

Test Report No:
2520792R-RFUSV03S-A

TEST REPORT

FCC Rules & Regulations

(Class II Permissive Change)

Product Name	35b Security Router, Gigabit Broadband Router
Brand Name	DrayTek
Model No.	Vigor2767Vax (Serial models please refer to section 1.1)
FCC ID	VGY2767AX
Applicant's Name / Address	Draytek Corporation No. 26, Fu Shing Road, Hukou County, Hsin-Chu Industrial Park, Hsinchu, Taiwan
Manufacturer's Name	Draytek Corporation
Test Method Requested, Standard	FCC CFR Title 47 Part 15 Subpart E Section 15.407
Verdict Summary	IN COMPLIANCE
Documented by Genie Chang	<i>Genie Chang</i>
Tested by Ivan Chuang	<i>Ivan Chuang</i>
Approved by Steven Tsai	<i>Steven Tsai</i>
Date of Receipt	2025/02/24
Date of Issue	2025/07/15
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	2025/07/15

Permissive Change

Report No.	Version	Description	Issued Date
2320217R-RFUSV03S-A	V1.0	Original application.	2024/05/03
2520792R-RFUSV03S-A	V1.0	This is to request a Class II permissive change. The major change filed under this application is: Change #1: Added U-NII 2A/2C bands and 160 MHz mode (ac/ax).	2025/07/15

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.

1. General Information

1.1. EUT Description

Frequency Range	5150 ~ 5250 MHz 5250 ~ 5350 MHz 5470 ~ 5725 MHz 5725 ~ 5850 MHz	
Operating Frequency / Channel Number	IEEE 802.11a/n/ac/ax (20 MHz)	5180 ~ 5240 MHz / 4 Channels 5260 ~ 5320 MHz / 4 Channels 5500 ~ 5720 MHz / 12 Channels 5745 ~ 5825 MHz / 5 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
	IEEE 802.11ac/ax (80 MHz)	5210 MHz / 1 Channel 5290 MHz / 1 Channel 5530 ~ 5690 MHz / 3 Channels 5775 MHz / 1 Channel
	IEEE 802.11ac/ax (160 MHz)	5250 MHz / 1 Channel 5570 MHz / 1 Channel
Type of Modulation	IEEE 802.11a/n	OFDM-BPSK, QPSK, 16QAM, 64QAM
	IEEE 802.11ac	OFDM-BPSK, QPSK, 16QAM, 64QAM, 256QAM,
	IEEE 802.11ax	OFDMA-BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM

Accessories Information					
No.	Equipment Name	Brand Name	Model No.	Rating	Remark
1	Power Adapter	CWT	2ABL030F US	Input: AC 100-240 V~1 A, 50-60 Hz Output: 12 V $\overline{\text{---}}$ 2.5 A	Cable out: Non-Shielded, 1.5 m
2	Power Adapter	CWT	2ABL024F US	Input: AC 100-240 V~0.8 A, 50-60 Hz Output: 12 V $\overline{\text{---}}$ 2 A	Cable out: Non-Shielded, 1.5 m
3	Power Adapter	CWT	2ABN036F US	Input: AC 100-240 V~1 A, 50-60 Hz Output: 12 V $\overline{\text{---}}$ 3 A	Cable out: Non-Shielded, 1.5 m
4	Power Adapter	MOSO	MSS-V2500WR 120-030E0-US	Input: AC 100-240 V~1 A, 50-60 Hz Output: 12 V $\overline{\text{---}}$ 2.5 A	Cable out: Non-Shielded, 1.5 m
5	Power Adapter	MOSO	MS-V2000R120 -024Q0-US	Input: AC 100-240 V~0.7 A, 50-60 Hz Output: 12 V $\overline{\text{---}}$ 2 A	Cable out: Non-Shielded, 1.5 m
6	Power Adapter	MOSO	V30-V3000R12 0-036T0-US	Input: AC 100-240 V~1 A, 50-60 Hz Output: 12 V $\overline{\text{---}}$ 3 A, 36 W	Cable out: Non-Shielded, 1.5 m
No.	Equipment Name	Description			
7	RJ11 Cable	Non-Shielded, 1.8 m (The cable is only available for models with DSL functionality.)			
8	RJ45 Cable	Non-Shielded, 3 m			

The difference for each model is shown as below:

Item	Model name	Product name	PCB#	DSL	Eth-RJ45	SFP	2.5G	wlan 5GHz	wlan 2.4GHz	FXS	USB port
1	Vigor 2767Vax	35b Security Router	V0x	V(vdsl2/35b)			V	V	V	2	2
2	Vigor 2767ax		V0x	V(vdsl2/35b)			V	V	V		2
3	Vigor 2136FVax	Gigabit Broadband Router	V2x			V	V	V	V	2	2
4	Vigor 2136Vax		V2x		V		V	V	V	2	2
5	Vigor 2136Fax		V2x			V	V	V	V		2
6	Vigor 2136ax		V2x		V		V	V	V		2

From the above models, model: Vigor2767Vax was selected as representative model for the test and its data was recorded in this report.

