

Test Report No:
25A0510R-RFUSV01S-F

TEST REPORT

FCC Rules & Regulations

Product Name	WIRELESS HEADPHONE
Brand Name	ASUS
Model No.	O701(R)
FCC ID	2ASDI-O701R
Applicant's Name / Address	Tiinlab Corporation 3333, Liuxian Avenue, Tower A, 35th Floor, Tanglang City, Nanshan District, Shenzhen, China
Manufacturer's Name	ASUSTeK COMPUTER INC.
Test Method Requested, Standard	FCC CFR Title 47 Part 15 Subpart C Section 15.247
Verdict Summary	IN COMPLIANCE
Documented By Genie Chang	<i>Genie Chang</i>
Approved By Alan Chen	<i>Alan Chen</i>
Date of Receipt	2025/10/22
Date of Issue	2026/01/06
Report Version	V1.0

INDEX

	page
Competences and Guarantees.....	4
General Conditions	4
Revision History	5
Summary of Test Result.....	6
1. General Information.....	7
1.1. EUT Description	7
1.2. EUT Information	9
1.3. Testing Location Information	9
1.4. Measurement Uncertainty	10
1.5. List of Test Equipment	11
2. Test Configuration of EUT	12
2.1. Test Condition.....	12
2.2. Test Frequency Mode.....	12
2.3. Duty Cycle	13
2.4. Measurement Configuration	14
2.5. Tested System Details.....	15
2.6. Configuration of Tested System	15
2.7. EUT Operating Procedures	16
3. AC Power Line Conducted Emission	17
3.1. Test Setup	17
3.2. Test Limit	17
3.3. Test Procedure	17
3.4. Test Result of AC Power Line Conducted Emission	17
4. 6dB Bandwidth	18
4.1. Test Setup	18
4.2. Test Limit	18
4.3. Test Procedures	18
4.4. Test Result of 6dB Bandwidth	18
5. Maximum Peak Conducted Output Power.....	19
5.1. Test Setup	19
5.2. Test Limit	19
5.3. Test Procedures	19
5.4. Test Result of Maximum Peak Conducted Output Power	19
6. Power Spectral Density	20
6.1. Test Setup	20
6.2. Test Limit	20

6.3.	Test Procedures	20
6.4.	Test Result of Power Spectral Density	20
7.	Antenna Port Conducted Emission	21
7.1.	Test Setup	21
7.2.	Test Limit	21
7.3.	Test Procedure	21
7.4.	Test Result of Antenna Port Conducted Emission	21
8.	Radiated Emission	22
8.1.	Test Setup	22
8.2.	Test Limit	23
8.3.	Test Procedure	23
8.4.	Test Result of Radiated Emission	23
Appendix A. Test Result of AC Power Line Conducted Emission		
Appendix B. Test Result of 6dB Bandwidth		
Appendix C. Test Result of Maximum Peak Conducted Output Power		
Appendix D. Test Result of Power Spectral Density		
Appendix E. Test Result of Antenna Port Conducted Emission		
Appendix F. Test Result of Radiated Emission		
Appendix G. Test Setup Photograph		

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	2026/01/06

Summary of Test Result

Report Clause	Test Items	Result (PASS/FAIL)	Remark
3	AC Power Line Conducted Emission	PASS	-
4	6dB Bandwidth	PASS	-
5	Maximum Peak Conducted Output Power	PASS	-
6	Power Spectral Density	PASS	-
7	Antenna Port Conducted Emission	PASS	-
0	Radiated 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	2400 ~ 2483.5 MHz
Operating Frequency / Channel Number	1 Mbps: 2402 ~ 2480 MHz / 40 Channels 2 Mbps: 2404 ~ 2478 MHz / 37 Channels
Mode	Bluetooth LE
Type of Modulation	GFSK (1 Mbps, 2 Mbps)

Accessories Information		
No.	Equipment Name	Description
1	Type C to Type A Cable	Shielded, 0.6m
2	Charge case	--
3	WIRELESS HEADPHONE DONGLE	--

Antenna Information				
Item.	Brand Name	Part No.	Type	Gain (dBi)
1	Shenzhen Hemingcheng Industrial Co., Ltd.	O701-RF-R-V5	FPC	-0.74

Note: The antenna of EUT conforms to FCC 15.203.

