



# **RADIO TEST REPORT**

**Test Report No. : 13977035S-C-R1**

**Applicant** : ALPS ALPINE CO., LTD.  
**Type of EUT** : Head unit  
**Model Number of EUT** : AH00ICB  
**FCC ID** : A269ZUA165  
**Test regulation** : FCC Part 15 Subpart E: 2021  
**Test item** : Antenna Terminal Conducted Tests  
(Except for DFS test)  
**Test result** : Complied (Refer to SECTION 3)

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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 13977035S-C. 13977035S-C is replaced with this report.

**Date of test:** October 21 to December 3, 2021 and March 14, 2022

**Representative test engineer:**

Shiro Kobayashi  
Engineer

**Approved by:**

Kazuya Noda  
Leader



CERTIFICATE 1266.03

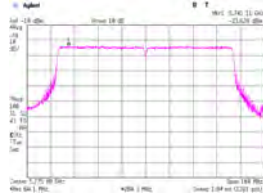
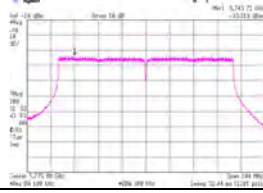
- ☐ The testing in which "Non-accreditation" is displayed is outside the accreditation scopes in UL Japan.  
☒ There is no testing item of "Non-accreditation".

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## REVISION HISTORY

**Original Test Report No.: 13977035S-C**

| Revision        | Test report No. | Date             | Page revised | Contents                                                                                                                                                                                                                                                                                                                                                |
|-----------------|-----------------|------------------|--------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| -<br>(Original) | 13977035S-C     | January 31, 2022 | -            | -                                                                                                                                                                                                                                                                                                                                                       |
| 1               | 13977035S-C-R1  | March 14, 2022   | 1            | Update of "Date of test":<br>From:<br>"October 21 to December 3, 2021"<br>To:<br>"October 21 to December 3 and March 14, 2022"                                                                                                                                                                                                                          |
|                 |                 |                  | 142          | Update of 5775 MHz data:<br>PSD Reading:<br>From: "-23.63", To: "-33.32"<br>Cable Loss:<br>From: "2.72", To: "2.78"<br>PSD (Conducted) Result:<br>From: "-4.18", To: "-13.81"<br>PSD (Conducted) Margin:<br>From: "34.18", To: "43.81"<br>PSD (e.i.r.p.) Result:<br>From: "-1.47", To: "-11.10"<br>PSD (e.i.r.p.) Margin:<br>From: "37.47", To: "47.10" |
|                 |                 |                  | 199          | Update of 5775 MHz chart:<br>From:<br><br>To:<br>                                                                                                                             |
|                 |                 |                  | 205          | Update of "SCC-G14" Last Calibration Date:<br>From: "2020/12/21",<br>To: "2021/12/06"                                                                                                                                                                                                                                                                   |
|                 |                 |                  |              | Addition of Test equipment:<br>"SCC-H22", "SCC-H23",<br>"SOS-27", "STS-05"                                                                                                                                                                                                                                                                              |
|                 |                 |                  |              | Addition of "*1":                                                                                                                                                                                                                                                                                                                                       |

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

|                |                                                                 |         |                                                |
|----------------|-----------------------------------------------------------------|---------|------------------------------------------------|
| A2LA           | The American Association for Laboratory Accreditation           | LIMS    | Laboratory Information Management System       |
| AC             | Alternating Current                                             | MCS     | Modulation and Coding Scheme                   |
| AFH            | Adaptive Frequency Hopping                                      | MRA     | Mutual Recognition Arrangement                 |
| AM             | Amplitude Modulation                                            | N/A     | Not Applicable                                 |
| Amp, AMP       | Amplifier                                                       | NIST    | National Institute of Standards and Technology |
| ANSI           | American National Standards Institute                           | NS      | No signal detect.                              |
| Ant, ANT       | Antenna                                                         | NSA     | Normalized Site Attenuation                    |
| AP             | Access Point                                                    | OBW     | Occupied BandWidth                             |
| 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    | Quadrature Phase Shift Keying                  |
| CW             | Continuous Wave                                                 | RBW     | Resolution BandWidth                           |
| 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                                               | RNSS    | Radio Navigation Satellite Service             |
| DSSS           | Direct Sequence Spread Spectrum                                 | RSS     | Radio Standards Specifications                 |
| DUT            | Device Under Test                                               | 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, T/R | Test Receiver                                  |
| EN             | European Norm                                                   | Tx      | Transmitting                                   |
| ERP, e.r.p.    | Effective Radiated Power                                        | VBW     | Video BandWidth                                |
| ETSI           | European Telecommunications Standards Institute                 | Vert.   | Vertical                                       |
| EU             | European Union                                                  | WLAN    | Wireless LAN                                   |
| EUT            | Equipment Under Test                                            |         |                                                |
| 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                                              |         |                                                |

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| <b>CONTENTS</b>                                                     | <b>PAGE</b> |
|---------------------------------------------------------------------|-------------|
| <b>SECTION 1: Customer information.....</b>                         | <b>5</b>    |
| <b>SECTION 2: Equipment under test (EUT).....</b>                   | <b>5</b>    |
| <b>SECTION 3: Test specification, procedures &amp; results.....</b> | <b>7</b>    |
| <b>SECTION 4: Operation of EUT during testing.....</b>              | <b>10</b>   |
| <b>SECTION 5: Antenna Terminal Conducted Tests.....</b>             | <b>14</b>   |
| <b>APPENDIX 1: Test data .....</b>                                  | <b>15</b>   |
| 26 dB Emission Bandwidth and 99 % Occupied Bandwidth.....           | 15          |
| 6 dB Bandwidth .....                                                | 82          |
| Maximum Conducted Output Power .....                                | 92          |
| Burst rate confirmation .....                                       | 126         |
| Maximum Power Spectral Density .....                                | 128         |
| Conducted Spurious Emission .....                                   | 204         |
| <b>APPENDIX 2: Test instruments .....</b>                           | <b>205</b>  |
| <b>APPENDIX 3: Photographs of test setup .....</b>                  | <b>206</b>  |
| Antenna Terminal Conducted Tests.....                               | 206         |

## **SECTION 1: Customer information**

Company Name : ALPS ALPINE CO., LTD.  
Address : 20-1 Yoshima Industrial park, Iwaki, Fukushima, Japan 970-1192  
Telephone Number : +81-246-36-4111  
Contact Person : Kenji Nagase

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 : Head unit  
Model Number : AH00ICB  
Serial Number : Refer to SECTION 4.2  
Receipt Date : October 18, 2021  
Condition : Engineering prototype  
(Not for Sale: This sample is equivalent to mass-produced items.)  
Modification : No Modification by the test lab.

### **2.2 Product Description**

Model: AH00ICB (referred to as the EUT in this report) is a Head unit.

The EUT has following similar model:

| Model Name    | Details                  |
|---------------|--------------------------|
| AH00ICB (EUT) | External amplifier model |
| AH00ICB 1     | Internal amplifier model |

## **General Specification**

Rating : DC 13.2 V  
Operating Temperature : -30 deg. C - +70 deg. C

## **Radio Specification**

### **Bluetooth**

|                        |   |                                    |
|------------------------|---|------------------------------------|
| Radio Type             | : | Transceiver                        |
| Frequency of Operation | : | 2402 MHz - 2480 MHz                |
| Antenna type           | : | Planar Inverted-F Antenna          |
| Modulation             | : | FHSS (GFSK, $\pi/4$ -DQPSK, 8DPSK) |
| Antenna Gain           | : | -0.2 dBi                           |

### **Bluetooth Low Energy**

|                        |   |                           |
|------------------------|---|---------------------------|
| Radio Type             | : | Transceiver               |
| Frequency of Operation | : | 2402 MHz - 2480 MHz       |
| Antenna type           | : | Planar Inverted-F Antenna |
| Modulation             | : | GFSK                      |
| Antenna Gain           | : | -0.2 dBi                  |

### **WLAN 2.4 GHz (IEEE802.11b/g/n-20)**

|                        |   |                                                             |
|------------------------|---|-------------------------------------------------------------|
| Radio Type             | : | Transceiver                                                 |
| Frequency of Operation | : | 2412 MHz - 2462 MHz                                         |
| Antenna type           | : | Planar Inverted-F Antenna                                   |
| Modulation             | : | DSSS (CCK, DQPSK, DBPSK)<br>OFDM (64QAM, 16QAM, QPSK, BPSK) |
| Antenna Gain           | : | -0.2 dBi                                                    |

### **WLAN 5 GHz (IEEE802.11a/n-20/n-40/ac-20/ac-40/ac-80)**

|                        |   |                                          |
|------------------------|---|------------------------------------------|
| Radio Type             | : | Transceiver                              |
| Frequency of Operation | : | 5180 MHz - 5825 MHz                      |
| Antenna type           | : | Planar Inverted-F Antenna                |
| Modulation             | : | OFDM (256QAM, 64QAM, 16QAM, QPSK, BPSK)  |
| Antenna Gain           | : | +2.71 dBi (Chain1)<br>+2.71 dBi (Chain2) |

## 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

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<br>ISED: RSS-Gen 8.8                        | FCC: 15.407 (b) (6) / 15.207<br>ISED: RSS-Gen 8.8                                            | N/A          | N/A         | *1)                  |
| 26 dB Emission Bandwidth                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | FCC: KDB Publication Number 789033<br>ISED: -                     | FCC: 15.407 (a) (1) (2) (3)<br>ISED: -                                                       | See data     | Complied a) | Conducted            |
| Maximum Conducted Output Power                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | FCC: KDB Publication Number 789033<br>ISED: -                     | FCC: 15.407 (a) (1) (2) (3)<br>ISED: RSS-247 6.2.1.1<br>6.2.2.1<br>6.2.3.1<br>6.2.4.1        |              | Complied b) | Conducted            |
| Maximum Power Spectral Density                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | FCC: KDB Publication Number 789033<br>ISED: -                     | FCC: 15.407 (a) (1) (2) (3)<br>ISED: RSS-247 6.2.1.1<br>6.2.2.1<br>6.2.3.1<br>6.2.4.1        |              | Complied c) | Conducted            |
| Spurious Emission Restricted Band Edge                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | FCC: ANSI C63.10-2013<br>KDB Publication Number 789033<br>ISED: - | FCC: 15.407 (b), 15.205 and 15.209<br>ISED: RSS-247 6.2.1.2<br>6.2.2.2<br>6.2.3.2<br>6.2.4.2 | See data     | Complied d) | Conducted (< 30 MHz) |
| 6 dB Emission Bandwidth                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | FCC: ANSI C63.10-2013<br>ISED: -                                  | FCC: 15.407 (e)<br>ISED: RSS-247 6.2.4.1                                                     | See data     | Complied e) | Conducted            |
| Note: UL Japan, Inc.'s EMI Work Procedures No. 13-EM-W0420 and 13-EM-W0422.<br>*1) The test is not applicable since the EUT does not have AC Mains.<br><br>a) Refer to APPENDIX 1 (data of 26 dB Emission Bandwidth and 99 % Occupied Bandwidth)<br>b) Refer to APPENDIX 1 (data of Maximum Conducted Output Power)<br>c) Refer to APPENDIX 1 (data of Maximum Power Spectral Density)<br>d) Refer to APPENDIX 1 (data of Conducted Spurious Emission)<br>e) Refer to APPENDIX 1 (data of 6 dB Bandwidth)<br><br>Symbols:<br>Complied The data of this test item has enough margin, more than the measurement uncertainty.<br>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.

#### FCC Part 15.31 (e)

The EUT provides stable voltage constantly to the RF Part regardless of input voltage. Instead of a new battery, DC power supply was used for the test. That does not affect the test result, therefore the 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.

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### 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          | Complied 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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| Antenna terminal test                                                    | Uncertainty (+/-) |
|--------------------------------------------------------------------------|-------------------|
| Power Measurement above 1 GHz (Average Detector)_SPM-06                  | 1.2 dB            |
| Power Measurement above 1 GHz (Peak Detector)_SPM-06                     | 2.0 dB            |
| Power Measurement above 1 GHz (Average Detector)_SPM-07                  | 1.2 dB            |
| Power Measurement above 1 GHz (Peak Detector)_SPM-07                     | 1.3 dB            |
| Power Measurement above 1 GHz (Average Detector)_SPM-13                  | 1.3 dB            |
| Power Measurement above 1 GHz (Peak Detector)_SPM-13                     | 1.3 dB            |
| Spurious emission (Conducted), Power Density measurement below 1GHz      | 0.93 dB           |
| Spurious emission (Conducted), Power Density measurement 1 GHz-3 GHz     | 0.92 dB           |
| Spurious emission (Conducted), Power Density measurement 3 GHz-18 GHz    | 2.3 dB            |
| Spurious emission (Conducted), Power Density measurement 18 GHz-26.5 GHz | 2.3 dB            |
| Spurious emission (Conducted), Power Density measurement 26.5 GHz-40 GHz | 2.3 dB            |
| Bandwidth Measurement                                                    | 0.012 %           |
| Duty cycle and Time Measurement                                          | 0.27 %            |
| Temperature_SCH-01                                                       | 0.93 deg.C.       |
| Humidity_SCH-01                                                          | 4.1 %             |
| Temperature_SCH-02                                                       | 2.0 deg.C.        |
| Humidity_SCH-02                                                          | 6.6 %             |
| Voltage                                                                  | 0.97 %            |

### 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>         |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|
| Transmitting (Tx), IEEE 802.11a SISO (11a(SISO))                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 18 Mbps (Chain1), PN9   |
| Transmitting (Tx), IEEE 802.11n SISO 20 MHz BW (11n-20(SISO))                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | MCS 3 (Chain1), PN9     |
| Transmitting (Tx), IEEE 802.11ac SISO 20 MHz BW (11ac-20(SISO))                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | MCS 3 (Chain1), PN9     |
| Transmitting (Tx), IEEE 802.11a CDD (11a(CDD))                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 18 Mbps (CDD), PN9      |
| Transmitting (Tx), IEEE 802.11n CDD 20 MHz BW (11n-20(CDD))                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | MCS 3 (1 Streams), PN9  |
| Transmitting (Tx), IEEE 802.11ac CDD 20 MHz BW (11ac-20(CDD))                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | MCS 3 (1 Streams), PN9  |
| Transmitting (Tx), IEEE 802.11n SDM (MIMO) 20 MHz BW (11n-20(MIMO))                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | MCS 11 (2 Streams), PN9 |
| Transmitting (Tx), IEEE 802.11ac SDM (MIMO) 20 MHz BW (11ac-20(MIMO))                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | MCS 3 (2 Streams), PN9  |
| Transmitting (Tx), IEEE 802.11n SISO 40 MHz BW (11n-40(SISO))                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | MCS 3 (Chain1), PN9     |
| Transmitting (Tx), IEEE 802.11ac SISO 40 MHz BW (11ac-40(SISO))                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | MCS 3 (Chain1), PN9     |
| Transmitting (Tx), IEEE 802.11n CDD 40 MHz BW (11n-40(CDD))                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | MCS 3 (1 Streams), PN9  |
| Transmitting (Tx), IEEE 802.11ac CDD 40 MHz BW (11ac-40(CDD))                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | MCS 3 (1 Streams), PN9  |
| Transmitting (Tx), IEEE 802.11n SDM (MIMO) 40 MHz BW (11n-40(MIMO))                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | MCS 11 (2 Streams), PN9 |
| Transmitting (Tx), IEEE 802.11ac SDM (MIMO) 40 MHz BW (11ac-40(MIMO))                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | MCS 3 (2 Streams), PN9  |
| Transmitting (Tx), IEEE 802.11ac SISO 80 MHz BW (11ac-80(SISO))                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | MCS 5 (Chain1), PN9     |
| Transmitting (Tx), IEEE 802.11ac CDD 80 MHz BW (11ac-80(CDD))                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | MCS 3 (1 Streams), PN9  |
| Transmitting (Tx), IEEE 802.11ac SDM (MIMO) 80 MHz BW (11ac-80(MIMO))                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | MCS 3 (2 Streams), PN9  |
| *The worst antenna (Chain1) 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: (SISO) 11a/11n-20/11n-40:10 dBm, 11ac-20/11ac-40/11ac-80:6 dBm<br>(MIMO) 11a/11n-20/11n-40:7 dBm, 11ac-20/11ac-40/11ac-80:3 dBm<br>Software: QRCT (Qualcomm Radio Control Toolkit) v4.0.00195.0<br>(Date: 2021.10.18, Storage location: Driven by connected PC)<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. |                         |
| * SISO: Single input single output, MIMO: Multi input multi output,<br>CDD: Cyclic delay diversity, SDM: Space division multiplexing                                                                                                                                                                                                                                                                                                                                                                                                                             |                         |

\*The details of Operation mode(s)

| Test Item                                                                                                                                                                                                                                                                                                                                                                 | Operating Mode                                                                                                                                                | Tested Antenna *2)  | Tested Frequency                                                                                |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|-------------------------------------------------------------------------------------------------|
| 99 % Occupied Bandwidth,<br>Maximum Conducted Output Power<br>Maximum Power Spectral Density                                                                                                                                                                                                                                                                              | Tx 11a (SISO),<br>Tx 11n-20 (SISO),<br>Tx 11ac-20 (SISO)                                                                                                      | Chain1, Chain2 *3)  | 5180 MHz, 5220 MHz, 5240 MHz,<br>5260 MHz, 5300 MHz, 5320 MHz,<br>5500 MHz, 5580 MHz, 5700 MHz, |
|                                                                                                                                                                                                                                                                                                                                                                           | Tx 11a (CDD),<br>Tx 11n-20 (CDD),<br>Tx 11ac-20 (CDD),<br>Tx 11n-20 (MIMO),<br>Tx 11ac-20 (MIMO)                                                              | Chain1+ Chain2 *4)  | 5720 MHz,<br>5745 MHz, 5785 MHz, 5825 MHz                                                       |
|                                                                                                                                                                                                                                                                                                                                                                           | Tx 11n-40 (SISO),<br>Tx 11ac-40 (SISO)                                                                                                                        | Chain1, Chain2 *3)  | 5190 MHz, 5230 MHz,<br>5270 MHz, 5310 MHz,                                                      |
|                                                                                                                                                                                                                                                                                                                                                                           | Tx 11n-40 (CDD),<br>Tx 11ac-40 (CDD),<br>Tx 11n-40 (MIMO),<br>Tx 11ac-40 (MIMO)                                                                               | Chain1+ Chain2 *4)  | 5510 MHz, 5550 MHz, 5670 MHz,<br>5710 MHz,<br>5755 MHz, 5795 MHz                                |
|                                                                                                                                                                                                                                                                                                                                                                           | Tx 11ac-80 (SISO)                                                                                                                                             | Chain1, Chain2 *3)  | 5210 MHz, 5290 MHz,                                                                             |
|                                                                                                                                                                                                                                                                                                                                                                           | Tx 11ac-80 (CDD),<br>Tx 11ac-80 (MIMO)                                                                                                                        | Chain1 + Chain2 *4) | 5530 MHz, 5610 MHz, 5690 MHz,<br>5775 MHz                                                       |
| 26 dB Emission Bandwidth                                                                                                                                                                                                                                                                                                                                                  | Tx 11a (SISO),<br>Tx 11n-20 (SISO),<br>Tx 11ac-20 (SISO),<br>Tx 11a (CDD),<br>Tx 11n-20 (CDD),<br>Tx 11ac-20 (CDD),<br>Tx 11n-20 (MIMO),<br>Tx 11ac-20 (MIMO) | Chain1              | 5260 MHz, 5300 MHz, 5320 MHz,<br>5500 MHz, 5580 MHz, 5700 MHz,<br>5720 MHz                      |
|                                                                                                                                                                                                                                                                                                                                                                           | Tx 11n-40 (SISO),<br>Tx 11ac-40 (SISO),<br>Tx 11n-40 (CDD),<br>Tx 11ac-40 (CDD),<br>Tx 11n-40 (MIMO),<br>Tx 11ac-40 (MIMO)                                    |                     | 5270 MHz, 5310 MHz,<br>5510 MHz, 5550 MHz, 5670 MHz,<br>5710 MHz                                |
|                                                                                                                                                                                                                                                                                                                                                                           | Tx 11ac-80 (SISO)<br>Tx 11ac-80 (CDD),<br>Tx 11ac-80 (MIMO)                                                                                                   |                     | 5290 MHz, 5530 MHz,<br>5610 MHz, 5690 MHz                                                       |
| 6 dB Bandwidth                                                                                                                                                                                                                                                                                                                                                            | Tx 11a (SISO),<br>Tx 11n-20 (SISO),<br>Tx 11ac-20 (SISO),<br>Tx 11a (CDD),<br>Tx 11n-20 (CDD),<br>Tx 11ac-20 (CDD),<br>Tx 11n-20 (MIMO),<br>Tx 11ac-20 (MIMO) | Chain1              | 5745 MHz, 5785 MHz, 5825 MHz                                                                    |
|                                                                                                                                                                                                                                                                                                                                                                           | Tx 11n-40 (SISO),<br>Tx 11ac-40 (SISO),<br>Tx 11n-40 (CDD),<br>Tx 11ac-40 (CDD),<br>Tx 11n-40 (MIMO),<br>Tx 11ac-40 (MIMO)                                    |                     | 5755 MHz, 5795 MHz                                                                              |
|                                                                                                                                                                                                                                                                                                                                                                           | Tx 11ac-80 (SISO),<br>Tx 11ac-80 (CDD),<br>Tx 11ac-80 (MIMO)                                                                                                  |                     | 5775 MHz                                                                                        |
| Conducted Spurious Emission *1)                                                                                                                                                                                                                                                                                                                                           | Tx 11a (SISO)                                                                                                                                                 | Chain1              | 5700 MHz                                                                                        |
| *1) The mode was tested as a representative, because it had the highest power at antenna terminal test.<br>*2) The test was performed with the antenna that had higher power as a representative.<br>*3) Only Maximum Conducted Output Power, measured both antenna port (chain 1 and Chain2).<br>*4) Only 99 % Occupied Bandwidth, measured worst antenna port (Chain1). |                                                                                                                                                               |                     |                                                                                                 |

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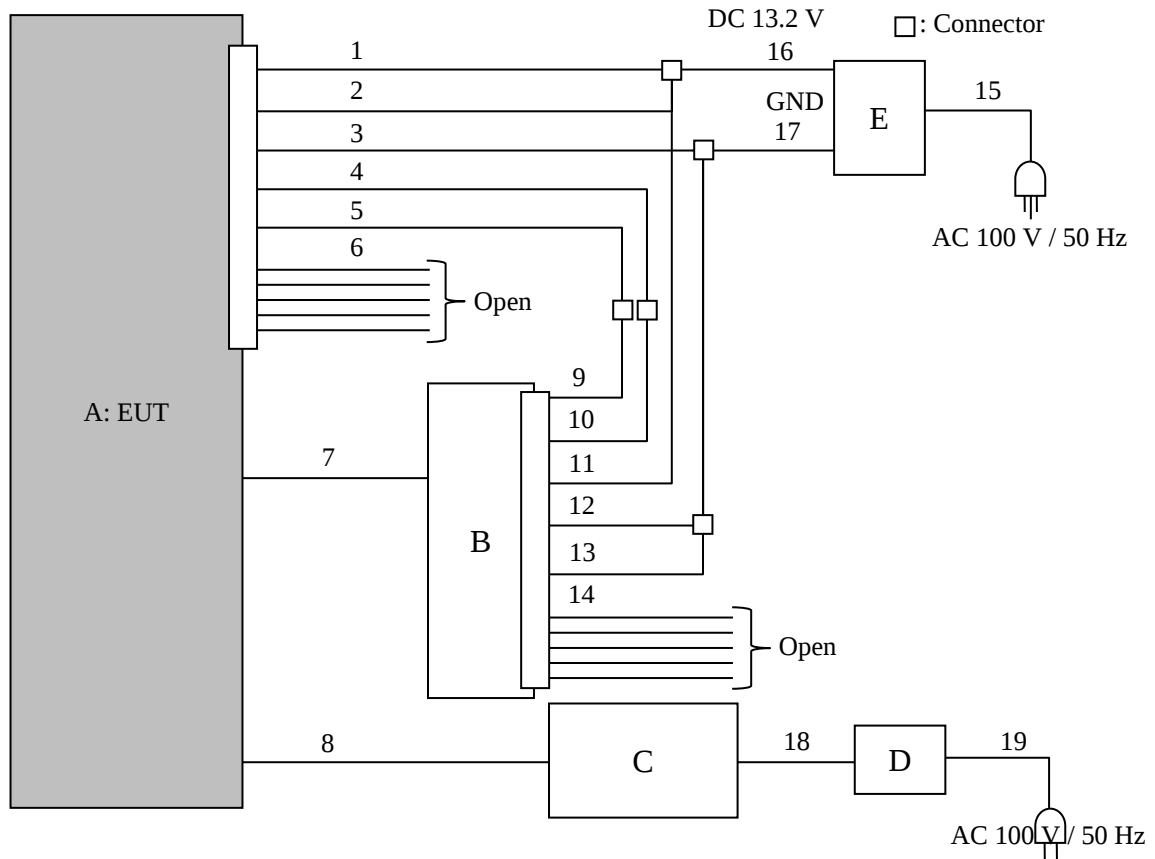
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## 4.2 Configuration and peripherals



#### Description of EUT and Support equipment

| No. | Item              | Model number | Serial number             | Manufacturer | Remark |
|-----|-------------------|--------------|---------------------------|--------------|--------|
| A   | Head unit         | AH00ICB      | 73                        | ALPS ALPINE  | EUT    |
| B   | Display           | QH00159A     | 114                       | ALPS ALPINE  | -      |
| C   | Laptop Computer   | 7666-77J     | LV-B8R1X 08/05            | Lenovo       | -      |
| D   | AC Adapter        | 42T4422      | 11S92P1154Z1DXF1DBF<br>DN | Lenovo       | -      |
| E   | Power Supply (DC) | PW16-5ADP    | 19100034                  | TEXIO        | -      |

#### List of cables used

| No. | Name      | Length (m) | Shield     |            | Remark |
|-----|-----------|------------|------------|------------|--------|
|     |           |            | Cable      | Connector  |        |
| 1   | +B        | 2.2        | Unshielded | Unshielded | -      |
| 2   | ACC       | 2.2        | Unshielded | Unshielded | -      |
| 3   | GND       | 2.2        | Unshielded | Unshielded | -      |
| 4   | BCAN H    | 2.2        | Unshielded | Unshielded | -      |
| 5   | BCAN L    | 2.2        | Unshielded | Unshielded | -      |
| 6   | Signal    | 2.2        | Unshielded | Unshielded | -      |
| 7   | GVIF      | 2.4        | Shielded   | Shielded   | -      |
| 8   | USB       | 2.2 + 1.0  | Shielded   | Shielded   | -      |
| 9   | BCAN L    | 0.6        | Unshielded | Unshielded | -      |
| 10  | BCAN H    | 0.6        | Unshielded | Unshielded | -      |
| 11  | +B        | 0.6        | Unshielded | Unshielded | -      |
| 12  | GND       | 0.6        | Unshielded | Unshielded | -      |
| 13  | DISP CONT | 0.6        | Unshielded | Unshielded | -      |
| 14  | Signal    | 0.6        | Unshielded | Unshielded | -      |
| 15  | AC        | 2.0        | Unshielded | Unshielded | -      |
| 16  | DC+       | 2.0        | Unshielded | Unshielded | -      |
| 17  | DC-       | 2.0        | Unshielded | Unshielded | -      |
| 18  | DC        | 1.8        | Unshielded | Unshielded | -      |
| 19  | AC        | 0.9        | Unshielded | Unshielded | -      |

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## SECTION 5: 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-G) |
| 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 *5)                          |
| 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.

\*5) Power was measured with using the gate function.

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

## APPENDIX 1: Test data

### 26 dB Emission Bandwidth and 99 % Occupied Bandwidth

Report No. 13977035S-C-R1  
Test place Shonan EMC Lab. No.5 Shielded Room  
Date November 1, 2021 November 2, 2021 November 4, 2021  
Temperature / Humidity 23 deg. C / 43 % RH 25 deg. C / 40 % RH 25 deg. C / 34 % RH  
Engineer Takahiro Kawakami Takahiro Kawakami Shiro Kobayashi  
Mode Tx (measured worst antenna port)

11a(SISO)

| Antenna | Tested Frequency [MHz] | 26 dB Emission Bandwidth [MHz] | 99 % Occupied Bandwidth [kHz] |
|---------|------------------------|--------------------------------|-------------------------------|
| Chain 1 | 5180                   | -                              | 16730.4                       |
|         | 5220                   | -                              | 16778.9                       |
|         | 5240                   | -                              | 16773.4                       |
|         | 5260                   | 20.326                         | 16776.5                       |
|         | 5300                   | 19.720                         | 16726.1                       |
|         | 5320                   | 19.788                         | 16708.7                       |
|         | 5500                   | 19.582                         | 16707.6                       |
|         | 5580                   | 19.779                         | 16658.6                       |
|         | 5700                   | 19.888                         | 16779.2                       |
|         | 5720                   | 20.020                         | 16746.7                       |
|         | 5745                   | -                              | 16756.0                       |
|         | 5785                   | -                              | 16786.3                       |
|         | 5825                   | -                              | 16786.3                       |

11n-20(SISO)

| Antenna | Tested Frequency [MHz] | 26 dB Emission Bandwidth [MHz] | 99 % Occupied Bandwidth [kHz] |
|---------|------------------------|--------------------------------|-------------------------------|
| Chain 1 | 5180                   | -                              | 17788.5                       |
|         | 5220                   | -                              | 17788.2                       |
|         | 5240                   | -                              | 17873.0                       |
|         | 5260                   | 20.512                         | 17826.4                       |
|         | 5300                   | 19.956                         | 17819.9                       |
|         | 5320                   | 20.052                         | 17829.7                       |
|         | 5500                   | 20.586                         | 17853.4                       |
|         | 5580                   | 20.446                         | 17835.9                       |
|         | 5700                   | 20.301                         | 17807.3                       |
|         | 5720                   | 20.407                         | 17834.8                       |
|         | 5745                   | -                              | 17859.5                       |
|         | 5785                   | -                              | 17853.4                       |
|         | 5825                   | -                              | 17868.5                       |

11ac-20(SISO)

| Antenna | Tested Frequency [MHz] | 26 dB Emission Bandwidth [MHz] | 99 % Occupied Bandwidth [kHz] |
|---------|------------------------|--------------------------------|-------------------------------|
| Chain 1 | 5180                   | -                              | 17860.8                       |
|         | 5220                   | -                              | 17805.7                       |
|         | 5240                   | -                              | 17820.2                       |
|         | 5260                   | 20.564                         | 17812.0                       |
|         | 5300                   | 20.684                         | 17805.9                       |
|         | 5320                   | 20.525                         | 17796.9                       |
|         | 5500                   | 20.443                         | 17821.7                       |
|         | 5580                   | 20.457                         | 17849.8                       |
|         | 5700                   | 20.470                         | 17808.1                       |
|         | 5720                   | 20.435                         | 17842.9                       |
|         | 5745                   | -                              | 17900.3                       |
|         | 5785                   | -                              | 17848.0                       |
|         | 5825                   | -                              | 17876.9                       |

11a(CDD)

| Antenna | Tested Frequency [MHz] | 26 dB Emission Bandwidth [MHz] | 99 % Occupied Bandwidth [kHz] |
|---------|------------------------|--------------------------------|-------------------------------|
| Chain 1 | 5180                   | -                              | 16760.4                       |
|         | 5220                   | -                              | 16748.6                       |
|         | 5240                   | -                              | 16773.0                       |
|         | 5260                   | 19.596                         | 16736.8                       |
|         | 5300                   | 19.346                         | 16779.9                       |
|         | 5320                   | 19.293                         | 16719.3                       |
|         | 5500                   | 20.061                         | 16784.3                       |
|         | 5580                   | 19.990                         | 16755.8                       |
|         | 5700                   | 19.731                         | 16749.6                       |
|         | 5720                   | 19.621                         | 16701.1                       |
|         | 5745                   | -                              | 16753.8                       |
|         | 5785                   | -                              | 16742.9                       |
|         | 5825                   | -                              | 16813.0                       |

11n-20(CDD)

| Antenna | Tested Frequency [MHz] | 26 dB Emission Bandwidth [MHz] | 99 % Occupied Bandwidth [kHz] |
|---------|------------------------|--------------------------------|-------------------------------|
| Chain 1 | 5180                   | -                              | 17842.1                       |
|         | 5220                   | -                              | 17839.6                       |
|         | 5240                   | -                              | 17859.7                       |
|         | 5260                   | 20.661                         | 17851.0                       |
|         | 5300                   | 20.597                         | 17845.6                       |
|         | 5320                   | 20.573                         | 17854.5                       |
|         | 5500                   | 20.745                         | 17845.5                       |
|         | 5580                   | 20.772                         | 17844.9                       |
|         | 5700                   | 20.482                         | 17841.7                       |
|         | 5720                   | 20.603                         | 17860.9                       |
|         | 5745                   | -                              | 17843.7                       |
|         | 5785                   | -                              | 17864.6                       |
|         | 5825                   | -                              | 17843.8                       |

11ac-20(CDD)

| Antenna | Tested Frequency [MHz] | 26 dB Emission Bandwidth [MHz] | 99 % Occupied Bandwidth [kHz] |
|---------|------------------------|--------------------------------|-------------------------------|
| Chain 1 | 5180                   | -                              | 17900.3                       |
|         | 5220                   | -                              | 17897.6                       |
|         | 5240                   | -                              | 17903.4                       |
|         | 5260                   | 20.533                         | 17878.6                       |
|         | 5300                   | 20.524                         | 17898.5                       |
|         | 5320                   | 20.547                         | 17903.5                       |
|         | 5500                   | 20.496                         | 17899.0                       |
|         | 5580                   | 20.525                         | 17884.7                       |
|         | 5700                   | 20.622                         | 17896.6                       |
|         | 5720                   | 20.549                         | 17906.1                       |
|         | 5745                   | -                              | 17862.0                       |
|         | 5785                   | -                              | 17899.5                       |
|         | 5825                   | -                              | 17897.7                       |

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## 26 dB Emission Bandwidth and 99 % Occupied Bandwidth

Report No. 13977035S-C-R1  
Test place Shonan EMC Lab. No.5 Shielded Room  
Date November 1, 2021 November 2, 2021 November 4, 2021 November 22, 2021  
Temperature / Humidity 23 deg. C / 43 % RH 25 deg. C / 40 % RH 25 deg. C / 34 % RH 23 deg. C / 40 % RH  
Engineer Takahiro Kawakami Takahiro Kawakami Shiro Kobayashi Shiro Kobayashi  
Mode Tx (measured worst antenna port)

11n-20(MIMO)

| Antenna | Tested Frequency [MHz] | 26 dB Emission Bandwidth [MHz] | 99 % Occupied Bandwidth [kHz] |
|---------|------------------------|--------------------------------|-------------------------------|
| Chain 1 | 5180                   | -                              | 17807.7                       |
|         | 5220                   | -                              | 17799.7                       |
|         | 5240                   | -                              | 17840.6                       |
|         | 5260                   | 20.520                         | 17798.6                       |
|         | 5300                   | 20.361                         | 17837.1                       |
|         | 5320                   | 20.385                         | 17885.7                       |
|         | 5500                   | 20.127                         | 17809.5                       |
|         | 5580                   | 20.653                         | 17780.2                       |
|         | 5700                   | 20.369                         | 17847.9                       |
|         | 5720                   | 20.280                         | 17806.7                       |
|         | 5745                   | -                              | 17908.9                       |
|         | 5785                   | -                              | 17909.0                       |
|         | 5825                   | -                              | 17907.7                       |

11ac-20(MIMO)

| Antenna | Tested Frequency [MHz] | 26 dB Emission Bandwidth [MHz] | 99 % Occupied Bandwidth [kHz] |
|---------|------------------------|--------------------------------|-------------------------------|
| Chain 1 | 5180                   | -                              | 17903.5                       |
|         | 5220                   | -                              | 17851.0                       |
|         | 5240                   | -                              | 17852.9                       |
|         | 5260                   | 20.439                         | 17871.5                       |
|         | 5300                   | 20.602                         | 17783.6                       |
|         | 5320                   | 20.216                         | 17774.0                       |
|         | 5500                   | 20.377                         | 17826.2                       |
|         | 5580                   | 20.501                         | 17779.5                       |
|         | 5700                   | 20.173                         | 17847.2                       |
|         | 5720                   | 20.489                         | 17807.8                       |
|         | 5745                   | -                              | 17885.8                       |
|         | 5785                   | -                              | 17857.6                       |
|         | 5825                   | -                              | 17905.8                       |

11n-40(SISO)

| Antenna | Tested Frequency [MHz] | 26 dB Emission Bandwidth [MHz] | 99 % Occupied Bandwidth [kHz] |
|---------|------------------------|--------------------------------|-------------------------------|
| Chain 1 | 5190                   | -                              | 36407.4                       |
|         | 5230                   | -                              | 36356.3                       |
|         | 5270                   | 41.280                         | 36440.7                       |
|         | 5310                   | 40.821                         | 36340.5                       |
|         | 5510                   | 40.916                         | 36445.2                       |
|         | 5550                   | 40.547                         | 36497.3                       |
|         | 5670                   | 40.757                         | 36470.8                       |
|         | 5710                   | 41.080                         | 36519.1                       |
|         | 5755                   | -                              | 36471.2                       |
|         | 5795                   | -                              | 36506.5                       |

11ac-40(SISO)

| Antenna | Tested Frequency [MHz] | 26 dB Emission Bandwidth [MHz] | 99 % Occupied Bandwidth [kHz] |
|---------|------------------------|--------------------------------|-------------------------------|
| Chain 1 | 5190                   | -                              | 36431.7                       |
|         | 5230                   | -                              | 36460.4                       |
|         | 5270                   | 41.340                         | 36442.2                       |
|         | 5310                   | 40.409                         | 36372.0                       |
|         | 5510                   | 41.505                         | 36400.2                       |
|         | 5550                   | 41.219                         | 36433.8                       |
|         | 5670                   | 41.198                         | 36466.6                       |
|         | 5710                   | 41.567                         | 36526.4                       |
|         | 5755                   | -                              | 36476.1                       |
|         | 5795                   | -                              | 36455.3                       |

11n-40(CDD)

| Antenna | Tested Frequency [MHz] | 26 dB Emission Bandwidth [MHz] | 99 % Occupied Bandwidth [kHz] |
|---------|------------------------|--------------------------------|-------------------------------|
| Chain 1 | 5190                   | -                              | 36560.0                       |
|         | 5230                   | -                              | 36596.3                       |
|         | 5270                   | 41.725                         | 36650.3                       |
|         | 5310                   | 41.577                         | 36572.8                       |
|         | 5510                   | 41.830                         | 36649.3                       |
|         | 5550                   | 42.324                         | 36617.4                       |
|         | 5670                   | 41.863                         | 36615.7                       |
|         | 5710                   | 41.562                         | 36655.5                       |
|         | 5755                   | -                              | 36616.9                       |
|         | 5795                   | -                              | 36584.1                       |

11ac-40(CDD)

| Antenna | Tested Frequency [MHz] | 26 dB Emission Bandwidth [MHz] | 99 % Occupied Bandwidth [kHz] |
|---------|------------------------|--------------------------------|-------------------------------|
| Chain 1 | 5190                   | -                              | 36452.4                       |
|         | 5230                   | -                              | 36505.2                       |
|         | 5270                   | 41.115                         | 36437.5                       |
|         | 5310                   | 40.903                         | 36467.0                       |
|         | 5510                   | 41.042                         | 36467.5                       |
|         | 5550                   | 41.004                         | 36426.0                       |
|         | 5670                   | 41.025                         | 36425.0                       |
|         | 5710                   | 40.840                         | 36488.6                       |
|         | 5755                   | -                              | 36454.2                       |
|         | 5795                   | -                              | 36447.1                       |

## 26 dB Emission Bandwidth and 99 % Occupied Bandwidth

Report No. 13977035S-C-R1  
Test place Shonan EMC Lab. No.5 Shielded Room  
Date November 1, 2021 November 2, 2021 November 4, 2021 November 5, 2021  
Temperature / Humidity 23 deg. C / 43 % RH 25 deg. C / 40 % RH 25 deg. C / 34 % RH 24 deg. C / 40 % RH  
Engineer Takahiro Kawakami Takahiro Kawakami Shiro Kobayashi Shiro Kobayashi  
Mode Tx (measured worst antenna port)

11n-40(MIMO)

| Antenna | Tested Frequency [MHz] | 26 dB Emission Bandwidth [MHz] | 99 % Occupied Bandwidth [kHz] |
|---------|------------------------|--------------------------------|-------------------------------|
| Chain 1 | 5190                   | -                              | 36410.9                       |
|         | 5230                   | -                              | 36455.1                       |
|         | 5270                   | 41.180                         | 36420.1                       |
|         | 5310                   | 40.971                         | 36441.7                       |
|         | 5510                   | 40.880                         | 36493.3                       |
|         | 5550                   | 40.744                         | 36456.0                       |
|         | 5670                   | 41.329                         | 36484.4                       |
|         | 5710                   | 41.229                         | 36507.8                       |
|         | 5755                   | -                              | 36479.4                       |
|         | 5795                   | -                              | 36441.2                       |

11ac-40(MIMO)

| Antenna | Tested Frequency [MHz] | 26 dB Emission Bandwidth [MHz] | 99 % Occupied Bandwidth [kHz] |
|---------|------------------------|--------------------------------|-------------------------------|
| Chain 1 | 5190                   | -                              | 36605.2                       |
|         | 5230                   | -                              | 36646.1                       |
|         | 5270                   | 40.676                         | 36663.7                       |
|         | 5310                   | 40.986                         | 36618.6                       |
|         | 5510                   | 40.961                         | 36637.6                       |
|         | 5550                   | 41.333                         | 36619.8                       |
|         | 5670                   | 41.193                         | 36602.8                       |
|         | 5710                   | 41.633                         | 36644.3                       |
|         | 5755                   | -                              | 36616.5                       |
|         | 5795                   | -                              | 36572.0                       |

11ac-80(SISO)

| Antenna | Tested Frequency [MHz] | 26 dB Emission Bandwidth [MHz] | 99 % Occupied Bandwidth [kHz] |
|---------|------------------------|--------------------------------|-------------------------------|
| Chain 1 | 5210                   | -                              | 77331.0                       |
|         | 5290                   | 90.831                         | 77222.6                       |
|         | 5530                   | 90.738                         | 77330.5                       |
|         | 5610                   | 89.718                         | 77324.2                       |
|         | 5690                   | 89.193                         | 77502.2                       |
|         | 5775                   | -                              | 77329.4                       |

11ac-80(CDD)

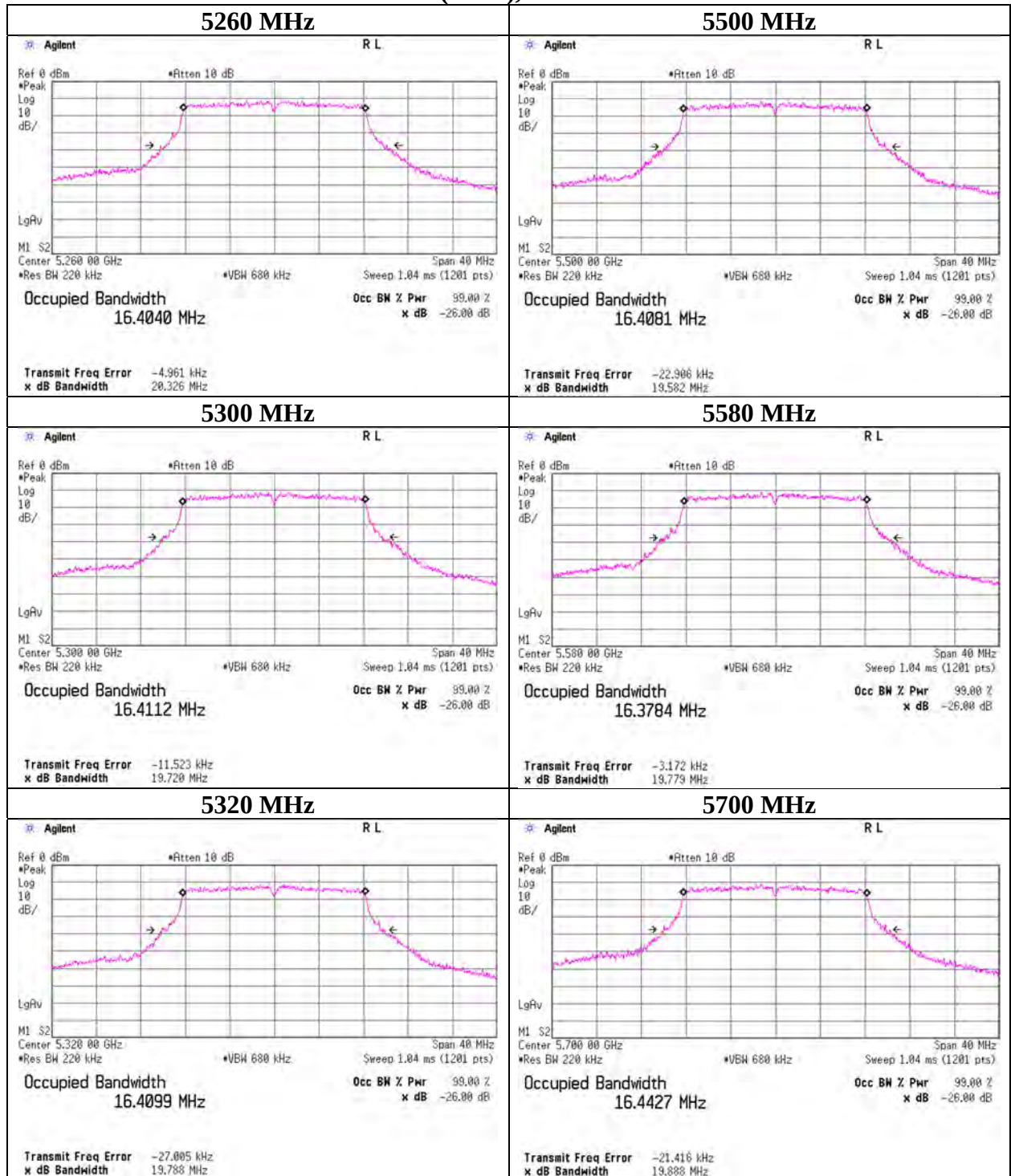
| Antenna | Tested Frequency [MHz] | 26 dB Emission Bandwidth [MHz] | 99 % Occupied Bandwidth [kHz] |
|---------|------------------------|--------------------------------|-------------------------------|
| Chain 1 | 5210                   | -                              | 76456.8                       |
|         | 5290                   | 84.410                         | 76458.5                       |
|         | 5530                   | 85.399                         | 76554.4                       |
|         | 5610                   | 85.476                         | 76600.0                       |
|         | 5690                   | 84.403                         | 76423.6                       |
|         | 5775                   | -                              | 76450.4                       |

11ac-80(MIMO)

| Antenna | Tested Frequency [MHz] | 26 dB Emission Bandwidth [MHz] | 99 % Occupied Bandwidth [kHz] |
|---------|------------------------|--------------------------------|-------------------------------|
| Chain 1 | 5210                   | -                              | 76360.5                       |
|         | 5290                   | 82.956                         | 76235.7                       |
|         | 5530                   | 84.150                         | 76250.6                       |
|         | 5610                   | 83.614                         | 76262.1                       |
|         | 5690                   | 84.847                         | 76343.6                       |
|         | 5775                   | -                              | 76285.5                       |

