RADIO TEST REPORT

Test Report No. 15656421S-C-R1

Customer	**JVCKENWOOD Corporation**
Description of EUT	**Monitor with receiver**
Model Number of EUT	**DAX800XR**
FCC ID	**IOMJ5309**
Test Regulation	**FCC Part 15 Subpart E**
Test Result	**Complied**
Issue Date	**March 11, 2025**
Remarks	**WLAN (5 GHz band) part**

Representative Test Engineer	**Approved By**
Makoto Hosaka Engineer	Kazuya Noda Leader

CERTIFICATE 1266.03

☐ The testing in which "Non-accreditation" is displayed is outside the accreditation scopes in UL Japan, Inc.

☒ There is no testing item of "Non-accreditation".

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REVISION HISTORY

Original Test Report No. 15656421S-C

This report is a revised version of 15656421S-C. 15656421S-C is replaced with this report.

Revision	Test Report No.	Date	Page Revised Contents
- (Original)	15656421S-C	February 20, 2025	-
1	15656421S-C-R1	March 11, 2025	P.11 Corrected the wording of the text in *2) and added the text in *3). *2) The test was performed with the antenna that had higher power as a representative. (Except for 99 % Occupied Bandwidth, 6 dB Bandwidth.) *3) The test was performed with the pre-checked antenna as a representative, because preliminary testing indicated that no difference between ANT0 and ANT1. (99 % Occupied Bandwidth, 6 dB Bandwidth only.)
			P.15 List of Cables Used <For Antenna Terminal Conducted test> No.1 to No.13 From: 0.1 m To: 0.15 m No.13 From: Unshielded To: Shielded
			P.32 to P.53, P.55 to P.65 Added to the following text. The test was performed with Gate function.
			P.88 The following text was removed. *2.0 dBi was applied to the test result based on KDB 789033 since antenna gain was less than 2.0 dBi.

Reference: Abbreviations (Including words undescribed in this report)

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

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SECTION 1: Customer Information

Company Name	JVCKENWOOD Corporation
Address	3-12, Moriya-cho, Kanagawa-ku, Yokohama, Kanagawa, 221-0022 Japan
Telephone Number	+81-45-450-2769
Contact Person	Seigo Tsutsumi

The information provided by the customer is as follows;
- Customer, Description 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 and Test Date
- SECTION 4: Operation of EUT during testing

SECTION 2: Equipment Under Test (EUT)

2.1 Identification of EUT

Description	Monitor with receiver
Model Number	DAX800XR
Serial Number	Refer to SECTION 4.2
Condition	Production prototype (Not for Sale: This sample is equivalent to mass-produced items.)
Modification	No Modification by the test lab
Receipt Date	January 15, 2025
Test Date	January 17 to 29, 2025

2.2 Product Description

General Specification

Rating	DC 12 V
Operating temperature	-10 deg. C to +60 deg. C

Radio Specification

This report contains data provided by the customer which can impact the validity of results. UL Japan, Inc. is only responsible for the validity of results after the integration of the data provided by the customer.
The data provided by the customer is marked “a)” in the table below.

WLAN (IEEE802.11b/11g/11n-20)

Equipment Type	Transceiver
Frequency of Operation	2412 MHz to 2462 MHz
Type of Modulation	DSSS, OFDM
Antenna Gain[a)]	-13.5 dBi

Bluetooth (BR / EDR)

Equipment Type	Transceiver
Frequency of Operation	2402 MHz to 2480 MHz
Type of Modulation	FHSS
Antenna Gain[a)]	-4.9 dBi

WLAN (IEEE802.11a/11n-20/11ac-20/11n-40/11ac-40/11ac-80)

Equipment Type	Transceiver	
Frequency of Operation	20 MHz Band	5745 MHz to 5805 MHz
	40 MHz Band	5755 MHz to 5795 MHz
	80 MHz Band	5775 MHz
Type of Modulation	OFDM	
Antenna Gain[a)]	ANT0: 2.5 dBi	
	ANT1: 2.3 dBi	

2.3 Valiant models

Model Number	Brand	Difference
DAX800XR	KENWOOD	Base
DAX1050XR	KENWOOD	10 inch Panel
DAX8000S	KENWOOD	8 inch Panel, None Digital Audio output
KW-Z1000AW	JVC	10 inch Panel, Key Volume, None Digital Audio output
KW-Z800AW	JVC	8 inch Panel, Key Volume, None Digital Audio output

SECTION 3: Test specification, Procedures & Results

3.1 Test Specification

Test Specification	FCC Part 15 Subpart E The latest version on the first day of the testing period
Title	FCC 47 CFR Part 15 Radio Frequency Device Subpart E Unlicensed National Information Infrastructure Devices Section 15.407 General technical requirements

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

3.2 Procedures and Results

Item	Test Procedure	Specification	Worst Margin	Results	Remarks
Conducted Emission	**FCC:** ANSI C63.10-2013	**FCC:** 15.407 (b) (9) / 15.207	-	N/A	*1)
	ISED: RSS-Gen 8.8	**ISED:** RSS-Gen 8.8			
26 dB Emission Bandwidth	**FCC:** KDB Publication Number 789033	**FCC:** 15.407 (a) (1) (2) (3)	See data	N/A	*2)
	ISED: -	**ISED:** -			
Maximum Conducted Output Power	**FCC:** KDB Publication Number 789033	**FCC:** 15.407 (a) (1) (2) (3)		Complied	Conducted
	ISED: -	**ISED:** RSS-247 6.2			
Maximum Power Spectral Density	**FCC:** KDB Publication Number 789033	**FCC :** 15.407 (a) (1) (2) (3)		Complied	Conducted
	ISED: -	**ISED:** RSS-247 6.2			
Spurious Emission Restricted Band Edge	**FCC:** ANSI C63.10-2013 KDB Publication Number 789033	**FCC:** 15.407 (b), 15.205 and 15.209	3.7 dB 7700.000 MHz, AV, Horizontal Mode: Tx 11ac-80 5775 MHz	Complied	Conducted (below 30 MHz) / Radiated (above 30 MHz) *3)
	ISED: -	**ISED:** RSS-247 6.2			
6 dB Emission Bandwidth	**FCC:** ANSI C63.10-2013	**FCC:** 15.407 (e)	See data	Complied	Conducted
	ISED: -	**ISED:** RSS-247 6.2			

Note: UL Japan, Inc.'s EMI Work Procedures: Work Instructions-ULID-003591 and Work Instructions-ULID-003593.
* In case any questions arise about test procedure, ANSI C63.10: 2013 is also referred.

*1) The test is not applicable since the EUT does not have AC Mains.
*2) The test is not applicable since the EUT support only U-NII-3 band.
*3) Radiated test was selected over 30 MHz based on FCC 15.407 (b) and KDB 789033 D02 G.3.b).

FCC Part 15.31 (e)

This EUT provides the stable voltage constantly to RF Module 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, this EUT complies with the requirement.

FCC Part 15.203 Antenna requirement

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

3.3 Addition to Standard

Item	Test Procedure	Specification	Worst Margin	Results	Remarks
99 % Occupied Band Width	**ISED:** RSS-Gen 6.7	**ISED:** -	N/A	-	Conducted

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

3.4 Uncertainty

Measurement uncertainty is not taken into account when stating conformity with a specified requirement.
Note: When margins obtained from test results are less than the measurement uncertainty, the test results may exceed the limit.

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

Item	Frequency range	Uncertainty (+/-)
Conducted Emission (AC Mains) LISN	150 kHz to 30 MHz	3.0 dB
Radiated Emission (Measurement distance: 3 m)	9 kHz to 30 MHz	3.3 dB
	30 MHz to 200 MHz	4.8 dB
	200 MHz to 1 GHz	6.1 dB
	1 GHz to 6 GHz	4.7 dB
	6 GHz to 18 GHz	5.3 dB
	18 GHz to 40 GHz	5.5 dB
Radiated Emission (Measurement distance: 1 m)	1 GHz to 18 GHz	5.6 dB
	18 GHz to 40 GHz	5.8 dB

Antenna terminal test	Uncertainty (+/-)
Power Measurement above 1 GHz (Average Detector)	1.3 dB
Power Measurement above 1 GHz (Peak Detector)	1.5 dB
Spurious Emission (Conducted) below 1 GHz	0.93 dB
Conducted Emissions Power Density Measurement 1 GHz to 3 GHz	0.93 dB
Conducted Emissions Power Density Measurement 3 GHz to 18 GHz	3.0 dB
Spurious Emission (Conducted) 18 GHz to 26.5 GHz	2.8 dB
Spurious Emission (Conducted) 26.5 GHz to 40 GHz	2.3 dB
Bandwidth Measurement	0.012 %
Duty Cycle and Time Measurement	0.27 %
Temperature	2.2 deg.C.
Humidity	3.4 %
Voltage	0.92 %

3.5 Test Location

UL Japan, Inc. Shonan EMC Lab.
1-22-3, Megumigaoka, Hiratsuka-shi, Kanagawa-ken 259-1220 Japan
Telephone: +81-463-50-6400
A2LA Certificate Number: 1266.03
(FCC test firm registration number: 626366, ISED lab company number: 2973D / CAB identifier: JP0001)

Test room	Width x Depth x Height (m)	Size of reference ground plane (m) / horizontal conducting plane	Maximum measurement distance
No.1 Semi-anechoic chamber (SAC1)	20.6 x 11.3 x 7.65	20.6 x 11.3	10 m
No.2 Semi-anechoic chamber (SAC2)	20.6 x 11.3 x 7.65	20.6 x 11.3	10 m
No.3 Semi-anechoic chamber (SAC3)	12.7 x 7.7 x 5.35	12.7 x 7.7	5 m
No.4 Semi-anechoic chamber (SAC4)	8.1 x 5.1 x 3.55	8.1 x 5.1	-
Wireless anechoic chamber 1 (WAC1)	9.5 x 6.0 x 5.4	9.5 x 6.0	3 m
Wireless anechoic chamber 2 (WAC2)	9.5 x 6.0 x 5.4	9.5 x 6.0	3 m
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	-	-
No.2 Measurement room	4.5 x 3.5 x 2.5	-	-
Wireless shielded room 1	3.0 x 4.5 x 2.7	3.0 x 4.5	-
Wireless shielded room 2	3.0 x 4.5 x 2.7	3.0 x 4.5	-

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)

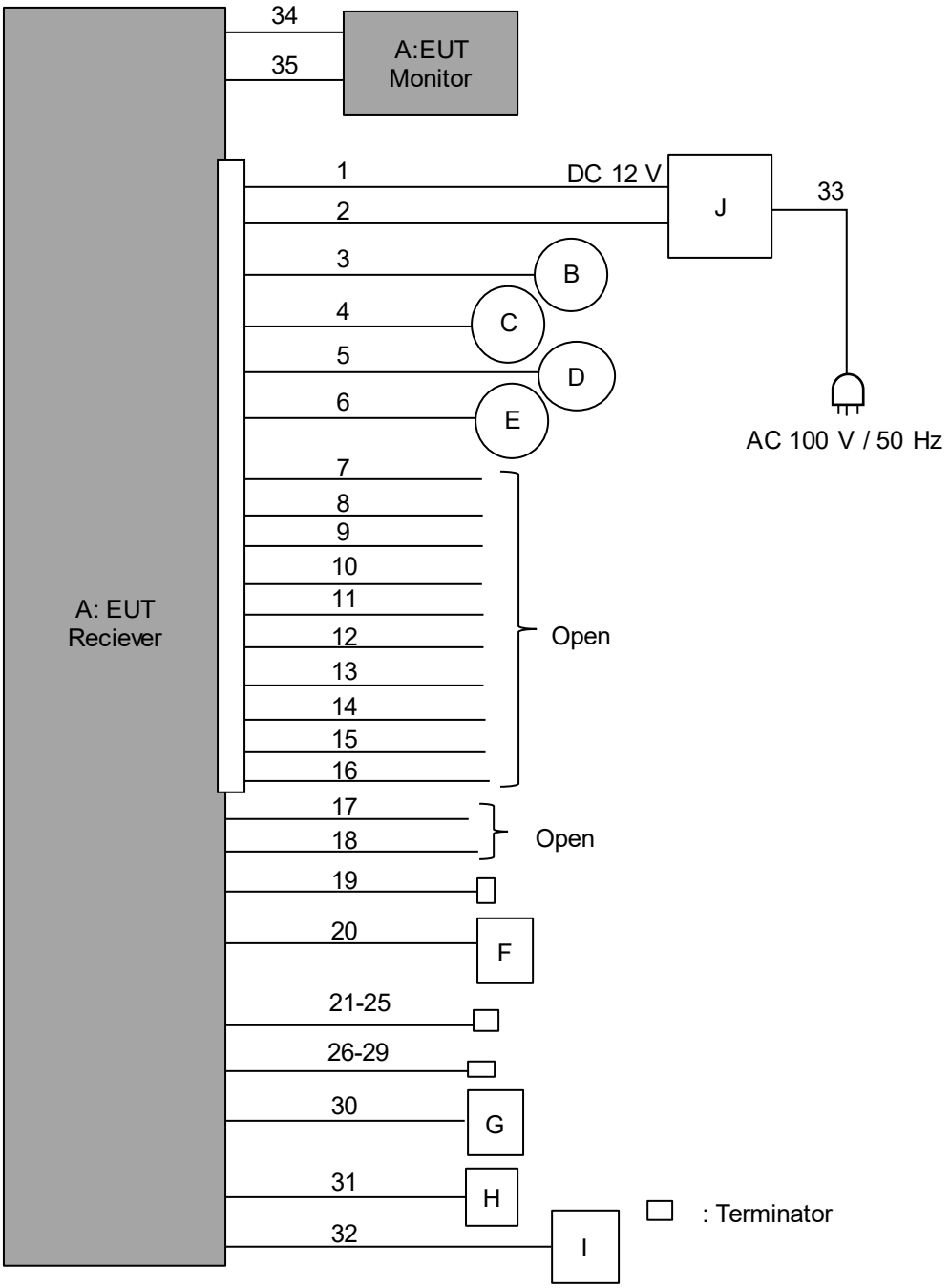
Mode	Remarks*
IEEE 802.11a (11a)	6 Mbps (ANT0), PN9
IEEE 802.11n SISO 20 MHz BW (11n-20 SISO)	MCS 2 (ANT0), PN9
IEEE 802.11n MIMO 20 MHz BW (11n-20 MIMO)	MCS 10 (2 Streams), PN9
IEEE 802.11ac SISO 20 MHz BW (11ac-20 SISO)	MCS 2 (ANT0), PN9
IEEE 802.11ac MIMO 20 MHz BW (11ac-20 MIMO)	MCS 2 (2 Streams), PN9
IEEE 802.11n SISO 40 MHz BW (11n-40 SISO)	MCS 2 (ANT1), PN9
IEEE 802.11n MIMO 40 MHz BW (11n-40 MIMO)	MCS 10 (2 Streams), PN9
IEEE 802.11ac SISO 40 MHz BW (11ac-40 SISO)	MCS 2 (ANT1), PN9
IEEE 802.11ac MIMO 40 MHz BW (11ac-40 MIMO)	MCS 2 (2 Streams), PN9
IEEE 802.11ac SISO 80 MHz BW (11ac-80 SISO)	MCS 2 (ANT0), PN9
IEEE 802.11ac MIMO 80 MHz BW (11ac-80 MIMO)	MCS 2 (2 Streams), PN9
*The worst antenna 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; Power Setting: Fixed Software: SoC : Version 0.0.1306.3200 System : Version 0.0.0059.4000 Panel : Version 0.0.0079.4000 (Date: 2025.01.17, Storage location: EUT memory) *This setting of software is the worst case. Any conditions under the normal use do not exceed the condition of setting. In addition, end users cannot change the settings of the output power of the product.	
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.	

*The Details of Operation Mode(s)

Test Item	Operating Mode	Tested Antenna *2) *3)	Tested Frequency
99 % Occupied Bandwidth, 6 dB Bandwidth	Tx 11a Tx 11n-20 SISO Tx 11ac-20 SISO	ANT0	5745 MHz 5785 MHz 5805 MHz
	Tx 11n-20 MIMO Tx 11ac-20 MIMO	ANT0	
	Tx 11n-40 SISO Tx 11ac-40 SISO	ANT1	5755 MHz 5795 MHz
	Tx 11n-40 MIMO Tx 11ac-40 MIMO	ANT1	
	Tx 11ac-80 SISO	ANT0	5775 MHz
	Tx 11ac-80 MIMO	ANT0	
Maximum Conducted Output Power, Maximum Power Spectral Density	Tx 11a Tx 11n-20 SISO Tx 11ac-20 SISO	ANT0	5745 MHz 5785 MHz 5805 MHz
	Tx 11n-20 MIMO Tx 11ac-20 MIMO	ANT0 + ANT1	
	Tx 11n-40 SISO Tx 11ac-40 SISO	ANT1	5755 MHz 5795 MHz
	Tx 11n-40 MIMO Tx 11ac-40 MIMO	ANT0 + ANT1	
	Tx 11ac-80 SISO	ANT0	5775 MHz
	Tx 11ac-80 MIMO	ANT0 + ANT1	
Radiated Spurious Emission (Below 1 GHz) *1)	Tx 11ac-80 MIMO	ANT0 + ANT1	5775 MHz
	Tx 11ac-80 MIMO with DH5 Hopping		
Radiated Spurious Emission (Above 1 GHz)	Tx 11ac-20 MIMO	ANT0 + ANT1	5745 MHz 5785 MHz 5805 MHz
	Tx 11ac-40 MIMO	ANT0 + ANT1	5755 MHz 5795 MHz
	Tx 11ac-80 MIMO	ANT0 + ANT1	5775 MHz
	Tx 11ac-80 MIMO with DH5 Hopping	ANT0 + ANT1	5775 MHz
Conducted Spurious Emission *1)	Tx 11ac-80 MIMO	ANT0	5775 MHz

*1) The mode was tested as a representative, because it had the highest power at antenna terminal test.
*2) The test was performed with the antenna that had higher power as a representative. (Except for 99 % Occupied Bandwidth, 6 dB Bandwidth.)
*3) The test was performed with the pre-checked antenna as a representative, because preliminary testing indicated that no difference between ANT0 and ANT1. (99 % Occupied Bandwidth, 6 dB Bandwidth only.)

4.2 Configuration and Peripherals
<For Radiated Emission test>



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

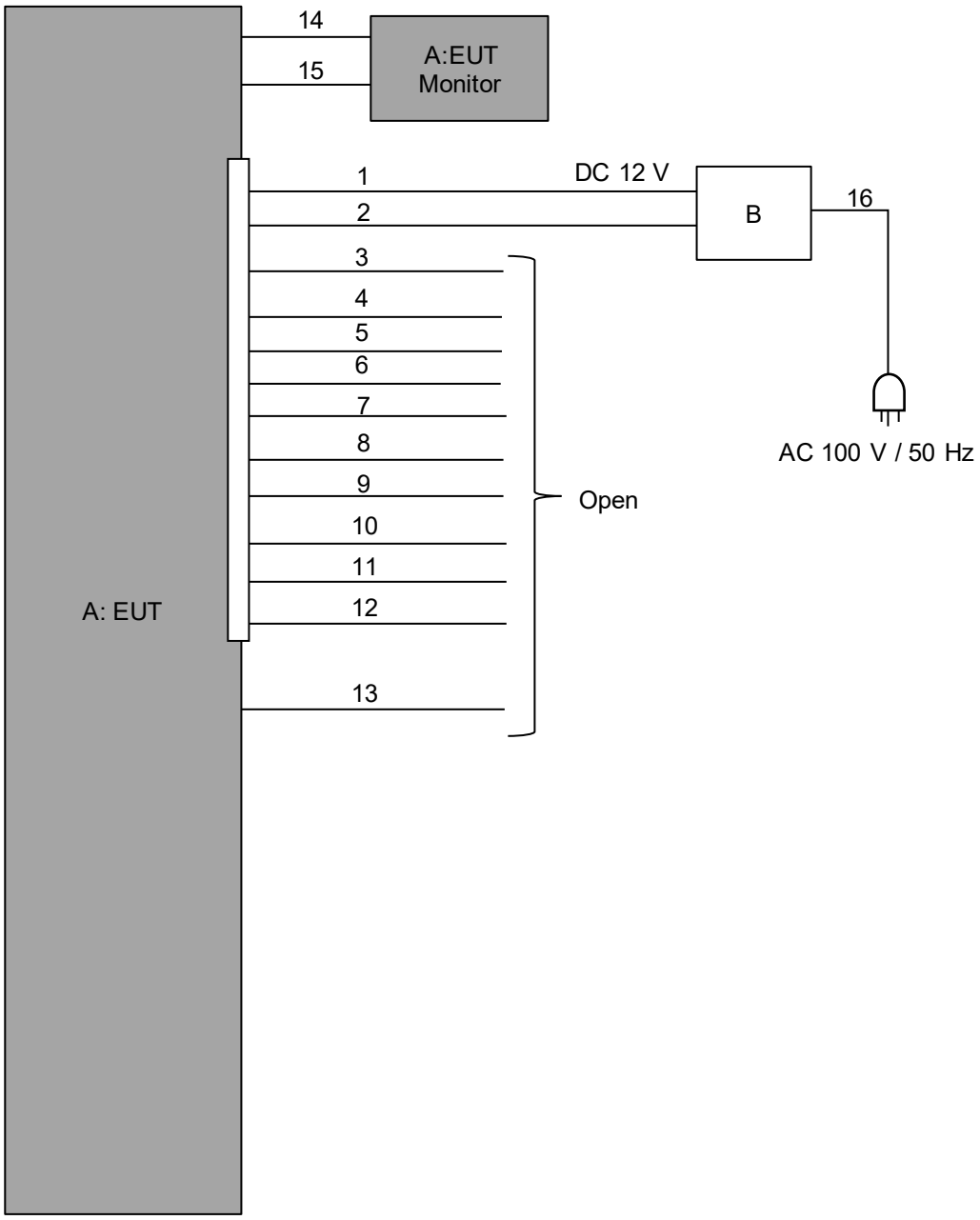
Description of EUT and Support Equipment

No.	Item	Model number	Serial number	Manufacturer	Remark
A	Monitor with Receiver	DAX800XR	PE-X0005	JVCKENWOOD	EUT
B	Speaker(car)	LV-002	S11014200775	L&V	-
C	Speaker(car)	LV-002	S11014200775	L&V	-
D	Speaker(car)	LV-002	S11014200773	L&V	-
E	Speaker(car)	LV-002	S11014200773	L&V	-
F	Microphone	GD-VHM421C	-	JVCKENWOD	-
G	GPS ANTENNA	GPA-GS211	-	JVCKENWOD	-
H	USB Memory	SDCZ810 383	BN22120037344	SanDisk	-
I	iPhone	MQ792J/A	C8PY95XLJC6H	APPLE INC.	-
J	Power Supply (DC)	PAN35-10A	CY003459	Kikusui Electronics Corp.	-

List of Cables Used

No.	Name	Length (m)	Shield		Remarks
			Cable	Connector	
1	DC (ACC, B+)	0.2 + 1.4	Unshielded	Unshielded	-
2	DC (GND)	0.2 + 1.4	Unshielded	Unshielded	-
3	Speaker (Front-L) +/-	0.15 + 1.6 + 2.8	Unshielded	Unshielded	-
4	Speaker (Front-R) +/-	0.15 + 1.6 + 2.8	Unshielded	Unshielded	-
5	Speaker (Rear-L) +/-	0.15 + 1.6 + 2.8	Unshielded	Unshielded	-
6	Speaker (Rear-R) +/-	0.15 + 1.6 + 2.8	Unshielded	Unshielded	-
7	ILLUMI	0.15 + 0.9	Unshielded	Unshielded	-
8	ANT Cont	0.15 + 0.9	Unshielded	Unshielded	-
9	P.CONT	0.15 + 0.9	Unshielded	Unshielded	-
10	REMOTE Cont	0.15 + 0.9	Unshielded	Unshielded	-
11	PRK SW	2.0	Unshielded	Unshielded	-
12	REVERSE	2.0	Unshielded	Unshielded	-
13	CAM+	0.15 + 0.9	Unshielded	Unshielded	-
14	CAM-	0.15 + 0.9	Unshielded	Unshielded	-
15	Mute	0.15 + 0.9	Unshielded	Unshielded	-
16	S.SENS	2.0	Unshielded	Unshielded	-
17	SXM IF	1.0	Shielded	Shielded	-
18	IF	1.0	Unshielded	Unshielded	-
19	FM/AM	0.15 + 1.8	Shielded	Shielded	-
20	Mic	3.0	Unshielded	Unshielded	-
21	Front View Camera	0.15 + 2.1	Shielded	Shielded	-
22	Rear View Camera	0.15 + 1.5	Shielded	Shielded	-
23	3rd View Camera	0.15 + 3.6	Shielded	Shielded	-
24	VIDEO IN	0.15 + 3.6	Shielded	Shielded	-
25	VIDEO OUT	0.2 + 3.6	Shielded	Shielded	-
26	AUDIO IN	0.2 + 3.5	Shielded	Shielded	-
27	AUDIO OUT Front	0.3 + 3.6	Shielded	Shielded	-
28	AUDIO OUT Rear	0.3 + 1.5	Shielded	Shielded	-
29	AUDIO OUT Subwoofer	0.3 + 1.5	Shielded	Shielded	-
30	GPS	3.4	Shielded	Shielded	-
31	USB	1.0	Shielded	Shielded	-
32	HDMI	1.7	Shielded	Shielded	-
33	AC	2.0	Unshielded	Unshielded	-
34	Signal	0.6	Shielded	Shielded	-
35	Signal	0.6	Shielded	Shielded	-

<For Antenna Terminal Conducted test>



Description of EUT and Support Equipment

No.	Item	Model number	Serial number	Manufacturer	Remark
A	Monitor with Receiver	DAX800XR	PK-X0001	JVCKENWOOD	EUT
B	Power Supply (DC)	PNA16-10A	ER001077	Kikusui Electronics Corp.	-

List of Cables Used

No.	Name	Length (m)	Shield		Remarks
			Cable	Connector	
1	DC (ACC, B+)	0.15+0.5	Unshielded	Unshielded	-
2	DC (GND)	0.15+0.5	Unshielded	Unshielded	-
3	Speaker (Front-L) +/-	0.15	Unshielded	Unshielded	-
4	Speaker (Front-R) +/-	0.15	Unshielded	Unshielded	-
5	Speaker (Rear-L) +/-	0.15	Unshielded	Unshielded	-
6	Speaker (Rear-R) +/-	0.15	Unshielded	Unshielded	-
7	ILLUMI	0.15	Unshielded	Unshielded	-
8	ANT Cont	0.15	Unshielded	Unshielded	-
9	Mute	0.15	Unshielded	Unshielded	-
10	REMOTE Cont	0.15	Unshielded	Unshielded	-
11	Reverse	0.15	Unshielded	Unshielded	-
12	P.Cont	0.15	Unshielded	Unshielded	-
13	FM/AM	0.15	Shielded	Shielded	-
14	Signal	0.6	Shielded	Shielded	-
15	Signal	0.6	Shielded	Shielded	-
16	AC	2.0	Unshielded	Unshielded	-

SECTION 5: Radiated Spurious Emission and Band Edge Compliance

Test Procedure

< Below 1 GHz >
EUT was placed on a urethane platform of nominal size, 1.0 m by 1.5 m, raised 0.8 m above the conducting ground plane. The Radiated Electric Field Strength has been measured in a Semi Anechoic Chamber with a ground plane.

< Above 1 GHz >
EUT was placed on a urethane platform of nominal size, 0.5 m by 0.5 m, raised 1.5 m above the conducting ground plane. The Radiated Electric Field Strength has been measured in a Semi Anechoic Chamber with absorbent materials lined on a ground plane. Test antenna was aimed at the EUT for receiving the maximum signal and always kept within the illumination area of the 3 dB beamwidth of the antenna.

The height of the measuring antenna varied between 1 m and 4 m and EUT was rotated a full revolution in order to obtain the maximum value of the electric field strength.
The measurements were performed for both vertical and horizontal antenna polarization with the Test Receiver, or the Spectrum Analyzer.
The measurements were made with the following detector function of the test receiver and the Spectrum analyzer (in linear mode).
The test was made with the detector (RBW/VBW) in the following table.
When using Spectrum analyzer, the test was made with adjusting span to zero by using peak hold.

< Below 1 GHz >
The result also satisfied with the general limits specified in section 15.209 (a).

< Above 1 GHz >
Inside of restricted bands (Section 15.205):
Apply to limit in the Section 15.209 (a).

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

For 5.8 GHz band Bandedge
-27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge in the section 15.407(b)(4)(i).

Restricted band edge:
Apply to limit in the Section 15.209 (a).
Since this limit is severer than the limit of the inside of restricted bands.

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

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

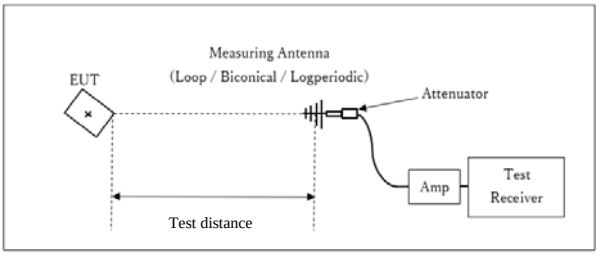
Test Antennas are used as below;

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

Frequency	Below 1 GHz	Above 1 GHz	
Instrument Used	Test Receiver	Spectrum Analyzer	
Detector	QP	Peak	Average
IF Bandwidth	BW: 120 kHz	RBW: 1 MHz VBW: 3 MHz	12.7.7.3 Method VB-A RBW: 1 MHz VBW: 1/T (T: burst length, refer to Burst rate confirmation sheet) Detector: Peak

Figure 2: Test Setup

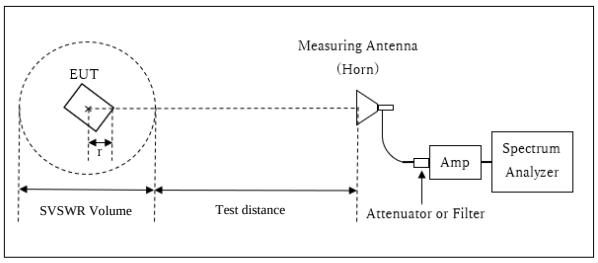
Below 1 GHz



× : Center of turn table

Test Distance: 3 m

1 GHz to 10 GHz

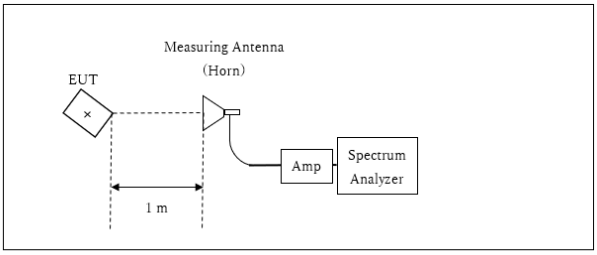


r : Radius of an outer periphery of EUT
× : Center of turn table

Distance Factor: 20 x log (3.89 m* / 3.0 m) = 2.26 dB
*(Test Distance + SVSWR Volume /2) - r = 3.89 m

Test Distance: 3 m
SVSWR Volume: 2 m
(SVSWR Volume has been calibrated based on CISPR 16-1-4.)
r: 0.11 m

10 GHz to 40 GHz



× : Center of turn table

Distance Factor: 20 x log (1.0 m / 3.0 m) = -9.54 dB
*Test Distance: 1 m

The test was made on EUT at the normal use position.

Test results are rounded off and limit are rounded down, so some differences might be observed.

Measurement Range : 30 MHz to 40 GHz
Test Data : APPENDIX
Test Result : Pass

SECTION 6: 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
99 % Occupied Bandwidth *1)	Enough width to display emission skirts	1 % to 5 % of OBW	≥ 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 *5)	-	-	-	Auto	Average	-	Power Meter (Sensor: 160 MHz BW) (Method PM-G)
Maximum Power Spectral Density *5)	Encompass the entire EBW	470 kHz *2)	≥ 3 RBW	Auto	RMS Power Averaging (100 times)	Clear Write	Spectrum Analyzer
Conducted Spurious Emission*3) *4)	9 kHz to 150 kHz	200 Hz	620 Hz	Auto	Peak	Max Hold	Spectrum Analyzer
	150 kHz to 30 MHz	10 kHz	30 kHz				

*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 to 5.850 GHz, but it is not possible with spectrum analyzer, so RBW Correction Factor (10 log(500 kHz / 470 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 to 150 kHz: RBW = 200 Hz, 150 kHz to 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 Ohmes. 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) This measurement was performed only on the on time using the gate function.

