FCC TEST REPORT

for

FCC ID: X4D-R4600-3AX

Communications Control Unit

MODEL: R4600-3Ax (x=0-9, A-Z, a-z, "/", "-", "(","")", ","or blank); R4600-3A1; R4600-3A2

Issued to:

ADLINK TECHNOLOGY INC.

No. 66, Huaya 1st Rd., Guishan Dist., Taoyuan City 333411, Taiwan

Issued by:

Laboratory Designation Number: TW1029

Compliance Certification Services Inc.

Xindian Lab.

No.163-1, Jhongsheng Rd., Xindian Dist., New Taipei City, Taiwan.

TEL: 886-2-22170894

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Issued Date: August 9, 2023

Note: This document may be altered or revised by Compliance Certification Services Inc. personnel only, and shall be noted in the revision section of the document. The client should not use it to claim product endorsement by TAF, A2LA, NIST or any government agencies.

Report No.: TMXD2301000039DE

Revision History

Rev.		Issue Date		Revisions	Effect Page	Revised By
00		August 9, 2023		Initial Issue	ALL	Wendy Wang

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Report No.: TMXD2301000039DE

1 TEST RESULT CERTIFICATION

Product:	Communications Control Unit
Model:	R4600-3Ax (x=0-9, A-Z, a-z, “/”, “-“, “(“,”)”, “,”or blank); R4600-3A1; R4600-3A2
Brand:	ADLINK TECHNOLOGY INC.
Applicant:	**ADLINK TECHNOLOGY INC.** No. 66, Huaya 1st Rd., Guishan Dist., Taoyuan City 333411, Taiwan
Manufacturer:	**ADLINK TECHNOLOGY INC.** No. 66, Huaya 1st Rd., Guishan Dist., Taoyuan City 333411, Taiwan
Tested:	May 26, 2023

EMISSION		
Standard	**Item**	**Remarks**
FCC 47 CFR Part 15 Subpart B, ANSI C63.4-2014	Conducted Limit Clause §15.107	N/A
	Radiated Limit Clause §15.109	PASS

Statements of Conformity
Determination of compliance is based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

The above equipment has been tested by Compliance Certification Services Inc., and found compliance with the requirements set forth in the technical standards mentioned above. The results of testing in this report apply only to the product/system, which was tested. Other similar equipment will not necessarily produce the same results due to production tolerance and measurement uncertainties.

Approved by:

Jason Lee
Section Manager

Reviewed by:

Eva Fan
Supervisor of report document dept.

2 EUT DESCRIPTION

Product	Communications Control Unit
Brand Name	ADLINK TECHNOLOGY INC.
Model	R4600-3Ax (x=0-9, A-Z, a-z, "/", "-", "(","")", ","or blank); R4600-3A1; R4600-3A2
Applicant	ADLINK TECHNOLOGY INC.
Housing material	Metal case
Received Date	January 4, 2023
EUT Power Rating	24~110VDC from AC/DC Power Supply
AC Power During Test	120VAC / 60Hz (24VDC & 110VDC)

Model Differences

Model Name	Difference	Tested (Check)
R4600-3A1	Original, HW revision:102C	☒
R4600-3A2	RAM capacity is different	☐
R4600-3Ax	1. X=0-9, A-Z, a-z, "/", "-", "(","")", ","or blank 2. For marketing purpose only.	☐

I/O PORT

I/O PORT TYPES	Q'TY	TESTED WITH
1. COM Port	2	2
2. DVI Port	1	1
3. USB Port	2	2
4. LAN Port	2	2
5. GPS Port	1	1
6. WIFI Port	4	4
7. LTE Port	16	16

Note: Client consigns only one model sample to test (Model Number: R4600-3A1).

3 TEST METHODOLOGY

3.1. DECISION OF FINAL TEST MODE

The EUT was tested together with the below additional components, and a configuration, which produced the worst emission levels, was selected and recorded in this report.

The test configuration modes are as the following:

Radiation Modes:

1	**Normal Mode (110VDC)**
2	**Normal Mode (24VDC)**

Worst:

Conduction: N/A (The subject equipment is not intended to be connected to AC mains supply. Therefore, this test is not applicable.)