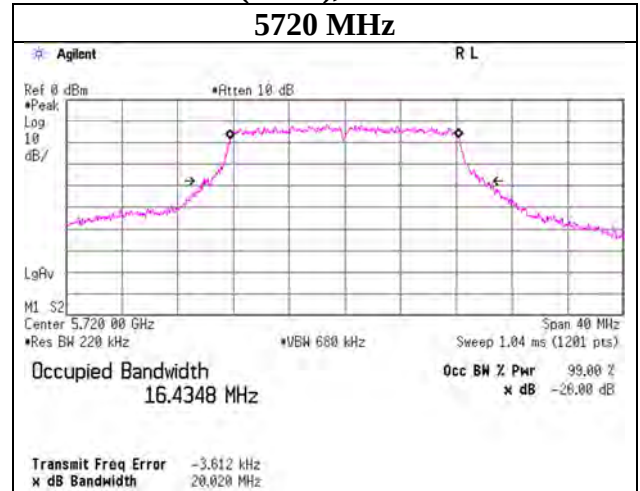
## 26 dB Emission Bandwidth

### 11a(SISO), Chain 1



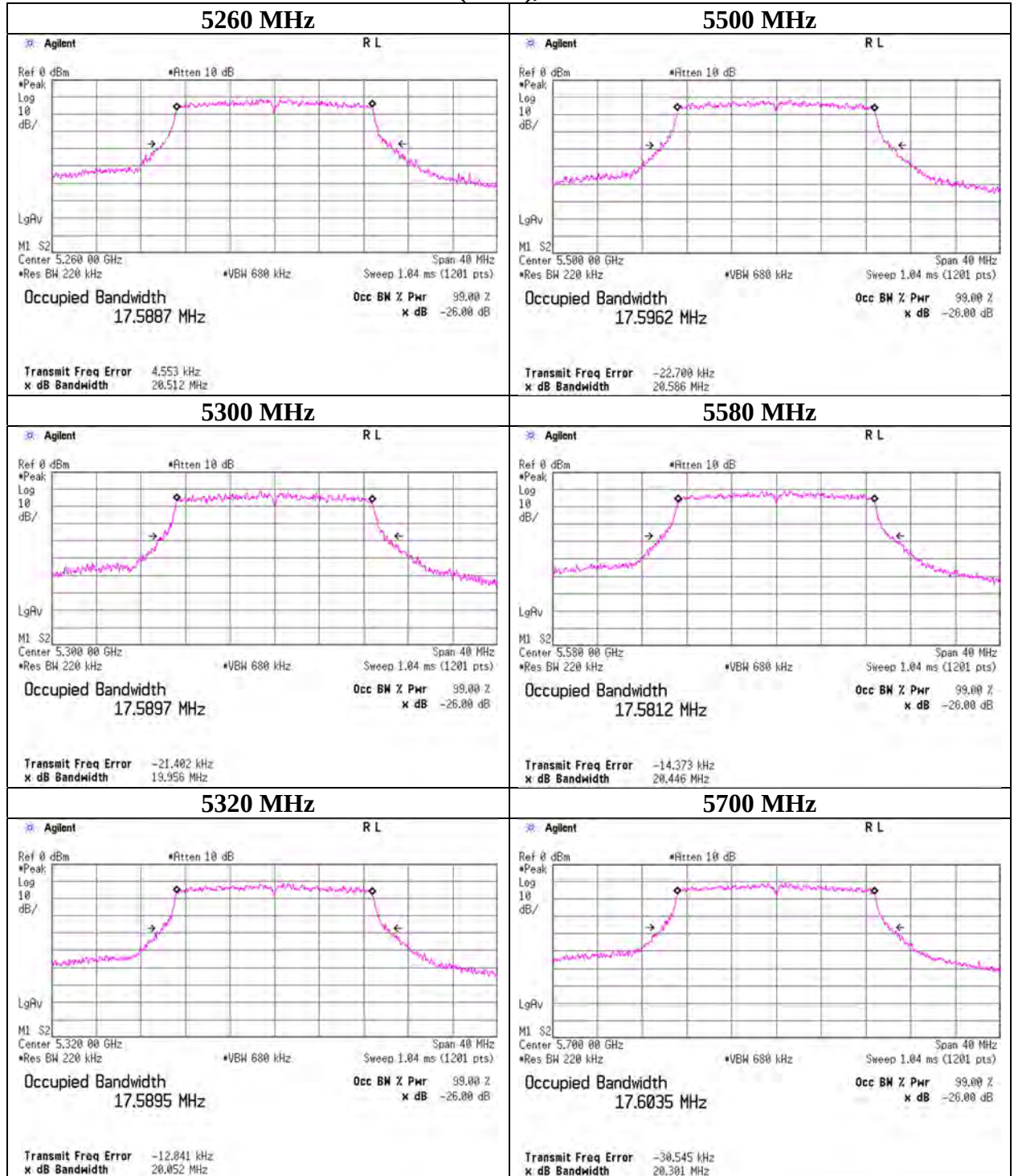
## 26 dB Emission Bandwidth

### 11a(SISO), Chain 1



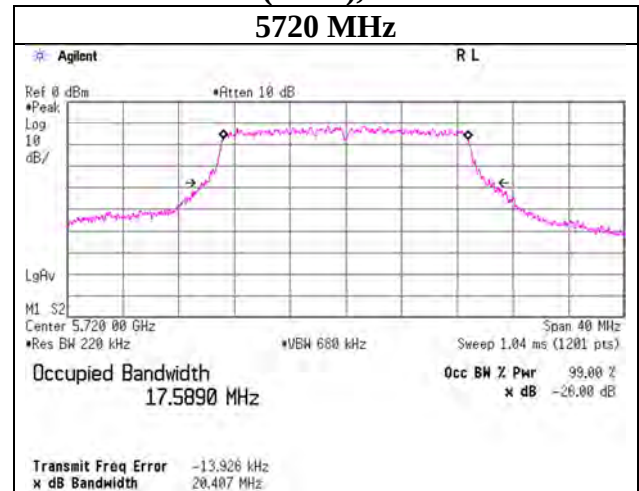
## 26 dB Emission Bandwidth

### 11n-20(SISO), Chain 1



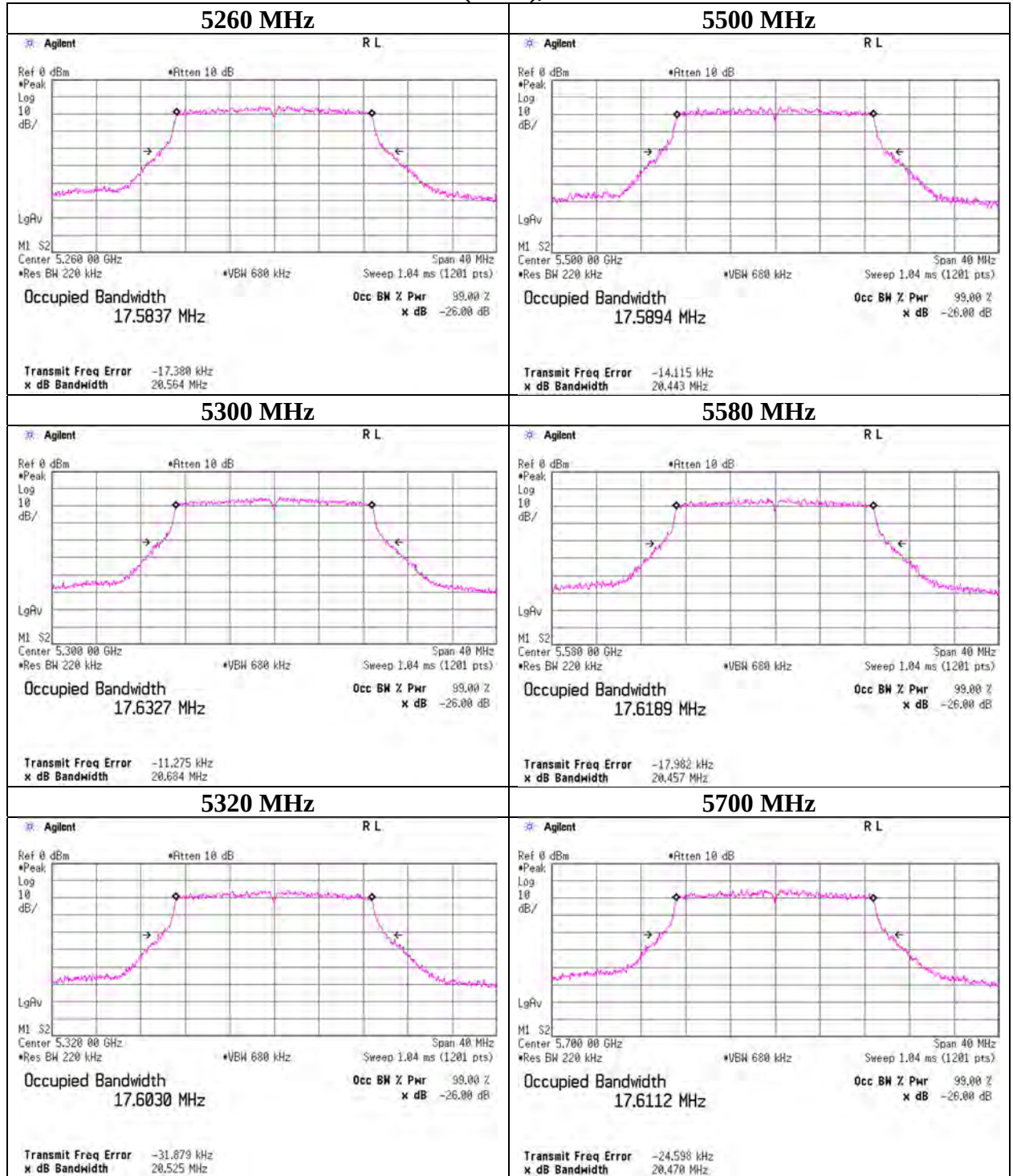
## 26 dB Emission Bandwidth

### 11n-20(SISO), Chain 1



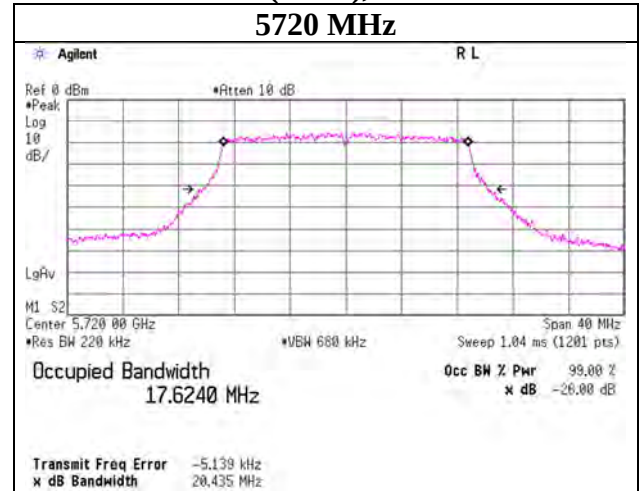
## 26 dB Emission Bandwidth

### 11ac-20(SISO), Chain 1



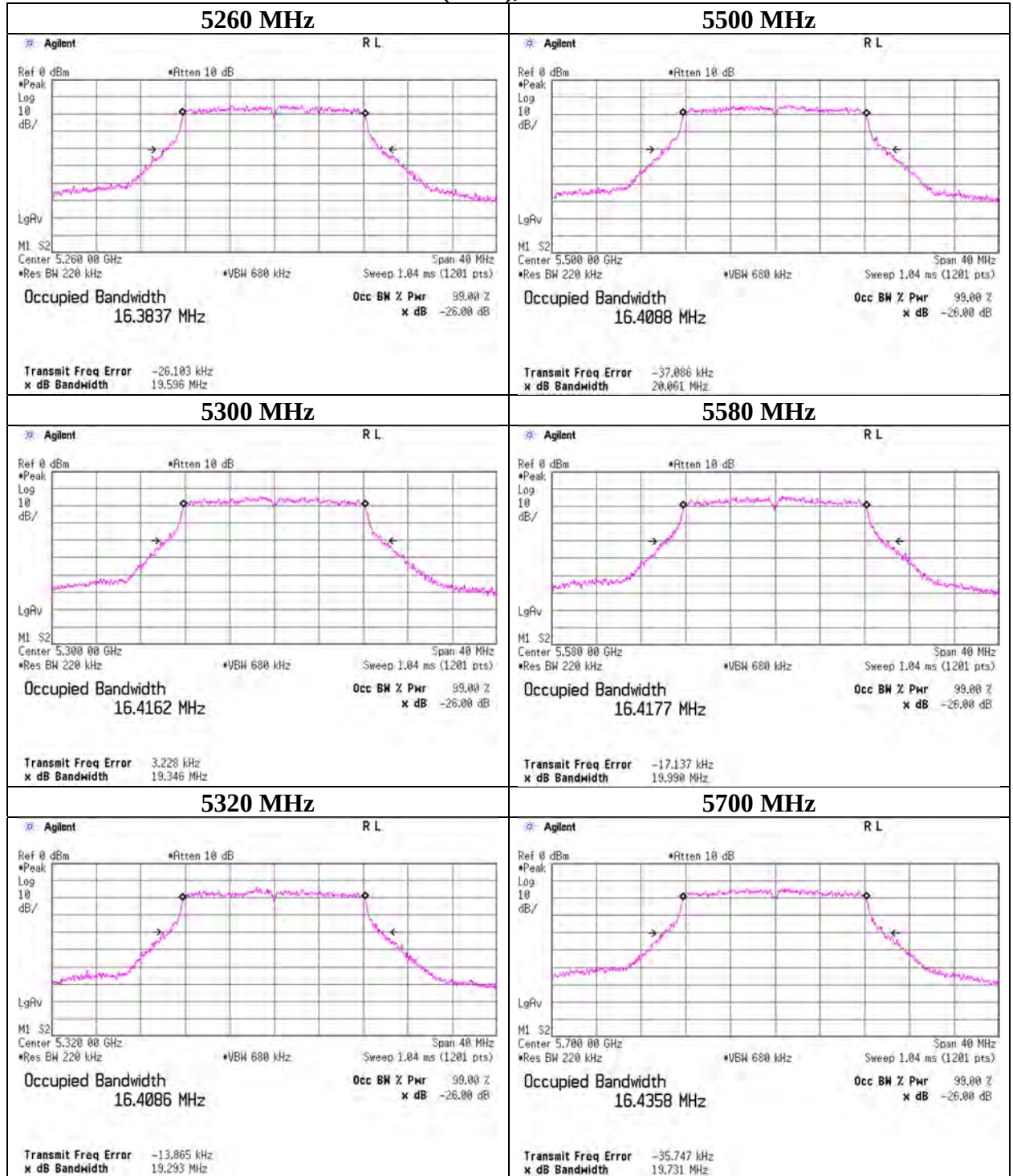
## 26 dB Emission Bandwidth

### 11ac-20(SISO), Chain 1



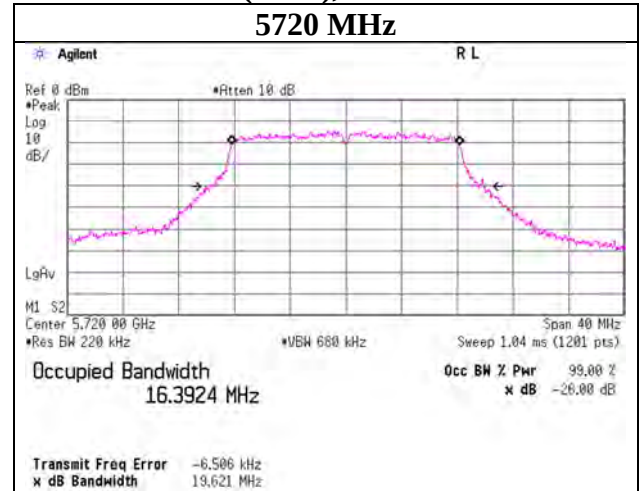
## 26 dB Emission Bandwidth

### 11a(CDD), Chain 1



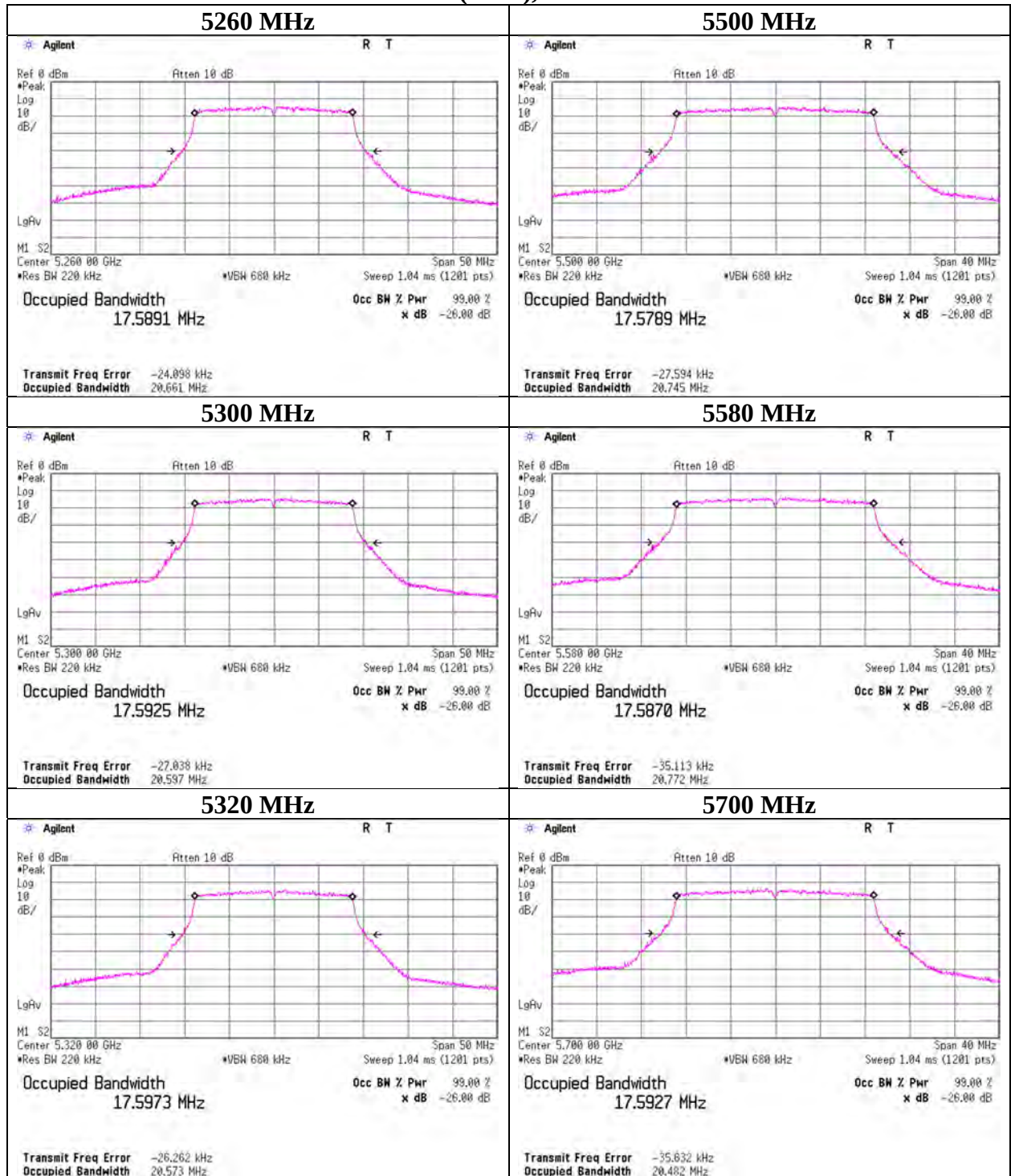
## 26 dB Emission Bandwidth

### 11a(CDD), Chain 1



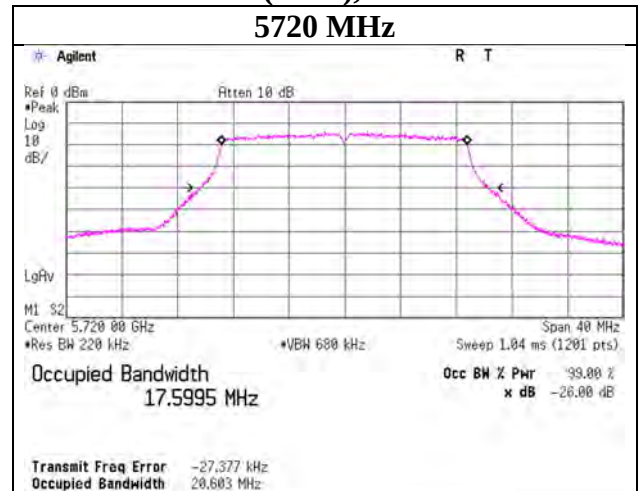
## 26 dB Emission Bandwidth

### 11n-20(CDD), Chain 1



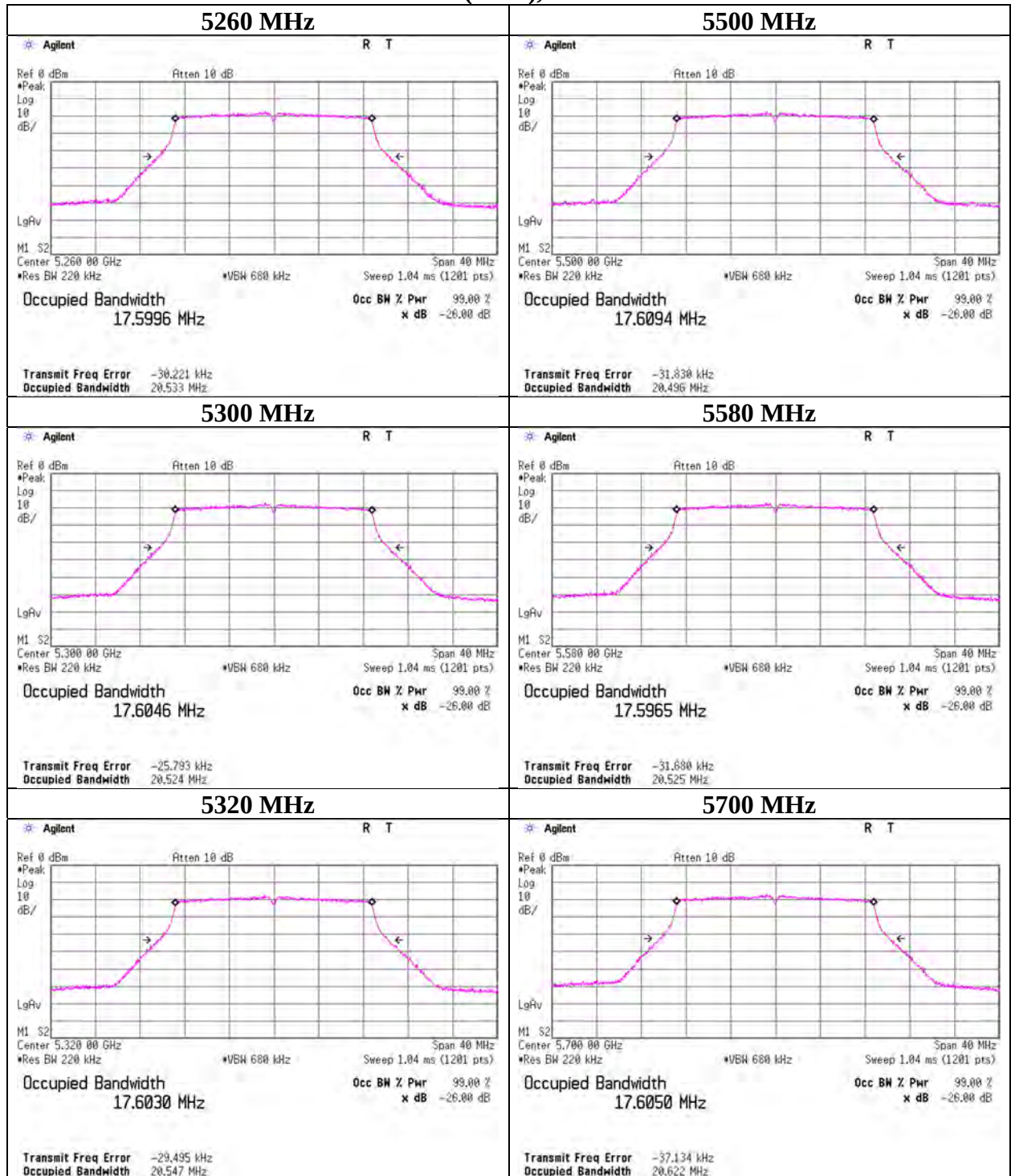
## 26 dB Emission Bandwidth

### 11n-20(CDD), Chain 1



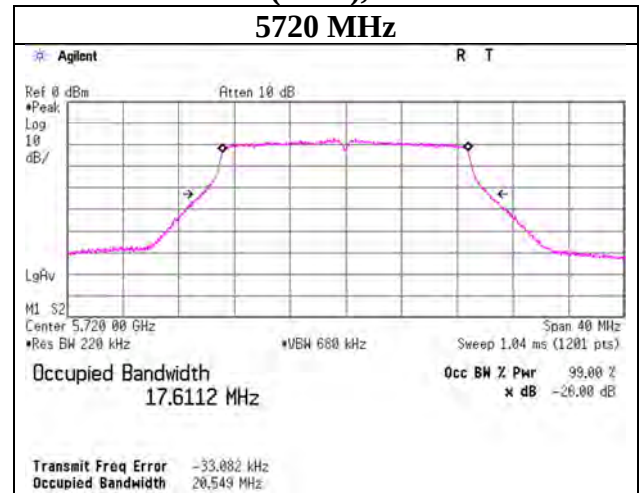
## 26 dB Emission Bandwidth

### 11ac-20(CDD), Chain 1



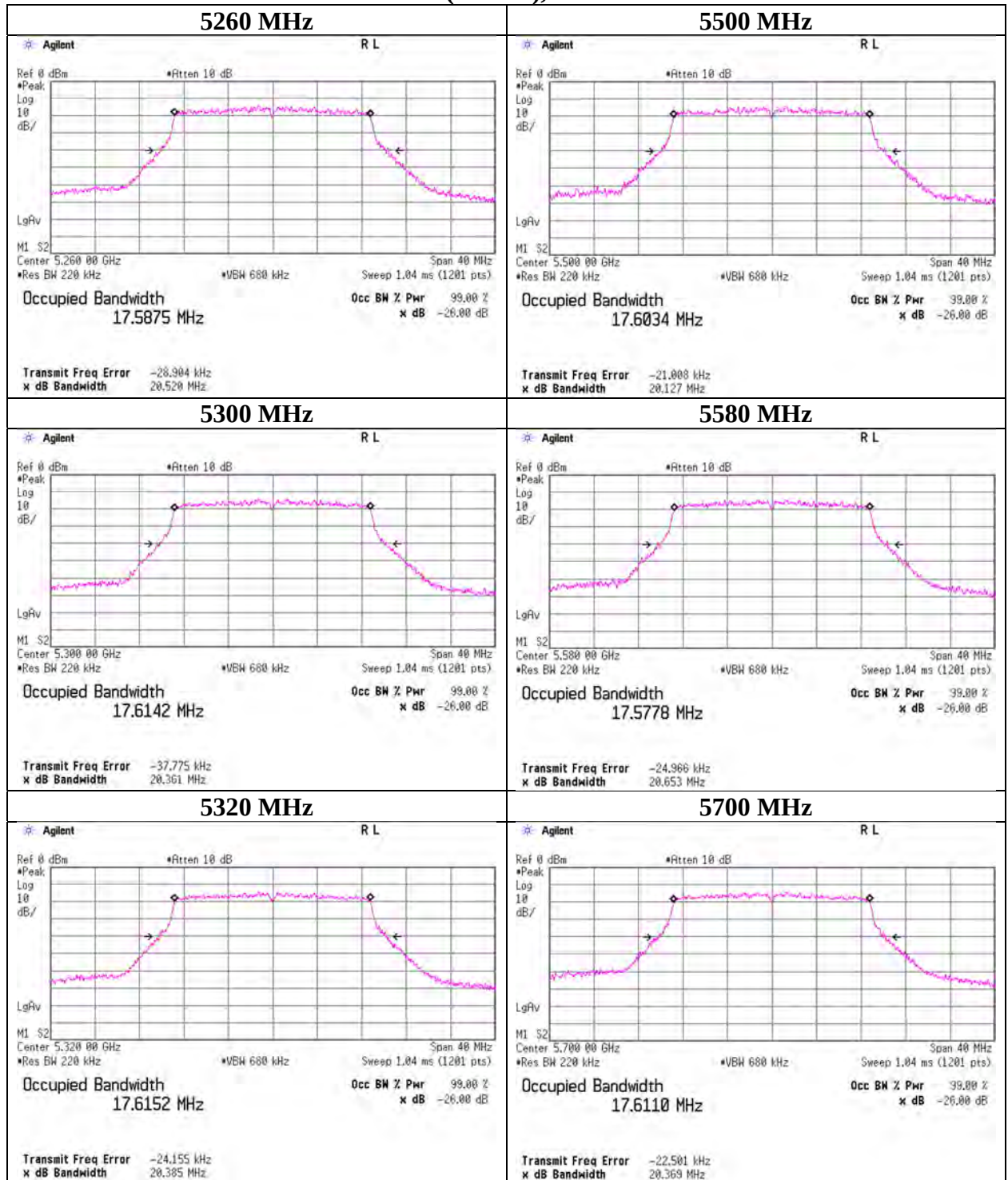
## 26 dB Emission Bandwidth

### 11ac-20(CDD), Chain 1



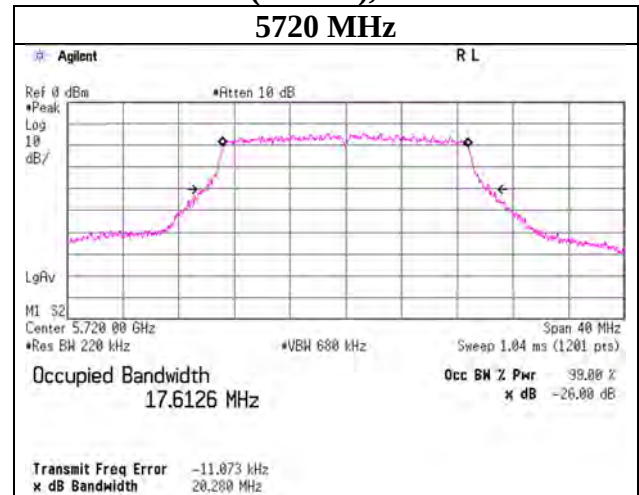
## 26 dB Emission Bandwidth

### 11n-20(MIMO), Chain 1



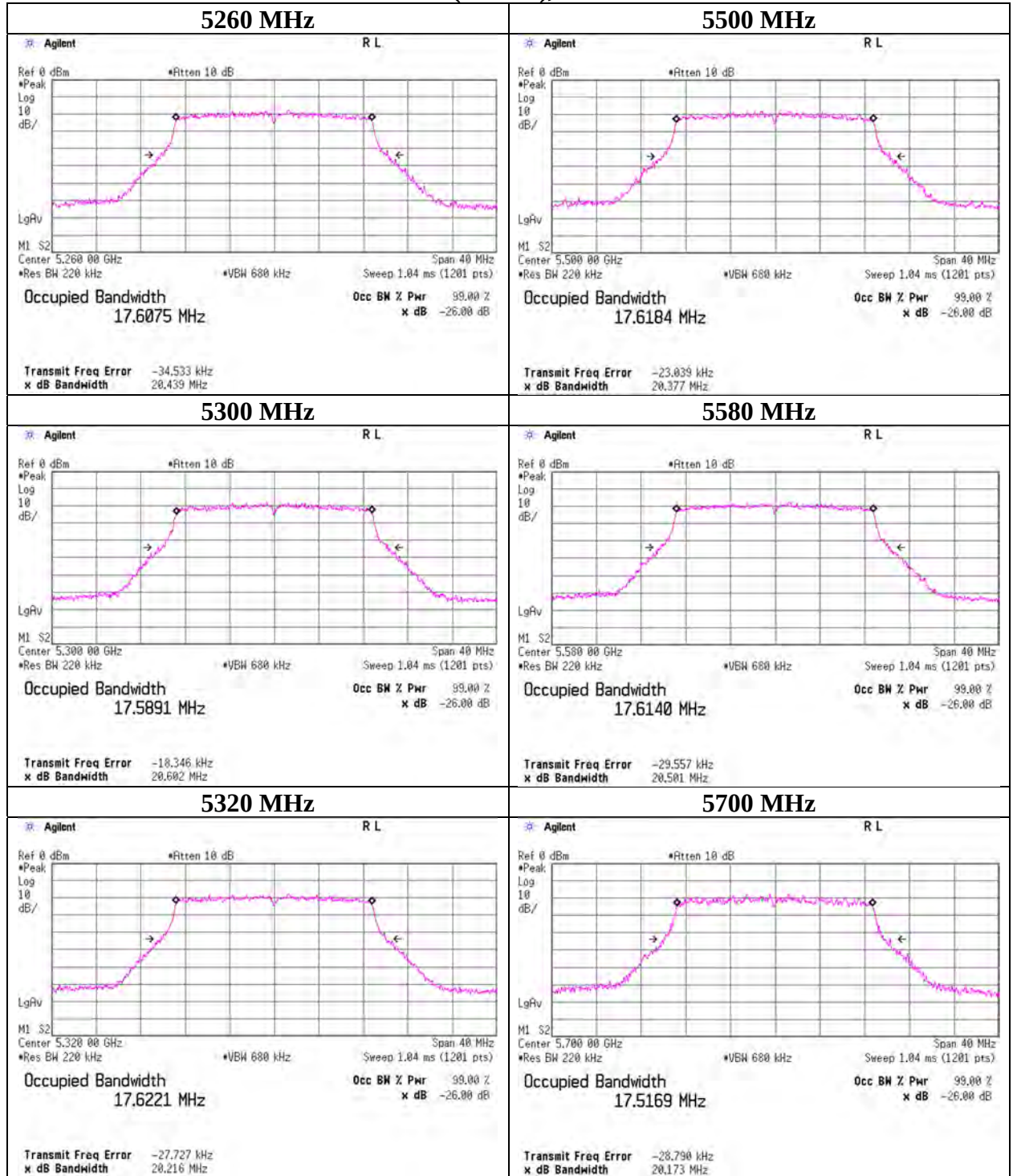
## 26 dB Emission Bandwidth

### 11n-20(MIMO), Chain 1



## 26 dB Emission Bandwidth

### 11ac-20(MIMO), Chain 1



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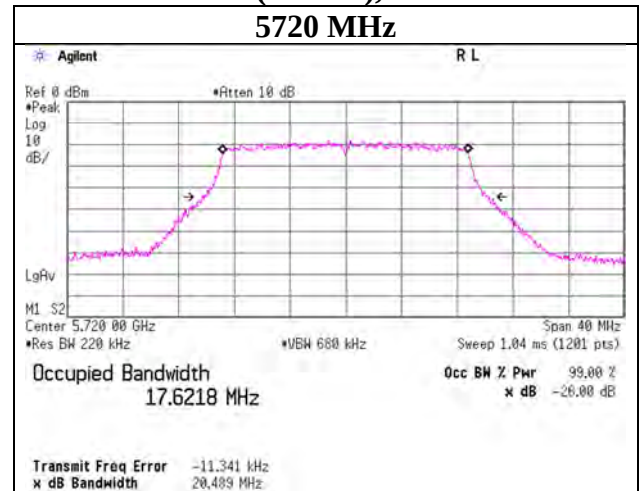
1-22-3 Megumigaoka, Hiratsuka-shi, Kanagawa-ken, 259-1220 JAPAN

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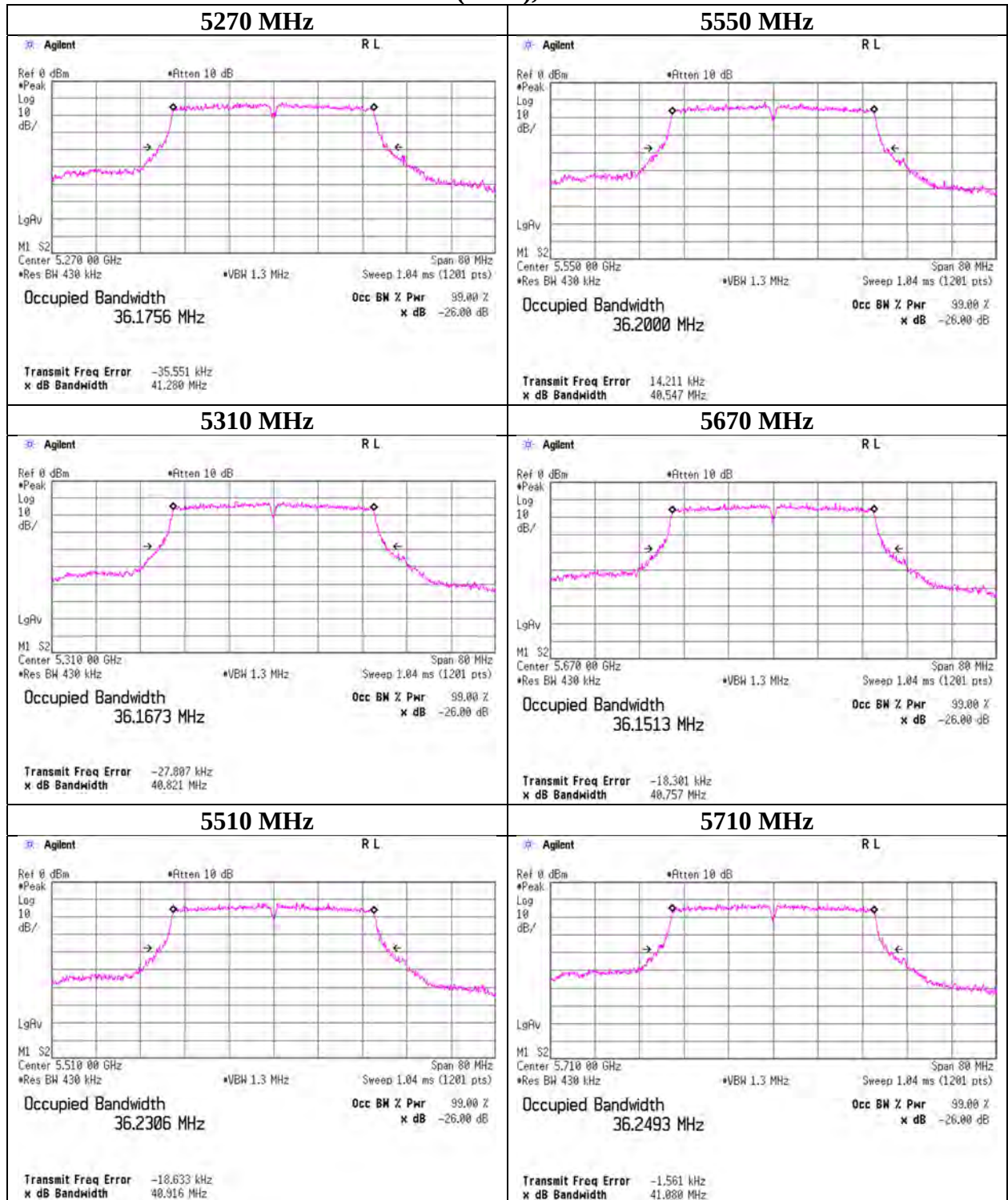
## 26 dB Emission Bandwidth

### 11ac-20(MIMO), Chain 1



## 26 dB Emission Bandwidth

### 11n-40(SISO), Chain 1



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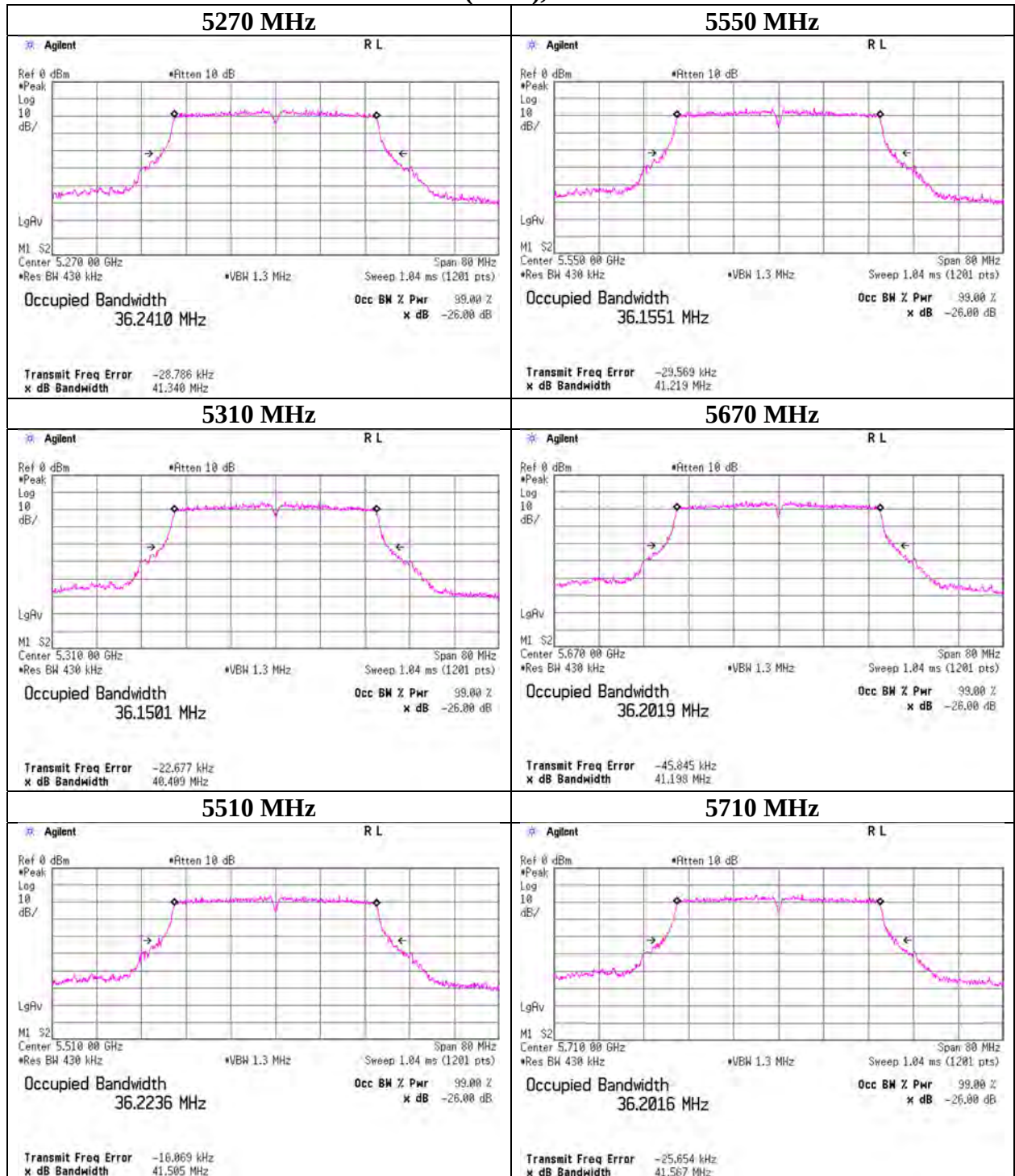
1-22-3 Megumigaoka, Hiratsuka-shi, Kanagawa-ken, 259-1220 JAPAN

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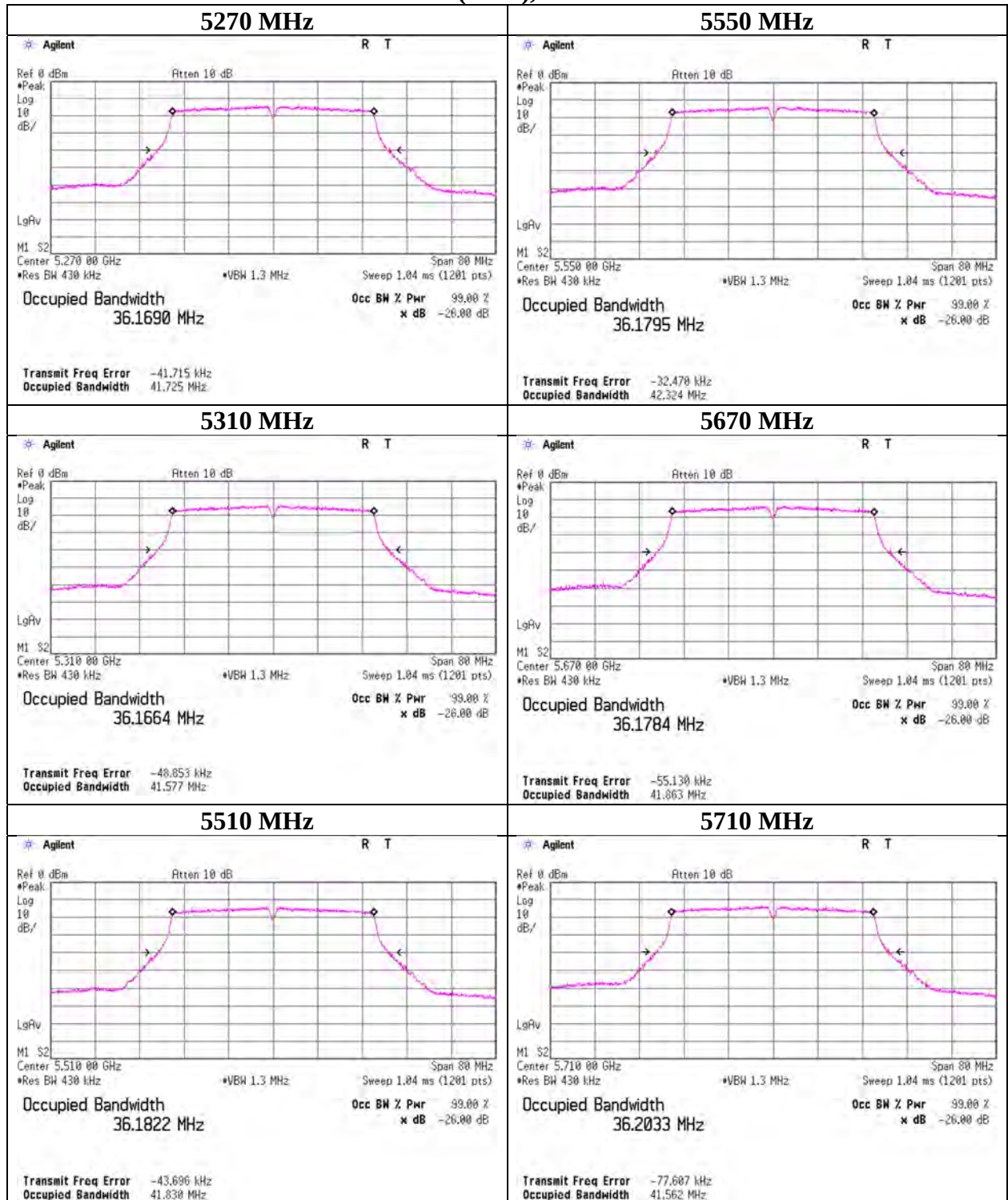
## 26 dB Emission Bandwidth

### 11ac-40(SISO), Chain 1



## 26 dB Emission Bandwidth

### 11n-40(CDD), Chain 1



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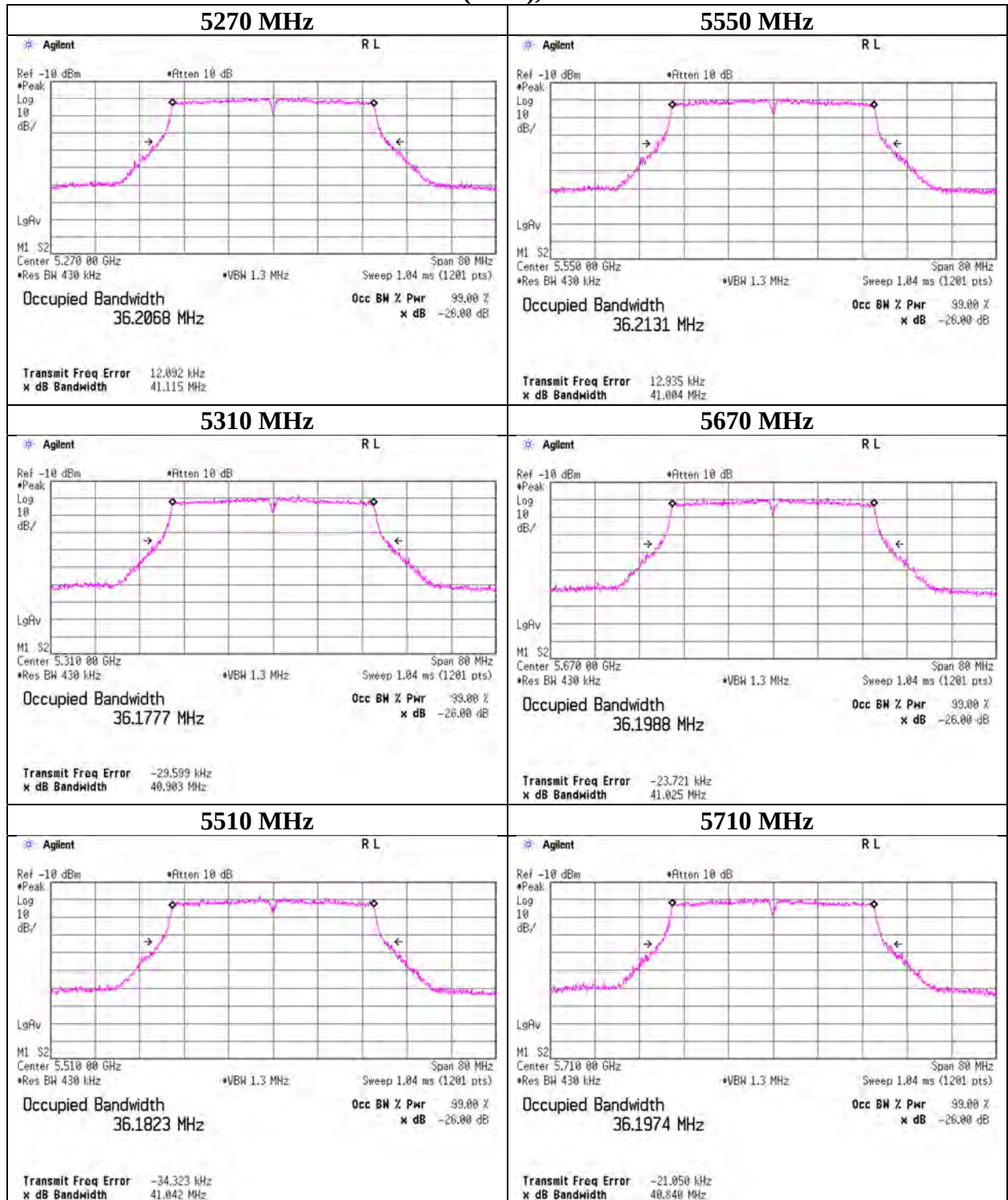
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## 26 dB Emission Bandwidth

### 11ac-40(CDD), Chain 1



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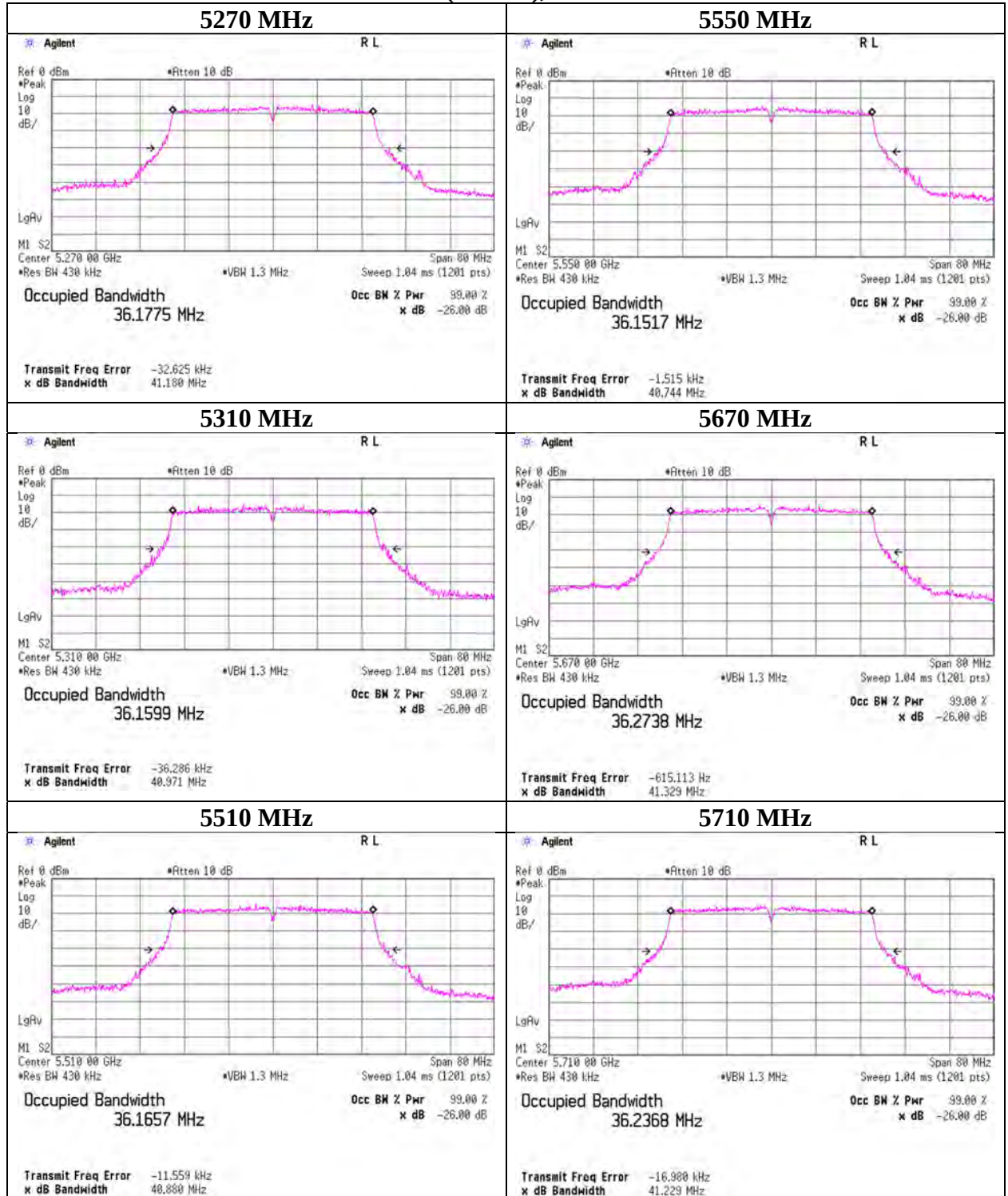
1-22-3 Megumigaoka, Hiratsuka-shi, Kanagawa-ken, 259-1220 JAPAN

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## 26 dB Emission Bandwidth

### 11n-40(MIMO), Chain 1



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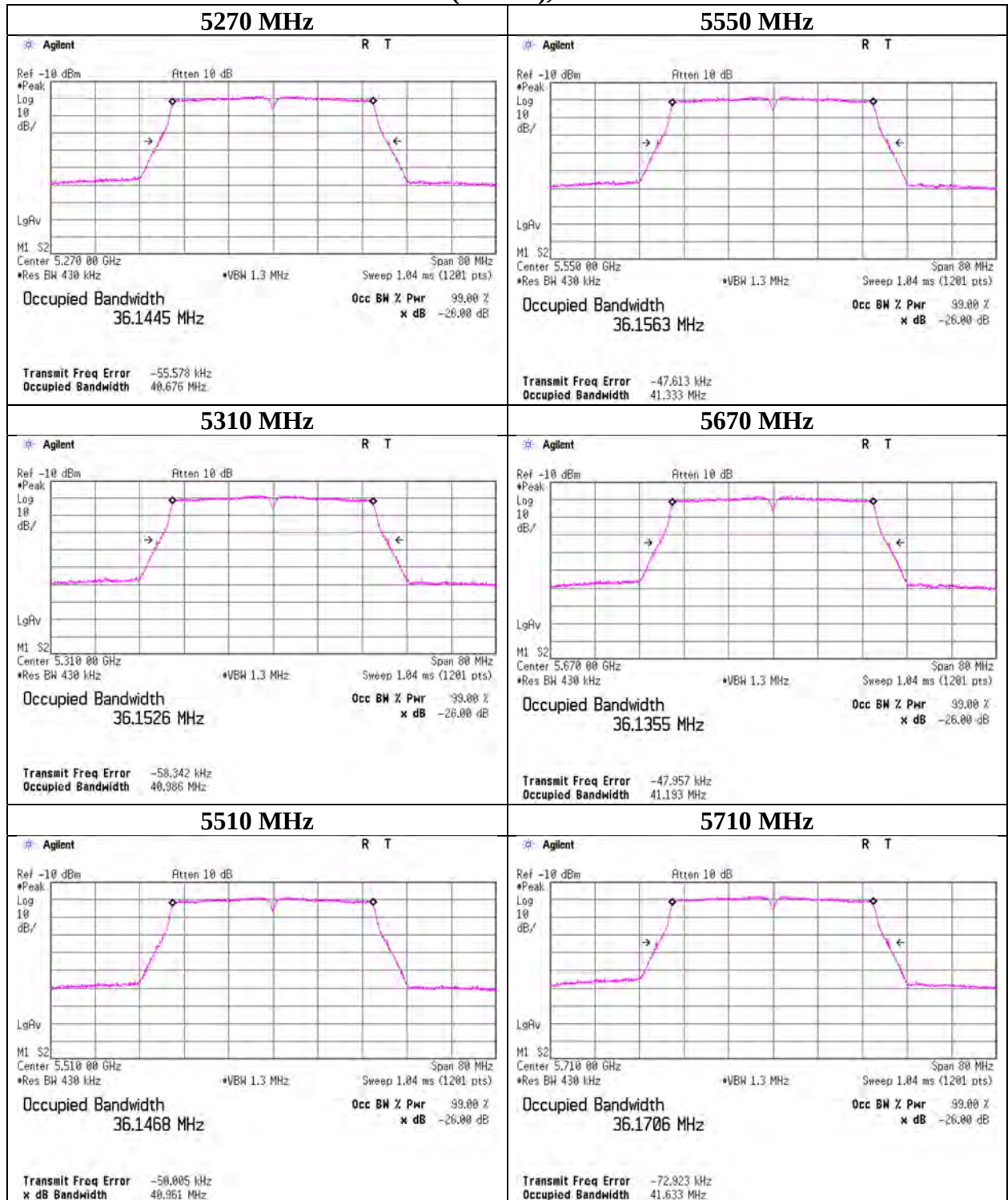
1-22-3 Megumigaoka, Hiratsuka-shi, Kanagawa-ken, 259-1220 JAPAN

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## 26 dB Emission Bandwidth

### 11ac-40(MIMO), Chain 1



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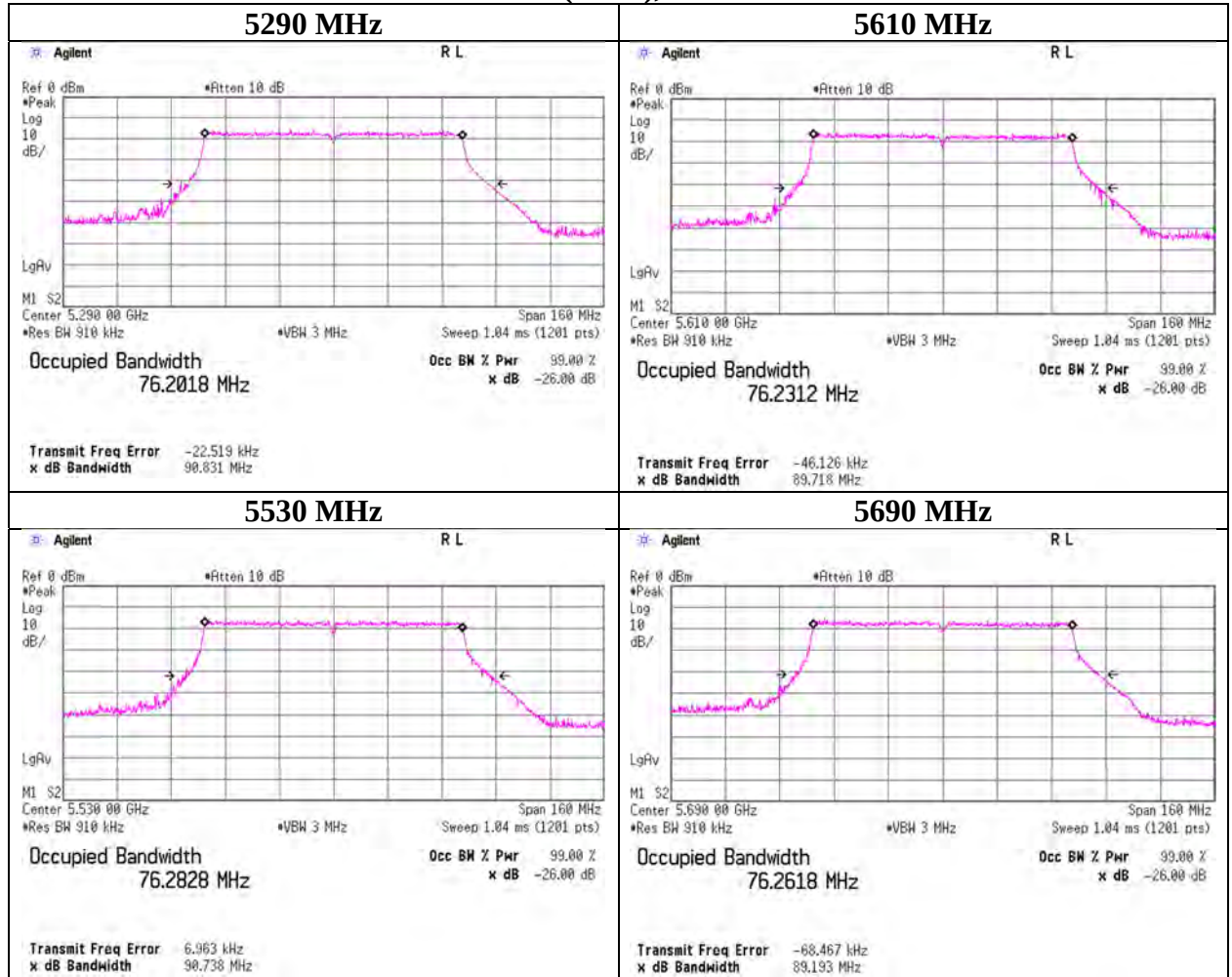
1-22-3 Megumigaoka, Hiratsuka-shi, Kanagawa-ken, 259-1220 JAPAN

Telephone : +81 463 50 6400

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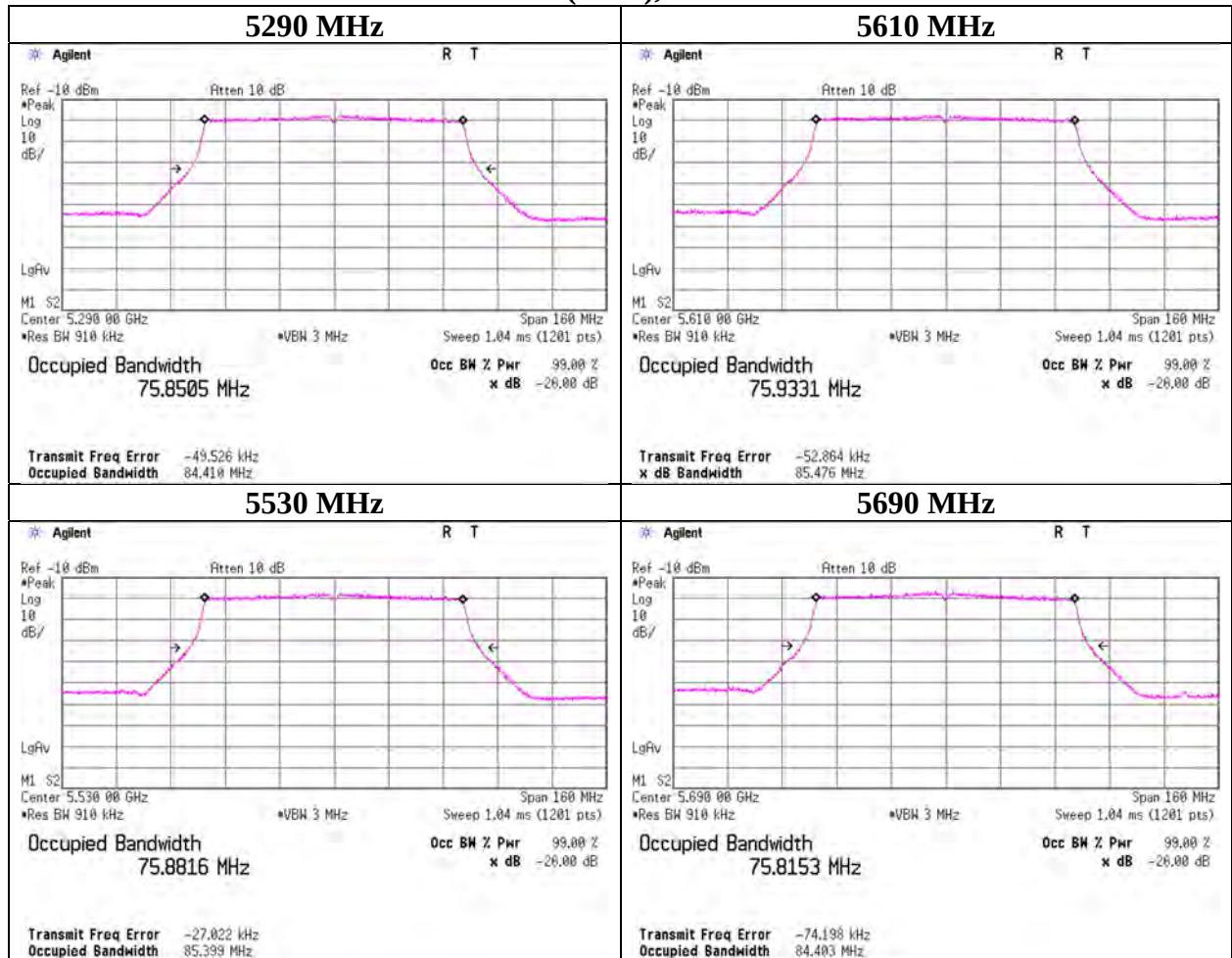
## 26 dB Emission Bandwidth