Channel List for Bluetooth LE GFSK (1 Mbps)

Working Frequency of Each Channel							
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
00	2402	01	2404	02	2406	03	2408
04	2410	05	2412	06	2414	07	2416
08	2418	09	2420	10	2422	11	2424
12	2426	13	2428	14	2430	15	2432
16	2434	17	2436	18	2438	19	2440
20	2442	21	2444	22	2446	23	2448
24	2450	25	2452	26	2454	27	2456
28	2458	29	2460	30	2462	31	2464
32	2466	33	2468	34	2470	35	2472
36	2474	37	2476	38	2478	39	2480

Channel List for Bluetooth LE GFSK (2 Mbps)

Working Frequency of Each Channel							
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
00	2404	01	2406	02	2408	03	2410
04	2412	05	2414	06	2416	07	2418
08	2420	09	2422	10	2424	11	2428
12	2430	13	2432	14	2434	15	2436
16	2438	17	2440	18	2442	19	2444
20	2446	21	2448	22	2450	23	2452
24	2454	25	2456	26	2458	27	2460
28	2462	29	2464	30	2466	31	2468
32	2470	33	2472	34	2474	35	2476
36	2478	-	-	-	-	-	-

1.2. EUT Information

EUT Power Type	From Battery / USB
----------------	--------------------

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	Tested By
AC Power Line	Temperature (°C)	10~40 °C	21.6~23.5 °C	2025/12/09~	Neko Chen
Conducted Emission	Humidity (%RH)	10~90 %	66.6~67.8 %	2025/12/12	Kevin Lai
RF Conducted Emission	Temperature (°C)	10~40 °C	20.3~23.2 °C	2025/11/06 ~	Leo Chen
	Humidity (%RH)	10~90 %	55.3~62.6 %	2025/11/27	
Radiated Emission	Temperature (°C)	10~40 °C	22.8~23.4 °C	2025/12/02 ~	Caster Liao
	Humidity (%RH)	10~90 %	62.2~62.8 %	2025/12/07	

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
6dB Bandwidth	± 1580.61 Hz
Maximum Peak Conducted Output Power	Spectrum Analyzer: ± 2.13 dB Power Meter: ± 1.05 dB
Power Spectral Density	± 2.13 dB
Antenna Port Conducted Emission	± 2.13 dB
Radiated 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	2025/04/28	2026/04/27
V	Two-Line V-Network	R&S	ENV216	101306	2024/04/01	2026/03/31
V	Two-Line V-Network	R&S	ENV216	101307	2025/08/06	2027/08/05
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	103464	2025/06/19	2026/06/18
V	Peak Power Analyzer	KEYSIGHT	8990B	MY51000539	2025/05/05	2026/05/04
V	Wideband Power Sensor	KEYSIGHT	N1923A	MY59240002	2025/05/07	2026/05/06
V	Wideband Power Sensor	KEYSIGHT	N1923A	MY59240003	2025/05/07	2026/05/06

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 V2.0.37

For Radiated Measurements /HY-CB01

	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	2025/08/14	2027/08/13
V	Horn Antenna	Com-Power	AH-840	101100	2025/10/07	2027/10/06
V	Horn Antenna	RF SPIN	DRH18-E	210802A18ES	2024/03/28	2026/03/27
V	Pre-Amplifier	SGH	SGH0301	20230308-1	2025/02/06	2026/02/05
V	Pre-Amplifier	SGH	PRAMP118	20200701	2025/01/10	2026/01/09
V	Pre-Amplifier	EMCI	EMC05820SE	980310	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
V	Filter	MICRO TRONICS	HPM50110	G116	2025/01/05	2026/01/04
	Filter	MICRO TRONICS	HPM50115	G069	2025/01/05	2026/01/04
V	EMI Test Receiver	R&S	ESR3	102792	2025/01/02	2026/01/01
V	Spectrum Analyzer	R&S	FSV3044	101115	2025/01/07	2026/01/06
V	Coaxial Cable	SUHNER	SUCOFLEX 106	25450/6	2025/01/10	2026/01/09
V	Coaxial Cable	SUHNER	SUCOFLEX 106	36738-6	2025/01/10	2026/01/09
V	Coaxial Cable	SGH	HA800	202212-5	2025/03/07	2026/03/06
V	Coaxial Cable	EMCI	EMC106	151113	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	DC 5V (Power by USB)

