


| | |
|---|--------------------------------|
| Product Name:Tablet | Report No: ITEZA2-202400365RF4 |
| Product Model: U11, U11 Pro, U11 Max, U11 Plus, U11 Pro Max, U11 KID, U12, U12 Pro, U12 Max, U13, U13 Pro, U13 Max, U14, U14 Pro, U14 Max | Security Classification: Open |
| Version: V1.0 | Total Page:102 |

TIRT Testing Report

| Prepared By: | Checked By: | Approved By: |  |
|-------------------|-------------------|------------------|---|
| Aaron Long | Stone Tang | Joky Wang | |
| <i>Aaron Long</i> | <i>Stone Tang</i> | <i>Joky Wang</i> | |

FCCRadio Test Report

FCC ID: 2AX4YU11

This report concerns:Original Grant

| | |
|---------------|--|
| Applicant: | Shenzhen DOOGEE Hengtong Technology CO.,LTD |
| Address: | B, 2/F, Building A4, Silicon Valley Power Digital Industrial Park, No. 22, Longhua New District, Shenzhen, China |
| Manufacturer: | Shenzhen DOOGEE Hengtong Technology CO.,LTD |
| Address: | B, 2/F, Building A4, Silicon Valley Power Digital Industrial Park, No. 22, Longhua New District, Shenzhen, China |
| Sample No: | 1000040010 |
| Product Name: | Tablet |
| Brand Name: | DOOGEE |
| Model No.: | U11, U11 Pro, U11 Max, U11 Plus, U11 Pro Max, U11 KID, U12, U12 Pro, U12 Max, U13, U13 Pro, U13 Max, U14, U14 Pro, U14 Max |
| Test No.: | U11 |

| | |
|------------------|-----------------------|
| Date of Receipt: | 2024/10/15 |
| Date of Test: | 2024/10/15~2024/10/18 |
| Issued Date: | 2024/11/08 |
| Testing Lab: | TIRT |

Note: This report shall not be reproduced except in full, without the written approval of Beijing TIRT Technology Service Co.,Ltd Shenzhen.Laboratory.

This document may be altered or revised by Beijing TIRT Technology Service Co.,Ltd Shenzhen.Laboratory.Personnel only, and shall be noted in the revision section of the document. The test results of this report relate only to the tested sample identified in this report.

| Table of Contents | Page |
|---|-------------|
| REPORT ISSUED HISTORY | 5 |
| 1 . SUMMARY OF TEST RESULTS | 6 |
| 1.1 TEST FACILITY | 7 |
| 1.2 MEASUREMENT UNCERTAINTY | 7 |
| 1.3 TEST ENVIRONMENT CONDITIONS | 8 |
| 2 . GENERAL INFORMATION | 9 |
| 2.1 GENERAL DESCRIPTION OF EUT | 9 |
| 2.2 TEST MODES | 11 |
| 2.3 DUTY CYCLE | 12 |
| 2.4 BLOCKDIAGRAMSHOWINGTHECONFIGURATIONOFSYSTEMTESTED | 23 |
| 2.5 SUPPORT UNITS | 23 |
| 3 .AC POWER LINE CONDUCTED EMISSIONS | 24 |
| 3.1 LIMIT | 24 |
| 3.2 TEST PROCEDURE | 24 |
| 3.3 DEVIATIONFROMTESTSTANDARD | 24 |
| 3.4 TESTSETUP | 25 |
| 3.5 EUT OPERATION CONDITIONS | 25 |
| 3.6 TEST RESULTS | 25 |
| 4 . RADIATED EMISSIONS | 26 |
| 4.1 LIMIT | 26 |
| 4.2 TEST PROCEDURE | 26 |
| 4.3 DEVIATIONFROMTESTSTANDARD | 28 |
| 4.4 TESTSETUP | 28 |
| 4.5 EUT OPERATION CONDITIONS | 29 |
| 4.6 TEST RESULTS - 9 KHZTO 30MHZ | 29 |
| 4.7 TEST RESULTS - 30 MHZTO 1000 MHZ | 29 |
| 4.8 TEST RESULTS - ABOVE1000 MHZ | 29 |
| 5 .BANDWIDTH | 30 |
| 5.1 LIMIT | 30 |
| 5.2 TEST PROCEDURE | 30 |
| 5.3 DEVIATION FROM STANDARD | 30 |
| 5.4 TEST SETUP | 31 |
| 5.5 EUT OPERATION CONDITIONS | 31 |

| | |
|--|-----------|
| 5.6 TEST RESULTS | 31 |
| 6 .MAXIMUM OUTPUT POWER | 32 |
| 6.1 LIMIT | 32 |
| 6.2 TEST PROCEDURE | 32 |
| 6.3 DEVIATION FROM STANDARD | 32 |
| 6.4 TEST SETUP | 32 |
| 6.5 EUT OPERATION CONDITIONS | 32 |
| 6.6 TEST RESULTS | 32 |
| 7 .POWER SPECTRAL DENSITY | 33 |
| 7.1 LIMIT | 33 |
| 7.2 TEST PROCEDURE | 33 |
| 7.3 DEVIATION FROM STANDARD | 33 |
| 7.4 TEST SETUP | 34 |
| 7.5 EUT OPERATION CONDITIONS | 34 |
| 7.6 TEST RESULTS | 34 |
| 8 .FREQUENCY STABILITY | 35 |
| 8.1 LIMIT | 35 |
| 8.2 TEST PROCEDURE | 35 |
| 8.3 DEVIATION FROM STANDARD | 35 |
| 8.4 TEST SETUP | 35 |
| 8.5 EUT OPERATION CONDITIONS | 35 |
| 8.6 TEST RESULTS | 35 |
| 9 . MEASUREMENT INSTRUMENTS LIST | 36 |
| 10 .EUT TEST PHOTOS | 37 |
| 11 .EUT PHOTOS | 39 |
| APPENDIX A - AC POWER LINE CONDUCTED EMISSIONS | 47 |
| APPENDIX B - RADIATED EMISSION - 9 KHZ TO 30 MHZ | 49 |
| APPENDIX C - RADIATED EMISSION - 30 MHZ TO 1000 MHZ | 50 |
| APPENDIX D - RADIATED EMISSION - ABOVE 1000 MHZ | 52 |
| APPENDIXE -BANDWIDTH | 64 |
| APPENDIXF -MAXIMUM OUTPUT POWER | 75 |
| APPENDIXG - POWER SPECTRAL DENSITY | 86 |
| APPENDIX H - Frequency Stability | 97 |

REPORT ISSUED HISTORY

| Report No. | Version | Description | Issued Date | Note |
|---------------------|---------|------------------|-------------|-------|
| ITEZA2-202400365RF4 | V1.0 | Original Report. | 2024.11.08 | Valid |

1. SUMMARY OF TEST RESULTS

Test procedures according to the technical standard(s):

| FCC CFR Title 47, Part 15, Subpart E | | | | |
|--------------------------------------|--|--|----------|----------|
| Standard(s) Section | Test Item | Test Result | Judgment | Remark |
| 15.207 15.407(b) | AC Power Line Conducted Emissions | APPENDIX A | PASS | ----- |
| 15.407(b) 15.205(a) 15.209(a) | Radiated Emissions | APPENDIX B APPENDIX C APPENDIX D | PASS | ----- |
| 15.407(a) 15.407(e) | Bandwidth | APPENDIX E | PASS | ----- |
| 15.407(a) | Maximum Output Power | APPENDIX F | PASS | ----- |
| 15.407(a) | Power Spectral Density | APPENDIX G | PASS | ----- |
| 15.407(g) | Frequency Stability | APPENDIX H | PASS | NOTE (5) |
| 15.203 | Antenna Requirements | ----- | PASS | NOTE (2) |
| 15.407(c) | Automatically Discontinue Transmission | ----- | PASS | NOTE (3) |

Note:

- (1) "N/A" denotes test is not applicable in this test report.
- (2) The device what use a permanently attached antenna were considered sufficient to comply with the provisions of 15.203.
- (3) During no any information transmission, the EUT can automatically discontinue transmission and become standby mode for power saving.the EUT can detect the controlling signal of ACK message transmitting from remote device and verify whether it shall resend or discontinue transmission.
- (4) For UNII-1 this device was functioned as a
 - ☐Outdoor access point device
 - ☐Indoor access point device
 - ☐Fixed point-to-point access points device
 - ☒Client device
- (5) The manufacturer states that the frequency sability is in compliance with 15.407(g).
- (6) Measurement Standard Used:
 - FCC Rules and Regulations Part 15 Subpart E
 - ANSI C63.4:2014, ANSI C63.10:2013

1.1 TEST FACILITY

| | |
|--|---|
| Company: | Beijing TIRT Technology Service Co.,Ltd Shenzhen |
| Address: | 104 Building C, Xinmingsheng Industrial Park No.132, Zhangge Old Village East Zone, Zhangge Community, Fucheng Street, Longhua District, Shenzhen, Guangdong, P. R. China |
| CNAS Registration Number: | CNAS L14158 |
| A2LA Registration Number: | 6049.01 |
| FCC Accredited Lab.Designation Number: | CN1366 |
| FCC Test Firm Registration Number: | 820690 |
| Telephone: | +86-0755-27087573 |

1.2 MEASUREMENT UNCERTAINTY

ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor (k=2))

The TIRT measurement uncertainty as below table:

| Uncertainty | |
|---|---------------------------|
| Parameter | Uncertainty |
| Occupied Channel Bandwidth | ± 142.12 KHz |
| RF power conducted | ± 0.74 dB |
| RF power radiated | ± 3.25 dB |
| Spurious emissions, conducted | ± 1.78 dB |
| Spurious emissions, radiated (30MHz~1GHz) | ± 4.6 dB |
| Spurious emissions, radiated (1GHz ~ 18GHz) | ± 4.9 dB |
| Conduction Emissions(150kHz~30MHz) | ± 3.1 dB |
| Humidity | $\pm 4.6\%$ |
| Temperature | $\pm 0.7^{\circ}\text{C}$ |
| Time | $\pm 1.25\%$ |

Note: Unless specifically mentioned, the uncertainty of measurement has not been taken into account to declare the compliance or non-compliance to the specification.

1.3 TEST ENVIRONMENT CONDITIONS

| Test Item | Temperature | Humidity | Test Voltage | Tested By |
|-------------------------------------|-------------|----------|---|------------|
| AC Power Line Conducted Emissions | 25.1°C | 52% | DC 5V from adapter | Stone Tang |
| Radiated Emissions-9kHz to 30MHz | 24.5°C | 50% | DC 3.8V from battery or DC 5V from adapter | Stone Tang |
| Radiated Emissions-30MHz to 1000MHz | 24.2°C | 53% | DC 3.8V from battery or DC 5V from adapter | Stone Tang |
| Radiated Emissions-Above 1000 MHz | 26.0°C | 53% | DC 3.8V from battery or DC 5V from adapter | Stone Tang |
| Bandwidth | 25.0°C | 56% | DC 3.8V from battery or DC 5V from adapter | Stone Tang |
| Maximum Output Power | 24.9°C | 54% | DC 3.8V from battery or DC 5V from adapter | Stone Tang |
| Power Spectral Density | 25.1°C | 62% | DC 3.8V from battery or DC 5V from adapter | Stone Tang |

2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

| | |
|---------------------------------|---|
| Equipment | Tablet |
| Brand Name | DOOGEE |
| Test Model | U11 |
| Series Model | U11, U11 Pro, U11 Max, U11 Plus, U11 Pro Max, U11 KID, U12, U12 Pro, U12 Max, U13, U13 Pro, U13 Max, U14, U14 Pro, U14 Max |
| Model Difference(s) | There is no difference, except for the appearance color and name. The circuit and principle are the same. All tests were conducted using the U11 model. |
| Software Version | DOOGEE-U11-EEA-Android14.0-20240919 |
| Hardware Version | T30-T616-V2.0-240311-LU |
| Power Rating | DC 3.8V from battery or DC 5V from adapter |
| Operation FrequencyBand(s) | UNII-1: 5180 MHz~5240 MHz UNII-3: 5745 MHz~5825MHz |
| Modulation Type | IEEE 802.11n: OFDM (64QAM,16QAM,QPSK,BPSK) IEEE 802.11a: OFDM (64QAM,16QAM,QPSK,BPSK) IEEE802.11ac: OFDM (64QAM,16QAM, 256QAM,QPSK,BPSK) |
| Maximum Output Power _UNII-1 | IEEE 802.11ac(VHT80): 14.80dBm(0.030200W) |
| Maximum Output Power _UNII-3 | IEEE 802.11a: 10.02dBm(0.010046W) |

Note:

1. For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.

3. Antenna Specification:

| Ant. | Manufactured | Model Name | Antenna Type | Connector | Gain (dBi) |
|------|---|------------|--------------|-----------|------------|
| 1 | SHENZHEN HENGXIANGTONGANTENNA TECNOLOGY CO., LTD. | T2 | PIFA | N/A | 0.97 |

Note:

- 1) The antenna gain is provided by the manufacturer.
- 2) The antenna is for testing purposes only.

2.2 TEST MODES

The test system was pre-tested based on the consideration of all possible combinations of EUT operation mode.

| | |
|---|--|
| Transmitting mode: | Keep the EUT in continuously transmitting mode with modulation |
| Remark: Per-scan all kind of data rate, and report only reflects the test data of worst data rate mode. | |

2.3DUTY CYCLE

If duty cycle is $\geq 98\%$, duty factor is not required.

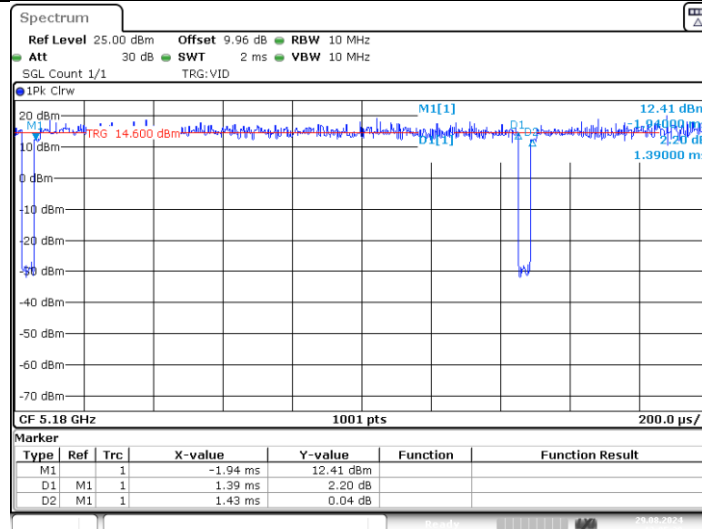
If duty cycle is $< 98\%$, duty factor shall be considered.

The output power = measured power + duty factor.

