



# **RADIO TEST REPORT**

**Test Report No. : 13456926S-I-R2**

**Applicant** : Nintendo Co., Ltd.  
**Type of EUT** : Game console  
**Model Number of EUT** : HEG-001  
**FCC ID** : BKEHEG001  
**Test regulation** : FCC Part 15 Subpart E: 2021  
(Except for DFS test)  
**Test result** : Complied (Refer to SECTION 3)

1. This test report shall not be reproduced in full or partial, without the written approval of UL Japan, Inc.
2. The results in this report apply only to the sample tested.
3. This sample tested is in compliance with the limits of the above regulation.
4. The test results in this test report are traceable to the national or international standards.
5. This test report must not be used by the customer to claim product certification, approval, or endorsement by the A2LA accreditation body.
6. This test report covers Radio technical requirements.  
It does not cover administrative issues such as Manual or non-Radio test related Requirements. (if applicable)
7. The all test items in this test report are conducted by UL Japan, Inc. Shonan EMC Lab.
8. The opinions and the interpretations to the result of the description in this report are outside scopes where UL Japan has been accredited.
9. The information provided from the customer for this report is identified in SECTION 1.
10. This report is a revised version of 13456926S-I-R1. 13456926S-I-R1 is replaced with this report.

**Date of test:** December 14, 2020 to February 15, 2021

**Representative test engineer:** Y. Tanikawara  
Yusuke Tanikawara  
Engineer

**Approved by:** A. Hayashi  
Akio Hayashi  
Manager



CERTIFICATE 1266.03

- ☐ The testing in which "Non-accreditation" is displayed is outside the accreditation scopes in UL Japan.  
☒ There is no testing item of "Non-accreditation".

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## **REVISION HISTORY**

**Original Test Report No.: 13456926S-I**

| Revision        | Test report No. | Date          | Page revised                                                                                 | Contents                                                                                                                                     |
|-----------------|-----------------|---------------|----------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| -<br>(Original) | 13456926S-I     | June 21, 2021 | -                                                                                            | -                                                                                                                                            |
| 1               | 13456926S-I-R1  | June 24, 2021 | 5                                                                                            | Rating of Section 2.1 Identification of EUT:<br>From<br>DC 3.8 V (battery)<br>To<br>DC 3.7 V (battery)<br>DC 5 V to DC 15 V (USB type C)     |
| 2               | 13456926S-I-R2  | July 6, 2021  | 98 - 108,159,<br>162,165,168,171,<br>174,177,182,187,<br>190,193,196,199,<br>204,209,211,213 | Delete of description:<br>“Although the EUT operates on Master mode,<br>more stringent limit for Client Device was<br>applied.(W52 for FCC)” |

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## Reference: Abbreviations (Including words undescribed in this report)

|                |                                                                 |         |                                                     |
|----------------|-----------------------------------------------------------------|---------|-----------------------------------------------------|
| A2LA           | The American Association for Laboratory Accreditation           | MCS     | Modulation and Coding Scheme                        |
| AC             | Alternating Current                                             | MRA     | Mutual Recognition Arrangement                      |
| AFH            | Adaptive Frequency Hopping                                      | N/A     | Not Applicable                                      |
| AM             | Amplitude Modulation                                            | NIST    | National Institute of Standards and Technology      |
| Amp, AMP       | Amplifier                                                       | NS      | No signal detect.                                   |
| ANSI           | American National Standards Institute                           | NSA     | Normalized Site Attenuation                         |
| Ant, ANT       | Antenna                                                         | NVLAP   | National Voluntary Laboratory Accreditation Program |
| AP             | Access Point                                                    | OBW     | Occupied Band Width                                 |
| ASK            | Amplitude Shift Keying                                          | OFDM    | Orthogonal Frequency Division Multiplexing          |
| Atten., ATT    | Attenuator                                                      | P/M     | Power meter                                         |
| AV             | Average                                                         | PCB     | Printed Circuit Board                               |
| BPSK           | Binary Phase-Shift Keying                                       | PER     | Packet Error Rate                                   |
| BR             | Bluetooth Basic Rate                                            | PHY     | Physical Layer                                      |
| BT             | Bluetooth                                                       | PK      | Peak                                                |
| BT LE          | Bluetooth Low Energy                                            | PN      | Pseudo random Noise                                 |
| BW             | BandWidth                                                       | PRBS    | Pseudo-Random Bit Sequence                          |
| Cal Int        | Calibration Interval                                            | PSD     | Power Spectral Density                              |
| CCK            | Complementary Code Keying                                       | QAM     | Quadrature Amplitude Modulation                     |
| Ch., CH        | Channel                                                         | QP      | Quasi-Peak                                          |
| CISPR          | Comite International Special des Perturbations Radioelectriques | QPSK    | Quadri-Phase Shift Keying                           |
| CW             | Continuous Wave                                                 | RBW     | Resolution Band Width                               |
| DBPSK          | Differential BPSK                                               | RDS     | Radio Data System                                   |
| DC             | Direct Current                                                  | RE      | Radio Equipment                                     |
| D-factor       | Distance factor                                                 | RF      | Radio Frequency                                     |
| DFS            | Dynamic Frequency Selection                                     | RMS     | Root Mean Square                                    |
| DQPSK          | Differential QPSK                                               | RSS     | Radio Standards Specifications                      |
| DSSS           | Direct Sequence Spread Spectrum                                 | Rx      | Receiving                                           |
| EDR            | Enhanced Data Rate                                              | SA, S/A | Spectrum Analyzer                                   |
| EIRP, e.i.r.p. | Equivalent Isotropically Radiated Power                         | SG      | Signal Generator                                    |
| EMC            | ElectroMagnetic Compatibility                                   | SVSWR   | Site-Voltage Standing Wave Ratio                    |
| EMI            | ElectroMagnetic Interference                                    | TR      | Test Receiver                                       |
| EN             | European Norm                                                   | Tx      | Transmitting                                        |
| ERP, e.r.p.    | Effective Radiated Power                                        | VBW     | Video BandWidth                                     |
| EU             | European Union                                                  | Vert.   | Vertical                                            |
| EUT            | Equipment Under Test                                            | WLAN    | Wireless LAN                                        |
| Fac.           | Factor                                                          |         |                                                     |
| FCC            | Federal Communications Commission                               |         |                                                     |
| FHSS           | Frequency Hopping Spread Spectrum                               |         |                                                     |
| FM             | Frequency Modulation                                            |         |                                                     |
| Freq.          | Frequency                                                       |         |                                                     |
| FSK            | Frequency Shift Keying                                          |         |                                                     |
| GFSK           | Gaussian Frequency-Shift Keying                                 |         |                                                     |
| GNSS           | Global Navigation Satellite System                              |         |                                                     |
| GPS            | Global Positioning System                                       |         |                                                     |
| Hori.          | Horizontal                                                      |         |                                                     |
| ICES           | Interference-Causing Equipment Standard                         |         |                                                     |
| IEC            | International Electrotechnical Commission                       |         |                                                     |
| IEEE           | Institute of Electrical and Electronics Engineers               |         |                                                     |
| IF             | Intermediate Frequency                                          |         |                                                     |
| ILAC           | International Laboratory Accreditation Conference               |         |                                                     |
| ISED           | Innovation, Science and Economic Development Canada             |         |                                                     |
| ISO            | International Organization for Standardization                  |         |                                                     |
| JAB            | Japan Accreditation Board                                       |         |                                                     |
| LAN            | Local Area Network                                              |         |                                                     |
| LIMS           | Laboratory Information Management System                        |         |                                                     |

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## **SECTION 1: Customer information**

|                  |   |                                                               |
|------------------|---|---------------------------------------------------------------|
| Company Name     | : | Nintendo Co., Ltd.                                            |
| Address          | : | 11-1 Hokotate-cho, Kamitoba, Minami-ku, Kyoto 601-8501, Japan |
| Telephone Number | : | +81 75 662 9600                                               |
| Facsimile Number | : | +81 75 662 9624                                               |
| Contact Person   | : | Yosuke Ishikawa                                               |

The information provided from the customer is as follows;

- Applicant, Type of EUT, Model Number of EUT, FCC ID on the cover and other relevant pages
- Operating/Test Mode(s) (Mode(s)) on all the relevant pages
- SECTION 1: Customer information
- SECTION 2: Equipment under test (EUT) other than the Receipt Date
- SECTION 4: Operation of EUT during testing

\* The laboratory is exempted from liability of any test results affected from the above information in SECTION 2 and 4.

## **SECTION 2: Equipment under test (EUT)**

### **2.1 Identification of EUT**

|                            |   |                                                                                            |
|----------------------------|---|--------------------------------------------------------------------------------------------|
| Type                       | : | Game console                                                                               |
| Model Number               | : | HEG-001                                                                                    |
| Serial Number              | : | Refer to SECTION 4.2                                                                       |
| Rating                     | : | DC 3.7 V (battery)<br>DC 5 V to DC 15 V (USB type C)                                       |
| Receipt Date               | : | July 31, 2020                                                                              |
| Country of Mass-production | : | China, Vietnam                                                                             |
| Condition                  | : | Engineering prototype<br>(Not for Sale: This sample is equivalent to mass-produced items.) |
| Modification               | : | No Modification by the test lab.                                                           |

### **2.2 Product Description**

Model: HEG-001 (referred to as the EUT in this report) is a Game console.

## **Radio Specification**

### **Wireless LAN, Bluetooth (BR / EDR / Low Energy function) part:**

|                                 |   |                                                                                                                                                                                                                                                                |
|---------------------------------|---|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Equipment Type                  | : | Transceiver                                                                                                                                                                                                                                                    |
| Frequency of Operation          | : | Wireless LAN part: (2.4 GHz): 2412 MHz – 2472 MHz,<br>(U-NII-1): 5180 MHz – 5240 MHz,<br>(U-NII-2A): 5260 MHz – 5320 MHz,<br>(U-NII-2C): 5500 MHz – 5700 MHz,<br>(U-NII-3): 5745 MHz- 5825 MHz,<br>Bluetooth (BR / EDR / Low Energy) part: 2402 MHz - 2480 MHz |
| Radio part clock frequency      | : | 37.4 MHz                                                                                                                                                                                                                                                       |
| Channel spacing                 | : | Wireless LAN part: (2.4 GHz): 5 MHz, (5 GHz): 20 MHz,<br>Bluetooth part: (BR / EDR): 1 MHz, (Low Energy): 2 MHz                                                                                                                                                |
| Type of modulation              | : | Wireless LAN part:<br>2.4 GHz band: DBPSK, DQPSK, CCK, OFDM<br>5 GHz band: OFDM<br>Bluetooth part:<br>BR: GFSK<br>EDR: $\pi/4$ DQPSK, 8DPSK<br>Low Energy: GFSK                                                                                                |
| Antenna type                    | : | LDS antenna                                                                                                                                                                                                                                                    |
| Antenna connector type          | : | (Ant: 0): MHF2, (Ant: 1): MHF2                                                                                                                                                                                                                                 |
| Antenna Gain                    | : | 2.4 GHz band: (Ant: 0): 0.30 dBi, (Ant: 1): 0.19 dBi<br>5GHz band: (Ant: 0): 4.04 dBi, (Ant: 1): 2.51 dBi                                                                                                                                                      |
| Power supply (radio part input) | : | DC 1.8 V, DC 3.3 V                                                                                                                                                                                                                                             |
| Operating Temperature           | : | +5 deg. C to +35 deg. C                                                                                                                                                                                                                                        |

Remarks: This wireless module consists of 1 chip each of 5 GHz band and 2.4 GHz band.

## SECTION 3: Test specification, procedures & results

### 3.1 Test Specification

Test Specification : FCC Part 15 Subpart E  
 FCC Part 15 final revised on May 3, 2021 and effective July 2, 2021  
 \* The revision does not affect the test result conducted before its effective date.

Title : FCC 47 CFR Part 15 Radio Frequency Device Subpart E  
 Unlicensed National Information Infrastructure Devices  
 Section 15.407 General technical requirements

\* Also the EUT complies with FCC Part 15 Subpart B.

### 3.2 Procedures and results

| Item                                   | Test Procedure                                         | Specification                                          | Worst margin                                                               | Results             | Remarks                                                 |
|----------------------------------------|--------------------------------------------------------|--------------------------------------------------------|----------------------------------------------------------------------------|---------------------|---------------------------------------------------------|
| Conducted Emission                     | FCC: ANSI C63.10-2013                                  | FCC: 15.407 (b) (6) / 15.207                           | 17.8 dB,<br>0.19199 MHz<br>AV, L1<br>Mode: Tx 11n-20<br>(MIMO), 5320 MHz   | Complied#<br>a)     | -                                                       |
|                                        | ISED: RSS-Gen 8.8                                      | ISED: RSS-Gen 8.8                                      |                                                                            |                     |                                                         |
| -26 dB Emission Bandwidth              | FCC: KDB Publication Number 789033                     | FCC: 15.407 (a) (1) (2) (3)                            | See data                                                                   | N/A<br>b)           | Conducted                                               |
|                                        | ISED: -                                                | ISED: -                                                |                                                                            |                     |                                                         |
| Maximum Conducted Output Power         | FCC: KDB Publication Number 789033                     | FCC: 15.407 (a) (1) (2) (3)                            |                                                                            | Complied<br>c)      | Conducted                                               |
|                                        | ISED: -                                                | ISED: RSS-247 6.2.1.1<br>6.2.2.1<br>6.2.3.1<br>6.2.4.1 |                                                                            |                     |                                                         |
| Maximum Power Spectral Density         | FCC: KDB Publication Number 789033                     | FCC: 15.407 (a) (1) (2) (3)                            |                                                                            | N/A<br>d)           | Conducted                                               |
|                                        | ISED: -                                                | ISED: RSS-247 6.2.1.1<br>6.2.2.1<br>6.2.3.1<br>6.2.4.1 |                                                                            |                     |                                                         |
| Spurious Emission Restricted Band Edge | FCC: ANSI C63.10-2013<br>KDB Publication Number 789033 | FCC: 15.407 (b), 15.205 and 15.209                     | 4.4 dB<br>5460.000 MHz<br>AV, Hori.<br>Mode: Tx 11ac-80<br>(SISO) 5530 MHz | Complied<br>e) / f) | Conducted (< 30 MHz)<br>/<br>Radiated (> 30 MHz)<br>*1) |
|                                        | ISED: -                                                | ISED: RSS-247 6.2.1.2<br>6.2.2.2<br>6.2.3.2<br>6.2.4.2 |                                                                            |                     |                                                         |
| -6 dB Emission Bandwidth               | FCC: ANSI C63.10-2013                                  | FCC: 15.407 (e)                                        | See data                                                                   | Complied<br>g)      | Conducted                                               |
|                                        | ISED: -                                                | ISED: RSS-247 6.2.4.1                                  |                                                                            |                     |                                                         |

Note: UL Japan, Inc.'s EMI Work Procedures No. 13-EM-W0420 and 13-EM-W0422.

\*1) Radiated test was selected over 30 MHz based on FCC 15.407 (b) and KDB 789033 D02 G.3.b).

- a) Refer to APPENDIX 1 (data of Conducted Emission)
- b) Refer to APPENDIX 1 (data of -26 dB Emission Bandwidth and 99 % Occupied Bandwidth)
- c) Refer to APPENDIX 1 (data of Maximum Conducted Output Power)
- d) Refer to APPENDIX 1 (data of Maximum Power Spectral Density)
- e) Refer to APPENDIX 1 (data of Radiated Spurious Emission)
- f) Refer to APPENDIX 1 (data of Conducted Spurious Emission)
- g) Refer to APPENDIX 1 (data of -6 dB Bandwidth)

Symbols:

Complied The data of this test item has enough margin, more than the measurement uncertainty.

Complied# The data of this test item meets the limits unless the measurement uncertainty is taken into consideration.

\* In case any questions arise about test procedure, ANSI C63.10: 2013 is also referred.

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**FCC Part 15.31 (e)**

This EUT provides the stable voltage constantly to RF Part regardless of input voltage. Therefore, this EUT complies with the requirement.

**FCC Part 15.203 Antenna requirement**

It is impossible for end users to replace the antenna, because the antenna is mounted inside of the EUT. Therefore, the equipment complies with the antenna requirement of Section 15.203.

**3.3 Addition to standard**

| Item                                                                                  | Test Procedure    | Specification | Worst margin | Results | Remarks   |
|---------------------------------------------------------------------------------------|-------------------|---------------|--------------|---------|-----------|
| 99 % Occupied Band Width                                                              | ISED: RSS-Gen 6.7 | ISED: -       | N/A          | -<br>a) | Conducted |
| a) Refer to APPENDIX 1 (data of 26 dB Emission Bandwidth and 99 % Occupied Bandwidth) |                   |               |              |         |           |

Other than above, no addition, exclusion nor deviation has been made from the standard.

### 3.4 Uncertainty

There is no applicable rule of uncertainty in this applied standard. Therefore, the following results are derived depending on whether or not laboratory uncertainty is applied.

The following uncertainties have been calculated to provide a confidence level of 95 % using a coverage factor  $k=2$ .

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| Item                                             | Frequency range | Uncertainty (+/-) |                |                |
|--------------------------------------------------|-----------------|-------------------|----------------|----------------|
|                                                  |                 | No. 1 SAC / SR    | No. 2 SAC / SR | No. 3 SAC / SR |
| Conducted emission (AC Mains) LISN               | 150 kHz-30 MHz  | 2.6 dB            | 2.6 dB         | 2.56dB         |
| Radiated emission<br>(Measurement distance: 3 m) | 9 kHz-30 MHz    | 3.0 dB            | 2.7 dB         | 2.7 dB         |
|                                                  | 30 MHz-200 MHz  | 4.6 dB            | 4.6 dB         | 4.6 dB         |
|                                                  | 200 MHz-1 GHz   | 6.0 dB            | 6.0 dB         | 6.0 dB         |
|                                                  | 1 GHz-6 GHz     | 4.8 dB            | 4.8 dB         | 4.8 dB         |
|                                                  | 6 GHz-18 GHz    | 5.4 dB            | 5.4 dB         | 5.4 dB         |
|                                                  | 18 GHz-40 GHz   | 5.3 dB            | 5.3 dB         | 5.3 dB         |
| Radiated emission<br>(Measurement distance: 1 m) | 1 GHz-18 GHz    | 5.7 dB            | 5.7 dB         | 5.7 dB         |
|                                                  | 18 GHz-40 GHz   | 5.6 dB            | 5.6 dB         | 5.6 dB         |

SAC=Semi-Anechoic Chamber

SR= Shielded Room is applied besides radiated emission

| Antenna terminal test                                   | Uncertainty (+/-) |
|---------------------------------------------------------|-------------------|
| Power Measurement above 1 GHz (Average Detector)_SPM-06 | 1.4 dB            |
| Power Measurement above 1 GHz (Peak Detector)_SPM-06    | 1.6 dB            |
| Power Measurement above 1 GHz (Average Detector)_SPM-07 | 0.89 dB           |
| Power Measurement above 1 GHz (Peak Detector)_SPM-07    | 1.2 dB            |
| Power Measurement above 1 GHz (Average Detector)_SPM-13 | 0.91 dB           |
| Power Measurement above 1 GHz (Peak Detector)_SPM-13    | 1.2 dB            |
| Spurious emission (Conducted) below 1GHz                | 0.87 dB           |
| Spurious emission (Conducted) 1 GHz-3 GHz               | 0.96 dB           |
| Spurious emission (Conducted) 3 GHz-18 GHz              | 3.0 dB            |
| Spurious emission (Conducted) 18 GHz-26.5 GHz           | 2.6 dB            |
| Spurious emission (Conducted) 26.5 GHz-40 GHz           | 2.2 dB            |
| Bandwidth Measurement                                   | 0.012 %           |
| Duty cycle and Time Measurement                         | 0.27 %            |
| Temperature_SCH-01                                      | 0.95 deg.C.       |
| Humidity_SCH-01                                         | 0.83 %            |
| Temperature_SCH-02                                      | 2.0 deg.C.        |
| Humidity_SCH-02                                         | 6.6 %             |
| Voltage                                                 | 0.86 %            |

### 3.5 Test Location

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A2LA Certificate Number: 1266.03

(FCC test firm registration number: 626366, ISED lab company number: 2973D / CAB identifier: JP0001)

| Test site                  | IC Registration Number | Width x Depth x Height (m) | Size of reference ground plane (m) / horizontal conducting plane | Maximum measurement distance |
|----------------------------|------------------------|----------------------------|------------------------------------------------------------------|------------------------------|
| No.1 Semi-anechoic chamber | 2973D-1                | 20.6 x 11.3 x 7.65         | 20.6 x 11.3                                                      | 10 m                         |
| No.2 Semi-anechoic chamber | 2973D-2                | 20.6 x 11.3 x 7.65         | 20.6 x 11.3                                                      | 10 m                         |
| No.3 Semi-anechoic chamber | 2973D-3                | 12.7 x 7.7 x 5.35          | 12.7 x 7.7                                                       | 5 m                          |
| No.4 Semi-anechoic chamber | -                      | 8.1 x 5.1 x 3.55           | 8.1 x 5.1                                                        | -                            |
| No.1 Shielded room         | -                      | 6.8 x 4.1 x 2.7            | 6.8 x 4.1                                                        | -                            |
| No.2 Shielded room         | -                      | 6.8 x 4.1 x 2.7            | 6.8 x 4.1                                                        | -                            |
| No.3 Shielded room         | -                      | 6.3 x 4.7 x 2.7            | 6.3 x 4.7                                                        | -                            |
| No.4 Shielded room         | -                      | 4.4 x 4.7 x 2.7            | 4.4 x 4.7                                                        | -                            |
| No.5 Shielded room         | -                      | 7.8 x 6.4 x 2.7            | 7.8 x 6.4                                                        | -                            |
| No.6 Shielded room         | -                      | 7.8 x 6.4 x 2.7            | 7.8 x 6.4                                                        | -                            |
| No.8 Shielded room         | -                      | 3.45 x 5.5 x 2.4           | 3.45 x 5.5                                                       | -                            |
| No.1 Measurement room      | -                      | 2.55 x 4.1 x 2.5           | -                                                                | -                            |

### 3.6 Test data, Test instruments, and Test set up

Refer to APPENDIX.

## **SECTION 4: Operation of EUT during testing**

### **4.1 Operating Mode(s)**

Test operating mode was determined as follows according to “Section 1 of 6 802.11 a/b/g/n testing - Managing Complex Regulatory Approvals -” of TCB Council Workshop October 2009 and also was judged the necessity of 802.11ac mode by the pre-test.

| <b>Mode</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <b>Remarks*</b>                                  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|
| IEEE 802.11a (11a)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 48 Mbps, PN9                                     |
| IEEE 802.11n SISO 20 MHz BW (11n-20 (SISO))                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | MCS 6, PN9                                       |
| IEEE 802.11ac SISO 20 MHz BW (11ac-20 (SISO))                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | MCS 6, PN9 (Antenna 0)<br>MCS 3, PN9 (Antenna 1) |
| IEEE 802.11n MIMO 20 MHz BW (11n-20 (MIMO))                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | MCS 13, PN9                                      |
| IEEE 802.11ac MIMO 20 MHz BW (11ac-20 (MIMO))                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | MCS 8, PN9                                       |
| IEEE 802.11n SISO 40 MHz BW (11n-40 (SISO))                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | MCS 3, PN9                                       |
| IEEE 802.11ac SISO 40 MHz BW (11ac-40 (SISO))                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | MCS 4, PN9 (Antenna 0)<br>MCS 3, PN9 (Antenna 1) |
| IEEE 802.11n MIMO 40 MHz BW (11n-40 (MIMO))                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | MCS 14, PN9                                      |
| IEEE 802.11ac MIMO 40 MHz BW (11ac-40 (MIMO))                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | MCS 5, PN9                                       |
| IEEE 802.11ac SISO 80 MHz BW (11ac-80 (SISO))                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | MCS 4, PN9                                       |
| IEEE 802.11ac MIMO 80 MHz BW (11ac-80 (MIMO))                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | MCS 4, PN9                                       |
| *The worst antenna (Ant: x) and condition was determined based on the test result of Maximum Conducted Output Power.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                  |
| *Power of the EUT was set by the software as follows;<br>Power settings: 6 dBm<br>*) All tests are carried out with 6.5 dBm setting regarding worst case below modes although typical power setting is 6 dBm.<br>11n-40 (SISO), 11ac-40 (SISO) : Lower Band, Additional Band, Upper Band<br>11n-40 (MIMO), 11ac-40 (MIMO) : Lower Band<br>11ac-80 (SISO) : Lower Band, Upper Band<br>11ac-80 (MIMO) : Lower Band<br><br>Software: cmd.exe ver.10.0.18362.657<br>(Date: 2019.3.19, Storage location: Driven by connected PC)<br><br>*This setting of software is the worst case.<br>Any conditions under the normal use do not exceed the condition of setting.<br>In addition, end users cannot change the settings of the output power of the product. |                                                  |

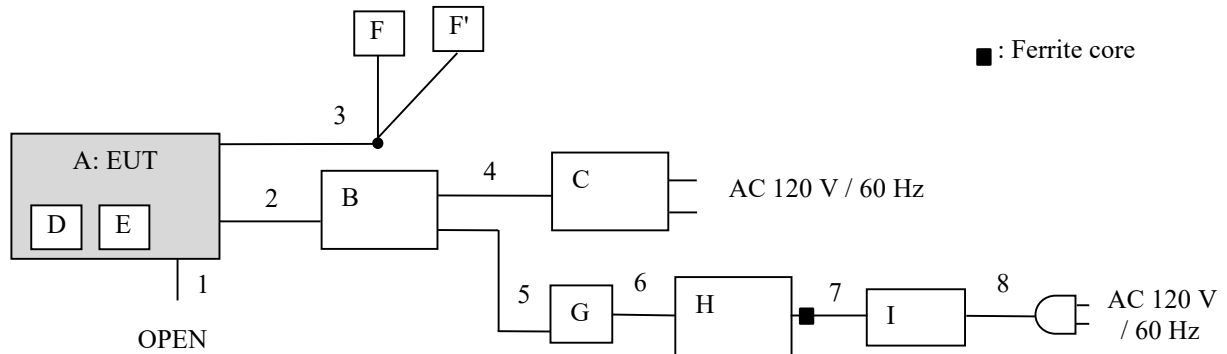
\*The details of Operation mode(s)

| Test Item                                                                                          | Operating Mode                                  | Tested Antenna *2) | Tested Frequency                 |                                  |                                  |                                  |
|----------------------------------------------------------------------------------------------------|-------------------------------------------------|--------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|
|                                                                                                    |                                                 |                    | Lower Band                       | Middle Band                      | Additional Band                  | Upper Band                       |
| Conducted emission,<br>Radiated Spurious Emission<br>(Below 1 GHz),<br>Conducted Spurious Emission | Tx 11n-20 (MIMO)<br>*1)                         | 0 & 1              | -                                | 5320 MHz                         | -                                | -                                |
| -26 dB Emission Bandwidth                                                                          | Tx 11a<br>Tx 11n-20 (SISO)<br>Tx 11ac-20 (SISO) | 1                  | -                                | 5260 MHz<br>5300 MHz<br>5320 MHz | 5500 MHz<br>5580 MHz<br>5700 MHz | -                                |
|                                                                                                    | Tx 11n-20 (MIMO)<br>Tx 11ac-20 (MIMO)           | 1                  |                                  |                                  |                                  |                                  |
|                                                                                                    | Tx 11n-40 (SISO)<br>Tx 11ac-40 (SISO)           | 1                  | -                                | 5270 MHz<br>5310 MHz             | 5510 MHz<br>5550 MHz<br>5670 MHz | -                                |
|                                                                                                    | Tx 11n-40 (MIMO)<br>Tx 11ac-40 (MIMO)           | 1                  |                                  |                                  |                                  |                                  |
|                                                                                                    | Tx 11ac-80 (SISO)                               | 1                  | -                                | 5290 MHz                         | 5530 MHz                         | -                                |
|                                                                                                    | Tx 11ac-80 (MIMO)                               | 1                  |                                  |                                  |                                  |                                  |
|                                                                                                    |                                                 |                    |                                  |                                  |                                  |                                  |
| 99 % Occupied Bandwidth                                                                            | Tx 11a<br>Tx 11n-20 (SISO)<br>Tx 11ac-20 (SISO) | 1                  | 5180 MHz<br>5220 MHz<br>5240 MHz | 5260 MHz<br>5300 MHz<br>5320 MHz | 5500 MHz<br>5580 MHz<br>5700 MHz | 5745 MHz<br>5785 MHz<br>5825 MHz |
|                                                                                                    | Tx 11n-20 (MIMO)<br>Tx 11ac-20 (MIMO)           | 1                  |                                  |                                  |                                  |                                  |
|                                                                                                    | Tx 11n-40 (SISO)<br>Tx 11ac-40 (SISO)           | 1                  | 5190 MHz<br>5230 MHz             | 5270 MHz<br>5310 MHz             | 5510 MHz<br>5550 MHz<br>5670 MHz | 5755 MHz<br>5795 MHz             |
|                                                                                                    | Tx 11n-40 (MIMO)<br>Tx 11ac-40 (MIMO)           | 1                  |                                  |                                  |                                  |                                  |
|                                                                                                    | Tx 11ac-80 (SISO)                               | 1                  | 5210 MHz                         | 5290 MHz                         | 5530 MHz                         | 5775 MHz                         |
|                                                                                                    | Tx 11ac-80 (MIMO)                               | 1                  |                                  |                                  |                                  |                                  |
|                                                                                                    |                                                 |                    |                                  |                                  |                                  |                                  |
| -6 dB Bandwidth                                                                                    | Tx 11a<br>Tx 11n-20 (SISO)<br>Tx 11ac-20 (SISO) | 1                  | -                                | -                                | -                                | 5745 MHz<br>5785 MHz<br>5825 MHz |
|                                                                                                    | Tx 11n-20 (MIMO)<br>Tx 11ac-20 (MIMO)           | 1                  |                                  |                                  |                                  |                                  |
|                                                                                                    | Tx 11n-40 (SISO)<br>Tx 11ac-40 (SISO)           | 1                  | -                                | -                                | -                                | 5755 MHz<br>5795 MHz             |
|                                                                                                    | Tx 11n-40 (MIMO)<br>Tx 11ac-40 (MIMO)           | 1                  |                                  |                                  |                                  |                                  |
|                                                                                                    | Tx 11ac-80 (SISO)                               | 1                  | -                                | -                                | -                                | 5775 MHz                         |
|                                                                                                    | Tx 11ac-80 (MIMO)                               | 1                  |                                  |                                  |                                  |                                  |
|                                                                                                    |                                                 |                    |                                  |                                  |                                  |                                  |
| Maximum Conducted Output Power,<br>Maximum Power Spectral Density                                  | Tx 11a<br>Tx 11n-20 (SISO)<br>Tx 11ac-20 (SISO) | 0 & 1              | 5180 MHz<br>5220 MHz<br>5240 MHz | 5260 MHz<br>5300 MHz<br>5320 MHz | 5500 MHz<br>5580 MHz<br>5700 MHz | 5745 MHz<br>5785 MHz<br>5825 MHz |
|                                                                                                    | Tx 11n-20 (MIMO)<br>Tx 11ac-20 (MIMO)           |                    |                                  |                                  |                                  |                                  |
|                                                                                                    | Tx 11n-40 (SISO)<br>Tx 11ac-40 (SISO)           |                    | 5190 MHz<br>5230 MHz             | 5270 MHz<br>5310 MHz             | 5510 MHz<br>5550 MHz<br>5670 MHz | 5755 MHz<br>5795 MHz             |
|                                                                                                    | Tx 11n-40 (MIMO)<br>Tx 11ac-40 (MIMO)           |                    |                                  |                                  |                                  |                                  |
|                                                                                                    | Tx 11ac-80 (SISO)                               |                    | 5210 MHz                         | 5290 MHz                         | 5530 MHz                         | 5775 MHz                         |
|                                                                                                    | Tx 11ac-80 (MIMO)                               |                    |                                  |                                  |                                  |                                  |
|                                                                                                    |                                                 |                    |                                  |                                  |                                  |                                  |

|                                                 |                          |       |                      |          |                                  |                                  |
|-------------------------------------------------|--------------------------|-------|----------------------|----------|----------------------------------|----------------------------------|
| Radiated Spurious Emission<br>(Above 1 GHz) *3) | Tx 11n-20 (SISO)<br>*4)  | 0     | 5180 MHz             | 5320 MHz | 5500 MHz<br>5700 MHz             | 5745 MHz<br>5825 MHz             |
|                                                 | Tx 11n-20 (MIMO)         | 0 & 1 | 5180 MHz<br>5240 MHz | 5320 MHz | 5500 MHz<br>5580 MHz<br>5700 MHz | 5745 MHz<br>5785 MHz<br>5825 MHz |
|                                                 | Tx 11n-40 (SISO)<br>*4)  | 0     | 5190 MHz             | 5310 MHz | 5510 MHz<br>5670 MHz             | 5755 MHz<br>5795 MHz             |
|                                                 | Tx 11n-40 (MIMO)         | 0 & 1 | 5190 MHz<br>5230 MHz | 5310 MHz | 5510 MHz<br>5550 MHz<br>5670 MHz | 5755 MHz<br>5795 MHz             |
|                                                 | Tx 11ac-80 (SISO)<br>*4) | 0     | 5210 MHz             | 5290 MHz | 5530 MHz                         | 5775 MHz                         |
|                                                 | Tx 11ac-80 (MIMO)        | 0 & 1 |                      |          |                                  |                                  |

\*1) The mode was tested as a representative, because it had the highest power at antenna terminal test.  
\*2) The test was performed with the antenna that had higher EIRP power (for Radiated Spurious Emission test) or higher conducted power (for -26 dB Emission Bandwidth, 99 % Occupied Bandwidth and -6 dB Bandwidth test) as a representative.  
\*3) Since 11a, 11n, and 11ac mode have the same modulation method and no differences in transmitting specification, test was performed on the representative mode that had the highest EIRP power.  
\*4) This mode wasn't worst, but only band edge of spurious emissions were measured for confirmation.

## 4.2 Configuration and peripherals



\* Cabling and setup(s) were taken into consideration and test data was taken under worse case conditions.

\*As a result of comparing AC 120 V and AC 240 V at pre-check, conducted emission test was performed with AC 120 V of the worst voltage as representative.

### Description of EUT and Support equipment

| No.   | Item                  | Model number  | Serial number                            | Manufacturer       | Remarks |
|-------|-----------------------|---------------|------------------------------------------|--------------------|---------|
| A     | Game console          | HEG-001       | XTW01000001073 *1)<br>XTW01000011188 *2) | Nintendo Co., Ltd. | EUT     |
| B     | SDEV Cradle           | HAT-003       | XZL01000080825 *1)<br>XZL01000079720 *2) | Nintendo Co., Ltd. | -       |
| C     | AC Adapter            | HAC-002       | -                                        | Nintendo Co., Ltd. | -       |
| D     | Game Card             | HAC-008       | DFCAA22L000                              | Nintendo Co., Ltd. | -       |
| E     | Micro SD Card         | -             | -                                        | Transcend          | -       |
| F, F' | Headphone             | -             | -                                        | Nintendo Co., Ltd. | *2)     |
| G     | GIGA Ethernet Adapter | LAN-GTJU3     | 67L349603587A                            | Logitec            | *1)     |
|       |                       | LUA4-U3-AGT   | 20227871127320                           | Buffalo            | *2)     |
| H     | Laptop PC             | CF-S10AWNDS   | 1EKSA54822                               | Panasonic          | *1)     |
|       |                       | CF-SV8RDCVS   | 0BKSC77598                               | Panasonic          | *2)     |
| I     | AC Adapter            | CF-AA6402A M1 | 6402AM111143479A                         | Panasonic          | *1)     |
|       |                       | CF-AA6532A M1 | 6532AM119Y36338A                         | Panasonic          | *2)     |

\*1) Used for Antenna Terminal conducted test

\*2) Used for Conducted Emission test and Radiated Emission test

### List of cables used

| No. | Cable Name | Length (m)          | Shield     |            | Remarks |
|-----|------------|---------------------|------------|------------|---------|
|     |            |                     | Cable      | Connector  |         |
| 1   | Signal     | 0.05                | Unshielded | Unshielded | *3)     |
| 2   | USB        | 0.4                 | Shielded   | Shielded   | -       |
| 3   | Headphone  | 0.9                 | Unshielded | Unshielded | -       |
| 4   | USB        | 1.5                 | Shielded   | Shielded   | -       |
| 5   | USB        | 0.1 *1)<br>0.15 *2) | Shielded   | Shielded   | -       |
| 6   | LAN        | 1.0                 | Unshielded | Unshielded | -       |
| 7   | DC         | 0.9                 | Unshielded | Unshielded | -       |
| 8   | AC         | 0.8                 | Unshielded | Unshielded | -       |

\*1) Used for Antenna Terminal conducted test

\*2) Used for Conducted Emission test and Radiated Emission test

\*3) Cable for test operation during the development, not used for the product.

## **SECTION 5: Conducted Emission**

### **Test Procedure and conditions**

EUT was placed on a urethane platform of nominal size, 1.0 m by 1.5 m, raised 0.8 m above the conducting ground plane. The rear of tabletop was located 40 cm to the vertical conducting plane. The rear of EUT, including peripherals aligned and flushed with rear of tabletop. All other surfaces of tabletop were at least 80cm from any other grounded conducting surface. EUT was located 80 cm from a Line Impedance Stabilization Network (LISN) / Artificial mains Network (AMN) and excess AC cable was bundled in center.

I/O cables that were connected to the peripherals were bundled in center. They were folded back and forth forming a bundle 30 cm to 40 cm long and were hanged at a 40 cm height to the ground plane. All unused 50ohm connectors of the LISN (AMN) were resistivity terminated in 50 ohm when not connected to the measuring equipment.

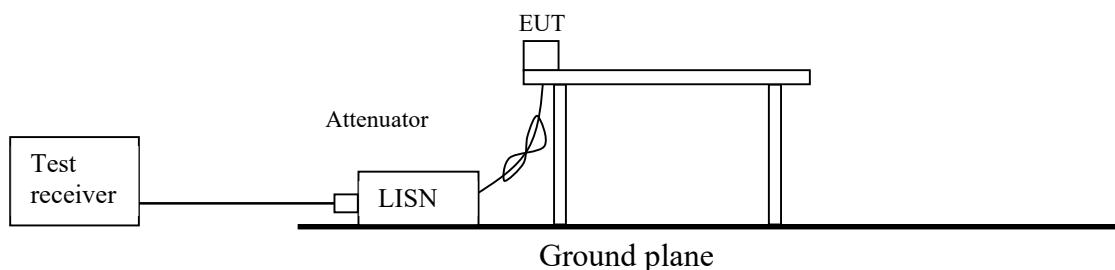
The AC Mains Terminal Continuous disturbance Voltage has been measured with the EUT in a Semi Anechoic Chamber. The EUT was connected to a LISN (AMN).

An overview sweep with peak detection has been performed.

The test results and limit are rounded off to one decimal place, so some differences might be observed.

|                          |                               |
|--------------------------|-------------------------------|
| <b>Detector</b>          | <b>: QP and CISPR Average</b> |
| <b>Measurement range</b> | <b>: 0.15 MHz - 30 MHz</b>    |
| <b>Test data</b>         | <b>: APPENDIX</b>             |
| <b>Test result</b>       | <b>: Pass</b>                 |

**Figure 1: Test Setup**



## **SECTION 6: Radiated Spurious Emission and Band Edge Compliance**

### **Test Procedure**

< Below 1 GHz >

EUT was placed on a urethane platform of nominal size, 1.0 m by 1.5 m, raised 0.8 m above the conducting ground plane. The Radiated Electric Field Strength has been measured in a Semi Anechoic Chamber with a ground plane.

< Above 1 GHz >

EUT was placed on a urethane platform of nominal size, 0.5 m by 0.5 m, raised 1.5 m above the conducting ground plane. The Radiated Electric Field Strength has been measured in a Semi Anechoic Chamber with absorbent materials lined on a ground plane.

The height of the measuring antenna varied between 1 m and 4 m and EUT was rotated a full revolution in order to obtain the maximum value of the electric field strength.

Test antenna was aimed at the EUT for receiving the maximum signal and always kept within the illumination area of the 3 dB beamwidth of the antenna.

The measurements were performed for both vertical and horizontal antenna polarization with the Test Receiver, or the Spectrum Analyzer.

The measurements were made with the following detector function of the test receiver and the Spectrum analyzer (in linear mode).

The test was made with the detector (RBW/VBW) in the following table.

When using Spectrum analyzer, the test was made with adjusting span to zero by using peak hold.

< Below 1GHz >

The result also satisfied with the general limits specified in section 15.209 (a).

< Above 1GHz >

Inside of restricted bands (Section 15.205):

Apply to limit in the Section 15.209 (a).

Outside of the restricted bands:

Apply to limit 68.2 dBuV/m, 3 m (-27 dBm e.i.r.p. \*) in the Section 15.407 (b) (1) (2) (3).

For W58 Bandedge

-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 in the section 15.407(b)(4)(i).

Restricted band edge:

Apply to limit in the Section 15.209 (a).

Since this limit is severer than the limit of the inside of restricted bands.

\*Electric field strength to e.i.r.p. conversion:

$$E = \frac{1000000 \sqrt{30P}}{3} \text{ (uV/m)} \quad : P \text{ is the e.i.r.p. (Watts)}$$

**Test Antennas are used as below;**

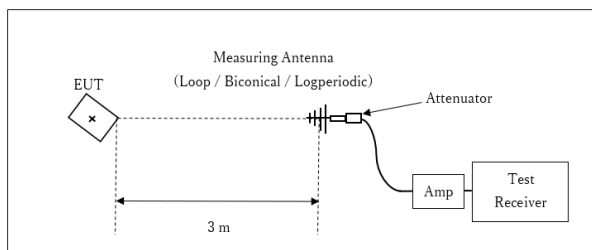
|              |                   |                  |             |
|--------------|-------------------|------------------|-------------|
| Frequency    | 30 MHz to 200 MHz | 200 MHz to 1 GHz | Above 1 GHz |
| Antenna Type | Biconical         | Logperiodic      | Horn        |

|                 |               |                          |                                                                                                                               |
|-----------------|---------------|--------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| Frequency       | Below 1 GHz   | Above 1 GHz              |                                                                                                                               |
| Instrument used | Test Receiver | Spectrum Analyzer        |                                                                                                                               |
| Detector        | QP            | Peak                     | Average                                                                                                                       |
| IF Bandwidth    | BW: 120 kHz   | RBW: 1 MHz<br>VBW: 3 MHz | Method VB *1)<br>RBW: 1 MHz<br>VBW: 1/T MHz<br>(T: Burst length, refer to Appendix)<br>Detector: Peak<br>Trace mode: Max hold |

\*1) The test method was also referred to KDB 789033 D02 General UNII Test Procedures New Rules v02r01 "Guidelines for Compliance Testing of Unlicensed National Information Infrastructure (U-NII) Devices Part 15, Subpart E".

**Figure 2: Test Setup**

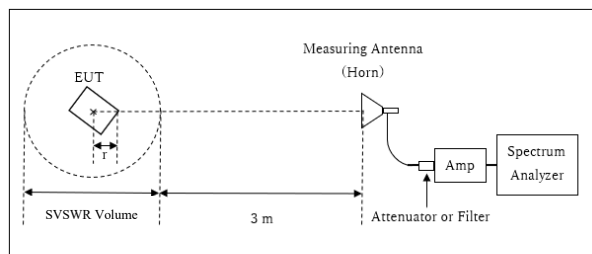
**Below 1 GHz**



x : Center of turn table

Test Distance: 3 m

**1 GHz - 10 GHz**



r : Radius of an outer periphery of EUT  
x : Center of turn table

Distance Factor:  $20 \times \log (3.9 \text{ m} / 3.0 \text{ m}) = 2.28 \text{ dB}$

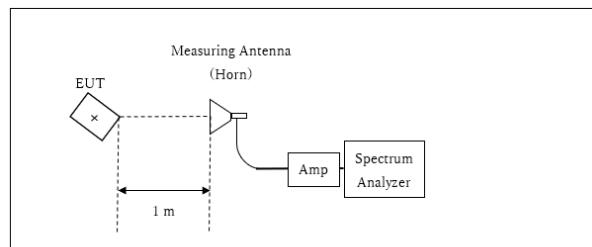
\* Test Distance:  $(3 + \text{SVSWR Volume} / 2) - r = 3.9 \text{ m}$

SVSWR Volume : 2.0 m

(SVSWR Volume has been calibrated based on CISPR 16-1-4.)

r = 0.1 m

**10 GHz - 40 GHz**



x : Center of turn table

Distance Factor:  $20 \times \log (1.0 \text{ m} / 3.0 \text{ m}) = -9.54 \text{ dB}$

\*Test Distance: 1 m

The carrier level and noise levels were confirmed at each position of X, Y and Z axes of EUT to see the position of maximum noise, and the test was made at the position that has the maximum noise.

[WLAN (SISO)]

| Antenna polarization | Carrier | Spurious<br>(1 GHz -<br>6.4 GHz) |
|----------------------|---------|----------------------------------|
| Horizontal           | Z       | Z                                |
| Vertical             | Y       | Y                                |

[WLAN (MIMO)]

| Antenna polarization | Carrier | Spurious<br>(30 MHz -<br>1 GHz) | Spurious<br>(1 GHz -<br>6.4 GHz) | Spurious<br>(6.4 GHz -<br>10 GHz) | Spurious<br>(10 GHz -<br>18 GHz) | Spurious<br>(18 GHz -<br>26.5 GHz) | Spurious<br>(26.5 GHz -<br>40 GHz) |
|----------------------|---------|---------------------------------|----------------------------------|-----------------------------------|----------------------------------|------------------------------------|------------------------------------|
| Horizontal           | Z       | Y                               | Z                                | X                                 | X                                | X                                  | X                                  |
| Vertical             | Y       | Y                               | Y                                | X                                 | X                                | X                                  | X                                  |

The test results and limit are rounded off to one decimal place, so some differences might be observed.

**Measurement range** : 30 MHz - 40 GHz  
**Test data** : APPENDIX  
**Test result** : Pass

## **SECTION 7: Antenna Terminal Conducted Tests**

### **Test Procedure**

The tests were made with below setting connected to the antenna port.

| Test                               | Span                                    | RBW                  | VBW              | Sweep time | Detector                        | Trace       | Instrument used and Test method              |
|------------------------------------|-----------------------------------------|----------------------|------------------|------------|---------------------------------|-------------|----------------------------------------------|
| -26 dB Bandwidth                   | Enough to capture the emission          | Close to 1 % of EBW  | > RBW            | Auto       | Peak                            | Max Hold    | Spectrum Analyzer                            |
| 99 % Occupied Bandwidth *1)        | Enough width to display emission skirts | 1 % to 5 % of OBW    | $\geq 3$ RBW     | Auto       | Peak                            | Max Hold    | Spectrum Analyzer                            |
| -6 dB Bandwidth                    | Enough to capture the emission          | 100 kHz              | 300 kHz          | Auto       | Peak                            | Max Hold    | Spectrum Analyzer                            |
| Maximum Conducted Output Power     | -                                       | -                    | -                | Auto       | Average                         | -           | Power Meter (Sensor: 160 MHz BW) (Method PM) |
| Maximum Power Spectral Density     | Encompass the entire EBW                | 1 MHz or 100 kHz *2) | $\geq 3$ RBW     | Auto       | RMS Power Averaging (100 times) | Clear Write | Spectrum Analyzer                            |
| Conducted Spurious Emission*3) *4) | 9 kHz – 150 kHz<br>150 kHz – 30 MHz     | 200 Hz<br>10 kHz     | 620 Hz<br>30 kHz | Auto       | Peak                            | Max Hold    | Spectrum Analyzer                            |

\* The test method was also referred to KDB 789033 D02 General UNII Test Procedures New Rules v02r01 "Guidelines for Compliance Testing of Unlicensed National Information Infrastructure (U-NII) Devices Part 15, Subpart E".

\*1) Peak hold was applied as Worst-case measurement.

\*2) KDB 789033 D02 says that RBW is set to be 500 kHz for 5.725 GHz-5.850 GHz, but it is not possible with spectrum analyzer, so RBW Correction Factor ( $10 \log(500 \text{ kHz} / 100 \text{ kHz})$ ) was added to the test result.

\*3) In the frequency range below 30 MHz, RBW was narrowed to separate the noise contents.

Then, wide-band noise near the limit was checked separately, however the noise was not detected as shown in the chart. (9 kHz-150 kHz: RBW = 200 Hz, 150 kHz-30 MHz: RBW = 10 kHz)

\*4) The limits in CFR 47, Part 15, Subpart C, paragraph 15.209(a), are identical to those in RSS-Gen section 8.9, Table 6, since the measurements are performed in terms of magnetic field strength and converted to electric field strength levels (as reported in the table) using the free space impedance of 377 Ohms. For example, the measurement at frequency 9 kHz resulted in a level of 45.5 dBuV/m, which is equivalent to  $45.5 - 51.5 = -6.0$  dBuA/m, which has the same margin, 3 dB, to the corresponding RSS-Gen Table 6 limit as it has to 15.209(a) limit.

The test results and limit are rounded off to two decimals place, so some differences might be observed.

The equipment and cables were not used for factor 0 dB of the data sheets.

**Test data : APPENDIX**

**Test result : Pass**

**UL Japan, Inc.**

**Shonan EMC Lab.**

1-22-3 Megumigaoka, Hiratsuka-shi, Kanagawa-ken, 259-1220 JAPAN

Telephone : +81 463 50 6400

Facsimile : +81 463 50 6401

## DATA OF CONDUCTED EMISSION TEST

UL Japan,Inc. Shonan EMC Lab. No.3 Shielded Room

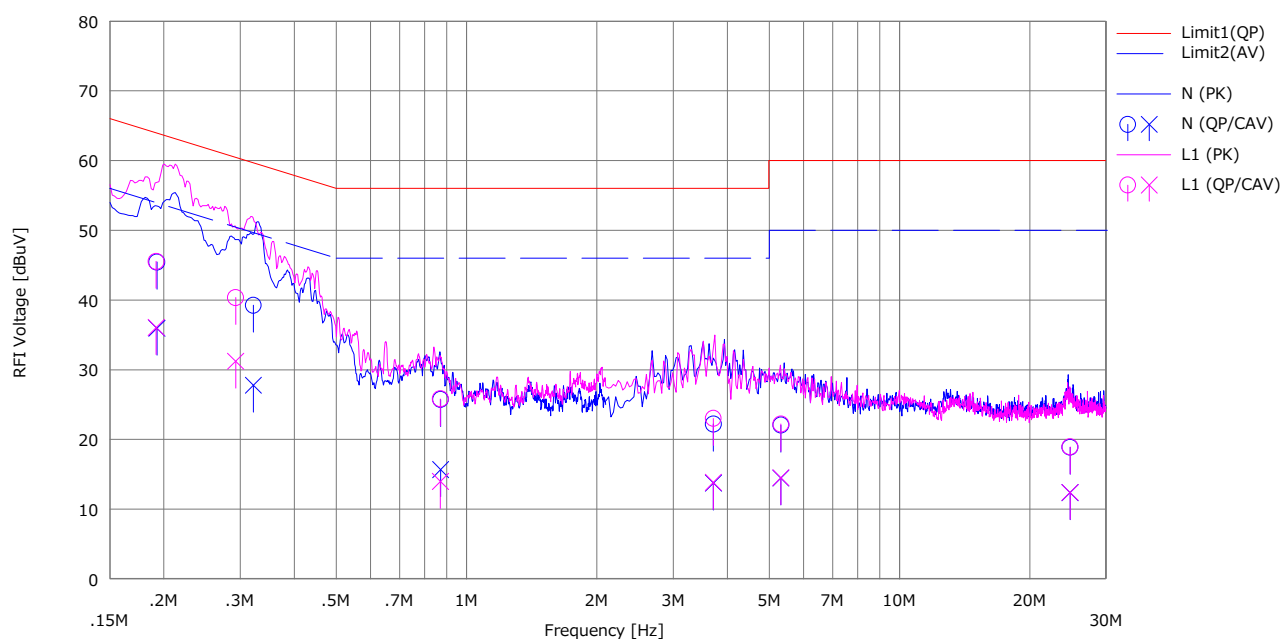
Date : 2021/02/15

Company : Nintendo Co., Ltd.  
 Kind of EUT : Game console  
 Model No. : HEG-001  
 Serial No. : XTW01000011188  
 Remarks : -

Mode : Tx 11n-20, MIMO, 5320 MHz  
 Order No. : 13456926S  
 Power : AC 120 V / 60 Hz(AC adapter input)  
 Temp./Humi. : 25 deg.C / 31 %RH

Limit : FCC\_Part 15 Subpart C(15.207)

Engineer : Kenichi Adachi



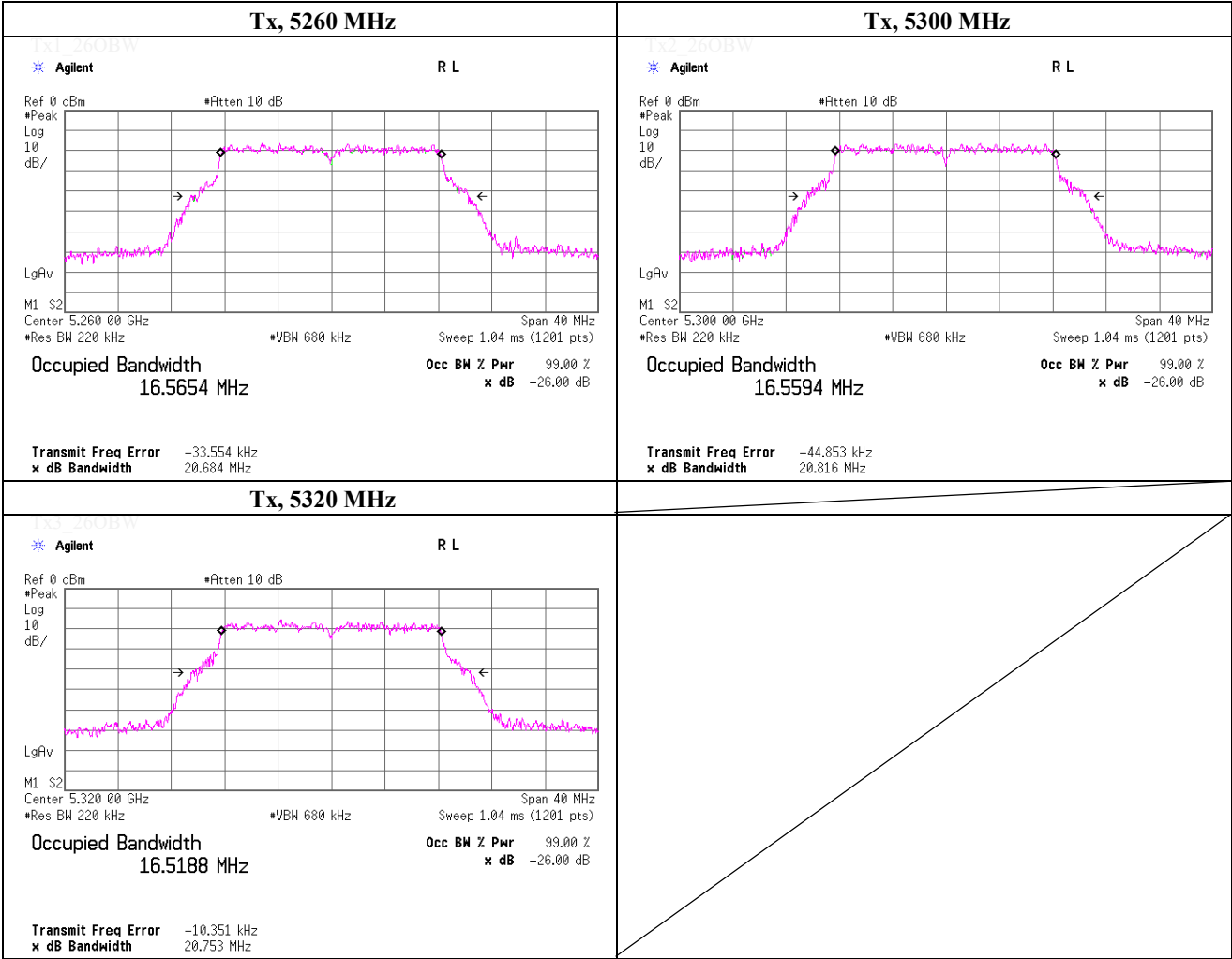
| No. | Freq.    | Reading |        | C.Fac | Results |        | Limit  |        | Margin |      | Phase | Comment |
|-----|----------|---------|--------|-------|---------|--------|--------|--------|--------|------|-------|---------|
|     |          | <QP>    | <CAV>  |       | <QP>    | <CAV>  | <QP>   | <AV>   | <QP>   | <AV> |       |         |
|     | [MHz]    | [dBuV]  | [dBuV] |       | [dBuV]  | [dBuV] | [dBuV] | [dBuV] | [dB]   | [dB] |       |         |
| 1   | 0.19278  | 32.85   | 23.36  | 12.58 | 45.43   | 35.94  | 63.92  | 53.92  | 18.4   | 17.9 | N     |         |
| 2   | 0.32189  | 26.66   | 15.18  | 12.59 | 39.25   | 27.77  | 59.66  | 49.66  | 20.4   | 21.8 | N     |         |
| 3   | 0.87114  | 13.08   | 3.03   | 12.65 | 25.73   | 15.68  | 56.00  | 46.00  | 30.2   | 30.3 | N     |         |
| 4   | 3.71589  | 9.28    | 0.82   | 12.92 | 22.20   | 13.74  | 56.00  | 46.00  | 33.8   | 32.2 | N     |         |
| 5   | 5.31942  | 8.98    | 1.39   | 13.07 | 22.05   | 14.46  | 60.00  | 50.00  | 37.9   | 35.5 | N     |         |
| 6   | 24.75584 | 4.56    | -1.93  | 14.31 | 18.87   | 12.38  | 60.00  | 50.00  | 41.1   | 37.6 | N     |         |
| 7   | 0.19199  | 32.96   | 23.48  | 12.58 | 45.54   | 36.06  | 63.95  | 53.95  | 18.4   | 17.8 | L1    |         |
| 8   | 0.29289  | 27.74   | 18.62  | 12.60 | 40.34   | 31.22  | 60.44  | 50.44  | 20.1   | 19.2 | L1    |         |
| 9   | 0.87046  | 13.16   | 1.32   | 12.66 | 25.82   | 13.98  | 56.00  | 46.00  | 30.1   | 32.0 | L1    |         |
| 10  | 3.71360  | 10.12   | 0.94   | 12.90 | 23.02   | 13.84  | 56.00  | 46.00  | 32.9   | 32.1 | L1    |         |
| 11  | 5.32183  | 9.18    | 1.48   | 13.03 | 22.21   | 14.51  | 60.00  | 50.00  | 37.7   | 35.4 | L1    |         |
| 12  | 24.75584 | 4.78    | -1.76  | 14.16 | 18.94   | 12.40  | 60.00  | 50.00  | 41.0   | 37.6 | L1    |         |

Calculation: Result[dBuV]=Reading[dBuV]+C.Fac(LISN+Cable+ATT)[dB]  
 LISN: SLS-02 with Extension cable

**-26 dB Bandwidth**

|                        |                                                                     |                       |
|------------------------|---------------------------------------------------------------------|-----------------------|
| Test place             | UL Japan, Inc. Shonan EMC Lab.                                      | No.1 Measurement Room |
| Date                   | January 8, 2021                                                     |                       |
| Temperature / Humidity | 23 deg.C , 40 %RH                                                   |                       |
| Engineer               | Kenichi Adachi                                                      |                       |
| Mode                   | Tx, IEEE802.11a, PN9, worst antenna port 1, worst data mode 48 Mbps |                       |

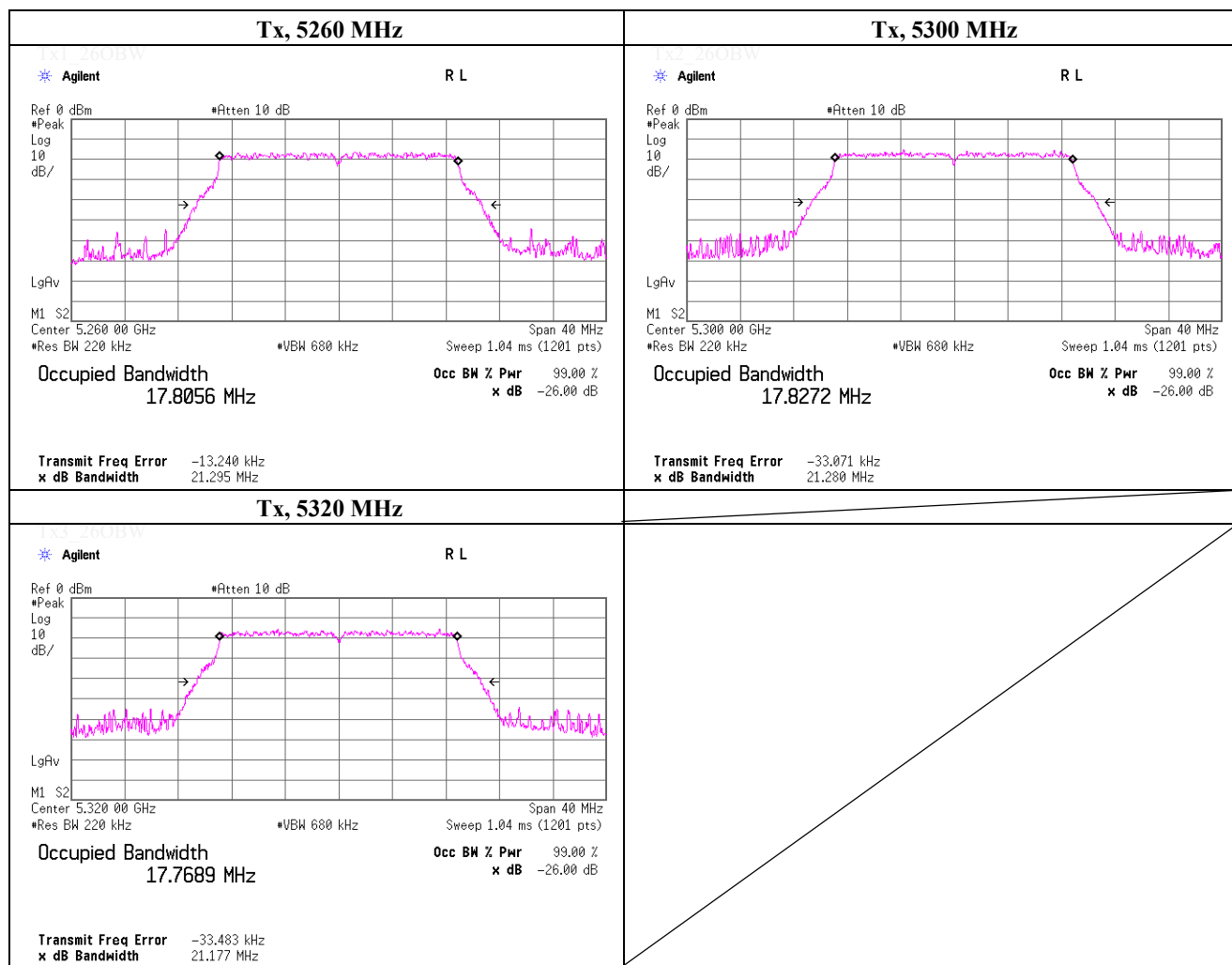
| Freq.<br>[MHz] | -26 dB Bandwidth<br>[MHz] | Limit<br>[MHz] |
|----------------|---------------------------|----------------|
| 5260.0000      | 20.684                    | -              |
| 5300.0000      | 20.816                    | -              |
| 5320.0000      | 20.753                    | -              |



## -26 dB Bandwidth

|                        |                                                                               |                       |
|------------------------|-------------------------------------------------------------------------------|-----------------------|
| Test place             | UL Japan, Inc. Shonan EMC Lab.                                                | No.1 Measurement Room |
| Date                   | January 12, 2021                                                              |                       |
| Temperature / Humidity | 23 deg.C , 30 %RH                                                             |                       |
| Engineer               | Takahiro Kawakami                                                             |                       |
| Mode                   | Tx, IEEE802.11n-20 (SISO), PN9, worst antenna port 1, worst data mode 6 (MCS) |                       |

| Freq.<br>[MHz] | -26 dB Bandwidth<br>[MHz] | Limit<br>[MHz] |
|----------------|---------------------------|----------------|
| 5260.0000      | 21.295                    | -              |
| 5300.0000      | 21.280                    | -              |
| 5320.0000      | 21.177                    | -              |



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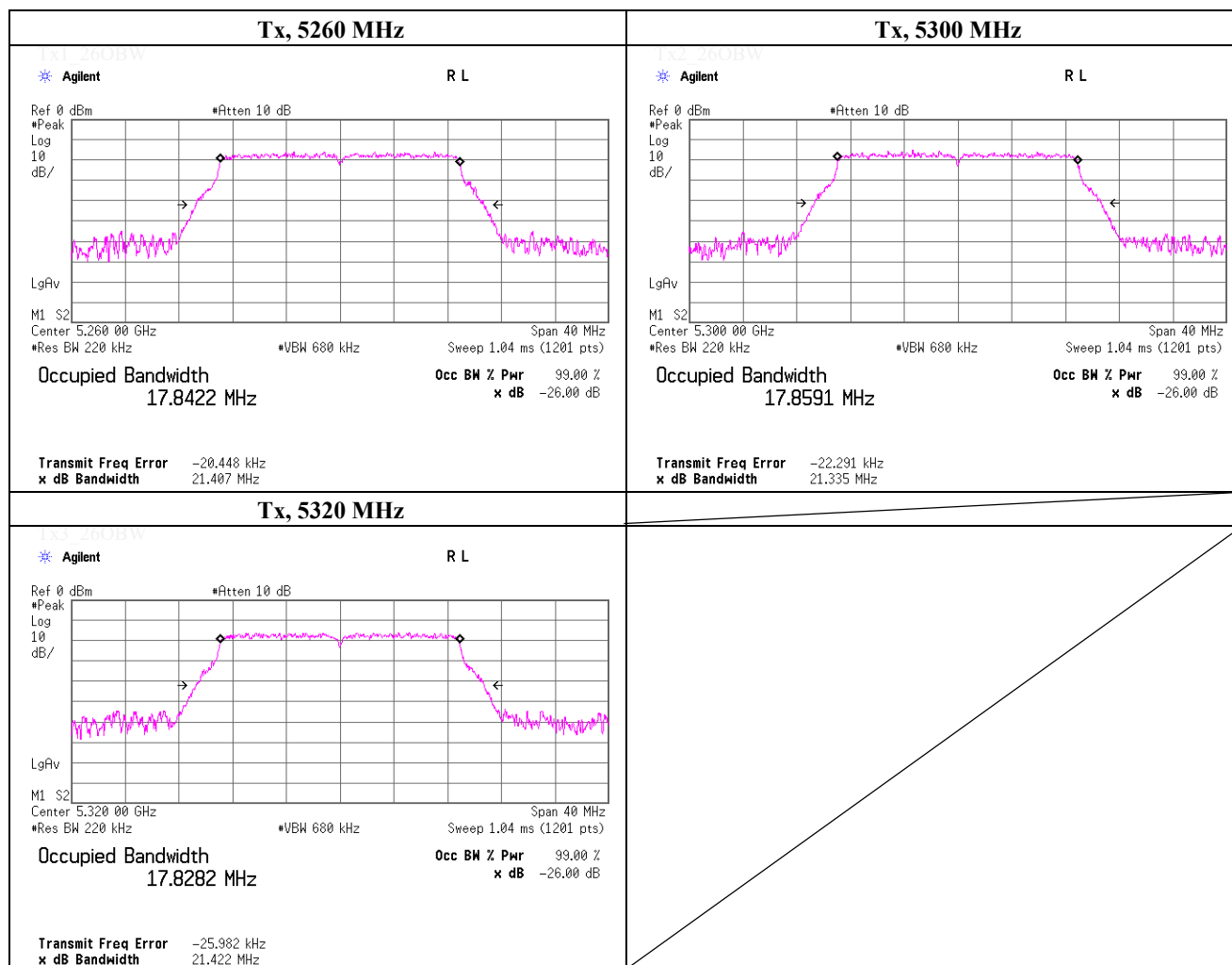
Telephone : +81 463 50 6400

Facsimile : +81 463 50 6401

## -26 dB Bandwidth

|                        |                                                                                |                       |
|------------------------|--------------------------------------------------------------------------------|-----------------------|
| Test place             | UL Japan, Inc. Shonan EMC Lab.                                                 | No.1 Measurement Room |
| Date                   | January 12, 2021                                                               |                       |
| Temperature / Humidity | 23 deg.C , 51 %RH                                                              |                       |
| Engineer               | Takahiro Kawakami                                                              |                       |
| Mode                   | Tx, IEEE802.11ac-20 (SISO), PN9, worst antenna port 1, worst data mode 3 (MCS) |                       |

| Freq.<br>[MHz] | -26 dB Bandwidth<br>[MHz] | Limit<br>[MHz] |
|----------------|---------------------------|----------------|
| 5260.0000      | 21.407                    | -              |
| 5300.0000      | 21.335                    | -              |
| 5320.0000      | 21.422                    | -              |



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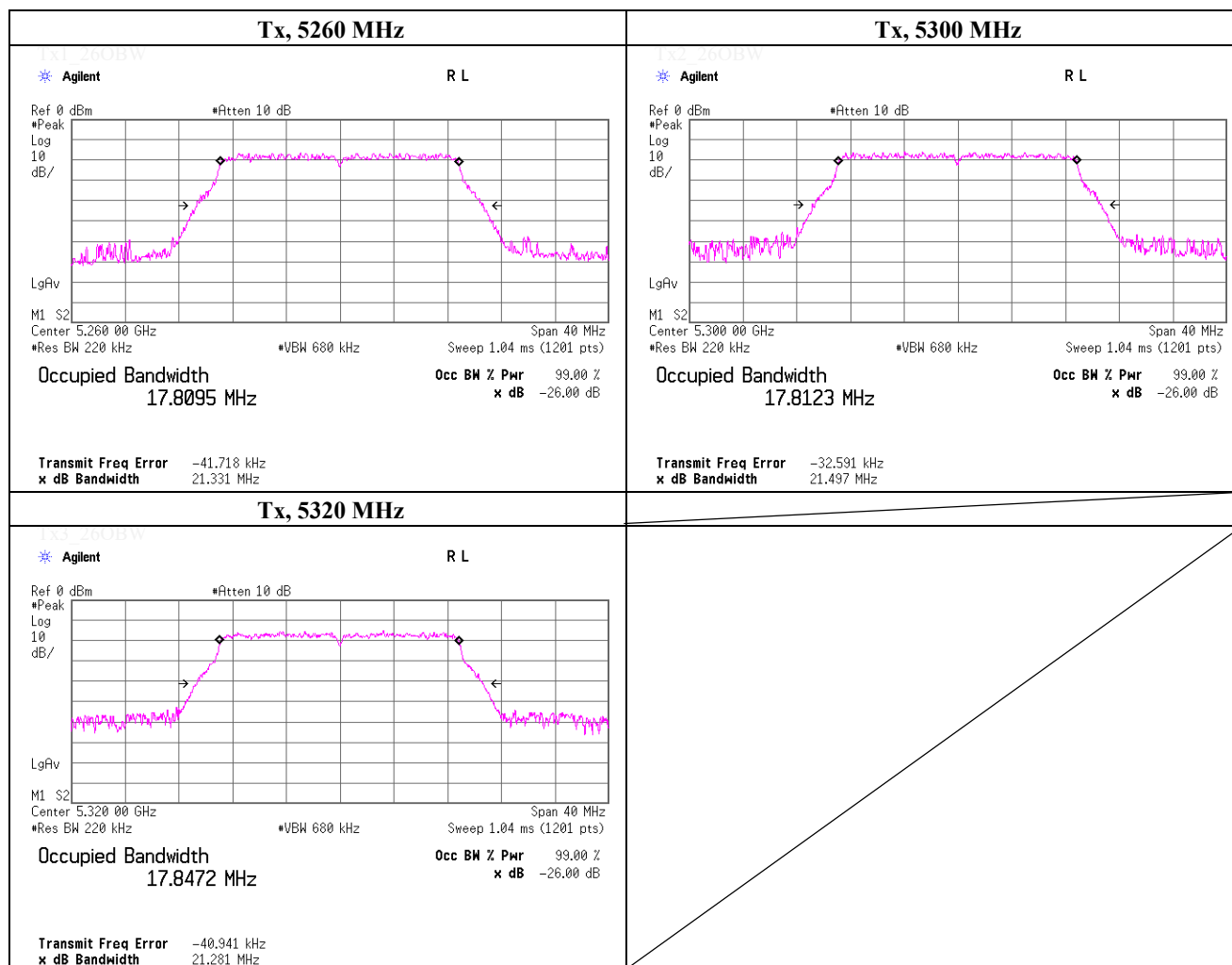
Telephone : +81 463 50 6400

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## -26 dB Bandwidth

|                        |                                                                          |                       |
|------------------------|--------------------------------------------------------------------------|-----------------------|
| Test place             | UL Japan, Inc. Shonan EMC Lab.                                           | No.1 Measurement Room |
| Date                   | January 13, 2021                                                         |                       |
| Temperature / Humidity | 24 deg.C , 41 %RH                                                        |                       |
| Engineer               | Takahiro Kawakami                                                        |                       |
| Mode                   | Tx, IEEE802.11n-20 (MIMO), PN9, Antenna port 1, worst data mode 13 (MCS) |                       |

| Freq.<br>[MHz] | -26 dB Bandwidth<br>[MHz] | Limit<br>[MHz] |
|----------------|---------------------------|----------------|
| 5260.0000      | 21.331                    | -              |
| 5300.0000      | 21.497                    | -              |
| 5320.0000      | 21.281                    | -              |