Antenna Information							
Item.	Brand Name	Model No.	Type	Antenna Gain (dBi)		Directional Gain (dBi)	
1	Angeei	DPD2430SRW (Main)	Dipole	U-NII 2A	3.50	U-NII 2A	6.51
		DPD2430SRW (Aux)		U-NII 2C	3.50	U-NII 2C	6.51
2	INPAQ	RFMTA160800NN5B002 (Only RX)	PIFA	U-NII 2A	4	NA	
				U-NII 2C	4		

Note: The antenna of EUT conforms to FCC 15.203.

For IEEE 802.11a/n/ac/ax Mode: (2TX, 3RX)

1.2. EUT Information

EUT Power Type	From Adapter			
EUT Function	<input checked="" type="checkbox"/>	Point-to-multipoint	<input type="checkbox"/>	Point-to-point
TPC Function	<input checked="" type="checkbox"/>	With TPC Function	<input type="checkbox"/>	Without TPC Function
Weather Band (5600 ~ 5650 MHz)	<input checked="" type="checkbox"/>	With 5600 ~ 5650 MHz	<input type="checkbox"/>	Without 5600 ~ 5650 MHz
Beamforming Function	<input checked="" type="checkbox"/>	With beamforming	<input type="checkbox"/>	Without beamforming
Resource Unit of 802.11ax	<input checked="" type="checkbox"/>	Full RU	<input type="checkbox"/>	Partial RU
Operating Mode	<input checked="" type="checkbox"/>	Master		
	<input type="checkbox"/>	Slave with radar detection		
	<input type="checkbox"/>	Slave without radar detection		

1.3. Testing Location Information

USA	FCC Designation Number: TW0033
Canada	CAB Identifier Number: TW3023 / Company Number: 26930

Site Description	Accredited by TAF
	Accredited Number: 3023

Test Laboratory	DEKRA Testing and Certification Co., Ltd.
	Linkou Laboratory
Address	No. 85, Wenlin St., Linkou Dist., New Taipei City 244017, Taiwan, R.O.C.
Performed Location	No. 26, Huaya 1st Rd., Guishan Dist., Taoyuan City 333411, Taiwan, R.O.C.
Phone Number	+886-3-275-7255
Fax Number	+886-3-327-8031

Ambient conditions in the laboratory:

Performed Item	Items	Required	Actual	Test Date
AC Power Line Conducted Emission	Temperature (°C)	10~40 °C	24.3 °C	2025/05/05
	Humidity (%RH)	10~90 %	56.2 %	
Radiated Emission	Temperature (°C)	10~40 °C	23.3 °C	2025/04/19~2025/04/25
	Humidity (%RH)	10~90 %	60.5 %	
RF Conducted Emission	Temperature (°C)	10~40 °C	21.3 °C	2025/05/06~2025/05/07
	Humidity (%RH)	10~90 %	62.1 %	

1.4. Measurement Uncertainty

Uncertainties have been calculated according to the DEKRA internal document.

The reported expanded uncertainties are based on a standard uncertainty multiplied by a coverage factor of $k=2$, providing a level of confidence of approximately 95%.

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.

Test item	Uncertainty
AC Power Line Conducted Emission	± 3.50 dB
Emission Bandwidth	± 1580.61 Hz
Maximum Conducted Output Power	Spectrum Analyzer: ± 2.13 dB Power Meter: ± 1.05 dB
Maximum Power Spectral Density	± 2.13 dB
Transmitter Radiated Spurious Emission	9 kHz~30 MHz: ± 3.30 dB 30 MHz~1 GHz: ± 5.19 dB 1 GHz~18 GHz: ± 4.46 dB 18 GHz~40 GHz: ± 4.19 dB
Duty Cycle	± 0.62 %

1.5. List of Test Equipment

For Conduction Measurements / HY-SR01

	Equipment	Manufacturer	Model No.	Serial No.	Cal. Date	Due Date
V	EMI Test Receiver	R&S	ESR7	101601	2024/06/24	2025/06/23
V	Two-Line V-Network	R&S	ENV216	101306	2024/04/01	2026/03/31
V	Two-Line V-Network	R&S	ENV216	101307	2023/08/17	2025/08/16
V	Coaxial Cable	SUHNER	RG400_BNC	RF001	2025/01/10	2026/01/09

Note:

1. Two-Line V-Network is calibrated every two years, the other equipment is calibrated every year.
2. The test instruments marked with "V" are used to measure the final test results.
3. Test Software Version: e3 230303 dekra V9.

