



FCC Radio Test Report

FCC ID: VFK-RC-WM-E54-V2

Report No. : BTL-FCCP-1-2204T066 Equipment : REMOTE CONTROL

Model Name : RC-WM-E53, ERCE53W00, RC-WM-E53-006, RC-WM-E54,

RC-WM-E54-001, ERCE54W01, ERCE54W00, RC-WM-E55,

RC-WM-E56

Brand Name : Reverie Applicant : Ascion, LLC

Address : 2066 Franklin Rd, Bloomfield Hills, MI, 48302 United States

Radio Function : 433.92 MHz

FCC Rule Part(s) : FCC CFR Title 47, Part 15, Subpart C

Measurement : ANSI C63.10-2013

Procedure(s)

Date of Receipt : 2022/4/22

Date of Test : 2022/4/22 ~ 2022/6/1

Issued Date : 2022/6/20

The above equipment has been tested and found in compliance with the requirement of the above standards by BTL Inc.

Prepared by :

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Taf

Testing Laboratory

0659

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Declaration

BTL represents to the client that testing is done in accordance with standard procedures as applicable and that test instruments used has been calibrated with standards traceable to international standard(s) and/or national standard(s).

BTL's reports apply only to the specific samples tested under conditions. It is manufacture's responsibility to ensure that additional production units of this model are manufactured with the identical electrical and mechanical components. **BTL** shall have no liability for any declarations, inferences or generalizations drawn by the client or others from **BTL** issued reports.

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BTL's laboratory quality assurance procedures are in compliance with the **ISO/IEC 17025** requirements, and accredited by the conformity assessment authorities listed in this test report.

BTL is not responsible for the sampling stage, so the results only apply to the sample as received.

The information, data and test plan are provided by manufacturer which may affect the validity of results, so it is manufacturer's responsibility to ensure that the apparatus meets the essential requirements of applied standards and in all the possible configurations as representative of its intended use.

Limitation

For the use of the authority's logo is limited unless the Test Standard(s)/Scope(s)/Item(s) mentioned in this test report is (are) included in the conformity assessment authorities acceptance respective.

Please note that the measurement uncertainty is provided for informational purpose only and are not use in determining the Pass/Fail results.

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REVISION HISTORY

| Report No. | Version | Description | Issued Date | Note |
|---------------------|---------|------------------|-------------|-------|
| BTL-FCCP-1-2204T066 | R00 | Original Report. | 2022/6/20 | Valid |

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SUMMARY OF TEST RESULTS

Test procedures according to the technical standards.

| Standard(s) Section | Description | Test Result | Judgement | Remark |
|---------------------|-----------------------------------|--------------------------|-----------|---------|
| 15.207 | AC Power Line Conducted Emissions | | N/A | NOTE(1) |
| 15.209 15.231(b) | Radiated Emissions | APPENDIX A APPENDIX B | Pass | |
| 15.231(c) | 20 dB Spectrum Bandwidth | APPENDIX C | Pass | |
| 15.231(a)(1) | Timing Testing | APPENDIX D | Pass | |

NOTE:

- (1) "N/A" denotes test is not applicable in this Test Report.(2) The report format version is TP.1.1.1.

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1.1 TEST FACILITY

| The test facilities | es used to | collect the | test data | in this | report: |
|---------------------|------------|-------------|-----------|---------|---------|
| | | | | | |

No. 68-1, Ln. 169, Sec. 2, Datong Rd., Xizhi Dist., New Taipei City 221, Taiwan The test sites and facilities are covered under FCC RN: 674415 and DN: TW0659.

| □ C05 | □ CB08 | □ CB11 | □ CB15 | ☐ CB16 |
|-------|--------|--------|--------|--------|

⊠ SR05

1.2 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement $\mathbf{y} \pm \mathbf{U}$, where expanded uncertainty \mathbf{U} is based on a standard uncertainty multiplied by a coverage factor of $\mathbf{k} = \mathbf{2}$, providing a level of confidence of approximately $\mathbf{95}$ %. The measurement instrumentation uncertainty considerations contained in CISPR 16-4-2. The BTL measurement uncertainty is less than the CISPR 16-4-2 \mathbf{U}_{cispr} requirement.