### 11ac-80(SISO), Chain 1



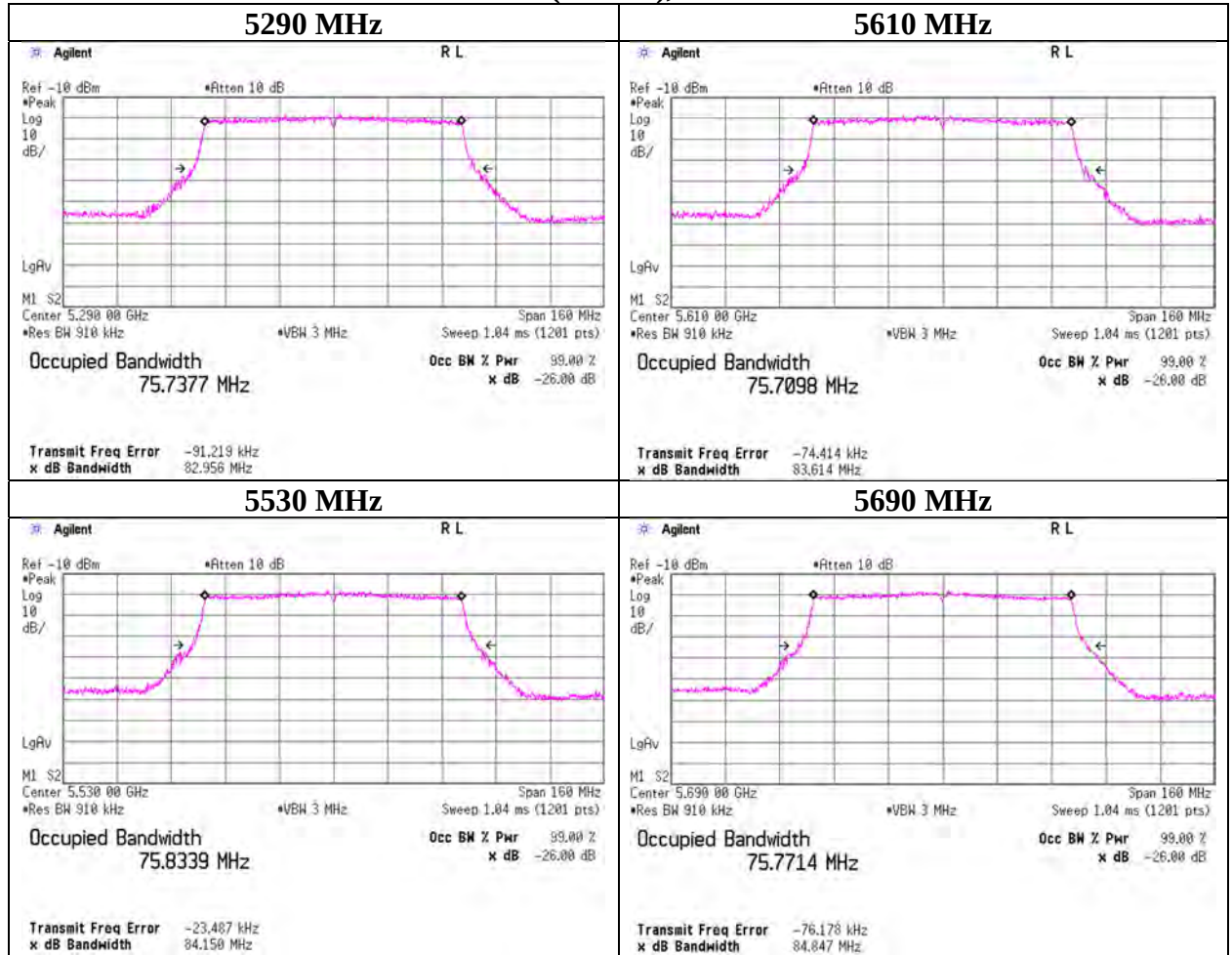
## 26 dB Emission Bandwidth

### 11ac-80(CDD), Chain 1



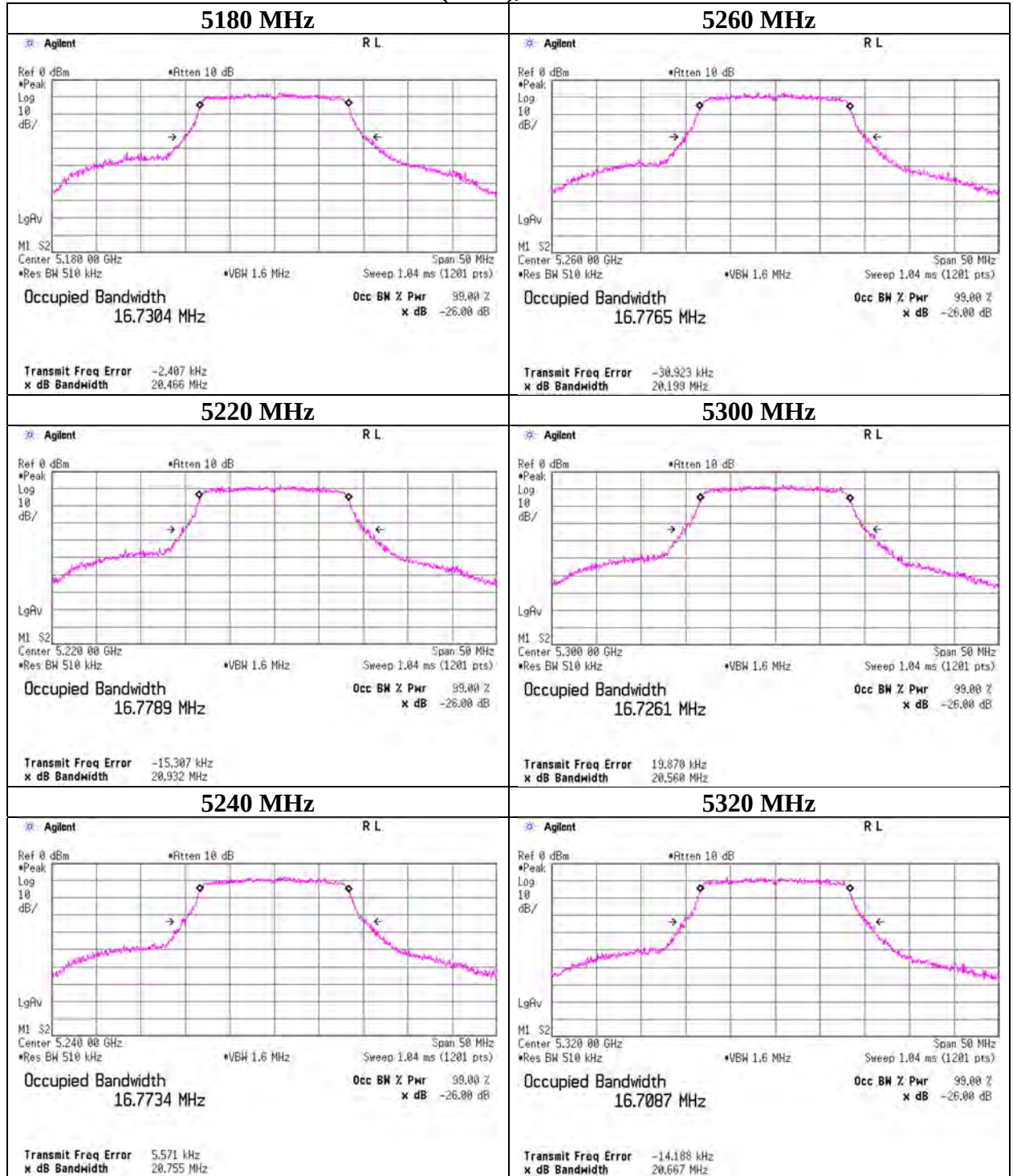
## 26 dB Emission Bandwidth

### 11ac-80(MIMO), Chain 1



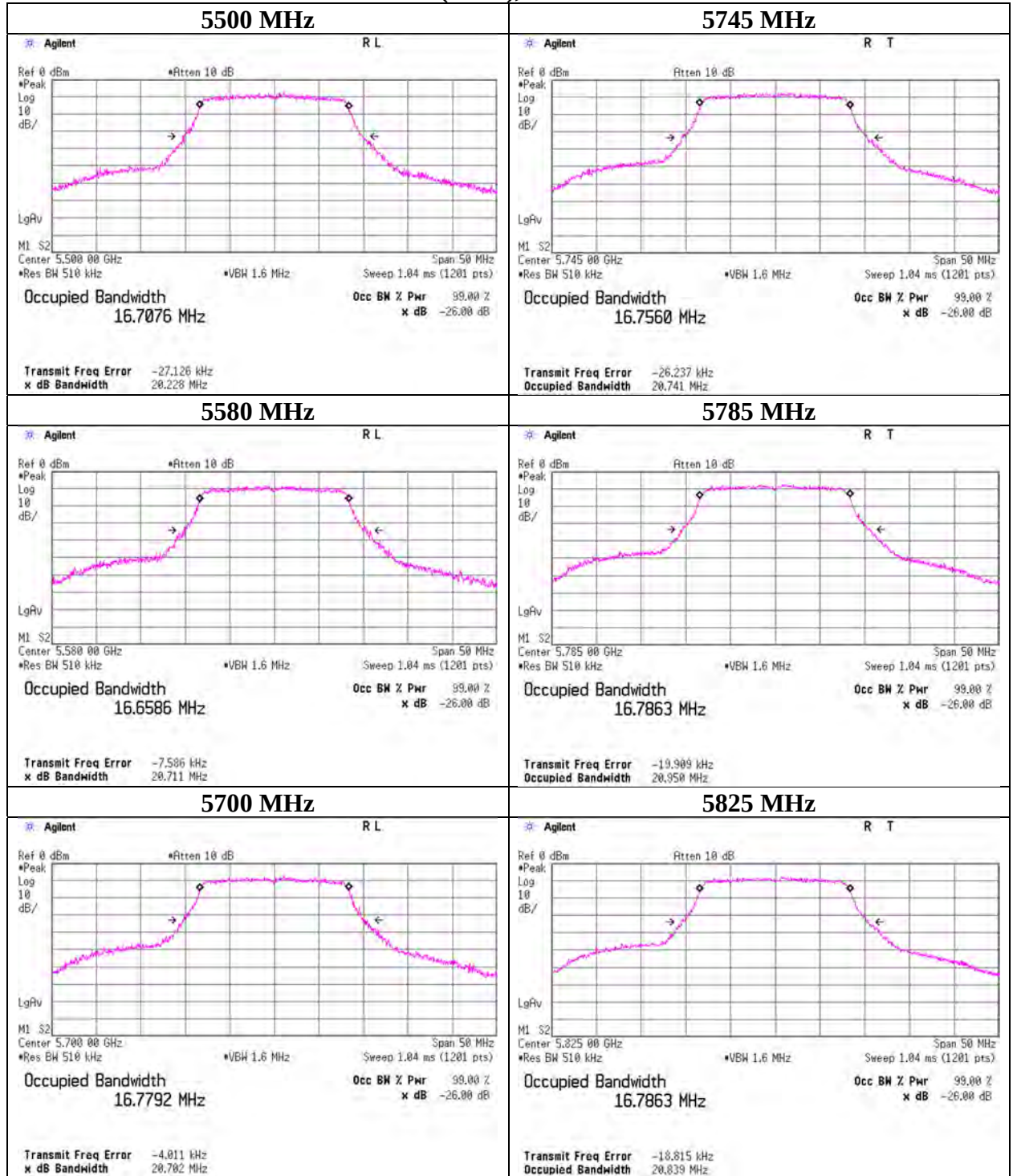
## 99 % Occupied Bandwidth

### 11a(SISO), Chain 1



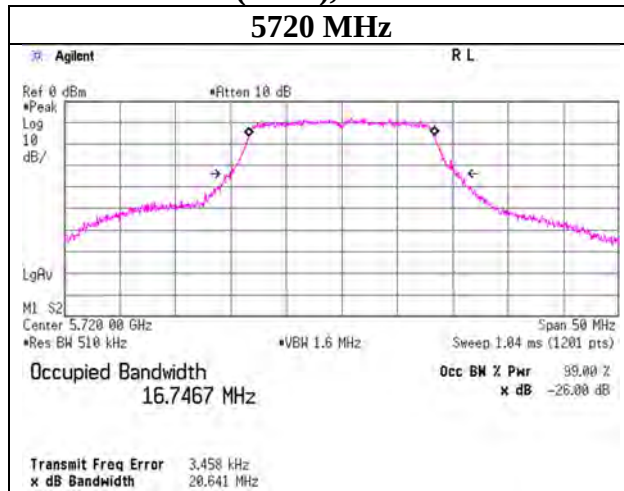
## 99 % Occupied Bandwidth

### 11a(SISO), Chain 1



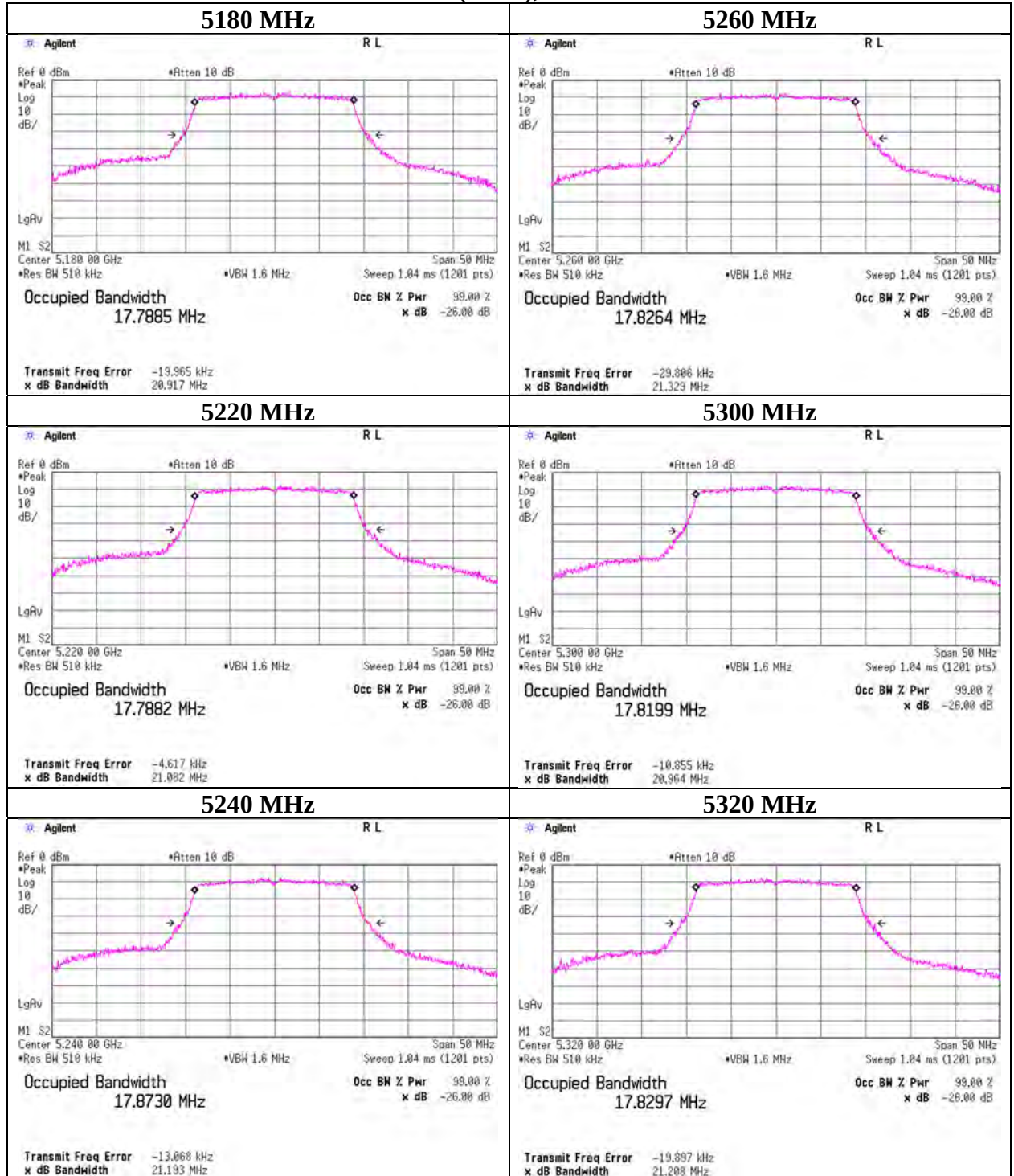
**99 % Occupied Bandwidth**

**11a(SISO), Chain 1**



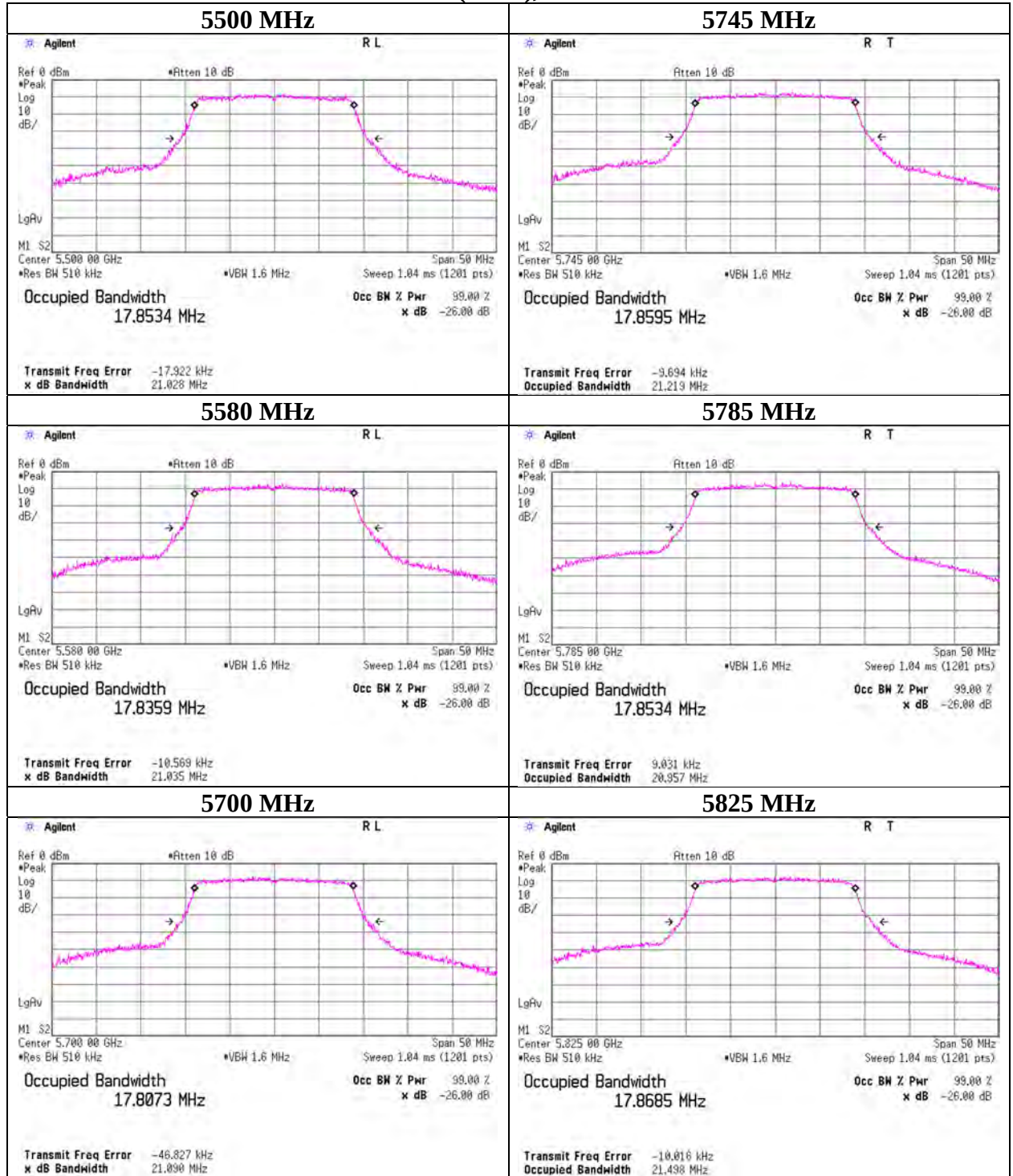
## 99 % Occupied Bandwidth

### 11n-20(SISO), Chain 1



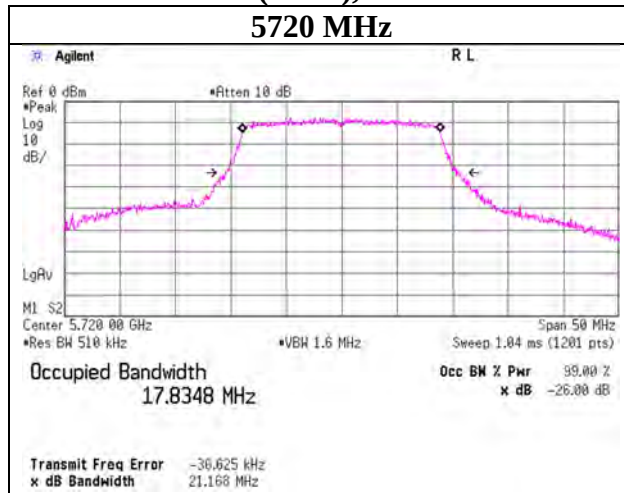
## 99 % Occupied Bandwidth

### 11n-20(SISO), Chain 1



## 99 % Occupied Bandwidth

### 11n-20(SISO), Chain 1



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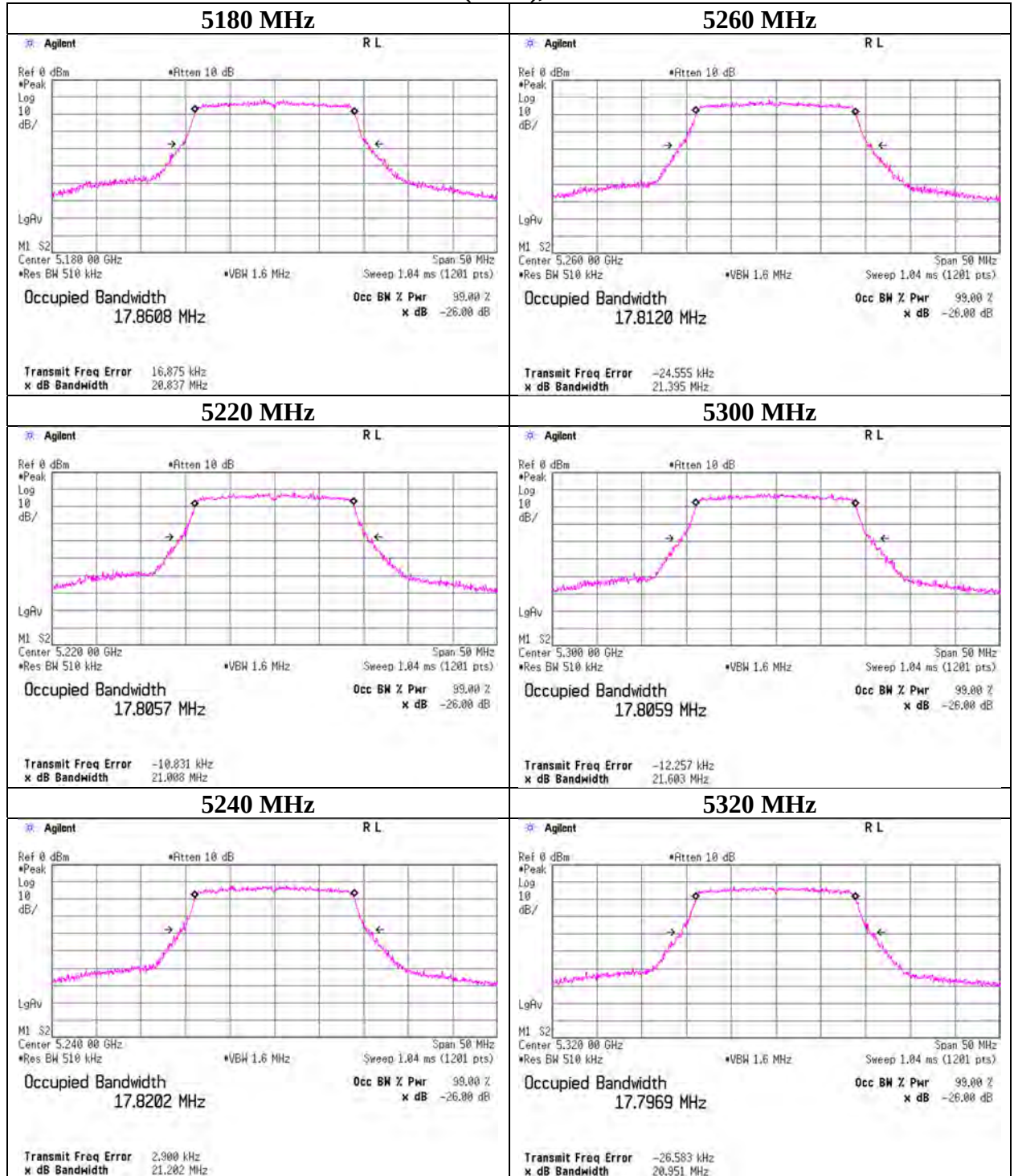
1-22-3 Megumigaoka, Hiratsuka-shi, Kanagawa-ken, 259-1220 JAPAN

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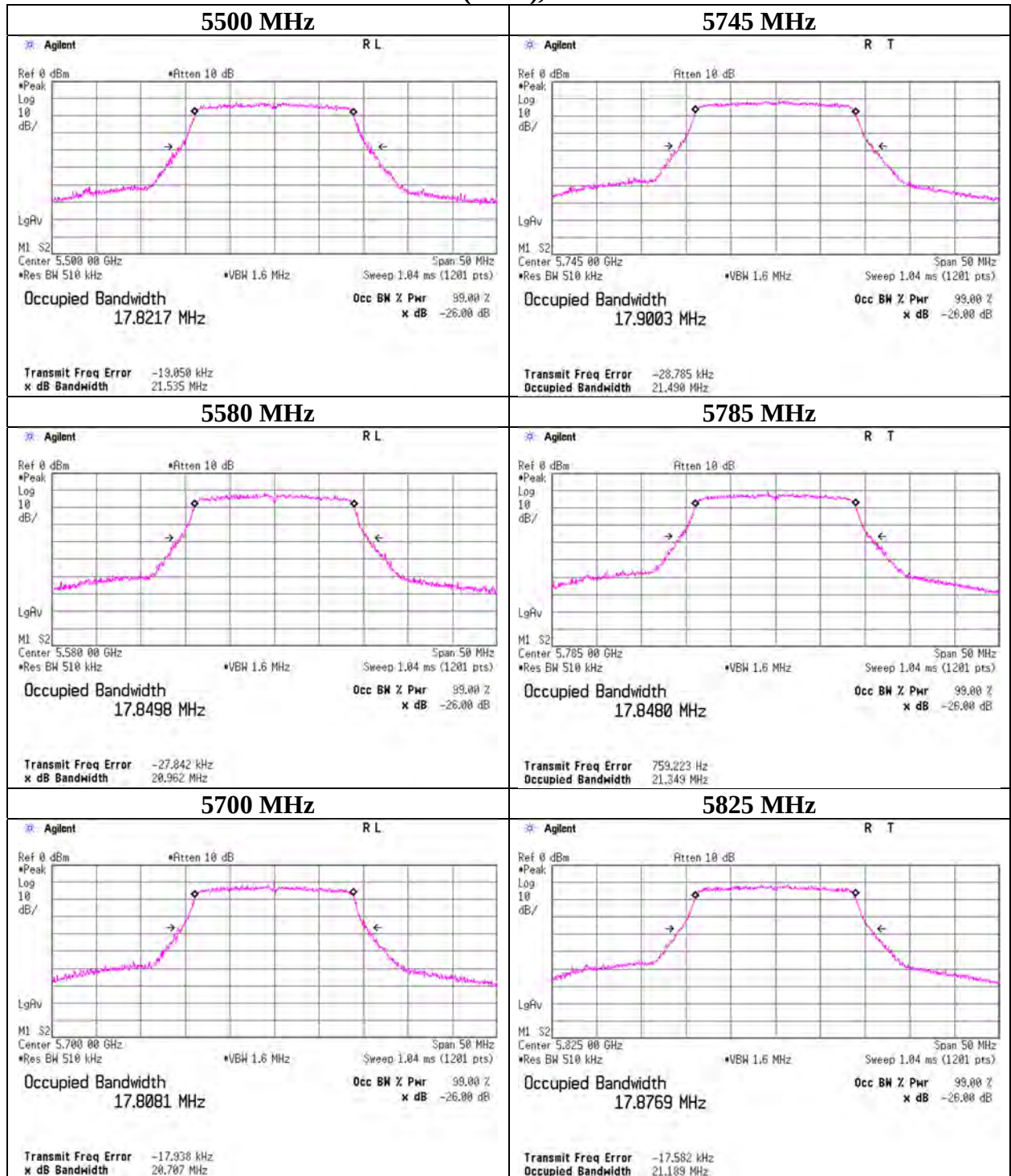
## 99 % Occupied Bandwidth

### 11ac-20(SISO), Chain 1



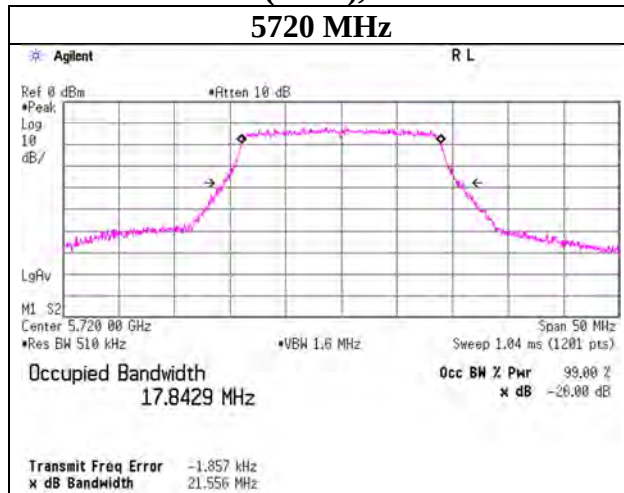
## 99 % Occupied Bandwidth

### 11ac-20(SISO), Chain 1



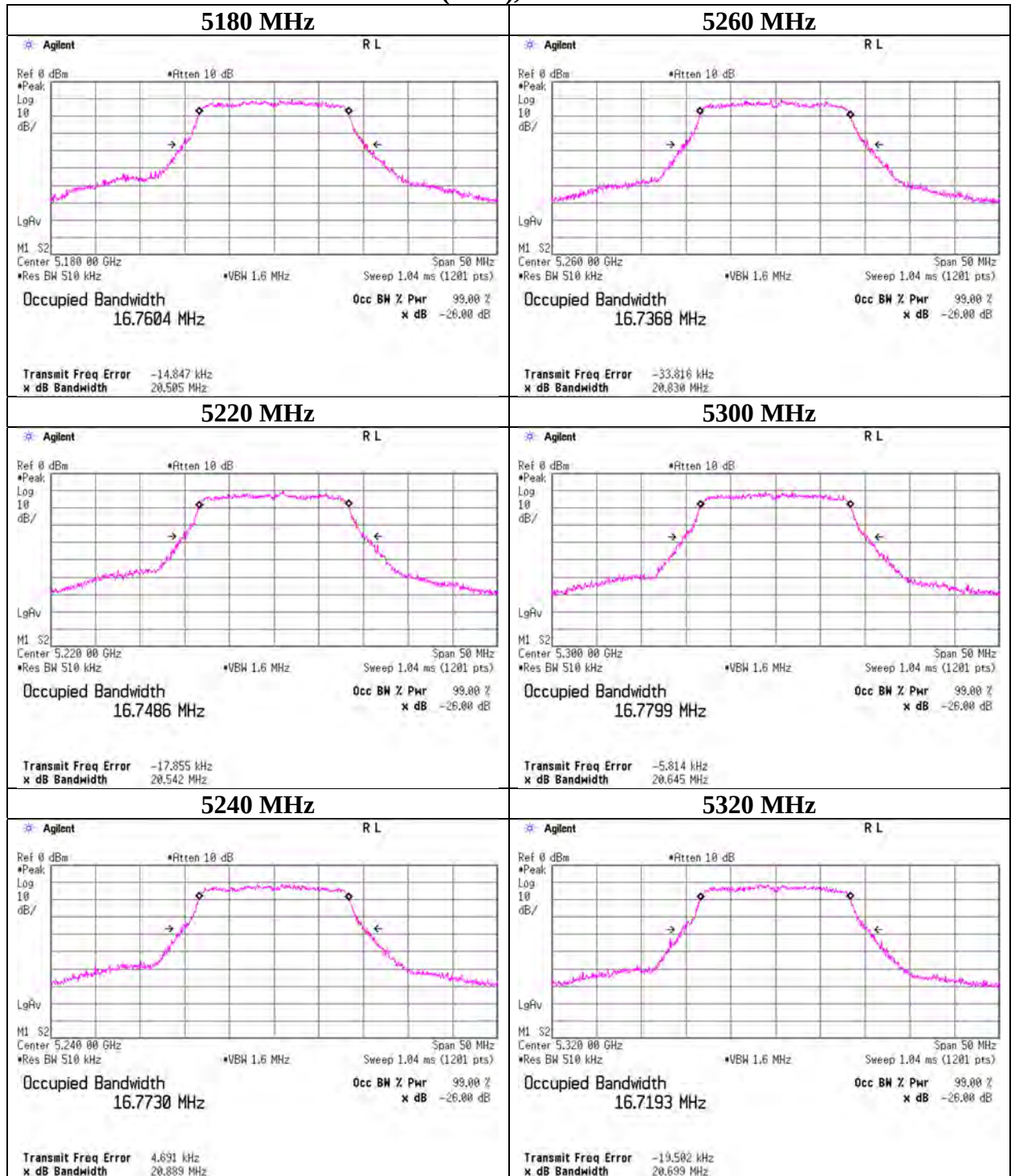
## 99 % Occupied Bandwidth

### 11ac-20(SISO), Chain 1



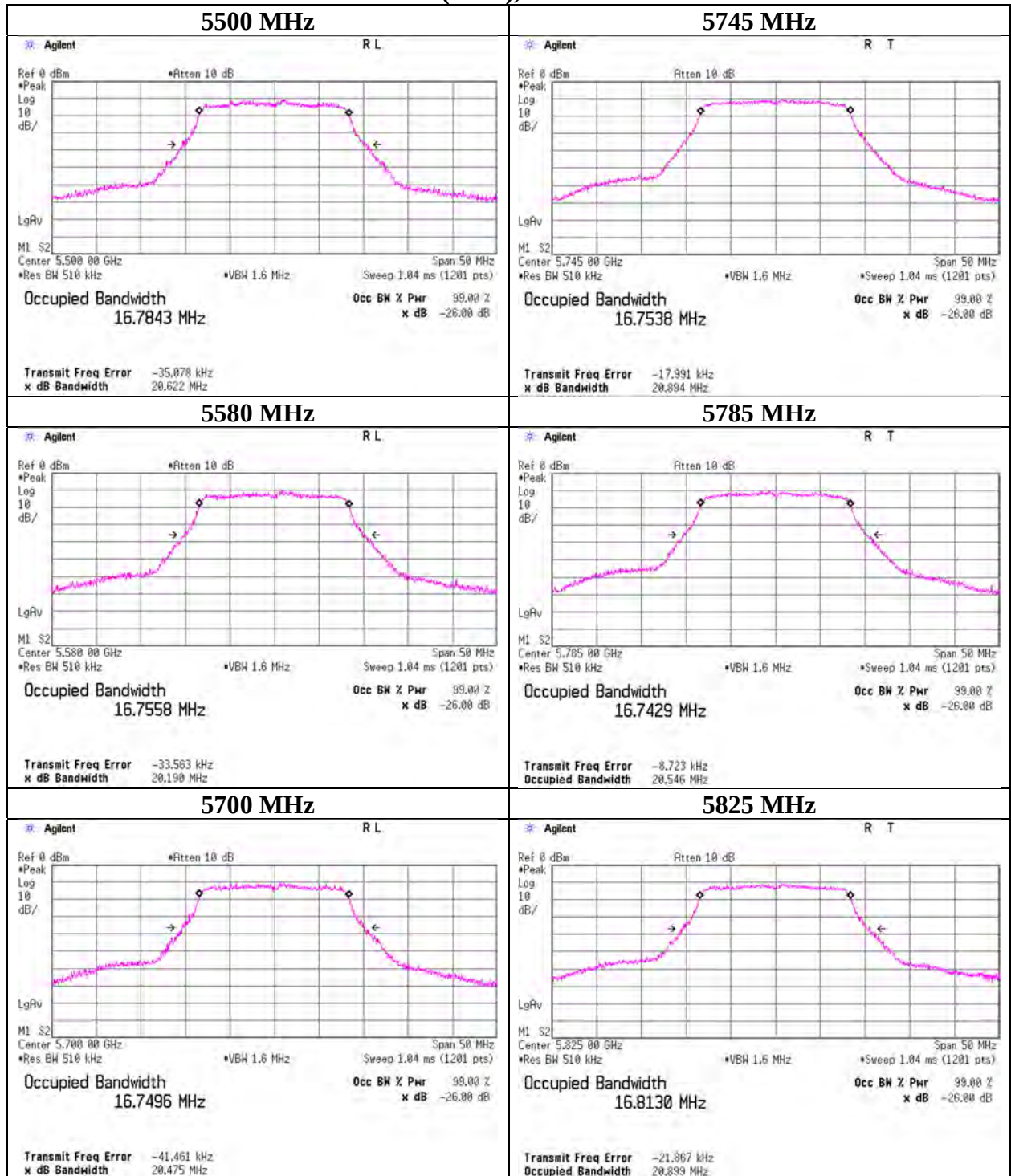
## 99 % Occupied Bandwidth

### 11a(CDD), Chain 1



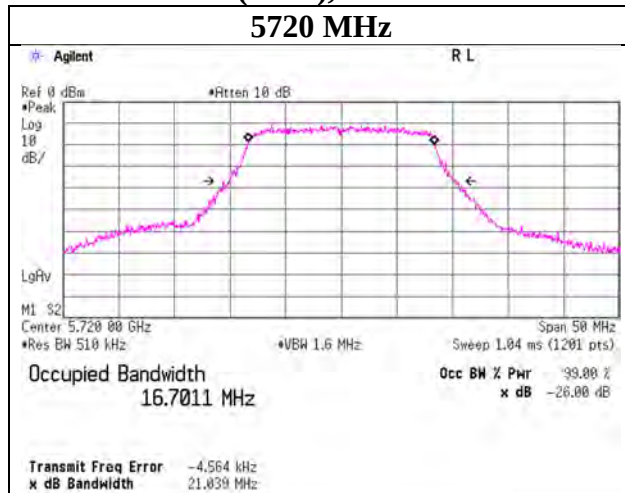
## 99 % Occupied Bandwidth

### 11a(CDD), Chain 1



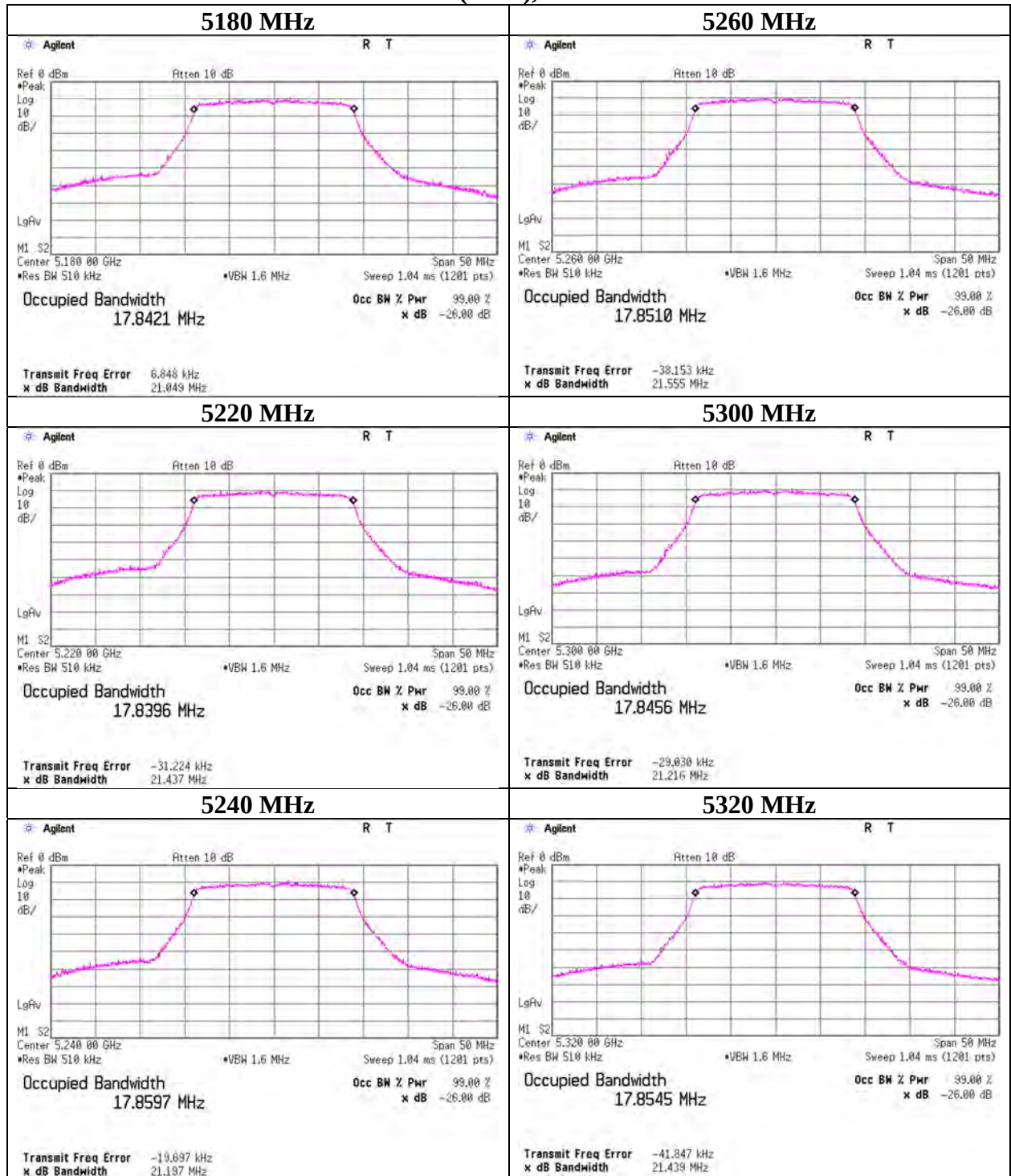
**99 % Occupied Bandwidth**

**11a(CDD), Chain 1**



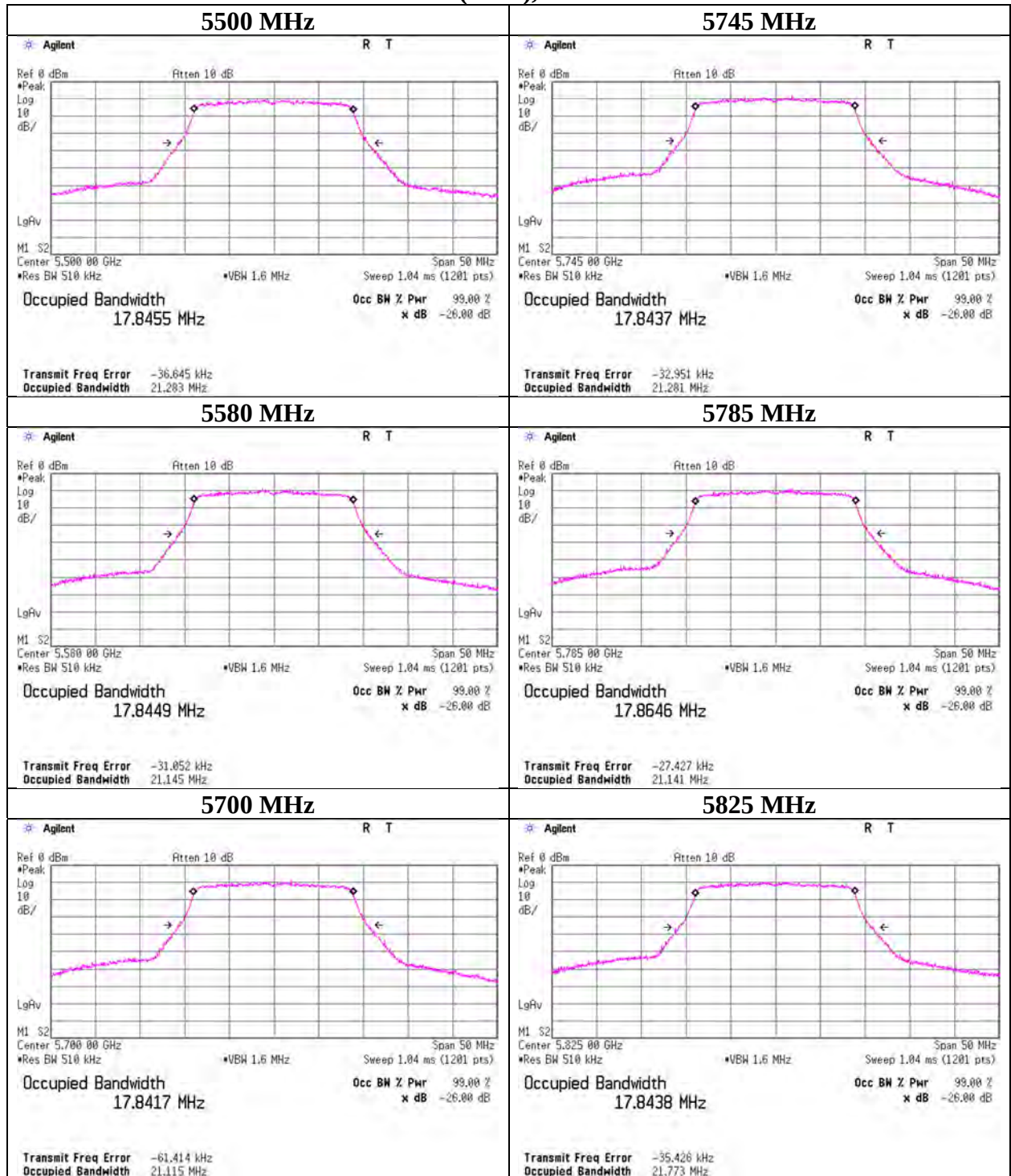
## 99 % Occupied Bandwidth

### 11n-20(CDD), Chain 1



## 99 % Occupied Bandwidth

### 11n-20(CDD), Chain 1



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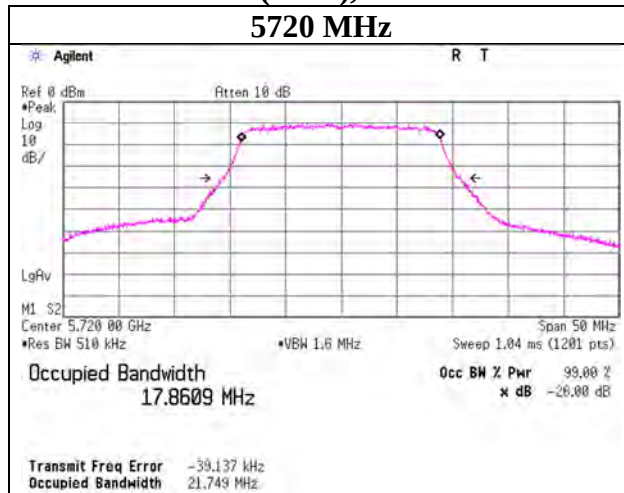
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## 99 % Occupied Bandwidth

### 11n-20(CDD), Chain 1



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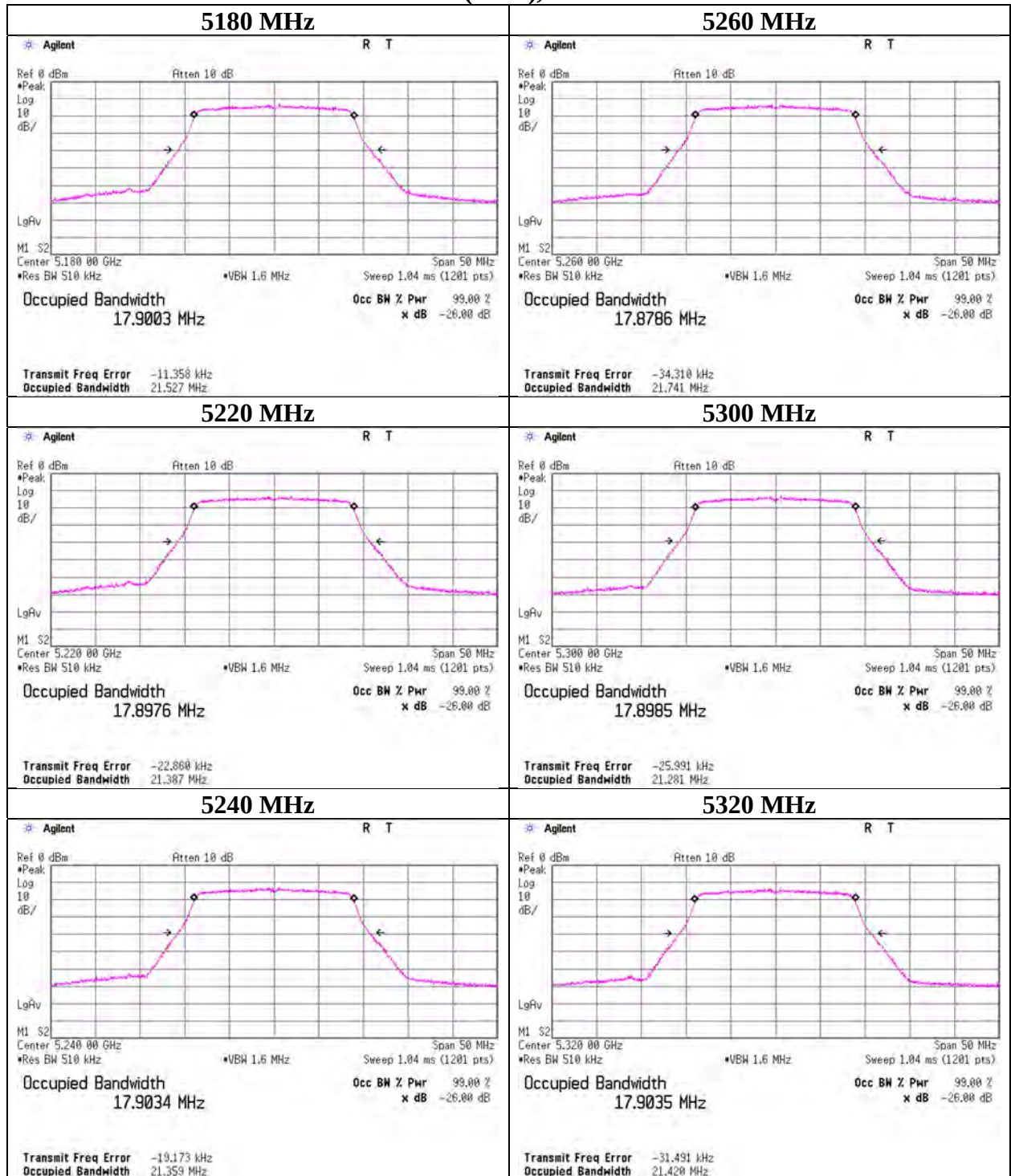
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## 99 % Occupied Bandwidth

### 11ac-20(CDD), Chain 1



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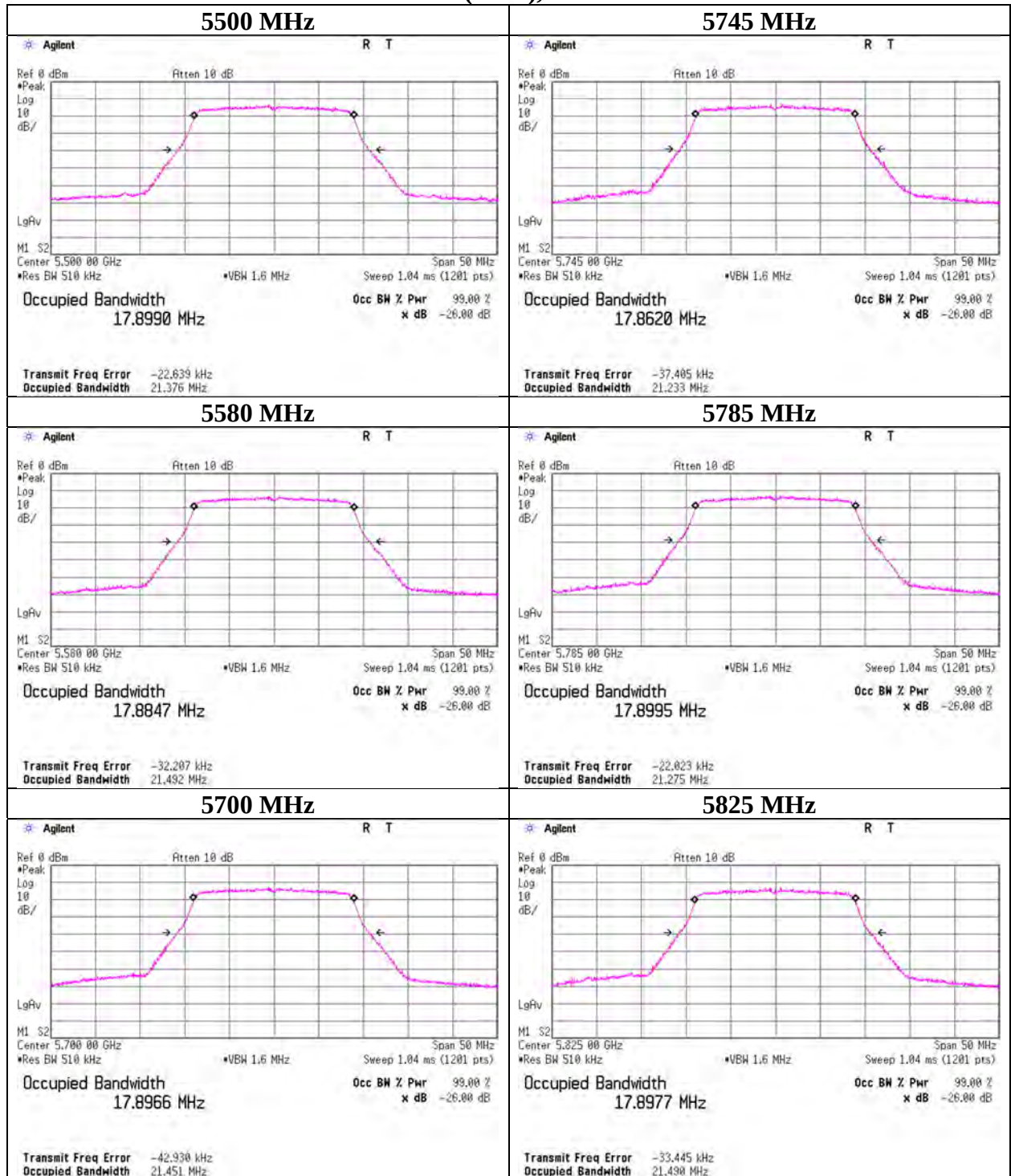
1-22-3 Megumigaoka, Hiratsuka-shi, Kanagawa-ken, 259-1220 JAPAN

