

Test Report No:
2430723R-RFUSV03S-A

TEST REPORT

FCC Rules&Regulations

Product Name	Handheld Tablet
Brand Name	Toast Inc.
Model No.	TG310
FCC ID	2AMNG-TG310
Applicant's Name / Address	Toast, Incorporated 333 Summer St, Boston, Massachusetts, United States 02210
Manufacturer's Name / Address	Toast, Incorporated 333 Summer St, Boston, Massachusetts, United States 02210
Test Method Requested, Standard	FCC CFR Title 47 Part 15 Subpart E Section 15.407 ANSI C63.10-2013
Verdict Summary	IN COMPLIANCE
Documented By	 Amelia Wu
Approved By	 Allen Lin
Date of Receipt	Mar. 22, 2024
Date of Issue	Apr. 07, 2025
Report Version	V1.0

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Competences and Guarantees

DEKRA is a testing laboratory competent to carry out the tests described in this report.

In order to assure the traceability to other national and international laboratories, DEKRA has a calibration and maintenance program for its measurement equipment.

DEKRA guarantees the reliability of the data presented in this report, which is the result of the measurements and the tests performed to the item under test on the date and under the conditions stated in the report and it is based on the knowledge and technical facilities available at DEKRA at the time of performance of the test.

DEKRA is liable to the client for the maintenance of the confidentiality of all information related to the item under test and the results of the test.

The results presented in this Test Report apply only to the particular item under test established in this document.

IMPORTANT: No parts of this report may be reproduced or quoted out of context, in any form or by any means, except in full, without the previous written permission of DEKRA.

General Conditions

1. The test results relate only to the samples tested.
2. The test results shown in the test report are traceable to the national/international standard through the calibration report of the equipment and evaluated measurement uncertainty herein.
3. This report must not be used to claim product endorsement by TAF or any agency of the government.
4. The test report shall not be reproduced without the written approval of DEKRA Testing and Certification Co., Ltd.
5. Measurement uncertainties evaluated for each testing system and associated connections are given here to provide the system information for reference. Compliance determinations do not take into account measurement uncertainties for each testing system, but are based on the results of the compliance measurement.

Revision History

Version	Description	Issued Date
V1.0	Initial issue of report	Apr. 07, 2025

Summary of Test Result

Report Clause	Test Items	Result (PASS/FAIL)	Remark
3	AC Power Line Conducted Emission	PASS	-
4	Emission Bandwidth	PASS	-
5	Maximum Conducted Output Power	PASS	-
6	Maximum Power Spectral Density	PASS	-
7	Transmitter Radiated Spurious Emission	PASS	-

Comments and Explanations

The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

Comments and Remarks

The product specification and testing instructions for the EUT declared in the report are provided by the manufacturer who will take all responsibilities for the accuracy.

1. General Information

1.1. EUT Description

Frequency Range	5150 ~ 5250 MHz 5250 ~ 5350 MHz 5470 ~ 5850 MHz 5850 ~ 5895 MHz	
Operating Frequency / Channel Number	IEEE 802.11a IEEE 802.11n/ac/ax (20 MHz)	5180 ~ 5240 MHz / 4 Channels 5260 ~ 5320 MHz / 4 Channels 5500 ~ 5720 MHz / 12 Channels 5745 ~ 5825 MHz / 5 Channels 5845 ~ 5885 MHz / 3 Channels
	IEEE 802.11n/ac/ax (40 MHz)	5190 ~ 5230 MHz / 2 Channels 5270 ~ 5310 MHz / 2 Channels 5510 ~ 5710 MHz / 6 Channels 5755 ~ 5795 MHz / 2 Channels 5835 ~ 5875 MHz / 2 Channels
	IEEE 802.11ac/ax (80 MHz)	5210 MHz / 1 Channel 5290 MHz / 1 Channel 5530 ~ 5690 MHz / 3 Channels 5775 MHz / 1 Channel 5855 MHz / 1 Channel
	IEEE 802.11ac/ax (160 MHz)	5250 MHz / 1 Channel 5570 MHz / 1 Channel 5815 MHz / 1 Channel
Type of Modulation	IEEE 802.11a/n	OFDM-BPSK, QPSK, 16QAM, 64QAM
	IEEE 802.11ac	OFDM-BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM
	IEEE 802.11ax	OFDMA-BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM

Accessories Information					
No.	Equipment Name	Brand Name	Model No.	Rating	Remark
1	Power Adaptor	Toast Inc.	FC015A05-050030U	INPUT: 100~240V, 50/60Hz, 0.5A OUTPUT: 5V, 3A, 15W	Type-C Interface
No.	Equipment Name	Description			
2	Cable	Shielded, 0.8m			
3	Li-ion polymer Battery Pack	3.8V, 5200mAh			

Antenna Information			
Ant.	Brand Name	Mode INo.	Type
1	Advanced Wireless & Antenna INC.	ALL6Y-100008B	PIFA
2	Advanced Wireless & Antenna INC.	ALL6Y-100007B	PIFA

Band	Antenna		Directional Gain (dBi)
	1	2	
UNII 1	2.57	3.42	6.02
UNII 2A	2.99	2.45	5.73
UNII 2C	2.69	1.19	4.95
U-NII 3	3.38	3.09	6.25
U-NII 4	3.38	3.09	6.25

Note: Directional Gain = $10\log [(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2 / N_{Ant}]$

For IEEE 802.11a/n/ac/ax Mode: (2TX, 2RX)

Both Ant. 1 and Ant. 2 can be used as transmitting/receiving antennas, and they can transmit/receive signal simultaneously.

1.2. EUT Information

EUT Power Type	From Adapter / Host system			
EUT Function	☒	Point-to-multipoint	☐	Point-to-point
TPC Function	☒	With TPC Function	☐	Without TPC Function
Weather Band (5600 ~ 5650 MHz)	☒	With 5600 ~ 5650 MHz	☐	Without 5600 ~ 5650 MHz
Beamforming Function	☐	With beamforming	☒	Without beamforming
Resource Unit of 802.11ax	☒	Full RU	☐	Partial RU
Product Type	☐	Outdoor AP	☐	Indoor AP
	☐	Fixed P2P AP	☒	Client

1.3. Applicable Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- ♦ 47 CFR FCC Part 15
- ♦ ANSI C63.10-2013
- ♦ KDB 789033 D02 v02r01

The following reference test guidance is not within the scope of accreditation of TAF.

- ♦ KDB 662911 D01 v02r01
- ♦ KDB 412172 D01 v01r01
- ♦ KDB 414788 D01 v01r01

1.4. Testing Location Information

Testing Location Information		
Test Laboratory : DEKRA Testing and Certification Co., Ltd.		
1 (TAF: 3024)	ADD: No.372-2, Sec. 4, Zhongxing Rd., Zhudong Township, Hsinchu County 31061, Taiwan, R.O.C. TEL: +886-3-582-8001 FAX: +886-3-582-8958 Test site Designation No. TW3024 with FCC. Conformity Assessment Body Identifier (CABID) TW3024 with ISED.	
2 (TAF: 3024)	ADD: No.372, Sec. 4, Zhongxing Rd., Zhudong Township, Hsinchu County 31061, Taiwan, R.O.C. TEL: +886-3-582-8001 FAX: +886-3-582-8958 Test site Designation No. TW3024 with FCC. Conformity Assessment Body Identifier (CABID) TW3024 with ISED.	
Test site number for address 1 includes HC-SR02 and HC-CB10. Test site number for address 2 includes HC-CB02, HC-CB03, HC-CB04, HC-SR10 and HC-SR12.		

Test Condition	Test Site No.	Test Engineer	Test Environment (°C / %)	Test Date
AC Conduction Emission	HC-SR02	Cyril Chen	25 / 65	2025/01/21~2025/02/12
RF Conducted Emission	HC-SR12	Kevin Teng	20.8~23.2 / 49.7~52.3	2024/12/21-2025/03/04
Radiated Emission	HC-CB02	Scott Chang Brook Cheng	20 / 64	2024/12/10~2025/02/12

1.5. Measurement Uncertainty

Uncertainties have been calculated according to the DEKRA internal document with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor (k=2)).

Test Item	Uncertainty
AC Power Line Conducted Emission	± 2.34 dB
Emission Bandwidth	± 636.54 Hz
Maximum Conducted Output Power	± 1.16 dB
Maximum Power Spectral Density	± 2.47 dB
Transmitter Radiated Spurious Emission	± 3.52 dB below 1 GHz ± 3.56 dB above 1 GHz

1.6. List of Test Equipment

HC-SR02

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Cal. Date	Next Cal. Date
Artificial Mains Network	R&S	ENV4200	848411/010	9kHz-30MHz, 4line/100A	2024/12/02	2025/12/01
EMI Test Receiver	R&S	ESR3	102608	9 kHz - 3.6 GHz	2024/09/11	2025/09/10
Two-Line V-Network	R&S	ENV216	100096	9kHz-30MHz	2024/06/03	2025/06/02
Coaxial Cable(9 m)	Harbour	RG-400	HC-SR02	9 kHz–2500 MHz	2024/08/15	2025/08/14
EMI Testing System	Audix	e3 210616 dekra V9	HC-SR02	N/A	N/A	N/A

HC-SR12

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Cal. Date	Next Cal. Date
Signal & Spectrum Analyzer	R&S	FSV40	101869	10Hz-40GHz	2024/06/20	2025/06/19
High Speed Peak Power Meter Dual Input	Anritsu	ML2496A	1602004	0.3-40 GHz	2024/10/29	2025/10/28
Pulse Power Sensor	Anritsu	MA2411B	1531043	0.3-40 GHz	2024/10/29	2025/10/28
Pulse Power Sensor	Anritsu	MA2411B	1531044	0.3-40 GHz	2024/10/29	2025/10/28

HC-CB02

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Cal. Date	Next Cal. Date
Signal Analyzer	R&S	FSVA40	101455	10 Hz-40 GHz	2024/10/04	2025/10/03
Trilog Broadband Antenna	Schwarzbeck	VULB 9168	1272	30 MHz-2 GHz	2024/04/29	2025/04/28
Double Ridged Horn Antenna	RF SPIN	DRH18-E	211211A18EN	1G-18GHz	2024/11/08	2025/11/07
Pre-Amplifier	EMCI	EMC01820I	980365	30M-8 GHz,20 dB	2024/04/02	2025/04/01
Pre-Amplifier	EMEC	EM01G18GA	060741	1G-18 GHz,50 dB	2024/04/23	2025/04/22
Magnetic Loop Antenna	Teseq	HLA 6121	44287	0.01-30 MHz	2024/10/17	2025/10/16
Band Reject Filter	Micro-Tronics	BRM50702	G258	rej 2400-2500 MHz	2024/04/29	2026/04/28
Band Reject Filter	Micro-Tronics	BRM50716	G068	rej 5150-5880 MHz	2024/01/26	2026/01/25
Radiated Software	AUDIX	e3 V9	HC-CB02_1	N/A	N/A	N/A

Note: All equipment upon which need to calibrated are with calibration period of 1 year.