A. Radiated emissions test:

| Test Site | Measurement Frequency Range | U,(dB) | | | |
|-----------|-----------------------------|--------|--|--|--|
| | 0.03 GHz ~ 0.2 GHz | 4.17 | | | |
| | 0.2 GHz ~ 1 GHz | 4.72 | | | |
| CB15 | 1 GHz ~ 6 GHz | 5.21 | | | |
| CB15 | 6 GHz ~ 18 GHz | 5.51 | | | |
| | 18 GHz ~ 26 GHz | 3.69 | | | |
| | 26 GHz ~ 40 GHz | 4.23 | | | |

C. Conducted test:

| Test Item | U,(dB) |
|--------------------------|--------|
| 20 dB Spectrum Bandwidth | 0.5338 |

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

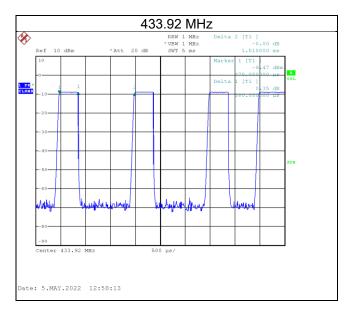
| Test Item | Environment Condition | Test Voltage | Tested by |
|--------------------------------|------------------------------|--------------|--------------------------|
| Radiated emissions below 1 GHz | Refer to data | DC 4.5V | Eddie Lee Vincent Lee |
| Radiated emissions above 1 GHz | Refer to data | DC 4.5V | Vincent Lee |
| 20 dB Spectrum Bandwidth | 24.1 °C, 49 % | DC 4.5V | Angela Wang |
| Timing Testing | 24.1 °C, 49 % | DC 4.5V | Angela Wang |

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1.4 DUTY CYCLE

If duty cycle is \geq 98 %, duty factor is not required. If duty cycle is < 98 %, duty factor shall be considered.

| Remark | Delta 1 | | | Delta 2 | On Time/Period | 20 log(1/Duty Cycle) |
|------------|---------|---------|-------------|-----------------|----------------|----------------------|
| Mode | ON | Numbers | On Time (B) | Period (ON+OFF) | Duty Cycle | Duty Factor |
| lviode | (ms) | (ON) | (ms) | (ms) | (%) | (dB) |
| 433.92 MHz | 0.380 | 1 | 0.380 | 1.510 | 25.17% | -11.98 |



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2 GENERAL INFORMATION

2.1 DESCRIPTION OF EUT

| Equipment | REMOTE CONTROL |
|---------------------|---|
| Ечартын | RC-WM-E53, ERCE53W00, RC-WM-E53-006, RC-WM-E54, |
| Model Name | RC-WM-E54-001, ERCE54W01, ERCE54W00, RC-WM-E55, RC-WM-E56 |
| Brand Name | Reverie |
| Model Difference | Please refer to NOTE (4). |
| Power Source | Supplied from battery. |
| Power Rating | DC 4.5V |
| Products Covered | N/A |
| Frequency Range | 433.92 MHz |
| Field Strength | 78.73 dBuV/m (Average) |
| Test Model | RC-WM-E53 |
| Sample Status | Engineering Sample |
| EUT Modification(s) | N/A |

NOTE

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

(2) Channel List:

| Channel | Frequency (MHz) |
|---------|-----------------|
| 01 | 433.92 |

(3) Table for Filed Antenna:

| Ant | Brand | Model Name | Antenna Type | Connector | Gain (dBi) |
|-----|-------|------------|--------------|-----------|------------|
| 1 | N/A | N/A | Coil | N/A | N/A |

(4) Difference as listed in the below table:

| (4) Dillerence as list | ed in the below table: |
|-----------------------------|--|
| Model Name | Description |
| RC-WM-E53, ERCE53W00 | Standard 8Q Remote - will be used for 7T/R550/S&W/upgrade kits Wireless Programmable Head/Foot/Massage/Night Light 8Q Remote, Silver, Reverie Logo |
| RC-WM-E53-006 | Standard 8Q Remote - will be used for 7T/R550/S&W/upgrade kits Wireless Programmable Head/Foot/Massage/Night Light 8Q Remote, Silver, Reverie Logo, No US Phone Number Label |
| RC-WM-E54, ERCE54W00 | Head tilt 8Q remote - will be used for R450HT, same firmware as RC-WM-E54-001 Wireless Programmable Head/Foot/Massage/Night Light/Tandem/Head Tilt 8Q Remote, Silver, Reverie Logo |
| RC-WM-E54-001, ERCE54W01 | Head Tilt SKYE 800 remote, used on SKYE 800 Wireless Programmable Head/Foot/Massage/Night Light/Tandem/Head Tilt 8Q Remote, Silver, Havertys SKYE Logo |
| RC-WM-E55 | Used for 8T/9T/R550L/S&W, same firmware as RC-WM-E54-001 Wireless Programmable Head/Foot/Massage/Night Light/Lumbar 8Q Remote, Silver, Reverie Logo |
| RC-WM-E56 | Used for dual tilt - R600/R650, new dual tilt firmware Wireless Programmable Head/Foot/Massage/Night Light/Dual Tilt 8Q Remote, Silver, Reverie Logo |