2.2. Test Frequency Mode

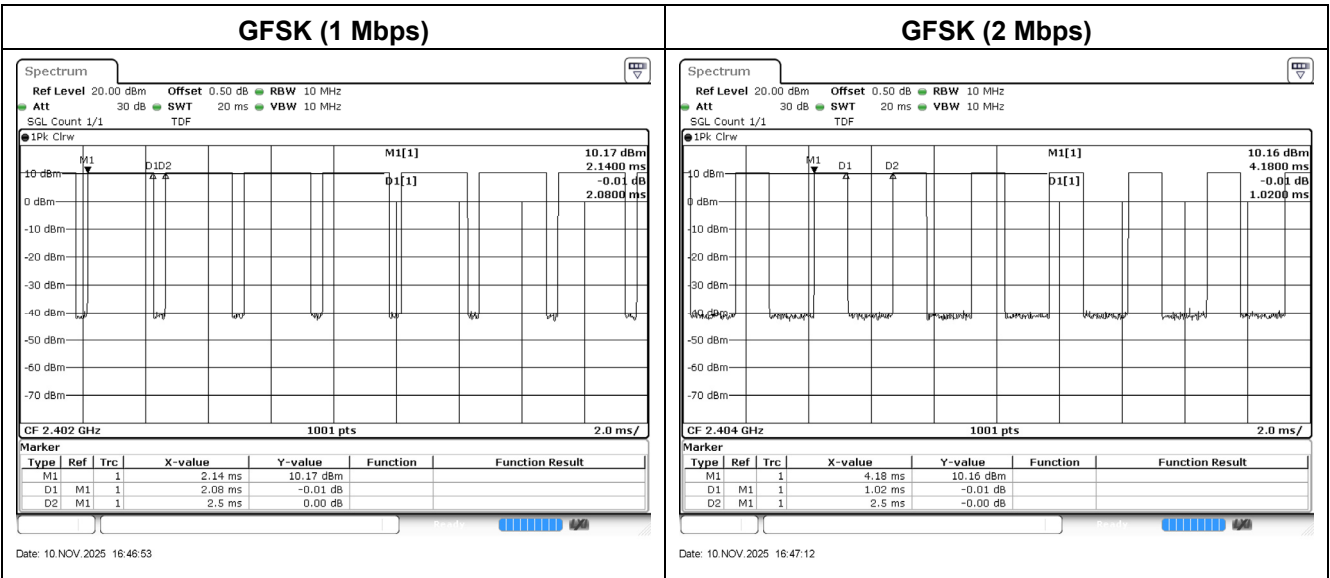
Test Software Version	Airoha_Tool_Ki(ATK) / Version 5.5.0.2
-----------------------	---------------------------------------

Modulation	Frequency (MHz)	Power Setting
		SISO A
GFSK (1 Mbps)	2402	59
	2440	59
	2480	59
GFSK (2 Mbps)	2404	59
	2440	59
	2478	59

2.3. Duty Cycle

Right

Modulation	On Time (ms)	On+Off Time (ms)	Duty Cycle (%)	Duty Factor (dB)	VBW (Hz)
GFSK (1 Mbps)	2.0800	2.5000	83.20	0.80	500
GFSK (2 Mbps)	1.0200	2.5000	40.80	3.89	1000



2.4. Measurement Configuration

Test Mode	Mode 1 (Transmit)	GFSK (1 Mbps)
		GFSK (2 Mbps)
	Mode 2	Charge mode

Note:

1. Determining compliance shall be based on the results of the compliance measurement, without taking measurement instrumentation uncertainty into account.
2. For radiated emissions below 1 GHz and AC power line conducted emissions, all modes of operation were investigated, and the worst-case emissions are reported.
3. The spectrum plot against conducted item only shows the worst case.
4. The radiation measurements are performed in the X, Y, and Z axis positions. Only the worst case is shown in the report.