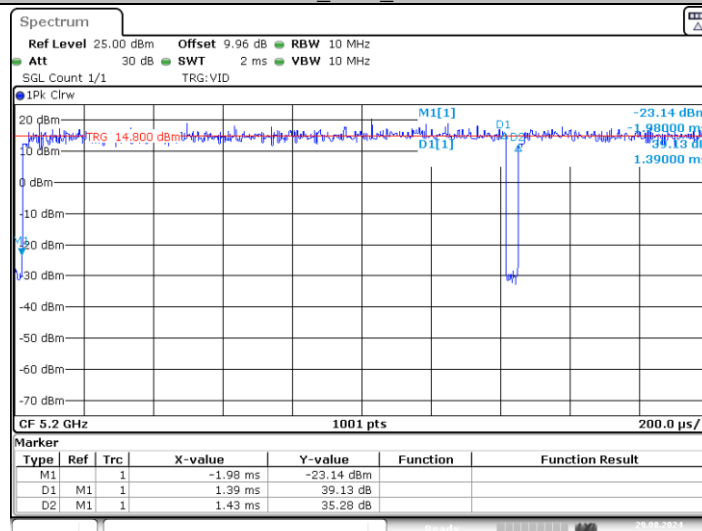
The power spectral density = measured power spectral density + duty factor.

| TestMode | Antenna | Freq(MHz) | Transmission Duration [ms] | Transmission Period [ms] | Duty Cycle [%] | Limit | Verdict |
|------------|---------|-----------|----------------------------|--------------------------|----------------|-------|---------|
| 11A | Ant1 | 5180 | 1.39 | 1.43 | 97.20 | --- | --- |
| | | 5200 | 1.39 | 1.43 | 97.20 | --- | --- |
| | | 5240 | 1.40 | 1.43 | 97.90 | --- | --- |
| | | 5745 | 1.39 | 1.43 | 97.20 | --- | --- |
| | | 5785 | 1.39 | 1.43 | 97.20 | --- | --- |
| | | 5825 | 1.40 | 1.43 | 97.90 | --- | --- |
| 11N20SISO | Ant1 | 5180 | 0.17 | 0.20 | 85.00 | --- | --- |
| | | 5200 | 0.17 | 0.20 | 85.00 | --- | --- |
| | | 5240 | 0.16 | 0.20 | 80.00 | --- | --- |
| | | 5745 | 0.17 | 0.20 | 85.00 | --- | --- |
| | | 5785 | 0.16 | 0.20 | 80.00 | --- | --- |
| | | 5825 | 0.16 | 0.20 | 80.00 | --- | --- |
| 11N40SISO | Ant1 | 5190 | 0.10 | 0.14 | 71.43 | --- | --- |
| | | 5230 | 0.10 | 0.14 | 71.43 | --- | --- |
| | | 5755 | 0.10 | 0.14 | 71.43 | --- | --- |
| | | 5795 | 0.10 | 0.14 | 71.43 | --- | --- |
| 11AC20SISO | Ant1 | 5180 | 0.17 | 0.21 | 80.95 | --- | --- |
| | | 5200 | 0.17 | 0.21 | 80.95 | --- | --- |
| | | 5240 | 0.17 | 0.20 | 85.00 | --- | --- |
| | | 5745 | 0.17 | 0.20 | 85.00 | --- | --- |
| | | 5785 | 0.17 | 0.21 | 80.95 | --- | --- |
| | | 5825 | 0.17 | 0.21 | 80.95 | --- | --- |
| 11AC40SISO | Ant1 | 5190 | 0.10 | 0.14 | 71.43 | --- | --- |
| | | 5230 | 0.10 | 0.14 | 71.43 | --- | --- |
| | | 5755 | 0.10 | 0.14 | 71.43 | --- | --- |
| | | 5795 | 0.10 | 0.14 | 71.43 | --- | --- |
| 11AC80SISO | Ant1 | 5210 | 0.07 | 0.20 | 35.00 | --- | --- |
| | | 5775 | 0.07 | 0.13 | 53.85 | --- | --- |