Test results are rounded off and limit are rounded down, 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

99 % Occupied Bandwidth

Test place	Shonan EMC Lab. No.5 Shielded Room
Date	January 24, 2025
Temperature / Humidity	23 deg. C / 30 % RH
Engineer	Shiro Kobayashi
Mode	Tx

11a

Antenna	Tested Frequency [MHz]	99 % Occupied Bandwidth [kHz]
ANT0	5745	16199.2
	5785	16196.7
	5805	***16208.0***

11n-20 MIMO

Antenna	Tested Frequency [MHz]	99 % Occupied Bandwidth [kHz]
ANT0	5745	17366.4
	5785	***17368.9***
	5805	17359.0

11n-20 SISO

Antenna	Tested Frequency [MHz]	99 % Occupied Bandwidth [kHz]
ANT0	5745	17360.9
	5785	17364.3
	5805	***17369.7***

11ac-20 MIMO

Antenna	Tested Frequency [MHz]	99 % Occupied Bandwidth [kHz]
ANT0	5745	17347.6
	5785	17353.1
	5805	***17354.2***

11ac-20 SISO

Antenna	Tested Frequency [MHz]	99 % Occupied Bandwidth [kHz]
ANT0	5745	17356.8
	5785	***17360.3***
	5805	17360.0

11n-40 SISO

Antenna	Tested Frequency [MHz]	99 % Occupied Bandwidth [kHz]
ANT1	5755	***35832.9***
	5795	35767.3

11n-40 MIMO

Antenna	Tested Frequency [MHz]	99 % Occupied Bandwidth [kHz]
ANT1	5755	***35898.9***
	5795	35819.9

11ac-40 SISO

Antenna	Tested Frequency [MHz]	99 % Occupied Bandwidth [kHz]
ANT1	5755	***35811.5***
	5795	35740.2

11ac-40 MIMO

Antenna	Tested Frequency [MHz]	99 % Occupied Bandwidth [kHz]
ANT1	5755	35759.6
	5795	***35770.6***

11ac-80 SISO

Antenna	Tested Frequency [MHz]	99 % Occupied Bandwidth [kHz]
ANT0	5775	***74945.9***

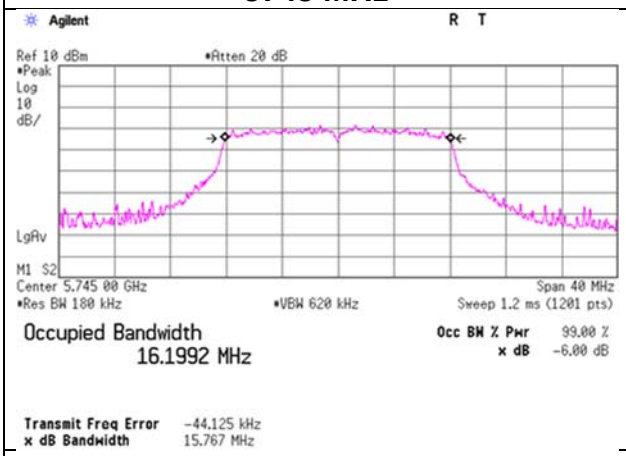
11ac-80 MIMO

Antenna	Tested Frequency [MHz]	99 % Occupied Bandwidth [kHz]
ANT0	5775	***74959.3***

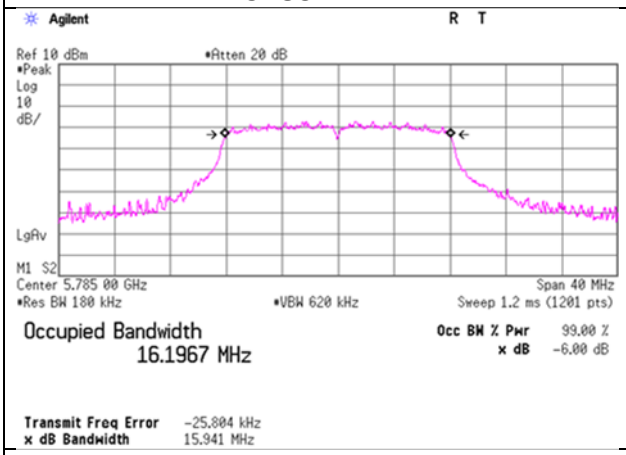
99 % Occupied Bandwidth

11a, ANT 0

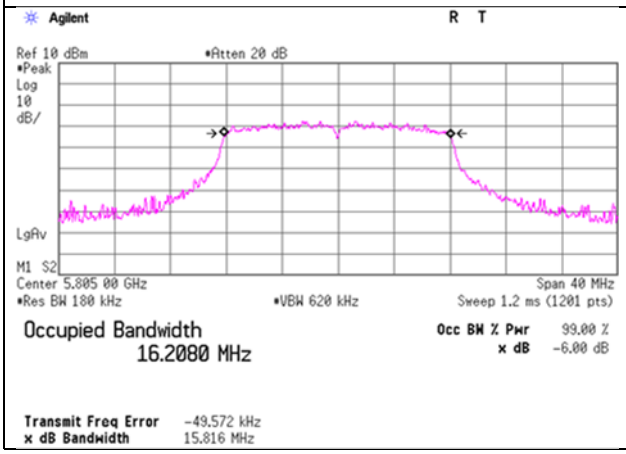
5745 MHz



5785 MHz

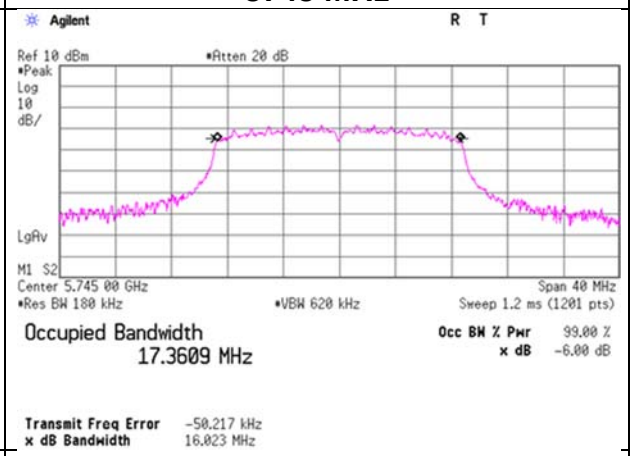


5805 MHz

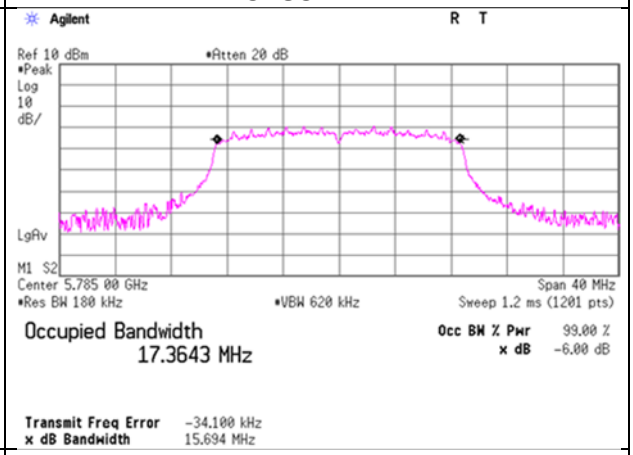


11n-20 SISO, ANT 0

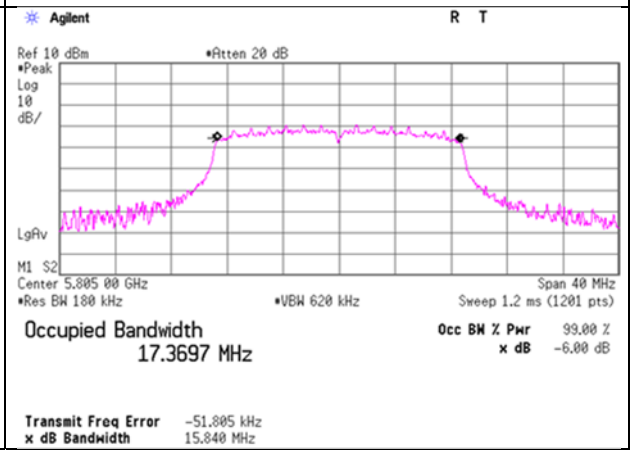
5745 MHz



5785 MHz



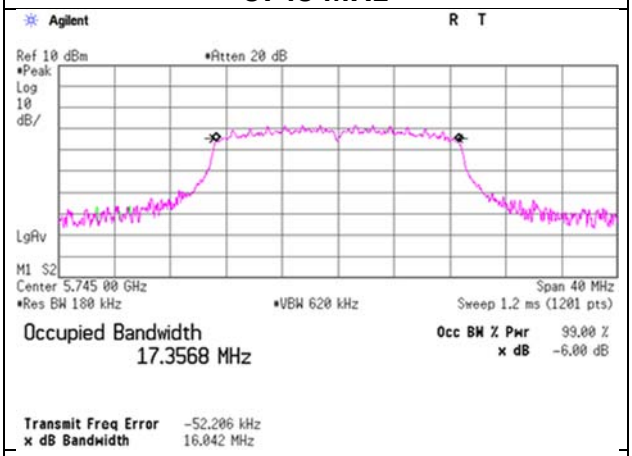
5805 MHz



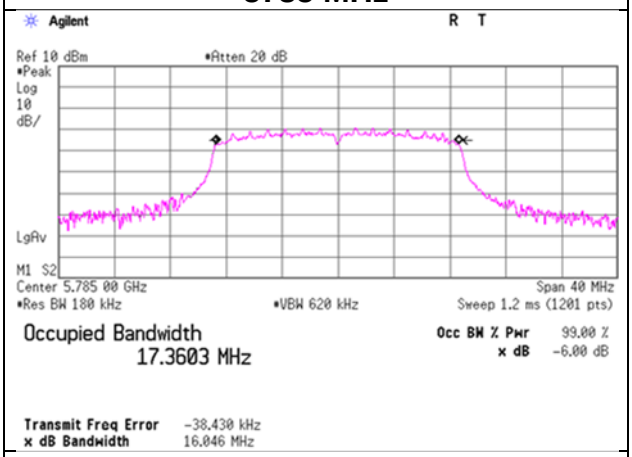
99 % Occupied Bandwidth

11ac-20 SISO, ANT 0

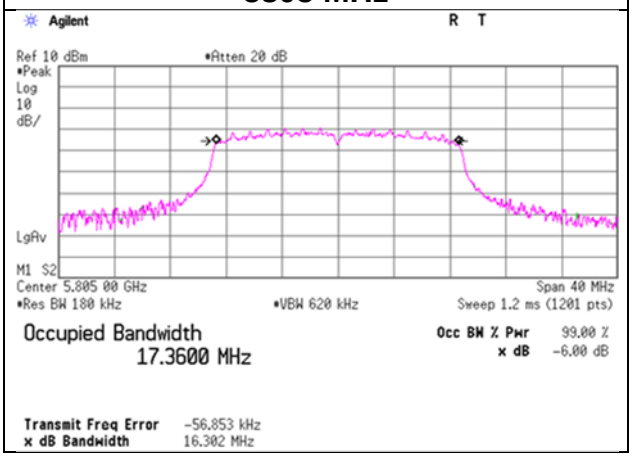
5745 MHz



5785 MHz



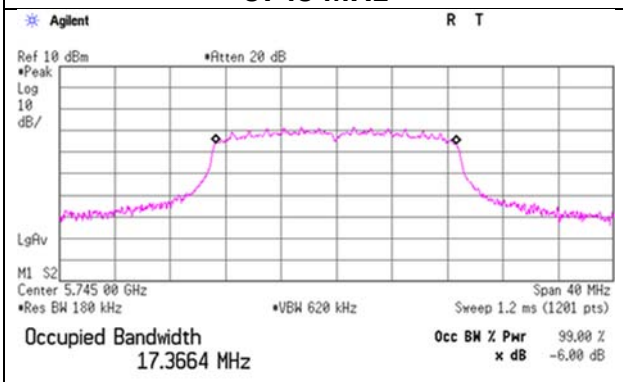
5805 MHz



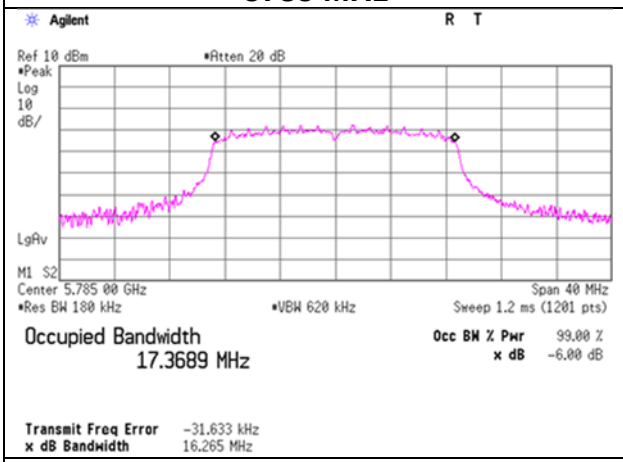
99 % Occupied Bandwidth

11n-20 MIMO, ANT0

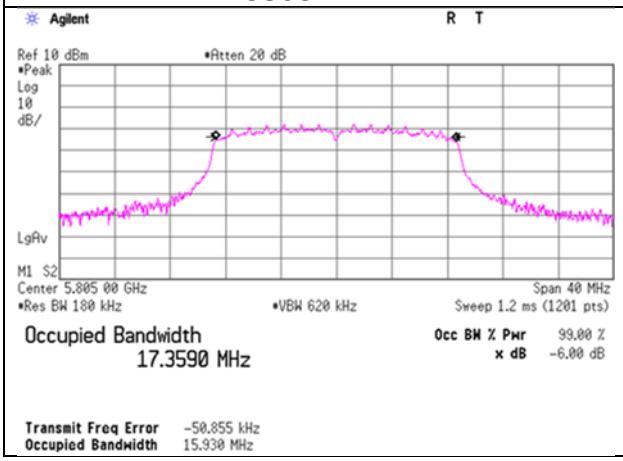
5745 MHz



5785 MHz

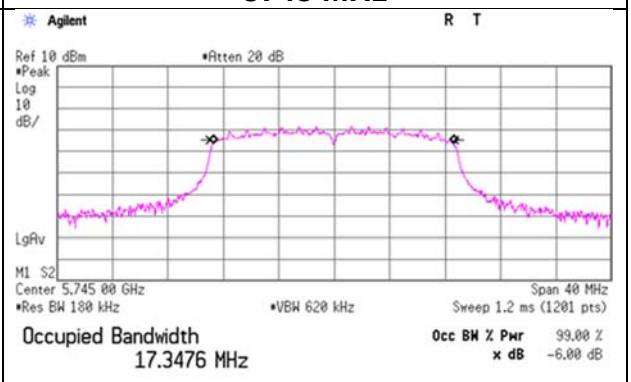


5805 MHz

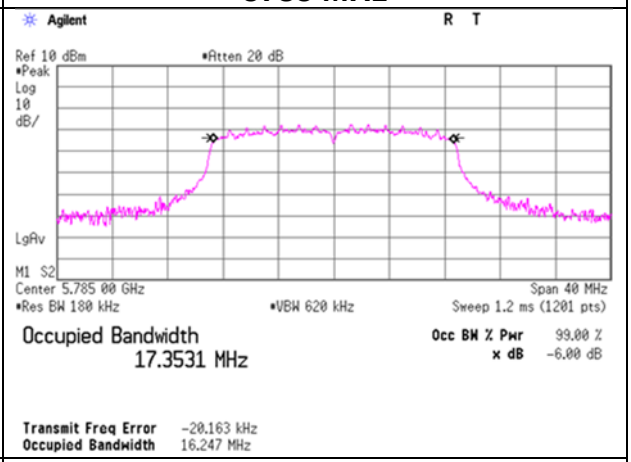


11ac-20 MIMO, ANT0

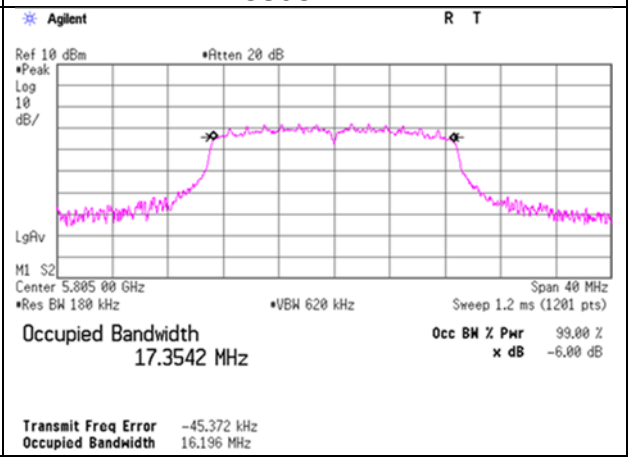
5745 MHz



5785 MHz



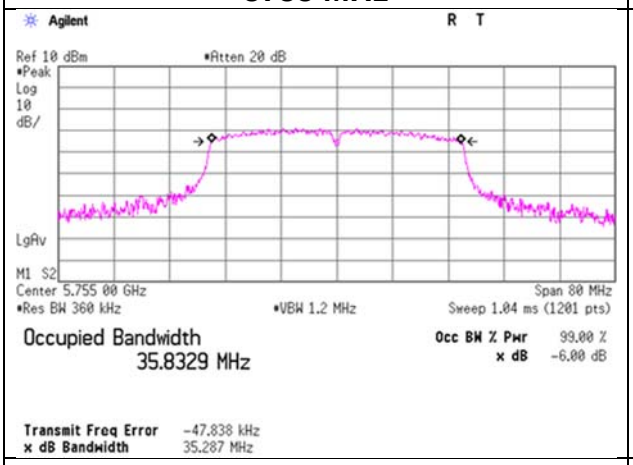
5805 MHz



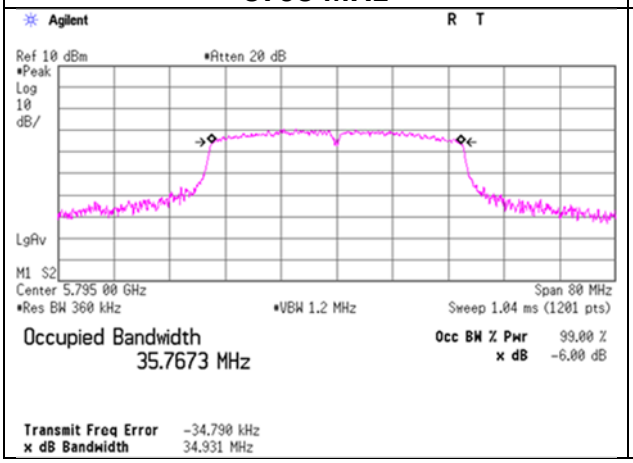
99 % Occupied Bandwidth

11n-40 SISO, ANT1

5755 MHz

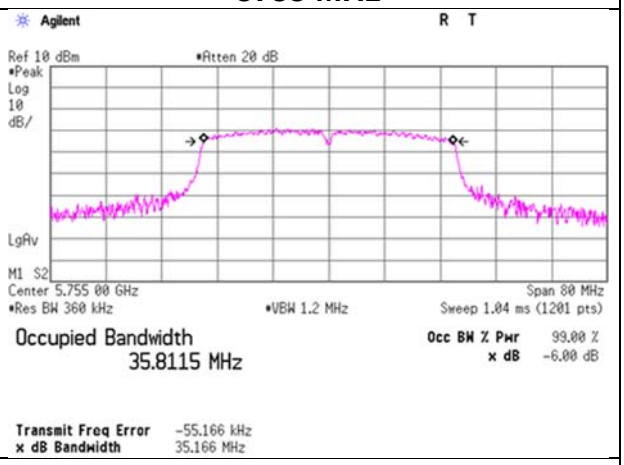


5795 MHz

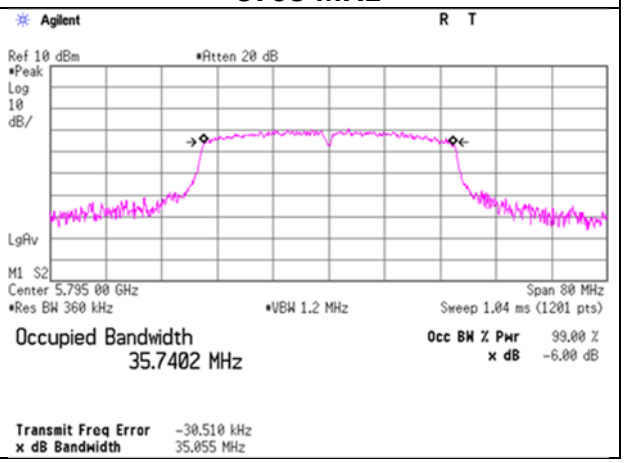


11ac-40 SISO, ANT1

5755 MHz



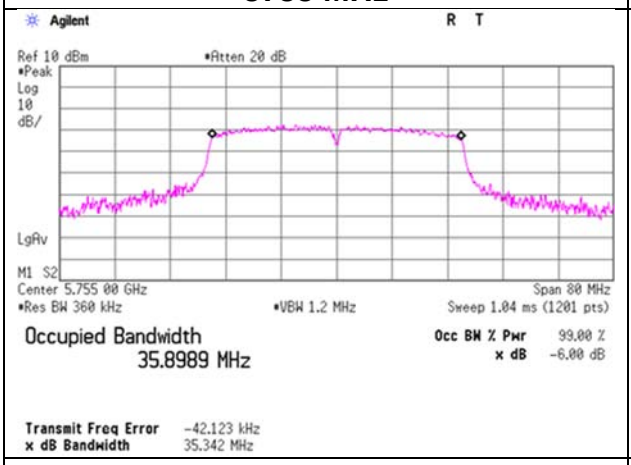
5795 MHz



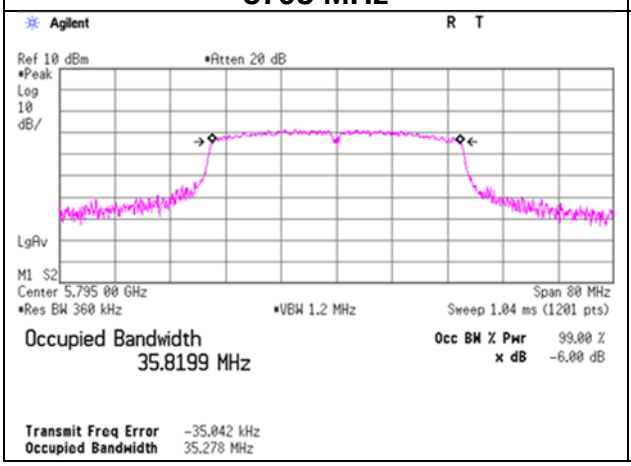
99 % Occupied Bandwidth

11n-40 MIMO, ANT1

5755 MHz

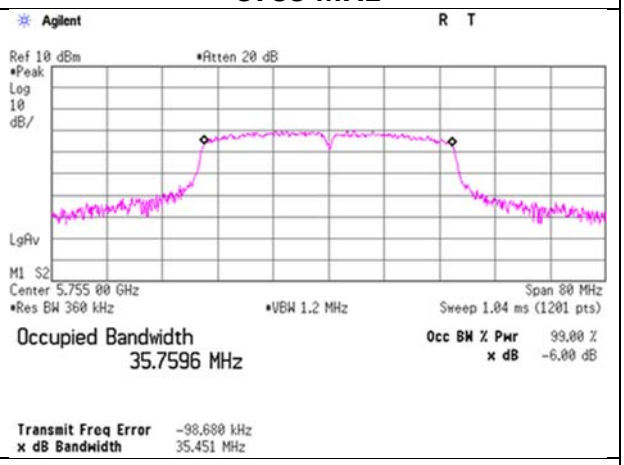


5795 MHz

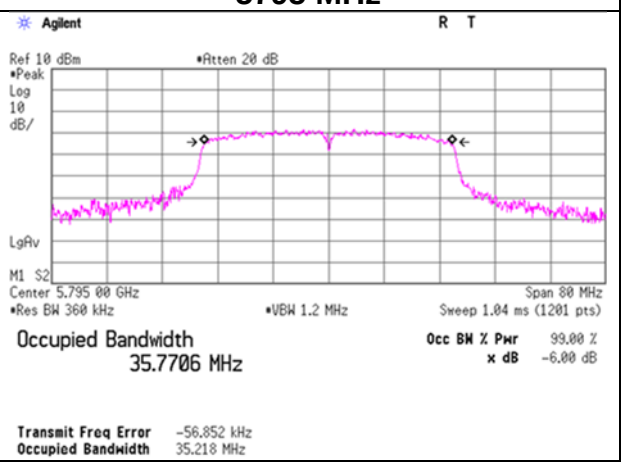


11ac-40 MIMO, ANT1

5755 MHz

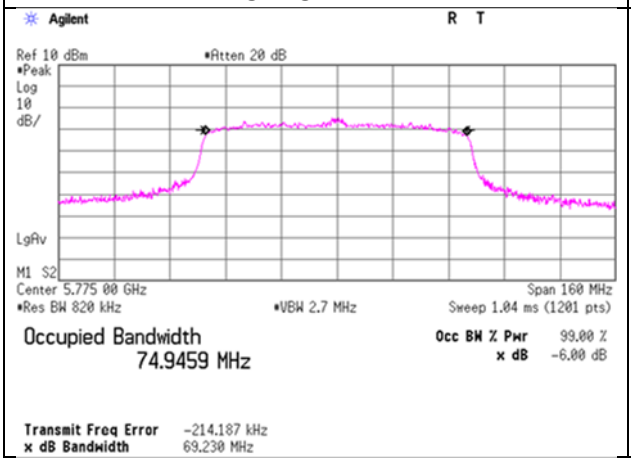


5795 MHz



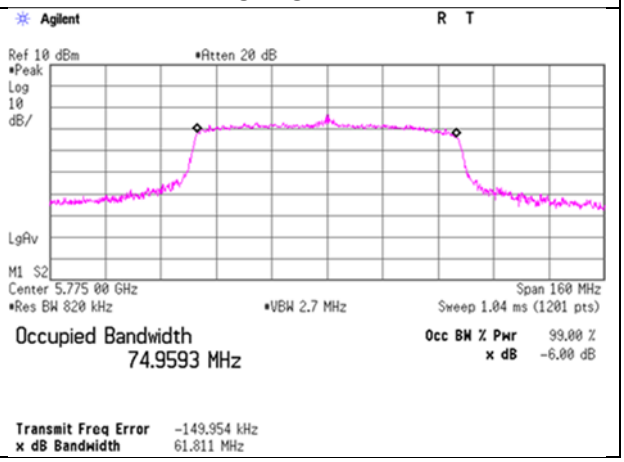
11ac-80 SISO, ANT0

5775 MHz



11ac-80 MIMO, ANT0

5775 MHz



6 dB Bandwidth

Test place	Shonan EMC Lab. No.5 Shielded Room
Date	January 24, 2025
Temperature / Humidity	23 deg. C / 30 % RH
Engineer	Shiro Kobayashi
Mode	Tx

11a

Antenna	Tested Frequency [MHz]	6 dB Bandwidth [MHz]	Limit [MHz]
ANT0	5745	15.134	> 0.500
	5785	15.156	> 0.500
	5805	15.164	> 0.500

11n-20 SISO

Antenna	Tested Frequency [MHz]	6 dB Bandwidth [MHz]	Limit [MHz]
ANT0	5745	15.165	> 0.500
	5785	15.166	> 0.500
	5805	15.173	> 0.500

11ac-20 SISO

Antenna	Tested Frequency [MHz]	6 dB Bandwidth [MHz]	Limit [MHz]
ANT0	5745	15.171	> 0.500
	5785	15.167	> 0.500
	5805	15.165	> 0.500

11n-40 SISO

Antenna	Tested Frequency [MHz]	6 dB Bandwidth [MHz]	Limit [MHz]
ANT1	5755	35.158	> 0.500
	5795	35.162	> 0.500

11ac-40 SISO

Antenna	Tested Frequency [MHz]	6 dB Bandwidth [MHz]	Limit [MHz]
ANT1	5755	35.172	> 0.500
	5795	35.156	> 0.500

11ac-80 SISO

Antenna	Tested Frequency [MHz]	6 dB Bandwidth [MHz]	Limit [MHz]
ANT0	5775	75.184	> 0.500

11n-20 MIMO

Antenna	Tested Frequency [MHz]	6 dB Bandwidth [MHz]	Limit [MHz]
ANT0	5745	15.174	> 0.500
	5785	15.170	> 0.500
	5805	15.148	> 0.500

11ac-20 MIMO

Antenna	Tested Frequency [MHz]	6 dB Bandwidth [MHz]	Limit [MHz]
ANT0	5745	15.173	> 0.500
	5785	15.174	> 0.500
	5805	15.175	> 0.500

11n-40 MIMO

Antenna	Tested Frequency [MHz]	6 dB Bandwidth [MHz]	Limit [MHz]
ANT1	5755	35.168	> 0.500
	5795	35.166	> 0.500

11ac-40 MIMO

Antenna	Tested Frequency [MHz]	6 dB Bandwidth [MHz]	Limit [MHz]
ANT1	5755	35.171	> 0.500
	5795	35.169	> 0.500

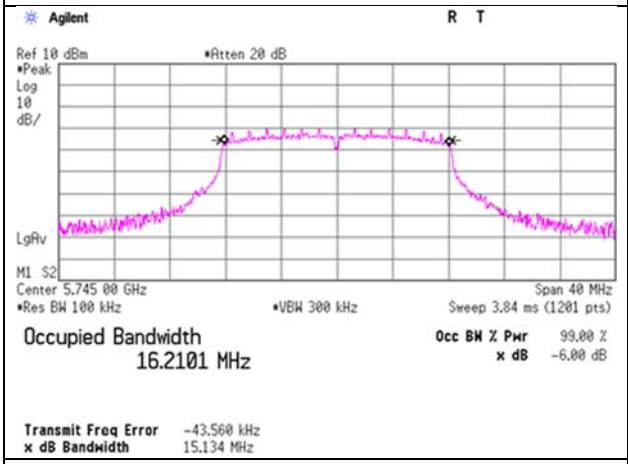
11ac-80 MIMO

Antenna	Tested Frequency [MHz]	6 dB Bandwidth [MHz]	Limit [MHz]
ANT0	5775	75.200	> 0.500