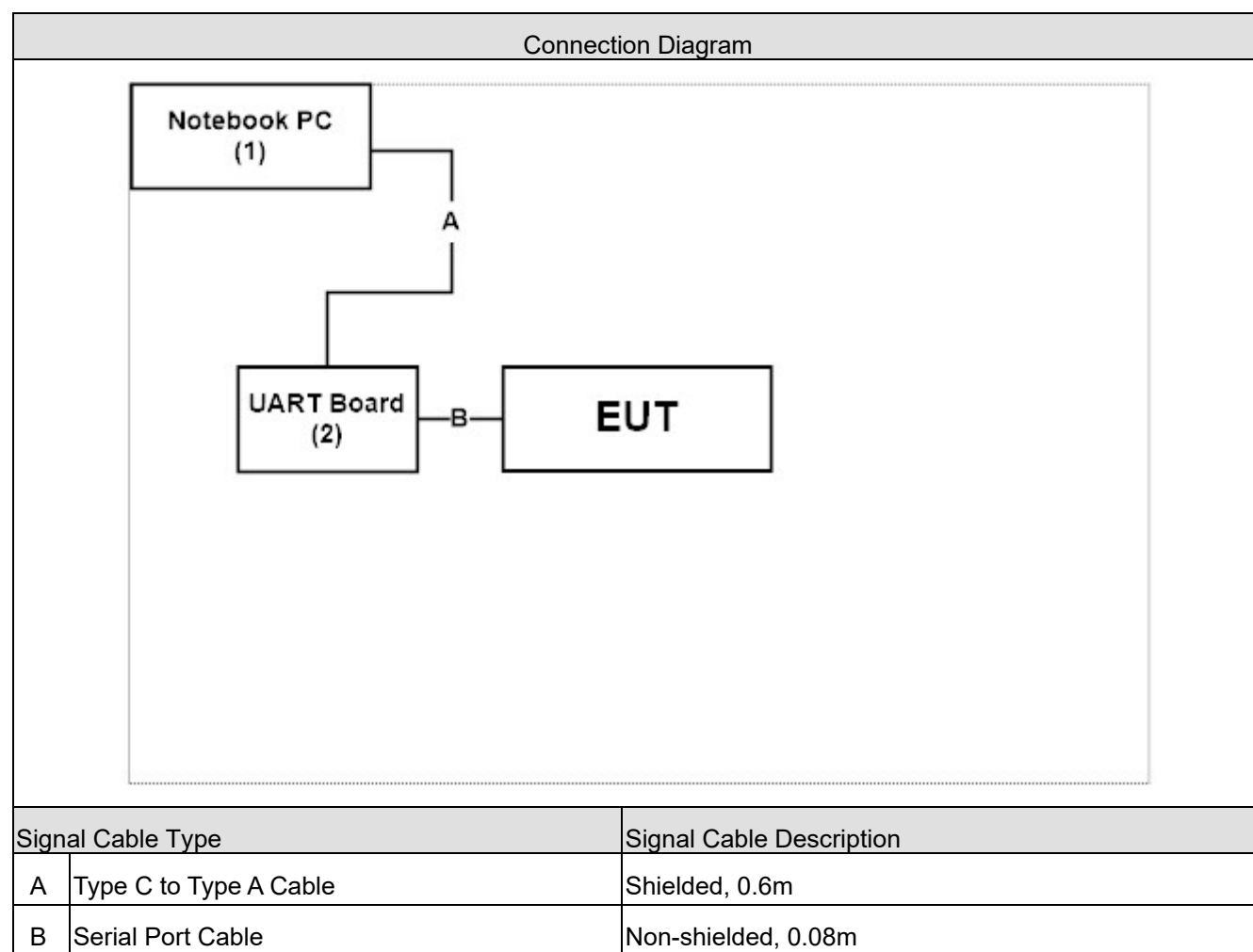
2.5. Tested System Details

No.	Equipment	Brand Name	Model No.	Serial No.	Power Cord
1	Notebook PC	DELL	P62G	CY9FJC2	N/A
2	UART Board	MD	FT232RL	N/A	N/A