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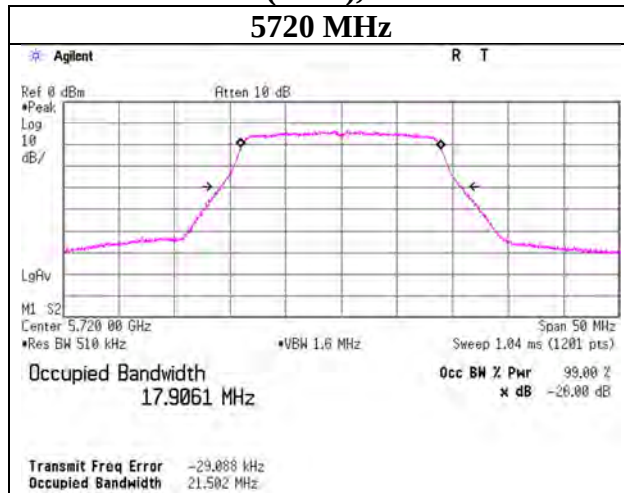
## 99 % Occupied Bandwidth

### 11ac-20(CDD), Chain 1



**99 % Occupied Bandwidth**

**11ac-20(CDD), Chain 1**



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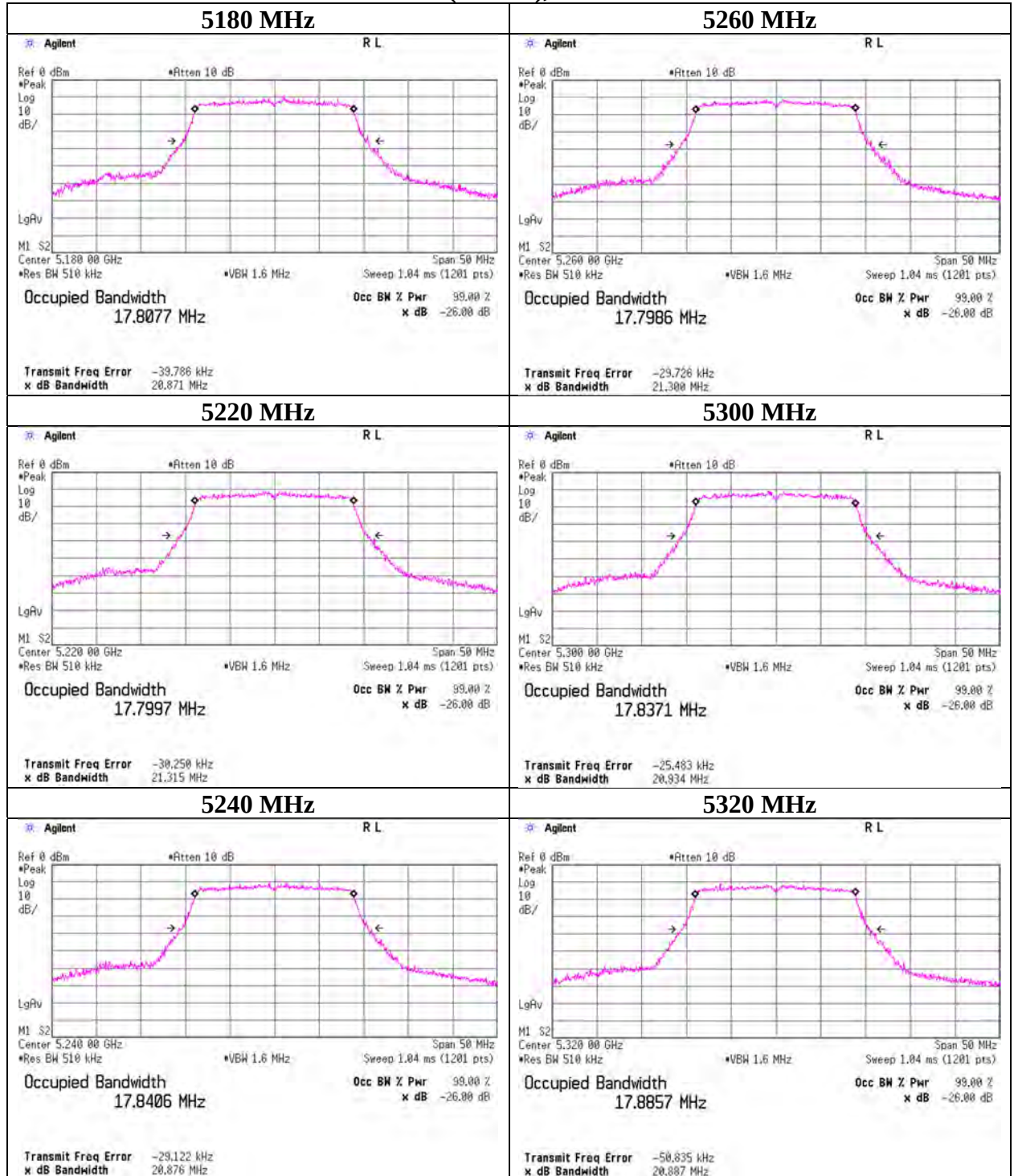
1-22-3 Megumigaoka, Hiratsuka-shi, Kanagawa-ken, 259-1220 JAPAN

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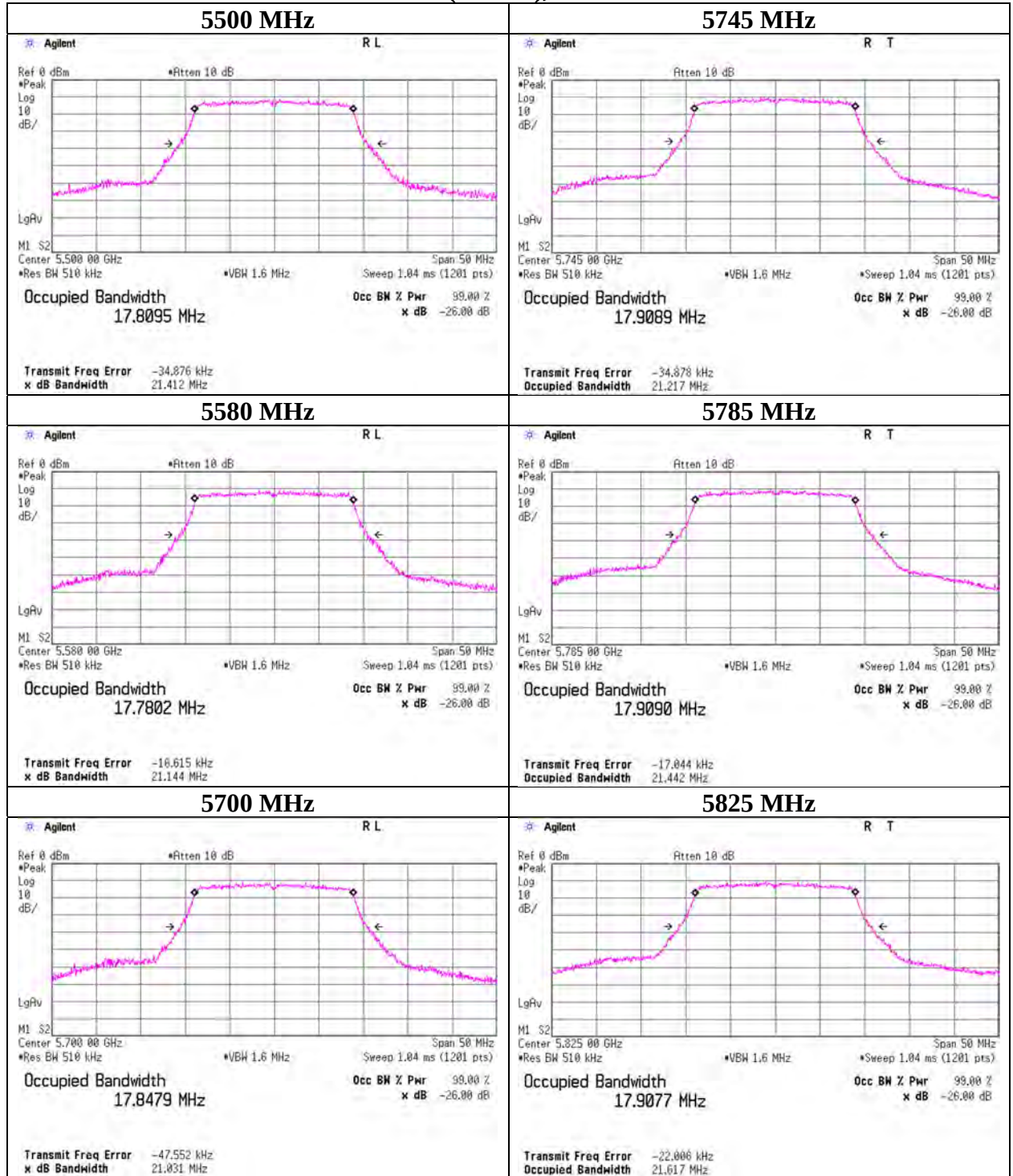
## 99 % Occupied Bandwidth

### 11n-20(MIMO), Chain 1



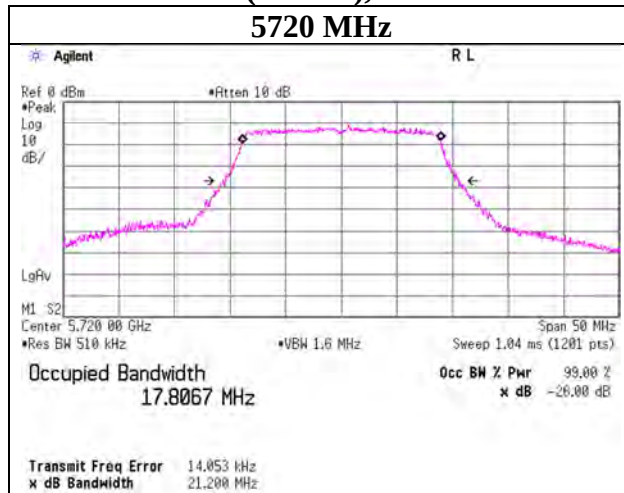
## 99 % Occupied Bandwidth

### 11n-20(MIMO), Chain 1



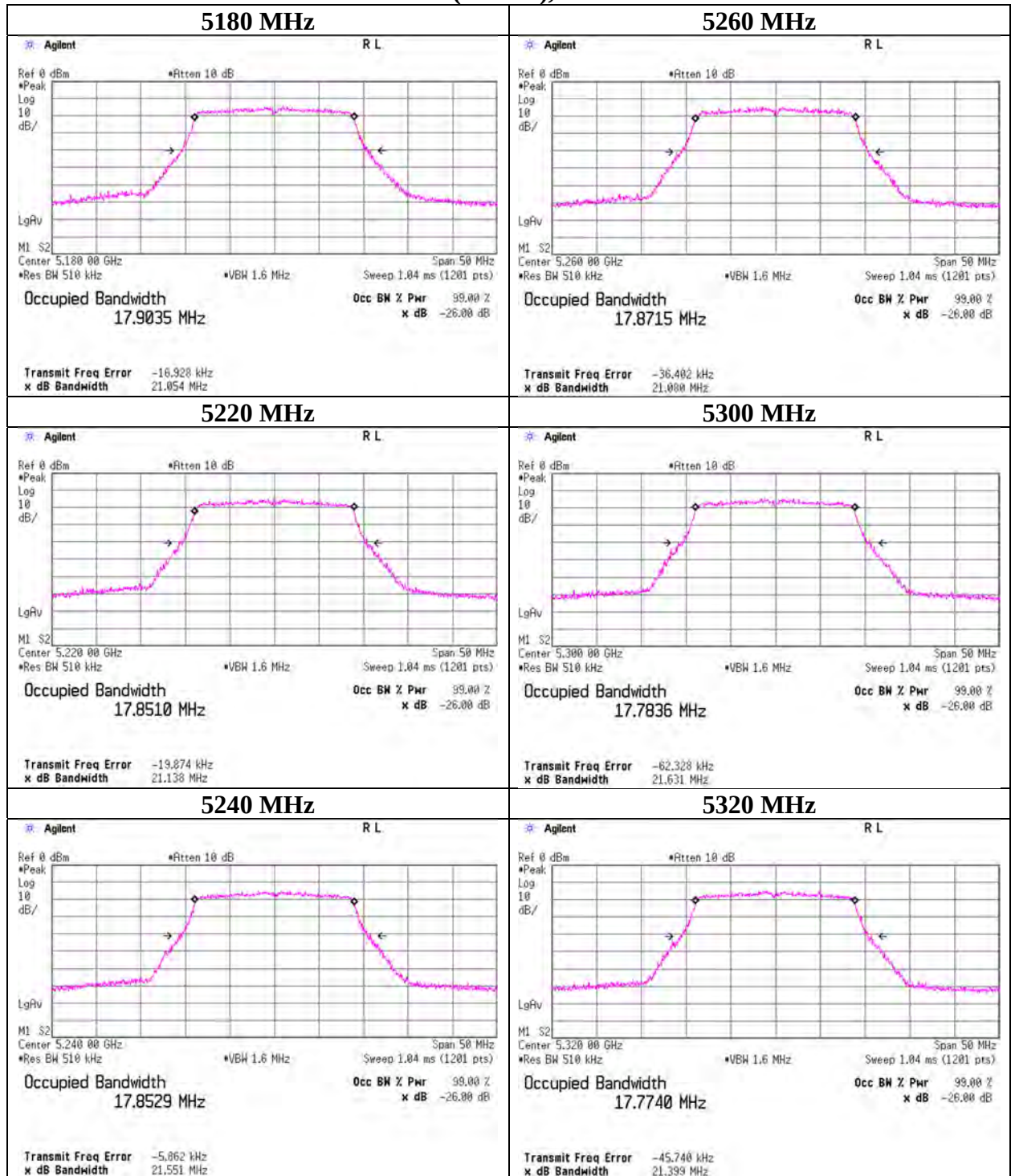
## 99 % Occupied Bandwidth

### 11n-20(MIMO), Chain 1



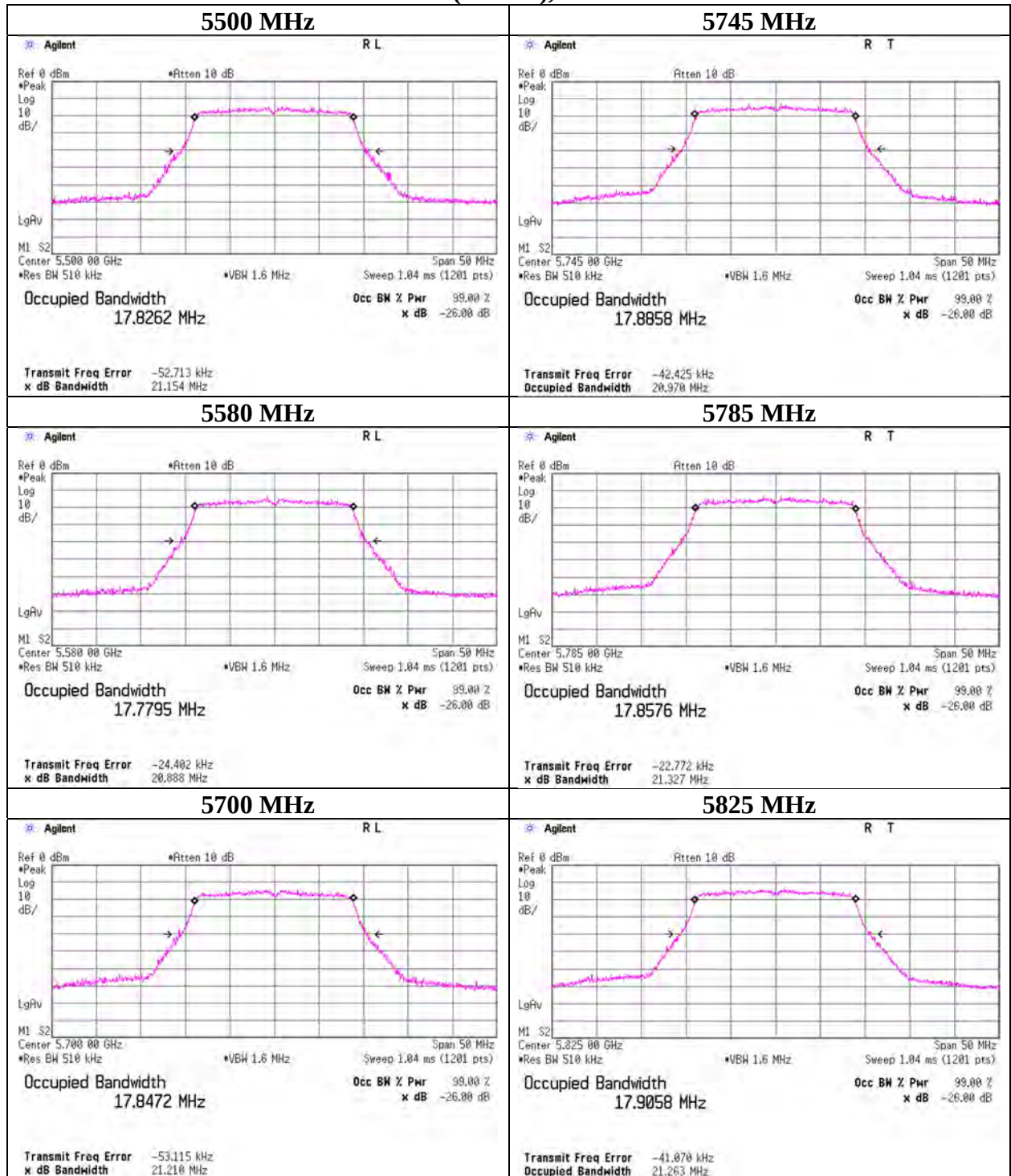
## 99 % Occupied Bandwidth

### 11ac-20(MIMO), Chain 1



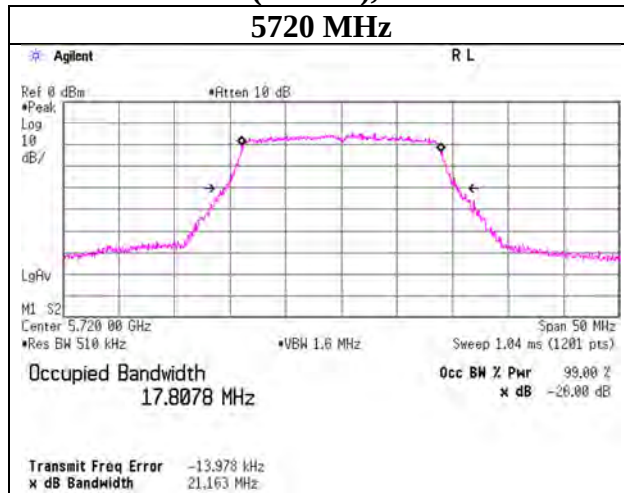
## 99 % Occupied Bandwidth

### 11ac-20(MIMO), Chain 1



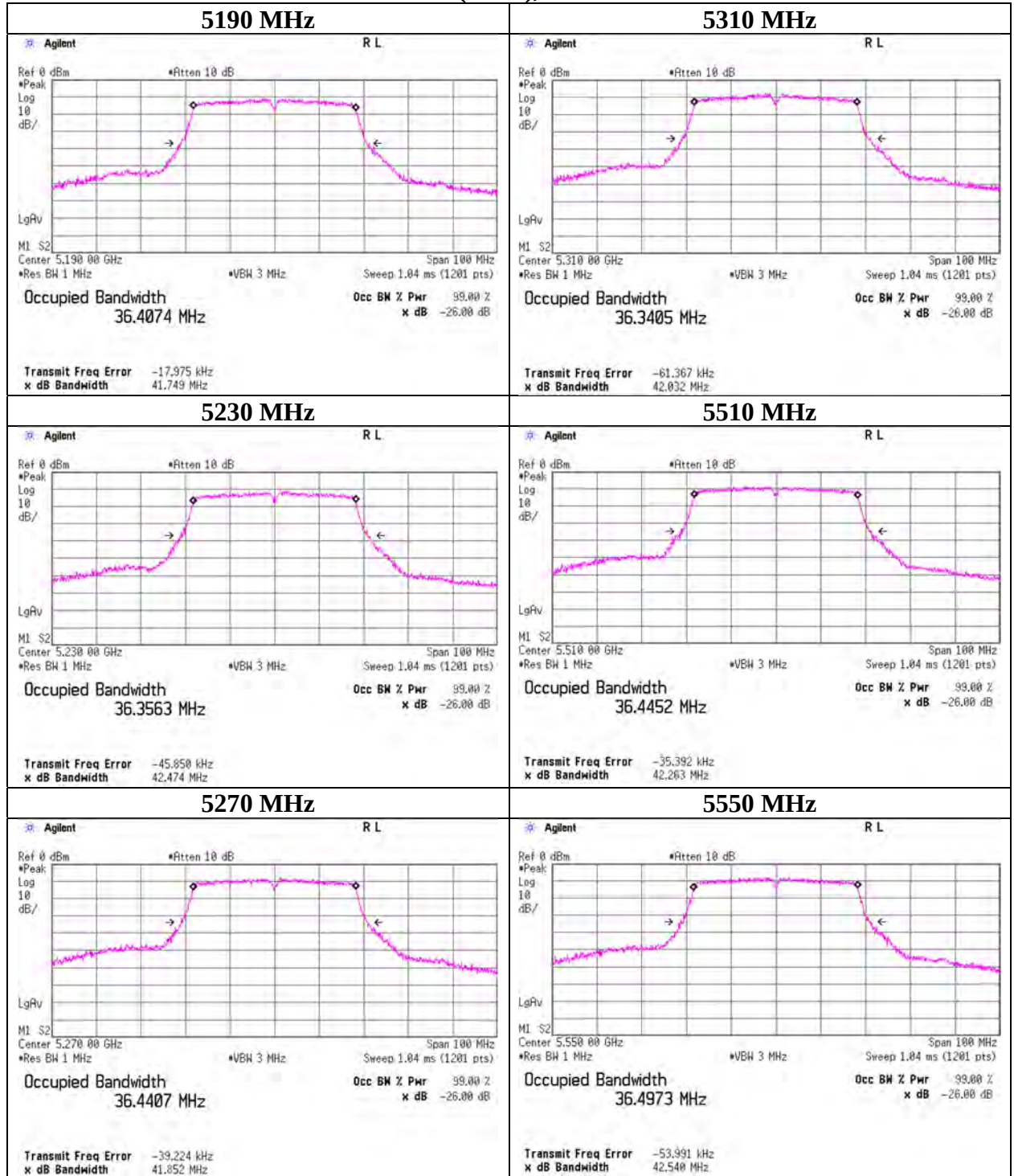
## 99 % Occupied Bandwidth

### 11ac-20(MIMO), Chain 1



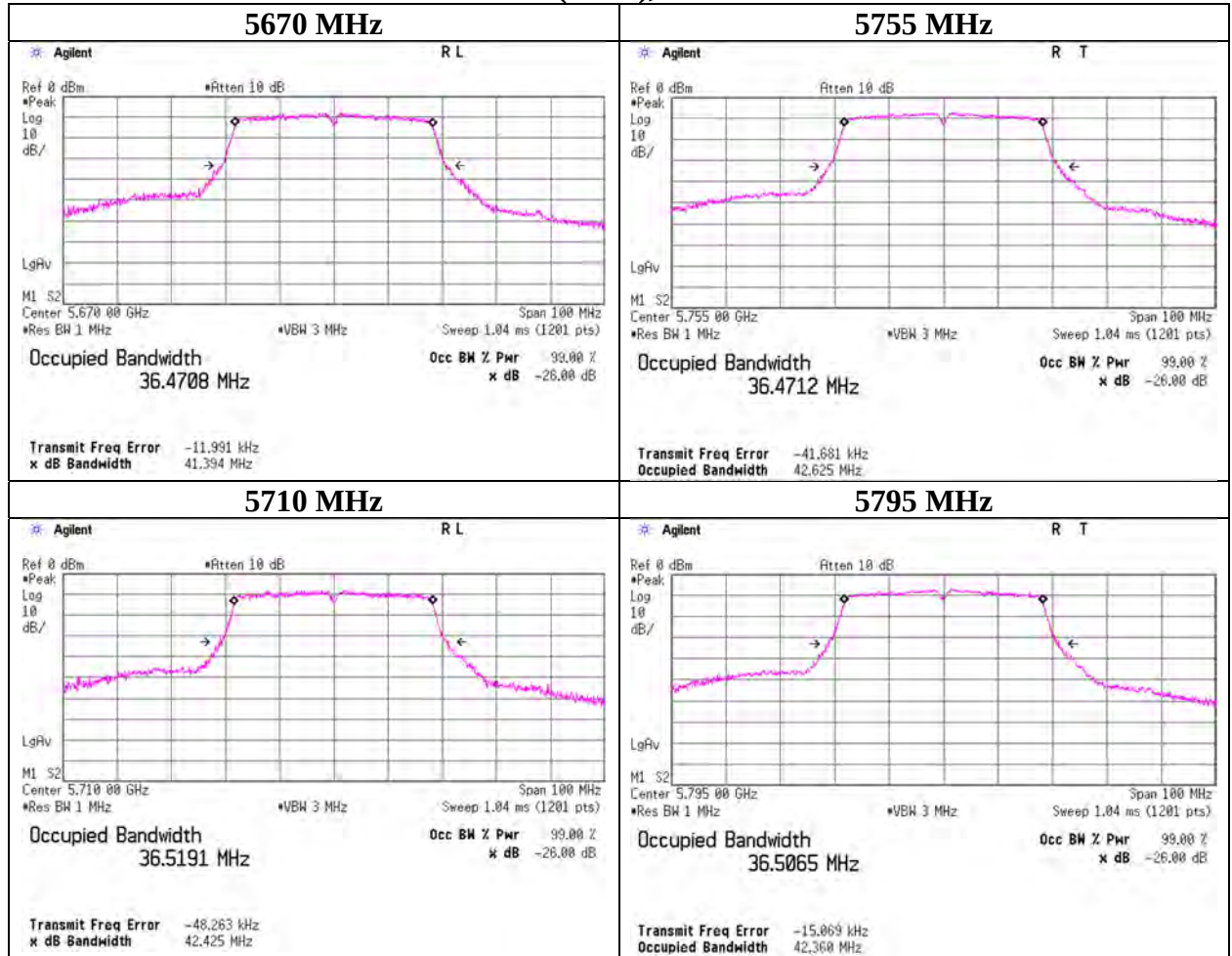
## 99 % Occupied Bandwidth

### 11n-40(SISO), Chain 1



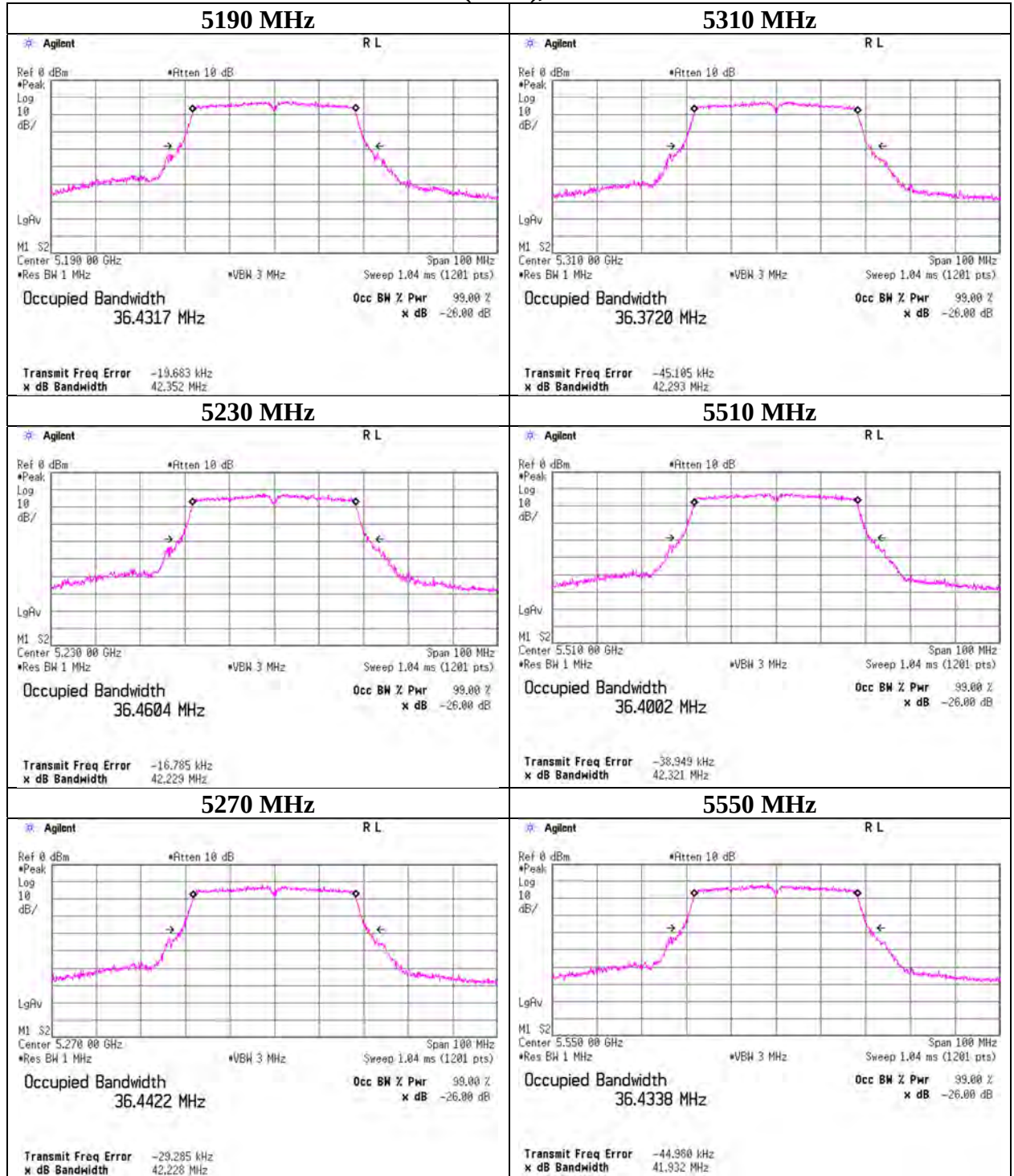
## 99 % Occupied Bandwidth

### 11n-40(SISO), Chain 1



## 99 % Occupied Bandwidth

### 11ac-40(SISO), Chain 1



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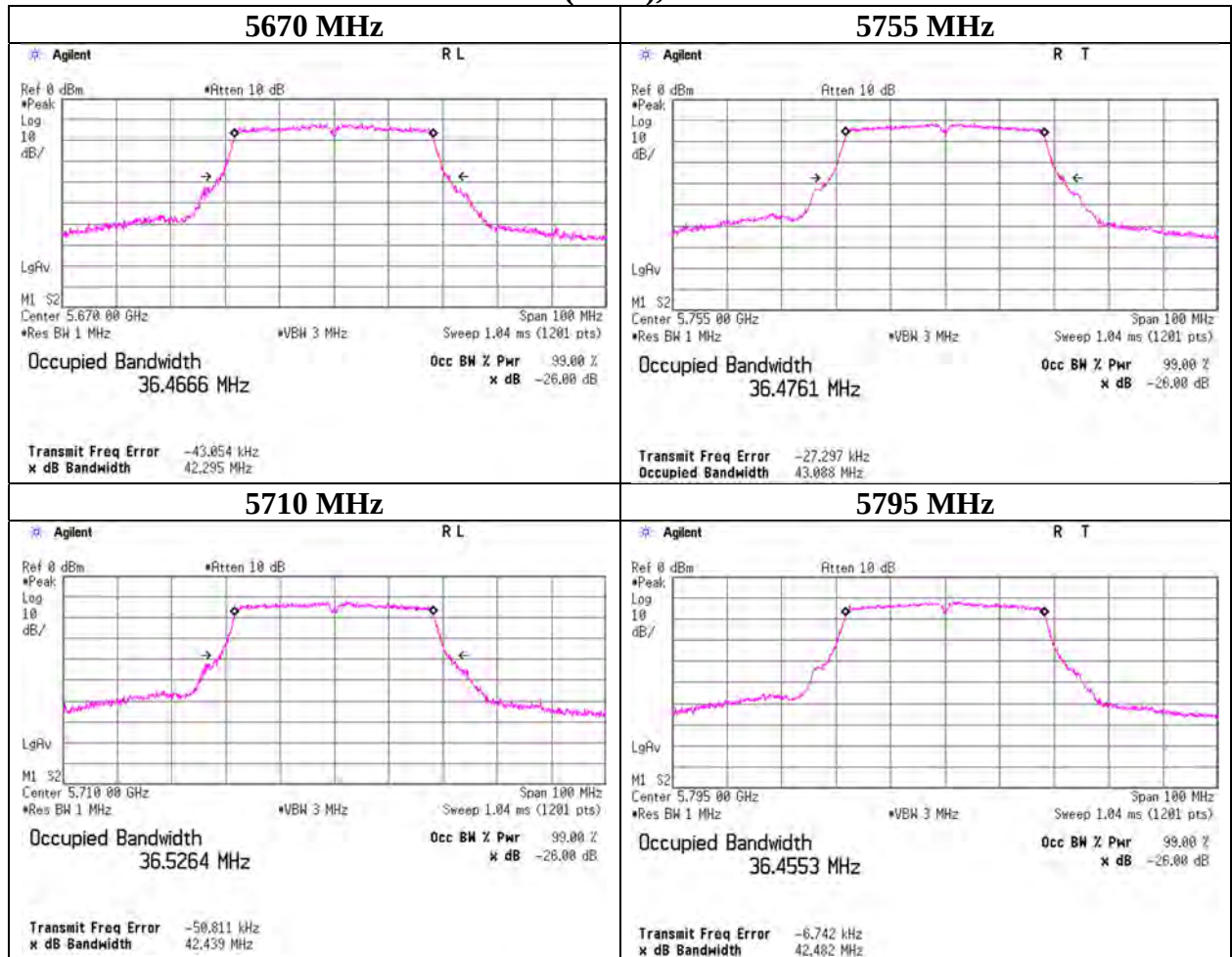
1-22-3 Megumigaoka, Hiratsuka-shi, Kanagawa-ken, 259-1220 JAPAN

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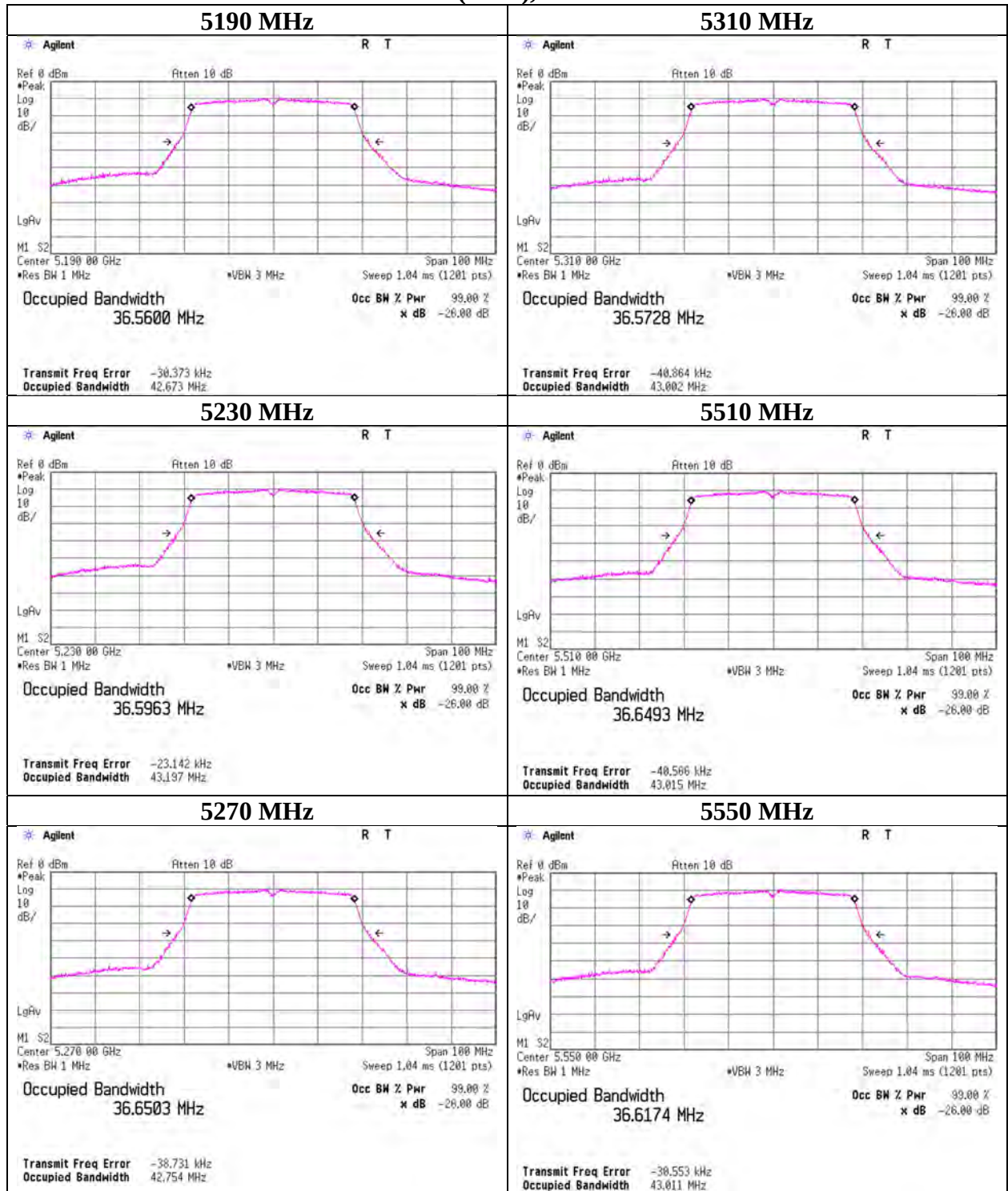
## 99 % Occupied Bandwidth

