.63 | 33.80 | 54.00 | -20.20 | AVG |



6.6 Undesirable emission limits (below 1GHz)

| Test Requirement: | 47 CFR Part 15.407(b) | (9) | | | | | | |
|-------------------|---|--|--|--|--|--|--|--|
| Test Limit: | Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in § 15.209. | | | | | | | |
| | intentional radiator sha | Except as provided elsewhere in this subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the | | | | | | |
| | following table: | Terri d | | | | | | |
| | Frequency (MHz) | Field strength (microvolts/meter) | Measuremen t distance (meters) | | | | | |
| | 0.009-0.490 | 2400/F(kHz) | 300 | | | | | |
| | 0.490-1.705 | 24000/F(kHz) | 30 | | | | | |
| | 1.705-30.0 | 30 | 30 | | | | | |
| | 30-88 | 100 ** | 3 | | | | | |
| | 88-216 | 150 ** | 3 | | | | | |
| | 216-960 | 200 ** | 3 | | | | | |
| | Above 960 | 500 | 3 | | | | | |
| | | n paragraph (g), fundamenta | | | | | | |
| | frequency bands 54-72 However, operation wit sections of this part, e. In the emission table a The emission limits she employing a CISPR qu kHz, 110–490 kHz and | erating under this section she MHz, 76-88 MHz, 174-216 hin these frequency bands is g., §§ 15.231 and 15.241. bove, the tighter limit applies own in the above table are basi-peak detector except for above 1000 MHz. Radiated on measurements employin | MHz or 470-806 MHz. s permitted under other sat the band edges. ased on measurements the frequency bands 9–90 emission limits in these | | | | | |
| Test Method: | ANSI C63.10-2013, se | <u>.</u> | <u> </u> | | | | | |
| Procedure: | Below 1GHz: | | | | | | | |
| | a. For below 1GHz, the meters above the grouwas rotated 360 degrees. The EUT was set 30 antenna, which was more. The antenna height ground to determine the and vertical polarization d. For each suspected then the antenna was the frequency of below 300 the rotatable table was maximum reading. e. The test-receiver system Bandwidth with Maximum f. If the emission level of specified, then testing would be reported. Othe would be re-tested one then reported in a data g. Test the EUT in the I channel. h. The radiation measurements. | of the EUT in peak mode wan could be stopped and the pe perwise the emissions that di to by one using quasi-peak mo | oic chamber. The table of the highest radiation. Interference-receiving ble-height antenna tower. Our meters above the distrength. Both horizontal make the measurement. Inged to its worst case and or to 4 meters (for the test to heights 1 meter) and so degrees to find the distribution and Specified is 10dB lower than the limit tak values of the EUT dinot have 10dB marginethod as specified and thannel, the Highest of the Hi | | | | | |
| | h. The radiation measurements from the radiation measurements | • | g which it is the worst | | | | | |

Remark:

- 1. Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor
- 2. Scan from 9kHz to 30MHz, the disturbance below 30MHz was very low. The points marked on above plots are the highest emissions could be found when testing, so only above points had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported.

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3. The disturbance below 1GHz was very low and the harmonics were the highest point could be found when testing, so only the above harmonics had been displayed.

Above 1GHz:

- a. For above 1GHz, the EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter fully-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- f. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak or average method as specified and then reported in a data sheet.
- g. Test the EUT in the lowest channel, the middle channel, the Highest channel.
- h. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case.
- i. Repeat above procedures until all frequencies measured was complete. Remark:
- 1. Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor
- 2. Scan from 18GHz to 40GHz, the disturbance above 18GHz was very low. The points marked on above plots are the highest emissions could be found when testing, so only above points had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported.
- 3. As shown in this section, for frequencies above 1GHz, the field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. For the emissions whose peak level is lower than the average limit, only the peak measurement is shown in the report.
- 4. The disturbance above 18GHz were very low and the harmonics were the highest point could be found when testing, so only the above harmonics had been displayed.