For Conducted Measurements / HY-SR02

	Equipment	Manufacturer	Model No.	Serial No.	Cal. Date	Due Date
V	Spectrum Analyzer	R&S	FSV30	103466	2024/12/18	2025/12/17
V	Peak Power Analyzer	KEYSIGHT	8990B	MY51000410	2024/08/05	2025/08/04
V	Wideband Power Sensor	KEYSIGHT	N1923A	MY56080003	2024/10/22	2025/10/21
V	Wideband Power Sensor	KEYSIGHT	N1923A	MY56080004	2024/10/22	2025/10/21

Note:

1. All equipment is calibrated every year.
2. The test instruments marked with "V" are used to measure the final test results.
3. Test Software Version : DTC_RF_Tool_Release V100

For Radiated Measurements /HY-CB02

	Equipment	Manufacturer	Model No.	Serial No.	Cal. Date	Due Date
V	Loop Antenna	TESEQ	HLA6121	49611	2025/02/18	2026/02/17
V	Bi-Log Antenna	SCHWARZBECK	VULB9168	9168-0675	2023/08/09	2025/08/08
V	Horn Antenna	RF SPIN	DRH18-E	210503A18ES	2024/02/29	2026/02/28
V	Horn Antenna	Com-Power	AH-840	101101	2023/12/04	2025/12/03
V	Pre-Amplifier	SGH	SGH0301	20230308-1	2025/02/06	2026/02/05
V	Pre-Amplifier	SGH	SGH118-HS	20211102-1	2025/01/10	2026/01/09
V	Pre-Amplifier	EMCI	EMC05820SE	980285	2025/01/10	2026/01/09
V	Pre-Amplifier	MICZEN	MZLNA1850GAC40	WB0103001	2025/01/10	2026/01/09
V	Pre-Amplifier	EMCI	EMC184045SE	980369	2025/01/10	2026/01/09
V	Coaxial Cable	EMCI	EMC102-KM-KM-600	1160311	2025/01/10	2026/01/09
V	Coaxial Cable	EMCI	EMC102-KM-KM-7000	170242	2025/01/10	2026/01/09
	Filter	MICRO TRONICS	BRM20887	G002	2025/01/05	2026/01/04
V	Filter	MICRO TRONICS	BRM50716	G067	2025/01/05	2026/01/04
V	EMI Test Receiver	R&S	ESR3	102793	2024/12/06	2025/12/05
V	Spectrum Analyzer	R&S	FSV3044	101113	2025/01/22	2026/01/21
V	Coaxial Cable	SGH	HA800	GD20110223-2	2025/01/10	2026/01/09
V	Coaxial Cable	SGH	HA800	GD20110222-4	2025/01/10	2026/01/09
V	Coaxial Cable	SGH	SGH18	202108-5	2025/01/10	2026/01/09
V	Coaxial Cable	SGH	SGH18	202212-2	2025/01/10	2026/01/09

Note:

1. Bi-Log Antenna and Horn Antenna are calibrated every two years, the other equipment is calibrated every year.
2. The test instruments marked with "V" are used to measure the final test results.
3. Test Software Version: e3 230303 dekra V9.