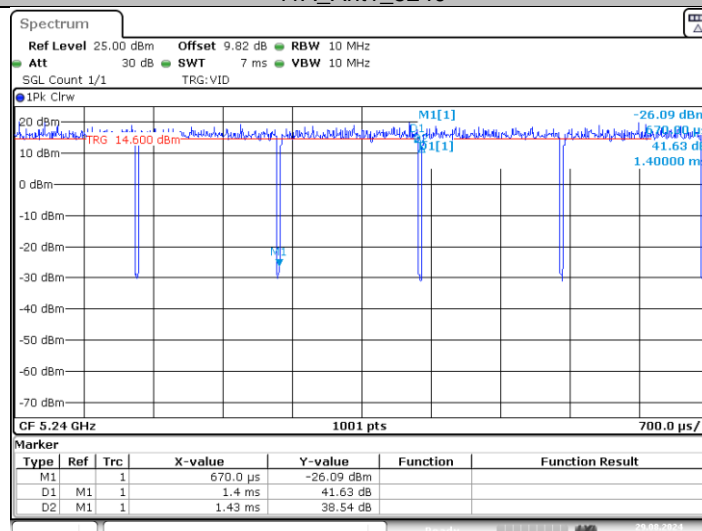
11A_Ant1_5180

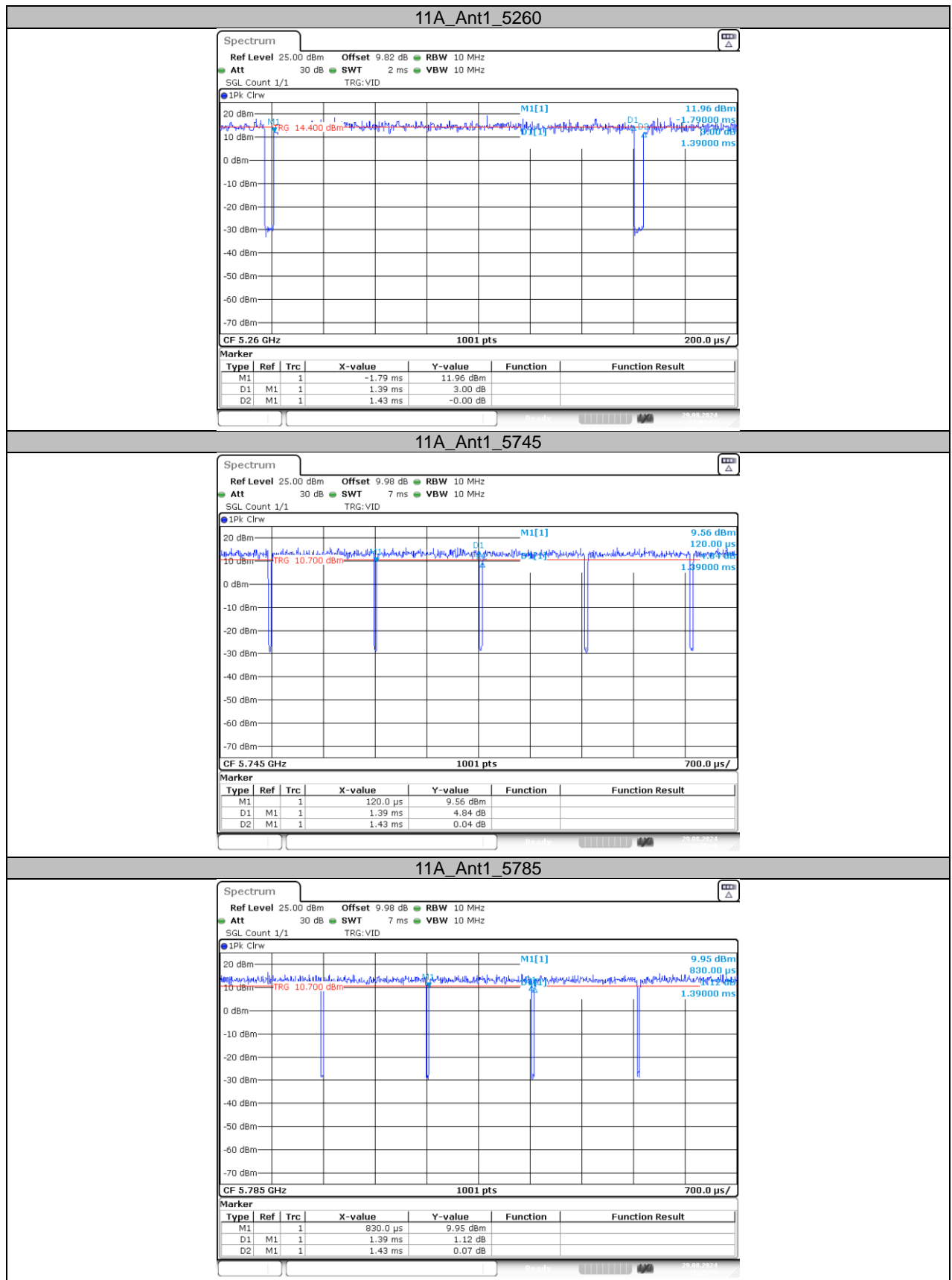


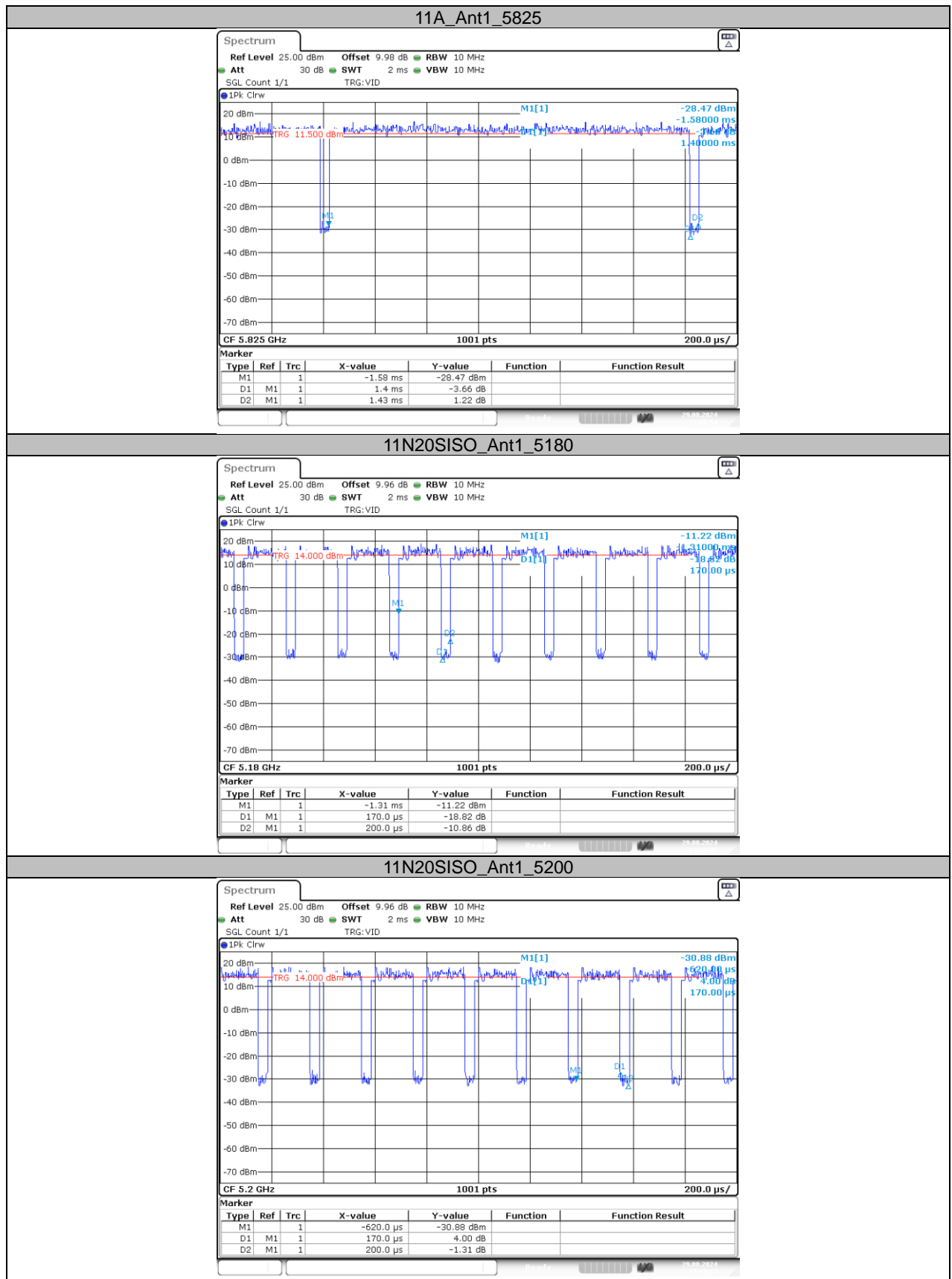
11A_Ant1_5200



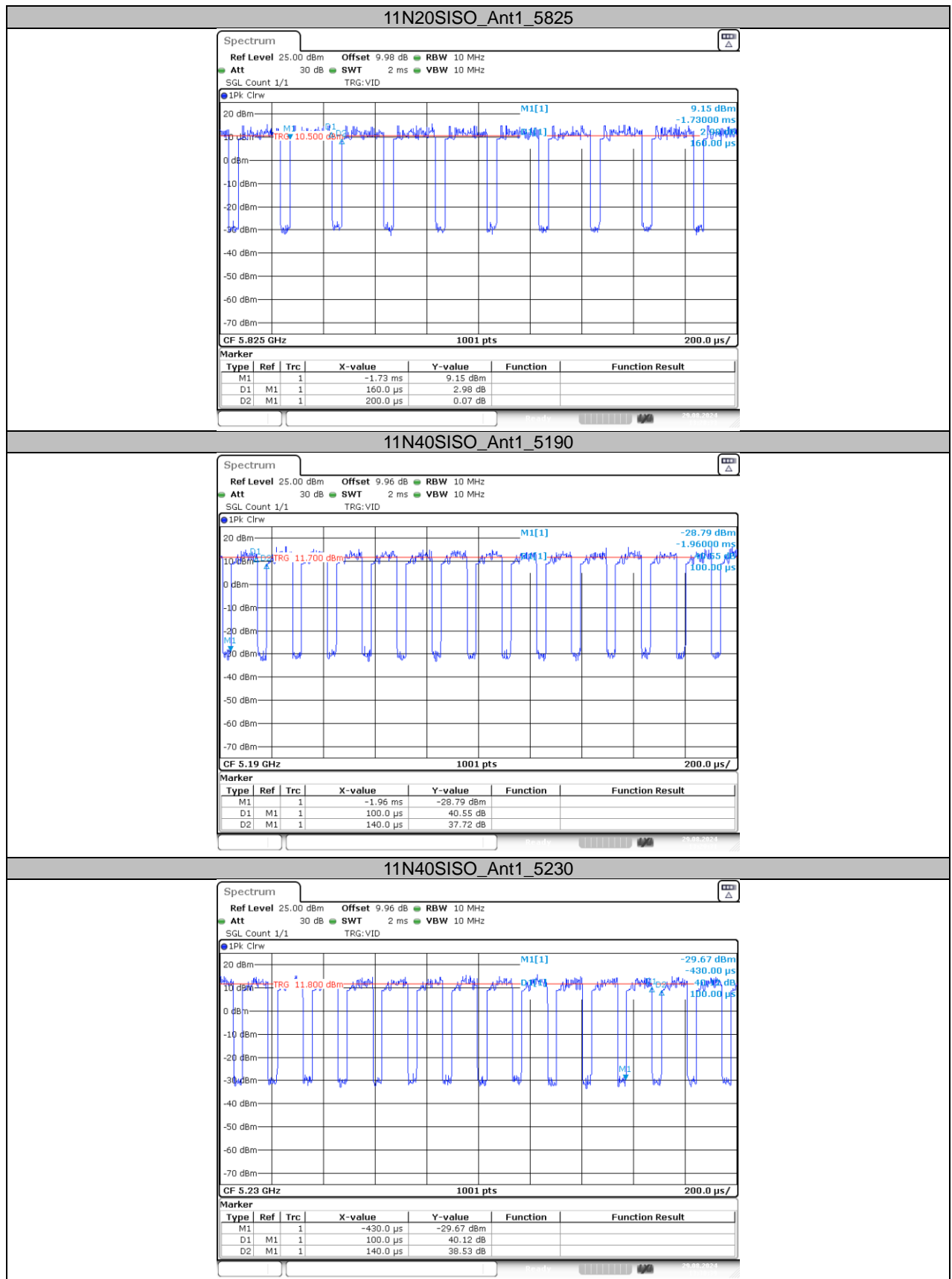
11A_Ant1_5240



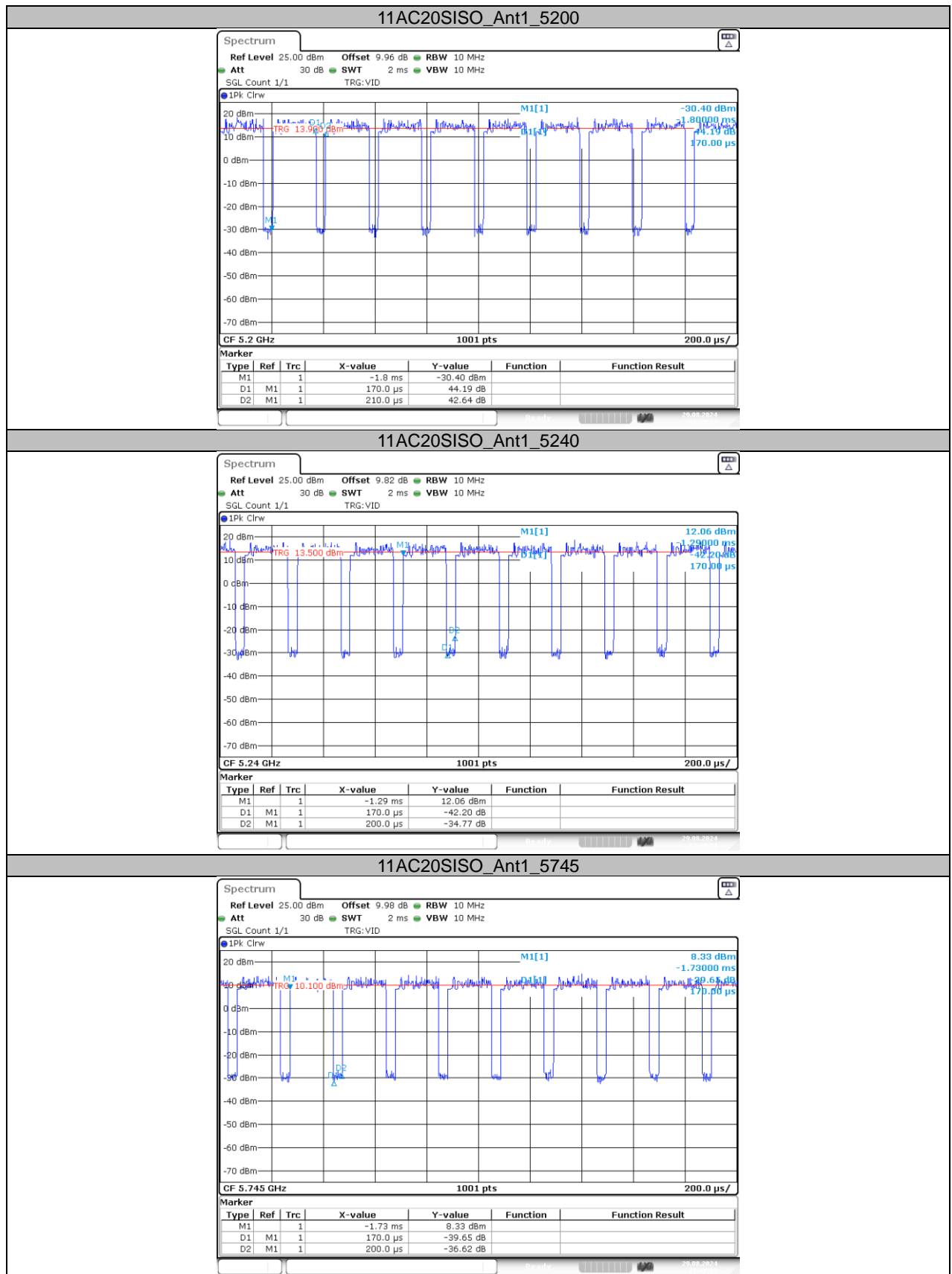




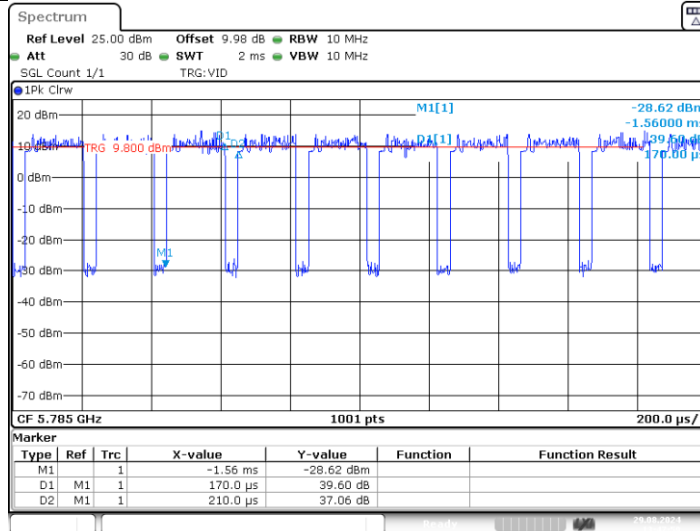




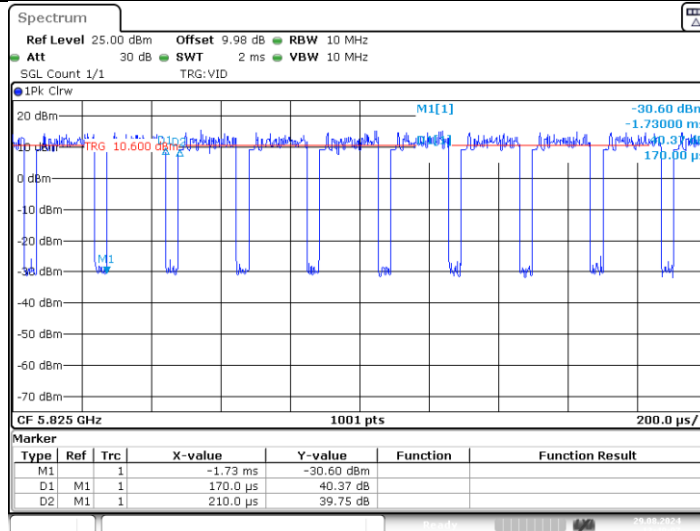




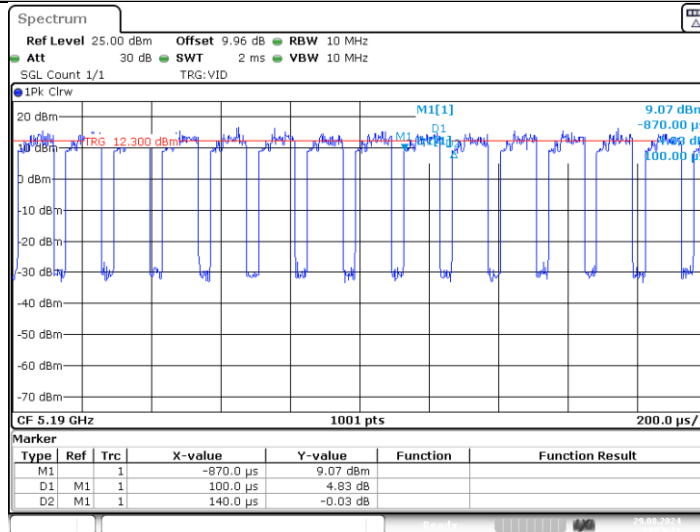
11AC20SISO_Ant1_5785

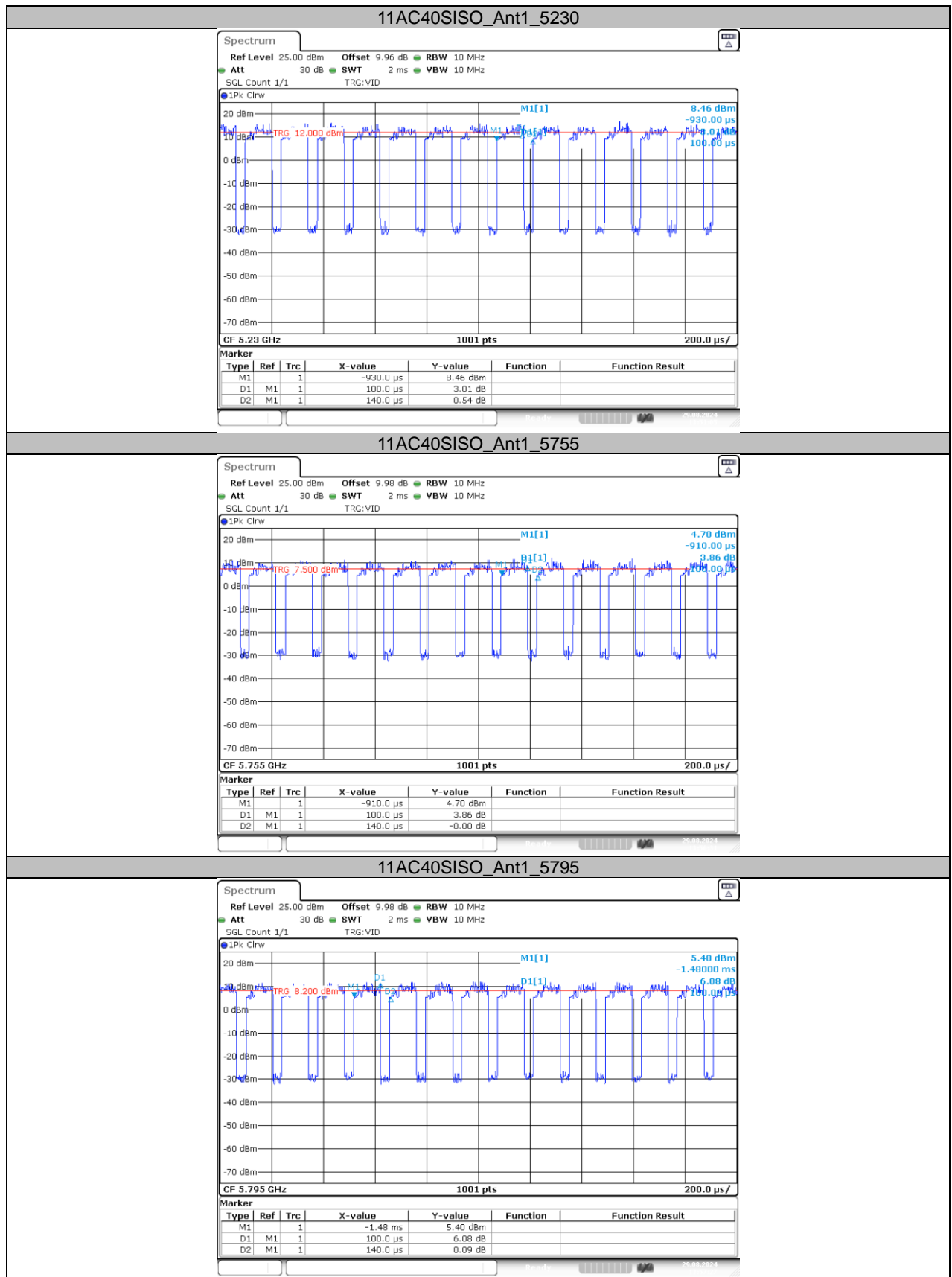


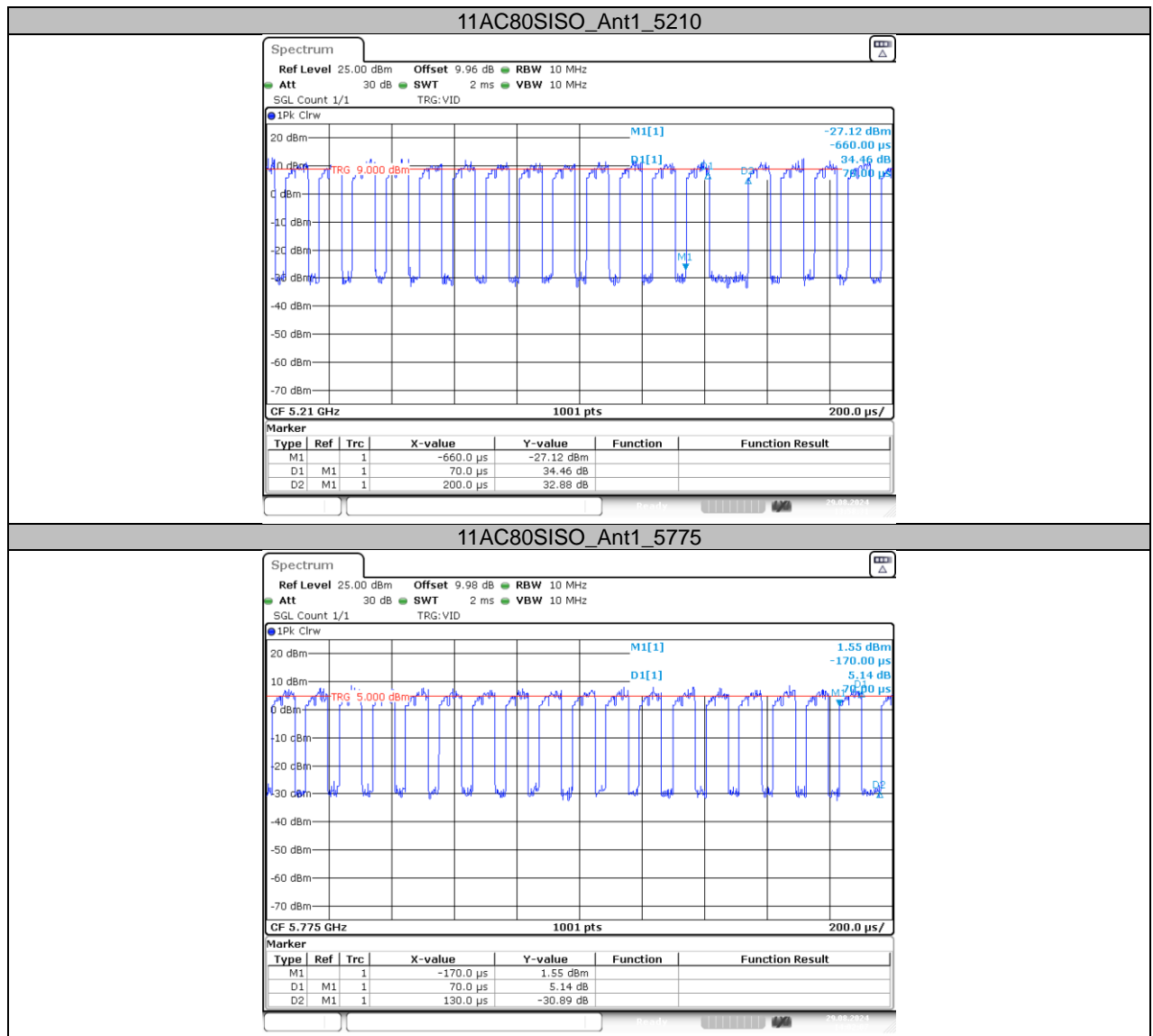
11AC20SISO_Ant1_5825



11AC40SISO_Ant1_5190







NOTE:

For IEEE 802.11a:

For radiated emissions frequency above 1 GHz, the resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth set VBW> 1/T, Trefers to the minimum transmission duration over which the transmitter is on and istransmitting at its maximum power control level for the tested mode of operation.