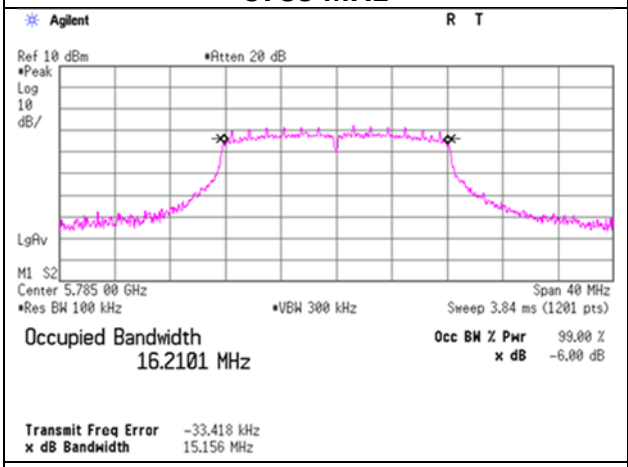
6 dB Bandwidth

11a, ANT0

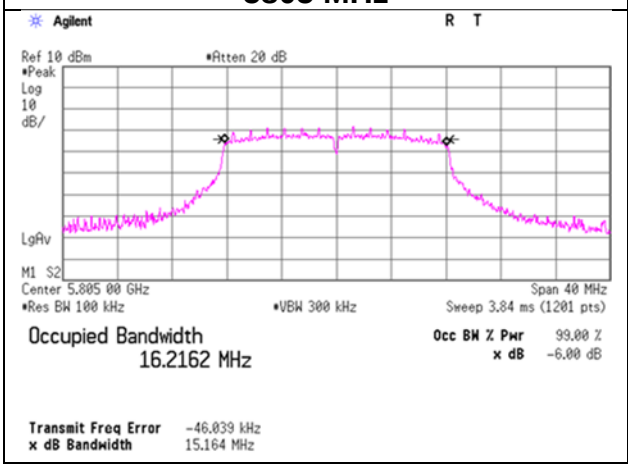
5745 MHz



5785 MHz

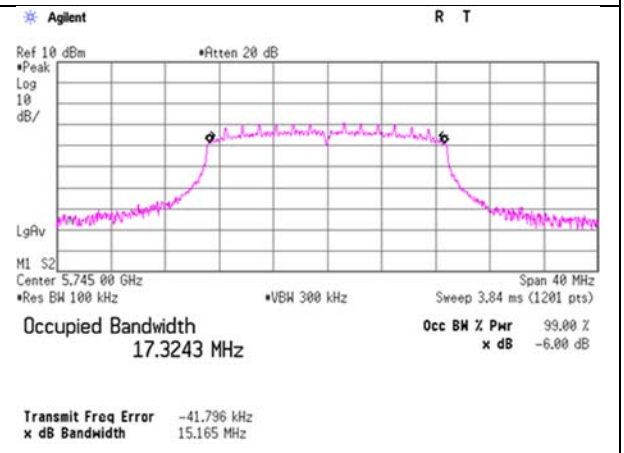


5805 MHz

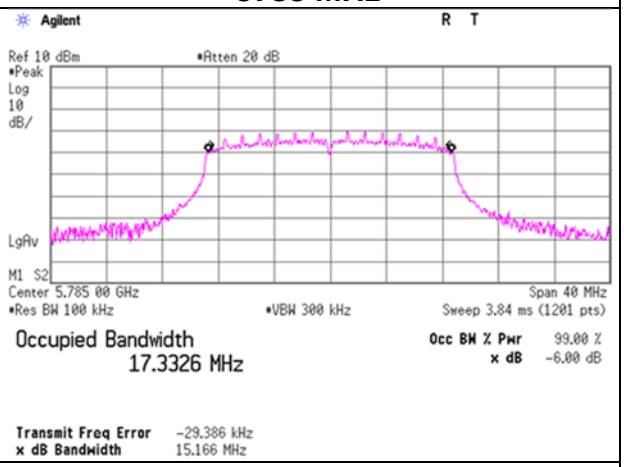


11n-20 SISO, ANT0

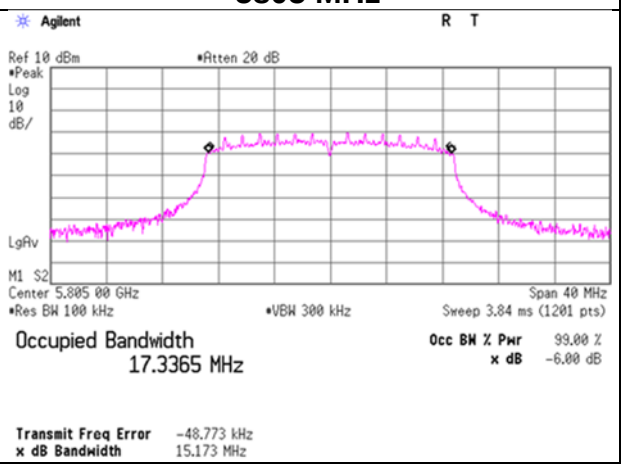
5745 MHz



5785 MHz



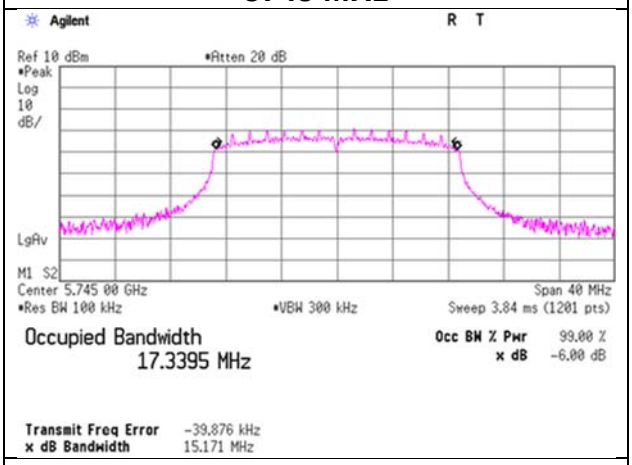
5805 MHz



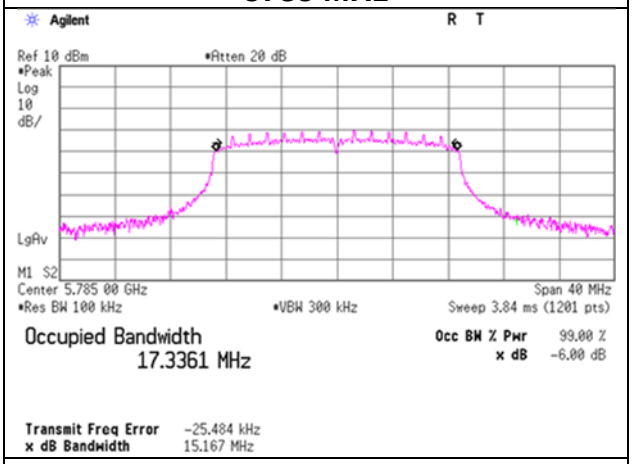
6 dB Bandwidth

11ac-20 SISO, ANT0

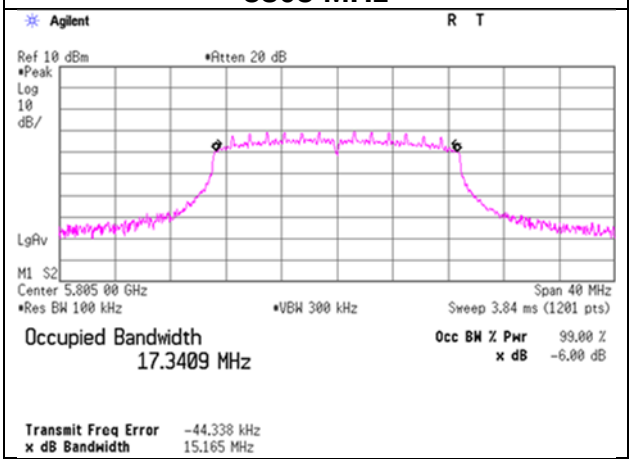
5745 MHz



5785 MHz



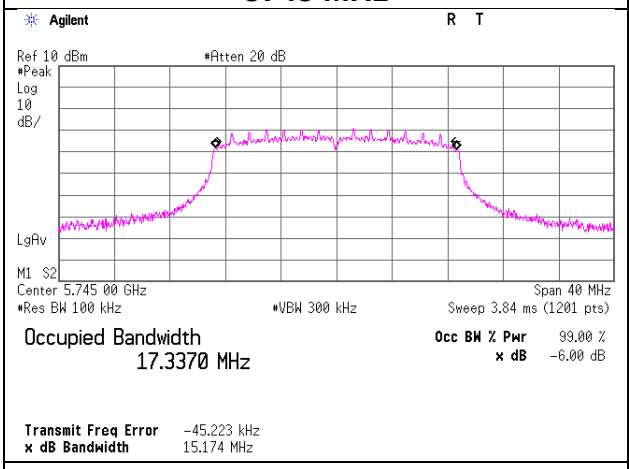
5805 MHz



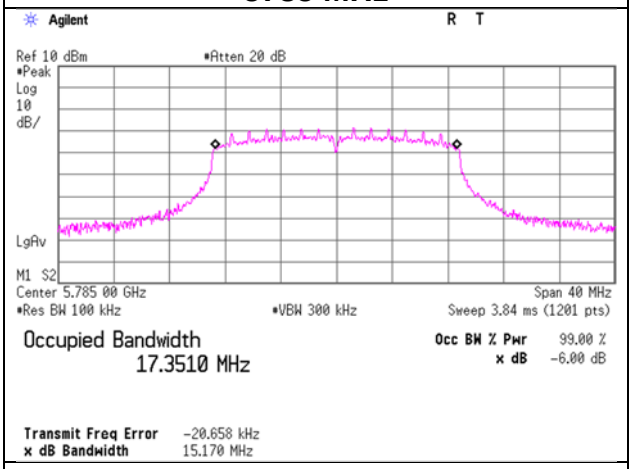
6 dB Bandwidth

11n-20 MIMO, ANT0

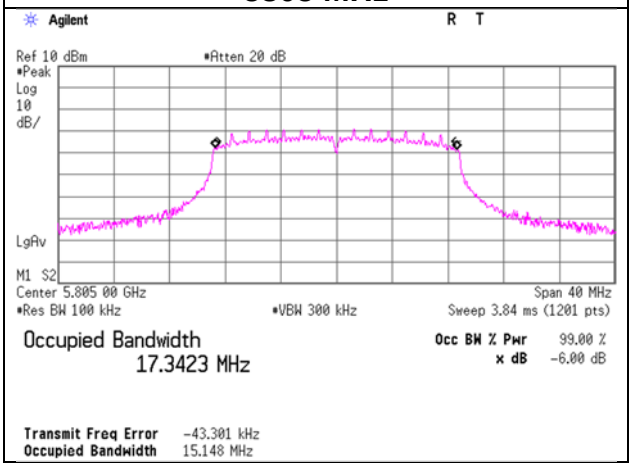
5745 MHz



5785 MHz

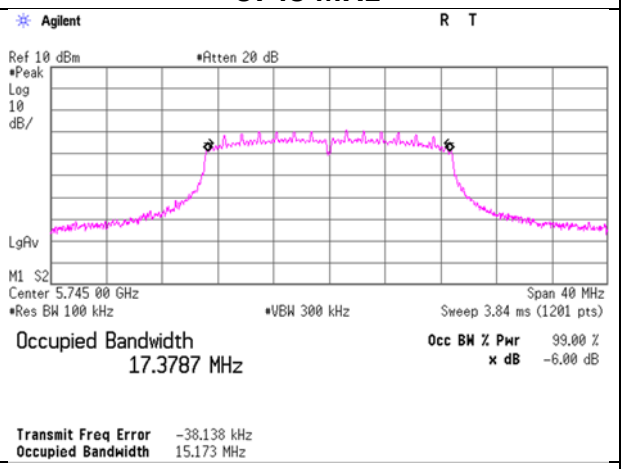


5805 MHz

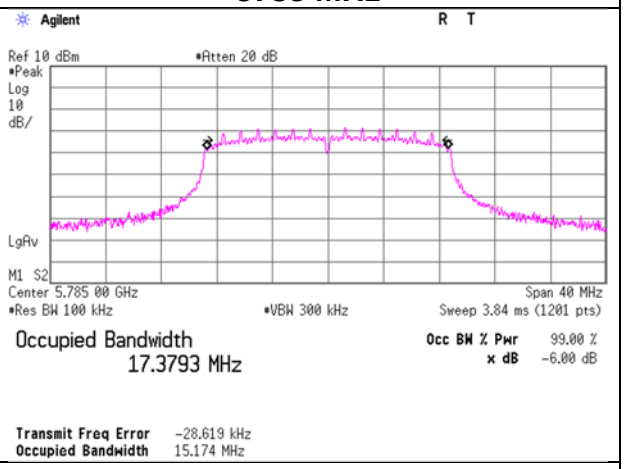


11ac-20 MIMO, ANT0

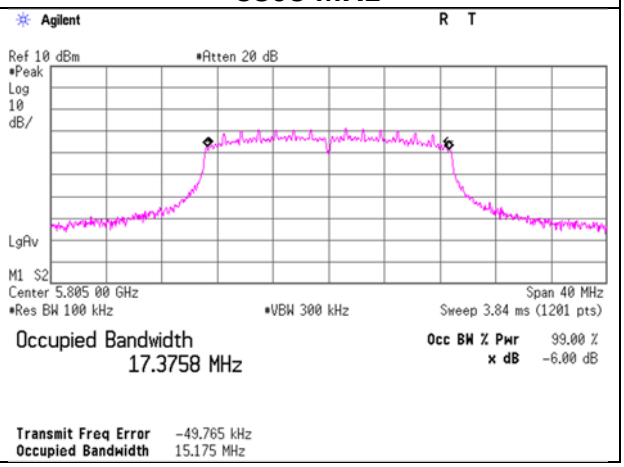
5745 MHz



5785 MHz



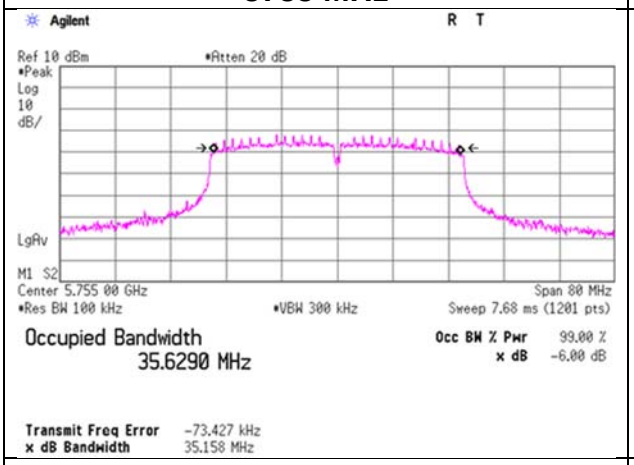
5805 MHz



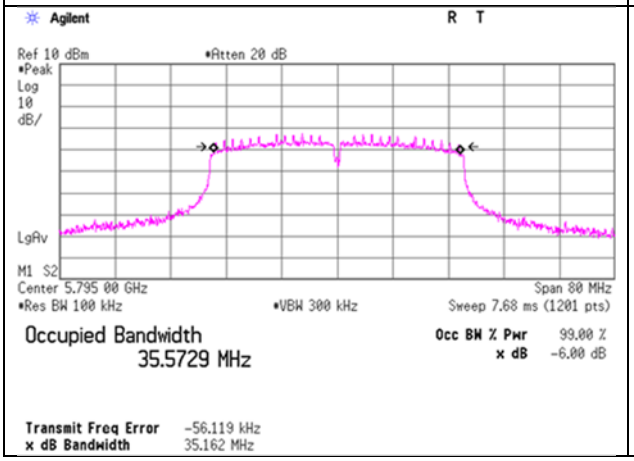
6 dB Bandwidth

11n-40 SISO, ANT1

5755 MHz

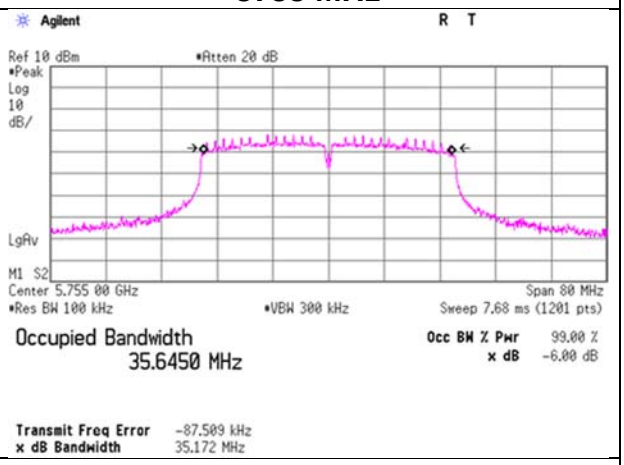


5795 MHz

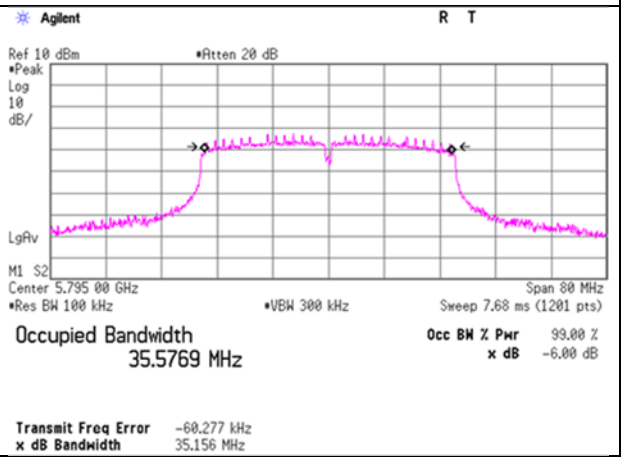


11ac-40 SISO, ANT1

5755 MHz



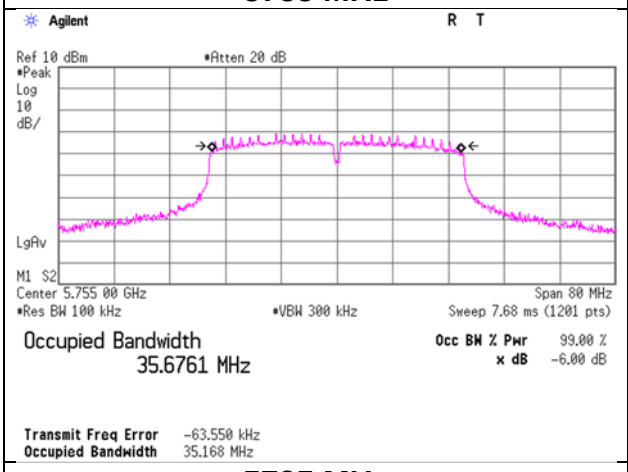
5795 MHz



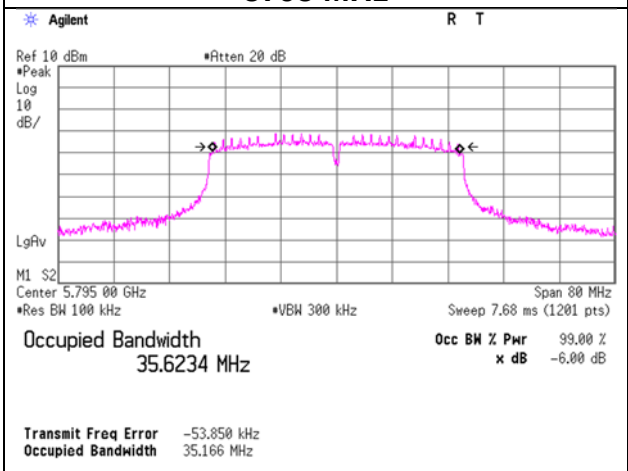
6 dB Bandwidth

11n-40 MIMO, ANT1

5755 MHz

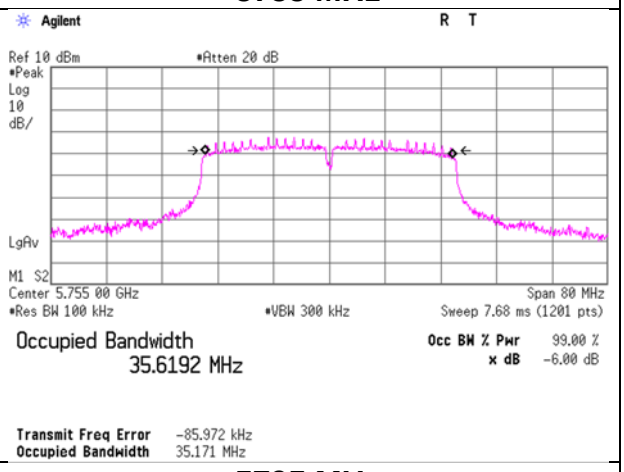


5795 MHz

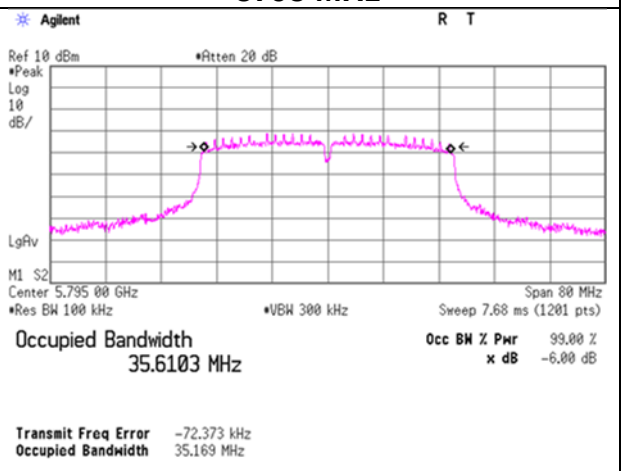


11ac-40 MIMO, ANT1

5755 MHz

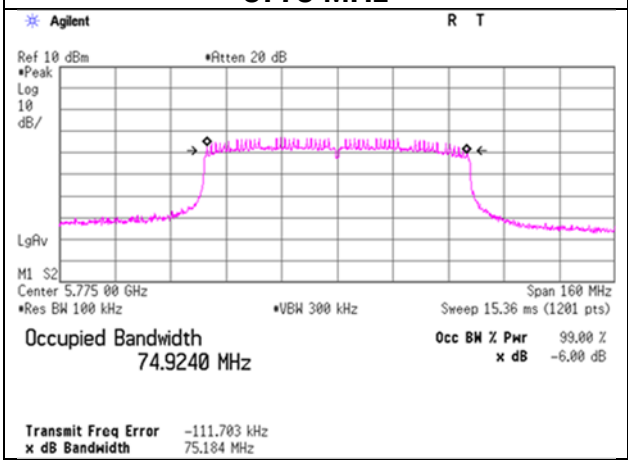


5795 MHz



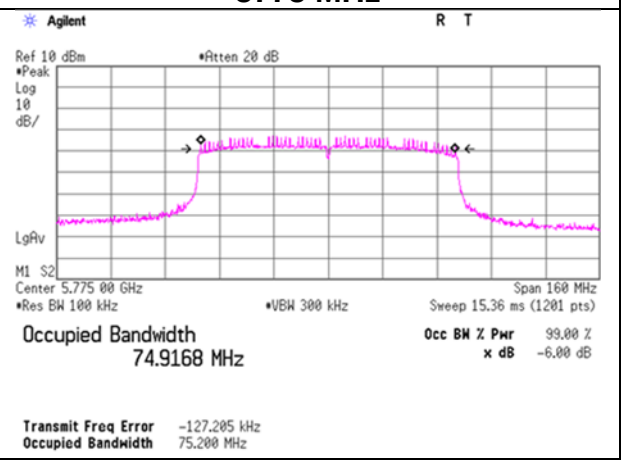
11ac-80 SISO, ANT0

5775 MHz



11ac-80 MIMO, ANT0

5775 MHz



Maximum Conducted Output Power

Test place	Shonan EMC Lab. No.5 Shielded Room	
Date	January 17, 2025	January 18, 2025
Temperature / Humidity	21 deg. C / 30 % RH	20 deg. C / 25 % RH
Engineer	Miku Ikudome	Shiro Kobayashi
Mode	Tx 11a	

Antenna Port: ANT0

Tested Frequency	Power Meter Reading	Cable Loss	Atten. Loss	Duty Factor	Antenna Gain	Conducted Power						e.i.r.p.					
						Result		FCC 15.407		RSS-247		Result		FCC 15.407		RSS-247	
								Limit	Margin	Limit	Margin			Limit	Margin	Limit	Margin
[MHz]	[dBm]	[dB]	[dB]	[dB]	[dBi]	[dBm]	[mW]	[dBm]	[dB]	[dBm]	[dB]	[dBm]	[mW]	[dBm]	[dB]	[dBm]	[dB]
5745	-9.59	2.96	9.74	-	2.50	3.11	2.05	30.00	26.89	30.00	26.89	5.61	3.64	36.00	30.39	36.00	30.39
5785	-10.37	2.97	9.74	-	2.50	2.34	1.71	30.00	27.66	30.00	27.66	4.84	3.05	36.00	31.16	36.00	31.16
5805	-8.76	2.97	9.74	-	2.50	***3.95***	***2.48***	30.00	26.05	30.00	26.05	***6.45***	***4.42***	36.00	29.55	36.00	29.55

Sample Calculation:
Conducted Power Result = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss
e.i.r.p. Result = Conducted Power Result + Antenna Gain

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

RSS-247 Limit
Conducted Power Limit (5725 MHz-5850 MHz) = 1 W

The test was performed with Gate function.

Maximum Conducted Output Power

Test place	Shonan EMC Lab. No.5 Shielded Room	
Date	January 17, 2025	January 18, 2025
Temperature / Humidity	21 deg. C / 30 % RH	20 deg. C / 25 % RH
Engineer	Miku Ikudome	Shiro Kobayashi
Mode	Tx 11n-20 SISO	

Antenna Port: ANT0

Tested Frequency	Power Meter Reading	Cable Loss	Atten. Loss	Duty Factor	Antenna Gain	Conducted Power						e.i.r.p.					
						Result		FCC 15.407		RSS-247		Result		FCC 15.407		RSS-247	
								Limit	Margin	Limit	Margin			Limit	Margin	Limit	Margin
[MHz]	[dBm]	[dB]	[dB]	[dB]	[dBi]	[dBm]	[mW]	[dBm]	[dB]	[dBm]	[dB]	[dBm]	[mW]	[dBm]	[dB]	[dBm]	[dB]
5745	-10.17	2.96	9.74	-	2.50	***2.53***	***1.79***	30.00	27.47	30.00	27.47	***5.03***	***3.18***	36.00	30.97	36.00	30.97
5785	-11.04	2.97	9.74	-	2.50	1.67	1.47	30.00	28.33	30.00	28.33	4.17	2.61	36.00	31.83	36.00	31.83
5805	-10.91	2.97	9.74	-	2.50	1.80	1.51	30.00	28.20	30.00	28.20	4.30	2.69	36.00	31.70	36.00	31.70

Sample Calculation:
Conducted Power Result = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss
e.i.r.p. Result = Conducted Power Result + Antenna Gain

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

RSS-247 Limit
Conducted Power Limit (5725 MHz-5850 MHz) = 1 W

The test was performed with Gate function.

Maximum Conducted Output Power

Test place	Shonan EMC Lab. No.5 Shielded Room
Date	January 18, 2025
Temperature / Humidity	20 deg. C / 25 % RH
Engineer	Shiro Kobayashi
Mode	Tx 11n-20 MIMO

ANT0 + ANT1

Tested Frequency	Conducted power								e.i.r.p.							
	Antenna			Result	FCC 15.407		RSS-247		Antenna			Result	FCC 15.407		RSS-247	
	1	2	Sum		Limit	Margin	Limit	Margin	1	2	Sum		Limit	Margin	Limit	Margin
[MHz]	[mW]	[mW]	[mW]	[dBm]	[dBm]	[dB]	[dBm]	[dB]	[mW]	[mW]	[mW]	[dBm]	[dBm]	[dB]	[dBm]	[dB]
5745	1.86	1.93	***3.79***	***5.79***	30.00	24.21	30.00	24.21	3.30	3.28	***6.58***	***8.19***	36.00	27.81	36.00	27.81
5785	1.44	1.43	2.86	4.58	30.00	25.42	30.00	25.42	2.56	2.42	4.98	6.97	36.00	29.03	36.00	29.03
5805	2.10	1.55	3.65	5.63	30.00	24.37	30.00	24.37	3.73	2.64	6.37	8.04	36.00	27.96	36.00	27.96

		ANT0						**ANT1**					
Tested Frequency	Duty Factor	Power Meter Reading	Cable Loss	Atten. Loss	Antenna Gain	Result Cond. Power	Result e.i.r.p.	Power Meter Reading	Cable Loss	Atten. Loss	Antenna Gain	Result Cond. Power	Result e.i.r.p.
[MHz]	[dB]	[dBm]	[dB]	[dB]	[dBi]	[dBm]	[dBm]	[dBm]	[dB]	[dB]	[dBi]	[dBm]	[dBm]
5745	-	-10.01	2.96	9.74	2.50	2.69	5.19	-10.04	2.94	9.96	2.30	2.86	5.16
5785	-	-11.13	2.97	9.74	2.50	1.58	4.08	-11.37	2.95	9.96	2.30	1.54	3.84
5805	-	-9.49	2.97	9.74	2.50	3.22	5.72	-11.01	2.96	9.96	2.30	1.91	4.21

Sample Calculation:
Conducted Power Result = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss
e.i.r.p. Result = Conducted Power Result + Antenna Gain

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

RSS-247 Limit
Conducted Power Limit (5725 MHz-5850 MHz) = 1 W

The test was performed with Gate function.

Maximum Conducted Output Power

Test place	Shonan EMC Lab. No.5 Shielded Room	
Date	January 17, 2025	January 18, 2025
Temperature / Humidity	21 deg. C / 30 % RH	20 deg. C / 25 % RH
Engineer	Miku Ikudome	Shiro Kobayashi
Mode	Tx 11ac-20 SISO	

Antenna Port: ANT0

Tested Frequency	Power Meter Reading	Cable Loss	Atten. Loss	Duty Factor	Antenna Gain	Conducted Power						e.i.r.p.					
						Result		FCC 15.407		RSS-247		Result		FCC 15.407		RSS-247	
								Limit	Margin	Limit	Margin			Limit	Margin	Limit	Margin
[MHz]	[dBm]	[dB]	[dB]	[dB]	[dBi]	[dBm]	[mW]	[dBm]	[dB]	[dBm]	[dB]	[dBm]	[mW]	[dBm]	[dB]	[dBm]	[dB]
5745	-10.13	2.96	9.74	-	2.50	***2.57***	***1.81***	30.00	27.43	30.00	27.43	***5.07***	***3.21***	36.00	30.93	36.00	30.93
5785	-11.04	2.97	9.74	-	2.50	1.67	1.47	30.00	28.33	30.00	28.33	4.17	2.61	36.00	31.83	36.00	31.83
5805	-10.96	2.97	9.74	-	2.50	1.75	1.50	30.00	28.25	30.00	28.25	4.25	2.66	36.00	31.75	36.00	31.75

Sample Calculation:
Conducted Power Result = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss
e.i.r.p. Result = Conducted Power Result + Antenna Gain

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

RSS-247 Limit
Conducted Power Limit (5725 MHz-5850 MHz) = 1 W

The test was performed with Gate function.

Maximum Conducted Output Power

Test place	Shonan EMC Lab. No.5 Shielded Room
Date	January 18, 2025
Temperature / Humidity	20 deg. C / 25 % RH
Engineer	Shiro Kobayashi
Mode	Tx 11ac-20 MIMO

ANT0 + ANT1

Tested	Conducted power								e.i.r.p.							
Frequency	Antenna			Result	FCC 15.407		RSS-247		Antenna			Result	FCC 15.407		RSS-247	
	1	2	Sum		Limit	Margin	Limit	Margin	1	2	Sum		Limit	Margin	Limit	Margin
[MHz]	[mW]	[mW]	[mW]	[dBm]	[dBm]	[dB]	[dBm]	[dB]	[mW]	[mW]	[mW]	[dBm]	[dBm]	[dB]	[dBm]	[dB]
5745	1.96	1.97	***3.93***	***5.95***	30.00	24.05	30.00	24.05	3.48	3.35	***6.83***	***8.35***	36.00	27.65	36.00	27.65
5785	1.49	1.48	2.98	4.74	30.00	25.26	30.00	25.26	2.65	2.52	5.17	7.14	36.00	28.86	36.00	28.86
5805	2.13	1.58	3.71	5.70	30.00	24.30	30.00	24.30	3.79	2.69	6.48	8.11	36.00	27.89	36.00	27.89

		ANT0						**ANT1**					
Tested	Duty	Power	Cable	Atten.	Antenna	Result		Power	Cable	Atten.	Antenna	Result	
Frequency	Factor	Meter	Loss	Loss	Gain	Cond.	e.i.r.p.	Meter	Loss	Loss	Gain	Cond.	e.i.r.p.
		Reading				Power		Reading				Power	
[MHz]	[dB]	[dBm]	[dB]	[dB]	[dBi]	[dBm]	[dBm]	[dBm]	[dB]	[dB]	[dBi]	[dBm]	[dBm]
5745	-	-9.78	2.96	9.74	2.50	2.92	5.42	-9.95	2.94	9.96	2.30	2.95	5.25
5785	-	-10.97	2.97	9.74	2.50	1.74	4.24	-11.20	2.95	9.96	2.30	1.71	4.01
5805	-	-9.42	2.97	9.74	2.50	3.29	5.79	-10.93	2.96	9.96	2.30	1.99	4.29

Sample Calculation:
Conducted Power Result = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss
e.i.r.p. Result = Conducted Power Result + Antenna Gain

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

RSS-247 Limit
Conducted Power Limit (5725 MHz-5850 MHz) = 1 W

The test was performed with Gate function.