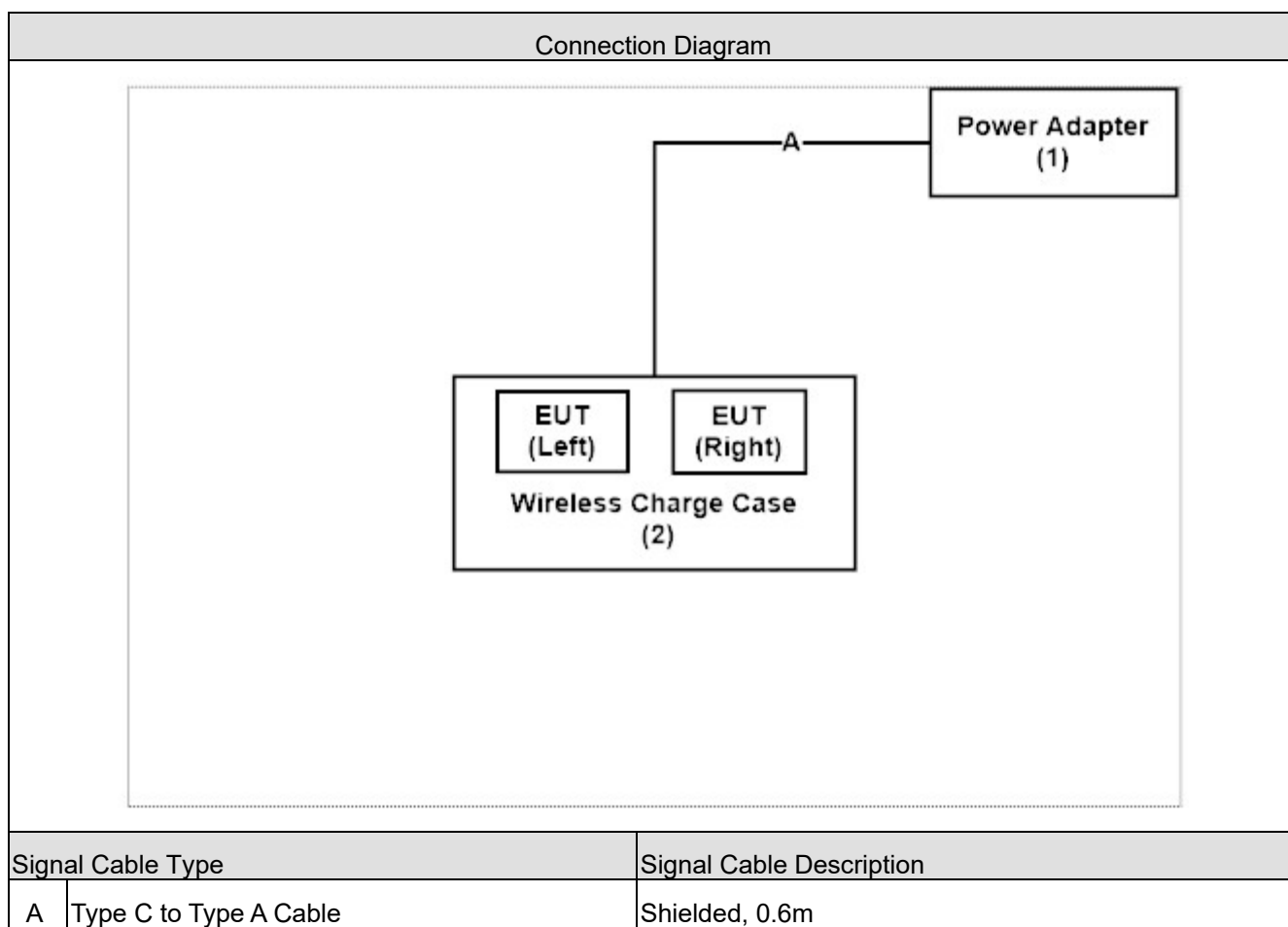
Charge mdoe

No.	Equipment	Brand Name	Model No.	Serial No.	Power Cord
1	Power Adapter	Apple	A1385	Power Adapter	N/A
2	Wireless Charge Case	ASUS	O701	N/A	N/A

2.6. Configuration of Tested System



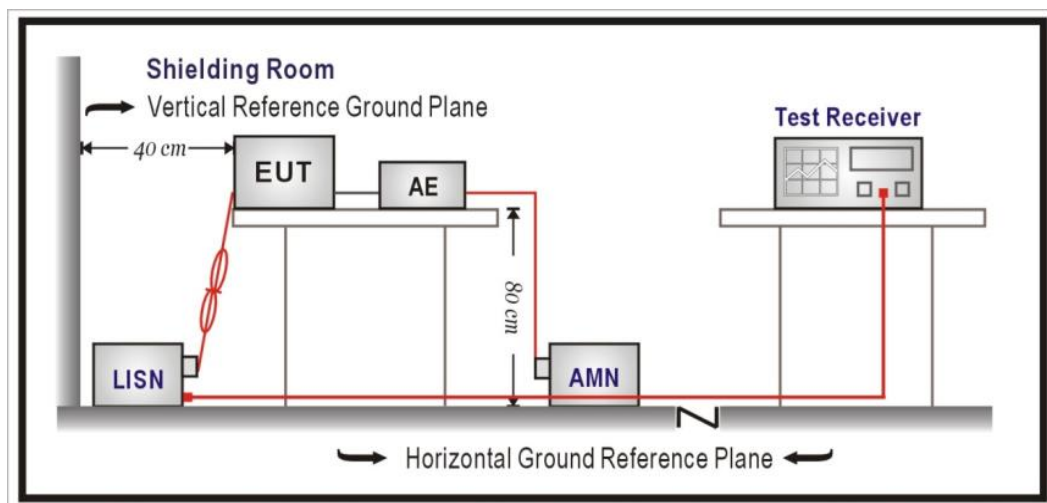
Charge mode

**2.7. EUT Operating Procedures**

1	Setup the EUT as shown in Section 2.6.
2	Execute software "Airoha_Tool_Ki(ATK) / Version 5.5.0.2" on the Notebook PC.
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

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

3.3. Test Procedure

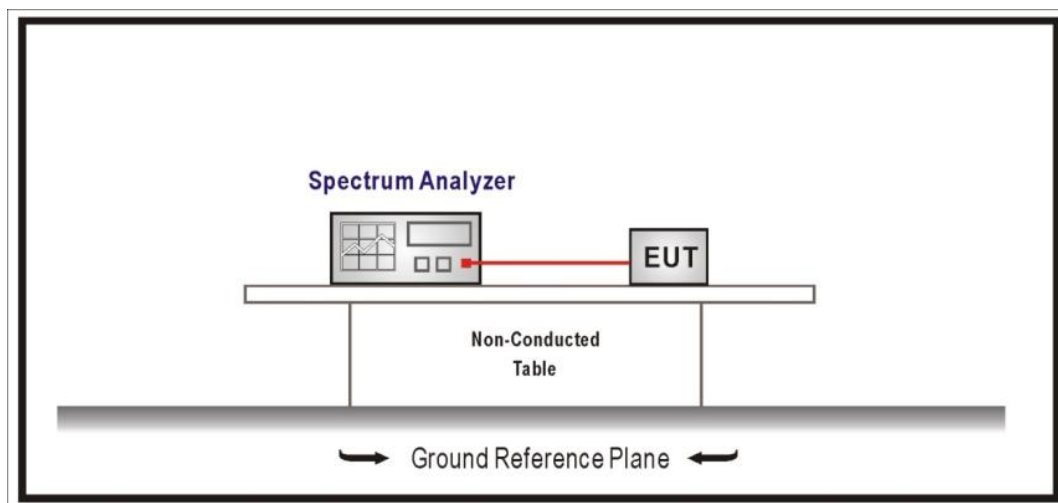
The EUT was setup according to ANSI C63.10-2020 for AC Power Line Conducted Emissions.