2. Test Configuration of EUT

2.1. Test Condition

EUT Operational Condition	
Testing Voltage	AC 120V/60Hz

2.2. Test Frequency Mode

Test Software Version	Qualcomm® Radio Control Toolkit v4.1
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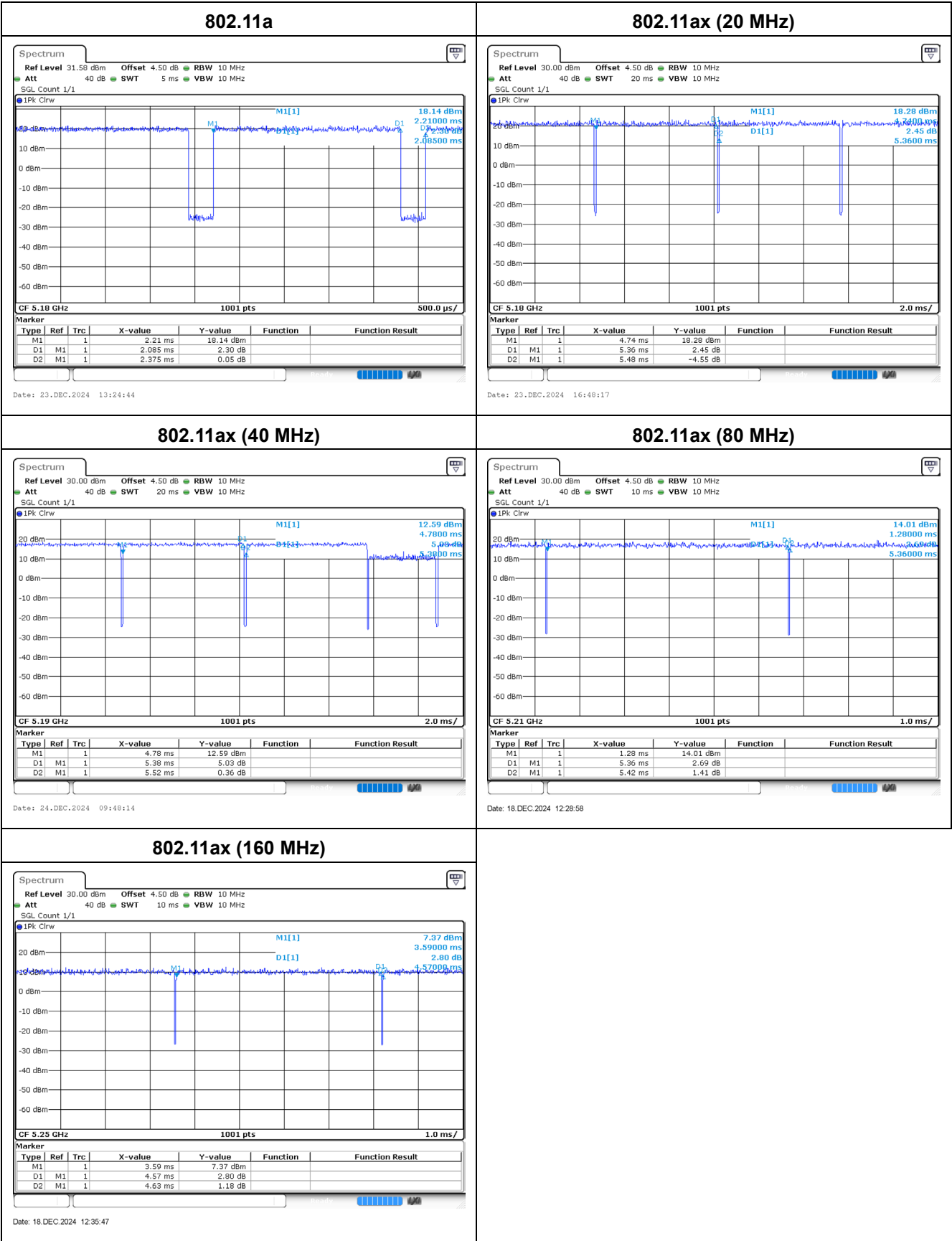
Modulation	Frequency (MHz)	Power Setting
802.11a	5180	12.5
	5220	12.5
	5240	12.0
	5260	12.5
	5300	12.0
	5320	12.0
	5500	11.5
	5580	11.5
	5700	11.5
	5720	11.0
	5745	10.5
	5785	10.5
	5825	11.0
	5845	11.0
	5865	11.5
	5885	11.5
802.11ax (20 MHz)	5180	12.5
	5220	12.5
	5240	12.0
	5260	12.5
	5300	12.0
	5320	12.0
	5500	12.0
	5580	11.5
	5700	11.5
	5720	11.0
	5745	11.0

Modulation	Frequency (MHz)	Power Setting
802.11ax (20 MHz)	5785	11.0
	5825	11.0
	5845	11.5
	5865	11.5
	5885	11.5
802.11ax (40 MHz)	5190	11.5
	5230	11.5
	5270	11.5
	5310	11.5
	5510	11.5
	5550	11.5
	5670	11.5
	5710	11.0
	5755	10.5
	5795	10.5
	5835	11.0
	5875	11.5
802.11ax (80 MHz)	5210	11.5
	5290	11.5
	5530	11.5
	5610	11.5
	5690	10.5
	5755	10.5
	5855	11.0
802.11ax (160 MHz)	5250	12.0
	5570	12.0
	5815	11.0

2.3. Duty Cycle

Modulation	On Time (ms)	On+Off Time (ms)	Duty Cycle (%)	Duty Factor (dB)	1/T Minimum VBW (kHz)
802.11a	2.085	2.375	87.79	0.566	0.480
802.11ax (20 MHz)	5.360	5.480	97.81	0.096	0.187
802.11ax (40 MHz)	5.380	5.520	97.46	0.112	0.186
802.11ax (80 MHz)	5.360	5.420	98.89	0.048	0.010
802.11ax (160 MHz)	4.570	4.630	98.70	0.06	0.010

Note: The duty factor will compensate for the total power and power spectral density.



2.4. The Worst Case Measurement Configuration

Tests Item	AC Power Line Conducted Emission
Test Condition	AC power line conducted measurement for line and neutral
Operating Mode	Transmit
1	Adapter with Pogo pins cable
2	Adapter with USB Type-C cable
3	Notebook with USB Type-C cable

Tests Item	Emission Bandwidth Maximum Conducted Output Power Maximum Power Spectral Density
Test Condition	Conducted measurement at transmit chains

Tests Item	Transmitter Radiated Spurious Emission
Test Condition	Radiated measurement If EUT consist of multiple antenna assembly (multiple antenna are used in EUT regardless of spatial multiplexing MIMO configuration), the radiated test should be performed with highest antenna gain of each antenna type.
Operating Mode < 1GHz	Transmit
1	Adapter with Pogo pins cable
2	Adapter with USB Type-C cable
3	Notebook with USB Type-C cable
Operating Mode > 1GHz	Transmit
The EUT was performed at X axis, Y axis and Z axis position for radiated spurious emission test. The worst case was found at X axis, so the measurement will follow this same test configuration.	

Tests Item	Simultaneous Transmission Analysis - Radiated Emission Co-location
Test Condition	Radiated measurement
Operating Mode	Transmit
1	Bluetooth + WiFi 2.4 GHz
2	Bluetooth + WiFi 5 GHz
3	Bluetooth + WiFi 6 GHz
Refer to Appendix A for Radiated Emission Co-location.	

Note:

1. Determining compliance shall be based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.
2. For radiated emission below 1 GHz and AC power line conducted emission have performed all modes of operation were investigated and the worst-case emissions are reported.
3. The modulation and bandwidth are similar for 802.11n mode for HT20/HT40, 802.11ac mode for VHT20/VHT40/VHT80/VHT160 and 802.11ax mode for HEW20/HEW40/HEW80/HEW160, therefore investigated worst case to representative mode in test report.