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2.2 TEST MODES

| Test Items | Test mode | Channel | Note |
|---|------------|---------|------|
| Transmitter Radiated Emissions (below 1GHz) | 433.92 MHz | 01 | - |
| Transmitter Radiated Emissions (above 1GHz) | 433.92 MHz | 01 | - |
| 20 dB Bandwidth | 433.92 MHz | 01 | - |
| Timing Testing | 433.92 MHz | 01 | - |

NOTE:

| (1) | The Radiated emissions test was verified based on the worst conducted power and Bandwidth test results |
|-----|--|
| | reported in the original report |

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2.3 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED

Equipment letters and Cable numbers refer to item numbers described in the tables of clause 2.4.

EUT

2.4 SUPPORT UNITS

| Item | Equipment | Brand | Model No. | Series No. | Remarks |
|------|-----------|-------|-----------|------------|---------|
| - | | | - | - | - |

| Item | Shielded | Ferrite Core | Length | Cable Type | Remarks |
|------|----------|--------------|--------|------------|---------|
| - | - | - | - | - | - |

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3 RADIATED EMISSIONS TEST

3.1 LIMIT

LIMITS OF FIELD STRENGTH OF FUNDAMENTAL MEASUREMENT

| Frequency Band (MHz) | Field strength of fundamental Limit(uV/m) at 3m |
|----------------------|---|
| 40.66-40.70 | 2250 |
| 70-130 | 1250 |
| 130-174 | (**)1250 To 3750 |
| 174-260 | 3750 |
| 260-470 | (**)3750 To 12500 |
| Above 470 | 12500 |

^{**1.} Linear interpolations, the formulas for calculating the maximum permitted fundamental field strengths are as follows:

- (1) For the band 130 174 MHz, μ V/m at 3 meters = 22.72727×(operating frequency, MHz) 2454.545.
- (2) For the band 260 470 MHz, μ V/m at 3 meters =16.6667×(operating frequency, MHz) 2833.3333. So the field strength of emission limits has been calculated in below table.

| Carrier Frequency (MHz) | Fundamental EmissionsLimit(dBuV/m) at 3m |
|-------------------------|--|
| 433.92 MHz | 72.87 (Average) |
| 433.92 MHz | 92.87 (Peak) |

MEASURING INSTRUMENTS AND SETTING (FIELD STRENGTH OF FUNDAMENTAL EMISSIONS)

| Receiver Parameter | Setting |
|--------------------|-----------------------|
| Attenuation | Auto |
| Center Frequency | Fundamental Frequency |
| RBW | 120 kHz |
| Detector | Peak / Average |

RADIATED EMISSIONS MEASUREMENT

Devices complying with 47 CFR FCC part 15 subpart C, section 15.231(e). The field strength of emissions from intentional radiators at 3 meters operated under this Section shall not exceed the following:

| Frequency Band (MHz) | Field strength of spurious emissions (uV/m) at 3m |
|----------------------|---|
| 40.66-40.70 | 225 |
| 70-130 | 125 |
| 130-174 | (**)125 to 375 |
| 174-260 | 375 |
| 260-470 | (**)375 to 1250 |
| Above 470 | 1250 |

^{**1.} Linear interpolations, the formulas for calculating the maximum permitted fundamental field strengths are as follows:

- (1) For the band 130 174 MHz, μ V/m at 3 meters = 22.72727×(operating frequency, MHz) 2454.545.
- (2) For the band 260 470 MHz, μ V/m at 3 meters = 16.6667×(operating frequency, MHz) 2833.3333.
- (3) The maximum permitted unwanted emissions level is 20 dB below the maximum permitted fundamental level. In addition field strength of any emissions which appear inside of the restriction band shall not exceed the general radiated emissions limits in Section 15.209(a).