For IEEE 802.11n(HT20):

For radiated emissions frequency above 1 GHz, the resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth set VBW> 1/T, Trefers to the minimum transmission duration over which the transmitter is on and istransmitting at its maximum power control level for the tested mode of operation.

For IEEE 802.11n(HT40):

For radiated emissions frequency above 1 GHz, the resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth set VBW> 1/T, Trefers to the minimum transmission duration over which the transmitter is on and istransmitting at its maximum power control level for the tested mode of operation.

For IEEE 802.11ac(VHT20):

For radiated emissions frequency above 1 GHz, the resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth set VBW> 1/T, Trefers to the minimum transmission duration over which the transmitter is on and istransmitting at its maximum power control level for the tested mode of operation.

For IEEE 802.11ac(VHT40):

For radiated emissions frequency above 1 GHz, the resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth set VBW> 1/T, Trefers to the minimum transmission duration over which the transmitter is on and istransmitting at its maximum power control level for the tested mode of operation.

For IEEE 802.11ac(VHT80):

For radiated emissions frequency above 1 GHz, the resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth set VBW> 1/T, Trefers to the minimum transmission duration over which the transmitter is on and istransmitting at its maximum power control level for the tested mode of operation.

2.4 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED

EUT

2.5 SUPPORT UNITS

| Support Equipment | | | | |
|-------------------|-----------|------------|------------|---------|
| No. | Equipment | Brand Name | Model Name | Remarks |
| 1 | / | / | / | / |

3.AC POWER LINE CONDUCTED EMISSIONS

3.1LIMIT

| Frequency (MHz) | Limit (dB μ V) | |
|--------------------|--------------------|-----------|
| | Quasi-peak | Average |
| 0.15 - 0.5 | 66 to 56* | 56 to 46* |
| 0.5 - 5.0 | 56 | 46 |
| 5.0 - 30.0 | 60 | 50 |

NOTE:

- (1) The tighter limit applies at the band edges.
- (2) The limit of " * " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.

3.2 TEST PROCEDURE

- a. The EUT was placed 0.8 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipment powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- b. Interconnecting cables that hang closer than 40 cm to the groundplane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
- c. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
- d. LISN at least 80 cm from nearest part of EUT chassis.
- e. For the actual test configuration, please refer to the related Item -EUT Test Photos.

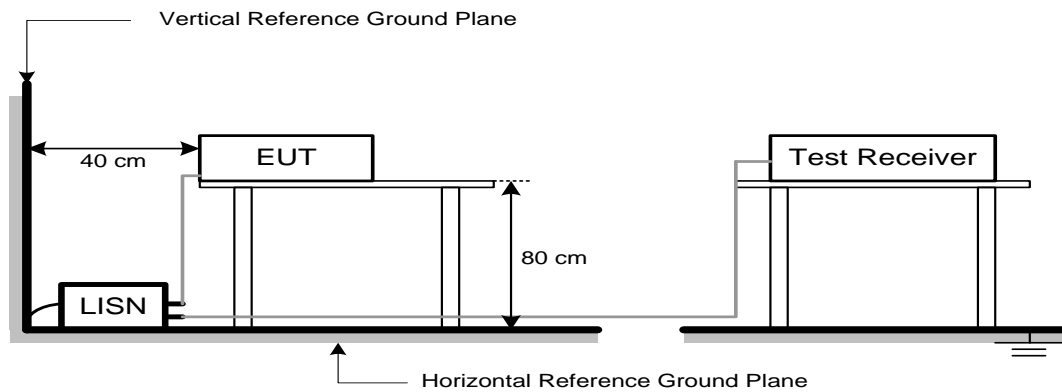
The following table is the setting of the receiver:

| Receiver Parameter | Setting |
|--------------------|----------|
| Start Frequency | 0.15 MHz |
| Stop Frequency | 30 MHz |
| IF Bandwidth | 9 kHz |

3.3DEVIATIONFROMTESTSTANDARD

No deviation

3.4 TEST SETUP



The LISN edge is arranged parallel to the edge of the test table

The vertical conducting plane or wall of an RF-shielded (screened) room shall be located 40 cm to the rear of the EUT

3.5 EUT OPERATION CONDITIONS

The EUT was configured for testing in a typical fashion (as a customer would normally use it). The EUT has been programmed to continuously transmit during test. This operating condition was tested and used to collect the included data.

The EUT was programmed to be in continuously transmitting/TX mode.

3.6 TEST RESULTS

Please refer to the APPENDIX A.

4. RADIATED EMISSIONS

4.1 LIMIT

In case the emission fall within the restricted band specified on 15.205(a), then the 15.209(a) limit in the table below has to be followed.

LIMITS OF RADIATED EMISSIONS MEASUREMENT (9 kHz to 1000MHz)

| Frequency (MHz) | Field Strength (microvolts/meter) | Measurement 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 |

LIMITS OF UNWANTED EMISSION OUT OF THE RESTRICTED BANDS (Above 1000 MHz)

| Frequency (MHz) | EIRP Limit (dBm/MHz) | Equivalent Field Strength at 3m (dBμV/m) |
|-----------------------|----------------------|--|
| 5150-5250 | -27 | 68.2 |
| 5250-5350 | -27 | 68.2 |
| 5470-5725 | -27 | 68.2 |
| 5725-5850 NOTE (2) | -27 | 68.2 |
| | 10 | 105.2 |
| | 15.6 | 110.8 |
| | 27 | 122.2 |

NOTE:

(1) The following formula is used to convert the equipment isotropic radiated power (eirp) to field strength:

$$E = \frac{1000000\sqrt{30P}}{3} \mu\text{V/m, where P is the eirp (Watts)}$$

(2) According to 15.407(b)(4)(i), all emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

4.2 TEST PROCEDURE

- The measuring distance of 3 m shall be used for measurements. The EUT was placed on the top of a rotating table 0.8 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(below 1GHz)
- The measuring distance of 3 m shall be used for measurements. The EUT was placed on the top of a rotating table 1.5 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(above 1GHz)
- The height of the equipment or of the substitution antenna shall be 0.8m or 1.5m; the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights find the maximum reading (used Bore sight function).
- The receiver system was set to peak and average detect function and specified bandwidth with maximum hold mode when the test frequency is above 1GHz.
- The initial step in collecting radiated emission data is a receiver peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.

- g. All readings are Peak unless otherwise stated QP in column of Note. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform. (below 1GHz)
- h. All readings are Peak Mode value unless otherwise stated AVG in column of Note. If the Peak Mode Measured value compliance with the Peak Limits and lower than AVG Limits, the EUT shall be deemed to meet both Peak & AVG Limits and then only Peak Mode was measured, but AVG Mode didn't perform. (above 1GHz)
- i. For the actual test configuration, please refer to the related Item –EUT Test Photos.

The following table is the setting of the receiver:

| Spectrum Parameters | Setting |
|------------------------|---------------------------------|
| Start ~ Stop Frequency | 9 kHz~150 kHz for RBW 200 Hz |
| Start ~ Stop Frequency | 0.15 MHz~30 MHz for RBW 9 kHz |
| Start ~ Stop Frequency | 30 MHz~1000 MHz for RBW 100 kHz |

| Spectrum Parameters | Setting |
|--|--|
| Start Frequency | 1000 MHz |
| Stop Frequency | 10th carrier harmonic or 40 GHz, whichever is lower |
| RBW / VBW (Emission in restricted band) | 1MHz / 3MHz for PK value 1MHz / 1/THz for AVG value |

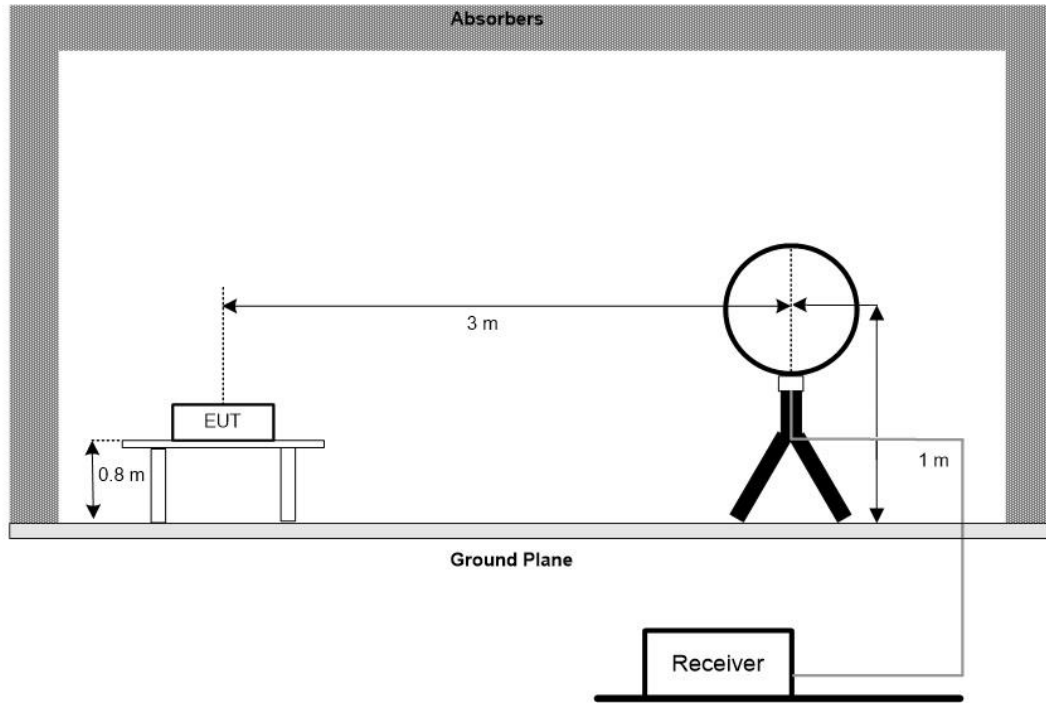
| Receiver Parameters | Setting |
|------------------------|-------------------------------------|
| Start ~ Stop Frequency | 9 kHz~90 kHz for PK/AVG detector |
| Start ~ Stop Frequency | 90 kHz~110 kHz for QP detector |
| Start ~ Stop Frequency | 110 kHz~490 kHz for PK/AVG detector |
| Start ~ Stop Frequency | 490 kHz~30 MHz for QP detector |
| Start ~ Stop Frequency | 30MHz~1000MHz for QP detector |
| Start ~ Stop Frequency | 1 GHz~40GHz for PK/AVG detector |

4.3 DEVIATION FROM TEST STANDARD

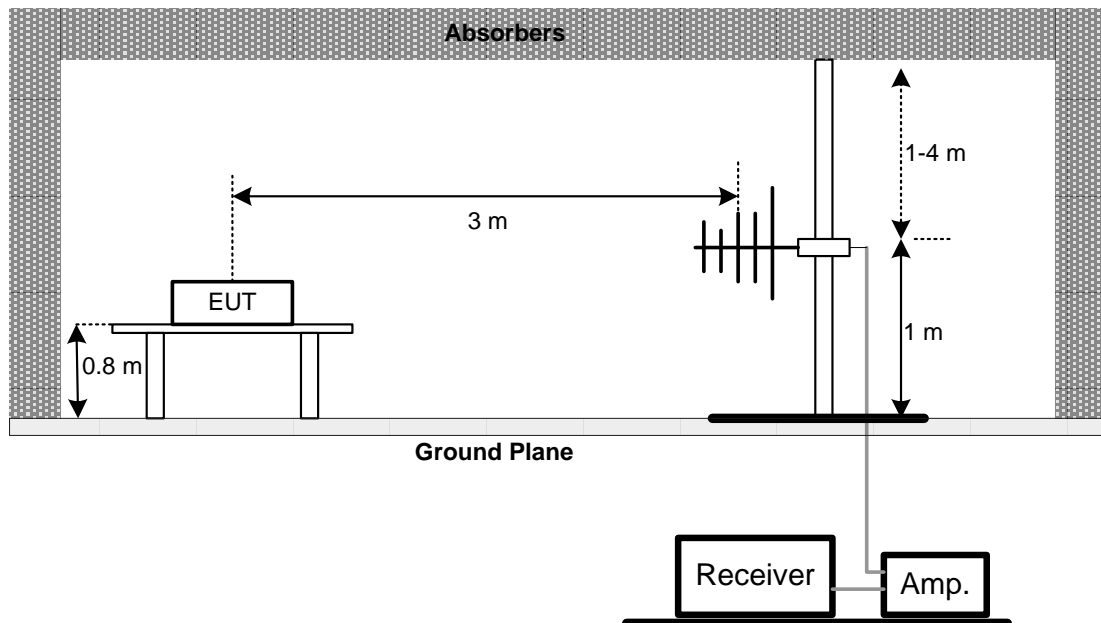
No deviation.

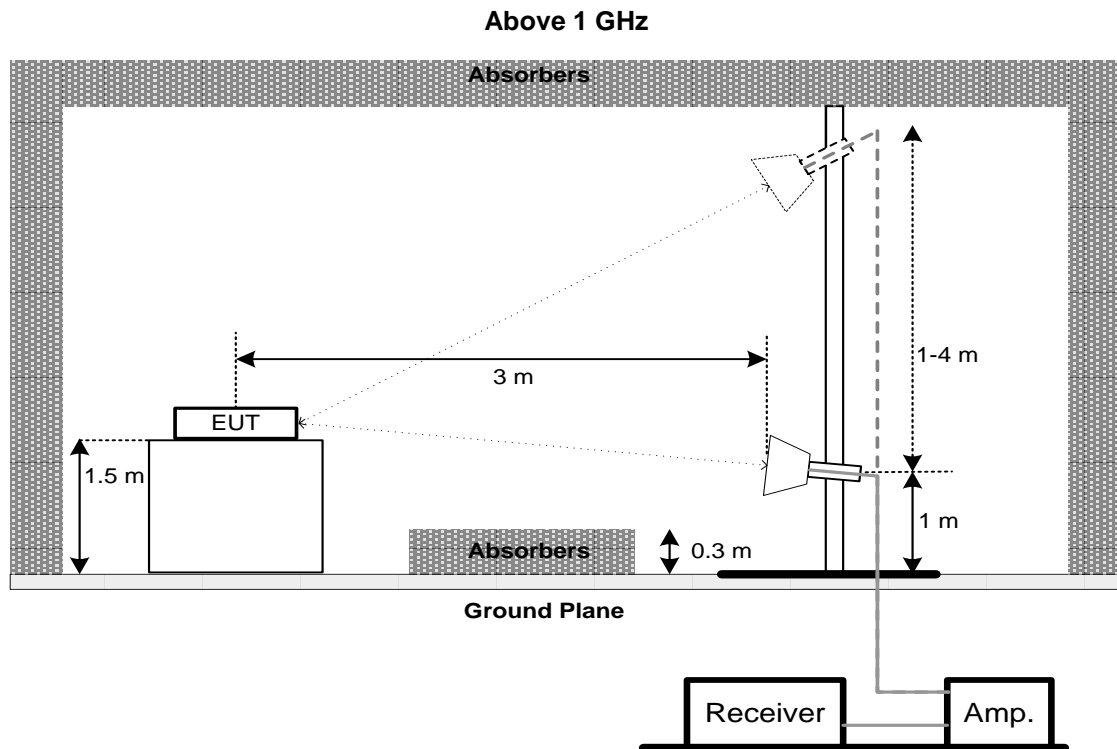
4.4 TEST SETUP

9 kHz to 30 MHz



30 MHz to 1 GHz





4.5 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 3.5 unless otherwise a special operating condition is specified in the follows during the testing.