### 11ac-40(SISO), Chain 1



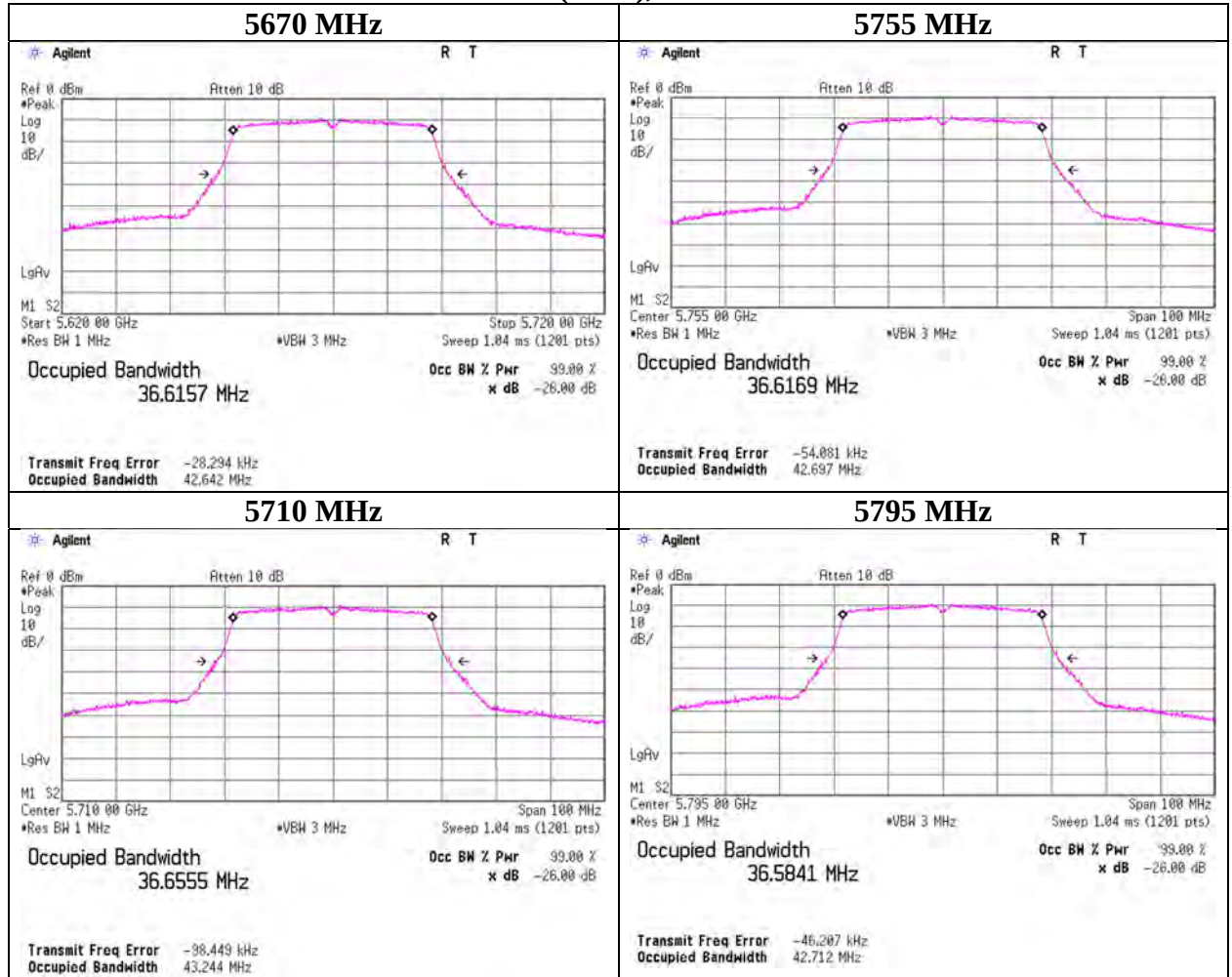
## 99 % Occupied Bandwidth

### 11n-40(CDD), Chain 1



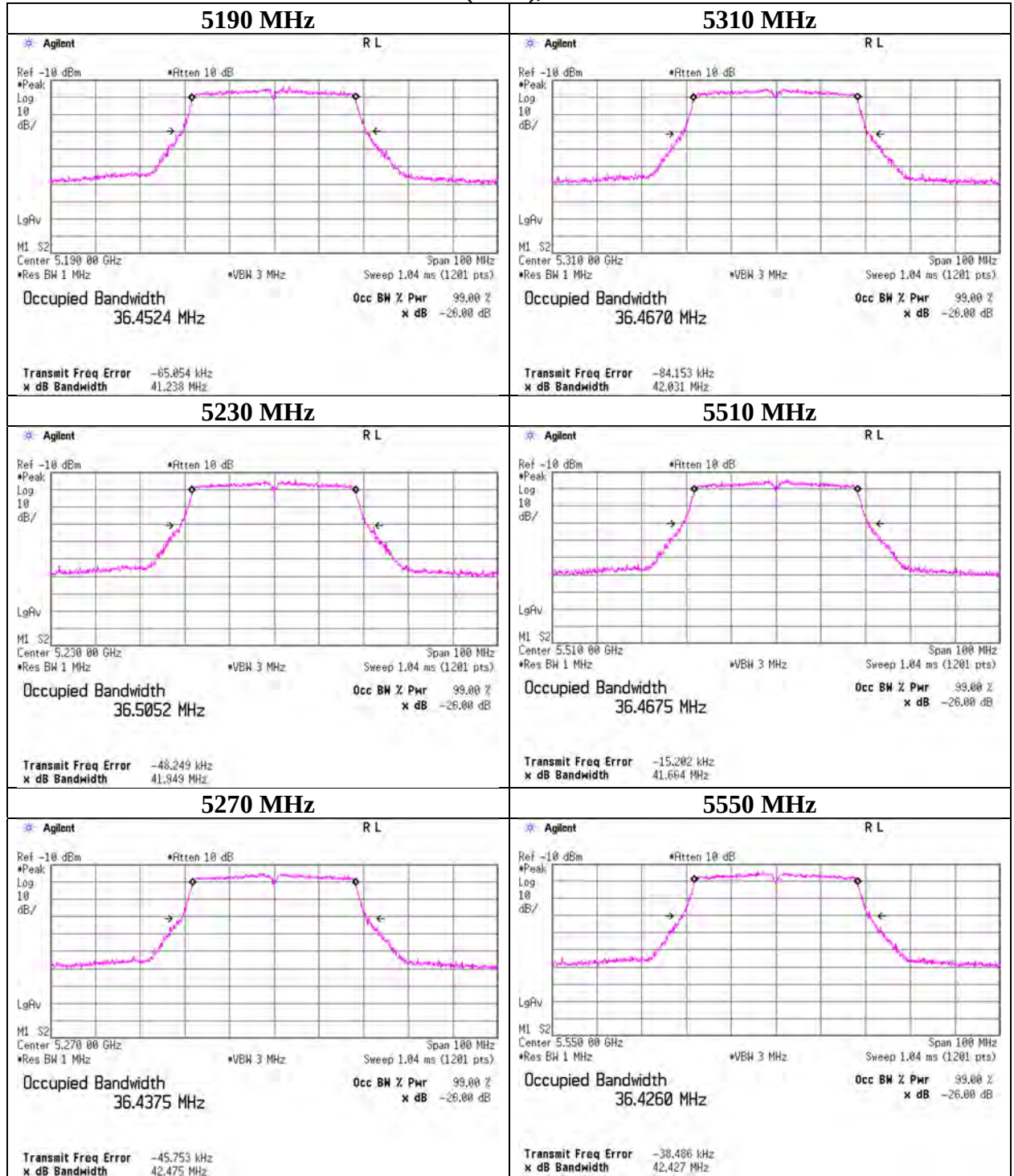
## 99 % Occupied Bandwidth

### 11n-40(CDD), Chain 1



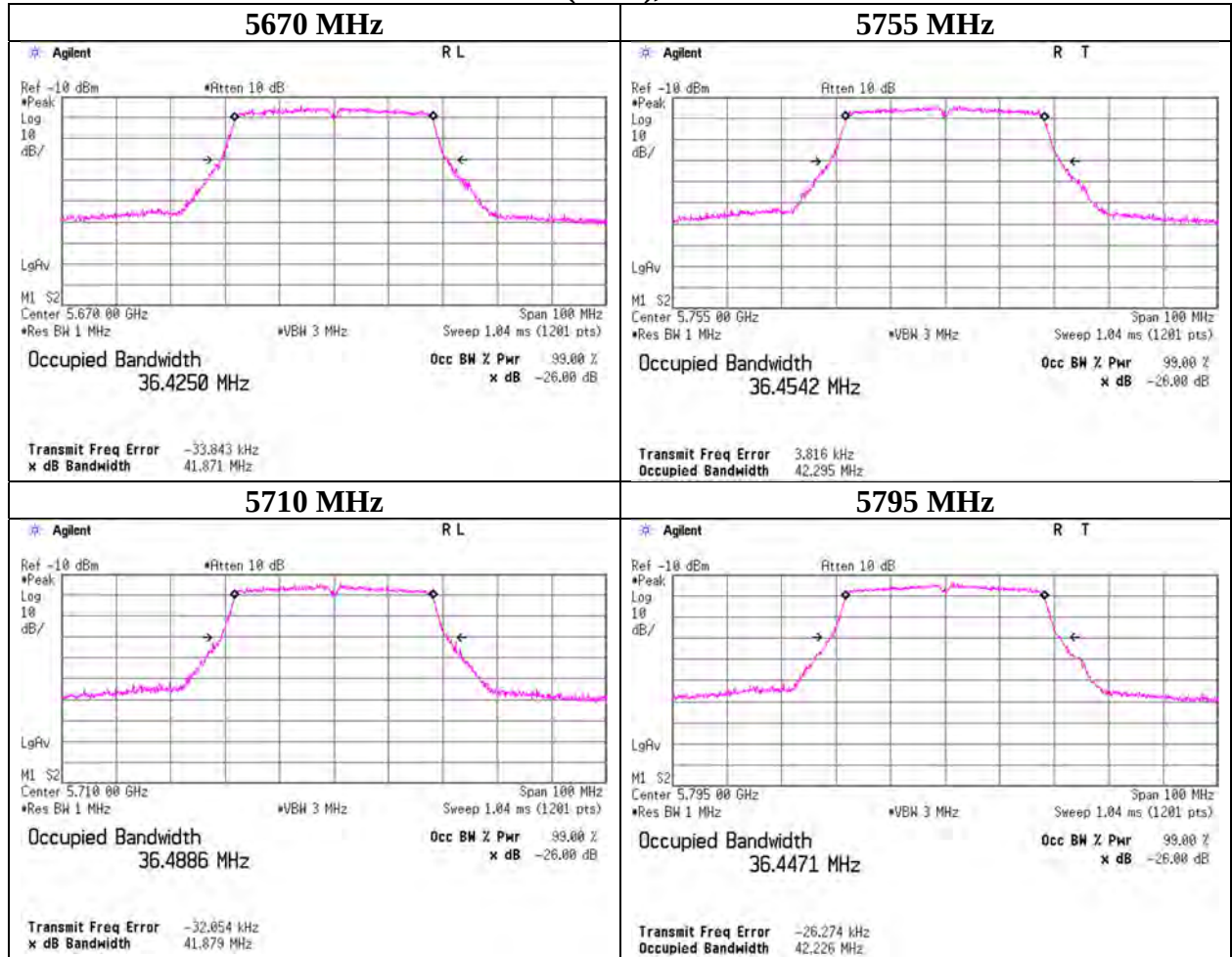
## 99 % Occupied Bandwidth

### 11ac-40(CDD), Chain 1



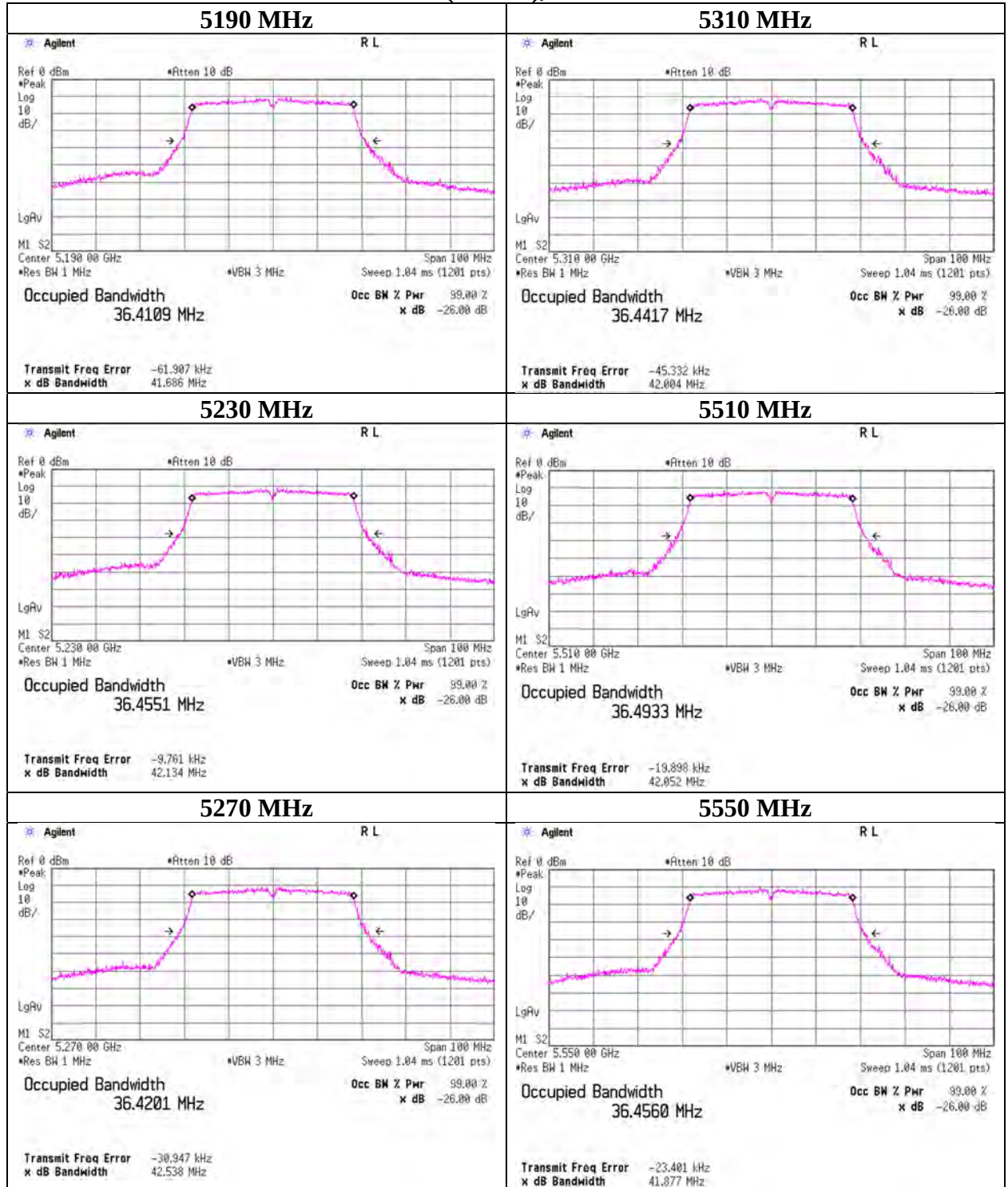
## 99 % Occupied Bandwidth

### 11ac-40(CDD), Chain 1



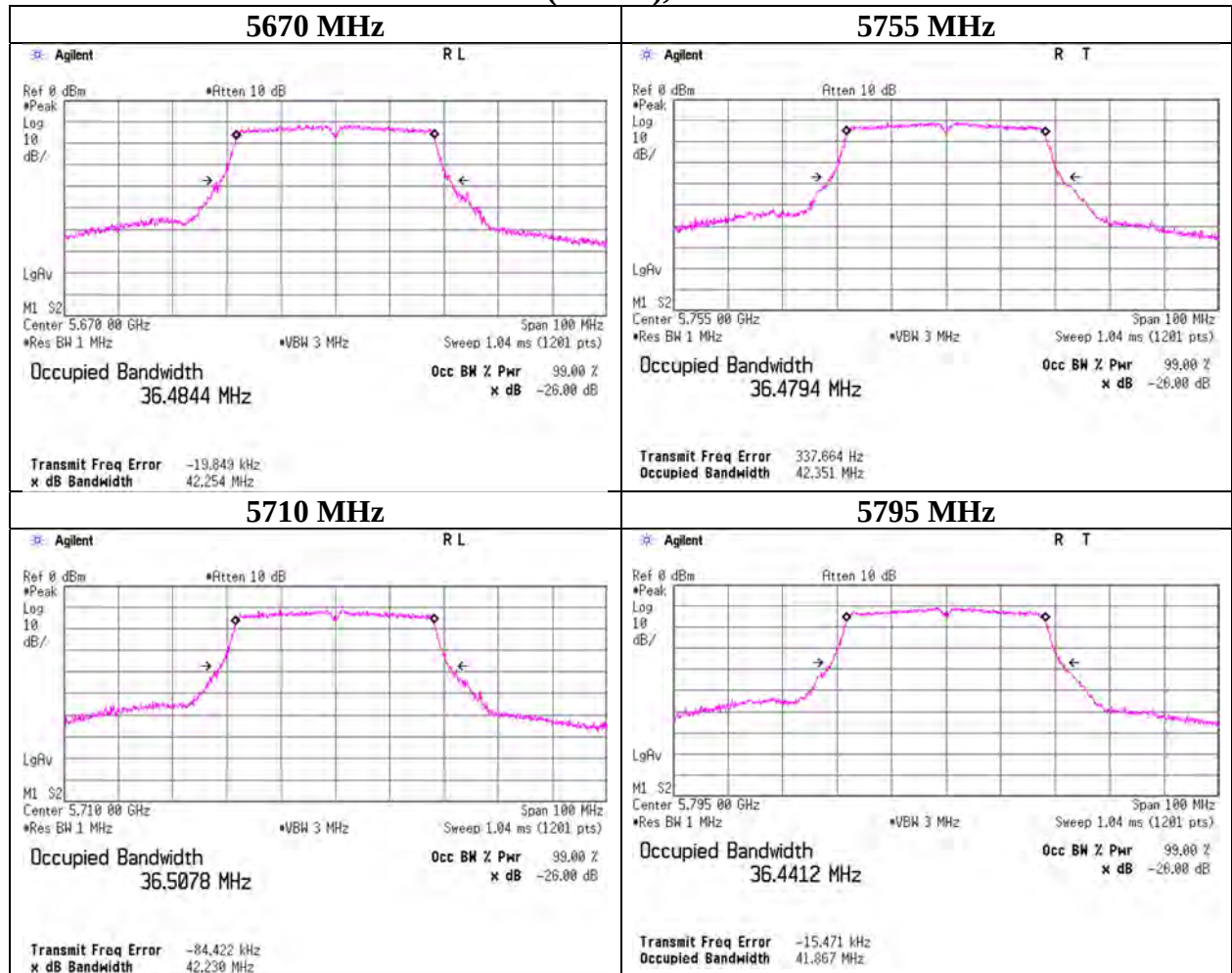
## 99 % Occupied Bandwidth

### 11n-40(MIMO), Chain 1



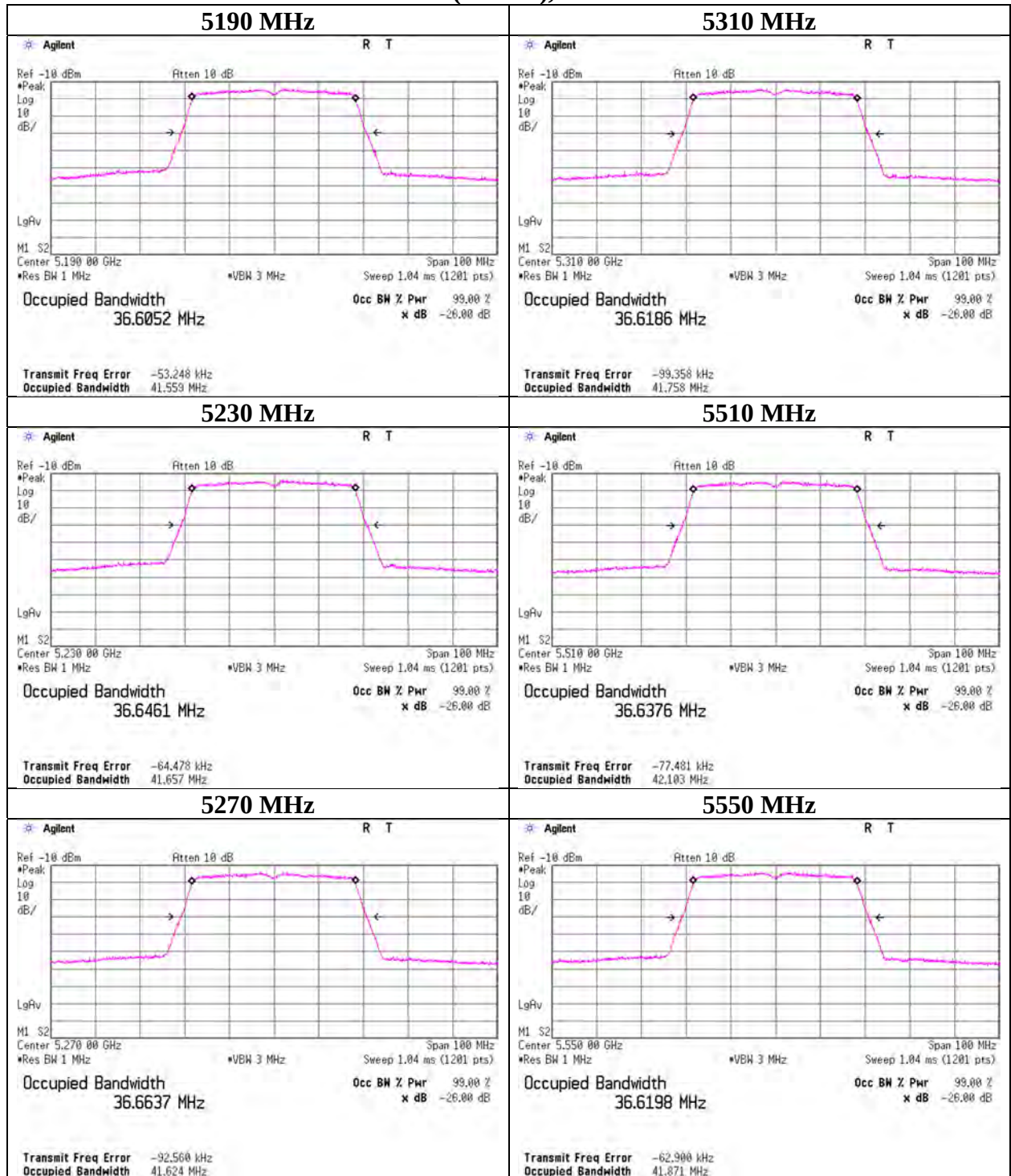
## 99 % Occupied Bandwidth

### 11n-40(MIMO), Chain 1



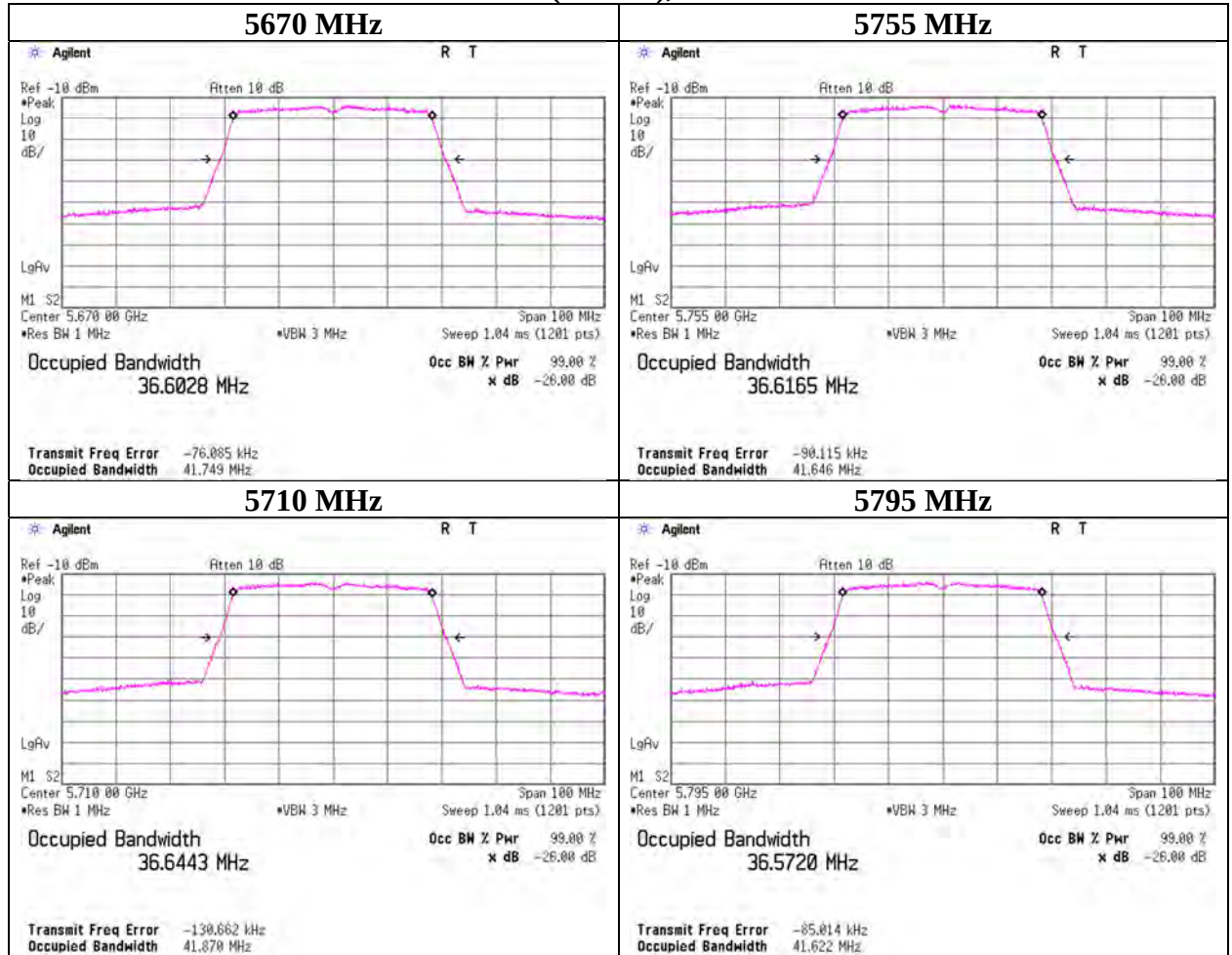
## 99 % Occupied Bandwidth

### 11ac-40(MIMO), Chain 1



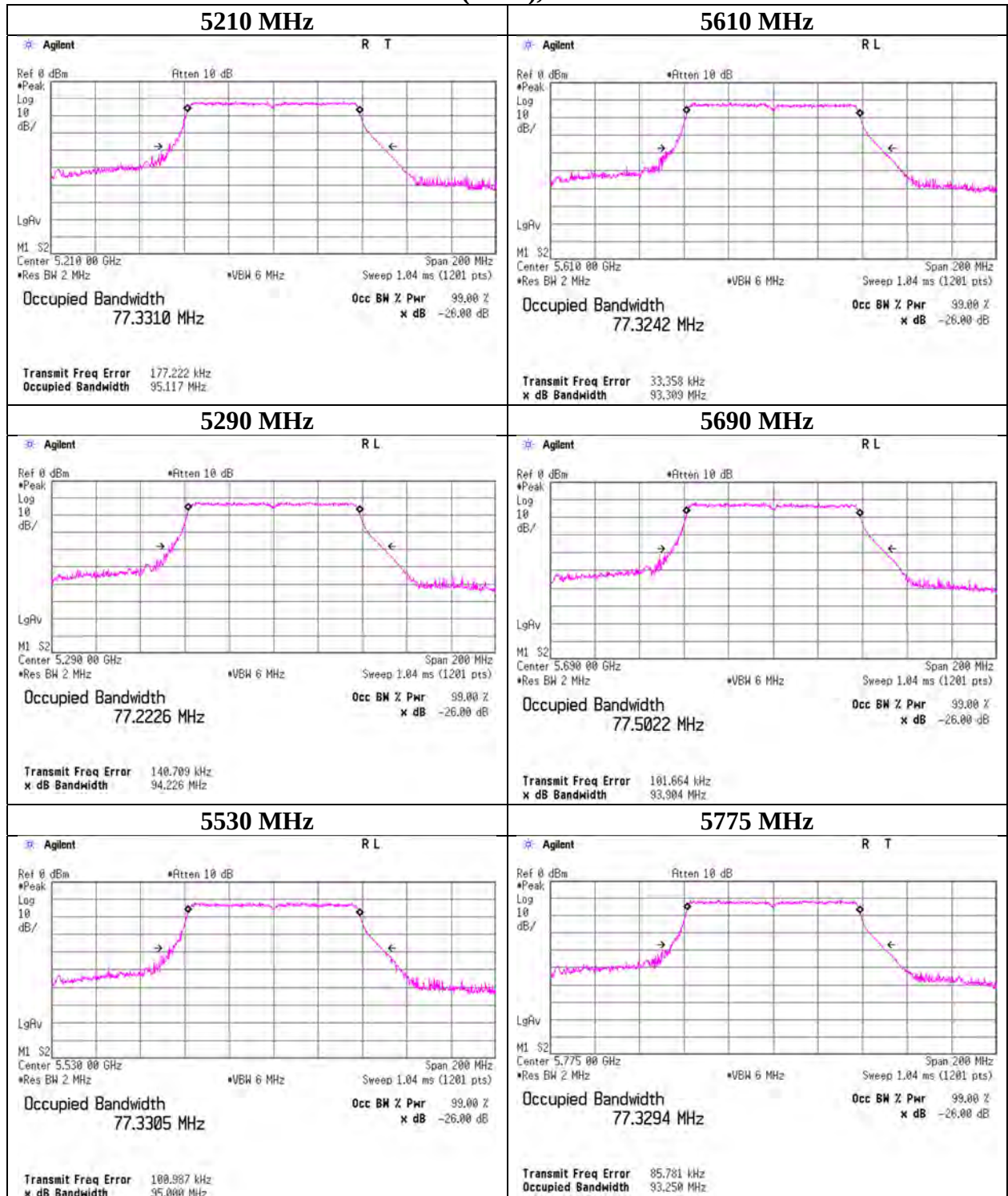
## 99 % Occupied Bandwidth

### 11ac-40(MIMO), Chain 1



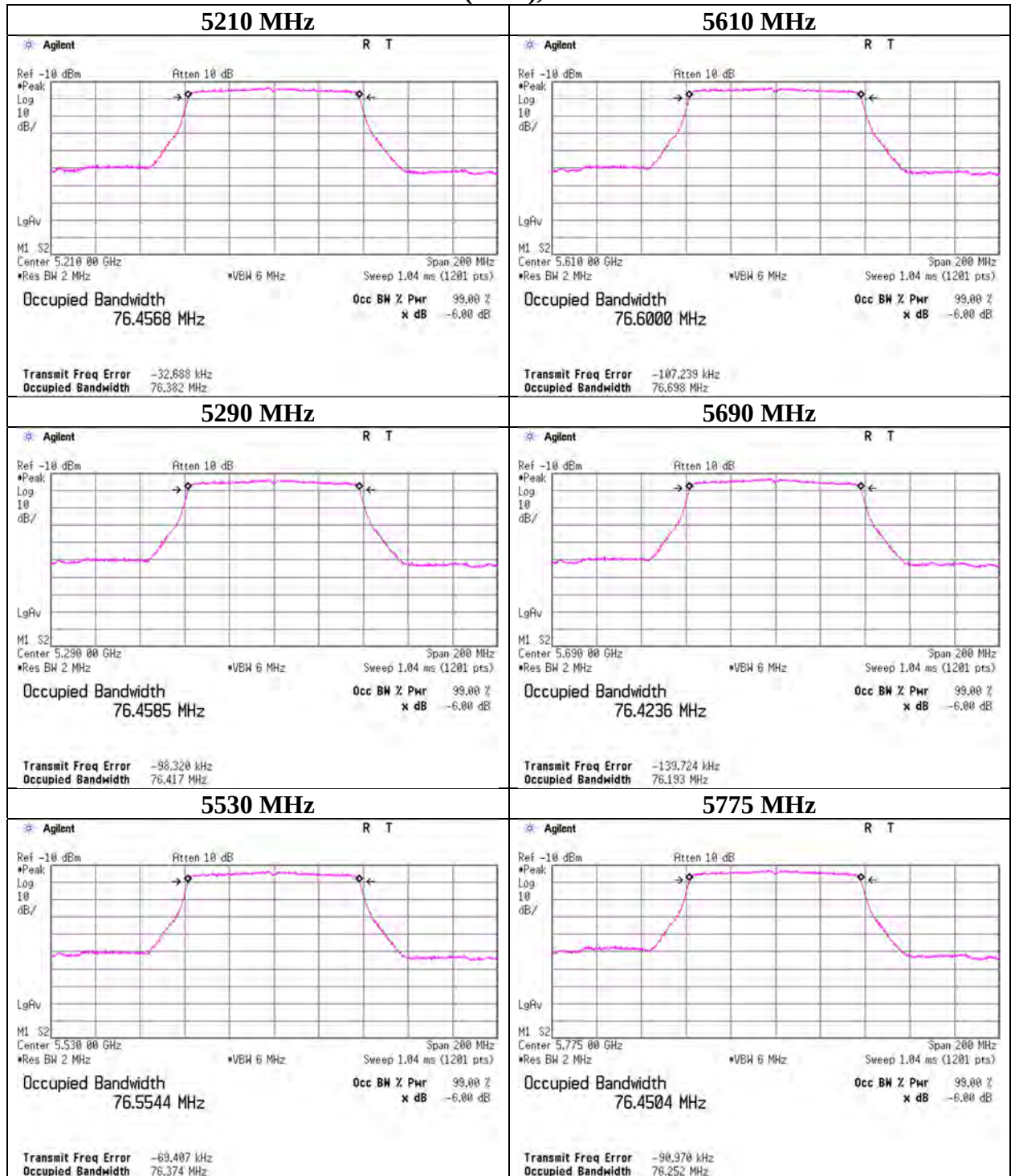
## 99 % Occupied Bandwidth

### 11ac-80(SISO), Chain 1



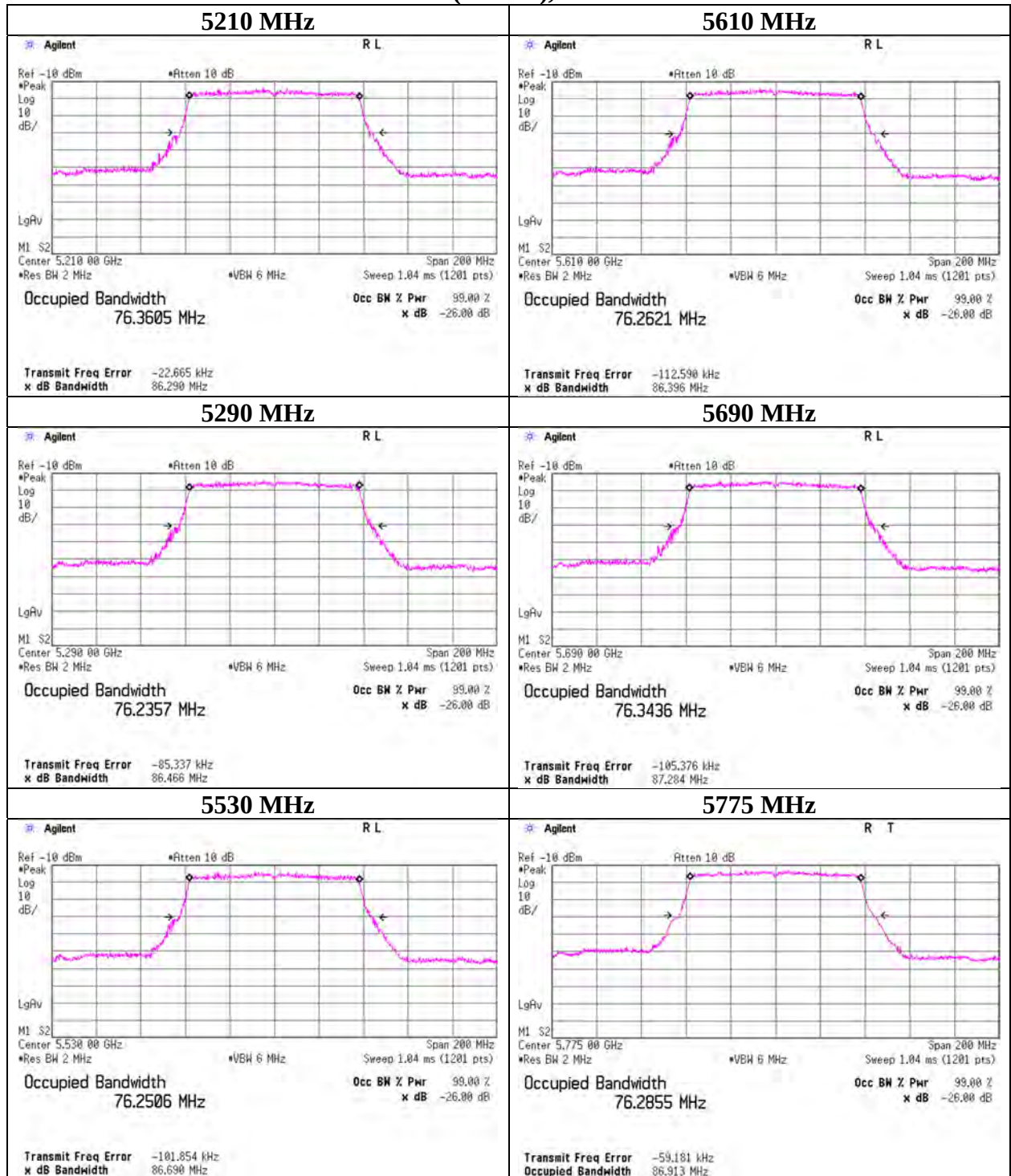
## 99 % Occupied Bandwidth

### 11ac-80(CDD), Chain 1



## 99 % Occupied Bandwidth

### 11ac-80(MIMO), Chain 1



## 6 dB Bandwidth

Report No. 13977035S-C-R1  
Test place Shonan EMC Lab. No.5 Shielded Room  
Date November 4, 2021 November 22, 2021  
Temperature / Humidity 25 deg. C / 34 % RH 23 deg. C / 40 % RH  
Engineer Shiro Kobayashi Shiro Kobayashi  
Mode Tx (measured worst antenna port)

11a (SISO)

| Antenna | Tested Frequency [MHz] | 6 dB Bandwidth [MHz] | Limit [MHz] |
|---------|------------------------|----------------------|-------------|
| Chain 1 | 5745                   | 15.755               | > 0.500     |
|         | 5785                   | 15.690               | > 0.500     |
|         | 5825                   | 15.723               | > 0.500     |

11n-20 (SISO)

| Antenna | Tested Frequency [MHz] | 6 dB Bandwidth [MHz] | Limit [MHz] |
|---------|------------------------|----------------------|-------------|
| Chain 1 | 5745                   | 17.363               | > 0.500     |
|         | 5785                   | 17.286               | > 0.500     |
|         | 5825                   | 17.570               | > 0.500     |

11ac-20 (SISO)

| Antenna | Tested Frequency [MHz] | 6 dB Bandwidth [MHz] | Limit [MHz] |
|---------|------------------------|----------------------|-------------|
| Chain 1 | 5745                   | 17.446               | > 0.500     |
|         | 5785                   | 17.351               | > 0.500     |
|         | 5825                   | 17.584               | > 0.500     |

11a (CDD)

| Antenna | Tested Frequency [MHz] | 6 dB Bandwidth [MHz] | Limit [MHz] |
|---------|------------------------|----------------------|-------------|
| Chain 1 | 5745                   | 15.751               | > 0.500     |
|         | 5785                   | 15.633               | > 0.500     |
|         | 5825                   | 15.724               | > 0.500     |

11n-20 (CDD)

| Antenna | Tested Frequency [MHz] | 6 dB Bandwidth [MHz] | Limit [MHz] |
|---------|------------------------|----------------------|-------------|
| Chain 1 | 5745                   | 17.566               | > 0.500     |
|         | 5785                   | 17.496               | > 0.500     |
|         | 5825                   | 17.575               | > 0.500     |

11ac-20 (CDD)

| Antenna | Tested Frequency [MHz] | 6 dB Bandwidth [MHz] | Limit [MHz] |
|---------|------------------------|----------------------|-------------|
| Chain 1 | 5745                   | 17.624               | > 0.500     |
|         | 5785                   | 17.638               | > 0.500     |
|         | 5825                   | 17.605               | > 0.500     |

11n-20 (MIMO)

| Antenna | Tested Frequency [MHz] | 6 dB Bandwidth [MHz] | Limit [MHz] |
|---------|------------------------|----------------------|-------------|
| Chain 1 | 5745                   | 17.637               | > 0.500     |
|         | 5785                   | 17.592               | > 0.500     |
|         | 5825                   | 17.611               | > 0.500     |

11ac-20 (MIMO)

| Antenna | Tested Frequency [MHz] | 6 dB Bandwidth [MHz] | Limit [MHz] |
|---------|------------------------|----------------------|-------------|
| Chain 1 | 5745                   | 17.628               | > 0.500     |
|         | 5785                   | 17.357               | > 0.500     |
|         | 5825                   | 17.654               | > 0.500     |

11n-40 (SISO)

| Antenna | Tested Frequency [MHz] | 6 dB Bandwidth [MHz] | Limit [MHz] |
|---------|------------------------|----------------------|-------------|
| Chain 1 | 5755                   | 36.434               | > 0.500     |
|         | 5795                   | 36.452               | > 0.500     |

11ac-40 (SISO)

| Antenna | Tested Frequency [MHz] | 6 dB Bandwidth [MHz] | Limit [MHz] |
|---------|------------------------|----------------------|-------------|
| Chain 1 | 5755                   | 36.475               | > 0.500     |
|         | 5795                   | 36.443               | > 0.500     |

## 6 dB Bandwidth

Report No. 13977035S-C-R1  
Test place Shonan EMC Lab. No.5 Shielded Room  
Date November 4, 2021 November 22, 2021  
Temperature / Humidity 25 deg. C / 34 % RH 23 deg. C / 40 % RH  
Engineer Shiro Kobayashi Shiro Kobayashi  
Mode Tx (measured worst antenna port)

11n-40 (CDD)

| Antenna | Tested Frequency [MHz] | 6 dB Bandwidth [MHz] | Limit [MHz] |
|---------|------------------------|----------------------|-------------|
| Chain 1 | 5755                   | 36.437               | > 0.500     |
|         | 5795                   | 36.442               | > 0.500     |

11ac-40 (CDD)

| Antenna | Tested Frequency [MHz] | 6 dB Bandwidth [MHz] | Limit [MHz] |
|---------|------------------------|----------------------|-------------|
| Chain 1 | 5755                   | 36.429               | > 0.500     |
|         | 5795                   | 36.442               | > 0.500     |

11n-40 (MIMO)

| Antenna | Tested Frequency [MHz] | 6 dB Bandwidth [MHz] | Limit [MHz] |
|---------|------------------------|----------------------|-------------|
| Chain 1 | 5755                   | 36.412               | > 0.500     |
|         | 5795                   | 36.410               | > 0.500     |

11ac-40 (MIMO)

| Antenna | Tested Frequency [MHz] | 6 dB Bandwidth [MHz] | Limit [MHz] |
|---------|------------------------|----------------------|-------------|
| Chain 1 | 5755                   | 36.021               | > 0.500     |
|         | 5795                   | 35.475               | > 0.500     |

11ac-80 (SISO)

| Antenna | Tested Frequency [MHz] | 6 dB Bandwidth [MHz] | Limit [MHz] |
|---------|------------------------|----------------------|-------------|
| Chain 1 | 5775                   | 76.620               | > 0.500     |

11ac-80 (CDD)

| Antenna | Tested Frequency [MHz] | 6 dB Bandwidth [MHz] | Limit [MHz] |
|---------|------------------------|----------------------|-------------|
| Chain 1 | 5775                   | 76.513               | > 0.500     |

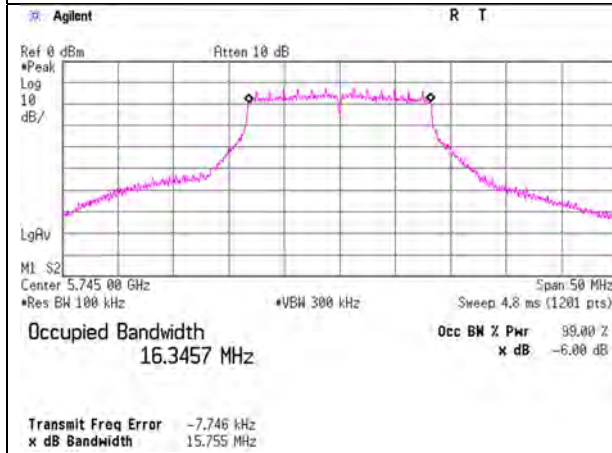
11ac-80 (MIMO)

| Antenna | Tested Frequency [MHz] | 6 dB Bandwidth [MHz] | Limit [MHz] |
|---------|------------------------|----------------------|-------------|
| Chain 1 | 5775                   | 76.460               | > 0.500     |