2. Test Configuration of EUT

2.1. Test Condition

EUT Operational Condition	
Testing Voltage	AC 120 V/60 Hz

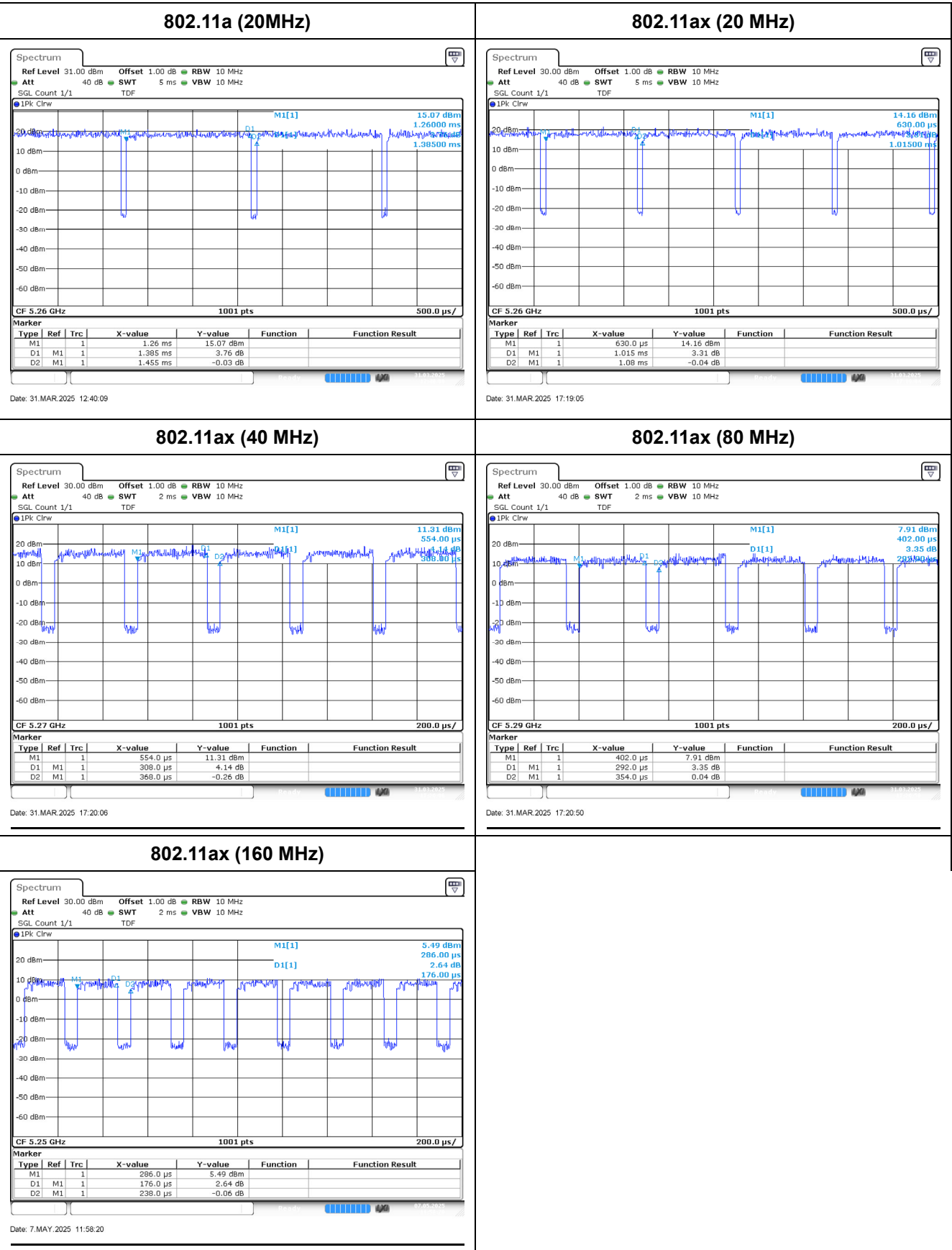
2.2. Test Frequency Mode

Test Software Version	QATool / Version 0.0.2.73
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Modulation	Frequency (MHz)	Power Setting
802.11a (20MHz)	5260	18(24)
	5300	19.5(27)
	5320	18.5(25)
	5500	17.5(23)
	5580	18.5(25)
	5700	16.5(21)
	5720	19(26)
802.11ax (20 MHz)	5260	18.5(25)
	5300	19.5(27)
	5320	17.5(23)
	5500	17(22)
	5580	19(26)
	5700	16.5(21)
	5720	19(26)
802.11ax (40 MHz)	5270	17.5(23)
	5310	14(1C)
	5510	15.5(1F)
	5550	17(22)
	5670	17(22)
	5710	19(26)
802.11ax (80 MHz)	5290	10.5(15)
	5530	13(1A)
	5610	15.5(1F)
	5690	19(26)
802.11ax (160 MHz)	5250	14.5(1D)
	5570	14(1C)

2.3. Duty Cycle

Modulation	On Time (ms)	On+Off Time (ms)	Duty Cycle (%)	Duty Factor (dB)	1/T Minimum VBW (Hz)
802.11a (20MHz)	1.3850	1.4550	95.19	0.21	1000
802.11ax (20 MHz)	1.0150	1.0800	93.98	0.27	1000
802.11ax (40 MHz)	0.3080	0.3680	83.70	0.77	5000
802.11ax (80 MHz)	0.2920	0.3540	82.49	0.84	5000
802.11ax (160 MHz)	0.1760	0.2380	73.95	1.31	10000



2.4. Measurement Configuration

Test Mode	Mode 1 (Transmit)	802.11a (20 MHz)
		802.11ax (20 MHz)
		802.11ax (40 MHz)
		802.11ax (80 MHz)
		802.11ax (160 MHz)
		802.11ax (20 MHz)-Beamforming
		802.11ax (40 MHz)-Beamforming
		802.11ax (80 MHz)-Beamforming
		802.11ax (160 MHz)-Beamforming