Maximum Conducted Output Power

Test place	Shonan EMC Lab. No.5 Shielded Room	
Date	January 17, 2025	January 18, 2025
Temperature / Humidity	21 deg. C / 30 % RH	20 deg. C / 25 % RH
Engineer	Miku Ikudome	Shiro Kobayashi
Mode	Tx 11n-40 SISO	

Antenna Port: ANT1

Tested Frequency	Power Meter Reading	Cable Loss	Atten. Loss	Duty Factor	Antenna Gain *1)	Conducted Power Result		FCC 15.407		RSS-247		e.i.r.p. Result		FCC 15.407		RSS-247	
								Limit	Margin	Limit	Margin			Limit	Margin	Limit	Margin
[MHz]	[dBm]	[dB]	[dB]	[dB]	[dBi]	[dBm]	[mW]	[dBm]	[dB]	[dBm]	[dB]	[dBm]	[mW]	[dBm]	[dB]	[dBm]	[dB]
5755	-9.65	2.96	9.74	-	2.50	***3.05***	***2.02***	30.00	26.95	30.00	26.95	***5.55***	***3.59***	36.00	30.45	36.00	30.45
5795	-10.39	2.97	9.74	-	2.50	2.32	1.71	30.00	27.68	30.00	27.68	4.82	3.03	36.00	31.18	36.00	31.18

Sample Calculation:
Conducted Power Result = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss
e.i.r.p. Result = Conducted Power Result + Antenna Gain

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

RSS-247 Limit
Conducted Power Limit (5725 MHz-5850 MHz) = 1 W

*1) The higher antenna gain was applied, which is the more stringent condition.

The test was performed with Gate function.

Maximum Conducted Output Power

Test place	Shonan EMC Lab. No.5 Shielded Room
Date	January 18, 2025
Temperature / Humidity	20 deg. C / 25 % RH
Engineer	Shiro Kobayashi
Mode	Tx 11n-40 MIMO

ANT0 + ANT1

Tested Frequency	Conducted power								e.i.r.p.							
	Antenna			Result	FCC 15.407		RSS-247		Antenna			Result	FCC 15.407		RSS-247	
	1	2	Sum		Limit	Margin	Limit	Margin	1	2	Sum		Limit	Margin	Limit	Margin
[MHz]	[mW]	[mW]	[mW]	[dBm]	[dBm]	[dB]	[dBm]	[dB]	[mW]	[mW]	[mW]	[dBm]	[dBm]	[dB]	[dBm]	[dB]
5755	1.78	2.05	3.83	5.84	30.00	24.16	30.00	24.16	3.16	3.48	6.65	8.23	36.00	27.77	36.00	27.77
5795	2.49	1.55	***4.04***	***6.07***	30.00	23.93	30.00	23.93	4.43	2.63	***7.06***	***8.49***	36.00	27.51	36.00	27.51

		ANT0						**ANT1**					
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]
5755	-	-10.20	2.96	9.74	2.50	2.50	5.00	-9.79	2.95	9.96	2.30	3.12	5.42
5795	-	-8.75	2.97	9.74	2.50	3.96	6.46	-11.01	2.95	9.96	2.30	1.90	4.20

Sample Calculation:
Conducted Power Result = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss
e.i.r.p. Result = Conducted Power Result + Antenna Gain

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

RSS-247 Limit
Conducted Power Limit (5725 MHz-5850 MHz) = 1 W

The test was performed with Gate function.

Maximum Conducted Output Power

Test place	Shonan EMC Lab. No.5 Shielded Room	
Date	January 17, 2025	January 18, 2025
Temperature / Humidity	21 deg. C / 30 % RH	20 deg. C / 25 % RH
Engineer	Miku Ikudome	Shiro Kobayashi
Mode	Tx 11ac-40 SISO	

Antenna Port: ANT1

Tested Frequency	Power Meter Reading	Cable Loss	Atten. Loss	Duty Factor	Antenna Gain *1)	Conducted Power Result		FCC 15.407 Limit	FCC 15.407 Margin	RSS-247 Limit	RSS-247 Margin	e.i.r.p. Result		FCC 15.407 Limit	FCC 15.407 Margin	RSS-247 Limit	RSS-247 Margin
[MHz]	[dBm]	[dB]	[dB]	[dB]	[dBi]	[dBm]	[mW]	[dBm]	[dB]	[dBm]	[dB]	[dBm]	[mW]	[dBm]	[dB]	[dBm]	[dB]
5755	-9.24	2.96	9.74	-	2.50	***3.46***	***2.22***	30.00	26.54	30.00	26.54	***5.96***	***3.94***	36.00	30.04	36.00	30.04
5795	-10.40	2.97	9.74	-	2.50	2.31	1.70	30.00	27.69	30.00	27.69	4.81	3.03	36.00	31.19	36.00	31.19

Sample Calculation:
Conducted Power Result = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss
e.i.r.p. Result = Conducted Power Result + Antenna Gain

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

RSS-247 Limit
Conducted Power Limit (5725 MHz-5850 MHz) = 1 W

*1) The higher antenna gain was applied, which is the more stringent condition.

The test was performed with Gate function.

Maximum Conducted Output Power

Test place	Shonan EMC Lab. No.5 Shielded Room
Date	January 18, 2025
Temperature / Humidity	20 deg. C / 25 % RH
Engineer	Shiro Kobayashi
Mode	Tx 11ac-40 MIMO

ANT0 + ANT1

Tested Frequency	Conducted power								e.i.r.p.							
	Antenna			Result	FCC 15.407		RSS-247		Antenna			Result	FCC 15.407		RSS-247	
	1	2	Sum		Limit	Margin	Limit	Margin	1	2	Sum		Limit	Margin	Limit	Margin
[MHz]	[mW]	[mW]	[mW]	[dBm]	[dBm]	[dB]	[dBm]	[dB]	[mW]	[mW]	[mW]	[dBm]	[dBm]	[dB]	[dBm]	[dB]
5755	1.79	2.06	3.84	5.85	30.00	24.15	30.00	24.15	3.18	3.49	6.67	8.24	36.00	27.76	36.00	27.76
5795	2.50	1.58	***4.08***	***6.11***	30.00	23.89	30.00	23.89	4.45	2.68	***7.13***	***8.53***	36.00	27.47	36.00	27.47

		ANT0						**ANT1**					
Tested Frequency	Duty Factor	Power Meter Reading	Cable Loss	Atten. Loss	Antenna Gain	Result Cond. Power	Result e.i.r.p.	Power Meter Reading	Cable Loss	Atten. Loss	Antenna Gain	Result Cond. Power	Result e.i.r.p.
[MHz]	[dB]	[dBm]	[dB]	[dB]	[dBi]	[dBm]	[dBm]	[dBm]	[dB]	[dB]	[dBi]	[dBm]	[dBm]
5755	-	-10.18	2.96	9.74	2.50	2.52	5.02	-9.78	2.95	9.96	2.30	3.13	5.43
5795	-	-8.73	2.97	9.74	2.50	3.98	6.48	-10.93	2.95	9.96	2.30	1.98	4.28

Sample Calculation:
Conducted Power Result = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss
e.i.r.p. Result = Conducted Power Result + Antenna Gain

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

RSS-247 Limit
Conducted Power Limit (5725 MHz-5850 MHz) = 1 W

The test was performed with Gate function.

Maximum Conducted Output Power

Test place	Shonan EMC Lab. No.5 Shielded Room
Date	January 17, 2025
Temperature / Humidity	21 deg. C / 30 % RH
Engineer	Miku Ikudome
Mode	Tx 11ac-80 SISO

Antenna Port: ANT0

Tested Frequency	Power Meter Reading	Cable Loss	Atten. Loss	Duty Factor	Antenna Gain	Conducted Power						e.i.r.p.					
						Result		FCC 15.407		RSS-247		Result		FCC 15.407		RSS-247	
								Limit	Margin	Limit	Margin			Limit	Margin	Limit	Margin
[MHz]	[dBm]	[dB]	[dB]	[dB]	[dBi]	[dBm]	[mW]	[dBm]	[dB]	[dBm]	[dB]	[dBm]	[mW]	[dBm]	[dB]	[dBm]	[dB]
5775	-7.82	2.97	9.74	-	2.50	***4.89***	***3.08***	30.00	25.11	30.00	25.11	***7.39***	***5.48***	36.00	28.61	36.00	28.61

Sample Calculation:
Conducted Power Result = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss
e.i.r.p. Result = Conducted Power Result + Antenna Gain

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

RSS-247 Limit
Conducted Power Limit (5725 MHz-5850 MHz) = 1 W

The test was performed with Gate function.

Maximum Conducted Output Power

Test place	Shonan EMC Lab. No.5 Shielded Room
Date	January 18, 2025
Temperature / Humidity	20 deg. C / 25 % RH
Engineer	Shiro Kobayashi
Mode	Tx 11ac-80 MIMO

ANT0 + ANT1

Tested	Conducted power								e.i.r.p.							
Frequency	Antenna			Result	FCC 15.407		RSS-247		Antenna			Result	FCC 15.407		RSS-247	
	1	2	Sum		Limit	Margin	Limit	Margin	1	2	Sum		Limit	Margin	Limit	Margin
[MHz]	[mW]	[mW]	[mW]	[dBm]	[dBm]	[dB]	[dBm]	[dB]	[mW]	[mW]	[mW]	[dBm]	[dBm]	[dB]	[dBm]	[dB]
5775	3.22	2.17	***5.39***	***7.32***	30.00	22.68	30.00	22.68	5.73	3.69	9.42	9.74	36.00	26.26	36.00	26.26

		ANT0						**ANT1**					
Tested	Duty	Power	Cable	Atten.	Antenna	Result		Power	Cable	Atten.	Antenna	Result	
Frequency	Factor	Meter Reading	Loss	Loss	Gain	Cond. Power	e.i.r.p.	Meter Reading	Loss	Loss	Gain	Cond. Power	e.i.r.p.
[MHz]	[dB]	[dBm]	[dB]	[dB]	[dBi]	[dBm]	[dBm]	[dBm]	[dB]	[dB]	[dBi]	[dBm]	[dBm]
5775	-	-7.62	2.96	9.74	2.50	5.08	7.58	-9.54	2.95	9.96	2.30	3.37	5.67

Sample Calculation:
Conducted Power Result = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss
e.i.r.p. Result = Conducted Power Result + Antenna Gain

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

RSS-247 Limit
Conducted Power Limit (5725 MHz-5850 MHz) = 1 W

The test was performed with Gate function.

Maximum Conducted Output Power

Test place	Shonan EMC Lab. No.5 Shielded Room
Date	January 17, 2025
Temperature / Humidity	21 deg. C / 30 % RH
Engineer	Miku Ikudome
Mode	Tx 11a

5745 MHz

Antenna	Rate Mbps	Reading (timed average) [dBm]	Burst power [dBm]	Remarks
ANT0	6	-9.59	-9.59	*
	9	-9.91	-9.91	-
	12	-9.91	-9.91	-
	18	-9.62	-9.62	-
	24	-10.03	-10.03	-
	36	-10.11	-10.11	-
	48	-9.95	-9.95	-
	54	-9.97	-9.97	-
ANT1	6	-10.66	-10.66	-
	9	-10.74	-10.74	-
	12	-10.75	-10.75	-
	18	-10.53	-10.53	-
	24	-10.93	-10.93	-
	36	-10.94	-10.94	-
	48	-10.91	-10.91	-
	54	-10.92	-10.92	-

* Worst rate

Sample Calculation:

Burst power = Reading (timed average)

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

The test was performed with Gate function.

Maximum Conducted Output Power

Test place	Shonan EMC Lab. No.5 Shielded Room
Date	January 17, 2025
Temperature / Humidity	21 deg. C / 30 % RH
Engineer	Miku Ikudome
Mode	Tx 11n-20 SISO

5745 MHz

Antenna	MCS	Reading (timed average) [dBm]	Burst power [dBm]	Remarks
ANT0	0	-10.30	-10.30	-
	1	-10.38	-10.38	-
	2	-10.17	-10.17	*
	3	-10.94	-10.94	-
	4	-10.84	-10.84	-
	5	-10.80	-10.80	-
	6	-10.73	-10.73	-
	7	-11.25	-11.25	-
ANT1	0	-10.83	-10.83	-
	1	-11.04	-11.04	-
	2	-10.81	-10.81	-
	3	-11.42	-11.42	-
	4	-11.37	-11.37	-
	5	-11.40	-11.40	-
	6	-11.34	-11.34	-
	7	-11.81	-11.81	-

* Worst rate

Sample Calculation:

Burst power = Reading (timed average)

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

The test was performed with Gate function.

Maximum Conducted Output Power

Test place	Shonan EMC Lab. No.5 Shielded Room
Date	January 18, 2025
Temperature / Humidity	20 deg. C / 25 % RH
Engineer	Shiro Kobayashi
Mode	Tx 11n-20 MIMO

5745 MHz

MCS Index	Conducted power Antenna ANT0 [mW]	ANT1 [mW]	Sum [mW]	Result [dBm]	Remarks
8	1.78	1.84	3.62	5.59	-
9	1.73	1.80	3.53	5.49	-
10	1.86	1.93	3.79	5.79	*
11	1.61	1.38	2.98	4.75	-
12	1.61	1.39	3.00	4.77	-
13	1.60	1.40	3.00	4.78	-
14	1.64	1.40	3.04	4.83	-
15	1.45	1.25	2.70	4.32	-

*: Worst Rate

		ANT0				ANT1			
MCS Index	Duty Factor [dB]	Power Meter Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Result Cond. Power [dBm]	Power Meter Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Result Cond. Power [dBm]
8	-	-10.20	2.96	9.74	2.50	-10.25	2.94	9.96	2.65
9	-	-10.32	2.96	9.74	2.38	-10.34	2.94	9.96	2.56
10	-	-10.01	2.96	9.74	2.69	-10.04	2.94	9.96	2.86
11	-	-10.64	2.96	9.74	2.06	-11.51	2.94	9.96	1.39
12	-	-10.63	2.96	9.74	2.07	-11.48	2.94	9.96	1.42
13	-	-10.65	2.96	9.74	2.05	-11.45	2.94	9.96	1.45
14	-	-10.56	2.96	9.74	2.14	-11.43	2.94	9.96	1.47
15	-	-11.08	2.96	9.74	1.62	-11.93	2.94	9.96	0.97

Sample Calculation:

Conducted Pow er Result = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss

The test was performed with Gate function.

Maximum Conducted Output Power

Test place	Shonan EMC Lab. No.5 Shielded Room
Date	January 17, 2025
Temperature / Humidity	21 deg. C / 30 % RH
Engineer	Miku Ikudome
Mode	Tx 11ac-20 SISO

5745 MHz

Antenna	MCS	Reading (timed average) [dBm]	Burst power [dBm]	Remarks
ANT0	0	-10.27	-10.27	-
	1	-10.35	-10.35	-
	2	-10.13	-10.13	*
	3	-10.88	-10.88	-
	4	-10.82	-10.82	-
	5	-10.78	-10.78	-
	6	-10.72	-10.72	-
	7	-11.25	-11.25	-
	8	-13.23	-13.23	-
ANT1	0	-10.88	-10.88	-
	1	-11.02	-11.02	-
	2	-10.73	-10.73	-
	3	-11.41	-11.41	-
	4	-11.35	-11.35	-
	5	-11.27	-11.27	-
	6	-11.28	-11.28	-
	7	-11.78	-11.78	-
	8	-13.76	-13.76	-

* Worst rate

Sample Calculation:

Burst power = Reading (timed average)

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

The test was performed with Gate function.

Maximum Conducted Output Power

Test place	Shonan EMC Lab. No.5 Shielded Room
Date	January 18, 2025
Temperature / Humidity	20 deg. C / 25 % RH
Engineer	Shiro Kobayashi
Mode	Tx 11ac-20 MIMO

5745 MHz

MCS Index	Conducted power Antenna ANT0 [mW]	ANT1 [mW]	Sum [mW]	Result [dBm]	Remarks
0	1.85	1.92	3.77	5.77	-
1	1.88	1.94	3.82	5.83	-
2	1.96	1.97	3.93	5.95	*
3	1.64	1.44	3.08	4.89	-
4	1.64	1.43	3.08	4.89	-
5	1.86	1.61	3.47	5.41	-
6	1.88	1.58	3.46	5.40	-
7	1.20	1.03	2.23	3.49	-
8	0.95	0.82	1.77	2.49	-

*: Worst Rate

		ANT0				ANT1			
MCS Index	Duty Factor [dB]	Power Meter Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Result Cond. Power [dBm]	Power Meter Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Result Cond. Power [dBm]
0	-	-10.04	2.96	9.74	2.66	-10.06	2.94	9.96	2.84
1	-	-9.96	2.96	9.74	2.74	-10.02	2.94	9.96	2.88
2	-	-9.78	2.96	9.74	2.92	-9.95	2.94	9.96	2.95
3	-	-10.55	2.96	9.74	2.15	-11.31	2.94	9.96	1.59
4	-	-10.54	2.96	9.74	2.16	-11.34	2.94	9.96	1.56
5	-	-10.00	2.96	9.74	2.70	-10.84	2.94	9.96	2.06
6	-	-9.95	2.96	9.74	2.75	-10.92	2.94	9.96	1.98
7	-	-11.92	2.96	9.74	0.78	-12.76	2.94	9.96	0.14
8	-	-12.90	2.96	9.74	-0.20	-13.77	2.94	9.96	-0.87

*1) Duty Factor is not required because the measurement using a gated RF average power meter.

Sample Calculation:

Conducted Pow er Result = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss

The test was performed with Gate function.

Maximum Conducted Output Power

Test place	Shonan EMC Lab. No.5 Shielded Room
Date	January 17, 2025
Temperature / Humidity	21 deg. C / 30 % RH
Engineer	Miku Ikudome
Mode	Tx 11n-40 SISO

5755 MHz

Antenna	MCS	Reading (timed average) [dBm]	Burst power [dBm]	Remarks
ANT0	0	-10.51	-10.51	-
	1	-10.45	-10.45	-
	2	-10.40	-10.40	-
	3	-10.54	-10.54	-
	4	-10.46	-10.46	-
	5	-10.38	-10.38	-
	6	-10.36	-10.36	-
	7	-10.40	-10.40	-
ANT1	0	-9.75	-9.75	-
	1	-9.88	-9.88	-
	2	-9.65	-9.65	*
	3	-9.88	-9.88	-
	4	-9.79	-9.79	-
	5	-9.77	-9.77	-
	6	-9.76	-9.76	-
	7	-9.80	-9.80	-

* Worst rate

Sample Calculation:

Burst power = Reading (timed average)

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

The test was performed with Gate function.

Maximum Conducted Output Power

Test place	Shonan EMC Lab. No.5 Shielded Room
Date	January 18, 2025
Temperature / Humidity	20 deg. C / 25 % RH
Engineer	Shiro Kobayashi
Mode	Tx 11n-40 MIMO

5755 MHz

MCS Index	Conducted power Antenna ANT0 [mW]	ANT1 [mW]	Sum [mW]	Result [dBm]	Remarks
8	1.70	1.95	3.65	5.63	-
9	1.71	2.03	3.73	5.73	-
10	1.78	2.05	3.83	5.84	*
11	1.69	1.96	3.66	5.64	-
12	1.73	2.03	3.76	5.76	-
13	1.75	2.00	3.75	5.74	-
14	1.76	2.02	3.78	5.78	-
15	1.76	2.00	3.77	5.76	-

*: Worst Rate

		ANT0				ANT1			
MCS Index	Duty Factor [dB]	Power Meter Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Result Cond. Power [dBm]	Power Meter Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Result Cond. Power [dBm]
8	-	-10.40	2.96	9.74	2.30	-10.01	2.95	9.96	2.90
9	-	-10.38	2.96	9.74	2.32	-9.84	2.95	9.96	3.07
10	-	-10.20	2.96	9.74	2.50	-9.79	2.95	9.96	3.12
11	-	-10.41	2.96	9.74	2.29	-9.98	2.95	9.96	2.93
12	-	-10.31	2.96	9.74	2.39	-9.84	2.95	9.96	3.07
13	-	-10.27	2.96	9.74	2.43	-9.91	2.95	9.96	3.00
14	-	-10.25	2.96	9.74	2.45	-9.86	2.95	9.96	3.05
15	-	-10.24	2.96	9.74	2.46	-9.89	2.95	9.96	3.02

*1) Duty Factor is not required because the measurement using a gated RF average power meter.

Sample Calculation:
Conducted Pow er Result = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss

The test was performed with Gate function.

Maximum Conducted Output Power

Test place	Shonan EMC Lab. No.5 Shielded Room
Date	January 17, 2025
Temperature / Humidity	21 deg. C / 30 % RH
Engineer	Miku Ikudome
Mode	Tx 11ac-40 SISO

5755 MHz

Antenna	MCS	Reading (timed average) [dBm]	Burst power [dBm]	Remarks
ANT0	0	-10.42	-10.42	-
	1	-10.26	-10.26	-
	2	-10.12	-10.12	-
	3	-10.13	-10.13	-
	4	-10.40	-10.40	-
	5	-10.33	-10.33	-
	6	-10.35	-10.35	-
	7	-10.36	-10.36	-
	8	-10.83	-10.83	-
	9	-10.75	-10.75	-
ANT1	0	-9.81	-9.81	-
	1	-9.67	-9.67	-
	2	-9.24	-9.24	*
	3	-9.50	-9.50	-
	4	-9.82	-9.82	-
	5	-9.77	-9.77	-
	6	-9.82	-9.82	-
	7	-9.81	-9.81	-
	8	-11.29	-11.29	-
	9	-11.24	-11.24	-

* Worst rate

Sample Calculation:

Burst power = Reading (timed average)

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

The test was performed with Gate function.

Maximum Conducted Output Power

Test place	Shonan EMC Lab. No.5 Shielded Room
Date	January 18, 2025
Temperature / Humidity	20 deg. C / 25 % RH
Engineer	Shiro Kobayashi
Mode	Tx 11ac-40 MIMO

5755 MHz

MCS Index	Conducted power Antenna ANT0 [mW]	ANT1 [mW]	Sum [mW]	Result [dBm]	Remarks
0	1.75	2.02	3.77	5.77	-
1	1.76	2.05	3.81	5.81	-
2	1.79	2.06	3.84	5.85	*
3	1.75	2.05	3.80	5.80	-
4	1.75	2.04	3.80	5.80	-
5	1.77	2.02	3.79	5.79	-
6	1.78	2.04	3.82	5.83	-
7	1.15	1.07	2.22	3.47	-
8	0.91	0.86	1.77	2.48	-
9	0.72	0.69	1.41	1.50	-

*: Worst Rate

		ANT0				ANT1			
MCS Index	Duty Factor [dB]	Power Meter Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Result Cond. Power [dBm]	Power Meter Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Result Cond. Power [dBm]
0	-	-10.28	2.96	9.74	2.42	-9.85	2.95	9.96	3.06
1	-	-10.25	2.96	9.74	2.45	-9.79	2.95	9.96	3.12
2	-	-10.18	2.96	9.74	2.52	-9.78	2.95	9.96	3.13
3	-	-10.27	2.96	9.74	2.43	-9.80	2.95	9.96	3.11
4	-	-10.26	2.96	9.74	2.44	-9.81	2.95	9.96	3.10
5	-	-10.21	2.96	9.74	2.49	-9.86	2.95	9.96	3.05
6	-	-10.20	2.96	9.74	2.50	-9.81	2.95	9.96	3.10
7	-	-12.08	2.96	9.74	0.62	-12.63	2.95	9.96	0.28
8	-	-13.11	2.96	9.74	-0.41	-13.58	2.95	9.96	-0.67
9	-	-14.12	2.96	9.74	-1.42	-14.53	2.95	9.96	-1.62

*1) Duty Factor is not required because the measurement using a gated RF average power meter.

Sample Calculation:
Conducted Pow er Result = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss

The test was performed with Gate function.

Maximum Conducted Output Power

Test place	Shonan EMC Lab. No.5 Shielded Room
Date	January 17, 2025
Temperature / Humidity	21 deg. C / 30 % RH
Engineer	Miku Ikudome
Mode	Tx 11ac-80 SISO

5775 MHz

Antenna	MCS	Reading (timed average) [dBm]	Burst power [dBm]	Remarks
ANT0	0	-8.09	-8.09	-
	1	-7.91	-7.91	-
	2	-7.82	-7.82	*
	3	-7.94	-7.94	-
	4	-8.00	-8.00	-
	5	-8.03	-8.03	-
	6	-7.97	-7.97	-
	7	-7.83	-7.83	-
	8	-7.88	-7.88	-
	9	-7.84	-7.84	-
ANT1	0	-10.01	-10.01	-
	1	-9.71	-9.71	-
	2	-9.68	-9.68	-
	3	-9.89	-9.89	-
	4	-9.80	-9.80	-
	5	-9.91	-9.91	-
	6	-9.75	-9.75	-
	7	-9.77	-9.77	-
	8	-9.72	-9.72	-
	9	-9.68	-9.68	-

* Worst rate

Sample Calculation:

Burst power = Reading (timed average)

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

The test was performed with Gate function.

Maximum Conducted Output Power

Test place	Shonan EMC Lab. No.5 Shielded Room
Date	January 18, 2025
Temperature / Humidity	20 deg. C / 25 % RH
Engineer	Shiro Kobayashi
Mode	Tx 11ac-80 MIMO

5775 MHz

MCS Index	Conducted power Antenna ANT0 [mW]	ANT1 [mW]	Sum [mW]	Result [dBm]	Remarks
0	3.05	2.08	5.14	7.11	-
1	3.07	2.12	5.19	7.15	-
2	3.22	2.17	5.39	7.32	*
3	3.11	2.03	5.14	7.11	-
4	3.04	2.04	5.08	7.07	-
5	1.26	1.18	2.44	3.88	-
6	1.22	1.18	2.40	3.81	-
7	1.23	1.18	2.42	3.84	-
8	0.63	0.59	1.22	0.86	-
9	0.50	0.46	0.96	-0.19	-

*: Worst Rate

		ANT0				ANT1			
MCS Index	Duty Factor [dB]	Power Meter Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Result Cond. Power [dBm]	Power Meter Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Result Cond. Power [dBm]
0	-	-7.85	2.96	9.74	4.85	-9.72	2.95	9.96	3.19
1	-	-7.83	2.96	9.74	4.87	-9.65	2.95	9.96	3.26
2	-	-7.62	2.96	9.74	5.08	-9.54	2.95	9.96	3.37
3	-	-7.77	2.96	9.74	4.93	-9.84	2.95	9.96	3.07
4	-	-7.87	2.96	9.74	4.83	-9.81	2.95	9.96	3.10
5	-	-11.70	2.96	9.74	1.00	-12.18	2.95	9.96	0.73
6	-	-11.82	2.96	9.74	0.88	-12.20	2.95	9.96	0.71
7	-	-11.79	2.96	9.74	0.91	-12.18	2.95	9.96	0.73
8	-	-14.72	2.96	9.74	-2.02	-15.21	2.95	9.96	-2.30
9	-	-15.75	2.96	9.74	-3.05	-16.26	2.95	9.96	-3.35

*1) Duty Factor is not required because the measurement using a gated RF average power meter.

Sample Calculation:
Conducted Pow er Result = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss

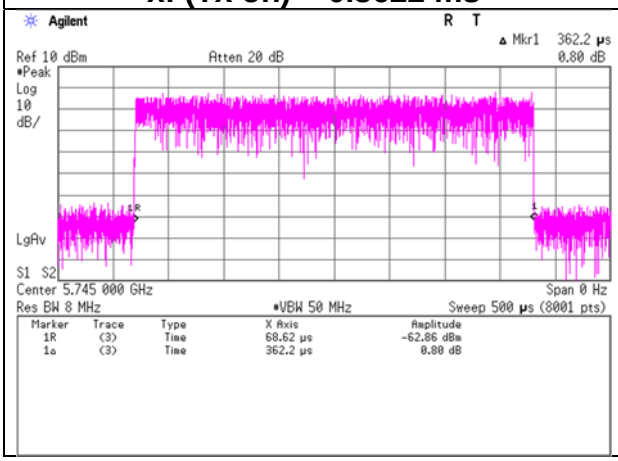
The test was performed with Gate function.

Burst rate confirmation

Test place	Shonan EMC Lab. No.5 Shielded Room
Date	January 28, 2025
Temperature / Humidity	25 deg. C / 50 % RH
Engineer	Hiromasa Sato
Mode	Tx

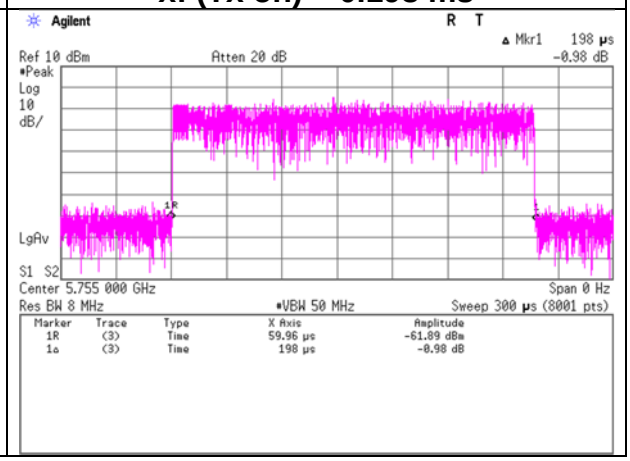
11ac-20 MIMO, MCS 2

VBW: 1/x = 2761 Hz < 3000 Hz
x: (Tx on) = 0.3622 ms



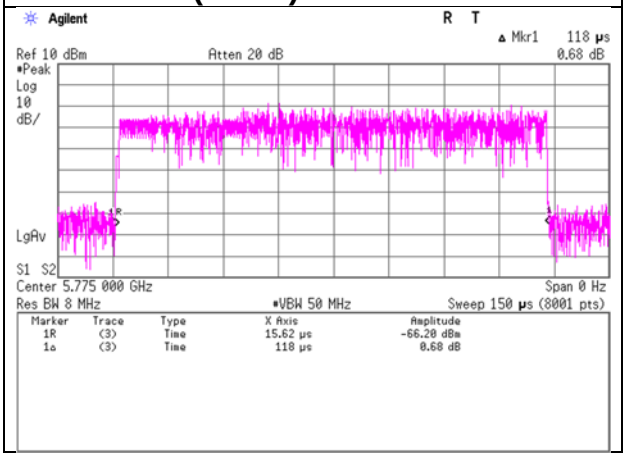
11ac-40 MIMO, MCS 2

VBW: 1/x = 5051 Hz < 10000 Hz
x: (Tx on) = 0.198 ms



11ac-80 MIMO, MCS 2

VBW: 1/x = 8475 Hz < 10000 Hz
x: (Tx on) = 0.118 ms



Maximum Power Spectral Density

Test place	Shonan EMC Lab. No.5 Shielded Room
Date	January 23, 2025
Temperature / Humidity	22 deg. C / 42 % RH
Engineer	Shiro Kobayashi
Mode	Tx 11a

ANT0

Tested Frequency	PSD Reading	Cable Loss	Atten. Loss	Duty Factor	Antenna Gain	RBW Correction Factor	PSD (Conducted)					PSD (e.i.r.p.)				
							Result	FCC 15.407		RSS-247		Result	FCC 15.407		RSS-247	
								Limit	Margin	Limit	Margin		Limit	Margin	Limit	Margin
[MHz]	[dBm/MHz]	[dB]	[dB]	[dB]	[dBi]	[dB]	[dBm/MHz]	[dBm/MHz]	[dB]	[dBm/MHz]	[dB]	[dBm/MHz]	[dBm/MHz]	[dB]	[dBm/MHz]	[dB]
5745	-22.47	2.96	9.74	-	2.50	0.27	-9.77	30.00	39.77	30.00	39.77	-7.27	36.00	43.27	36.00	43.27
5785	-21.70	2.97	9.74	-	2.50	0.27	***-8.99***	30.00	38.99	30.00	38.99	***-6.49***	36.00	42.49	36.00	42.49
5805	-21.92	2.97	9.74	-	2.50	0.27	-9.21	30.00	39.21	30.00	39.21	-6.71	36.00	42.71	36.00	42.71

Sample Calculation:
PSD: Power Spectral Density
The PSD within 5725 MHz to 5825 MHz are based on any 500 kHz band.
RBW Correction Factor = 10 * log (Specified bandwidth / Measured bandwidth)
PSD Result (Conducted) = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss + RBW Correction Factor
PSD Result (e.i.r.p.) = Conducted PSD Result + Antenna Gain

The test was performed with Gate function.