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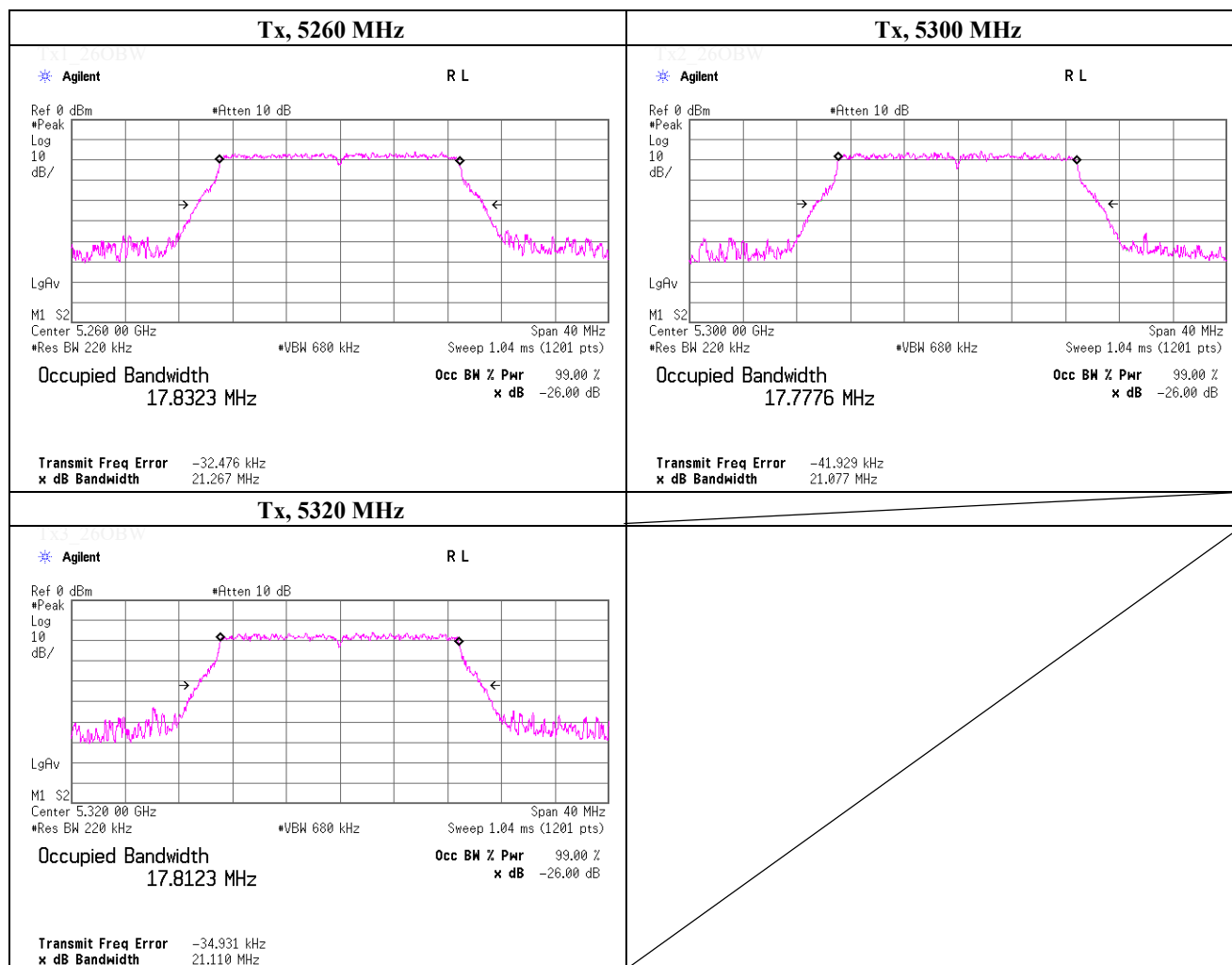
Telephone : +81 463 50 6400

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## -26 dB Bandwidth

|                        |                                                                          |                       |
|------------------------|--------------------------------------------------------------------------|-----------------------|
| Test place             | UL Japan, Inc. Shonan EMC Lab.                                           | No.1 Measurement Room |
| Date                   | January 13, 2021                                                         |                       |
| Temperature / Humidity | 24 deg.C , 41 %RH                                                        |                       |
| Engineer               | Takahiro Kawakami                                                        |                       |
| Mode                   | Tx, IEEE802.11ac-20 (MIMO), PN9, Antenna port 1, worst data mode 8 (MCS) |                       |

| Freq.<br>[MHz] | -26 dB Bandwidth<br>[MHz] | Limit<br>[MHz] |
|----------------|---------------------------|----------------|
| 5260.0000      | 21.267                    | -              |
| 5300.0000      | 21.077                    | -              |
| 5320.0000      | 21.110                    | -              |



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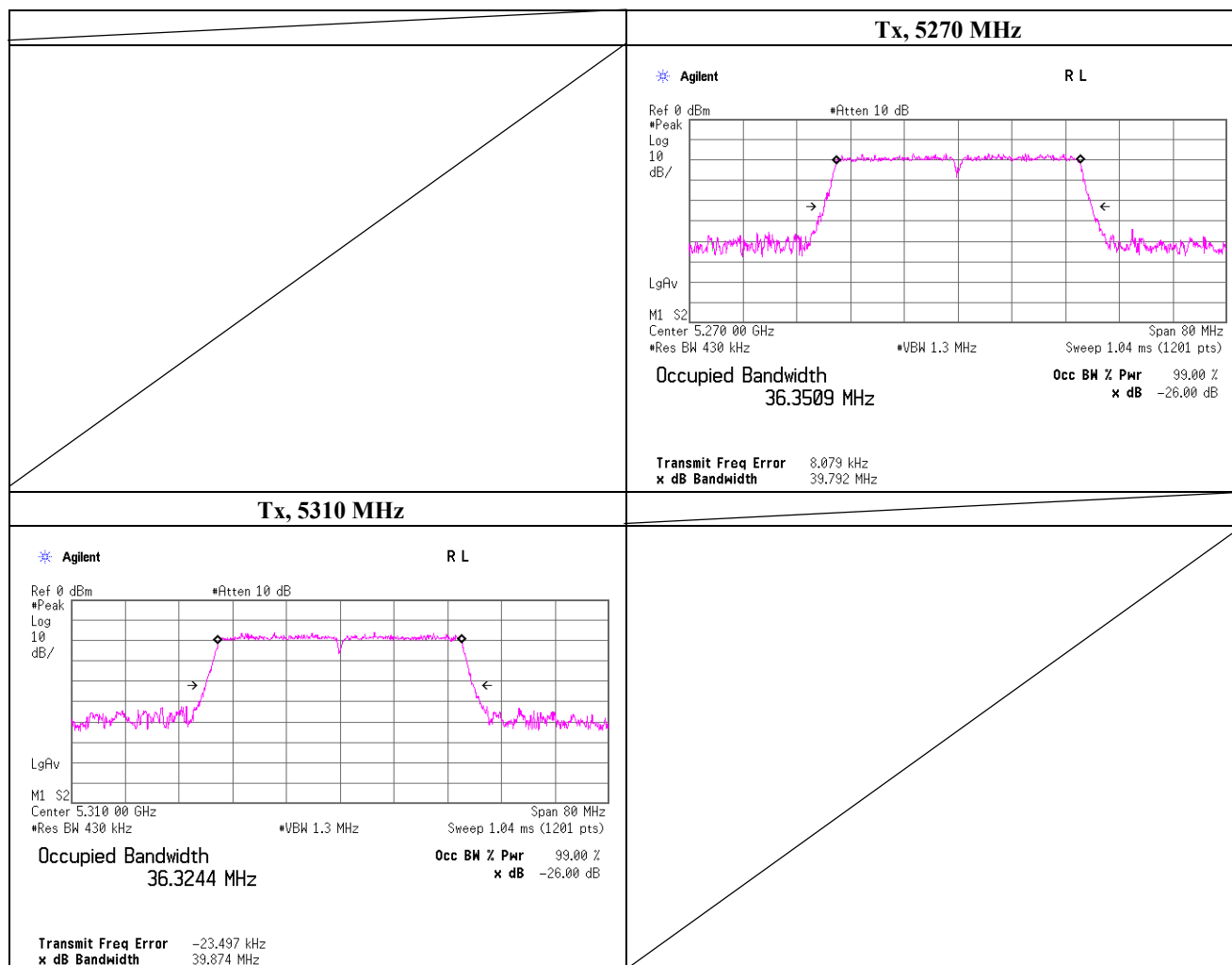
Telephone : +81 463 50 6400

Facsimile : +81 463 50 6401

## -26 dB Bandwidth

|                        |                                                                               |                       |
|------------------------|-------------------------------------------------------------------------------|-----------------------|
| Test place             | UL Japan, Inc. Shonan EMC Lab.                                                | No.1 Measurement Room |
| Date                   | January 19, 2021                                                              |                       |
| Temperature / Humidity | 25 deg.C , 40 %RH                                                             |                       |
| Engineer               | Takahiro Kawakami                                                             |                       |
| Mode                   | Tx, IEEE802.11n-40 (SISO), PN9, worst antenna port 1, worst data mode 3 (MCS) |                       |

| Freq.<br>[MHz] | -26 dB Bandwidth<br>[MHz] | Limit<br>[MHz] |
|----------------|---------------------------|----------------|
| -              | -                         | -              |
| 5270.0000      | 39.792                    | -              |
| 5310.0000      | 39.874                    | -              |



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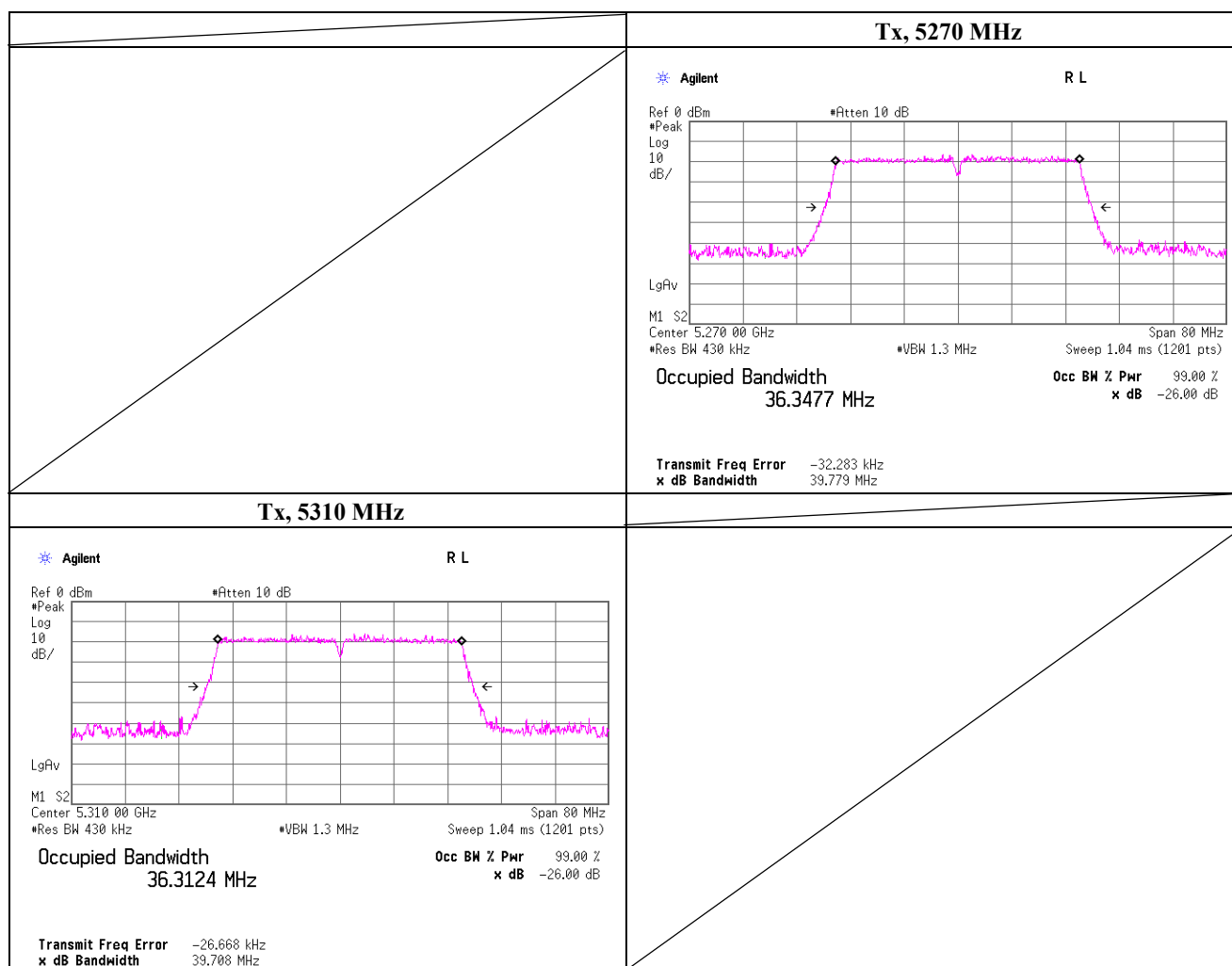
Telephone : +81 463 50 6400

Facsimile : +81 463 50 6401

## -26 dB Bandwidth

|                        |                                                                                |                       |
|------------------------|--------------------------------------------------------------------------------|-----------------------|
| Test place             | UL Japan, Inc. Shonan EMC Lab.                                                 | No.1 Measurement Room |
| Date                   | January 19, 2021                                                               |                       |
| Temperature / Humidity | 25 deg.C , 40 %RH                                                              |                       |
| Engineer               | Takahiro Kawakami                                                              |                       |
| Mode                   | Tx, IEEE802.11ac-40 (SISO), PN9, worst antenna port 1, worst data mode 3 (MCS) |                       |

| Freq.<br>[MHz] | -26 dB Bandwidth<br>[MHz] | Limit<br>[MHz] |
|----------------|---------------------------|----------------|
| -              | -                         | -              |
| 5270.0000      | 39.779                    | -              |
| 5310.0000      | 39.708                    | -              |



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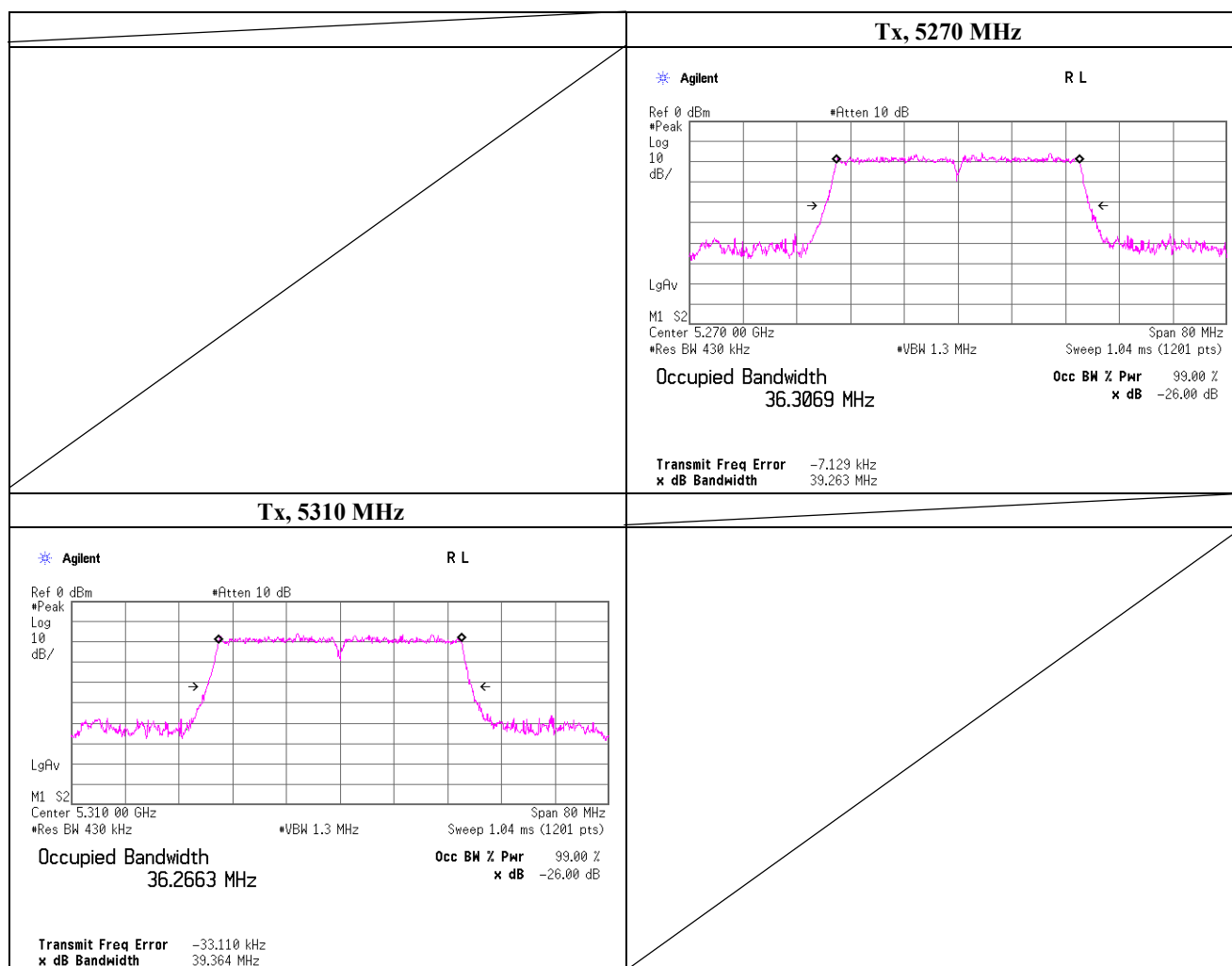
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## -26 dB Bandwidth

|                        |                                                                          |                       |
|------------------------|--------------------------------------------------------------------------|-----------------------|
| Test place             | UL Japan, Inc. Shonan EMC Lab.                                           | No.1 Measurement Room |
| Date                   | January 19, 2021                                                         |                       |
| Temperature / Humidity | 25 deg.C , 40 %RH                                                        |                       |
| Engineer               | Takahiro Kawakami                                                        |                       |
| Mode                   | Tx, IEEE802.11n-40 (MIMO), PN9, Antenna port 1, worst data mode 14 (MCS) |                       |

| Freq.<br>[MHz] | -26 dB Bandwidth<br>[MHz] | Limit<br>[MHz] |
|----------------|---------------------------|----------------|
| -              | -                         | -              |
| 5270.0000      | 39.263                    | -              |
| 5310.0000      | 39.364                    | -              |



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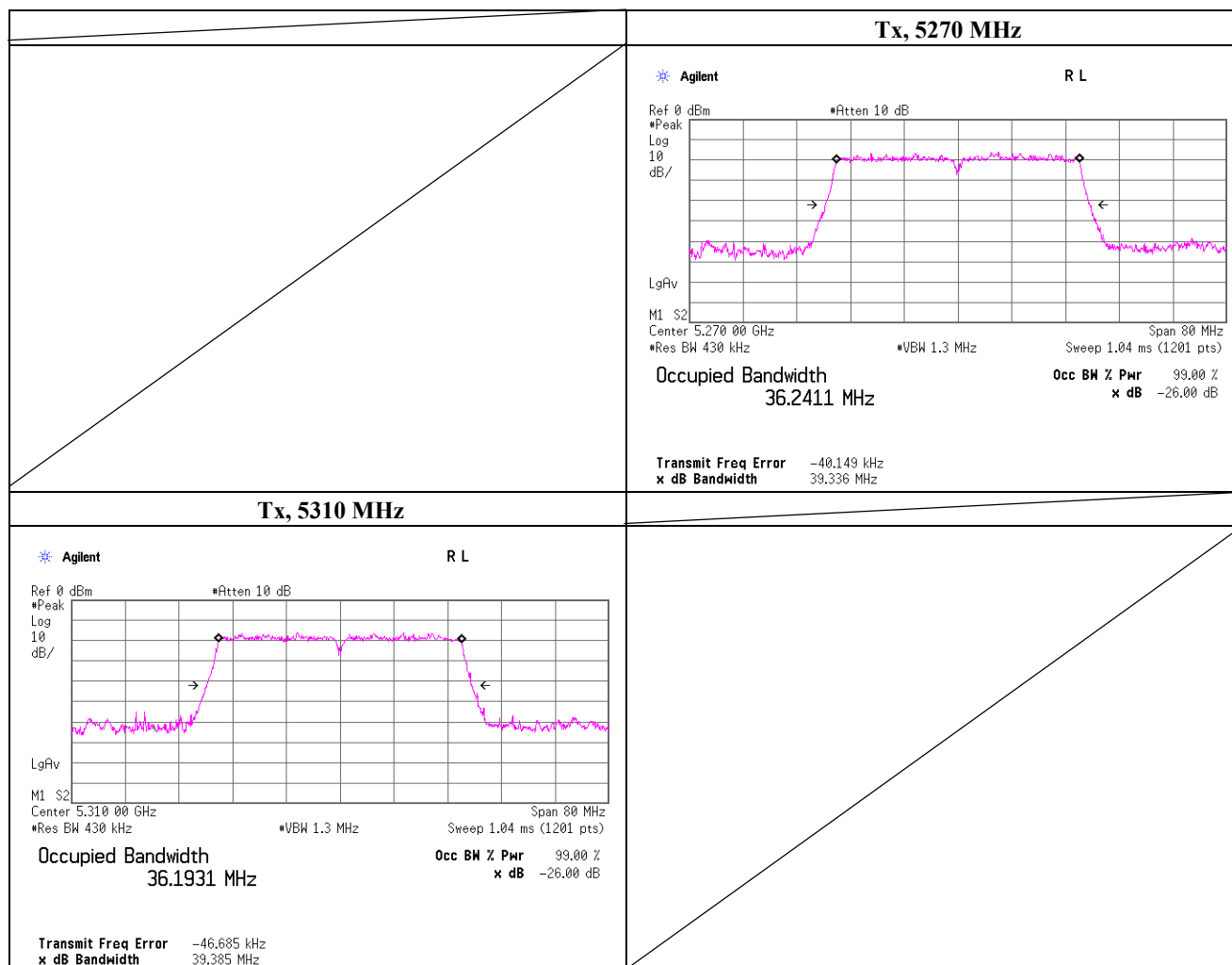
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Facsimile : +81 463 50 6401

## -26 dB Bandwidth

|                        |                                                                          |                       |
|------------------------|--------------------------------------------------------------------------|-----------------------|
| Test place             | UL Japan, Inc. Shonan EMC Lab.                                           | No.1 Measurement Room |
| Date                   | January 19, 2021                                                         |                       |
| Temperature / Humidity | 25 deg.C , 40 %RH                                                        |                       |
| Engineer               | Takahiro Kawakami                                                        |                       |
| Mode                   | Tx, IEEE802.11ac-40 (MIMO), PN9, Antenna port 1, worst data mode 5 (MCS) |                       |

| Freq.<br>[MHz] | -26 dB Bandwidth<br>[MHz] | Limit<br>[MHz] |
|----------------|---------------------------|----------------|
| -              | -                         | -              |
| 5270.0000      | 39.336                    | -              |
| 5310.0000      | 39.385                    | -              |



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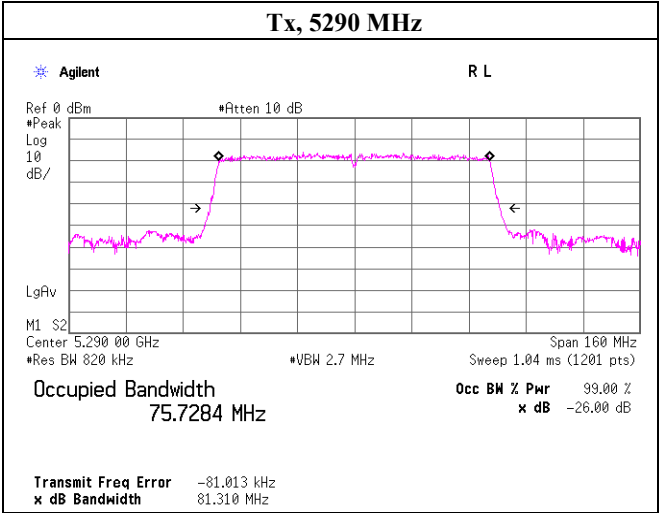
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**-26 dB Bandwidth**

|                        |                                                                                |                       |
|------------------------|--------------------------------------------------------------------------------|-----------------------|
| Test place             | UL Japan, Inc. Shonan EMC Lab.                                                 | No.1 Measurement Room |
| Date                   | January 20, 2021                                                               |                       |
| Temperature / Humidity | 23 deg.C , 39 %RH                                                              |                       |
| Engineer               | Takahiro Kawakami                                                              |                       |
| Mode                   | Tx, IEEE802.11ac-80 (SISO), PN9, worst antenna port 1, worst data mode 4 (MCS) |                       |

| Freq.<br>[MHz] | -26 dB Bandwidth<br>[MHz] | Limit<br>[MHz] |
|----------------|---------------------------|----------------|
| 5290.0000      | 81.310                    | -              |
| -              | -                         | -              |
| -              | -                         | -              |



Tx2\_26OBW

Tx3\_26OBW

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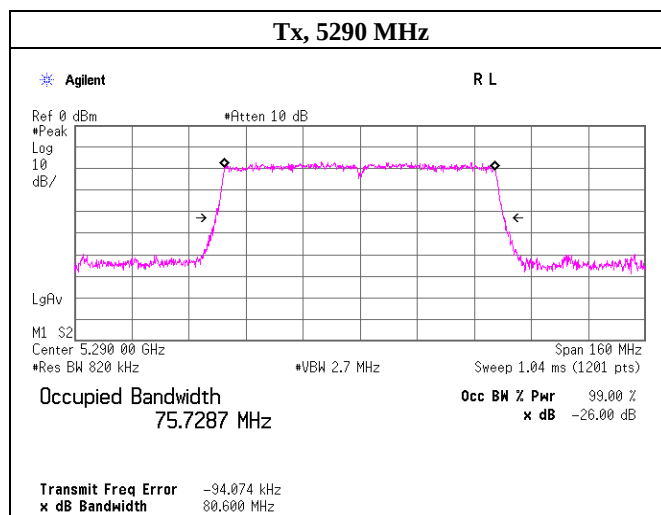
Telephone : +81 463 50 6400

Facsimile : +81 463 50 6401

## -26 dB Bandwidth

|                        |                                                                          |                       |
|------------------------|--------------------------------------------------------------------------|-----------------------|
| Test place             | UL Japan, Inc. Shonan EMC Lab.                                           | No.1 Measurement Room |
| Date                   | January 20, 2021                                                         |                       |
| Temperature / Humidity | 23 deg.C , 39 %RH                                                        |                       |
| Engineer               | Takahiro Kawakami                                                        |                       |
| Mode                   | Tx, IEEE802.11ac-80 (MIMO), PN9, Antenna port 1, worst data mode 4 (MCS) |                       |

| Freq.<br>[MHz] | -26 dB Bandwidth<br>[MHz] | Limit<br>[MHz] |
|----------------|---------------------------|----------------|
| 5290.0000      | 80.600                    | -              |
| -              | -                         | -              |
| -              | -                         | -              |



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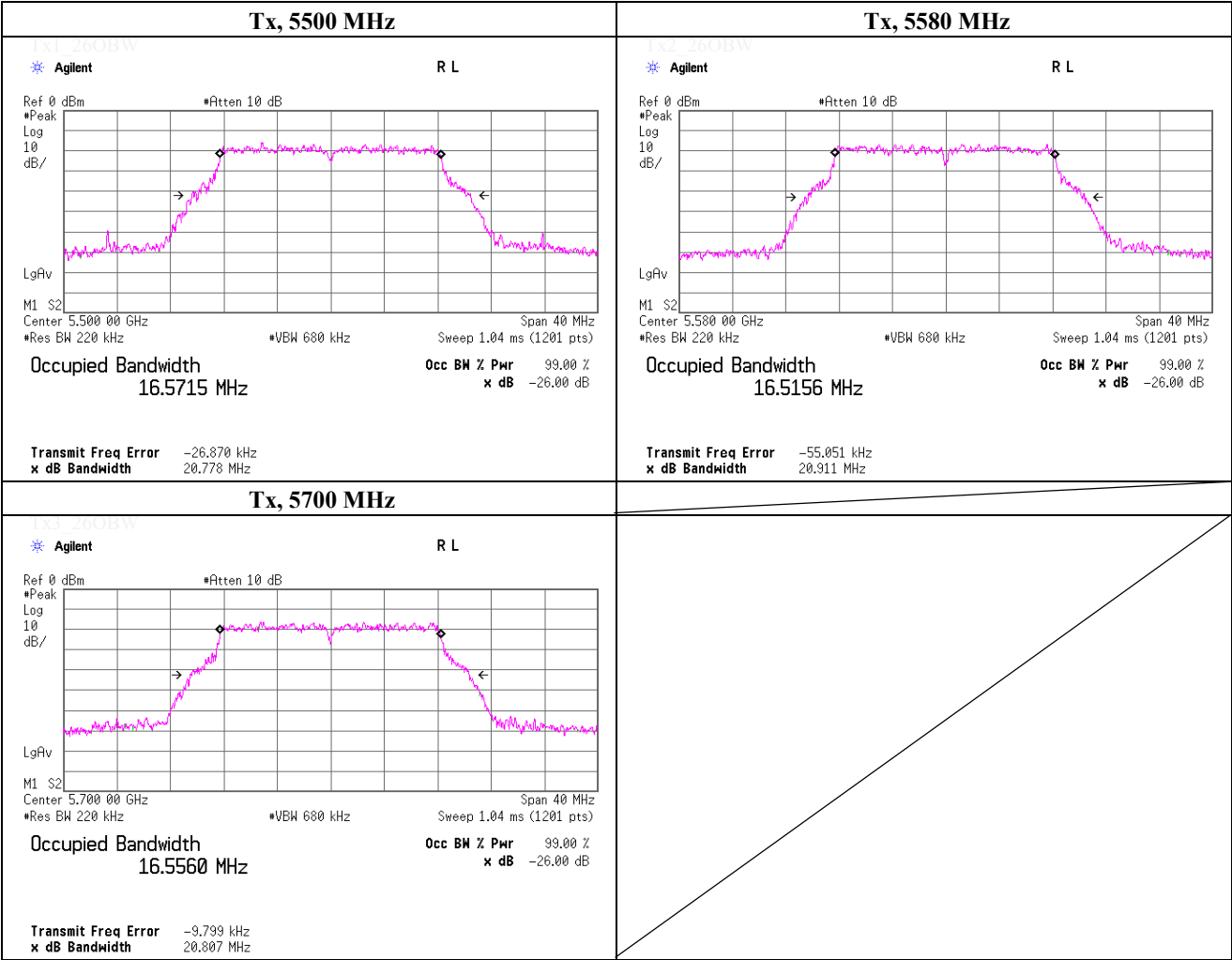
Telephone : +81 463 50 6400

Facsimile : +81 463 50 6401

**-26 dB Bandwidth**

|                        |                                                                     |                       |
|------------------------|---------------------------------------------------------------------|-----------------------|
| Test place             | UL Japan, Inc. Shonan EMC Lab.                                      | No.1 Measurement Room |
| Date                   | January 8, 2021                                                     |                       |
| Temperature / Humidity | 23 deg.C , 40 %RH                                                   |                       |
| Engineer               | Kenichi Adachi                                                      |                       |
| Mode                   | Tx, IEEE802.11a, PN9, worst antenna port 1, worst data mode 48 Mbps |                       |

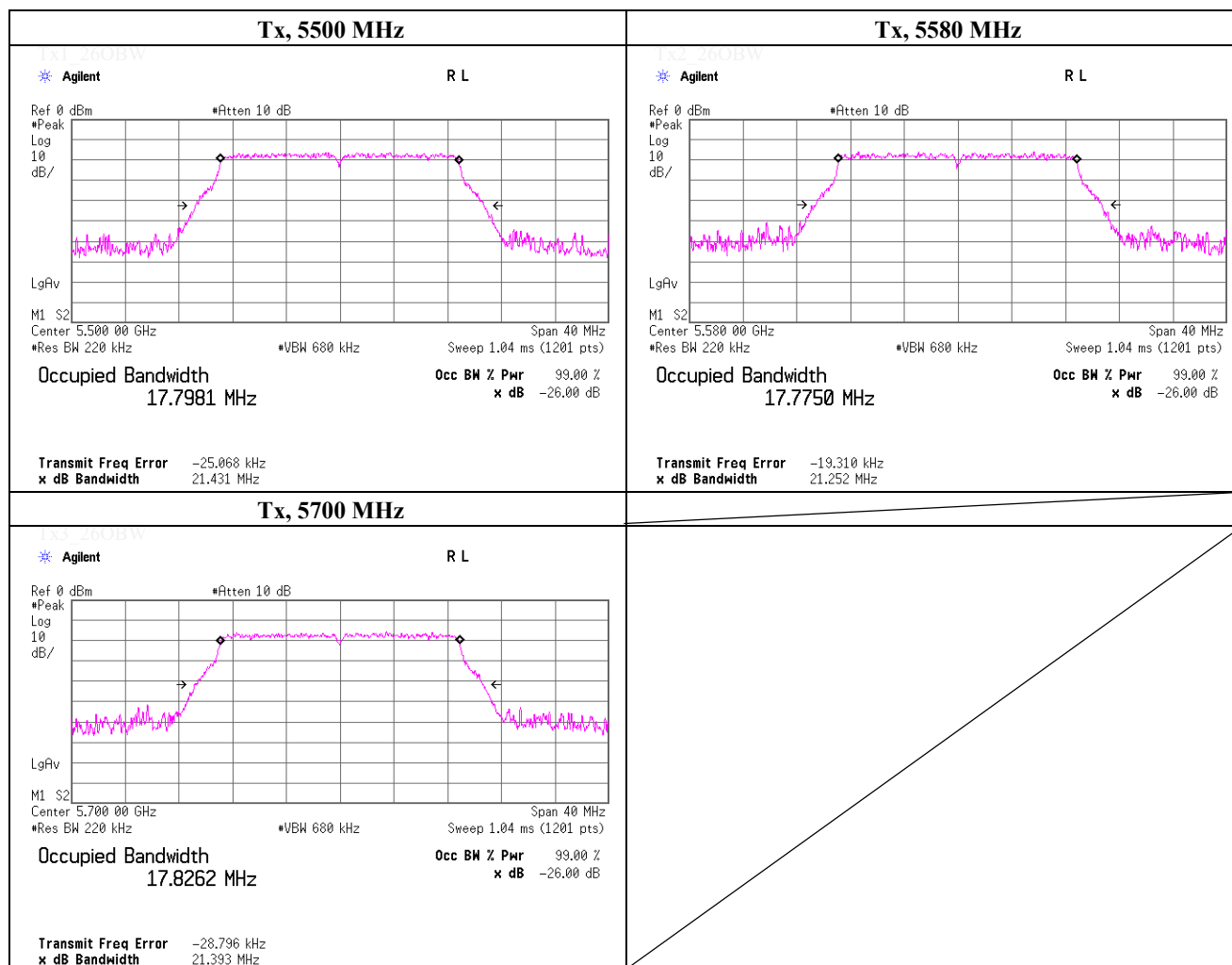
| Freq.<br>[MHz] | -26 dB Bandwidth<br>[MHz] | Limit<br>[MHz] |
|----------------|---------------------------|----------------|
| 5500.0000      | 20.778                    | -              |
| 5580.0000      | 20.911                    | -              |
| 5700.0000      | 20.807                    | -              |



## -26 dB Bandwidth

|                        |                                                                               |                       |
|------------------------|-------------------------------------------------------------------------------|-----------------------|
| Test place             | UL Japan, Inc. Shonan EMC Lab.                                                | No.1 Measurement Room |
| Date                   | January 12, 2021                                                              |                       |
| Temperature / Humidity | 23 deg.C , 30 %RH                                                             |                       |
| Engineer               | Takahiro Kawakami                                                             |                       |
| Mode                   | Tx, IEEE802.11n-20 (SISO), PN9, worst antenna port 1, worst data mode 6 (MCS) |                       |

| Freq.<br>[MHz] | -26 dB Bandwidth<br>[MHz] | Limit<br>[MHz] |
|----------------|---------------------------|----------------|
| 5500.0000      | 21.431                    | -              |
| 5580.0000      | 21.252                    | -              |
| 5700.0000      | 21.393                    | -              |



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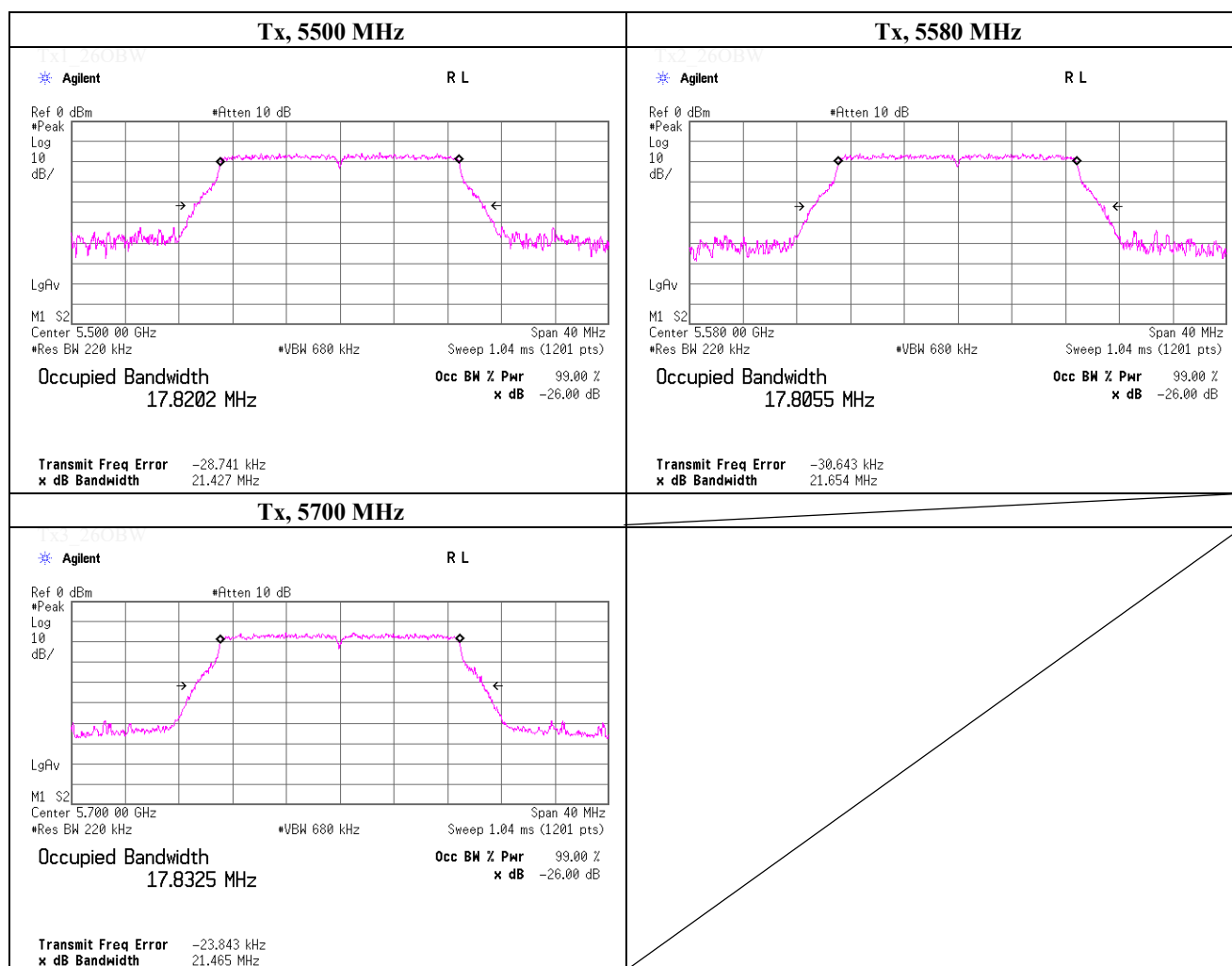
Telephone : +81 463 50 6400

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**-26 dB Bandwidth**

|                        |                                                                                |                       |
|------------------------|--------------------------------------------------------------------------------|-----------------------|
| Test place             | UL Japan, Inc. Shonan EMC Lab.                                                 | No.1 Measurement Room |
| Date                   | January 12, 2021                                                               |                       |
| Temperature / Humidity | 23 deg.C , 51 %RH                                                              |                       |
| Engineer               | Takahiro Kawakami                                                              |                       |
| Mode                   | Tx, IEEE802.11ac-20 (SISO), PN9, worst antenna port 1, worst data mode 3 (MCS) |                       |

| Freq.<br>[MHz] | -26 dB Bandwidth<br>[MHz] | Limit<br>[MHz] |
|----------------|---------------------------|----------------|
| 5500.0000      | 21.427                    | -              |
| 5580.0000      | 21.654                    | -              |
| 5700.0000      | 21.465                    | -              |

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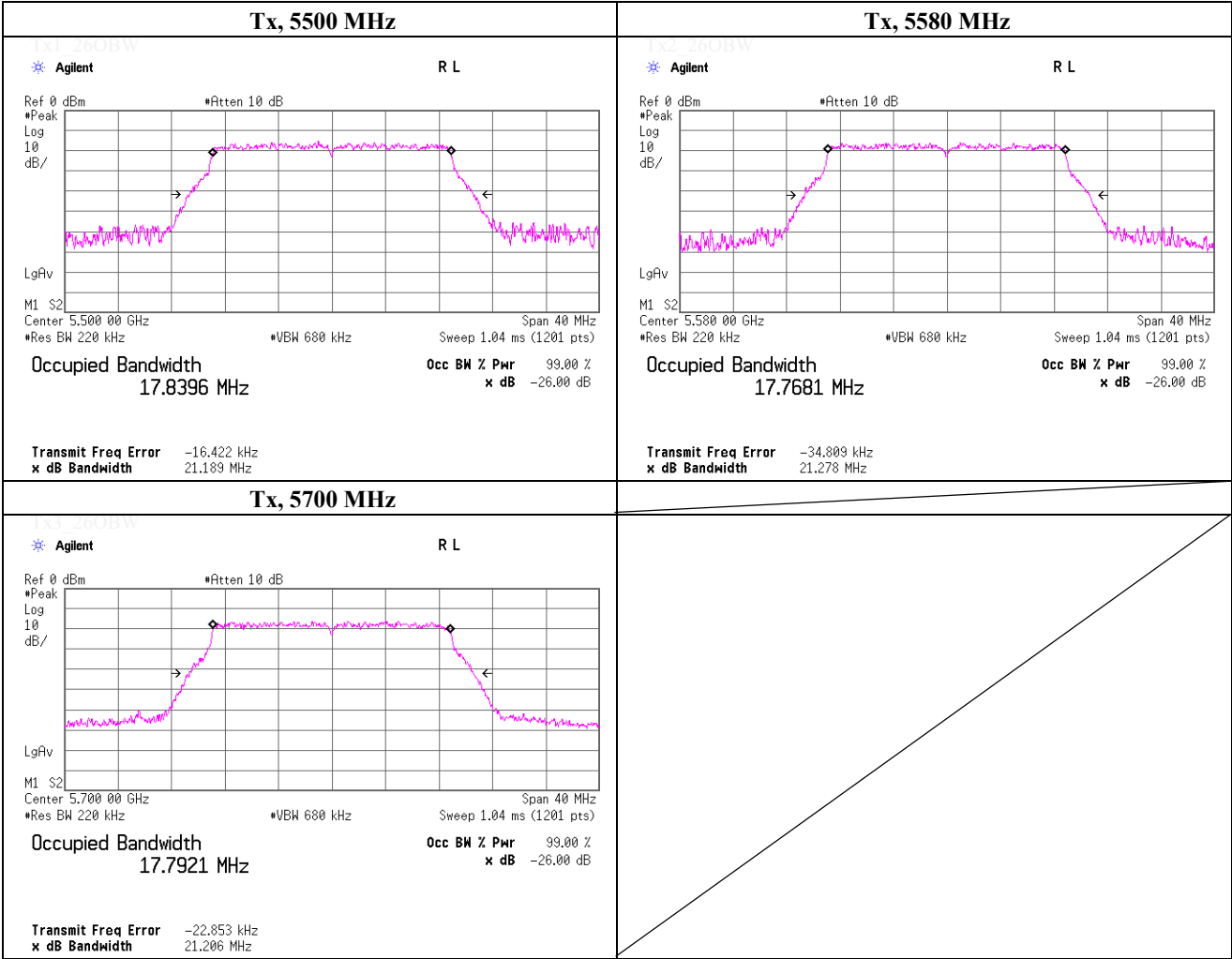
Telephone : +81 463 50 6400

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**-26 dB Bandwidth**

|                        |                                                                          |                       |
|------------------------|--------------------------------------------------------------------------|-----------------------|
| Test place             | UL Japan, Inc. Shonan EMC Lab.                                           | No.1 Measurement Room |
| Date                   | January 13, 2021                                                         |                       |
| Temperature / Humidity | 24 deg.C , 41 %RH                                                        |                       |
| Engineer               | Takahiro Kawakami                                                        |                       |
| Mode                   | Tx, IEEE802.11n-20 (MIMO), PN9, Antenna port 1, worst data mode 13 (MCS) |                       |

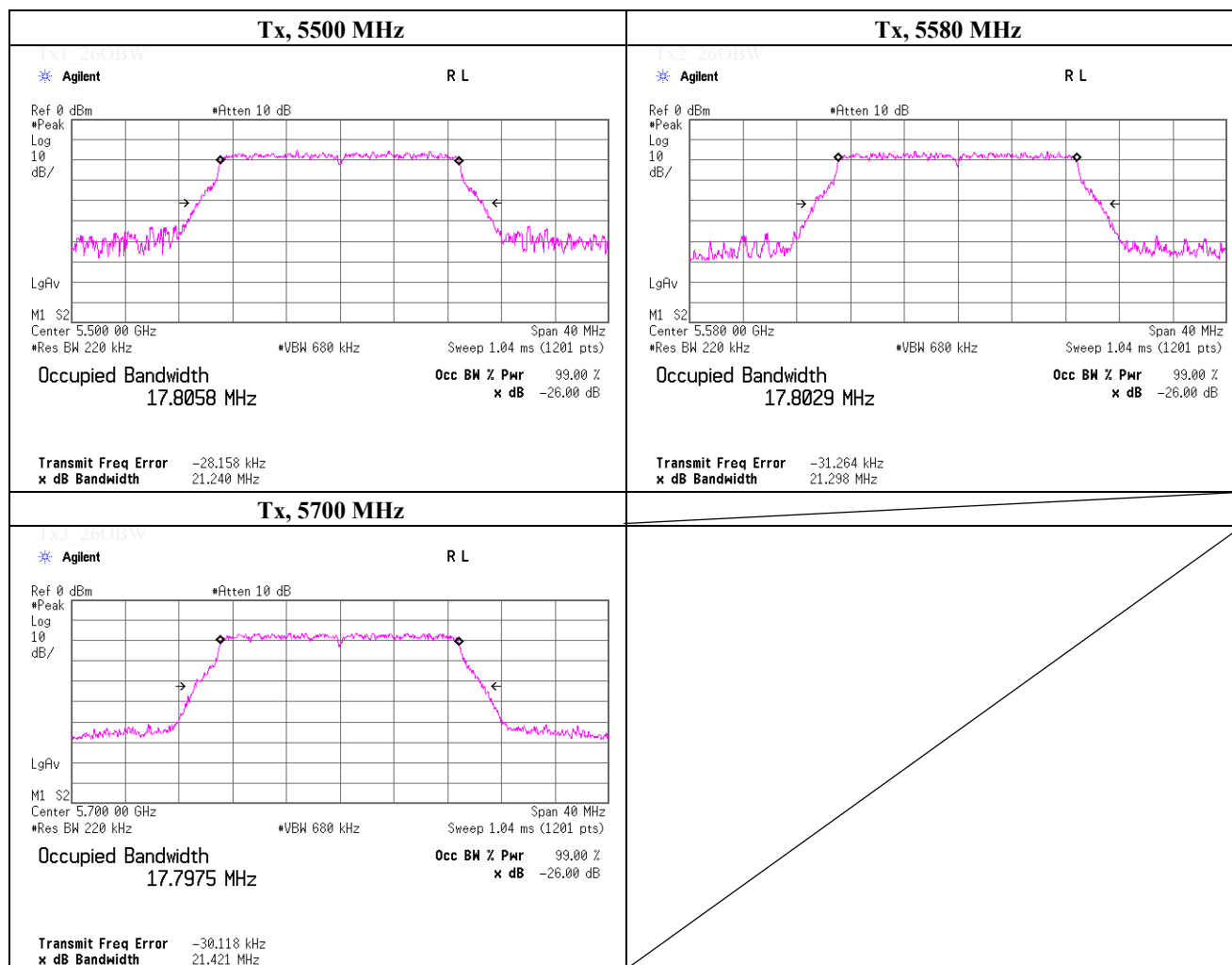
| Freq.<br>[MHz] | -26 dB Bandwidth<br>[MHz] | Limit<br>[MHz] |
|----------------|---------------------------|----------------|
| 5500.0000      | 21.189                    | -              |
| 5580.0000      | 21.278                    | -              |
| 5700.0000      | 21.206                    | -              |



## -26 dB Bandwidth

|                        |                                                                          |                       |
|------------------------|--------------------------------------------------------------------------|-----------------------|
| Test place             | UL Japan, Inc. Shonan EMC Lab.                                           | No.1 Measurement Room |
| Date                   | January 13, 2021                                                         |                       |
| Temperature / Humidity | 24 deg.C , 41 %RH                                                        |                       |
| Engineer               | Takahiro Kawakami                                                        |                       |
| Mode                   | Tx, IEEE802.11ac-20 (MIMO), PN9, Antenna port 1, worst data mode 8 (MCS) |                       |

| Freq.<br>[MHz] | -26 dB Bandwidth<br>[MHz] | Limit<br>[MHz] |
|----------------|---------------------------|----------------|
| 5500.0000      | 21.240                    | -              |
| 5580.0000      | 21.298                    | -              |
| 5700.0000      | 21.421                    | -              |



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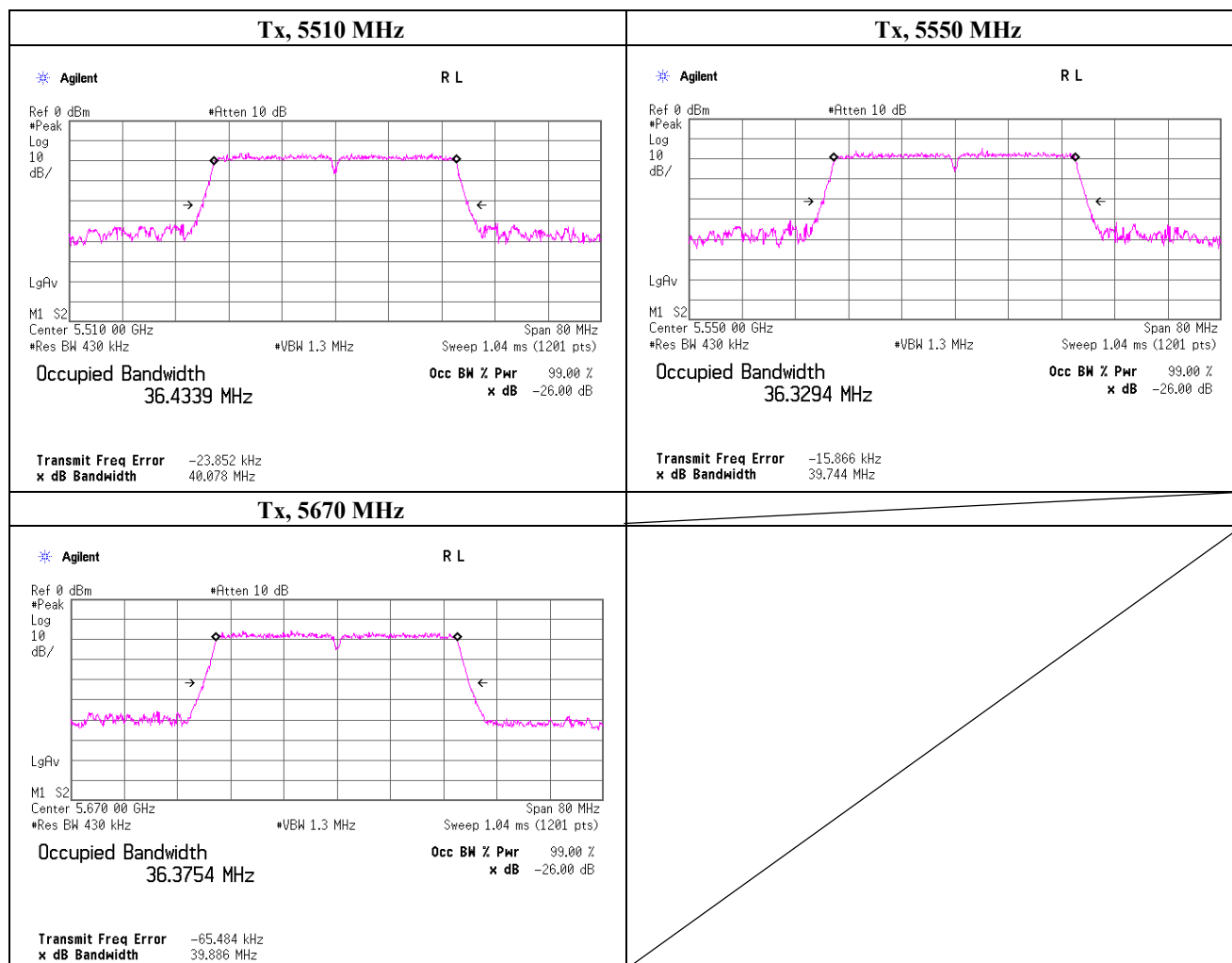
Telephone : +81 463 50 6400

Facsimile : +81 463 50 6401

## -26 dB Bandwidth

|                        |                                                                               |                       |
|------------------------|-------------------------------------------------------------------------------|-----------------------|
| Test place             | UL Japan, Inc. Shonan EMC Lab.                                                | No.1 Measurement Room |
| Date                   | January 19, 2021                                                              |                       |
| Temperature / Humidity | 25 deg.C , 40 %RH                                                             |                       |
| Engineer               | Takahiro Kawakami                                                             |                       |
| Mode                   | Tx, IEEE802.11n-40 (SISO), PN9, worst antenna port 1, worst data mode 3 (MCS) |                       |

| Freq.<br>[MHz] | -26 dB Bandwidth<br>[MHz] | Limit<br>[MHz] |
|----------------|---------------------------|----------------|
| 5510.0000      | 40.078                    | -              |
| 5550.0000      | 39.744                    | -              |
| 5670.0000      | 39.886                    | -              |



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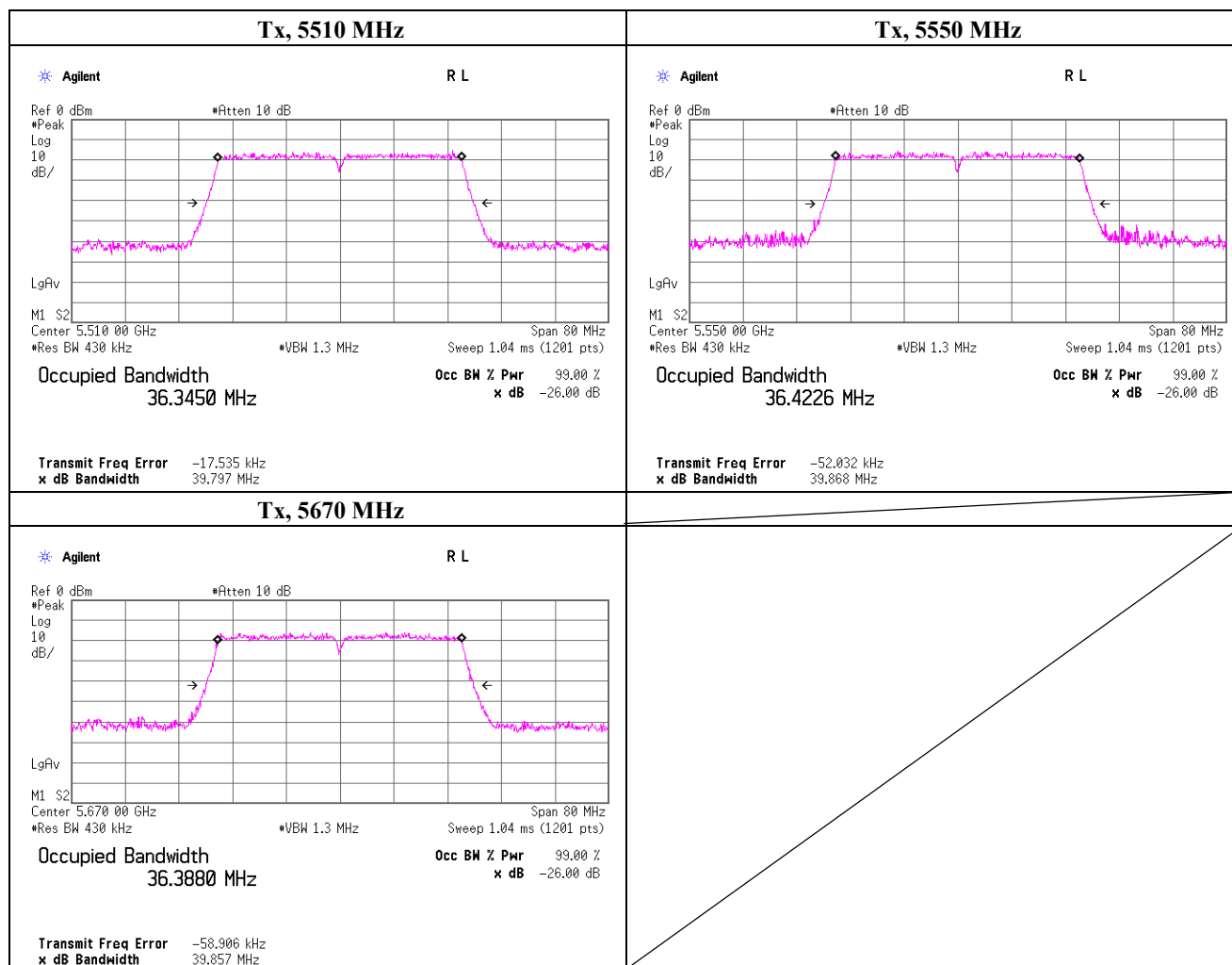
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## -26 dB Bandwidth

|                        |                                                                                |                       |
|------------------------|--------------------------------------------------------------------------------|-----------------------|
| Test place             | UL Japan, Inc. Shonan EMC Lab.                                                 | No.1 Measurement Room |
| Date                   | January 19, 2021                                                               |                       |
| Temperature / Humidity | 25 deg.C , 40 %RH                                                              |                       |
| Engineer               | Takahiro Kawakami                                                              |                       |
| Mode                   | Tx, IEEE802.11ac-40 (SISO), PN9, worst antenna port 1, worst data mode 3 (MCS) |                       |

| Freq.<br>[MHz] | -26 dB Bandwidth<br>[MHz] | Limit<br>[MHz] |
|----------------|---------------------------|----------------|
| 5510.0000      | 39.797                    | -              |
| 5550.0000      | 39.868                    | -              |
| 5670.0000      | 39.857                    | -              |



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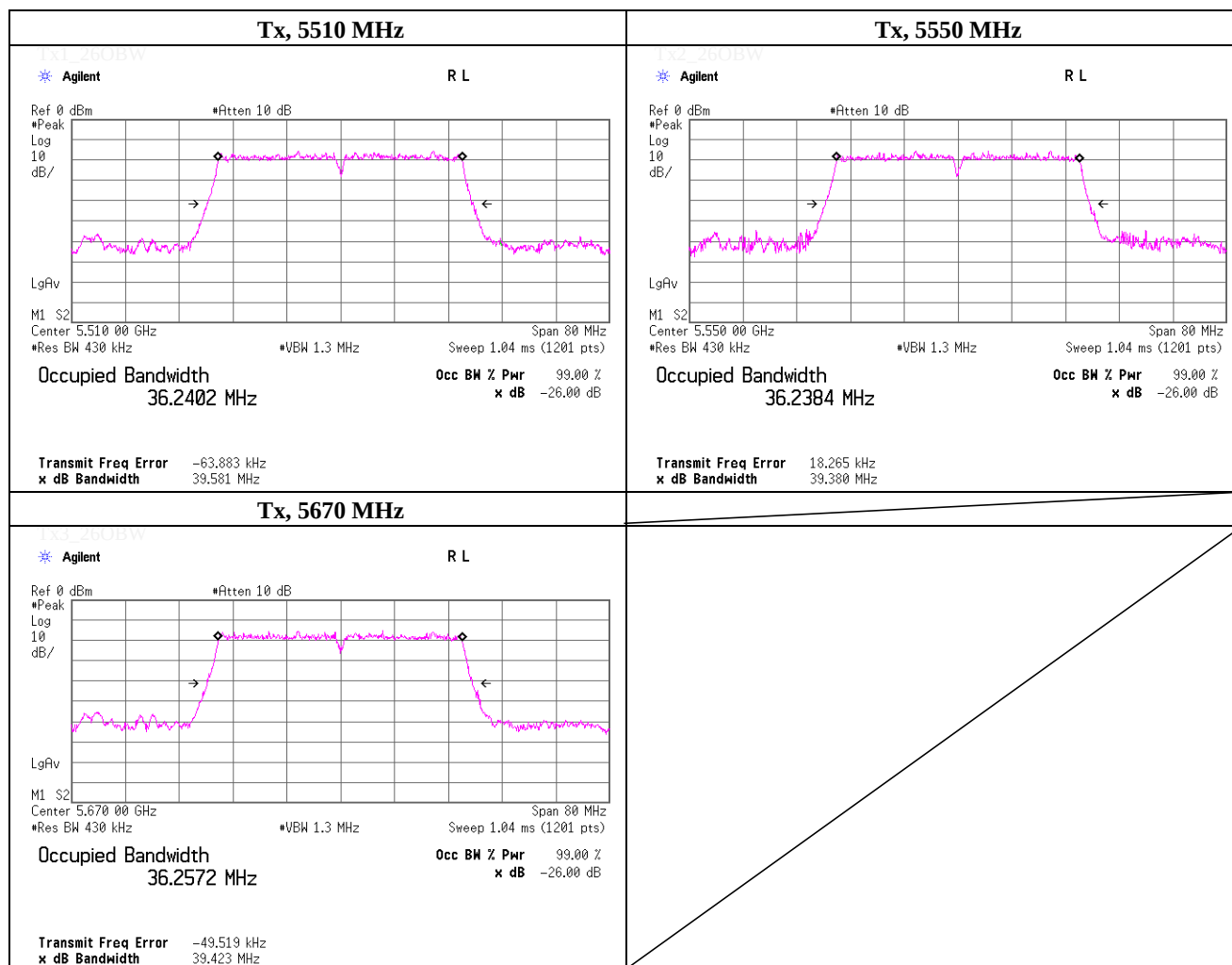
Telephone : +81 463 50 6400

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## -26 dB Bandwidth

|                        |                                                                          |                       |
|------------------------|--------------------------------------------------------------------------|-----------------------|
| Test place             | UL Japan, Inc. Shonan EMC Lab.                                           | No.1 Measurement Room |
| Date                   | January 19, 2021                                                         |                       |
| Temperature / Humidity | 25 deg.C , 40 %RH                                                        |                       |
| Engineer               | Takahiro Kawakami                                                        |                       |
| Mode                   | Tx, IEEE802.11n-40 (MIMO), PN9, Antenna port 1, worst data mode 14 (MCS) |                       |

| Freq.<br>[MHz] | -26 dB Bandwidth<br>[MHz] | Limit<br>[MHz] |
|----------------|---------------------------|----------------|
| 5510.0000      | 39.581                    | -              |
| 5550.0000      | 39.380                    | -              |
| 5670.0000      | 39.423                    | -              |



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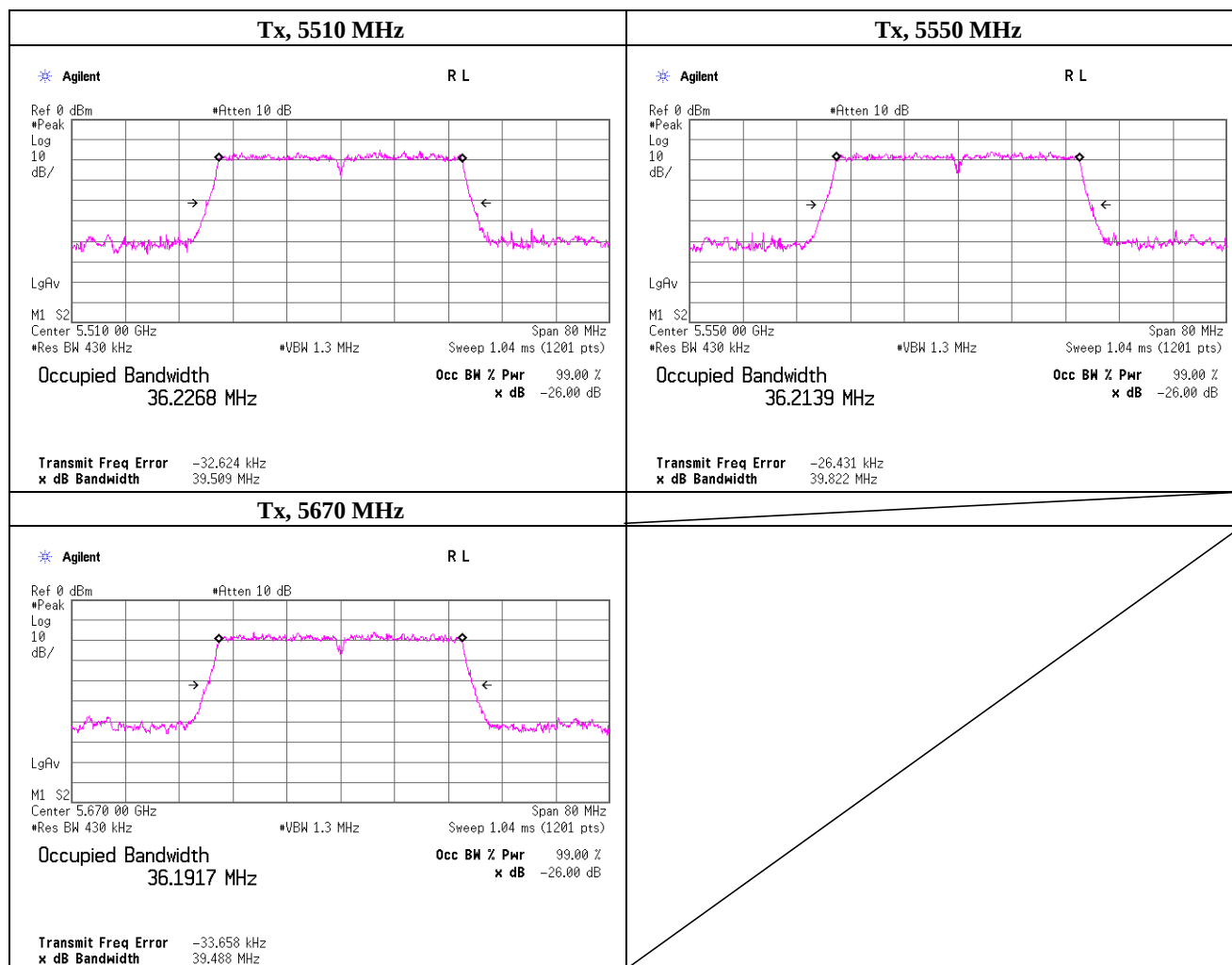
Telephone : +81 463 50 6400

Facsimile : +81 463 50 6401

## -26 dB Bandwidth

|                        |                                                                          |                       |
|------------------------|--------------------------------------------------------------------------|-----------------------|
| Test place             | UL Japan, Inc. Shonan EMC Lab.                                           | No.1 Measurement Room |
| Date                   | January 19, 2021                                                         |                       |
| Temperature / Humidity | 25 deg.C , 40 %RH                                                        |                       |
| Engineer               | Takahiro Kawakami                                                        |                       |
| Mode                   | Tx, IEEE802.11ac-40 (MIMO), PN9, Antenna port 1, worst data mode 5 (MCS) |                       |

| Freq.<br>[MHz] | -26 dB Bandwidth<br>[MHz] | Limit<br>[MHz] |
|----------------|---------------------------|----------------|
| 5510.0000      | 39.509                    | -              |
| 5550.0000      | 39.822                    | -              |
| 5670.0000      | 39.488                    | -              |



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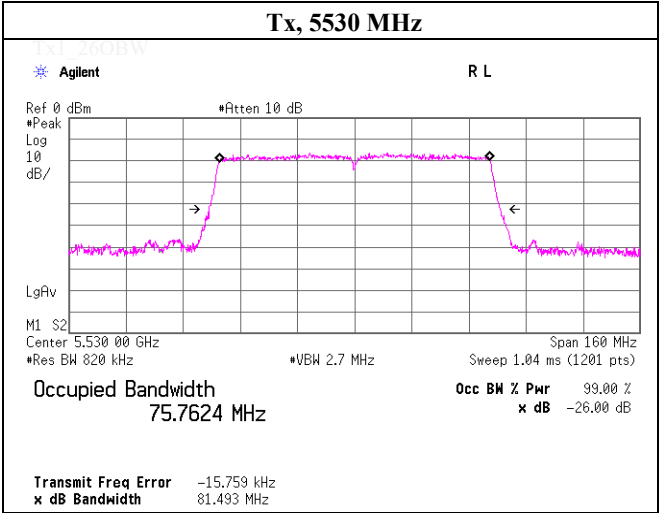
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**-26 dB Bandwidth**

|                        |                                                                                |                       |
|------------------------|--------------------------------------------------------------------------------|-----------------------|
| Test place             | UL Japan, Inc. Shonan EMC Lab.                                                 | No.1 Measurement Room |
| Date                   | January 20, 2021                                                               |                       |
| Temperature / Humidity | 23 deg.C , 39 %RH                                                              |                       |
| Engineer               | Takahiro Kawakami                                                              |                       |
| Mode                   | Tx, IEEE802.11ac-80 (SISO), PN9, worst antenna port 1, worst data mode 4 (MCS) |                       |

| Freq.<br>[MHz] | -26 dB Bandwidth<br>[MHz] | Limit<br>[MHz] |
|----------------|---------------------------|----------------|
| 5530.0000      | 81.493                    | -              |
| -              | -                         | -              |
| -              | -                         | -              |



Tx2\_26OBW

Tx3\_26OBW

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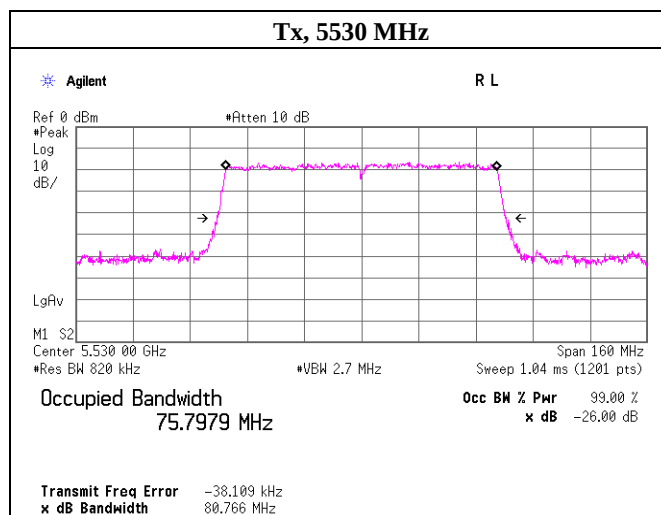
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Facsimile : +81 463 50 6401

## -26 dB Bandwidth

|                        |                                                                          |                       |
|------------------------|--------------------------------------------------------------------------|-----------------------|
| Test place             | UL Japan, Inc. Shonan EMC Lab.                                           | No.1 Measurement Room |
| Date                   | January 20, 2021                                                         |                       |
| Temperature / Humidity | 23 deg.C , 39 %RH                                                        |                       |
| Engineer               | Takahiro Kawakami                                                        |                       |
| Mode                   | Tx, IEEE802.11ac-80 (MIMO), PN9, Antenna port 1, worst data mode 4 (MCS) |                       |

| Freq.<br>[MHz] | -26 dB Bandwidth<br>[MHz] | Limit<br>[MHz] |
|----------------|---------------------------|----------------|
| 5530.0000      | 80.766                    | -              |
| -              | -                         | -              |
| -              | -                         | -              |



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**Shonan EMC Lab.**

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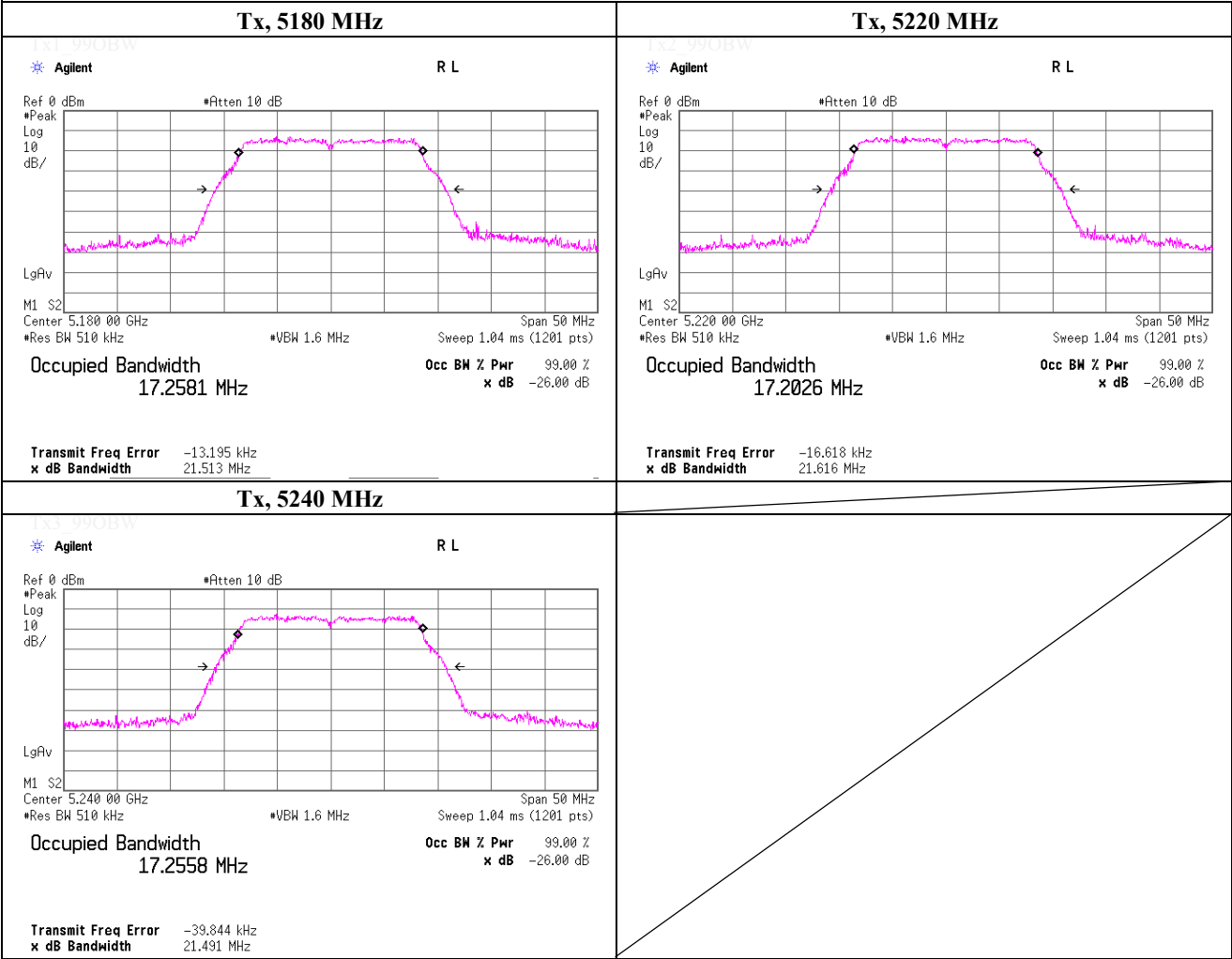
Telephone : +81 463 50 6400