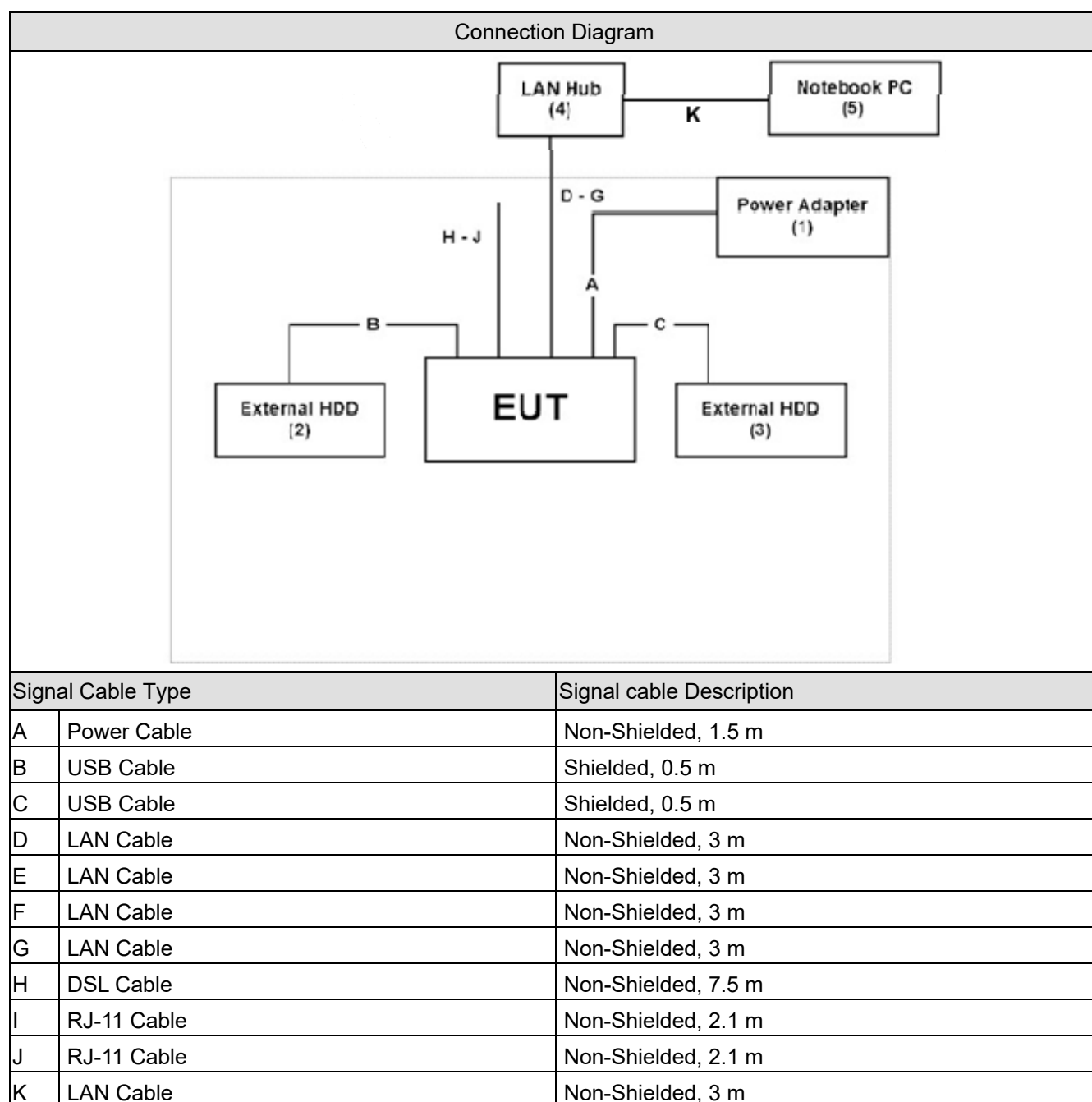
Note:

1. Determining compliance shall be based on the results of the compliance measurement, without taking measurement instrumentation uncertainty into account.
2. For transmitter radiated spurious emission below 1 GHz and AC power line conducted emissions, all modes of operation were investigated, and the worst-case emissions are reported.
3. Lowest data rates are tested in each mode. Only worst case is shown in the report.
(802.11a is 6Mbps, 802.11ax is MCS0)
4. The radiation measurements are performed in X, Y, Z axis positioning. Only the worst case is shown in the report.
5. The CDD mode and Beamforming mode are presented in the power output test item. For other test items, CDD mode is the worst case for the final test and shown in this report.

2.5. Tested System Details

No.	Equipment	Brand Name	Model No.	Serial No.	Power Cord
1	Power Adapter	MOSO	MS-V2000R120-0 24Q0-US	N/A	N/A
2	External HDD	Transcend	TS1TSJ25H3B	F21786-0125	N/A
3	External HDD	Transcend	TS1TSJ25H3B	F21786-0005	N/A
4	LAN Hub	TP-LINK	TL-SG108	2161597000471	Non-Shielded, 1.5 m
5	Notebook PC	DELL	P62G	CY9FJC2	N/A