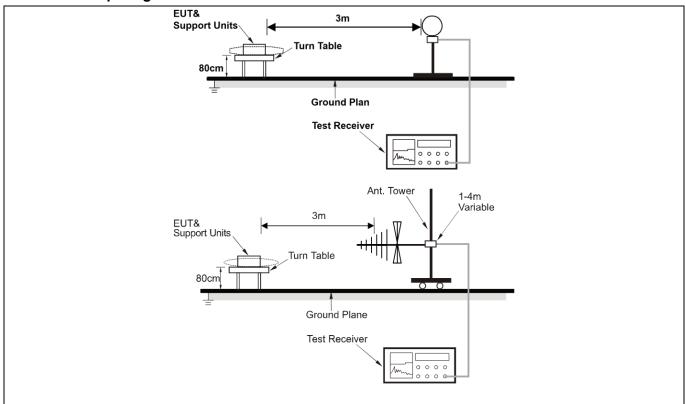
6.6.1 E.U.T. Operation:

Operating Environment:

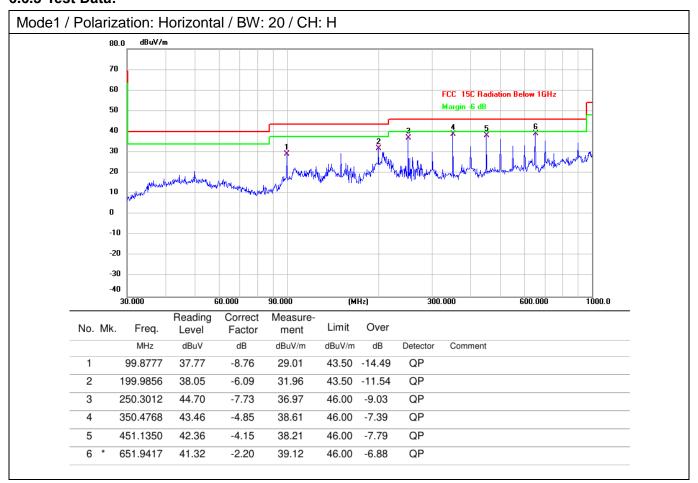


| Temperature: 24 °C | Humidity: 54 % Atm | nospheric Pressure: | 101 kPa |
|---|---------------------|---------------------|---------|
| Pre test mode: | Mode1, Mode2, Mode3 | | |
| Final test mode: All of the listed pre-test mode were tested, only the data of the worst m (Mode1) is recorded in the report | | | |

6.6.2 Test Setup Diagram:



6.6.3 Test Data:



4 5

6

501.1790

550.9480

41.01

42.16

-3.42

-2.53

37.59

39.63

46.00

46.00

-8.41

-6.37

QP

QP

Report No.: MTi240509008-08E2 Mode1 / Polarization: Vertical / BW: 20 / CH: H dBuV/m 80.0 70 60 FCC 15C Radi Margin -6 dB 50 40 30 20 10 0 -10 -20 -30 -40 (MHz) 600.000 1000.0 30.000 60.000 90.000 300.000 Reading Correct Measure-Over Limit No. Mk. Freq. Level Factor ment MHz dBuV dB dBuV/m dBuV/m dB Detector Comment 99.8777 46.29 -8.76 37.53 43.50 -5.97 2 199.9856 37.26 -6.09 31.17 43.50 -12.33 QP QP 3 350.4768 42.71 -4.85 37.86 46.00 -8.14 451.1350 39.76 -4.15 35.61 46.00 -10.39 QP



6.7 Undesirable emission limits (above 1GHz)

| Test Requirement: | 47 CFR Part 15.407(b)(1) 47 CFR Part 15.407(b)(10) |
|-------------------|---|
| | |

Test Limit:

For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

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| That I | I NALL | L NALL | 011 |
|--------------------------|-----------------|-------------|-------------|
| MHz | MHz | MHz | GHz |
| 0.090-0.110 | 16.42-16.423 | 399.9-410 | 4.5-5.15 |
| ¹ 0.495-0.505 | 16.69475- | 608-614 | 5.35-5.46 |
| | 16.69525 | | |
| 2.1735-2.1905 | 16.80425- | 960-1240 | 7.25-7.75 |
| | 16.80475 | | |
| 4.125-4.128 | 25.5-25.67 | 1300-1427 | 8.025-8.5 |
| 4.17725-4.17775 | 37.5-38.25 | 1435-1626.5 | 9.0-9.2 |
| 4.20725-4.20775 | 73-74.6 | 1645.5- | 9.3-9.5 |
| | | 1646.5 | |
| 6.215-6.218 | 74.8-75.2 | 1660-1710 | 10.6-12.7 |
| 6.26775-6.26825 | 108-121.94 | 1718.8- | 13.25-13.4 |
| | | 1722.2 | |
| 6.31175-6.31225 | 123-138 | 2200-2300 | 14.47-14.5 |
| 8.291-8.294 | 149.9-150.05 | 2310-2390 | 15.35-16.2 |
| 8.362-8.366 | 156.52475- | 2483.5-2500 | 17.7-21.4 |
| | 156.52525 | | |
| 8.37625-8.38675 | 156.7-156.9 | 2690-2900 | 22.01-23.12 |
| 8.41425-8.41475 | 162.0125-167.17 | 3260-3267 | 23.6-24.0 |
| 12.29-12.293 | 167.72-173.2 | 3332-3339 | 31.2-31.8 |
| 12.51975- | 240-285 | 3345.8-3358 | 36.43-36.5 |
| 12.52025 | | | |
| 12.57675- | 322-335.4 | 3600-4400 | (2) |
| 12.57725 | | | , , |
| 13.36-13.41 | | | |
| | • | • | |