Facsimile : +81 463 50 6401

99 % Occupied Bandwidth

|                        |                                                                     |                       |
|------------------------|---------------------------------------------------------------------|-----------------------|
| Test place             | UL Japan, Inc. Shonan EMC Lab.                                      | No.1 Measurement Room |
| Date                   | January 8, 2021                                                     |                       |
| Temperature / Humidity | 23 deg.C , 40 %RH                                                   |                       |
| Engineer               | Kenichi Adachi                                                      |                       |
| Mode                   | Tx, IEEE802.11a, PN9, worst antenna port 1, worst data mode 48 Mbps |                       |

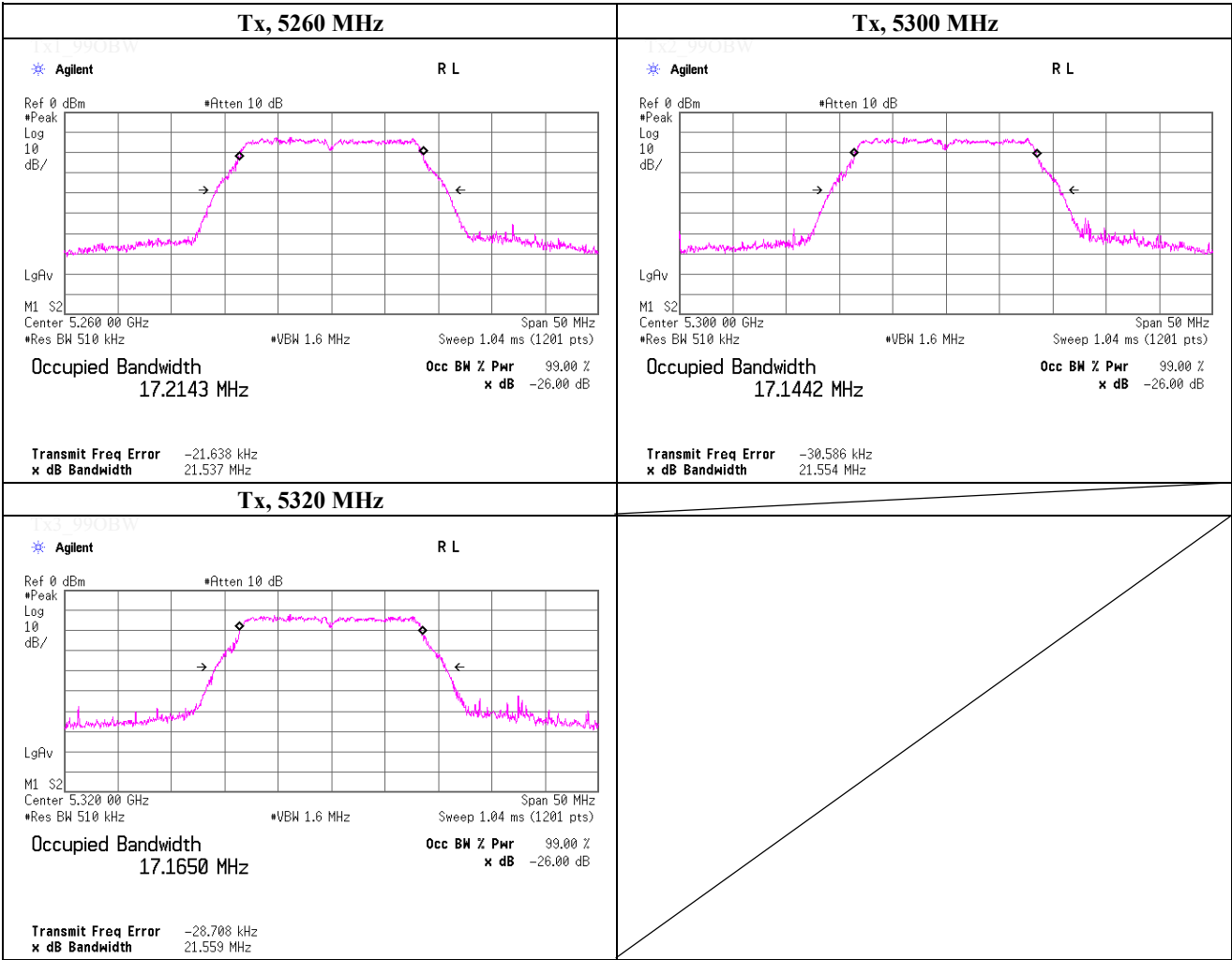
| Freq.<br>[MHz] | 99 % Occupied<br>Bandwidth [kHz] |
|----------------|----------------------------------|
| 5180.0000      | 17258.1                          |
| 5220.0000      | 17202.6                          |
| 5240.0000      | 17255.8                          |



99 % Occupied Bandwidth

|                        |                                                                     |                       |
|------------------------|---------------------------------------------------------------------|-----------------------|
| Test place             | UL Japan, Inc. Shonan EMC Lab.                                      | No.1 Measurement Room |
| Date                   | January 8, 2021                                                     |                       |
| Temperature / Humidity | 23 deg.C , 40 %RH                                                   |                       |
| Engineer               | Kenichi Adachi                                                      |                       |
| Mode                   | Tx, IEEE802.11a, PN9, worst antenna port 1, worst data mode 48 Mbps |                       |

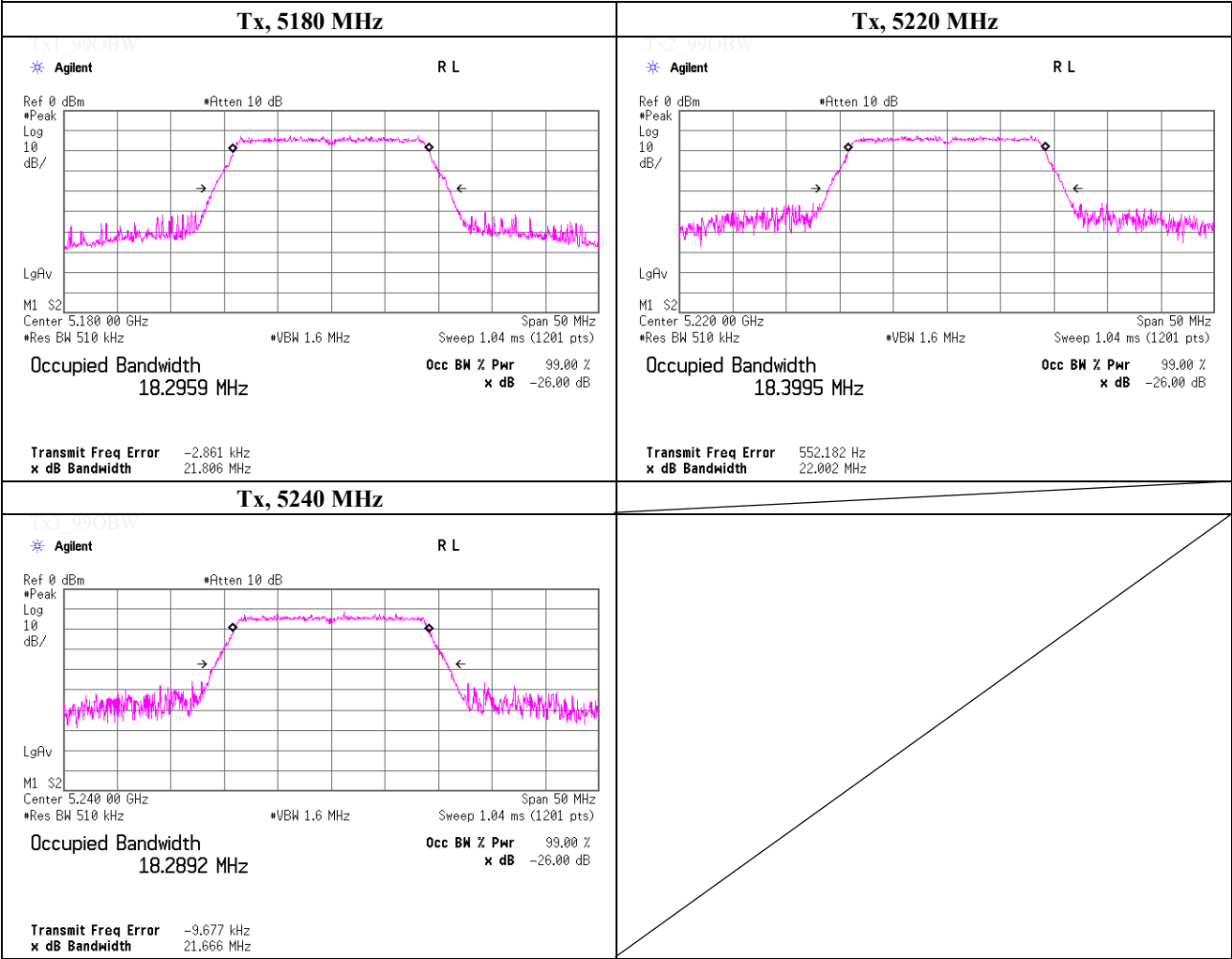
| Freq.<br>[MHz] | 99 % Occupied<br>Bandwidth [kHz] |
|----------------|----------------------------------|
| 5260.0000      | 17214.3                          |
| 5300.0000      | 17144.2                          |
| 5320.0000      | 17165.0                          |



99 % Occupied Bandwidth

|                        |                                                                               |                       |
|------------------------|-------------------------------------------------------------------------------|-----------------------|
| Test place             | UL Japan, Inc. Shonan EMC Lab.                                                | No.1 Measurement Room |
| Date                   | January 12, 2021                                                              |                       |
| Temperature / Humidity | 23 deg.C , 30 %RH                                                             |                       |
| Engineer               | Takahiro Kawakami                                                             |                       |
| Mode                   | Tx, IEEE802.11n-20 (SISO), PN9, worst antenna port 1, worst data mode 6 (MCS) |                       |

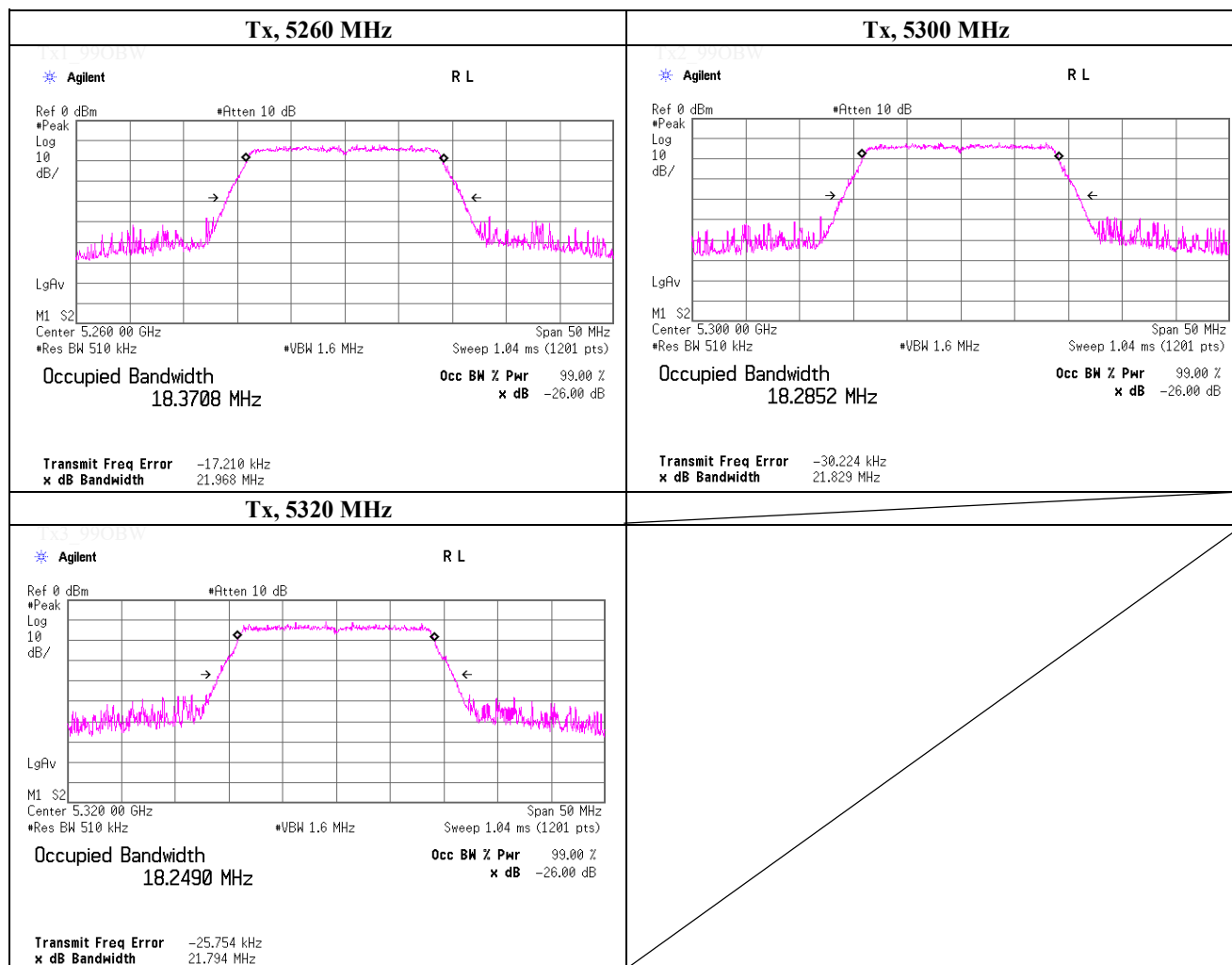
| Freq.<br>[MHz] | 99 % Occupied<br>Bandwidth [kHz] |
|----------------|----------------------------------|
| 5180.0000      | 18295.9                          |
| 5220.0000      | 18399.5                          |
| 5240.0000      | 18289.2                          |



## 99 % Occupied Bandwidth

|                        |                                                                               |                       |
|------------------------|-------------------------------------------------------------------------------|-----------------------|
| Test place             | UL Japan, Inc. Shonan EMC Lab.                                                | No.1 Measurement Room |
| Date                   | January 12, 2021                                                              |                       |
| Temperature / Humidity | 23 deg.C , 30 %RH                                                             |                       |
| Engineer               | Takahiro Kawakami                                                             |                       |
| Mode                   | Tx, IEEE802.11n-20 (SISO), PN9, worst antenna port 1, worst data mode 6 (MCS) |                       |

| Freq.<br>[MHz] | 99 % Occupied<br>Bandwidth [kHz] |
|----------------|----------------------------------|
| 5260.0000      | 18370.8                          |
| 5300.0000      | 18285.2                          |
| 5320.0000      | 18249.0                          |



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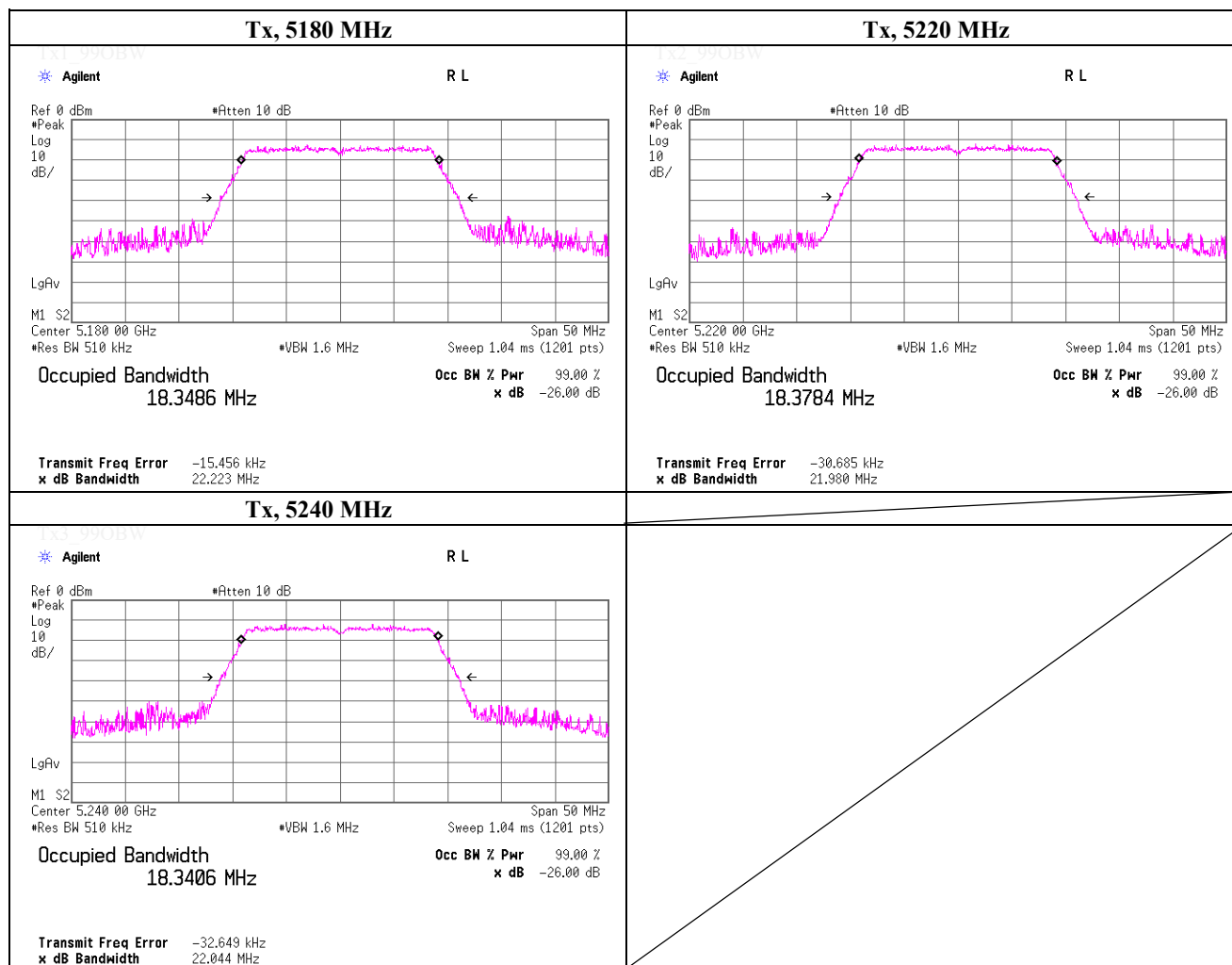
Telephone : +81 463 50 6400

Facsimile : +81 463 50 6401

## 99 % Occupied Bandwidth

|                        |                                                                                |                       |
|------------------------|--------------------------------------------------------------------------------|-----------------------|
| Test place             | UL Japan, Inc. Shonan EMC Lab.                                                 | No.1 Measurement Room |
| Date                   | January 12, 2021                                                               |                       |
| Temperature / Humidity | 23 deg.C , 30 %RH                                                              |                       |
| Engineer               | Takahiro Kawakami                                                              |                       |
| Mode                   | Tx, IEEE802.11ac-20 (SISO), PN9, worst antenna port 1, worst data mode 3 (MCS) |                       |

| Freq.<br>[MHz] | 99 % Occupied<br>Bandwidth [kHz] |
|----------------|----------------------------------|
| 5180.0000      | 18348.6                          |
| 5220.0000      | 18378.4                          |
| 5240.0000      | 18340.6                          |



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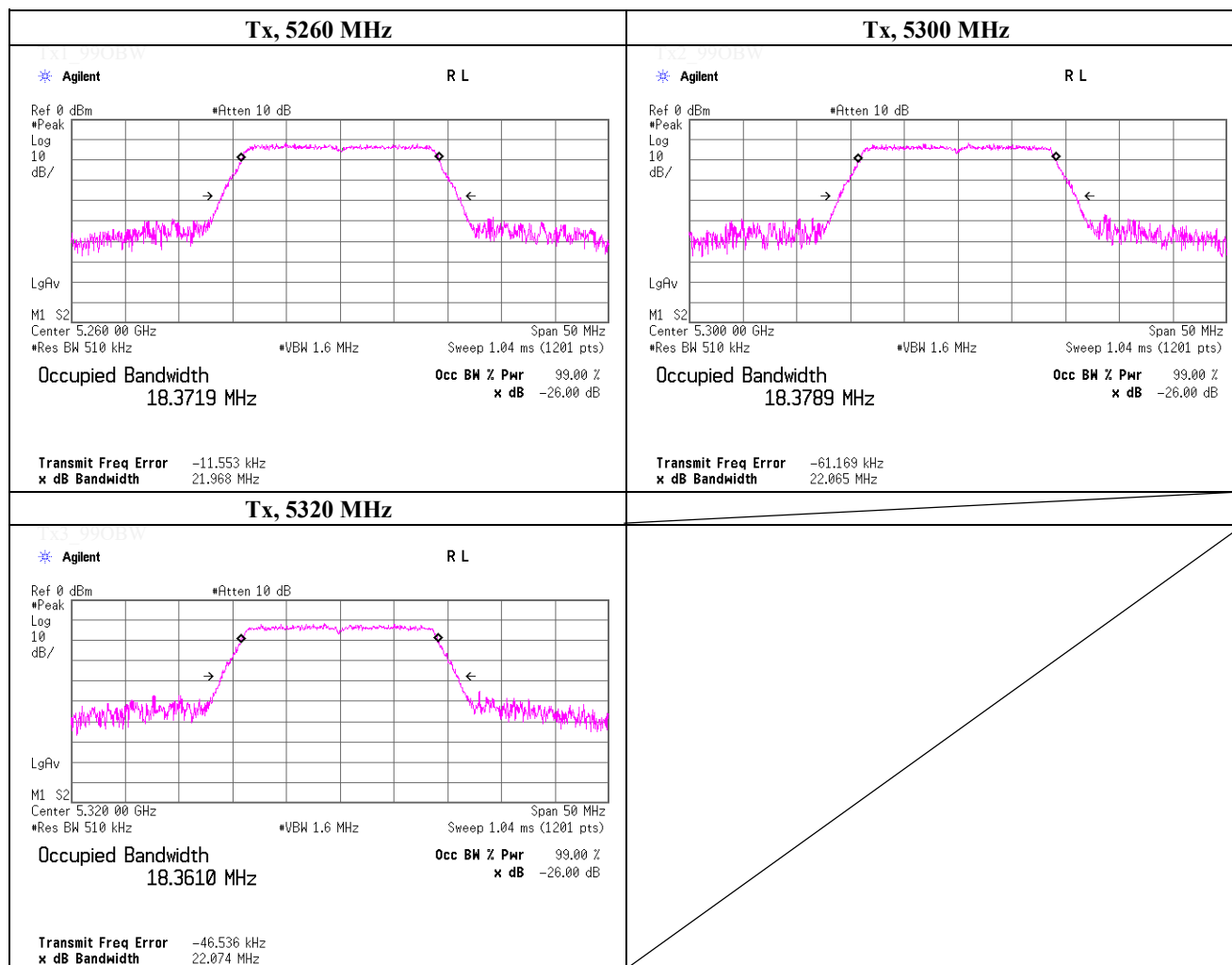
Telephone : +81 463 50 6400

Facsimile : +81 463 50 6401

## 99 % Occupied Bandwidth

|                        |                                                                                |                       |
|------------------------|--------------------------------------------------------------------------------|-----------------------|
| Test place             | UL Japan, Inc. Shonan EMC Lab.                                                 | No.1 Measurement Room |
| Date                   | January 12, 2021                                                               |                       |
| Temperature / Humidity | 23 deg.C , 51 %RH                                                              |                       |
| Engineer               | Takahiro Kawakami                                                              |                       |
| Mode                   | Tx, IEEE802.11ac-20 (SISO), PN9, worst antenna port 1, worst data mode 3 (MCS) |                       |

| Freq.<br>[MHz] | 99 % Occupied<br>Bandwidth [kHz] |
|----------------|----------------------------------|
| 5260.0000      | 18371.9                          |
| 5300.0000      | 18378.9                          |
| 5320.0000      | 18361.0                          |



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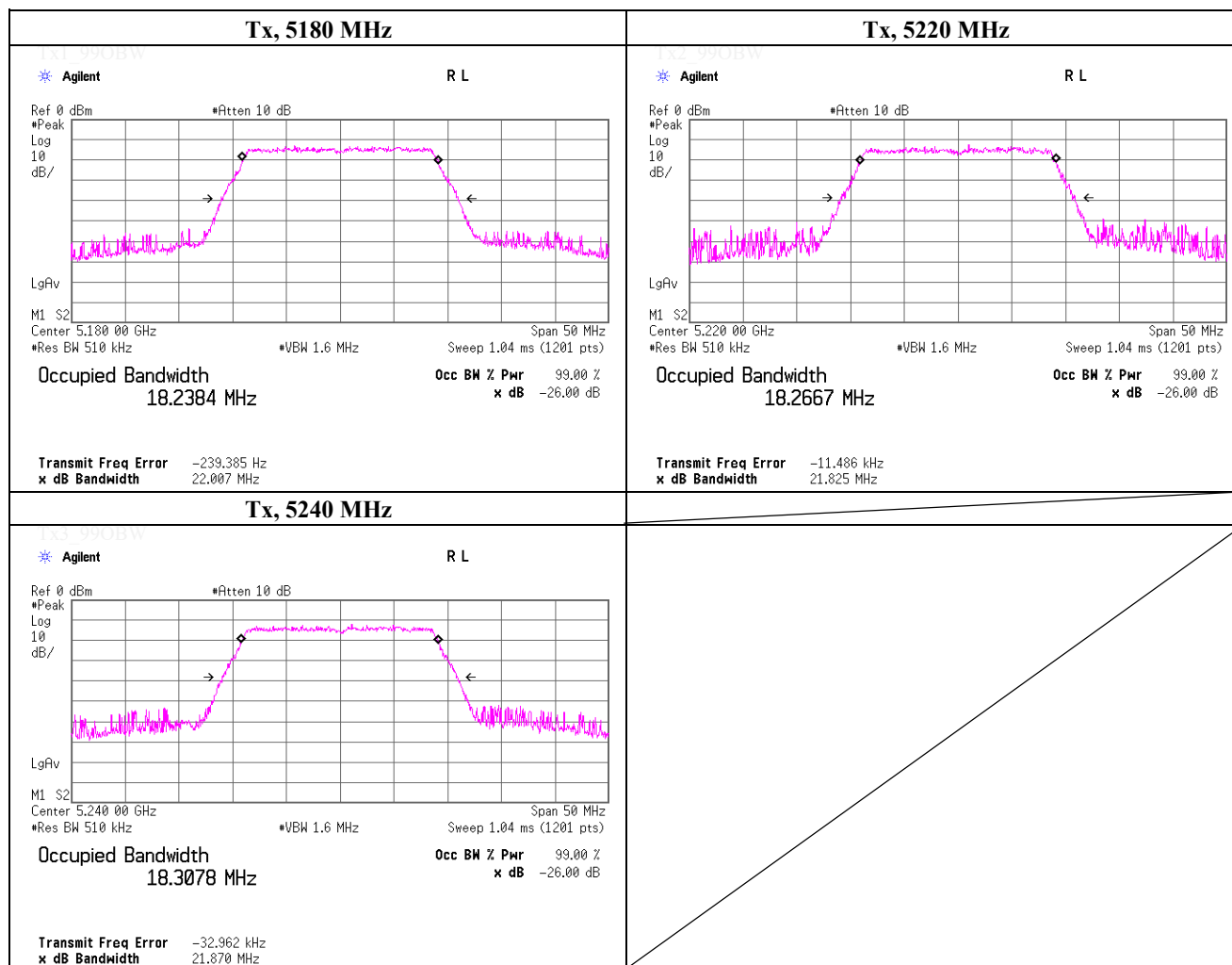
Telephone : +81 463 50 6400

Facsimile : +81 463 50 6401

## 99 % Occupied Bandwidth

|                        |                                                                          |                       |
|------------------------|--------------------------------------------------------------------------|-----------------------|
| Test place             | UL Japan, Inc. Shonan EMC Lab.                                           | No.1 Measurement Room |
| Date                   | January 13, 2021                                                         |                       |
| Temperature / Humidity | 24 deg.C , 41 %RH                                                        |                       |
| Engineer               | Takahiro Kawakami                                                        |                       |
| Mode                   | Tx, IEEE802.11n-20 (MIMO), PN9, Antenna port 1, worst data mode 13 (MCS) |                       |

| Freq.<br>[MHz] | 99 % Occupied<br>Bandwidth [kHz] |
|----------------|----------------------------------|
| 5180.0000      | 18238.4                          |
| 5220.0000      | 18266.7                          |
| 5240.0000      | 18307.8                          |



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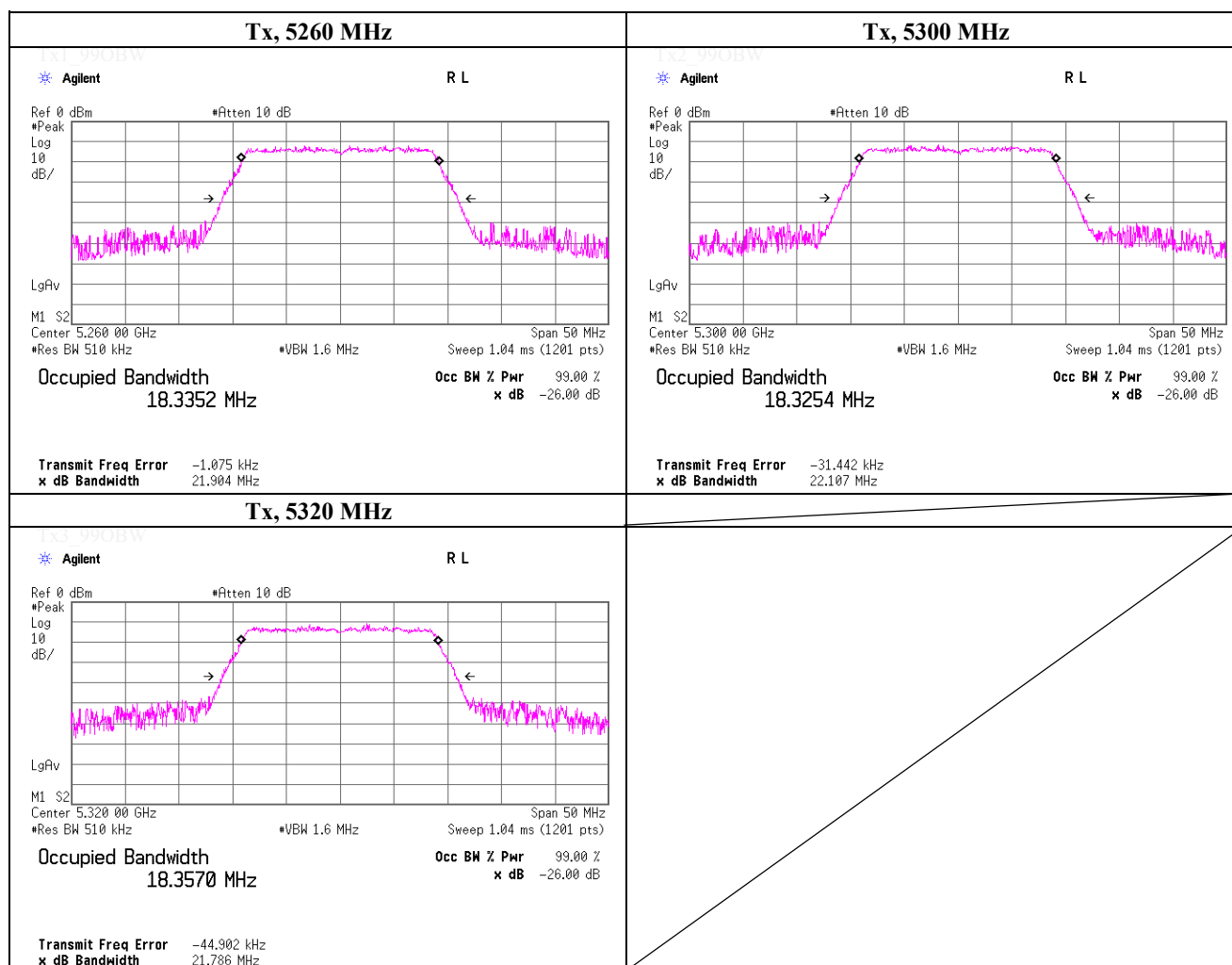
Telephone : +81 463 50 6400

Facsimile : +81 463 50 6401

## 99 % Occupied Bandwidth

|                        |                                                                          |                       |
|------------------------|--------------------------------------------------------------------------|-----------------------|
| Test place             | UL Japan, Inc. Shonan EMC Lab.                                           | No.1 Measurement Room |
| Date                   | January 13, 2021                                                         |                       |
| Temperature / Humidity | 24 deg.C , 41 %RH                                                        |                       |
| Engineer               | Takahiro Kawakami                                                        |                       |
| Mode                   | Tx, IEEE802.11n-20 (MIMO), PN9, Antenna port 1, worst data mode 13 (MCS) |                       |

| Freq.<br>[MHz] | 99 % Occupied<br>Bandwidth [kHz] |
|----------------|----------------------------------|
| 5260.0000      | 18335.2                          |
| 5300.0000      | 18325.4                          |
| 5320.0000      | 18357.0                          |



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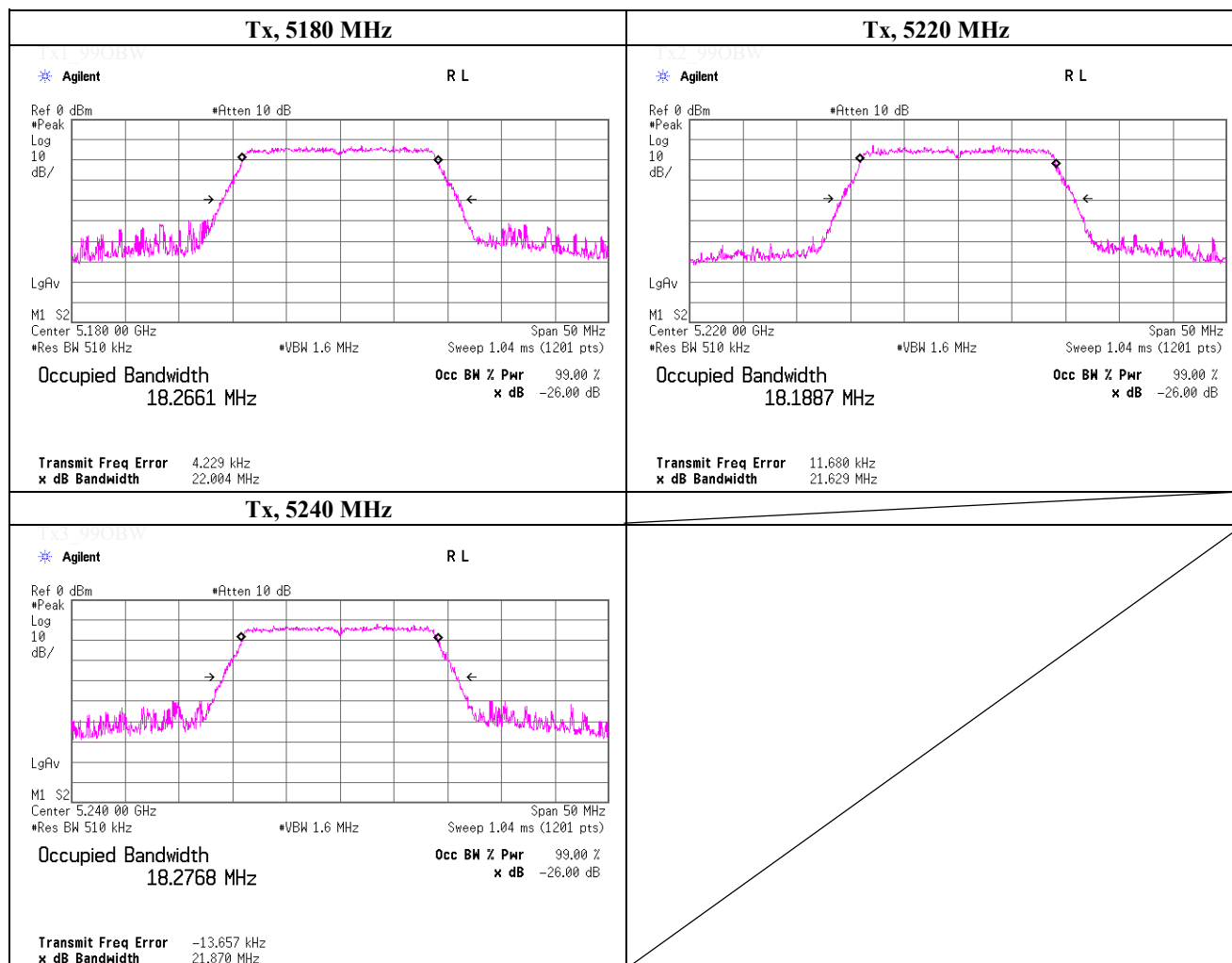
Telephone : +81 463 50 6400

Facsimile : +81 463 50 6401

## 99 % Occupied Bandwidth

|                        |                                                                          |                       |
|------------------------|--------------------------------------------------------------------------|-----------------------|
| Test place             | UL Japan, Inc. Shonan EMC Lab.                                           | No.1 Measurement Room |
| Date                   | January 13, 2021                                                         |                       |
| Temperature / Humidity | 24 deg.C , 41 %RH                                                        |                       |
| Engineer               | Takahiro Kawakami                                                        |                       |
| Mode                   | Tx, IEEE802.11ac-20 (MIMO), PN9, Antenna port 1, worst data mode 8 (MCS) |                       |

| Freq.<br>[MHz] | 99 % Occupied<br>Bandwidth [kHz] |
|----------------|----------------------------------|
| 5180.0000      | 18266.1                          |
| 5220.0000      | 18188.7                          |
| 5240.0000      | 18276.8                          |



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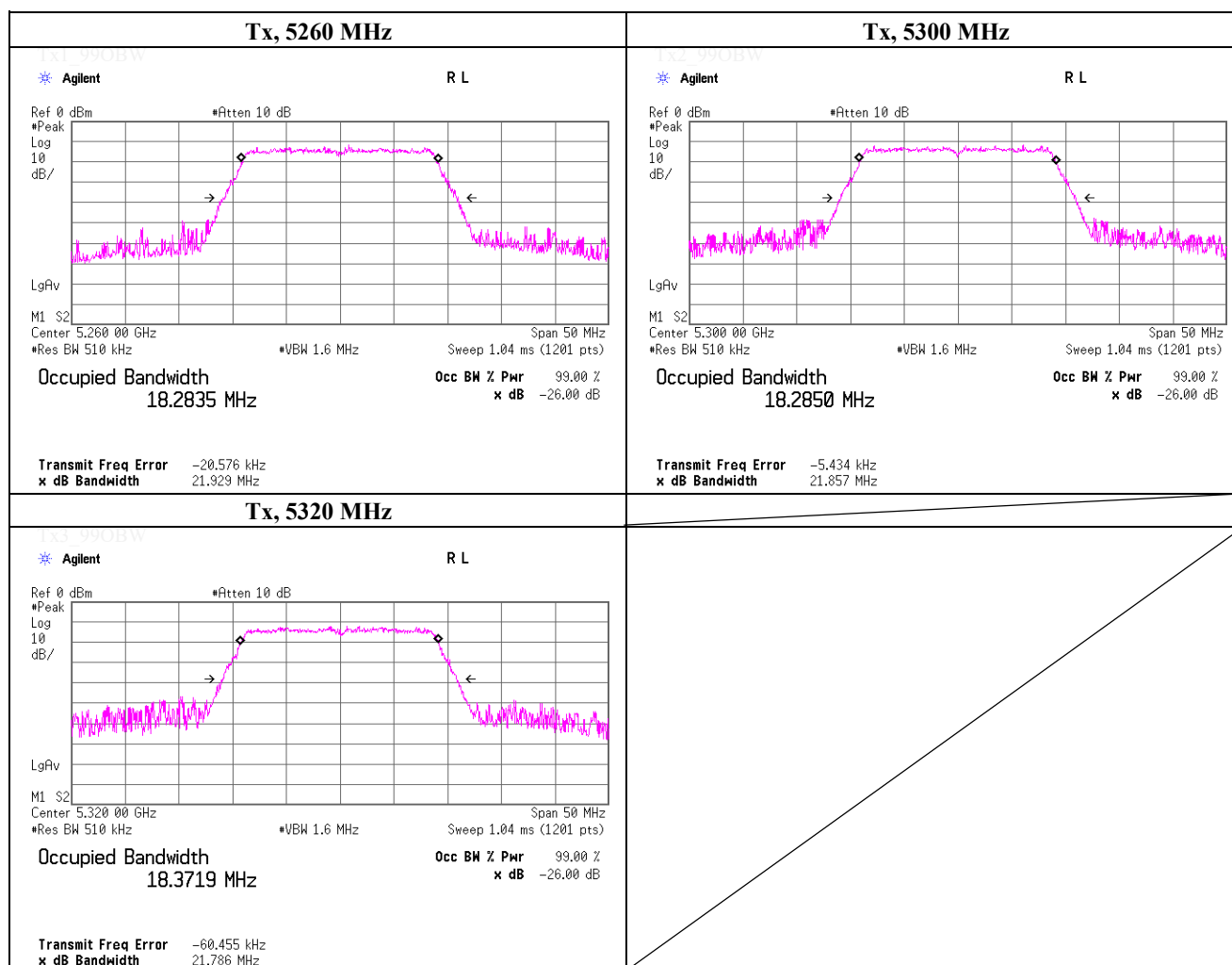
Telephone : +81 463 50 6400

Facsimile : +81 463 50 6401

## 99 % Occupied Bandwidth

|                        |                                                                          |                       |
|------------------------|--------------------------------------------------------------------------|-----------------------|
| Test place             | UL Japan, Inc. Shonan EMC Lab.                                           | No.1 Measurement Room |
| Date                   | January 13, 2021                                                         |                       |
| Temperature / Humidity | 24 deg.C , 41 %RH                                                        |                       |
| Engineer               | Takahiro Kawakami                                                        |                       |
| Mode                   | Tx, IEEE802.11ac-20 (MIMO), PN9, Antenna port 1, worst data mode 8 (MCS) |                       |

| Freq.<br>[MHz] | 99 % Occupied<br>Bandwidth [kHz] |
|----------------|----------------------------------|
| 5260.0000      | 18283.5                          |
| 5300.0000      | 18285.0                          |
| 5320.0000      | 18371.9                          |



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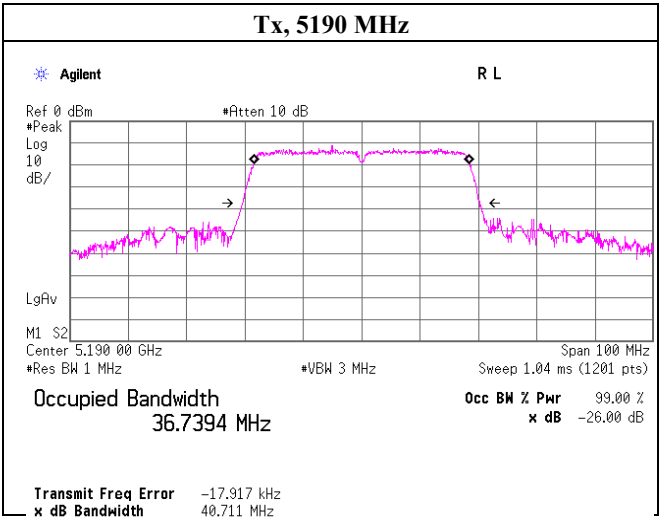
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Facsimile : +81 463 50 6401

99 % Occupied Bandwidth

|                        |                                                                               |                       |
|------------------------|-------------------------------------------------------------------------------|-----------------------|
| Test place             | UL Japan, Inc. Shonan EMC Lab.                                                | No.1 Measurement Room |
| Date                   | January 19, 2021                                                              |                       |
| Temperature / Humidity | 25 deg.C , 40 %RH                                                             |                       |
| Engineer               | Takahiro Kawakami                                                             |                       |
| Mode                   | Tx, IEEE802.11n-40 (SISO), PN9, worst antenna port 1, worst data mode 3 (MCS) |                       |

| Freq.<br>[MHz] | 99 % Occupied<br>Bandwidth [kHz] |
|----------------|----------------------------------|
| 5190.0000      | 36739.4                          |
| -              | -                                |
| -              | -                                |



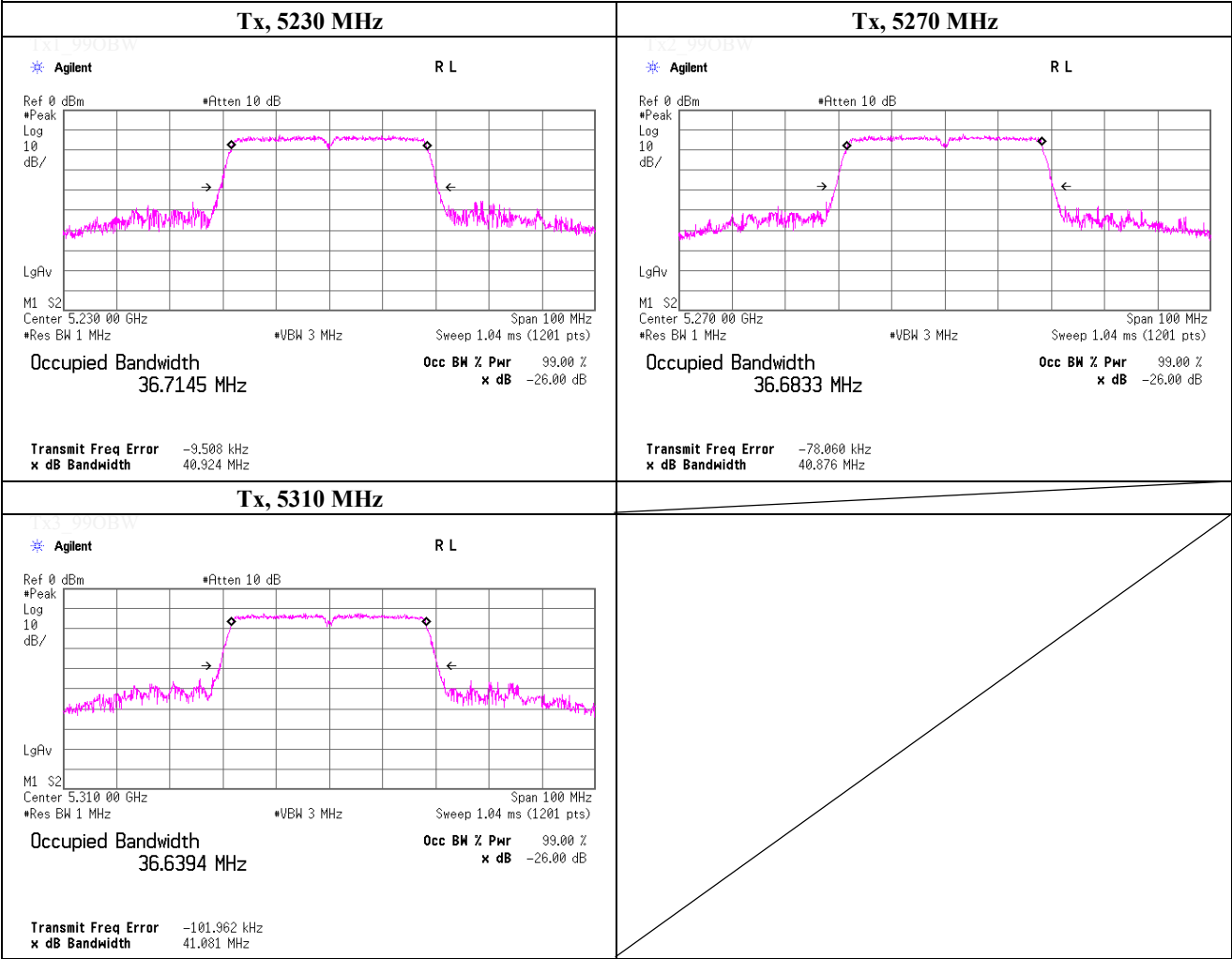
Tx2\_99OBW

Tx3\_99OBW

99 % Occupied Bandwidth

|                        |                                                                               |                       |
|------------------------|-------------------------------------------------------------------------------|-----------------------|
| Test place             | UL Japan, Inc. Shonan EMC Lab.                                                | No.1 Measurement Room |
| Date                   | January 19, 2021                                                              |                       |
| Temperature / Humidity | 25 deg.C , 40 %RH                                                             |                       |
| Engineer               | Takahiro Kawakami                                                             |                       |
| Mode                   | Tx, IEEE802.11n-40 (SISO), PN9, worst antenna port 1, worst data mode 3 (MCS) |                       |

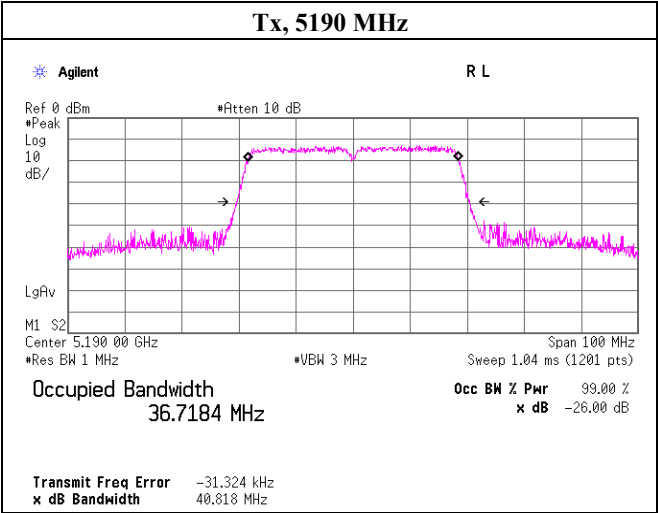
| Freq.<br>[MHz] | 99 % Occupied<br>Bandwidth [kHz] |
|----------------|----------------------------------|
| 5230.0000      | 36714.5                          |
| 5270.0000      | 36683.3                          |
| 5310.0000      | 36639.4                          |



99 % Occupied Bandwidth

|                        |                                                                                |                       |
|------------------------|--------------------------------------------------------------------------------|-----------------------|
| Test place             | UL Japan, Inc. Shonan EMC Lab.                                                 | No.1 Measurement Room |
| Date                   | January 19, 2021                                                               |                       |
| Temperature / Humidity | 25 deg.C , 40 %RH                                                              |                       |
| Engineer               | Takahiro Kawakami                                                              |                       |
| Mode                   | Tx, IEEE802.11ac-40 (SISO), PN9, worst antenna port 1, worst data mode 3 (MCS) |                       |

| Freq.<br>[MHz] | 99 % Occupied<br>Bandwidth [kHz] |
|----------------|----------------------------------|
| 5190.0000      | 36718.4                          |
| -              | -                                |
| -              | -                                |



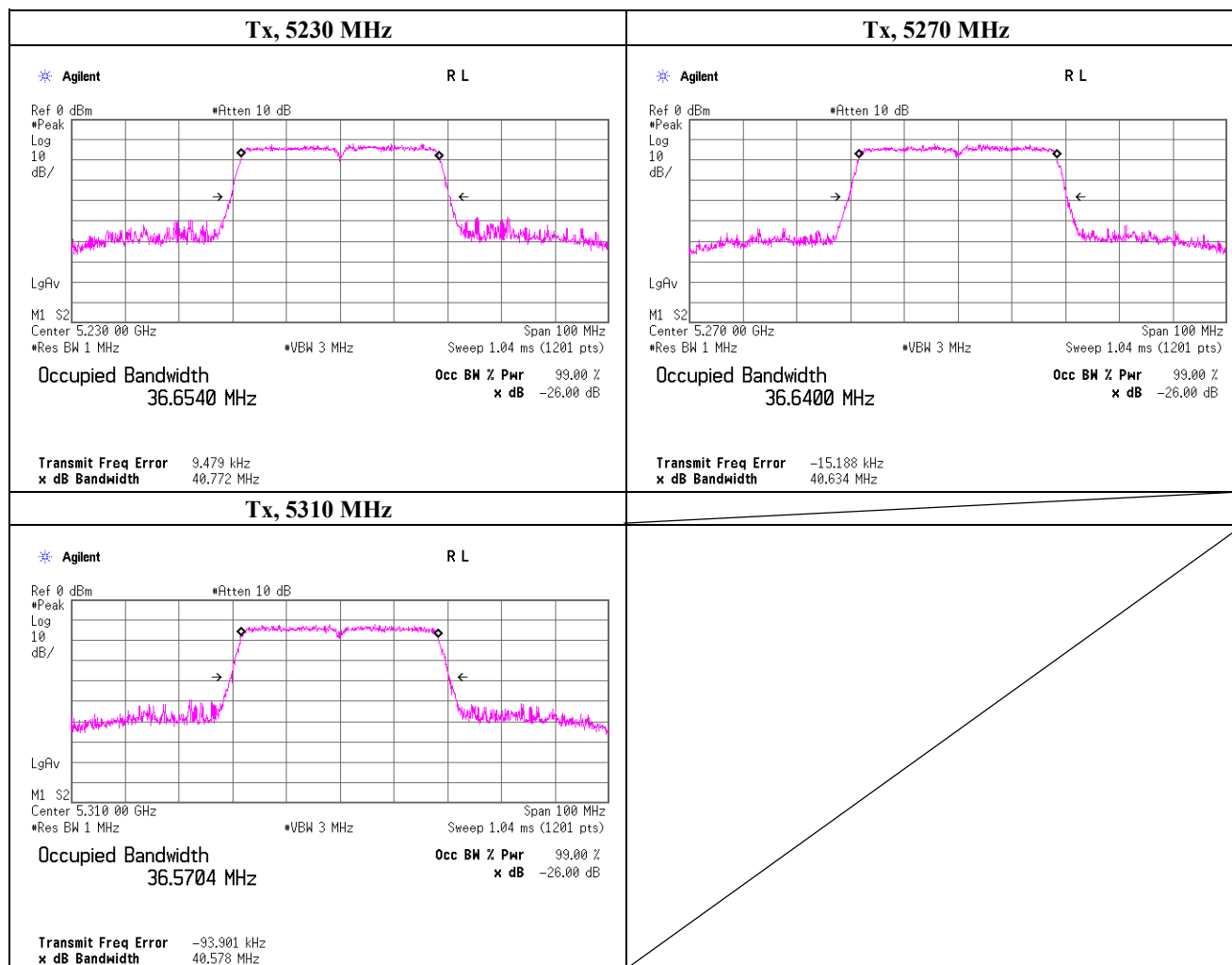
Tx2\_99OBW

Tx3\_99OBW

## 99 % Occupied Bandwidth

|                        |                                                                                |                       |
|------------------------|--------------------------------------------------------------------------------|-----------------------|
| Test place             | UL Japan, Inc. Shonan EMC Lab.                                                 | No.1 Measurement Room |
| Date                   | January 19, 2021                                                               |                       |
| Temperature / Humidity | 25 deg.C , 40 %RH                                                              |                       |
| Engineer               | Takahiro Kawakami                                                              |                       |
| Mode                   | Tx, IEEE802.11ac-40 (SISO), PN9, worst antenna port 1, worst data mode 3 (MCS) |                       |

| Freq.<br>[MHz] | 99 % Occupied<br>Bandwidth [kHz] |
|----------------|----------------------------------|
| 5230.0000      | 36654.0                          |
| 5270.0000      | 36640.0                          |
| 5310.0000      | 36570.4                          |



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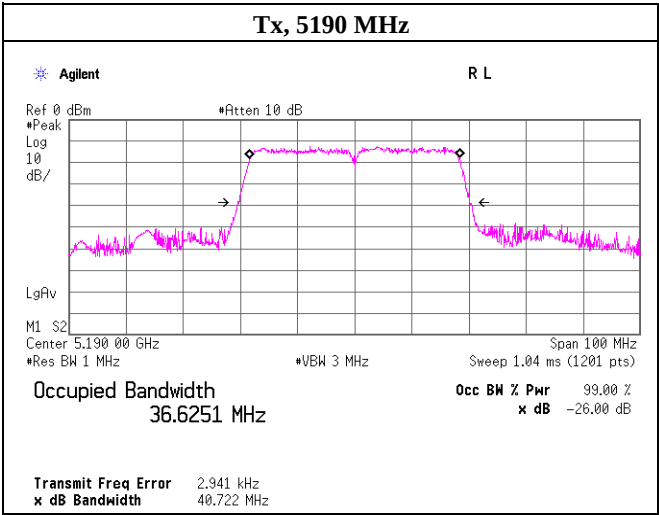
Telephone : +81 463 50 6400

Facsimile : +81 463 50 6401

99 % Occupied Bandwidth

|                        |                                                                          |                       |
|------------------------|--------------------------------------------------------------------------|-----------------------|
| Test place             | UL Japan, Inc. Shonan EMC Lab.                                           | No.1 Measurement Room |
| Date                   | January 19, 2021                                                         |                       |
| Temperature / Humidity | 25 deg.C , 40 %RH                                                        |                       |
| Engineer               | Takahiro Kawakami                                                        |                       |
| Mode                   | Tx, IEEE802.11n-40 (MIMO), PN9, Antenna port 1, worst data mode 14 (MCS) |                       |

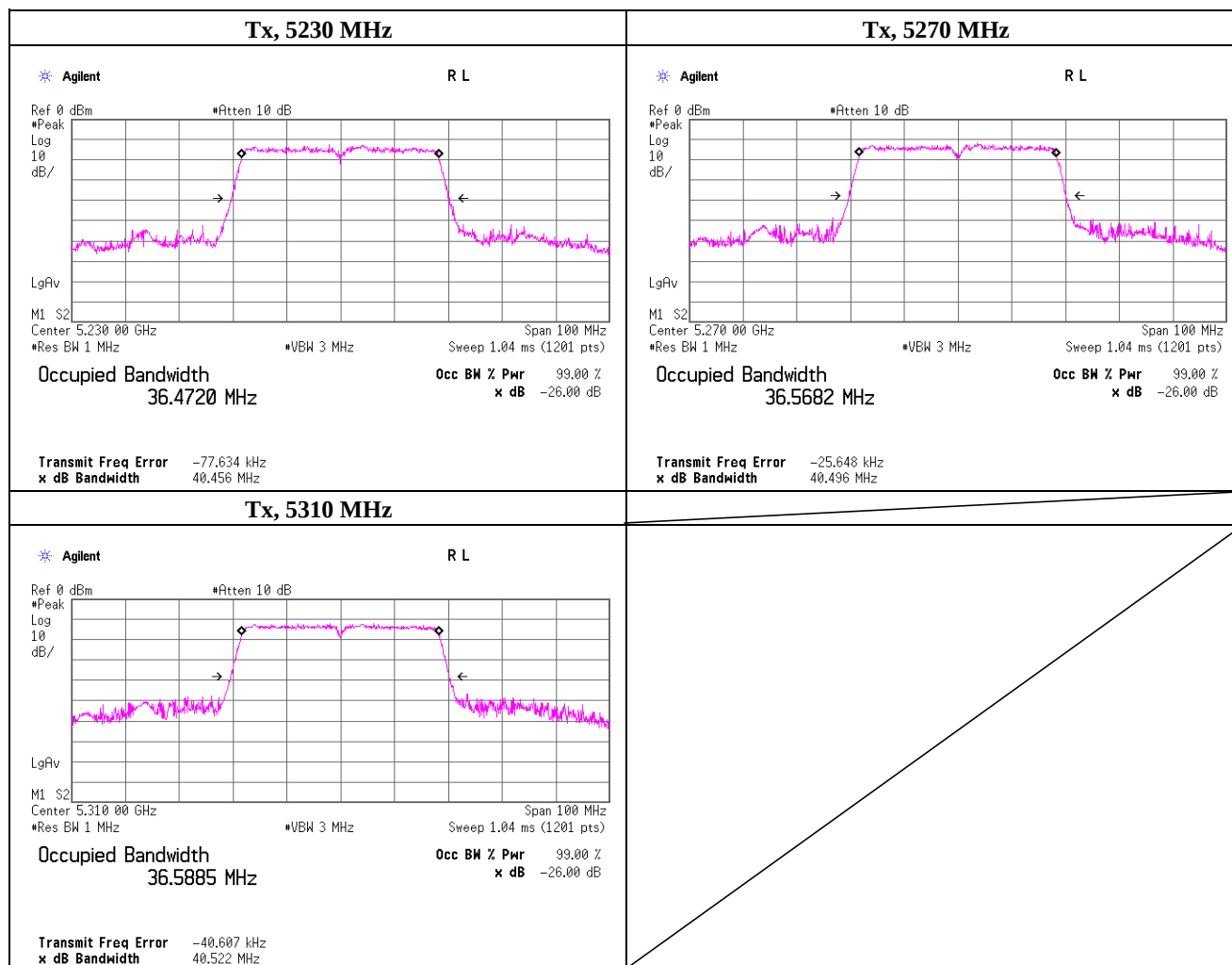
| Freq.<br>[MHz] | 99 % Occupied<br>Bandwidth [kHz] |
|----------------|----------------------------------|
| 5190.0000      | 36625.1                          |
| -              | -                                |
| -              | -                                |



## 99 % Occupied Bandwidth

|                        |                                                                          |                       |
|------------------------|--------------------------------------------------------------------------|-----------------------|
| Test place             | UL Japan, Inc. Shonan EMC Lab.                                           | No.1 Measurement Room |
| Date                   | January 19, 2021                                                         |                       |
| Temperature / Humidity | 25 deg.C , 40 %RH                                                        |                       |
| Engineer               | Takahiro Kawakami                                                        |                       |
| Mode                   | Tx, IEEE802.11n-40 (MIMO), PN9, Antenna port 1, worst data mode 14 (MCS) |                       |

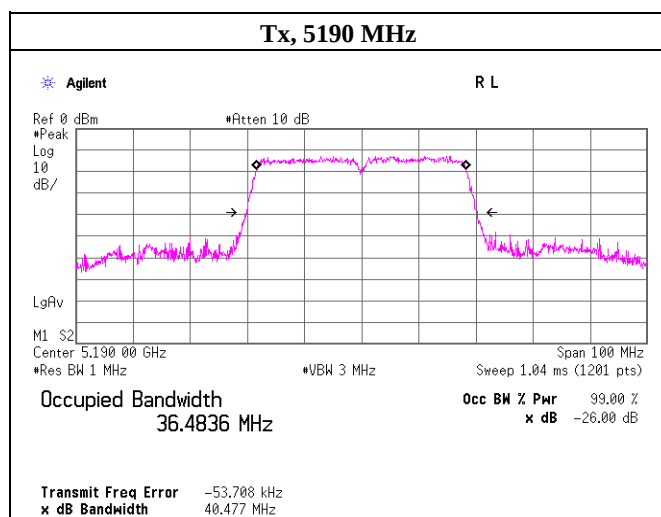
| Freq.<br>[MHz] | 99 % Occupied<br>Bandwidth [kHz] |
|----------------|----------------------------------|
| 5230.0000      | 36472.0                          |
| 5270.0000      | 36568.2                          |
| 5310.0000      | 36588.5                          |



## 99 % Occupied Bandwidth

|                        |                                                                          |                       |
|------------------------|--------------------------------------------------------------------------|-----------------------|
| Test place             | UL Japan, Inc. Shonan EMC Lab.                                           | No.1 Measurement Room |
| Date                   | January 19, 2021                                                         |                       |
| Temperature / Humidity | 25 deg.C , 40 %RH                                                        |                       |
| Engineer               | Takahiro Kawakami                                                        |                       |
| Mode                   | Tx, IEEE802.11ac-40 (MIMO), PN9, Antenna port 1, worst data mode 5 (MCS) |                       |

| Freq.<br>[MHz] | 99 % Occupied<br>Bandwidth [kHz] |
|----------------|----------------------------------|
| 5190.0000      | 36483.6                          |
| -              | -                                |
| -              | -                                |



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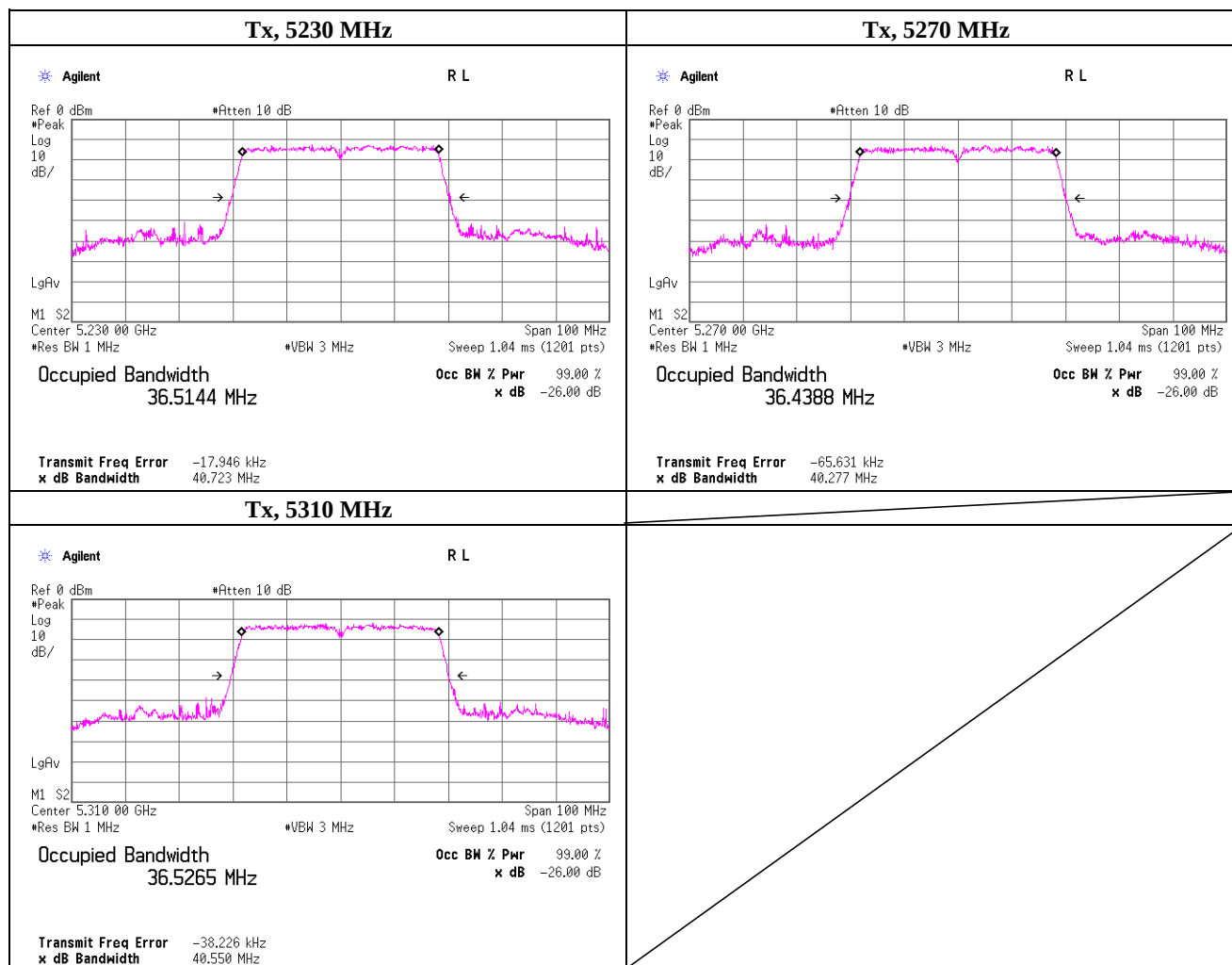
Telephone : +81 463 50 6400

Facsimile : +81 463 50 6401

## 99 % Occupied Bandwidth

|                        |                                                                          |                       |
|------------------------|--------------------------------------------------------------------------|-----------------------|
| Test place             | UL Japan, Inc. Shonan EMC Lab.                                           | No.1 Measurement Room |
| Date                   | January 19, 2021                                                         |                       |
| Temperature / Humidity | 25 deg.C , 40 %RH                                                        |                       |
| Engineer               | Takahiro Kawakami                                                        |                       |
| Mode                   | Tx, IEEE802.11ac-40 (MIMO), PN9, Antenna port 1, worst data mode 5 (MCS) |                       |

| Freq.<br>[MHz] | 99 % Occupied<br>Bandwidth [kHz] |
|----------------|----------------------------------|
| 5230.0000      | 36514.4                          |
| 5270.0000      | 36438.8                          |
| 5310.0000      | 36526.5                          |



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99 % Occupied Bandwidth

Test place

UL Japan, Inc. Shonan EMC Lab.