2.6. Configuration of tested System

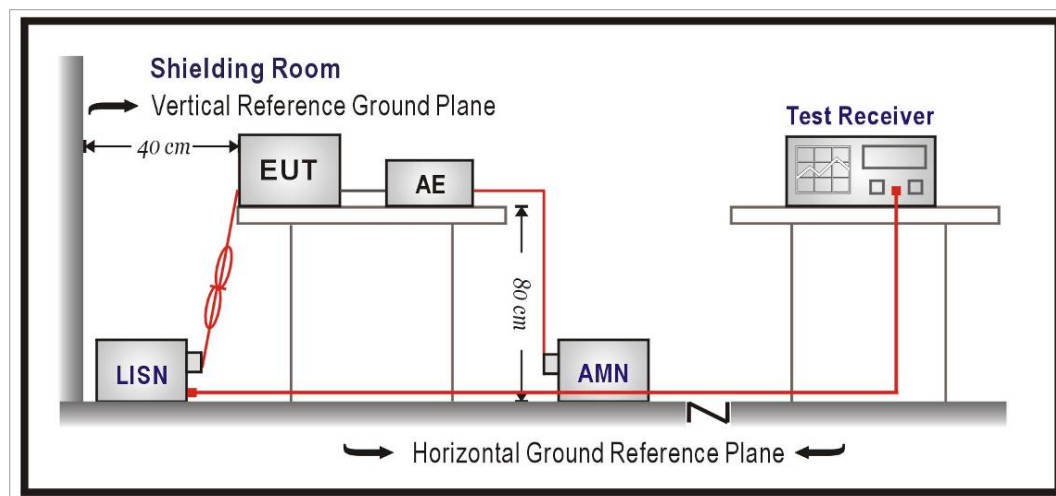


2.7. EUT Operating Procedures

1	Setup the EUT as shown in Section 2.6.
2	Execute software "QATool / Version 0.0.2.73" on the EUT.
3	Configure the test mode, the test channel, and the data rate.
4	Verify that the EUT works properly.

3. AC Power Line Conducted Emission

3.1. Test Setup



3.2. Test Limit

Frequency (MHz)	QP (dB μ V)	AV (dB μ V)
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

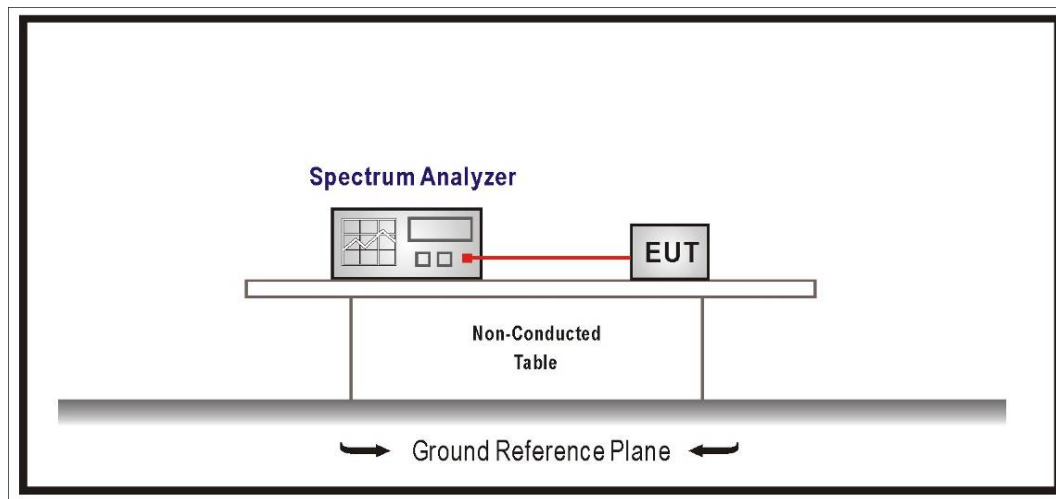
The EUT was setup according to ANSI C63.10-2020 for AC Power Line Conducted Emissions.

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

26 dB Bandwidth : No Required

6 dB Bandwidth \geq 500kHz

4.3. Test Procedure

26 dB Bandwidth, 99% Occupied 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.

6 dB Bandwidth :