¹Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz.

The field strength of emissions appearing within these frequency bands shall not exceed the limits shown in § 15.209. At frequencies equal to or less than 1000 MHz, compliance with the limits in § 15.209shall be demonstrated using measurement instrumentation employing a CISPR quasi-peak detector. Above 1000 MHz, compliance with the emission limits in § 15.209shall be demonstrated based on the average value of the measured emissions. The provisions in § 15.35apply to these measurements.

Except as provided elsewhere in this subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

| Frequency (MHz) | Field strength | Measuremen |
|-----------------|--------------------|------------|
| | (microvolts/meter) | t distance |
| | , , | (meters) |
| 0.009-0.490 | 2400/F(kHz) | 300 |
| 0.490-1.705 | 24000/F(kHz) | 30 |
| 1.705-30.0 | 30 | 30 |
| 30-88 | 100 ** | 3 |
| 88-216 | 150 ** | 3 |
| 216-960 | 200 ** | 3 |

Address: 101, No. 7, Zone 2, Xinxing Industrial Park, Fuhai Avenue, Xinhe Community, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China. Tel: (86-755)88850135 Fax: (86-755) 88850136 Web: www.mtitest.cn E-mail: mti@51mti.com

²Above 38.6



| | Above 960 | 500 | 3 | | |
|-------------------------|---|--|--|--|-------------------------------|
| | ** Except as provious intentional radiator frequency bands 5 However, operation sections of this part In the emission limits employing a CISPF kHz, 110–490 kHz | ded in paragraph (g), fusion paragraph (g), fusion per this 4-72 MHz, 76-88 MHz within these frequency, §§ 15.231 and ple above, the tighter lines shown in the above to and above 1000 MHz. ased on measurements | undamental emission section shall not be lead to 174-216 MHz or 47 by bands is permitted 15.241. The properties of the bare able are based on mexcept for the frequent Radiated emission I | located in the '0-806 MHz. d under other and edges. easurements ency bands 9-limits in these | -90 |
| Test Method: | ANSI C63.10-2013 | 3, section 12.7.4, 12.7. | 6, 12.7.7 | | |
| Test Method: Procedure: | Above 1GHz: a. For above 1GHz meters above the grotated 360 degree b. The EUT was se which was mounte c. The antenna hei ground to determin and vertical polariz d. For each suspect then the antenna w frequency of below the rotatable table maximum reading. e. The test-receive Bandwidth with Ma f. If the emission le specified, then test would be re-tested and then reported. would be re-tested and then reported g. Test the EUT in channel. h. The radiation me Transmitting mode case. i. Repeat above pr Remark: 1. Level= Read Le 2. Scan from 18Gh The points marked when testing, so or spurious emissions below the limit nee 3. As shown in this limits are based or emission shall not above by more tha emissions whose p measurement is sh 4. The disturbance highest point could | z, the EUT was placed ground at a 3 meter fulles to determine the poset 3 meters away from d on the top of a varial ght is varied from one at the maximum value rations of the antenna at the demission, the EUT was tuned to heights from 30MHz, the antenna was turned from 0 degressions at the EUT in peaking could be stopped at the lowest channel, the easurements are performed and found the X axis occedures until all frequency above points had be from the radiator which are the high above points had be from the reported. The exceeding the maximum of the exceeding the exceeding the maximum of the exceeding the exceeding the maximum of the exceeding t | on the top of a rotaticly-anechoic chambers ition of the highest rathe interference-receive-height antenna to meter to four meters of the field strength. The are set to make the rather was arranged to its own 1 meter to 4 meters are to 360 degrees and the peak values are at the did not have and the peak values are an arranged to its own 1 meters to 360 degrees are at the peak values are an arranged to its own 1 meters arranged to its own 1 meters arranged to its own 1 meters arranged to its own 2 mode was 10dB lowers and the peak values are at did not have are average method are middle channel, the positioning which it is the period of the area attenuated mode and the peak field strong the peak field strong the peak field strong the area attenuated mode are attenuated mode and the average limit, of the average limit, or are power and the harman areas and the harman areas are attenuated mode and the average limit, or are period and the harman areas are attenuated mode and the average limit, or areas and the harman areas are attenuated mode and the average limit, or areas areas are attenuated mode and the average limit, or areas areas areas are attenuated mode and the average limit, or areas are | r. The table was adiation. Eving antenna ower. Sabove the Both horizon measurement worst case a ers (for the test of the EUT of the EUT of the EUT of the EUT of the Sabove the worst as specified to the worst as complete. Factor was very low could be found amplitude of ore than 20dB field strength of any mits specified. For the nly the peak nonics were the sadover than the peak nonics were the sadover the sadover than the peak nonics were the sadover the sado | a, Ital t. and est d imit n l |
| | | | • | | |