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| Frequencies (MHz) | Field Strength (micorvolts/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 |

| Receiver Parameter | Setting |
|------------------------|-------------------------------------|
| Attenuation | Auto |
| 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 | 30 MHz~1000MHz for QP detector |

| Spectrum Parameter | Setting |
|---------------------------------------|---|
| Attenuation | Auto |
| Start Frequency | 1000 MHz |
| Stop Frequency | 10th carrier harmonic |
| RB / VB (emission in restricted band) | 1 MHz / 1 MHz for Peak, AV Mode with Dwell time |

3.2 TEST PROCEDURE

- a. 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 1 GHz)
- b. 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 1 GHz)
- c. The height of the equipment or of the substitution antenna shall be 0.8 m or 1.5 m, 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.
- d. 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).
- e. The receiver system was set to peak and average detect function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz..
- f. 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 1 GHz)
- 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 1 GHz)
- i. For the actual test configuration, please refer to the related Item –EUT Test Photos.

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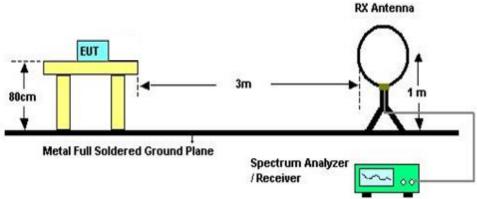


3.3 DEVIATION FROM TEST STANDARD

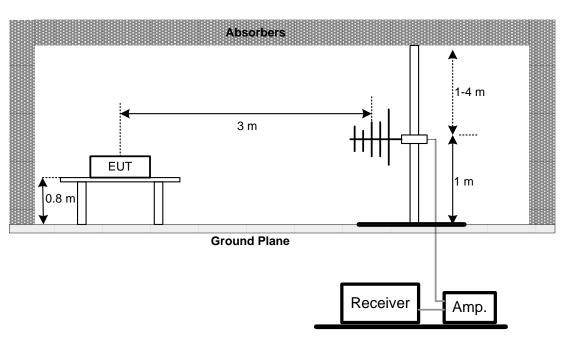
No deviation.

3.4 TEST SETUP

9 kHz to 30 MHz

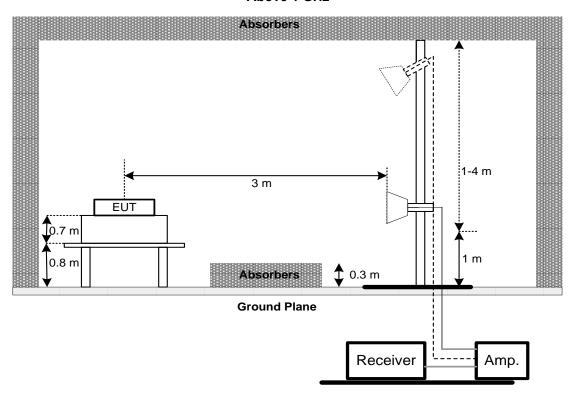


30 MHz to 1 GHz





Above 1 GHz



3.5 EUT OPERATING CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

3.6 TEST RESULT - BELOW 30 MHZ

There were no emissions found below 30 MHz within 20 dB of the limit.

3.7 TEST RESULT – 30 MHZ TO 1 GHZ

Please refer to the APPENDIX A

3.8 TEST RESULT -ABOVE 1 GHZ

Please refer to the APPENDIX B

NOTE:

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

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4 20 dB SPECTRUM BANDWIDTH MEASUREMENT

4.1 LIMIT

The bandwidth of the emissions shall be no wider than 0.25% of the center frequency for devices operating above 70 MHz and below 900 MHz. So the emission bandwidth limits have been calcuated in below table.

| Fundamental Frequency | 20 dB Bandwidth Limits (MHz) |
|-----------------------|------------------------------|
| 433.92 MHz | 1.0848 |

4.2 MEASURING INSTRUMENTS AND SETTING

Please refer to section 5 in this report. The following table is the setting of the Spectrum Analyzer.