4.6 TEST RESULTS - 9 KHZ TO 30 MHZ

Please refer to the APPENDIX B.

Remark:

- (1) Distance extrapolation factor = $40 \log (\text{specific distance} / \text{test distance})$ (dB).
- (2) Limit line = specific limits (dBuV) + distance extrapolation factor.

4.7 TEST RESULTS - 30 MHZ TO 1000 MHZ

Please refer to the APPENDIX C.

4.8 TEST RESULTS - ABOVE 1000 MHZ

Please refer to the APPENDIX D.

Remark:

- (1) No limit: This is fundamental signal, the judgment is not applicable.
For fundamental signal judgment was referred to Peak output test.

5.BANDWIDTH

5.1LIMIT

| Section | Test Item | Limit | Frequency Range (MHz) |
|--------------------------------|-----------------|-----------------|-----------------------|
| FCC 15.407(a) FCC 15.407(e) | 26 dB Bandwidth | - | 5150-5250 |
| | 26 dB Bandwidth | - | 5250-5350 |
| | 26 dB Bandwidth | - | 5470-5725 |
| | 6dB Bandwidth | Minimum 500 kHz | 5725-5850 |

5.2TEST PROCEDURE

- a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below
- b. Spectrum Setting:
For UNII-1

| Spectrum Parameter | Setting |
|--------------------|--|
| Span Frequency | > 26dB Bandwidth |
| RBW | Appromoximately 1% of the emission bandwidth |
| VBW | > RBW |
| Detector | Peak |
| Trace | Max Hold |
| Sweep Time | Auto |

For UNII-3:

| Spectrum Parameter | Setting |
|--------------------|-----------------|
| Span Frequency | > 6dB Bandwidth |
| RBW | 1MHz |
| VBW | 3MHz |
| Detector | Peak |
| Trace | Max Hold |
| Sweep Time | Auto |

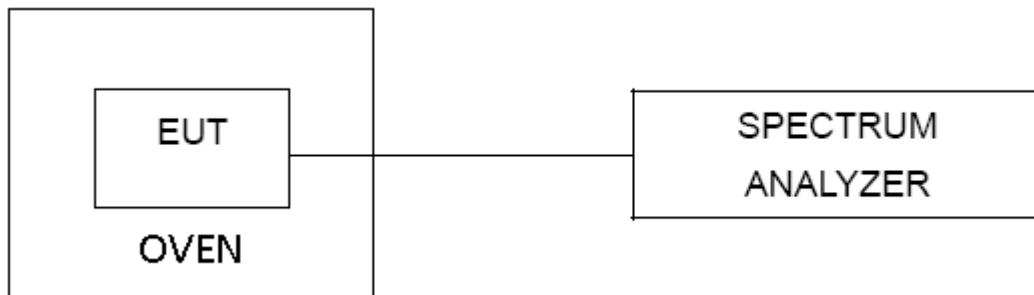
For 99% Occupied Bandwidth:

| Spectrum Parameter | Setting |
|--------------------|------------------------------|
| Span Frequency | 1.5 times to 5 times the OBW |
| RBW | 1% to 5% of the OBW |
| VBW | $\geq 3 \times \text{RBW}$ |
| Detector | Peak |
| Trace | Max Hold |
| Sweep Time | Auto |

- c. Measured the spectrum width with power higher than 26dB / 6dB below carrier.

5.3DEVIATION FROM STANDARD

No deviation.

5.4 TEST SETUP**5.5 EUT OPERATION CONDITIONS**

The EUT was programmed to be in continuously transmitting mode.

5.6 TEST RESULTS

Please refer to the APPENDIX E.

6.MAXIMUM OUTPUT POWER

6.1LIMIT

| Section | Test Item | Limit | Frequency Range (MHz) |
|---------------|---------------------|---|-----------------------|
| FCC 15.407(a) | MaximumOutput Power | AP device:1 Watt (30dBm) Client device: 250mW (23.98dBm) | 5150-5250 |
| | | 250mW (23.98dBm) | 5250-5350 |
| | | 250mW (23.98dBm) | 5470-5725 |
| | | 1 Watt (30dBm) | 5725-5850 |

Note:

- 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. In addition, 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, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.
- For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm + 10log B, where B is the 26dB Bandwidth in megahertz.

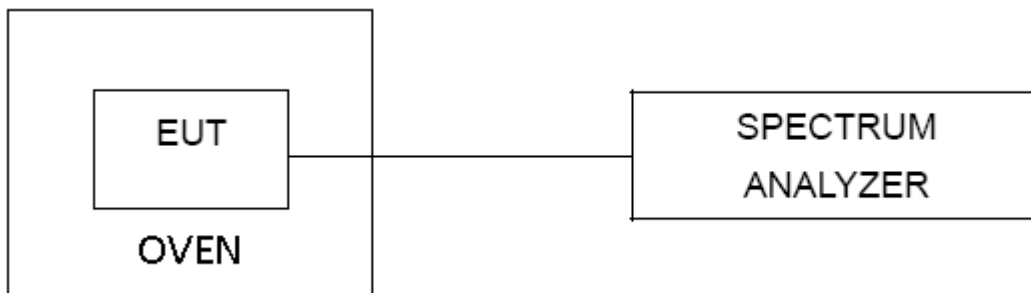
6.2TEST PROCEDURE

- The EUT was directly connected to the peak power analyzer and antenna output port as show in the block diagram below.
- The test was performed in accordance with method of FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.

6.3DEVIATION FROM STANDARD

No deviation.

6.4TEST SETUP



6.5EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

6.6 TEST RESULTS

Please refer to the APPENDIX F.

7.POWER SPECTRAL DENSITY

7.1LIMIT

| Section | Test Item | Limit | Frequency Range (MHz) |
|---------------|------------------------|--|-----------------------|
| FCC 15.407(a) | Power Spectral Density | AP device:17dBm/MHz Client device:11dBm/MHz | 5150-5250 |
| | | 11dBm/MHz | 5250-5350 |
| | | 11dBm/MHz | 5470-5725 |
| | | 30dBm/500kHz | 5725-5850 |

7.2TEST PROCEDURE

- The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below.
- Spectrum Setting:
For UNII-1

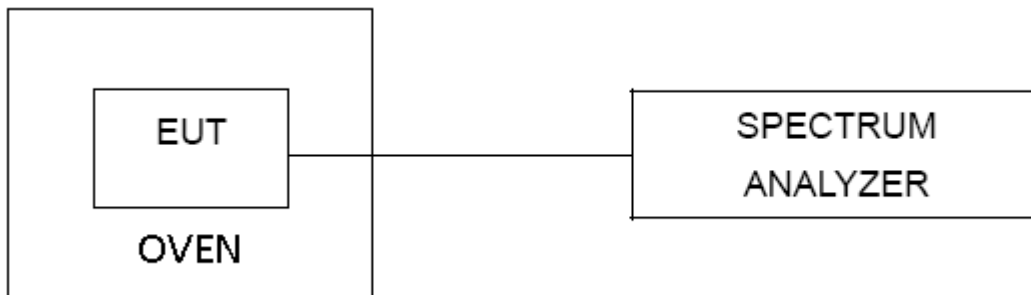
| Spectrum Parameter | Setting |
|--------------------|--|
| Span Frequency | Encompass the entire emissions bandwidth (EBW) of the signal |
| RBW | 1MHz. |
| VBW | 3MHz. |
| Detector | RMS |
| Trace average | 100 trace |
| Sweep Time | Auto |

For UNII-3:

| Spectrum Parameter | Setting |
|--------------------|--|
| Span Frequency | Encompass the entire emissions bandwidth (EBW) of the signal |
| RBW | 1MHz. |
| VBW | 3MHz. |
| Detector | RMS |
| Trace average | 100 trace |
| Sweep Time | Auto |

7.3DEVIATION FROM STANDARD

No deviation.

7.4 TEST SETUP**7.5 EUT OPERATION CONDITIONS**

The EUT was programmed to be in continuously transmitting mode.

7.6 TEST RESULTS

Please refer to the APPENDIXG.

8.FREQUENCY STABILITY

8.1LIMIT

| Section | Test Item | Limit | Frequency Range (MHz) |
|---------------|---------------------|---|-----------------------|
| FCC 15.407(g) | Frequency Stability | An emission is maintained within the band of operation under all conditions of normal operation as specified in the users manual. | 5150-5250 |
| | | | 5250-5350 |
| | | | 5470-5725 |
| | | | 5725-5850 |

8.2TEST PROCEDURE

- The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below.
- Spectrum Setting:

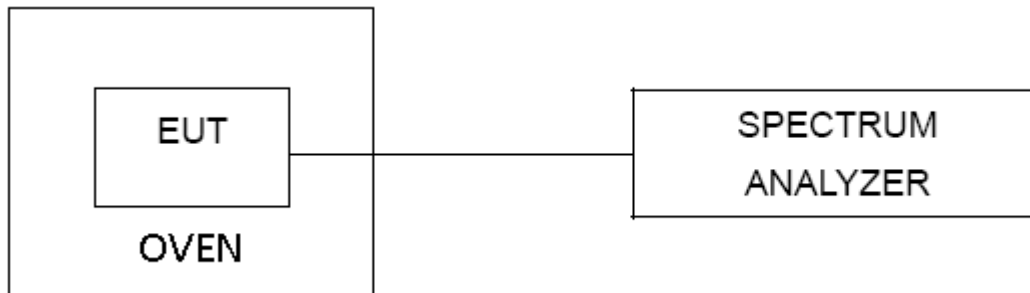
| Spectrum Parameter | Setting |
|--------------------|---|
| Span Frequency | Entire absence of modulation emissionsbandwidth |
| RBW | 10 kHz |
| VBW | 10kHz |
| Detector | Peak |
| Trace | Max Hold |
| Sweep Time | Auto |

- The test extreme voltage is to change the primary supply voltage from 85 to 115 percent of the nominal value.
- User manual temperature is -30°C~75°C.

8.3DEVIATION FROM STANDARD

No deviation.

8.4TEST SETUP



8.5EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

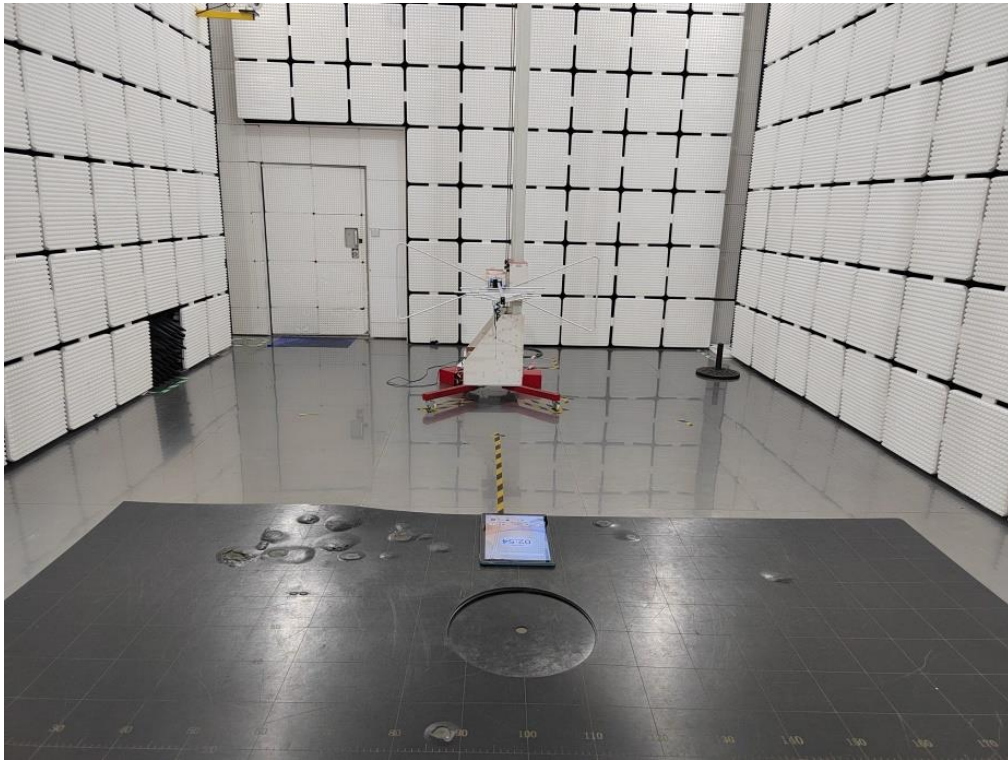
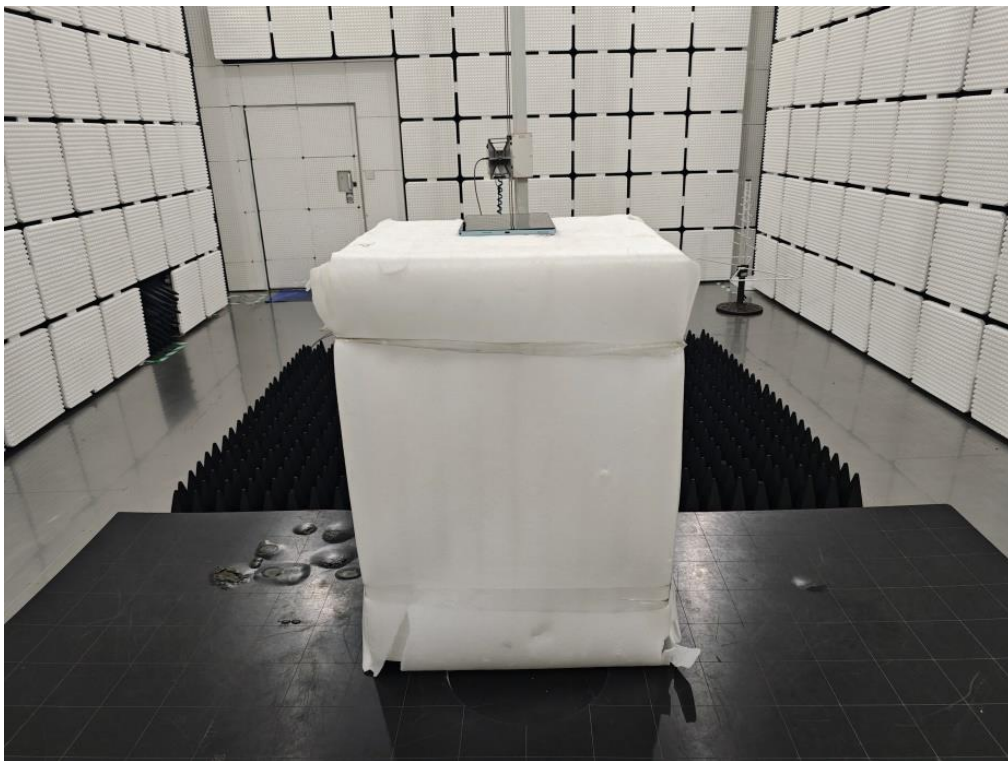
8.6 TEST RESULTS

N/A.