6.7.1 E.U.T. Operation:

| Operating Envi | ronment | | | | | |
|-----------------|---------|------|--------------|----------------|--------------------------------|-------------------|
| Temperature: | 24 °C | | Humidity: | 54 % | Atmospheric Pressure: | 101 kPa |
| Pre test mode: | | Mode | e1, Mode2, I | Mode3 | | |
| Final test mode | e: | | | re-test mode w | vere tested, only the data ort | of the worst mode |



6.7.2 Test Data:

| Mode1 / | Polari | zat | ion: Horizont | al / BW: 20 | / CH: L | | | | |
|---------|--------|-----|---------------|------------------|-------------------|------------------|--------|--------|----------|
| | No. | М | k. Freq. | Reading Level | Correct Factor | Measure- ment | Limit | Over | |
| | | | MHz | dBuV | dB | dBuV/m | dBuV/m | dB | Detector |
| | 1 | | 10360.000 | 55.21 | 3.46 | 58.67 | 74.00 | -15.33 | peak |
| | 2 | * | 10360.000 | 45.11 | 3.46 | 48.57 | 54.00 | -5.43 | AVG |
| | 3 | | 15540.000 | 7.87 | 47.26 | 55.13 | 74.00 | -18.87 | peak |
| | 4 | | 15540.000 | -1.90 | 47.26 | 45.36 | 54.00 | -8.64 | AVG |
| | | | | | | | | | |

| No. | Mk. | Freq. | Reading Level | Correct Factor | Measure- ment | Limit | Over | |
|-----|------|---------|------------------|-------------------|------------------|--------|--------|----------|
| | | MHz | dBuV | dB | dBuV/m | dBuV/m | dB | Detector |
| 1 | 10 | 360.000 | 55.53 | 3.46 | 58.99 | 74.00 | -15.01 | peak |
| 2 | 10 | 360.000 | 45.19 | 3.46 | 48.65 | 54.00 | -5.35 | AVG |
| 3 | 15 | 540.000 | 12.15 | 47.26 | 59.41 | 74.00 | -14.59 | peak |
| 4 | * 15 | 540.000 | 2.36 | 47.26 | 49.62 | 54.00 | -4.38 | AVG |



| lode1 / I | Polari | zat | ion: Horizont | al / BW: 20 | / CH: M | | | | |
|-----------|--------|-----|---------------|------------------|-------------------|------------------|--------|--------|----------|
| | No. | М | k. Freq. | Reading Level | Correct Factor | Measure- ment | Limit | Over | |
| | | | MHz | dBuV | dB | dBuV/m | dBuV/m | dB | Detector |
| | 1 | | 10400.000 | 54.32 | 3.13 | 57.45 | 74.00 | -16.55 | peak |
| _ | 2 | * | 10400.000 | 44.49 | 3.13 | 47.62 | 54.00 | -6.38 | AVG |
| | 3 | | 15600.000 | 8.60 | 46.52 | 55.12 | 74.00 | -18.88 | peak |
| | 4 | | 15600.000 | -1.26 | 46.52 | 45.26 | 54.00 | -8.74 | AVG |
| | | | | | | | | | |