Radiation: Mode 1

3.2. EUT SYSTEM OPERATION

1. Linux boots system
2. Open Terminal to input command.
3. Run Burnintest.exe to activate all peripherals for test EUT.
4. Run Lantest20.exe and type ping 192.168.1.10–t (EUT), ping 192.168.1.20–t (EUT), ping 192.168.1.100 –t (Server PC).
5. Connect Wireless AP; Radio Communication Analyzer and Multi-Function GNSS Simulator to test EUT.

Note: Test program is self-repeating throughout the test.

4 SETUP OF EQUIPMENT UNDER TEST

4.1. DESCRIPTION OF SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

EUT Devices:

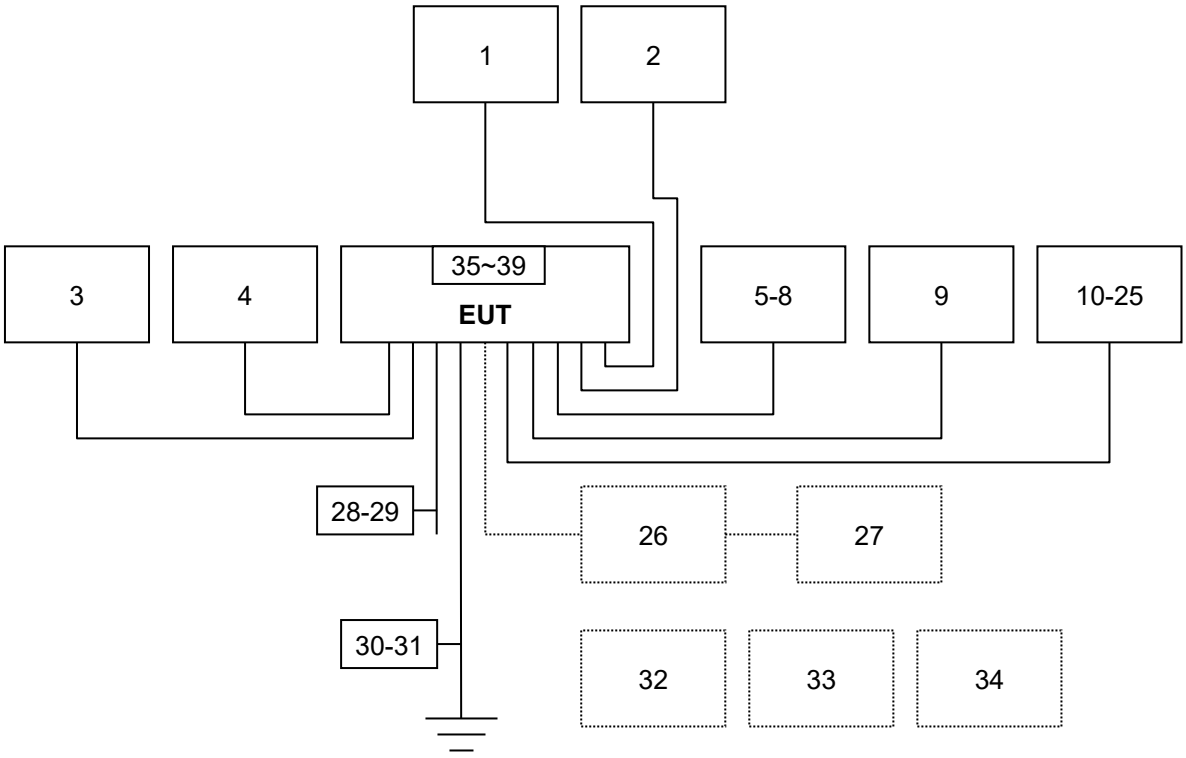
No.	Equipment	Model No.	Brand Name	Serial No.
1	M/B	ABX-5502-MB	ADLINK	M2064EAA05
2	Chassis	R4600-3A1	ADLINK,	23611005YB
3	CPU (2.7GHz)	i5-6440EQ	Intel	CL8066201939503
4	RAM (DDR4, 8GB) X2	A4S8GSOSX5SJCC	Innodisk	M2A12106180010076
5	Storage (M.2, 1TB)	M.2 (S80) 3MG2-P	Innodisk	511230823228000029
	Storage (SSD, 1TB)	RIM01T-SX5A2-E	Renice	S3H2M01TI-NO220916005
	Storage (CFAST, 64GB)	DECFA-64GDK1EW1DF-N9301	Innodisk	WXC309045241
6	RF module (GNSS)	NEO-M8N-0-12	u-blox	N/A