2.5. Tested System Details

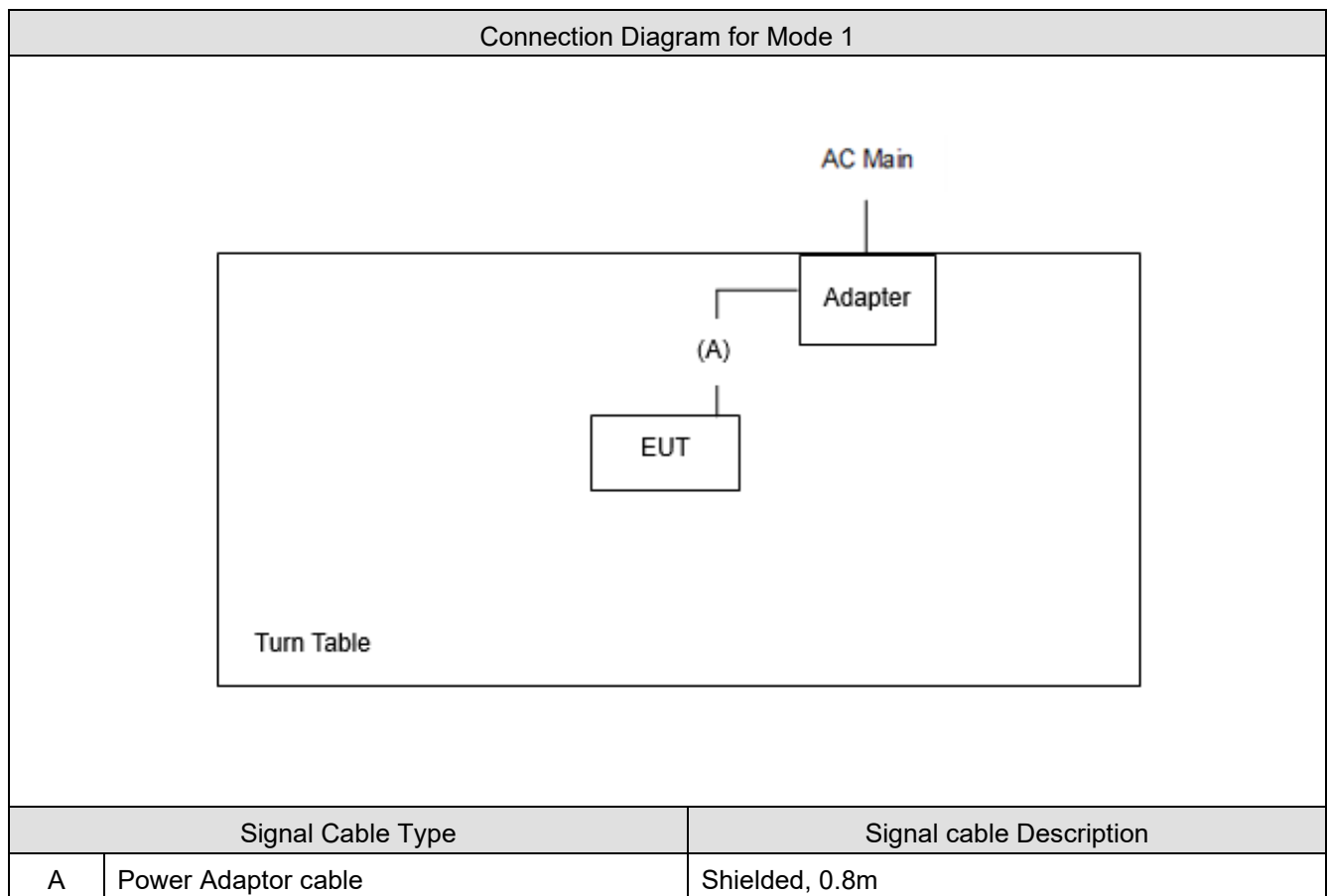
For Mode 1 / Mode 2

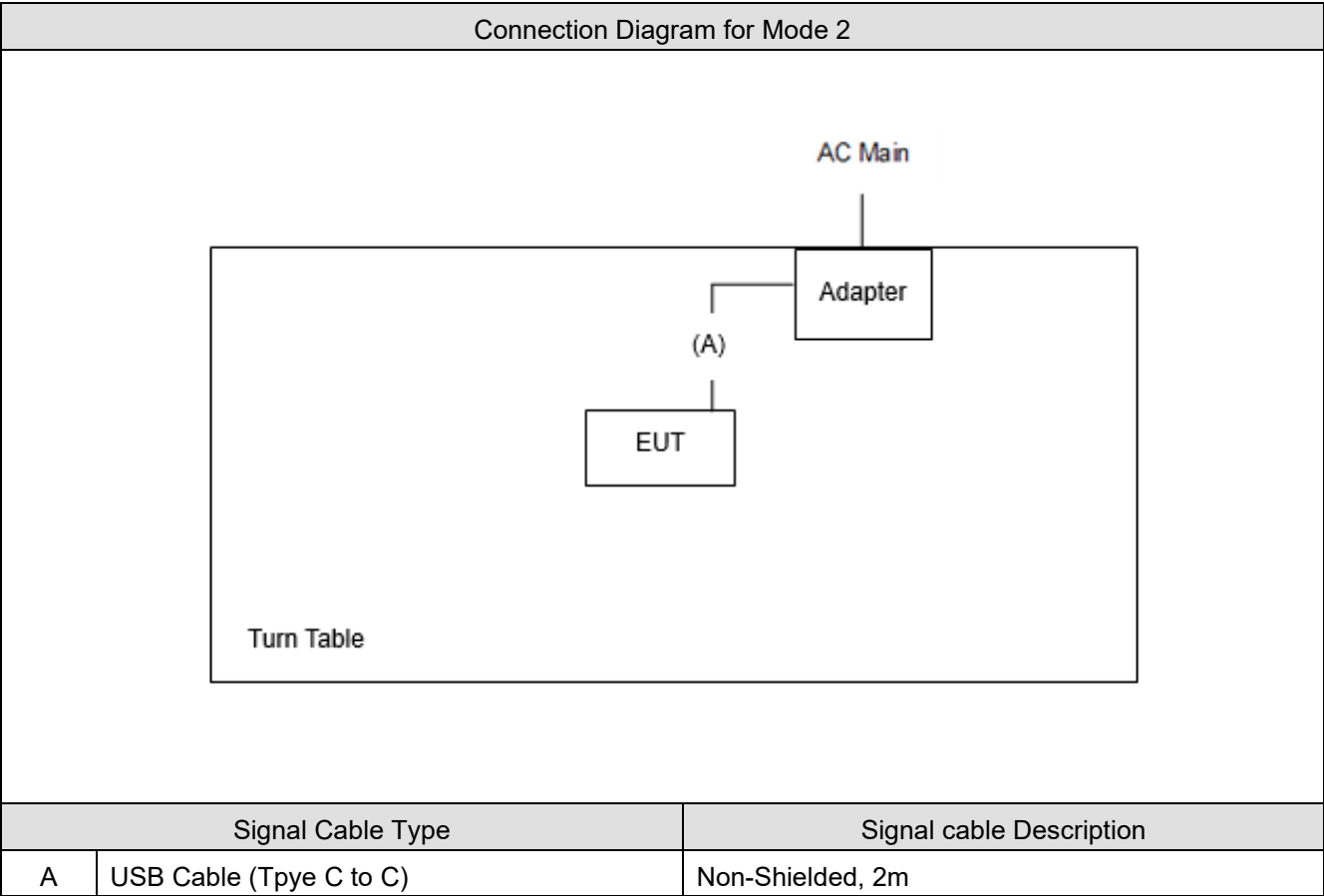
N/A

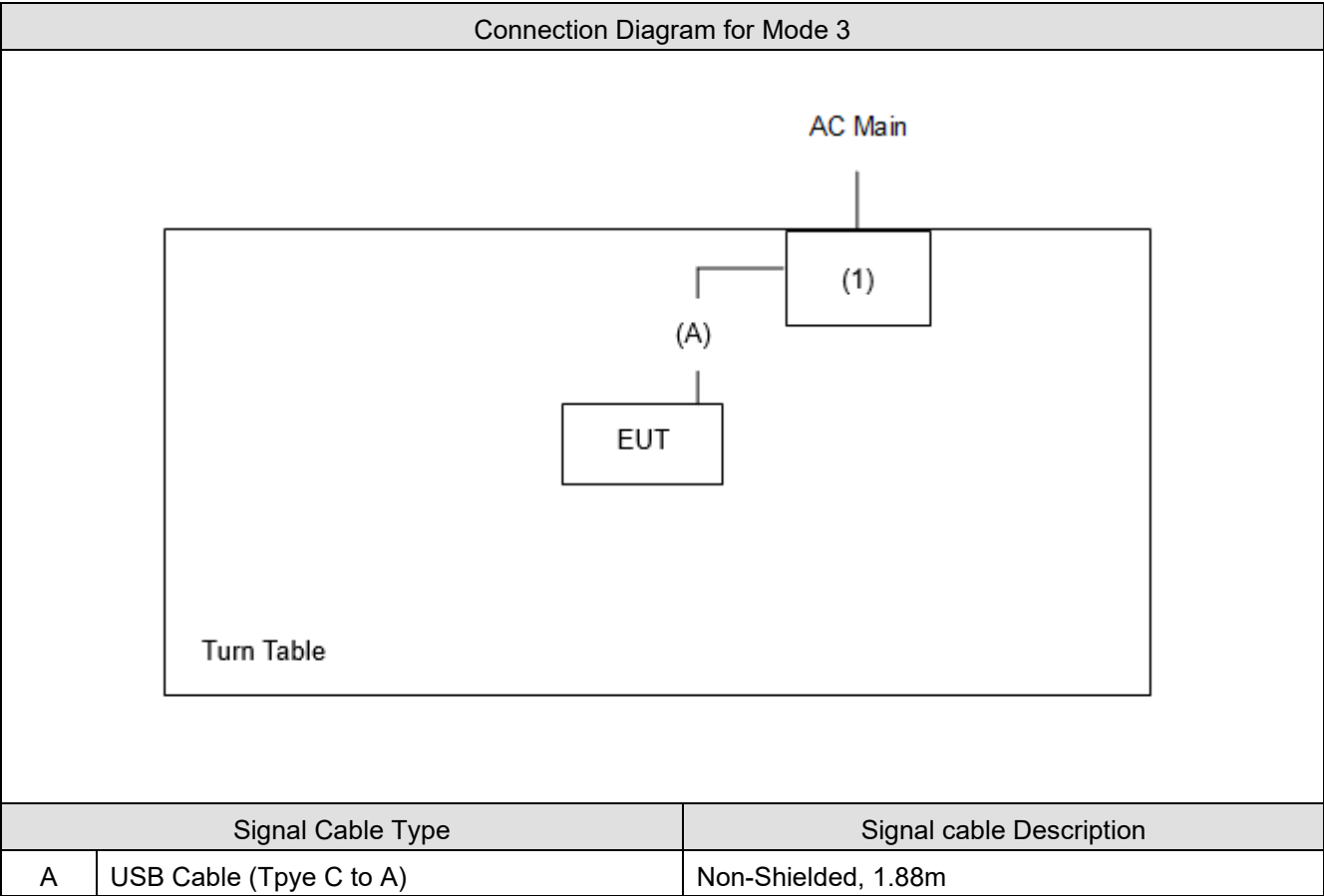
For Mode 3

No.	Equipment	Brand Name	Model No.	Serial No.
1	Notebook	ASUS	E402S	GBN0CV14W224476

2.6. Configuration of tested System

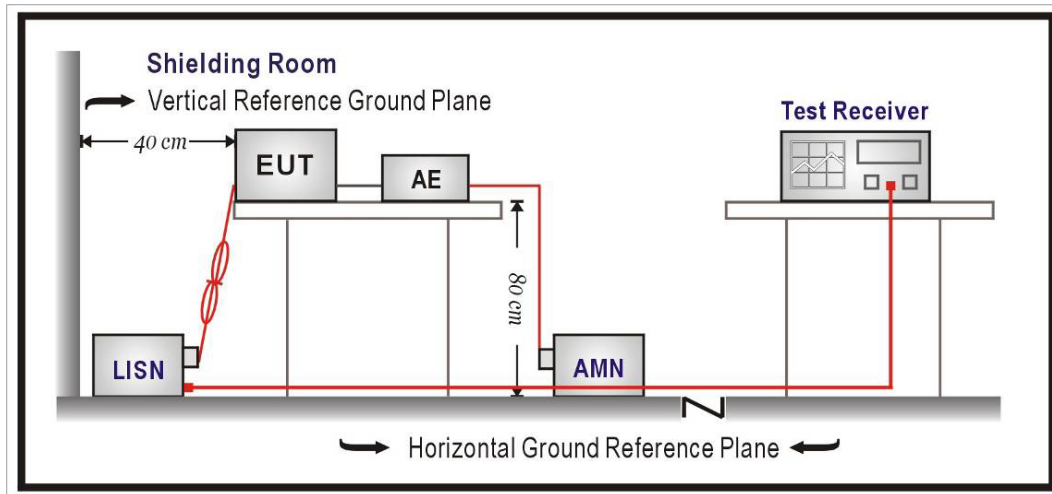






3. AC Power Line Conducted Emission

3.1. Test Setup



3.2. Test Limit

Frequency (MHz)	QP (dBuV)	AV (dBuV)
0.15 - 0.50	66 - 56	56 - 46
0.50 - 5.0	56	46
5.0 - 30	60	50

Remark: In the above table, the tighter limit applies at the band edges.

3.3. Test Procedure

The EUT was setup according to ANSI C63.10: 2013. The EUT was placed on a platform of nominal size, 1 m by 1.5 m, raised 80 cm above the conducting ground plane. The vertical conducting plane was located 40 cm to the rear of the EUT. All other surfaces of EUT were at least 80 cm from any other grounded conducting surface. The EUT and simulators are connected to the main power through a line impedance stabilization network (LISN). The LISN provides a 50 ohm /50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN. (Please refer to the block diagram of the test setup and photographs.)

Each current-carrying conductor of the EUT power cord, except the ground (safety) conductor, was individually connected through a LISN to the input power source.

The excess length of the power cord between the EUT and the LISN receptacle were folded back and forth at the center of the lead to form a bundle not exceeding 40 cm in length.

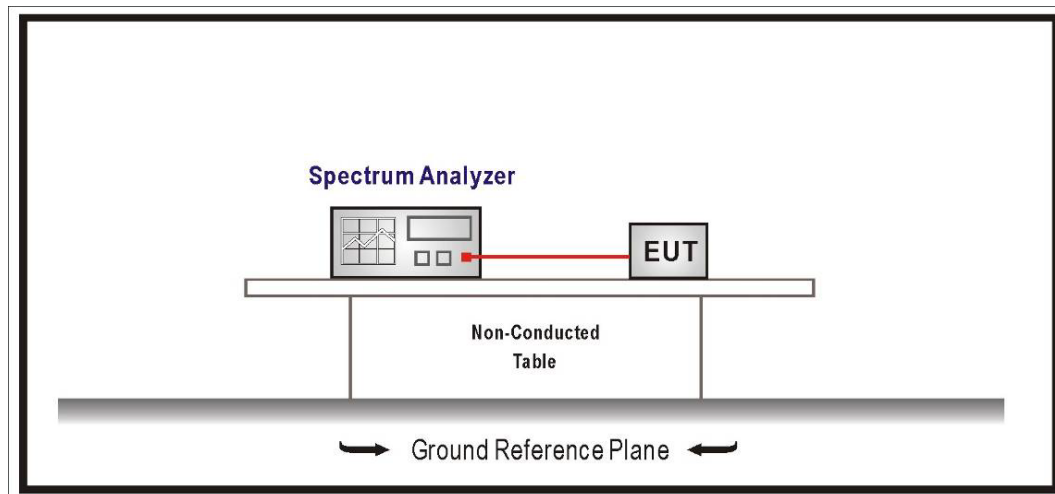
Conducted emissions were investigated over the frequency range from 0.15 MHz to 30 MHz using a receiver bandwidth of 9 kHz.