| No | M | k. Freq. | Reading Level | Correct Factor | Measure- ment | Limit | Over | |
|----|---|-----------|------------------|-------------------|------------------|--------|--------|----------|
| | | MHz | dBuV | dB | dBuV/m | dBuV/m | dB | Detector |
| 1 | | 10400.000 | 56.03 | 3.13 | 59.16 | 74.00 | -14.84 | peak |
| 2 | * | 10400.000 | 46.49 | 3.13 | 49.62 | 54.00 | -4.38 | AVG |
| 3 | | 15600.000 | 12.73 | 46.52 | 59.25 | 74.00 | -14.75 | peak |
| 4 | | 15600.000 | 2.69 | 46.52 | 49.21 | 54.00 | -4.79 | AVG |



| I / Pola | ızaı | lion: | Horizonta | al / BW: 20 / | | | | | |
|----------|------|-------|-----------|------------------|-------------------|------------------|--------|--------|----------|
| No | . M | k. | Freq. | Reading Level | Correct Factor | Measure- ment | Limit | Over | |
| | | | MHz | dBuV | dB | dBuV/m | dBuV/m | dB | Detector |
| 1 | | 10 | 480.000 | 53.60 | 3.56 | 57.16 | 74.00 | -16.84 | peak |
| 2 | * | 10 | 480.000 | 44.09 | 3.56 | 47.65 | 54.00 | -6.35 | AVG |
| 3 | | 15 | 720.000 | 6.79 | 46.46 | 53.25 | 74.00 | -20.75 | peak |
| 4 | | 15 | 720.000 | -3.10 | 46.46 | 43.36 | 54.00 | -10.64 | AVG |

| No | . N | ۱k. | Freq. | Reading Level | Correct Factor | Measure- ment | Limit | Over | |
|----|-----|-----|---------|------------------|-------------------|------------------|--------|--------|----------|
| | | | MHz | dBuV | dB | dBuV/m | dBuV/m | dB | Detector |
| 1 | | 10 | 480.000 | 56.04 | 3.56 | 59.60 | 74.00 | -14.40 | peak |
| 2 | * | 10 | 480.000 | 46.06 | 3.56 | 49.62 | 54.00 | -4.38 | AVG |
| 3 | | 15 | 720.000 | 8.67 | 46.46 | 55.13 | 74.00 | -18.87 | peak |
| 4 | | 15 | 720.000 | -0.81 | 46.46 | 45.65 | 54.00 | -8.35 | AVG |



Photographs of the test setup

Refer to Appendix - Test Setup Photos



Photographs of the EUT

Refer to Appendix - EUT Photos



Appendix



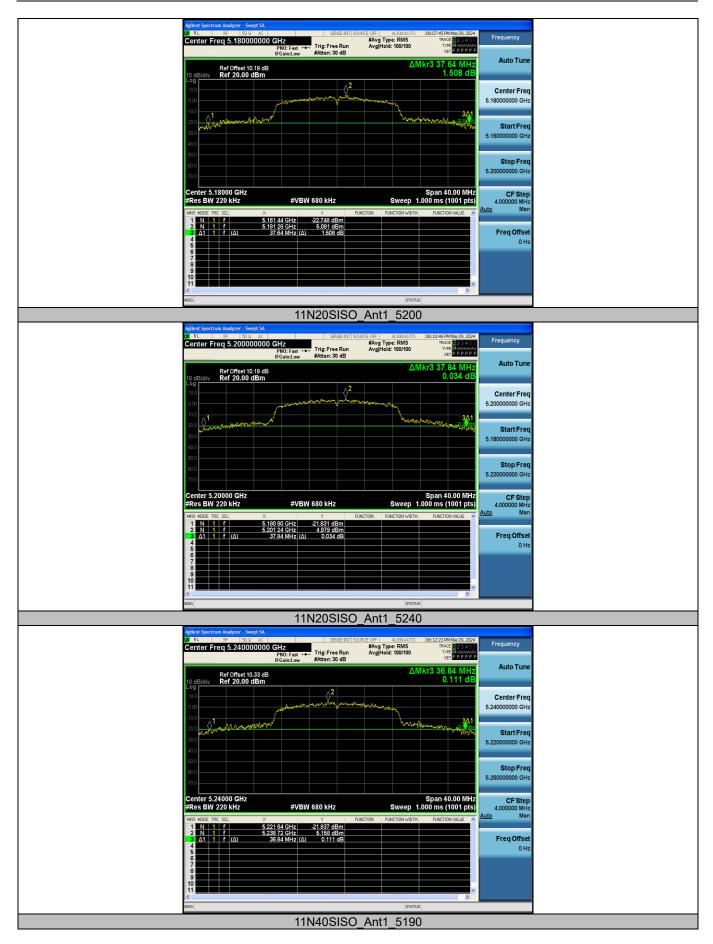
Appendix A1: Emission bandwidth (26dB bandwidth)