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

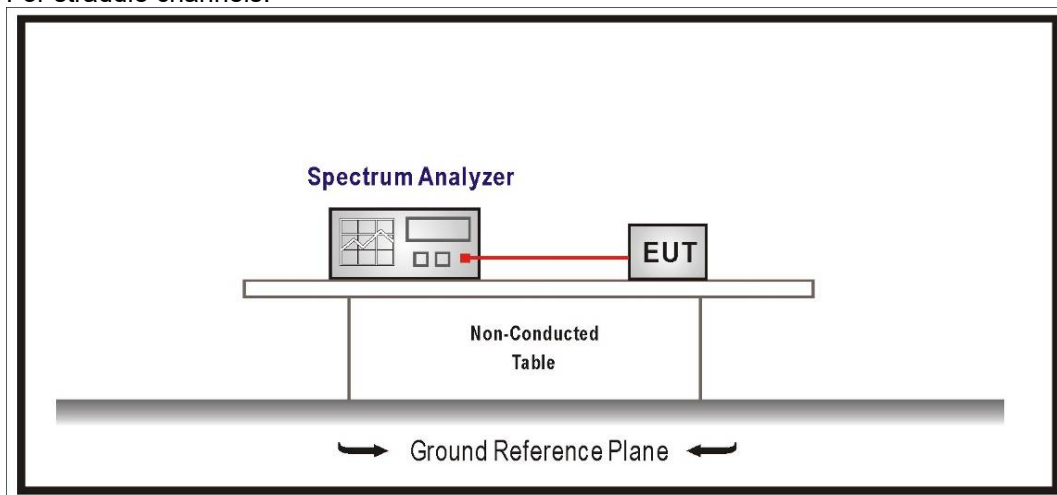
4.4. Test Result of Emission Bandwidth

Refer as Appendix B

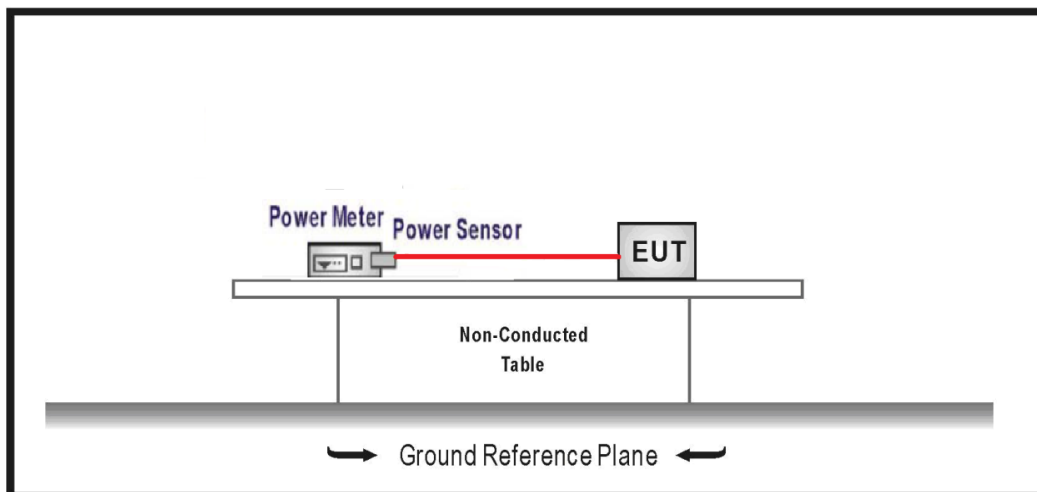
5. Maximum Conducted Output Power

5.1. Test Setup

For straddle channels:



For othes 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.

5.3. Test Procedure

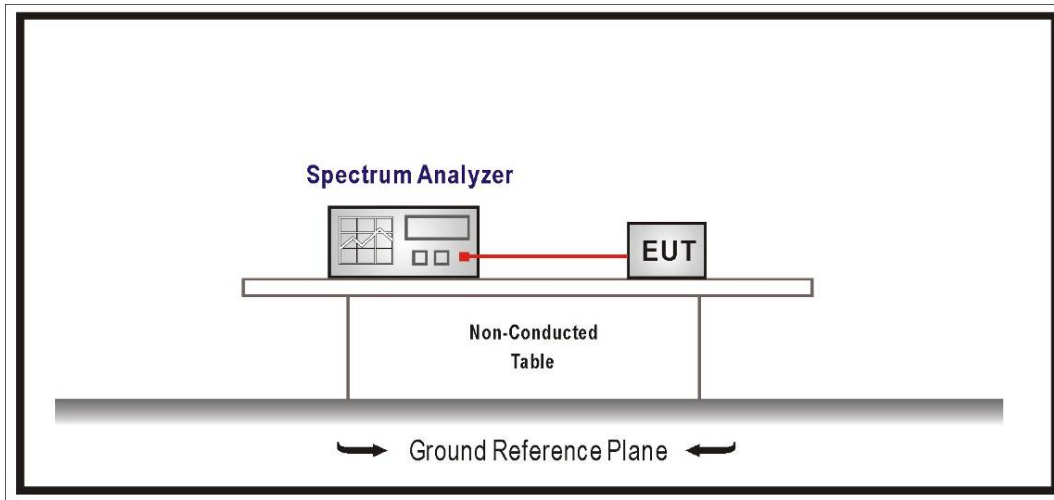
The EUT was setup to ANSI C63.10-2020; tested to U-NII test procedure of 789033.

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 ~ 5600 MHz and 5650 ~ 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.

6.3. Test Procedure

The EUT was setup to ANSI C63.10-2020; tested to U-NII test procedure of 789033.

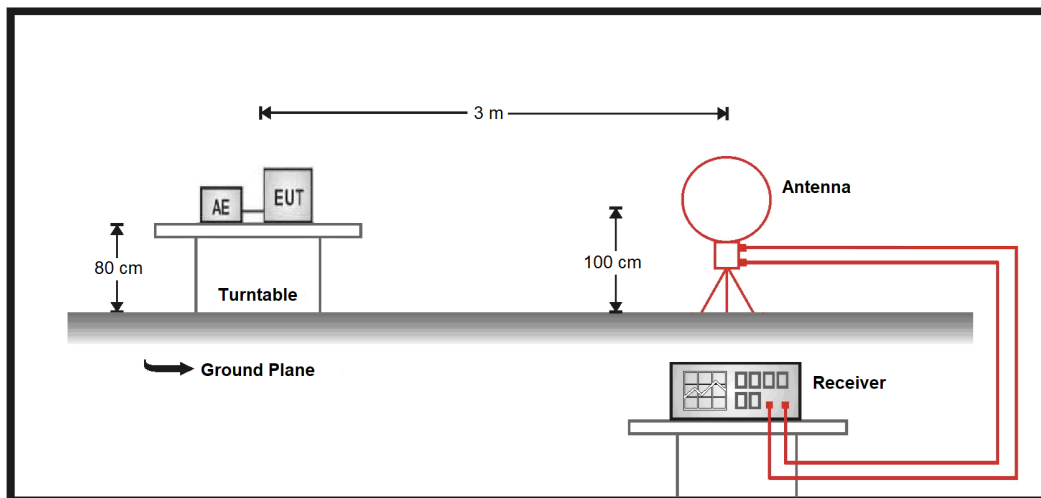
6.4. Test Result of Maximum Power Spectral Density