No.1 Measurement Room

Date

January 20, 2021

Temperature / Humidity

23 deg.C , 39 %RH

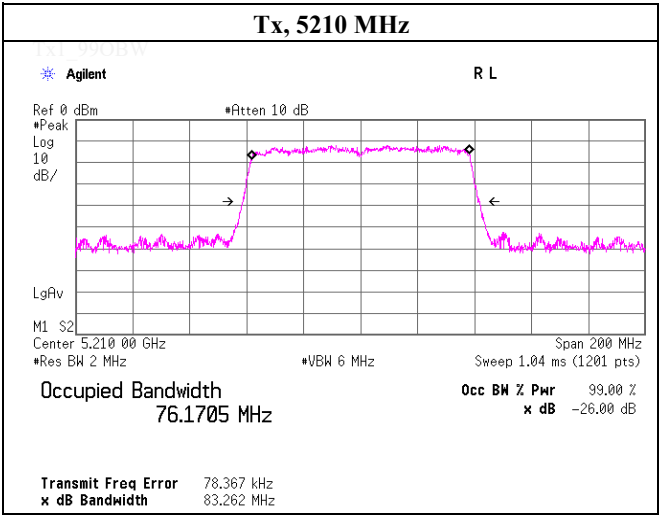
Engineer

Takahiro Kawakami

Mode

Tx, IEEE802.11ac-80 (SISO), PN9, worst antenna port 1, worst data mode 4 (MCS)

| Freq.<br>[MHz] | 99 % Occupied<br>Bandwidth [kHz] |
|----------------|----------------------------------|
| 5210.0000      | 76170.5                          |
| -              | -                                |
| -              | -                                |



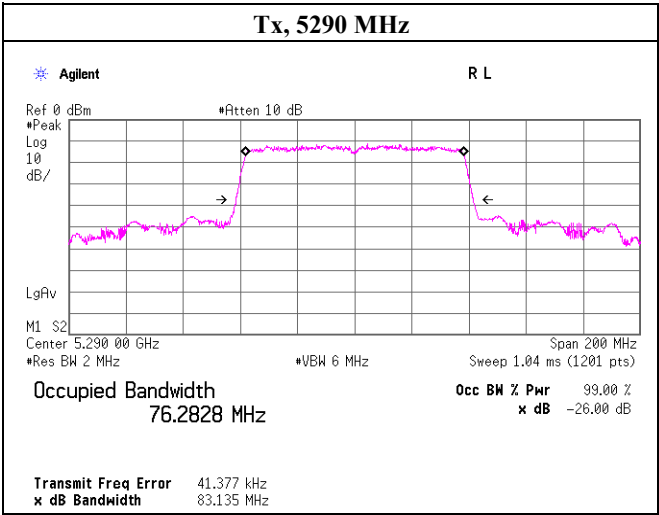
Tx2\_99OBW

Tx3\_99OBW

99 % Occupied Bandwidth

|                        |                                                                                |                       |
|------------------------|--------------------------------------------------------------------------------|-----------------------|
| Test place             | UL Japan, Inc. Shonan EMC Lab.                                                 | No.1 Measurement Room |
| Date                   | January 20, 2021                                                               |                       |
| Temperature / Humidity | 23 deg.C , 39 %RH                                                              |                       |
| Engineer               | Takahiro Kawakami                                                              |                       |
| Mode                   | Tx, IEEE802.11ac-80 (SISO), PN9, worst antenna port 1, worst data mode 4 (MCS) |                       |

| Freq.<br>[MHz] | 99 % Occupied<br>Bandwidth [kHz] |
|----------------|----------------------------------|
| 5290.0000      | 76282.8                          |
| -              | -                                |
| -              | -                                |



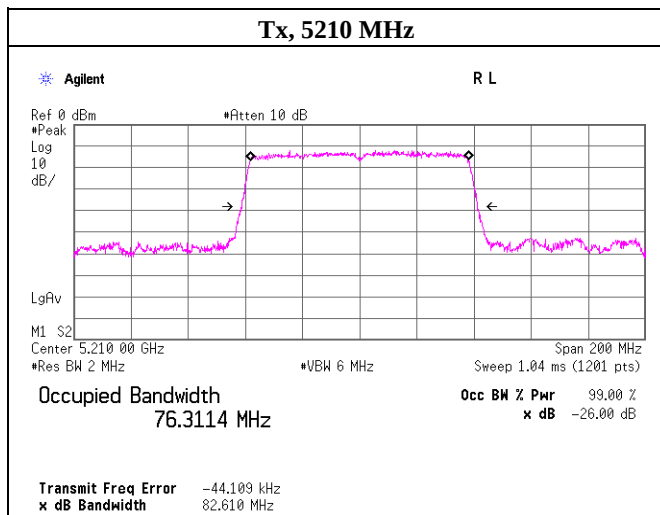
Tx2\_99OBW

Tx3\_99OBW

## 99 % Occupied Bandwidth

|                        |                                                                          |                       |
|------------------------|--------------------------------------------------------------------------|-----------------------|
| Test place             | UL Japan, Inc. Shonan EMC Lab.                                           | No.1 Measurement Room |
| Date                   | January 20, 2021                                                         |                       |
| Temperature / Humidity | 23 deg.C , 39 %RH                                                        |                       |
| Engineer               | Takahiro Kawakami                                                        |                       |
| Mode                   | Tx, IEEE802.11ac-80 (MIMO), PN9, Antenna port 1, worst data mode 4 (MCS) |                       |

| Freq.<br>[MHz] | 99 % Occupied<br>Bandwidth [kHz] |
|----------------|----------------------------------|
| 5210.0000      | 76311.4                          |
| -              | -                                |
| -              | -                                |



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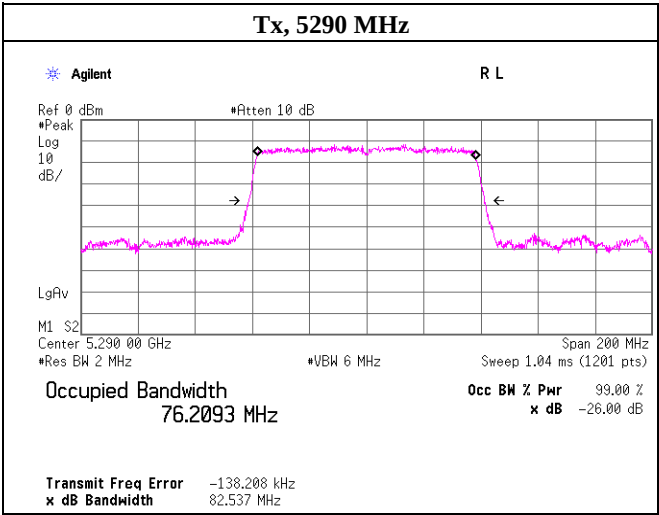
Telephone : +81 463 50 6400

Facsimile : +81 463 50 6401

99 % Occupied Bandwidth

Test place                      UL Japan, Inc. Shonan EMC Lab.                      No.1 Measurement Room  
Date                              January 20, 2021  
Temperature / Humidity        23 deg.C , 39 %RH  
Engineer                        Takahiro Kawakami  
Mode                              Tx, IEEE802.11ac-80 (MIMO), PN9, Antenna port 1, worst data mode 4 (MCS)

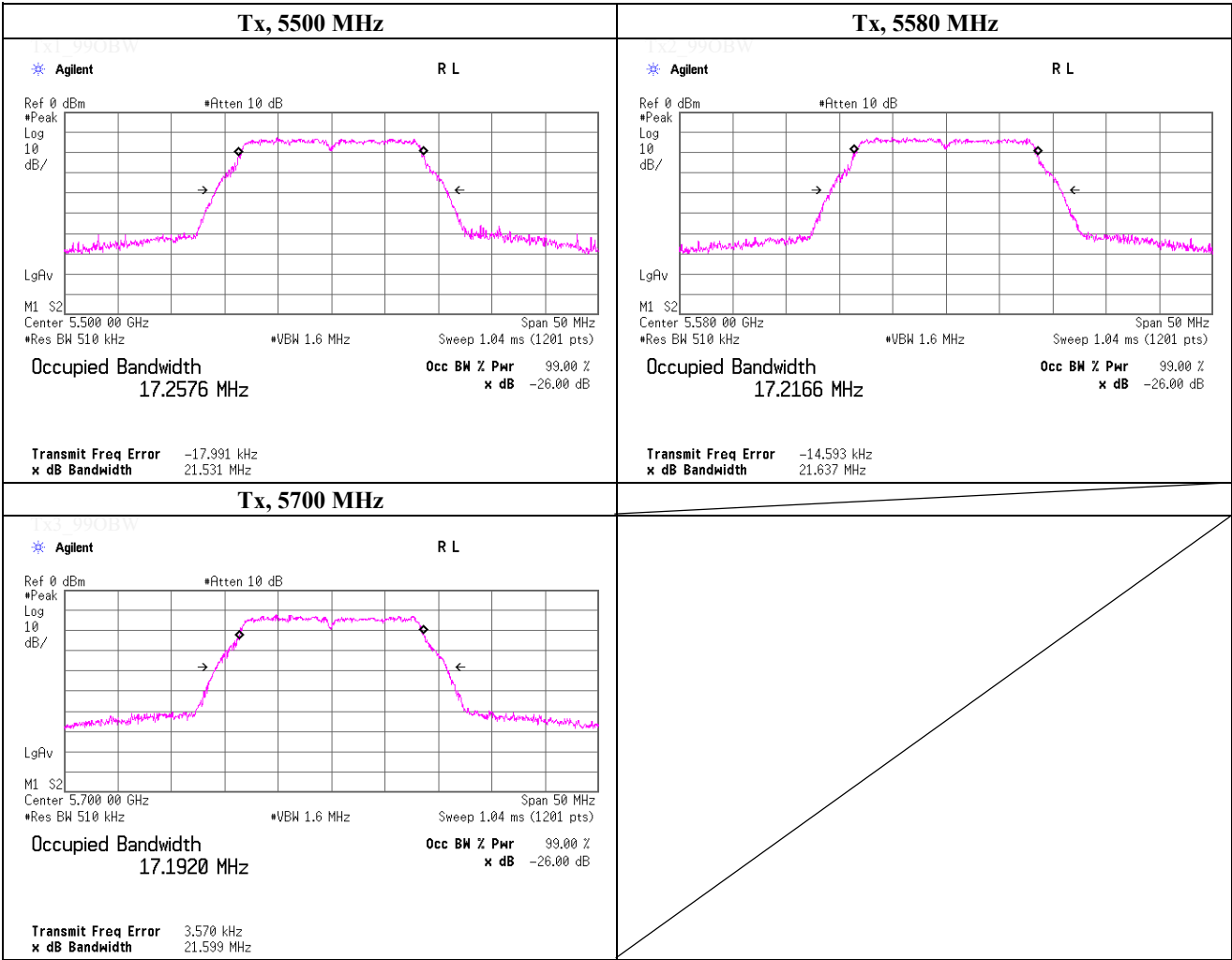
| Freq.<br>[MHz] | 99 % Occupied<br>Bandwidth [kHz] |
|----------------|----------------------------------|
| 5290.0000      | 76209.3                          |
| -              | -                                |
| -              | -                                |



99 % Occupied Bandwidth

|                        |                                                                     |                       |
|------------------------|---------------------------------------------------------------------|-----------------------|
| Test place             | UL Japan, Inc. Shonan EMC Lab.                                      | No.1 Measurement Room |
| Date                   | January 8, 2021                                                     |                       |
| Temperature / Humidity | 23 deg.C , 40 %RH                                                   |                       |
| Engineer               | Kenichi Adachi                                                      |                       |
| Mode                   | Tx, IEEE802.11a, PN9, worst antenna port 1, worst data mode 48 Mbps |                       |

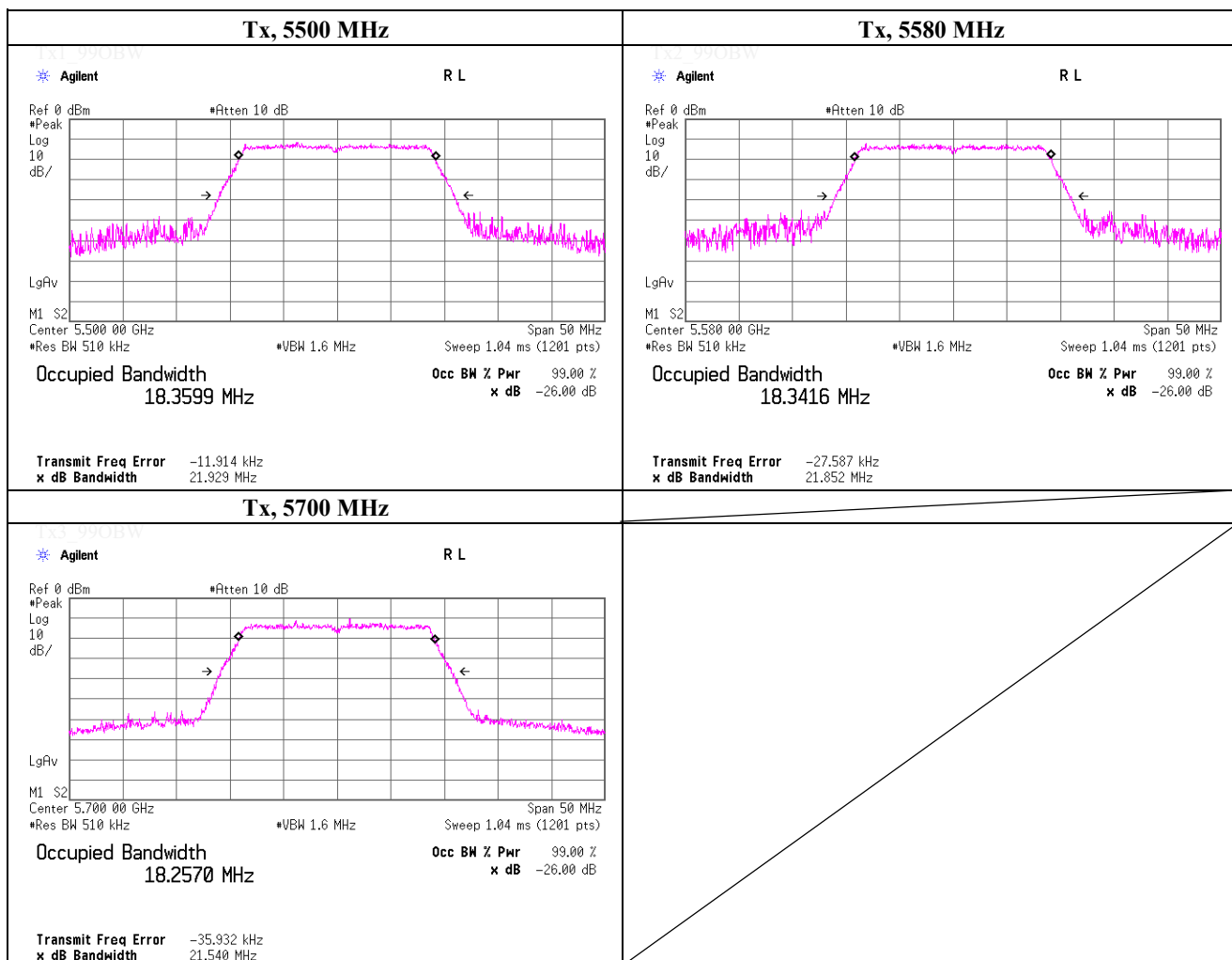
| Freq.<br>[MHz] | 99 % Occupied<br>Bandwidth [kHz] |
|----------------|----------------------------------|
| 5500.0000      | 17257.6                          |
| 5580.0000      | 17216.6                          |
| 5700.0000      | 17192.0                          |



## 99 % Occupied Bandwidth

|                        |                                                                               |                       |
|------------------------|-------------------------------------------------------------------------------|-----------------------|
| Test place             | UL Japan, Inc. Shonan EMC Lab.                                                | No.1 Measurement Room |
| Date                   | January 12, 2021                                                              |                       |
| Temperature / Humidity | 23 deg.C , 30 %RH                                                             |                       |
| Engineer               | Takahiro Kawakami                                                             |                       |
| Mode                   | Tx, IEEE802.11n-20 (SISO), PN9, worst antenna port 1, worst data mode 6 (MCS) |                       |

| Freq.<br>[MHz] | 99 % Occupied<br>Bandwidth [kHz] |
|----------------|----------------------------------|
| 5500.0000      | 18359.9                          |
| 5580.0000      | 18341.6                          |
| 5700.0000      | 18257.0                          |



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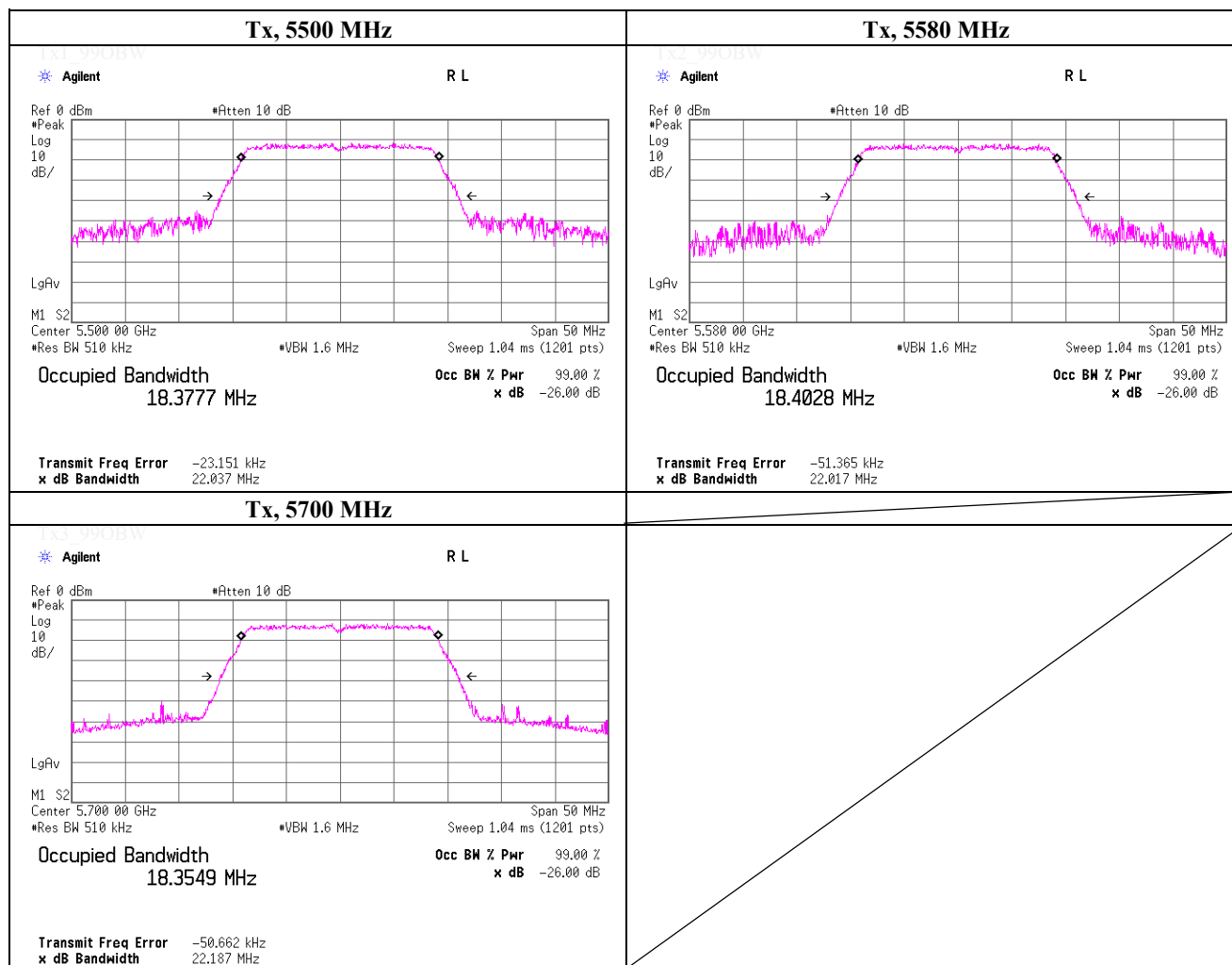
Telephone : +81 463 50 6400

Facsimile : +81 463 50 6401

## 99 % Occupied Bandwidth

|                        |                                                                                |                       |
|------------------------|--------------------------------------------------------------------------------|-----------------------|
| Test place             | UL Japan, Inc. Shonan EMC Lab.                                                 | No.1 Measurement Room |
| Date                   | January 12, 2021                                                               |                       |
| Temperature / Humidity | 23 deg.C , 51 %RH                                                              |                       |
| Engineer               | Takahiro Kawakami                                                              |                       |
| Mode                   | Tx, IEEE802.11ac-20 (SISO), PN9, worst antenna port 1, worst data mode 3 (MCS) |                       |

| Freq.<br>[MHz] | 99 % Occupied<br>Bandwidth [kHz] |
|----------------|----------------------------------|
| 5500.0000      | 18377.7                          |
| 5580.0000      | 18402.8                          |
| 5700.0000      | 18354.9                          |



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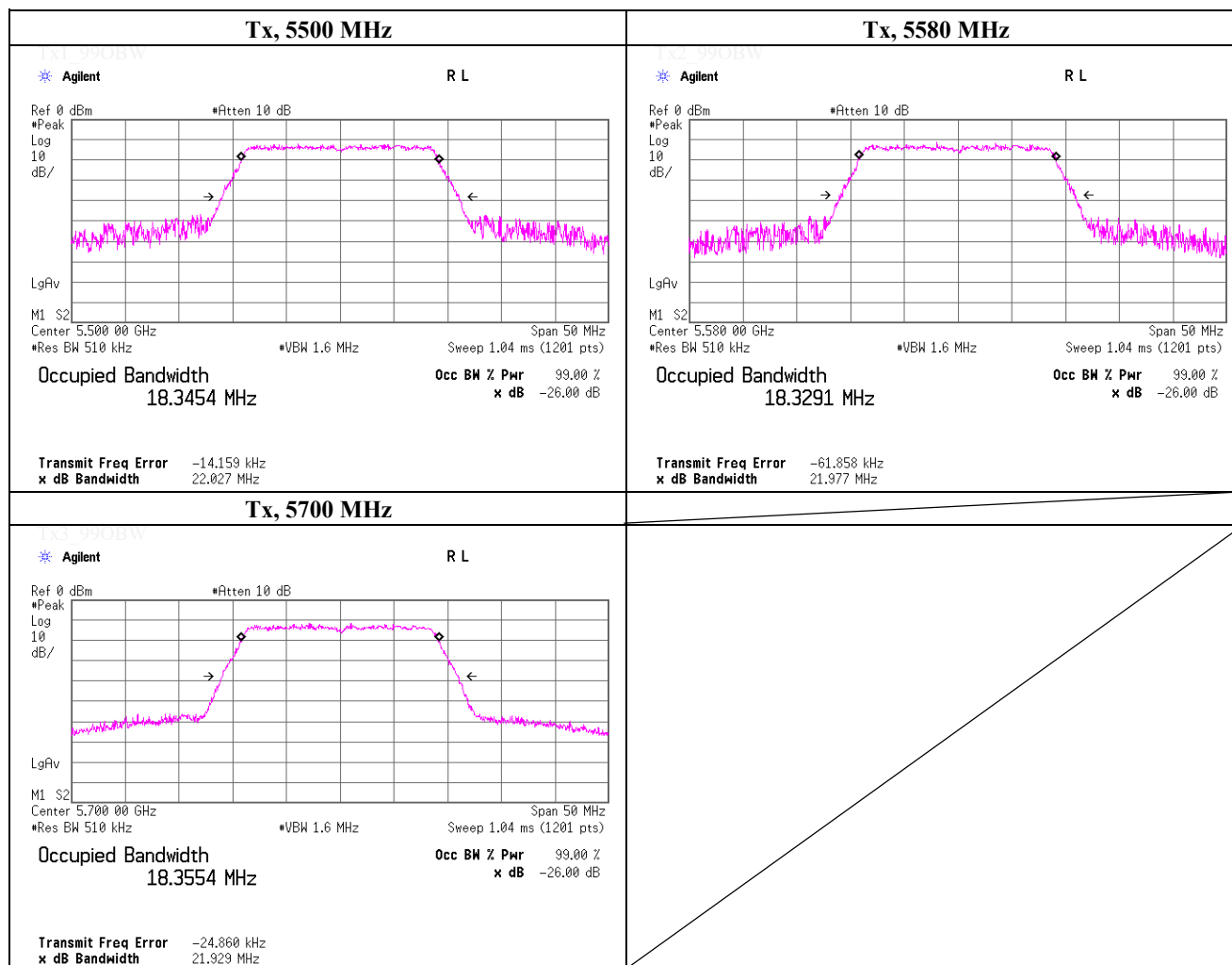
Telephone : +81 463 50 6400

Facsimile : +81 463 50 6401

## 99 % Occupied Bandwidth

|                        |                                                                          |                       |
|------------------------|--------------------------------------------------------------------------|-----------------------|
| Test place             | UL Japan, Inc. Shonan EMC Lab.                                           | No.1 Measurement Room |
| Date                   | January 13, 2021                                                         |                       |
| Temperature / Humidity | 24 deg.C , 41 %RH                                                        |                       |
| Engineer               | Takahiro Kawakami                                                        |                       |
| Mode                   | Tx, IEEE802.11n-20 (MIMO), PN9, Antenna port 1, worst data mode 13 (MCS) |                       |

| Freq.<br>[MHz] | 99 % Occupied<br>Bandwidth [kHz] |
|----------------|----------------------------------|
| 5500.0000      | 18345.4                          |
| 5580.0000      | 18329.1                          |
| 5700.0000      | 18355.4                          |



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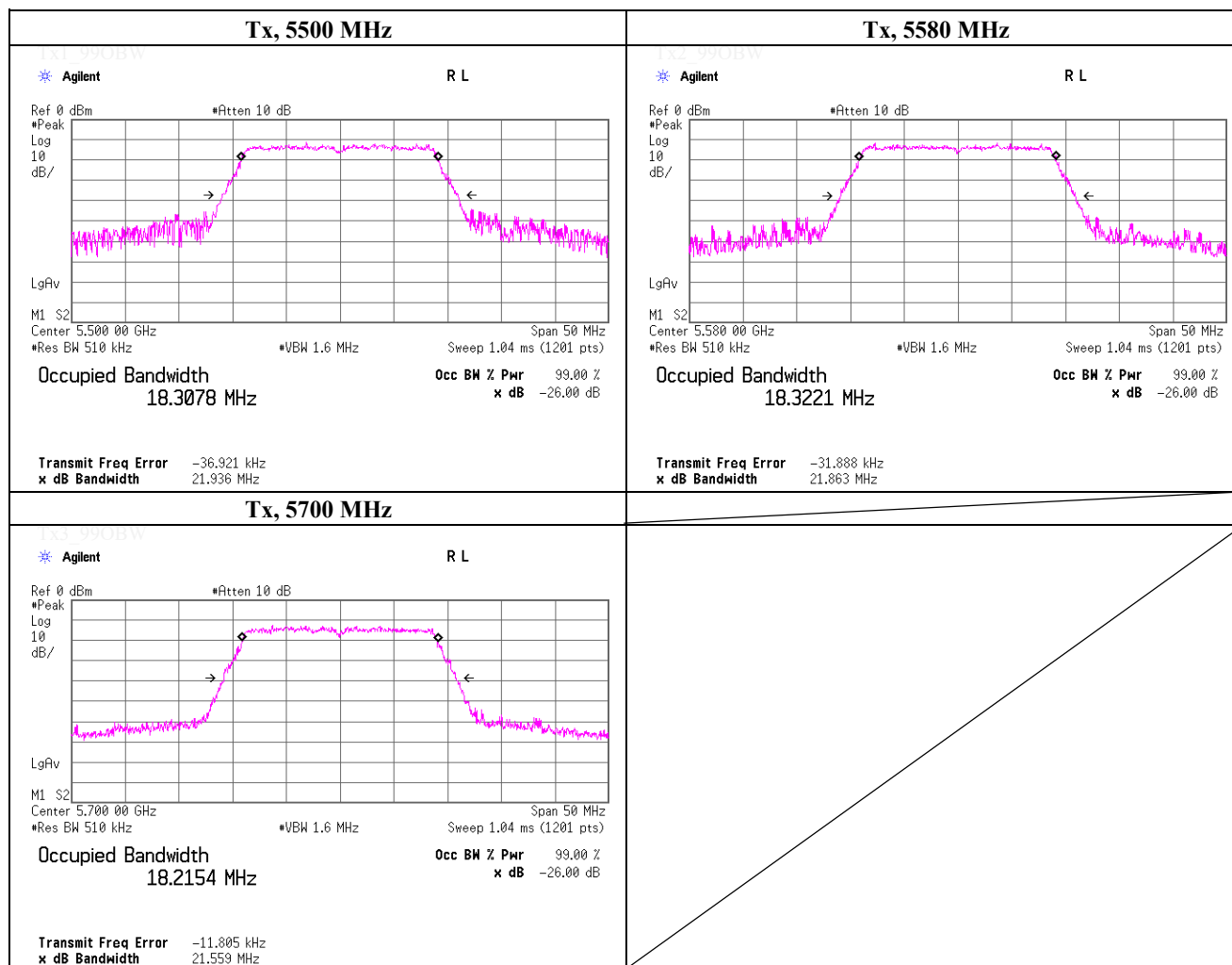
Telephone : +81 463 50 6400

Facsimile : +81 463 50 6401

## 99 % Occupied Bandwidth

|                        |                                                                          |                       |
|------------------------|--------------------------------------------------------------------------|-----------------------|
| Test place             | UL Japan, Inc. Shonan EMC Lab.                                           | No.1 Measurement Room |
| Date                   | January 13, 2021                                                         |                       |
| Temperature / Humidity | 24 deg.C , 41 %RH                                                        |                       |
| Engineer               | Takahiro Kawakami                                                        |                       |
| Mode                   | Tx, IEEE802.11ac-20 (MIMO), PN9, Antenna port 1, worst data mode 8 (MCS) |                       |

| Freq.<br>[MHz] | 99 % Occupied<br>Bandwidth [kHz] |
|----------------|----------------------------------|
| 5500.0000      | 18307.8                          |
| 5580.0000      | 18322.1                          |
| 5700.0000      | 18215.4                          |



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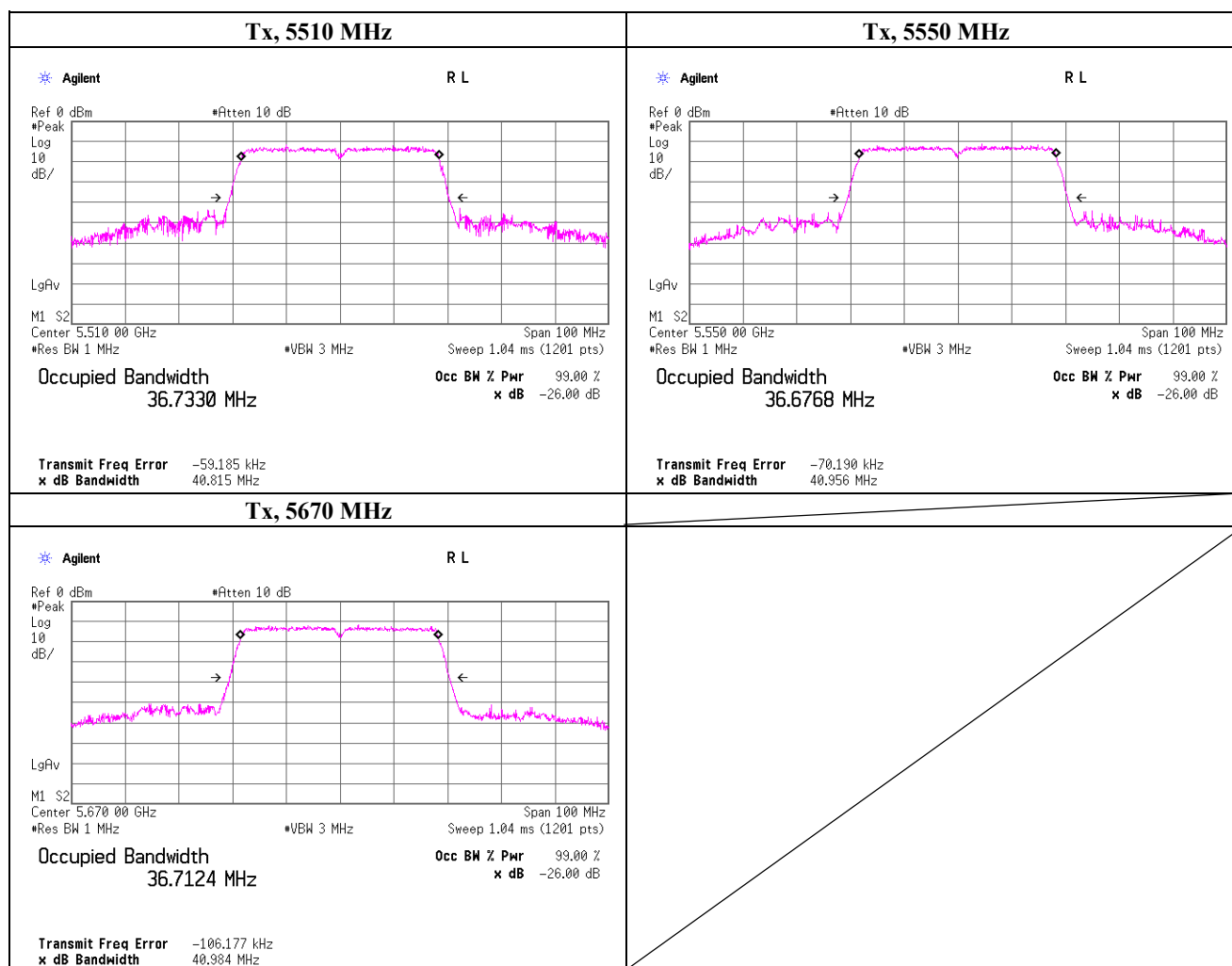
Telephone : +81 463 50 6400

Facsimile : +81 463 50 6401

## 99 % Occupied Bandwidth

|                        |                                                                               |                       |
|------------------------|-------------------------------------------------------------------------------|-----------------------|
| Test place             | UL Japan, Inc. Shonan EMC Lab.                                                | No.1 Measurement Room |
| Date                   | January 19, 2021                                                              |                       |
| Temperature / Humidity | 25 deg.C , 40 %RH                                                             |                       |
| Engineer               | Takahiro Kawakami                                                             |                       |
| Mode                   | Tx, IEEE802.11n-40 (SISO), PN9, worst antenna port 1, worst data mode 3 (MCS) |                       |

| Freq.<br>[MHz] | 99 % Occupied<br>Bandwidth [kHz] |
|----------------|----------------------------------|
| 5510.0000      | 36733.0                          |
| 5550.0000      | 36676.8                          |
| 5670.0000      | 36712.4                          |



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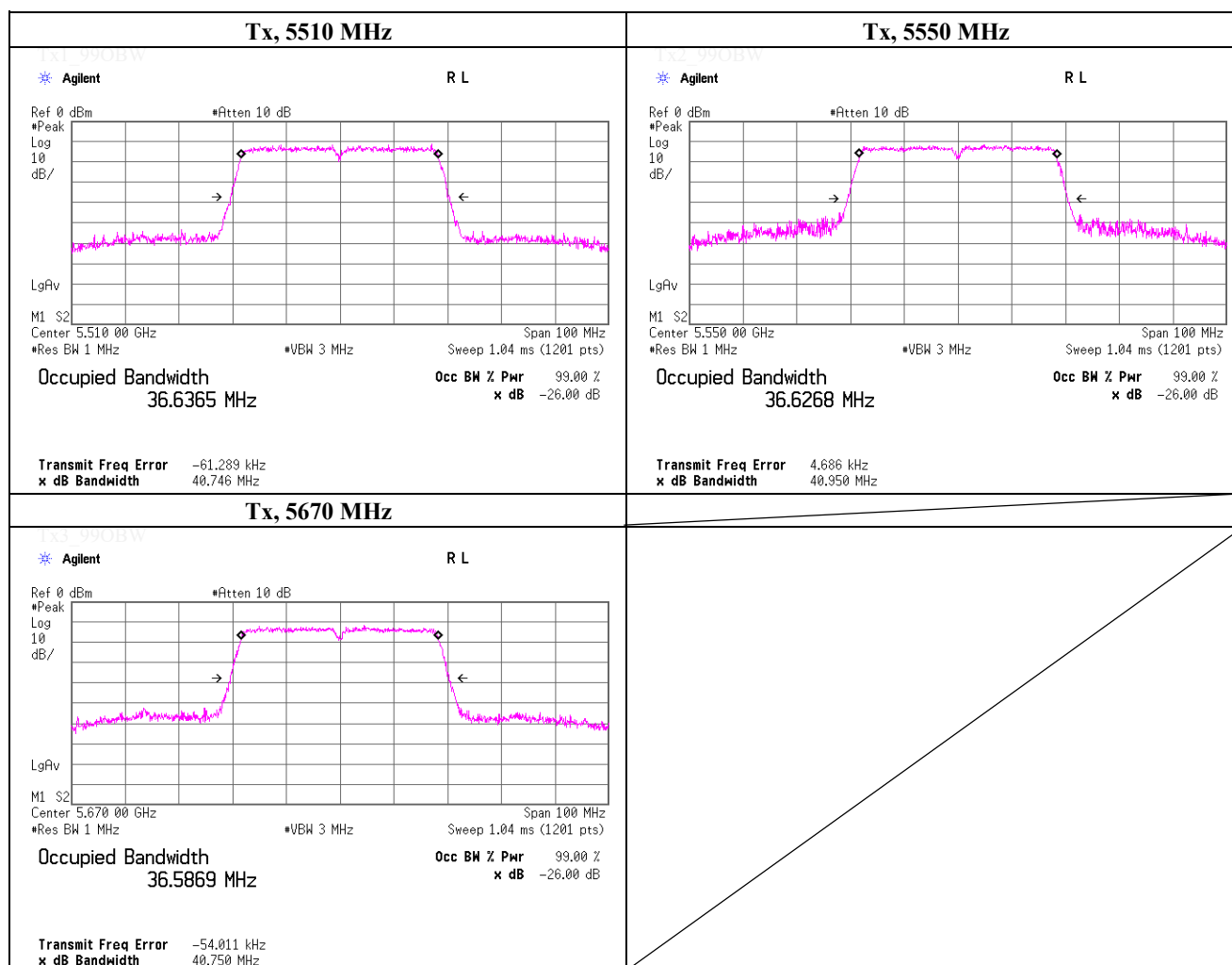
Telephone : +81 463 50 6400

Facsimile : +81 463 50 6401

## 99 % Occupied Bandwidth

|                        |                                                                                |                       |
|------------------------|--------------------------------------------------------------------------------|-----------------------|
| Test place             | UL Japan, Inc. Shonan EMC Lab.                                                 | No.1 Measurement Room |
| Date                   | January 19, 2021                                                               |                       |
| Temperature / Humidity | 25 deg.C , 40 %RH                                                              |                       |
| Engineer               | Takahiro Kawakami                                                              |                       |
| Mode                   | Tx, IEEE802.11ac-40 (SISO), PN9, worst antenna port 1, worst data mode 3 (MCS) |                       |

| Freq.<br>[MHz] | 99 % Occupied<br>Bandwidth [kHz] |
|----------------|----------------------------------|
| 5510.0000      | 36636.5                          |
| 5550.0000      | 36626.8                          |
| 5670.0000      | 36586.9                          |



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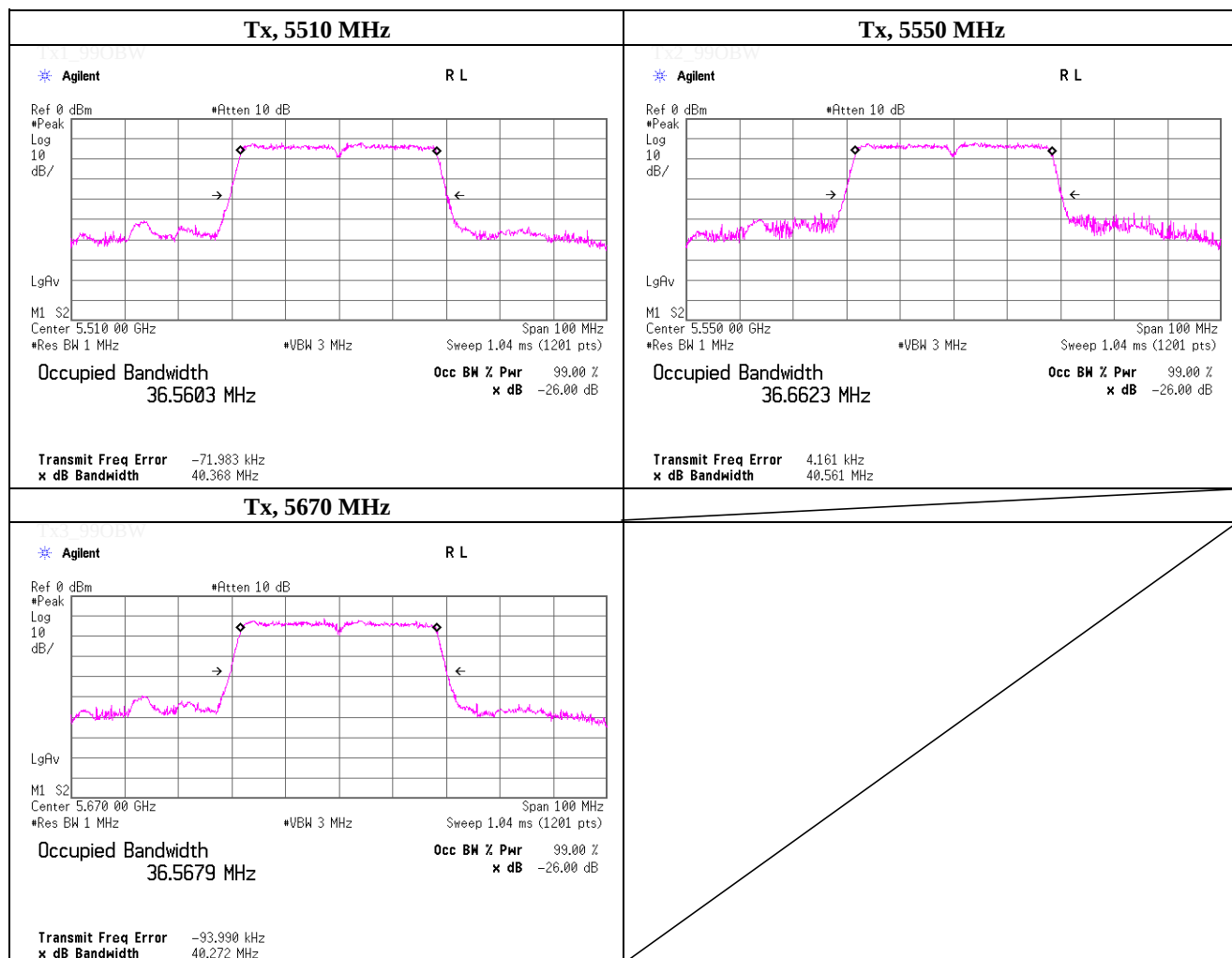
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Facsimile : +81 463 50 6401

## 99 % Occupied Bandwidth

|                        |                                                                          |                       |
|------------------------|--------------------------------------------------------------------------|-----------------------|
| Test place             | UL Japan, Inc. Shonan EMC Lab.                                           | No.1 Measurement Room |
| Date                   | January 19, 2021                                                         |                       |
| Temperature / Humidity | 25 deg.C , 40 %RH                                                        |                       |
| Engineer               | Takahiro Kawakami                                                        |                       |
| Mode                   | Tx, IEEE802.11n-40 (MIMO), PN9, Antenna port 1, worst data mode 14 (MCS) |                       |

| Freq.<br>[MHz] | 99 % Occupied<br>Bandwidth [kHz] |
|----------------|----------------------------------|
| 5510.0000      | 36560.3                          |
| 5550.0000      | 36662.3                          |
| 5670.0000      | 36567.9                          |



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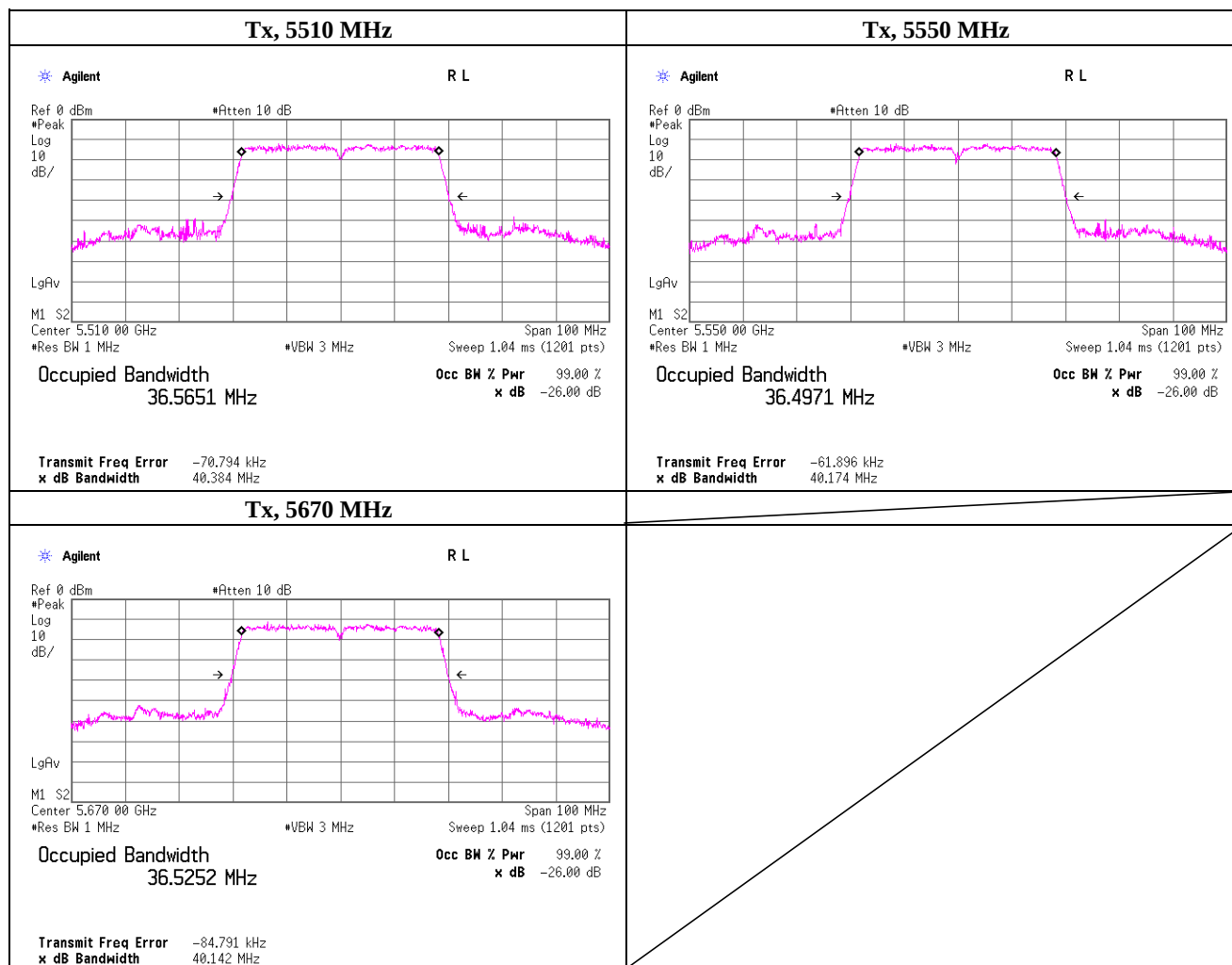
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Facsimile : +81 463 50 6401

## 99 % Occupied Bandwidth

|                        |                                                                          |                       |
|------------------------|--------------------------------------------------------------------------|-----------------------|
| Test place             | UL Japan, Inc. Shonan EMC Lab.                                           | No.1 Measurement Room |
| Date                   | January 19, 2021                                                         |                       |
| Temperature / Humidity | 25 deg.C , 40 %RH                                                        |                       |
| Engineer               | Takahiro Kawakami                                                        |                       |
| Mode                   | Tx, IEEE802.11ac-40 (MIMO), PN9, Antenna port 1, worst data mode 5 (MCS) |                       |

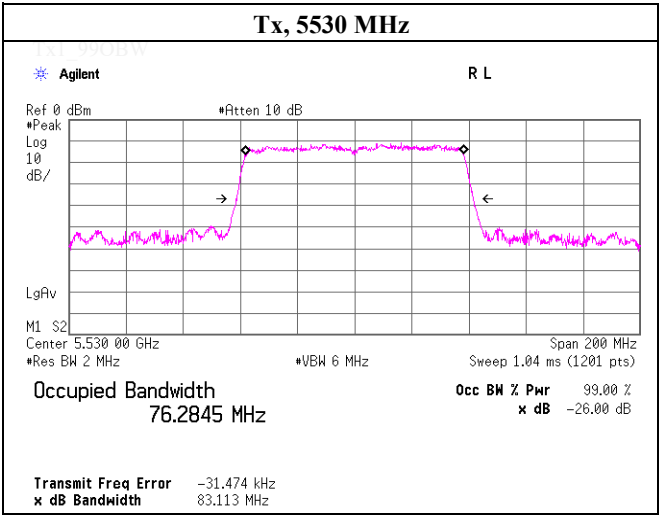
| Freq.<br>[MHz] | 99 % Occupied<br>Bandwidth [kHz] |
|----------------|----------------------------------|
| 5510.0000      | 36565.1                          |
| 5550.0000      | 36497.1                          |
| 5670.0000      | 36525.2                          |



99 % Occupied Bandwidth

|                        |                                                                                |                       |
|------------------------|--------------------------------------------------------------------------------|-----------------------|
| Test place             | UL Japan, Inc. Shonan EMC Lab.                                                 | No.1 Measurement Room |
| Date                   | January 20, 2021                                                               |                       |
| Temperature / Humidity | 23 deg.C , 39 %RH                                                              |                       |
| Engineer               | Takahiro Kawakami                                                              |                       |
| Mode                   | Tx, IEEE802.11ac-80 (SISO), PN9, worst antenna port 1, worst data mode 4 (MCS) |                       |

| Freq.<br>[MHz] | 99 % Occupied<br>Bandwidth [kHz] |
|----------------|----------------------------------|
| 5530.0000      | 76284.5                          |
| -              | -                                |
| -              | -                                |



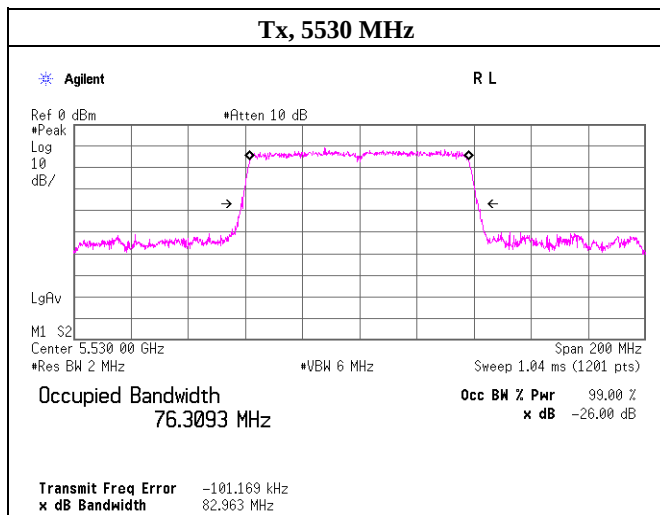
Tx2\_99OBW

Tx3\_99OBW

## 99 % Occupied Bandwidth

|                        |                                                                          |                       |
|------------------------|--------------------------------------------------------------------------|-----------------------|
| Test place             | UL Japan, Inc. Shonan EMC Lab.                                           | No.1 Measurement Room |
| Date                   | January 20, 2021                                                         |                       |
| Temperature / Humidity | 23 deg.C , 39 %RH                                                        |                       |
| Engineer               | Takahiro Kawakami                                                        |                       |
| Mode                   | Tx, IEEE802.11ac-80 (MIMO), PN9, Antenna port 1, worst data mode 4 (MCS) |                       |

| Freq.<br>[MHz] | 99 % Occupied<br>Bandwidth [kHz] |
|----------------|----------------------------------|
| 5530.0000      | 76309.3                          |
| -              | -                                |
| -              | -                                |



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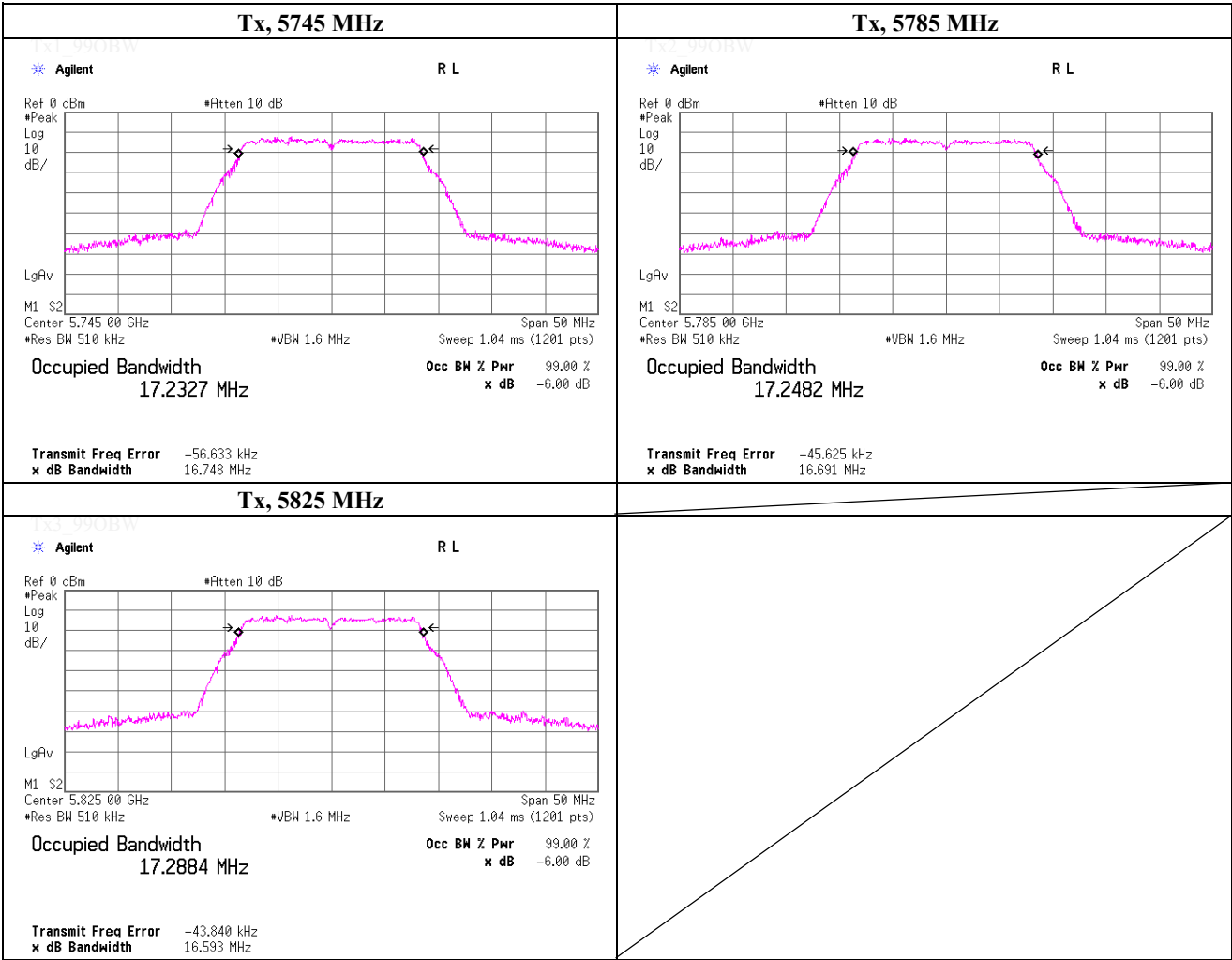
Telephone : +81 463 50 6400

Facsimile : +81 463 50 6401

99 % Occupied Bandwidth

|                        |                                                                     |                       |
|------------------------|---------------------------------------------------------------------|-----------------------|
| Test place             | UL Japan, Inc. Shonan EMC Lab.                                      | No.1 Measurement Room |
| Date                   | January 8, 2021                                                     |                       |
| Temperature / Humidity | 23 deg.C , 40 %RH                                                   |                       |
| Engineer               | Kenichi Adachi                                                      |                       |
| Mode                   | Tx, IEEE802.11a, PN9, worst antenna port 1, worst data mode 48 Mbps |                       |

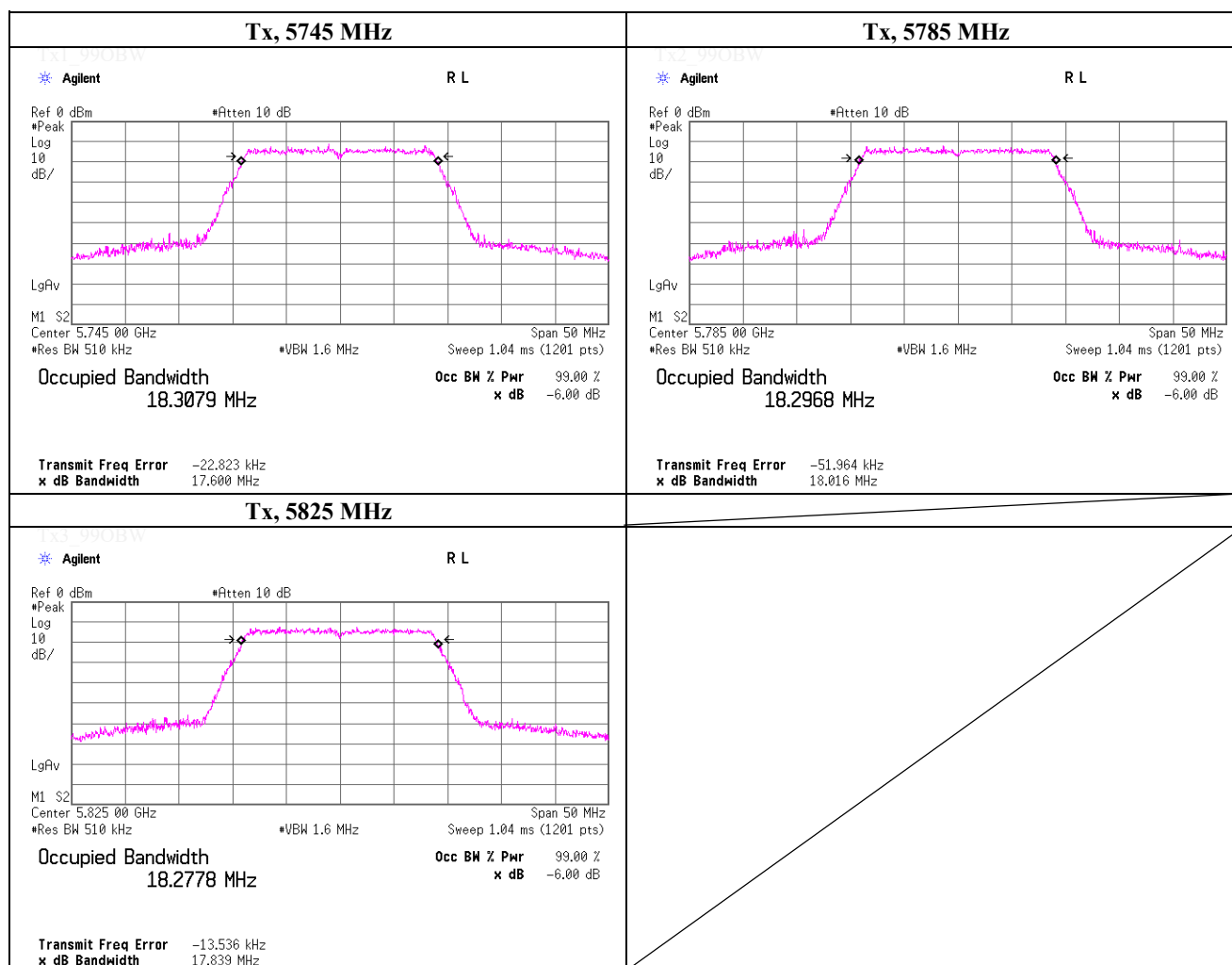
| Freq.<br>[MHz] | 99 % Occupied<br>Bandwidth [kHz] |
|----------------|----------------------------------|
| 5745.0000      | 17232.7                          |
| 5785.0000      | 17248.2                          |
| 5825.0000      | 17288.4                          |



## 99 % Occupied Bandwidth

|                        |                                                                               |                       |
|------------------------|-------------------------------------------------------------------------------|-----------------------|
| Test place             | UL Japan, Inc. Shonan EMC Lab.                                                | No.1 Measurement Room |
| Date                   | January 12, 2021                                                              |                       |
| Temperature / Humidity | 23 deg.C , 30 %RH                                                             |                       |
| Engineer               | Takahiro Kawakami                                                             |                       |
| Mode                   | Tx, IEEE802.11n-20 (SISO), PN9, worst antenna port 1, worst data mode 6 (MCS) |                       |

| Freq.<br>[MHz] | 99 % Occupied<br>Bandwidth [kHz] |
|----------------|----------------------------------|
| 5745.0000      | 18307.9                          |
| 5785.0000      | 18296.8                          |
| 5825.0000      | 18277.8                          |



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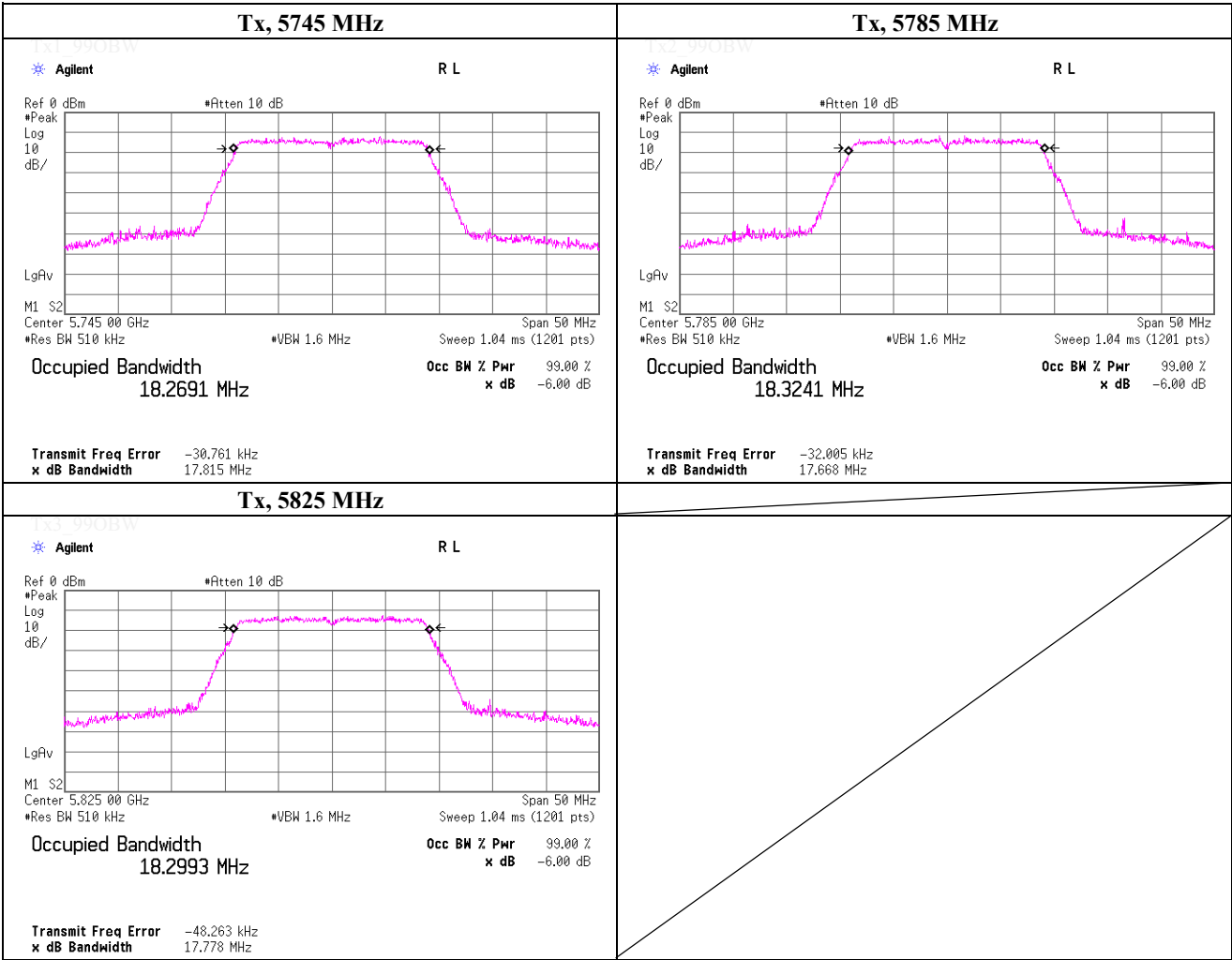
Telephone : +81 463 50 6400

Facsimile : +81 463 50 6401

99 % Occupied Bandwidth

|                        |                                                                                |                       |
|------------------------|--------------------------------------------------------------------------------|-----------------------|
| Test place             | UL Japan, Inc. Shonan EMC Lab.                                                 | No.1 Measurement Room |
| Date                   | January 12, 2021                                                               |                       |
| Temperature / Humidity | 23 deg.C , 51 %RH                                                              |                       |
| Engineer               | Takahiro Kawakami                                                              |                       |
| Mode                   | Tx, IEEE802.11ac-20 (SISO), PN9, worst antenna port 1, worst data mode 3 (MCS) |                       |

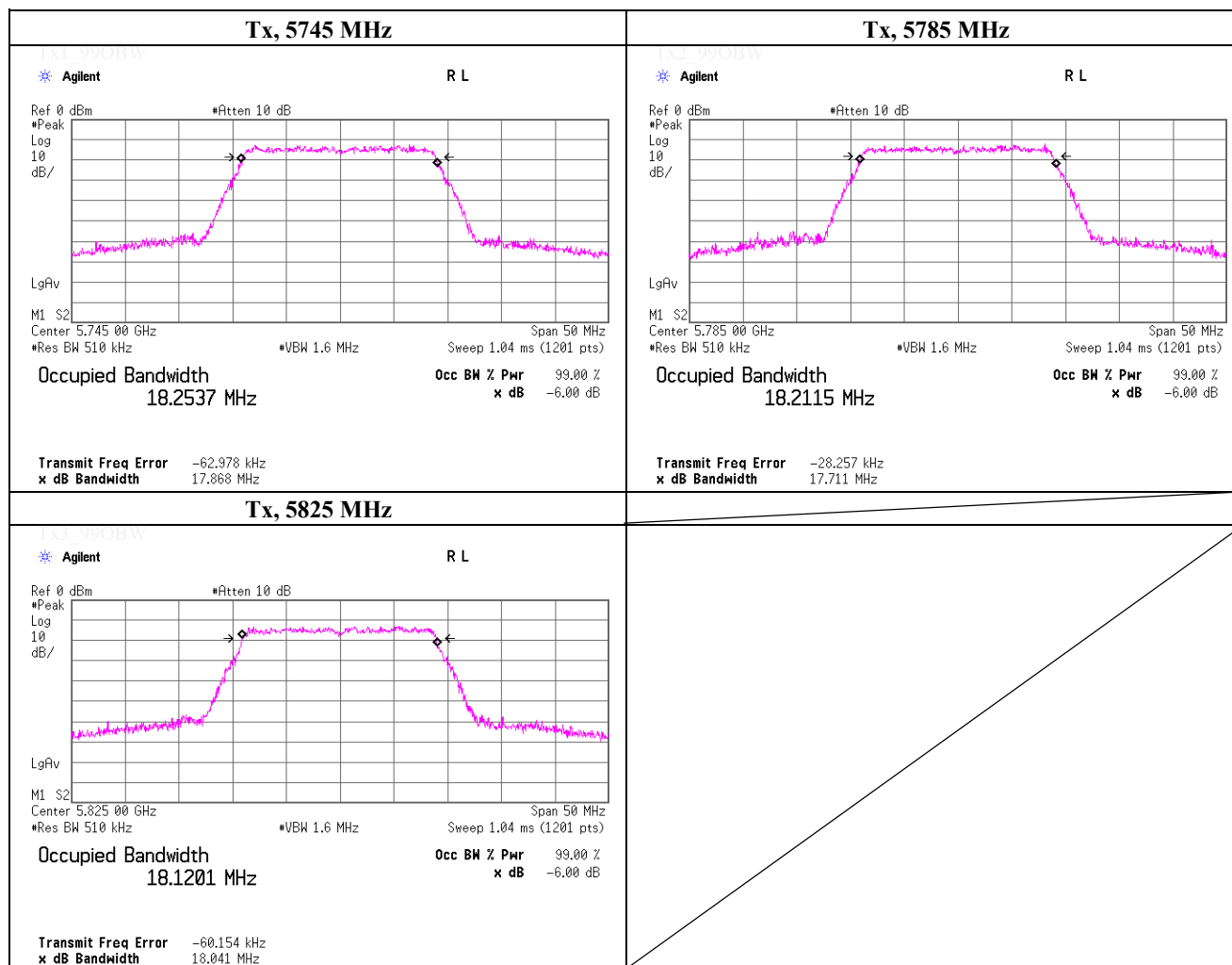
| Freq.<br>[MHz] | 99 % Occupied<br>Bandwidth [kHz] |
|----------------|----------------------------------|
| 5745.0000      | 18269.1                          |
| 5785.0000      | 18324.1                          |
| 5825.0000      | 18299.3                          |



## 99 % Occupied Bandwidth

|                        |                                                                          |                       |
|------------------------|--------------------------------------------------------------------------|-----------------------|
| Test place             | UL Japan, Inc. Shonan EMC Lab.                                           | No.1 Measurement Room |
| Date                   | January 13, 2021                                                         |                       |
| Temperature / Humidity | 24 deg.C , 41 %RH                                                        |                       |
| Engineer               | Takahiro Kawakami                                                        |                       |
| Mode                   | Tx, IEEE802.11n-20 (MIMO), PN9, Antenna port 1, worst data mode 13 (MCS) |                       |

| Freq.<br>[MHz] | 99 % Occupied<br>Bandwidth [kHz] |
|----------------|----------------------------------|
| 5745.0000      | 18253.7                          |
| 5785.0000      | 18211.5                          |
| 5825.0000      | 18120.1                          |



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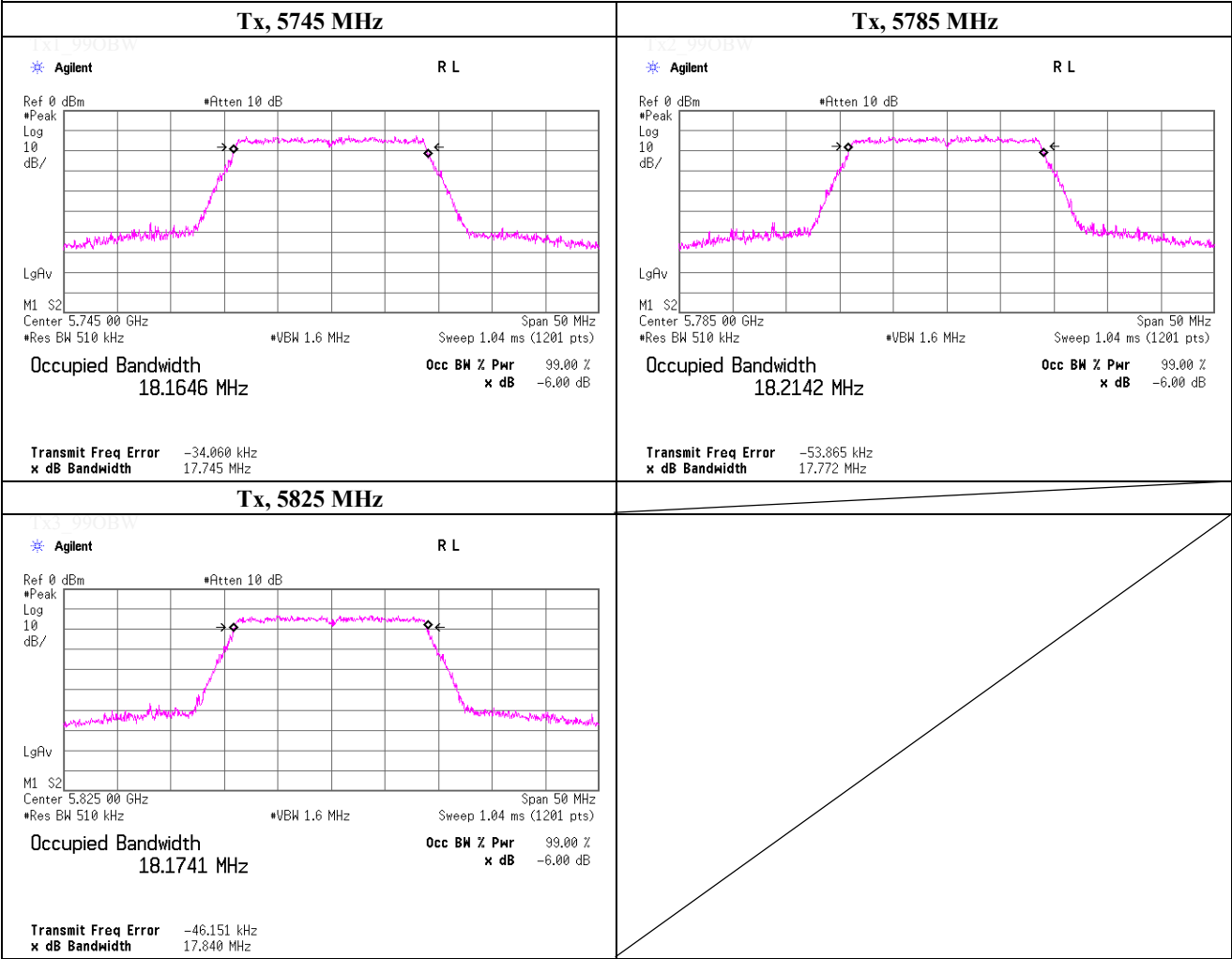
Telephone : +81 463 50 6400

Facsimile : +81 463 50 6401

99 % Occupied Bandwidth

|                        |                                                                          |                       |
|------------------------|--------------------------------------------------------------------------|-----------------------|
| Test place             | UL Japan, Inc. Shonan EMC Lab.                                           | No.1 Measurement Room |
| Date                   | January 13, 2021                                                         |                       |
| Temperature / Humidity | 24 deg.C , 41 %RH                                                        |                       |
| Engineer               | Takahiro Kawakami                                                        |                       |
| Mode                   | Tx, IEEE802.11ac-20 (MIMO), PN9, Antenna port 1, worst data mode 8 (MCS) |                       |

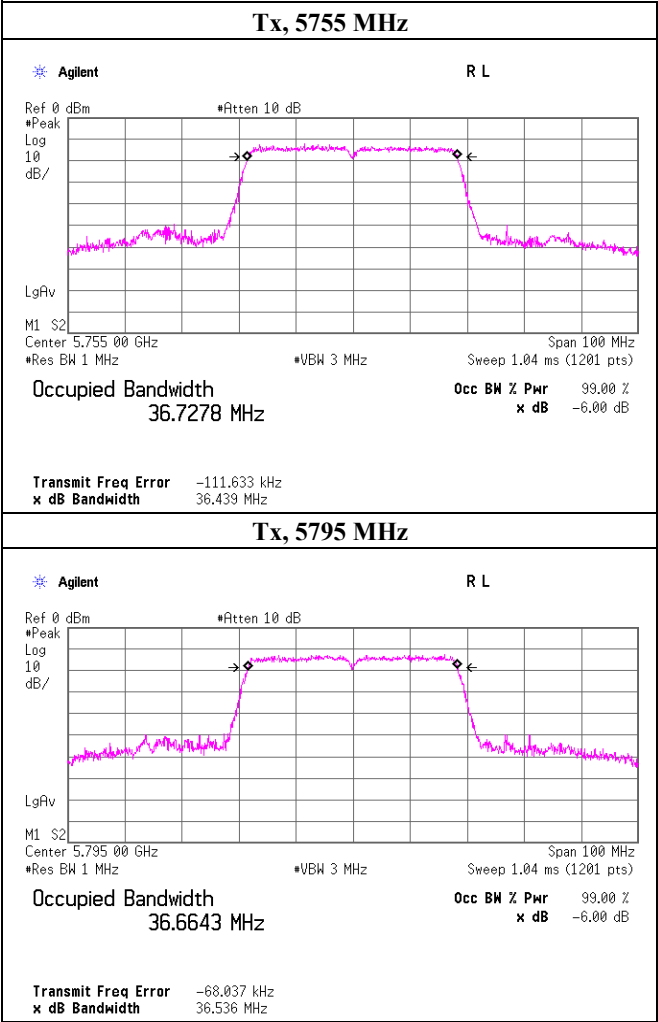
| Freq.<br>[MHz] | 99 % Occupied<br>Bandwidth [kHz] |
|----------------|----------------------------------|
| 5745.0000      | 18164.6                          |
| 5785.0000      | 18214.2                          |
| 5825.0000      | 18174.1                          |



99 % Occupied Bandwidth

|                        |                                                                               |                       |
|------------------------|-------------------------------------------------------------------------------|-----------------------|
| Test place             | UL Japan, Inc. Shonan EMC Lab.                                                | No.1 Measurement Room |
| Date                   | January 19, 2021                                                              |                       |
| Temperature / Humidity | 25 deg.C , 40 %RH                                                             |                       |
| Engineer               | Takahiro Kawakami                                                             |                       |
| Mode                   | Tx, IEEE802.11n-40 (SISO), PN9, worst antenna port 1, worst data mode 3 (MCS) |                       |

| Freq.<br>[MHz] | 99 % Occupied<br>Bandwidth [kHz] |
|----------------|----------------------------------|
| 5755.0000      | 36727.8                          |
| -              | -                                |
| 5795.0000      | 36664.3                          |