Peripherals Devices:

No.	Equipment	Model No.	Serial No.	FCC ID / BSMI ID	Brand Name	Data Cable	Power Cord
1	USB Mouse	M-U0026	810-002181	BSMI: T41126	Logitech	Shielded, 1.8m	N/A
2	USB Keyboard	Y-U0011	1804SY04FP88	BSMI: D51160	Logitech	Shielded, 1.6m	N/A
3	Monitor	PA248Q	N/A	BSMI: R31018	ASUS	Shielded, 2.0m	Unshielded, 1.8m
4	DC Power Supply	DSP-150-010HD	N/A	N/A	IDRC	Unshielded, 1.8m	Unshielded, 1.8m
5-8	WIFI Cable	N/A	N/A	N/A	N/A	Unshielded, 5.0m	N/A
9	GPS Cable	N/A	N/A	N/A	N/A	Unshielded, 5.0m	N/A
10-25	LTE Cable	N/A	N/A	N/A	N/A	Unshielded, 5.0m	N/A
26	HUB	DGS-1008D	N/A	N/A	D-Link	Shielded, 20.95m x2	Unshielded, 1.8m
27	Server PC	Precision 3640 Tower	9QNLFF3	BSMI: R33002	DELL	Shielded, 3.0m	Unshielded, 1.8m
28-29	COM Loopback	N/A	N/A	N/A	N/A	Shielded, 2.0m	N/A
30-31	Ground Cable	N/A	N/A	N/A	N/A	Unshielded, 1.8m	N/A
32	Wireless AP	DGL-4300	N/A	N/A	D-Link	N/A	Unshielded, 1.8m
33	Multi-Function GNSS Simulator	GSG-5	N/A	N/A	Pendulum	N/A	Unshielded, 1.8m
34	Radio Communication Analyzer	MT8820C	N/A	N/A	Anritsu	N/A	Unshielded, 1.8m
35	RF module (5G)	FN990A40	N/A	N/A	Telit	N/A	N/A
36		FN990A28	N/A	N/A	Telit	N/A	N/A
37		EM9191	N/A	N/A	Sierra	N/A	N/A
38	RF module (4G)	LN920A12	N/A	N/A	Telit	N/A	N/A
39	RF module (Wi-Fi)	WLE3000HX-i	N/A	N/A	Compex	N/A	N/A

Note:
1) All the equipment/cables were placed in the worst-case configuration to maximize the emission during the test.
2) Grounding was established in accordance with the manufacturer's requirements and conditions for the intended use.

4.2. CONFIGURATION OF SYSTEM UNDER TEST



5 FACILITIES AND ACCREDITATIONS

5.1. FACILITIES

All measurement facilities used to collect the measurement data are located at CCS Taiwan Xindian Lab. at No.163-1, Jhongsheng Rd., Xindian Dist., New Taipei City, Taiwan.

The sites are constructed in conformance with the requirements of ANSI C63.4 and CISPR Publication 22. All receiving equipment conforms to CISPR 16-1-1, CISPR 16-1-2, CISPR 16-1-3, CISPR 16-1-4 and CISPR 16-1-5.

5.2. ACCREDITATIONS

Our laboratories are accredited and approved by the following accreditation body according to ISO/IEC 17025.

Taiwan	TAF

The measuring facility of laboratories has been authorized or registered by the following approval agencies.