3.4. Test Result of AC Power Line Conducted Emission

Refer as Appendix A

4. 6dB Bandwidth

4.1. Test Setup



4.2. Test Limit

The 6 dB bandwidth: ≥ 500 kHz.

4.3. Test Procedures

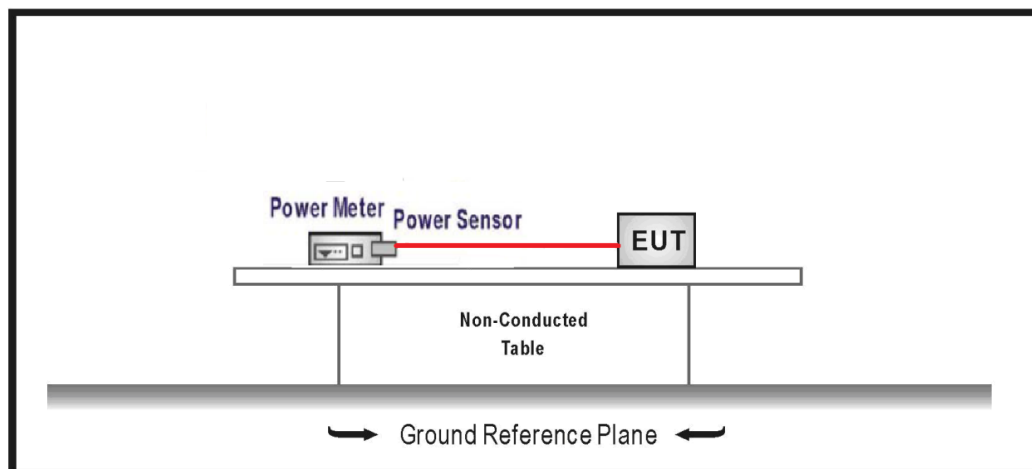
The EUT was setup according to ANSI C63.10-2020; tested according to DTS test procedure of KDB 558074.

4.4. Test Result of 6dB Bandwidth

Refer as Appendix B

5. Maximum Peak Conducted Output Power

5.1. Test Setup



5.2. Test Limit

The Maximum Peak Conducted Output Power shall be less 1 Watt.

5.3. Test Procedures

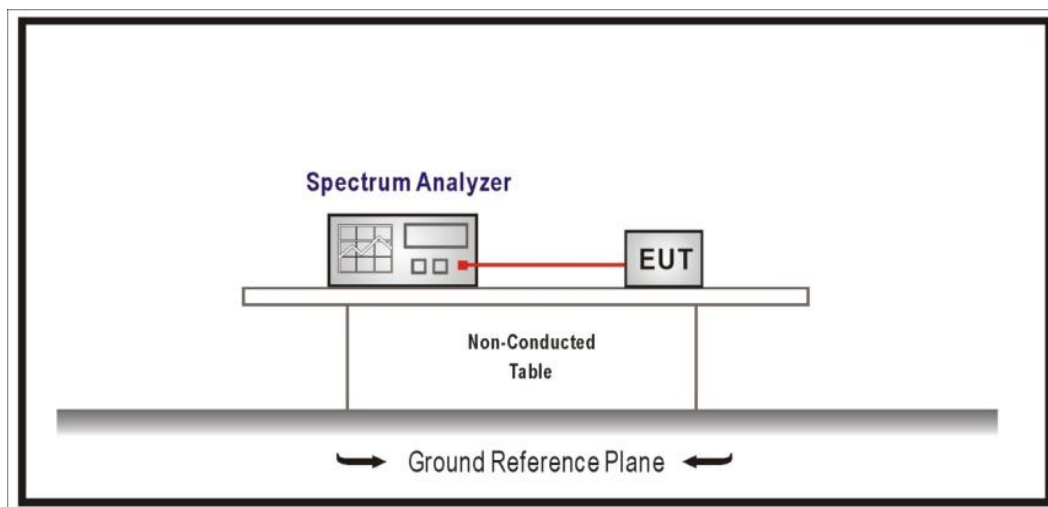
The EUT was setup according to ANSI C63.10-2020; tested according to DTS test procedure of KDB 558074.