Maximum Power Spectral Density

Test place	Shonan EMC Lab. No.5 Shielded Room
Date	January 23, 2025
Temperature / Humidity	22 deg. C / 42 % RH
Engineer	Shiro Kobayashi
Mode	Tx 11n-20 SISO

ANT0

Tested Frequency	PSD Reading	Cable Loss	Atten. Loss	Duty Factor	Antenna Gain	RBW Correction Factor	PSD (Conducted)					PSD (e.i.r.p.)				
							Result	FCC 15.407		RSS-247		Result	FCC 15.407		RSS-247	
								Limit	Margin	Limit	Margin		Limit	Margin	Limit	Margin
[MHz]	[dBm/MHz]	[dB]	[dB]	[dB]	[dBi]	[dB]	[dBm/MHz]	[dBm/MHz]	[dB]	[dBm/MHz]	[dB]	[dBm/MHz]	[dBm/MHz]	[dB]	[dBm/MHz]	[dB]
5745	-22.54	2.96	9.74	-	2.50	0.27	***-9.84***	30.00	39.84	30.00	39.84	***-7.34***	36.00	43.34	36.00	43.34
5785	-23.23	2.97	9.74	-	2.50	0.27	-10.52	30.00	40.52	30.00	40.52	-8.02	36.00	44.02	36.00	44.02
5805	-23.58	2.97	9.74	-	2.50	0.27	-10.87	30.00	40.87	30.00	40.87	-8.37	36.00	44.37	36.00	44.37

Sample Calculation:
PSD: Power Spectral Density
The PSD within 5725 MHz to 5825 MHz are based on any 500 kHz band.
RBW Correction Factor = 10 * log (Specified bandwidth / Measured bandwidth)
PSD Result (Conducted) = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss + RBW Correction Factor
PSD Result (e.i.r.p.) = Conducted PSD Result + Antenna Gain

The test was performed with Gate function.

Maximum Power Spectral Density

Test place	Shonan EMC Lab. No.5 Shielded Room
Date	January 24, 2025
Temperature / Humidity	23 deg. C / 30 % RH
Engineer	Shiro Kobayashi
Mode	Tx 11n-20 MIMO

ANT0 + ANT1

Tested Frequency	PSD (Conducted)								PSD (e.i.r.p.)							
	Antenna			Result	FCC 15.407		RSS-247		Antenna			Result	FCC 15.407		RSS-247	
	1	2	Sum		Limit	Margin	Limit	Margin	1	2	Sum		Limit	Margin	Limit	Margin
[MHz]	[mW/MHz]	[mW/MHz]	[mW/MHz]	[dBm/MHz]	[dBm/MHz]	[dB]	[dBm/MHz]	[dB]	[mW/MHz]	[mW/MHz]	[mW/MHz]	[dBm/MHz]	[dBm/MHz]	[dB]	[dBm/MHz]	[dB]
5745	0.11	0.11	0.22	***-6.59***	30.00	36.59	30.00	36.59	0.19	0.19	0.38	***-4.19***	36.00	40.19	36.00	40.19
5785	0.12	0.09	0.21	-6.70	30.00	36.70	30.00	36.70	0.22	0.15	0.37	-4.28	36.00	40.28	36.00	40.28
5805	0.12	0.07	0.19	-7.23	30.00	37.23	30.00	37.23	0.20	0.13	0.33	-4.80	36.00	40.80	36.00	40.80

			ANT0						ANT1					
Tested Frequency	Duty Factor	RBW Correction Factor	PSD Reading	Cable Loss	Atten. Loss	Antenna Gain	PSD Result Cond.	PSD Result e.i.r.p.	PSD Reading	Cable Loss	Atten. Loss	Antenna Gain	PSD Result Cond.	PSD Result e.i.r.p.
[MHz]	[dB]	[dB]	[dBm/MHz]	[dB]	[dB]	[dBi]	[dBm/MHz]	[dBm/MHz]	[dBm/MHz]	[dB]	[dB]	[dBi]	[dBm/MHz]	[dBm/MHz]
5745	-	0.27	-22.59	2.96	9.74	2.50	-9.62	-7.12	-22.74	2.94	9.96	2.30	-9.57	-7.27
5785	-	0.27	-22.03	2.97	9.74	2.50	-9.05	-6.55	-23.66	2.95	9.96	2.30	-10.48	-8.18
5805	-	0.27	-22.37	2.97	9.74	2.50	-9.39	-6.89	-24.48	2.96	9.96	2.30	-11.29	-8.99

Sample Calculation:
PSD: Power Spectral Density
The PSD within 5725 MHz to 5825 MHz are based on any 500 kHz band.
RBW Correction Factor = 10 * log (Specified bandwidth / Measured bandwidth)
PSD Result (Conducted) = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss + RBW Correction Factor
PSD Result (e.i.r.p.) = Conducted PSD Result + Antenna Gain

The test was performed with Gate function.

Maximum Power Spectral Density

Test place	Shonan EMC Lab. No.5 Shielded Room
Date	January 23, 2025
Temperature / Humidity	22 deg. C / 42 % RH
Engineer	Shiro Kobayashi
Mode	Tx 11ac-20 SISO

ANT0

Tested Frequency	PSD Reading	Cable Loss	Atten. Loss	Duty Factor	Antenna Gain	RBW Correction Factor	PSD (Conducted)					PSD (e.i.r.p.)				
							Result	FCC 15.407		RSS-247		Result	FCC 15.407		RSS-247	
								Limit	Margin	Limit	Margin		Limit	Margin	Limit	Margin
[MHz]	[dBm/MHz]	[dB]	[dB]	[dB]	[dBi]	[dB]	[dBm/MHz]	[dBm/MHz]	[dB]	[dBm/MHz]	[dB]	[dBm/MHz]	[dBm/MHz]	[dB]	[dBm/MHz]	[dB]
5745	-22.65	2.96	9.74	-	2.50	0.27	***-9.95***	30.00	39.95	30.00	39.95	***-7.45***	36.00	43.45	36.00	43.45
5785	-23.54	2.97	9.74	-	2.50	0.27	-10.83	30.00	40.83	30.00	40.83	-8.33	36.00	44.33	36.00	44.33
5805	-23.76	2.97	9.74	-	2.50	0.27	-11.05	30.00	41.05	30.00	41.05	-8.55	36.00	44.55	36.00	44.55

Sample Calculation:
PSD: Power Spectral Density
The PSD within 5725 MHz to 5825 MHz are based on any 500 kHz band.
RBW Correction Factor = 10 * log (Specified bandwidth / Measured bandwidth)
PSD Result (Conducted) = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss + RBW Correction Factor
PSD Result (e.i.r.p.) = Conducted PSD Result + Antenna Gain

The test was performed with Gate function.

Maximum Power Spectral Density

Test place	Shonan EMC Lab. No.5 Shielded Room
Date	January 24, 2025
Temperature / Humidity	23 deg. C / 30 % RH
Engineer	Shiro Kobayashi
Mode	Tx 11ac-20 MIMO

ANT0 + ANT1

Tested Frequency	PSD (Conducted)								PSD (e.i.r.p.)							
	Antenna			Result	FCC 15.407		RSS-247		Antenna			Result	FCC 15.407		RSS-247	
	1	2	Sum		Limit	Margin	Limit	Margin	1	2	Sum		Limit	Margin	Limit	Margin
[MHz]	[mW/MHz]	[mW/MHz]	[mW/MHz]	[dBm/MHz]	[dBm/MHz]	[dB]	[dBm/MHz]	[dB]	[mW/MHz]	[mW/MHz]	[mW/MHz]	[dBm/MHz]	[dBm/MHz]	[dB]	[dBm/MHz]	[dB]
5745	0.10	0.12	0.22	***-6.62***	30.00	36.62	30.00	36.62	0.18	0.20	0.38	***-4.22***	36.00	40.22	36.00	40.22
5785	0.12	0.09	0.21	-6.77	30.00	36.77	30.00	36.77	0.22	0.15	0.37	-4.35	36.00	40.35	36.00	40.35
5805	0.12	0.09	0.21	-6.74	30.00	36.74	30.00	36.74	0.21	0.16	0.37	-4.32	36.00	40.32	36.00	40.32

			ANT0						ANT1					
Tested Frequency	Duty Factor	RBW Correction Factor	PSD Reading	Cable Loss	Atten. Loss	Antenna Gain	PSD Result		PSD Reading	Cable Loss	Atten. Loss	Antenna Gain	PSD Result	
							Cond.	e.i.r.p.					Cond.	e.i.r.p.
[MHz]	[dB]	[dB]	[dBm/MHz]	[dB]	[dB]	[dBi]	[dBm/MHz]	[dBm/MHz]	[dBm/MHz]	[dB]	[dB]	[dBi]	[dBm/MHz]	[dBm/MHz]
5745	-	0.27	-22.87	2.96	9.74	2.50	-9.91	-7.41	-22.54	2.94	9.96	2.30	-9.37	-7.07
5785	-	0.27	-22.02	2.97	9.74	2.50	-9.04	-6.54	-23.84	2.95	9.96	2.30	-10.66	-8.36
5805	-	0.27	-22.24	2.97	9.74	2.50	-9.26	-6.76	-23.49	2.96	9.96	2.30	-10.30	-8.00

Sample Calculation:
PSD: Power Spectral Density
The PSD within 5725 MHz to 5825 MHz are based on any 500 kHz band.
RBW Correction Factor = 10 * log (Specified bandwidth / Measured bandwidth)
PSD Result (Conducted) = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss + RBW Correction Factor
PSD Result (e.i.r.p.) = Conducted PSD Result + Antenna Gain

The test was performed with Gate function.

Maximum Power Spectral Density

Test place	Shonan EMC Lab. No.5 Shielded Room
Date	January 23, 2025
Temperature / Humidity	22 deg. C / 42 % RH
Engineer	Shiro Kobayashi
Mode	Tx 11n-40 SISO

ANT1

Tested Frequency	PSD Reading	Cable Loss	Atten. Loss	Duty Factor	Antenna Gain *1)	RBW Correction Factor	PSD (Conducted)					PSD (e.i.r.p.)				
							Result	FCC 15.407		RSS-247		Result	FCC 15.407		RSS-247	
								Limit	Margin	Limit	Margin		Limit	Margin	Limit	Margin
[MHz]	[dBm/MHz]	[dB]	[dB]	[dB]	[dBi]	[dB]	[dBm/MHz]	[dBm/MHz]	[dB]	[dBm/MHz]	[dB]	[dBm/MHz]	[dBm/MHz]	[dB]	[dBm/MHz]	[dB]
5755	-25.00	2.96	9.74	-	2.50	0.27	***-12.30***	30.00	42.30	30.00	42.30	***-9.80***	36.00	45.80	36.00	45.80
5795	-26.09	2.97	9.74	-	2.50	0.27	-13.38	30.00	43.38	30.00	43.38	-10.88	36.00	46.88	36.00	46.88

Sample Calculation:
PSD: Power Spectral Density
The PSD within 5725 MHz to 5825 MHz are based on any 500 kHz band.
RBW Correction Factor = 10 * log (Specified bandwidth / Measured bandwidth)
PSD Result (Conducted) = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss + RBW Correction Factor
PSD Result (e.i.r.p.) = Conducted PSD Result + Antenna Gain

*1) The higher antenna gain was applied, which is the more stringent condition.

The test was performed with Gate function.

Maximum Power Spectral Density

Test place	Shonan EMC Lab. No.5 Shielded Room
Date	January 24, 2025
Temperature / Humidity	23 deg. C / 30 % RH
Engineer	Shiro Kobayashi
Mode	Tx 11n-40 MIMO

ANT0 + ANT1

Tested Frequency	PSD (Conducted)								PSD (e.i.r.p.)							
	Antenna			Result	FCC 15.407		RSS-247		Antenna			Result	FCC 15.407		RSS-247	
	1	2	Sum		Limit	Margin	Limit	Margin	1	2	Sum		Limit	Margin	Limit	Margin
[MHz]	[mW/MHz]	[mW/MHz]	[mW/MHz]	[dBm/MHz]	[dBm/MHz]	[dB]	[dBm/MHz]	[dB]	[mW/MHz]	[mW/MHz]	[mW/MHz]	[dBm/MHz]	[dBm/MHz]	[dB]	[dBm/MHz]	[dB]
5755	0.08	0.06	0.14	-8.46	30.00	38.46	30.00	38.46	0.15	0.10	0.25	-6.04	36.00	42.04	36.00	42.04
5795	0.08	0.04	0.12	-9.24	30.00	39.24	30.00	39.24	0.14	0.07	0.21	-6.81	36.00	42.81	36.00	42.81

			ANT0						ANT1					
Tested Frequency	Duty Factor	RBW Correction Factor	PSD Reading	Cable Loss	Atten. Loss	Antenna Gain	PSD Result		PSD Reading	Cable Loss	Atten. Loss	Antenna Gain	PSD Result	
							Cond.	e.i.r.p.					Cond.	e.i.r.p.
[MHz]	[dB]	[dB]	[dBm/MHz]	[dB]	[dB]	[dBi]	[dBm/MHz]	[dBm/MHz]	[dBm/MHz]	[dB]	[dB]	[dBi]	[dBm/MHz]	[dBm/MHz]
5755	-	0.27	-23.72	2.96	9.74	2.50	-10.75	-8.25	-25.52	2.95	9.96	2.30	-12.34	-10.04
5795	-	0.27	-24.13	2.97	9.74	2.50	-11.15	-8.65	-26.92	2.95	9.96	2.30	-13.75	-11.45

Sample Calculation:
PSD: Power Spectral Density
The PSD within 5725 MHz to 5825 MHz are based on any 500 kHz band.
RBW Correction Factor = 10 * log (Specified bandwidth / Measured bandwidth)
PSD Result (Conducted) = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss + RBW Correction Factor
PSD Result (e.i.r.p.) = Conducted PSD Result + Antenna Gain

The test was performed with Gate function.

Maximum Power Spectral Density

Test place	Shonan EMC Lab. No.5 Shielded Room
Date	January 23, 2025
Temperature / Humidity	22 deg. C / 42 % RH
Engineer	Shiro Kobayashi
Mode	Tx 11ac-40 SISO

ANT1

Tested Frequency	PSD Reading	Cable Loss	Atten. Loss	Duty Factor	Antenna Gain *1)	RBW Correction Factor	PSD (Conducted)					PSD (e.i.r.p.)				
							Result	FCC 15.407		RSS-247		Result	FCC 15.407		RSS-247	
								Limit	Margin	Limit	Margin		Limit	Margin	Limit	Margin
[MHz]	[dBm/MHz]	[dB]	[dB]	[dB]	[dBi]	[dB]	[dBm/MHz]	[dBm/MHz]	[dB]	[dBm/MHz]	[dB]	[dBm/MHz]	[dBm/MHz]	[dB]	[dBm/MHz]	[dB]
5755	-24.94	2.96	9.74	-	2.50	0.27	***-12.24***	30.00	42.24	30.00	42.24	***-9.74***	36.00	45.74	36.00	45.74
5795	-25.98	2.97	9.74	-	2.50	0.27	-13.27	30.00	43.27	30.00	43.27	-10.77	36.00	46.77	36.00	46.77

Sample Calculation:
PSD: Power Spectral Density
The PSD within 5725 MHz to 5825 MHz are based on any 500 kHz band.
RBW Correction Factor = 10 * log (Specified bandwidth / Measured bandwidth)
PSD Result (Conducted) = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss + RBW Correction Factor
PSD Result (e.i.r.p.) = Conducted PSD Result + Antenna Gain

*1) The higher antenna gain was applied, which is the more stringent condition.

The test was performed with Gate function.

Maximum Power Spectral Density

Test place	Shonan EMC Lab. No.5 Shielded Room
Date	January 24, 2025
Temperature / Humidity	23 deg. C / 30 % RH
Engineer	Shiro Kobayashi
Mode	Tx 11ac-40 MIMO

ANT0 + ANT1

Tested Frequency	PSD (Conducted)								PSD (e.i.r.p.)							
	Antenna			Result	FCC 15.407		RSS-247		Antenna			Result	FCC 15.407		RSS-247	
	1	2	Sum		Limit	Margin	Limit	Margin	1	2	Sum		Limit	Margin	Limit	Margin
[MHz]	[mW/MHz]	[mW/MHz]	[mW/MHz]	[dBm/MHz]	[dBm/MHz]	[dB]	[dBm/MHz]	[dB]	[mW/MHz]	[mW/MHz]	[mW/MHz]	[dBm/MHz]	[dBm/MHz]	[dB]	[dBm/MHz]	[dB]
5755	0.07	0.06	0.13	-9.00	30.00	39.00	30.00	39.00	0.12	0.10	0.22	-6.59	36.00	42.59	36.00	42.59
5795	0.08	0.05	0.12	-9.12	30.00	39.12	30.00	39.12	0.13	0.08	0.21	-6.70	36.00	42.70	36.00	42.70

			ANT0						ANT1					
Tested Frequency	Duty Factor	RBW Correction Factor	PSD Reading	Cable Loss	Atten. Loss	Antenna Gain	PSD Result Cond.	PSD Result e.i.r.p.	PSD Reading	Cable Loss	Atten. Loss	Antenna Gain	PSD Result Cond.	PSD Result e.i.r.p.
[MHz]	[dB]	[dB]	[dBm/MHz]	[dB]	[dB]	[dBi]	[dBm/MHz]	[dBm/MHz]	[dBm/MHz]	[dB]	[dB]	[dBi]	[dBm/MHz]	[dBm/MHz]
5755	-	0.27	-24.82	2.96	9.74	2.50	-11.85	-9.35	-25.35	2.95	9.96	2.30	-12.17	-9.87
5795	-	0.27	-24.21	2.97	9.74	2.50	-11.23	-8.73	-26.46	2.95	9.96	2.30	-13.28	-10.98

Sample Calculation:
PSD: Power Spectral Density
The PSD within 5725 MHz to 5825 MHz are based on any 500 kHz band.
RBW Correction Factor = 10 * log (Specified bandwidth / Measured bandwidth)
PSD Result (Conducted) = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss + RBW Correction Factor
PSD Result (e.i.r.p.) = Conducted PSD Result + Antenna Gain

The test was performed with Gate function.

Maximum Power Spectral Density

Test place	Shonan EMC Lab. No.5 Shielded Room
Date	January 23, 2025
Temperature / Humidity	22 deg. C / 42 % RH
Engineer	Shiro Kobayashi
Mode	Tx 11ac-80 SISO

ANT0

Tested Frequency	PSD Reading	Cable Loss	Atten. Loss	Duty Factor	Antenna Gain	RBW Correction Factor	PSD (Conducted)					PSD (e.i.r.p.)				
							Result	FCC 15.407		RSS-247		Result	FCC 15.407		RSS-247	
								Limit	Margin	Limit	Margin		Limit	Margin	Limit	Margin
[MHz]	[dBm/MHz]	[dB]	[dB]	[dB]	[dBi]	[dB]	[dBm/MHz]	[dBm/MHz]	[dB]	[dBm/MHz]	[dB]	[dBm/MHz]	[dBm/MHz]	[dB]	[dBm/MHz]	[dB]
5775	-27.01	2.96	9.74	-	2.50	0.27	-14.31	30.00	44.31	30.00	44.31	-11.81	36.00	47.81	36.00	47.81

Sample Calculation:
PSD: Power Spectral Density
The PSD within 5725 MHz to 5825 MHz are based on any 500 kHz band.
RBW Correction Factor = 10 * log (Specified bandwidth / Measured bandwidth)
PSD Result (Conducted) = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss + RBW Correction Factor
PSD Result (e.i.r.p.) = Conducted PSD Result + Antenna Gain

The test was performed with Gate function.

Maximum Power Spectral Density

Test place	Shonan EMC Lab. No.5 Shielded Room
Date	January 24, 2025
Temperature / Humidity	23 deg. C / 30 % RH
Engineer	Shiro Kobayashi
Mode	Tx 11ac-80 MIMO

ANT0 + ANT1

Tested Frequency	PSD (Conducted)								PSD (e.i.r.p.)							
	Antenna			Result	FCC 15.407		RSS-247		Antenna			Result	FCC 15.407		RSS-247	
	1	2	Sum		Limit	Margin	Limit	Margin	1	2	Sum		Limit	Margin	Limit	Margin
[MHz]	[mW/MHz]	[mW/MHz]	[mW/MHz]	[dBm/MHz]	[dBm/MHz]	[dB]	[dBm/MHz]	[dB]	[mW/MHz]	[mW/MHz]	[mW/MHz]	[dBm/MHz]	[dBm/MHz]	[dB]	[dBm/MHz]	[dB]
5775	0.04	0.03	0.06	-12.07	30.00	42.07	30.00	42.07	0.06	0.04	0.11	-9.65	36.00	45.65	36.00	45.65

			ANT0						ANT1					
Tested Frequency	Duty Factor	RBW Correction Factor	PSD Reading	Cable Loss	Atten. Loss	Antenna Gain	PSD Result Cond.	PSD Result e.i.r.p.	PSD Reading	Cable Loss	Atten. Loss	Antenna Gain	PSD Result Cond.	PSD Result e.i.r.p.
[MHz]	[dB]	[dB]	[dBm/MHz]	[dB]	[dB]	[dBi]	[dBm/MHz]	[dBm/MHz]	[dBm/MHz]	[dB]	[dB]	[dBi]	[dBm/MHz]	[dBm/MHz]
5775	-	0.27	-27.36	2.96	9.74	2.50	-14.39	-11.89	-29.07	2.95	9.96	2.30	-15.89	-13.59

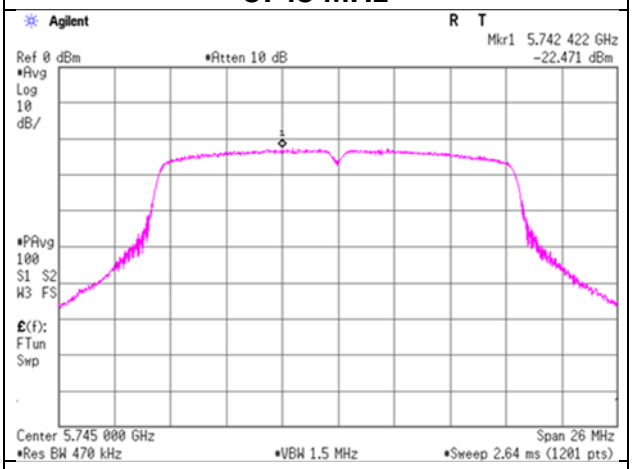
Sample Calculation:
PSD: Power Spectral Density
The PSD within 5725 MHz to 5825 MHz are based on any 500 kHz band.
RBW Correction Factor = 10 * log (Specified bandwidth / Measured bandwidth)
PSD Result (Conducted) = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss + RBW Correction Factor
PSD Result (e.i.r.p.) = Conducted PSD Result + Antenna Gain

The test was performed with Gate function.

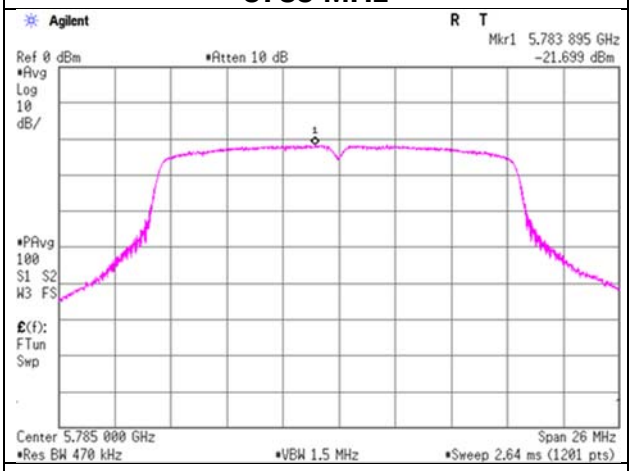
Maximum Power Spectral Density

Test place	Shonan EMC Lab. No.5 Shielded Room
Date	January 23, 2025
Temperature / Humidity	22 deg. C / 42 % RH
Engineer	Shiro Kobayashi
Mode	Tx 11a

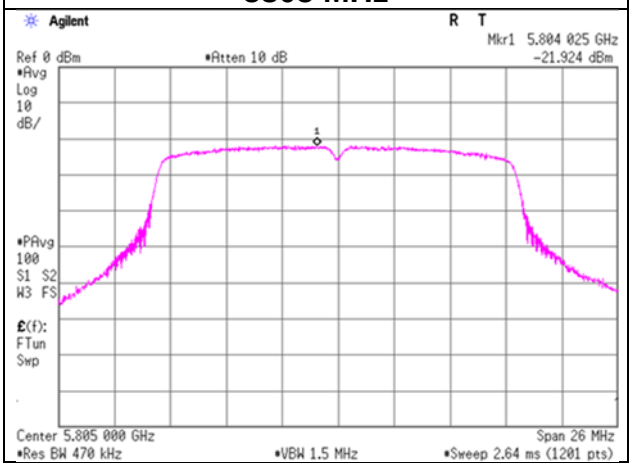
5745 MHz



5785 MHz



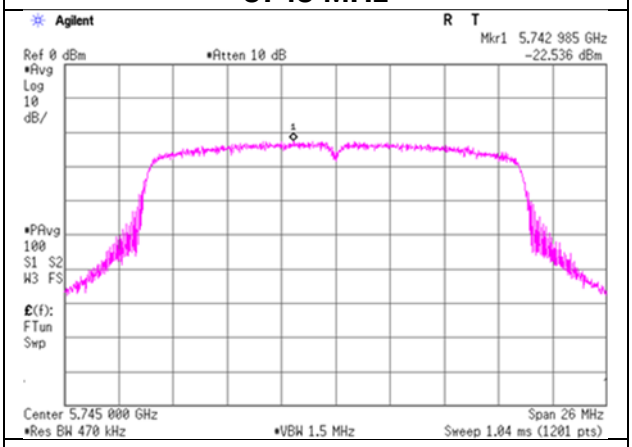
5805 MHz



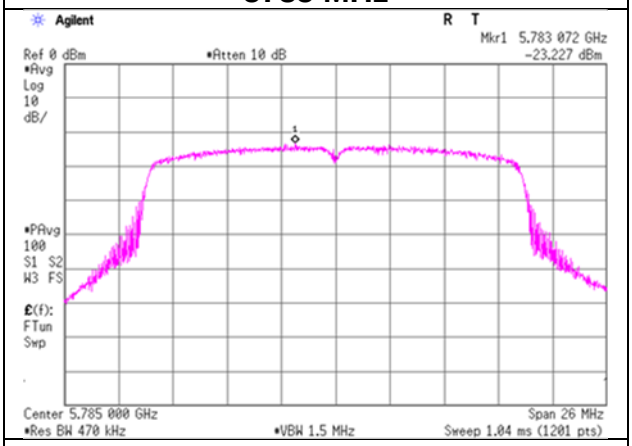
Maximum Power Spectral Density

Test place	Shonan EMC Lab. No.5 Shielded Room
Date	January 23, 2025
Temperature / Humidity	22 deg. C / 42 % RH
Engineer	Shiro Kobayashi
Mode	Tx 11n-20 SISO

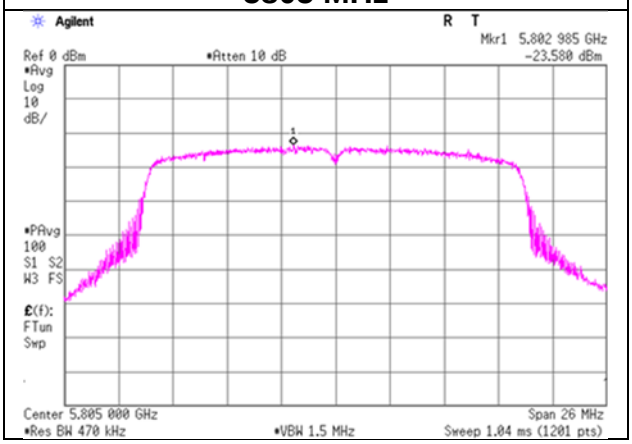
5745 MHz



5785 MHz



5805 MHz

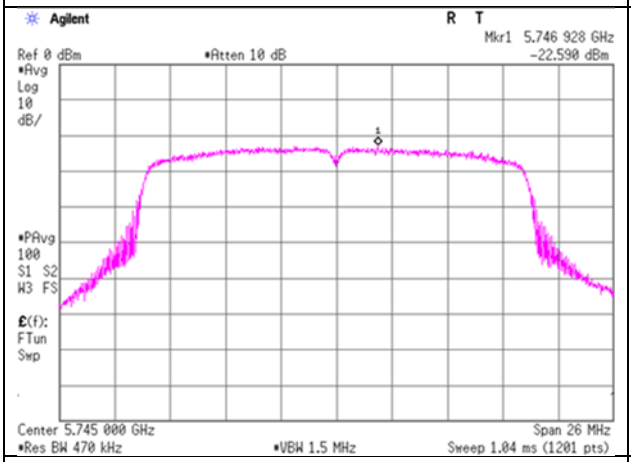


Maximum Power Spectral Density

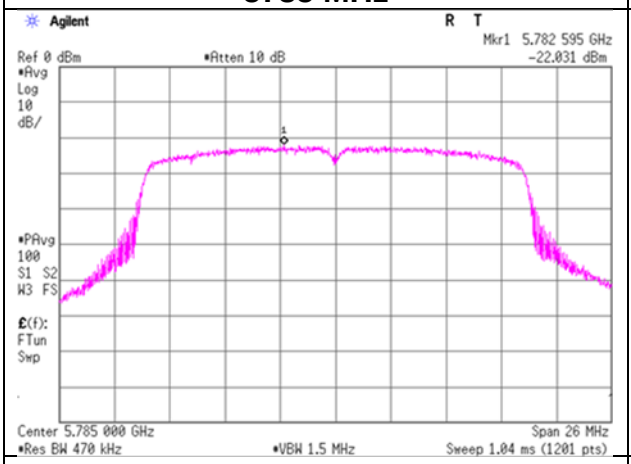
Test place	Shonan EMC Lab. No.5 Shielded Room
Date	January 24, 2025
Temperature / Humidity	23 deg. C / 30 % RH
Engineer	Shiro Kobayashi
Mode	Tx 11n-20 MIMO