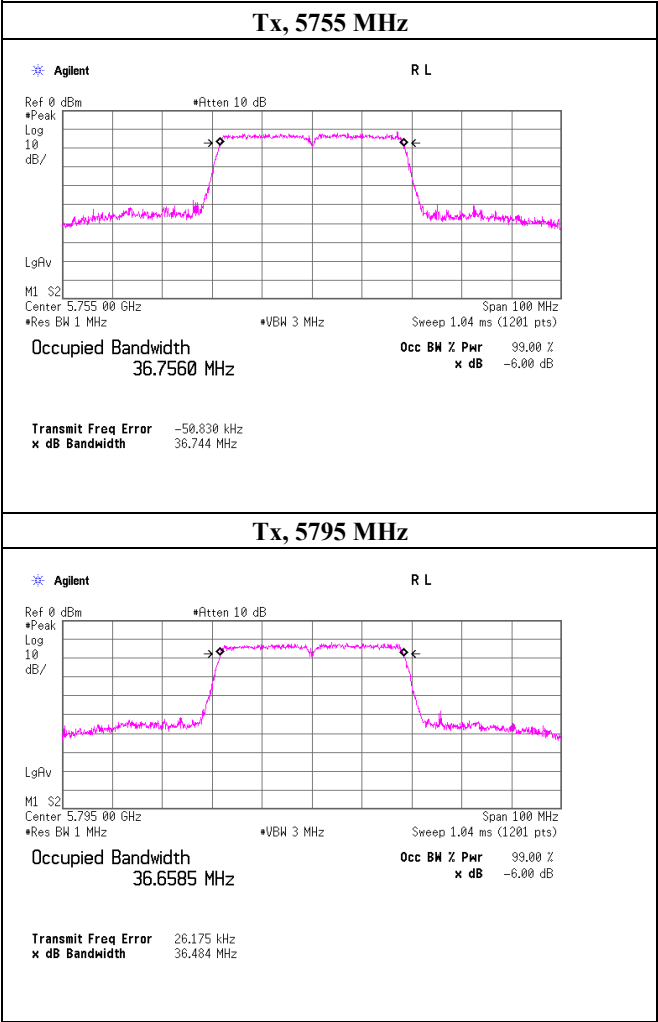


Tx2\_99OBW

99 % Occupied Bandwidth

|                        |                                                                                |                       |
|------------------------|--------------------------------------------------------------------------------|-----------------------|
| Test place             | UL Japan, Inc. Shonan EMC Lab.                                                 | No.1 Measurement Room |
| Date                   | January 19, 2021                                                               |                       |
| Temperature / Humidity | 25 deg.C , 40 %RH                                                              |                       |
| Engineer               | Takahiro Kawakami                                                              |                       |
| Mode                   | Tx, IEEE802.11ac-40 (SISO), PN9, worst antenna port 1, worst data mode 3 (MCS) |                       |

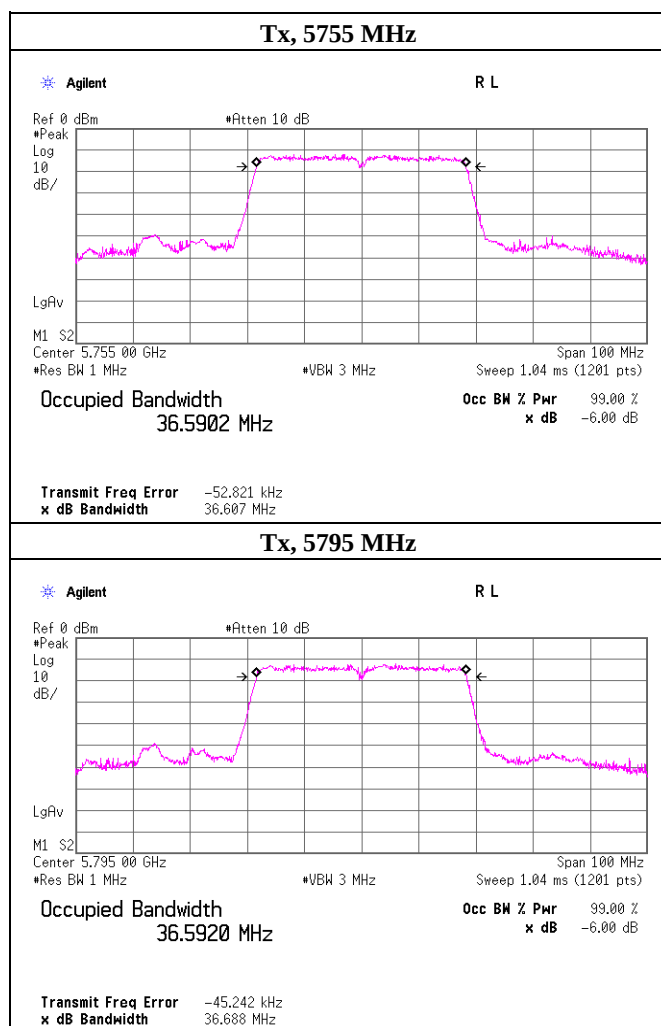
| Freq.<br>[MHz] | 99 % Occupied<br>Bandwidth [kHz] |
|----------------|----------------------------------|
| 5755.0000      | 36756.0                          |
| -              | -                                |
| 5795.0000      | 36658.5                          |



## 99 % Occupied Bandwidth

|                        |                                                                          |                       |
|------------------------|--------------------------------------------------------------------------|-----------------------|
| Test place             | UL Japan, Inc. Shonan EMC Lab.                                           | No.1 Measurement Room |
| Date                   | January 19, 2021                                                         |                       |
| Temperature / Humidity | 25 deg.C , 40 %RH                                                        |                       |
| Engineer               | Takahiro Kawakami                                                        |                       |
| Mode                   | Tx, IEEE802.11n-40 (MIMO), PN9, Antenna port 1, worst data mode 14 (MCS) |                       |

| Freq.<br>[MHz] | 99 % Occupied<br>Bandwidth [kHz] |
|----------------|----------------------------------|
| 5755.0000      | 36590.2                          |
| -              | -                                |
| 5795.0000      | 36592.0                          |



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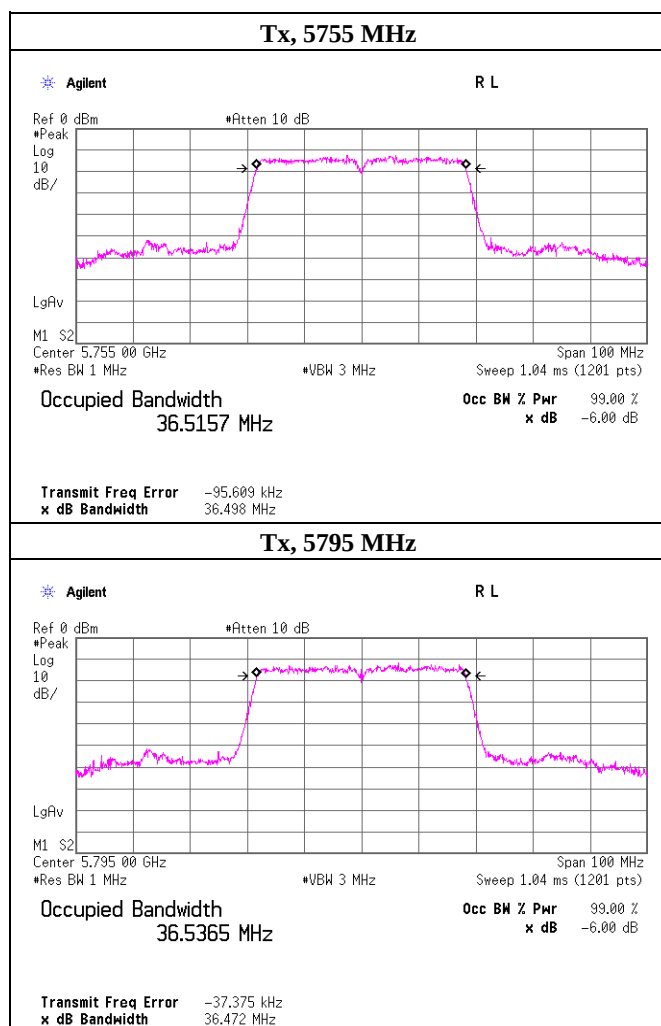
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Facsimile : +81 463 50 6401

## 99 % Occupied Bandwidth

|                        |                                                                          |                       |
|------------------------|--------------------------------------------------------------------------|-----------------------|
| Test place             | UL Japan, Inc. Shonan EMC Lab.                                           | No.1 Measurement Room |
| Date                   | January 19, 2021                                                         |                       |
| Temperature / Humidity | 25 deg.C , 40 %RH                                                        |                       |
| Engineer               | Takahiro Kawakami                                                        |                       |
| Mode                   | Tx, IEEE802.11ac-40 (MIMO), PN9, Antenna port 1, worst data mode 5 (MCS) |                       |

| Freq.<br>[MHz] | 99 % Occupied<br>Bandwidth [kHz] |
|----------------|----------------------------------|
| 5755.0000      | 36515.7                          |
| -              | -                                |
| 5795.0000      | 36536.5                          |



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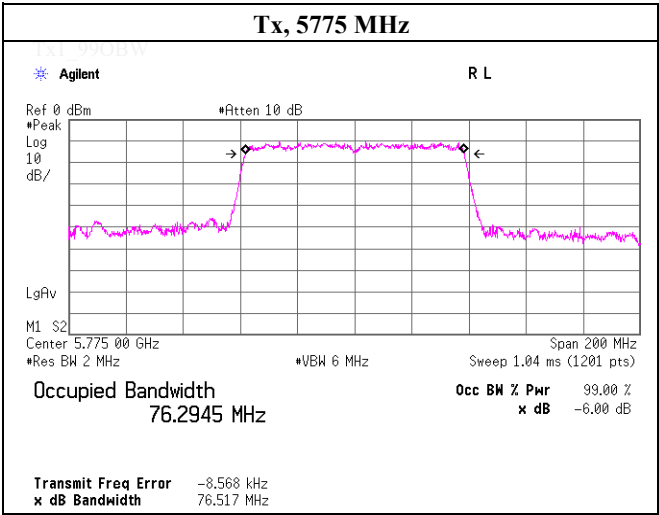
Telephone : +81 463 50 6400

Facsimile : +81 463 50 6401

99 % Occupied Bandwidth

|                        |                                                                                |                       |
|------------------------|--------------------------------------------------------------------------------|-----------------------|
| Test place             | UL Japan, Inc. Shonan EMC Lab.                                                 | No.1 Measurement Room |
| Date                   | January 20, 2021                                                               |                       |
| Temperature / Humidity | 23 deg.C , 39 %RH                                                              |                       |
| Engineer               | Takahiro Kawakami                                                              |                       |
| Mode                   | Tx, IEEE802.11ac-80 (SISO), PN9, worst antenna port 1, worst data mode 4 (MCS) |                       |

| Freq.<br>[MHz] | 99 % Occupied<br>Bandwidth [kHz] |
|----------------|----------------------------------|
| 5775.0000      | 76294.5                          |
| -              | -                                |
| -              | -                                |



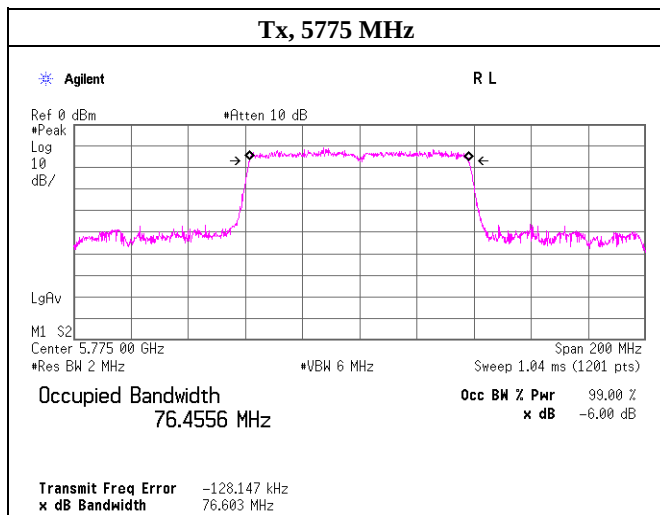
Tx2\_99OBW

Tx3\_99OBW

## 99 % Occupied Bandwidth

|                        |                                                                          |                       |
|------------------------|--------------------------------------------------------------------------|-----------------------|
| Test place             | UL Japan, Inc. Shonan EMC Lab.                                           | No.1 Measurement Room |
| Date                   | January 20, 2021                                                         |                       |
| Temperature / Humidity | 23 deg.C , 39 %RH                                                        |                       |
| Engineer               | Takahiro Kawakami                                                        |                       |
| Mode                   | Tx, IEEE802.11ac-80 (MIMO), PN9, Antenna port 1, worst data mode 4 (MCS) |                       |

| Freq.<br>[MHz] | 99 % Occupied<br>Bandwidth [kHz] |
|----------------|----------------------------------|
| 5775.0000      | 76455.6                          |
| -              | -                                |
| -              | -                                |



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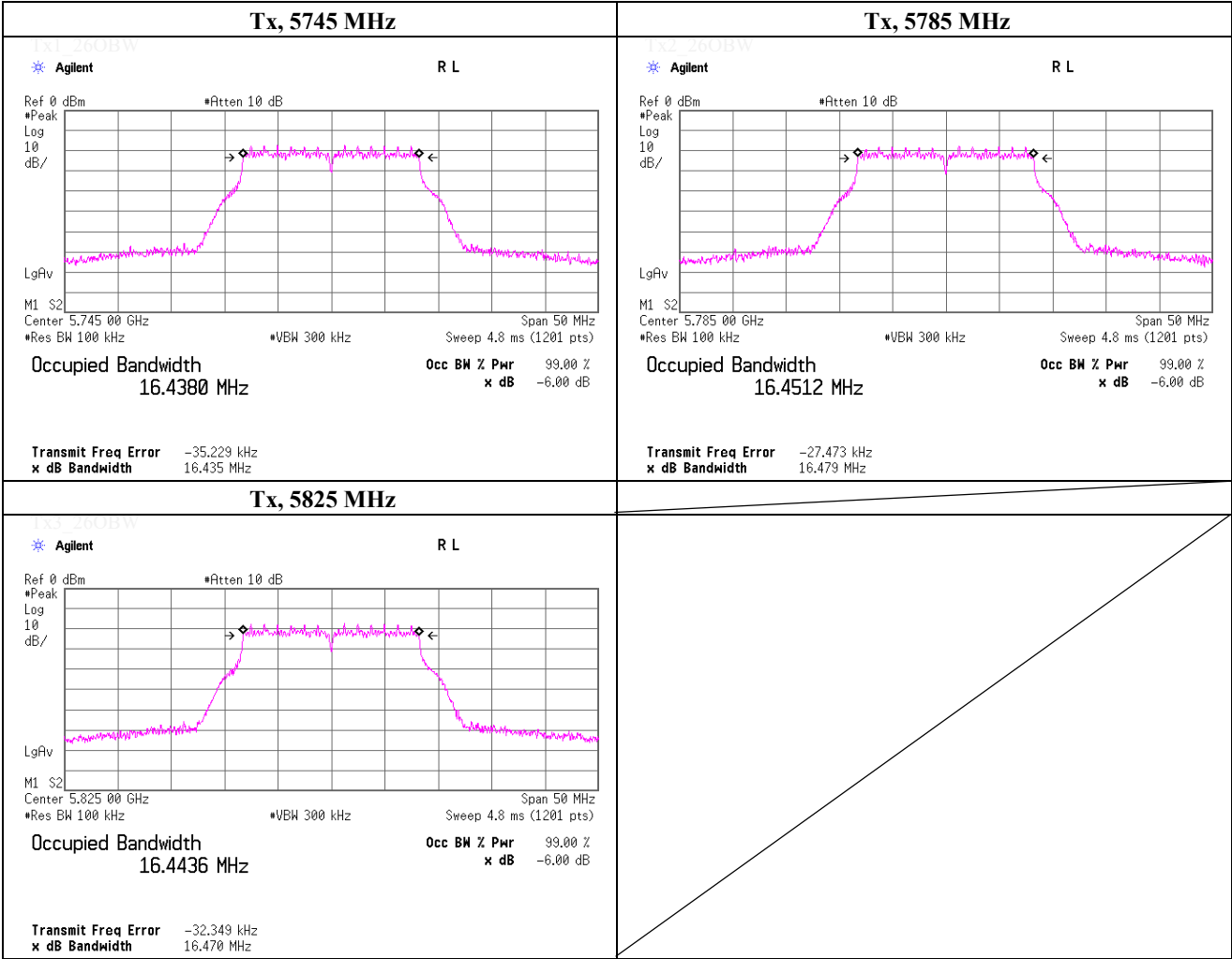
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Facsimile : +81 463 50 6401

**-6 dB Bandwidth**

|                        |                                                                     |                       |
|------------------------|---------------------------------------------------------------------|-----------------------|
| Test place             | UL Japan, Inc. Shonan EMC Lab.                                      | No.1 Measurement Room |
| Date                   | January 8, 2021                                                     |                       |
| Temperature / Humidity | 23 deg.C , 40 %RH                                                   |                       |
| Engineer               | Kenichi Adachi                                                      |                       |
| Mode                   | Tx, IEEE802.11a, PN9, worst antenna port 1, worst data mode 48 Mbps |                       |

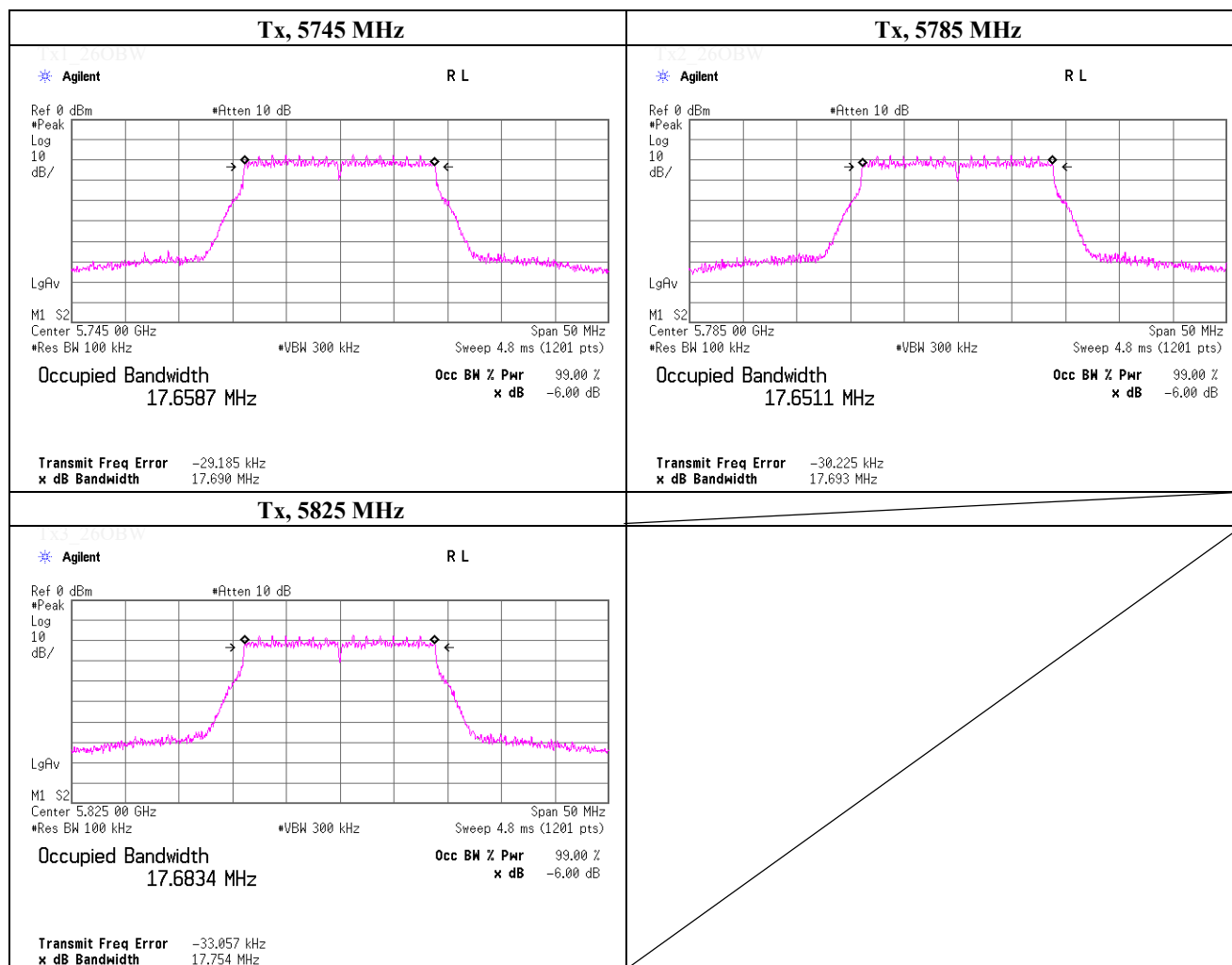
| Freq.<br>[MHz] | -6 dB Bandwidth<br>[MHz] | Limit<br>[MHz] |
|----------------|--------------------------|----------------|
| 5745.0000      | 16.435                   | > 0.500        |
| 5785.0000      | 16.479                   | > 0.500        |
| 5825.0000      | 16.470                   | > 0.500        |



## -6 dB Bandwidth

|                        |                                                                               |                       |
|------------------------|-------------------------------------------------------------------------------|-----------------------|
| Test place             | UL Japan, Inc. Shonan EMC Lab.                                                | No.1 Measurement Room |
| Date                   | January 12, 2021                                                              |                       |
| Temperature / Humidity | 23 deg.C , 30 %RH                                                             |                       |
| Engineer               | Takahiro Kawakami                                                             |                       |
| Mode                   | Tx, IEEE802.11n-20 (SISO), PN9, worst antenna port 1, worst data mode 6 (MCS) |                       |

| Freq.<br>[MHz] | -6 dB Bandwidth<br>[MHz] | Limit<br>[MHz] |
|----------------|--------------------------|----------------|
| 5745.0000      | 17.690                   | > 0.500        |
| 5785.0000      | 17.693                   | > 0.500        |
| 5825.0000      | 17.754                   | > 0.500        |



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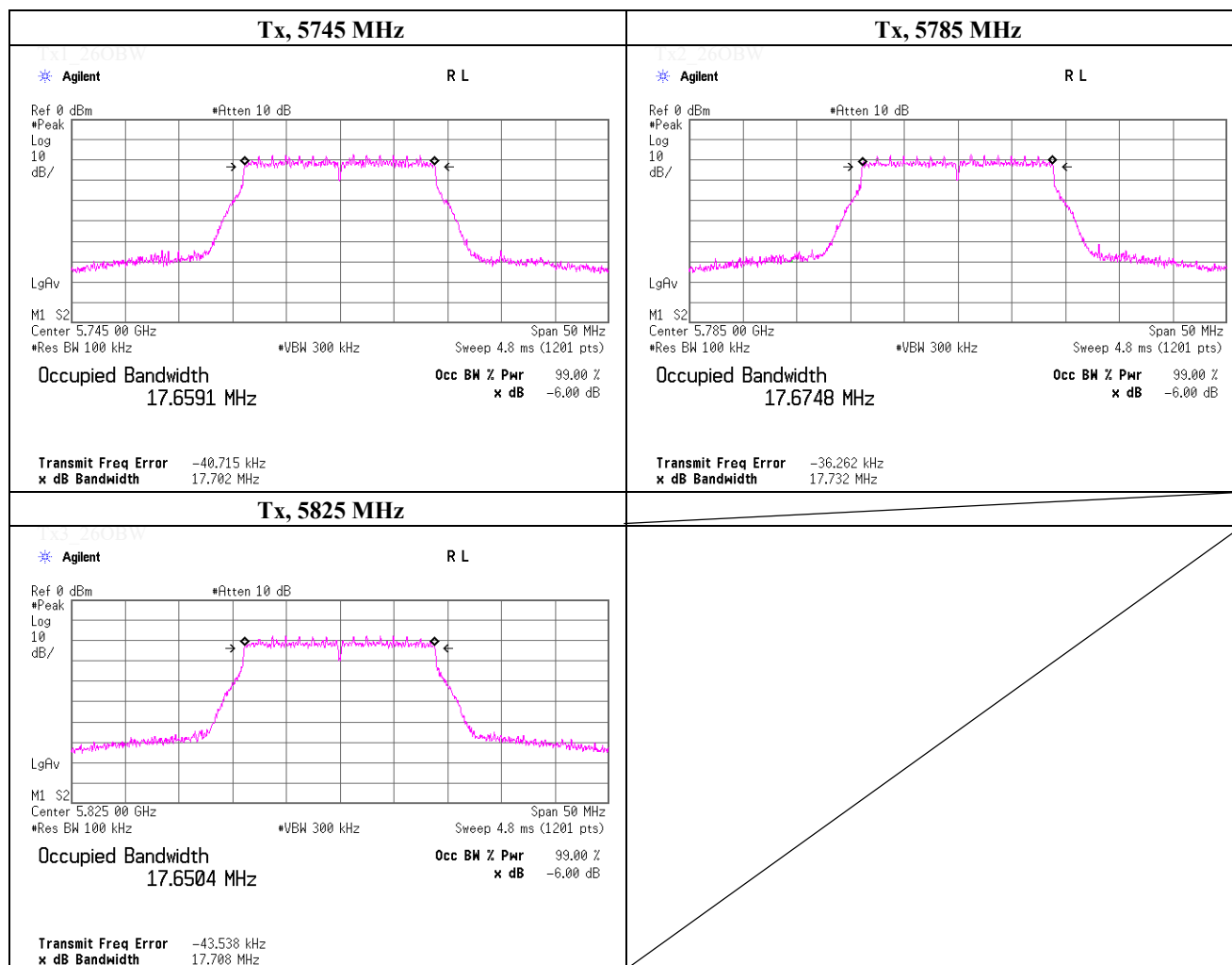
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Facsimile : +81 463 50 6401

## -6 dB Bandwidth

|                        |                                                                                |                       |
|------------------------|--------------------------------------------------------------------------------|-----------------------|
| Test place             | UL Japan, Inc. Shonan EMC Lab.                                                 | No.1 Measurement Room |
| Date                   | January 12, 2021                                                               |                       |
| Temperature / Humidity | 23 deg.C , 51 %RH                                                              |                       |
| Engineer               | Takahiro Kawakami                                                              |                       |
| Mode                   | Tx, IEEE802.11ac-20 (SISO), PN9, worst antenna port 1, worst data mode 3 (MCS) |                       |

| Freq.<br>[MHz] | -6 dB Bandwidth<br>[MHz] | Limit<br>[MHz] |
|----------------|--------------------------|----------------|
| 5745.0000      | 17.702                   | > 0.500        |
| 5785.0000      | 17.732                   | > 0.500        |
| 5825.0000      | 17.708                   | > 0.500        |



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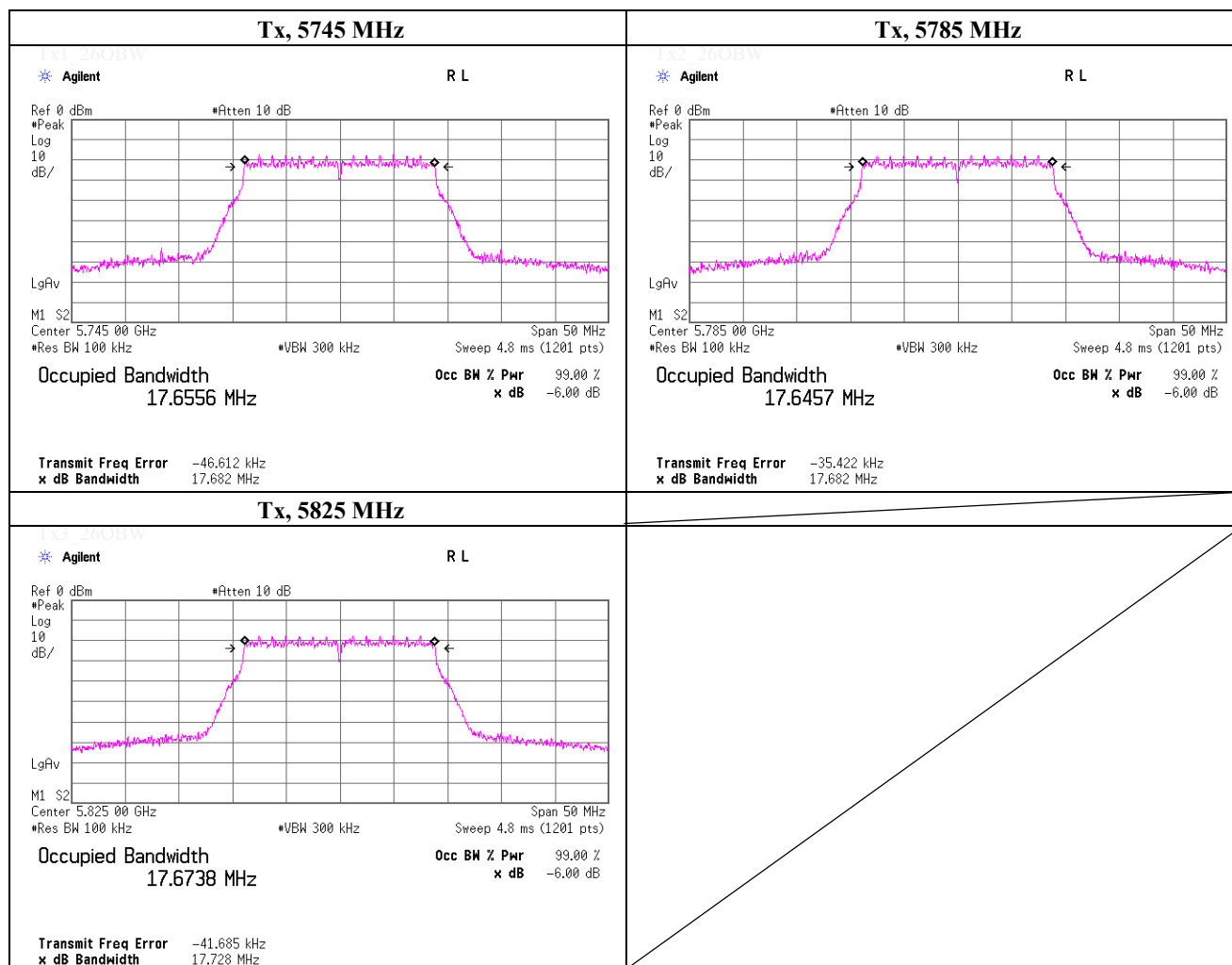
Telephone : +81 463 50 6400

Facsimile : +81 463 50 6401

## -6 dB Bandwidth

|                        |                                                                          |                       |
|------------------------|--------------------------------------------------------------------------|-----------------------|
| Test place             | UL Japan, Inc. Shonan EMC Lab.                                           | No.1 Measurement Room |
| Date                   | January 13, 2021                                                         |                       |
| Temperature / Humidity | 24 deg.C , 41 %RH                                                        |                       |
| Engineer               | Takahiro Kawakami                                                        |                       |
| Mode                   | Tx, IEEE802.11n-20 (MIMO), PN9, Antenna port 1, worst data mode 13 (MCS) |                       |

| Freq.<br>[MHz] | -6 dB Bandwidth<br>[MHz] | Limit<br>[MHz] |
|----------------|--------------------------|----------------|
| 5745.0000      | 17.682                   | > 0.500        |
| 5785.0000      | 17.682                   | > 0.500        |
| 5825.0000      | 17.728                   | > 0.500        |



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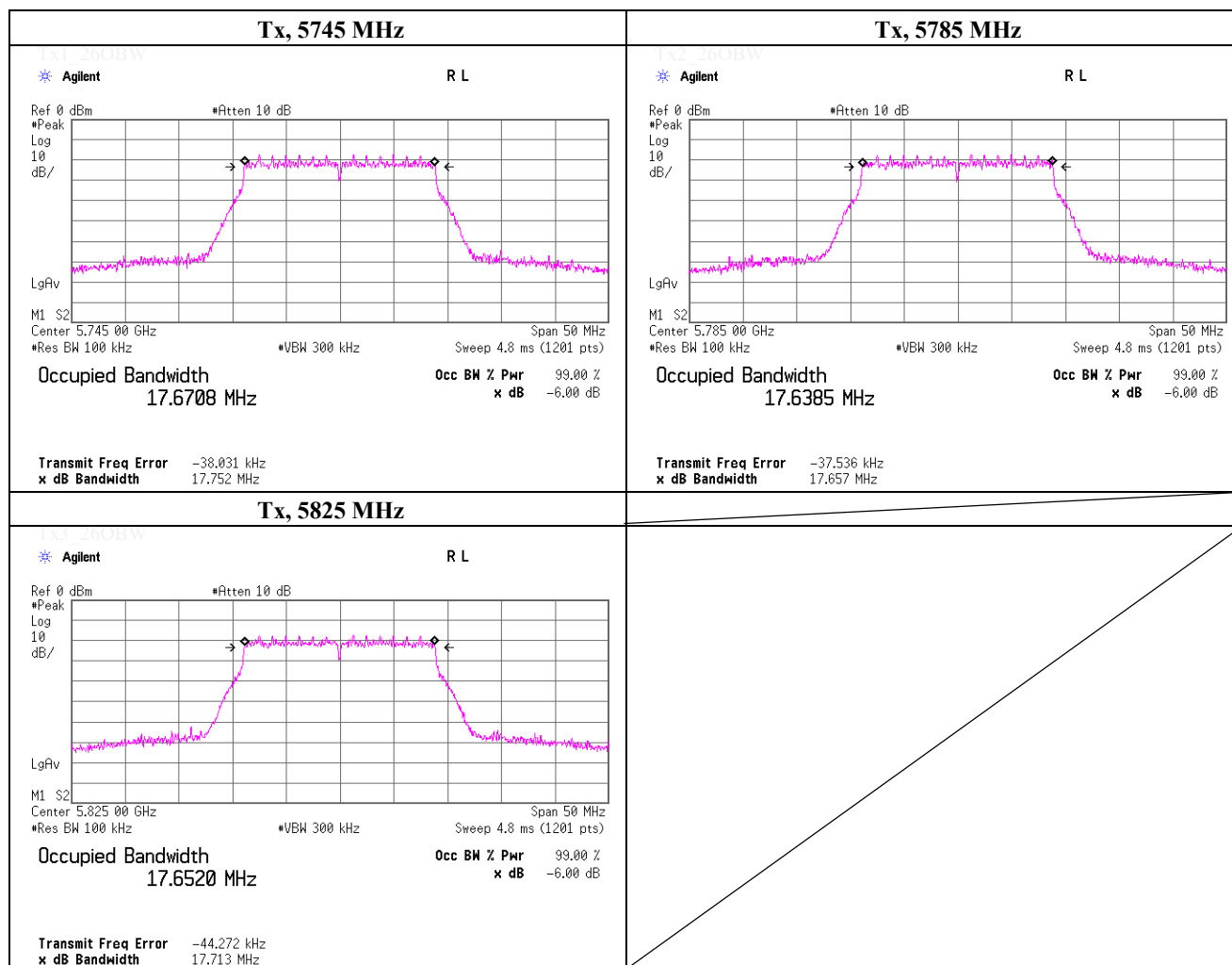
Telephone : +81 463 50 6400

Facsimile : +81 463 50 6401

## -6 dB Bandwidth

|                        |                                                                          |                       |
|------------------------|--------------------------------------------------------------------------|-----------------------|
| Test place             | UL Japan, Inc. Shonan EMC Lab.                                           | No.1 Measurement Room |
| Date                   | January 13, 2021                                                         |                       |
| Temperature / Humidity | 24 deg.C , 41 %RH                                                        |                       |
| Engineer               | Takahiro Kawakami                                                        |                       |
| Mode                   | Tx, IEEE802.11ac-20 (MIMO), PN9, Antenna port 1, worst data mode 8 (MCS) |                       |

| Freq.<br>[MHz] | -6 dB Bandwidth<br>[MHz] | Limit<br>[MHz] |
|----------------|--------------------------|----------------|
| 5745.0000      | 17.752                   | > 0.500        |
| 5785.0000      | 17.657                   | > 0.500        |
| 5825.0000      | 17.713                   | > 0.500        |



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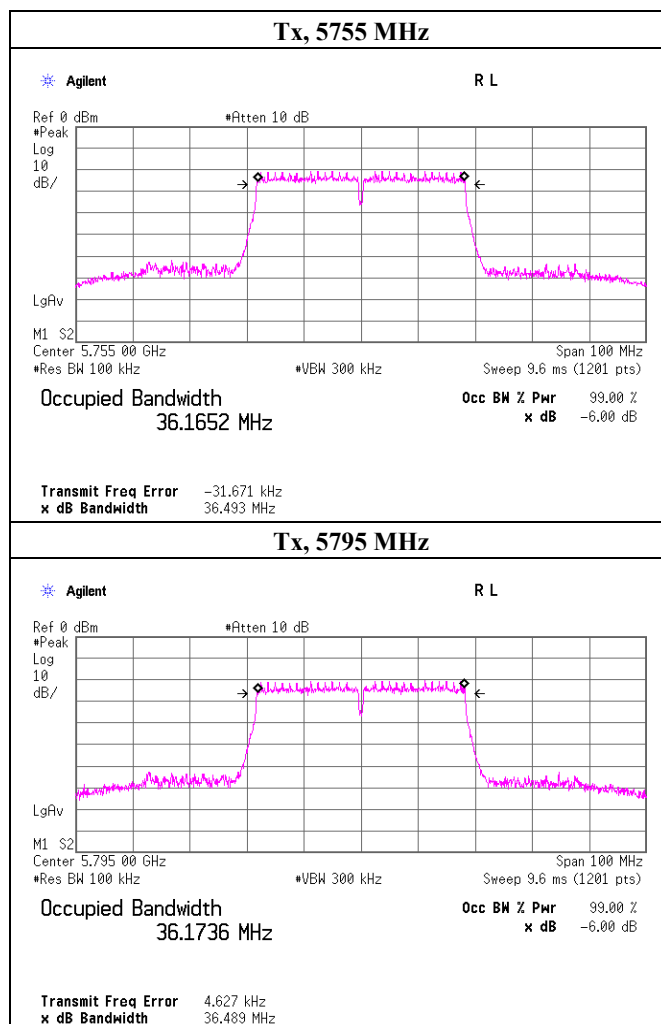
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## -6 dB Bandwidth

|                        |                                                                               |                       |
|------------------------|-------------------------------------------------------------------------------|-----------------------|
| Test place             | UL Japan, Inc. Shonan EMC Lab.                                                | No.1 Measurement Room |
| Date                   | January 19, 2021                                                              |                       |
| Temperature / Humidity | 25 deg.C , 40 %RH                                                             |                       |
| Engineer               | Takahiro Kawakami                                                             |                       |
| Mode                   | Tx, IEEE802.11n-40 (SISO), PN9, worst antenna port 1, worst data mode 3 (MCS) |                       |

| Freq.<br>[MHz] | -6 dB Bandwidth<br>[MHz] | Limit<br>[MHz] |
|----------------|--------------------------|----------------|
| 5755.0000      | 36.493                   | > 0.500        |
| -              | -                        | > 0.500        |
| 5795.0000      | 36.489                   | > 0.500        |



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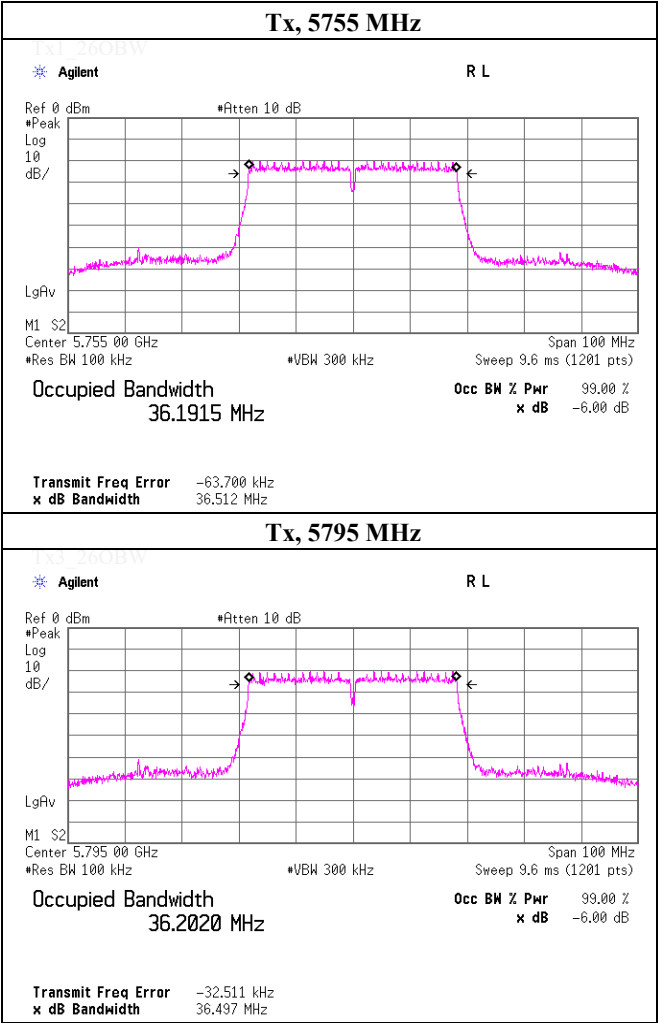
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**-6 dB Bandwidth**

|                        |                                                                                |                       |
|------------------------|--------------------------------------------------------------------------------|-----------------------|
| Test place             | UL Japan, Inc. Shonan EMC Lab.                                                 | No.1 Measurement Room |
| Date                   | January 19, 2021                                                               |                       |
| Temperature / Humidity | 25 deg.C , 40 %RH                                                              |                       |
| Engineer               | Takahiro Kawakami                                                              |                       |
| Mode                   | Tx, IEEE802.11ac-40 (SISO), PN9, worst antenna port 1, worst data mode 3 (MCS) |                       |

| Freq.<br>[MHz] | -6 dB Bandwidth<br>[MHz] | Limit<br>[MHz] |
|----------------|--------------------------|----------------|
| 5755.0000      | 36.512                   | > 0.500        |
| -              | -                        | > 0.500        |
| 5795.0000      | 36.497                   | > 0.500        |

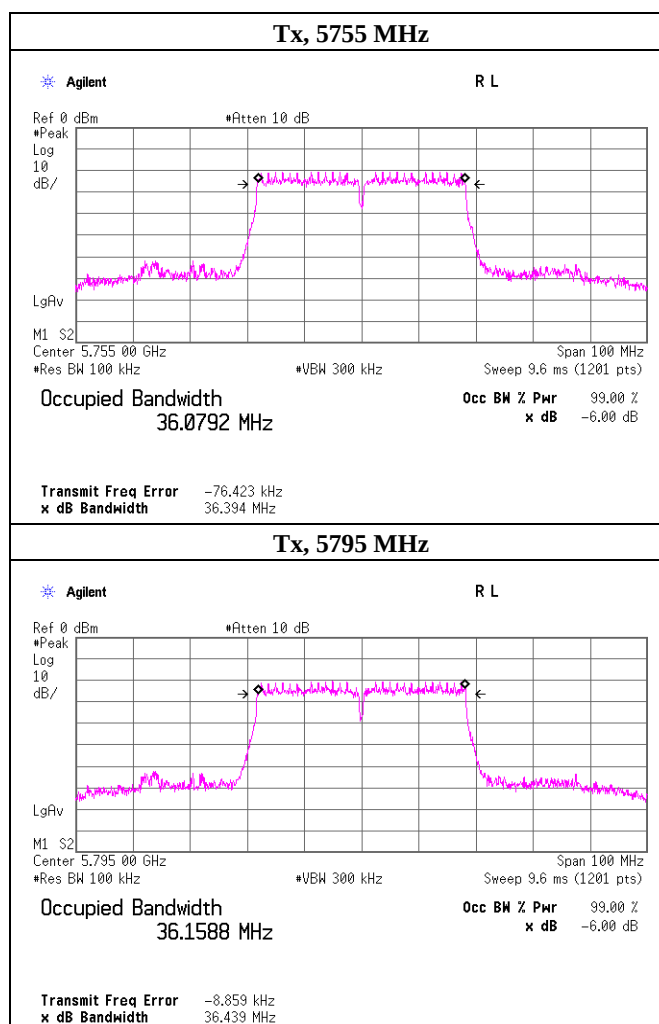


Tx2\_260BW

### -6 dB Bandwidth

|                        |                                                                          |                       |
|------------------------|--------------------------------------------------------------------------|-----------------------|
| Test place             | UL Japan, Inc. Shonan EMC Lab.                                           | No.1 Measurement Room |
| Date                   | January 19, 2021                                                         |                       |
| Temperature / Humidity | 25 deg.C , 40 %RH                                                        |                       |
| Engineer               | Takahiro Kawakami                                                        |                       |
| Mode                   | Tx, IEEE802.11n-40 (MIMO), PN9, Antenna port 1, worst data mode 14 (MCS) |                       |

| Freq.<br>[MHz] | -6 dB Bandwidth<br>[MHz] | Limit<br>[MHz] |
|----------------|--------------------------|----------------|
| 5755.0000      | 36.394                   | > 0.500        |
| -              | -                        | > 0.500        |
| 5795.0000      | 36.439                   | > 0.500        |



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## Shonan EMC Lab.

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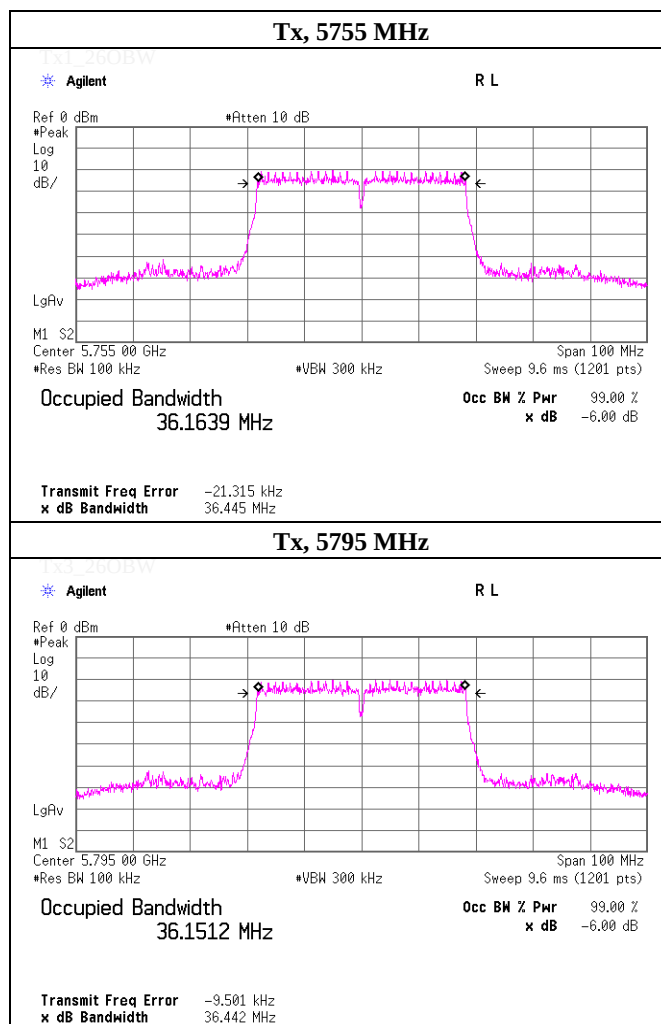
Telephone : +81 463 50 6400

**Facsimile : +81 463 50 6401**

## -6 dB Bandwidth

|                        |                                                                          |                       |
|------------------------|--------------------------------------------------------------------------|-----------------------|
| Test place             | UL Japan, Inc. Shonan EMC Lab.                                           | No.1 Measurement Room |
| Date                   | January 19, 2021                                                         |                       |
| Temperature / Humidity | 25 deg.C , 40 %RH                                                        |                       |
| Engineer               | Takahiro Kawakami                                                        |                       |
| Mode                   | Tx, IEEE802.11ac-40 (MIMO), PN9, Antenna port 1, worst data mode 5 (MCS) |                       |

| Freq.<br>[MHz] | -6 dB Bandwidth<br>[MHz] | Limit<br>[MHz] |
|----------------|--------------------------|----------------|
| 5755.0000      | 36.445                   | > 0.500        |
| -              | -                        | > 0.500        |
| 5795.0000      | 36.442                   | > 0.500        |



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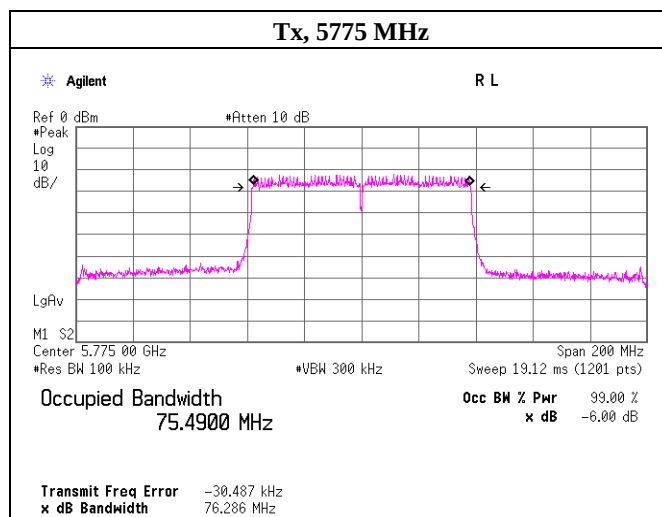
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Facsimile : +81 463 50 6401

## -6 dB Bandwidth

|                        |                                                                                |                       |
|------------------------|--------------------------------------------------------------------------------|-----------------------|
| Test place             | UL Japan, Inc. Shonan EMC Lab.                                                 | No.1 Measurement Room |
| Date                   | January 20, 2021                                                               |                       |
| Temperature / Humidity | 23 deg.C , 39 %RH                                                              |                       |
| Engineer               | Takahiro Kawakami                                                              |                       |
| Mode                   | Tx, IEEE802.11ac-80 (SISO), PN9, worst antenna port 1, worst data mode 4 (MCS) |                       |

| Freq.<br>[MHz] | -6 dB Bandwidth<br>[MHz] | Limit<br>[MHz] |
|----------------|--------------------------|----------------|
| 5775.0000      | 76.286                   | > 0.500        |
| -              | -                        | > 0.500        |
| -              | -                        | > 0.500        |



Tx2\_260BW

Tx3\_260BW

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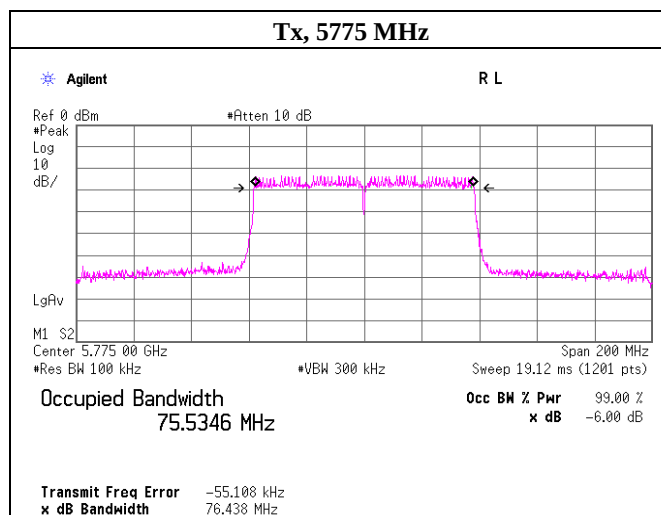
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## -6 dB Bandwidth

|                        |                                                                          |                       |
|------------------------|--------------------------------------------------------------------------|-----------------------|
| Test place             | UL Japan, Inc. Shonan EMC Lab.                                           | No.1 Measurement Room |
| Date                   | January 20, 2021                                                         |                       |
| Temperature / Humidity | 23 deg.C , 39 %RH                                                        |                       |
| Engineer               | Takahiro Kawakami                                                        |                       |
| Mode                   | Tx, IEEE802.11ac-80 (MIMO), PN9, Antenna port 1, worst data mode 4 (MCS) |                       |

| Freq.<br>[MHz] | -6 dB Bandwidth<br>[MHz] | Limit<br>[MHz] |
|----------------|--------------------------|----------------|
| 5775.0000      | 76.438                   | > 0.500        |
| -              | -                        | > 0.500        |
| -              | -                        | > 0.500        |



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**Maximum Conducted Output Power (Conducted)**

(Method: PM)

Test place                      UL Japan, Inc. Shonan EMC Lab.                      No.1 Measurement Room  
 Date                              December 14, 2020  
 Temperature / Humidity      25 deg.C , 31 %RH  
 Engineer                        Kazuya Noda  
 Mode                              Tx, IEEE802.11a, PN9,

Antenna :                      0                      worst data mode :                      48 Mbps                      Applied limit: 15.407, mobile and portable client device

| Tested Frequency<br>[MHz] | Power Meter Reading<br>[dBm] | Cable Loss<br>[dB] | Atten. Loss<br>[dB] | Duty Factor<br>[dB] | Antenna Gain<br>[dBi] | 26 dB EBW<br>(B for FCC)<br>[MHz] | 99 % OBW<br>(B for IC)<br>[MHz] | Conducted Power |      |       |        | e.i.r.p. |       |       |        |
|---------------------------|------------------------------|--------------------|---------------------|---------------------|-----------------------|-----------------------------------|---------------------------------|-----------------|------|-------|--------|----------|-------|-------|--------|
|                           |                              |                    |                     |                     |                       |                                   |                                 | Result          |      | Limit | Margin | Result   |       | Limit | Margin |
|                           |                              |                    |                     |                     |                       |                                   |                                 | [dBm]           | [mW] | [dBm] | [dB]   | [dBm]    | [mW]  | [dBm] | [dB]   |
| 5180                      | -9.07                        | 2.97               | 9.94                | 1.74                | 4.04                  | -                                 | 17.258                          | 5.58            | 3.61 | 23.97 | 18.39  | 9.62     | 9.16  | 29.97 | 20.35  |
| 5220                      | -9.10                        | 2.97               | 9.94                | 1.74                | 4.04                  | -                                 | 17.203                          | 5.55            | 3.59 | 23.97 | 18.42  | 9.59     | 9.10  | 29.97 | 20.38  |
| 5240                      | -8.80                        | 2.97               | 9.94                | 1.74                | 4.04                  | -                                 | 17.256                          | 5.85            | 3.85 | 23.97 | 18.12  | 9.89     | 9.75  | 29.97 | 20.08  |
| 5260                      | -8.80                        | 2.97               | 9.94                | 1.74                | 4.04                  | 20.684                            | 17.214                          | 5.85            | 3.85 | 23.97 | 18.12  | 9.89     | 9.75  | 29.97 | 20.08  |
| 5300                      | -8.52                        | 2.98               | 9.94                | 1.74                | 4.04                  | 20.816                            | 17.144                          | 6.14            | 4.11 | 23.97 | 17.83  | 10.18    | 10.42 | 29.97 | 19.79  |
| 5320                      | -8.51                        | 2.98               | 9.94                | 1.74                | 4.04                  | 20.753                            | 17.165                          | 6.15            | 4.12 | 23.97 | 17.82  | 10.19    | 10.45 | 29.97 | 19.78  |
| 5500                      | -8.97                        | 3.00               | 9.94                | 1.74                | 4.04                  | 20.778                            | 17.258                          | 5.71            | 3.72 | 23.97 | 18.26  | 9.75     | 9.44  | 29.97 | 20.22  |
| 5580                      | -9.18                        | 3.00               | 9.94                | 1.74                | 4.04                  | 20.911                            | 17.217                          | 5.50            | 3.55 | 23.97 | 18.47  | 9.54     | 8.99  | 29.97 | 20.43  |
| 5700                      | -9.01                        | 3.01               | 9.94                | 1.74                | 4.04                  | 20.807                            | 17.192                          | 5.68            | 3.70 | 23.97 | 18.29  | 9.72     | 9.38  | 29.97 | 20.25  |
| 5745                      | -9.18                        | 3.02               | 9.94                | 1.74                | 4.04                  | -                                 | 17.233                          | 5.52            | 3.56 | 30.00 | 24.48  | 9.56     | 9.04  | 36.00 | 26.44  |
| 5785                      | -9.22                        | 3.02               | 9.94                | 1.74                | 4.04                  | -                                 | 17.248                          | 5.48            | 3.53 | 30.00 | 24.52  | 9.52     | 8.95  | 36.00 | 26.48  |
| 5825                      | -9.48                        | 3.02               | 9.94                | 1.74                | 4.04                  | -                                 | 17.288                          | 5.22            | 3.33 | 30.00 | 24.78  | 9.26     | 8.43  | 36.00 | 26.74  |

Antenna :                      1                      worst data mode :                      48 Mbps                      Applied limit: 15.407, mobile and portable client device

| Tested Frequency | Power Meter Reading | Cable Loss | Atten. Loss | Duty Factor | Antenna Gain | 26 dB EBW<br>(B for FCC) | 99 % OBW<br>(B for IC) | Conducted Power |      |       |        |        |      | e.i.r.p. |        |       |      |
|------------------|---------------------|------------|-------------|-------------|--------------|--------------------------|------------------------|-----------------|------|-------|--------|--------|------|----------|--------|-------|------|
|                  |                     |            |             |             |              |                          |                        | Result          |      | Limit | Margin | Result |      | Limit    | Margin |       |      |
|                  |                     |            |             |             |              |                          |                        | [dBm]           | [mW] |       |        | [dBm]  | [mW] |          |        | [dBm] | [dB] |
| [MHz]            | [dBm]               | [dB]       | [dB]        | [dB]        | [dBi]        | [MHz]                    | [MHz]                  | [dBm]           | [mW] | [dBm] | [dB]   | [dBm]  | [mW] | [dBm]    | [dB]   |       |      |
| 5180             | -9.02               | 2.97       | 9.94        | 1.74        | 2.51         | -                        | 17.258                 | 5.63            | 3.66 | 23.97 | 18.34  | 8.14   | 6.52 | 29.97    | 21.83  |       |      |
| 5220             | -8.85               | 2.97       | 9.94        | 1.74        | 2.51         | -                        | 17.203                 | 5.80            | 3.80 | 23.97 | 18.17  | 8.31   | 6.78 | 29.97    | 21.66  |       |      |
| 5240             | -8.79               | 2.97       | 9.94        | 1.74        | 2.51         | -                        | 17.256                 | 5.86            | 3.85 | 23.97 | 18.11  | 8.37   | 6.87 | 29.97    | 21.60  |       |      |
| 5260             | -8.40               | 2.97       | 9.94        | 1.74        | 2.51         | 20.684                   | 17.214                 | 6.25            | 4.22 | 23.97 | 17.72  | 8.76   | 7.52 | 29.97    | 21.21  |       |      |
| 5300             | -8.39               | 2.98       | 9.94        | 1.74        | 2.51         | 20.816                   | 17.144                 | 6.27            | 4.24 | 23.97 | 17.70  | 8.78   | 7.55 | 29.97    | 21.19  |       |      |
| 5320             | -8.22               | 2.98       | 9.94        | 1.74        | 2.51         | 20.753                   | 17.165                 | 6.44            | 4.41 | 23.97 | 17.53  | 8.95   | 7.85 | 29.97    | 21.02  |       |      |
| 5500             | -8.12               | 3.00       | 9.94        | 1.74        | 2.51         | 20.778                   | 17.258                 | 6.56            | 4.53 | 23.97 | 17.41  | 9.07   | 8.07 | 29.97    | 20.90  |       |      |
| 5580             | -8.24               | 3.00       | 9.94        | 1.74        | 2.51         | 20.911                   | 17.217                 | 6.44            | 4.41 | 23.97 | 17.53  | 8.95   | 7.85 | 29.97    | 21.02  |       |      |
| 5700             | -8.20               | 3.01       | 9.94        | 1.74        | 2.51         | 20.807                   | 17.192                 | 6.49            | 4.46 | 23.97 | 17.48  | 9.00   | 7.94 | 29.97    | 20.97  |       |      |
| 5745             | -8.21               | 3.02       | 9.94        | 1.74        | 2.51         | -                        | 17.233                 | 6.49            | 4.46 | 30.00 | 23.51  | 9.00   | 7.94 | 36.00    | 27.00  |       |      |
| 5785             | -8.32               | 3.02       | 9.94        | 1.74        | 2.51         | -                        | 17.248                 | 6.38            | 4.35 | 30.00 | 23.62  | 8.89   | 7.74 | 36.00    | 27.11  |       |      |
| 5825             | -8.25               | 3.02       | 9.94        | 1.74        | 2.51         | -                        | 17.288                 | 6.45            | 4.42 | 30.00 | 23.55  | 8.96   | 7.87 | 36.00    | 27.04  |       |      |

Sample Calculation:

Conducted Power Result = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss + Duty Factor

e.i.r.p. Result = Conducted Power Result + Antenna Gain

Conducted Power Limit (5250 MHz-5350 MHz, 5470 MHz-5725 MHz) = 250 mW or (11 + 10 log B) dBm, whichever is lower

Conducted Power Limit (5725 MHz-5850 MHz) = 1W

**Maximum Conducted Output Power (Conducted)**

(Method: PM)

Test place      UL Japan, Inc. Shonan EMC Lab.      No.1 Measurement Room  
 Date      December 15, 2020  
 Temperature / Humidity      23 deg.C , 54 %RH  
 Engineer      Kazuya Noda  
 Mode      Tx, IEEE802.11n-20 (SISO), PN9,

Antenna : 0 worst data mode : 6 (MCS)

Applied limit: 15.407, mobile and portable client device

| Tested<br>Frequency | Power<br>Meter<br>Reading | Cable<br>Loss | Atten.<br>Loss | Duty<br>Factor | Antenna<br>Gain | 26 dB<br>EBW<br><br>(B for FCC) | 99 %<br>OBW<br><br>(B for IC) | Conducted Power |      |       |        | e.i.r.p. |       |       |        |
|---------------------|---------------------------|---------------|----------------|----------------|-----------------|---------------------------------|-------------------------------|-----------------|------|-------|--------|----------|-------|-------|--------|
|                     |                           |               |                |                |                 |                                 |                               | Result          |      | Limit | Margin | Result   |       | Limit | Margin |
|                     |                           |               |                |                |                 |                                 |                               | [dBm]           | [mW] |       |        | [dBm]    | [mW]  |       |        |
| [MHz]               | [dBm]                     | [dB]          | [dB]           | [dB]           | [dBi]           | [MHz]                           | [MHz]                         | [dBm]           | [mW] | [dBm] | [dB]   | [dBm]    | [mW]  | [dBm] | [dB]   |
| 5180                | -9.12                     | 2.97          | 9.94           | 1.84           | 4.04            | -                               | 18.296                        | 5.63            | 3.66 | 23.97 | 18.34  | 9.67     | 9.27  | 29.97 | 20.30  |
| 5220                | -9.02                     | 2.97          | 9.94           | 1.84           | 4.04            | -                               | 18.400                        | 5.73            | 3.74 | 23.97 | 18.24  | 9.77     | 9.48  | 29.97 | 20.20  |
| 5240                | -8.85                     | 2.97          | 9.94           | 1.84           | 4.04            | -                               | 18.289                        | 5.90            | 3.89 | 23.97 | 18.07  | 9.94     | 9.86  | 29.97 | 20.03  |
| 5260                | -8.91                     | 2.97          | 9.94           | 1.84           | 4.04            | 21.295                          | 18.371                        | 5.84            | 3.84 | 23.97 | 18.13  | 9.88     | 9.73  | 29.97 | 20.09  |
| 5300                | -8.68                     | 2.98          | 9.94           | 1.84           | 4.04            | 21.280                          | 18.285                        | 6.08            | 4.06 | 23.97 | 17.89  | 10.12    | 10.28 | 29.97 | 19.85  |
| 5320                | -8.60                     | 2.98          | 9.94           | 1.84           | 4.04            | 21.177                          | 18.249                        | 6.16            | 4.13 | 23.97 | 17.81  | 10.20    | 10.47 | 29.97 | 19.77  |
| 5500                | -9.20                     | 3.00          | 9.94           | 1.84           | 4.04            | 21.431                          | 18.360                        | 5.58            | 3.61 | 23.97 | 18.39  | 9.62     | 9.16  | 29.97 | 20.35  |
| 5580                | -9.25                     | 3.00          | 9.94           | 1.84           | 4.04            | 21.252                          | 18.342                        | 5.53            | 3.57 | 23.97 | 18.44  | 9.57     | 9.06  | 29.97 | 20.40  |
| 5700                | -9.01                     | 3.01          | 9.94           | 1.84           | 4.04            | 21.393                          | 18.257                        | 5.78            | 3.78 | 23.97 | 18.19  | 9.82     | 9.59  | 29.97 | 20.15  |
| 5745                | -9.07                     | 3.02          | 9.94           | 1.84           | 4.04            | -                               | 18.308                        | 5.73            | 3.74 | 30.00 | 24.27  | 9.77     | 9.48  | 36.00 | 26.23  |
| 5785                | -9.46                     | 3.02          | 9.94           | 1.84           | 4.04            | -                               | 18.297                        | 5.34            | 3.42 | 30.00 | 24.66  | 9.38     | 8.67  | 36.00 | 26.62  |
| 5825                | -9.55                     | 3.02          | 9.94           | 1.84           | 4.04            | -                               | 18.278                        | 5.25            | 3.35 | 30.00 | 24.75  | 9.29     | 8.49  | 36.00 | 26.71  |

Antenna : 1 worst data mode : 6 (MCS)

Applied limit: 15.407, mobile and portable client device

| Tested<br>Frequency | Power<br>Meter<br>Reading | Cable<br>Loss | Atten.<br>Loss | Duty<br>Factor | Antenna<br>Gain | 26 dB<br>EBW<br>(B for FCC) | 99 %<br>OBW<br>(B for IC) | Conducted Power |      |       |        | e.i.r.p. |      |       |        |
|---------------------|---------------------------|---------------|----------------|----------------|-----------------|-----------------------------|---------------------------|-----------------|------|-------|--------|----------|------|-------|--------|
|                     |                           |               |                |                |                 |                             |                           | Result          |      | Limit | Margin | Result   |      | Limit | Margin |
|                     |                           |               |                |                |                 |                             |                           | [dBm]           | [mW] | [dBm] | [dB]   | [dBm]    | [mW] | [dBm] | [dB]   |
| [MHz]               | [dBm]                     | [dB]          | [dB]           | [dB]           | [dBi]           | [MHz]                       | [MHz]                     | [dBm]           | [mW] | [dBm] | [dB]   | [dBm]    | [mW] | [dBm] | [dB]   |
| 5180                | -8.92                     | 2.97          | 9.94           | 1.84           | 2.51            | -                           | 18.296                    | 5.83            | 3.83 | 20.47 | 14.64  | 8.34     | 6.82 | 29.97 | 21.63  |
| 5220                | -9.01                     | 2.97          | 9.94           | 1.84           | 2.51            | -                           | 18.400                    | 5.74            | 3.75 | 20.29 | 14.55  | 8.25     | 6.68 | 29.97 | 21.72  |
| 5240                | -8.83                     | 2.97          | 9.94           | 1.84           | 2.51            | -                           | 18.289                    | 5.92            | 3.91 | 20.00 | 14.08  | 8.43     | 6.97 | 29.97 | 21.54  |
| 5260                | -8.60                     | 2.97          | 9.94           | 1.84           | 2.51            | 21.295                      | 18.371                    | 6.15            | 4.12 | 20.20 | 14.05  | 8.66     | 7.35 | 29.97 | 21.31  |
| 5300                | -8.36                     | 2.98          | 9.94           | 1.84           | 2.51            | 21.280                      | 18.285                    | 6.40            | 4.37 | 19.96 | 13.56  | 8.91     | 7.78 | 29.97 | 21.06  |
| 5320                | -8.32                     | 2.98          | 9.94           | 1.84           | 2.51            | 21.177                      | 18.249                    | 6.44            | 4.41 | 19.56 | 13.12  | 8.95     | 7.85 | 29.97 | 21.02  |
| 5500                | -8.08                     | 3.00          | 9.94           | 1.84           | 2.51            | 21.431                      | 18.360                    | 6.70            | 4.68 | 19.92 | 13.22  | 9.21     | 8.34 | 29.97 | 20.76  |
| 5580                | -8.48                     | 3.00          | 9.94           | 1.84           | 2.51            | 21.252                      | 18.342                    | 6.30            | 4.27 | 19.53 | 13.23  | 8.81     | 7.60 | 29.97 | 21.16  |
| 5700                | -8.21                     | 3.01          | 9.94           | 1.84           | 2.51            | 21.393                      | 18.257                    | 6.58            | 4.55 | 19.95 | 13.37  | 9.09     | 8.11 | 29.97 | 20.88  |
| 5745                | -8.22                     | 3.02          | 9.94           | 1.84           | 2.51            | -                           | 18.308                    | 6.58            | 4.55 | 26.01 | 19.43  | 9.09     | 8.11 | 36.00 | 26.91  |
| 5785                | -8.52                     | 3.02          | 9.94           | 1.84           | 2.51            | -                           | 18.297                    | 6.28            | 4.25 | 26.16 | 19.88  | 8.79     | 7.57 | 36.00 | 27.21  |
| 5825                | -8.50                     | 3.02          | 9.94           | 1.84           | 2.51            | -                           | 18.278                    | 6.30            | 4.27 | 30.00 | 23.70  | 8.81     | 7.60 | 36.00 | 27.19  |

Sample Calculation:

Conducted Power Result = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss + Duty Factor

e.i.r.p. Result = Conducted Power Result + Antenna Gain

Conducted Power Limit (5250 MHz-5350 MHz, 5470 MHz-5725 MHz) = 250 mW or (11 + 10 log B) dBm, whichever is lower

Conducted Power Limit (5725 MHz-5850 MHz) = 1W

**Maximum Conducted Output Power (Conducted)**

(Method: PM)

Test place      UL Japan, Inc. Shonan EMC Lab.      No.1 Measurement Room  
 Date      December 15, 2020  
 Temperature / Humidity      23 deg.C , 54 %RH  
 Engineer      Kazuya Noda  
 Mode      Tx, IEEE802.11ac-20 (SISO), PN9,

Antenna : 0      worst data mode : 6 (MCS)      Applied limit: 15.407, mobile and portable client device

| Tested Frequency<br>[MHz] | Power Meter Reading<br>[dBm] | Cable Loss<br>[dB] | Atten. Loss<br>[dB] | Duty Factor<br>[dB] | Antenna Gain<br>[dBi] | 26 dB EBW<br>(B for FCC)<br>[MHz] | 99 % OBW<br>(B for IC)<br>[MHz] | Conducted Power |      |       |        | e.i.r.p. |       |       |        |
|---------------------------|------------------------------|--------------------|---------------------|---------------------|-----------------------|-----------------------------------|---------------------------------|-----------------|------|-------|--------|----------|-------|-------|--------|
|                           |                              |                    |                     |                     |                       |                                   |                                 | Result          |      | Limit | Margin | Result   |       | Limit | Margin |
|                           |                              |                    |                     |                     |                       |                                   |                                 | [dBm]           | [mW] | [dBm] | [dB]   | [dBm]    | [mW]  | [dBm] | [dB]   |
| 5180                      | -9.11                        | 2.97               | 9.94                | 1.79                | 4.04                  | -                                 | 18.349                          | 5.59            | 3.62 | 23.97 | 18.38  | 9.63     | 9.19  | 29.97 | 20.34  |
| 5220                      | -8.99                        | 2.97               | 9.94                | 1.79                | 4.04                  | -                                 | 18.378                          | 5.71            | 3.73 | 23.97 | 18.26  | 9.75     | 9.44  | 29.97 | 20.22  |
| 5240                      | -9.01                        | 2.97               | 9.94                | 1.79                | 4.04                  | -                                 | 18.341                          | 5.69            | 3.71 | 23.97 | 18.28  | 9.73     | 9.40  | 29.97 | 20.24  |
| 5260                      | -8.79                        | 2.97               | 9.94                | 1.79                | 4.04                  | 21.407                            | 18.372                          | 5.91            | 3.90 | 23.97 | 18.06  | 9.95     | 9.89  | 29.97 | 20.02  |
| 5300                      | -8.68                        | 2.98               | 9.94                | 1.79                | 4.04                  | 21.335                            | 18.379                          | 6.03            | 4.01 | 23.97 | 17.94  | 10.07    | 10.17 | 29.97 | 19.90  |
| 5320                      | -8.63                        | 2.98               | 9.94                | 1.79                | 4.04                  | 21.422                            | 18.361                          | 6.08            | 4.06 | 23.97 | 17.89  | 10.12    | 10.28 | 29.97 | 19.85  |
| 5500                      | -9.17                        | 3.00               | 9.94                | 1.79                | 4.04                  | 21.427                            | 18.378                          | 5.56            | 3.60 | 23.97 | 18.41  | 9.60     | 9.12  | 29.97 | 20.37  |
| 5580                      | -9.15                        | 3.00               | 9.94                | 1.79                | 4.04                  | 21.654                            | 18.403                          | 5.58            | 3.62 | 23.97 | 18.39  | 9.62     | 9.16  | 29.97 | 20.35  |
| 5700                      | -8.96                        | 3.01               | 9.94                | 1.79                | 4.04                  | 21.465                            | 18.355                          | 5.78            | 3.79 | 23.97 | 18.19  | 9.82     | 9.60  | 29.97 | 20.15  |
| 5745                      | -9.23                        | 3.02               | 9.94                | 1.79                | 4.04                  | -                                 | 18.269                          | 5.52            | 3.57 | 30.00 | 24.48  | 9.56     | 9.04  | 36.00 | 26.44  |
| 5785                      | -9.32                        | 3.02               | 9.94                | 1.79                | 4.04                  | -                                 | 18.324                          | 5.43            | 3.49 | 30.00 | 24.57  | 9.47     | 8.85  | 36.00 | 26.53  |
| 5825                      | -9.54                        | 3.02               | 9.94                | 1.79                | 4.04                  | -                                 | 18.299                          | 5.21            | 3.32 | 30.00 | 24.79  | 9.25     | 8.42  | 36.00 | 26.75  |