5.4. Test Result of Maximum Peak Conducted Output Power

Refer as Appendix C

6. Power Spectral Density

6.1. Test Setup



6.2. Test Limit

The power spectral density conducted from the intentional radiated to the antenna shall not be greater than +8 dBm in any 3 kHz band during any time interval of continuous transmission.

6.3. Test Procedures

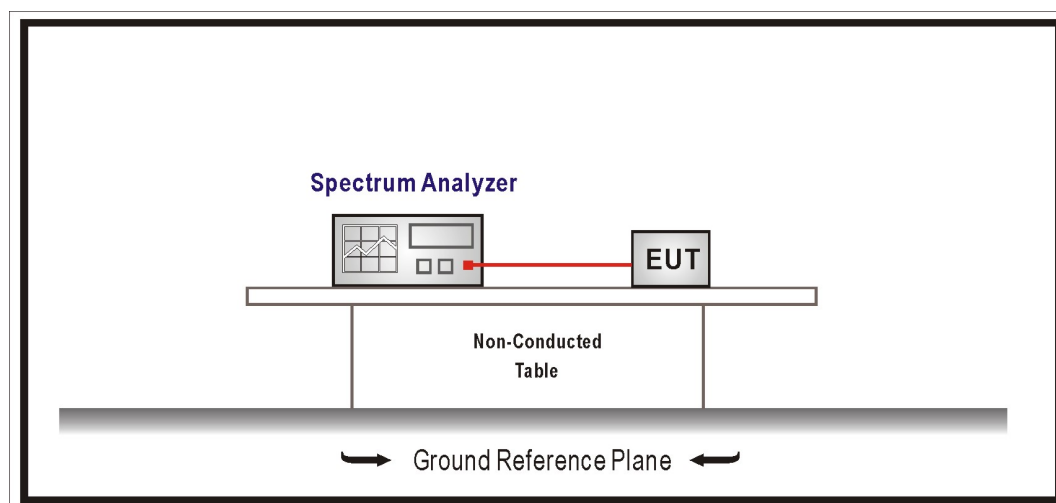
The EUT was setup according to ANSI C63.10-2020; tested according to DTS test procedure of KDB 558074.

6.4. Test Result of Power Spectral Density

Refer as Appendix D

7. Antenna Port Conducted Emission

7.1. Test Setup



7.2. Test Limit

RF output power procedure	Limit (dBc)
Peak output power procedure	20
Average output power procedure	30

Remarks:

1. In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limit.
2. If the transmitter complies with the conducted power limit based on the use of RMS averaging over a time interval, the attenuation required under this paragraph shall be 30 dB instead of 20 dB.

7.3. Test Procedure

The EUT was setup according to ANSI C63.10-2020 and tested according to DTS test procedure of KDB 558074.

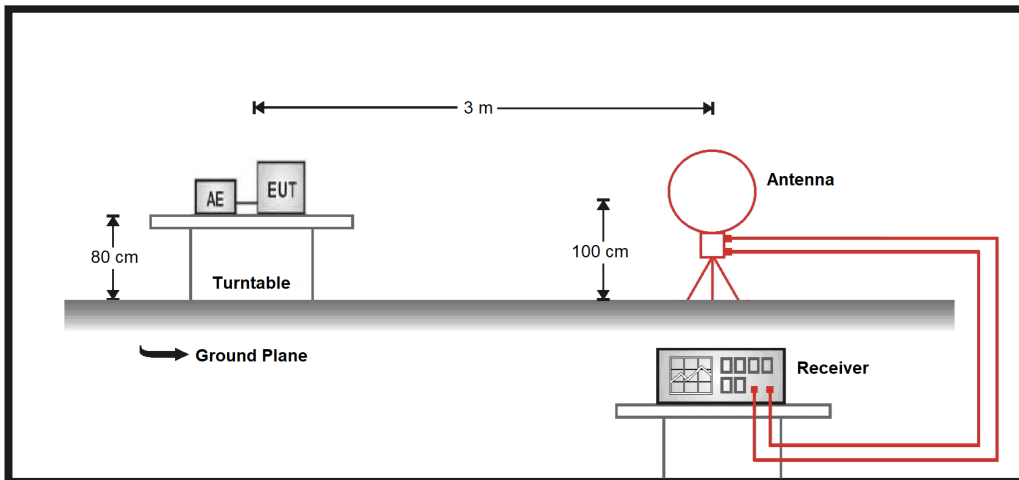
7.4. Test Result of Antenna Port Conducted Emission