ANT0

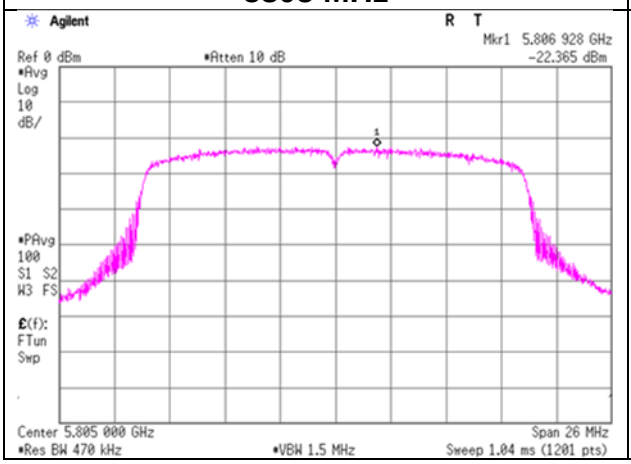
5745 MHz



5785 MHz

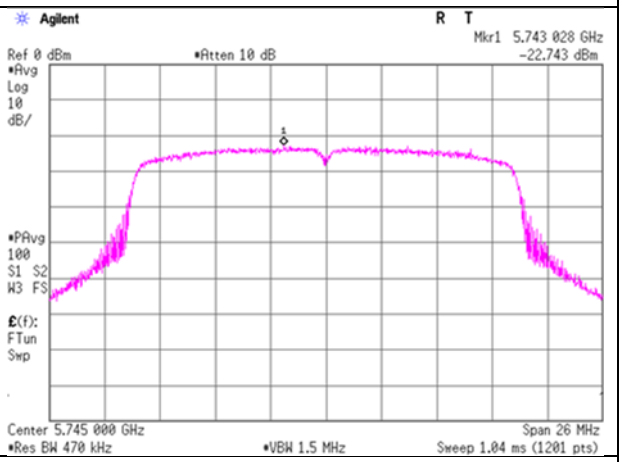


5805 MHz

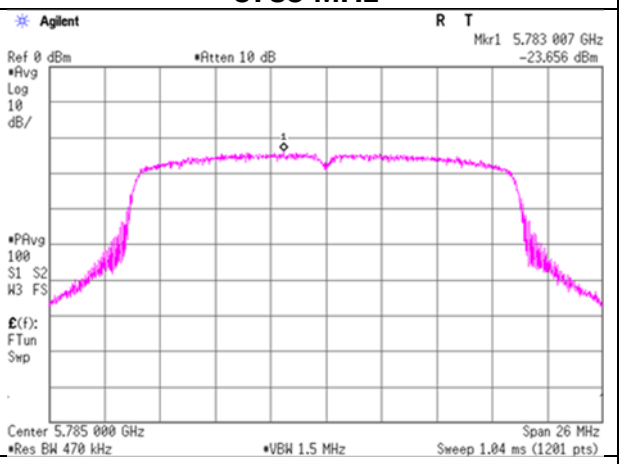


ANT1

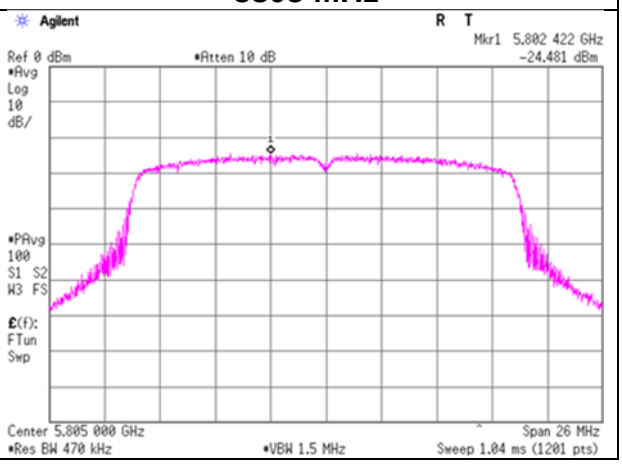
5745 MHz



5785 MHz



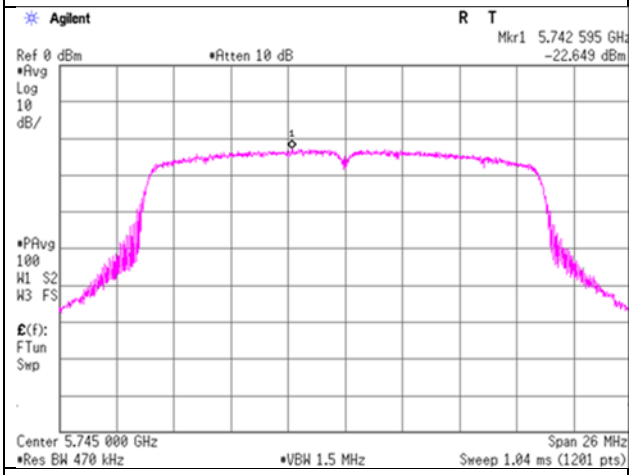
5805 MHz



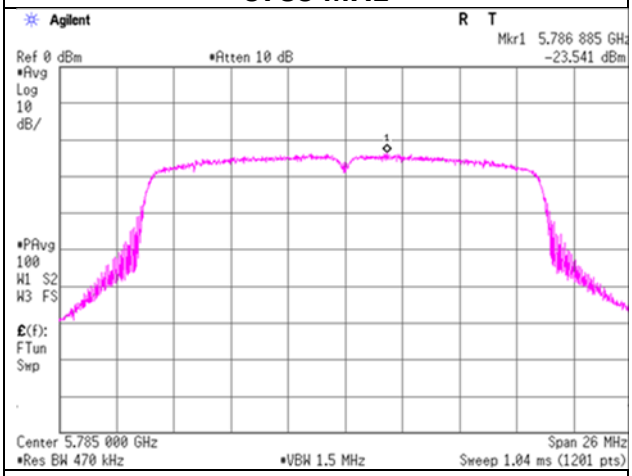
Maximum Power Spectral Density

Test place	Shonan EMC Lab. No.5 Shielded Room
Date	January 23, 2025
Temperature / Humidity	22 deg. C / 42 % RH
Engineer	Shiro Kobayashi
Mode	Tx 11ac-20 SISO

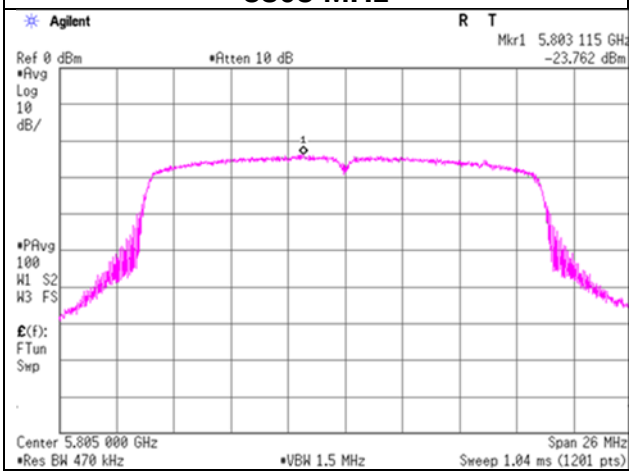
5745 MHz



5785 MHz

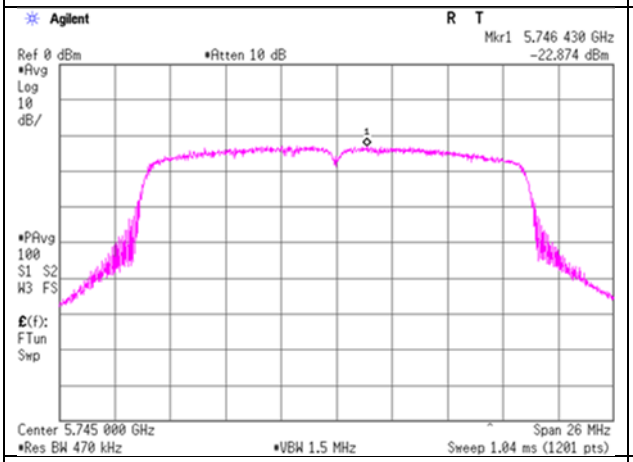
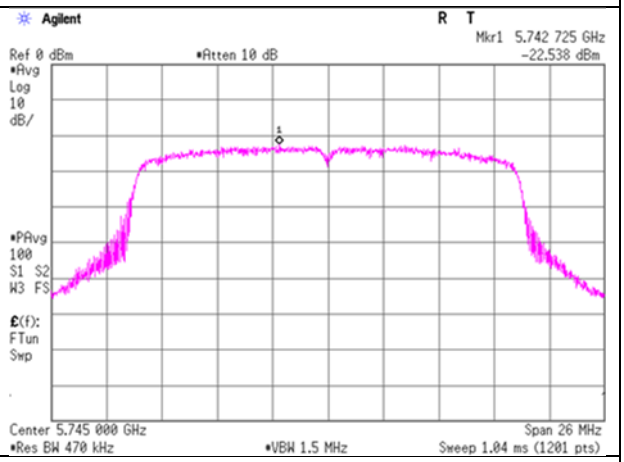
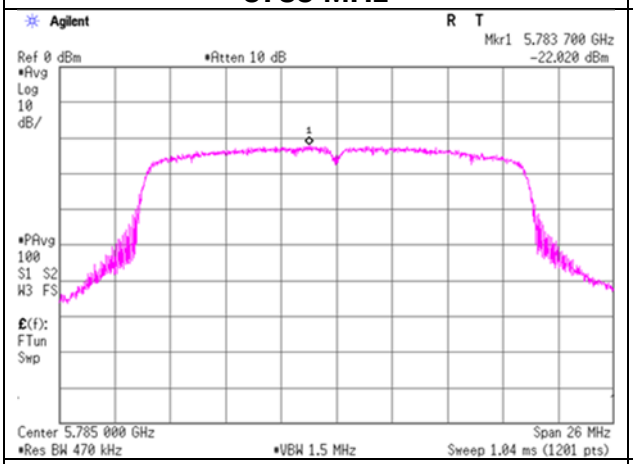
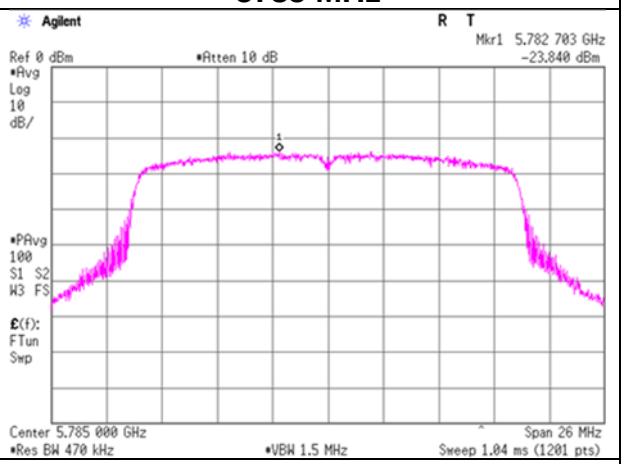
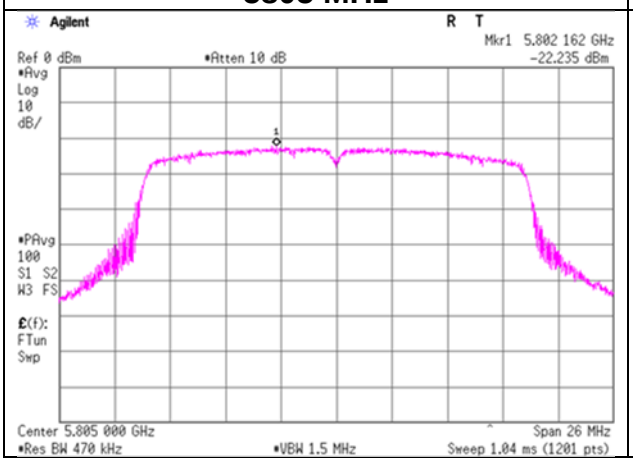
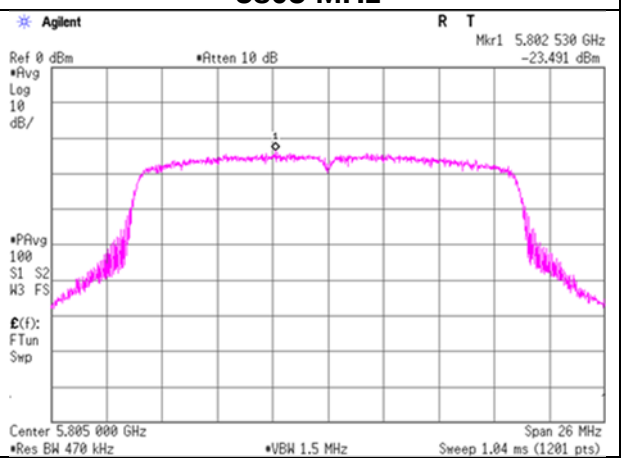


5805 MHz



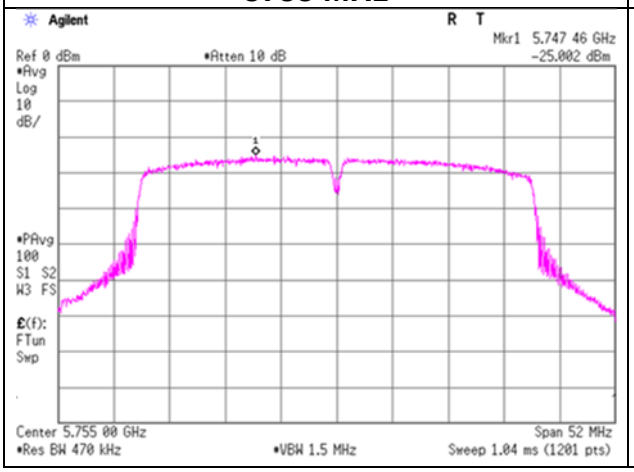
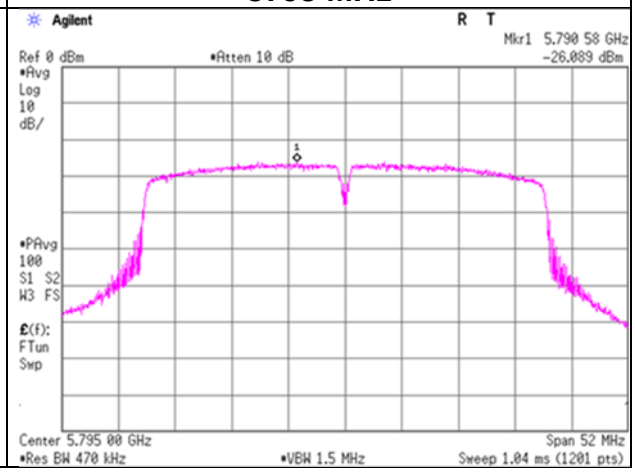
Maximum Power Spectral Density

Test place	Shonan EMC Lab. No.5 Shielded Room
Date	January 24, 2025
Temperature / Humidity	23 deg. C / 30 % RH
Engineer	Shiro Kobayashi
Mode	Tx 11ac-20 MIMO

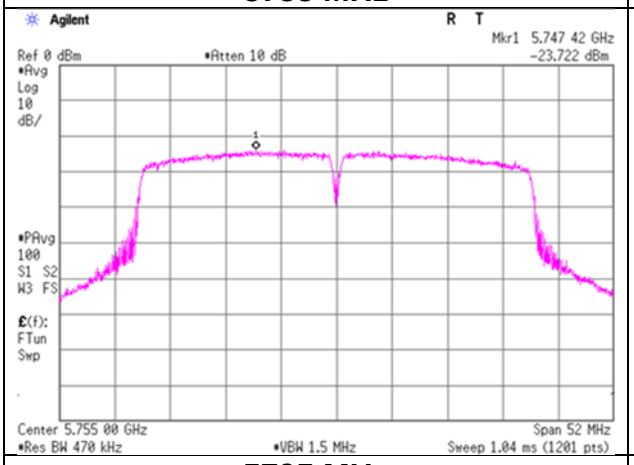
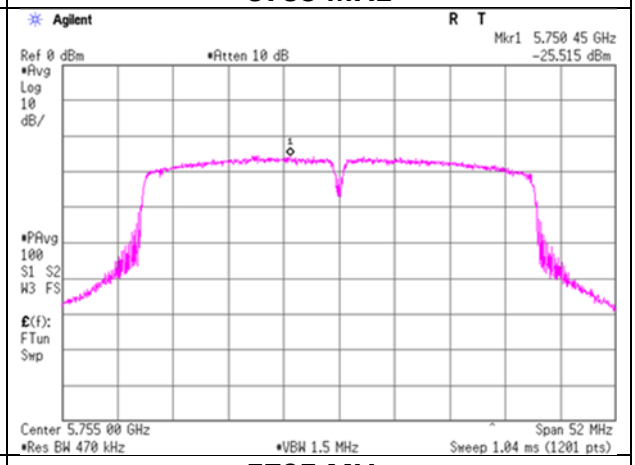
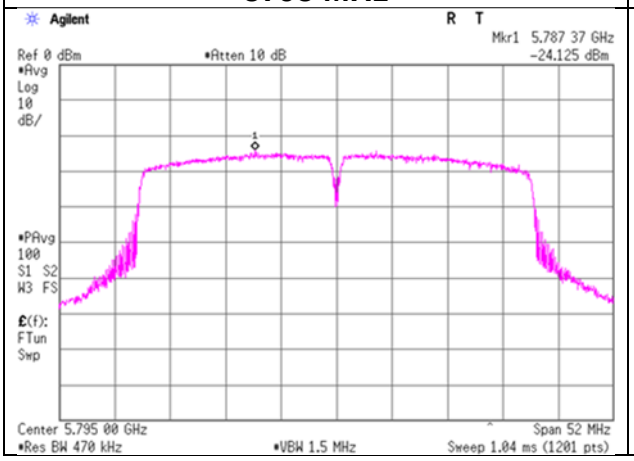
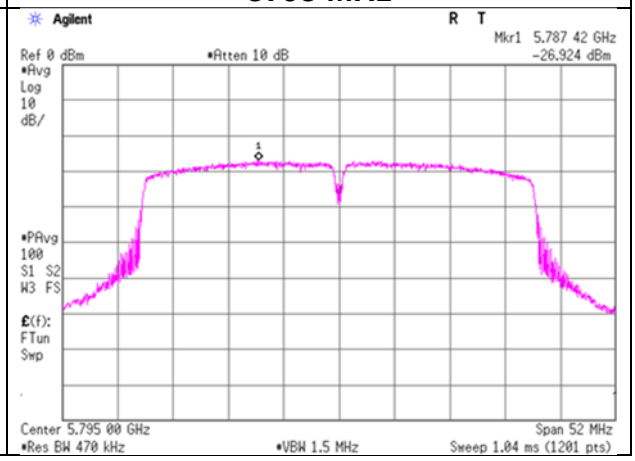
ANT0	ANT1
5745 MHz	**5745 MHz**
	
5785 MHz	**5785 MHz**
	
5805 MHz	**5805 MHz**
	

Maximum Power Spectral Density

Test place	Shonan EMC Lab. No.5 Shielded Room
Date	January 24, 2025
Temperature / Humidity	23 deg. C / 30 % RH
Engineer	Shiro Kobayashi
Mode	Tx 11n-40

5755 MHz	5795 MHz
	

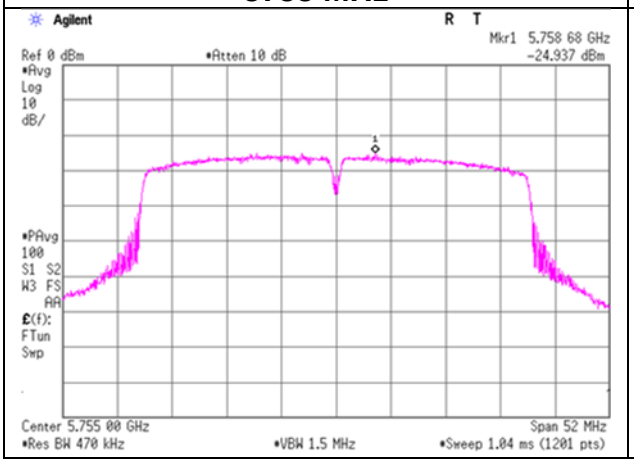
11n-40 MIMO

ANT0	ANT1
5755 MHz	**5755 MHz**
	
5795 MHz	**5795 MHz**
	

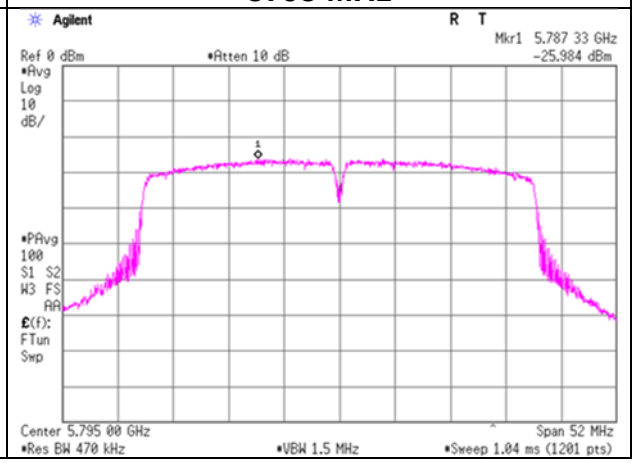
Maximum Power Spectral Density

Test place	Shonan EMC Lab. No.5 Shielded Room
Date	January 24, 2025
Temperature / Humidity	23 deg. C / 30 % RH
Engineer	Shiro Kobayashi
Mode	Tx 11ac-40

5755 MHz



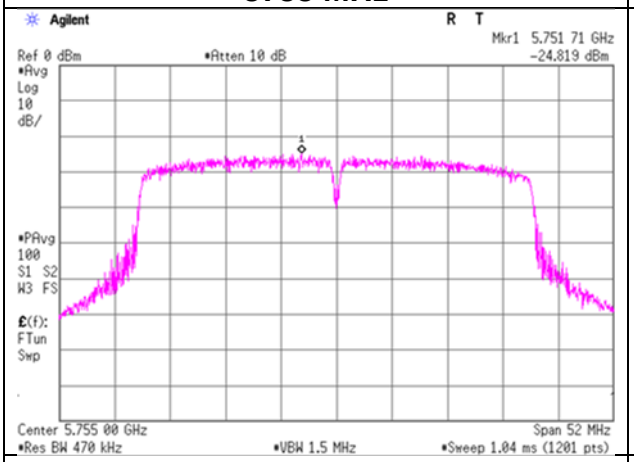
5795 MHz



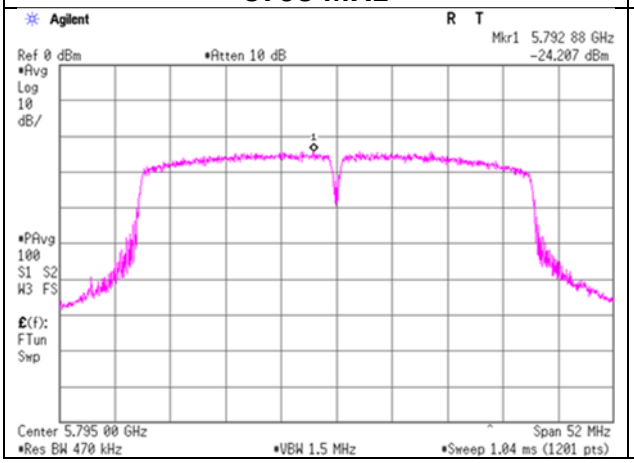
11ac-40 MIMO

ANT0

5755 MHz

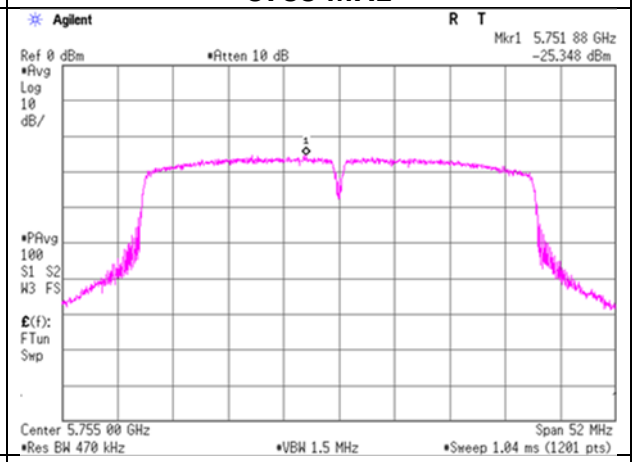


5795 MHz

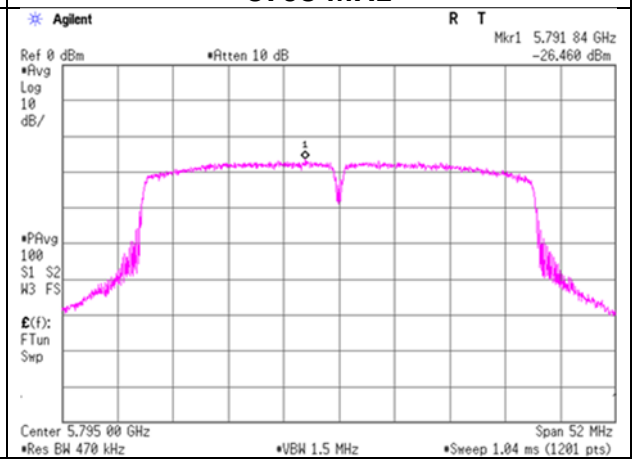


ANT1

5755 MHz



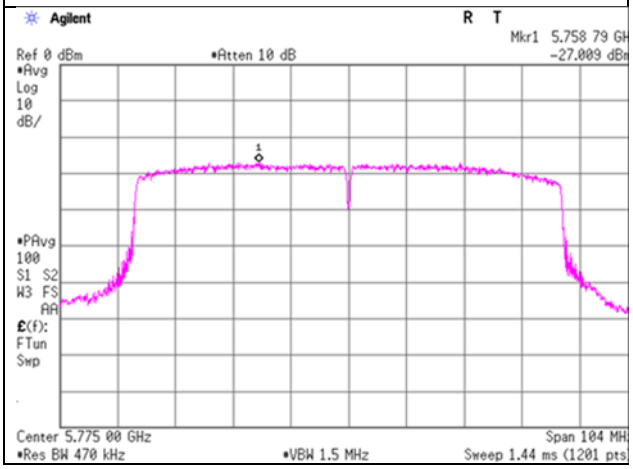
5795 MHz



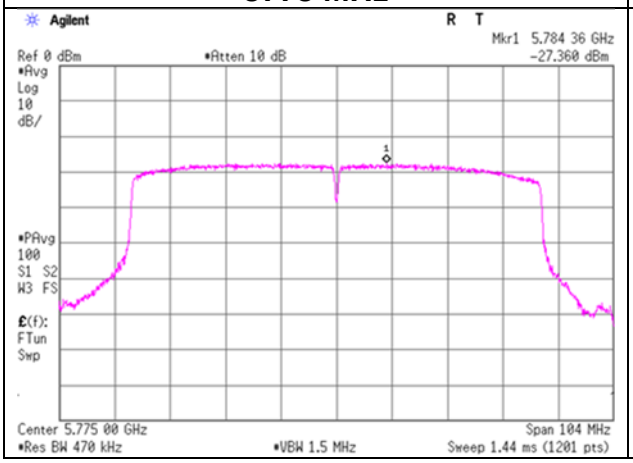
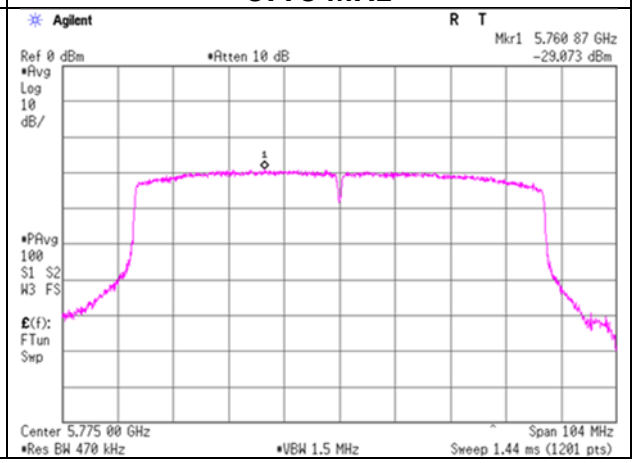
Maximum Power Spectral Density

Test place	Shonan EMC Lab. No.5 Shielded Room
Date	January 24, 2025
Temperature / Humidity	23 deg. C / 30 % RH
Engineer	Shiro Kobayashi
Mode	Tx 11ac-80

5775 MHz



11ac-80 MIMO

ANT0	ANT1
5775 MHz	**5775 MHz**
	

Radiated Spurious Emission

Test place	Shonan EMC Lab.		
Semi Anechoic Chamber	WAC1	WAC1	WAC1
Date	January 24, 2025	January 25, 2025	January 27, 2025
Temperature / Humidity	21 deg. C / 30 % RH	20 deg. C / 33 % RH	20 deg. C / 28 % RH
Engineer	Miku Ikudome (1 GHz to 10 GHz)	Masahide Ozaki (10 GHz to 18 GHz)	Takayuki Kobayashi (18 GHz to 40 GHz)
Mode	Tx 11ac-20 5745 MHz		

(above 1 GHz Inside of the restricted band)

(* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Fac. [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	7660.000	PK	50.51	36.50	-33.59	-	2.26	55.68	73.9	18.2	238	59	-
Hori.	11490.000	PK	49.27	38.08	-31.77	-	-9.54	46.04	73.9	27.8	160	150	-
Hori.	22980.000	PK	42.21	40.16	13.61	47.13	-9.54	39.31	73.9	34.5	149	154	-
Hori.	7660.000	AV	44.81	36.50	-33.59	-	2.26	49.98	53.9	**3.9**	238	59	VBW:3 kHz
Hori.	11490.000	AV	39.08	38.08	-31.77	-	-9.54	35.85	53.9	18.0	160	150	VBW:3 KHz
Hori.	22980.000	AV	28.80	40.16	13.61	47.13	-9.54	25.90	53.9	28.0	149	154	-
Vert.	7660.000	PK	50.44	36.50	-33.59	-	2.26	55.61	73.9	18.2	241	47	-
Vert.	11490.000	PK	48.37	38.08	-31.77	-	-9.54	45.14	73.9	28.7	138	172	-
Vert.	22980.000	PK	43.51	40.16	13.61	47.13	-9.54	40.61	73.9	33.2	156	191	-
Vert.	7660.000	AV	43.66	36.50	-33.59	-	2.26	48.83	53.9	5.0	241	47	VBW:3 kHz
Vert.	11490.000	AV	37.39	38.08	-31.77	-	-9.54	34.16	53.9	19.7	138	172	VBW:3 KHz
Vert.	22980.000	AV	30.11	40.16	13.61	47.13	-9.54	27.21	53.9	26.6	156	191	-

Result = Reading + Ant.Fac. + Loss (Cable + (Atten or Filter)(below 18 GHz) - Gain(Amp) (1 GHz to 18 GHz)) - Gain(Amp) (only below 1 GHz & above 18 GHz) + Distance Fac.
*Other frequency noises omitted in this report w ere not seen or have enough margin (more than 20 dB).
Distance Fac. : 1 GHz to 10 GHz : 20log (3.89 [m] / 3.0 [m]) = 2.26 [dB]
10 GHz to 40 GHz : 20log (1.00 [m] / 3.0 [m]) = -9.54 [dB]

(Calculation) (above 1 GHz Outside of the restricted band)

(* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Fac. [dB]	Distance Fac. [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5650.000	PK	46.94	33.45	-26.00	-	-	2.26	56.65	-38.58	-27.0	**11.5**	244	72	-
Hori.	5700.000	PK	47.25	33.37	-26.00	-	-	2.26	56.88	-38.35	10.0	48.3	244	72	-
Hori.	5720.000	PK	52.55	33.37	-26.00	-	-	2.26	62.18	-33.05	15.6	48.6	244	72	-
Hori.	5725.000	PK	55.23	33.37	-26.00	-	-	2.26	64.86	-30.37	27.0	57.3	244	72	-
Hori.	17235.000	PK	47.84	40.19	-28.98	-	-	-9.54	49.51	-45.72	-27.0	18.7	150	0	Floor Noise
Vert.	5650.000	PK	46.82	33.45	-26.00	-	-	2.26	56.53	-38.70	-27.0	11.7	215	71	-
Vert.	5700.000	PK	47.26	33.37	-26.00	-	-	2.26	56.89	-38.34	10.0	48.3	215	71	-
Vert.	5720.000	PK	52.46	33.37	-26.00	-	-	2.26	62.09	-33.14	15.6	48.7	215	71	-
Vert.	5725.000	PK	54.83	33.37	-26.00	-	-	2.26	64.46	-30.77	27.0	57.7	215	71	-
Vert.	17235.000	PK	47.46	40.19	-28.98	-	-	-9.54	49.13	-46.10	-27.0	19.1	150	0	Floor Noise

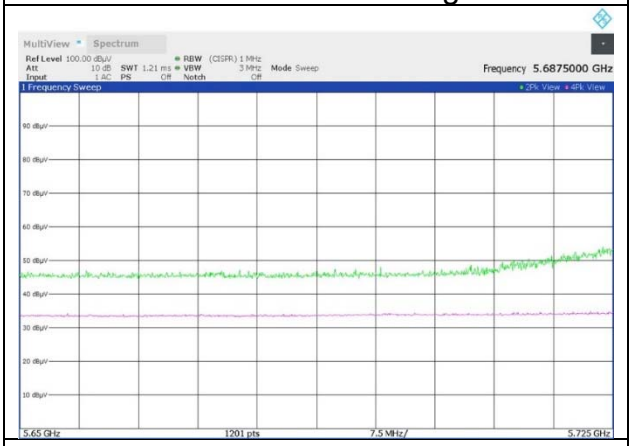
Result = Reading + Ant.Fac. + Loss (Cable + (Atten or Filter)(below 18 GHz) - Gain(Amp) (1 GHz to 18 GHz)) - Gain(Amp) (only below 1 GHz & above 18 GHz) + Duty Fac. + Distance Fac.
Result (EIRP) [dBm] = 10 * LOG ((10 ^ (Result [dBuV/m] / 20) * 10 ^ (-6) * Distance : 3 [m]) ^ 2 / 30 * 10 ^ 3)
*Other frequency noises omitted in this report w ere not seen or have enough margin (more than 20 dB).
Distance Fac. : 1 GHz to 10 GHz : 20log (3.89 [m] / 3.0 [m]) = 2.26 [dB]
10 GHz to 40 GHz : 20log (1.00 [m] / 3.0 [m]) = -9.54 [dB]

Radiated Spurious Emission

Test place	Shonan EMC Lab.
Semi Anechoic Chamber	WAC1
Date	January 24, 2025
Temperature / Humidity	21 deg. C / 30 % RH
Engineer	Miku Ikudome
Mode	Tx 11ac-20 5745 MHz

Horizontal

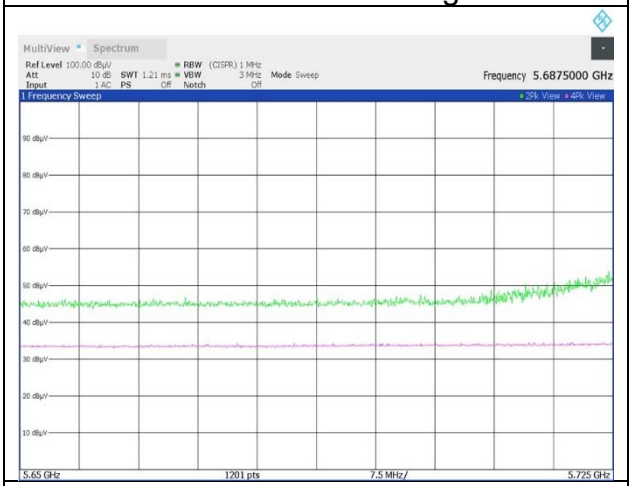
Restricted-band band-edge Plot



Trace Green: Peak Plot
Trace Purple: Average Plot

Vertical

Restricted-band band-edge Plot



Trace Green: Peak Plot
Trace Purple: Average Plot

* The measurement was conducted for a sufficiently long enough time to detect any possible spurious emissions.
Final result of restricted band edge was shown in tabular data.