| Spooti airi 7 tilaiy 201. | , | | | | | | | |
|---------------------------|------------------|--|--|--|--|--|--|--|
| Spectrum Parameters | Setting | | | | | | | |
| Attenuation | Auto | | | | | | | |
| Span Frequency | > 20dB Bandwidth | | | | | | | |
| RB | 10 kHz | | | | | | | |
| VB | 10 kHz | | | | | | | |
| Detector | Peak | | | | | | | |
| Trace | Max Hold | | | | | | | |
| Sweep Time | Auto | | | | | | | |

4.3 TEST PROCEDURE

- a. The transmitter output (antenna port) was connected to the spectrum analyser in peak hold mode.
- b. The resolution bandwidth of 10 kHz and the video bandwidth of 10 kHz were used.
- c. Measured the spectrum width with power higher than 20 dB below carrier.

4.4 DEVIATION FROM TEST STANDARD

No deviation.

5.4 TEST SETUP

| EUT | SPECTRUM |
|-----|----------|
| | ANALYZER |

4.5 EUT OPERATING CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

4.6 TEST RESULT

Please refer to the APPENDIX C

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5 TIMING TESTING

5.1 LIMIT

A manually operated transmitter shall employ a switch that will automatically deactivate the transmitter within not more than 5 seconds of being released.

5.2 MEASURING INSTRUMENTS AND SETTING

Please refer to section 6 in this report. The following table is the setting of the Spectrum Analyzer.

| Spectrum Parameters | Setting |
|---------------------|-------------|
| Attenuation | Auto |
| Span Frequency | Zero Span |
| RB | 1 MHz |
| VB | 1 MHz |
| Detector | Peak |
| Trace | Max Hold |
| Sweep Time | 100 seconds |

5.3 TEST PROCEDURE

- a. The transmitter output (antenna port) was connected to the spectrum analyser in peak hold mode.
- b. The resolution bandwidth of 1 MHz and the video bandwidth of 1 MHz were used.

5.4 DEVIATION FROM TEST STANDARD

No deviation.

5.5 TEST SETUP

| EUT | SPECTRUM |
|-----|----------|
| | ANALYZER |

5.6 EUT OPERATING CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

5.7 TEST RESULT

Please refer to the APPENDIX D

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6 LIST OF MEASURING EQUIPMENTS

| | | | Radiated Emission | ons | | |
|------|-----------------------------|--------------|-----------------------------------|------------|--------------------|---------------------|
| Item | Kind of Equipment | Manufacturer | Type No. | Serial No. | Calibrated Date | Calibrated Until |
| 1 | Preamplifier | EMCI | EMC02325 | 980217 | 2022/4/6 | 2023/4/5 |
| 2 | Preamplifier | EMCI | EMC012645B | 980222 | 2022/4/6 | 2023/4/5 |
| 3 | Test Cable | EMCI | EMC104-SM-100 0 | 180809 | 2022/4/6 | 2023/4/5 |
| 4 | Test Cable | EMCI | EMC104-SM-SM- 2500 | 160413 | 2022/4/6 | 2023/4/5 |
| 5 | Test Cable | EMCI | EMC-SM-SM-700 0 | 180408 | 2022/4/6 | 2023/4/5 |
| 6 | Signal Analyzer | Agilent | N9010A | MY56480554 | 2021/8/25 | 2022/8/24 |
| 7 | Broad-Band Horn Antenna | Schwarzbeck | BBHA 9120 D | 9120D-1333 | 2021/11/18 | 2022/11/17 |
| 8 | Trilog-Broadband Antenna | Schwarzbeck | VULB 9168 | 9168-352 | 2021/8/11 | 2022/8/10 |
| 9 | 5dB Attenuator | EMCI | EMCI-N-6-05 | AT-N0625 | 2021/8/11 | 2022/8/10 |
| 10 | Measurement Software | EZ | EZ_EMC (Version NB-03A1-01) | N/A | N/A | N/A |

| | | 20 | dB Spectrum Ban | dwidth | | |
|------|----------------------|--------------|-----------------|------------|--------------------|---------------------|
| Item | Kind of Equipment | Manufacturer | Type No. | Serial No. | Calibrated Date | Calibrated Until |
| 1 | Spectrum Analyzer | R&S | FSP38 | 101139 | 2022/3/2 | 2023/3/1 |

| | | | Timing Testing |] | | |
|------|----------------------|--------------|----------------|------------|--------------------|---------------------|
| Item | Kind of Equipment | Manufacturer | Type No. | Serial No. | Calibrated Date | Calibrated Until |
| 1 | Spectrum Analyzer | R&S | FSP38 | 101139 | 2022/3/2 | 2023/3/1 |

Remark: "N/A" denotes no model name, no serial no. or no calibration specified. All calibration period of equipment list is one year.