Refer as Appendix E

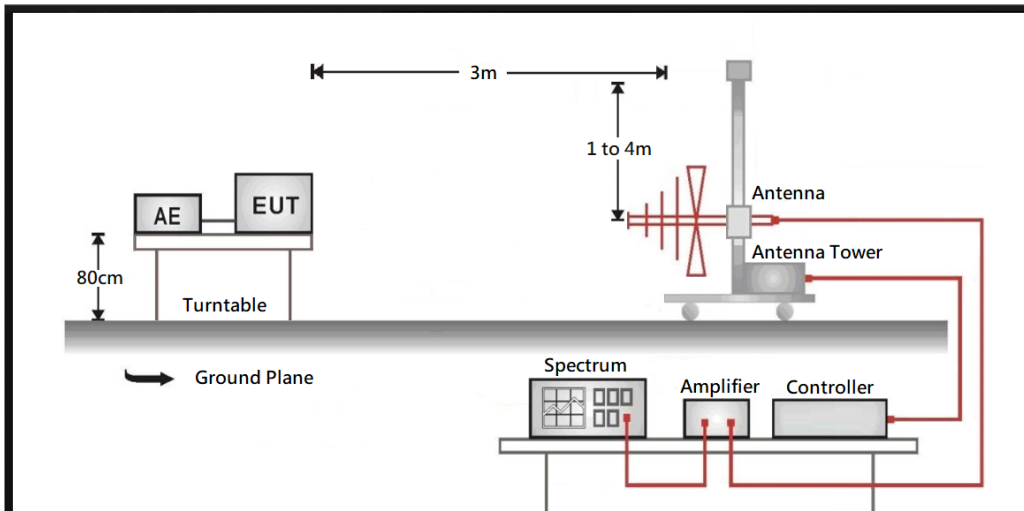
8. Radiated Emission

8.1. Test Setup

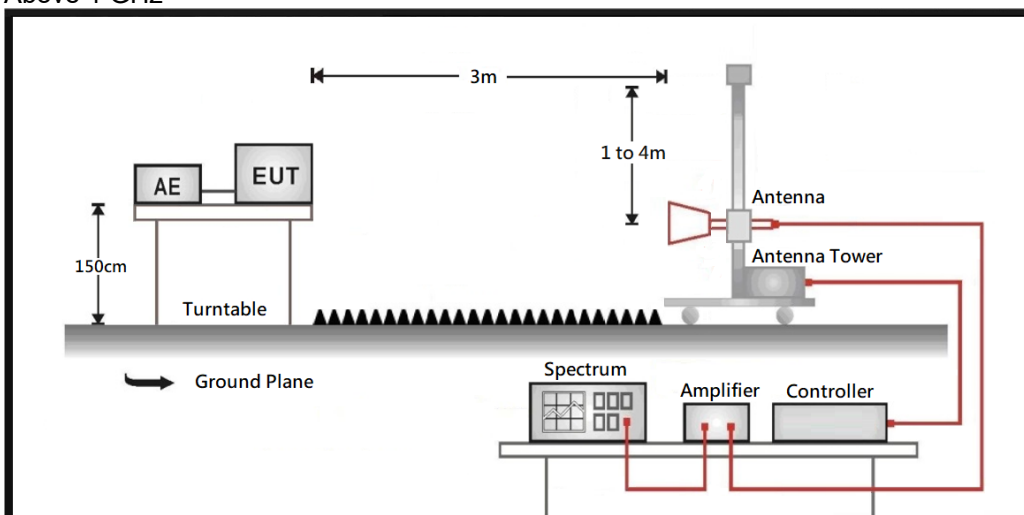
9 kHz ~ 30 MHz



30 MHz ~ 1 GHz



Above 1 GHz



8.2. Test Limit

Frequency (MHz)	Field strength ($\mu\text{V/m}$)	Field strength ($\text{dB}\mu\text{V/m}$)	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 ($\text{dB}\mu\text{V/m}$) = 20 log Field strength ($\mu\text{V/m}$)
2. In the Above Table, the tighter limit applies at the band edges.
3. Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.

8.3. Test Procedure

The EUT was setup according to ANSI C63.10-2020 and tested according to DTS test procedure of KDB 558074.

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 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.

On any frequency or frequencies from 9 kHz(include The the lowest oscillator frequency generated within the device up to the 10th harmonic) to 1000 MHz, the limit shown are based on measuring equipment employing a quasi-peak detector function and on any frequency or frequencies above 1000 MHz the radiated limit shown are based upon the use of measurement instrumentation employing an average detector function. When average radiated emission measurement are included emission measurement below 1000 MHz, there also is a limit on the radio frequency emissions, as measured using instrumentation with a peak detector function, corresponding to 20 dB above the maximum permitted average limit.

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

8.4. Test Result of Radiated Emission

Refer as Appendix F