Radiated Spurious Emission

Test place	Shonan EMC Lab.		
Semi Anechoic Chamber	WAC1	WAC1	WAC1
Date	January 24, 2025	January 25, 2025	January 27, 2025
Temperature / Humidity	21 deg. C / 30 % RH	20 deg. C / 33 % RH	20 deg. C / 28 % RH
Engineer	Miku Ikudome (1 GHz to 10 GHz)	Masahide Ozaki (10 GHz to 18 GHz)	Takayuki Kobayashi (18 GHz to 40 GHz)
Mode	Tx 11ac-20 5785 MHz		

(above 1 GHz Inside of the restricted band)

(* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Fac. [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	7713.333	PK	50.24	36.53	-33.59	-	2.26	55.44	73.9	18.4	204	58	-
Hori.	11570.000	PK	49.13	38.16	-31.79	-	-9.54	45.96	83.4	37.4	161	152	-
Hori.	7713.333	AV	43.10	36.53	-33.59	-	2.26	48.30	53.9	5.6	204	58	VBW:3 kHz
Hori.	11570.000	AV	39.20	38.16	-31.79	-	-9.54	36.03	63.4	27.4	161	152	VBW:3 kHz
Vert.	7713.333	PK	50.58	36.53	-33.59	-	2.26	55.78	73.9	18.1	289	354	-
Vert.	11570.000	PK	48.60	38.16	-31.79	-	-9.54	45.43	83.4	38.0	132	173	-
Vert.	7713.333	AV	43.41	36.53	-33.59	-	2.26	48.61	53.9	**5.2**	289	354	VBW:3 kHz
Vert.	11570.000	AV	37.31	38.16	-31.79	-	-9.54	34.14	63.4	29.3	132	173	VBW:3 kHz

Result = Reading + Ant.Fac. + Loss (Cable + (Atten or Filter)(below 18 GHz) - Gain(Amp) (1 GHz to 18 GHz)) - Gain(Amp) (only below 1 GHz & above 18 GHz) + Distance Fac.
*Other frequency noises omitted in this report w ere not seen or have enough margin (more than 20 dB).
Distance Fac. : 1 GHz to 10 GHz : 20log (3.89 [m] / 3.0 [m]) = 2.26 [dB]
10 GHz to 40 GHz : 20log (1.00 [m] / 3.0 [m]) = -9.54 [dB]

(Calculation) (above 1 GHz Outside of the restricted band)

(* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Fac. [dB]	Distance Fac. [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	17355.000	PK	47.73	40.37	-28.98	-	-	-9.54	49.58	-45.65	-27.0	**18.6**	150	0	Floor Noise
Hori.	23140.000	PK	41.94	40.13	13.66	47.01	-	-9.54	39.18	-56.05	-27.0	29.0	151	180	-
Vert.	17355.000	PK	47.30	40.37	-28.98	-	-	-9.54	49.15	-46.08	-27.0	19.0	150	0	Floor Noise
Vert.	23140.000	PK	43.64	40.13	13.66	47.01	-	-9.54	40.88	-54.35	-27.0	27.3	163	179	-

Result = Reading + Ant.Fac. + Loss (Cable + (Atten or Filter)(below 18 GHz) - Gain(Amp) (1 GHz to 18 GHz)) - Gain(Amp) (only below 1 GHz & above 18 GHz) + Duty Fac. + Distance Fac.
Result (EIRP) [dBm] = 10 * LOG ((10 ^ (Result [dBuV/m] / 20) * 10 ^ (-6) * Distance : 3 [m]) ^ 2 / 30 * 10 ^ 3)
*Other frequency noises omitted in this report w ere not seen or have enough margin (more than 20 dB).
Distance Fac. : 1 GHz to 10 GHz : 20log (3.89 [m] / 3.0 [m]) = 2.26 [dB]
10 GHz to 40 GHz : 20log (1.00 [m] / 3.0 [m]) = -9.54 [dB]

Radiated Spurious Emission

Test place	Shonan EMC Lab.		
Semi Anechoic Chamber	WAC1	WAC1	WAC1
Date	January 24, 2025	January 25, 2025	January 27, 2025
Temperature / Humidity	21 deg. C / 30 % RH	20 deg. C / 33 % RH	20 deg. C / 28 % RH
Engineer	Miku Ikudome (1 GHz to 10 GHz)	Masahide Ozaki (10 GHz to 18 GHz)	Takayuki Kobayashi (18 GHz to 40 GHz)
Mode	Tx 11ac-20 5805 MHz		

(above 1 GHz Inside of the restricted band)

(* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Fac. [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	7740.000	PK	49.75	36.53	-33.59	-	2.26	54.95	73.9	18.9	262	61	-
Hori.	11610.000	PK	49.19	38.21	-31.81	-	-9.54	46.05	73.9	27.8	166	151	-
Hori.	7740.000	AV	41.43	36.53	-33.59	-	2.26	46.63	53.9	**7.2**	262	61	VBW:3 kHz
Hori.	11610.000	AV	38.82	38.21	-31.81	-	-9.54	35.68	53.9	18.2	166	151	VBW:3 kHz
Vert.	7740.000	PK	49.15	36.53	-33.59	-	2.26	54.35	73.9	19.5	228	321	-
Vert.	11610.000	PK	48.38	38.21	-31.81	-	-9.54	45.24	73.9	28.6	134	173	-
Vert.	7740.000	AV	40.69	36.53	-33.59	-	2.26	45.89	53.9	8.0	228	321	VBW:3 kHz
Vert.	11610.000	AV	36.79	38.21	-31.81	-	-9.54	33.65	53.9	20.2	134	173	VBW:3 kHz

Result = Reading + Ant.Fac. + Loss (Cable + (Atten or Filter)(below 18 GHz) - Gain(Amp) (1 GHz to 18 GHz)) - Gain(Amp) (only below 1 GHz & above 18 GHz) + Distance Fac.
*Other frequency noises omitted in this report w ere not seen or have enough margin (more than 20 dB).
Distance Fac. : 1 GHz to 10 GHz : 20log (3.89 [m] / 3.0 [m]) = 2.26 [dB]
10 GHz to 40 GHz : 20log (1.00 [m] / 3.0 [m]) = -9.54 [dB]

(Calculation) (above 1 GHz Outside of the restricted band)

(* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Fac. [dB]	Distance Fac. [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5850.000	PK	47.25	33.35	-25.98	-	-	2.26	56.88	-38.35	27.0	65.3	239	56	-
Hori.	5855.000	PK	47.46	33.36	-25.99	-	-	2.26	57.09	-38.14	15.6	53.7	239	56	-
Hori.	5875.000	PK	47.20	33.38	-25.99	-	-	2.26	56.85	-38.38	10.0	48.3	239	56	-
Hori.	5925.000	PK	46.35	33.53	-25.98	-	-	2.26	56.16	-39.07	-27.0	12.0	239	56	-
Hori.	17415.000	PK	47.58	40.40	-28.98	-	-	-9.54	49.46	-45.77	-27.0	18.7	150	0	Floor Noise
Hori.	23220.000	PK	43.17	40.13	13.69	46.95	-	-9.54	40.50	-54.73	-27.0	27.7	150	181	Floor Noise
Vert.	5850.000	PK	47.33	33.35	-25.98	-	-	2.26	56.96	-38.27	27.0	65.2	111	37	-
Vert.	5855.000	PK	46.79	33.36	-25.99	-	-	2.26	56.42	-38.81	15.6	54.4	111	37	-
Vert.	5875.000	PK	46.42	33.38	-25.99	-	-	2.26	56.07	-39.16	10.0	49.1	111	37	-
Vert.	5925.000	PK	46.43	33.53	-25.98	-	-	2.26	56.24	-38.99	-27.0	**11.9**	111	37	-
Vert.	17415.000	PK	47.03	40.40	-28.98	-	-	-9.54	48.91	-46.32	-27.0	19.3	150	0	Floor Noise
Vert.	23220.000	PK	43.15	40.13	13.69	46.95	-	-9.54	40.48	-54.75	-27.0	27.7	162	171	Floor Noise

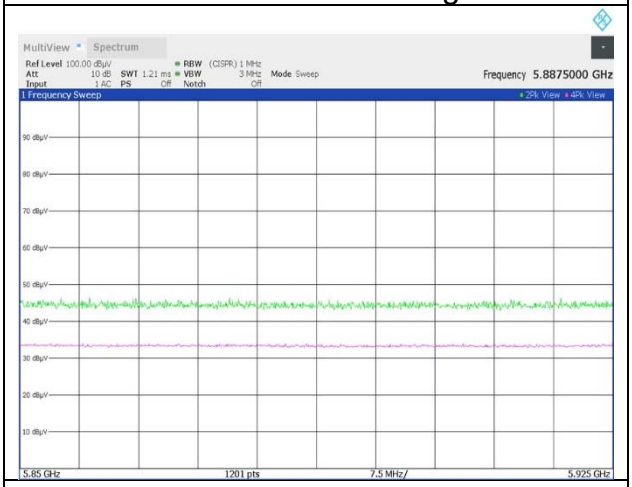
Result = Reading + Ant.Fac. + Loss (Cable + (Atten or Filter)(below 18 GHz) - Gain(Amp) (1 GHz to 18 GHz)) - Gain(Amp) (only below 1 GHz & above 18 GHz) + Duty Fac. + Distance Fac.
Result (EIRP) [dBm] = 10 * LOG ((10 ^ (Result [dBuV/m] / 20) * 10 ^ (-6) * Distance : 3 [m]) ^ 2 / 30 * 10 ^ 3)
*Other frequency noises omitted in this report w ere not seen or have enough margin (more than 20 dB).
Distance Fac. : 1 GHz to 10 GHz : 20log (3.89 [m] / 3.0 [m]) = 2.26 [dB]
10 GHz to 40 GHz : 20log (1.00 [m] / 3.0 [m]) = -9.54 [dB]

Radiated Spurious Emission

Test place	Shonan EMC Lab.
Semi Anechoic Chamber	WAC1
Date	January 24, 2025
Temperature / Humidity	21 deg. C / 30 % RH
Engineer	Miku Ikudome
Mode	Tx 11ac-20 5805 MHz

Horizontal

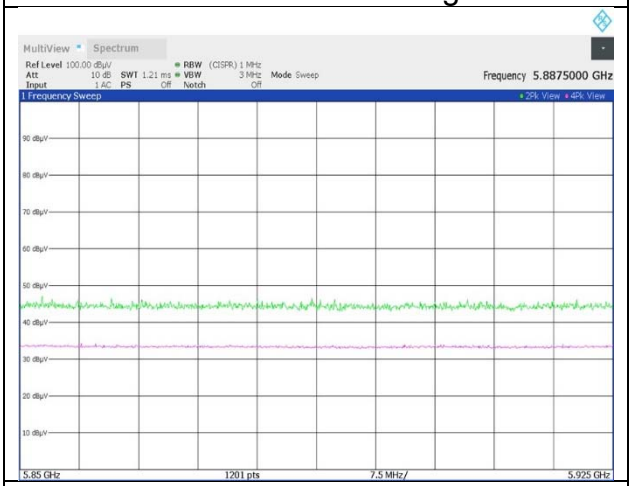
Restricted-band band-edge Plot



Trace Green: Peak Plot
Trace Purple: Average Plot

Vertical

Restricted-band band-edge Plot



Trace Green: Peak Plot
Trace Purple: Average Plot

* The measurement was conducted for a sufficiently long enough time to detect any possible spurious emissions.
Final result of restricted band edge was shown in tabular data.

Radiated Spurious Emission

Test place	Shonan EMC Lab.		
Semi Anechoic Chamber	WAC1	WAC1	WAC1
Date	January 24, 2025	January 25, 2025	January 27, 2025
Temperature / Humidity	21 deg. C / 30 % RH	20 deg. C / 33 % RH	20 deg. C / 28 % RH
Engineer	Miku Ikudome (1 GHz to 10 GHz)	Masahide Ozaki (10 GHz to 18 GHz)	Takayuki Kobayashi (18 GHz to 40 GHz)
Mode	Tx 11ac-40 5755 MHz		

(above 1 GHz Inside of the restricted band)

(* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Fac. [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	7673.333	PK	50.55	36.51	-33.59	-	2.26	55.73	73.9	18.1	246	54	-
Hori.	11510.000	PK	48.88	38.12	-31.77	-	-9.54	45.69	73.9	28.2	160	152	-
Hori.	23020.000	PK	42.45	40.15	13.63	47.10	-9.54	39.59	73.9	34.3	153	145	-
Hori.	7673.333	AV	44.87	36.51	-33.59	-	2.26	50.05	53.9	**3.8**	246	54	VBW:10 kHz
Hori.	11510.000	AV	40.73	38.12	-31.77	-	-9.54	37.54	53.9	16.3	160	152	VBW:10 kHz
Hori.	23020.000	AV	28.59	40.15	13.63	47.10	-9.54	25.73	53.9	28.1	153	145	-
Vert.	7673.333	PK	50.36	36.51	-33.59	-	2.26	55.54	73.9	18.3	238	47	-
Vert.	11510.000	PK	48.53	38.12	-31.77	-	-9.54	45.34	73.9	28.5	135	173	-
Vert.	23020.000	PK	42.55	40.15	13.63	47.10	-9.54	39.69	73.9	34.2	152	48	-
Vert.	7673.333	AV	44.60	36.51	-33.59	-	2.26	49.78	53.9	4.1	238	47	VBW:10 kHz
Vert.	11510.000	AV	38.72	38.12	-31.77	-	-9.54	35.53	53.9	18.3	135	173	VBW:10 kHz
Vert.	23020.000	AV	29.07	40.15	13.63	47.10	-9.54	26.21	53.9	27.6	152	48	-

Result = Reading + Ant.Fac. + Loss (Cable + (Atten or Filter)(below 18 GHz) - Gain(Amp) (1 GHz to 18 GHz)) - Gain(Amp) (only below 1 GHz & above 18 GHz) + Distance Fac.
*Other frequency noises omitted in this report w ere not seen or have enough margin (more than 20 dB).
Distance Fac. : 1 GHz to 10 GHz : 20log (3.89 [m] / 3.0 [m]) = 2.26 [dB]
10 GHz to 40 GHz : 20log (1.00 [m] / 3.0 [m]) = -9.54 [dB]

(Calculation) (above 1 GHz Outside of the restricted band)

(* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Fac. [dB]	Distance Fac. [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5650.000	PK	46.63	33.45	-26.00	-	-	2.26	56.34	-38.89	-27.0	11.8	245	74	-
Hori.	5700.000	PK	48.70	33.37	-26.00	-	-	2.26	58.33	-36.90	10.0	46.9	245	74	-
Hori.	5720.000	PK	54.41	33.37	-26.00	-	-	2.26	64.04	-31.19	15.6	46.7	245	74	-
Hori.	5725.000	PK	56.02	33.37	-26.00	-	-	2.26	65.65	-29.58	27.0	56.5	245	74	-
Hori.	17265.000	PK	47.74	40.25	-28.99	-	-	-9.54	49.46	-45.77	-27.0	18.7	150	0	Floor Noise
Vert.	5650.000	PK	46.82	33.45	-26.00	-	-	2.26	56.53	-38.70	-27.0	**11.7**	200	78	-
Vert.	5700.000	PK	48.17	33.37	-26.00	-	-	2.26	57.80	-37.43	10.0	47.4	200	78	-
Vert.	5720.000	PK	53.08	33.37	-26.00	-	-	2.26	62.71	-32.52	15.6	48.1	200	78	-
Vert.	5725.000	PK	53.77	33.37	-26.00	-	-	2.26	63.40	-31.83	27.0	58.8	200	78	-
Vert.	17265.000	PK	47.73	40.25	-28.99	-	-	-9.54	49.45	-45.78	-27.0	18.7	150	0	Floor Noise

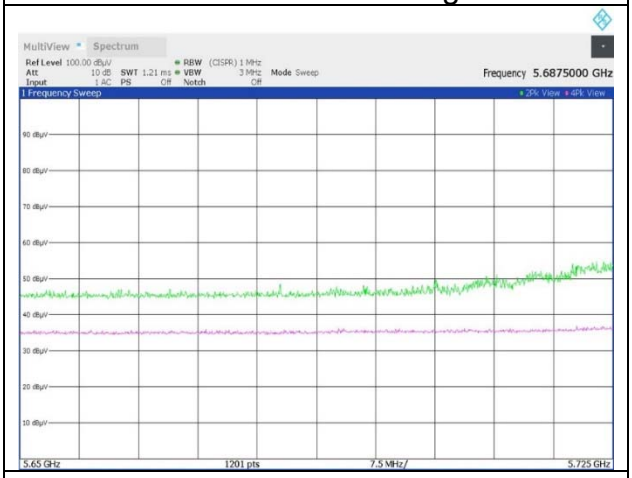
Result = Reading + Ant.Fac. + Loss (Cable + (Atten or Filter)(below 18 GHz) - Gain(Amp) (1 GHz to 18 GHz)) - Gain(Amp) (only below 1 GHz & above 18 GHz) + Duty Fac. + Distance Fac.
Result (EIRP) [dBm] = 10 * LOG ((10 ^ (Result [dBuV/m] / 20) * 10 ^ (-6) * Distance : 3 [m]) ^ 2 / 30 * 10 ^ 3)
*Other frequency noises omitted in this report w ere not seen or have enough margin (more than 20 dB).
Distance Fac. : 1 GHz to 10 GHz : 20log (3.89 [m] / 3.0 [m]) = 2.26 [dB]
10 GHz to 40 GHz : 20log (1.00 [m] / 3.0 [m]) = -9.54 [dB]

Radiated Spurious Emission

Test place	Shonan EMC Lab.
Semi Anechoic Chamber	WAC1
Date	January 24, 2025
Temperature / Humidity	21 deg. C / 30 % RH
Engineer	Miku Ikudome
Mode	Tx 11ac-40 5755 MHz

Horizontal

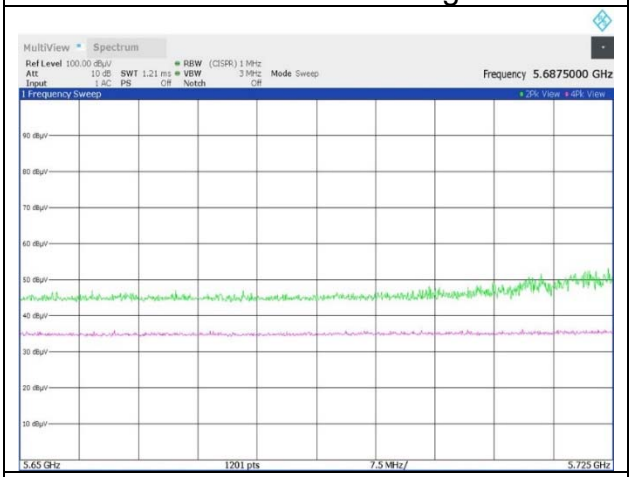
Restricted-band band-edge Plot



Trace Green: Peak Plot
Trace Purple: Average Plot

Vertical

Restricted-band band-edge Plot



Trace Green: Peak Plot
Trace Purple: Average Plot

* The measurement was conducted for a sufficiently long enough time to detect any possible spurious emissions.
Final result of restricted band edge was shown in tabular data.

Radiated Spurious Emission

Test place	Shonan EMC Lab.		
Semi Anechoic Chamber	WAC1	WAC1	WAC1
Date	January 24, 2025	January 25, 2025	January 27, 2025
Temperature / Humidity	21 deg. C / 30 % RH	20 deg. C / 33 % RH	20 deg. C / 28 % RH
Engineer	Miku Ikudome (1 GHz to 10 GHz)	Masahide Ozaki (10 GHz to 18 GHz)	Takayuki Kobayashi (18 GHz to 40 GHz)
Mode	Tx 11ac-40 5795 MHz		

(above 1 GHz Inside of the restricted band)

(* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Fac. [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	7726.666	PK	50.01	36.53	-33.59	-	2.26	55.21	73.9	18.6	252	56	-
Hori.	11590.000	PK	49.51	38.19	-31.79	-	-9.54	46.37	73.9	27.5	164	153	-
Hori.	7726.666	AV	43.60	36.53	-33.59	-	2.26	48.80	53.9	**5.1**	252	56	VBW:10 kHz
Hori.	11590.000	AV	41.13	38.19	-31.79	-	-9.54	37.99	53.9	15.9	164	153	VBW:10 kHz
Vert.	7726.666	PK	49.45	36.53	-33.59	-	2.26	54.65	73.9	19.2	272	323	-
Vert.	11590.000	PK	48.76	38.19	-31.79	-	-9.54	45.62	73.9	28.2	134	173	-
Vert.	7726.666	AV	42.63	36.53	-33.59	-	2.26	47.83	53.9	6.0	272	323	VBW:10 kHz
Vert.	11590.000	AV	39.62	38.19	-31.79	-	-9.54	36.48	53.9	17.4	134	173	VBW:10 kHz

Result = Reading + Ant.Fac. + Loss (Cable + (Atten or Filter)(below 18 GHz) - Gain(Amp) (1 GHz to 18 GHz)) - Gain(Amp) (only below 1 GHz & above 18 GHz) + Distance Fac.
*Other frequency noises omitted in this report w ere not seen or have enough margin (more than 20 dB).
Distance Fac. : 1 GHz to 10 GHz : 20log (3.89 [m] / 3.0 [m]) = 2.26 [dB]
10 GHz to 40 GHz : 20log (1.00 [m] / 3.0 [m]) = -9.54 [dB]

(Calculation) (above 1 GHz Outside of the restricted band)

(* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Fac. [dB]	Distance Fac. [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5850.000	PK	48.91	33.35	-25.98	-	-	2.26	58.54	-36.69	27.0	63.6	246	97	-
Hori.	5855.000	PK	47.92	33.36	-25.99	-	-	2.26	57.55	-37.68	15.6	53.2	246	97	-
Hori.	5875.000	PK	46.68	33.38	-25.99	-	-	2.26	56.33	-38.90	10.0	48.9	246	97	-
Hori.	5925.000	PK	46.71	33.53	-25.98	-	-	2.26	56.52	-38.71	-27.0	11.7	246	97	-
Hori.	17385.000	PK	47.49	40.41	-28.98	-	-	-9.54	49.38	-45.85	-27.0	18.8	150	0	Floor Noise
Hori.	23180.000	PK	42.60	40.13	13.67	46.98	-	-9.54	39.88	-55.35	-27.0	28.3	149	183	-
Vert.	5850.000	PK	48.30	33.35	-25.98	-	-	2.26	57.93	-37.30	27.0	64.3	146	38	-
Vert.	5855.000	PK	47.76	33.36	-25.99	-	-	2.26	57.39	-37.84	15.6	53.4	146	38	-
Vert.	5875.000	PK	46.78	33.38	-25.99	-	-	2.26	56.43	-38.80	10.0	48.8	146	38	-
Vert.	5925.000	PK	46.74	33.53	-25.98	-	-	2.26	56.55	-38.68	-27.0	**11.6**	146	38	-
Vert.	17385.000	PK	47.94	40.41	-28.98	-	-	-9.54	49.83	-45.40	-27.0	18.4	150	0	Floor Noise
Vert.	23180.000	PK	43.24	40.13	13.67	46.98	-	-9.54	40.52	-54.71	-27.0	27.7	141	16	-

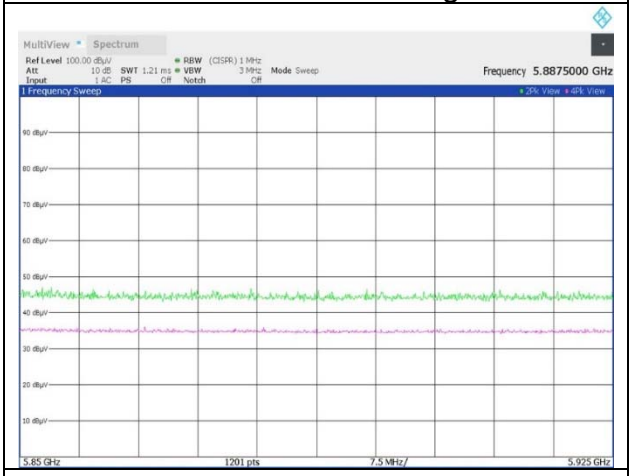
Result = Reading + Ant.Fac. + Loss (Cable + (Atten or Filter)(below 18 GHz) - Gain(Amp) (1 GHz to 18 GHz)) - Gain(Amp) (only below 1 GHz & above 18 GHz) + Duty Fac. + Distance Fac.
Result (EIRP) [dBm] = 10 * LOG ((10 ^ (Result [dBuV/m] / 20) * 10 ^ (-6) * Distance : 3 [m]) ^ 2 / 30 * 10 ^ 3)
*Other frequency noises omitted in this report w ere not seen or have enough margin (more than 20 dB).
Distance Fac. : 1 GHz to 10 GHz : 20log (3.89 [m] / 3.0 [m]) = 2.26 [dB]
10 GHz to 40 GHz : 20log (1.00 [m] / 3.0 [m]) = -9.54 [dB]

Radiated Spurious Emission

Test place	Shonan EMC Lab.
Semi Anechoic Chamber	WAC1
Date	January 24, 2025
Temperature / Humidity	21 deg. C / 30 % RH
Engineer	Miku Ikudome
Mode	Tx 11ac-40 5795 MHz

Horizontal

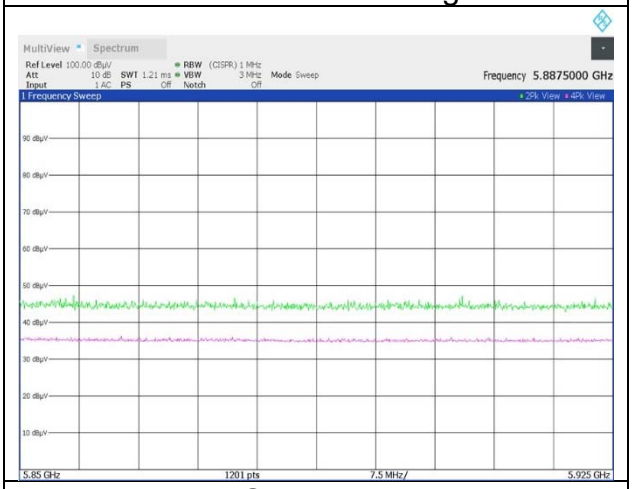
Restricted-band band-edge Plot



Trace Green: Peak Plot
Trace Purple: Average Plot

Vertical

Restricted-band band-edge Plot



Trace Green: Peak Plot
Trace Purple: Average Plot

* The measurement was conducted for a sufficiently long enough time to detect any possible spurious emissions.
Final result of restricted band edge was shown in tabular data.