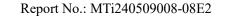
Test Result

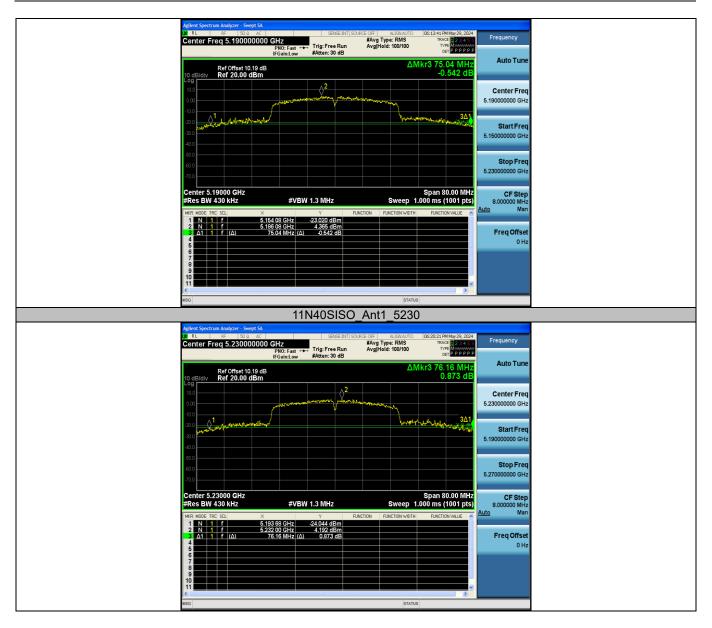
| Test Mode | Antenna | Frequency [MHz] | 26db EBW [MHz] |
|-----------|---------|--------------------|-------------------|
| | | 5180 | 35.200 |
| 11A | Ant1 | 5200 | 36.080 |
| | | 5240 | 34.920 |
| | Ant1 | 5180 | 37.640 |
| 11N20SISO | | 5200 | 37.840 |
| | | 5240 | 36.840 |
| 11N40SISO | Ant1 | 5190 | 75.040 |
| | Anti | 5230 | 76.160 |

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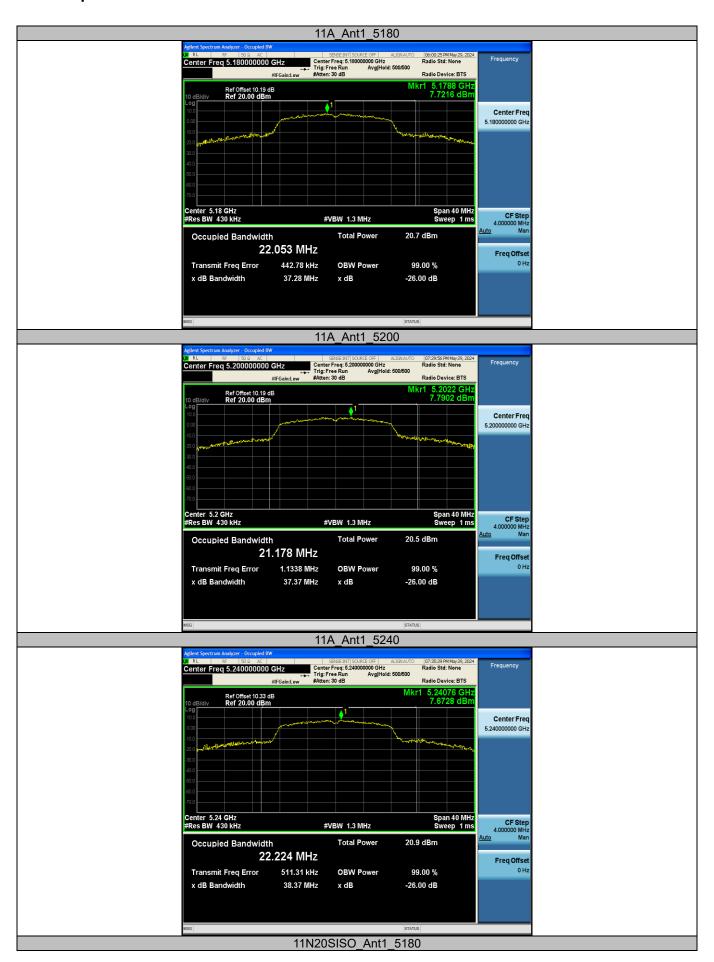