3.4. Test Result of AC Power Line Conducted Emission

Refer as Appendix A

4. Emission Bandwidth

4.1. Test Setup



4.2. Test Limit

99% & 26dB Bandwidth : No Required

6dB Bandwidth $\geq$ 500kHz

4.3. Test Procedure

99% & 26dB Bandwidth :

The EUT was tested according to U-NII test procedure of KDB 789033.

Set RBW 1% of the emission bandwidth, VBW equal to 3 times the RBW.

DTS Bandwidth :

Set RBW = 100kHz, VBW $\geq$ 3xRBW, Sweep time=Auto, Set Peak detector.

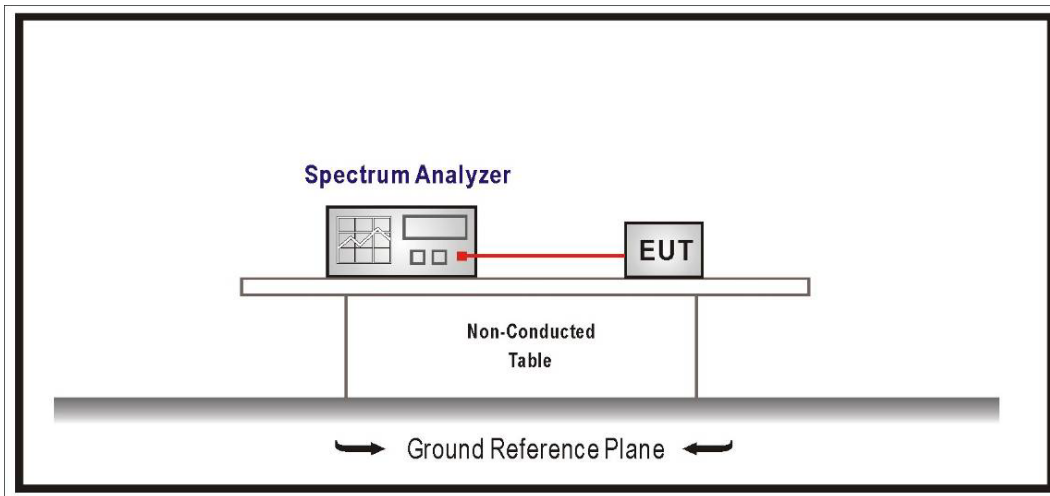
4.4. Test Result of Emission Bandwidth

Refer as Appendix B

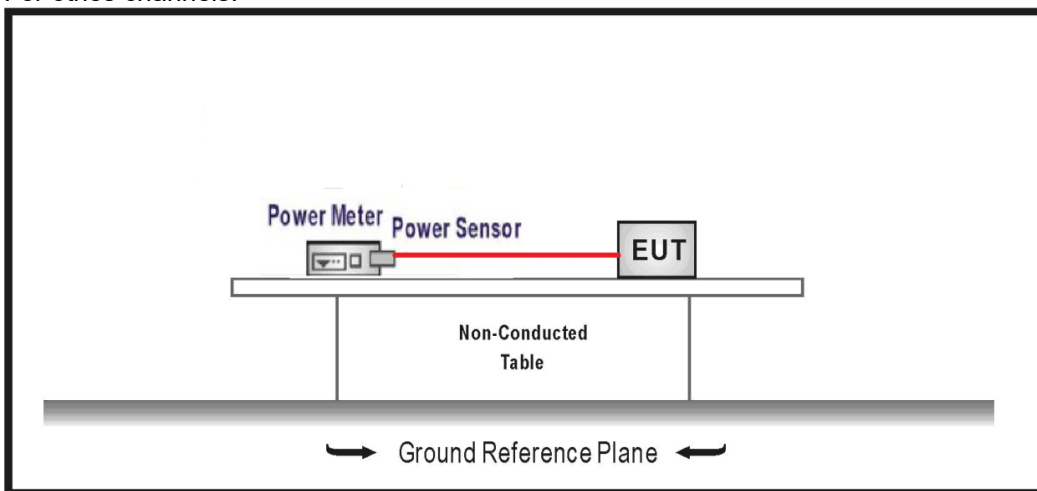
5. Maximum Conducted Output Power

5.1. Test Setup

For straddle channels:



For other channels:



5.2. Test Limit

1. For an outdoor access point and an indoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. For client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

2. For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or $11 \text{ dBm} + 10 \log B$, where B is the 26 dB emission bandwidth in megahertz. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.
3. For the band 5.725-5.850 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.
4. For the band 5.850–5.895 GHz:

For an indoor access point, the maximum e.i.r.p. over the frequency band of operation must not exceed 36 dBm. Indoor access points operating on a channel that spans the 5.725–5.850 GHz and 5.850–5.895 GHz bands must not exceed an e.i.r.p. of 36 dBm.

For client devices, the maximum e.i.r.p. over the frequency band of operation must not exceed 30 dBm. Client devices operating on a channel that spans the 5.725–5.850 GHz and 5.850–5.895 GHz bands must not exceed an e.i.r.p. of 30 dBm.

For a subordinate device, the maximum e.i.r.p. over the frequency band of operation must not exceed 36 dBm.

5.3. Test Procedure

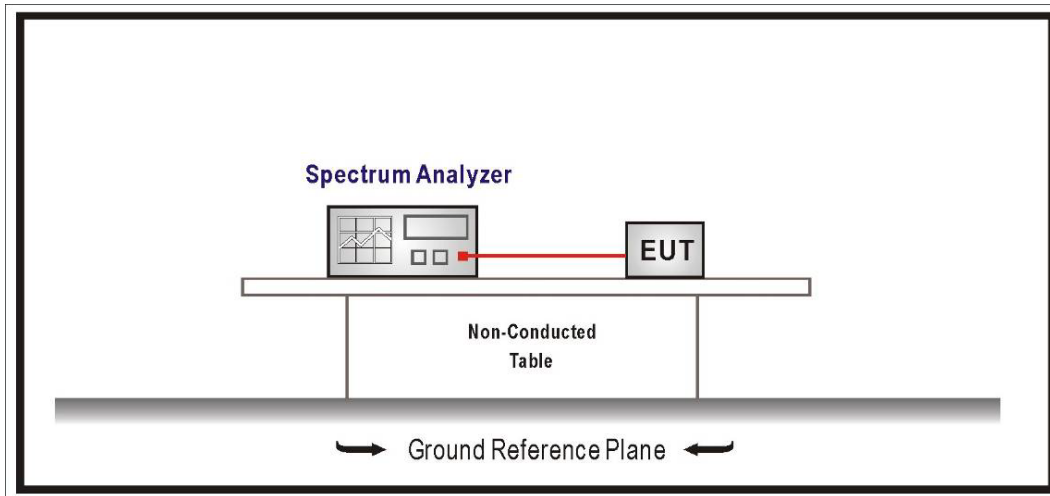
The EUT was setup to ANSI C63.10: 2013; tested according to U-NII test procedure of KDB 789033.

5.4. Test Result of Maximum Conducted Output Power

Refer as Appendix C

6. Maximum Power Spectral Density

6.1. Test Setup



6.2. Test Limit

1. For the band 5.15 ~ 5.25 GHz, the peak power spectral density shall not exceed 17 dBm in any 1 MHz band. If transmitting antenna of directional gain greater than 6 dBi are used, the peak power spectral density shall be reduced by the amount in dB that directional gain of the antenna exceeds 6 dBi.
2. For client devices in the 5.15 ~ 5.25 GHz band, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi
3. For the 5.25 ~ 5.35 GHz ,5470 ~ 5725 MHz, the peak power spectral density shall not exceed 11 dBm in any 1-MHz band. If transmitting antenna of directional gain greater than 6 dBi are used, the peak power spectral density shall be reduced by the amount in dB that directional gain of the antenna exceeds 6 dBi.
4. For the band 5.725 ~ 5.850 GHz, the peak power spectral density shall not exceed 30 dBm in any 500 kHz band. If transmitting antenna of directional gain greater than 6 dBi are used, the peak power spectral density shall be reduced by the amount in dB that directional gain of the antenna exceeds 6 dBi.
5. The frequency band 5.850 ~ 5.895 GHz:
 For an indoor access point operating in the 5.850–5.895 GHz band, the maximum power spectral density must not exceed 20 dBm e.i.r.p. in any 1–megahertz band.
 For client devices operating under the control of an indoor access point in the 5.850–5.895 GHz band, the maximum power spectral density must not exceed 14 dBm e.i.r.p. in any 1-megahertz band.
 For a subordinate device operating under the control of an indoor access point in the 5.850–5.895 GHz band, the maximum power spectral density must not exceed 20 dBm e.i.r.p in any 1–megahertz band.

6.3. Test Procedure

The EUT was setup to ANSI C63.10: 2013; tested to U-NII test procedure of KDB 789033.

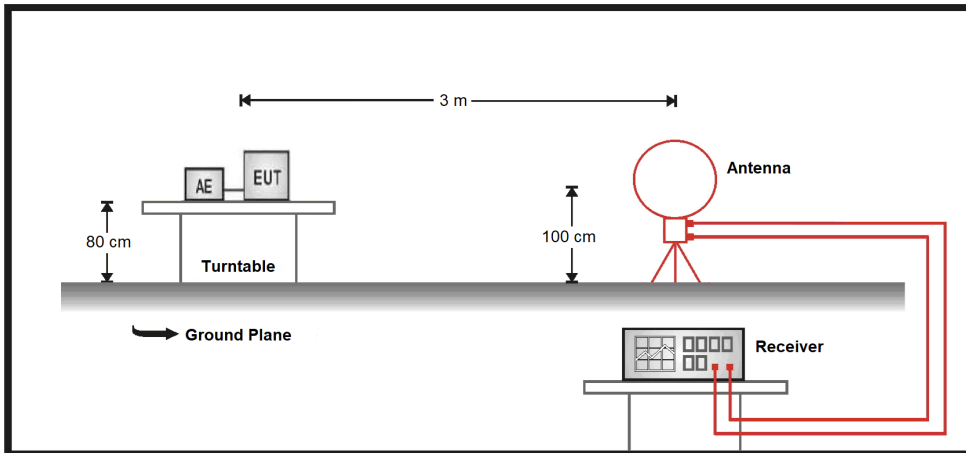
6.4. Test Result of Maximum Power Spectral Density

Refer as Appendix D

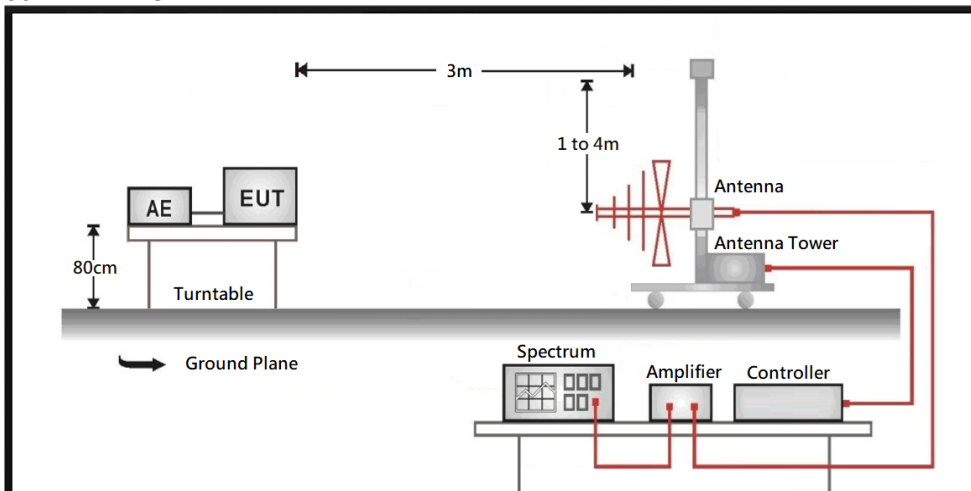
7. Transmitter Radiated Spurious Emission