## 6 dB Bandwidth

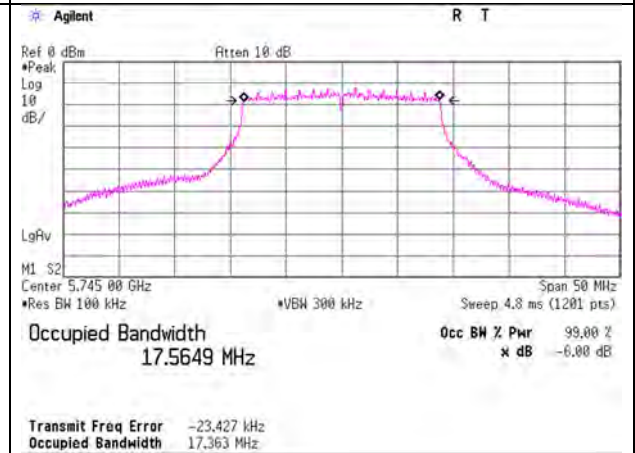
### 11a (SISO), Chain 1

5745 MHz

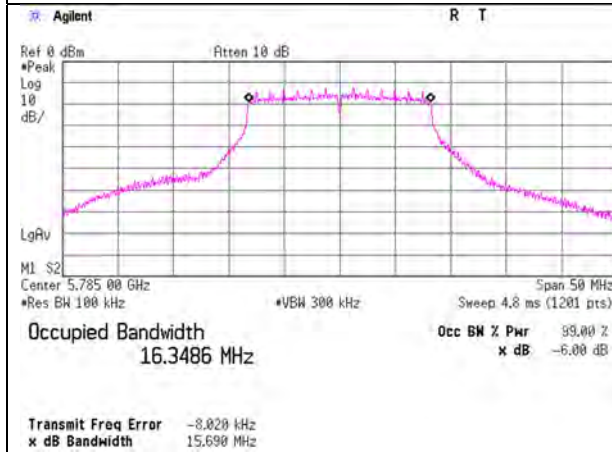


### 11n-20 (SISO), Chain 1

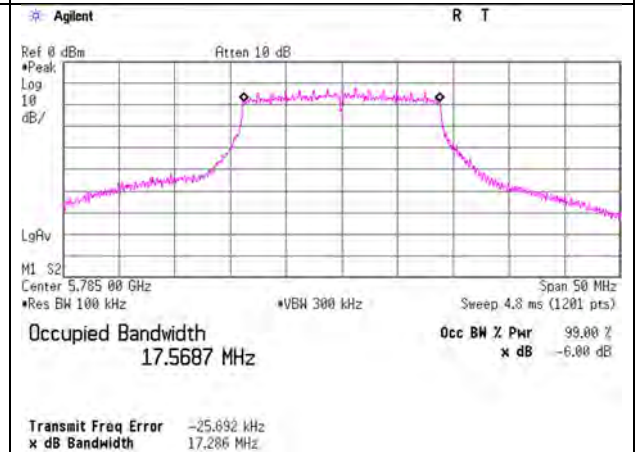
5745 MHz



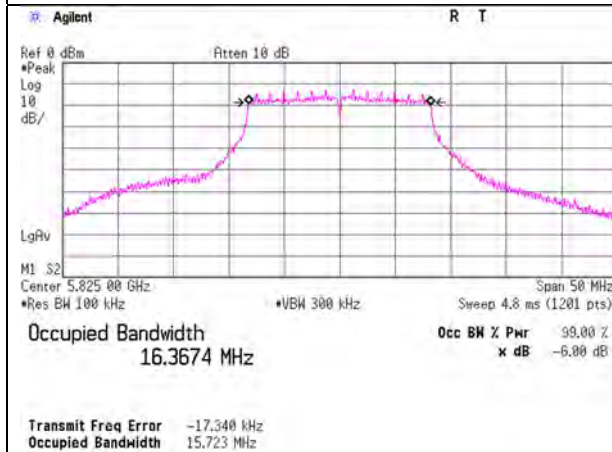
5785 MHz



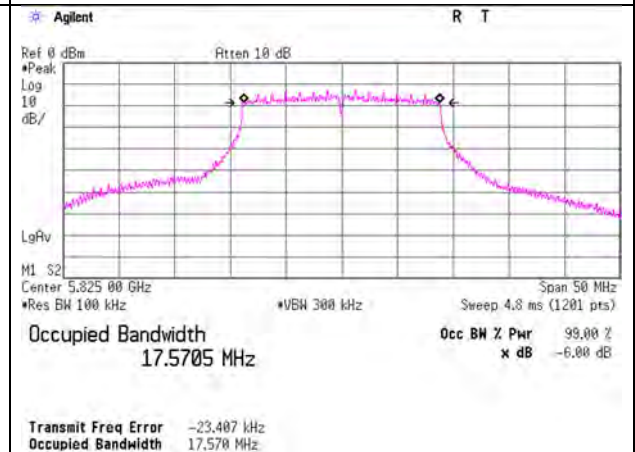
5785 MHz



5825 MHz



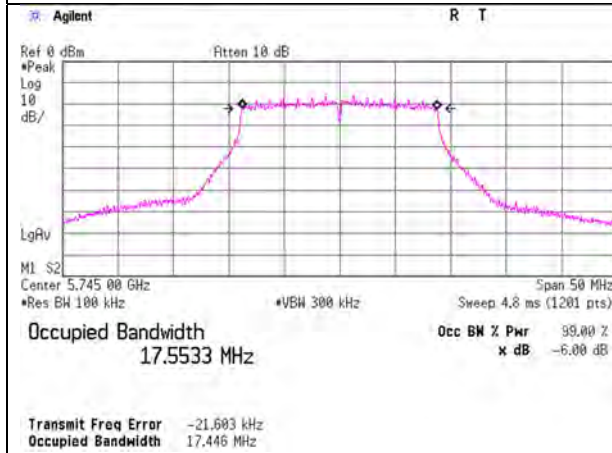
5825 MHz



## 6 dB Bandwidth

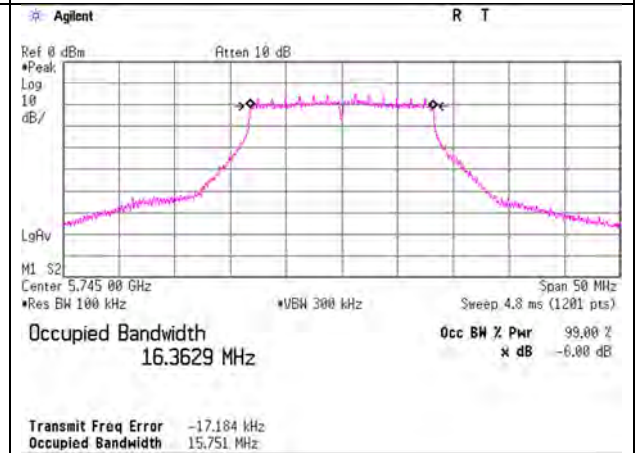
### 11ac-20 (SISO), Chain 1

#### 5745 MHz

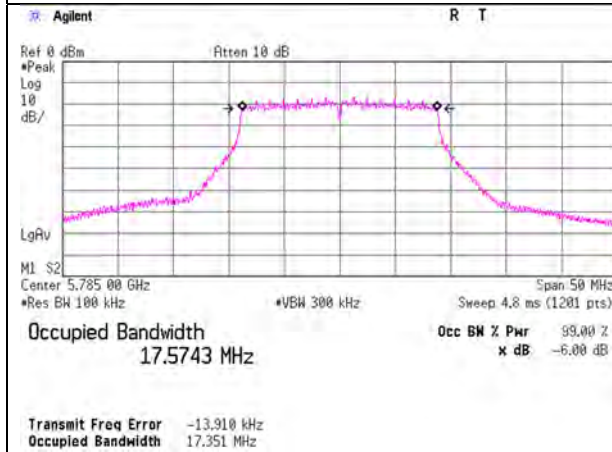


### 11a (CDD), Chain 1

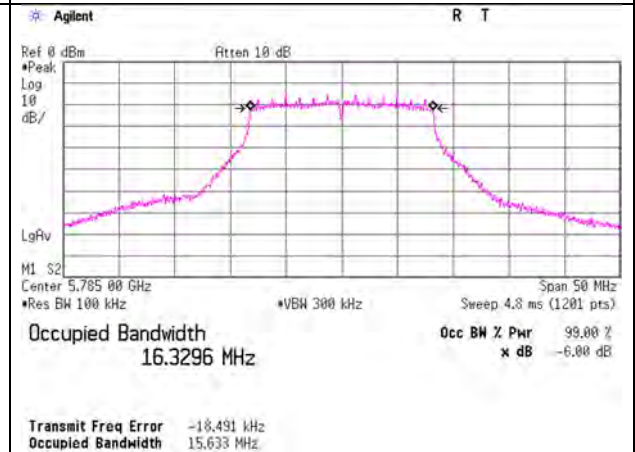
#### 5745 MHz



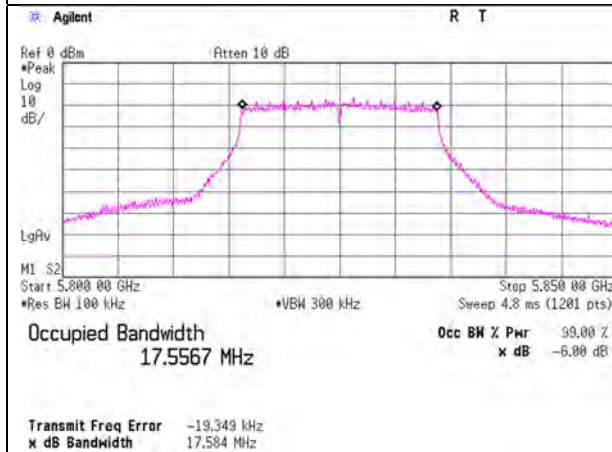
#### 5785 MHz



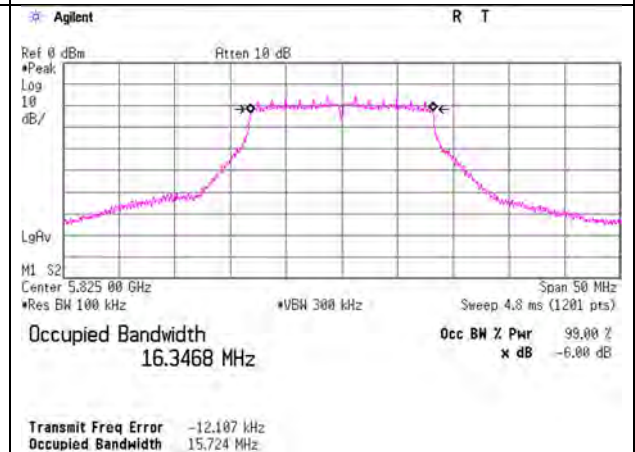
#### 5785 MHz



#### 5825 MHz

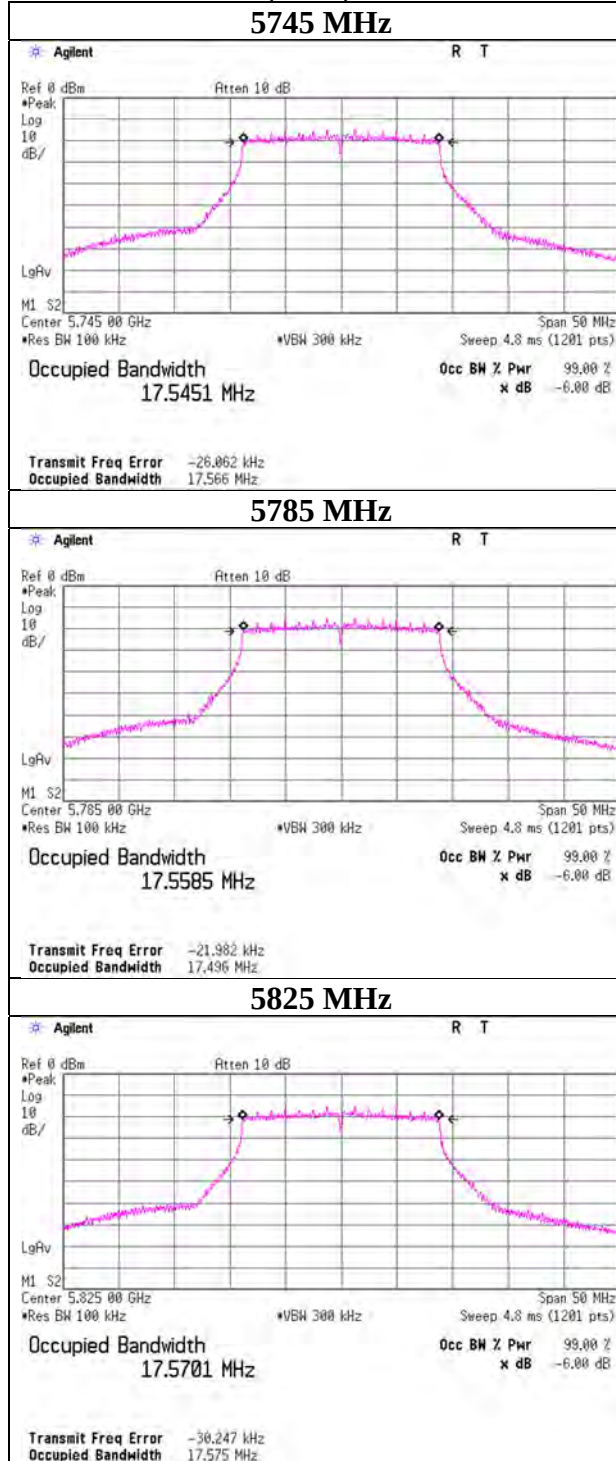


#### 5825 MHz

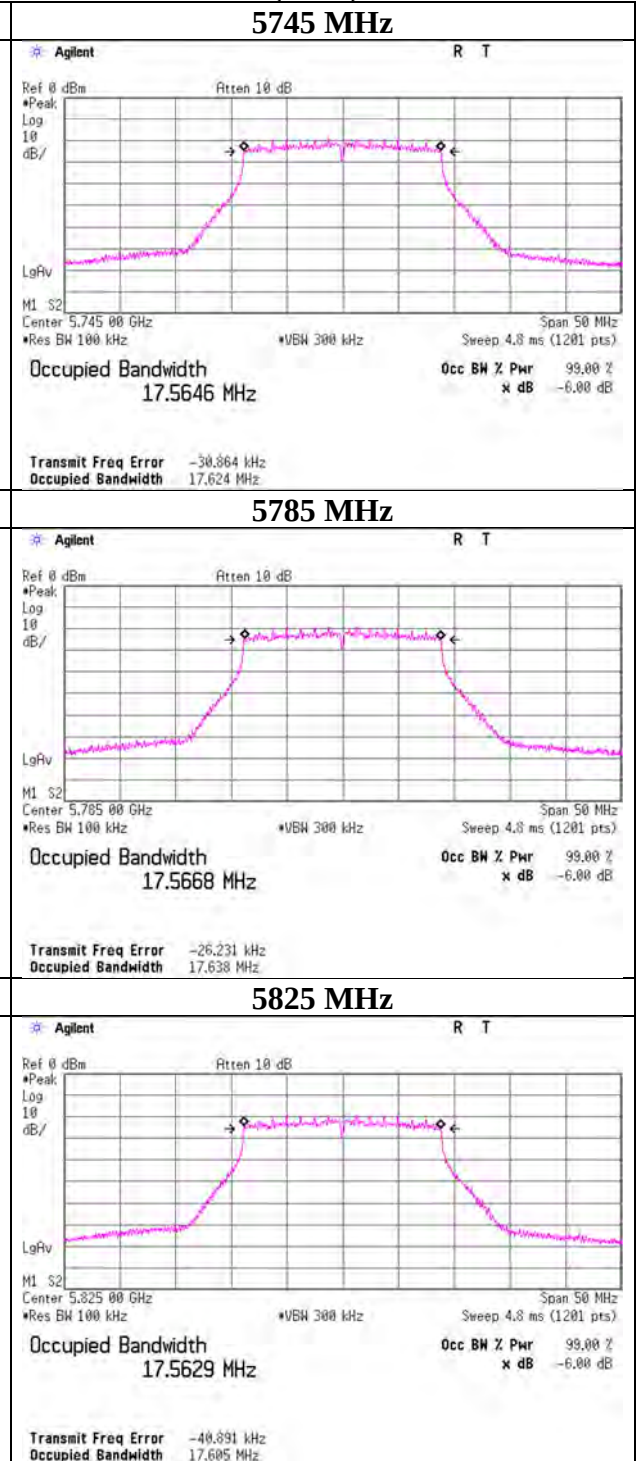


## 6 dB Bandwidth

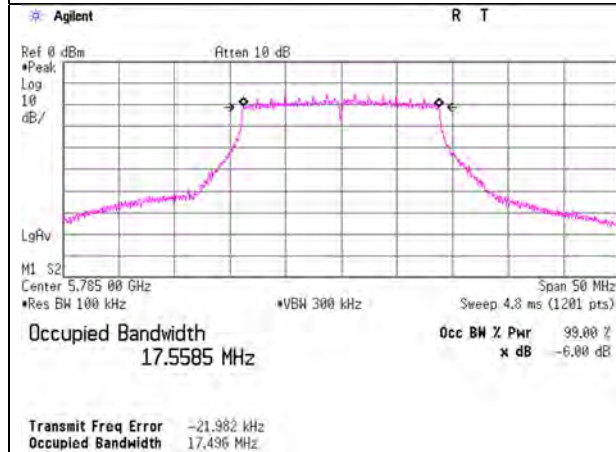
### 11n-20 (CDD), Chain 1



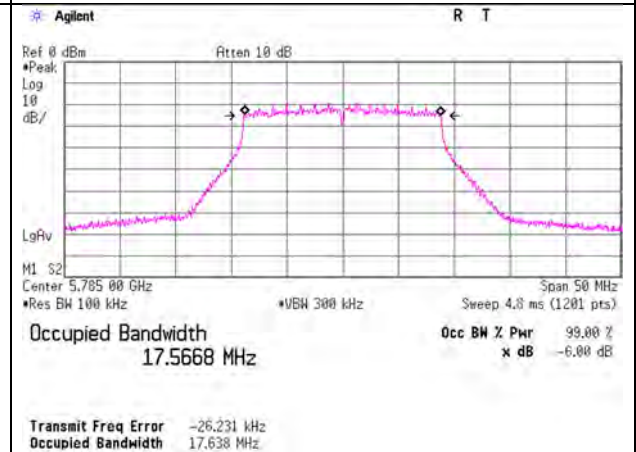
### 11ac-20 (CDD), Chain 1



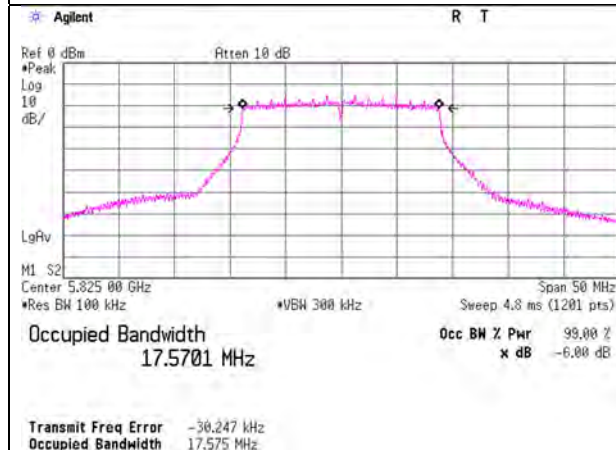
### 5785 MHz



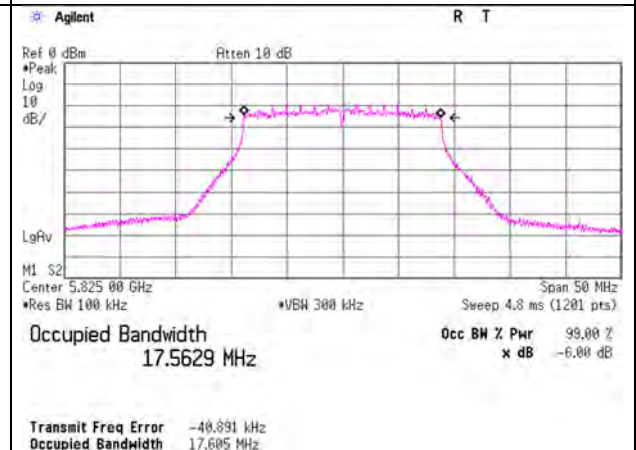
### 5785 MHz



### 5825 MHz



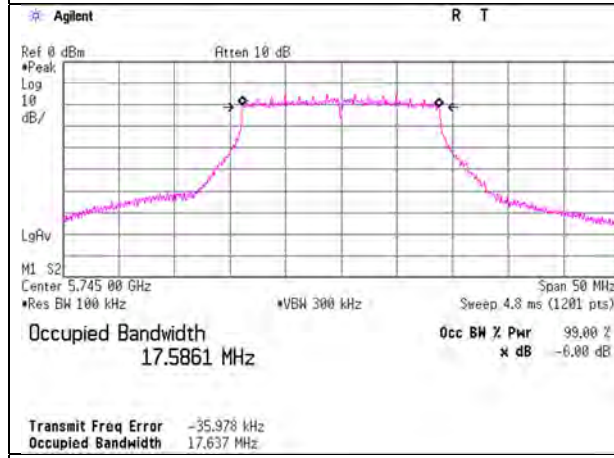
### 5825 MHz



## 6 dB Bandwidth

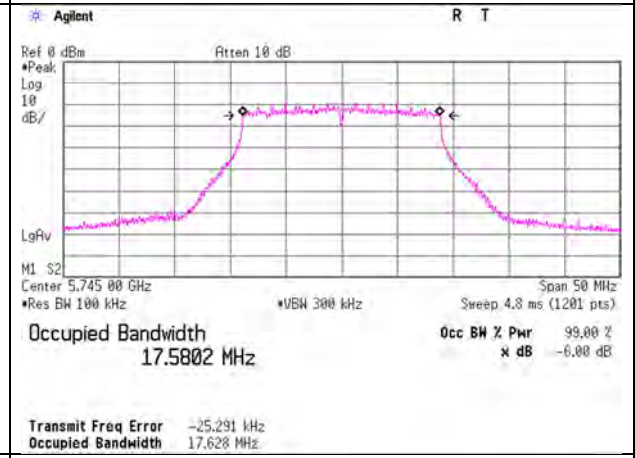
### 11n-20 (MIMO), Chain 1

5745 MHz

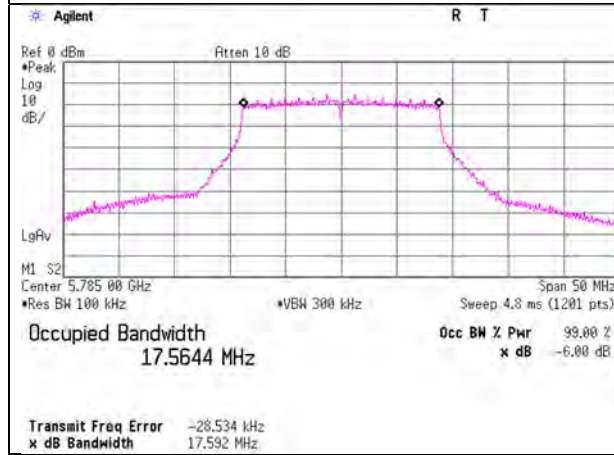


### 11ac-20 (MIMO), Chain 1

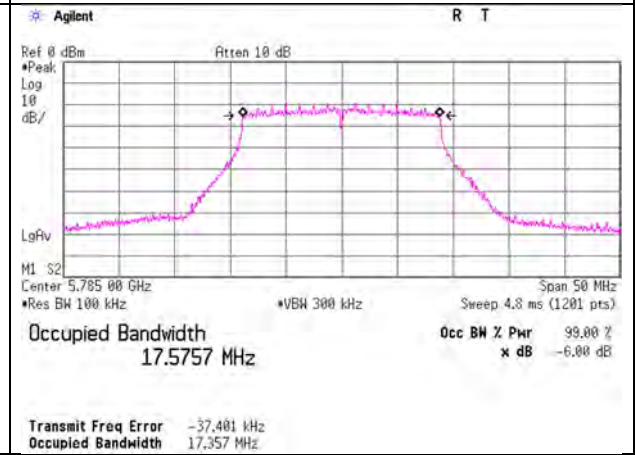
5745 MHz



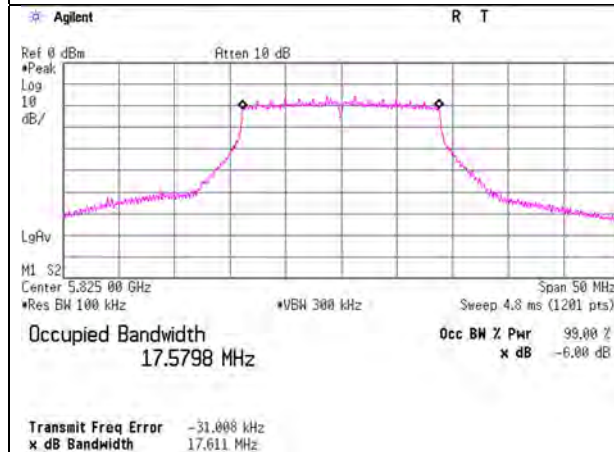
5785 MHz



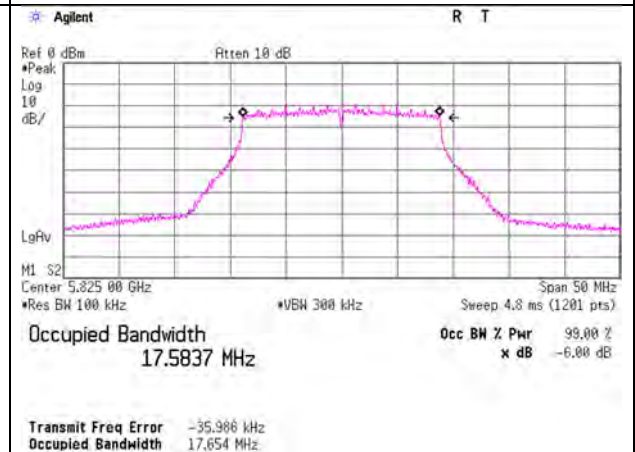
5785 MHz



5825 MHz



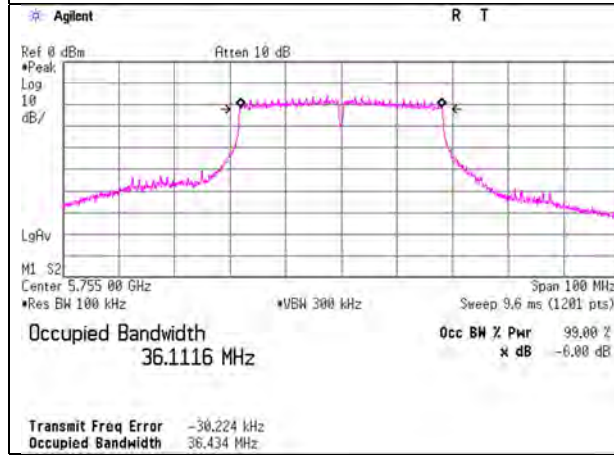
5825 MHz



## 6 dB Bandwidth

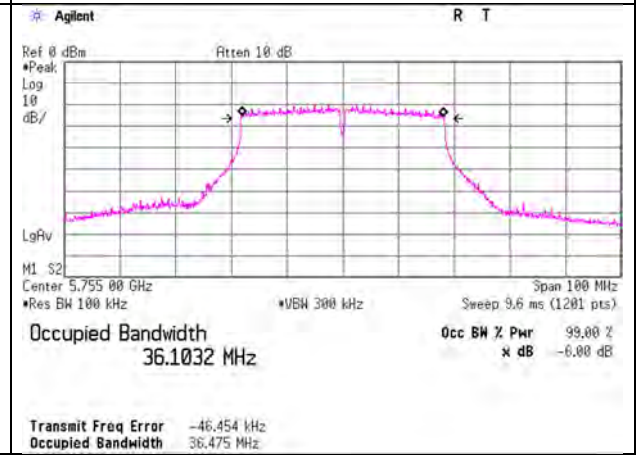
### 11n-40 (SISO), Chain 1

5755 MHz

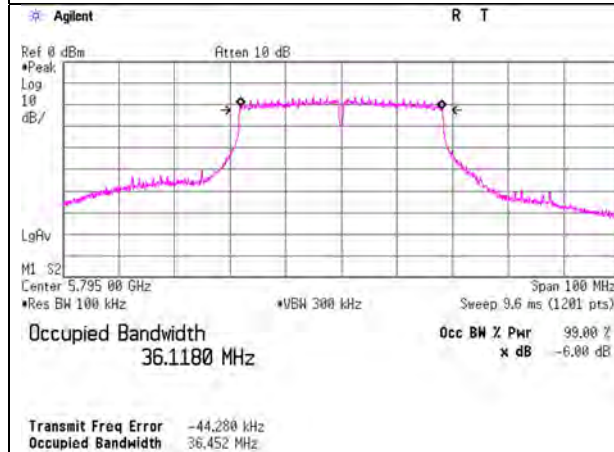


### 11ac-40 (SISO), Chain 1

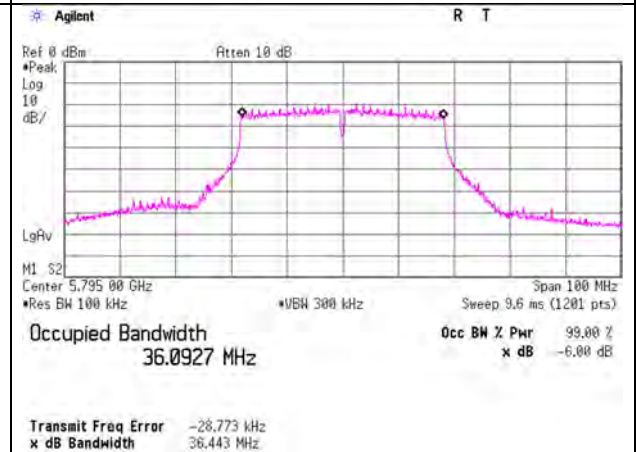
5755 MHz



5795 MHz

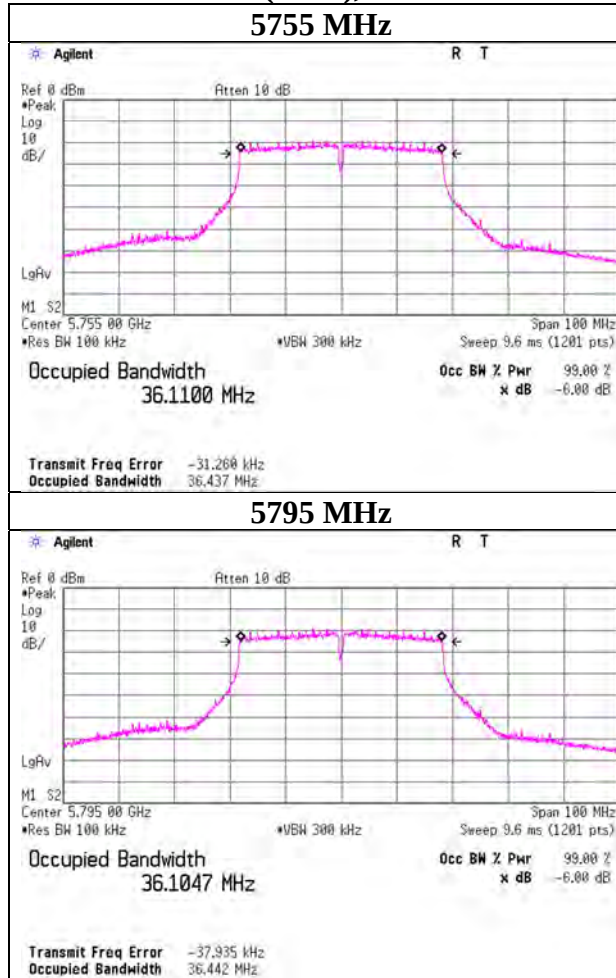


5795 MHz

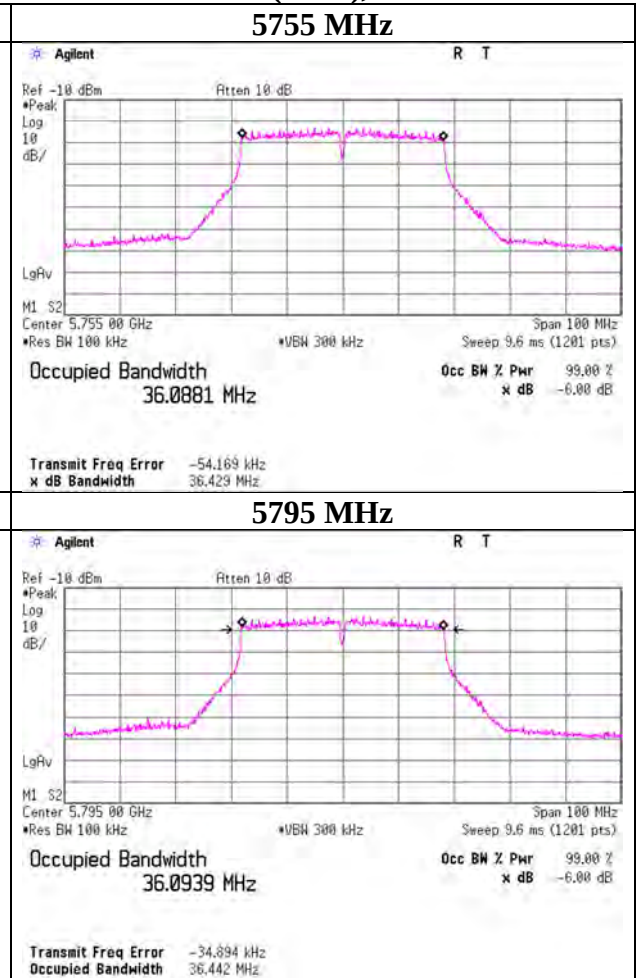


## 6 dB Bandwidth

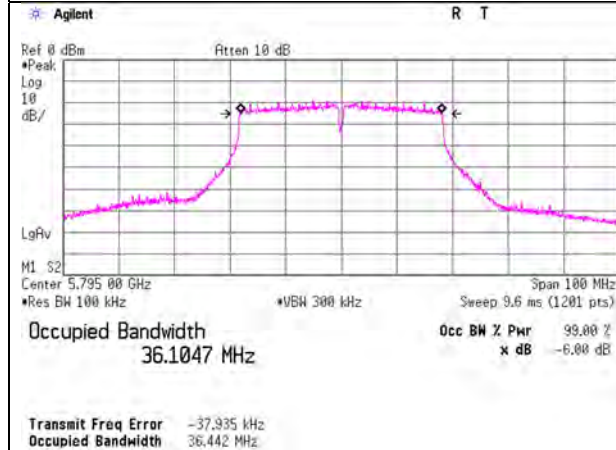
11n-40 (CDD), Chain 1



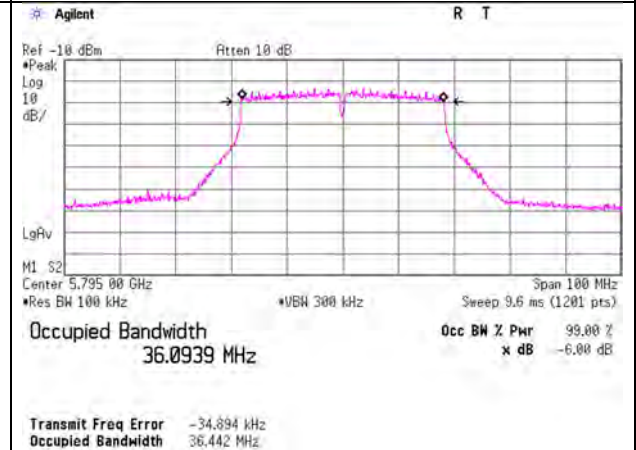
11ac-40 (CDD), Chain 1



5795 MHz



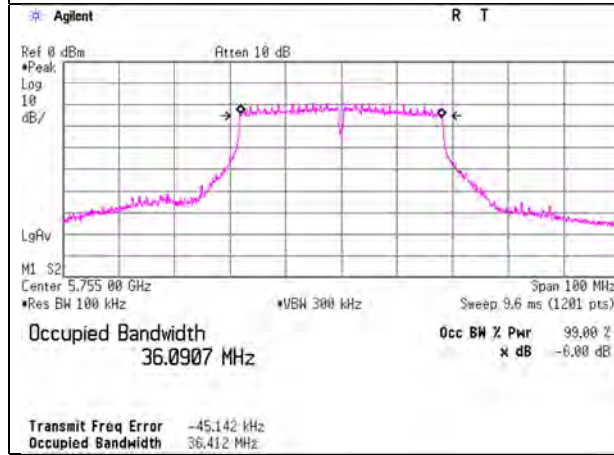
5795 MHz



## 6 dB Bandwidth

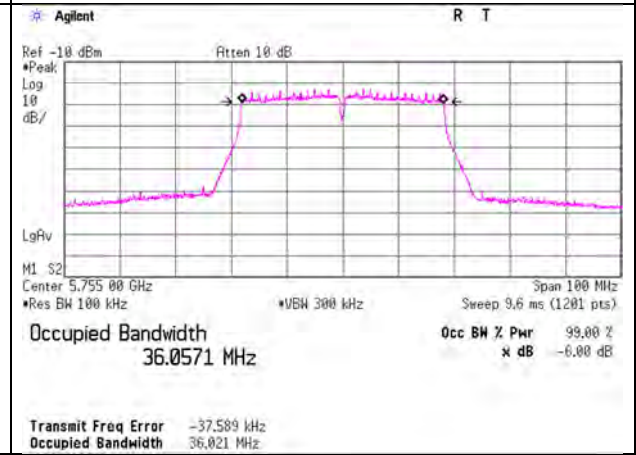
### 11n-40 (MIMO), Chain 1

5755 MHz

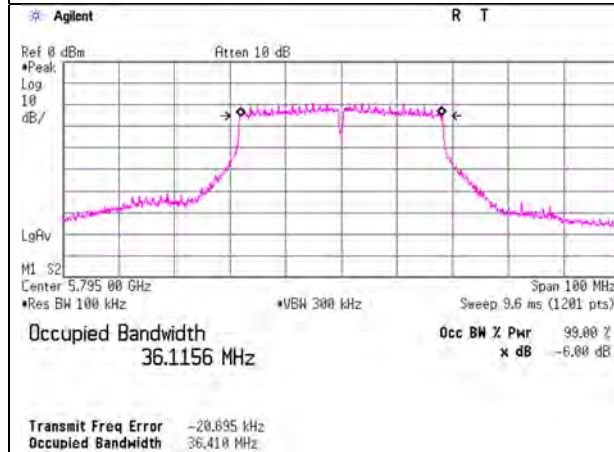


### 11ac-40 (MIMO), Chain 1

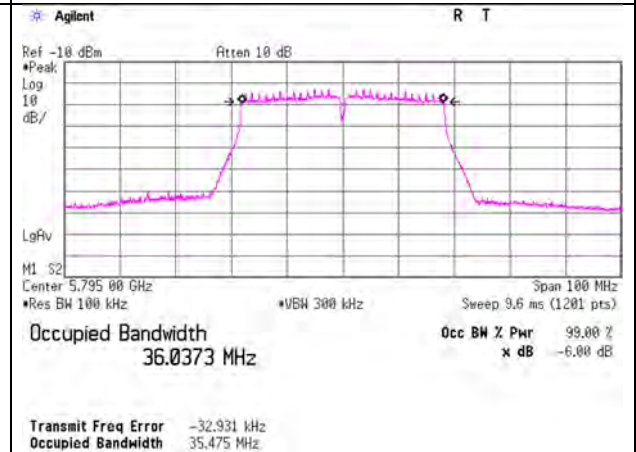
5755 MHz



5795 MHz

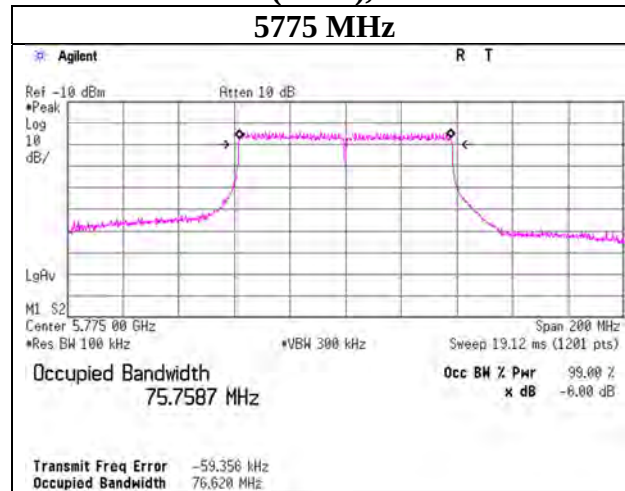


5795 MHz

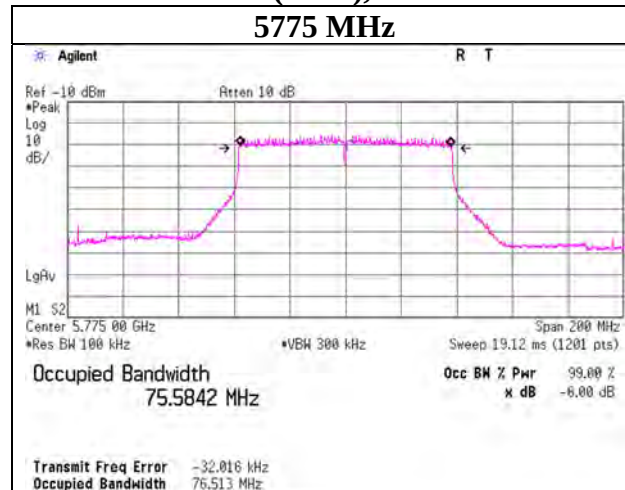


## 6 dB Bandwidth

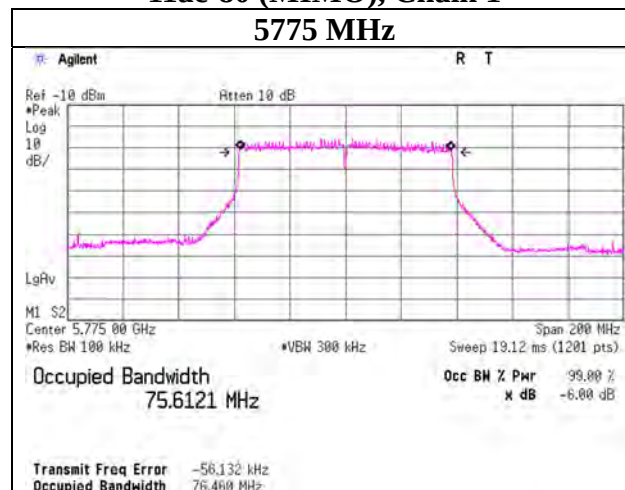
### 11ac-80 (SISO), Chain 1



### 11ac-80 (CDD), Chain 1



### 11ac-80 (MIMO), Chain 1



## Maximum Conducted Output Power

Report No. 13977035S-C-R1  
Test place Shonan EMC Lab. No.1 Measurement Room / No. 5 Shielded Room  
Date October 21, 2021 October 27, 2021 December 3, 2021  
Temperature / Humidity 24 deg. C / 43 % RH 25 deg. C / 37 % RH 24 deg. C / 37 % RH  
Engineer Kenichi Adachi Kenichi Adachi Shunsaku Yumi  
Mode Tx 11a (SISO)

### 11a (SISO), Chain 1

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] | Antenna Gain<br>[dBi] | 26 dB EBW<br>(B for FCC)<br>[MHz] | 99 % OBW<br>(B for ISSED)<br>[MHz] | Conducted Power |       |       |        | e.i.r.p. |       |       |        |
|---------------------------|------------------------------|--------------------|---------------------|-----------------------|-----------------------------------|------------------------------------|-----------------|-------|-------|--------|----------|-------|-------|--------|
|                           |                              |                    |                     |                       |                                   |                                    | Result          |       | Limit | Margin | Result   |       | Limit | Margin |
|                           |                              |                    |                     |                       |                                   |                                    | [dBm]           | [mW]  | [dBm] | [dB]   | [dBm]    | [mW]  | [dBm] | [dB]   |
| 5180                      | -2.24                        | 2.61               | 9.72                | 2.71                  | -                                 | 16.730                             | 10.09           | 10.21 | 23.97 | 13.88  | 12.80    | 19.05 | 29.97 | 17.17  |
| 5220                      | -2.46                        | 2.62               | 9.72                | 2.71                  | -                                 | 16.779                             | 9.88            | 9.73  | 23.97 | 14.09  | 12.59    | 18.16 | 29.97 | 17.38  |
| 5240                      | -2.56                        | 2.58               | 9.72                | 2.71                  | -                                 | 16.773                             | 9.74            | 9.42  | 23.97 | 14.23  | 12.45    | 17.58 | 29.97 | 17.52  |
| 5260                      | -2.39                        | 2.60               | 9.72                | 2.71                  | 20.326                            | 16.777                             | 9.93            | 9.84  | 23.97 | 14.04  | 12.64    | 18.37 | 29.97 | 17.33  |
| 5300                      | -2.46                        | 2.61               | 9.72                | 2.71                  | 19.720                            | 16.726                             | 9.87            | 9.71  | 23.94 | 14.07  | 12.58    | 18.11 | 29.97 | 17.39  |
| 5320                      | -2.49                        | 2.62               | 9.72                | 2.71                  | 19.788                            | 16.709                             | 9.85            | 9.66  | 23.96 | 14.11  | 12.56    | 18.03 | 29.97 | 17.41  |
| 5500                      | -2.54                        | 2.71               | 9.73                | 2.71                  | 19.582                            | 16.708                             | 9.90            | 9.77  | 23.91 | 14.01  | 12.61    | 18.24 | 29.97 | 17.36  |
| 5580                      | -2.11                        | 2.70               | 9.73                | 2.71                  | 19.779                            | 16.659                             | 10.32           | 10.76 | 23.96 | 13.64  | 13.03    | 20.09 | 29.97 | 16.94  |
| 5700                      | -1.86                        | 2.71               | 9.74                | 2.71                  | 19.888                            | 16.779                             | 10.59           | 11.46 | 23.97 | 13.38  | 13.30    | 21.38 | 29.97 | 16.67  |
| 5720                      | -2.24                        | 2.71               | 9.74                | 2.71                  | 20.020                            | 16.747                             | 10.21           | 10.50 | 23.97 | 13.76  | 12.92    | 19.59 | 29.97 | 17.05  |
| 5745                      | -1.90                        | 2.71               | 9.74                | 2.71                  | -                                 | 16.756                             | 10.55           | 11.35 | 30.00 | 19.45  | 13.26    | 21.18 | 36.00 | 22.74  |
| 5785                      | -2.05                        | 2.73               | 9.74                | 2.71                  | -                                 | 16.786                             | 10.42           | 11.02 | 30.00 | 19.58  | 13.13    | 20.56 | 36.00 | 22.87  |
| 5825                      | -2.29                        | 2.75               | 9.74                | 2.71                  | -                                 | 16.786                             | 10.20           | 10.47 | 30.00 | 19.80  | 12.91    | 19.54 | 36.00 | 23.09  |

### 11a (SISO), Chain 2

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] | Antenna Gain<br>[dBi] | 26 dB EBW<br>(B for FCC)<br>[MHz] | 99 % OBW<br>(B for ISSED)<br>[MHz] | Conducted Power |      |       |        | e.i.r.p. |       |       |        |
|---------------------------|------------------------------|--------------------|---------------------|-----------------------|-----------------------------------|------------------------------------|-----------------|------|-------|--------|----------|-------|-------|--------|
|                           |                              |                    |                     |                       |                                   |                                    | Result          |      | Limit | Margin | Result   |       | Limit | Margin |
|                           |                              |                    |                     |                       |                                   |                                    | [dBm]           | [mW] | [dBm] | [dB]   | [dBm]    | [mW]  | [dBm] | [dB]   |
| 5180                      | -2.51                        | 2.61               | 9.72                | 2.71                  | -                                 | 16.730                             | 9.82            | 9.59 | 23.97 | 14.15  | 12.53    | 17.91 | 29.97 | 17.44  |
| 5220                      | -2.75                        | 2.62               | 9.72                | 2.71                  | -                                 | 16.779                             | 9.59            | 9.10 | 23.97 | 14.38  | 12.30    | 16.98 | 29.97 | 17.67  |
| 5240                      | -2.67                        | 2.58               | 9.72                | 2.71                  | -                                 | 16.773                             | 9.63            | 9.18 | 23.97 | 14.34  | 12.34    | 17.14 | 29.97 | 17.63  |
| 5260                      | -2.56                        | 2.60               | 9.72                | 2.71                  | 20.326                            | 16.777                             | 9.76            | 9.46 | 23.97 | 14.21  | 12.47    | 17.66 | 29.97 | 17.50  |
| 5300                      | -2.65                        | 2.61               | 9.72                | 2.71                  | 19.720                            | 16.726                             | 9.68            | 9.29 | 23.94 | 14.26  | 12.39    | 17.34 | 29.97 | 17.58  |
| 5320                      | -2.92                        | 2.62               | 9.72                | 2.71                  | 19.788                            | 16.709                             | 9.42            | 8.75 | 23.96 | 14.54  | 12.13    | 16.33 | 29.97 | 17.84  |
| 5500                      | -3.47                        | 2.71               | 9.73                | 2.71                  | 19.582                            | 16.708                             | 8.97            | 7.89 | 23.91 | 14.94  | 11.68    | 14.72 | 29.97 | 18.29  |
| 5580                      | -2.83                        | 2.70               | 9.73                | 2.71                  | 19.779                            | 16.659                             | 9.60            | 9.12 | 23.96 | 14.36  | 12.31    | 17.02 | 29.97 | 17.66  |
| 5700                      | -3.04                        | 2.71               | 9.74                | 2.71                  | 19.888                            | 16.779                             | 9.41            | 8.73 | 23.97 | 14.56  | 12.12    | 16.29 | 29.97 | 17.85  |
| 5720                      | -2.95                        | 2.71               | 9.74                | 2.71                  | 20.020                            | 16.747                             | 9.50            | 8.91 | 23.97 | 14.47  | 12.21    | 16.63 | 29.97 | 17.76  |
| 5745                      | -2.57                        | 2.71               | 9.74                | 2.71                  | -                                 | 16.756                             | 9.88            | 9.73 | 30.00 | 20.12  | 12.59    | 18.16 | 36.00 | 23.41  |
| 5785                      | -2.56                        | 2.73               | 9.74                | 2.71                  | -                                 | 16.786                             | 9.91            | 9.79 | 30.00 | 20.09  | 12.62    | 18.28 | 36.00 | 23.38  |
| 5825                      | -2.73                        | 2.75               | 9.74                | 2.71                  | -                                 | 16.786                             | 9.76            | 9.46 | 30.00 | 20.24  | 12.47    | 17.66 | 36.00 | 23.53  |

Sample Calculation:

Conducted Power Result = Reading + Cable Loss + Atten. Loss

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 + 10logB) dBm, whichever is lower

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

UL Japan, Inc.

Shonan EMC Lab.

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## Maximum Conducted Output Power

Report No. 13977035S-C-R1  
Test place Shonan EMC Lab. No.1 Measurement Room / No. 5 Shielded Room  
Date October 21, 2021 October 27, 2021 December 3, 2021  
Temperature / Humidity 24 deg. C / 43 % RH 25 deg. C / 37 % RH 24 deg. C / 37 % RH  
Engineer Kenichi Adachi Kenichi Adachi Shunsaku Yumi  
Mode Tx 11n-20 (SISO)

### 11n-20 (SISO), Chain 1

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] | Antenna Gain<br>[dBi] | 26 dB EBW<br>(B for FCC)<br>[MHz] | 99 % OBW<br>(B for ISSED)<br>[MHz] | Conducted Power |       |       |        | e.i.r.p. |       |       |        |
|---------------------------|------------------------------|--------------------|---------------------|-----------------------|-----------------------------------|------------------------------------|-----------------|-------|-------|--------|----------|-------|-------|--------|
|                           |                              |                    |                     |                       |                                   |                                    | Result          |       | Limit | Margin | Result   |       | Limit | Margin |
|                           |                              |                    |                     |                       |                                   |                                    | [dBm]           | [mW]  | [dBm] | [dB]   | [dBm]    | [mW]  | [dBm] | [dB]   |
| 5180                      | -2.32                        | 2.61               | 9.72                | 2.71                  | -                                 | 17.789                             | 10.01           | 10.02 | 23.97 | 13.96  | 12.72    | 18.71 | 29.97 | 17.25  |
| 5220                      | -2.51                        | 2.62               | 9.72                | 2.71                  | -                                 | 17.788                             | 9.83            | 9.62  | 23.97 | 14.14  | 12.54    | 17.95 | 29.97 | 17.43  |
| 5240                      | -2.69                        | 2.58               | 9.72                | 2.71                  | -                                 | 17.873                             | 9.61            | 9.14  | 23.97 | 14.36  | 12.32    | 17.06 | 29.97 | 17.65  |
| 5260                      | -2.47                        | 2.60               | 9.72                | 2.71                  | 20.512                            | 17.826                             | 9.85            | 9.66  | 23.97 | 14.12  | 12.56    | 18.03 | 29.97 | 17.41  |
| 5300                      | -2.46                        | 2.61               | 9.72                | 2.71                  | 19.956                            | 17.820                             | 9.87            | 9.71  | 23.97 | 14.10  | 12.58    | 18.11 | 29.97 | 17.39  |
| 5320                      | -2.58                        | 2.62               | 9.72                | 2.71                  | 20.052                            | 17.830                             | 9.76            | 9.46  | 23.97 | 14.21  | 12.47    | 17.66 | 29.97 | 17.50  |
| 5500                      | -2.66                        | 2.71               | 9.73                | 2.71                  | 20.586                            | 17.853                             | 9.78            | 9.51  | 23.97 | 14.19  | 12.49    | 17.74 | 29.97 | 17.48  |
| 5580                      | -2.19                        | 2.70               | 9.73                | 2.71                  | 20.446                            | 17.836                             | 10.24           | 10.57 | 23.97 | 13.73  | 12.95    | 19.72 | 29.97 | 17.02  |
| 5700                      | -2.05                        | 2.71               | 9.74                | 2.71                  | 20.301                            | 17.807                             | 10.40           | 10.96 | 23.97 | 13.57  | 13.11    | 20.46 | 29.97 | 16.86  |
| 5720                      | -2.31                        | 2.71               | 9.74                | 2.71                  | 20.407                            | 17.835                             | 10.14           | 10.33 | 23.97 | 13.83  | 12.85    | 19.28 | 29.97 | 17.12  |
| 5745                      | -2.00                        | 2.71               | 9.74                | 2.71                  | -                                 | 17.860                             | 10.45           | 11.09 | 30.00 | 19.55  | 13.16    | 20.70 | 36.00 | 22.84  |
| 5785                      | -2.13                        | 2.73               | 9.74                | 2.71                  | -                                 | 17.853                             | 10.34           | 10.81 | 30.00 | 19.66  | 13.05    | 20.18 | 36.00 | 22.95  |
| 5825                      | -2.49                        | 2.75               | 9.74                | 2.71                  | -                                 | 17.869                             | 10.00           | 10.00 | 30.00 | 20.00  | 12.71    | 18.66 | 36.00 | 23.29  |

### 11n-20 (SISO), Chain 2

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] | Antenna Gain<br>[dBi] | 26 dB EBW<br>(B for FCC)<br>[MHz] | 99 % OBW<br>(B for ISSED)<br>[MHz] | Conducted Power |      |       |        | e.i.r.p. |       |       |        |
|---------------------------|------------------------------|--------------------|---------------------|-----------------------|-----------------------------------|------------------------------------|-----------------|------|-------|--------|----------|-------|-------|--------|
|                           |                              |                    |                     |                       |                                   |                                    | Result          |      | Limit | Margin | Result   |       | Limit | Margin |
|                           |                              |                    |                     |                       |                                   |                                    | [dBm]           | [mW] | [dBm] | [dB]   | [dBm]    | [mW]  | [dBm] | [dB]   |
| 5180                      | -2.72                        | 2.61               | 9.72                | 2.71                  | -                                 | 17.789                             | 9.61            | 9.14 | 23.97 | 14.36  | 12.32    | 17.06 | 29.97 | 17.65  |
| 5220                      | -2.83                        | 2.62               | 9.72                | 2.71                  | -                                 | 17.788                             | 9.51            | 8.93 | 23.97 | 14.46  | 12.22    | 16.67 | 29.97 | 17.75  |
| 5240                      | -2.81                        | 2.58               | 9.72                | 2.71                  | -                                 | 17.873                             | 9.49            | 8.89 | 23.97 | 14.48  | 12.20    | 16.60 | 29.97 | 17.77  |
| 5260                      | -2.67                        | 2.60               | 9.72                | 2.71                  | 20.512                            | 17.826                             | 9.65            | 9.23 | 23.97 | 14.32  | 12.36    | 17.22 | 29.97 | 17.61  |
| 5300                      | -2.73                        | 2.61               | 9.72                | 2.71                  | 19.956                            | 17.820                             | 9.60            | 9.12 | 23.97 | 14.37  | 12.31    | 17.02 | 29.97 | 17.66  |
| 5320                      | -2.97                        | 2.62               | 9.72                | 2.71                  | 20.052                            | 17.830                             | 9.37            | 8.65 | 23.97 | 14.60  | 12.08    | 16.14 | 29.97 | 17.89  |
| 5500                      | -3.55                        | 2.71               | 9.73                | 2.71                  | 20.586                            | 17.853                             | 8.89            | 7.74 | 23.97 | 15.08  | 11.60    | 14.45 | 29.97 | 18.37  |
| 5580                      | -2.93                        | 2.70               | 9.73                | 2.71                  | 20.446                            | 17.836                             | 9.50            | 8.91 | 23.97 | 14.47  | 12.21    | 16.63 | 29.97 | 17.76  |
| 5700                      | -3.09                        | 2.71               | 9.74                | 2.71                  | 20.301                            | 17.807                             | 9.36            | 8.63 | 23.97 | 14.61  | 12.07    | 16.11 | 29.97 | 17.90  |
| 5720                      | -3.09                        | 2.71               | 9.74                | 2.71                  | 20.407                            | 17.835                             | 9.36            | 8.63 | 23.97 | 14.61  | 12.07    | 16.11 | 29.97 | 17.90  |
| 5745                      | -2.64                        | 2.71               | 9.74                | 2.71                  | -                                 | 17.860                             | 9.81            | 9.57 | 30.00 | 20.19  | 12.52    | 17.86 | 36.00 | 23.48  |
| 5785                      | -2.65                        | 2.73               | 9.74                | 2.71                  | -                                 | 17.853                             | 9.82            | 9.59 | 30.00 | 20.18  | 12.53    | 17.91 | 36.00 | 23.47  |
| 5825                      | -2.85                        | 2.75               | 9.74                | 2.71                  | -                                 | 17.869                             | 9.64            | 9.20 | 30.00 | 20.36  | 12.35    | 17.18 | 36.00 | 23.65  |

Sample Calculation:

Conducted Power Result = Reading + Cable Loss + Atten. Loss

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 + 10logB) dBm, whichever is lower

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

## Maximum Conducted Output Power

Report No. 13977035S-C-R1  
Test place Shonan EMC Lab. No.1 Measurement Room / No. 5 Shielded Room  
Date October 21, 2021 October 27, 2021 December 3, 2021  
Temperature / Humidity 24 deg. C / 43 % RH 25 deg. C / 37 % RH 24 deg. C / 37 % RH  
Engineer Kenichi Adachi Kenichi Adachi Shunsaku Yumi  
Mode Tx 11ac-20 (SISO)

### 11ac-20 (SISO), Chain 1

Applied limit: 15.407, mobile and portable client device

| Tested Frequency [MHz] | Power Meter Reading [dBm] | Cable Loss [dB] | Atten. Loss [dB] | Antenna Gain [dBi] | 26 dB EBW (B for FCC) [MHz] | 99 % OBW (B for ISSED) [MHz] | Conducted Power |      |       |        | e.i.r.p. |      |       |        |
|------------------------|---------------------------|-----------------|------------------|--------------------|-----------------------------|------------------------------|-----------------|------|-------|--------|----------|------|-------|--------|
|                        |                           |                 |                  |                    |                             |                              | Result          |      | Limit | Margin | Result   |      | Limit | Margin |
|                        |                           |                 |                  |                    |                             |                              | [dBm]           | [mW] | [dBm] | [dB]   | [dBm]    | [mW] | [dBm] | [dB]   |
| 5180                   | -6.40                     | 2.61            | 9.72             | 2.71               | -                           | 17.861                       | 5.93            | 3.92 | 23.97 | 18.04  | 8.64     | 7.31 | 29.97 | 21.33  |
| 5220                   | -6.63                     | 2.62            | 9.72             | 2.71               | -                           | 17.806                       | 5.71            | 3.72 | 23.97 | 18.26  | 8.42     | 6.95 | 29.97 | 21.55  |
| 5240                   | -6.77                     | 2.58            | 9.72             | 2.71               | -                           | 17.820                       | 5.53            | 3.57 | 23.97 | 18.44  | 8.24     | 6.67 | 29.97 | 21.73  |
| 5260                   | -6.59                     | 2.60            | 9.72             | 2.71               | 20.564                      | 17.812                       | 5.73            | 3.74 | 23.97 | 18.24  | 8.44     | 6.98 | 29.97 | 21.53  |
| 5300                   | -6.44                     | 2.61            | 9.72             | 2.71               | 20.684                      | 17.806                       | 5.89            | 3.88 | 23.97 | 18.08  | 8.60     | 7.24 | 29.97 | 21.37  |
| 5320                   | -6.67                     | 2.62            | 9.72             | 2.71               | 20.525                      | 17.797                       | 5.67            | 3.69 | 23.97 | 18.30  | 8.38     | 6.89 | 29.97 | 21.59  |
| 5500                   | -6.71                     | 2.71            | 9.73             | 2.71               | 20.443                      | 17.822                       | 5.73            | 3.74 | 23.97 | 18.24  | 8.44     | 6.98 | 29.97 | 21.53  |
| 5580                   | -6.32                     | 2.70            | 9.73             | 2.71               | 20.457                      | 17.850                       | 6.11            | 4.08 | 23.97 | 17.86  | 8.82     | 7.62 | 29.97 | 21.15  |
| 5700                   | -5.93                     | 2.71            | 9.74             | 2.71               | 20.470                      | 17.808                       | 6.52            | 4.49 | 23.97 | 17.45  | 9.23     | 8.38 | 29.97 | 20.74  |
| 5720                   | -6.34                     | 2.71            | 9.74             | 2.71               | 20.435                      | 17.843                       | 6.11            | 4.08 | 23.97 | 17.86  | 8.82     | 7.62 | 29.97 | 21.15  |
| 5745                   | -5.83                     | 2.71            | 9.74             | 2.71               | -                           | 17.900                       | 6.62            | 4.59 | 30.00 | 23.38  | 9.33     | 8.57 | 36.00 | 26.67  |
| 5785                   | -6.18                     | 2.73            | 9.74             | 2.71               | -                           | 17.848                       | 6.29            | 4.26 | 30.00 | 23.71  | 9.00     | 7.94 | 36.00 | 27.00  |
| 5825                   | -6.34                     | 2.75            | 9.74             | 2.71               | -                           | 17.877                       | 6.15            | 4.12 | 30.00 | 23.85  | 8.86     | 7.69 | 36.00 | 27.14  |

### 11ac-20 (SISO), Chain 2

Applied limit: 15.407, mobile and portable client device

| Tested Frequency [MHz] | Power Meter Reading [dBm] | Cable Loss [dB] | Atten. Loss [dB] | Antenna Gain [dBi] | 26 dB EBW (B for FCC) [MHz] | 99 % OBW (B for ISSED) [MHz] | Conducted Power |      |       |        | e.i.r.p. |      |       |        |
|------------------------|---------------------------|-----------------|------------------|--------------------|-----------------------------|------------------------------|-----------------|------|-------|--------|----------|------|-------|--------|
|                        |                           |                 |                  |                    |                             |                              | Result          |      | Limit | Margin | Result   |      | Limit | Margin |
|                        |                           |                 |                  |                    |                             |                              | [dBm]           | [mW] | [dBm] | [dB]   | [dBm]    | [mW] | [dBm] | [dB]   |
| 5180                   | -6.63                     | 2.61            | 9.72             | 2.71               | -                           | 17.861                       | 5.70            | 3.72 | 23.97 | 18.27  | 8.41     | 6.93 | 29.97 | 21.56  |
| 5220                   | -6.74                     | 2.62            | 9.72             | 2.71               | -                           | 17.806                       | 5.60            | 3.63 | 23.97 | 18.37  | 8.31     | 6.78 | 29.97 | 21.66  |
| 5240                   | -6.93                     | 2.58            | 9.72             | 2.71               | -                           | 17.820                       | 5.37            | 3.44 | 23.97 | 18.60  | 8.08     | 6.43 | 29.97 | 21.89  |
| 5260                   | -6.69                     | 2.60            | 9.72             | 2.71               | 20.564                      | 17.812                       | 5.63            | 3.66 | 23.97 | 18.34  | 8.34     | 6.82 | 29.97 | 21.63  |
| 5300                   | -6.68                     | 2.61            | 9.72             | 2.71               | 20.684                      | 17.806                       | 5.65            | 3.67 | 23.97 | 18.32  | 8.36     | 6.85 | 29.97 | 21.61  |
| 5320                   | -6.92                     | 2.62            | 9.72             | 2.71               | 20.525                      | 17.797                       | 5.42            | 3.48 | 23.97 | 18.55  | 8.13     | 6.50 | 29.97 | 21.84  |
| 5500                   | -7.49                     | 2.71            | 9.73             | 2.71               | 20.443                      | 17.822                       | 4.95            | 3.13 | 23.97 | 19.02  | 7.66     | 5.83 | 29.97 | 22.31  |
| 5580                   | -6.98                     | 2.70            | 9.73             | 2.71               | 20.457                      | 17.850                       | 5.45            | 3.51 | 23.97 | 18.52  | 8.16     | 6.55 | 29.97 | 21.81  |
| 5700                   | -7.00                     | 2.71            | 9.74             | 2.71               | 20.470                      | 17.808                       | 5.45            | 3.51 | 23.97 | 18.52  | 8.16     | 6.55 | 29.97 | 21.81  |
| 5720                   | -7.05                     | 2.71            | 9.74             | 2.71               | 20.435                      | 17.843                       | 5.40            | 3.47 | 23.97 | 18.57  | 8.11     | 6.47 | 29.97 | 21.86  |
| 5745                   | -6.62                     | 2.71            | 9.74             | 2.71               | -                           | 17.900                       | 5.83            | 3.83 | 30.00 | 24.17  | 8.54     | 7.14 | 36.00 | 27.46  |
| 5785                   | -6.61                     | 2.73            | 9.74             | 2.71               | -                           | 17.848                       | 5.86            | 3.85 | 30.00 | 24.14  | 8.57     | 7.19 | 36.00 | 27.43  |
| 5825                   | -6.79                     | 2.75            | 9.74             | 2.71               | -                           | 17.877                       | 5.70            | 3.72 | 30.00 | 24.30  | 8.41     | 6.93 | 36.00 | 27.59  |

Sample Calculation:

Conducted Power Result = Reading + Cable Loss + Atten. Loss

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 + 10logB) dBm, whichever is lower

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

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## Maximum Conducted Output Power

Report No. 13977035S-C-R1  
Test place Shonan EMC Lab. No.1 Measurement Room / No. 5 Shielded Room  
Date October 21, 2021 October 27, 2021  
Temperature / Humidity 24 deg. C / 43 % RH 25 deg. C / 37 % RH  
Engineer Kenichi Adachi Kenichi Adachi  
Mode Tx 11a (CDD)

### Chain 1 + Chain 2

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 ISSED)<br>[MHz] | Conducted power |           |             |                 |                |                | e.i.r.p.  |           |             |                 |                |                |
|---------------------------|-----------------------------------|------------------------------------|-----------------|-----------|-------------|-----------------|----------------|----------------|-----------|-----------|-------------|-----------------|----------------|----------------|
|                           |                                   |                                    | Chain           |           |             | Result<br>[dBm] | Limit<br>[dBm] | Margin<br>[dB] | Chain     |           |             | 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                      | -                                 | 16.760                             | 5.12            | 4.91      | 10.03       | 10.01           | 23.97          | 13.96          | 9.55      | 9.16      | 18.71       | 12.72           | 29.97          | 17.25          |
| 5220                      | -                                 | 16.749                             | 5.12            | 5.00      | 10.12       | 10.05           | 23.97          | 13.92          | 9.55      | 9.33      | 18.88       | 12.76           | 29.97          | 17.21          |
| 5240                      | -                                 | 16.773                             | 5.09            | 4.73      | 9.82        | 9.92            | 23.97          | 14.05          | 9.51      | 8.83      | 18.34       | 12.63           | 29.97          | 17.34          |
| 5260                      | 19.596                            | 16.737                             | 4.85            | 4.52      | 9.37        | 9.72            | 23.92          | 14.20          | 9.06      | 8.43      | 17.49       | 12.43           | 29.97          | 17.54          |
| 5300                      | 19.346                            | 16.780                             | 4.76            | 4.58      | 9.35        | 9.71            | 23.86          | 14.15          | 8.89      | 8.55      | 17.44       | 12.42           | 29.97          | 17.55          |
| 5320                      | 19.293                            | 16.719                             | 4.75            | 4.47      | 9.22        | 9.65            | 23.85          | 14.20          | 8.87      | 8.34      | 17.21       | 12.36           | 29.97          | 17.61          |
| 5500                      | 20.061                            | 16.784                             | 4.79            | 3.78      | 8.57        | 9.33            | 23.97          | 14.64          | 8.93      | 7.06      | 16.00       | 12.04           | 29.97          | 17.93          |
| 5580                      | 19.990                            | 16.756                             | 5.26            | 4.11      | 9.37        | 9.72            | 23.97          | 14.25          | 9.82      | 7.67      | 17.49       | 12.43           | 29.97          | 17.54          |
| 5700                      | 19.731                            | 16.750                             | 5.58            | 4.52      | 10.10       | 10.04           | 23.95          | 13.91          | 10.42     | 8.43      | 18.86       | 12.75           | 29.97          | 17.22          |
| 5720                      | 19.621                            | 16.701                             | 5.16            | 4.17      | 9.33        | 9.70            | 23.92          | 14.22          | 9.64      | 7.78      | 17.42       | 12.41           | 29.97          | 17.56          |
| 5745                      | -                                 | 16.754                             | 5.79            | 4.74      | 10.54       | 10.23           | 30.00          | 19.77          | 10.81     | 8.85      | 19.67       | 12.94           | 36.00          | 23.06          |
| 5785                      | -                                 | 16.743                             | 5.48            | 5.12      | 10.60       | 10.25           | 30.00          | 19.75          | 10.23     | 9.55      | 19.78       | 12.96           | 36.00          | 23.04          |
| 5825                      | -                                 | 16.813                             | 5.26            | 4.69      | 9.95        | 9.98            | 30.00          | 20.02          | 9.82      | 8.75      | 18.57       | 12.69           | 36.00          | 23.31          |

| Chain 1          |             |                     |            |             |                  |             |          | Chain 2             |            |             |                  |             |          |  |
|------------------|-------------|---------------------|------------|-------------|------------------|-------------|----------|---------------------|------------|-------------|------------------|-------------|----------|--|
| Tested Frequency | Duty Factor | Power Meter Reading | Cable Loss | Atten. Loss | Directional Gain | Result      |          | Power Meter Reading | Cable Loss | Atten. Loss | Directional Gain | Result      |          |  |
|                  |             |                     |            |             |                  | Cond. Power | e.i.r.p. |                     |            |             |                  | Cond. Power | e.i.r.p. |  |
|                  |             |                     |            |             |                  | [dBm]       | [dBm]    |                     |            |             |                  | [dBm]       | [dBm]    |  |
| [MHz]            | [dB]        | [dBm]               | [dB]       | [dB]        | [dBi]            | [dBm]       | [dBm]    | [dBm]               | [dB]       | [dB]        | [dBi]            | [dBm]       | [dBm]    |  |
| 5180             | 0.00        | -5.24               | 2.61       | 9.72        | 2.71             | 7.09        | 9.80     | -5.42               | 2.61       | 9.72        | 2.71             | 6.91        | 9.62     |  |
| 5220             | 0.00        | -5.25               | 2.62       | 9.72        | 2.71             | 7.09        | 9.80     | -5.35               | 2.62       | 9.72        | 2.71             | 6.99        | 9.70     |  |
| 5240             | 0.00        | -5.23               | 2.58       | 9.72        | 2.71             | 7.07        | 9.78     | -5.55               | 2.58       | 9.72        | 2.71             | 6.75        | 9.46     |  |
| 5260             | 0.00        | -5.46               | 2.60       | 9.72        | 2.71             | 6.86        | 9.57     | -5.77               | 2.60       | 9.72        | 2.71             | 6.55        | 9.26     |  |
| 5300             | 0.00        | -5.55               | 2.61       | 9.72        | 2.71             | 6.78        | 9.49     | -5.72               | 2.61       | 9.72        | 2.71             | 6.61        | 9.32     |  |
| 5320             | 0.00        | -5.57               | 2.62       | 9.72        | 2.71             | 6.77        | 9.48     | -5.84               | 2.62       | 9.72        | 2.71             | 6.50        | 9.21     |  |
| 5500             | 0.00        | -5.64               | 2.71       | 9.73        | 2.71             | 6.80        | 9.51     | -6.66               | 2.71       | 9.73        | 2.71             | 5.78        | 8.49     |  |
| 5580             | 0.00        | -5.22               | 2.70       | 9.73        | 2.71             | 7.21        | 9.92     | -6.29               | 2.70       | 9.73        | 2.71             | 6.14        | 8.85     |  |
| 5700             | 0.00        | -4.98               | 2.71       | 9.74        | 2.71             | 7.47        | 10.18    | -5.90               | 2.71       | 9.74        | 2.71             | 6.55        | 9.26     |  |
| 5720             | 0.00        | -5.32               | 2.71       | 9.74        | 2.71             | 7.13        | 9.84     | -6.25               | 2.71       | 9.74        | 2.71             | 6.20        | 8.91     |  |
| 5745             | 0.00        | -4.82               | 2.71       | 9.74        | 2.71             | 7.63        | 10.34    | -5.69               | 2.71       | 9.74        | 2.71             | 6.76        | 9.47     |  |
| 5785             | 0.00        | -5.08               | 2.73       | 9.74        | 2.71             | 7.39        | 10.10    | -5.38               | 2.73       | 9.74        | 2.71             | 7.09        | 9.80     |  |
| 5825             | 0.00        | -5.28               | 2.75       | 9.74        | 2.71             | 7.21        | 9.92     | -5.78               | 2.75       | 9.74        | 2.71             | 6.71        | 9.42     |  |

### Sample Calculation:

Conducted Power Result = Reading + Cable Loss + Atten. Loss

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

Directional Gain =  $G_{ANT}$  (Antenna Gain) + Array Gain

Array Gain = 0 dB (ie., no array gain) for  $N_{ANT} < 4$

$N_{ANT}$  (number of transmit antennas) = 2

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

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

UL Japan, Inc.

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Facsimile : +81 463 50 6401

## Maximum Conducted Output Power

Report No. 13977035S-C-R1  
Test place Shonan EMC Lab. No.1 Measurement Room / No. 5 Shielded Room  
Date October 22, 2021 November 18, 2021  
Temperature / Humidity 23 deg. C / 33 % RH 23 deg. C / 42 % RH  
Engineer Kenichi Adachi Hiromasa Sato  
Mode Tx 11n-20 (CDD)

### Chain 1 + Chain 2

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 ISDE)<br>[MHz] | Conducted power |           |             |                 |                |                | e.i.r.p.  |           |             |                 |                |                |
|---------------------------|-----------------------------------|-----------------------------------|-----------------|-----------|-------------|-----------------|----------------|----------------|-----------|-----------|-------------|-----------------|----------------|----------------|
|                           |                                   |                                   | Chain           |           |             | Result<br>[dBm] | Limit<br>[dBm] | Margin<br>[dB] | Chain     |           |             | 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                      | -                                 | 17.842                            | 5.09            | 4.81      | 9.90        | 9.96            | 23.97          | 14.01          | 9.51      | 8.97      | 18.48       | 12.67           | 29.97          | 17.30          |
| 5220                      | -                                 | 17.840                            | 5.18            | 4.50      | 9.67        | 9.86            | 23.97          | 14.11          | 9.66      | 8.39      | 18.06       | 12.57           | 29.97          | 17.40          |
| 5240                      | -                                 | 17.860                            | 4.98            | 4.65      | 9.62        | 9.83            | 23.97          | 14.14          | 9.29      | 8.67      | 17.96       | 12.54           | 29.97          | 17.43          |
| 5260                      | 20.661                            | 17.851                            | 4.59            | 4.29      | 8.88        | 9.48            | 23.97          | 14.49          | 8.57      | 8.00      | 16.57       | 12.19           | 29.97          | 17.78          |
| 5300                      | 20.597                            | 17.846                            | 4.57            | 4.31      | 8.88        | 9.48            | 23.97          | 14.49          | 8.53      | 8.04      | 16.57       | 12.19           | 29.97          | 17.78          |
| 5320                      | 20.573                            | 17.855                            | 4.51            | 4.21      | 8.72        | 9.40            | 23.97          | 14.57          | 8.41      | 7.85      | 16.27       | 12.11           | 29.97          | 17.86          |
| 5500                      | 20.745                            | 17.846                            | 4.63            | 3.58      | 8.22        | 9.15            | 23.97          | 14.82          | 8.65      | 6.68      | 15.33       | 11.86           | 29.97          | 18.11          |
| 5580                      | 20.772                            | 17.845                            | 5.04            | 3.93      | 8.96        | 9.52            | 23.97          | 14.45          | 9.40      | 7.33      | 16.73       | 12.23           | 29.97          | 17.74          |
| 5700                      | 20.482                            | 17.842                            | 5.41            | 4.10      | 9.51        | 9.78            | 23.97          | 14.19          | 10.09     | 7.66      | 17.75       | 12.49           | 29.97          | 17.48          |
| 5720                      | 20.603                            | 17.861                            | 5.13            | 3.92      | 9.05        | 9.56            | 23.97          | 14.41          | 9.57      | 7.31      | 16.88       | 12.27           | 29.97          | 17.70          |
| 5745                      | -                                 | 17.844                            | 5.66            | 4.54      | 10.20       | 10.09           | 30.00          | 19.91          | 10.57     | 8.47      | 19.04       | 12.80           | 36.00          | 23.20          |
| 5785                      | -                                 | 17.865                            | 5.42            | 4.81      | 10.23       | 10.10           | 30.00          | 19.90          | 10.12     | 8.97      | 19.09       | 12.81           | 36.00          | 23.19          |
| 5825                      | -                                 | 17.844                            | 5.32            | 4.39      | 9.71        | 9.87            | 30.00          | 20.13          | 9.93      | 8.18      | 18.12       | 12.58           | 36.00          | 23.42          |

| Chain 1          |             |                     |            |             |                  |             |          | Chain 2             |            |             |                  |             |          |
|------------------|-------------|---------------------|------------|-------------|------------------|-------------|----------|---------------------|------------|-------------|------------------|-------------|----------|
| Tested Frequency | Duty Factor | Power Meter Reading | Cable Loss | Atten. Loss | Directional Gain | Result      |          | Power Meter Reading | Cable Loss | Atten. Loss | Directional 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             | 0.00        | -5.26               | 2.61       | 9.72        | 2.71             | 7.07        | 9.78     | -5.51               | 2.61       | 9.72        | 2.71             | 6.82        | 9.53     |
| 5220             | 0.00        | -5.20               | 2.62       | 9.72        | 2.71             | 7.14        | 9.85     | -5.81               | 2.62       | 9.72        | 2.71             | 6.53        | 9.24     |
| 5240             | 0.00        | -5.33               | 2.58       | 9.72        | 2.71             | 6.97        | 9.68     | -5.63               | 2.58       | 9.72        | 2.71             | 6.67        | 9.38     |
| 5260             | 0.00        | -5.70               | 2.60       | 9.72        | 2.71             | 6.62        | 9.33     | -6.00               | 2.60       | 9.72        | 2.71             | 6.32        | 9.03     |
| 5300             | 0.00        | -5.73               | 2.61       | 9.72        | 2.71             | 6.60        | 9.31     | -5.99               | 2.61       | 9.72        | 2.71             | 6.34        | 9.05     |
| 5320             | 0.00        | -5.80               | 2.62       | 9.72        | 2.71             | 6.54        | 9.25     | -6.10               | 2.62       | 9.72        | 2.71             | 6.24        | 8.95     |
| 5500             | 0.00        | -5.78               | 2.71       | 9.73        | 2.71             | 6.66        | 9.37     | -6.90               | 2.71       | 9.73        | 2.71             | 5.54        | 8.25     |
| 5580             | 0.00        | -5.41               | 2.70       | 9.73        | 2.71             | 7.02        | 9.73     | -6.49               | 2.70       | 9.73        | 2.71             | 5.94        | 8.65     |
| 5700             | 0.00        | -5.12               | 2.71       | 9.74        | 2.71             | 7.33        | 10.04    | -6.32               | 2.71       | 9.74        | 2.71             | 6.13        | 8.84     |
| 5720             | 0.00        | -5.35               | 2.71       | 9.74        | 2.71             | 7.10        | 9.81     | -6.52               | 2.71       | 9.74        | 2.71             | 5.93        | 8.64     |
| 5745             | 0.00        | -4.92               | 2.71       | 9.74        | 2.71             | 7.53        | 10.24    | -5.88               | 2.71       | 9.74        | 2.71             | 6.57        | 9.28     |
| 5785             | 0.00        | -5.13               | 2.73       | 9.74        | 2.71             | 7.34        | 10.05    | -5.65               | 2.73       | 9.74        | 2.71             | 6.82        | 9.53     |
| 5825             | 0.00        | -5.23               | 2.75       | 9.74        | 2.71             | 7.26        | 9.97     | -6.07               | 2.75       | 9.74        | 2.71             | 6.42        | 9.13     |

### Sample Calculation:

Conducted Power Result = Reading + Cable Loss + Atten. Loss

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

Directional Gain =  $G_{ANT}$ (Antenna Gain) + Array Gain

Array Gain = 0 dB (ie., no array gain) for  $N_{ANT} < 4$

$N_{ANT}$ (number of transmit antennas) = 2

Conducted Power Limit (5470 MHz-5600 MHz, 5650 MHz-5725 MHz) = 250 mW or (11 + 10logB) dBm, whichever is lower

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

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## Maximum Conducted Output Power

Report No. 13977035S-C-R1  
Test place Shonan EMC Lab. No.1 Measurement Room / No. 5 Shielded Room  
Date October 22, 2021 November 18, 2021  
Temperature / Humidity 23 deg. C / 33 % RH 23 deg. C / 42 % RH  
Engineer Kenichi Adachi Hiromasa Sato  
Mode Tx 11ac-20 (CDD)