Appendix A2: Occupied channel bandwidth

Test Result

| TestMode | Antenna | Frequency[MHz] | OCB [MHz] | FL[MHz] | FH[MHz] |
|-----------|---------|----------------|-----------|-----------|-----------|
| 11A | Ant1 | 5180 | 22.053 | 5169.4163 | 5191.4693 |
| | | 5200 | 21.178 | 5190.5448 | 5211.7228 |
| | | 5240 | 22.224 | 5229.3993 | 5251.6233 |
| 11N20SISO | Ant1 | 5180 | 23.953 | 5168.5846 | 5192.5376 |
| | | 5200 | 22.884 | 5189.3854 | 5212.2694 |
| | | 5240 | 22.091 | 5229.3075 | 5251.3985 |
| 11N40SISO | Ant1 | 5190 | 43.214 | 5170.8300 | 5214.0440 |
| | | 5230 | 41.169 | 5211.2815 | 5252.4505 |









Appendix B: Duty Cycle

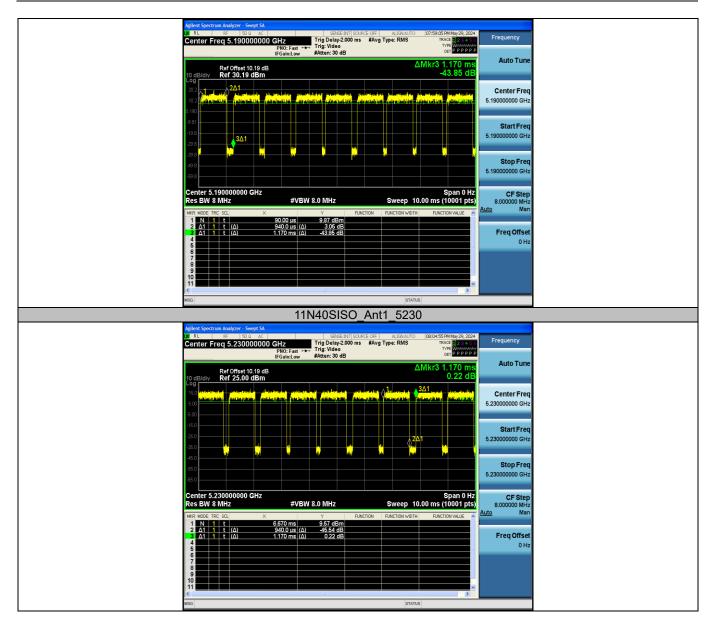
Test Result

| Test Mode | Antenna | Frequency [MHz] | Transmission Duration [ms] | Transmission Period [ms] | Duty Cycle [%] | |
|-----------|---------|--------------------|----------------------------------|--------------------------|-------------------|--|
| | | 5180 | 2.07 | 2.30 | 90.00 | |
| 11A | Ant1 | 5200 | 2.07 | 2.25 | 92.00 | |
| | | 5240 | 2.07 | 2.25 | 92.00 | |
| | | 5180 | 1.92 | 2.14 | 89.72 | |
| 11N20SISO | Ant1 | 5200 | 1.92 | 2.09 | 91.87 | |
| | | 5240 | 1.92 | 2.13 | 90.14 | |
| 11N40SISO | Ant1 | 5190 | 0.94 | 1.17 | 80.34 | |
| | | 5230 | 0.94 | 1.17 | 80.34 | |

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Appendix C: Maximum conducted output power