Canada	Industry Canada
Japan	VCCI
Taiwan	BSMI
USA	FCC

5.3. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

Measurement	Frequency	Uncertainty
Conducted emissions	0.15MHz ~ 30MHz	N/A
Radiated emissions	30MHz ~ 1000MHz	± 5.1
	1000MHz ~ 18000MHz	± 4.6
	18000MHz ~ 40000MHz	± 3.8

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

Consistent with industry standard (e.g. CISPR 22: 2005, clause 11, Measurement Uncertainty) determining compliance with the limits shall be base on the results of the compliance measurement. Consequently the measure emissions being less than the maximum allowed emission result in this be a compliant test or passing test.

The acceptable measurement uncertainty value without requiring revision of the compliance statement is base on conducted and radiated emissions being less than U_{CISPR} which is 3.8dB(AMN); 5.2dB(OATS) and 5.5dB(1-18GHz) respectively. CCS values (called U_{Lab} in CISPR 16-4-2) is less than U_{CISPR} as shown in the table above. Therefore, MU need not be considered for compliance.

6 CONDUCTED EMISSION MEASUREMENT

6.1. LIMITS OF CONDUCTED EMISSION MEASUREMENT

FREQUENCY (MHz)	Class A (dBuV)		Class B (dBuV)	
	Quasi-peak	Average	Quasi-peak	Average
0.15 - 0.5	79	66	66 - 56	56 - 46
0.50 - 5.0	73	60	56	46
5.0 - 30.0	73	60	60	50

NOTE:
(1) The lower limit shall apply at the transition frequencies.
(2) The limit decreases in line with the logarithm of the frequency in the range 0.15 to 0.50 MHz.
(3) All emanations from a class A/B digital device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified above.

6.2. TEST INSTRUMENTS

Conducted Emission room #				
Name of Equipment	Manufacturer	Model	Serial Number	Calibration Due

NOTE: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. N.C.R = No Calibration Request.

6.3. TEST PROCEDURES

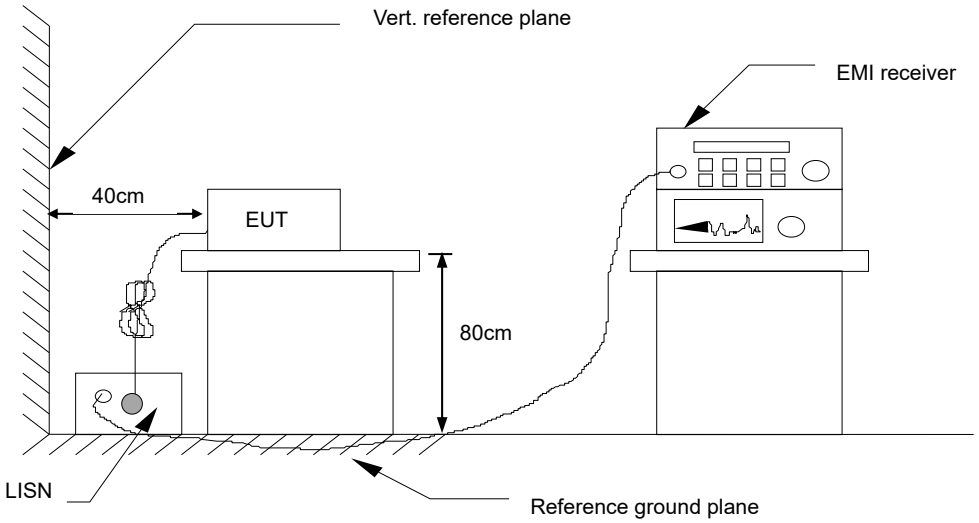
Procedure of Preliminary Test

- The EUT and support equipment, if needed, were set up as per the test configuration to simulate typical usage per the user's manual. When the EUT is a tabletop system, a wooden table with a height of 0.8 meters is used and is placed on the ground plane as per ANSI C63.4 (see Test Facility for the dimensions of the ground plane used). When the EUT is a floor standing equipment, it is placed on the ground plane, which has a 12 mm non-conductive covering to insulate the EUT from the ground plane.
- All I/O cables were positioned to simulate typical actual usage as per ANSI C63.4.
- The test equipment EUT installed by AC main power, through a Line Impedance Stabilization Network (LISN), which was supplied power source and was grounded to the ground plane.
- All support equipment power by from a second LISN.
- The test program of the EUT was started. Emissions were measured on each current carrying line of the EUT using an EMI Test Receiver connected to the LISN powering the EUT.
- The Receiver scanned from 150kHz to 30MHz for emissions in each of the test modes.
- During the above scans, the emissions were maximized by cable manipulation.
- The test mode(s) described in Item 3.1 were scanned during the preliminary test.
- After the preliminary scan, we found the test mode described in Item 3.1 producing the highest emission level.
- The worst configuration of EUT and cable of the above highest emission level were recorded for reference of the final test.