### Chain 1 + Chain 2

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 ISED)<br>[MHz] | Conducted power |           |             |                 |                |                | e.i.r.p.  |           |             |                 |                |                |
|---------------------------|-----------------------------------|-----------------------------------|-----------------|-----------|-------------|-----------------|----------------|----------------|-----------|-----------|-------------|-----------------|----------------|----------------|
|                           |                                   |                                   | Chain           |           |             | Result<br>[dBm] | Limit<br>[dBm] | Margin<br>[dB] | Chain     |           |             | 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                      | -                                 | 17.900                            | 2.19            | 1.92      | 4.12        | 6.14            | 23.97          | 17.83          | 4.09      | 3.59      | 7.68        | 8.85            | 29.97          | 21.12          |
| 5220                      | -                                 | 17.898                            | 2.07            | 1.87      | 3.94        | 5.96            | 23.97          | 18.01          | 3.87      | 3.48      | 7.36        | 8.67            | 29.97          | 21.30          |
| 5240                      | -                                 | 17.903                            | 2.08            | 1.81      | 3.89        | 5.90            | 23.97          | 18.07          | 3.89      | 3.37      | 7.26        | 8.61            | 29.97          | 21.36          |
| 5260                      | 20.533                            | 17.879                            | 1.96            | 1.72      | 3.68        | 5.66            | 23.97          | 18.31          | 3.66      | 3.21      | 6.87        | 8.37            | 29.97          | 21.60          |
| 5300                      | 20.524                            | 17.899                            | 2.02            | 1.77      | 3.79        | 5.78            | 23.97          | 18.19          | 3.77      | 3.30      | 7.07        | 8.49            | 29.97          | 21.48          |
| 5320                      | 20.547                            | 17.904                            | 1.92            | 1.76      | 3.68        | 5.66            | 23.97          | 18.31          | 3.59      | 3.28      | 6.87        | 8.37            | 29.97          | 21.60          |
| 5500                      | 20.496                            | 17.899                            | 1.98            | 1.44      | 3.42        | 5.34            | 23.97          | 18.63          | 3.70      | 2.69      | 6.38        | 8.05            | 29.97          | 21.92          |
| 5580                      | 20.525                            | 17.885                            | 2.11            | 1.57      | 3.68        | 5.66            | 23.97          | 18.31          | 3.94      | 2.93      | 6.87        | 8.37            | 29.97          | 21.60          |
| 5700                      | 20.622                            | 17.897                            | 2.24            | 1.64      | 3.88        | 5.88            | 23.97          | 18.09          | 4.18      | 3.05      | 7.23        | 8.59            | 29.97          | 21.38          |
| 5720                      | 20.549                            | 17.906                            | 2.10            | 1.53      | 3.64        | 5.61            | 23.97          | 18.36          | 3.93      | 2.86      | 6.79        | 8.32            | 29.97          | 21.65          |
| 5745                      | -                                 | 17.862                            | 2.31            | 1.79      | 4.10        | 6.13            | 30.00          | 23.87          | 4.32      | 3.34      | 7.66        | 8.84            | 36.00          | 27.16          |
| 5785                      | -                                 | 17.900                            | 2.24            | 1.92      | 4.16        | 6.19            | 30.00          | 23.81          | 4.18      | 3.59      | 7.77        | 8.90            | 36.00          | 27.10          |
| 5825                      | -                                 | 17.898                            | 2.19            | 1.77      | 3.96        | 5.97            | 30.00          | 24.03          | 4.08      | 3.30      | 7.39        | 8.68            | 36.00          | 27.32          |

| Chain 1             |                |                           |               |                |                     |        |          | Chain 2                   |               |                |                     |        |          |  |
|---------------------|----------------|---------------------------|---------------|----------------|---------------------|--------|----------|---------------------------|---------------|----------------|---------------------|--------|----------|--|
| Tested<br>Frequency | Duty<br>Factor | Power<br>Meter<br>Reading | Cable<br>Loss | Atten.<br>Loss | Directional<br>Gain | Result |          | Power<br>Meter<br>Reading | Cable<br>Loss | Atten.<br>Loss | Directional<br>Gain | Result |          |  |
|                     |                |                           |               |                |                     | Cond.  | e.i.r.p. |                           |               |                |                     | Cond.  | e.i.r.p. |  |
|                     |                |                           |               |                |                     | Power  |          |                           |               |                |                     | Power  |          |  |
| [MHz]               | [dB]           | [dBm]                     | [dB]          | [dB]           | [dBi]               | [dBm]  | [dBm]    | [dBm]                     | [dB]          | [dB]           | [dBi]               | [dBm]  | [dBm]    |  |
| 5180                | 0.00           | -8.92                     | 2.61          | 9.72           | 2.71                | 3.41   | 6.12     | -9.49                     | 2.61          | 9.72           | 2.71                | 2.84   | 5.55     |  |
| 5220                | 0.00           | -9.17                     | 2.62          | 9.72           | 2.71                | 3.17   | 5.88     | -9.63                     | 2.62          | 9.72           | 2.71                | 2.71   | 5.42     |  |
| 5240                | 0.00           | -9.11                     | 2.58          | 9.72           | 2.71                | 3.19   | 5.90     | -9.73                     | 2.58          | 9.72           | 2.71                | 2.57   | 5.28     |  |
| 5260                | 0.00           | -9.40                     | 2.60          | 9.72           | 2.71                | 2.92   | 5.63     | -9.96                     | 2.60          | 9.72           | 2.71                | 2.36   | 5.07     |  |
| 5300                | 0.00           | -9.28                     | 2.61          | 9.72           | 2.71                | 3.05   | 5.76     | -9.85                     | 2.61          | 9.72           | 2.71                | 2.48   | 5.19     |  |
| 5320                | 0.00           | -9.50                     | 2.62          | 9.72           | 2.71                | 2.84   | 5.55     | -9.89                     | 2.62          | 9.72           | 2.71                | 2.45   | 5.16     |  |
| 5500                | 0.00           | -9.47                     | 2.71          | 9.73           | 2.71                | 2.97   | 5.68     | -10.86                    | 2.71          | 9.73           | 2.71                | 1.58   | 4.29     |  |
| 5580                | 0.00           | -9.19                     | 2.70          | 9.73           | 2.71                | 3.24   | 5.95     | -10.47                    | 2.70          | 9.73           | 2.71                | 1.96   | 4.67     |  |
| 5700                | 0.00           | -8.95                     | 2.71          | 9.74           | 2.71                | 3.50   | 6.21     | -10.31                    | 2.71          | 9.74           | 2.71                | 2.14   | 4.85     |  |
| 5720                | 0.00           | -9.22                     | 2.71          | 9.74           | 2.71                | 3.23   | 5.94     | -10.59                    | 2.71          | 9.74           | 2.71                | 1.86   | 4.57     |  |
| 5745                | 0.00           | -8.81                     | 2.71          | 9.74           | 2.71                | 3.64   | 6.35     | -9.92                     | 2.71          | 9.74           | 2.71                | 2.53   | 5.24     |  |
| 5785                | 0.00           | -8.97                     | 2.73          | 9.74           | 2.71                | 3.50   | 6.21     | -9.63                     | 2.73          | 9.74           | 2.71                | 2.84   | 5.55     |  |
| 5825                | 0.00           | -9.09                     | 2.75          | 9.74           | 2.71                | 3.40   | 6.11     | -10.01                    | 2.75          | 9.74           | 2.71                | 2.48   | 5.19     |  |

### Sample Calculation:

Conducted Power Result = Reading + Cable Loss + Atten. Loss

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

Directional Gain =  $G_{ANT}$ (Antenna Gain) + Array Gain

Array Gain = 0 dB (ie., no array gain) for  $N_{ANT} < 4$

$N_{ANT}$ (number of transmit antennas) = 2

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

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

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## Maximum Conducted Output Power

Report No. 13977035S-C-R1  
Test place Shonan EMC Lab. No.1 Measurement Room / No. 5 Shielded Room  
Date October 22, 2021 October 28, 2021  
Temperature / Humidity 23 deg. C / 33 % RH 24 deg. C / 46 % RH  
Engineer Kenichi Adachi Kenichi Adachi  
Mode Tx 11n-20 (MIMO)

### Chain 1 + Chain 2

Applied limit: 15.407, mobile and portable client device

| Tested Frequency<br>[MHz] | 26 dB<br>EBW<br>(B for FCC)<br>[MHz] | 99 %<br>OBW<br>(B for ISED)<br>[MHz] | Conducted power |           |             |                 |                |                | e.i.r.p.  |           |             |                 |                |                |
|---------------------------|--------------------------------------|--------------------------------------|-----------------|-----------|-------------|-----------------|----------------|----------------|-----------|-----------|-------------|-----------------|----------------|----------------|
|                           |                                      |                                      | Chain           |           |             | Result<br>[dBm] | Limit<br>[dBm] | Margin<br>[dB] | Chain     |           |             | 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                      | -                                    | 17.808                               | 5.11            | 4.88      | 9.98        | 9.99            | 23.97          | 13.98          | 9.53      | 9.10      | 18.63       | 12.70           | 29.97          | 17.27          |
| 5220                      | -                                    | 17.800                               | 5.27            | 5.12      | 10.39       | 10.17           | 23.97          | 13.80          | 9.84      | 9.55      | 19.39       | 12.88           | 29.97          | 17.09          |
| 5240                      | -                                    | 17.841                               | 5.09            | 4.97      | 10.06       | 10.03           | 23.97          | 13.94          | 9.51      | 9.27      | 18.77       | 12.74           | 29.97          | 17.23          |
| 5260                      | 20.520                               | 17.799                               | 4.80            | 4.20      | 8.99        | 9.54            | 23.97          | 14.43          | 8.95      | 7.83      | 16.79       | 12.25           | 29.97          | 17.72          |
| 5300                      | 20.361                               | 17.837                               | 4.76            | 4.34      | 9.10        | 9.59            | 23.97          | 14.38          | 8.89      | 8.09      | 16.98       | 12.30           | 29.97          | 17.67          |
| 5320                      | 20.385                               | 17.886                               | 4.76            | 4.23      | 8.99        | 9.54            | 23.97          | 14.43          | 8.89      | 7.89      | 16.78       | 12.25           | 29.97          | 17.72          |
| 5500                      | 20.127                               | 17.810                               | 4.79            | 3.67      | 8.46        | 9.27            | 23.97          | 14.70          | 8.93      | 6.85      | 15.79       | 11.98           | 29.97          | 17.99          |
| 5580                      | 20.653                               | 17.780                               | 5.26            | 4.29      | 9.55        | 9.80            | 23.97          | 14.17          | 9.82      | 8.00      | 17.82       | 12.51           | 29.97          | 17.46          |
| 5700                      | 20.369                               | 17.848                               | 5.61            | 4.50      | 10.11       | 10.05           | 23.97          | 13.92          | 10.47     | 8.39      | 18.87       | 12.76           | 29.97          | 17.21          |
| 5720                      | 20.280                               | 17.807                               | 5.12            | 4.21      | 9.32        | 9.70            | 23.97          | 14.27          | 9.55      | 7.85      | 17.40       | 12.41           | 29.97          | 17.56          |
| 5745                      | -                                    | 17.909                               | 5.87            | 4.72      | 10.60       | 10.25           | 30.00          | 19.75          | 10.96     | 8.81      | 19.78       | 12.96           | 36.00          | 23.04          |
| 5785                      | -                                    | 17.909                               | 5.48            | 5.05      | 10.53       | 10.22           | 30.00          | 19.78          | 10.23     | 9.42      | 19.65       | 12.93           | 36.00          | 23.07          |
| 5825                      | -                                    | 17.908                               | 5.35            | 4.54      | 9.89        | 9.95            | 30.00          | 20.05          | 9.98      | 8.47      | 18.45       | 12.66           | 36.00          | 23.34          |

|                  |             | Chain 1     |            |             |              |             |          | Chain 2     |            |             |              |             |          |
|------------------|-------------|-------------|------------|-------------|--------------|-------------|----------|-------------|------------|-------------|--------------|-------------|----------|
| Tested Frequency | Duty Factor | Power Meter | Cable Loss | Atten. Loss | Antenna Gain | Result      |          | Power Meter | Cable Loss | Atten. Loss | Antenna Gain | Result      |          |
|                  |             | Reading     |            |             |              | Cond. Power | e.i.r.p. | Reading     |            |             |              | Cond. Power | e.i.r.p. |
| [MHz]            | [dB]        | [dBm]       | [dB]       | [dB]        | [dBi]        | [dBm]       | [dBm]    | [dBm]       | [dB]       | [dB]        | [dBi]        | [dBm]       | [dBm]    |
| 5180             | 0.00        | -5.25       | 2.61       | 9.72        | 2.71         | 7.08        | 9.79     | -5.45       | 2.61       | 9.72        | 2.71         | 6.88        | 9.59     |
| 5220             | 0.00        | -5.12       | 2.62       | 9.72        | 2.71         | 7.22        | 9.93     | -5.25       | 2.62       | 9.72        | 2.71         | 7.09        | 9.80     |
| 5240             | 0.00        | -5.23       | 2.58       | 9.72        | 2.71         | 7.07        | 9.78     | -5.34       | 2.58       | 9.72        | 2.71         | 6.96        | 9.67     |
| 5260             | 0.00        | -5.51       | 2.60       | 9.72        | 2.71         | 6.81        | 9.52     | -6.09       | 2.60       | 9.72        | 2.71         | 6.23        | 8.94     |
| 5300             | 0.00        | -5.55       | 2.61       | 9.72        | 2.71         | 6.78        | 9.49     | -5.96       | 2.61       | 9.72        | 2.71         | 6.37        | 9.08     |
| 5320             | 0.00        | -5.56       | 2.62       | 9.72        | 2.71         | 6.78        | 9.49     | -6.08       | 2.62       | 9.72        | 2.71         | 6.26        | 8.97     |
| 5500             | 0.00        | -5.64       | 2.71       | 9.73        | 2.71         | 6.80        | 9.51     | -6.79       | 2.71       | 9.73        | 2.71         | 5.65        | 8.36     |
| 5580             | 0.00        | -5.22       | 2.70       | 9.73        | 2.71         | 7.21        | 9.92     | -6.11       | 2.70       | 9.73        | 2.71         | 6.32        | 9.03     |
| 5700             | 0.00        | -4.96       | 2.71       | 9.74        | 2.71         | 7.49        | 10.20    | -5.92       | 2.71       | 9.74        | 2.71         | 6.53        | 9.24     |
| 5720             | 0.00        | -5.36       | 2.71       | 9.74        | 2.71         | 7.09        | 9.80     | -6.21       | 2.71       | 9.74        | 2.71         | 6.24        | 8.95     |
| 5745             | 0.00        | -4.76       | 2.71       | 9.74        | 2.71         | 7.69        | 10.40    | -5.71       | 2.71       | 9.74        | 2.71         | 6.74        | 9.45     |
| 5785             | 0.00        | -5.08       | 2.73       | 9.74        | 2.71         | 7.39        | 10.10    | -5.44       | 2.73       | 9.74        | 2.71         | 7.03        | 9.74     |
| 5825             | 0.00        | -5.21       | 2.75       | 9.74        | 2.71         | 7.28        | 9.99     | -5.92       | 2.75       | 9.74        | 2.71         | 6.57        | 9.28     |

Sample Calculation:

Conducted Power Result = Reading + Cable Loss + Atten. Loss

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 + 10logB) dBm, whichever is lower

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

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## Maximum Conducted Output Power

Report No. 13977035S-C-R1  
Test place Shonan EMC Lab. No.1 Measurement Room / No. 5 Shielded Room  
Date October 22, 2021 October 28, 2021  
Temperature / Humidity 23 deg. C / 33 % RH 24 deg. C / 46 % RH  
Engineer Kenichi Adachi Kenichi Adachi  
Mode Tx 11ac-20 (MIMO)

### Chain 1 + Chain 2

Applied limit: 15.407, mobile and portable client device

| Tested Frequency<br>[MHz] | 26 dB<br>EBW<br>(B for FCC)<br>[MHz] | 99 %<br>OBW<br>(B for ISED)<br>[MHz] | Conducted power |           |             |                 |                |                | e.i.r.p.  |           |             |                 |                |                |
|---------------------------|--------------------------------------|--------------------------------------|-----------------|-----------|-------------|-----------------|----------------|----------------|-----------|-----------|-------------|-----------------|----------------|----------------|
|                           |                                      |                                      | Chain           |           |             | Result<br>[dBm] | Limit<br>[dBm] | Margin<br>[dB] | Chain     |           |             | 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                      | -                                    | 17.904                               | 2.17            | 2.06      | 4.23        | 6.26            | 23.97          | 17.71          | 4.06      | 3.84      | 7.89        | 8.97            | 29.97          | 21.00          |
| 5220                      | -                                    | 17.851                               | 2.22            | 2.01      | 4.23        | 6.27            | 23.97          | 17.70          | 4.14      | 3.76      | 7.90        | 8.98            | 29.97          | 20.99          |
| 5240                      | -                                    | 17.853                               | 2.18            | 1.95      | 4.14        | 6.17            | 23.97          | 17.80          | 4.07      | 3.65      | 7.72        | 8.88            | 29.97          | 21.09          |
| 5260                      | 20.439                               | 17.872                               | 2.05            | 1.85      | 3.90        | 5.91            | 23.97          | 18.06          | 3.83      | 3.44      | 7.27        | 8.62            | 29.97          | 21.35          |
| 5300                      | 20.602                               | 17.784                               | 2.03            | 1.86      | 3.89        | 5.90            | 23.97          | 18.07          | 3.79      | 3.47      | 7.26        | 8.61            | 29.97          | 21.36          |
| 5320                      | 20.216                               | 17.774                               | 2.00            | 1.82      | 3.82        | 5.82            | 23.97          | 18.15          | 3.74      | 3.39      | 7.13        | 8.53            | 29.97          | 21.44          |
| 5500                      | 20.377                               | 17.826                               | 2.08            | 1.55      | 3.63        | 5.60            | 23.97          | 18.37          | 3.88      | 2.89      | 6.77        | 8.31            | 29.97          | 21.66          |
| 5580                      | 20.501                               | 17.780                               | 2.22            | 1.72      | 3.94        | 5.95            | 23.97          | 18.02          | 4.14      | 3.21      | 7.35        | 8.66            | 29.97          | 21.31          |
| 5700                      | 20.173                               | 17.847                               | 2.34            | 1.83      | 4.17        | 6.20            | 23.97          | 17.77          | 4.37      | 3.41      | 7.78        | 8.91            | 29.97          | 21.06          |
| 5720                      | 20.489                               | 17.808                               | 2.15            | 1.64      | 3.80        | 5.79            | 23.97          | 18.18          | 4.02      | 3.07      | 7.09        | 8.50            | 29.97          | 21.47          |
| 5745                      | -                                    | 17.886                               | 2.42            | 1.94      | 4.36        | 6.39            | 30.00          | 23.61          | 4.52      | 3.61      | 8.13        | 9.10            | 36.00          | 26.90          |
| 5785                      | -                                    | 17.858                               | 2.29            | 2.07      | 4.35        | 6.39            | 30.00          | 23.61          | 4.27      | 3.85      | 8.12        | 9.10            | 36.00          | 26.90          |
| 5825                      | -                                    | 17.906                               | 2.19            | 1.81      | 4.00        | 6.03            | 30.00          | 23.97          | 4.09      | 3.38      | 7.47        | 8.74            | 36.00          | 27.26          |

|                  |             | Chain 1     |            |             |              |        |          | Chain 2     |            |             |              |        |          |
|------------------|-------------|-------------|------------|-------------|--------------|--------|----------|-------------|------------|-------------|--------------|--------|----------|
| Tested Frequency | Duty Factor | Power Meter | Cable Loss | Atten. Loss | Antenna Gain | Result |          | Power Meter | Cable Loss | Atten. Loss | Antenna Gain | Result |          |
|                  |             | Reading     |            |             |              | Cond.  | e.i.r.p. | Reading     |            |             |              | Cond.  | e.i.r.p. |
|                  |             | [dBm]       | [dB]       | [dB]        | [dBi]        | [dBm]  | [dBm]    | [dBm]       | [dB]       | [dB]        | [dBi]        | [dBm]  | [dBm]    |
| [MHz]            | [dB]        | [dBm]       | [dB]       | [dB]        | [dBi]        | [dBm]  | [dBm]    | [dBm]       | [dB]       | [dB]        | [dBi]        | [dBm]  | [dBm]    |
| 5180             | 0.00        | -8.96       | 2.61       | 9.72        | 2.71         | 3.37   | 6.08     | -9.20       | 2.61       | 9.72        | 2.71         | 3.13   | 5.84     |
| 5220             | 0.00        | -8.88       | 2.62       | 9.72        | 2.71         | 3.46   | 6.17     | -9.30       | 2.62       | 9.72        | 2.71         | 3.04   | 5.75     |
| 5240             | 0.00        | -8.91       | 2.58       | 9.72        | 2.71         | 3.39   | 6.10     | -9.39       | 2.58       | 9.72        | 2.71         | 2.91   | 5.62     |
| 5260             | 0.00        | -9.20       | 2.60       | 9.72        | 2.71         | 3.12   | 5.83     | -9.66       | 2.60       | 9.72        | 2.71         | 2.66   | 5.37     |
| 5300             | 0.00        | -9.25       | 2.61       | 9.72        | 2.71         | 3.08   | 5.79     | -9.64       | 2.61       | 9.72        | 2.71         | 2.69   | 5.40     |
| 5320             | 0.00        | -9.32       | 2.62       | 9.72        | 2.71         | 3.02   | 5.73     | -9.75       | 2.62       | 9.72        | 2.71         | 2.59   | 5.30     |
| 5500             | 0.00        | -9.26       | 2.71       | 9.73        | 2.71         | 3.18   | 5.89     | -10.54      | 2.71       | 9.73        | 2.71         | 1.90   | 4.61     |
| 5580             | 0.00        | -8.97       | 2.70       | 9.73        | 2.71         | 3.46   | 6.17     | -10.08      | 2.70       | 9.73        | 2.71         | 2.35   | 5.06     |
| 5700             | 0.00        | -8.76       | 2.71       | 9.74        | 2.71         | 3.69   | 6.40     | -9.83       | 2.71       | 9.74        | 2.71         | 2.62   | 5.33     |
| 5720             | 0.00        | -9.12       | 2.71       | 9.74        | 2.71         | 3.33   | 6.04     | -10.29      | 2.71       | 9.74        | 2.71         | 2.16   | 4.87     |
| 5745             | 0.00        | -8.61       | 2.71       | 9.74        | 2.71         | 3.84   | 6.55     | -9.58       | 2.71       | 9.74        | 2.71         | 2.87   | 5.58     |
| 5785             | 0.00        | -8.88       | 2.73       | 9.74        | 2.71         | 3.59   | 6.30     | -9.32       | 2.73       | 9.74        | 2.71         | 3.15   | 5.86     |
| 5825             | 0.00        | -9.08       | 2.75       | 9.74        | 2.71         | 3.41   | 6.12     | -9.91       | 2.75       | 9.74        | 2.71         | 2.58   | 5.29     |

Sample Calculation:

Conducted Power Result = Reading + Cable Loss + Atten. Loss

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 + 10logB) dBm, whichever is lower

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

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## Maximum Conducted Output Power

Report No. 13977035S-C-R1  
Test place Shonan EMC Lab. No.1 Measurement Room / No. 5 Shielded Room  
Date October 21, 2021 October 27, 2021 December 3, 2021  
Temperature / Humidity 24 deg. C / 43 % RH 25 deg. C / 37 % RH 24 deg. C / 37 % RH  
Engineer Kenichi Adachi Kenichi Adachi Shunsaku Yumi  
Mode Tx 11n-40 (SISO)

### 11n-40 (SISO), Chain 1

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] | Antenna Gain<br>[dBi] | 26 dB EBW<br>(B for FCC)<br>[MHz] | 99 % OBW<br>(B for ISSED)<br>[MHz] | Conducted Power |      |       |        | e.i.r.p. |       |       |        |
|---------------------------|------------------------------|--------------------|---------------------|-----------------------|-----------------------------------|------------------------------------|-----------------|------|-------|--------|----------|-------|-------|--------|
|                           |                              |                    |                     |                       |                                   |                                    | Result          |      | Limit | Margin | Result   |       | Limit | Margin |
|                           |                              |                    |                     |                       |                                   |                                    | [dBm]           | [mW] | [dBm] | [dB]   | [dBm]    | [mW]  | [dBm] | [dB]   |
| 5190                      | -3.13                        | 2.61               | 9.72                | 2.71                  | -                                 | 36.407                             | 9.20            | 8.32 | 23.97 | 14.77  | 11.91    | 15.52 | 29.97 | 18.06  |
| 5230                      | -3.44                        | 2.62               | 9.72                | 2.71                  | -                                 | 36.356                             | 8.90            | 7.76 | 23.97 | 15.07  | 11.61    | 14.49 | 29.97 | 18.36  |
| 5270                      | -3.16                        | 2.60               | 9.72                | 2.71                  | 41.280                            | 36.441                             | 9.16            | 8.24 | 23.97 | 14.81  | 11.87    | 15.38 | 29.97 | 18.10  |
| 5310                      | -3.21                        | 2.61               | 9.72                | 2.71                  | 40.821                            | 36.341                             | 9.12            | 8.17 | 23.97 | 14.85  | 11.83    | 15.24 | 29.97 | 18.14  |
| 5510                      | -3.23                        | 2.71               | 9.73                | 2.71                  | 40.916                            | 36.445                             | 9.21            | 8.34 | 23.97 | 14.76  | 11.92    | 15.56 | 29.97 | 18.05  |
| 5550                      | -2.83                        | 2.70               | 9.73                | 2.71                  | 40.547                            | 36.497                             | 9.60            | 9.12 | 23.97 | 14.37  | 12.31    | 17.02 | 29.97 | 17.66  |
| 5670                      | -2.62                        | 2.70               | 9.74                | 2.71                  | 40.757                            | 36.471                             | 9.82            | 9.59 | 23.97 | 14.15  | 12.53    | 17.91 | 29.97 | 17.44  |
| 5710                      | -2.63                        | 2.71               | 9.74                | 2.71                  | 41.080                            | 36.519                             | 9.82            | 9.59 | 23.97 | 14.15  | 12.53    | 17.91 | 29.97 | 17.44  |
| 5755                      | -2.52                        | 2.71               | 9.74                | 2.71                  | -                                 | 36.471                             | 9.93            | 9.84 | 30.00 | 20.07  | 12.64    | 18.37 | 36.00 | 23.36  |
| 5795                      | -2.69                        | 2.74               | 9.74                | 2.71                  | -                                 | 36.507                             | 9.79            | 9.53 | 30.00 | 20.21  | 12.50    | 17.78 | 36.00 | 23.50  |

### 11n-40 (SISO), Chain 2

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] | Antenna Gain<br>[dBi] | 26 dB EBW<br>(B for FCC)<br>[MHz] | 99 % OBW<br>(B for ISSED)<br>[MHz] | Conducted Power |      |       |        | e.i.r.p. |       |       |        |
|---------------------------|------------------------------|--------------------|---------------------|-----------------------|-----------------------------------|------------------------------------|-----------------|------|-------|--------|----------|-------|-------|--------|
|                           |                              |                    |                     |                       |                                   |                                    | Result          |      | Limit | Margin | Result   |       | Limit | Margin |
|                           |                              |                    |                     |                       |                                   |                                    | [dBm]           | [mW] | [dBm] | [dB]   | [dBm]    | [mW]  | [dBm] | [dB]   |
| 5190                      | -3.44                        | 2.61               | 9.72                | 2.71                  | -                                 | 36.407                             | 8.89            | 7.74 | 23.97 | 15.08  | 11.60    | 14.45 | 29.97 | 18.37  |
| 5230                      | -3.45                        | 2.58               | 9.72                | 2.71                  | -                                 | 36.356                             | 8.85            | 7.67 | 23.97 | 15.12  | 11.56    | 14.32 | 29.97 | 18.41  |
| 5270                      | -3.51                        | 2.60               | 9.72                | 2.71                  | 41.280                            | 36.441                             | 8.81            | 7.60 | 23.97 | 15.16  | 11.52    | 14.19 | 29.97 | 18.45  |
| 5310                      | -3.58                        | 2.62               | 9.72                | 2.71                  | 40.821                            | 36.341                             | 8.76            | 7.52 | 23.97 | 15.21  | 11.47    | 14.03 | 29.97 | 18.50  |
| 5510                      | -4.13                        | 2.71               | 9.73                | 2.71                  | 40.916                            | 36.445                             | 8.31            | 6.78 | 23.97 | 15.66  | 11.02    | 12.65 | 29.97 | 18.95  |
| 5550                      | -4.22                        | 2.70               | 9.73                | 2.71                  | 40.547                            | 36.497                             | 8.21            | 6.62 | 23.97 | 15.76  | 10.92    | 12.36 | 29.97 | 19.05  |
| 5670                      | -3.48                        | 2.71               | 9.74                | 2.71                  | 40.757                            | 36.471                             | 8.97            | 7.89 | 23.97 | 15.00  | 11.68    | 14.72 | 29.97 | 18.29  |
| 5710                      | -3.71                        | 2.71               | 9.74                | 2.71                  | 41.080                            | 36.519                             | 8.74            | 7.48 | 23.97 | 15.23  | 11.45    | 13.96 | 29.97 | 18.52  |
| 5755                      | -3.52                        | 2.71               | 9.74                | 2.71                  | -                                 | 36.471                             | 8.93            | 7.82 | 30.00 | 21.07  | 11.64    | 14.59 | 36.00 | 24.36  |
| 5795                      | -3.27                        | 2.75               | 9.74                | 2.71                  | -                                 | 36.507                             | 9.22            | 8.36 | 30.00 | 20.78  | 11.93    | 15.60 | 36.00 | 24.07  |

Sample Calculation:

Conducted Power Result = Reading + Cable Loss + Atten. Loss

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 + 10logB) dBm, whichever is lower

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

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## Maximum Conducted Output Power

Report No. 13977035S-C-R1  
Test place Shonan EMC Lab. No.1 Measurement Room / No. 5 Shielded Room  
Date October 21, 2021 October 27, 2021 December 3, 2021  
Temperature / Humidity 24 deg. C / 43 % RH 25 deg. C / 37 % RH 24 deg. C / 37 % RH  
Engineer Kenichi Adachi Kenichi Adachi Shunsaku Yumi  
Mode Tx 11ac-40 (SISO)

### 11ac-40 (SISO), Chain 1

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] | Antenna Gain<br>[dBi] | 26 dB EBW<br>(B for FCC)<br>[MHz] | 99 % OBW<br>(B for ISSED)<br>[MHz] | Conducted Power |      |       |        | e.i.r.p. |      |       |        |
|---------------------------|------------------------------|--------------------|---------------------|-----------------------|-----------------------------------|------------------------------------|-----------------|------|-------|--------|----------|------|-------|--------|
|                           |                              |                    |                     |                       |                                   |                                    | Result          |      | Limit | Margin | Result   |      | Limit | Margin |
|                           |                              |                    |                     |                       |                                   |                                    | [dBm]           | [mW] | [dBm] | [dB]   | [dBm]    | [mW] | [dBm] | [dB]   |
| 5190                      | -7.21                        | 2.61               | 9.72                | 2.71                  | -                                 | 36.432                             | 5.12            | 3.25 | 23.97 | 18.85  | 7.83     | 6.07 | 29.97 | 22.14  |
| 5230                      | -7.54                        | 2.62               | 9.72                | 2.71                  | -                                 | 36.460                             | 4.80            | 3.02 | 23.97 | 19.17  | 7.51     | 5.64 | 29.97 | 22.46  |
| 5270                      | -7.26                        | 2.60               | 9.72                | 2.71                  | 41.340                            | 36.442                             | 5.06            | 3.21 | 23.97 | 18.91  | 7.77     | 5.98 | 29.97 | 22.20  |
| 5310                      | -7.13                        | 2.61               | 9.72                | 2.71                  | 40.409                            | 36.372                             | 5.20            | 3.31 | 23.97 | 18.77  | 7.91     | 6.18 | 29.97 | 22.06  |
| 5510                      | -7.15                        | 2.71               | 9.73                | 2.71                  | 41.505                            | 36.400                             | 5.29            | 3.38 | 23.97 | 18.68  | 8.00     | 6.31 | 29.97 | 21.97  |
| 5550                      | -6.88                        | 2.70               | 9.73                | 2.71                  | 41.219                            | 36.434                             | 5.55            | 3.59 | 23.97 | 18.42  | 8.26     | 6.70 | 29.97 | 21.71  |
| 5670                      | -6.70                        | 2.70               | 9.74                | 2.71                  | 41.198                            | 36.467                             | 5.74            | 3.75 | 23.97 | 18.23  | 8.45     | 7.00 | 29.97 | 21.52  |
| 5710                      | -6.88                        | 2.71               | 9.74                | 2.71                  | 41.567                            | 36.526                             | 5.57            | 3.61 | 23.97 | 18.40  | 8.28     | 6.73 | 29.97 | 21.69  |
| 5755                      | -6.70                        | 2.71               | 9.74                | 2.71                  | -                                 | 36.476                             | 5.75            | 3.76 | 30.00 | 24.25  | 8.46     | 7.01 | 36.00 | 27.54  |
| 5795                      | -6.92                        | 2.74               | 9.74                | 2.71                  | -                                 | 36.455                             | 5.56            | 3.60 | 30.00 | 24.44  | 8.27     | 6.71 | 36.00 | 27.73  |

### 11ac-40 (SISO), Chain 2

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] | Antenna Gain<br>[dBi] | 26 dB EBW<br>(B for FCC)<br>[MHz] | 99 % OBW<br>(B for ISSED)<br>[MHz] | Conducted Power |      |       |        | e.i.r.p. |      |       |        |
|---------------------------|------------------------------|--------------------|---------------------|-----------------------|-----------------------------------|------------------------------------|-----------------|------|-------|--------|----------|------|-------|--------|
|                           |                              |                    |                     |                       |                                   |                                    | Result          |      | Limit | Margin | Result   |      | Limit | Margin |
|                           |                              |                    |                     |                       |                                   |                                    | [dBm]           | [mW] | [dBm] | [dB]   | [dBm]    | [mW] | [dBm] | [dB]   |
| 5190                      | -7.61                        | 2.61               | 9.72                | 2.71                  | -                                 | 36.432                             | 4.72            | 2.96 | 23.97 | 19.25  | 7.43     | 5.53 | 29.97 | 22.54  |
| 5230                      | -7.56                        | 2.58               | 9.72                | 2.71                  | -                                 | 36.460                             | 4.74            | 2.98 | 23.97 | 19.23  | 7.45     | 5.56 | 29.97 | 22.52  |
| 5270                      | -7.47                        | 2.60               | 9.72                | 2.71                  | 41.340                            | 36.442                             | 4.85            | 3.05 | 23.97 | 19.12  | 7.56     | 5.70 | 29.97 | 22.41  |
| 5310                      | -7.48                        | 2.62               | 9.72                | 2.71                  | 40.409                            | 36.372                             | 4.86            | 3.06 | 23.97 | 19.11  | 7.57     | 5.71 | 29.97 | 22.40  |
| 5510                      | -8.11                        | 2.71               | 9.73                | 2.71                  | 41.505                            | 36.400                             | 4.33            | 2.71 | 23.97 | 19.64  | 7.04     | 5.06 | 29.97 | 22.93  |
| 5550                      | -8.04                        | 2.70               | 9.73                | 2.71                  | 41.219                            | 36.434                             | 4.39            | 2.75 | 23.97 | 19.58  | 7.10     | 5.13 | 29.97 | 22.87  |
| 5670                      | -7.98                        | 2.71               | 9.74                | 2.71                  | 41.198                            | 36.467                             | 4.47            | 2.80 | 23.97 | 19.50  | 7.18     | 5.22 | 29.97 | 22.79  |
| 5710                      | -7.56                        | 2.71               | 9.74                | 2.71                  | 41.567                            | 36.526                             | 4.89            | 3.08 | 23.97 | 19.08  | 7.60     | 5.75 | 29.97 | 22.37  |
| 5755                      | -7.54                        | 2.71               | 9.74                | 2.71                  | -                                 | 36.476                             | 4.91            | 3.10 | 30.00 | 25.09  | 7.62     | 5.78 | 36.00 | 28.38  |
| 5795                      | -7.25                        | 2.75               | 9.74                | 2.71                  | -                                 | 36.455                             | 5.24            | 3.34 | 30.00 | 24.76  | 7.95     | 6.24 | 36.00 | 28.05  |

Sample Calculation:

Conducted Power Result = Reading + Cable Loss + Atten. Loss

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 + 10logB) dBm, whichever is lower

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

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## Maximum Conducted Output Power

Report No. 13977035S-C-R1  
Test place Shonan EMC Lab. No.1 Measurement Room / No. 5 Shielded Room  
Date October 26, 2021 November 18, 2021  
Temperature / Humidity 25 deg. C / 36 % RH 23 deg. C / 42 % RH  
Engineer Kenichi Adachi Hiromasa Sato  
Mode Tx 11n-40 (CDD)

### Chain 1 + Chain 2

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 ISED)<br>[MHz] | Conducted power |         |          |        |       |        | e.i.r.p. |         |          |        |       |        |
|---------------------------|-----------------------------------|-----------------------------------|-----------------|---------|----------|--------|-------|--------|----------|---------|----------|--------|-------|--------|
|                           |                                   |                                   | Chain 1         | Chain 2 | Sum      | Result | Limit | Margin | Chain 1  | Chain 2 | Sum      | Result | Limit | Margin |
|                           |                                   |                                   | 1 [mW]          | 2 [mW]  | Sum [mW] | [dBm]  | [dBm] | [dB]   | 1 [mW]   | 2 [mW]  | Sum [mW] | [dBm]  | [dBm] | [dB]   |
| 5190                      | -                                 | 36.560                            | 4.37            | 4.06    | 8.43     | 9.26   | 23.97 | 14.71  | 8.15     | 7.59    | 15.73    | 11.97  | 29.97 | 18.00  |
| 5230                      | -                                 | 36.596                            | 4.22            | 3.76    | 7.98     | 9.02   | 23.97 | 14.95  | 7.87     | 7.01    | 14.89    | 11.73  | 29.97 | 18.24  |
| 5270                      | 41.725                            | 36.650                            | 3.88            | 3.50    | 7.38     | 8.68   | 23.97 | 15.29  | 7.24     | 6.53    | 13.78    | 11.39  | 29.97 | 18.58  |
| 5310                      | 41.577                            | 36.573                            | 3.97            | 3.55    | 7.52     | 8.76   | 23.97 | 15.21  | 7.41     | 6.62    | 14.04    | 11.47  | 29.97 | 18.50  |
| 5510                      | 41.830                            | 36.649                            | 4.02            | 3.13    | 7.15     | 8.54   | 23.97 | 15.43  | 7.50     | 5.85    | 13.35    | 11.25  | 29.97 | 18.72  |
| 5550                      | 42.324                            | 36.617                            | 4.45            | 3.18    | 7.62     | 8.82   | 23.97 | 15.15  | 8.30     | 5.93    | 14.23    | 11.53  | 29.97 | 18.44  |
| 5670                      | 41.863                            | 36.616                            | 4.65            | 3.78    | 8.43     | 9.26   | 23.97 | 14.71  | 8.67     | 7.06    | 15.73    | 11.97  | 29.97 | 18.00  |
| 5710                      | 41.562                            | 36.656                            | 4.73            | 3.45    | 8.18     | 9.13   | 23.97 | 14.84  | 8.83     | 6.44    | 15.27    | 11.84  | 29.97 | 18.13  |
| 5755                      | -                                 | 36.617                            | 4.84            | 3.76    | 8.60     | 9.35   | 30.00 | 20.65  | 9.04     | 7.01    | 16.05    | 12.06  | 36.00 | 23.94  |
| 5795                      | -                                 | 36.584                            | 4.52            | 3.97    | 8.49     | 9.29   | 30.00 | 20.71  | 8.43     | 7.41    | 15.85    | 12.00  | 36.00 | 24.00  |

| Chain 1          |             |                     |            |             |                  |                   |                | Chain 2             |            |             |                  |                   |                |
|------------------|-------------|---------------------|------------|-------------|------------------|-------------------|----------------|---------------------|------------|-------------|------------------|-------------------|----------------|
| Tested Frequency | Duty Factor | Power Meter Reading | Cable Loss | Atten. Loss | Directional Gain | Result            |                | Power Meter Reading | Cable Loss | Atten. Loss | Directional 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             | 0.00        | -5.93               | 2.61       | 9.72        | 2.71             | 6.40              | 9.11           | -6.24               | 2.61       | 9.72        | 2.71             | 6.09              | 8.80           |
| 5230             | 0.00        | -6.09               | 2.62       | 9.72        | 2.71             | 6.25              | 8.96           | -6.59               | 2.62       | 9.72        | 2.71             | 5.75              | 8.46           |
| 5270             | 0.00        | -6.43               | 2.60       | 9.72        | 2.71             | 5.89              | 8.60           | -6.88               | 2.60       | 9.72        | 2.71             | 5.44              | 8.15           |
| 5310             | 0.00        | -6.34               | 2.61       | 9.72        | 2.71             | 5.99              | 8.70           | -6.83               | 2.61       | 9.72        | 2.71             | 5.50              | 8.21           |
| 5510             | 0.00        | -6.40               | 2.71       | 9.73        | 2.71             | 6.04              | 8.75           | -7.48               | 2.71       | 9.73        | 2.71             | 4.96              | 7.67           |
| 5550             | 0.00        | -5.95               | 2.70       | 9.73        | 2.71             | 6.48              | 9.19           | -7.41               | 2.70       | 9.73        | 2.71             | 5.02              | 7.73           |
| 5670             | 0.00        | -5.77               | 2.70       | 9.74        | 2.71             | 6.67              | 9.38           | -6.66               | 2.70       | 9.74        | 2.71             | 5.78              | 8.49           |
| 5710             | 0.00        | -5.70               | 2.71       | 9.74        | 2.71             | 6.75              | 9.46           | -7.07               | 2.71       | 9.74        | 2.71             | 5.38              | 8.09           |
| 5755             | 0.00        | -5.60               | 2.71       | 9.74        | 2.71             | 6.85              | 9.56           | -6.70               | 2.71       | 9.74        | 2.71             | 5.75              | 8.46           |
| 5795             | 0.00        | -5.93               | 2.74       | 9.74        | 2.71             | 6.55              | 9.26           | -6.49               | 2.74       | 9.74        | 2.71             | 5.99              | 8.70           |

Sample Calculation:

Conducted Power Result = Reading + Cable Loss + Atten. Loss

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

Directional Gain =  $G_{ANT}$ (Antenna Gain) + Array Gain

Array Gain = 0 dB (ie., no array gain) for  $N_{ANT} < 4$

$N_{ANT}$ (number of transmit antennas) = 2

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

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

## Maximum Conducted Output Power

Report No. 13977035S-C-R1  
Test place Shonan EMC Lab. No.1 Measurement Room / No. 5 Shielded Room  
Date October 26, 2021 November 18, 2021  
Temperature / Humidity 25 deg. C / 36 % RH 23 deg. C / 42 % RH  
Engineer Kenichi Adachi Hiromasa Sato  
Mode Tx 11ac-40 (CDD)

### Chain 1 + Chain 2

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 ISED)<br>[MHz] | Conducted power |           |             |                 |                |                | e.i.r.p.  |           |             |                 |                |                |
|---------------------------|-----------------------------------|-----------------------------------|-----------------|-----------|-------------|-----------------|----------------|----------------|-----------|-----------|-------------|-----------------|----------------|----------------|
|                           |                                   |                                   | Chain           |           |             | Result<br>[dBm] | Limit<br>[dBm] | Margin<br>[dB] | Chain     |           |             | 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] |                 |                |                |
| 5190                      | -                                 | 36.452                            | 1.88            | 1.34      | 3.23        | 5.09            | 23.97          | 18.88          | 3.52      | 2.51      | 6.02        | 7.80            | 29.97          | 22.17          |
| 5230                      | -                                 | 36.505                            | 1.85            | 1.25      | 3.10        | 4.92            | 23.97          | 19.05          | 3.46      | 2.33      | 5.79        | 7.63            | 29.97          | 22.34          |
| 5270                      | 41.115                            | 36.438                            | 1.72            | 1.55      | 3.27        | 5.15            | 23.97          | 18.82          | 3.21      | 2.89      | 6.10        | 7.86            | 29.97          | 22.11          |
| 5310                      | 40.903                            | 36.467                            | 1.74            | 1.61      | 3.36        | 5.26            | 23.97          | 18.71          | 3.25      | 3.01      | 6.26        | 7.97            | 29.97          | 22.00          |
| 5510                      | 41.042                            | 36.468                            | 1.79            | 1.32      | 3.11        | 4.93            | 23.97          | 19.04          | 3.34      | 2.47      | 5.81        | 7.64            | 29.97          | 22.33          |
| 5550                      | 41.004                            | 36.426                            | 1.92            | 1.33      | 3.25        | 5.12            | 23.97          | 18.85          | 3.59      | 2.48      | 6.07        | 7.83            | 29.97          | 22.14          |
| 5670                      | 41.025                            | 36.425                            | 1.99            | 1.63      | 3.62        | 5.58            | 23.97          | 18.39          | 3.72      | 3.03      | 6.75        | 8.29            | 29.97          | 21.68          |
| 5710                      | 40.840                            | 36.489                            | 1.94            | 1.52      | 3.46        | 5.39            | 23.97          | 18.58          | 3.61      | 2.84      | 6.46        | 8.10            | 29.97          | 21.87          |
| 5755                      | -                                 | 36.454                            | 2.00            | 1.65      | 3.65        | 5.63            | 30.00          | 24.37          | 3.73      | 3.08      | 6.82        | 8.34            | 36.00          | 27.66          |
| 5795                      | -                                 | 36.447                            | 1.92            | 1.72      | 3.64        | 5.61            | 30.00          | 24.39          | 3.59      | 3.21      | 6.80        | 8.32            | 36.00          | 27.68          |

| Chain 1          |             |                     |            |             |                  | Chain 2     |          |                     |            |             |                  |             |          |
|------------------|-------------|---------------------|------------|-------------|------------------|-------------|----------|---------------------|------------|-------------|------------------|-------------|----------|
| Tested Frequency | Duty Factor | Power Meter Reading | Cable Loss | Atten. Loss | Directional Gain | Result      |          | Power Meter Reading | Cable Loss | Atten. Loss | Directional 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             | 0.00        | -9.58               | 2.61       | 9.72        | 2.71             | 2.75        | 5.46     | -11.05              | 2.61       | 9.72        | 2.71             | 1.28        | 3.99     |
| 5230             | 0.00        | -9.66               | 2.62       | 9.72        | 2.71             | 2.68        | 5.39     | -11.37              | 2.62       | 9.72        | 2.71             | 0.97        | 3.68     |
| 5270             | 0.00        | -9.96               | 2.60       | 9.72        | 2.71             | 2.36        | 5.07     | -10.42              | 2.60       | 9.72        | 2.71             | 1.90        | 4.61     |
| 5310             | 0.00        | -9.92               | 2.61       | 9.72        | 2.71             | 2.41        | 5.12     | -10.25              | 2.61       | 9.72        | 2.71             | 2.08        | 4.79     |
| 5510             | 0.00        | -9.91               | 2.71       | 9.73        | 2.71             | 2.53        | 5.24     | -11.23              | 2.71       | 9.73        | 2.71             | 1.21        | 3.92     |
| 5550             | 0.00        | -9.59               | 2.70       | 9.73        | 2.71             | 2.84        | 5.55     | -11.19              | 2.70       | 9.73        | 2.71             | 1.24        | 3.95     |
| 5670             | 0.00        | -9.45               | 2.70       | 9.74        | 2.71             | 2.99        | 5.70     | -10.33              | 2.70       | 9.74        | 2.71             | 2.11        | 4.82     |
| 5710             | 0.00        | -9.58               | 2.71       | 9.74        | 2.71             | 2.87        | 5.58     | -10.62              | 2.71       | 9.74        | 2.71             | 1.83        | 4.54     |
| 5755             | 0.00        | -9.44               | 2.71       | 9.74        | 2.71             | 3.01        | 5.72     | -10.27              | 2.71       | 9.74        | 2.71             | 2.18        | 4.89     |
| 5795             | 0.00        | -9.64               | 2.74       | 9.74        | 2.71             | 2.84        | 5.55     | -10.13              | 2.74       | 9.74        | 2.71             | 2.35        | 5.06     |

### Sample Calculation:

Conducted Power Result = Reading + Cable Loss + Atten. Loss

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

Directional Gain =  $G_{ANT}$ (Antenna Gain) + Array Gain

Array Gain = 0 dB (ie., no array gain) for  $N_{ANT} < 4$

$N_{ANT}$ (number of transmit antennas) = 2

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

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

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## Maximum Conducted Output Power

Report No. 13977035S-C-R1  
Test place Shonan EMC Lab. No.1 Measurement Room / No. 5 Shielded Room  
Date October 26, 2021 October 28, 2021  
Temperature / Humidity 25 deg. C / 36 % RH 24 deg. C / 46 % RH  
Engineer Kenichi Adachi Kenichi Adachi  
Mode Tx 11n-40 (MIMO)

### Chain 1 + Chain 2

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 ISED)<br>[MHz] | Conducted power |           |             |                 |                |                | e.i.r.p.  |           |             |                 |                |                |
|---------------------------|-----------------------------------|-----------------------------------|-----------------|-----------|-------------|-----------------|----------------|----------------|-----------|-----------|-------------|-----------------|----------------|----------------|
|                           |                                   |                                   | Chain           |           |             | Result<br>[dBm] | Limit<br>[dBm] | Margin<br>[dB] | Chain     |           |             | 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] |                 |                |                |
| 5190                      | -                                 | 36.411                            | 4.48            | 4.08      | 8.56        | 9.32            | 23.97          | 14.65          | 8.36      | 7.62      | 15.98       | 12.03           | 29.97          | 17.94          |
| 5230                      | -                                 | 36.455                            | 4.35            | 3.90      | 8.24        | 9.16            | 23.97          | 14.81          | 8.11      | 7.28      | 15.39       | 11.87           | 29.97          | 18.10          |
| 5270                      | 41.180                            | 36.420                            | 4.01            | 3.72      | 7.73        | 8.88            | 23.97          | 15.09          | 7.48      | 6.95      | 14.43       | 11.59           | 29.97          | 18.38          |
| 5310                      | 40.971                            | 36.442                            | 4.16            | 3.81      | 7.97        | 9.01            | 23.97          | 14.96          | 7.76      | 7.11      | 14.87       | 11.72           | 29.97          | 18.25          |
| 5510                      | 40.880                            | 36.493                            | 4.21            | 3.46      | 7.67        | 8.85            | 23.97          | 15.12          | 7.85      | 6.46      | 14.31       | 11.56           | 29.97          | 18.41          |
| 5550                      | 40.744                            | 36.456                            | 4.66            | 3.33      | 7.99        | 9.03            | 23.97          | 14.94          | 8.69      | 6.22      | 14.91       | 11.74           | 29.97          | 18.23          |
| 5670                      | 41.329                            | 36.484                            | 4.83            | 4.05      | 8.88        | 9.48            | 23.97          | 14.49          | 9.02      | 7.55      | 16.57       | 12.19           | 29.97          | 17.78          |
| 5710                      | 41.229                            | 36.508                            | 4.86            | 3.83      | 8.69        | 9.39            | 23.97          | 14.58          | 9.08      | 7.14      | 16.22       | 12.10           | 29.97          | 17.87          |
| 5755                      | -                                 | 36.479                            | 4.92            | 4.03      | 8.95        | 9.52            | 30.00          | 20.48          | 9.18      | 7.52      | 16.70       | 12.23           | 36.00          | 23.77          |
| 5795                      | -                                 | 36.441                            | 4.72            | 4.25      | 8.97        | 9.53            | 30.00          | 20.47          | 8.81      | 7.93      | 16.74       | 12.24           | 36.00          | 23.76          |

|                  |             | Chain 1             |            |             |              |             |          | Chain 2             |            |             |              |             |          |
|------------------|-------------|---------------------|------------|-------------|--------------|-------------|----------|---------------------|------------|-------------|--------------|-------------|----------|
| 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 | e.i.r.p. | [dBm]               | [dB]       | [dB]        | [dBi]        | Cond. Power | e.i.r.p. |
|                  |             |                     |            |             |              | [dBm]       | [dBm]    | [dBm]               |            |             |              | [dBm]       | [dBm]    |
| 5190             | 0.00        | -5.82               | 2.61       | 9.72        | 2.71         | 6.51        | 9.22     | -6.22               | 2.61       | 9.72        | 2.71         | 6.11        | 8.82     |
| 5230             | 0.00        | -5.96               | 2.62       | 9.72        | 2.71         | 6.38        | 9.09     | -6.43               | 2.62       | 9.72        | 2.71         | 5.91        | 8.62     |
| 5270             | 0.00        | -6.29               | 2.60       | 9.72        | 2.71         | 6.03        | 8.74     | -6.61               | 2.60       | 9.72        | 2.71         | 5.71        | 8.42     |
| 5310             | 0.00        | -6.14               | 2.61       | 9.72        | 2.71         | 6.19        | 8.90     | -6.52               | 2.61       | 9.72        | 2.71         | 5.81        | 8.52     |
| 5510             | 0.00        | -6.20               | 2.71       | 9.73        | 2.71         | 6.24        | 8.95     | -7.05               | 2.71       | 9.73        | 2.71         | 5.39        | 8.10     |
| 5550             | 0.00        | -5.75               | 2.70       | 9.73        | 2.71         | 6.68        | 9.39     | -7.20               | 2.70       | 9.73        | 2.71         | 5.23        | 7.94     |
| 5670             | 0.00        | -5.60               | 2.70       | 9.74        | 2.71         | 6.84        | 9.55     | -6.37               | 2.70       | 9.74        | 2.71         | 6.07        | 8.78     |
| 5710             | 0.00        | -5.58               | 2.71       | 9.74        | 2.71         | 6.87        | 9.58     | -6.62               | 2.71       | 9.74        | 2.71         | 5.83        | 8.54     |
| 5755             | 0.00        | -5.53               | 2.71       | 9.74        | 2.71         | 6.92        | 9.63     | -6.40               | 2.71       | 9.74        | 2.71         | 6.05        | 8.76     |
| 5795             | 0.00        | -5.74               | 2.74       | 9.74        | 2.71         | 6.74        | 9.45     | -6.20               | 2.74       | 9.74        | 2.71         | 6.28        | 8.99     |

Sample Calculation:

Conducted Power Result = Reading + Cable Loss + Atten. Loss

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 + 10logB) dBm, whichever is lower

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

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## Maximum Conducted Output Power

Report No. 13977035S-C-R1  
Test place Shonan EMC Lab. No.1 Measurement Room / No. 5 Shielded Room  
Date October 26, 2021 November 18, 2021  
Temperature / Humidity 25 deg. C / 36 % RH 23 deg. C / 42 % RH  
Engineer Kenichi Adachi Hiromasa Sato  
Mode Tx 11ac-40 (MIMO)

### Chain 1 + Chain 2

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 ISED)<br>[MHz] | Conducted power |           |             |                 |                |                | e.i.r.p.  |           |             |                 |                |                |
|---------------------------|-----------------------------------|-----------------------------------|-----------------|-----------|-------------|-----------------|----------------|----------------|-----------|-----------|-------------|-----------------|----------------|----------------|
|                           |                                   |                                   | Chain           |           |             | Result<br>[dBm] | Limit<br>[dBm] | Margin<br>[dB] | Chain     |           |             | 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] |                 |                |                |
| 5190                      | -                                 | 36.605                            | 1.87            | 1.29      | 3.16        | 5.00            | 23.97          | 18.97          | 3.49      | 2.42      | 5.91        | 7.71            | 29.97          | 22.26          |
| 5230                      | -                                 | 36.646                            | 1.73            | 1.22      | 2.95        | 4.70            | 23.97          | 19.27          | 3.24      | 2.28      | 5.51        | 7.41            | 29.97          | 22.56          |
| 5270                      | 40.676                            | 36.664                            | 1.61            | 1.52      | 3.13        | 4.95            | 23.97          | 19.02          | 3.00      | 2.84      | 5.84        | 7.66            | 29.97          | 22.31          |
| 5310                      | 40.986                            | 36.619                            | 1.67            | 1.51      | 3.18        | 5.03            | 23.97          | 18.94          | 3.11      | 2.82      | 5.94        | 7.74            | 29.97          | 22.23          |
| 5510                      | 40.961                            | 36.638                            | 1.68            | 1.32      | 3.00        | 4.77            | 23.97          | 19.20          | 3.14      | 2.46      | 5.60        | 7.48            | 29.97          | 22.49          |
| 5550                      | 41.333                            | 36.620                            | 1.81            | 1.23      | 3.04        | 4.84            | 23.97          | 19.13          | 3.38      | 2.30      | 5.68        | 7.55            | 29.97          | 22.42          |
| 5670                      | 41.193                            | 36.603                            | 1.96            | 1.42      | 3.38        | 5.29            | 23.97          | 18.68          | 3.66      | 2.65      | 6.30        | 8.00            | 29.97          | 21.97          |
| 5710                      | 41.633                            | 36.644                            | 1.89            | 1.39      | 3.28        | 5.16            | 23.97          | 18.81          | 3.53      | 2.59      | 6.13        | 7.87            | 29.97          | 22.10          |
| 5755                      | -                                 | 36.617                            | 1.90            | 1.47      | 3.37        | 5.28            | 30.00          | 24.72          | 3.54      | 2.75      | 6.29        | 7.99            | 36.00          | 28.01          |
| 5795                      | -                                 | 36.572                            | 1.88            | 1.63      | 3.52        | 5.46            | 30.00          | 24.54          | 3.52      | 3.05      | 6.56        | 8.17            | 36.00          | 27.83          |

| Chain 1          |             |                     |            |             |              |                   |                | Chain 2             |            |             |              |                   |                |
|------------------|-------------|---------------------|------------|-------------|--------------|-------------------|----------------|---------------------|------------|-------------|--------------|-------------------|----------------|
| 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             | 0.00        | -9.61               | 2.61       | 9.72        | 2.71         | 2.72              | 5.43           | -11.21              | 2.61       | 9.72        | 2.71         | 1.12              | 3.83           |
| 5230             | 0.00        | -9.95               | 2.62       | 9.72        | 2.71         | 2.39              | 5.10           | -11.48              | 2.62       | 9.72        | 2.71         | 0.86              | 3.57           |
| 5270             | 0.00        | -10.26              | 2.60       | 9.72        | 2.71         | 2.06              | 4.77           | -10.50              | 2.60       | 9.72        | 2.71         | 1.82              | 4.53           |
| 5310             | 0.00        | -10.11              | 2.61       | 9.72        | 2.71         | 2.22              | 4.93           | -10.53              | 2.61       | 9.72        | 2.71         | 1.80              | 4.51           |
| 5510             | 0.00        | -10.18              | 2.71       | 9.73        | 2.71         | 2.26              | 4.97           | -11.24              | 2.71       | 9.73        | 2.71         | 1.20              | 3.91           |
| 5550             | 0.00        | -9.85               | 2.70       | 9.73        | 2.71         | 2.58              | 5.29           | -11.52              | 2.70       | 9.73        | 2.71         | 0.91              | 3.62           |
| 5670             | 0.00        | -9.52               | 2.70       | 9.74        | 2.71         | 2.92              | 5.63           | -10.92              | 2.70       | 9.74        | 2.71         | 1.52              | 4.23           |
| 5710             | 0.00        | -9.68               | 2.71       | 9.74        | 2.71         | 2.77              | 5.48           | -11.02              | 2.71       | 9.74        | 2.71         | 1.43              | 4.14           |
| 5755             | 0.00        | -9.67               | 2.71       | 9.74        | 2.71         | 2.78              | 5.49           | -10.77              | 2.71       | 9.74        | 2.71         | 1.68              | 4.39           |
| 5795             | 0.00        | -9.73               | 2.74       | 9.74        | 2.71         | 2.75              | 5.46           | -10.35              | 2.74       | 9.74        | 2.71         | 2.13              | 4.84           |