7.1. Test Setup

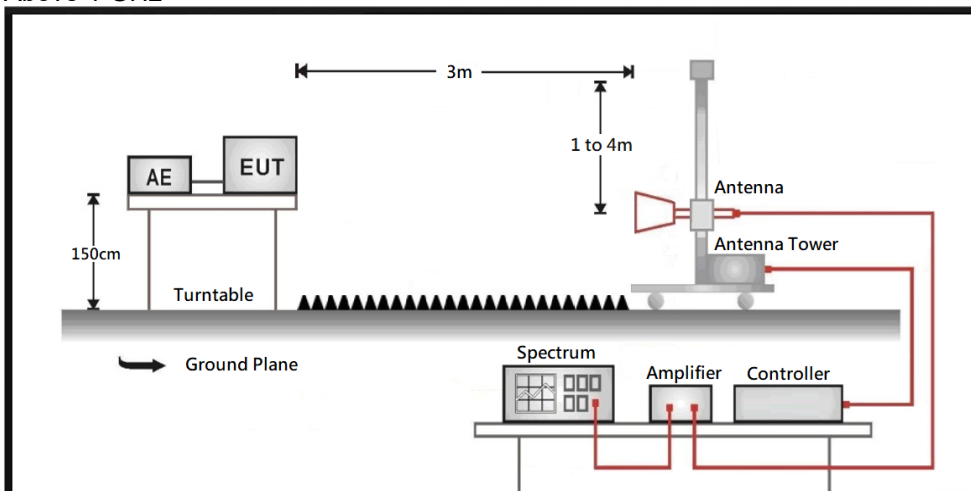
9 kHz ~ 30 MHz



30 MHz ~ 1 GHz



Above 1 GHz



7.2. Test Limit

Frequency (MHz)	Field strength (uV/m)	Field strength (dBuV/m)	Measurement distance (m)
0.009 – 0.490	2400/F(kHz)	20 log (2400/F(kHz))	300
0.490 – 1.705	24000/F(kHz)	20 log (24000/F(kHz))	30
1.705 - 30	30	29.5	30
30 - 88	100	40	3
88 - 216	150	43.5	3
216 - 960	200	46	3
Above 960	500	54	3

Remarks:

1. Field strength (dBuV/m) = 20 log Field strength (uV/m)
2. In the Above Table, the tighter limit applies at the band edges.
2. Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system

Unwanted Emission out of the restricted bands Test Limit

Frequency (MHz)	EIRP Limit (dBm/MHz)	Equivalent Field Strength (dBuV/m@3m)
5150 – 5250	-27	68.2
5250 – 5350	-27	68.2
5470 – 5725	-27	68.2
5725 – 5850	-27 ^{*1}	68.2 ^{*1}
	10 ^{*2}	105.2 ^{*2}
	15.6 ^{*3}	110.8 ^{*3}
	27 ^{*4}	122.2 ^{*4}
5850 – 5895	(i) For an indoor access point or subordinate device, all emissions at or above 5.895 GHz shall not exceed an e.i.r.p. of 15 dBm/MHz and shall decrease linearly to an e.i.r.p. of -7 dBm/MHz at or above 5.925 GHz. (ii) For a client device, all emissions at or above 5.895 GHz shall not exceed an e.i.r.p. of -5 dBm/MHz and shall decrease linearly to an e.i.r.p. of -27 dBm/MHz at or above 5.925 GHz. (iii) For a client device or indoor access point or subordinate device, all emissions below 5.725 GHz shall not exceed an e.i.r.p. of -27 dBm/MHz at 5.65 GHz increasing linearly to 10 dBm/MHz at 5.7 GHz, and from 5.7 GHz increasing linearly to a level of 15.6 dBm/MHz at 5.72 GHz, and from 5.72 GHz increasing linearly to a level of 27 dBm/MHz at 5.725 GHz.	
^{*1} beyond 75 MHz or more above of the band edge.		
^{*2} below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above.		
^{*3} below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above.		
^{*4} from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.		

Remark:

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

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

7.3. Test Procedure

The EUT and its simulators are placed on a turn table which is 0.8 or 1.5 meter above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.

The antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level. Both horizontal and vertical polarization of the antenna are set on measurement. In order to find the maximum emission, all of the interface cables must be manipulated according to ANSI C63.10: 2013 on radiated measurement.

The additional latch filter below 1 GHz was used to measure the level of harmonics radiated emission during field strength of harmonics measurement.

The bandwidth below 1 GHz setting on the field strength meter is 120 kHz, above 1 GHz are 1 MHz.

The frequency range from 9 kHz to 10th harmonics and included The frequency range from the lowest oscillator frequency generated within the device up to the 10th harmonic was checked is checked.

7.4. Test Result of Transmitter Radiated Spurious Emission (Below 30 MHz)

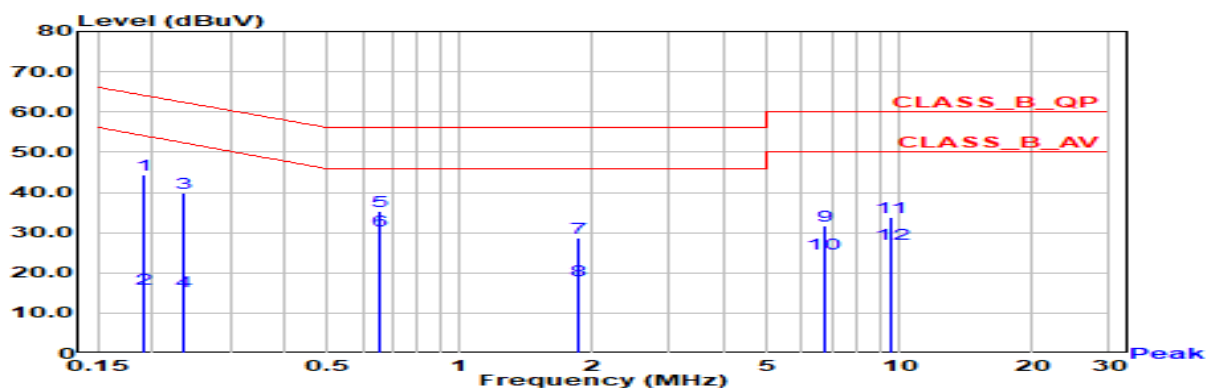
The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

7.5. Test Result of Transmitter Radiated Spurious Emission

Refer as Appendix E

Appendix A. Test Result of AC Power Line Conducted Emission

Test Mode	Mode 1	Phase	Line
Test Condition	WIFI_5G		

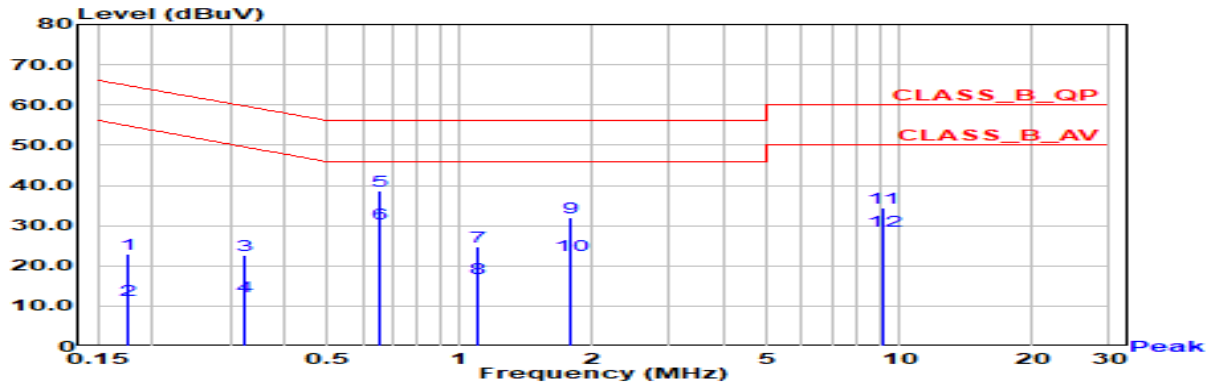


No	Frequency (MHz)	Emission Level (dBUV)	Limit (dBUV)	Margin (dB)	Reading Level (dBUV)	Correct Factor (dB)	Detector Type
*1	0.190	44.38	64.04	-19.66	34.76	9.62	QP
2	0.190	15.87	54.04	-38.17	6.25	9.62	AV
3	0.236	39.94	62.22	-22.28	30.32	9.63	QP
4	0.236	15.42	52.22	-36.80	5.80	9.63	AV
5	0.660	35.44	56.00	-20.56	25.77	9.67	QP
*6	0.660	30.56	46.00	-15.44	20.89	9.67	AV
7	1.858	28.81	56.00	-27.19	19.06	9.75	QP
8	1.858	18.14	46.00	-27.86	8.39	9.75	AV
9	6.720	31.79	60.00	-28.21	21.83	9.96	QP
10	6.720	24.79	50.00	-25.21	14.84	9.96	AV
11	9.539	33.68	60.00	-26.32	23.63	10.05	QP
12	9.539	27.05	50.00	-22.95	16.99	10.05	AV

Note:

1. "*" means this data is the worst emission level.
2. Emission Level = Reading Level + Correct Factor (Correct Factor = LISN Insertion Loss + Cable Loss).
3. Margin = Emission Level - Limit.

Test Mode	Mode 1	Phase	Neutral
Test Condition	WIFI_5G		

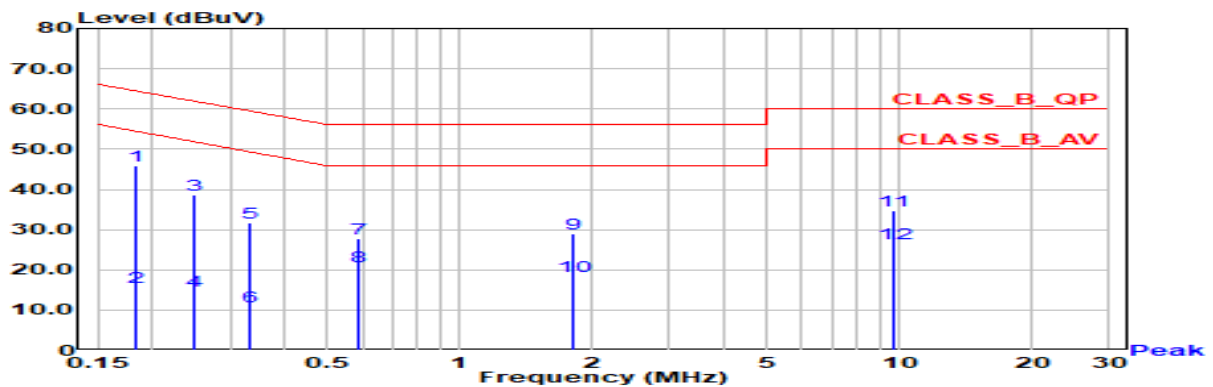


No	Frequency (MHz)	Emission Level (dBUV)	Limit (dBUV)	Margin (dB)	Reading Level (dBUV)	Correct Factor (dB)	Detector Type
1	0.177	22.99	64.65	-41.66	13.37	9.62	QP
2	0.177	11.61	54.65	-43.03	1.99	9.62	AV
3	0.325	22.67	59.57	-36.90	13.03	9.64	QP
4	0.325	12.25	49.57	-37.32	2.61	9.64	AV
*5	0.655	38.66	56.00	-17.34	28.99	9.67	QP
*6	0.655	30.60	46.00	-15.40	20.93	9.67	AV
7	1.103	24.91	56.00	-31.09	15.19	9.72	QP
8	1.103	16.96	46.00	-29.04	7.24	9.72	AV
9	1.783	31.93	56.00	-24.07	22.17	9.76	QP
10	1.783	22.51	46.00	-23.49	12.75	9.76	AV
11	9.161	34.56	60.00	-25.44	24.47	10.09	QP
12	9.161	28.68	50.00	-21.32	18.60	10.09	AV

Note:

1. "*" means this data is the worst emission level.
2. Emission Level = Reading Level + Correct Factor (Correct Factor = LISN Insertion Loss + Cable Loss).
3. Margin = Emission Level - Limit.