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| 7 EUT TEST PHOTO |
|---|
| Please refer to document Appendix No.: TP-2204T066-FCCP-1 (APPENDIX-TEST PHOTOS). |
| 8 EUT PHOTOS |
| Please refer to document Appendix No.: EP-2204T066-1 (APPENDIX-EUT PHOTOS). |
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APPENDIX A RADIATED EMISSIONS - 30 MHZ TO 1 GHZ

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| | Test Mo | ode | - | ГХ | | Test Date | Э | 202 | 2/6/1 | |
|-----------------|-----------|----------|------------------|-------------------|------------------|-------------|-----------------|-----------------|---------------|--|
| Te | est Frequ | uency | | 92MHz | | Polarizatio | olarization Ve | | | |
| | Temp |) | 24 | 4°C | | Hum. | | 6′ | 1% | |
| 30.0 | BuV/m | | | | | | | | | |
| 20 | | | | | | | | | | |
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| 0.0 | | | | | | | | | | |
| 428.92 | | 430.92 | 431.92 | 432.92 | 433.92 4 | 34.92 4 | 35.92 436 | 5.92 | 438.92 M | |
| No. | Mk. | Freq. | Reading Level | Correct Factor | Measure- ment | Limit | Over | | | |
| | | MHz | dBuV | dB | dBuV/m | dBuV/m | dB | Detector | Comment | |
| 1 | | 433.9263 | 45.69 | 22.94 | 68.63 | 100.83 | -32.20 | peak | | |
| 2 | * | 433.9263 | 68.63 | -2.61 | 66.02 | 80.83 | -14.81 | AVG | | |

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

| | est Mo | | | TX | | Test Date | | | 2/6/1 |
|-----------------------|-------------------|---------------------|------------------|-------------------|---|--------------------|-------------------------|---------------|--------------------|
| Tes | t Frequ | | | 92MHz | | Polarization | 1 | | zontal |
| | Temp | | 2 | 4°C | | Hum. | | 6 | 1% |
| 30.0 dB | uV/m | | | | | | | | |
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| .0 | | | | | | | | | |
| .0 428.920 | | | 431.92 | 432.92 | | | 5.92 436 | .92 | 438.92 N |
| .0 428.920 | 429.92 Mk. | 430.92 Freq. | Reading | Correct | Measure- | 34.92 435 Limit | 0.92 436 Over | .92 | 438.92 N |
| .0 428.920 | | Freq. | Reading Level | Correct Factor | Measure- ment | Limit | Over | | |
| .0 428.920 | | | Reading | Correct | Measure- | | | Detector peak | 438.92 N |
| 0.0 428.920 No. | | | Reading | Correct | Measure- | | | .92 | 438.92 |

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

| | T | est M | ode | | | | TX | | | | Test Da | ite | | 202 | 2/5/4 | | |
|------|----------|--------|-------|--------|---|-----------------|--------|---------------|------|-----------------|-----------|-------|--------|----------|---------|------|--|
| | Test | t Freq | uency | , | | 433. | 92MF | Ιz | | I | Polarizat | tion | | Vertical | | | |
| | | Tem | р | | | 2 | 3°C | | | | Hum. | | 68% | | | | |
| 80.0 | 0 dBuY/m | | | | | | | | | | | | | 7 | | | |
| 70 | | | | | | | | | | | | | | | | | |
| 60 | | | | | | | | | | | | | | | | | |
| 50 | | | | | | | | | | | | | | | | | |
| 40 | | | | | | | | | | | | | F | 6 X | | | |
| 30 | 1 X | | 2 | | | | 3 X | | | * | | | 5 X | * | | | |
| 20 | | | ž | | | | ••• | | | | | | | | | - | |
| 10 | | | | | | | | | | | | | | | | - | |
| 0.0 | 000 | 127.0 | ın | 224.00 | - | 21.00 | 418.0 | nn | 515. | 00 61 | 2.00 | 709.0 | 00 806 | : nn | 1000.00 | | |
| No | | Mk. | | req. | R | eading Level | Со | rrect ctor | Me | easure- ment | Limit | | Over | | 1000.00 | MIII | |
| | | | N | ИHz | | dBuV | | dΒ | | BuV/m | dBuV/r | n | dB | Detector | Comme | ent | |
| 1 | | * | 67 | .6683 | | 38.15 | -10 | 0.77 | 2 | 27.38 | 40.00 | | -12.62 | peak | | | |
| 2 | | | | 3.9013 | | 31.20 | | .22 | | 21.98 | 47.46 | | -25.48 | peak | | | |
| 3 | | | | 1.5100 | | 29.58 | | 5.71 | | 23.87 | 59.16 | | -35.29 | peak | | | |
| 4 | | | | 3.9670 | | 29.32 | | .67 | | 27.65 | 61.94 | | -34.29 | peak | | | |
| 5 | | | | 7.9617 | | 29.91 | | .46 | | 31.37 | 61.94 | | -30.57 | peak | | | |
| 6 | | | 887 | 7.9973 | 3 | 29.65 | 3 | .41 | 3 | 33.06 | 61.94 | | -28.88 | peak | | | |