Antenna : 1      worst data mode : 3 (MCS)      Applied limit: 15.407, mobile and portable client device

| Tested Frequency<br>[MHz] | Power Meter Reading<br>[dBm] | Cable Loss<br>[dB] | Atten. Loss<br>[dB] | Duty Factor<br>[dB] | Antenna Gain<br>[dBi] | 26 dB EBW<br>(B for FCC)<br>[MHz] | 99 % OBW<br>(B for IC)<br>[MHz] | Conducted Power |      |       |        | e.i.r.p. |      |       |        |
|---------------------------|------------------------------|--------------------|---------------------|---------------------|-----------------------|-----------------------------------|---------------------------------|-----------------|------|-------|--------|----------|------|-------|--------|
|                           |                              |                    |                     |                     |                       |                                   |                                 | Result          |      | Limit | Margin | Result   |      | Limit | Margin |
|                           |                              |                    |                     |                     |                       |                                   |                                 | [dBm]           | [mW] | [dBm] | [dB]   | [dBm]    | [mW] | [dBm] | [dB]   |
| 5180                      | -8.04                        | 2.97               | 9.94                | 1.02                | 2.51                  | -                                 | 18.349                          | 5.89            | 3.88 | 23.97 | 18.08  | 8.40     | 6.92 | 29.97 | 21.57  |
| 5220                      | -8.05                        | 2.97               | 9.94                | 1.02                | 2.51                  | -                                 | 18.378                          | 5.88            | 3.87 | 23.97 | 18.09  | 8.39     | 6.90 | 29.97 | 21.58  |
| 5240                      | -7.95                        | 2.97               | 9.94                | 1.02                | 2.51                  | -                                 | 18.341                          | 5.98            | 3.96 | 23.97 | 17.99  | 8.49     | 7.06 | 29.97 | 21.48  |
| 5260                      | -7.69                        | 2.97               | 9.94                | 1.02                | 2.51                  | 21.407                            | 18.372                          | 6.24            | 4.21 | 23.97 | 17.73  | 8.75     | 7.50 | 29.97 | 21.22  |
| 5300                      | -7.63                        | 2.98               | 9.94                | 1.02                | 2.51                  | 21.335                            | 18.379                          | 6.31            | 4.28 | 23.97 | 17.66  | 8.82     | 7.62 | 29.97 | 21.15  |
| 5320                      | -7.31                        | 2.98               | 9.94                | 1.02                | 2.51                  | 21.422                            | 18.361                          | 6.63            | 4.60 | 23.97 | 17.34  | 9.14     | 8.20 | 29.97 | 20.83  |
| 5500                      | -7.23                        | 3.00               | 9.94                | 1.02                | 2.51                  | 21.427                            | 18.378                          | 6.73            | 4.71 | 23.97 | 17.24  | 9.24     | 8.39 | 29.97 | 20.73  |
| 5580                      | -7.50                        | 3.00               | 9.94                | 1.02                | 2.51                  | 21.654                            | 18.403                          | 6.46            | 4.43 | 23.97 | 17.51  | 8.97     | 7.89 | 29.97 | 21.00  |
| 5700                      | -7.48                        | 3.01               | 9.94                | 1.02                | 2.51                  | 21.465                            | 18.355                          | 6.49            | 4.46 | 23.97 | 17.48  | 9.00     | 7.94 | 29.97 | 20.97  |
| 5745                      | -7.68                        | 3.02               | 9.94                | 1.02                | 2.51                  | -                                 | 18.269                          | 6.30            | 4.27 | 30.00 | 23.70  | 8.81     | 7.60 | 36.00 | 27.19  |
| 5785                      | -7.51                        | 3.02               | 9.94                | 1.02                | 2.51                  | -                                 | 18.324                          | 6.47            | 4.44 | 30.00 | 23.53  | 8.98     | 7.91 | 36.00 | 27.02  |
| 5825                      | -7.83                        | 3.02               | 9.94                | 1.02                | 2.51                  | -                                 | 18.299                          | 6.15            | 4.12 | 30.00 | 23.85  | 8.66     | 7.35 | 36.00 | 27.34  |

Sample Calculation:

Conducted Power Result = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss + Duty Factor

e.i.r.p. Result = Conducted Power Result + Antenna Gain

Conducted Power Limit (5250 MHz-5350 MHz, 5470 MHz-5725 MHz) = 250 mW or (11 + 10 log B) dBm, whichever is lower

Conducted Power Limit (5725 MHz-5850 MHz) = 1W

**Maximum Conducted Output Power (Conducted)**

(Method: PM)

Test place: UL Japan, Inc. Shonan EMC Lab. No.1 Measurement Room  
 Date: December 15, 2020  
 Temperature / Humidity: 23 deg.C , 54 %RH  
 Engineer: Kazuya Noda  
 Mode: Tx, IEEE802.11n-20 (MIMO), PN9, worst data mode : 13 (MCS)

**Antenna: 0 + 1**

Applied limit: 15.407, mobile and portable client device

| Tested Frequency<br>[MHz] | 26 dB EBW<br>(B for FCC)<br>[MHz] | 99 % OBW<br>(B for IC)<br>[MHz] | Conducted power |           |             |        |       |        | e.i.r.p.  |           |             |        |       |        |
|---------------------------|-----------------------------------|---------------------------------|-----------------|-----------|-------------|--------|-------|--------|-----------|-----------|-------------|--------|-------|--------|
|                           |                                   |                                 | Antenna         |           |             | Result | Limit | Margin | Antenna   |           |             | Result | Limit | Margin |
|                           |                                   |                                 | 1<br>[mW]       | 2<br>[mW] | Sum<br>[mW] | [dBm]  | [dBm] | [dB]   | 1<br>[mW] | 2<br>[mW] | Sum<br>[mW] | [dBm]  | [dBm] | [dB]   |
| 5180                      | -                                 | 18.238                          | 3.44            | 3.83      | 7.26        | 8.61   | 23.97 | 15.36  | 8.71      | 6.82      | 15.53       | 11.91  | 29.97 | 18.06  |
| 5220                      | -                                 | 18.267                          | 3.61            | 3.82      | 7.43        | 8.71   | 23.97 | 15.26  | 9.16      | 6.81      | 15.97       | 12.03  | 29.97 | 17.94  |
| 5240                      | -                                 | 18.308                          | 3.66            | 3.97      | 7.64        | 8.83   | 23.97 | 15.14  | 9.29      | 7.08      | 16.37       | 12.14  | 29.97 | 17.83  |
| 5260                      | 21.331                            | 18.335                          | 3.87            | 4.17      | 8.04        | 9.05   | 23.97 | 14.92  | 9.82      | 7.43      | 17.25       | 12.37  | 29.97 | 17.60  |
| 5300                      | 21.497                            | 18.325                          | 3.92            | 4.37      | 8.28        | 9.18   | 23.97 | 14.79  | 9.93      | 7.78      | 17.71       | 12.48  | 29.97 | 17.49  |
| 5320                      | 21.281                            | 18.357                          | 4.19            | 4.41      | 8.59        | 9.34   | 23.97 | 14.63  | 10.62     | 7.85      | 18.47       | 12.66  | 29.97 | 17.31  |
| 5500                      | 21.189                            | 18.345                          | 3.72            | 4.63      | 8.35        | 9.22   | 23.97 | 14.75  | 9.42      | 8.26      | 17.68       | 12.47  | 29.97 | 17.50  |
| 5580                      | 21.278                            | 18.329                          | 3.61            | 4.37      | 7.98        | 9.02   | 23.97 | 14.95  | 9.16      | 7.78      | 16.94       | 12.29  | 29.97 | 17.68  |
| 5700                      | 21.206                            | 18.355                          | 3.76            | 4.69      | 8.45        | 9.27   | 23.97 | 14.70  | 9.53      | 8.36      | 17.88       | 12.52  | 29.97 | 17.45  |
| 5745                      | -                                 | 18.254                          | 3.55            | 4.32      | 7.86        | 8.96   | 30.00 | 21.04  | 8.99      | 7.69      | 16.69       | 12.22  | 36.00 | 23.78  |
| 5785                      | -                                 | 18.212                          | 3.44            | 4.26      | 7.69        | 8.86   | 30.00 | 21.14  | 8.71      | 7.59      | 16.30       | 12.12  | 36.00 | 23.88  |
| 5825                      | -                                 | 18.120                          | 3.30            | 4.15      | 7.45        | 8.72   | 30.00 | 21.28  | 8.36      | 7.40      | 15.75       | 11.97  | 36.00 | 24.03  |

|                  |             | Antenna: 0          |            |             |              |             |          |                     | Antenna: 1 |             |              |             |          |  |  |
|------------------|-------------|---------------------|------------|-------------|--------------|-------------|----------|---------------------|------------|-------------|--------------|-------------|----------|--|--|
| Tested Frequency | Duty Factor | Power Meter Reading | Cable Loss | Atten. Loss | Antenna Gain | Result      |          | Power Meter Reading | Cable Loss | Atten. Loss | Antenna Gain | Result      |          |  |  |
|                  |             |                     |            |             |              | Cond. Power | e.i.r.p. |                     |            |             |              | Cond. Power | e.i.r.p. |  |  |
| [MHz]            | [dB]        | [dBm]               | [dB]       | [dB]        | [dBi]        | [dBm]       | [dBm]    | [dBm]               | [dB]       | [dB]        | [dBi]        | [dBm]       | [dBm]    |  |  |
| 5180             | 2.50        | -10.05              | 2.97       | 9.94        | 4.04         | 5.36        | 9.40     | -9.58               | 2.97       | 9.94        | 2.51         | 5.83        | 8.34     |  |  |
| 5220             | 2.50        | -9.83               | 2.97       | 9.94        | 4.04         | 5.58        | 9.62     | -9.59               | 2.97       | 9.94        | 2.51         | 5.82        | 8.33     |  |  |
| 5240             | 2.50        | -9.77               | 2.97       | 9.94        | 4.04         | 5.64        | 9.68     | -9.42               | 2.97       | 9.94        | 2.51         | 5.99        | 8.50     |  |  |
| 5260             | 2.50        | -9.53               | 2.97       | 9.94        | 4.04         | 5.88        | 9.92     | -9.21               | 2.97       | 9.94        | 2.51         | 6.20        | 8.71     |  |  |
| 5300             | 2.50        | -9.49               | 2.98       | 9.94        | 4.04         | 5.93        | 9.97     | -9.02               | 2.98       | 9.94        | 2.51         | 6.40        | 8.91     |  |  |
| 5320             | 2.50        | -9.20               | 2.98       | 9.94        | 4.04         | 6.22        | 10.26    | -8.98               | 2.98       | 9.94        | 2.51         | 6.44        | 8.95     |  |  |
| 5500             | 2.50        | -9.74               | 3.00       | 9.94        | 4.04         | 5.70        | 9.74     | -8.78               | 3.00       | 9.94        | 2.51         | 6.66        | 9.17     |  |  |
| 5580             | 2.50        | -9.86               | 3.00       | 9.94        | 4.04         | 5.58        | 9.62     | -9.04               | 3.00       | 9.94        | 2.51         | 6.40        | 8.91     |  |  |
| 5700             | 2.50        | -9.70               | 3.01       | 9.94        | 4.04         | 5.75        | 9.79     | -8.74               | 3.01       | 9.94        | 2.51         | 6.71        | 9.22     |  |  |
| 5745             | 2.50        | -9.96               | 3.02       | 9.94        | 4.04         | 5.50        | 9.54     | -9.11               | 3.02       | 9.94        | 2.51         | 6.35        | 8.86     |  |  |
| 5785             | 2.50        | -10.10              | 3.02       | 9.94        | 4.04         | 5.36        | 9.40     | -9.17               | 3.02       | 9.94        | 2.51         | 6.29        | 8.80     |  |  |
| 5825             | 2.50        | -10.28              | 3.02       | 9.94        | 4.04         | 5.18        | 9.22     | -9.28               | 3.02       | 9.94        | 2.51         | 6.18        | 8.69     |  |  |

## Sample Calculation:

Conducted Power Result = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss + Duty Factor

e.i.r.p. Result = Conducted Power Result + Antenna Gain

Conducted Power Limit (5250 MHz-5350 MHz, 5470 MHz-5725 MHz) = 250 mW or (11 + 10 log B) dBm, whichever is lower

Conducted Power Limit (5725 MHz-5850 MHz) = 1 W

**Maximum Conducted Output Power (Conducted)**

(Method: PM)

Test place UL Japan, Inc. Shonan EMC Lab. No.1 Measurement Room  
 Date December 15, 2020  
 Temperature / Humidity 23 deg.C , 54 %RH  
 Engineer Kazuya Noda  
 Mode Tx, IEEE802.11ac-20 (MIMO), PN9, worst data mode : 8 (MCS)

**Antenna: 0 + 1**

Applied limit: 15.407, mobile and portable client device

| Tested Frequency<br>[MHz] | 26 dB EBW<br>(B for FCC)<br>[MHz] | 99 % OBW<br>(B for IC)<br>[MHz] | Conducted power |           |             |                 |                |                | e.i.r.p.  |           |             |                 |                |                |
|---------------------------|-----------------------------------|---------------------------------|-----------------|-----------|-------------|-----------------|----------------|----------------|-----------|-----------|-------------|-----------------|----------------|----------------|
|                           |                                   |                                 | Antenna         |           |             | Result<br>[dBm] | Limit<br>[dBm] | Margin<br>[dB] | Antenna   |           |             | Result<br>[dBm] | Limit<br>[dBm] | Margin<br>[dB] |
|                           |                                   |                                 | 1<br>[mW]       | 2<br>[mW] | Sum<br>[mW] |                 |                |                | 1<br>[mW] | 2<br>[mW] | Sum<br>[mW] |                 |                |                |
| 5180                      | -                                 | 18.266                          | 3.48            | 3.83      | 7.31        | 8.64            | 23.97          | 15.33          | 8.83      | 6.82      | 15.65       | 11.95           | 29.97          | 18.02          |
| 5220                      | -                                 | 18.189                          | 3.69            | 3.88      | 7.57        | 8.79            | 23.97          | 15.18          | 9.35      | 6.92      | 16.27       | 12.11           | 29.97          | 17.86          |
| 5240                      | -                                 | 18.277                          | 3.71            | 3.95      | 7.66        | 8.84            | 23.97          | 15.13          | 9.40      | 7.05      | 16.44       | 12.16           | 29.97          | 17.81          |
| 5260                      | 21.267                            | 18.284                          | 3.93            | 3.90      | 7.83        | 8.94            | 23.97          | 15.03          | 9.95      | 6.95      | 16.90       | 12.28           | 29.97          | 17.69          |
| 5300                      | 21.077                            | 18.285                          | 3.91            | 4.27      | 8.17        | 9.12            | 23.97          | 14.85          | 9.91      | 7.60      | 17.51       | 12.43           | 29.97          | 17.54          |
| 5320                      | 21.110                            | 18.372                          | 4.12            | 4.38      | 8.50        | 9.29            | 23.97          | 14.68          | 10.45     | 7.80      | 18.25       | 12.61           | 29.97          | 17.36          |
| 5500                      | 21.240                            | 18.308                          | 3.59            | 4.35      | 7.93        | 9.00            | 23.97          | 14.97          | 9.10      | 7.74      | 16.84       | 12.26           | 29.97          | 17.71          |
| 5580                      | 21.298                            | 18.322                          | 3.57            | 4.19      | 7.76        | 8.90            | 23.97          | 15.07          | 9.06      | 7.46      | 16.52       | 12.18           | 29.97          | 17.79          |
| 5700                      | 21.421                            | 18.215                          | 3.66            | 4.60      | 8.26        | 9.17            | 23.97          | 14.80          | 9.27      | 8.20      | 17.47       | 12.42           | 29.97          | 17.55          |
| 5745                      | -                                 | 18.165                          | 3.57            | 4.34      | 7.91        | 8.98            | 30.00          | 21.02          | 9.06      | 7.73      | 16.78       | 12.25           | 36.00          | 23.75          |
| 5785                      | -                                 | 18.214                          | 3.34            | 4.25      | 7.59        | 8.80            | 30.00          | 21.20          | 8.47      | 7.57      | 16.04       | 12.05           | 36.00          | 23.95          |
| 5825                      | -                                 | 18.174                          | 3.23            | 4.14      | 7.37        | 8.67            | 30.00          | 21.33          | 8.18      | 7.38      | 15.56       | 11.92           | 36.00          | 24.08          |

|                  |             | Antenna: 0          |            |             |              |             |          | Antenna: 1          |            |             |              |             |          |
|------------------|-------------|---------------------|------------|-------------|--------------|-------------|----------|---------------------|------------|-------------|--------------|-------------|----------|
| Tested Frequency | Duty Factor | Power Meter Reading | Cable Loss | Atten. Loss | Antenna Gain | Result      |          | Power Meter Reading | Cable Loss | Atten. Loss | Antenna Gain | Result      |          |
|                  |             |                     |            |             |              | Cond. Power | e.i.r.p. |                     |            |             |              | Cond. Power | e.i.r.p. |
| [MHz]            | [dB]        | [dBm]               | [dB]       | [dB]        | [dBi]        | [dBm]       | [dBm]    | [dBm]               | [dB]       | [dB]        | [dBi]        | [dBm]       | [dBm]    |
| 5180             | 2.90        | -10.39              | 2.97       | 9.94        | 4.04         | 5.42        | 9.46     | -9.98               | 2.97       | 9.94        | 2.51         | 5.83        | 8.34     |
| 5220             | 2.90        | -10.14              | 2.97       | 9.94        | 4.04         | 5.67        | 9.71     | -9.92               | 2.97       | 9.94        | 2.51         | 5.89        | 8.40     |
| 5240             | 2.90        | -10.12              | 2.97       | 9.94        | 4.04         | 5.69        | 9.73     | -9.84               | 2.97       | 9.94        | 2.51         | 5.97        | 8.48     |
| 5260             | 2.90        | -9.87               | 2.97       | 9.94        | 4.04         | 5.94        | 9.98     | -9.90               | 2.97       | 9.94        | 2.51         | 5.91        | 8.42     |
| 5300             | 2.90        | -9.90               | 2.98       | 9.94        | 4.04         | 5.92        | 9.96     | -9.52               | 2.98       | 9.94        | 2.51         | 6.30        | 8.81     |
| 5320             | 2.90        | -9.67               | 2.98       | 9.94        | 4.04         | 6.15        | 10.19    | -9.41               | 2.98       | 9.94        | 2.51         | 6.41        | 8.92     |
| 5500             | 2.90        | -10.29              | 3.00       | 9.94        | 4.04         | 5.55        | 9.59     | -9.46               | 3.00       | 9.94        | 2.51         | 6.38        | 8.89     |
| 5580             | 2.90        | -10.31              | 3.00       | 9.94        | 4.04         | 5.53        | 9.57     | -9.62               | 3.00       | 9.94        | 2.51         | 6.22        | 8.73     |
| 5700             | 2.90        | -10.22              | 3.01       | 9.94        | 4.04         | 5.63        | 9.67     | -9.22               | 3.01       | 9.94        | 2.51         | 6.63        | 9.14     |
| 5745             | 2.90        | -10.33              | 3.02       | 9.94        | 4.04         | 5.53        | 9.57     | -9.49               | 3.02       | 9.94        | 2.51         | 6.37        | 8.88     |
| 5785             | 2.90        | -10.62              | 3.02       | 9.94        | 4.04         | 5.24        | 9.28     | -9.58               | 3.02       | 9.94        | 2.51         | 6.28        | 8.79     |
| 5825             | 2.90        | -10.77              | 3.02       | 9.94        | 4.04         | 5.09        | 9.13     | -9.69               | 3.02       | 9.94        | 2.51         | 6.17        | 8.68     |

## Sample Calculation:

Conducted Power Result = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss + Duty Factor

e.i.r.p. Result = Conducted Power Result + Antenna Gain

Conducted Power Limit (5250 MHz-5350 MHz, 5470 MHz-5725 MHz) = 250 mW or (11 + 10 log B) dBm, whichever is lower

Conducted Power Limit (5725 MHz-5850 MHz) = 1 W

**Maximum Conducted Output Power (Conducted)**

(Method: PM)

Test place UL Japan, Inc. Shonan EMC Lab. No.1 Measurement Room  
 Date December 16, 2020  
 Temperature / Humidity 23 deg.C , 40 %RH  
 Engineer Takahiro Kawakami  
 Mode Tx, IEEE802.11n-40 (SISO), PN9,

Antenna : 0 worst data mode : 3 (MCS)

Applied limit: 15.407, mobile and portable client device

| Tested Frequency<br>[MHz] | Power Meter Reading<br>[dBm] | Cable Loss<br>[dB] | Atten. Loss<br>[dB] | Duty Factor<br>[dB] | Antenna Gain<br>[dBi] | 26 dB EBW<br>(B for FCC)<br>[MHz] | 99 % OBW<br>(B for IC)<br>[MHz] | Conducted Power |      |       |        | e.i.r.p. |       |       |        |
|---------------------------|------------------------------|--------------------|---------------------|---------------------|-----------------------|-----------------------------------|---------------------------------|-----------------|------|-------|--------|----------|-------|-------|--------|
|                           |                              |                    |                     |                     |                       |                                   |                                 | Result          |      | Limit | Margin | Result   |       | Limit | Margin |
|                           |                              |                    |                     |                     |                       |                                   |                                 | [dBm]           | [mW] | [dBm] | [dB]   | [dBm]    | [mW]  | [dBm] | [dB]   |
| 5190                      | -8.92                        | 2.97               | 9.94                | 1.72                | 4.04                  | -                                 | 36.739                          | 5.71            | 3.72 | 23.97 | 18.26  | 9.75     | 9.44  | 29.97 | 20.22  |
| -                         | -                            | -                  | -                   | -                   | -                     | -                                 | -                               | -               | -    | -     | -      | -        | -     | -     | -      |
| 5230                      | -8.82                        | 2.97               | 9.94                | 1.72                | 4.04                  | -                                 | 36.715                          | 5.81            | 3.81 | 23.97 | 18.16  | 9.85     | 9.66  | 29.97 | 20.12  |
| 5270                      | -9.01                        | 2.98               | 9.94                | 1.72                | 4.04                  | 39.792                            | 36.683                          | 5.63            | 3.66 | 23.97 | 18.34  | 9.67     | 9.27  | 29.97 | 20.30  |
| -                         | -                            | -                  | -                   | -                   | -                     | -                                 | -                               | -               | -    | -     | -      | -        | -     | -     | -      |
| 5310                      | -8.76                        | 2.98               | 9.94                | 1.72                | 4.04                  | 39.874                            | 36.639                          | 5.88            | 3.87 | 23.97 | 18.09  | 9.92     | 9.82  | 29.97 | 20.05  |
| 5510                      | -8.67                        | 3.00               | 9.94                | 1.72                | 4.04                  | 40.078                            | 36.733                          | 5.99            | 3.97 | 23.97 | 17.98  | 10.03    | 10.07 | 29.97 | 19.94  |
| 5550                      | -8.77                        | 3.00               | 9.94                | 1.72                | 4.04                  | 39.744                            | 36.677                          | 5.89            | 3.88 | 23.97 | 18.08  | 9.93     | 9.84  | 29.97 | 20.04  |
| 5670                      | -8.71                        | 3.01               | 9.94                | 1.72                | 4.04                  | 39.886                            | 36.712                          | 5.96            | 3.94 | 23.97 | 18.01  | 10.00    | 10.00 | 29.97 | 19.97  |
| 5755                      | -8.92                        | 3.02               | 9.94                | 1.72                | 4.04                  | -                                 | 36.728                          | 5.76            | 3.77 | 30.00 | 24.24  | 9.80     | 9.55  | 36.00 | 26.20  |
| -                         | -                            | -                  | -                   | -                   | -                     | -                                 | -                               | -               | -    | -     | -      | -        | -     | -     | -      |
| 5795                      | -9.17                        | 3.02               | 9.94                | 1.72                | 4.04                  | -                                 | 36.664                          | 5.51            | 3.56 | 30.00 | 24.49  | 9.55     | 9.02  | 36.00 | 26.45  |

Antenna : 1 worst data mode : 3 (MCS)

Applied limit: 15.407, mobile and portable client device

| Tested Frequency<br>[MHz] | Power Meter Reading<br>[dBm] | Cable Loss<br>[dB] | Atten. Loss<br>[dB] | Duty Factor<br>[dB] | Antenna Gain<br>[dBi] | 26 dB EBW<br>(B for FCC)<br>[MHz] | 99 % OBW<br>(B for IC)<br>[MHz] | Conducted Power |      |       |        | e.i.r.p. |      |       |        |
|---------------------------|------------------------------|--------------------|---------------------|---------------------|-----------------------|-----------------------------------|---------------------------------|-----------------|------|-------|--------|----------|------|-------|--------|
|                           |                              |                    |                     |                     |                       |                                   |                                 | Result          |      | Limit | Margin | Result   |      | Limit | Margin |
|                           |                              |                    |                     |                     |                       |                                   |                                 | [dBm]           | [mW] | [dBm] | [dB]   | [dBm]    | [mW] | [dBm] | [dB]   |
| 5190                      | -8.73                        | 2.97               | 9.94                | 1.72                | 2.51                  | -                                 | 36.739                          | 5.90            | 3.89 | 23.97 | 18.07  | 8.41     | 6.93 | 29.97 | 21.56  |
| -                         | -                            | -                  | -                   | -                   | -                     | -                                 | -                               | -               | -    | -     | -      | -        | -    | -     | -      |
| 5230                      | -8.60                        | 2.97               | 9.94                | 1.72                | 2.51                  | -                                 | 36.715                          | 6.03            | 4.01 | 23.97 | 17.94  | 8.54     | 7.14 | 29.97 | 21.43  |
| 5270                      | -8.81                        | 2.98               | 9.94                | 1.72                | 2.51                  | 39.792                            | 36.683                          | 5.83            | 3.83 | 23.97 | 18.14  | 8.34     | 6.82 | 29.97 | 21.63  |
| -                         | -                            | -                  | -                   | -                   | -                     | -                                 | -                               | -               | -    | -     | -      | -        | -    | -     | -      |
| 5310                      | -8.58                        | 2.98               | 9.94                | 1.72                | 2.51                  | 39.874                            | 36.639                          | 6.06            | 4.04 | 23.97 | 17.91  | 8.57     | 7.19 | 29.97 | 21.40  |
| 5510                      | -7.76                        | 3.00               | 9.94                | 1.72                | 2.51                  | 40.078                            | 36.733                          | 6.90            | 4.90 | 23.97 | 17.07  | 9.41     | 8.73 | 29.97 | 20.56  |
| 5550                      | -7.94                        | 3.00               | 9.94                | 1.72                | 2.51                  | 39.744                            | 36.677                          | 6.72            | 4.70 | 23.97 | 17.25  | 9.23     | 8.38 | 29.97 | 20.74  |
| 5670                      | -7.64                        | 3.01               | 9.94                | 1.72                | 2.51                  | 39.886                            | 36.712                          | 7.03            | 5.05 | 23.97 | 16.94  | 9.54     | 8.99 | 29.97 | 20.43  |
| 5755                      | -8.12                        | 3.02               | 9.94                | 1.72                | 2.51                  | -                                 | 36.728                          | 6.56            | 4.53 | 30.00 | 23.44  | 9.07     | 8.07 | 36.00 | 26.93  |
| -                         | -                            | -                  | -                   | -                   | -                     | -                                 | -                               | -               | -    | -     | -      | -        | -    | -     | -      |
| 5795                      | -8.17                        | 3.02               | 9.94                | 1.72                | 2.51                  | -                                 | 36.664                          | 6.51            | 4.48 | 30.00 | 23.49  | 9.02     | 7.98 | 36.00 | 26.98  |

Sample Calculation:

Conducted Power Result = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss + Duty Factor

e.i.r.p. Result = Conducted Power Result + Antenna Gain

Conducted Power Limit (5250 MHz-5350 MHz, 5470 MHz-5725 MHz) = 250 mW or (11 + 10 log B) dBm, whichever is lower

Conducted Power Limit (5725 MHz-5850 MHz) = 1 W

**Maximum Conducted Output Power (Conducted)**

(Method: PM)

Test place UL Japan, Inc. Shonan EMC Lab. No.1 Measurement Room  
 Date December 16, 2020  
 Temperature / Humidity 23 deg.C , 40 %RH  
 Engineer Takahiro Kawakami  
 Mode Tx, IEEE802.11ac-40 (SISO), PN9,

Antenna : 0 worst data mode : 4 (MCS)

Applied limit: 15.407, mobile and portable client device

| Tested Frequency<br>[MHz] | Power Meter Reading<br>[dBm] | Cable Loss<br>[dB] | Atten. Loss<br>[dB] | Duty Factor<br>[dB] | Antenna Gain<br>[dBi] | 26 dB EBW<br>(B for FCC)<br>[MHz] | 99 % OBW<br>(B for IC)<br>[MHz] | Conducted Power |      |       |        | e.i.r.p. |      |       |        |
|---------------------------|------------------------------|--------------------|---------------------|---------------------|-----------------------|-----------------------------------|---------------------------------|-----------------|------|-------|--------|----------|------|-------|--------|
|                           |                              |                    |                     |                     |                       |                                   |                                 | Result          |      | Limit | Margin | Result   |      | Limit | Margin |
|                           |                              |                    |                     |                     |                       |                                   |                                 | [dBm]           | [mW] | [dBm] | [dB]   | [dBm]    | [mW] | [dBm] | [dB]   |
| 5190                      | -9.52                        | 2.97               | 9.94                | 2.15                | 4.04                  | -                                 | 36.718                          | 5.54            | 3.58 | 23.97 | 18.43  | 9.58     | 9.08 | 29.97 | 20.39  |
| -                         | -                            | -                  | -                   | -                   | -                     | -                                 | -                               | -               | -    | -     | -      | -        | -    | -     | -      |
| 5230                      | -9.32                        | 2.97               | 9.94                | 2.15                | 4.04                  | -                                 | 36.654                          | 5.74            | 3.75 | 23.97 | 18.23  | 9.78     | 9.51 | 29.97 | 20.19  |
| 5270                      | -9.64                        | 2.98               | 9.94                | 2.15                | 4.04                  | 39.779                            | 36.640                          | 5.43            | 3.49 | 23.97 | 18.54  | 9.47     | 8.85 | 29.97 | 20.50  |
| -                         | -                            | -                  | -                   | -                   | -                     | -                                 | -                               | -               | -    | -     | -      | -        | -    | -     | -      |
| 5310                      | -9.52                        | 2.98               | 9.94                | 2.15                | 4.04                  | 39.708                            | 36.570                          | 5.55            | 3.59 | 23.97 | 18.42  | 9.59     | 9.10 | 29.97 | 20.38  |
| 5510                      | -9.14                        | 3.00               | 9.94                | 2.15                | 4.04                  | 39.797                            | 36.637                          | 5.95            | 3.94 | 23.97 | 18.02  | 9.99     | 9.98 | 29.97 | 19.98  |
| 5550                      | -9.25                        | 3.00               | 9.94                | 2.15                | 4.04                  | 39.868                            | 36.627                          | 5.84            | 3.84 | 23.97 | 18.13  | 9.88     | 9.73 | 29.97 | 20.09  |
| 5670                      | -9.17                        | 3.01               | 9.94                | 2.15                | 4.04                  | 39.857                            | 36.587                          | 5.93            | 3.92 | 23.97 | 18.04  | 9.97     | 9.93 | 29.97 | 20.00  |
| 5755                      | -9.24                        | 3.02               | 9.94                | 2.15                | 4.04                  | -                                 | 36.756                          | 5.87            | 3.86 | 30.00 | 24.13  | 9.91     | 9.79 | 36.00 | 26.09  |
| -                         | -                            | -                  | -                   | -                   | -                     | -                                 | -                               | -               | -    | -     | -      | -        | -    | -     | -      |
| 5795                      | -9.60                        | 3.02               | 9.94                | 2.15                | 4.04                  | -                                 | 36.659                          | 5.51            | 3.56 | 30.00 | 24.49  | 9.55     | 9.02 | 36.00 | 26.45  |

Antenna : 1 worst data mode : 3 (MCS)

Applied limit: 15.407, mobile and portable client device

| Tested<br>Frequency | Power<br>Meter<br>Reading | Cable<br>Loss | Atten.<br>Loss | Duty<br>Factor | Antenna<br>Gain | 26 dB<br>EBW<br>(B for FCC) | 99 %<br>OBW<br>(B for IC) | Conducted Power |      |       |        |        |      | e.i.r.p. |        |  |  |
|---------------------|---------------------------|---------------|----------------|----------------|-----------------|-----------------------------|---------------------------|-----------------|------|-------|--------|--------|------|----------|--------|--|--|
|                     |                           |               |                |                |                 |                             |                           | Result          |      | Limit | Margin | Result |      | Limit    | Margin |  |  |
|                     |                           |               |                |                |                 |                             |                           | [dBm]           | [mW] | [dBm] | [dB]   | [dBm]  | [mW] | [dBm]    | [dB]   |  |  |
| [MHz]               | [dBm]                     | [dB]          | [dB]           | [dB]           | [dBi]           | [MHz]                       | [MHz]                     | [dBm]           | [mW] | [dBm] | [dB]   | [dBm]  | [mW] | [dBm]    | [dB]   |  |  |
| 5190                | -8.78                     | 2.97          | 9.94           | 1.70           | 2.51            | -                           | 36.718                    | 5.83            | 3.83 | 23.97 | 18.14  | 8.34   | 6.82 | 29.97    | 21.63  |  |  |
| -                   | -                         | -             | -              | -              | -               | -                           | -                         | -               | -    | -     | -      | -      | -    | -        | -      |  |  |
| 5230                | -8.47                     | 2.97          | 9.94           | 1.70           | 2.51            | -                           | 36.654                    | 6.14            | 4.11 | 23.97 | 17.83  | 8.65   | 7.33 | 29.97    | 21.32  |  |  |
| 5270                | -8.82                     | 2.98          | 9.94           | 1.70           | 2.51            | 39.779                      | 36.640                    | 5.80            | 3.80 | 23.97 | 18.17  | 8.31   | 6.78 | 29.97    | 21.66  |  |  |
| -                   | -                         | -             | -              | -              | -               | -                           | -                         | -               | -    | -     | -      | -      | -    | -        | -      |  |  |
| 5310                | -8.55                     | 2.98          | 9.94           | 1.70           | 2.51            | 39.708                      | 36.570                    | 6.07            | 4.05 | 23.97 | 17.90  | 8.58   | 7.21 | 29.97    | 21.39  |  |  |
| 5510                | -7.72                     | 3.00          | 9.94           | 1.70           | 2.51            | 39.797                      | 36.637                    | 6.92            | 4.92 | 23.97 | 17.05  | 9.43   | 8.76 | 29.97    | 20.54  |  |  |
| 5550                | -7.93                     | 3.00          | 9.94           | 1.70           | 2.51            | 39.868                      | 36.627                    | 6.71            | 4.68 | 23.97 | 17.26  | 9.22   | 8.35 | 29.97    | 20.75  |  |  |
| 5670                | -7.65                     | 3.01          | 9.94           | 1.70           | 2.51            | 39.857                      | 36.587                    | 7.00            | 5.01 | 23.97 | 16.97  | 9.51   | 8.93 | 29.97    | 20.46  |  |  |
| 5755                | -8.15                     | 3.02          | 9.94           | 1.70           | 2.51            | -                           | 36.756                    | 6.51            | 4.47 | 30.00 | 23.49  | 9.02   | 7.97 | 36.00    | 26.98  |  |  |
| -                   | -                         | -             | -              | -              | -               | -                           | -                         | -               | -    | -     | -      | -      | -    | -        | -      |  |  |
| 5795                | -8.15                     | 3.02          | 9.94           | 1.70           | 2.51            | -                           | 36.659                    | 6.51            | 4.47 | 30.00 | 23.49  | 9.02   | 7.97 | 36.00    | 26.98  |  |  |

Sample Calculation:

Conducted Power Result = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss + Duty Factor

e.i.r.p. Result = Conducted Power Result + Antenna Gain

Conducted Power Limit (5250 MHz-5350 MHz, 5470 MHz-5725 MHz) = 250 mW or (11 + 10 log B) dBm, whichever is lower

Conducted Power Limit (5725 MHz-5850 MHz) = 1 W

**Maximum Conducted Output Power (Conducted)**

(Method: PM)

Test place: UL Japan, Inc. Shonan EMC Lab. No.1 Measurement Room  
 Date: December 16, 2020  
 Temperature / Humidity: 25 deg.C , 35 %RH  
 Engineer: Kazuya Noda  
 Mode: Tx, IEEE802.11n-40 (MIMO), PN9 worst data mode : 14 (MCS)

**Antenna: 0 + 1**

Applied limit: 15.407, mobile and portable client device

| Tested Frequency<br>[MHz] | 26 dB EBW<br>(B for FCC)<br>[MHz] | 99 % OBW<br>(B for IC)<br>[MHz] | Conducted power |           |             |        |       |        | e.i.r.p.  |           |             |        |       |        |
|---------------------------|-----------------------------------|---------------------------------|-----------------|-----------|-------------|--------|-------|--------|-----------|-----------|-------------|--------|-------|--------|
|                           |                                   |                                 | Antenna         |           |             | Result | Limit | Margin | Antenna   |           |             | Result | Limit | Margin |
|                           |                                   |                                 | 1<br>[mW]       | 2<br>[mW] | Sum<br>[mW] | [dBm]  | [dBm] | [dB]   | 1<br>[mW] | 2<br>[mW] | Sum<br>[mW] | [dBm]  | [dBm] | [dB]   |
| 5190                      | -                                 | 36.625                          | 3.69            | 3.81      | 7.50        | 8.75   | 23.97 | 15.22  | 9.35      | 6.79      | 16.15       | 12.08  | 29.97 | 17.89  |
| -                         | -                                 | -                               | -               | -         | -           | -      | -     | -      | -         | -         | -           | -      | -     | -      |
| 5230                      | -                                 | 36.472                          | 3.84            | 4.09      | 7.93        | 8.99   | 23.97 | 14.98  | 9.73      | 7.29      | 17.02       | 12.31  | 29.97 | 17.66  |
| 5270                      | 39.263                            | 36.568                          | 3.51            | 3.83      | 7.34        | 8.65   | 23.97 | 15.32  | 8.89      | 6.82      | 15.72       | 11.96  | 29.97 | 18.01  |
| -                         | -                                 | -                               | -               | -         | -           | -      | -     | -      | -         | -         | -           | -      | -     | -      |
| 5310                      | 39.364                            | 36.589                          | 3.68            | 3.93      | 7.61        | 8.81   | 23.97 | 15.16  | 9.33      | 7.00      | 16.33       | 12.13  | 29.97 | 17.84  |
| 5510                      | 39.581                            | 36.560                          | 3.36            | 4.36      | 7.71        | 8.87   | 23.97 | 15.10  | 8.51      | 7.76      | 16.27       | 12.11  | 29.97 | 17.86  |
| 5550                      | 39.380                            | 36.662                          | 3.24            | 4.33      | 7.56        | 8.79   | 23.97 | 15.18  | 8.20      | 7.71      | 15.91       | 12.02  | 29.97 | 17.95  |
| 5670                      | 39.423                            | 36.568                          | 3.44            | 4.54      | 7.98        | 9.02   | 23.97 | 14.95  | 8.73      | 8.09      | 16.82       | 12.26  | 29.97 | 17.71  |
| 5755                      | -                                 | 36.590                          | 3.38            | 4.14      | 7.52        | 8.76   | 30.00 | 21.24  | 8.57      | 7.38      | 15.95       | 12.03  | 36.00 | 23.97  |
| -                         | -                                 | -                               | -               | -         | -           | -      | -     | -      | -         | -         | -           | -      | -     | -      |
| 5795                      | -                                 | 36.592                          | 3.08            | 4.03      | 7.11        | 8.52   | 30.00 | 21.48  | 7.82      | 7.18      | 14.99       | 11.76  | 36.00 | 24.24  |

|                  |             | Antenna: 0          |            |             |              |                   |                |                     | Antenna: 1 |             |              |                   |                |  |
|------------------|-------------|---------------------|------------|-------------|--------------|-------------------|----------------|---------------------|------------|-------------|--------------|-------------------|----------------|--|
| Tested Frequency | Duty Factor | Power Meter Reading | Cable Loss | Atten. Loss | Antenna Gain | Result            |                | Power Meter Reading | Cable Loss | Atten. Loss | Antenna Gain | Result            |                |  |
| [MHz]            | [dB]        | [dBm]               | [dB]       | [dB]        | [dBi]        | Cond. Power [dBm] | e.i.r.p. [dBm] | [dBm]               | [dB]       | [dB]        | [dBi]        | Cond. Power [dBm] | e.i.r.p. [dBm] |  |
| 5190             | 3.51        | -10.75              | 2.97       | 9.94        | 4.04         | 5.67              | 9.71           | -10.61              | 2.97       | 9.94        | 2.51         | 5.81              | 8.32           |  |
| -                | -           | -                   | -          | -           | -            | -                 | -              | -                   | -          | -           | -            | -                 | -              |  |
| 5230             | 3.51        | -10.58              | 2.97       | 9.94        | 4.04         | 5.84              | 9.88           | -10.30              | 2.97       | 9.94        | 2.51         | 6.12              | 8.63           |  |
| 5270             | 3.51        | -10.98              | 2.98       | 9.94        | 4.04         | 5.45              | 9.49           | -10.60              | 2.98       | 9.94        | 2.51         | 5.83              | 8.34           |  |
| -                | -           | -                   | -          | -           | -            | -                 | -              | -                   | -          | -           | -            | -                 | -              |  |
| 5310             | 3.51        | -10.77              | 2.98       | 9.94        | 4.04         | 5.66              | 9.70           | -10.49              | 2.98       | 9.94        | 2.51         | 5.94              | 8.45           |  |
| 5510             | 3.51        | -11.19              | 3.00       | 9.94        | 4.04         | 5.26              | 9.30           | -10.06              | 3.00       | 9.94        | 2.51         | 6.39              | 8.90           |  |
| 5550             | 3.51        | -11.35              | 3.00       | 9.94        | 4.04         | 5.10              | 9.14           | -10.09              | 3.00       | 9.94        | 2.51         | 6.36              | 8.87           |  |
| 5670             | 3.51        | -11.09              | 3.01       | 9.94        | 4.04         | 5.37              | 9.41           | -9.89               | 3.01       | 9.94        | 2.51         | 6.57              | 9.08           |  |
| 5755             | 3.51        | -11.18              | 3.02       | 9.94        | 4.04         | 5.29              | 9.33           | -10.30              | 3.02       | 9.94        | 2.51         | 6.17              | 8.68           |  |
| -                | -           | -                   | -          | -           | -            | -                 | -              | -                   | -          | -           | -            | -                 | -              |  |
| 5795             | 3.51        | -11.58              | 3.02       | 9.94        | 4.04         | 4.89              | 8.93           | -10.42              | 3.02       | 9.94        | 2.51         | 6.05              | 8.56           |  |

## Sample Calculation:

Conducted Power Result = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss + Duty Factor

e.i.r.p. Result = Conducted Power Result + Antenna Gain

Conducted Power Limit (5250 MHz-5350 MHz, 5470 MHz-5725 MHz) = 250 mW or (11 + 10 log B) dBm, whichever is lower

Conducted Power Limit (5725 MHz-5850 MHz) = 1 W

**Maximum Conducted Output Power (Conducted)**

(Method: PM)

Test place UL Japan, Inc. Shonan EMC Lab. No.1 Measurement Room  
 Date December 16, 2020  
 Temperature / Humidity 25 deg.C , 35 %RH  
 Engineer Kazuya Noda  
 Mode Tx, IEEE802.11ac-40 (MIMO), PN9 worst data mode : 5 (MCS)

**Antenna: 0 + 1**

Applied limit: 15.407, mobile and portable client device

| Tested Frequency<br>[MHz] | 26 dB EBW<br>(B for FCC)<br>[MHz] | 99 % OBW<br>(B for IC)<br>[MHz] | Conducted power |           |             |        |       |        | e.i.r.p.  |           |             |        |       |        |
|---------------------------|-----------------------------------|---------------------------------|-----------------|-----------|-------------|--------|-------|--------|-----------|-----------|-------------|--------|-------|--------|
|                           |                                   |                                 | Antenna         |           |             | Result | Limit | Margin | Antenna   |           |             | Result | Limit | Margin |
|                           |                                   |                                 | 1<br>[mW]       | 2<br>[mW] | Sum<br>[mW] | [dBm]  | [dBm] | [dB]   | 1<br>[mW] | 2<br>[mW] | Sum<br>[mW] | [dBm]  | [dBm] | [dB]   |
| 5190                      | -                                 | 36.484                          | 3.60            | 3.82      | 7.42        | 8.70   | 23.97 | 15.27  | 9.12      | 6.81      | 15.93       | 12.02  | 29.97 | 17.95  |
| -                         | -                                 | -                               | -               | -         | -           | -      | -     | -      | -         | -         | -           | -      | -     | -      |
| 5230                      | -                                 | 36.514                          | 3.78            | 3.85      | 7.63        | 8.83   | 23.97 | 15.14  | 9.57      | 6.87      | 16.44       | 12.16  | 29.97 | 17.81  |
| 5270                      | 39.336                            | 36.439                          | 3.48            | 3.72      | 7.21        | 8.58   | 23.97 | 15.39  | 8.83      | 6.64      | 15.47       | 11.89  | 29.97 | 18.08  |
| -                         | -                                 | -                               | -               | -         | -           | -      | -     | -      | -         | -         | -           | -      | -     | -      |
| 5310                      | 39.385                            | 36.527                          | 3.59            | 4.00      | 7.59        | 8.80   | 23.97 | 15.17  | 9.10      | 7.13      | 16.23       | 12.10  | 29.97 | 17.87  |
| 5510                      | 39.509                            | 36.565                          | 3.35            | 4.43      | 7.78        | 8.91   | 23.97 | 15.06  | 8.49      | 7.89      | 16.38       | 12.14  | 29.97 | 17.83  |
| 5550                      | 39.822                            | 36.497                          | 3.32            | 4.22      | 7.54        | 8.77   | 23.97 | 15.20  | 8.41      | 7.52      | 15.93       | 12.02  | 29.97 | 17.95  |
| 5670                      | 39.488                            | 36.525                          | 3.32            | 4.53      | 7.85        | 8.95   | 23.97 | 15.02  | 8.41      | 8.07      | 16.49       | 12.17  | 29.97 | 17.80  |
| 5755                      | -                                 | 36.516                          | 3.28            | 4.28      | 7.56        | 8.78   | 30.00 | 21.22  | 8.32      | 7.62      | 15.94       | 12.02  | 36.00 | 23.98  |
| -                         | -                                 | -                               | -               | -         | -           | -      | -     | -      | -         | -         | -           | -      | -     | -      |
| 5795                      | -                                 | 36.537                          | 3.03            | 4.15      | 7.18        | 8.56   | 30.00 | 21.44  | 7.69      | 7.40      | 15.09       | 11.79  | 36.00 | 24.21  |

|                  |             | Antenna: 0          |            |             |              |             |          | Antenna: 1          |            |             |              |             |          |
|------------------|-------------|---------------------|------------|-------------|--------------|-------------|----------|---------------------|------------|-------------|--------------|-------------|----------|
| Tested Frequency | Duty Factor | Power Meter Reading | Cable Loss | Atten. Loss | Antenna Gain | Result      |          | Power Meter Reading | Cable Loss | Atten. Loss | Antenna Gain | Result      |          |
|                  |             |                     |            |             |              | Cond. Power | e.i.r.p. |                     |            |             |              | Cond. Power | e.i.r.p. |
| [MHz]            | [dB]        | [dBm]               | [dB]       | [dB]        | [dBi]        | [dBm]       | [dBm]    | [dBm]               | [dB]       | [dB]        | [dBi]        | [dBm]       | [dBm]    |
| 5190             | 3.25        | -10.60              | 2.97       | 9.94        | 4.04         | 5.56        | 9.60     | -10.34              | 2.97       | 9.94        | 2.51         | 5.82        | 8.33     |
| -                | -           | -                   | -          | -           | -            | -           | -        | -                   | -          | -           | -            | -           | -        |
| 5230             | 3.25        | -10.39              | 2.97       | 9.94        | 4.04         | 5.77        | 9.81     | -10.30              | 2.97       | 9.94        | 2.51         | 5.86        | 8.37     |
| 5270             | 3.25        | -10.75              | 2.98       | 9.94        | 4.04         | 5.42        | 9.46     | -10.46              | 2.98       | 9.94        | 2.51         | 5.71        | 8.22     |
| -                | -           | -                   | -          | -           | -            | -           | -        | -                   | -          | -           | -            | -           | -        |
| 5310             | 3.25        | -10.62              | 2.98       | 9.94        | 4.04         | 5.55        | 9.59     | -10.15              | 2.98       | 9.94        | 2.51         | 6.02        | 8.53     |
| 5510             | 3.25        | -10.94              | 3.00       | 9.94        | 4.04         | 5.25        | 9.29     | -9.73               | 3.00       | 9.94        | 2.51         | 6.46        | 8.97     |
| 5550             | 3.25        | -10.98              | 3.00       | 9.94        | 4.04         | 5.21        | 9.25     | -9.94               | 3.00       | 9.94        | 2.51         | 6.25        | 8.76     |
| 5670             | 3.25        | -10.99              | 3.01       | 9.94        | 4.04         | 5.21        | 9.25     | -9.64               | 3.01       | 9.94        | 2.51         | 6.56        | 9.07     |
| 5755             | 3.25        | -11.05              | 3.02       | 9.94        | 4.04         | 5.16        | 9.20     | -9.90               | 3.02       | 9.94        | 2.51         | 6.31        | 8.82     |
| -                | -           | -                   | -          | -           | -            | -           | -        | -                   | -          | -           | -            | -           | -        |
| 5795             | 3.25        | -11.39              | 3.02       | 9.94        | 4.04         | 4.82        | 8.86     | -10.03              | 3.02       | 9.94        | 2.51         | 6.18        | 8.69     |

## Sample Calculation:

Conducted Power Result = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss + Duty Factor

e.i.r.p. Result = Conducted Power Result + Antenna Gain

Conducted Power Limit (5250 MHz-5350 MHz, 5470 MHz-5725 MHz) = 250 mW or (11 + 10 log B) dBm, whichever is lower

Conducted Power Limit (5725 MHz-5850 MHz) = 1 W

## Maximum Conducted Output Power (Conducted)

(Method: PM)

Test place: UL Japan, Inc. Shonan EMC Lab. No.1 Measurement Room  
Date: December 16, 2020  
Temperature / Humidity: 25 deg.C , 35 %RH  
Engineer: Kazuya Noda  
Mode: Tx, IEEE802.11ac-80 (SISO), PN9,

| Antenna : 0      |                     | worst data mode : 4 (MCS) |             | Applied limit: 15.407, mobile and portable client device |              |                       |                     |                 |      |       |        |          |      |       |        |
|------------------|---------------------|---------------------------|-------------|----------------------------------------------------------|--------------|-----------------------|---------------------|-----------------|------|-------|--------|----------|------|-------|--------|
| Tested Frequency | Power Meter Reading | Cable Loss                | Atten. Loss | Duty Factor                                              | Antenna Gain | 26 dB EBW (B for FCC) | 99 % OBW (B for IC) | Conducted Power |      | Limit | Margin | e.i.r.p. |      | Limit | Margin |
| [MHz]            | [dBm]               | [dB]                      | [dB]        | [dB]                                                     | [dBi]        | [MHz]                 | [MHz]               | [dBm]           | [mW] | [dBm] | [dB]   | [dBm]    | [mW] | [dBm] | [dB]   |
| 5210             | -10.37              | 2.97                      | 9.94        | 3.06                                                     | 4.04         | -                     | 76.171              | 5.60            | 3.63 | 23.97 | 18.37  | 9.64     | 9.20 | 29.97 | 20.33  |
| -                | -                   | -                         | -           | -                                                        | -            | -                     | -                   | -               | -    | -     | -      | -        | -    | -     | -      |
| -                | -                   | -                         | -           | -                                                        | -            | -                     | -                   | -               | -    | -     | -      | -        | -    | -     | -      |
| 5290             | -10.40              | 2.98                      | 9.94        | 3.06                                                     | 4.04         | 81.310                | 76.283              | 5.58            | 3.61 | 23.97 | 18.39  | 9.62     | 9.16 | 29.97 | 20.35  |
| -                | -                   | -                         | -           | -                                                        | -            | -                     | -                   | -               | -    | -     | -      | -        | -    | -     | -      |
| -                | -                   | -                         | -           | -                                                        | -            | -                     | -                   | -               | -    | -     | -      | -        | -    | -     | -      |
| 5530             | -10.45              | 3.00                      | 9.94        | 3.06                                                     | 4.04         | 81.493                | 76.285              | 5.55            | 3.59 | 23.97 | 18.42  | 9.59     | 9.10 | 29.97 | 20.38  |
| -                | -                   | -                         | -           | -                                                        | -            | -                     | -                   | -               | -    | -     | -      | -        | -    | -     | -      |
| -                | -                   | -                         | -           | -                                                        | -            | -                     | -                   | -               | -    | -     | -      | -        | -    | -     | -      |
| 5775             | -10.32              | 3.02                      | 9.94        | 3.06                                                     | 4.04         | -                     | 76.295              | 5.70            | 3.72 | 30.00 | 24.30  | 9.74     | 9.42 | 36.00 | 26.26  |
| -                | -                   | -                         | -           | -                                                        | -            | -                     | -                   | -               | -    | -     | -      | -        | -    | -     | -      |
| -                | -                   | -                         | -           | -                                                        | -            | -                     | -                   | -               | -    | -     | -      | -        | -    | -     | -      |

| Antenna : 1      |                     | worst data mode : 4 (MCS) |             | Applied limit: 15.407, mobile and portable client device |              |                       |                     |                 |      |       |        |          |      |       |        |
|------------------|---------------------|---------------------------|-------------|----------------------------------------------------------|--------------|-----------------------|---------------------|-----------------|------|-------|--------|----------|------|-------|--------|
| Tested Frequency | Power Meter Reading | Cable Loss                | Atten. Loss | Duty Factor                                              | Antenna Gain | 26 dB EBW (B for FCC) | 99 % OBW (B for IC) | Conducted Power |      | Limit | Margin | e.i.r.p. |      | Limit | Margin |
| [MHz]            | [dBm]               | [dB]                      | [dB]        | [dB]                                                     | [dBi]        | [MHz]                 | [MHz]               | [dBm]           | [mW] | [dBm] | [dB]   | [dBm]    | [mW] | [dBm] | [dB]   |
| 5210             | -10.18              | 2.97                      | 9.94        | 3.06                                                     | 2.51         | -                     | 76.171              | 5.79            | 3.79 | 23.97 | 18.18  | 8.30     | 6.76 | 29.97 | 21.67  |
| -                | -                   | -                         | -           | -                                                        | -            | -                     | -                   | -               | -    | -     | -      | -        | -    | -     | -      |
| -                | -                   | -                         | -           | -                                                        | -            | -                     | -                   | -               | -    | -     | -      | -        | -    | -     | -      |
| 5290             | -10.19              | 2.98                      | 9.94        | 3.06                                                     | 2.51         | 81.310                | 76.283              | 5.79            | 3.79 | 23.97 | 18.18  | 8.30     | 6.76 | 29.97 | 21.67  |
| -                | -                   | -                         | -           | -                                                        | -            | -                     | -                   | -               | -    | -     | -      | -        | -    | -     | -      |
| -                | -                   | -                         | -           | -                                                        | -            | -                     | -                   | -               | -    | -     | -      | -        | -    | -     | -      |
| 5530             | -9.54               | 3.00                      | 9.94        | 3.06                                                     | 2.51         | 81.493                | 76.285              | 6.46            | 4.43 | 23.97 | 17.51  | 8.97     | 7.89 | 29.97 | 21.00  |
| -                | -                   | -                         | -           | -                                                        | -            | -                     | -                   | -               | -    | -     | -      | -        | -    | -     | -      |
| -                | -                   | -                         | -           | -                                                        | -            | -                     | -                   | -               | -    | -     | -      | -        | -    | -     | -      |
| 5775             | -9.22               | 3.02                      | 9.94        | 3.06                                                     | 2.51         | -                     | 76.295              | 6.80            | 4.79 | 30.00 | 23.20  | 9.31     | 8.53 | 36.00 | 26.69  |
| -                | -                   | -                         | -           | -                                                        | -            | -                     | -                   | -               | -    | -     | -      | -        | -    | -     | -      |
| -                | -                   | -                         | -           | -                                                        | -            | -                     | -                   | -               | -    | -     | -      | -        | -    | -     | -      |

Sample Calculation:

Conducted Power Result = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss + Duty Factor

e.i.r.p. Result = Conducted Power Result + Antenna Gain

Conducted Power Limit (5250 MHz-5350 MHz, 5470 MHz-5725 MHz) = 250 mW or (11 + 10 log B) dBm, whichever is lower

Conducted Power Limit (5725 MHz-5850 MHz) = 1W

**Maximum Conducted Output Power (Conducted)**

(Method: PM)

Test place UL Japan, Inc. Shonan EMC Lab. No.1 Measurement Room  
 Date December 17, 2020  
 Temperature / Humidity 23 deg.C , 52 %RH  
 Engineer Kazuya Noda  
 Mode Tx, IEEE802.11ac-80 (MIMO), PN9 worst data mode : 4 (MCS)

**Antenna: 0 + 1**

Applied limit: 15.407, mobile and portable client device

| Tested Frequency<br>[MHz] | 26 dB EBW<br>(B for FCC)<br>[MHz] | 99 % OBW<br>(B for IC)<br>[MHz] | Conducted power |           |             |                 |                |                | e.i.r.p.  |           |             |                 |                |                |
|---------------------------|-----------------------------------|---------------------------------|-----------------|-----------|-------------|-----------------|----------------|----------------|-----------|-----------|-------------|-----------------|----------------|----------------|
|                           |                                   |                                 | Antenna         |           |             | Result<br>[dBm] | Limit<br>[dBm] | Margin<br>[dB] | Antenna   |           |             | Result<br>[dBm] | Limit<br>[dBm] | Margin<br>[dB] |
|                           |                                   |                                 | 1<br>[mW]       | 2<br>[mW] | Sum<br>[mW] |                 |                |                | 1<br>[mW] | 2<br>[mW] | Sum<br>[mW] |                 |                |                |
| 5210                      | -                                 | 76.311                          | 3.57            | 3.81      | 7.38        | 8.68            | 23.97          | 15.29          | 9.06      | 6.79      | 15.85       | 12.00           | 29.97          | 17.97          |
| -                         | -                                 | -                               | -               | -         | -           | -               | -              | -              | -         | -         | -           | -               | -              | -              |
| -                         | -                                 | -                               | -               | -         | -           | -               | -              | -              | -         | -         | -           | -               | -              | -              |
| 5290                      | 80.600                            | 76.209                          | 3.57            | 3.72      | 7.29        | 8.63            | 23.97          | 15.34          | 9.06      | 6.62      | 15.68       | 11.95           | 29.97          | 18.02          |
| -                         | -                                 | -                               | -               | -         | -           | -               | -              | -              | -         | -         | -           | -               | -              | -              |
| -                         | -                                 | -                               | -               | -         | -           | -               | -              | -              | -         | -         | -           | -               | -              | -              |
| 5530                      | 80.766                            | 76.309                          | 3.46            | 4.49      | 7.95        | 9.00            | 23.97          | 14.97          | 8.77      | 8.00      | 16.77       | 12.24           | 29.97          | 17.73          |
| -                         | -                                 | -                               | -               | -         | -           | -               | -              | -              | -         | -         | -           | -               | -              | -              |
| -                         | -                                 | -                               | -               | -         | -           | -               | -              | -              | -         | -         | -           | -               | -              | -              |
| 5775                      | -                                 | 76.456                          | 3.46            | 4.25      | 7.71        | 8.87            | 30.00          | 21.13          | 8.77      | 7.57      | 16.34       | 12.13           | 36.00          | 23.87          |
| -                         | -                                 | -                               | -               | -         | -           | -               | -              | -              | -         | -         | -           | -               | -              | -              |
| -                         | -                                 | -                               | -               | -         | -           | -               | -              | -              | -         | -         | -           | -               | -              | -              |

|                  |             | Antenna: 0          |            |             |              |                   |                | Antenna: 1          |            |             |              |                   |                |
|------------------|-------------|---------------------|------------|-------------|--------------|-------------------|----------------|---------------------|------------|-------------|--------------|-------------------|----------------|
| Tested Frequency | Duty Factor | Power Meter Reading | Cable Loss | Atten. Loss | Antenna Gain | Result            |                | Power Meter Reading | Cable Loss | Atten. Loss | Antenna Gain | Result            |                |
| [MHz]            | [dB]        | [dBm]               | [dB]       | [dB]        | [dBi]        | Cond. Power [dBm] | e.i.r.p. [dBm] | [dBm]               | [dB]       | [dB]        | [dBi]        | Cond. Power [dBm] | e.i.r.p. [dBm] |
| 5210             | 3.55        | -10.93              | 2.97       | 9.94        | 4.04         | 5.53              | 9.57           | -10.65              | 2.97       | 9.94        | 2.51         | 5.81              | 8.32           |
| -                | -           | -                   | -          | -           | -            | -                 | -              | -                   | -          | -           | -            | -                 | -              |
| -                | -           | -                   | -          | -           | -            | -                 | -              | -                   | -          | -           | -            | -                 | -              |
| 5290             | 3.55        | -10.94              | 2.98       | 9.94        | 4.04         | 5.53              | 9.57           | -10.77              | 2.98       | 9.94        | 2.51         | 5.70              | 8.21           |
| -                | -           | -                   | -          | -           | -            | -                 | -              | -                   | -          | -           | -            | -                 | -              |
| -                | -           | -                   | -          | -           | -            | -                 | -              | -                   | -          | -           | -            | -                 | -              |
| 5530             | 3.55        | -11.10              | 3.00       | 9.94        | 4.04         | 5.39              | 9.43           | -9.97               | 3.00       | 9.94        | 2.51         | 6.52              | 9.03           |
| -                | -           | -                   | -          | -           | -            | -                 | -              | -                   | -          | -           | -            | -                 | -              |
| -                | -           | -                   | -          | -           | -            | -                 | -              | -                   | -          | -           | -            | -                 | -              |
| 5775             | 3.55        | -11.12              | 3.02       | 9.94        | 4.04         | 5.39              | 9.43           | -10.23              | 3.02       | 9.94        | 2.51         | 6.28              | 8.79           |
| -                | -           | -                   | -          | -           | -            | -                 | -              | -                   | -          | -           | -            | -                 | -              |
| -                | -           | -                   | -          | -           | -            | -                 | -              | -                   | -          | -           | -            | -                 | -              |

Sample Calculation:

Conducted Power Result = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss + Duty Factor

e.i.r.p. Result = Conducted Power Result + Antenna Gain

Conducted Power Limit (5250 MHz-5350 MHz, 5470 MHz-5725 MHz) = 250 mW or (11 + 10 log B) dBm, whichever is lower

Conducted Power Limit (5725 MHz-5850 MHz) = 1 W

## Maximum Conducted Output Power (Conducted)

(Method: PM)

Test place UL Japan, Inc. Shonan EMC Lab. No.1 Measurement Room  
Date December 14, 2020  
Temperature / Humidity 25 deg.C , 31 %RH  
Engineer Kazuya Noda  
Mode Tx, IEEE802.11a, PN9,

worst antenna : 1  
worst data mode : 48 Mbps

### [Pre check]

#### Antenna 0

|   | Data rate | Freq.  | P/M (AV)<br>Reading | Cable<br>Loss | Atten.<br>Loss | Duty<br>factor | Result |
|---|-----------|--------|---------------------|---------------|----------------|----------------|--------|
|   | [Mbps]    | [MHz]  | [dBm]               | [dB]          | [dB]           | [dB]           | [dBm]  |
| 0 | 6         | 5180.0 | -7.88               | 2.97          | 9.94           | 0.28           | 5.31   |
| 0 | 9         | 5180.0 | -8.07               | 2.97          | 9.94           | 0.42           | 5.26   |
| 0 | 12        | 5180.0 | -8.11               | 2.97          | 9.94           | 0.54           | 5.34   |
| 0 | 18        | 5180.0 | -8.38               | 2.97          | 9.94           | 0.78           | 5.31   |
| 0 | 24        | 5180.0 | -8.40               | 2.97          | 9.94           | 1.00           | 5.51   |
| 0 | 36        | 5180.0 | -8.92               | 2.97          | 9.94           | 1.40           | 5.39   |
| 0 | 48        | 5180.0 | -9.07               | 2.97          | 9.94           | 1.74           | 5.58   |
| 0 | 54        | 5180.0 | -9.27               | 2.97          | 9.94           | 1.87           | 5.51   |

#### Antenna 1

|   | Data rate | Freq.  | P/M (AV)<br>Reading | Cable<br>Loss | Atten.<br>Loss | Duty<br>factor | Result      |
|---|-----------|--------|---------------------|---------------|----------------|----------------|-------------|
|   | [Mbps]    | [MHz]  | [dBm]               | [dB]          | [dB]           | [dB]           | [dBm]       |
| 1 | 6         | 5180.0 | -7.69               | 2.97          | 9.94           | 0.28           | 5.50        |
| 1 | 9         | 5180.0 | -7.83               | 2.97          | 9.94           | 0.42           | 5.50        |
| 1 | 12        | 5180.0 | -7.98               | 2.97          | 9.94           | 0.54           | 5.47        |
| 1 | 18        | 5180.0 | -8.11               | 2.97          | 9.94           | 0.78           | 5.58        |
| 1 | 24        | 5180.0 | -8.39               | 2.97          | 9.94           | 1.00           | 5.52        |
| 1 | 36        | 5180.0 | -8.86               | 2.97          | 9.94           | 1.40           | 5.45        |
| 1 | 48        | 5180.0 | -9.02               | 2.97          | 9.94           | 1.74           | <b>5.63</b> |
| 1 | 54        | 5180.0 | -9.16               | 2.97          | 9.94           | 1.87           | 5.62        |

**Worst**

Sample Calculation:

Conducted Power Result = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss + Duty Factor

**UL Japan, Inc.**

**Shonan EMC Lab.**

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## Maximum Conducted Output Power (Conducted)

(Method: PM)

Test place UL Japan, Inc. Shonan EMC Lab. No.1 Measurement Room  
Date December 15, 2020  
Temperature / Humidity 23 deg.C , 54 %RH  
Engineer Kazuya Noda  
Mode Tx, IEEE802.11n-20 (SISO), PN9,

worst antenna : 1  
worst data mode : 6 (MCS)

### [Pre check]

#### Antenna 0

|   | Mode<br>(MCS) | Freq.<br>[MHz] | P/M (AV)<br>Reading<br>[dBm] | Cable<br>Loss<br>[dB] | Atten.<br>Loss<br>[dB] | Duty<br>factor<br>[dB] | Result<br>[dBm] |
|---|---------------|----------------|------------------------------|-----------------------|------------------------|------------------------|-----------------|
| 0 | 0             | 5180.0         | -7.92                        | 2.97                  | 9.94                   | 0.30                   | 5.29            |
| 0 | 1             | 5180.0         | -8.24                        | 2.97                  | 9.94                   | 0.57                   | 5.24            |
| 0 | 2             | 5180.0         | -8.54                        | 2.97                  | 9.94                   | 0.82                   | 5.19            |
| 0 | 3             | 5180.0         | -8.39                        | 2.97                  | 9.94                   | 1.03                   | 5.55            |
| 0 | 4             | 5180.0         | -8.71                        | 2.97                  | 9.94                   | 1.40                   | 5.60            |
| 0 | 5             | 5180.0         | -9.02                        | 2.97                  | 9.94                   | 1.72                   | 5.61            |
| 0 | 6             | 5180.0         | -9.12                        | 2.97                  | 9.94                   | 1.84                   | 5.63            |
| 0 | 7             | 5180.0         | -9.32                        | 2.97                  | 9.94                   | 1.98                   | 5.57            |

#### Antenna 1

|   | Mode<br>(MCS) | Freq.<br>[MHz] | P/M (AV)<br>Reading<br>[dBm] | Cable<br>Loss<br>[dB] | Atten.<br>Loss<br>[dB] | Duty<br>factor<br>[dB] | Result<br>[dBm] |
|---|---------------|----------------|------------------------------|-----------------------|------------------------|------------------------|-----------------|
| 1 | 0             | 5180.0         | -7.70                        | 2.97                  | 9.94                   | 0.30                   | 5.51            |
| 1 | 1             | 5180.0         | -8.19                        | 2.97                  | 9.94                   | 0.57                   | 5.29            |
| 1 | 2             | 5180.0         | -8.40                        | 2.97                  | 9.94                   | 0.82                   | 5.33            |
| 1 | 3             | 5180.0         | -8.26                        | 2.97                  | 9.94                   | 1.03                   | 5.68            |
| 1 | 4             | 5180.0         | -8.64                        | 2.97                  | 9.94                   | 1.40                   | 5.67            |
| 1 | 5             | 5180.0         | -8.88                        | 2.97                  | 9.94                   | 1.72                   | 5.75            |
| 1 | 6             | 5180.0         | -8.92                        | 2.97                  | 9.94                   | 1.84                   | <b>5.83</b>     |
| 1 | 7             | 5180.0         | -9.07                        | 2.97                  | 9.94                   | 1.98                   | 5.82            |

**Worst**

Sample Calculation:

Conducted Power Result = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss + Duty Factor

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## Maximum Conducted Output Power (Conducted)

(Method: PM)

|                        |                                  |                       |
|------------------------|----------------------------------|-----------------------|
| Test place             | UL Japan, Inc. Shonan EMC Lab.   | No.1 Measurement Room |
| Date                   | December 15, 2020                |                       |
| Temperature / Humidity | 23 deg.C , 54 %RH                |                       |
| Engineer               | Kazuya Noda                      |                       |
| Mode                   | Tx, IEEE802.11ac-20 (SISO), PN9, |                       |

worst antenna : 1  
worst data mode : 3 (MCS)

### [Pre check]

#### Antenna 0

|   | Mode<br>(MCS) | Freq.<br>[MHz] | P/M (AV)<br>Reading<br>[dBm] | Cable<br>Loss<br>[dB] | Atten.<br>Loss<br>[dB] | Duty<br>factor<br>[dB] | Result<br>[dBm] |
|---|---------------|----------------|------------------------------|-----------------------|------------------------|------------------------|-----------------|
| 0 | 0             | 5180.0         | -8.04                        | 2.97                  | 9.94                   | 0.30                   | 5.17            |
| 0 | 1             | 5180.0         | -8.30                        | 2.97                  | 9.94                   | 0.57                   | 5.18            |
| 0 | 2             | 5180.0         | -8.54                        | 2.97                  | 9.94                   | 0.80                   | 5.17            |
| 0 | 3             | 5180.0         | -8.39                        | 2.97                  | 9.94                   | 1.02                   | 5.54            |
| 0 | 4             | 5180.0         | -8.92                        | 2.97                  | 9.94                   | 1.38                   | 5.37            |
| 0 | 5             | 5180.0         | -9.28                        | 2.97                  | 9.94                   | 1.67                   | 5.30            |
| 0 | 6             | 5180.0         | -9.11                        | 2.97                  | 9.94                   | 1.79                   | 5.59            |
| 0 | 7             | 5180.0         | -9.44                        | 2.97                  | 9.94                   | 1.94                   | 5.41            |
| 0 | 8             | 5180.0         | -9.53                        | 2.97                  | 9.94                   | 2.14                   | 5.52            |

#### Antenna 1

|   | Mode<br>(MCS) | Freq.<br>[MHz] | P/M (AV)<br>Reading<br>[dBm] | Cable<br>Loss<br>[dB] | Atten.<br>Loss<br>[dB] | Duty<br>factor<br>[dB] | Result<br>[dBm] |
|---|---------------|----------------|------------------------------|-----------------------|------------------------|------------------------|-----------------|
| 1 | 0             | 5180.0         | -7.83                        | 2.97                  | 9.94                   | 0.30                   | 5.38            |
| 1 | 1             | 5180.0         | -8.02                        | 2.97                  | 9.94                   | 0.57                   | 5.46            |
| 1 | 2             | 5180.0         | -8.22                        | 2.97                  | 9.94                   | 0.80                   | 5.49            |
| 1 | 3             | 5180.0         | -8.04                        | 2.97                  | 9.94                   | 1.02                   | <b>5.89</b>     |
| 1 | 4             | 5180.0         | -8.45                        | 2.97                  | 9.94                   | 1.38                   | 5.84            |
| 1 | 5             | 5180.0         | -8.93                        | 2.97                  | 9.94                   | 1.67                   | 5.65            |
| 1 | 6             | 5180.0         | -9.01                        | 2.97                  | 9.94                   | 1.79                   | 5.69            |
| 1 | 7             | 5180.0         | -9.24                        | 2.97                  | 9.94                   | 1.94                   | 5.61            |
| 1 | 8             | 5180.0         | -9.41                        | 2.97                  | 9.94                   | 2.14                   | 5.64            |

**Worst**

Sample Calculation:

Conducted Power Result = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss + Duty Factor

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## Maximum Conducted Output Power (Conducted)

(Method: PM)

Test place UL Japan, Inc. Shonan EMC Lab. No.1 Measurement Room  
Date December 15, 2020  
Temperature / Humidity 23 deg.C , 54 %RH  
Engineer Kazuya Noda  
Mode Tx, IEEE802.11n-20 (MIMO), PN9,  
worst data mode : 13 (MCS)

### [Pre check]

#### Antenna: 0

|   | Mode<br>(MCS) | Freq.<br>[MHz] | P/M (AV)<br>Reading<br>[dBm] | Cable<br>Loss<br>[dB] | Atten.<br>Loss<br>[dB] | Duty<br>factor<br>[dB] | 1 port<br>Result<br>[dBm] | Result<br>[dBm] |
|---|---------------|----------------|------------------------------|-----------------------|------------------------|------------------------|---------------------------|-----------------|
| 0 | 8             | 5180.0         | -8.32                        | 2.97                  | 9.94                   | 0.56                   | 5.15                      | 8.24            |
| 0 | 9             | 5180.0         | -8.75                        | 2.97                  | 9.94                   | 1.00                   | 5.16                      | 8.23            |
| 0 | 10            | 5180.0         | -9.08                        | 2.97                  | 9.94                   | 1.38                   | 5.21                      | 8.24            |
| 0 | 11            | 5180.0         | -9.07                        | 2.97                  | 9.94                   | 1.68                   | 5.52                      | 8.57            |
| 0 | 12            | 5180.0         | -9.75                        | 2.97                  | 9.94                   | 2.14                   | 5.30                      | 8.47            |
| 0 | 13            | 5180.0         | -10.05                       | 2.97                  | 9.94                   | 2.50                   | 5.36                      | <b>8.61</b>     |
| 0 | 14            | 5180.0         | -10.24                       | 2.97                  | 9.94                   | 2.63                   | 5.30                      | 8.54            |
| 0 | 15            | 5180.0         | -10.34                       | 2.97                  | 9.94                   | 2.75                   | 5.32                      | 8.57            |

**Worst**

#### Antenna: 1

|   | Mode<br>(MCS) | Freq.<br>[MHz] | P/M (AV)<br>Reading<br>[dBm] | Cable<br>Loss<br>[dB] | Atten.<br>Loss<br>[dB] | Duty<br>factor<br>[dB] | 1 port<br>Result<br>[dBm] |
|---|---------------|----------------|------------------------------|-----------------------|------------------------|------------------------|---------------------------|
| 1 | 8             | 5180.0         | -8.17                        | 2.97                  | 9.94                   | 0.56                   | 5.30                      |
| 1 | 9             | 5180.0         | -8.64                        | 2.97                  | 9.94                   | 1.00                   | 5.27                      |
| 1 | 10            | 5180.0         | -9.04                        | 2.97                  | 9.94                   | 1.38                   | 5.25                      |
| 1 | 11            | 5180.0         | -8.99                        | 2.97                  | 9.94                   | 1.68                   | 5.60                      |
| 1 | 12            | 5180.0         | -9.44                        | 2.97                  | 9.94                   | 2.14                   | 5.61                      |
| 1 | 13            | 5180.0         | -9.58                        | 2.97                  | 9.94                   | 2.50                   | 5.83                      |
| 1 | 14            | 5180.0         | -9.79                        | 2.97                  | 9.94                   | 2.63                   | 5.75                      |
| 1 | 15            | 5180.0         | -9.88                        | 2.97                  | 9.94                   | 2.75                   | 5.78                      |

Sample Calculation:

Conducted Power Result = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss + Duty Factor

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**Maximum Conducted Output Power (Conducted)**

(Method: PM)

Test place UL Japan, Inc. Shonan EMC Lab. No.1 Measurement Room  
 Date December 15, 2020  
 Temperature / Humidity 23 deg.C , 54 %RH  
 Engineer Kazuya Noda  
 Mode Tx, IEEE802.11ac-20 (MIMO), PN9,  
 worst data mode : 8 (MCS)

**[Pre check]****Antenna: 0**

|   | Mode<br>(MCS) | Freq.<br>[MHz] | P/M (AV)<br>Reading<br>[dBm] | Cable<br>Loss<br>[dB] | Atten.<br>Loss<br>[dB] | Duty<br>factor<br>[dB] | 1 port<br>Result<br>[dBm] | Result<br>[dBm] |
|---|---------------|----------------|------------------------------|-----------------------|------------------------|------------------------|---------------------------|-----------------|
| 0 | 0             | 5180.0         | -8.31                        | 2.97                  | 9.94                   | 0.57                   | 5.17                      | 8.23            |
| 0 | 1             | 5180.0         | -8.69                        | 2.97                  | 9.94                   | 1.01                   | 5.23                      | 8.28            |
| 0 | 2             | 5180.0         | -9.03                        | 2.97                  | 9.94                   | 1.36                   | 5.24                      | 8.36            |
| 0 | 3             | 5180.0         | -9.22                        | 2.97                  | 9.94                   | 1.66                   | 5.35                      | 8.46            |
| 0 | 4             | 5180.0         | -9.67                        | 2.97                  | 9.94                   | 2.10                   | 5.34                      | 8.54            |
| 0 | 5             | 5180.0         | -9.95                        | 2.97                  | 9.94                   | 2.44                   | 5.40                      | 8.58            |
| 0 | 6             | 5180.0         | -10.14                       | 2.97                  | 9.94                   | 2.56                   | 5.33                      | 8.51            |
| 0 | 7             | 5180.0         | -10.23                       | 2.97                  | 9.94                   | 2.69                   | 5.37                      | 8.58            |
| 0 | 8             | 5180.0         | -10.39                       | 2.97                  | 9.94                   | 2.90                   | 5.42                      | <b>8.64</b>     |

**Worst****Antenna: 1**

|   | Mode<br>(MCS) | Freq.<br>[MHz] | P/M (AV)<br>Reading<br>[dBm] | Cable<br>Loss<br>[dB] | Atten.<br>Loss<br>[dB] | Duty<br>factor<br>[dB] | 1 port<br>Result<br>[dBm] |
|---|---------------|----------------|------------------------------|-----------------------|------------------------|------------------------|---------------------------|
| 1 | 0             | 5180.0         | -8.22                        | 2.97                  | 9.94                   | 0.57                   | 5.26                      |
| 1 | 1             | 5180.0         | -8.62                        | 2.97                  | 9.94                   | 1.01                   | 5.30                      |
| 1 | 2             | 5180.0         | -8.81                        | 2.97                  | 9.94                   | 1.36                   | 5.46                      |
| 1 | 3             | 5180.0         | -9.02                        | 2.97                  | 9.94                   | 1.66                   | 5.55                      |
| 1 | 4             | 5180.0         | -9.29                        | 2.97                  | 9.94                   | 2.10                   | 5.72                      |
| 1 | 5             | 5180.0         | -9.61                        | 2.97                  | 9.94                   | 2.44                   | 5.74                      |
| 1 | 6             | 5180.0         | -9.80                        | 2.97                  | 9.94                   | 2.56                   | 5.67                      |
| 1 | 7             | 5180.0         | -9.84                        | 2.97                  | 9.94                   | 2.69                   | 5.76                      |
| 1 | 8             | 5180.0         | -9.98                        | 2.97                  | 9.94                   | 2.90                   | 5.83                      |

Sample Calculation:

Conducted Power Result = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss + Duty Factor

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## Maximum Conducted Output Power (Conducted)

(Method: PM)

Test place UL Japan, Inc. Shonan EMC Lab. No.1 Measurement Room  
 Date December 16, 2020  
 Temperature / Humidity 23 deg.C , 40 %RH  
 Engineer Takahiro Kawakami  
 Mode Tx, IEEE802.11n-40 (SISO), PN9,

worst antenna : 1  
 worst data mode : 3 (MCS)

### [Pre check]

#### Antenna 0

|   | Mode<br>(MCS) | Freq.<br>[MHz] | P/M (AV)<br>Reading<br>[dBm] | Cable<br>Loss<br>[dB] | Atten.<br>Loss<br>[dB] | Duty<br>factor<br>[dB] | Result<br>[dBm] |
|---|---------------|----------------|------------------------------|-----------------------|------------------------|------------------------|-----------------|
| 0 | 0             | 5190.0         | -8.61                        | 2.97                  | 9.94                   | 0.59                   | 4.89            |
| 0 | 1             | 5190.0         | -9.01                        | 2.97                  | 9.94                   | 1.04                   | 4.94            |
| 0 | 2             | 5190.0         | -9.38                        | 2.97                  | 9.94                   | 1.42                   | 4.95            |
| 0 | 3             | 5190.0         | -9.63                        | 2.97                  | 9.94                   | 1.72                   | 5.00            |
| 0 | 4             | 5190.0         | -10.13                       | 2.97                  | 9.94                   | 2.14                   | 4.92            |
| 0 | 5             | 5190.0         | -10.58                       | 2.97                  | 9.94                   | 2.59                   | 4.92            |
| 0 | 6             | 5190.0         | -10.68                       | 2.97                  | 9.94                   | 2.73                   | 4.96            |
| 0 | 7             | 5190.0         | -10.86                       | 2.97                  | 9.94                   | 2.80                   | 4.85            |

#### Antenna 1

|   | Mode<br>(MCS) | Freq.<br>[MHz] | P/M (AV)<br>Reading<br>[dBm] | Cable<br>Loss<br>[dB] | Atten.<br>Loss<br>[dB] | Duty<br>factor<br>[dB] | Result<br>[dBm] |
|---|---------------|----------------|------------------------------|-----------------------|------------------------|------------------------|-----------------|
| 1 | 0             | 5190.0         | -8.33                        | 2.97                  | 9.94                   | 0.59                   | 5.17            |
| 1 | 1             | 5190.0         | -8.68                        | 2.97                  | 9.94                   | 1.04                   | 5.27            |
| 1 | 2             | 5190.0         | -9.04                        | 2.97                  | 9.94                   | 1.42                   | 5.29            |
| 1 | 3             | 5190.0         | -9.22                        | 2.97                  | 9.94                   | 1.72                   | <b>5.41</b>     |
| 1 | 4             | 5190.0         | -9.71                        | 2.97                  | 9.94                   | 2.14                   | 5.34            |
| 1 | 5             | 5190.0         | -10.18                       | 2.97                  | 9.94                   | 2.59                   | 5.32            |
| 1 | 6             | 5190.0         | -10.27                       | 2.97                  | 9.94                   | 2.73                   | 5.37            |
| 1 | 7             | 5190.0         | -10.62                       | 2.97                  | 9.94                   | 2.80                   | 5.09            |

**Worst**

Sample Calculation:

Conducted Power Result = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss + Duty Factor

\*The power setting was measured by default (6.0 dBm).