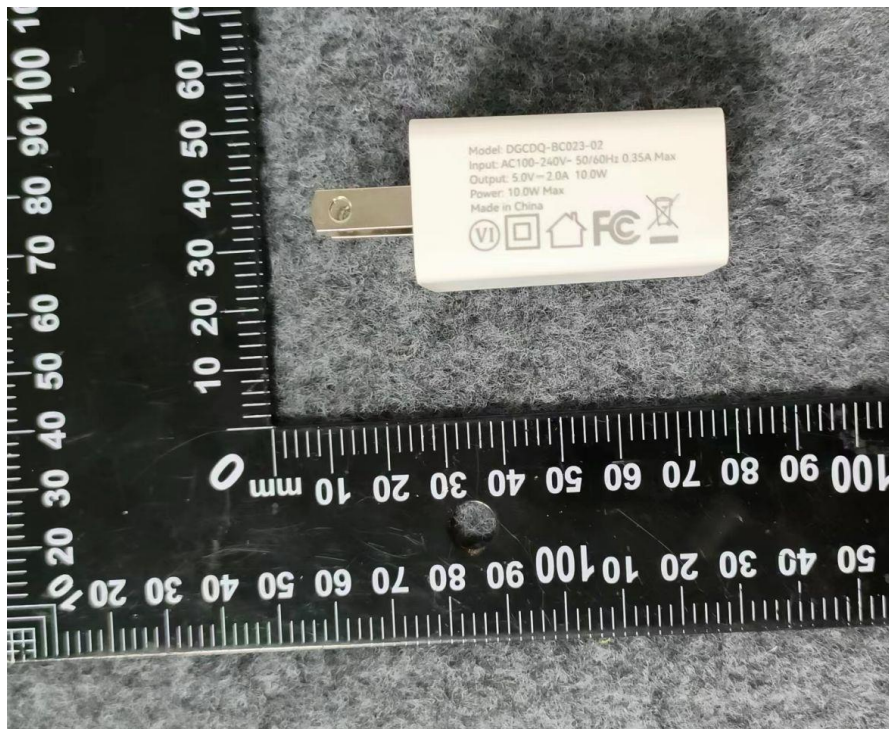
9. MEASUREMENT INSTRUMENTS LIST

| Name of Equipment | Manufacturer | Model Number | Serial Number | Last Calibration | Due Calibration |
|-------------------|-----------------|----------------------|--------------------------|------------------|-----------------|
| EMI Receiver | Rohde&Schwarz | ESIB 40 | YH-TIRT-SAC-966-20220911 | 2024/01/05 | 2025/01/04 |
| Integral Antenna | Schwarzbeck | VULB 9163 | 01314 | 2022/12.11 | 2024/12/10 |
| Integral Antenna | Rohde&Schwarz | HF907 | RSM2991424 | 2022/12/11 | 2024/12/10 |
| Preamplifier | Emtrace | RP01A | '02017 | 2024/01/05 | 2025/01/04 |
| Preamplifier | Schwarzbeck | BBV9744 | 00143 | 2024/01/05 | 2025/01/04 |
| Loop Antenna | ZHINAN | ZN30900A | 12024 | 2024/01/05 | 2025/01/04 |
| Horn Antenna | Schwarzbeck | BBHA9170 | 00956 | 2024/01/05 | 2025/01/04 |
| RF Cable | / | LMR400UF-NMNM-7.0M | / | 2024/01/05 | 2025/01/04 |
| RF Cable | / | SFT2050PUR-NMNM-7.0M | / | 2024/01/05 | 2025/01/04 |
| EMI Receiver | Rohde&Schwarz | ESR7 | 1316.3003K07-102611-mk | 2024/11/02 | 2025/11/01 |
| LISN | Rohde&Schwarz | ENV216 | 3560.655.12-102915-Bp | 2024/11/02 | 2025/11/01 |
| RF Cable | \ | SFT2050PUR-NMNM-2.0M | \ | 2024/01/05 | 2025/01/04 |
| Spectrum analyzer | ROHDE&SCHWARZ | FSU26 | 200732 | 2024/01/05 | 2025/01/04 |
| Spectrum analyzer | ROHDE&SCHWARZ | FSV40-N | 101722 | 2024/01/05 | 2025/01/04 |
| Filter | HEWLETT PACKARD | JS0806-F | 19K8060209 | 2024/01/05 | 2025/01/04 |

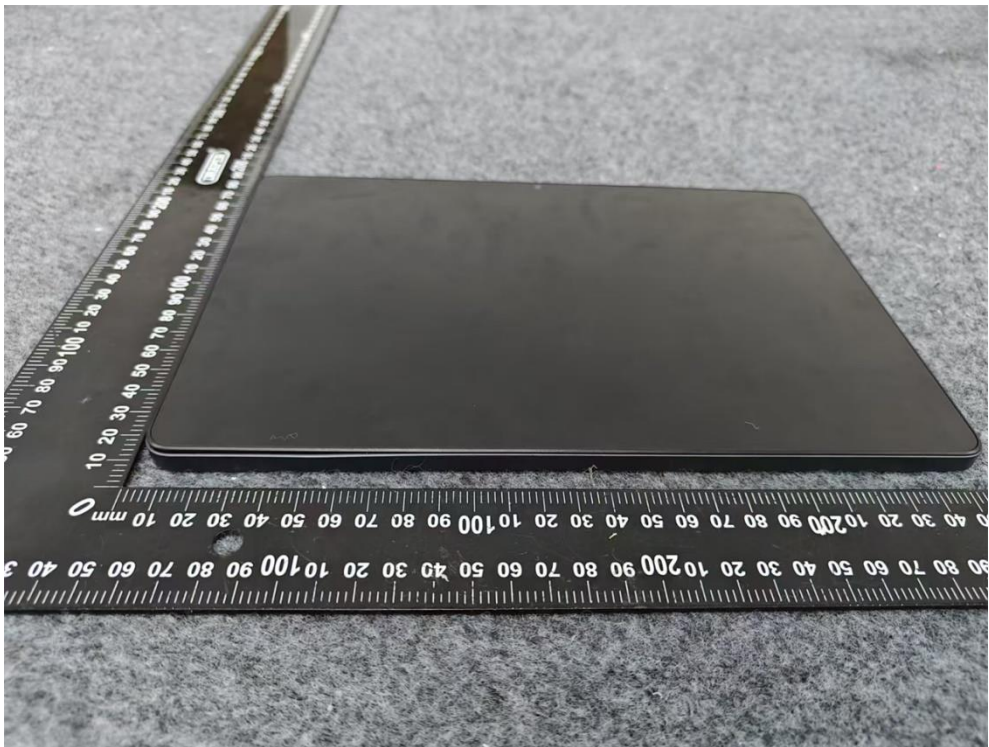
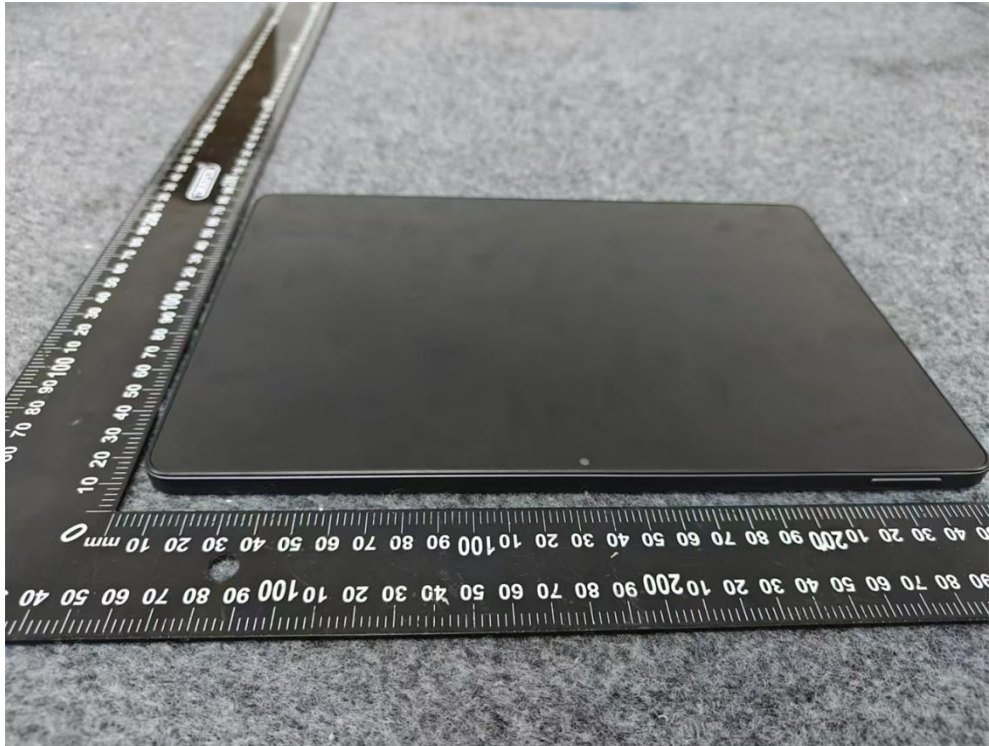
10.EUT TEST PHOTOS**AC Power Line Conducted Emissions Test Photos****Conducted RF Test Photos**

Radiated Emissions Test Photos**30 MHz to 1 GHz****Radiated Emissions Test Photos****Above 1 GHz**

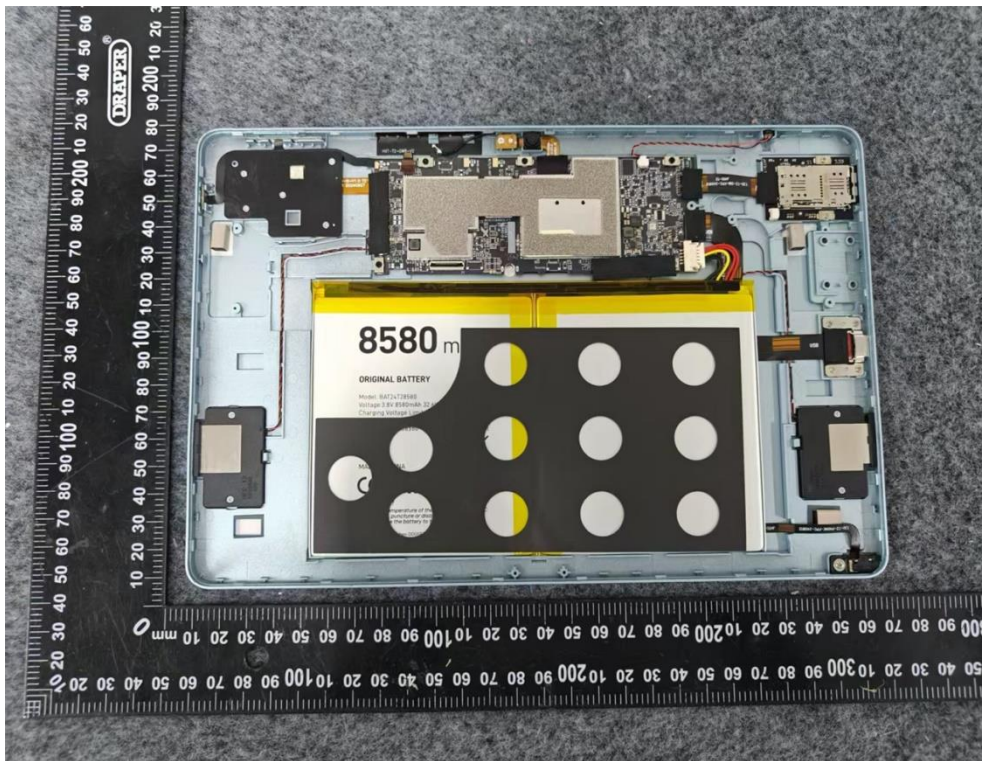
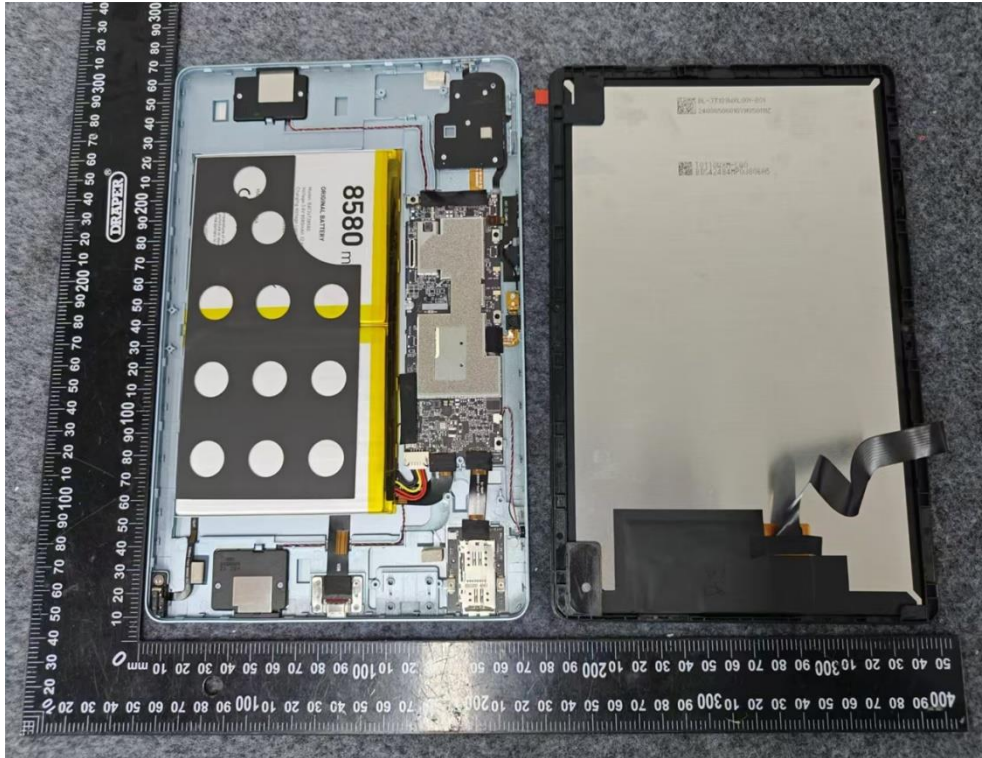
11.EUT PHOTOS