Test Mode	Mode 2	Phase	Line
Test Condition	WIFI_5G		

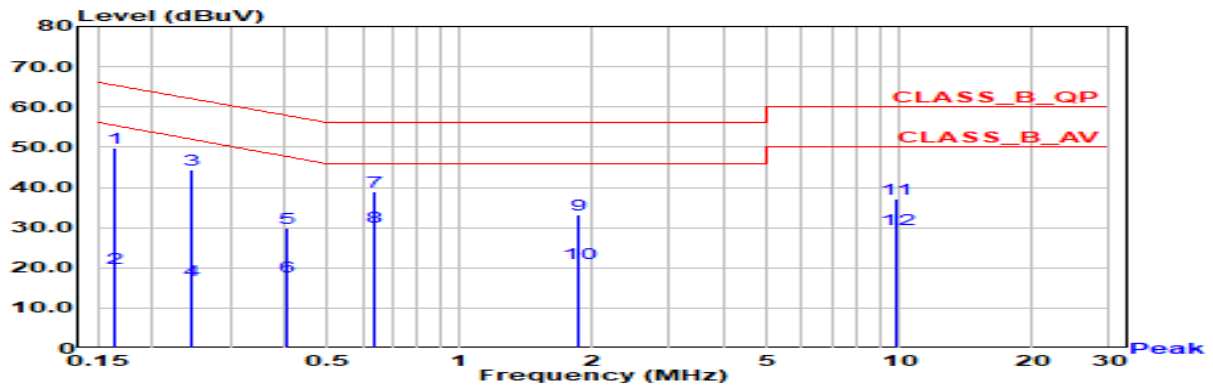


No	Frequency (MHz)	Emission Level (dBUV)	Limit (dBUV)	Margin (dB)	Reading Level (dBUV)	Correct Factor (dB)	Detector Type
*1	0.183	45.79	64.33	-18.54	36.17	9.62	QP
2	0.183	15.69	54.33	-38.64	6.07	9.62	AV
3	0.249	38.60	61.78	-23.18	28.97	9.63	QP
4	0.249	14.94	51.78	-36.84	5.31	9.63	AV
5	0.335	31.58	59.33	-27.76	21.94	9.64	QP
6	0.335	10.93	49.33	-38.40	1.30	9.64	AV
7	0.590	27.72	56.00	-28.28	18.06	9.66	QP
8	0.590	20.89	46.00	-25.11	11.23	9.66	AV
9	1.820	28.93	56.00	-27.07	19.18	9.75	QP
10	1.820	18.29	46.00	-27.71	8.54	9.75	AV
11	9.680	34.75	60.00	-25.25	24.70	10.06	QP
12	9.680	26.56	50.00	-23.44	16.50	10.06	AV

Note:

1. "*" means this data is the worst emission level.
2. Emission Level = Reading Level + Correct Factor (Correct Factor = LISN Insertion Loss + Cable Loss).
3. Margin = Emission Level - Limit.

Test Mode	Mode 2	Phase	Neutral
Test Condition	WIFI_5G		

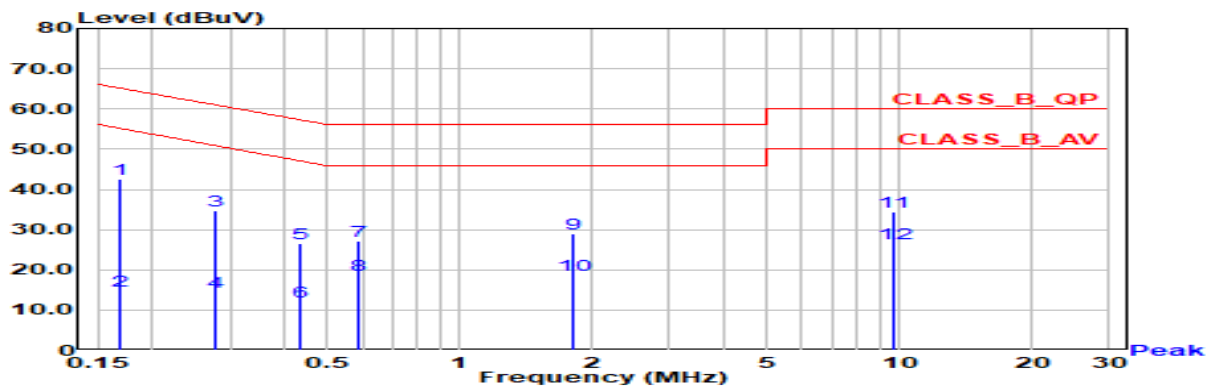


No	Frequency (MHz)	Emission Level (dBuV)	Limit (dBuV)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
*1	0.164	49.83	65.27	-15.45	40.20	9.62	QP
2	0.164	19.86	55.27	-35.41	10.24	9.62	AV
3	0.246	44.30	61.88	-17.58	34.67	9.63	QP
4	0.246	17.01	51.88	-34.87	7.38	9.63	AV
5	0.406	29.97	57.73	-27.76	20.33	9.64	QP
6	0.406	17.96	47.73	-29.77	8.32	9.64	AV
7	0.641	38.90	56.00	-17.10	29.23	9.67	QP
8	0.641	30.15	46.00	-15.85	20.48	9.67	AV
9	1.858	33.24	56.00	-22.76	23.48	9.76	QP
10	1.858	21.14	46.00	-24.86	11.38	9.76	AV
11	9.788	37.23	60.00	-22.77	27.12	10.11	QP
12	9.788	29.58	50.00	-20.42	19.47	10.11	AV

Note:

1. "*" means this data is the worst emission level.
2. Emission Level = Reading Level + Correct Factor (Correct Factor = LISN Insertion Loss + Cable Loss).
3. Margin = Emission Level - Limit.

Test Mode	Mode 3	Phase	Line
Test Condition	WIFI_5G		

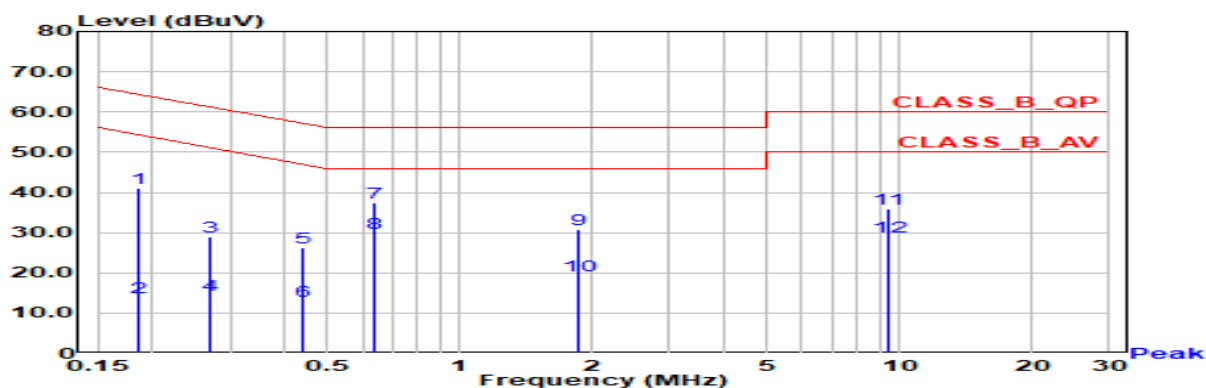


No	Frequency (MHz)	Emission Level (dBuV)	Limit (dBuV)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
*1	0.169	42.48	65.02	-22.53	32.86	9.62	QP
2	0.169	14.84	55.02	-40.18	5.22	9.62	AV
3	0.276	34.79	60.92	-26.13	25.16	9.63	QP
4	0.276	14.57	50.92	-36.35	4.94	9.63	AV
5	0.434	26.58	57.17	-30.59	16.94	9.64	QP
6	0.434	12.11	47.17	-35.06	2.47	9.64	AV
7	0.590	27.04	56.00	-28.96	17.38	9.66	QP
8	0.590	18.79	46.00	-27.21	9.13	9.66	AV
9	1.820	29.08	56.00	-26.92	19.33	9.75	QP
10	1.820	18.59	46.00	-27.41	8.84	9.75	AV
11	9.679	34.27	60.00	-25.73	24.21	10.06	QP
12	9.679	26.55	50.00	-23.45	16.49	10.06	AV

Note:

1. "*" means this data is the worst emission level.
2. Emission Level = Reading Level + Correct Factor (Correct Factor = LISN Insertion Loss + Cable Loss).
3. Margin = Emission Level - Limit.

Test Mode	Mode 3	Phase	Neutral
Test Condition	WIFI_5G		



No	Frequency (MHz)	Emission Level (dBUV)	Limit (dBUV)	Margin (dB)	Reading Level (dBUV)	Correct Factor (dB)	Detector Type
1	0.186	40.96	64.21	-23.25	31.33	9.62	QP
2	0.186	14.01	54.21	-40.20	4.39	9.62	AV
3	0.269	28.90	61.15	-32.25	19.27	9.63	QP
4	0.269	14.45	51.15	-36.70	4.82	9.63	AV
5	0.438	26.13	57.09	-30.97	16.48	9.65	QP
6	0.438	12.86	47.09	-34.23	3.22	9.65	AV
7	0.641	37.58	56.00	-18.42	27.91	9.67	QP
*8	0.641	29.86	46.00	-16.14	20.19	9.67	AV
9	1.858	30.84	56.00	-25.16	21.08	9.76	QP
10	1.858	19.33	46.00	-26.67	9.57	9.76	AV
11	9.444	35.90	60.00	-24.10	25.80	10.10	QP
12	9.444	28.98	50.00	-21.02	18.89	10.10	AV

Note:

1. "*" means this data is the worst emission level.
2. Emission Level = Reading Level + Correct Factor (Correct Factor = LISN Insertion Loss + Cable Loss).
3. Margin = Emission Level - Limit.