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## Maximum Conducted Output Power (Conducted)

(Method: PM)

|                        |                                           |                       |
|------------------------|-------------------------------------------|-----------------------|
| Test place             | UL Japan, Inc. Shonan EMC Lab.            | No.1 Measurement Room |
| Date                   | December 16, 2020                         |                       |
| Temperature / Humidity | 23 deg.C , 40 %RH                         |                       |
| Engineer               | Takahiro Kawakami                         |                       |
| Mode                   | Tx, IEEE802.11ac-40 (SISO), PN9, 5190 MHz |                       |

worst antenna : 1  
worst data mode : 3 (MCS)

### [Pre check]

#### Antenna 0

|   | Mode  | Freq.  | P/M (AV)<br>Reading | Cable<br>Loss | Atten.<br>Loss | Duty<br>factor | Result |
|---|-------|--------|---------------------|---------------|----------------|----------------|--------|
|   | (MCS) | [MHz]  | [dBm]               | [dB]          | [dB]           | [dB]           | [dBm]  |
| 0 | 0     | 5190.0 | -8.46               | 2.97          | 9.94           | 0.58           | 5.03   |
| 0 | 1     | 5190.0 | -9.12               | 2.97          | 9.94           | 1.04           | 4.83   |
| 0 | 2     | 5190.0 | -9.48               | 2.97          | 9.94           | 1.40           | 4.83   |
| 0 | 3     | 5190.0 | -9.62               | 2.97          | 9.94           | 1.70           | 4.99   |
| 0 | 4     | 5190.0 | -10.02              | 2.97          | 9.94           | 2.15           | 5.04   |
| 0 | 5     | 5190.0 | -10.44              | 2.97          | 9.94           | 2.53           | 5.00   |
| 0 | 6     | 5190.0 | -10.56              | 2.97          | 9.94           | 2.64           | 4.99   |
| 0 | 7     | 5190.0 | -10.69              | 2.97          | 9.94           | 2.78           | 5.00   |
| 0 | 8     | 5190.0 | -10.92              | 2.97          | 9.94           | 2.97           | 4.96   |
| 0 | 9     | 5190.0 | -11.10              | 2.97          | 9.94           | 3.15           | 4.96   |

#### Antenna 1

|   | Mode  | Freq.  | P/M (AV)<br>Reading | Cable<br>Loss | Atten.<br>Loss | Duty<br>factor | Result      |
|---|-------|--------|---------------------|---------------|----------------|----------------|-------------|
|   | (MCS) | [MHz]  | [dBm]               | [dB]          | [dB]           | [dB]           | [dBm]       |
| 1 | 0     | 5190.0 | -8.41               | 2.97          | 9.94           | 0.58           | 5.08        |
| 1 | 1     | 5190.0 | -8.87               | 2.97          | 9.94           | 1.04           | 5.08        |
| 1 | 2     | 5190.0 | -9.18               | 2.97          | 9.94           | 1.40           | 5.13        |
| 1 | 3     | 5190.0 | -9.19               | 2.97          | 9.94           | 1.70           | <b>5.42</b> |
| 1 | 4     | 5190.0 | -9.79               | 2.97          | 9.94           | 2.15           | 5.27        |
| 1 | 5     | 5190.0 | -10.26              | 2.97          | 9.94           | 2.53           | 5.18        |
| 1 | 6     | 5190.0 | -10.31              | 2.97          | 9.94           | 2.64           | 5.24        |
| 1 | 7     | 5190.0 | -10.48              | 2.97          | 9.94           | 2.78           | 5.21        |
| 1 | 8     | 5190.0 | -10.63              | 2.97          | 9.94           | 2.97           | 5.25        |
| 1 | 9     | 5190.0 | -10.86              | 2.97          | 9.94           | 3.15           | 5.20        |

**Worst**

Sample Calculation:

Conducted Power Result = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss + Duty Factor

\*The power setting was measured by default (6.0 dBm).

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## Maximum Conducted Output Power (Conducted)

(Method: PM)

Test place UL Japan, Inc. Shonan EMC Lab. No.1 Measurement Room  
 Date December 16, 2020  
 Temperature / Humidity 23 deg.C , 40 %RH  
 Engineer Takahiro Kawakami  
 Mode Tx, IEEE802.11n-40 (MIMO), PN9  
 worst data mode : 14 (MCS)

### [Pre check]

#### Antenna: 0

|   | Mode<br>(MCS) | Freq.<br>[MHz] | P/M (AV)<br>Reading<br>[dBm] | Cable<br>Loss<br>[dB] | Atten.<br>Loss<br>[dB] | Duty<br>factor<br>[dB] | 1 port<br>Result<br>[dBm] | Result<br>[dBm] |
|---|---------------|----------------|------------------------------|-----------------------|------------------------|------------------------|---------------------------|-----------------|
| 0 | 8             | 5190.0         | -9.00                        | 2.97                  | 9.94                   | 1.03                   | 4.94                      | 8.04            |
| 0 | 9             | 5190.0         | -9.79                        | 2.97                  | 9.94                   | 1.67                   | 4.79                      | 7.89            |
| 0 | 10            | 5190.0         | -10.29                       | 2.97                  | 9.94                   | 2.13                   | 4.75                      | 7.93            |
| 0 | 11            | 5190.0         | -10.44                       | 2.97                  | 9.94                   | 2.49                   | 4.96                      | 8.08            |
| 0 | 12            | 5190.0         | -11.06                       | 2.97                  | 9.94                   | 2.97                   | 4.82                      | 8.07            |
| 0 | 13            | 5190.0         | -11.29                       | 2.97                  | 9.94                   | 3.33                   | 4.95                      | 8.00            |
| 0 | 14            | 5190.0         | -11.40                       | 2.97                  | 9.94                   | 3.51                   | 5.02                      | <b>8.14</b>     |
| 0 | 15            | 5190.0         | -11.71                       | 2.97                  | 9.94                   | 3.55                   | 4.75                      | 7.90            |

Worst

#### Antenna: 1

|   | Mode<br>(MCS) | Freq.<br>[MHz] | P/M (AV)<br>Reading<br>[dBm] | Cable<br>Loss<br>[dB] | Atten.<br>Loss<br>[dB] | Duty<br>factor<br>[dB] | 1 port<br>Result<br>[dBm] |
|---|---------------|----------------|------------------------------|-----------------------|------------------------|------------------------|---------------------------|
| 1 | 8             | 5190.0         | -8.83                        | 2.97                  | 9.94                   | 1.03                   | 5.11                      |
| 1 | 9             | 5190.0         | -9.62                        | 2.97                  | 9.94                   | 1.67                   | 4.96                      |
| 1 | 10            | 5190.0         | -9.95                        | 2.97                  | 9.94                   | 2.13                   | 5.09                      |
| 1 | 11            | 5190.0         | -10.22                       | 2.97                  | 9.94                   | 2.49                   | 5.18                      |
| 1 | 12            | 5190.0         | -10.60                       | 2.97                  | 9.94                   | 2.97                   | 5.28                      |
| 1 | 13            | 5190.0         | -11.21                       | 2.97                  | 9.94                   | 3.33                   | 5.03                      |
| 1 | 14            | 5190.0         | -11.18                       | 2.97                  | 9.94                   | 3.51                   | 5.24                      |
| 1 | 15            | 5190.0         | -11.44                       | 2.97                  | 9.94                   | 3.55                   | 5.02                      |

Sample Calculation:

Conducted Power Result = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss + Duty Factor

\*The power setting was measured by default (6.0 dBm).

**UL Japan, Inc.**

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## Maximum Conducted Output Power (Conducted)

(Method: PM)

Test place UL Japan, Inc. Shonan EMC Lab. No.1 Measurement Room  
 Date December 16, 2020  
 Temperature / Humidity 25 deg.C , 35 %RH  
 Engineer Kazuya Noda  
 Mode Tx, IEEE802.11ac-40 (MIMO), PN9  
 worst data mode : 5 (MCS)

### [Pre check]

#### Antenna: 0

|   | Mode<br>(MCS) | Freq.<br>[MHz] | P/M (AV)<br>Reading<br>[dBm] | Cable<br>Loss<br>[dB] | Atten.<br>Loss<br>[dB] | Duty<br>factor<br>[dB] | 1 port<br>Result<br>[dBm] | Result<br>[dBm] |
|---|---------------|----------------|------------------------------|-----------------------|------------------------|------------------------|---------------------------|-----------------|
| 0 | 0             | 5190.0         | -8.99                        | 2.97                  | 9.94                   | 1.02                   | 4.94                      | 8.03            |
| 0 | 1             | 5190.0         | -9.63                        | 2.97                  | 9.94                   | 1.65                   | 4.93                      | 7.96            |
| 0 | 2             | 5190.0         | -10.31                       | 2.97                  | 9.94                   | 2.11                   | 4.71                      | 7.90            |
| 0 | 3             | 5190.0         | -10.48                       | 2.97                  | 9.94                   | 2.48                   | 4.91                      | 8.12            |
| 0 | 4             | 5190.0         | -10.93                       | 2.97                  | 9.94                   | 2.88                   | 4.86                      | 8.10            |
| 0 | 5             | 5190.0         | -11.15                       | 2.97                  | 9.94                   | 3.25                   | 5.01                      | <b>8.17</b>     |
| 0 | 6             | 5190.0         | -11.32                       | 2.97                  | 9.94                   | 3.36                   | 4.95                      | 8.13            |
| 0 | 7             | 5190.0         | -11.48                       | 2.97                  | 9.94                   | 3.42                   | 4.85                      | 8.10            |
| 0 | 8             | 5190.0         | -11.64                       | 2.97                  | 9.94                   | 3.60                   | 4.87                      | 8.03            |
| 0 | 9             | 5190.0         | -11.80                       | 2.97                  | 9.94                   | 3.74                   | 4.85                      | 7.98            |

Worst

#### Antenna: 1

|   | Mode<br>(MCS) | Freq.<br>[MHz] | P/M (AV)<br>Reading<br>[dBm] | Cable<br>Loss<br>[dB] | Atten.<br>Loss<br>[dB] | Duty<br>factor<br>[dB] | 1 port<br>Result<br>[dBm] |
|---|---------------|----------------|------------------------------|-----------------------|------------------------|------------------------|---------------------------|
| 1 | 0             | 5190.0         | -8.83                        | 2.97                  | 9.94                   | 1.02                   | 5.10                      |
| 1 | 1             | 5190.0         | -9.60                        | 2.97                  | 9.94                   | 1.65                   | 4.96                      |
| 1 | 2             | 5190.0         | -9.95                        | 2.97                  | 9.94                   | 2.11                   | 5.07                      |
| 1 | 3             | 5190.0         | -10.08                       | 2.97                  | 9.94                   | 2.48                   | 5.31                      |
| 1 | 4             | 5190.0         | -10.49                       | 2.97                  | 9.94                   | 2.88                   | 5.30                      |
| 1 | 5             | 5190.0         | -10.85                       | 2.97                  | 9.94                   | 3.25                   | 5.31                      |
| 1 | 6             | 5190.0         | -10.99                       | 2.97                  | 9.94                   | 3.36                   | 5.28                      |
| 1 | 7             | 5190.0         | -11.02                       | 2.97                  | 9.94                   | 3.42                   | 5.31                      |
| 1 | 8             | 5190.0         | -11.35                       | 2.97                  | 9.94                   | 3.60                   | 5.16                      |
| 1 | 9             | 5190.0         | -11.56                       | 2.97                  | 9.94                   | 3.74                   | 5.09                      |

Sample Calculation:

Conducted Power Result = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss + Duty Factor

\*The power setting was measured by default (6.0 dBm).

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## Maximum Conducted Output Power (Conducted)

(Method: PM)

|                        |                                                     |                       |
|------------------------|-----------------------------------------------------|-----------------------|
| Test place             | UL Japan, Inc. Shonan EMC Lab.                      | No.1 Measurement Room |
| Date                   | December 16, 2020                                   |                       |
| Temperature / Humidity | 25 deg.C , 35 %RH                                   |                       |
| Engineer               | Kazuya Noda                                         |                       |
| Mode                   | Tx, IEEE802.11ac-80 (SISO), PN9, 5210 MHz, 5290 MHz |                       |

|                   |         |
|-------------------|---------|
| worst antenna :   | 1       |
| worst data mode : | 4 (MCS) |

### [Pre check]

#### Antenna 0

|   | Mode  | Freq.  | P/M (AV)<br>Reading | Cable<br>Loss | Atten.<br>Loss | Duty<br>factor | Result |
|---|-------|--------|---------------------|---------------|----------------|----------------|--------|
|   | (MCS) | [MHz]  | [dBm]               | [dB]          | [dB]           | [dB]           | [dBm]  |
| 0 | 0     | 5210.0 | -9.29               | 2.97          | 9.94           | 1.09           | 4.71   |
| 0 | 1     | 5210.0 | -9.98               | 2.97          | 9.94           | 1.77           | 4.70   |
| 0 | 2     | 5210.0 | -10.53              | 2.97          | 9.94           | 2.22           | 4.60   |
| 0 | 3     | 5210.0 | -10.37              | 2.97          | 9.94           | 2.57           | 5.11   |
| 0 | 4     | 5210.0 | -10.85              | 2.97          | 9.94           | 3.06           | 5.12   |
| 0 | 5     | 5210.0 | -11.18              | 2.97          | 9.94           | 3.31           | 5.04   |
| 0 | 6     | 5210.0 | -11.36              | 2.97          | 9.94           | 3.42           | 4.97   |
| 0 | 7     | 5210.0 | -11.42              | 2.97          | 9.94           | 3.55           | 5.04   |
| 0 | 8     | 5210.0 | -11.52              | 2.97          | 9.94           | 3.71           | 5.10   |
| 0 | 9     | 5210.0 | -11.71              | 2.97          | 9.94           | 3.82           | 5.02   |

#### Antenna 1

|   | Mode  | Freq.  | P/M (AV)<br>Reading | Cable<br>Loss | Atten.<br>Loss | Duty<br>factor | Result      |
|---|-------|--------|---------------------|---------------|----------------|----------------|-------------|
|   | (MCS) | [MHz]  | [dBm]               | [dB]          | [dB]           | [dB]           | [dBm]       |
| 1 | 0     | 5210.0 | -9.16               | 2.97          | 9.94           | 1.09           | 4.84        |
| 1 | 1     | 5210.0 | -9.81               | 2.97          | 9.94           | 1.77           | 4.87        |
| 1 | 2     | 5210.0 | -10.27              | 2.97          | 9.94           | 2.22           | 4.86        |
| 1 | 3     | 5210.0 | -10.35              | 2.97          | 9.94           | 2.57           | 5.13        |
| 1 | 4     | 5210.0 | -10.78              | 2.97          | 9.94           | 3.06           | <b>5.19</b> |
| 1 | 5     | 5210.0 | -11.05              | 2.97          | 9.94           | 3.31           | 5.17        |
| 1 | 6     | 5210.0 | -11.27              | 2.97          | 9.94           | 3.42           | 5.06        |
| 1 | 7     | 5210.0 | -11.28              | 2.97          | 9.94           | 3.55           | 5.18        |
| 1 | 8     | 5210.0 | -11.45              | 2.97          | 9.94           | 3.71           | 5.17        |
| 1 | 9     | 5210.0 | -11.61              | 2.97          | 9.94           | 3.82           | 5.12        |

**Worst**

Sample Calculation:

Conducted Power Result = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss + Duty Factor

\*The power setting was measured by default (6.0 dBm).

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## Maximum Conducted Output Power (Conducted)

(Method: PM)

Test place UL Japan, Inc. Shonan EMC Lab. No.1 Measurement Room  
 Date December 17, 2020  
 Temperature / Humidity 23 deg.C , 52 %RH  
 Engineer Kazuya Noda  
 Mode Tx, IEEE802.11ac-80 (MIMO), PN9,  
 worst data mode : 4 (MCS)

### [Pre check]

#### Antenna: 0

|   | Mode<br>(MCS) | Freq.<br>[MHz] | P/M (AV)<br>Reading<br>[dBm] | Cable<br>Loss<br>[dB] | Atten.<br>Loss<br>[dB] | Duty<br>factor<br>[dB] | 1 port<br>Result<br>[dBm] | Result<br>[dBm] |
|---|---------------|----------------|------------------------------|-----------------------|------------------------|------------------------|---------------------------|-----------------|
| 0 | 0             | 5210.0         | -9.73                        | 2.97                  | 9.94                   | 1.73                   | 4.91                      | 7.93            |
| 0 | 1             | 5210.0         | -10.70                       | 2.97                  | 9.94                   | 2.49                   | 4.70                      | 7.79            |
| 0 | 2             | 5210.0         | -11.08                       | 2.97                  | 9.94                   | 2.92                   | 4.75                      | 7.83            |
| 0 | 3             | 5210.0         | -11.09                       | 2.97                  | 9.94                   | 3.20                   | 5.02                      | 8.15            |
| 0 | 4             | 5210.0         | -11.37                       | 2.97                  | 9.94                   | 3.55                   | 5.09                      | <b>8.22</b>     |
| 0 | 5             | 5210.0         | -11.67                       | 2.97                  | 9.94                   | 3.82                   | 5.06                      | 8.14            |
| 0 | 6             | 5210.0         | -11.89                       | 2.97                  | 9.94                   | 3.89                   | 4.91                      | 8.10            |
| 0 | 7             | 5210.0         | -11.90                       | 2.97                  | 9.94                   | 3.98                   | 4.99                      | 8.12            |
| 0 | 8             | 5210.0         | -11.91                       | 2.97                  | 9.94                   | 3.98                   | 4.98                      | 8.12            |
| 0 | 9             | 5210.0         | -12.15                       | 2.97                  | 9.94                   | 4.15                   | 4.91                      | 8.09            |

Worst

#### Antenna: 1

|   | Mode<br>(MCS) | Freq.<br>[MHz] | P/M (AV)<br>Reading<br>[dBm] | Cable<br>Loss<br>[dB] | Atten.<br>Loss<br>[dB] | Duty<br>factor<br>[dB] | 1 port<br>Result<br>[dBm] |
|---|---------------|----------------|------------------------------|-----------------------|------------------------|------------------------|---------------------------|
| 1 | 0             | 5210.0         | -9.72                        | 2.97                  | 9.94                   | 1.73                   | 4.92                      |
| 1 | 1             | 5210.0         | -10.54                       | 2.97                  | 9.94                   | 2.49                   | 4.86                      |
| 1 | 2             | 5210.0         | -10.94                       | 2.97                  | 9.94                   | 2.92                   | 4.89                      |
| 1 | 3             | 5210.0         | -10.86                       | 2.97                  | 9.94                   | 3.20                   | 5.25                      |
| 1 | 4             | 5210.0         | -11.14                       | 2.97                  | 9.94                   | 3.55                   | 5.32                      |
| 1 | 5             | 5210.0         | -11.54                       | 2.97                  | 9.94                   | 3.82                   | 5.19                      |
| 1 | 6             | 5210.0         | -11.53                       | 2.97                  | 9.94                   | 3.89                   | 5.27                      |
| 1 | 7             | 5210.0         | -11.66                       | 2.97                  | 9.94                   | 3.98                   | 5.23                      |
| 1 | 8             | 5210.0         | -11.65                       | 2.97                  | 9.94                   | 3.98                   | 5.24                      |
| 1 | 9             | 5210.0         | -11.81                       | 2.97                  | 9.94                   | 4.15                   | 5.25                      |

Sample Calculation:

Conducted Power Result = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss + Duty Factor

\*The power setting was measured by default (6.0 dBm).

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Test place UL Japan, Inc. Shonan EMC Lab. No.1 Measurement Room  
 Date December 14, 2020  
 Temperature / Humidity 25 deg.C , 31 %RH  
 Engineer Kazuya Noda

## Maximum Conducted Output Power (Conducted)

(Reference) (duty chart)

Tx, IEEE802.11a, PN9, worst antenna :1



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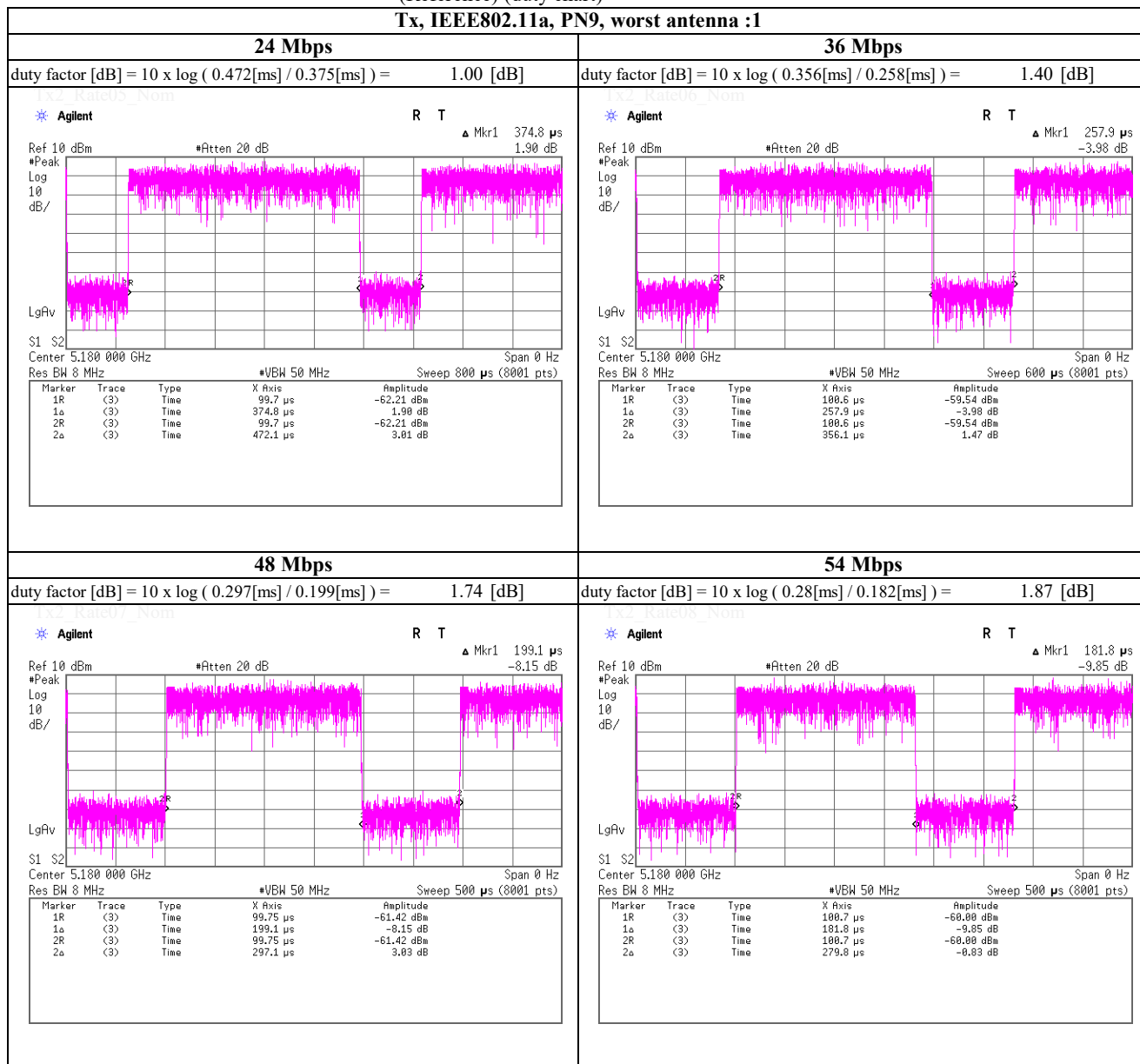
Facsimile : +81 463 50 6401

Test place UL Japan, Inc. Shonan EMC Lab. No.1 Measurement Room  
 Date December 14, 2020  
 Temperature / Humidity 25 deg.C , 31 %RH  
 Engineer Kazuya Noda

## Maximum Conducted Output Power (Conducted)

(Reference) (duty chart)

Tx, IEEE802.11a, PN9, worst antenna :1



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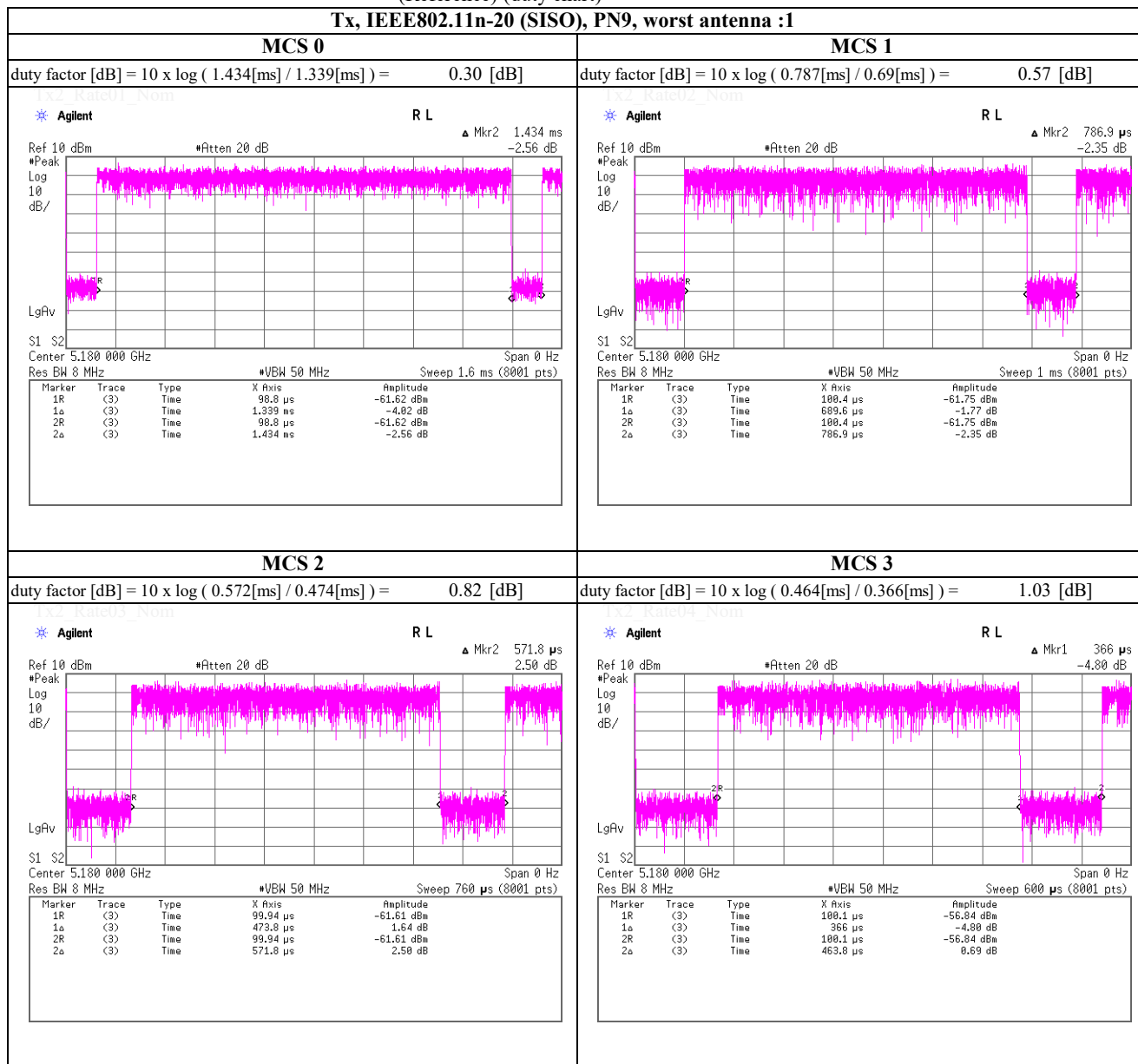
Facsimile : +81 463 50 6401

Test place UL Japan, Inc. Shonan EMC Lab. No.1 Measurement Room  
 Date December 15, 2020  
 Temperature / Humidity 23 deg.C , 54 %RH  
 Engineer Kazuya Noda

## Maximum Conducted Output Power (Conducted)

(Reference) (duty chart)

Tx, IEEE802.11n-20 (SISO), PN9, worst antenna :1



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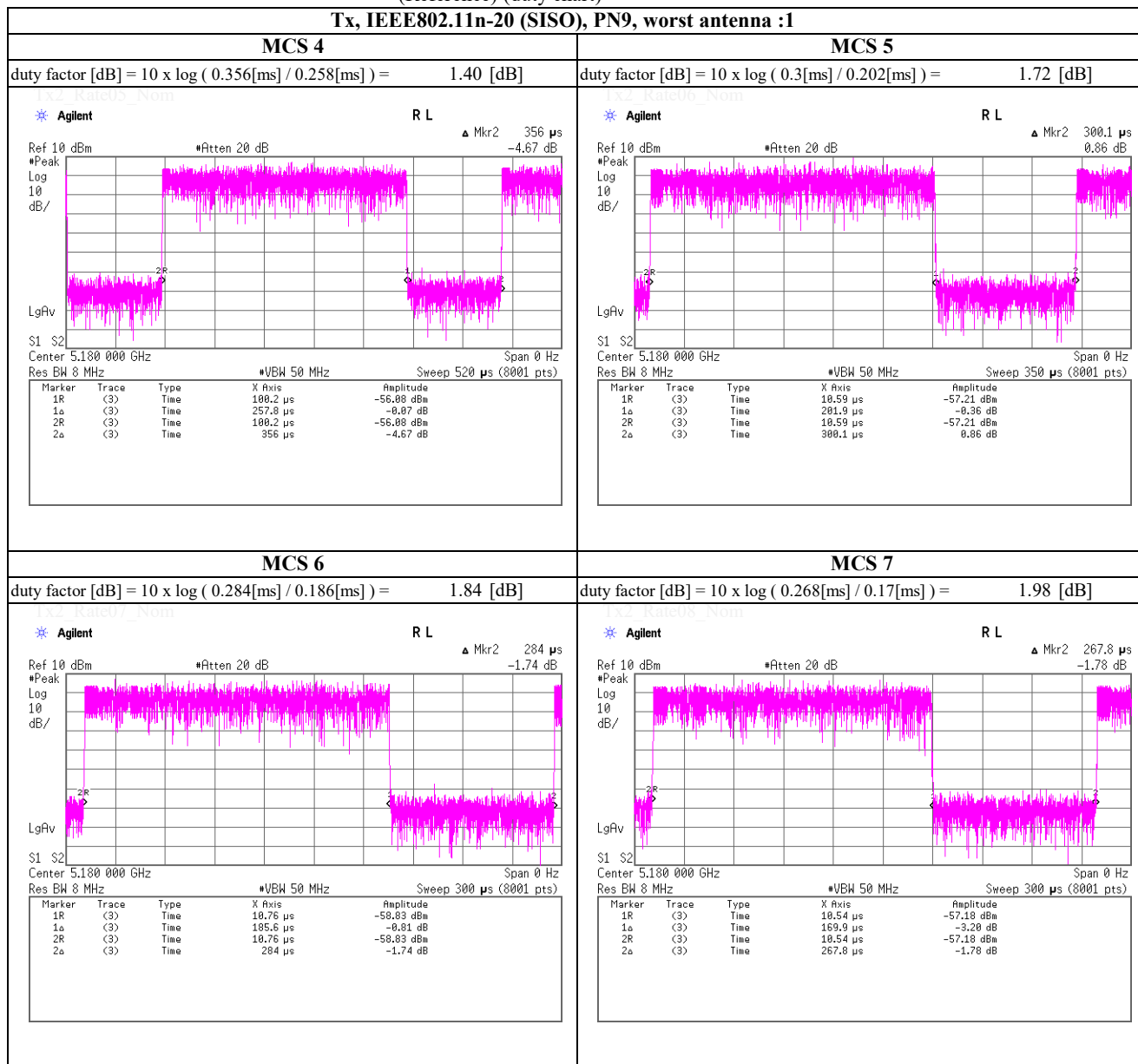
Facsimile : +81 463 50 6401

Test place UL Japan, Inc. Shonan EMC Lab. No.1 Measurement Room  
 Date December 15, 2020  
 Temperature / Humidity 23 deg.C , 54 %RH  
 Engineer Kazuya Noda

## Maximum Conducted Output Power (Conducted)

(Reference) (duty chart)

**Tx, IEEE802.11n-20 (SISO), PN9, worst antenna :1**



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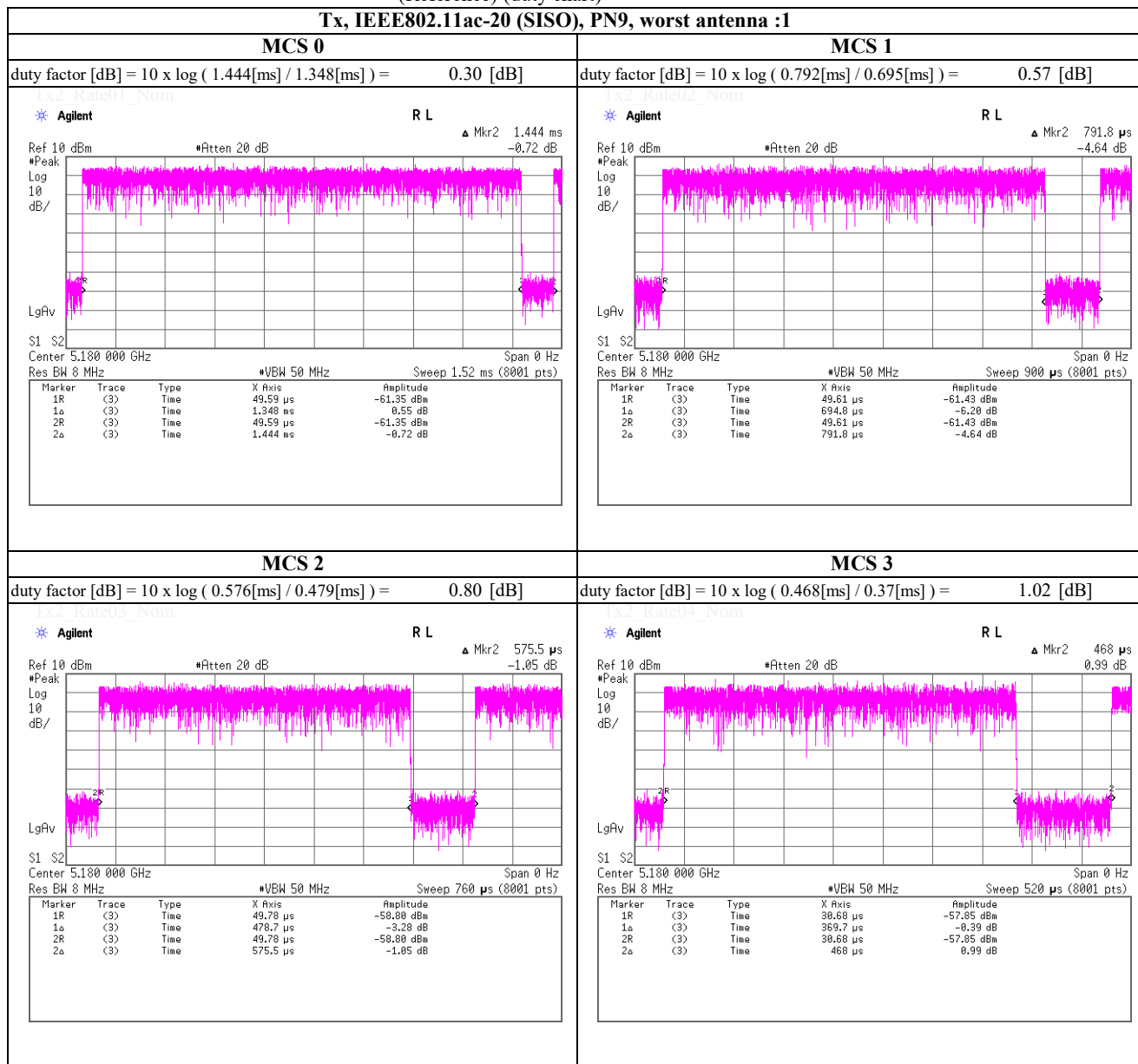
Facsimile : +81 463 50 6401

Test place UL Japan, Inc. Shonan EMC Lab. No.1 Measurement Room  
Date December 15, 2020  
Temperature / Humidity 23 deg.C , 54 %RH  
Engineer Kazuya Noda

## Maximum Conducted Output Power (Conducted)

(Reference) (duty chart)

Tx, IEEE802.11ac-20 (SISO), PN9, worst antenna :1

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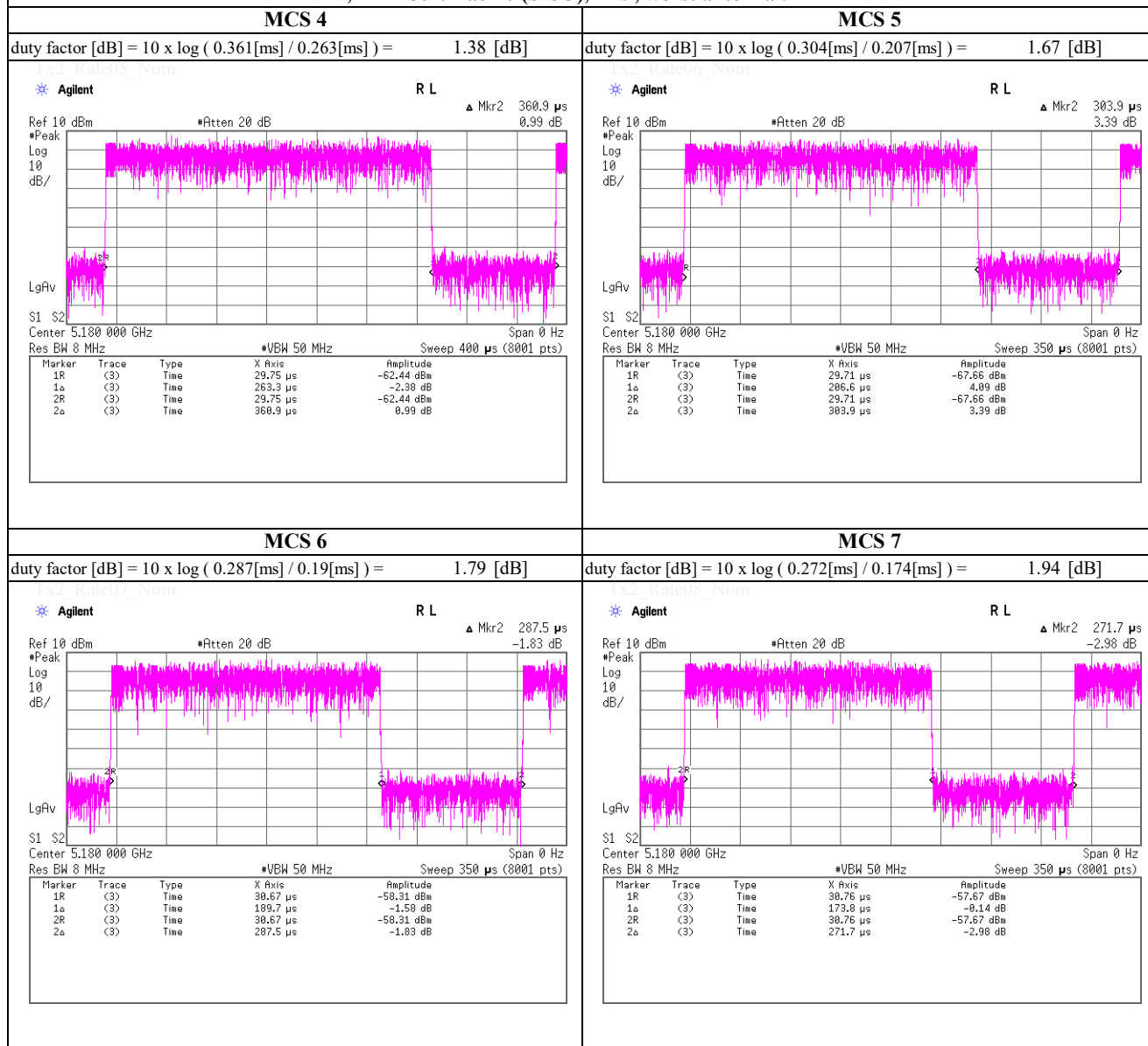
Facsimile : +81 463 50 6401

Test place UL Japan, Inc. Shonan EMC Lab. No.1 Measurement Room  
 Date December 15, 2020  
 Temperature / Humidity 23 deg.C , 54 %RH  
 Engineer Kazuya Noda

## Maximum Conducted Output Power (Conducted)

(Reference) (duty chart)

**Tx, IEEE802.11ac-20 (SISO), PN9, worst antenna :1**



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No.1 Measurement Room

December 15, 2020

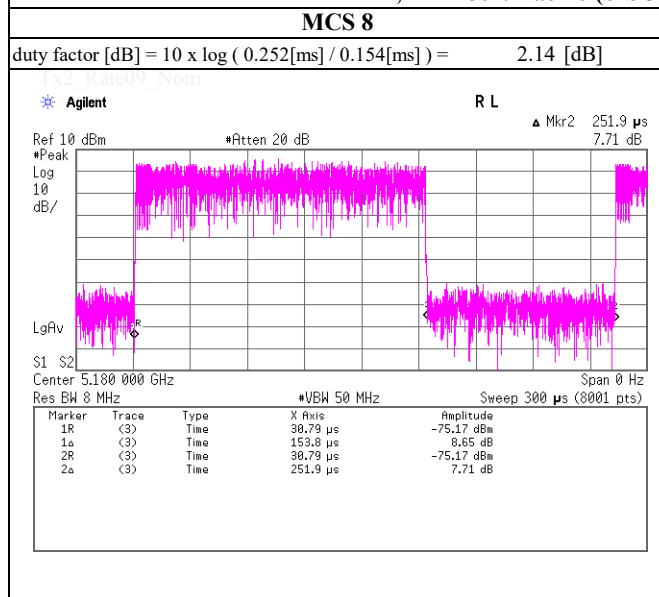
23 deg.C , 54 %RH

Kazuya Noda

### Maximum Conducted Output Power (Conducted)

(Reference) (duty chart)

**Tx, IEEE802.11ac-20 (SISO), PN9, worst antenna :1**



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Test place UL Japan, Inc. Shonan EMC Lab. No.1 Measurement Room  
 Date December 15, 2020  
 Temperature / Humidity 23 deg.C , 54 %RH  
 Engineer Kazuya Noda

## Maximum Conducted Output Power (Conducted)

(Reference) (duty chart)



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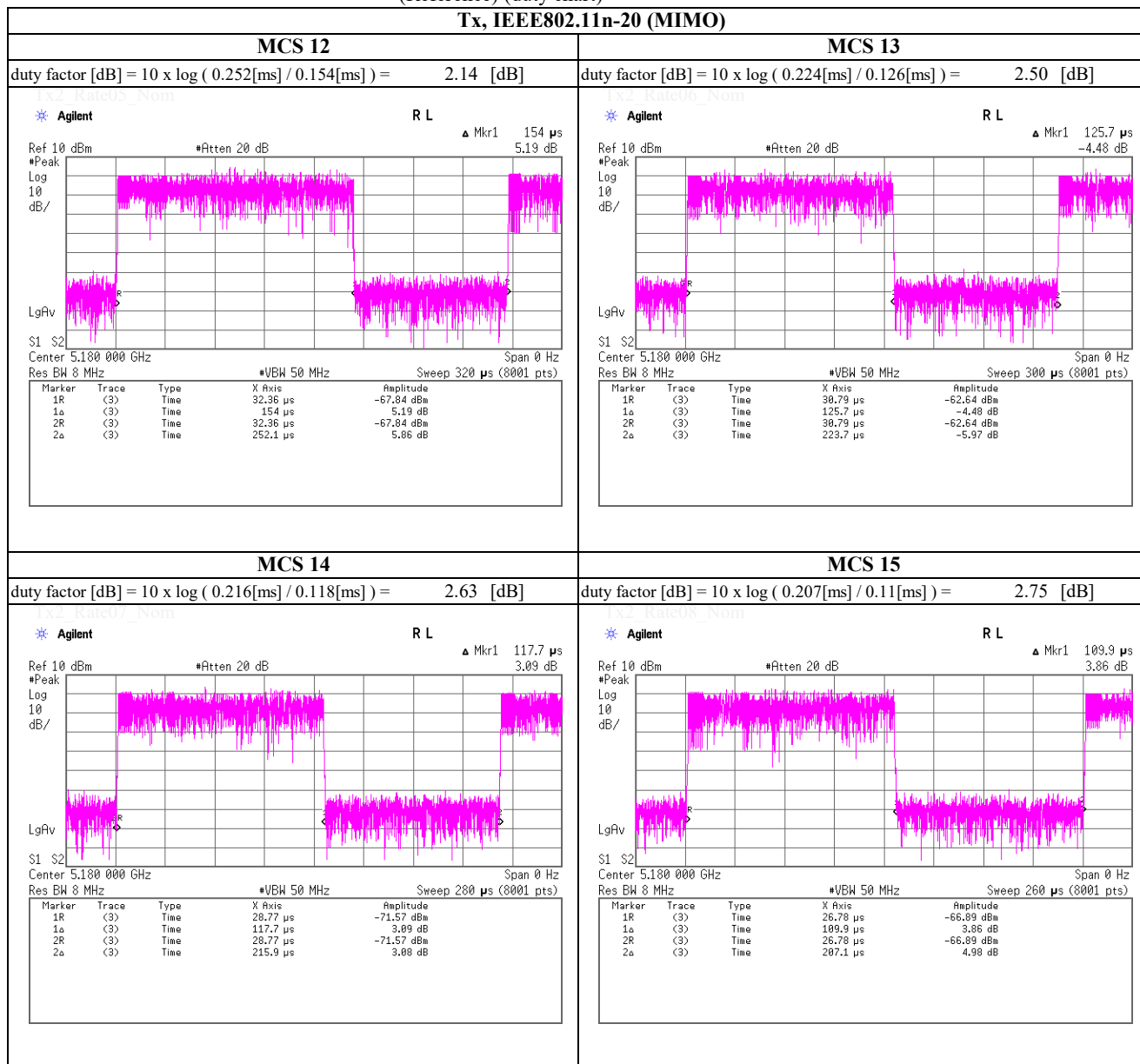
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Facsimile : +81 463 50 6401

Test place UL Japan, Inc. Shonan EMC Lab. No.1 Measurement Room  
 Date December 15, 2020  
 Temperature / Humidity 23 deg.C , 54 %RH  
 Engineer Kazuya Noda

## Maximum Conducted Output Power (Conducted)

(Reference) (duty chart)



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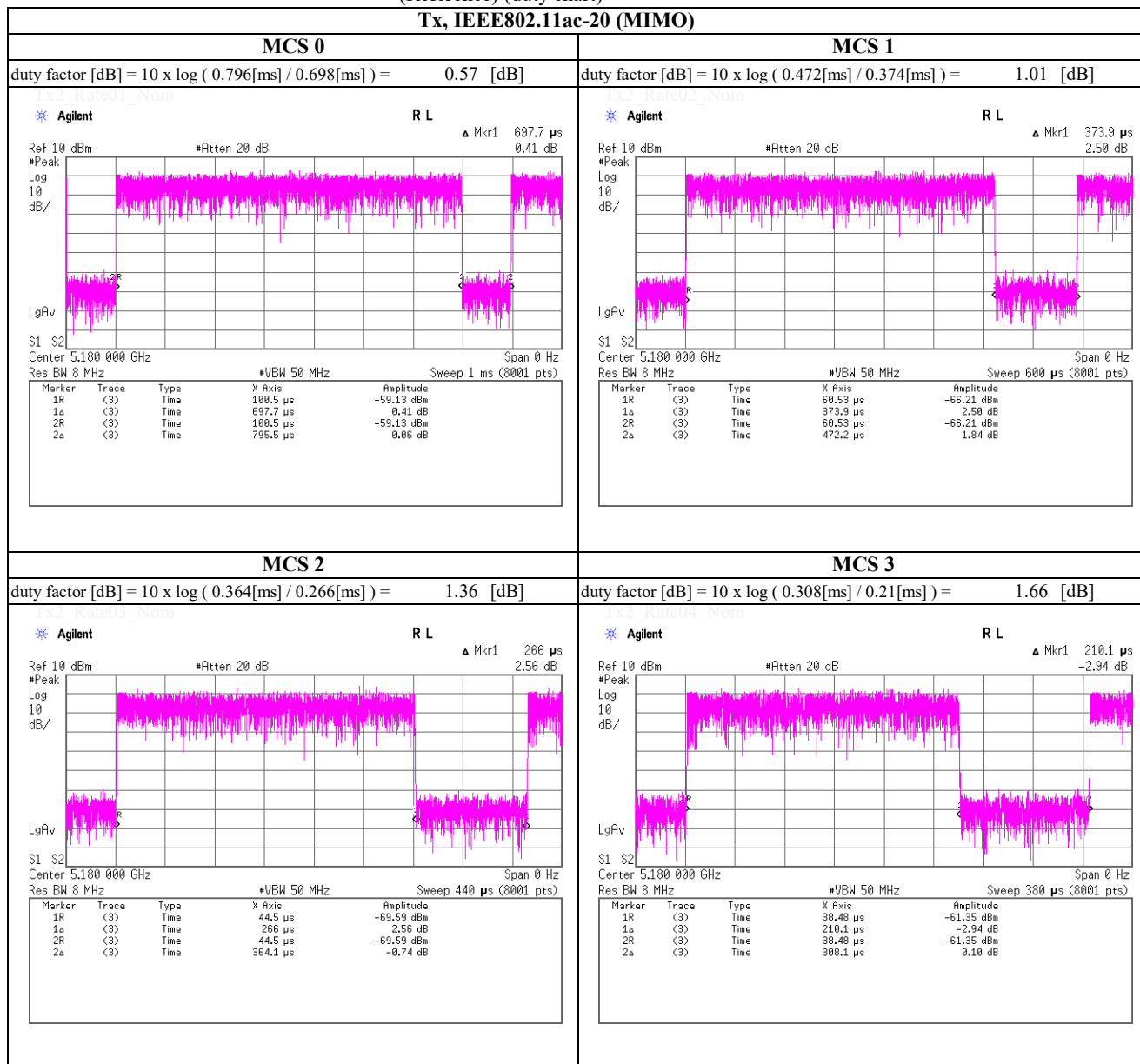
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Facsimile : +81 463 50 6401

Test place UL Japan, Inc. Shonan EMC Lab. No.1 Measurement Room  
 Date December 15, 2020  
 Temperature / Humidity 23 deg.C , 54 %RH  
 Engineer Kazuya Noda

## Maximum Conducted Output Power (Conducted)

(Reference) (duty chart)



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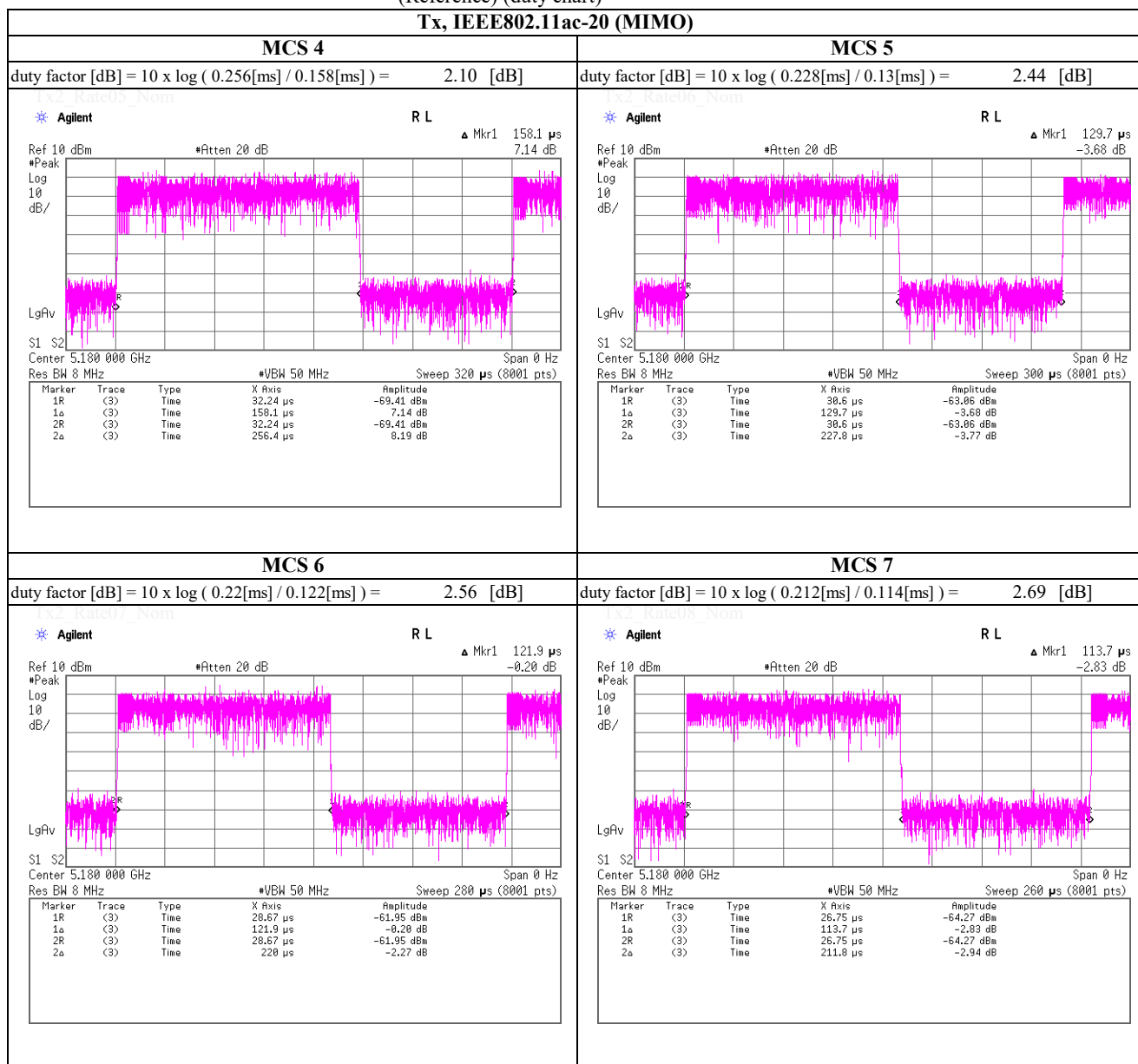
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Facsimile : +81 463 50 6401

Test place UL Japan, Inc. Shonan EMC Lab. No.1 Measurement Room  
 Date December 15, 2020  
 Temperature / Humidity 23 deg.C , 54 %RH  
 Engineer Kazuya Noda

## Maximum Conducted Output Power (Conducted)

(Reference) (duty chart)



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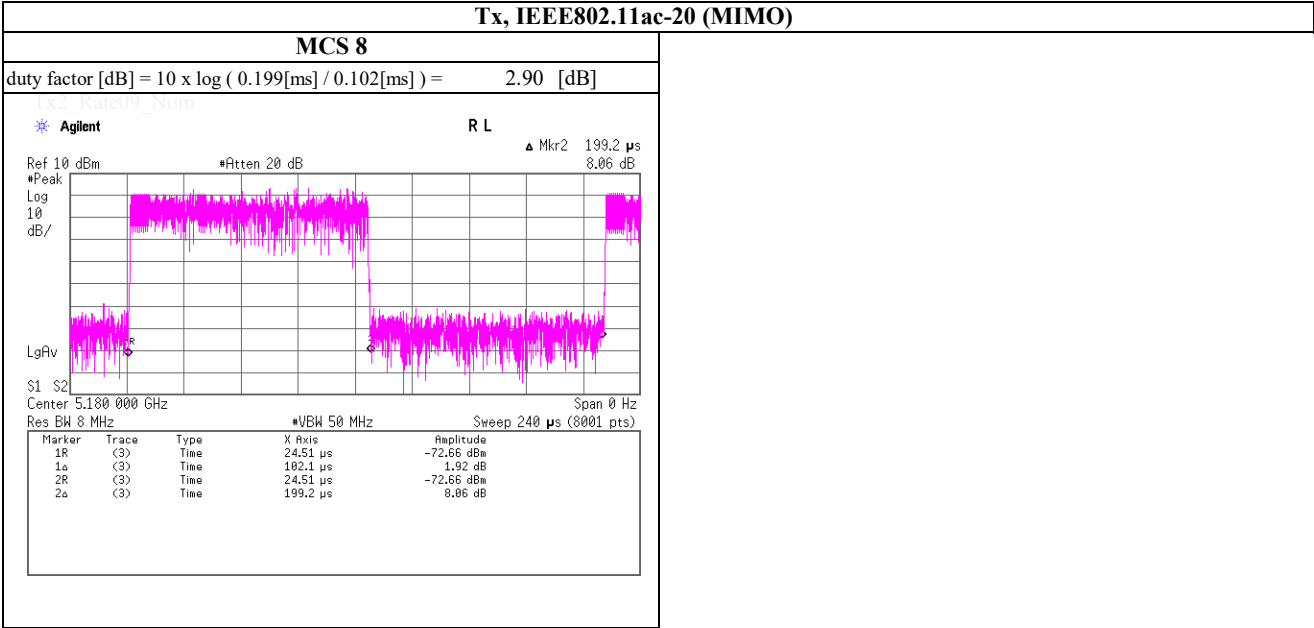
Telephone : +81 463 50 6400

Facsimile : +81 463 50 6401

Test place           UL Japan, Inc. Shonan EMC Lab.       No.1 Measurement Room  
Date                 December 15, 2020  
Temperature / Humidity   23 deg.C       , 54 %RH  
Engineer             Kazuya Noda

**Maximum Conducted Output Power (Conducted)**

(Reference) (duty chart)

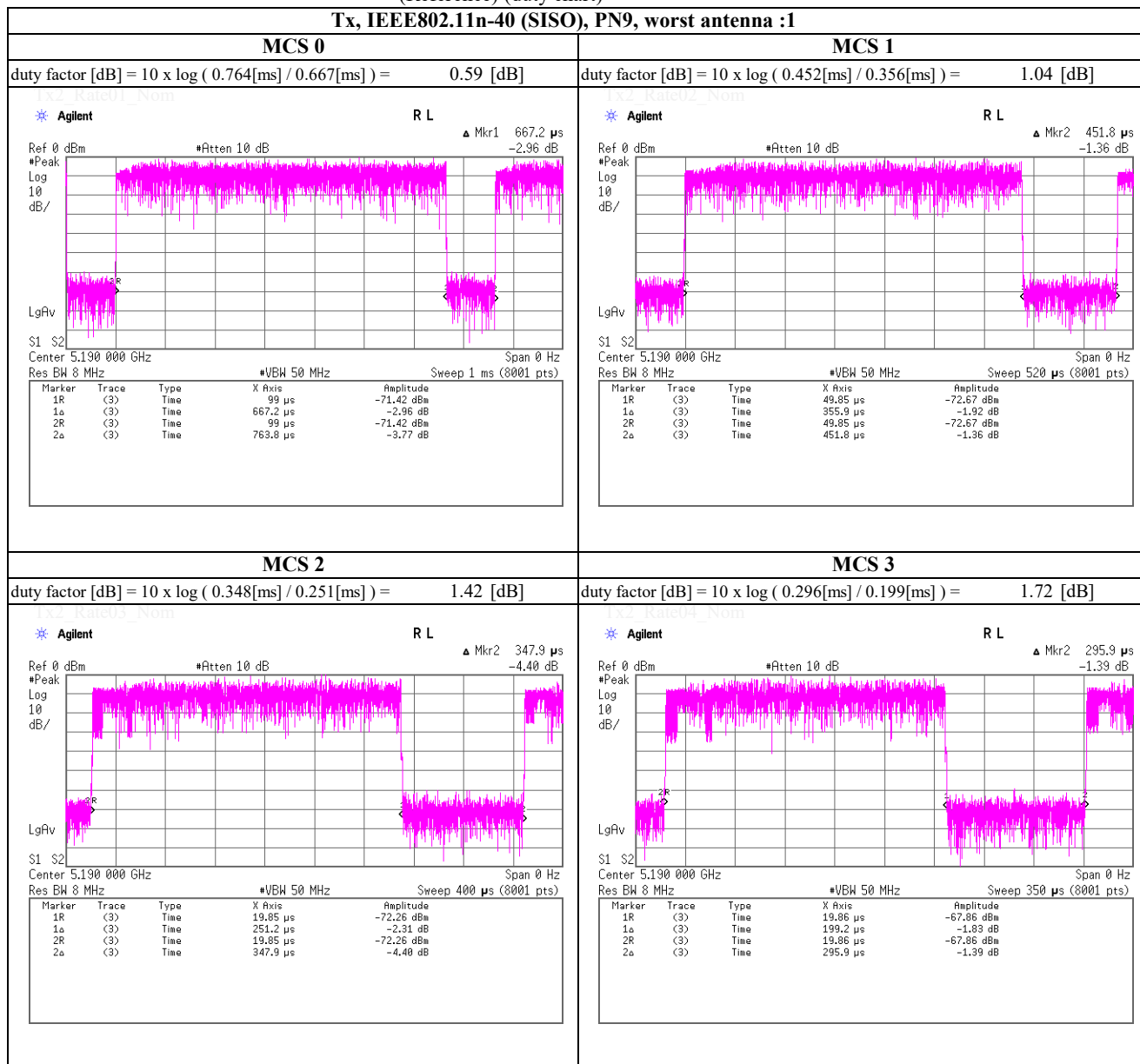


Test place UL Japan, Inc. Shonan EMC Lab. No.1 Measurement Room  
 Date December 16, 2020  
 Temperature / Humidity 23 deg.C , 40 %RH  
 Engineer Takahiro Kawakami

## Maximum Conducted Output Power (Conducted)

(Reference) (duty chart)

Tx, IEEE802.11n-40 (SISO), PN9, worst antenna :1



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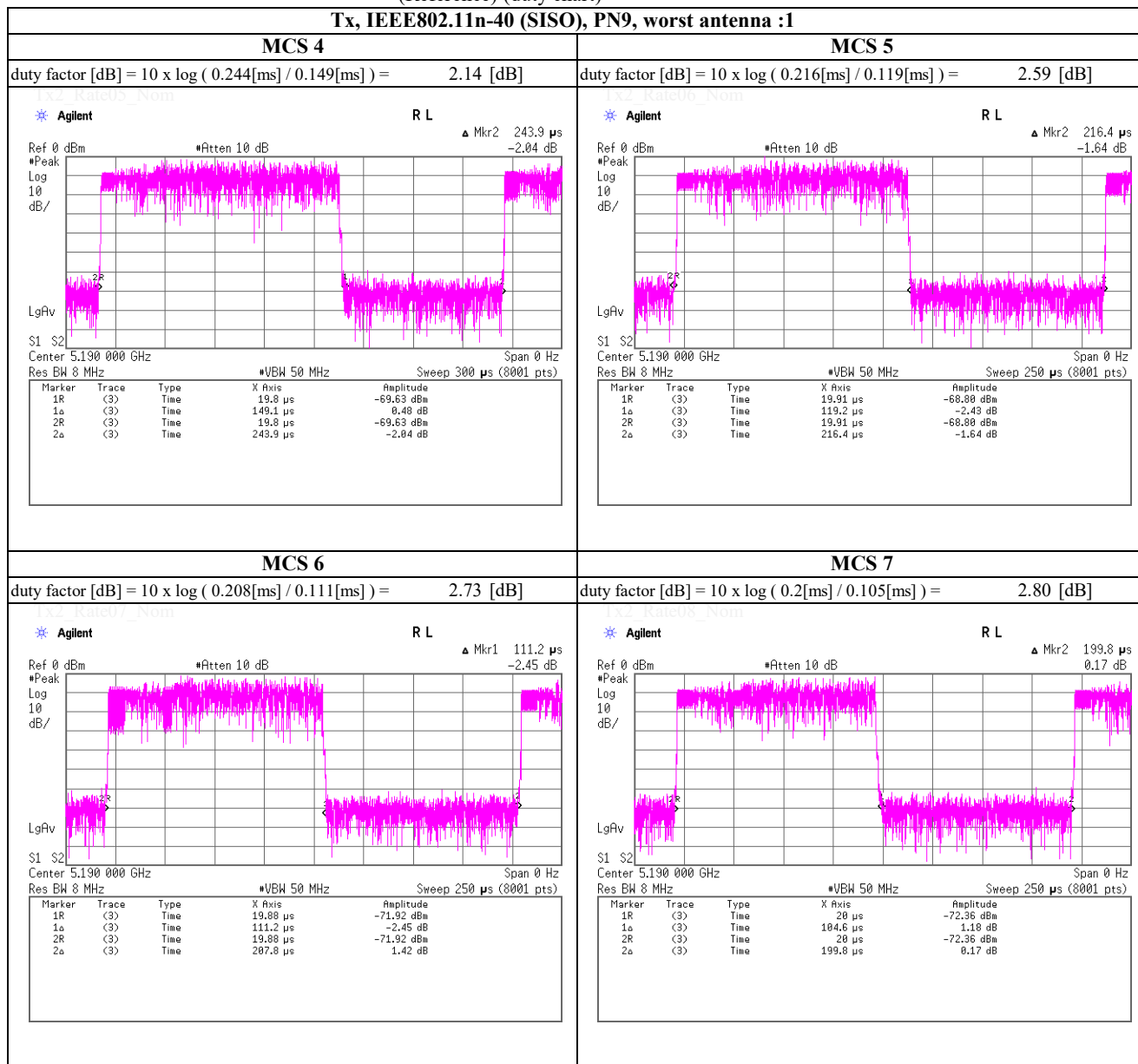
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Test place UL Japan, Inc. Shonan EMC Lab. No.1 Measurement Room  
 Date December 16, 2020  
 Temperature / Humidity 23 deg.C , 40 %RH  
 Engineer Takahiro Kawakami

## Maximum Conducted Output Power (Conducted)

(Reference) (duty chart)