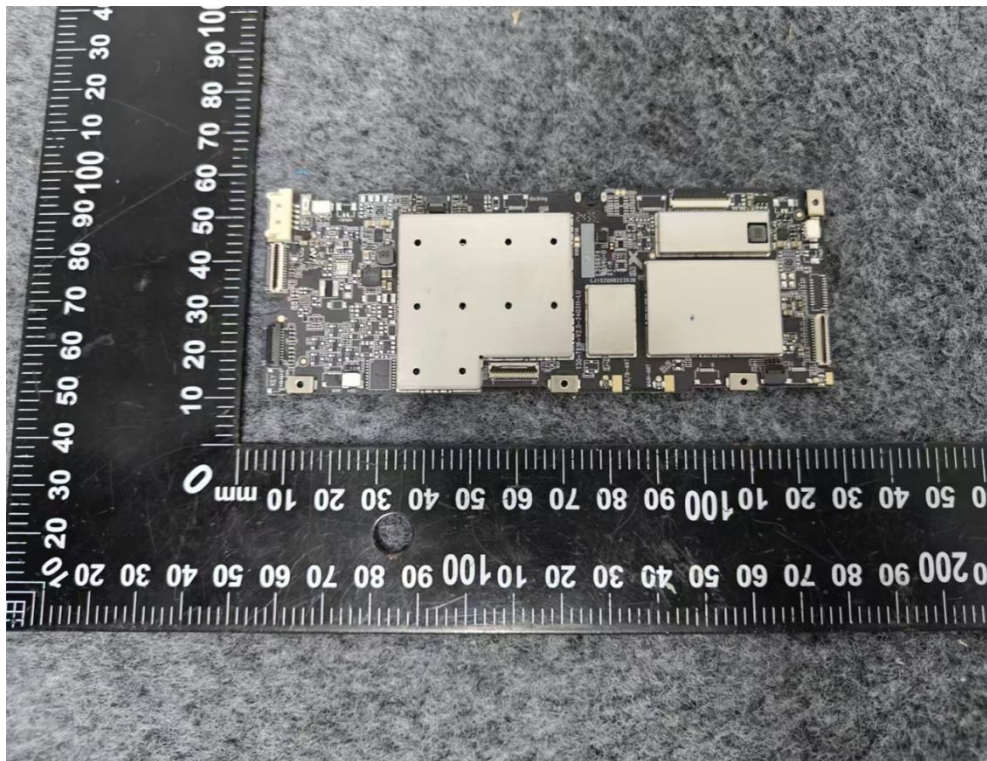
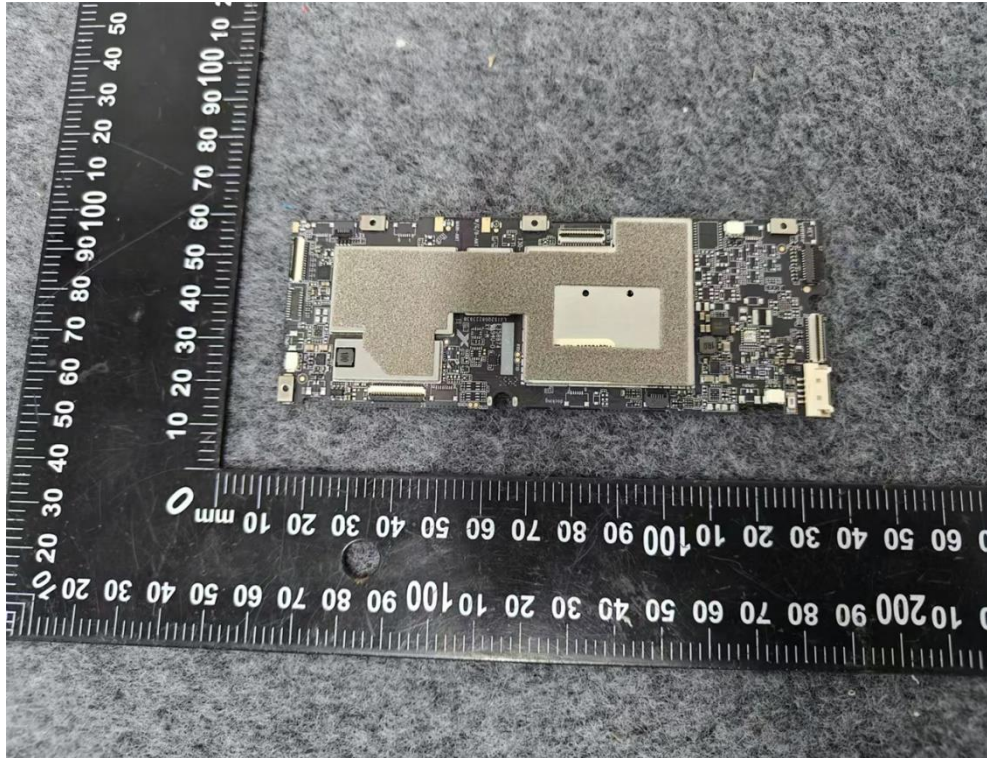


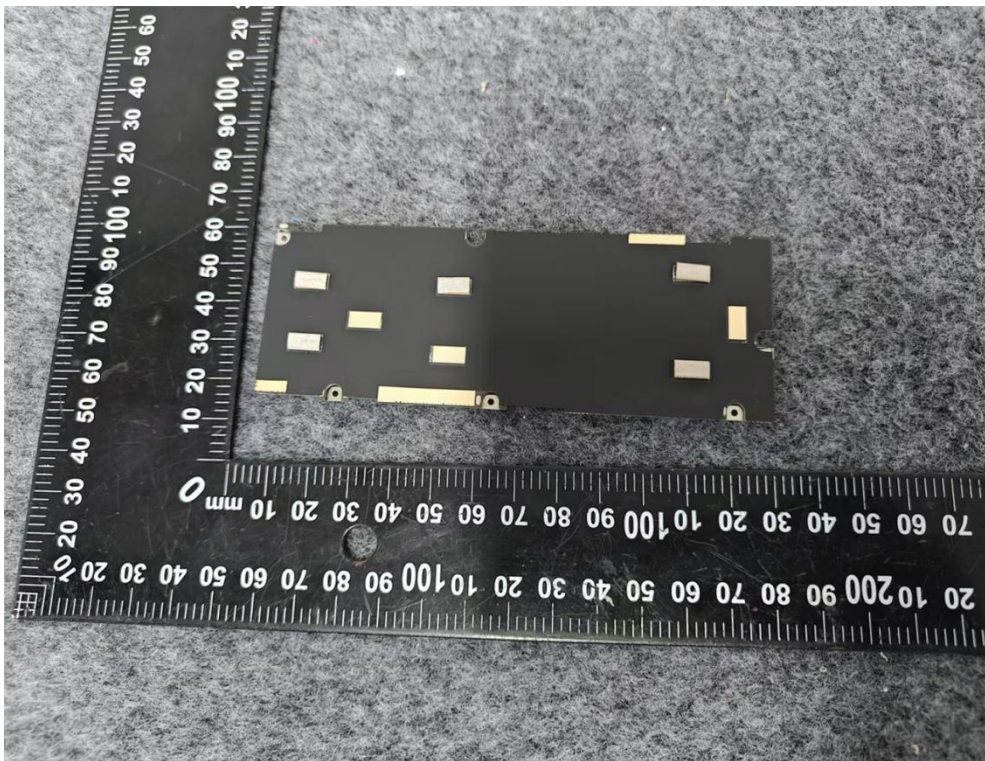
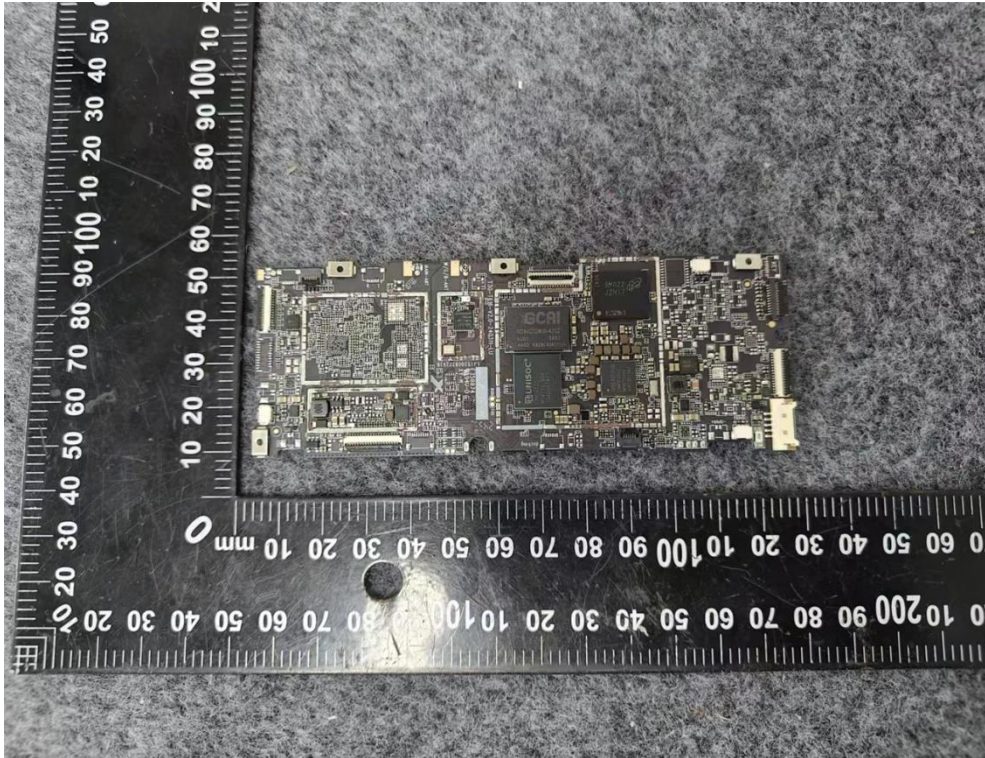








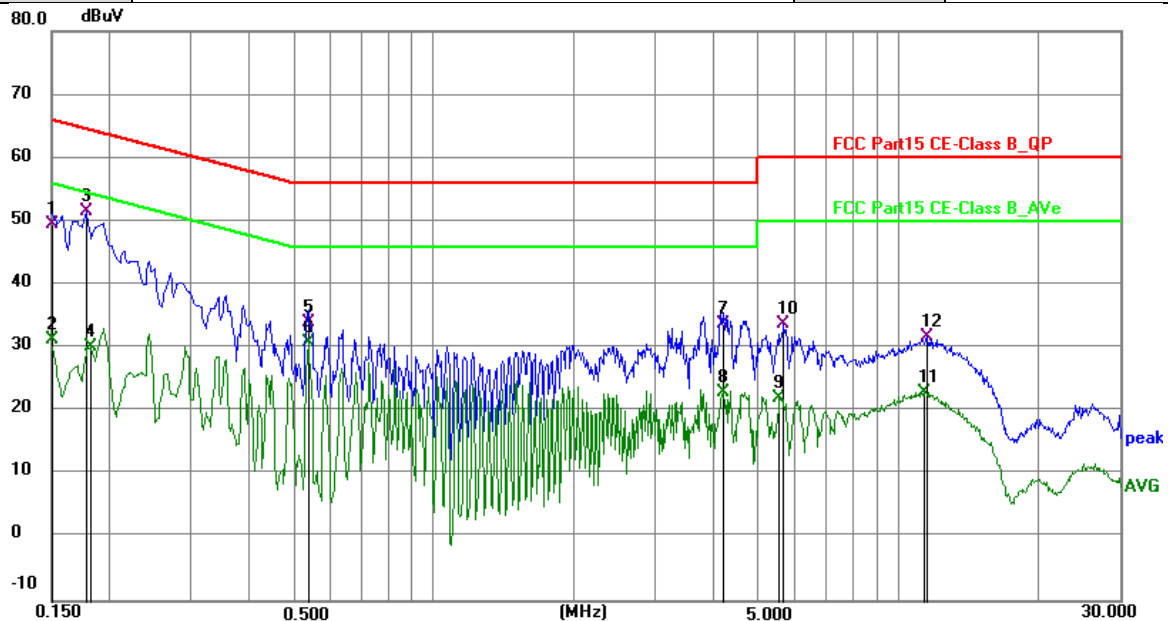






APPENDIX A - AC POWER LINE CONDUCTED EMISSIONS

| | | | |
|-----------|--|-------|------|
| Test Mode | TX AC(VHT80) Mode Channel 155 (UNII-3) | Phase | Line |
|-----------|--|-------|------|

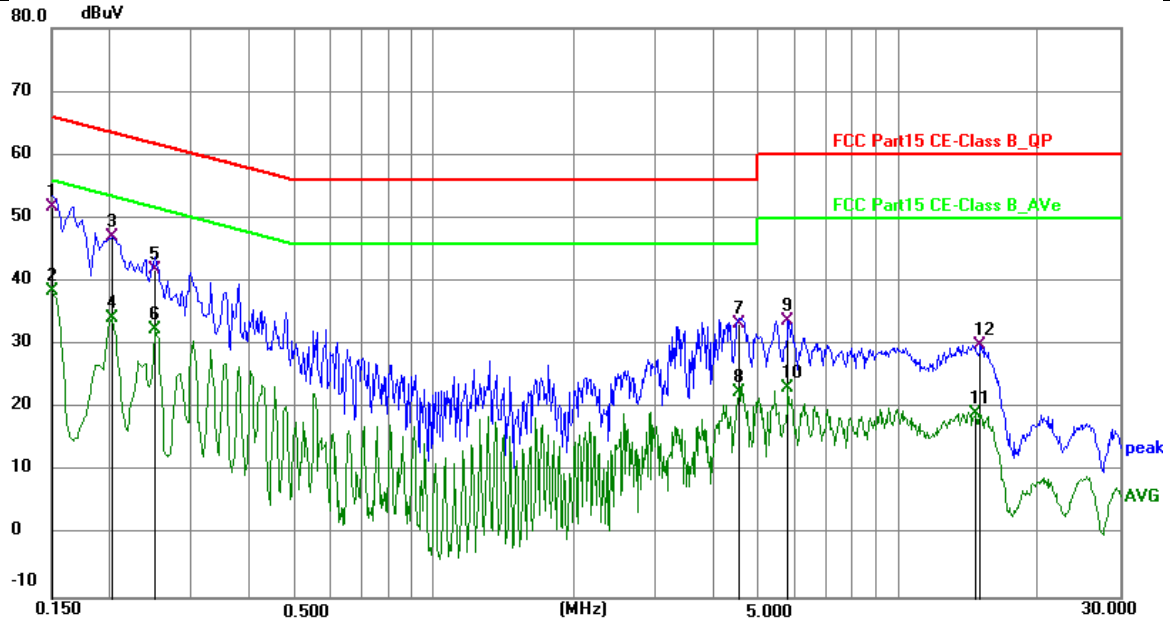


| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB) | Level (dBuV) | Limit (dBuV) | Margin (dB) | Detector | P/F | Remark |
|-----|-----------------|----------------|-------------|--------------|--------------|-------------|----------|-----|--------|
| 1 | 0.1500 | 39.95 | 9.67 | 49.62 | 66.00 | -16.38 | QP | P | |
| 2 | 0.1500 | 21.67 | 9.67 | 31.34 | 56.00 | -24.66 | AVG | P | |
| 3 * | 0.1780 | 41.92 | 9.66 | 51.58 | 64.58 | -13.00 | QP | P | |
| 4 | 0.1819 | 20.51 | 9.66 | 30.17 | 54.40 | -24.23 | AVG | P | |
| 5 | 0.5340 | 23.84 | 10.20 | 34.04 | 56.00 | -21.96 | QP | P | |
| 6 | 0.5340 | 20.53 | 10.20 | 30.73 | 46.00 | -15.27 | AVG | P | |
| 7 | 4.1900 | 23.75 | 10.10 | 33.85 | 56.00 | -22.15 | QP | P | |
| 8 | 4.1900 | 12.88 | 10.10 | 22.98 | 46.00 | -23.02 | AVG | P | |
| 9 | 5.5580 | 11.92 | 10.22 | 22.14 | 50.00 | -27.86 | AVG | P | |
| 10 | 5.6660 | 23.49 | 10.22 | 33.71 | 60.00 | -26.29 | QP | P | |
| 11 | 11.3178 | 12.74 | 10.31 | 23.05 | 50.00 | -26.95 | AVG | P | |
| 12 | 11.5260 | 21.36 | 10.31 | 31.67 | 60.00 | -28.33 | QP | P | |

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.
- (3) The test result has included the cable loss.

| | | | |
|-----------|--|-------|---------|
| Test Mode | TX AC(VHT80) Mode Channel 155 (UNII-3) | Phase | Neutral |
|-----------|--|-------|---------|



| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB) | Level (dBuV) | Limit (dBuV) | Margin (dB) | Detector | P/F | Remark |
|-----|-----------------|----------------|-------------|--------------|--------------|-------------|----------|-----|--------|
| 1 * | 0.1500 | 42.20 | 9.65 | 51.85 | 66.00 | -14.15 | QP | P | |
| 2 | 0.1500 | 28.79 | 9.65 | 38.44 | 56.00 | -17.56 | AVG | P | |
| 3 | 0.2020 | 37.43 | 9.63 | 47.06 | 63.53 | -16.47 | QP | P | |
| 4 | 0.2020 | 24.61 | 9.63 | 34.24 | 53.53 | -19.29 | AVG | P | |
| 5 | 0.2500 | 32.32 | 9.63 | 41.95 | 61.76 | -19.81 | QP | P | |
| 6 | 0.2500 | 22.85 | 9.63 | 32.48 | 51.76 | -19.28 | AVG | P | |
| 7 | 4.5380 | 23.14 | 10.06 | 33.20 | 56.00 | -22.80 | QP | P | |
| 8 | 4.5380 | 12.56 | 10.06 | 22.62 | 46.00 | -23.38 | AVG | P | |
| 9 | 5.7980 | 23.66 | 10.15 | 33.81 | 60.00 | -26.19 | QP | P | |
| 10 | 5.7980 | 13.03 | 10.15 | 23.18 | 50.00 | -26.82 | AVG | P | |
| 11 | 14.6780 | 9.00 | 10.25 | 19.25 | 50.00 | -30.75 | AVG | P | |
| 12 | 15.0540 | 19.72 | 10.24 | 29.96 | 60.00 | -30.04 | QP | P | |

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.
- (3) The test result has included the cable loss.