Radiated Spurious Emission

Test place	Shonan EMC Lab.			
Semi Anechoic Chamber	WAC1	WAC1	WAC1	WAC1
Date	January 29, 2025	January 24, 2025	January 25, 2025	January 27, 2025
Temperature / Humidity	23 deg. C / 31 % RH	21 deg. C / 30 % RH	20 deg. C / 33 % RH	20 deg. C / 28 % RH
Engineer	Makoto Hosaka (30 MHz to 1 GHz)	Miku Ikudome (1 GHz to 10 GHz)	Masahide Ozaki (10 GHz to 18 GHz)	Takayuki Kobayashi (18 GHz to 40 GHz)
Mode	Tx 11ac-80 5775 MHz			

(below 1 GHz and above 1 GHz Inside of the restricted band)

(* PK: Peak, AV: Average, QP. Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Fac. [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	128.001	QP	30.80	11.12	6.77	28.35	0.00	20.34	43.5	23.1	309	281	-
Hori.	294.913	QP	43.10	13.59	7.48	27.76	0.00	36.41	46.0	9.5	155	307	-
Hori.	393.214	QP	44.80	15.52	7.77	28.37	0.00	39.72	46.0	6.2	100	258	-
Hori.	400.001	QP	44.70	15.74	7.80	28.42	0.00	39.82	46.0	6.1	100	74	-
Hori.	420.005	QP	36.00	16.00	7.85	28.53	0.00	31.32	46.0	14.6	100	162	-
Hori.	442.369	QP	41.10	16.31	7.91	28.65	0.00	36.67	46.0	9.3	100	269	-
Hori.	933.008	QP	34.10	21.87	8.89	28.14	0.00	36.72	46.0	9.2	118	13	-
Hori.	7700.000	PK	51.37	36.53	-33.60	-	2.26	56.56	73.9	17.3	227	58	-
Hori.	11550.000	PK	49.52	38.15	-31.78	-	-9.54	46.35	73.9	27.5	161	152	-
Hori.	23100.000	PK	42.42	40.14	13.65	47.04	-9.54	39.63	73.9	34.2	150	181	-
Hori.	7700.000	AV	44.92	36.53	-33.60	-	2.26	50.11	53.9	**3.7**	227	58	VBW:10 kHz
Hori.	11550.000	AV	41.12	38.15	-31.78	-	-9.54	37.95	53.9	15.9	161	152	VBW:10 kHz
Hori.	23100.000	AV	28.47	40.14	13.65	47.04	-9.54	25.68	53.9	28.2	150	181	VBW:10 kHz
Vert.	117.634	QP	41.20	10.58	6.78	28.40	0.00	30.16	43.5	13.3	100	290	-
Vert.	420.007	QP	39.55	16.00	7.85	28.53	0.00	34.87	46.0	11.1	138	111	-
Vert.	7700.000	PK	50.56	36.53	-33.60	-	2.26	55.75	73.9	18.1	276	323	-
Vert.	11550.000	PK	48.63	38.15	-31.78	-	-9.54	45.46	73.9	28.4	174	30	-
Vert.	23100.000	PK	42.83	40.14	13.65	47.04	-9.54	40.04	73.9	33.8	149	48	-
Vert.	7700.000	AV	42.92	36.53	-33.60	-	2.26	48.11	53.9	5.7	276	323	VBW:10 kHz
Vert.	11550.000	AV	39.56	38.15	-31.78	-	-9.54	36.39	53.9	17.5	174	30	VBW:10 kHz
Vert.	23100.000	AV	29.11	40.14	13.65	47.04	-9.54	26.32	53.9	27.5	149	48	VBW:10 kHz

Result = Reading + Ant.Fac. + Loss (Cable + (Atten or Filter)(below 18 GHz) - Gain(Amp) (1 GHz to 18 GHz)) - Gain(Amp) (only below 1 GHz & above 18 GHz) + Distance Fac.
*Other frequency noises omitted in this report w ere not seen or have enough margin (more than 20 dB).
Distance Fac. : 1 GHz to 10 GHz : 20log (3.89 [m] / 3.0 [m]) = 2.26 [dB]
10 GHz to 40 GHz : 20log (1.00 [m] / 3.0 [m]) = -9.54 [dB]

(Calculation) (above 1 GHz Outside of the restricted band)

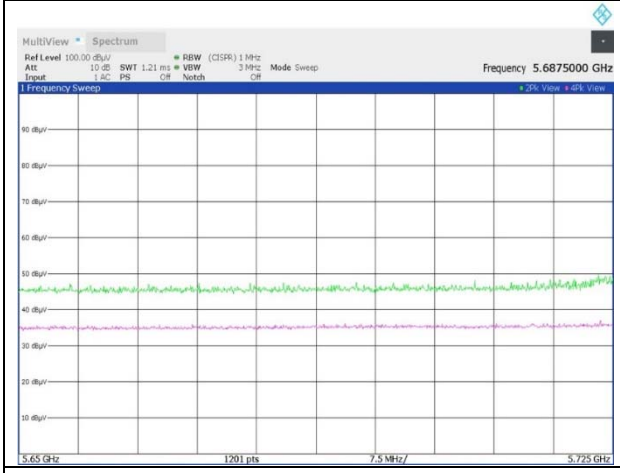
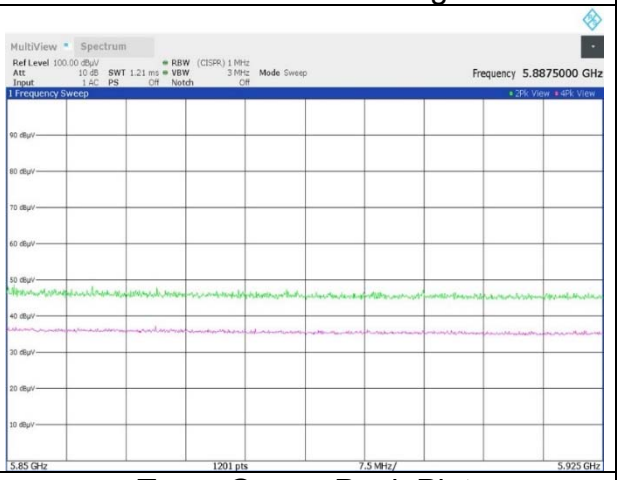
(* PK: Peak, AV: Average, QP. Quasi-Peak)

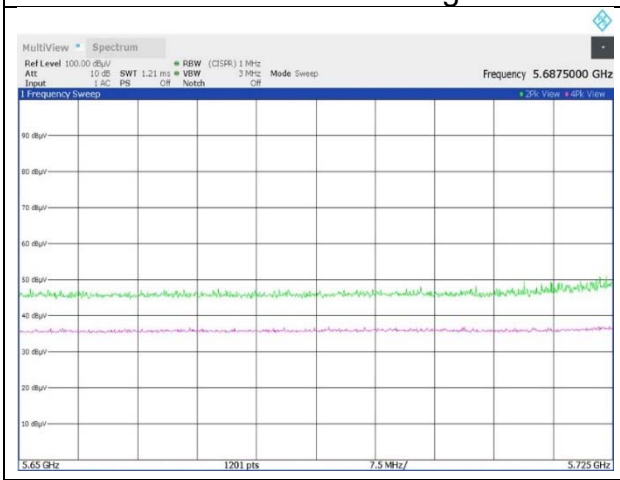
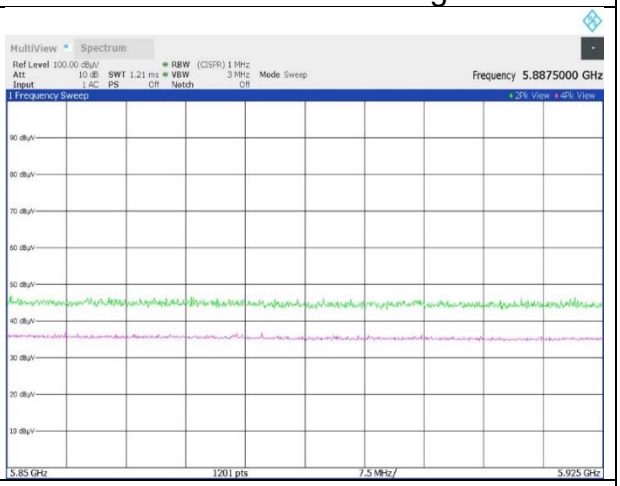
Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Fac. [dB]	Distance Fac. [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5650.000	PK	46.94	33.45	-26.00	-	-	2.26	56.65	-38.58	-27.0	11.5	170	54	-
Hori.	5700.000	PK	47.92	33.37	-26.00	-	-	2.26	57.55	-37.68	10.0	47.6	170	54	-
Hori.	5720.000	PK	49.60	33.37	-26.00	-	-	2.26	59.23	-36.00	15.6	51.6	170	54	-
Hori.	5725.000	PK	50.03	33.37	-26.00	-	-	2.26	59.66	-35.57	27.0	62.5	170	54	-
Hori.	5850.000	PK	49.16	33.35	-25.98	-	-	2.26	58.79	-36.44	27.0	63.4	170	54	-
Hori.	5855.000	PK	48.47	33.36	-25.99	-	-	2.26	58.10	-37.13	15.6	52.7	170	54	-
Hori.	5875.000	PK	47.70	33.38	-25.99	-	-	2.26	57.35	-37.88	10.0	47.8	170	54	-
Hori.	5925.000	PK	46.98	33.53	-25.98	-	-	2.26	56.79	-38.44	-27.0	**11.4**	170	54	-
Hori.	17325.000	PK	47.38	40.31	-28.98	-	-	-9.54	49.17	-46.06	-27.0	19.0	150	0	Floor Noise
Vert.	5650.000	PK	47.01	33.45	-26.00	-	-	2.26	56.72	-38.51	-27.0	11.5	151	35	-
Vert.	5700.000	PK	47.62	33.37	-26.00	-	-	2.26	57.25	-37.98	10.0	47.9	151	35	-
Vert.	5720.000	PK	49.72	33.37	-26.00	-	-	2.26	59.35	-35.88	15.6	51.4	151	35	-
Vert.	5725.000	PK	51.07	33.37	-26.00	-	-	2.26	60.70	-34.53	27.0	61.5	151	35	-
Vert.	5850.000	PK	49.45	33.35	-25.98	-	-	2.26	59.08	-36.15	27.0	63.1	151	35	-
Vert.	5855.000	PK	48.63	33.36	-25.99	-	-	2.26	58.26	-36.97	15.6	52.5	151	35	-
Vert.	5875.000	PK	47.25	33.38	-25.99	-	-	2.26	56.90	-38.33	10.0	48.3	151	35	-
Vert.	5925.000	PK	46.87	33.53	-25.98	-	-	2.26	56.68	-38.55	-27.0	11.5	151	35	-
Vert.	17325.000	PK	47.58	40.31	-28.98	-	-	-9.54	49.37	-45.86	-27.0	18.8	150	0	Floor Noise

Result = Reading + Ant.Fac. + Loss (Cable + (Atten or Filter)(below 18 GHz) - Gain(Amp) (1 GHz to 18 GHz)) - Gain(Amp) (only below 1 GHz & above 18 GHz) + Duty Fac. + Distance Fac.
Result (EIRP) [dBm] = 10 * LOG ((10 ^ (Result [dBuV/m] / 20) * 10 ^ (-6) * Distance : 3 [m]) ^ 2 / 30 * 10 ^ 3)
*Other frequency noises omitted in this report w ere not seen or have enough margin (more than 20 dB).
Distance Fac. : 1 GHz to 10 GHz : 20log (3.89 [m] / 3.0 [m]) = 2.26 [dB]
10 GHz to 40 GHz : 20log (1.00 [m] / 3.0 [m]) = -9.54 [dB]

Radiated Spurious Emission

Test place	Shonan EMC Lab.
Semi Anechoic Chamber	WAC1
Date	January 24, 2025
Temperature / Humidity	21 deg. C / 30 % RH
Engineer	Miku Ikudome
Mode	Tx 11ac-80 5775 MHz

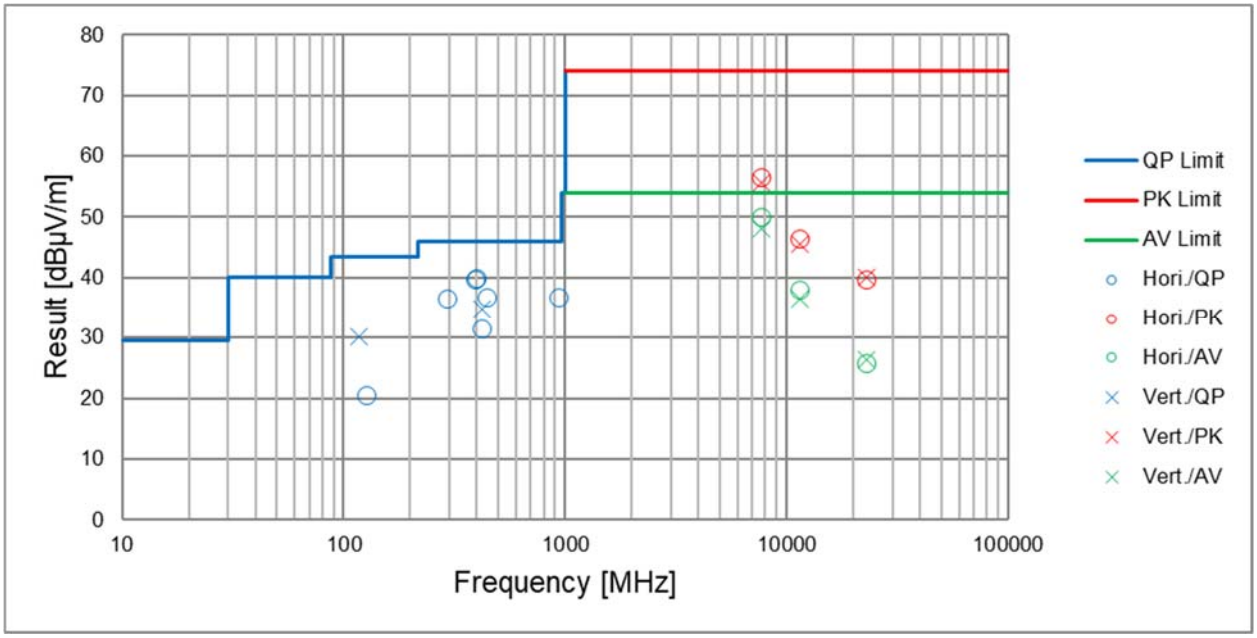
Horizontal	Horizontal
Restricted-band band-edge Plot	Restricted-band band-edge Plot
	
Trace Green: Peak Plot Trace Purple: Average Plot	Trace Green: Peak Plot Trace Purple: Average Plot

Vertical	Vertical
Restricted-band band-edge Plot	Restricted-band band-edge Plot
	
Trace Green: Peak Plot Trace Purple: Average Plot	Trace Green: Peak Plot Trace Purple: Average Plot

* The measurement was conducted for a sufficiently long enough time to detect any possible spurious emissions.
Final result of restricted band edge was shown in tabular data.

Radiated Spurious Emission
(Plot data, Worst case mode for Maximum Conducted Output Power)

Test place	Shonan EMC Lab.			
Semi Anechoic Chamber	WAC1	WAC1	WAC1	WAC1
Date	January 29, 2025	January 24, 2025	January 25, 2025	January 27, 2025
Temperature / Humidity	23 deg. C / 31 % RH	21 deg. C / 30 % RH	20 deg. C / 33 % RH	20 deg. C / 28 % RH
Engineer	Makoto Hosaka (30 MHz to 1 GHz)	Miku Ikudome (1 GHz to 10 GHz)	Masahide Ozaki (10 GHz to 18 GHz)	Takayuki Kobayashi (18 GHz to 40 GHz)
Mode	Tx 11ac-80 5775 MHz			



*These plots data contains sufficient number to show the trend of characteristic features for EUT.

Radiated Spurious Emission

Test place	Shonan EMC Lab.		
Semi Anechoic Chamber	WAC1	WAC1	WAC1
Date	January 29, 2025	January 28, 2025	January 27, 2025
Temperature / Humidity	23 deg. C / 31 % RH	21 deg. C / 28 % RH	21 deg. C / 32 % RH
Engineer	Makoto Hosaka	Makoto Hosaka	Makoto Hosaka
	(30 MHz to 1 GHz)	(1 GHz to 18 GHz)	(18 GHz to 40 GHz)
Mode	Tx 11ac-80 5775 MHz with DH5 Hopping		

(below 1 GHz and above 1 GHz Inside of the restricted band)

(* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Fac. [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	128.003	QP	29.70	11.12	6.77	28.35	0.00	19.24	43.5	24.2	328	282	-
Hori.	294.914	QP	43.10	13.59	7.48	27.76	0.00	36.41	46.0	9.5	157	306	-
Hori.	393.214	QP	45.60	15.52	7.77	28.37	0.00	40.52	46.0	5.4	100	258	-
Hori.	400.006	QP	44.30	15.74	7.80	28.42	0.00	39.42	46.0	6.5	100	256	-
Hori.	420.003	QP	34.70	16.00	7.85	28.53	0.00	30.02	46.0	15.9	100	164	-
Hori.	442.369	QP	40.70	16.31	7.91	28.65	0.00	36.27	46.0	9.7	100	270	-
Hori.	933.008	QP	34.40	21.87	8.89	28.14	0.00	37.02	46.0	8.9	122	13	-
Hori.	7700.000	PK	52.16	36.53	-35.59	-	2.26	55.36	73.9	18.5	241	58	-
Hori.	11550.000	PK	48.70	38.15	-31.78	-	-9.54	45.53	73.9	28.3	160	157	-
Hori.	23100.000	PK	42.63	40.14	13.65	47.04	-9.54	39.84	73.9	34.0	149	143	-
Hori.	7700.000	AV	46.85	36.53	-35.59	-	2.26	50.05	53.9	**3.8**	241	58	VBW:10 kHz
Hori.	11550.000	AV	40.83	38.15	-31.78	-	-9.54	37.66	53.9	16.2	160	157	VBW:10 kHz
Hori.	23100.000	AV	29.88	40.14	13.65	47.04	-9.54	27.09	53.9	26.8	149	143	VBW:10 kHz
Vert.	117.732	QP	42.10	10.59	6.78	28.40	0.00	31.07	43.5	12.4	100	299	-
Vert.	420.007	QP	38.80	16.00	7.85	28.53	0.00	34.12	46.0	11.8	128	124	-
Vert.	7700.000	PK	51.96	36.53	-35.59	-	2.26	55.16	73.9	18.7	149	323	-
Vert.	11550.000	PK	48.17	38.15	-31.78	-	-9.54	45.00	73.9	28.9	160	34	-
Vert.	23100.000	PK	42.66	40.14	13.65	47.04	-9.54	39.87	73.9	34.0	159	13	-
Vert.	7700.000	AV	45.22	36.53	-35.59	-	2.26	48.42	53.9	5.4	149	323	VBW:10 kHz
Vert.	11550.000	AV	38.72	38.15	-31.78	-	-9.54	35.55	53.9	18.3	160	34	VBW:10 kHz
Vert.	23100.000	AV	29.67	40.14	13.65	47.04	-9.54	26.88	53.9	27.0	159	13	VBW:10 kHz

Result = Reading + Ant.Fac. + Loss (Cable + (Atten or Filter)(below 18 GHz) - Gain(Amp) (1 GHz to 18 GHz)) - Gain(Amp) (only below 1 GHz & above 18 GHz) + Distance Fac.
*Other frequency noises omitted in this report w ere not seen or have enough margin (more than 20 dB).
Distance Fac. : 1 GHz to 10 GHz : 20log (3.89 [m] / 3.0 [m]) = 2.26 [dB]
10 GHz to 40 GHz : 20log (1.00 [m] / 3.0 [m]) = -9.54 [dB]

(Calculation) (above 1 GHz Outside of the restricted band)

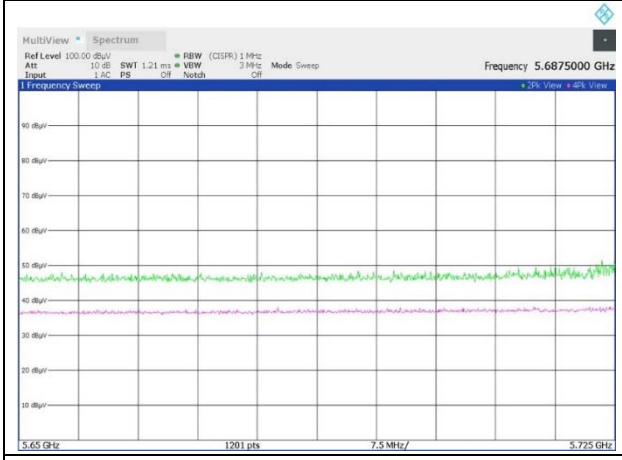
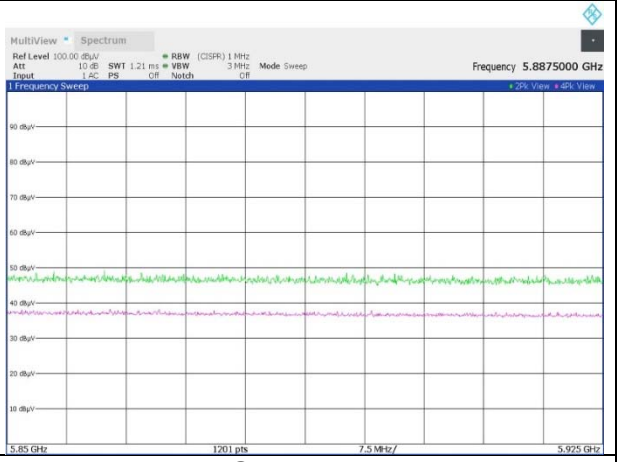
(* PK: Peak, AV: Average, QP: Quasi-Peak)

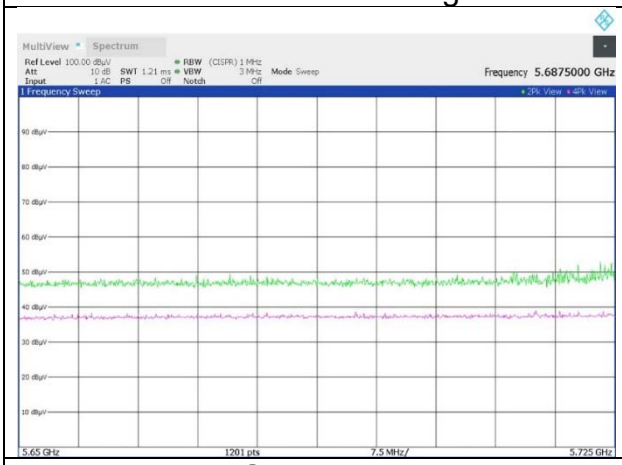
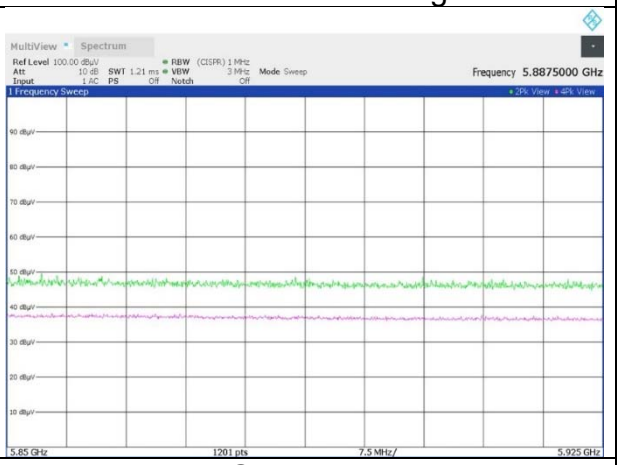
Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Fac. [dB]	Distance Fac. [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5650.000	PK	48.21	33.45	-27.78	-	-	2.26	56.14	-39.09	-27.0	12.0	107	57	-
Hori.	5700.000	PK	49.10	33.37	-27.79	-	-	2.26	56.94	-38.29	10.0	48.2	107	57	-
Hori.	5720.000	PK	51.81	33.37	-27.79	-	-	2.26	59.65	-35.58	15.6	51.1	107	57	-
Hori.	5725.000	PK	52.72	33.37	-27.79	-	-	2.26	60.56	-34.67	27.0	61.6	107	57	-
Hori.	5850.000	PK	50.73	33.35	-27.78	-	-	2.26	58.56	-36.67	27.0	63.6	107	57	-
Hori.	5855.000	PK	49.48	33.36	-27.79	-	-	2.26	57.31	-37.92	15.6	53.5	107	57	-
Hori.	5875.000	PK	49.13	33.38	-27.79	-	-	2.26	56.98	-38.25	10.0	48.2	107	57	-
Hori.	5925.000	PK	48.47	33.53	-27.80	-	-	2.26	56.46	-38.77	-27.0	11.7	107	57	-
Hori.	17325.000	PK	47.21	40.31	-28.98	-	-	-9.54	49.00	-46.23	-27.0	19.2	150	0	Floor Noise
Vert.	5650.000	PK	48.88	33.45	-27.78	-	-	2.26	56.81	-38.42	-27.0	11.4	180	79	-
Vert.	5700.000	PK	50.15	33.37	-27.79	-	-	2.26	57.99	-37.24	10.0	47.2	180	79	-
Vert.	5720.000	PK	52.45	33.37	-27.79	-	-	2.26	60.29	-34.94	15.6	50.5	180	79	-
Vert.	5725.000	PK	53.85	33.37	-27.79	-	-	2.26	61.69	-33.54	27.0	60.5	180	79	-
Vert.	5850.000	PK	50.87	33.35	-27.78	-	-	2.26	58.70	-36.53	27.0	63.5	180	79	-
Vert.	5855.000	PK	50.79	33.36	-27.79	-	-	2.26	58.62	-36.61	15.6	52.2	180	79	-
Vert.	5875.000	PK	49.14	33.38	-27.79	-	-	2.26	56.99	-38.24	10.0	48.2	180	79	-
Vert.	5925.000	PK	48.91	33.53	-27.80	-	-	2.26	56.90	-38.33	-27.0	**11.3**	180	79	-
Vert.	17325.000	PK	47.30	40.31	-28.98	-	-	-9.54	49.09	-46.14	-27.0	19.1	150	0	Floor Noise

Result = Reading + Ant.Fac. + Loss (Cable + (Atten or Filter)(below 18 GHz) - Gain(Amp) (1 GHz to 18 GHz)) - Gain(Amp) (only below 1 GHz & above 18 GHz) + Duty Fac. + Distance Fac.
Result (EIRP) [dBm] = 10 * LOG ((10 ^ (Result [dBuV/m] / 20) * 10 ^ (-6) * Distance : 3 [m]) ^ 2 / 30 * 10 ^ 3)
*Other frequency noises omitted in this report w ere not seen or have enough margin (more than 20 dB).
Distance Fac. : 1 GHz to 10 GHz : 20log (3.89 [m] / 3.0 [m]) = 2.26 [dB]
10 GHz to 40 GHz : 20log (1.00 [m] / 3.0 [m]) = -9.54 [dB]

Radiated Spurious Emission

Test place	Shonan EMC Lab.
Semi Anechoic Chamber	WAC1
Date	January 28, 2025
Temperature / Humidity	21 deg. C / 28 % RH
Engineer	Makoto Hosaka
Mode	Tx 11ac-80 5775 MHz with DH5 Hopping

Horizontal	Horizontal
Restricted-band band-edge Plot	Restricted-band band-edge Plot
	
Trace Green: Peak Plot Trace Purple: Average Plot	Trace Green: Peak Plot Trace Purple: Average Plot

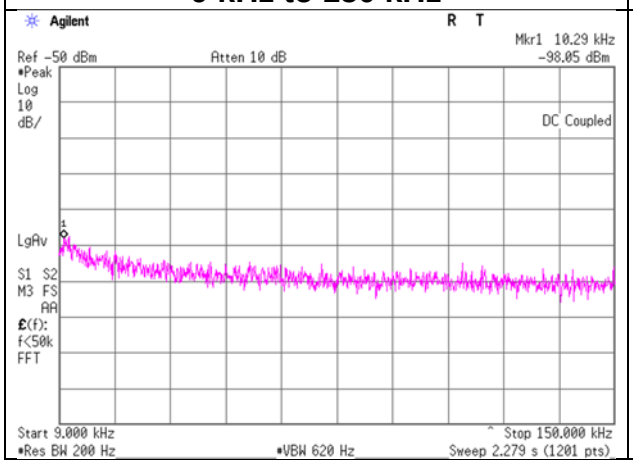
Vertical	Vertical
Restricted-band band-edge Plot	Restricted-band band-edge Plot
	
Trace Green: Peak Plot Trace Purple: Average Plot	Trace Green: Peak Plot Trace Purple: Average Plot

* The measurement was conducted for a sufficiently long enough time to detect any possible spurious emissions.
Final result of restricted band edge was shown in tabular data.

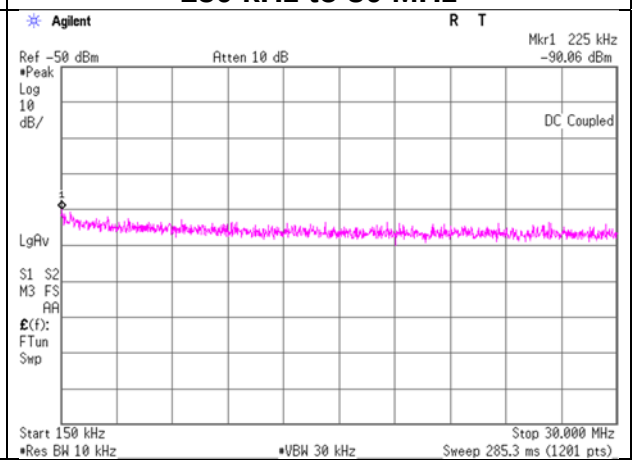
Conducted Spurious Emission

Test place	Shonan EMC Lab. No.5 Shielded Room
Date	January 28, 2025
Temperature / Humidity	25 deg. C / 50 % RH
Engineer	Hiromasa Sato
Mode	Tx 11ac-80 MIMO, 5775 MHz

9 kHz to 150 kHz



150 kHz to 30 MHz



Frequency [kHz]	Reading [dBm]	Cable Loss [dB]	Attenuator [dB]	Antenna Gain [dBi]	N (Number of Output)	EIRP [dBm]	Distance [m]	Ground bounce [dB]	E (field strength) [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
10.29	-98.05	1.01	10.11	2.50	2	-81.4	300	6.0	-20.2	47.3	67.5	-
225.00	-90.06	1.01	10.11	2.50	2	-73.4	300	6.0	-12.2	20.5	32.7	-

E [dBuV/m] = EIRP [dBm] - 20 log (Distance [m]) + Ground bounce [dB] + 104.8 [dBuV/m]
EIRP[dBm] = Reading [dBm] + Cable loss [dB] + Attenuator Loss [dB] + Antenna gain [dBi] + 10 * log (N)
N: Number of output

APPENDIX 2: Test Instruments

Test Equipment (1/2)

Test Item	LIMS ID	Description	Manufacturer	Model	Serial	Last Calibration Date	Cal Int
AT	145132	Attenuator	Weinschel Corp.	54A-10	W5692	2024/10/10	12
AT	160493	Attenuator	Weinschel Corp.	54A-10	83406	2024/12/03	12
AT	242068	Attenuator	Weinschel Corp.	54A-10	120524	2024/11/06	12
AT	196947	Coaxial Cable	Huber+Suhner	SUCOFLEX 102	803478/2	2024/03/07	12
AT	196949	Coaxial Cable	Huber+Suhner	SUCOFLEX 102	803480/2	2024/03/07	12
AT	239653	Coaxial Cable	Huber+Suhner	SUCOFLEX 102	2001221/2	2024/08/20	12
AT	169910	Power Meter	Keysight Technologies Inc	8990B	MY51000448	2024/09/11	12
AT	169911	Power sensor	Keysight Technologies Inc	N1923A	MY57270004	2024/09/11	12
AT	169912	Power sensor	Keysight Technologies Inc	N1923A	MY57290005	2024/09/11	12
AT	235604	Spectrum Analyzer	Keysight Technologies Inc	E4440A	MY45300743	2024/05/23	12
AT	253774	Spectrum Analyzer	Keysight Technologies Inc	E4440A	MY46185398	2024/11/19	12
AT	242075	Terminator	Weinschel - API Technologies Corp	M1459A	121073	2024/11/06	12
AT	175822	Thermo-Hygrometer	CUSTOM. Inc	CTH-201	-	2024/08/11	12
RE	199784	Attenuator	JFW	50HF-006N	-	2024/06/14	12
RE	239786	Biconical Antenna	Schwarzbeck Mess-Elektronik OHG	VHBB 9124+BBA9106	01895	2024/08/10	12
RE	196945	Coaxial Cable	Huber+Suhner	SUCOFLEX 102	803414/2	2024/03/12	12
RE	236708	Coaxial Cable	Hayashi-Repic co., Ltd.	NMS079B-GL310C-SMS117B-2m	47256-02-03	2024/05/09	12
RE	236710	Coaxial Cable	Hayashi-Repic co., Ltd.	KMS020B-GL140sE-KMS020B-7.0m	47256-03-01	2024/05/09	12
RE	236723	Coaxial Cable	Hayashi-Repic co., Ltd.	SF106(HUBER+SUHNER)/LMR400UF/GL310C/GL310C	2000429/47753-1/47256-01-03/47256-01-01	2024/05/09	12
RE	239643	Coaxial Cable	Junkosha	MWX221-01000NFSNMS/B	2306S021	2024/08/20	12
RE	243209	Coaxial Cable	Hayashi-Repic co., Ltd.	SMS13-13A26-NFS13-1.0m	49190-01-01	2024/12/05	12
RE	243687	Coaxial Cable	Hayashi-Repic co., Ltd.	NMS079B-GL310C-NMS079B-6.0m	49373-01-01	2024/12/05	12
RE	243689	Coaxial Cable	Huber+Suhner	GL310C(Hayashi-Repic)/SF106/SF106	49373-01-01/2000781/2001160	2024/12/17	12
RE	235639	DIGITAL MULTIMETER	HIOKI E.E. CORPORATION	DT4261	230313156	2024/05/29	12

Test Equipment (2/2)

Test Item	LIMS ID	Description	Manufacturer	Model	Serial	Last Calibration Date	Cal Int
RE	170932	EMI Software	TSJ (Techno Science Japan)	TEPTO-DV3(RE,CE,ME,PE)	Ver 3.1.0546	-	-
RE	145512	Horn Antenna	ETS-Lindgren	3160-09	00094868	2024/06/20	12
RE	145514	Horn Antenna	ETS-Lindgren	3160-10	00092383	2024/06/20	12
RE	236686	Horn Antenna	Schwarzbeck Mess-Elektronik OHG	BBHA 9120 C	787	2024/04/19	12
RE	236769	Horn Antenna	AINFO Inc.	LB-8180-NF	2030013000111	2024/04/19	12
RE	145527	Logperiodic Antenna	Schwarzbeck Mess-Elektronik OHG	VUSLP9111B	193	2024/04/10	12
RE	145007	Pre Amplifier	Toyo Corporation	HAP18-26W	19	2024/08/21	12
RE	145129	Pre Amplifier	Toyo Corporation	HAP26-40W	B3208602403-176	2024/05/09	12
RE	145130	Pre Amplifier	Agilent Technologies	8447D	2944A09965	2024/07/10	12
RE	237784	RF RELAY MATRIX with preamplifier	TSJ (Techno Science Japan)	RFM-E221261R	07795	2024/11/12	12
RE	236212	Semi-Anechoic Chamber	TDK	SWAC-01(NSA)	1	2024/05/09	12
RE	236616	Semi-Anechoic Chamber	TDK	SWAC-01(SVSWR)	1	2024/06/04	12
RE	207280	Tape Measure	ASKUL	-	-	-	-
RE	235267	Test Receiver	Rohde & Schwarz	ESW44	103018	2024/03/05	12
RE	235735	Thermo-Hygrometer	CUSTOM. Inc	CTH-230	-	2024/04/28	12

***Hyphens for Last Calibration Date and Cal Int (month) are instruments that Calibration is not required (e.g. software), or instruments checked in advance before use.**

The expiration date of the calibration is the end of the expired month.
As for some calibrations performed after the tested dates, those test equipment have been controlled by means of an unbroken chains of calibrations.

All equipment is calibrated with valid calibrations. Each measurement data is traceable to the national or international standards.

Test item:

AT: Antenna Terminal Conducted test
RE: Radiated Emission