Tx, IEEE802.11n-40 (SISO), PN9, worst antenna :1



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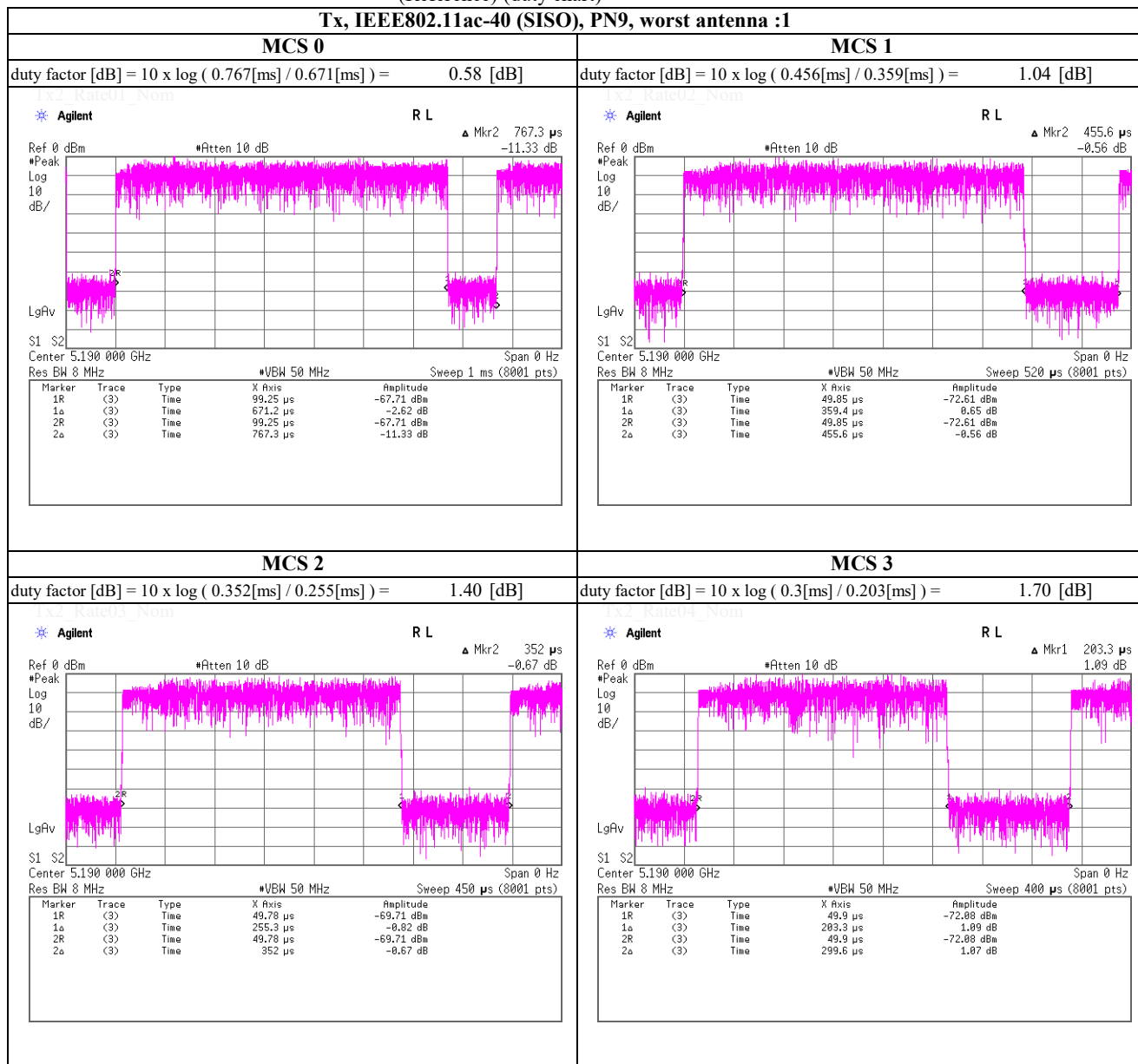
Facsimile : +81 463 50 6401

Test place UL Japan, Inc. Shonan EMC Lab. No.1 Measurement Room  
 Date December 16, 2020  
 Temperature / Humidity 23 deg.C , 40 %RH  
 Engineer Takahiro Kawakami

## Maximum Conducted Output Power (Conducted)

(Reference) (duty chart)

Tx, IEEE802.11ac-40 (SISO), PN9, worst antenna :1



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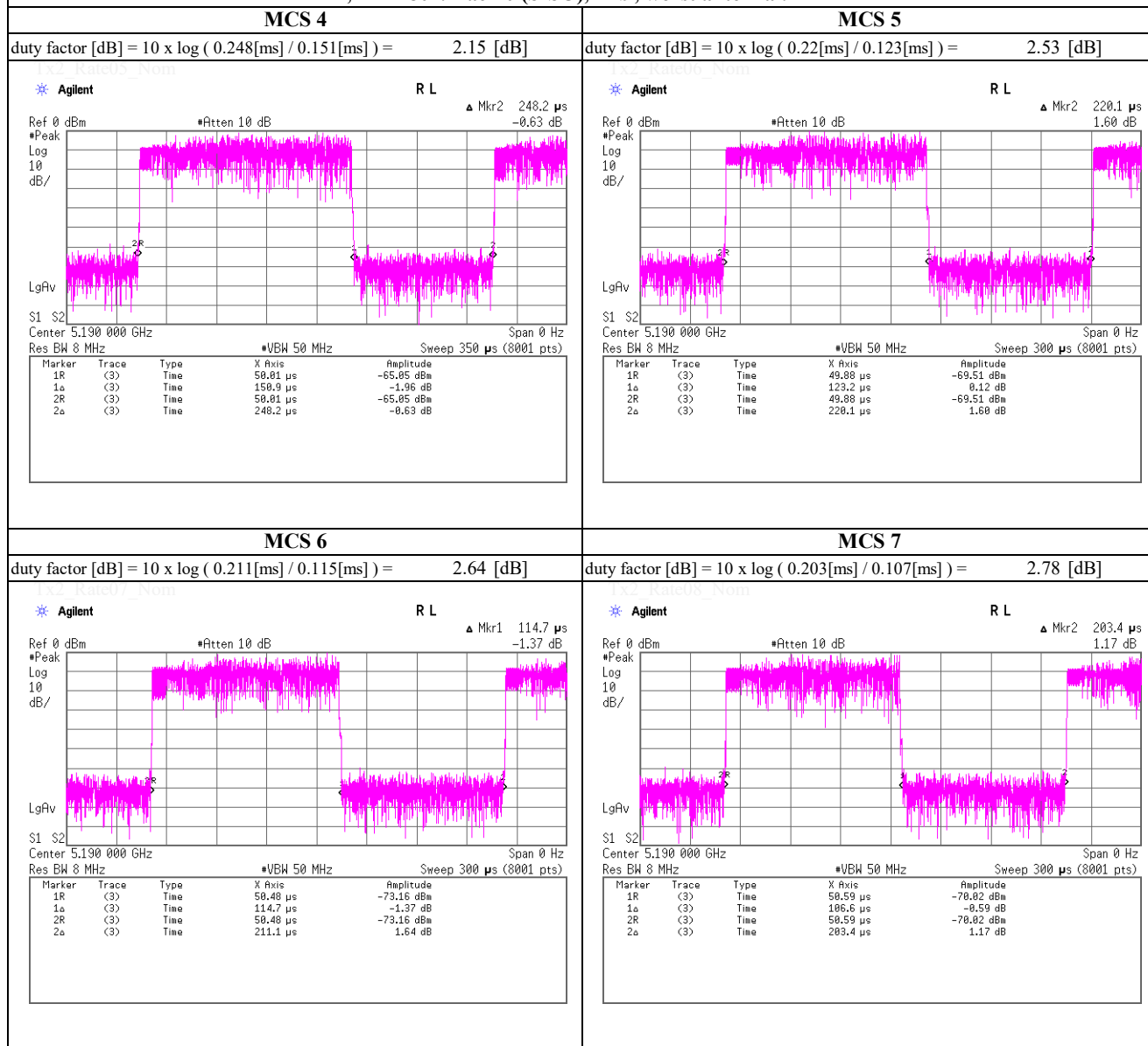
Facsimile : +81 463 50 6401

Test place UL Japan, Inc. Shonan EMC Lab. No.1 Measurement Room  
 Date December 16, 2020  
 Temperature / Humidity 23 deg.C , 40 %RH  
 Engineer Takahiro Kawakami

## Maximum Conducted Output Power (Conducted)

(Reference) (duty chart)

**Tx, IEEE802.11ac-40 (SISO), PN9, worst antenna :1**



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**Shonan EMC Lab.**

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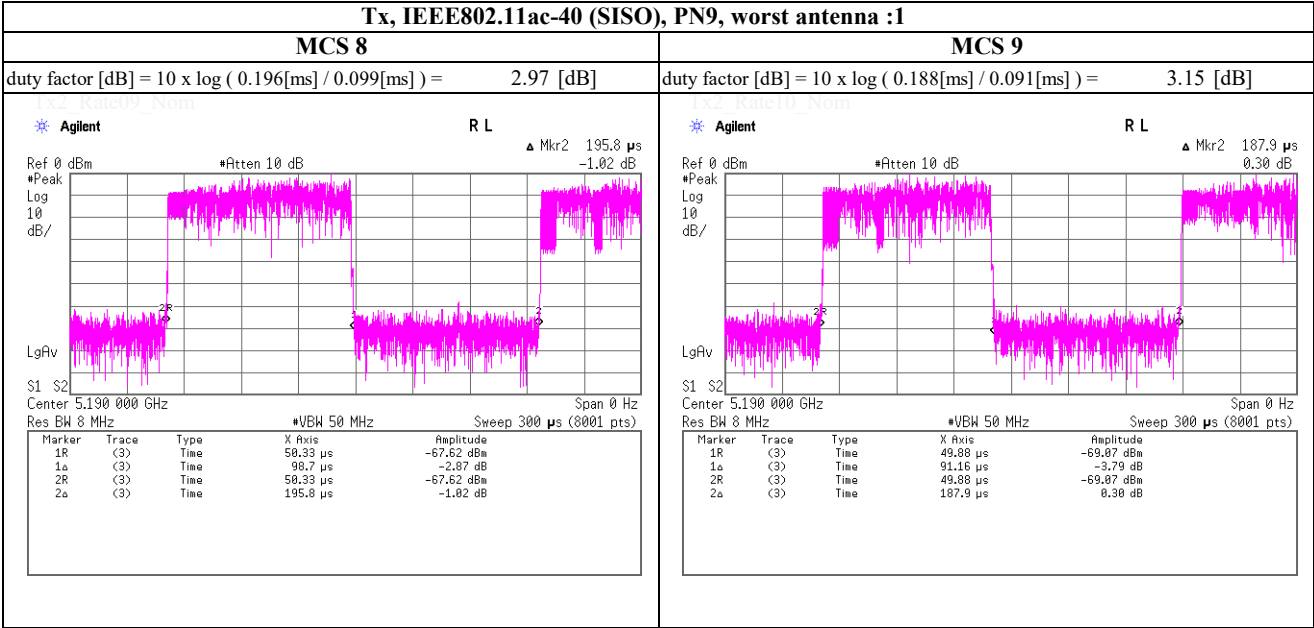
Telephone : +81 463 50 6400

Facsimile : +81 463 50 6401

Test place           UL Japan, Inc. Shonan EMC Lab.       No.1 Measurement Room  
Date                December 16, 2020  
Temperature / Humidity   23 deg.C       , 40 %RH  
Engineer            Takahiro Kawakami

**Maximum Conducted Output Power (Conducted)**

(Reference) (duty chart)



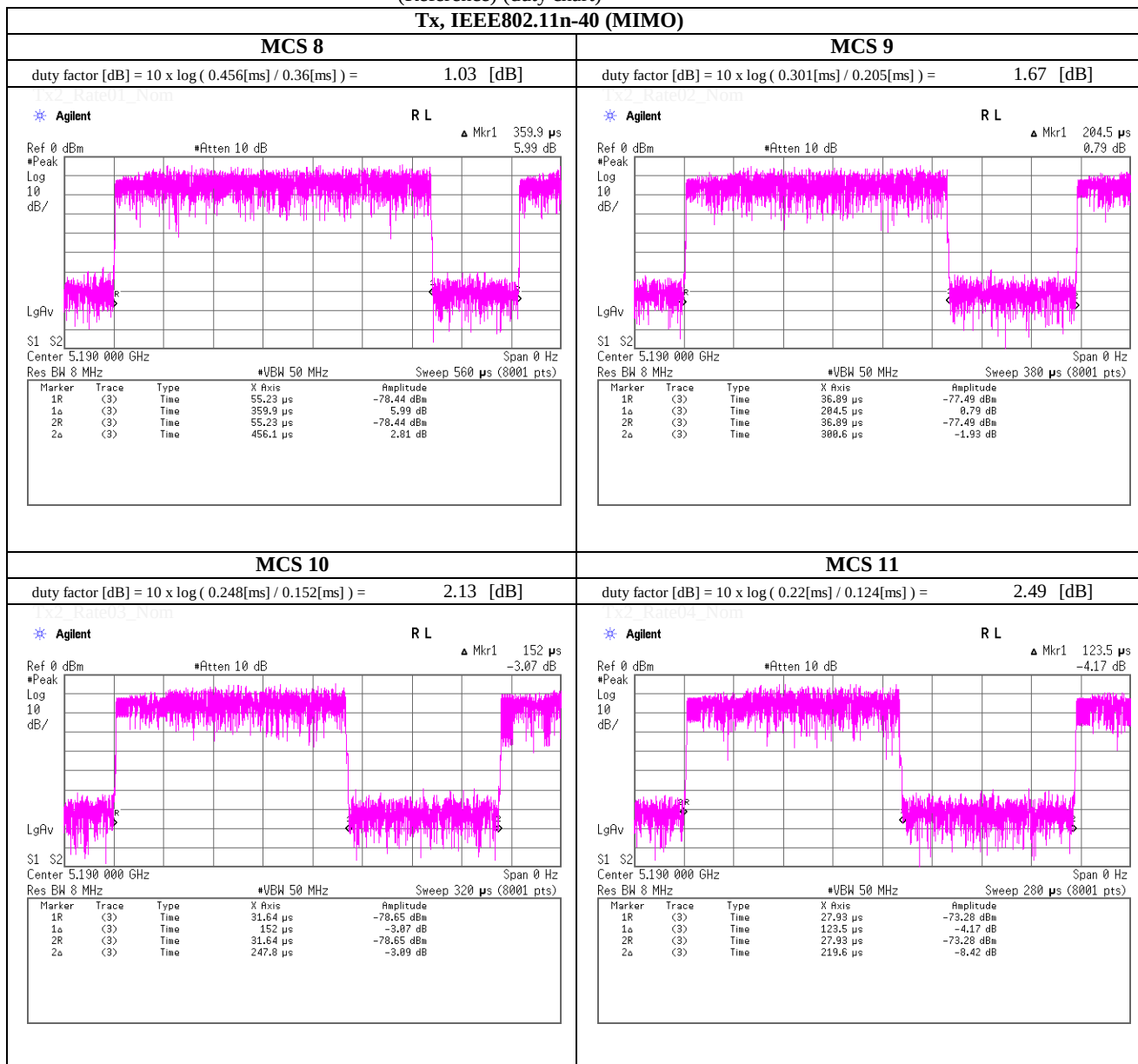
*Tx2\_Rate11\_Nom*

*Tx2\_Rate12\_Nom*

Test place UL Japan, Inc. Shonan EMC Lab. No.1 Measurement Room  
 Date December 16, 2020  
 Temperature / Humidity 23 deg.C , 40 %RH  
 Engineer Takahiro Kawakami

## Maximum Conducted Output Power (Conducted)

(Reference) (duty chart)



UL Japan, Inc.

Shonan EMC Lab.

1-22-3 Megumigaoka, Hiratsuka-shi, Kanagawa 259-1220 JAPAN

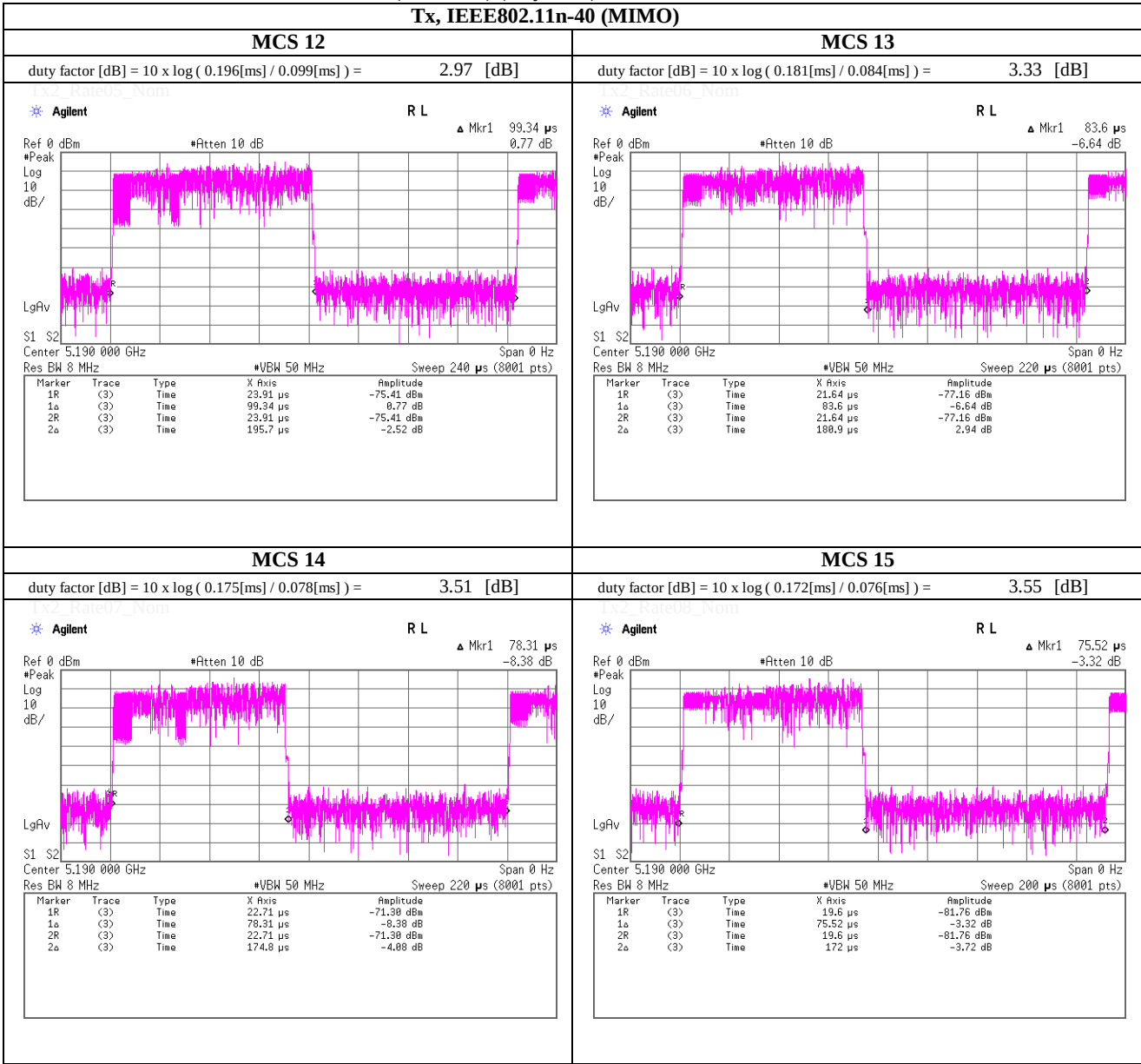
Telephone : +81 463 50 6400

Facsimile : +81 463 50 6401

Test place UL Japan, Inc. Shonan EMC Lab. No.1 Measurement Room  
 Date December 16, 2020  
 Temperature / Humidity 23 deg.C , 40 %RH  
 Engineer Takahiro Kawakami

# **Maximum Conducted Output Power (Conducted)**

(Reference) (duty chart)

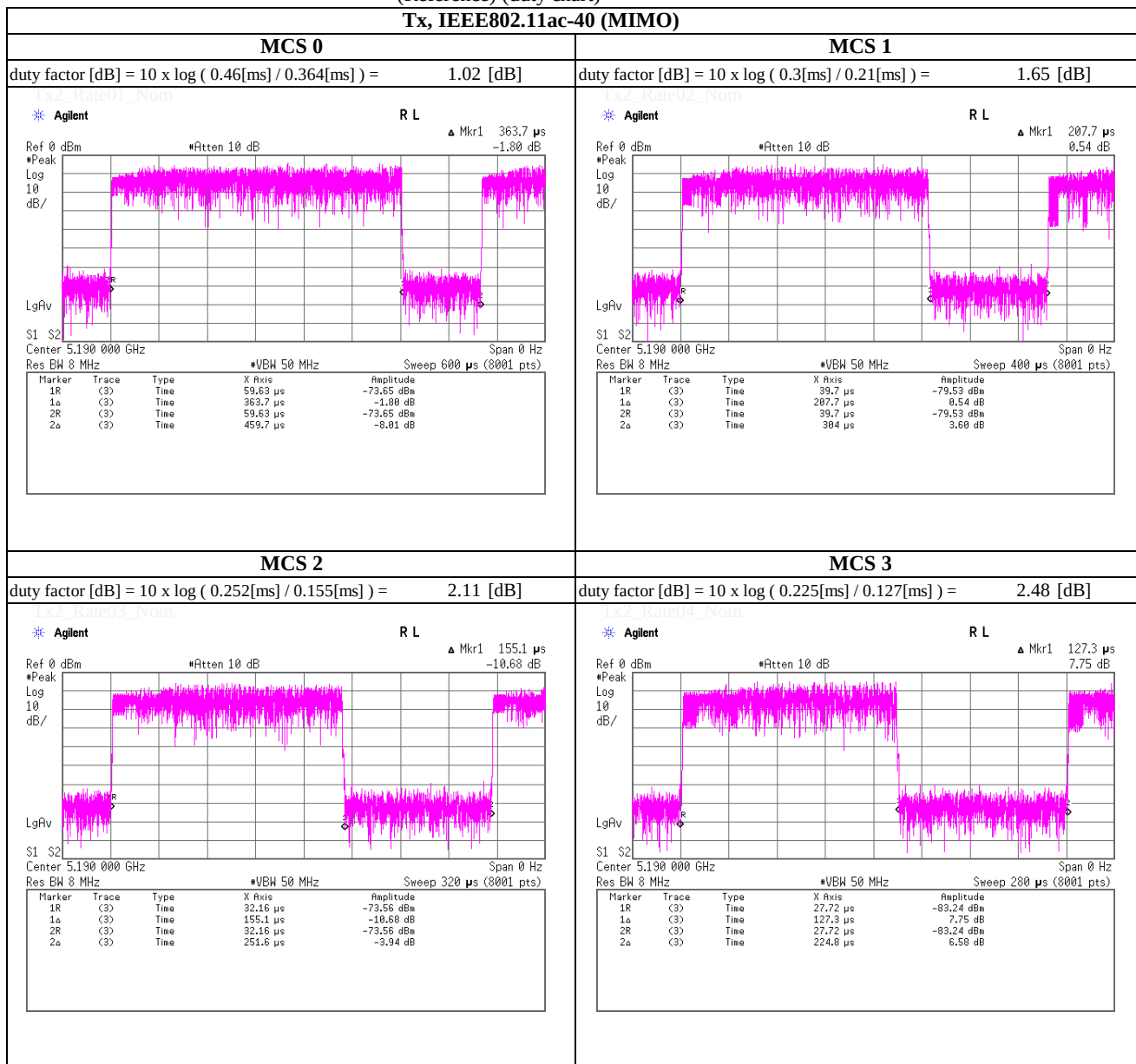


Test place UL Japan, Inc. Shonan EMC Lab. No.1 Measurement Room  
 Date December 16, 2020  
 Temperature / Humidity 25 deg.C , 35 %RH  
 Engineer Kazuya Noda

## Maximum Conducted Output Power (Conducted)

(Reference) (duty chart)

**Tx, IEEE802.11ac-40 (MIMO)**



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**Shonan EMC Lab.**

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Telephone : +81 463 50 6400

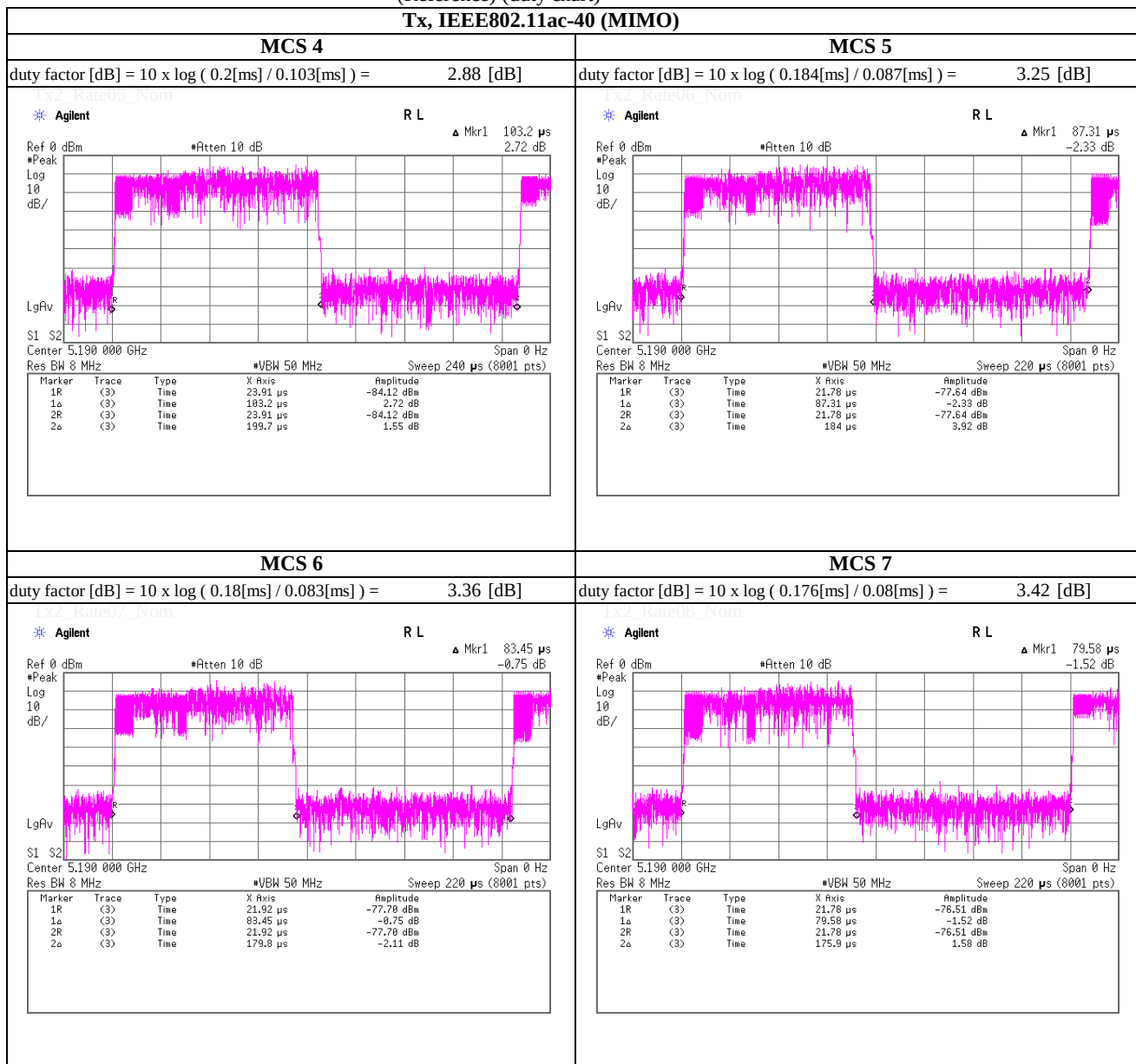
Facsimile : +81 463 50 6401

Test place UL Japan, Inc. Shonan EMC Lab. No.1 Measurement Room  
Date December 16, 2020  
Temperature / Humidity 25 deg.C , 35 %RH  
Engineer Kazuya Noda

## Maximum Conducted Output Power (Conducted)

(Reference) (duty chart)

Tx, IEEE802.11ac-40 (MIMO)

**UL Japan, Inc.****Shonan EMC Lab.**

1-22-3 Megumigaoka, Hiratsuka-shi, Kanagawa 259-1220 JAPAN

Telephone : +81 463 50 6400

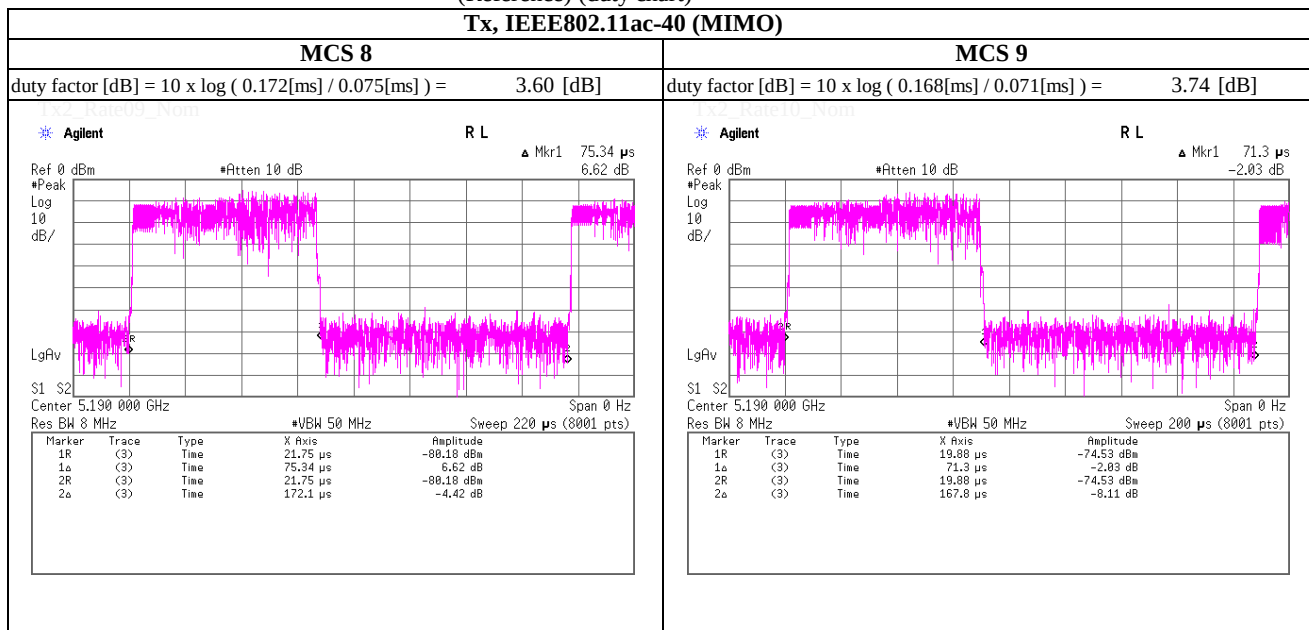
Facsimile : +81 463 50 6401

Test place      UL Japan, Inc. Shonan EMC Lab.      No.1 Measurement Room  
 Date            December 16, 2020  
 Temperature / Humidity    25 deg.C      , 35 %RH  
 Engineer       Kazuya Noda

## Maximum Conducted Output Power (Conducted)

(Reference) (duty chart)

**Tx, IEEE802.11ac-40 (MIMO)**



**UL Japan, Inc.**

**Shonan EMC Lab.**

1-22-3 Megumigaoka, Hiratsuka-shi, Kanagawa 259-1220 JAPAN

Telephone : +81 463 50 6400

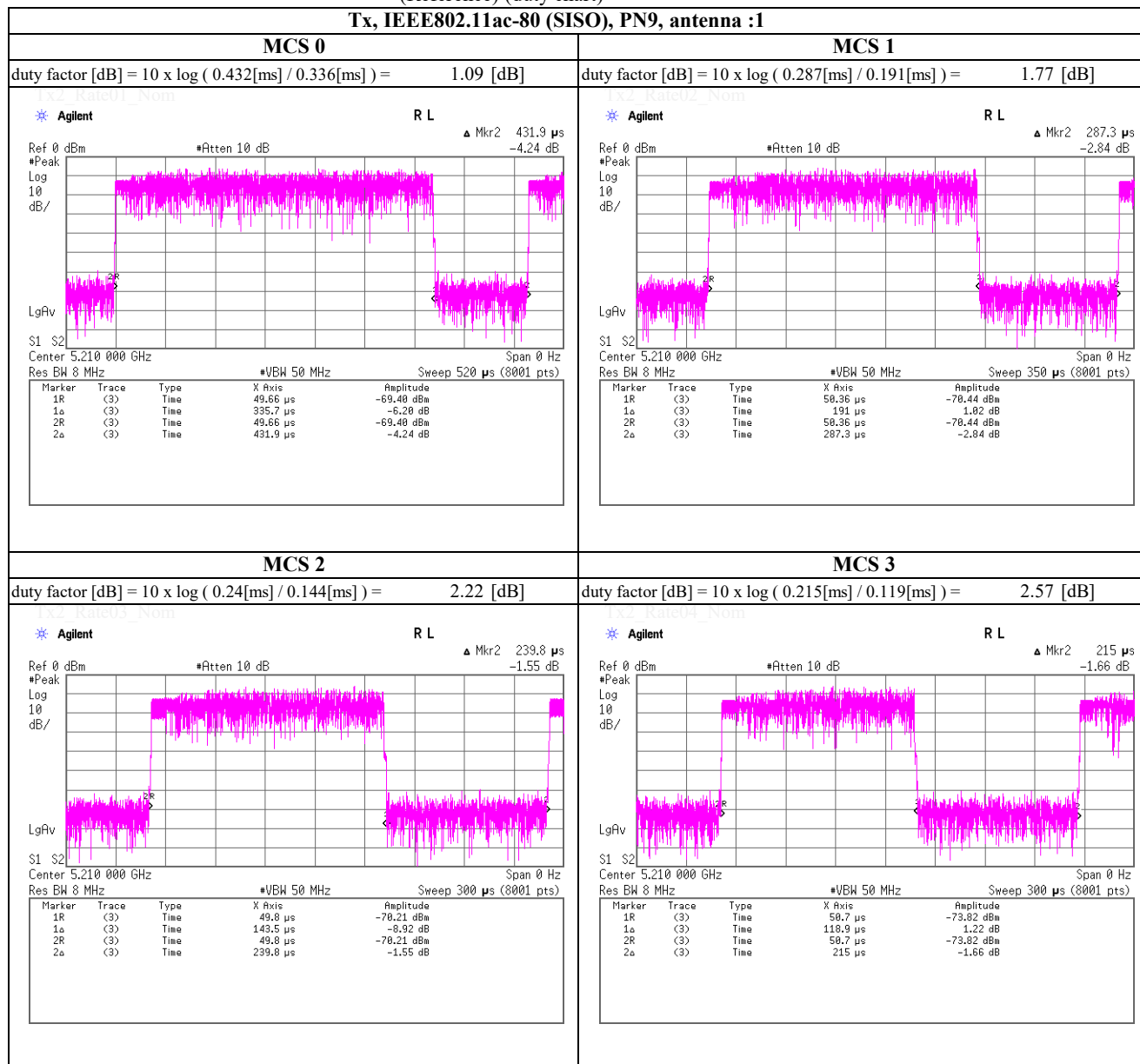
Facsimile : +81 463 50 6401

Test place UL Japan, Inc. Shonan EMC Lab. No.1 Measurement Room  
 Date December 16, 2020  
 Temperature / Humidity 25 deg.C , 35 %RH  
 Engineer Kazuya Noda

## Maximum Conducted Output Power (Conducted)

(Reference) (duty chart)

**Tx, IEEE802.11ac-80 (SISO), PN9, antenna :1**



**UL Japan, Inc.**

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Telephone : +81 463 50 6400

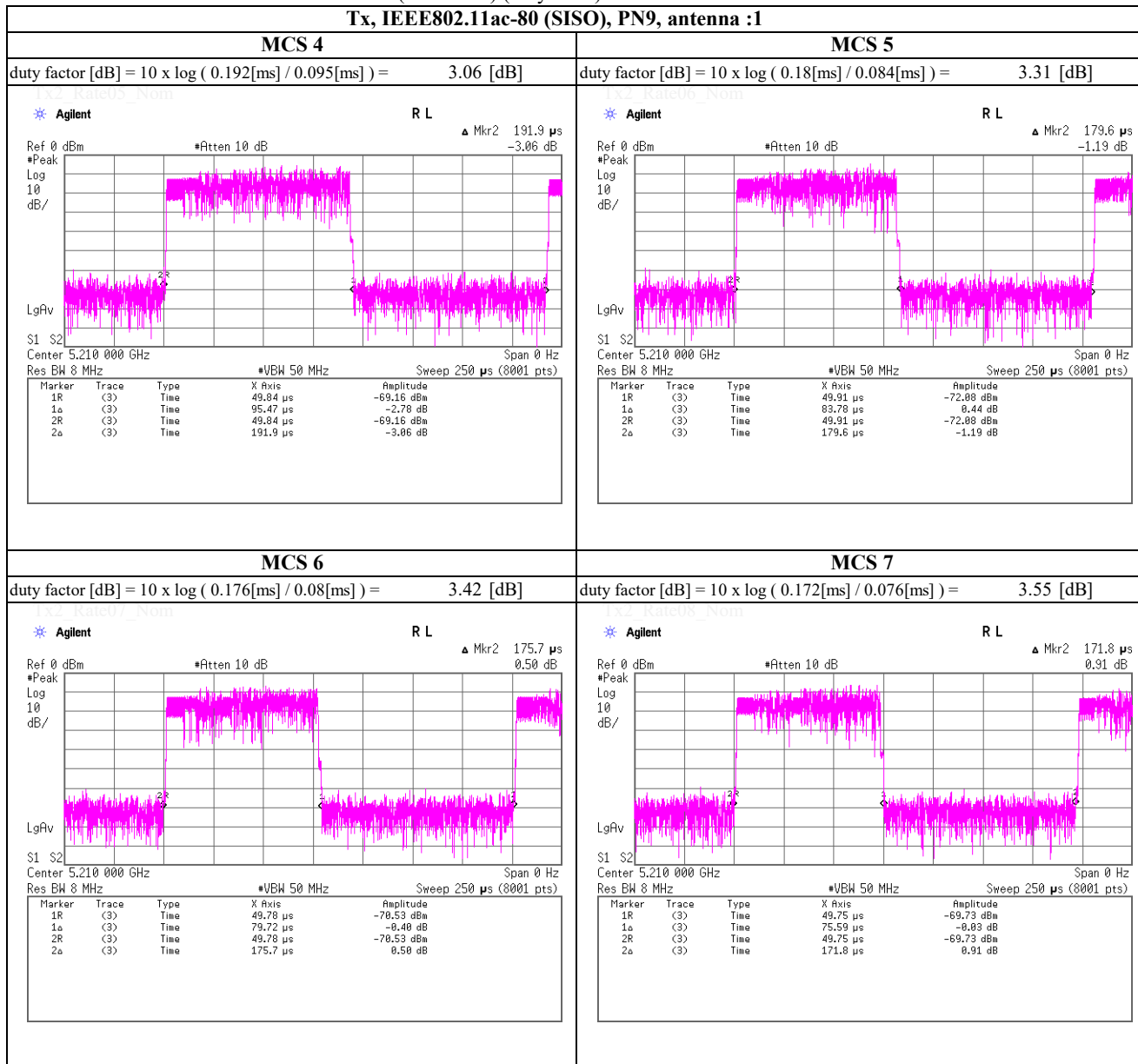
Facsimile : +81 463 50 6401

Test place UL Japan, Inc. Shonan EMC Lab. No.1 Measurement Room  
Date December 16, 2020  
Temperature / Humidity 25 deg.C , 35 %RH  
Engineer Kazuya Noda

## Maximum Conducted Output Power (Conducted)

(Reference) (duty chart)

Tx, IEEE802.11ac-80 (SISO), PN9, antenna :1

**UL Japan, Inc.****Shonan EMC Lab.**

1-22-3 Megumigaoka, Hiratsuka-shi, Kanagawa 259-1220 JAPAN

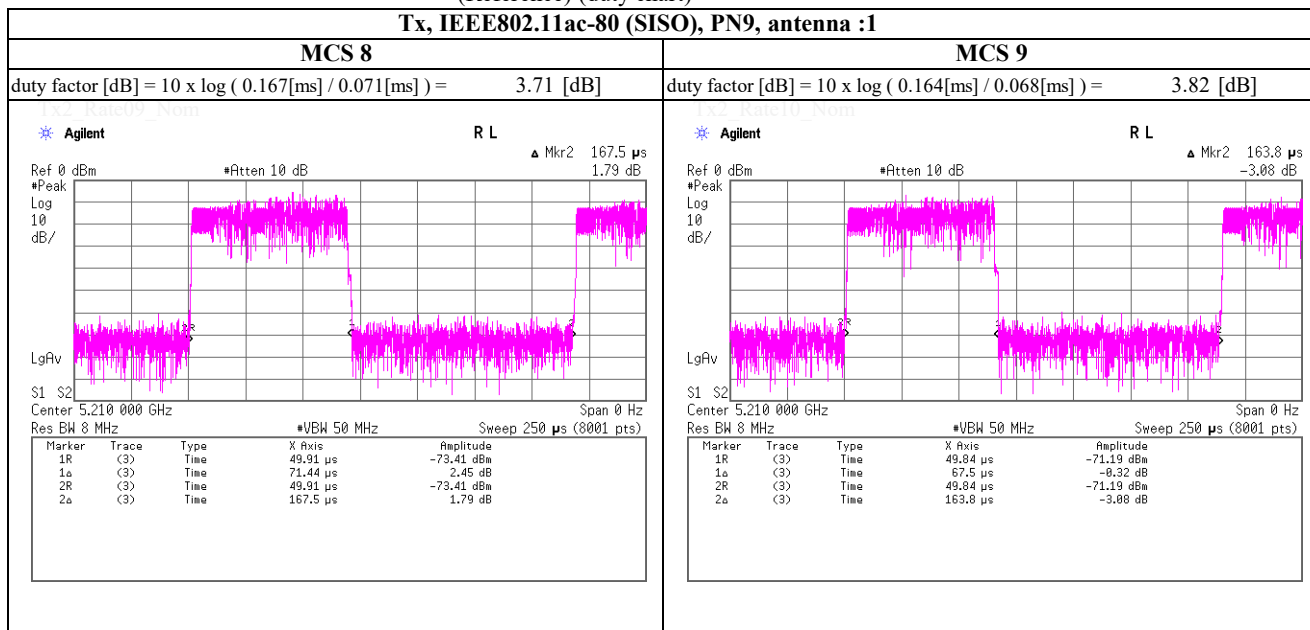
Telephone : +81 463 50 6400

Facsimile : +81 463 50 6401

Test place UL Japan, Inc. Shonan EMC Lab. No.1 Measurement Room  
 Date December 16, 2020  
 Temperature / Humidity 25 deg.C , 35 %RH  
 Engineer Kazuya Noda

## Maximum Conducted Output Power (Conducted)

(Reference) (duty chart)



Tx2\_Rate11\_Nom

Tx2\_Rate12\_Nom

UL Japan, Inc.

Shonan EMC Lab.

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Telephone : +81 463 50 6400

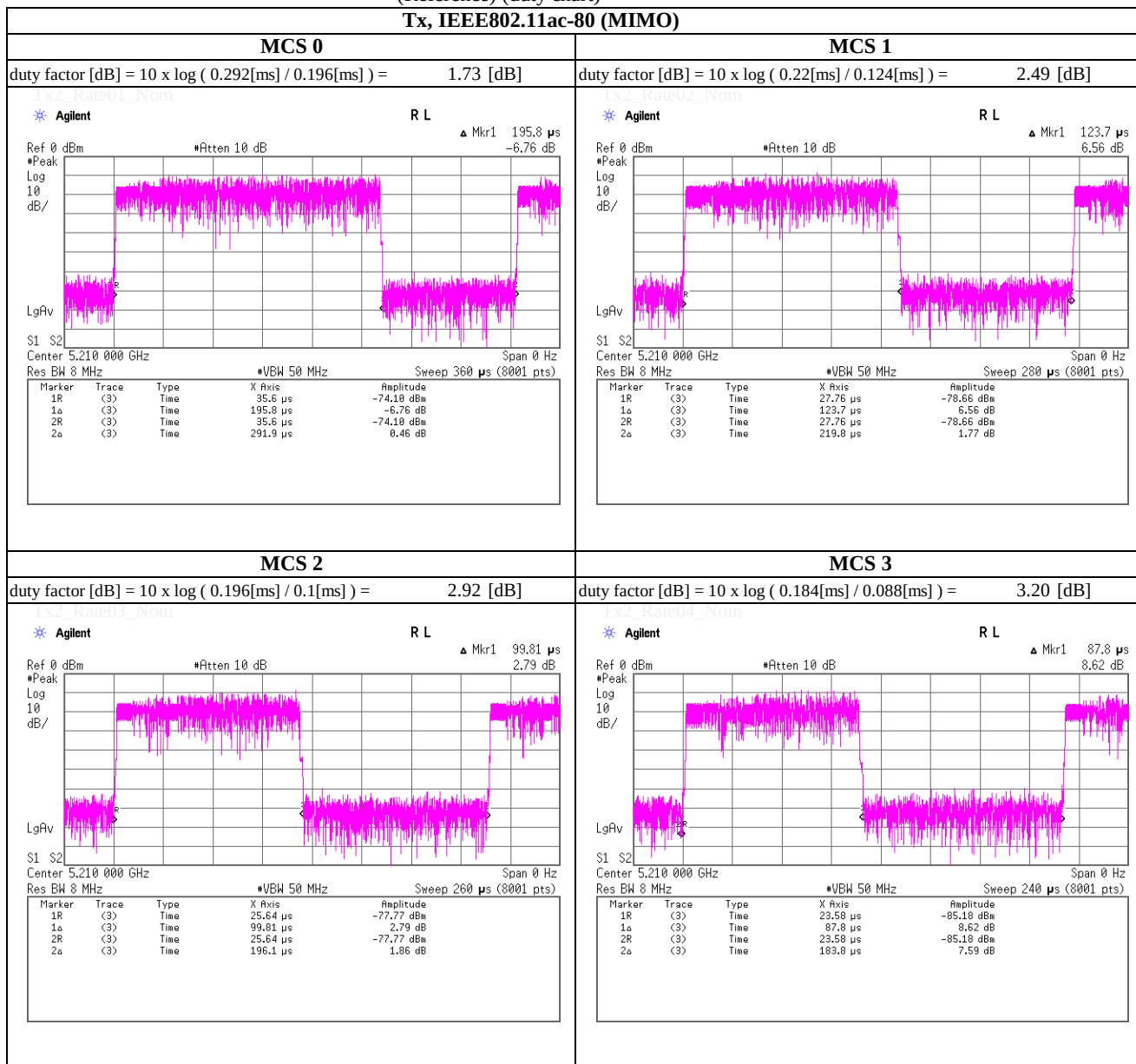
Facsimile : +81 463 50 6401

Test place UL Japan, Inc. Shonan EMC Lab. No.1 Measurement Room  
Date December 17, 2020  
Temperature / Humidity 23 deg.C , 52 %RH  
Engineer Kazuya Noda

## Maximum Conducted Output Power (Conducted)

(Reference) (duty chart)

Tx, IEEE802.11ac-80 (MIMO)

**UL Japan, Inc.****Shonan EMC Lab.**

1-22-3 Megumigaoka, Hiratsuka-shi, Kanagawa 259-1220 JAPAN

Telephone : +81 463 50 6400

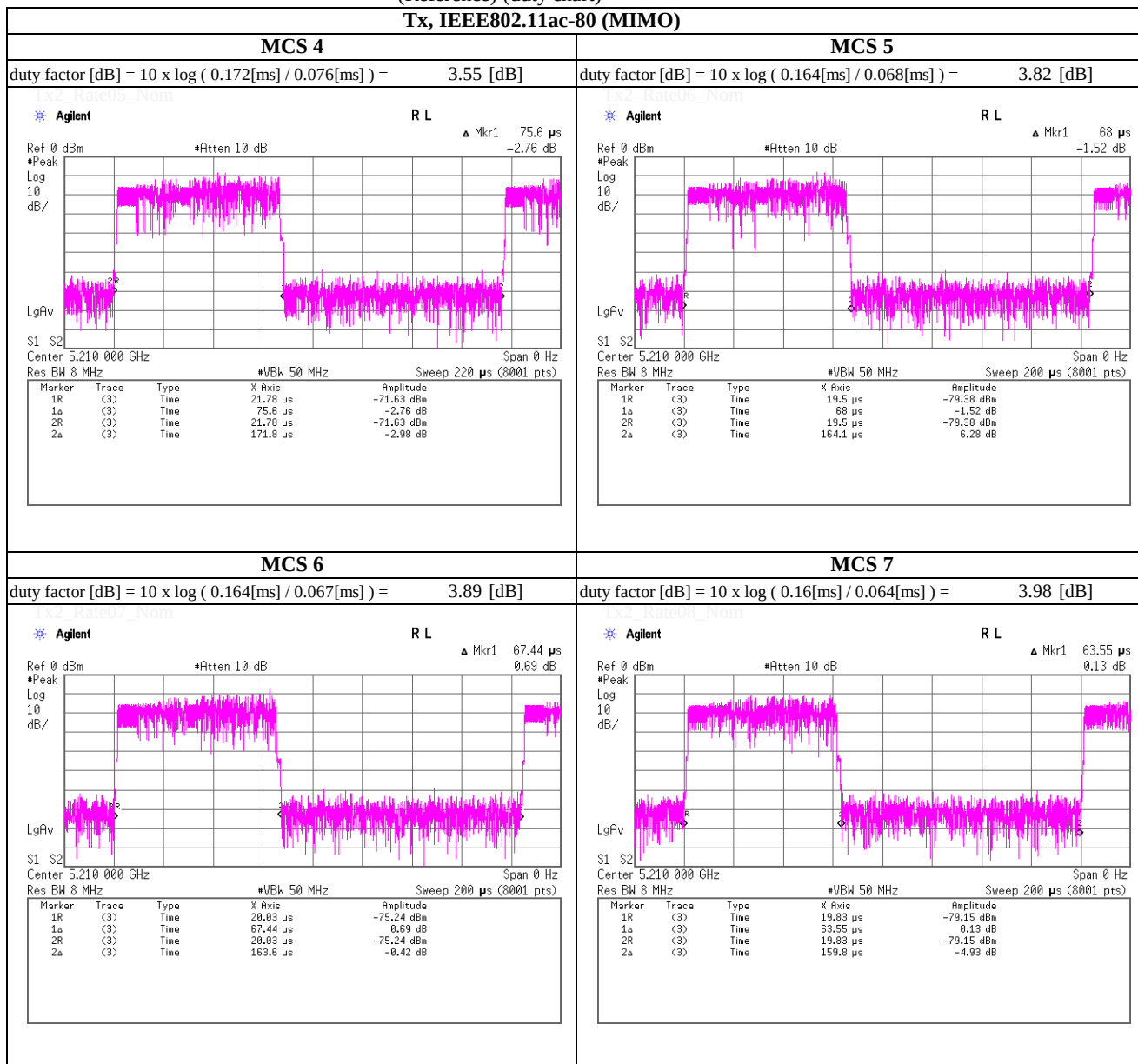
Facsimile : +81 463 50 6401

Test place UL Japan, Inc. Shonan EMC Lab. No.1 Measurement Room  
Date December 17, 2020  
Temperature / Humidity 23 deg.C , 52 %RH  
Engineer Kazuya Noda

## Maximum Conducted Output Power (Conducted)

(Reference) (duty chart)

Tx, IEEE802.11ac-80 (MIMO)

**UL Japan, Inc.****Shonan EMC Lab.**

1-22-3 Megumigaoka, Hiratsuka-shi, Kanagawa 259-1220 JAPAN

Telephone : +81 463 50 6400

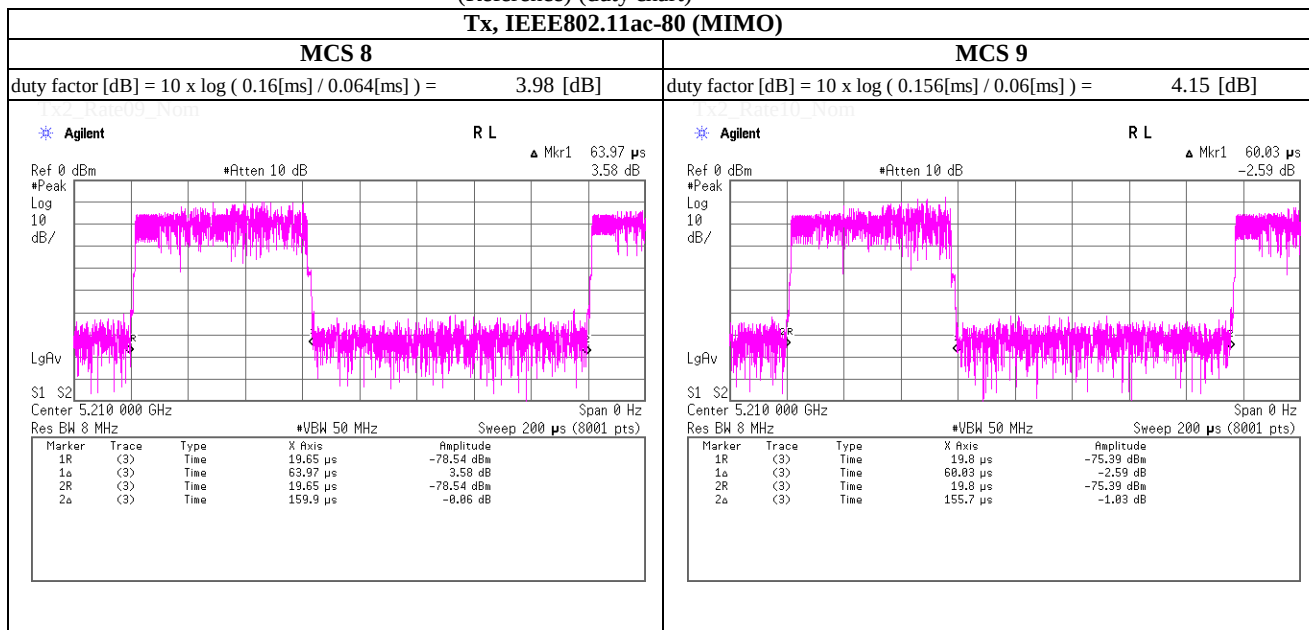
Facsimile : +81 463 50 6401

Test place      UL Japan, Inc. Shonan EMC Lab.      No.1 Measurement Room  
 Date            December 17, 2020  
 Temperature / Humidity    23 deg.C      , 52 %RH  
 Engineer       Kazuya Noda

## Maximum Conducted Output Power (Conducted)

(Reference) (duty chart)

**Tx, IEEE802.11ac-80 (MIMO)**



**UL Japan, Inc.**

**Shonan EMC Lab.**

1-22-3 Megumigaoka, Hiratsuka-shi, Kanagawa 259-1220 JAPAN

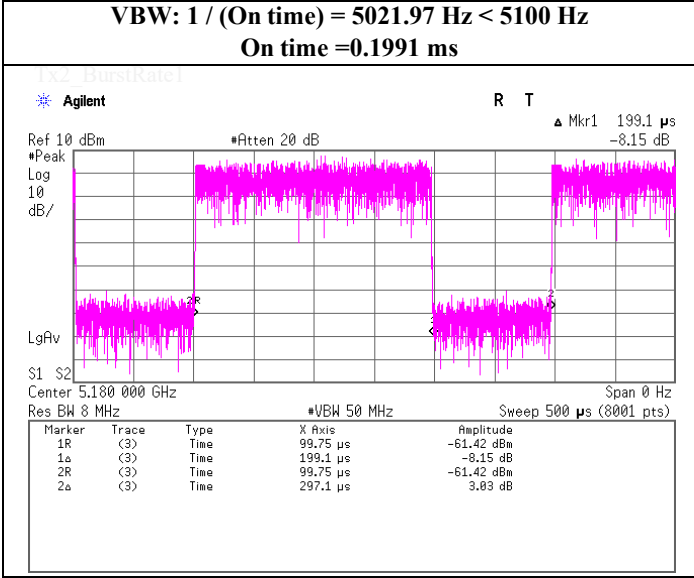
Telephone : +81 463 50 6400

Facsimile : +81 463 50 6401

Test place           UL Japan, Inc. Shonan EMC Lab.       No.1 Measurement Room  
Date                December 14, 2020  
Temperature / Humidity   25 deg.C       , 31 %RH  
Engineer           Kazuya Noda

**VBW (Average) Calculation & Duty chart**

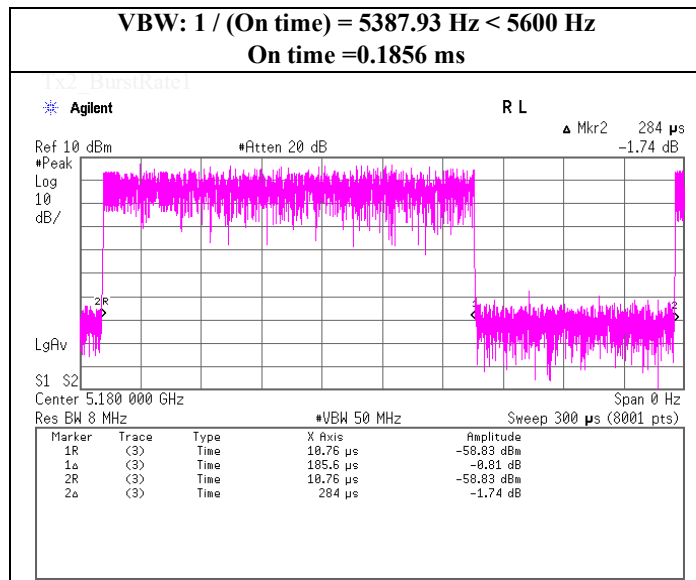
**Tx, IEEE802.11a, PN9, worst antenna port 1, worst data mode 48 Mbps**



*Tx2\_BurstRate2*

|                        |                                |                       |
|------------------------|--------------------------------|-----------------------|
| Test place             | UL Japan, Inc. Shonan EMC Lab. | No.1 Measurement Room |
| Date                   | December 15, 2020              |                       |
| Temperature / Humidity | 23 deg.C , 54 %RH              |                       |
| Engineer               | Kazuya Noda                    |                       |

**Tx, IEEE802.11n-20 (SISO), PN9, worst antenna port 1, worst data mode 6 (MCS)**

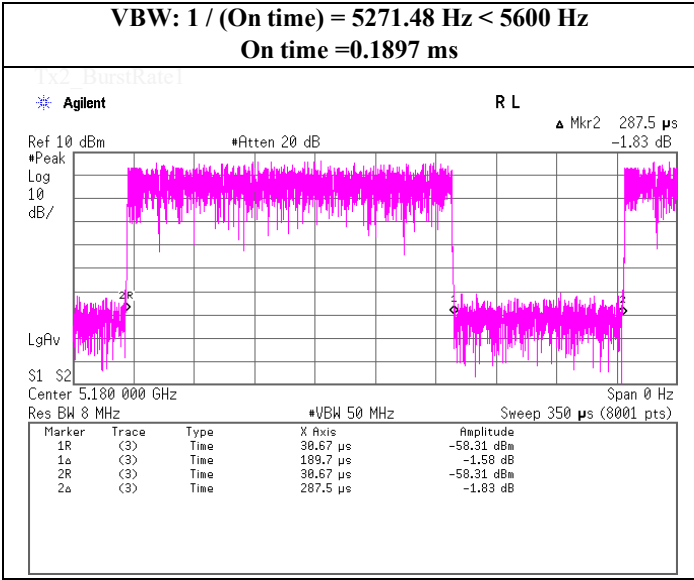


**Facsimile : +81 463 50 6401**

Test place                   UL Japan, Inc. Shonan EMC Lab.           No.1 Measurement Room  
Date                        December 15, 2020  
Temperature / Humidity   23 deg.C       , 54 %RH  
Engineer                  Kazuya Noda

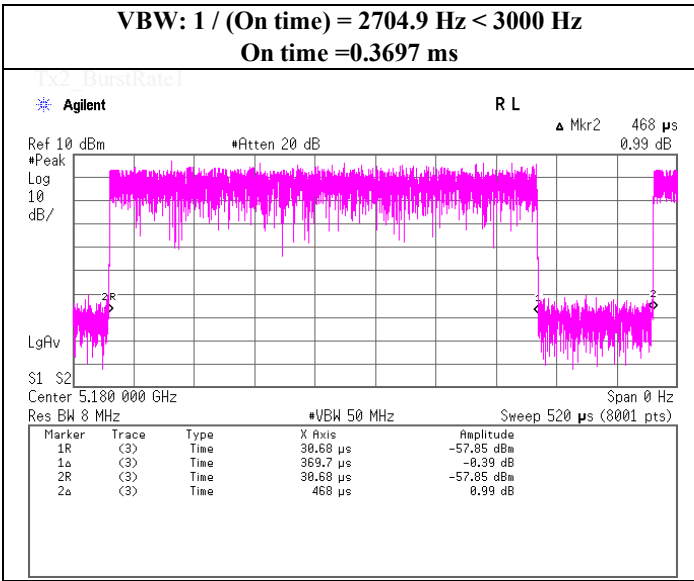
**VBW (Average) Calculation & Duty chart**

**Tx, IEEE802.11ac-20 (SISO), PN9, antenna port 0, worst data mode 6 (MCS)**



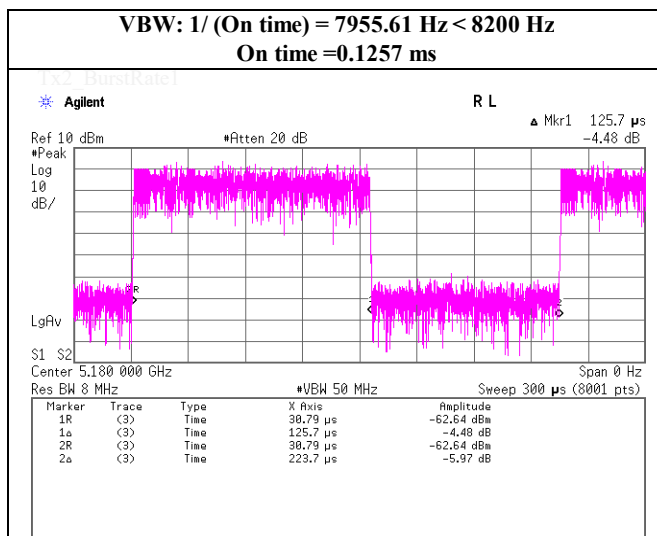
*Tx2\_BurstRate2*

**Tx, IEEE802.11ac-20 (SISO), PN9, antenna port 1, worst data mode 3 (MCS)**



### VBW (Average) Calculation & Duty chart

**Tx, IEEE802.11n-20 (MIMO), PN9, worst data mode 13 (MCS)**



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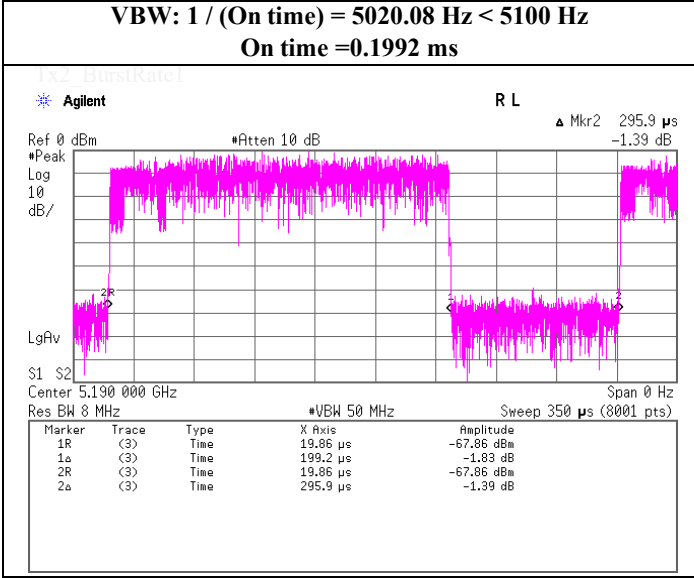
**Facsimile : +81 463 50 6401**

**Facsimile : +81 463 50 6401**

Test place                   UL Japan, Inc. Shonan EMC Lab.       No.1 Measurement Room  
Date                        December 16, 2020  
Temperature / Humidity   23 deg.C       , 40 %RH  
Engineer                  Takahiro Kawakami

**VBW (Average) Calculation & Duty chart**

**Tx, IEEE802.11n-40 (SISO), PN9, antenna port 1, worst data mode 3 (MCS)**



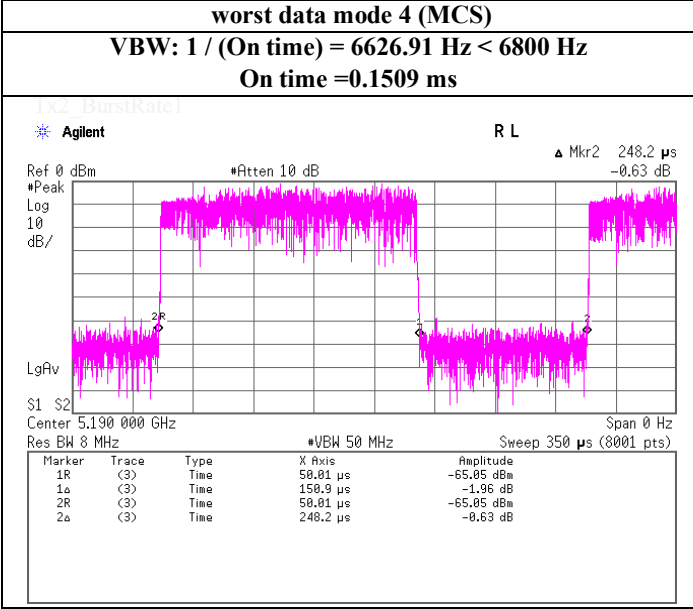
*Tx2\_BurstRate2*

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**Shonan EMC Lab.**  
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Telephone : +81 463 50 6400  
Facsimile : +81 463 50 6401

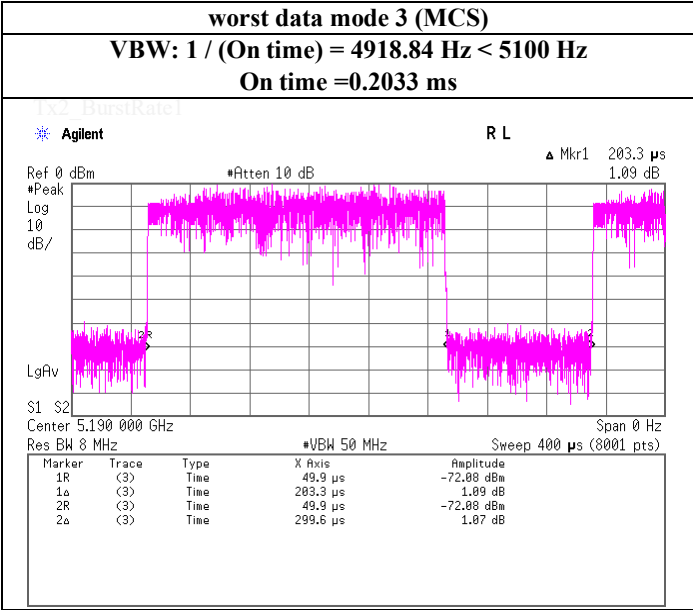
Test place                   UL Japan, Inc. Shonan EMC Lab.           No.1 Measurement Room  
Date                        December 16, 2020  
Temperature / Humidity   23 deg.C       , 40 %RH  
Engineer                  Takahiro Kawakami

**VBW (Average) Calculation & Duty chart**

**Tx, IEEE802.11ac-40 (SISO), PN9, antenna port 0**



**Tx, IEEE802.11ac-40 (SISO), PN9, antenna port 1**

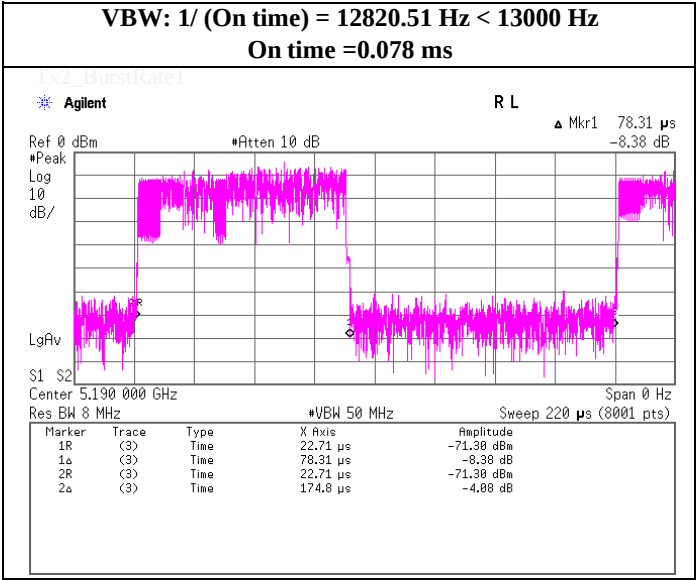


**UL Japan, Inc.**  
**Shonan EMC Lab.**  
**1-22-3 Megumigaoka, Hiratsuka-shi, Kanagawa 259-1220 JAPAN**  
**Telephone       : +81 463 50 6400**  
**Facsimile       : +81 463 50 6401**

Test place                   UL Japan, Inc. Shonan EMC Lab.       No.1 Measurement Room  
Date                        December 16, 2020  
Temperature / Humidity   23 deg.C       , 40 %RH  
Engineer                  Takahiro Kawakami

**VBW (Average) Calculation & Duty chart**

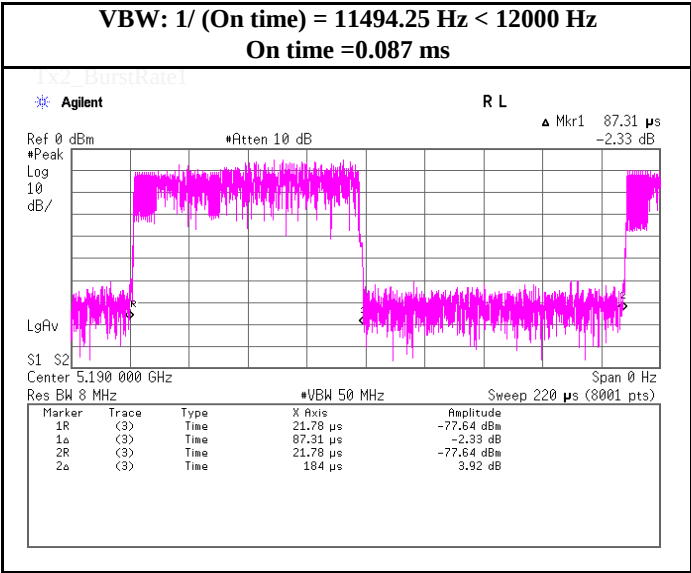
**Tx, IEEE802.11n-40 (MIMO), PN9, worst data mode 14 (MCS)**



Test place                   UL Japan, Inc. Shonan EMC Lab.           No.1 Measurement Room  
Date                        December 16, 2020  
Temperature / Humidity   25 deg.C       , 35 %RH  
Engineer                  Kazuya Noda

**VBW (Average) Calculation & Duty chart**

**Tx, IEEE802.11ac-40 (MIMO), PN9, worst data mode 5 (MCS)**

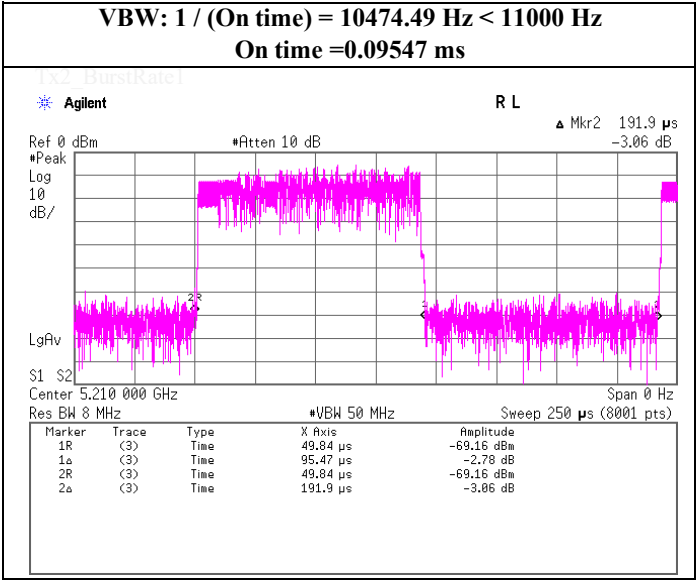


*Tx2\_BurstRate2*

Test place           UL Japan, Inc. Shonan EMC Lab.       No.1 Measurement Room  
Date                December 16, 2020  
Temperature / Humidity   25 deg.C       , 35 %RH  
Engineer            Kazuya Noda

**VBW (Average) Calculation & Duty chart**

**Tx, IEEE802.11ac-80 (SISO), PN9, antenna port 1, worst data mode 4 (MCS)**

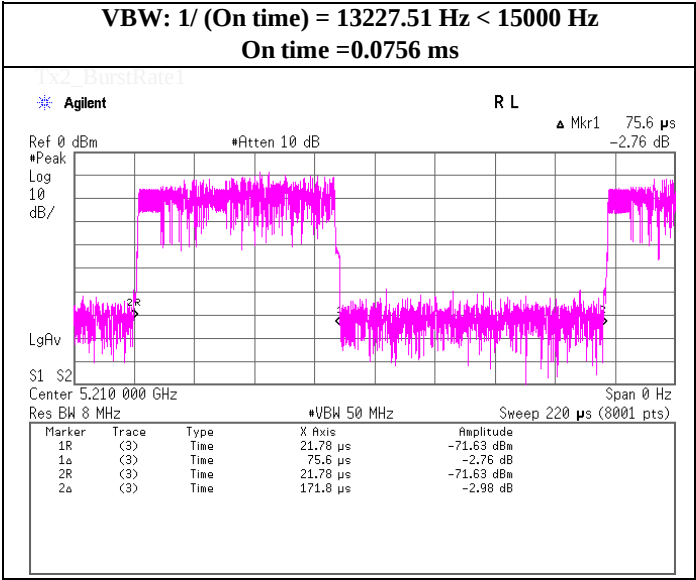


*Tx2\_BurstRate2*

Test place                   UL Japan, Inc. Shonan EMC Lab.       No.1 Measurement Room  
Date                        December 17, 2020  
Temperature / Humidity   23 deg.C       , 52 %RH  
Engineer                  Kazuya Noda

**VBW (Average) Calculation & Duty chart**

**Tx, IEEE802.11ac-80 (MIMO), PN9, worst data mode 4 (MCS)**



*Tx2\_BurstRate2*