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

| | Т | est Mo | ode | | | | TX | | | | Te | st Da | te | | 202 | 22/5/4 | |
|------|--------|---------------|---------------|-----|-------------|--------|-------|--------------|------|-----------------|-------|--------|------|--------|----------|---------|-----|
| | Tes | t Frequ | uency | | | 433.9 | 92MH | Z | | | Pol | arizat | ion | | | izontal | |
| | | Temp |) | | | 2 | 3°C | | | | | Hum. | | | 68% | | |
| 80.0 | dBuV/m | | | | | | | | | | | | | | | 7 | |
| 70 | | | | | | | | | | | | | | | | | |
| 60 | | | | | | | | | | | | | | | | | |
| 50 | I | | | _ | | | | | | | | | | | | | |
| 40 | | / | | | | | | | | | | | | | | 6 × | |
| 30 | 1 X | 2 | | | | 3 X | | | | 4 × | | 5 X | | | | × | |
| 20 | | X | | | | | | | | | | | | | | | - |
| 10 | | | | | | | | | | | | | | | | | |
| 0.0 | 000 | 127.00 | D 22 4 | 00 | 221 | 20 | 410.0 | | 515. | 00 6 | 612.0 | 0 | 709. | 00 806 | 00 | 1000.00 | |
| No. | | 127.00 Mk. | Fred | | Read Lev | ding | | rect ctor | Me | easure- ment | | Limit | 709. | Over | .00 | 1000.00 | мп |
| | | | MH: | Z | dB | | | В | | 3uV/m | d | BuV/r | n | dB | Detector | Comm | ent |
| 1 | | * | 67.66 | 83 | 38. | | -10 | .77 | 2 | 27.87 | | 40.00 | | -12.13 | peak | | |
| 2 | | | 135.1 | 156 | 32. | 49 | -10 | .00 | 2 | 22.49 | | 43.20 | | -20.71 | peak | | |
| 3 | | | 367.7 | 540 | 30. | 96 | -6. | .59 | 2 | 24.37 | , | 57.61 | | -33.24 | peak | | |
| 4 | | | 522.2 | 103 | 30. | 37 | -2. | .97 | 2 | 27.40 | (| 61.94 | | -34.54 | peak | | |
| 5 | | | 642.39 | 933 | 29. | 55 | -0. | .50 | 2 | 29.05 | (| 61.94 | | -32.89 | peak | | |
| 6 | | | 907.78 | 353 | 29. | 01 | 3. | 71 | 3 | 32.72 | (| 61.94 | | -29.22 | peak | | |