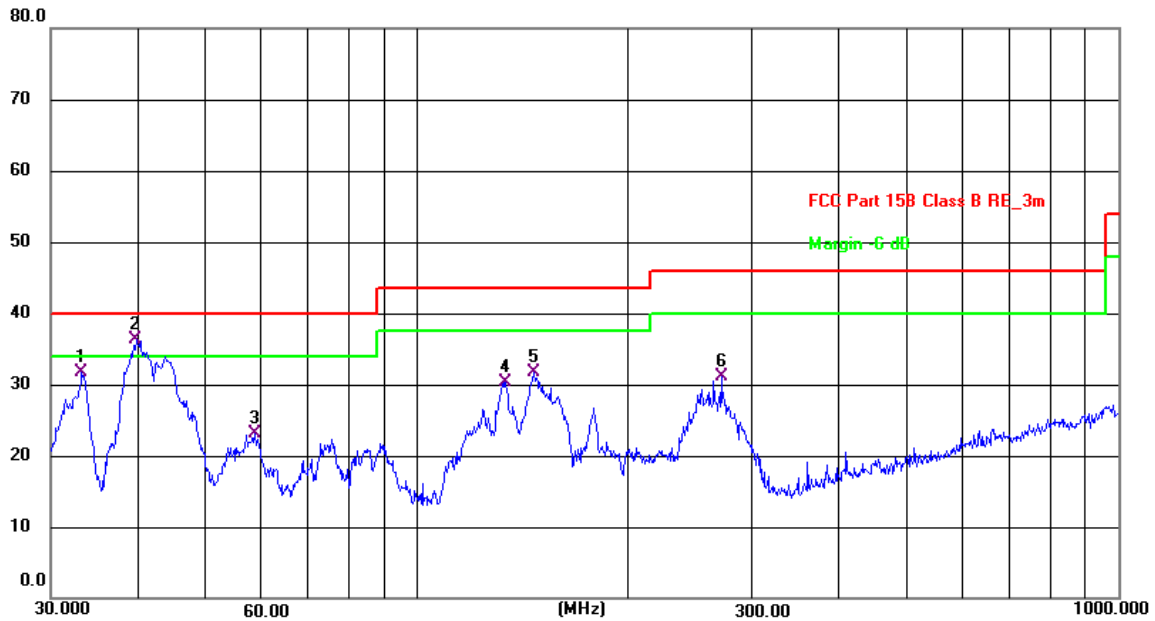
APPENDIX B - RADIATED EMISSION - 9 KHZ TO 30 MHZ

The low frequency, which started from 9 kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit line was not reported.

There is a comparison data of both open-field test site and semi-Anechoic chamber, and the result came out very similar.

APPENDIX C - RADIATED EMISSION - 30 MHZ TO 1000 MHZ

| | | | |
|-----------|--|--------------|----------|
| Test Mode | TX AC(VHT80) Mode Channel 155 (UNII-3) | Polarization | Vertical |
|-----------|--|--------------|----------|

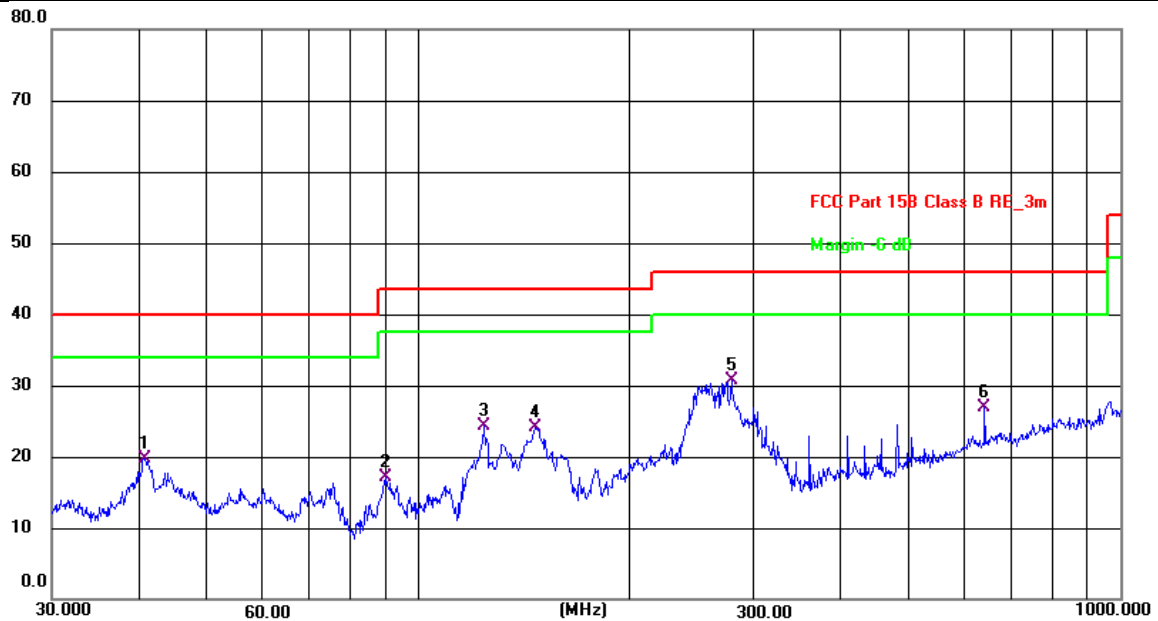


| No. | Frequency (MHz) | Reading () | Factor (dB) | Level () | Limit () | Margin (dB) | Detector | Height (cm) | Azimuth (deg.) | P/F | Remark |
|-----|-----------------|------------|-------------|----------|----------|-------------|----------|-------------|----------------|-----|--------|
| 1 | 33.2112 | 50.99 | -19.35 | 31.64 | 40.00 | -8.36 | QP | 100 | 95 | P | |
| 2 * | 39.7146 | 54.77 | -18.39 | 36.38 | 40.00 | -3.62 | QP | 100 | 76 | P | |
| 3 | 58.6126 | 41.93 | -18.80 | 23.13 | 40.00 | -16.87 | QP | 100 | 208 | P | |
| 4 | 133.6188 | 48.58 | -18.21 | 30.37 | 43.50 | -13.13 | QP | 100 | 9 | P | |
| 5 | 146.8877 | 49.24 | -17.53 | 31.71 | 43.50 | -11.79 | QP | 100 | 4 | P | |
| 6 | 271.3246 | 49.27 | -18.18 | 31.09 | 46.00 | -14.91 | QP | 100 | 355 | P | |

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

| | | | |
|-----------|--|--------------|------------|
| Test Mode | TX AC(VHT80) Mode Channel 155 (UNII-3) | Polarization | Horizontal |
|-----------|--|--------------|------------|



| No. | Frequency (MHz) | Reading () | Factor (dB) | Level () | Limit () | Margin (dB) | Detector | Height (cm) | Azimuth (deg.) | P/F | Remark |
|-----|-----------------|------------|-------------|----------|----------|-------------|----------|-------------|----------------|-----|--------|
| 1 | 40.7016 | 38.14 | -18.35 | 19.79 | 40.00 | -20.21 | QP | 200 | 316 | P | |
| 2 | 89.9046 | 39.37 | -22.36 | 17.01 | 43.50 | -26.49 | QP | 200 | 353 | P | |
| 3 | 123.6984 | 43.18 | -18.94 | 24.24 | 43.50 | -19.26 | QP | 200 | 316 | P | |
| 4 | 146.3734 | 41.84 | -17.65 | 24.19 | 43.50 | -19.31 | QP | 200 | 272 | P | |
| 5 * | 279.0436 | 48.60 | -17.85 | 30.75 | 46.00 | -15.25 | QP | 100 | 81 | P | |
| 6 | 640.6110 | 35.67 | -8.85 | 26.82 | 46.00 | -19.18 | QP | 200 | 353 | P | |

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

APPENDIX D - RADIATED EMISSION - ABOVE 1000 MHZ

Test Result B1

| TestMode | Antenna | ChName | Freq(MHz) | Result[dBm] | Limit[dBm] | Verdict |
|------------|---------|--------|-----------|-------------|------------|---------|
| 11A | Ant1 | Low | 5180 | -40.63 | ≤-27 | PASS |
| | | High | 5240 | -45.91 | ≤-27 | PASS |
| 11N20SISO | Ant1 | Low | 5180 | -42.58 | ≤-27 | PASS |
| | | High | 5240 | -45.71 | ≤-27 | PASS |
| 11N40SISO | Ant1 | Low | 5190 | -37.69 | ≤-27 | PASS |
| | | High | 5230 | -46.12 | ≤-27 | PASS |
| 11AC20SISO | Ant1 | Low | 5180 | -44.02 | ≤-27 | PASS |
| | | High | 5240 | -45.79 | ≤-27 | PASS |
| 11AC40SISO | Ant1 | Low | 5190 | -38.19 | ≤-27 | PASS |
| | | High | 5230 | -45.95 | ≤-27 | PASS |
| 11AC80SISO | Ant1 | High | 5210 | -45.82 | ≤-27 | PASS |

Test Result B4

| TestMode | Antenna | ChName | Freq(MHz) | FreqRange [MHz] | Result [dBm] | Limit [dBm] | Verdict |
|------------|---------|--------|-----------|-----------------|--------------|-------------|---------|
| 11A | Ant1 | Low | 5745 | 5650~5700 | -46.32 | ≤-22.81 | PASS |
| | | | | 5700~5720 | -37.2 | ≤15.60 | PASS |
| | | | | 5720~5725 | -34.56 | ≤18.26 | PASS |
| | | | | 5760~5650 | -47.8 | ≤-27 | PASS |
| | | High | 5825 | 5850~5855 | -38.95 | ≤26.95 | PASS |
| | | | | 5855~5875 | -38.42 | ≤10.21 | PASS |
| | | | | 5875~5925 | -44.65 | ≤-21.69 | PASS |
| | | | | 5925~5935 | -45.4 | ≤-27 | PASS |
| 11N20SISO | Ant1 | Low | 5745 | 5650~5700 | -45.7 | ≤3.34 | PASS |
| | | | | 5700~5720 | -42.84 | ≤15.60 | PASS |
| | | | | 5720~5725 | -40.7 | ≤27.00 | PASS |
| | | | | 5760~5650 | -47.02 | ≤-27 | PASS |
| | | High | 5825 | 5850~5855 | -40.8 | ≤16.69 | PASS |
| | | | | 5855~5875 | -43.38 | ≤11.53 | PASS |
| | | | | 5875~5925 | -44.42 | ≤-21.69 | PASS |
| | | | | 5925~5935 | -46.4 | ≤-27 | PASS |
| 11N40SISO | Ant1 | Low | 5755 | 5650~5700 | -44.53 | ≤9.98 | PASS |
| | | | | 5700~5720 | -32.62 | ≤15.36 | PASS |
| | | | | 5720~5725 | -31.1 | ≤22.59 | PASS |
| | | | | 5780~5650 | -48.05 | ≤-27 | PASS |
| | | High | 5795 | 5850~5855 | -38.16 | ≤19.67 | PASS |
| | | | | 5855~5875 | -43.62 | ≤10.77 | PASS |
| | | | | 5875~5925 | -45.18 | ≤-12.15 | PASS |
| | | | | 5925~5935 | -47.12 | ≤-27 | PASS |
| 11AC20SISO | Ant1 | Low | 5745 | 5650~5700 | -45.61 | ≤8.89 | PASS |
| | | | | 5700~5720 | -43.19 | ≤15.41 | PASS |
| | | | | 5720~5725 | -38.62 | ≤25.48 | PASS |
| | | | | 5760~5650 | -47.93 | ≤-27 | PASS |
| | | High | 5825 | 5850~5855 | -40.82 | ≤17.58 | PASS |
| | | | | 5855~5875 | -43.72 | ≤12.19 | PASS |
| | | | | 5875~5925 | -43.86 | ≤8.57 | PASS |
| | | | | 5925~5935 | -46.18 | ≤-27 | PASS |
| 11AC40SISO | Ant1 | Low | 5755 | 5650~5700 | -45.46 | ≤7.52 | PASS |
| | | | | 5700~5720 | -37.06 | ≤15.36 | PASS |
| | | | | 5720~5725 | -35.81 | ≤23.04 | PASS |
| | | | | 5780~5650 | -47.82 | ≤-27 | PASS |
| | | High | 5795 | 5850~5855 | -42.95 | ≤16.39 | PASS |

| | | | | | | | |
|----------------|------|------|------|-----------|--------|---------------|------|
| 11AC80 SISO | Ant1 | Low | 5775 | 5855~5875 | -43.69 | ≤ 15.06 | PASS |
| | | | | 5875~5925 | -45.48 | ≤ -4.72 | PASS |
| | | | | 5925~5935 | -47.33 | ≤ -27 | PASS |
| | | | | 5650~5700 | -39.4 | ≤ 8.03 | PASS |
| | | | | 5700~5720 | -34.16 | ≤ 15.04 | PASS |
| | | | | 5720~5725 | -35.33 | ≤ 15.67 | PASS |
| | | High | 5775 | 5800~5650 | -47.1 | ≤ -27 | PASS |
| | | | | 5850~5855 | -39.14 | ≤ 26.62 | PASS |
| | | | | 5855~5875 | -34.28 | ≤ 11.45 | PASS |
| | | | | 5875~5925 | -38.11 | ≤ -26.45 | PASS |
| | | | | 5925~5935 | -47.03 | ≤ -27 | PASS |