Refer as Appendix D

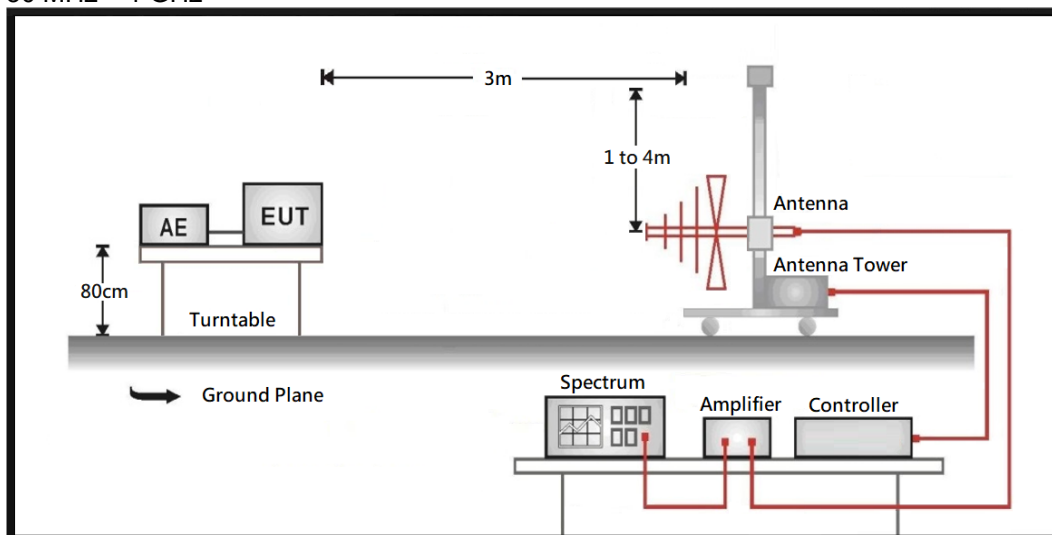
7. Transmitter Radiated Spurious Emission

7.1. Test Setup

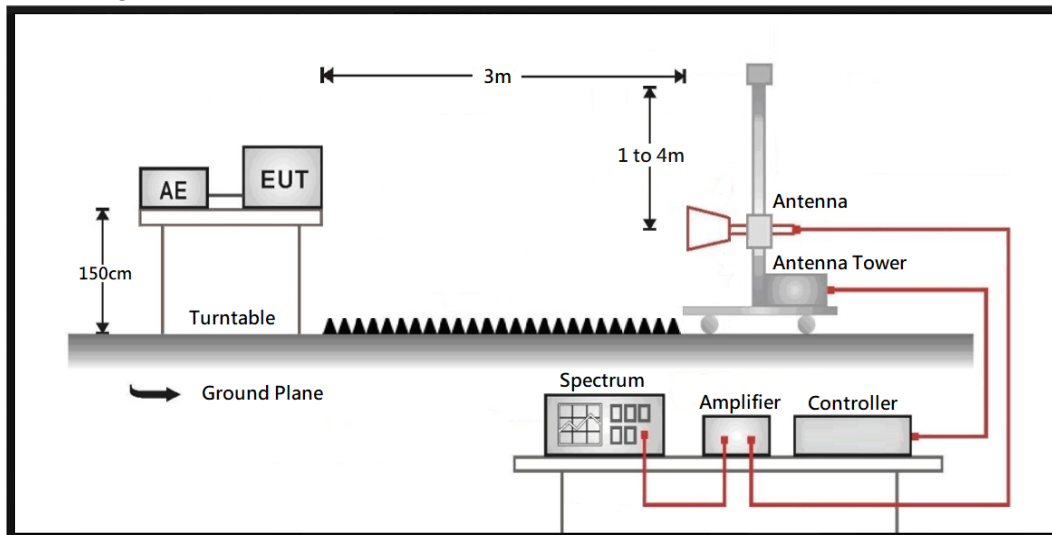
9 kHz ~ 30 MHz



30 MHz ~ 1 GHz



Above 1 GHz



7.2. Test Limit

Frequency (MHz)	Field strength (μV/m)	Field strength (dBμV/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 (dBμV/m) = 20 log Field strength (μV/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 (dBμV/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}

^{*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:

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

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 C63.10-2020 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

Refer as Appendix E