Appendix B. Test Result of Emission Bandwidth

Modulation	Frequency (MHz)	99% Occupied Bandwidth (MHz)			26dB Bandwidth (MHz)		
		Ant. 1	Ant. 2	Limit	Ant. 1	Ant. 2	Limit
802.11a	5180	16.22	16.26	-	18.36	18.48	-
	5220	16.26	16.30	-	18.44	18.48	-
	5240	16.22	16.30	-	18.48	18.80	-
	5260	16.22	16.30	-	18.24	18.68	-
	5300	16.22	16.30	-	18.40	18.72	-
	5320	16.18	16.30	-	18.44	18.68	-
	5500	16.26	16.26	-	18.36	18.40	-
	5580	16.26	16.26	-	18.44	18.44	-
	5700	16.26	16.26	-	18.44	18.56	-
	5720 (UNII-2C)	13.15	13.15	-	14.28	14.24	-
Modulation	Frequency (MHz)	99% Occupied Bandwidth (MHz)			DTS Bandwidth (MHz)		
		Ant. 1	Ant. 2	Limit	Ant. 1	Ant. 2	Limit
802.11a	5720 (UNII-3)	3.11	3.15	-	2.56	2.88	0.5
	5745	16.26	16.26	-	15.12	15.04	0.5
	5785	16.26	16.30	-	15.12	15.12	0.5
	5825	16.30	16.30	-	15.08	15.12	0.5
	5845 (UNII-3)	13.15	13.15	-	13.16	11.32	0.5
	5845 (UNII-4)	3.11	3.15	-	3.12	2.56	0.5
	5865	16.26	16.26	-	15.12	15.08	0.5
	5885	16.26	16.30	-	15.12	15.32	0.5

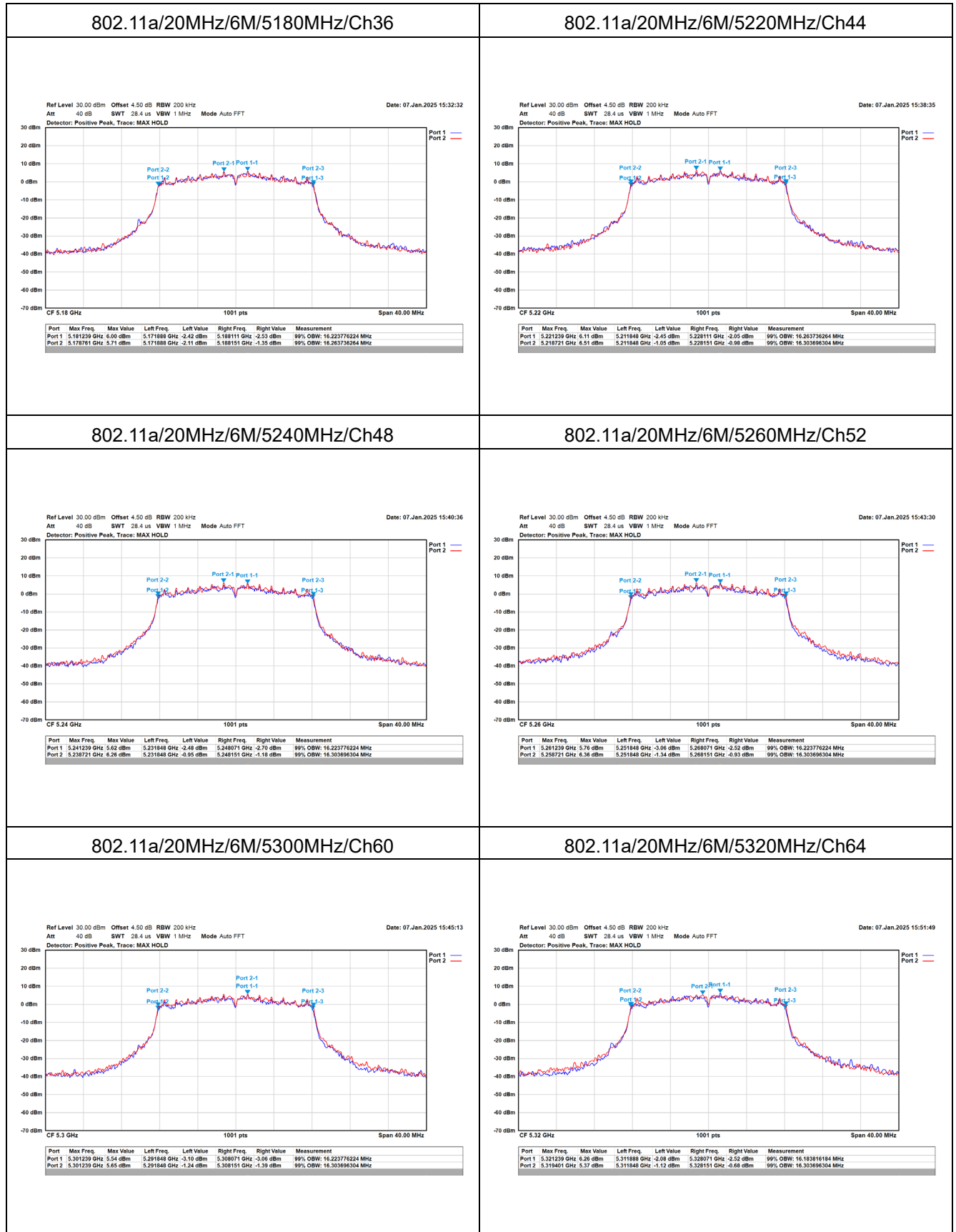
Modulation	Frequency (MHz)	99% Occupied Bandwidth (MHz)			26dB Bandwidth (MHz)		
		Ant. 1	Ant. 2	Limit	Ant. 1	Ant. 2	Limit
802.11ax (20MHz)	5180	18.90	18.86	-	20.72	20.28	-
	5220	18.82	18.86	-	20.60	20.52	-
	5240	18.86	18.82	-	20.36	20.48	-
	5260	18.86	18.82	-	20.56	20.76	-
	5300	18.82	18.82	-	20.52	20.56	-
	5320	18.90	18.82	-	20.44	20.44	-
	5500	18.82	18.82	-	20.40	20.52	-
	5580	18.86	18.82	-	20.48	20.56	-
	5700	18.78	18.90	-	20.32	20.68	-
	5720 (UNII-2C)	14.39	14.43	-	15.12	15.32	-
Modulation	Frequency (MHz)	99% Occupied Bandwidth (MHz)			DTS Bandwidth (MHz)		
		Ant. 1	Ant. 2	Limit	Ant. 1	Ant. 2	Limit
802.11ax (20MHz)	5720 (UNII-3)	4.43	4.43	-	4.20	4.20	0.5
	5745	18.82	18.82	-	18.36	15.32	0.5
	5785	18.82	18.82	-	15.16	15.08	0.5
	5825	18.86	18.82	-	18.52	17.68	0.5
	5845 (UNII-3)	14.47	14.43	-	14.00	12.52	0.5
	5845 (UNII-4)	4.39	4.39	-	3.80	1.28	0.5
	5865	18.82	18.82	-	15.24	17.28	0.5
	5885	18.82	18.86	-	15.56	18.84	0.5

Modulation	Frequency (MHz)	99% Occupied Bandwidth (MHz)			26dB Bandwidth (MHz)		
		Ant. 1	Ant. 2	Limit	Ant. 1	Ant. 2	Limit
802.11ax (40MHz)	5190	37.56	37.72	-	40.32	39.92	-
	5230	37.64	37.64	-	40.00	39.92	-
	5270	37.64	37.64	-	40.00	39.92	-
	5310	37.56	37.56	-	39.92	40.08	-
	5510	37.64	37.56	-	39.84	39.84	-
	5550	37.56	37.72	-	40.16	39.68	-
	5670	37.56	37.72	-	40.24	40.32	-
	5710 (UNII-2C)	33.86	33.86	-	35.40	35.16	-
Modulation	Frequency (MHz)	99% Occupied Bandwidth (MHz)			DTS Bandwidth (MHz)		
		Ant. 1	Ant. 2	Limit	Ant. 1	Ant. 2	Limit
802.11ax (40MHz)	5710 (UNII-3)	3.78	3.78	-	1.08	3.48	0.5
	5755	37.56	37.56	-	35.12	33.60	0.5
	5795	37.56	37.72	-	33.36	37.68	0.5
	5835 (UNII-3)	33.78	33.78	-	32.68	33.64	0.5
	5835 (UNII-4)	3.70	3.78	-	2.60	3.88	0.5
	5875	37.48	37.72	-	34.32	34.80	0.5

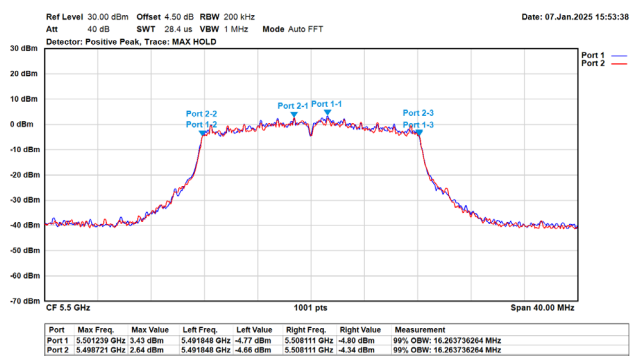
Modulation	Frequency (MHz)	99% Occupied Bandwidth (MHz)			26dB Bandwidth (MHz)		
		Ant. 1	Ant. 2	Limit	Ant. 1	Ant. 2	Limit
802.11ax (80MHz)	5210	76.56	76.72	-	81.12	81.44	-
	5290	76.72	76.88	-	80.32	81.28	-
	5530	76.40	76.72	-	81.44	81.12	-
	5610	76.72	76.56	-	80.48	80.64	-
	5690 (UNII-2C)	73.36	73.36	-	75.32	75.32	-
Modulation	Frequency (MHz)	99% Occupied Bandwidth (MHz)			DTS Bandwidth (MHz)		
		Ant. 1	Ant. 2	Limit	Ant. 1	Ant. 2	Limit
802.11ax (80MHz)	5690 (UNII-3)	3.20	3.36	-	2.60	2.60	0.5
	5775	77.04	76.88	-	54.40	72.64	0.5
	5855 (UNII-3)	33.36	33.52	-	24.92	32.76	0.5
	5855 (UNII-4)	43.20	43.36	-	20.52	42.60	0.5

Modulation	Frequency (MHz)	99% Occupied Bandwidth (MHz)			26dB Bandwidth (MHz)		
		Ant. 1	Ant. 2	Limit	Ant. 1	Ant. 2	Limit
802.11ax (160MHz)	5250 (UNII-1)	77.04	77.04	-	80.96	81.92	-
	5250 (UNII-2A)	78.32	78.00	-	81.60	81.92	-
	5570	155.04	154.41	-	162.24	162.24	-
Modulation	Frequency (MHz)	99% Occupied Bandwidth (MHz)			DTS Bandwidth (MHz)		
		Ant. 1	Ant. 2	Limit	Ant. 1	Ant. 2	Limit
802.11ax (160MHz)	5815 (UNII-3)	113.32	112.68	-	113.40	112.76	0.5
	5815 (UNII-4)	42.04	42.36	-	8.84	42.44	0.5

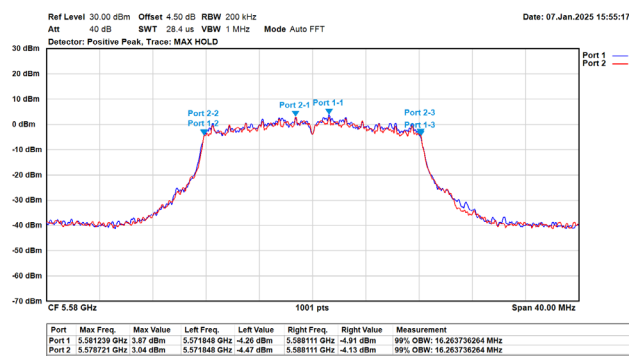
For 99% Bandwidth:



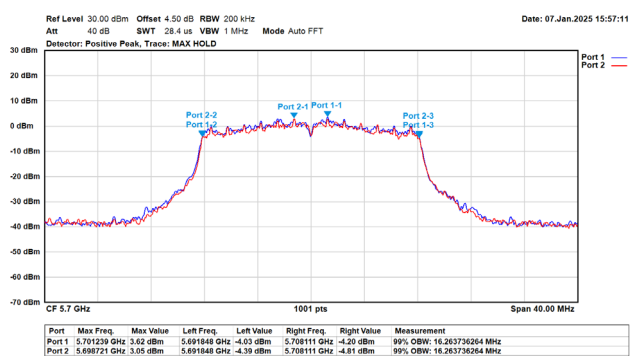
802.11a/20MHz/6M/5500MHz/Ch100



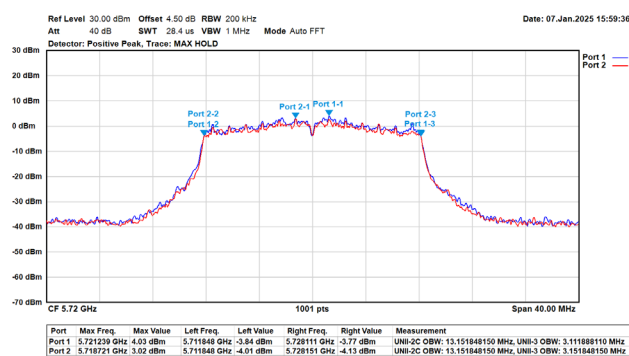
802.11a/20MHz/6M/5580MHz/Ch116



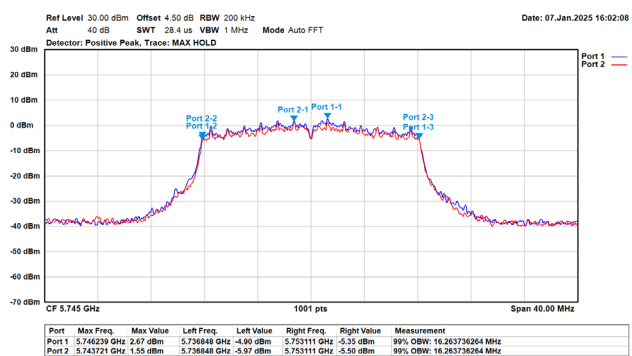
802.11a/20MHz/6M/5700MHz/Ch140



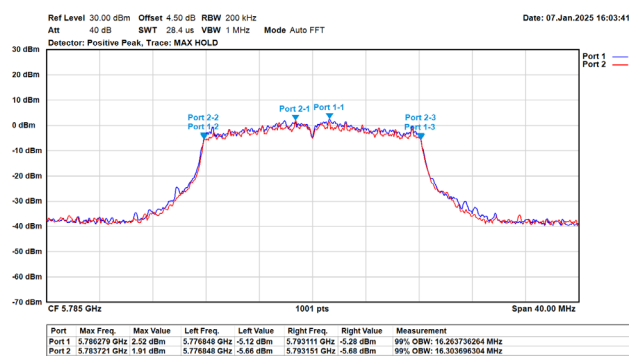
802.11a/20MHz/6M/5720MHz/Ch144



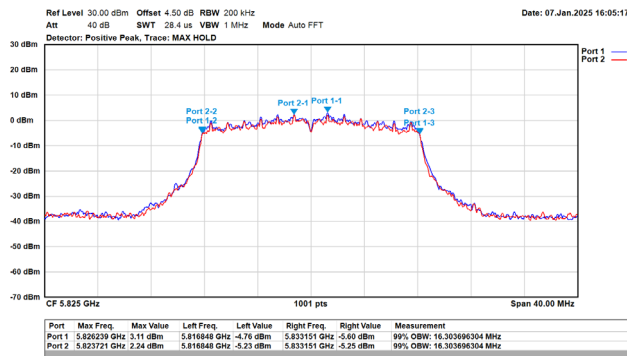
802.11a/20MHz/6M/5745MHz/Ch149



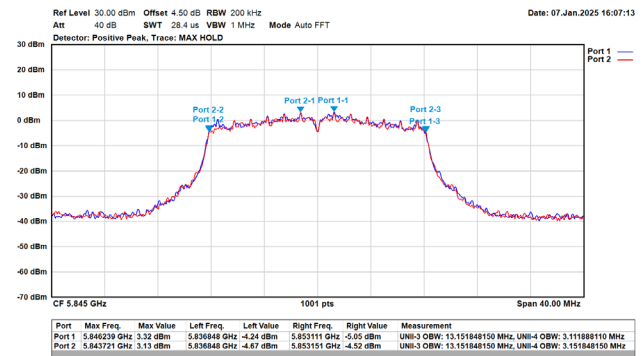
802.11a/20MHz/6M/5785MHz/Ch157



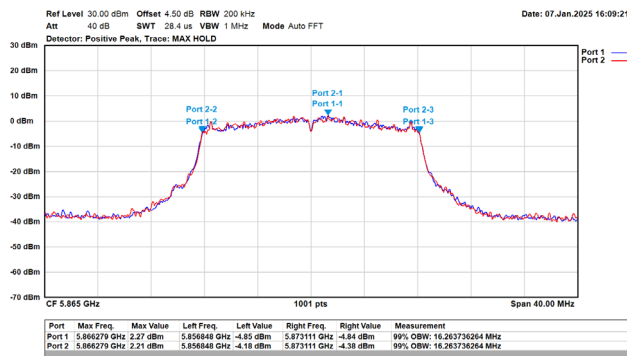
802.11a/20MHz/6M/5825MHz/Ch165



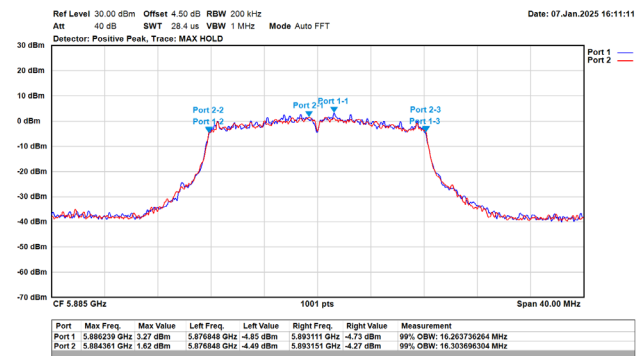
802.11a/20MHz/6M/5845MHz/Ch169



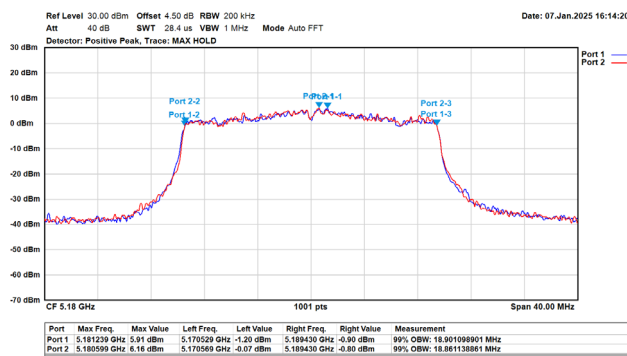
802.11a/20MHz/6M/5865MHz/Ch173



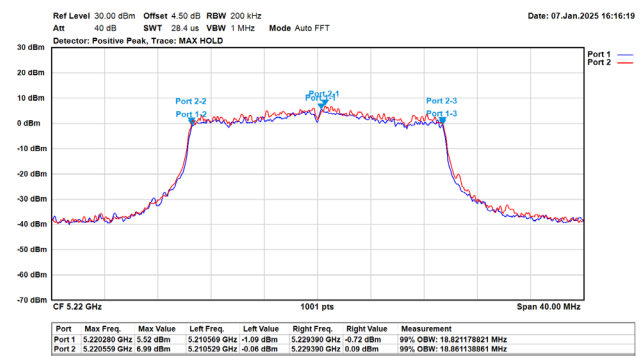
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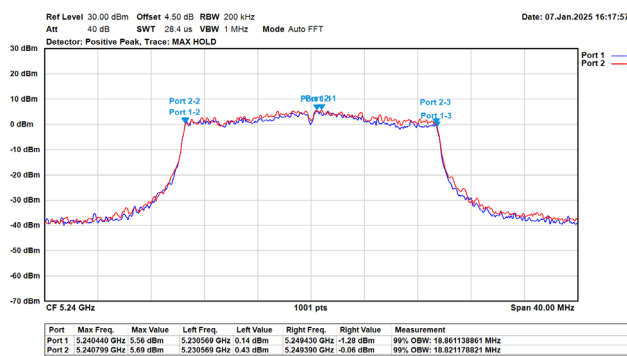
802.11ax/20MHz/MCS0/5180MHz/Ch36



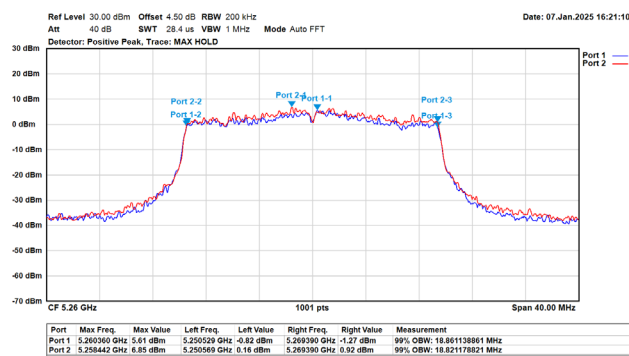
802.11ax/20MHz/MCS0/5220MHz/Ch44



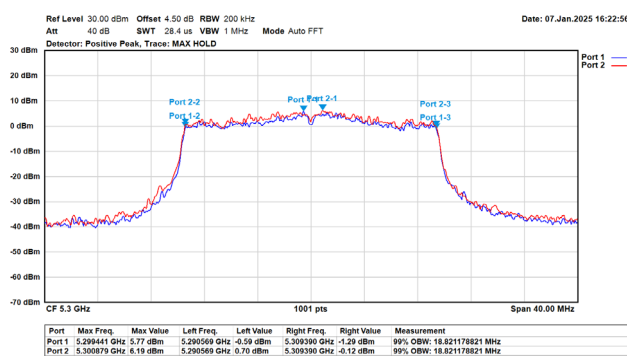
802.11ax/20MHz/MCS0/5240MHz/Ch48



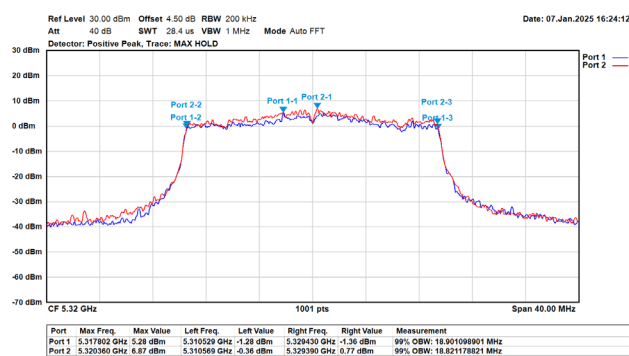
802.11ax/20MHz/MCS0/5260MHz/Ch52



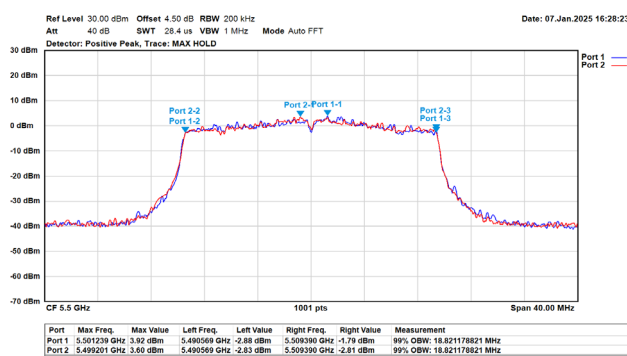
802.11ax/20MHz/MCS0/5300MHz/Ch60



802.11ax/20MHz/MCS0/5320MHz/Ch64



802.11ax/20MHz/MCS0/5500MHz/Ch100



802.11ax/20MHz/MCS0/5580MHz/Ch116