Test Result Channel Power

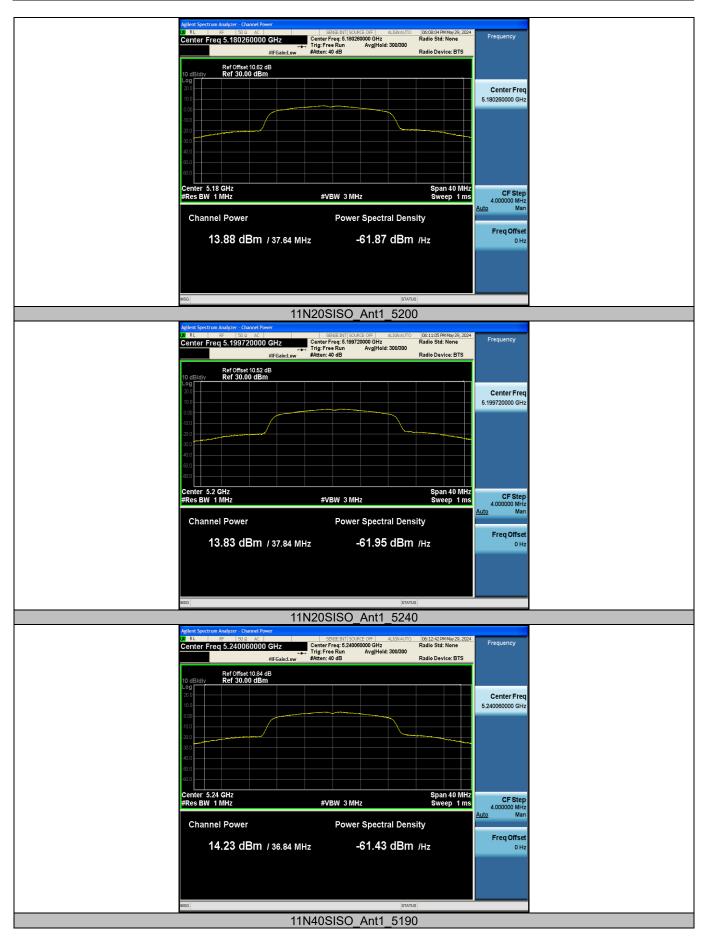
| Test Mode | Antenna | Frequency [MHz] | Channel Power [dBm] | Duty Cycle [%] | DC Factor [dBm] | Result [dBm] | Limit [dBm] | EIRP [dBm] | Verdict |
|---------------|---------|--------------------|---------------------------|----------------------|-----------------------|-----------------|----------------|---------------|---------|
| | | 5180 | 13.43 | 90.00 | 0.46 | 13.89 | ≤23.98 | 16.16 | PASS |
| 11A | Ant1 | 5200 | 13.70 | 92.58 | 0.33 | 14.03 | ≤23.98 | 16.30 | PASS |
| | | 5240 | 13.63 | 90.24 | 0.45 | 14.08 | ≤23.98 | 16.35 | PASS |
| 11N20SIS Ant1 | | 5180 | 13.45 | 90.50 | 0.43 | 13.88 | ≤23.98 | 16.15 | PASS |
| | Ant1 | 5200 | 13.50 | 92.71 | 0.33 | 13.83 | ≤23.98 | 16.10 | PASS |
| | | 5240 | 13.72 | 88.83 | 0.51 | 14.23 | ≤23.98 | 16.50 | PASS |
| 11N40SIS Ant1 | Ant1 | 5190 | 13.09 | 88.67 | 0.52 | 13.61 | ≤23.98 | 15.87 | PASS |
| | 5230 | 13.03 | 85.48 | 0.68 | 13.71 | ≤23.98 | 15.98 | PASS | |

Note: The Duty Cycle Factor is compensated in the graph.













Appendix D: Maximum power spectral density

Test Result

| Test Mode | Antenna | Frequency [MHz] | Result [dBm/MHz] | Limit [dBm/MHz] | Verdict |
|-----------|---------|--------------------|---------------------|--------------------|---------|
| | Ant1 | 5180 | 5.10 | ≤11.00 | PASS |
| 11A | | 5200 | 4.24 | ≤11.00 | PASS |
| | | 5240 | 4.10 | ≤11.00 | PASS |
| 11N20SISO | Ant1 | 5180 | 3.77 | ≤11.00 | PASS |
| | | 5200 | 3.54 | ≤11.00 | PASS |
| | | 5240 | 3.76 | ≤11.00 | PASS |
| 11N40SISO | Ant1 | 5190 | 0.81 | ≤11.00 | PASS |
| | | 5230 | 1.65 | ≤11.00 | PASS |

Note: 1.The Duty Cycle Factor is compensated in the graph.

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