Sample Calculation:

Conducted Power Result = Reading + Cable Loss + Atten. Loss

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 + 10logB) dBm, whichever is lower

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

## Maximum Conducted Output Power

Report No. 13977035S-C-R1  
Test place Shonan EMC Lab. No.1 Measurement Room / No. 5 Shielded Room  
Date October 21, 2021 October 27, 2021 December 3, 2021  
Temperature / Humidity 24 deg. C / 43 % RH 25 deg. C / 37 % RH 24 deg. C / 37 % RH  
Engineer Kenichi Adachi Kenichi Adachi Shunsaku Yumi  
Mode Tx 11ac-80 (SISO)

### 11ac-80 (SISO), Chain 1

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] | Antenna Gain<br>[dBi] | 26 dB EBW<br>(B for FCC)<br>[MHz] | 99 % OBW<br>(B for ISDE)<br>[MHz] | Conducted Power |      |       |        | e.i.r.p. |      |       |        |
|---------------------------|------------------------------|--------------------|---------------------|-----------------------|-----------------------------------|-----------------------------------|-----------------|------|-------|--------|----------|------|-------|--------|
|                           |                              |                    |                     |                       |                                   |                                   | Result          |      | Limit | Margin | Result   |      | Limit | Margin |
|                           |                              |                    |                     |                       |                                   |                                   | [dBm]           | [mW] | [dBm] | [dB]   | [dBm]    | [mW] | [dBm] | [dB]   |
| 5210                      | -7.06                        | 2.62               | 9.72                | 2.71                  | -                                 | 77.331                            | 5.28            | 3.37 | 23.97 | 18.69  | 7.99     | 6.30 | 29.97 | 21.98  |
| 5290                      | -7.32                        | 2.61               | 9.72                | 2.71                  | 90.831                            | 77.223                            | 5.01            | 3.17 | 23.97 | 18.96  | 7.72     | 5.92 | 29.97 | 22.25  |
| 5530                      | -7.10                        | 2.71               | 9.73                | 2.71                  | 90.738                            | 77.331                            | 5.34            | 3.42 | 23.97 | 18.63  | 8.05     | 6.38 | 29.97 | 21.92  |
| 5610                      | -6.90                        | 2.70               | 9.74                | 2.71                  | 89.718                            | 77.324                            | 5.54            | 3.58 | 23.97 | 18.43  | 8.25     | 6.68 | 29.97 | 21.72  |
| 5690                      | -6.90                        | 2.70               | 9.74                | 2.71                  | 89.193                            | 77.502                            | 5.54            | 3.58 | 23.97 | 18.43  | 8.25     | 6.68 | 29.97 | 21.72  |
| 5775                      | -6.75                        | 2.72               | 9.74                | 2.71                  | -                                 | 77.329                            | 5.71            | 3.72 | 30.00 | 24.29  | 8.42     | 6.95 | 36.00 | 27.58  |

### 11ac-80 (SISO), Chain 2

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] | Antenna Gain<br>[dBi] | 26 dB EBW<br>(B for FCC)<br>[MHz] | 99 % OBW<br>(B for ISDE)<br>[MHz] | Conducted Power |      |       |        | e.i.r.p. |      |       |        |
|---------------------------|------------------------------|--------------------|---------------------|-----------------------|-----------------------------------|-----------------------------------|-----------------|------|-------|--------|----------|------|-------|--------|
|                           |                              |                    |                     |                       |                                   |                                   | Result          |      | Limit | Margin | Result   |      | Limit | Margin |
|                           |                              |                    |                     |                       |                                   |                                   | [dBm]           | [mW] | [dBm] | [dB]   | [dBm]    | [mW] | [dBm] | [dB]   |
| 5210                      | -7.21                        | 2.61               | 9.72                | 2.71                  | -                                 | 77.331                            | 5.12            | 3.25 | 23.97 | 18.85  | 7.83     | 6.07 | 29.97 | 22.14  |
| 5290                      | -7.63                        | 2.60               | 9.72                | 2.71                  | 90.831                            | 77.223                            | 4.69            | 2.94 | 23.97 | 19.28  | 7.40     | 5.50 | 29.97 | 22.57  |
| 5530                      | -7.93                        | 2.71               | 9.73                | 2.71                  | 90.738                            | 77.331                            | 4.51            | 2.82 | 23.97 | 19.46  | 7.22     | 5.27 | 29.97 | 22.75  |
| 5610                      | -7.78                        | 2.70               | 9.73                | 2.71                  | 89.718                            | 77.324                            | 4.65            | 2.92 | 23.97 | 19.32  | 7.36     | 5.45 | 29.97 | 22.61  |
| 5690                      | -7.64                        | 2.71               | 9.74                | 2.71                  | 89.193                            | 77.502                            | 4.81            | 3.03 | 23.97 | 19.16  | 7.52     | 5.65 | 29.97 | 22.45  |
| 5775                      | -7.44                        | 2.71               | 9.74                | 2.71                  | -                                 | 77.329                            | 5.01            | 3.17 | 30.00 | 24.99  | 7.72     | 5.92 | 36.00 | 28.28  |

Sample Calculation:

Conducted Power Result = Reading + Cable Loss + Atten. Loss

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

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

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

## Maximum Conducted Output Power

Report No. 13977035S-C-R1  
Test place Shonan EMC Lab. No.1 Measurement Room / No. 5 Shielded Room  
Date October 26, 2021 November 18, 2021  
Temperature / Humidity 25 deg. C / 36 % RH 23 deg. C / 42 % RH  
Engineer Kenichi Adachi Hiromasa Sato  
Mode Tx 11ac-80 (CDD)

### Chain 1 + Chain 2

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 ISED)<br>[MHz] | Conducted power |           |             |                 |                |                | e.i.r.p.  |           |             |                 |                |                |
|---------------------------|-----------------------------------|-----------------------------------|-----------------|-----------|-------------|-----------------|----------------|----------------|-----------|-----------|-------------|-----------------|----------------|----------------|
|                           |                                   |                                   | Chain           |           |             | Result<br>[dBm] | Limit<br>[dBm] | Margin<br>[dB] | Chain     |           |             | 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                      | -                                 | 76.457                            | 1.79            | 1.66      | 3.45        | 5.38            | 23.97          | 18.59          | 3.33      | 3.10      | 6.44        | 8.09            | 29.97          | 21.88          |
| 5290                      | 84.410                            | 76.459                            | 1.64            | 1.55      | 3.19        | 5.04            | 23.97          | 18.93          | 3.06      | 2.89      | 5.95        | 7.75            | 29.97          | 22.22          |
| 5530                      | 85.399                            | 76.554                            | 1.71            | 1.28      | 3.00        | 4.77            | 23.97          | 19.20          | 3.20      | 2.39      | 5.59        | 7.48            | 29.97          | 22.49          |
| 5610                      | 85.476                            | 76.600                            | 1.84            | 1.31      | 3.15        | 4.98            | 23.97          | 18.99          | 3.44      | 2.44      | 5.87        | 7.69            | 29.97          | 22.28          |
| 5690                      | 84.403                            | 76.424                            | 1.91            | 1.44      | 3.35        | 5.25            | 23.97          | 18.72          | 3.56      | 2.69      | 6.26        | 7.96            | 29.97          | 22.01          |
| 5775                      | -                                 | 76.450                            | 2.03            | 1.50      | 3.54        | 5.48            | 30.00          | 24.52          | 3.79      | 2.81      | 6.60        | 8.19            | 36.00          | 27.81          |

|                  |             | Chain 1             |            |             |                  |             |          | Chain 2             |            |             |                  |             |          |
|------------------|-------------|---------------------|------------|-------------|------------------|-------------|----------|---------------------|------------|-------------|------------------|-------------|----------|
| Tested Frequency | Duty Factor | Power Meter Reading | Cable Loss | Atten. Loss | Directional Gain | Result      |          | Power Meter Reading | Cable Loss | Atten. Loss | Directional Gain | Result      |          |
|                  |             |                     |            |             |                  | Cond. Power | e.i.r.p. |                     |            |             |                  | Cond. Power | e.i.r.p. |
|                  |             |                     |            |             |                  | [dBm]       | [dBm]    |                     |            |             |                  | [dBm]       | [dBm]    |
| [MHz]            | [dB]        | [dBm]               | [dB]       | [dB]        | [dBi]            | [dBm]       | [dBm]    | [dBm]               | [dB]       | [dB]        | [dBi]            | [dBm]       | [dBm]    |
| 5210             | 0.00        | -9.82               | 2.62       | 9.72        | 2.71             | 2.52        | 5.23     | -10.13              | 2.62       | 9.72        | 2.71             | 2.21        | 4.92     |
| 5290             | 0.00        | -10.18              | 2.61       | 9.72        | 2.71             | 2.15        | 4.86     | -10.43              | 2.61       | 9.72        | 2.71             | 1.90        | 4.61     |
| 5530             | 0.00        | -10.10              | 2.71       | 9.73        | 2.71             | 2.34        | 5.05     | -11.36              | 2.71       | 9.73        | 2.71             | 1.08        | 3.79     |
| 5610             | 0.00        | -9.79               | 2.70       | 9.74        | 2.71             | 2.65        | 5.36     | -11.28              | 2.70       | 9.74        | 2.71             | 1.16        | 3.87     |
| 5690             | 0.00        | -9.63               | 2.70       | 9.74        | 2.71             | 2.81        | 5.52     | -10.85              | 2.70       | 9.74        | 2.71             | 1.59        | 4.30     |
| 5775             | 0.00        | -9.38               | 2.72       | 9.74        | 2.71             | 3.08        | 5.79     | -10.69              | 2.72       | 9.74        | 2.71             | 1.77        | 4.48     |

### Sample Calculation:

Conducted Power Result = Reading + Cable Loss + Atten. Loss  
e.i.r.p. Result = Conducted Power Result + Directional Gain  
Directional Gain =  $G_{ANT}$ (Antenna Gain) + Array Gain  
Array Gain = 0 dB (ie., no array gain) for  $N_{ANT} < 4$   
 $N_{ANT}$ (number of transmit antennas) = 2

Conducted Power Limit (5250 MHz-5350 MHz, 5470 MHz-5725 MHz) = 250 mW or (11 + 10logB) dBm, whichever is lower  
Conducted Power Limit (5725 MHz-5850 MHz) = 1 W

## Maximum Conducted Output Power

Report No. 13977035S-C-R1  
Test place Shonan EMC Lab. No.1 Measurement Room / No. 5 Shielded Room  
Date October 26, 2021 October 28, 2021  
Temperature / Humidity 25 deg. C / 36 % RH 24 deg. C / 46 % RH  
Engineer Kenichi Adachi Kenichi Adachi  
Mode Tx 11ac-80 (MIMO)

### Chain 1 + Chain 2

Applied limit: 15.407, mobile and portable client device

| Tested Frequency<br>[MHz] | 26 dB<br>EBW<br>(B for FCC)<br>[MHz] | 99 %<br>OBW<br>(B for ISED)<br>[MHz] | Conducted power |           |             |                 |                |                | e.i.r.p.  |           |             |                 |                |                |
|---------------------------|--------------------------------------|--------------------------------------|-----------------|-----------|-------------|-----------------|----------------|----------------|-----------|-----------|-------------|-----------------|----------------|----------------|
|                           |                                      |                                      | Chain           |           |             | Result<br>[dBm] | Limit<br>[dBm] | Margin<br>[dB] | Chain     |           |             | 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                      | -                                    | 76.361                               | 1.83            | 1.75      | 3.57        | 5.53            | 23.97          | 18.44          | 3.41      | 3.26      | 6.67        | 8.24            | 29.97          | 21.73          |
| 5290                      | 82.956                               | 76.236                               | 1.75            | 1.53      | 3.28        | 5.16            | 23.97          | 18.81          | 3.27      | 2.85      | 6.12        | 7.87            | 29.97          | 22.10          |
| 5530                      | 84.150                               | 76.251                               | 1.82            | 1.32      | 3.14        | 4.97            | 23.97          | 19.00          | 3.39      | 2.47      | 5.86        | 7.68            | 29.97          | 22.29          |
| 5610                      | 83.614                               | 76.262                               | 1.85            | 1.42      | 3.26        | 5.13            | 23.97          | 18.84          | 3.44      | 2.64      | 6.09        | 7.84            | 29.97          | 22.13          |
| 5690                      | 84.847                               | 76.344                               | 1.92            | 1.58      | 3.50        | 5.45            | 23.97          | 18.52          | 3.59      | 2.95      | 6.54        | 8.16            | 29.97          | 21.81          |
| 5775                      | -                                    | 76.286                               | 2.04            | 1.60      | 3.64        | 5.61            | 30.00          | 24.39          | 3.80      | 2.99      | 6.79        | 8.32            | 36.00          | 27.68          |

|                  |             | Chain 1             |            |             |              |             |          | Chain 2             |            |             |              |             |          |
|------------------|-------------|---------------------|------------|-------------|--------------|-------------|----------|---------------------|------------|-------------|--------------|-------------|----------|
| 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]    |
| 5210             | 0.00        | -9.72               | 2.62       | 9.72        | 2.71         | 2.62        | 5.33     | -9.92               | 2.62       | 9.72        | 2.71         | 2.42        | 5.13     |
| 5290             | 0.00        | -9.89               | 2.61       | 9.72        | 2.71         | 2.44        | 5.15     | -10.49              | 2.61       | 9.72        | 2.71         | 1.84        | 4.55     |
| 5530             | 0.00        | -9.85               | 2.71       | 9.73        | 2.71         | 2.59        | 5.30     | -11.22              | 2.71       | 9.73        | 2.71         | 1.22        | 3.93     |
| 5610             | 0.00        | -9.78               | 2.70       | 9.74        | 2.71         | 2.66        | 5.37     | -10.93              | 2.70       | 9.74        | 2.71         | 1.51        | 4.22     |
| 5690             | 0.00        | -9.60               | 2.70       | 9.74        | 2.71         | 2.84        | 5.55     | -10.45              | 2.70       | 9.74        | 2.71         | 1.99        | 4.70     |
| 5775             | 0.00        | -9.37               | 2.72       | 9.74        | 2.71         | 3.09        | 5.80     | -10.41              | 2.72       | 9.74        | 2.71         | 2.05        | 4.76     |

Sample Calculation:

Conducted Power Result = Reading + Cable Loss + Atten. Loss

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 + 10logB) dBm, whichever is lower

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

## Maximum Conducted Output Power

|                        |                                       |
|------------------------|---------------------------------------|
| Report No.             | 13977035S-C-R1                        |
| Test place             | Shonan EMC Lab. No.1 Measurement Room |
| Date                   | October 21, 2021                      |
| Temperature / Humidity | 24 deg. C / 43 % RH                   |
| Engineer               | Kenichi Adachi                        |
| Mode                   | Tx 11a (SISO)                         |

### 5180 MHz

| Mode   | Rate<br>Mbps | Reading<br>(timed average)<br>[dBm] | Duty<br>factor<br>[dB] | Burst<br>power<br>[dBm] | Remarks |
|--------|--------------|-------------------------------------|------------------------|-------------------------|---------|
| Chain1 | 6            | -2.98                               | 0.00                   | -2.98                   | -       |
|        | 9            | -2.99                               | 0.00                   | -2.99                   | -       |
|        | 12           | -3.04                               | 0.00                   | -3.04                   | -       |
|        | 18           | -2.24                               | 0.00                   | -2.24                   | *       |
|        | 24           | -2.28                               | 0.00                   | -2.28                   | -       |
|        | 36           | -2.93                               | 0.00                   | -2.93                   | -       |
|        | 48           | -3.01                               | 0.00                   | -3.01                   | -       |
|        | 54           | -2.97                               | 0.00                   | -2.97                   | -       |
| Chain2 | 6            | -3.43                               | 0.00                   | -3.43                   | -       |
|        | 9            | -3.42                               | 0.00                   | -3.42                   | -       |
|        | 12           | -3.40                               | 0.00                   | -3.40                   | -       |
|        | 18           | -2.51                               | 0.00                   | -2.51                   | -       |
|        | 24           | -2.69                               | 0.00                   | -2.69                   | -       |
|        | 36           | -3.27                               | 0.00                   | -3.27                   | -       |
|        | 48           | -3.40                               | 0.00                   | -3.40                   | -       |
|        | 54           | -3.32                               | 0.00                   | -3.32                   | -       |

\* Worst rate

Sample Calculation:

$$\text{Burst power} = \text{Reading (timed average)} + \text{Duty factor}$$

All comparison were carried out on same frequency and measurement factors.

## Maximum Conducted Output Power

|                        |                                       |
|------------------------|---------------------------------------|
| Report No.             | 13977035S-C-R1                        |
| Test place             | Shonan EMC Lab. No.1 Measurement Room |
| Date                   | October 21, 2021                      |
| Temperature / Humidity | 24 deg. C / 43 % RH                   |
| Engineer               | Kenichi Adachi                        |
| Mode                   | Tx 11n-20 (SISO)                      |

### 5180 MHz

| Mode   | MCS Number | Reading (timed average) [dBm] | Duty factor [dB] | Burst power [dBm] | Remarks |
|--------|------------|-------------------------------|------------------|-------------------|---------|
| Chain1 | 0          | -3.26                         | 0.00             | -3.26             | -       |
|        | 1          | -3.17                         | 0.00             | -3.17             | -       |
|        | 2          | -2.33                         | 0.00             | -2.33             | -       |
|        | 3          | -2.32                         | 0.00             | -2.32             | *       |
|        | 4          | -2.86                         | 0.00             | -2.86             | -       |
|        | 5          | -2.82                         | 0.00             | -2.82             | -       |
|        | 6          | -2.85                         | 0.00             | -2.85             | -       |
|        | 7          | -2.80                         | 0.00             | -2.80             | -       |
| Chain2 | 0          | -3.52                         | 0.00             | -3.52             | -       |
|        | 1          | -3.55                         | 0.00             | -3.55             | -       |
|        | 2          | -2.73                         | 0.00             | -2.73             | -       |
|        | 3          | -2.72                         | 0.00             | -2.72             | -       |
|        | 4          | -3.32                         | 0.00             | -3.32             | -       |
|        | 5          | -3.40                         | 0.00             | -3.40             | -       |
|        | 6          | -3.38                         | 0.00             | -3.38             | -       |
|        | 7          | -3.42                         | 0.00             | -3.42             | -       |

\* Worst rate

Sample Calculation:

$$\text{Burst power} = \text{Reading (timed average)} + \text{Duty factor}$$

All comparison were carried out on same frequency and measurement factors.

## Maximum Conducted Output Power

|                        |                                       |
|------------------------|---------------------------------------|
| Report No.             | 13977035S-C-R1                        |
| Test place             | Shonan EMC Lab. No.1 Measurement Room |
| Date                   | October 21, 2021                      |
| Temperature / Humidity | 24 deg. C / 43 % RH                   |
| Engineer               | Kenichi Adachi                        |
| Mode                   | Tx 11ac-20 (SISO)                     |

### 5180 MHz

| Mode   | MCS Number | Reading (timed average) [dBm] | Duty factor [dB] | Burst power [dBm] | Remarks |
|--------|------------|-------------------------------|------------------|-------------------|---------|
| Chain1 | 0          | -7.29                         | 0.00             | -7.29             | -       |
|        | 1          | -7.26                         | 0.00             | -7.26             | -       |
|        | 2          | -6.43                         | 0.00             | -6.43             | -       |
|        | 3          | -6.40                         | 0.00             | -6.40             | *       |
|        | 4          | -7.02                         | 0.00             | -7.02             | -       |
|        | 5          | -7.00                         | 0.00             | -7.00             | -       |
|        | 6          | -6.93                         | 0.00             | -6.93             | -       |
|        | 7          | -7.03                         | 0.00             | -7.03             | -       |
| Chain2 | 8          | -6.99                         | 0.00             | -6.99             | -       |
|        | 0          | -7.41                         | 0.00             | -7.41             | -       |
|        | 1          | -7.48                         | 0.00             | -7.48             | -       |
|        | 2          | -6.71                         | 0.00             | -6.71             | -       |
|        | 3          | -6.63                         | 0.00             | -6.63             | -       |
|        | 4          | -7.36                         | 0.00             | -7.36             | -       |
|        | 5          | -7.33                         | 0.00             | -7.33             | -       |
|        | 6          | -7.38                         | 0.00             | -7.38             | -       |
|        | 7          | -7.39                         | 0.00             | -7.39             | -       |
|        | 8          | -7.42                         | 0.00             | -7.42             | -       |

\* Worst rate

Sample Calculation:

$$\text{Burst power} = \text{Reading (timed average)} + \text{Duty factor}$$

All comparison were carried out on same frequency and measurement factors.

## Maximum Conducted Output Power

Report No. 13977035S-C-R1  
Test place Shonan EMC Lab. No.1 Measurement Room  
Date October 22, 2021  
Temperature / Humidity 23 deg. C / 33 % RH  
Engineer Kenichi Adachi  
Mode Tx 11a (CDD)

### 5180 MHz

| Rate | Reading (timed average) |       |      |      |      |       | Duty factor | Burst power |       |       | Remarks |
|------|-------------------------|-------|------|------|------|-------|-------------|-------------|-------|-------|---------|
|      | Chain                   |       |      |      |      |       |             | Chain       |       |       |         |
| Mbps | 1                       | 2     | 1    | 2    | 1+2  | 1+2   |             | 1           | 2     | 1+2   |         |
|      | [dBm]                   | [dBm] | [mW] | [mW] | [mW] | [dBm] | [dB]        | [dBm]       | [dBm] | [dBm] |         |
| 6    | -5.98                   | -6.16 | 0.25 | 0.24 | 0.49 | -3.06 | 0.00        | -           | -     | -3.06 | -       |
| 9    | -5.97                   | -6.21 | 0.25 | 0.24 | 0.49 | -3.08 | 0.00        | -           | -     | -3.08 | -       |
| 12   | -6.03                   | -6.25 | 0.25 | 0.24 | 0.49 | -3.13 | 0.00        | -           | -     | -3.13 | -       |
| 18   | -5.24                   | -5.42 | 0.30 | 0.29 | 0.59 | -2.32 | 0.00        | -           | -     | -2.32 | *       |
| 24   | -5.31                   | -5.51 | 0.29 | 0.28 | 0.58 | -2.40 | 0.00        | -           | -     | -2.40 | -       |
| 36   | -5.94                   | -6.09 | 0.25 | 0.25 | 0.50 | -3.00 | 0.00        | -           | -     | -3.00 | -       |
| 48   | -5.95                   | -6.12 | 0.25 | 0.24 | 0.50 | -3.02 | 0.00        | -           | -     | -3.02 | -       |
| 54   | -6.26                   | -6.34 | 0.24 | 0.23 | 0.47 | -3.29 | 0.00        | -           | -     | -3.29 | -       |

\* Worst rate

Sample Calculation:

Burst power = Reading (timed average) + Duty factor

All comparison were carried out on same frequency and measurement factors.

## Maximum Conducted Output Power

Report No. 13977035S-C-R1  
Test place Shonan EMC Lab. No.1 Measurement Room  
Date October 22, 2021  
Temperature / Humidity 23 deg. C / 33 % RH  
Engineer Kenichi Adachi  
Mode Tx 11n-20 (CDD)

### 5180 MHz

| MCS<br>Number | Reading (timed average) |            |           |           |             |              | Duty<br>factor | Burst power |            |              | Remarks |
|---------------|-------------------------|------------|-----------|-----------|-------------|--------------|----------------|-------------|------------|--------------|---------|
|               | Chain                   |            |           |           |             |              |                | Chain       |            |              |         |
|               | 1<br>[dBm]              | 2<br>[dBm] | 1<br>[mW] | 2<br>[mW] | 1+2<br>[mW] | 1+2<br>[dBm] |                | 1<br>[dBm]  | 2<br>[dBm] | 1+2<br>[dBm] |         |
| 0             | -6.20                   | -6.13      | 0.24      | 0.24      | 0.48        | -3.15        | 0.00           | -           | -          | -3.15        | -       |
| 1             | -6.15                   | -6.22      | 0.24      | 0.24      | 0.48        | -3.17        | 0.00           | -           | -          | -3.17        | -       |
| 2             | -5.27                   | -5.57      | 0.30      | 0.28      | 0.57        | -2.41        | 0.00           | -           | -          | -2.41        | -       |
| 3             | -5.26                   | -5.51      | 0.30      | 0.28      | 0.58        | -2.37        | 0.00           | -           | -          | -2.37        | *       |
| 4             | -5.96                   | -6.01      | 0.25      | 0.25      | 0.50        | -2.97        | 0.00           | -           | -          | -2.97        | -       |
| 5             | -6.07                   | -6.02      | 0.25      | 0.25      | 0.50        | -3.03        | 0.00           | -           | -          | -3.03        | -       |
| 6             | -5.99                   | -6.08      | 0.25      | 0.25      | 0.50        | -3.02        | 0.00           | -           | -          | -3.02        | -       |
| 7             | -5.97                   | -6.20      | 0.25      | 0.24      | 0.49        | -3.07        | 0.00           | -           | -          | -3.07        | -       |

\* Worst rate

Sample Calculation:

Burst power = Reading (timed average) + Duty factor

All comparison were carried out on same frequency and measurement factors.

## Maximum Conducted Output Power

Report No. 13977035S-C-R1  
Test place Shonan EMC Lab. No.1 Measurement Room  
Date October 22, 2021  
Temperature / Humidity 23 deg. C / 33 % RH  
Engineer Kenichi Adachi  
Mode Tx 11ac-20 (CDD)

### 5180 MHz

| MCS<br>Number | Reading (timed average) |            |           |           |             |              | Duty<br>factor | Burst power |            |              | Remarks |
|---------------|-------------------------|------------|-----------|-----------|-------------|--------------|----------------|-------------|------------|--------------|---------|
|               | Chain                   |            |           |           |             |              |                | Chain       |            |              |         |
|               | 1<br>[dBm]              | 2<br>[dBm] | 1<br>[mW] | 2<br>[mW] | 1+2<br>[mW] | 1+2<br>[dBm] |                | 1<br>[dBm]  | 2<br>[dBm] | 1+2<br>[dBm] |         |
| 0(1ss)        | -9.65                   | -10.23     | 0.11      | 0.09      | 0.20        | -6.92        | 0.00           | -           | -          | -6.92        | -       |
| 1(1ss)        | -9.70                   | -10.16     | 0.11      | 0.10      | 0.20        | -6.91        | 0.00           | -           | -          | -6.91        | -       |
| 2(1ss)        | -8.94                   | -9.50      | 0.13      | 0.11      | 0.24        | -6.20        | 0.00           | -           | -          | -6.20        | -       |
| 3(1ss)        | -8.92                   | -9.49      | 0.13      | 0.11      | 0.24        | -6.19        | 0.00           | -           | -          | -6.19        | *       |
| 4(1ss)        | -9.61                   | -9.97      | 0.11      | 0.10      | 0.21        | -6.78        | 0.00           | -           | -          | -6.78        | -       |
| 5(1ss)        | -9.68                   | -9.97      | 0.11      | 0.10      | 0.21        | -6.81        | 0.00           | -           | -          | -6.81        | -       |
| 6(1ss)        | -9.64                   | -9.92      | 0.11      | 0.10      | 0.21        | -6.77        | 0.00           | -           | -          | -6.77        | -       |
| 7(1ss)        | -9.60                   | -9.88      | 0.11      | 0.10      | 0.21        | -6.73        | 0.00           | -           | -          | -6.73        | -       |
| 8(1ss)        | -9.72                   | -9.89      | 0.11      | 0.10      | 0.21        | -6.79        | 0.00           | -           | -          | -6.79        | -       |

\* Worst rate

Sample Calculation:

Burst power = Reading (timed average) + Duty factor

All comparison were carried out on same frequency and measurement factors.

## Maximum Conducted Output Power

|                        |                                       |
|------------------------|---------------------------------------|
| Report No.             | 13977035S-C-R1                        |
| Test place             | Shonan EMC Lab. No.1 Measurement Room |
| Date                   | October 22, 2021                      |
| Temperature / Humidity | 23 deg. C / 33 % RH                   |
| Engineer               | Kenichi Adachi                        |
| Mode                   | Tx 11n-20 (MIMO)                      |

### 5180 MHz

| MCS<br>Number | Reading (timed average) |            |           |           |             |              | Duty<br>factor | Burst power |            |              | Remarks |
|---------------|-------------------------|------------|-----------|-----------|-------------|--------------|----------------|-------------|------------|--------------|---------|
|               | Chain                   |            |           |           |             |              |                | Chain       |            |              |         |
|               | 1<br>[dBm]              | 2<br>[dBm] | 1<br>[mW] | 2<br>[mW] | 1+2<br>[mW] | 1+2<br>[dBm] |                | 1<br>[dBm]  | 2<br>[dBm] | 1+2<br>[dBm] |         |
| 8             | -5.82                   | -6.26      | 0.26      | 0.24      | 0.50        | -3.02        | 0.00           | -           | -          | -3.02        | -       |
| 9             | -5.89                   | -6.25      | 0.26      | 0.24      | 0.49        | -3.06        | 0.00           | -           | -          | -3.06        | -       |
| 10            | -5.27                   | -5.60      | 0.30      | 0.28      | 0.57        | -2.42        | 0.00           | -           | -          | -2.42        | -       |
| 11            | -5.25                   | -5.45      | 0.30      | 0.29      | 0.58        | -2.34        | 0.00           | -           | -          | -2.34        | *       |
| 12            | -5.86                   | -6.13      | 0.26      | 0.24      | 0.50        | -2.98        | 0.00           | -           | -          | -2.98        | -       |
| 13            | -5.87                   | -6.06      | 0.26      | 0.25      | 0.51        | -2.95        | 0.00           | -           | -          | -2.95        | -       |
| 14            | -5.83                   | -6.05      | 0.26      | 0.25      | 0.51        | -2.93        | 0.00           | -           | -          | -2.93        | -       |
| 15            | -5.78                   | -6.10      | 0.26      | 0.25      | 0.51        | -2.93        | 0.00           | -           | -          | -2.93        | -       |

\* Worst rate

Sample Calculation:

Burst power = Reading (timed average) + Duty factor

All comparison were carried out on same frequency and measurement factors.

## Maximum Conducted Output Power

Report No. 13977035S-C-R1  
Test place Shonan EMC Lab. No.1 Measurement Room  
Date October 22, 2021  
Temperature / Humidity 23 deg. C / 33 % RH  
Engineer Kenichi Adachi  
Mode Tx 11ac-20 (MIMO)

### 5180 MHz

| MCS<br>Number | Reading (timed average) |            |           |           |             |              | Duty<br>factor | Burst power |            |              | Remarks |
|---------------|-------------------------|------------|-----------|-----------|-------------|--------------|----------------|-------------|------------|--------------|---------|
|               | Chain                   |            |           |           |             |              |                | Chain       |            |              |         |
|               | 1<br>[dBm]              | 2<br>[dBm] | 1<br>[mW] | 2<br>[mW] | 1+2<br>[mW] | 1+2<br>[dBm] |                | 1<br>[dBm]  | 2<br>[dBm] | 1+2<br>[dBm] |         |
| 0(2ss)        | -9.52                   | -10.24     | 0.11      | 0.09      | 0.21        | -6.85        | 0.00           | -           | -          | -6.85        | -       |
| 1(2ss)        | -9.48                   | -10.23     | 0.11      | 0.09      | 0.21        | -6.83        | 0.00           | -           | -          | -6.83        | -       |
| 2(2ss)        | -9.03                   | -9.35      | 0.13      | 0.12      | 0.24        | -6.18        | 0.00           | -           | -          | -6.18        | -       |
| 3(2ss)        | -8.96                   | -9.20      | 0.13      | 0.12      | 0.25        | -6.07        | 0.00           | -           | -          | -6.07        | *       |
| 4(2ss)        | -9.64                   | -9.84      | 0.11      | 0.10      | 0.21        | -6.73        | 0.00           | -           | -          | -6.73        | -       |
| 5(2ss)        | -9.51                   | -9.86      | 0.11      | 0.10      | 0.22        | -6.67        | 0.00           | -           | -          | -6.67        | -       |
| 6(2ss)        | -9.54                   | -9.97      | 0.11      | 0.10      | 0.21        | -6.74        | 0.00           | -           | -          | -6.74        | -       |
| 7(2ss)        | -9.55                   | -9.77      | 0.11      | 0.11      | 0.22        | -6.65        | 0.00           | -           | -          | -6.65        | -       |
| 8(2ss)        | -9.69                   | -9.74      | 0.11      | 0.11      | 0.21        | -6.70        | 0.00           | -           | -          | -6.70        | -       |

\* Worst rate

Sample Calculation:

Burst power = Reading (timed average) + Duty factor

All comparison were carried out on same frequency and measurement factors.

## Maximum Conducted Output Power

|                        |                                       |
|------------------------|---------------------------------------|
| Report No.             | 13977035S-C-R1                        |
| Test place             | Shonan EMC Lab. No.1 Measurement Room |
| Date                   | October 21, 2021                      |
| Temperature / Humidity | 24 deg. C / 43 % RH                   |
| Engineer               | Kenichi Adachi                        |
| Mode                   | Tx 11n-40 (SISO)                      |

### 5190 MHz

| Mode   | MCS Number | Reading (timed average) [dBm] | Duty factor [dB] | Burst power [dBm] | Remarks |
|--------|------------|-------------------------------|------------------|-------------------|---------|
| Chain1 | 0          | -3.17                         | 0.00             | -3.17             | -       |
|        | 1          | -3.18                         | 0.00             | -3.18             | -       |
|        | 2          | -3.14                         | 0.00             | -3.14             | -       |
|        | 3          | -3.13                         | 0.00             | -3.13             | *       |
|        | 4          | -3.33                         | 0.00             | -3.33             | -       |
|        | 5          | -3.26                         | 0.00             | -3.26             | -       |
|        | 6          | -3.19                         | 0.00             | -3.19             | -       |
|        | 7          | -3.25                         | 0.00             | -3.25             | -       |
| Chain2 | 0          | -3.54                         | 0.00             | -3.54             | -       |
|        | 1          | -3.60                         | 0.00             | -3.60             | -       |
|        | 2          | -3.58                         | 0.00             | -3.58             | -       |
|        | 3          | -3.44                         | 0.00             | -3.44             | -       |
|        | 4          | -3.63                         | 0.00             | -3.63             | -       |
|        | 5          | -3.80                         | 0.00             | -3.80             | -       |
|        | 6          | -3.73                         | 0.00             | -3.73             | -       |
|        | 7          | -3.75                         | 0.00             | -3.75             | -       |

\* Worst rate

Sample Calculation:

$$\text{Burst power} = \text{Reading (timed average)} + \text{Duty factor}$$

All comparison were carried out on same frequency and measurement factors.

## Maximum Conducted Output Power

Report No. 13977035S-C-R1  
Test place Shonan EMC Lab. No.1 Measurement Room  
Date October 21, 2021  
Temperature / Humidity 24 deg. C / 43 % RH  
Engineer Kenichi Adachi  
Mode Tx 11ac-40 (SISO)

### 5190 MHz

| Mode   | MCS Number | Reading (timed average) [dBm] | Duty factor [dB] | Burst power [dBm] | Remarks |
|--------|------------|-------------------------------|------------------|-------------------|---------|
| Chain1 | 0          | -7.29                         | 0.00             | -7.29             | -       |
|        | 1          | -7.29                         | 0.00             | -7.29             | -       |
|        | 2          | -7.22                         | 0.00             | -7.22             | -       |
|        | 3          | -7.21                         | 0.00             | -7.21             | *       |
|        | 4          | -7.40                         | 0.00             | -7.40             | -       |
|        | 5          | -7.43                         | 0.00             | -7.43             | -       |
|        | 6          | -7.38                         | 0.00             | -7.38             | -       |
|        | 7          | -7.50                         | 0.00             | -7.50             | -       |
|        | 8          | -7.38                         | 0.00             | -7.38             | -       |
|        | 9          | -7.47                         | 0.00             | -7.47             | -       |
| Chain2 | 0          | -7.75                         | 0.00             | -7.75             | -       |
|        | 1          | -7.73                         | 0.00             | -7.73             | -       |
|        | 2          | -7.63                         | 0.00             | -7.63             | -       |
|        | 3          | -7.61                         | 0.00             | -7.61             | -       |
|        | 4          | -7.78                         | 0.00             | -7.78             | -       |
|        | 5          | -7.81                         | 0.00             | -7.81             | -       |
|        | 6          | -7.80                         | 0.00             | -7.80             | -       |
|        | 7          | -7.82                         | 0.00             | -7.82             | -       |
|        | 8          | -7.88                         | 0.00             | -7.88             | -       |
|        | 9          | -7.89                         | 0.00             | -7.89             | -       |

\* Worst rate

Sample Calculation:

$$\text{Burst power} = \text{Reading (timed average)} + \text{Duty factor}$$

All comparison were carried out on same frequency and measurement factors.

## Maximum Conducted Output Power

|                        |                                    |
|------------------------|------------------------------------|
| Report No.             | 13977035S-C-R1                     |
| Test place             | Shonan EMC Lab. No.5 Shielded Room |
| Date                   | October 26, 2021                   |
| Temperature / Humidity | 25 deg. C / 36 % RH                |
| Engineer               | Kenichi Adachi                     |
| Mode                   | Tx 11n-40 (CDD)                    |

### 5190 MHz

| MCS<br>Number | Reading (timed average) |            |           |           |             |              | Duty<br>factor | Burst power |            |              | Remarks |
|---------------|-------------------------|------------|-----------|-----------|-------------|--------------|----------------|-------------|------------|--------------|---------|
|               | Chain                   |            |           |           |             |              |                | Chain       |            |              |         |
|               | 1<br>[dBm]              | 2<br>[dBm] | 1<br>[mW] | 2<br>[mW] | 1+2<br>[mW] | 1+2<br>[dBm] |                | 1<br>[dBm]  | 2<br>[dBm] | 1+2<br>[dBm] |         |
| 0             | -5.89                   | -6.30      | 0.26      | 0.23      | 0.49        | -3.08        | 0.00           | -           | -          | -3.08        | -       |
| 1             | -6.03                   | -6.24      | 0.25      | 0.24      | 0.49        | -3.12        | 0.00           | -           | -          | -3.12        | -       |
| 2             | -5.96                   | -6.22      | 0.25      | 0.24      | 0.49        | -3.08        | 0.00           | -           | -          | -3.08        | -       |
| 3             | -5.93                   | -6.24      | 0.26      | 0.24      | 0.49        | -3.07        | 0.00           | -           | -          | -3.07        | *       |
| 4             | -6.30                   | -6.54      | 0.23      | 0.22      | 0.46        | -3.41        | 0.00           | -           | -          | -3.41        | -       |
| 5             | -6.16                   | -6.47      | 0.24      | 0.23      | 0.47        | -3.30        | 0.00           | -           | -          | -3.30        | -       |
| 6             | -6.34                   | -6.64      | 0.23      | 0.22      | 0.45        | -3.48        | 0.00           | -           | -          | -3.48        | -       |
| 7             | -6.22                   | -6.59      | 0.24      | 0.22      | 0.46        | -3.39        | 0.00           | -           | -          | -3.39        | -       |

\* Worst rate

Sample Calculation:

Burst power = Reading (timed average) + Duty factor

All comparison were carried out on same frequency and measurement factors.

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## Maximum Conducted Output Power

Report No. 13977035S-C-R1  
Test place Shonan EMC Lab. No.5 Shielded Room  
Date October 26, 2021  
Temperature / Humidity 25 deg. C / 36 % RH  
Engineer Kenichi Adachi  
Mode Tx 11ac-40 (CDD)

### 5190 MHz

| MCS<br>Number | Reading (timed average) |            |           |           |             |              | Duty<br>factor | Burst power |            |              | Remarks |
|---------------|-------------------------|------------|-----------|-----------|-------------|--------------|----------------|-------------|------------|--------------|---------|
|               | Chain                   |            |           |           |             |              |                | Chain       |            |              |         |
|               | 1<br>[dBm]              | 2<br>[dBm] | 1<br>[mW] | 2<br>[mW] | 1+2<br>[mW] | 1+2<br>[dBm] |                | 1<br>[dBm]  | 2<br>[dBm] | 1+2<br>[dBm] |         |
| 0(1ss)        | -9.73                   | -11.07     | 0.11      | 0.08      | 0.18        | -7.34        | 0.00           | -           | -          | -7.34        | -       |
| 1(1ss)        | -9.75                   | -11.32     | 0.11      | 0.07      | 0.18        | -7.45        | 0.00           | -           | -          | -7.45        | -       |
| 2(1ss)        | -9.61                   | -11.12     | 0.11      | 0.08      | 0.19        | -7.29        | 0.00           | -           | -          | -7.29        | -       |
| 3(1ss)        | -9.58                   | -11.05     | 0.11      | 0.08      | 0.19        | -7.24        | 0.00           | -           | -          | -7.24        | *       |
| 4(1ss)        | -10.15                  | -11.56     | 0.10      | 0.07      | 0.17        | -7.79        | 0.00           | -           | -          | -7.79        | -       |
| 5(1ss)        | -10.21                  | -11.35     | 0.10      | 0.07      | 0.17        | -7.73        | 0.00           | -           | -          | -7.73        | -       |
| 6(1ss)        | -10.22                  | -11.46     | 0.10      | 0.07      | 0.17        | -7.79        | 0.00           | -           | -          | -7.79        | -       |
| 7(1ss)        | -10.09                  | -11.41     | 0.10      | 0.07      | 0.17        | -7.69        | 0.00           | -           | -          | -7.69        | -       |
| 8(1ss)        | -10.19                  | -11.47     | 0.10      | 0.07      | 0.17        | -7.77        | 0.00           | -           | -          | -7.77        | -       |
| 9(1ss)        | -10.15                  | -11.56     | 0.10      | 0.07      | 0.17        | -7.79        | 0.00           | -           | -          | -7.79        | -       |

\* Worst rate

Sample Calculation:

$$\text{Burst power} = \text{Reading (timed average)} + \text{Duty factor}$$

All comparison were carried out on same frequency and measurement factors.

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## Maximum Conducted Output Power

|                        |                                    |
|------------------------|------------------------------------|
| Report No.             | 13977035S-C-R1                     |
| Test place             | Shonan EMC Lab. No.5 Shielded Room |
| Date                   | October 26, 2021                   |
| Temperature / Humidity | 25 deg. C / 36 % RH                |
| Engineer               | Kenichi Adachi                     |
| Mode                   | Tx 11n-40 (MIMO)                   |

### 5190 MHz

| MCS<br>Number | Reading (timed average) |            |           |           |             |              | Duty<br>factor | Burst power |            |              | Remarks |
|---------------|-------------------------|------------|-----------|-----------|-------------|--------------|----------------|-------------|------------|--------------|---------|
|               | Chain                   |            |           |           |             |              |                | Chain       |            |              |         |
|               | 1<br>[dBm]              | 2<br>[dBm] | 1<br>[mW] | 2<br>[mW] | 1+2<br>[mW] | 1+2<br>[dBm] |                | 1<br>[dBm]  | 2<br>[dBm] | 1+2<br>[dBm] |         |
| 8             | -5.93                   | -6.22      | 0.26      | 0.24      | 0.49        | -3.06        | 0.00           | -           | -          | -3.06        | -       |
| 9             | -5.93                   | -6.22      | 0.26      | 0.24      | 0.49        | -3.06        | 0.00           | -           | -          | -3.06        | -       |
| 10            | -5.97                   | -6.25      | 0.25      | 0.24      | 0.49        | -3.10        | 0.00           | -           | -          | -3.10        | -       |
| 11            | -5.82                   | -6.22      | 0.26      | 0.24      | 0.50        | -3.01        | 0.00           | -           | -          | -3.01        | *       |
| 12            | -6.27                   | -6.53      | 0.24      | 0.22      | 0.46        | -3.39        | 0.00           | -           | -          | -3.39        | -       |
| 13            | -6.25                   | -6.47      | 0.24      | 0.23      | 0.46        | -3.35        | 0.00           | -           | -          | -3.35        | -       |
| 14            | -6.35                   | -6.42      | 0.23      | 0.23      | 0.46        | -3.37        | 0.00           | -           | -          | -3.37        | -       |
| 15            | -6.34                   | -6.46      | 0.23      | 0.23      | 0.46        | -3.39        | 0.00           | -           | -          | -3.39        | -       |

\* Worst rate

Sample Calculation:

Burst power = Reading (timed average) + Duty factor

All comparison were carried out on same frequency and measurement factors.

## Maximum Conducted Output Power

|                        |                                    |
|------------------------|------------------------------------|
| Report No.             | 13977035S-C-R1                     |
| Test place             | Shonan EMC Lab. No.5 Shielded Room |
| Date                   | October 26, 2021                   |
| Temperature / Humidity | 25 deg. C / 36 % RH                |
| Engineer               | Kenichi Adachi                     |
| Mode                   | Tx 11ac-40 (MIMO)                  |

### 5190 MHz

| MCS<br>Number | Reading (timed average) |            |           |           |             |              | Duty<br>factor | Burst power |            |              | Remarks |
|---------------|-------------------------|------------|-----------|-----------|-------------|--------------|----------------|-------------|------------|--------------|---------|
|               | Chain                   |            |           |           |             |              |                | Chain       |            |              |         |
|               | 1<br>[dBm]              | 2<br>[dBm] | 1<br>[mW] | 2<br>[mW] | 1+2<br>[mW] | 1+2<br>[dBm] |                | 1<br>[dBm]  | 2<br>[dBm] | 1+2<br>[dBm] |         |
| 0(2ss)        | -9.67                   | -11.18     | 0.11      | 0.08      | 0.18        | -7.35        | 0.00           | -           | -          | -7.35        | -       |
| 1(2ss)        | -9.74                   | -11.28     | 0.11      | 0.07      | 0.18        | -7.43        | 0.00           | -           | -          | -7.43        | -       |
| 2(2ss)        | -9.66                   | -11.16     | 0.11      | 0.08      | 0.18        | -7.34        | 0.00           | -           | -          | -7.34        | -       |
| 3(2ss)        | -9.61                   | -11.21     | 0.11      | 0.08      | 0.19        | -7.33        | 0.00           | -           | -          | -7.33        | *       |
| 4(2ss)        | -10.19                  | -11.52     | 0.10      | 0.07      | 0.17        | -7.79        | 0.00           | -           | -          | -7.79        | -       |
| 5(2ss)        | -10.05                  | -11.50     | 0.10      | 0.07      | 0.17        | -7.70        | 0.00           | -           | -          | -7.70        | -       |
| 6(2ss)        | -10.15                  | -11.51     | 0.10      | 0.07      | 0.17        | -7.77        | 0.00           | -           | -          | -7.77        | -       |
| 7(2ss)        | -10.08                  | -11.46     | 0.10      | 0.07      | 0.17        | -7.71        | 0.00           | -           | -          | -7.71        | -       |
| 8(2ss)        | -10.12                  | -11.56     | 0.10      | 0.07      | 0.17        | -7.77        | 0.00           | -           | -          | -7.77        | -       |
| 9(2ss)        | -10.18                  | -11.60     | 0.10      | 0.07      | 0.17        | -7.82        | 0.00           | -           | -          | -7.82        | -       |

\* Worst rate

Sample Calculation:

Burst power = Reading (timed average) + Duty factor

All comparison were carried out on same frequency and measurement factors.

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## Maximum Conducted Output Power

|                        |                                       |
|------------------------|---------------------------------------|
| Report No.             | 13977035S-C-R1                        |
| Test place             | Shonan EMC Lab. No.1 Measurement Room |
| Date                   | October 22, 2021                      |
| Temperature / Humidity | 23 deg. C / 33 % RH                   |
| Engineer               | Kenichi Adachi                        |
| Mode                   | Tx 11ac-80 (SISO)                     |

### 5210 MHz

| Mode   | MCS Number | Reading (timed average) [dBm] | Duty factor [dB] | Burst power [dBm] | Remarks |
|--------|------------|-------------------------------|------------------|-------------------|---------|
| Chain1 | 0          | -7.27                         | 0.00             | -7.27             | -       |
|        | 1          | -7.23                         | 0.00             | -7.23             | -       |
|        | 2          | -7.19                         | 0.00             | -7.19             | -       |
|        | 3          | -7.11                         | 0.00             | -7.11             | -       |
|        | 4          | -7.09                         | 0.00             | -7.09             | -       |
|        | 5          | -7.06                         | 0.00             | -7.06             | *       |
|        | 6          | -7.09                         | 0.00             | -7.09             | -       |
|        | 7          | -7.10                         | 0.00             | -7.10             | -       |
|        | 8          | -7.12                         | 0.00             | -7.12             | -       |
|        | 9          | -7.18                         | 0.00             | -7.18             | -       |
| Chain2 | 0          | -7.41                         | 0.00             | -7.41             | -       |
|        | 1          | -7.34                         | 0.00             | -7.34             | -       |
|        | 2          | -7.30                         | 0.00             | -7.30             | -       |
|        | 3          | -7.27                         | 0.00             | -7.27             | -       |
|        | 4          | -7.23                         | 0.00             | -7.23             | -       |
|        | 5          | -7.21                         | 0.00             | -7.21             | -       |
|        | 6          | -7.34                         | 0.00             | -7.34             | -       |
|        | 7          | -7.28                         | 0.00             | -7.28             | -       |
|        | 8          | -7.31                         | 0.00             | -7.31             | -       |
|        | 9          | -7.29                         | 0.00             | -7.29             | -       |

\* Worst rate

Sample Calculation:

$$\text{Burst power} = \text{Reading (timed average)} + \text{Duty factor}$$

All comparison were carried out on same frequency and measurement factors.

## Maximum Conducted Output Power

|                        |                                    |
|------------------------|------------------------------------|
| Report No.             | 13977035S-C-R1                     |
| Test place             | Shonan EMC Lab. No.5 Shielded Room |
| Date                   | October 26, 2021                   |
| Temperature / Humidity | 25 deg. C / 36 % RH                |
| Engineer               | Kenichi Adachi                     |
| Mode                   | Tx 11ac-80 (CDD)                   |

### 5210 MHz

| MCS<br>Number | Reading (timed average) |            |           |           |             |              | Duty<br>factor | Burst power |            |              | Remarks |
|---------------|-------------------------|------------|-----------|-----------|-------------|--------------|----------------|-------------|------------|--------------|---------|
|               | Chain                   |            |           |           |             |              |                | Chain       |            |              |         |
|               | 1<br>[dBm]              | 2<br>[dBm] | 1<br>[mW] | 2<br>[mW] | 1+2<br>[mW] | 1+2<br>[dBm] |                | 1<br>[dBm]  | 2<br>[dBm] | 1+2<br>[dBm] |         |
| 0(1ss)        | -9.89                   | -10.20     | 0.10      | 0.10      | 0.20        | -7.03        | 0.00           | -           | -          | -7.03        | -       |
| 1(1ss)        | -9.93                   | -10.31     | 0.10      | 0.09      | 0.19        | -7.11        | 0.00           | -           | -          | -7.11        | -       |
| 2(1ss)        | -9.88                   | -10.07     | 0.10      | 0.10      | 0.20        | -6.96        | 0.00           | -           | -          | -6.96        | -       |
| 3(1ss)        | -9.82                   | -10.13     | 0.10      | 0.10      | 0.20        | -6.96        | 0.00           | -           | -          | -6.96        | *       |
| 4(1ss)        | -9.90                   | -10.12     | 0.10      | 0.10      | 0.20        | -7.00        | 0.00           | -           | -          | -7.00        | -       |
| 5(1ss)        | -9.92                   | -10.15     | 0.10      | 0.10      | 0.20        | -7.02        | 0.00           | -           | -          | -7.02        | -       |
| 6(1ss)        | -9.96                   | -10.17     | 0.10      | 0.10      | 0.20        | -7.05        | 0.00           | -           | -          | -7.05        | -       |
| 7(1ss)        | -9.98                   | -10.23     | 0.10      | 0.09      | 0.20        | -7.09        | 0.00           | -           | -          | -7.09        | -       |
| 8(1ss)        | -9.95                   | -10.26     | 0.10      | 0.09      | 0.20        | -7.09        | 0.00           | -           | -          | -7.09        | -       |
| 9(1ss)        | -9.87                   | -10.21     | 0.10      | 0.10      | 0.20        | -7.03        | 0.00           | -           | -          | -7.03        | -       |

\* Worst rate

Sample Calculation:

$$\text{Burst power} = \text{Reading (timed average)} + \text{Duty factor}$$

All comparison were carried out on same frequency and measurement factors.

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## Maximum Conducted Output Power

|                        |                                    |
|------------------------|------------------------------------|
| Report No.             | 13977035S-C-R1                     |
| Test place             | Shonan EMC Lab. No.5 Shielded Room |
| Date                   | October 26, 2021                   |
| Temperature / Humidity | 25 deg. C / 36 % RH                |
| Engineer               | Kenichi Adachi                     |
| Mode                   | Tx 11ac-80 (MIMO)                  |

### 5210 MHz

| MCS<br>Number | Reading (timed average) |            |           |           |             |              | Duty<br>factor | Burst power |            |              | Remarks |
|---------------|-------------------------|------------|-----------|-----------|-------------|--------------|----------------|-------------|------------|--------------|---------|
|               | Chain                   |            |           |           |             |              |                | Chain       |            |              |         |
|               | 1<br>[dBm]              | 2<br>[dBm] | 1<br>[mW] | 2<br>[mW] | 1+2<br>[mW] | 1+2<br>[dBm] |                | 1<br>[dBm]  | 2<br>[dBm] | 1+2<br>[dBm] |         |
| 0(2ss)        | -9.90                   | -10.13     | 0.10      | 0.10      | 0.20        | -7.00        | 0.00           | -           | -          | -7.00        | -       |
| 1(2ss)        | -9.94                   | -10.19     | 0.10      | 0.10      | 0.20        | -7.05        | 0.00           | -           | -          | -7.05        | -       |
| 2(2ss)        | -9.88                   | -9.96      | 0.10      | 0.10      | 0.20        | -6.91        | 0.00           | -           | -          | -6.91        | -       |
| 3(2ss)        | -9.72                   | -9.92      | 0.11      | 0.10      | 0.21        | -6.81        | 0.00           | -           | -          | -6.81        | *       |
| 4(2ss)        | -9.84                   | -10.24     | 0.10      | 0.09      | 0.20        | -7.03        | 0.00           | -           | -          | -7.03        | -       |
| 5(2ss)        | -9.78                   | -10.23     | 0.11      | 0.09      | 0.20        | -6.99        | 0.00           | -           | -          | -6.99        | -       |
| 6(2ss)        | -9.73                   | -10.20     | 0.11      | 0.10      | 0.20        | -6.95        | 0.00           | -           | -          | -6.95        | -       |
| 7(2ss)        | -9.85                   | -10.19     | 0.10      | 0.10      | 0.20        | -7.01        | 0.00           | -           | -          | -7.01        | -       |
| 8(2ss)        | -9.79                   | -10.29     | 0.10      | 0.09      | 0.20        | -7.02        | 0.00           | -           | -          | -7.02        | -       |
| 9(2ss)        | -9.79                   | -10.12     | 0.10      | 0.10      | 0.20        | -6.94        | 0.00           | -           | -          | -6.94        | -       |

\* Worst rate

Sample Calculation:

Burst power = Reading (timed average) + Duty factor

All comparison were carried out on same frequency and measurement factors.

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