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



| APPENDIX B | RADIATED EMISSIONS - ABOVE 1000 MHZ |
|------------|-------------------------------------|
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| | Test Mod | | | TX | | Test Date | | | 2/6/1 | |
|---------------------|-----------|----------|-------------------|-------------------|-----------------|-------------|--------|----------|---------|-----|
| Test Frequency Temp | | ency | 433.92MHz 24°C | | | Polarizatio | on | Vertical | | |
| | | | | | | Hum. | | 61% | | |
| 130.0 dB | uV/m | | | | | | | | | 7 |
| 20 | | | | | | | | | | |
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| 0 | 2 X | | | | | | | | | l |
| 0 | | | | | | | | | | 1 |
| 0.0 | | | | | | | | | | J., |
| | 0 1400.00 | | 2200.00 | 2600.00 | | | | 0.00 | 5000.00 | МІ |
| No. | Mk. | Freq. | Reading Level | Correct Factor | Measure ment | - Limit | Over | | | |
| | | MHz | dBuV | dB | dBuV/m | dBuV/m | dB | Detector | Comme | nt |
| 1 | | 1301.760 | 44.82 | -6.70 | 38.12 | 81.94 | -43.82 | peak | | |
| 2 | * | 1301.760 | 33.15 | -6.70 | 26.45 | 61.94 | -35.49 | AVG | | |

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

| | est Mod | | | TX | | Test Date | | | 2/6/1 | |
|---------------------|-----------|----------|-------------------|---------|---------|--------------|------------|------------|---------|----------|
| Test Frequency Temp | | ency | 433.92MHz 24°C | | | Polarization | on | Horizontal | | |
| | | | | | | Hum. | | 61% | | |
| 30.0 dB | uV/m | | | | | | | | | 7 |
| 20 | | | | | | | | | | |
| 10 | | | | | | | | | | |
| 00 | | | | | | | | | | |
| 0 | | | | | | | | | | |
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| 0 | | | | | | | | | | |
| 0 | 1 X | | | | | | | | | |
| 0 | 2 X | | | | | | | | | |
| 0 | | | | | | | | | | |
| 0.0 | 0 1400.00 | 1800.00 | 2200.00 | 2600.00 | 3000.00 | 3400.00 3 | 800.00 420 | 0.00 | 5000.00 | <u> </u> |
| No. | Mk. | Freq. | Reading | Correct | Measure | | Over | IU.UU | 2000.00 | M |
| . 10. | ., | 1 104. | Level | Factor | ment | | 0.01 | | | |
| | | MHz | dBuV | dB | dBuV/m | dBuV/m | dB | Detector | Comme | nt |
| 1 | | 1301.760 | 44.37 | -6.70 | 37.67 | 81.94 | -44.27 | peak | | |
| 2 | * | 1301.760 | 33.32 | -6.70 | 26.62 | 61.94 | -35.32 | AVG | | |

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



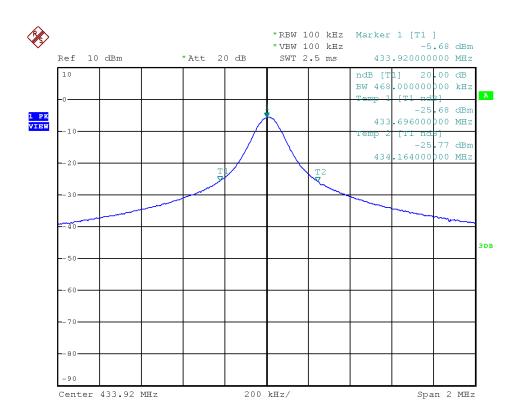
APPENDIX C 20 dB SPECTRUM BANDWIDTH

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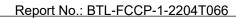


Test Mode 433.92MHz

| | Frequency (MHz) | 20 dB Bandwidth (kHz) | 20 dB BW Limits (MHz) |
|---|-----------------|-----------------------|-----------------------|
| Ī | 433.92 | 468.00 | 1.0848 |



Date: 5.MAY.2022 12:47:42



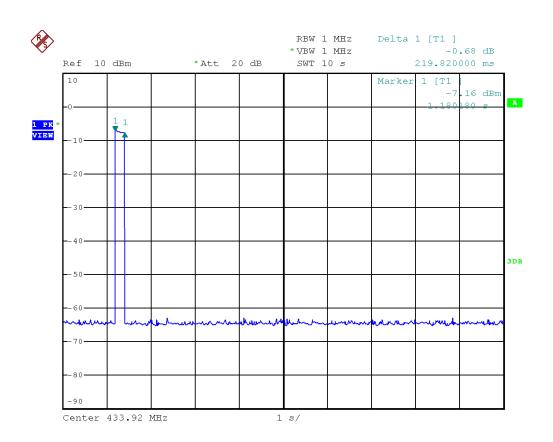


APPENDIX D TIMING TESTING

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Test Mode 433.92MHz



Date: 5.MAY.2022 13:23:17

End of Test Report