Procedure of Final Test

- EUT and support equipment were set up on the test bench as per the configuration with highest emission level in the preliminary test.
- A scan was taken on both power lines, Line 1 and Line 2, recording at least the six highest emissions. Emission frequency and amplitude were recorded into a computer in which correction factors were used to calculate the emission level and compare reading to the applicable limit.
- The test data of the worst-case condition(s) was recorded.

6.4. TEST SETUP



- For the actual test configuration, please refer to the related item – Photographs of the Test Configuration.

6.5. DATA SAMPLE

Freq. (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector (P/Q/A)	Line (L1/L2)
x.xx	42.95	0.55	43.50	73	-29.50	Q	L1

Freq. = Emission frequency in MHz
Reading = Uncorrected Analyzer/Receiver reading
Factor = Insertion loss of LISN + Cable Loss + Pulse Limit
Result = Reading + Factor
Limit = Limit stated in standard
Margin = Reading in reference to limit
P = Peak Reading
Q = Quasi-peak Reading
A = Average Reading
L1 = Hot side
L2 = Neutral side

Calculation Formula

Margin (dB) = Result (dBuV) – Limit (dBuV)

6.6. TEST RESULTS

Model No.	R4600-3A1	**6dB Bandwidth**	N/A
Environmental Conditions	N/A	**Test Mode**	N/A
Tested by	N/A	**Phase**	N/A
Standard	N/A		

Note: The subject equipment is not intended to be connected to AC mains supply. Therefore, this test is not applicable.

7 RADIATED EMISSION MEASUREMENT

7.1. LIMITS OF RADIATED EMISSION MEASUREMENT

Below 1GHz (for digital device / CISPR 22)

FREQUENCY (MHz)	dBuV/m (At 10m)	
	Class A	Class B
30 ~ 230	40	30
230 ~ 1000	47	37

Limit tables for non-digital device:

Class A Radiated Emission limit at 10m (for others)

Frequency (MHZ)	Field Strength Limit (uV/m)Q.P.	Field Strength Limit (dBuV/m)Q.P.
30 - 88	90	39
88 - 216	150	43.5
216 – 960	210	46.4
Above 960	300	49.5

Class B Radiated Emission limit at 3m (for others)

Frequency (MHZ)	Field Strength Limit (uV/m)Q.P.	Field Strength Limit (dBuV/m)Q.P.
30 - 88	100	40
88 - 216	150	43.5
216 – 960	200	46
Above 960	500	54

Above 1GHz(for all device)

Frequency (MHZ)	Class A (dBuV/m) (At 10m)		Class B (dBuV/m) (At 3m)	
	Average	Peak	Average	Peak
Above 1000	49.5	69.5	54	74

NOTE: (1) The lower limit shall apply at the transition frequencies.
(2) Emission level (dBuV/m) = 20 log Emission level (uV/m).
(3) The measurement above 1GHz is at close-in distances 3m,and determine the limit **L_2** corresponding to the close-in distance **d_2** by applying the following relation: **$L_2 = L_1 (d_1/d_2)$**, where **L_1** is the specified limit in microvolts per metre (**uV/m**) at the distance **d_1** (**10m**), **L_2** is the new limit for distance **d_2** (**3m**).
So the new Class A limit above 1GHz at 3m is as following table:

Frequency (MHZ)	Class A (dBuV/m) (At 3m)	
	Average	Peak
Above 1000	60	80

According to FCC Part 15.33 (b), for an unintentional radiator, including a digital device, the spectrum shall be investigated from the lowest radio frequency signal generated or used in the device, without going below the lowest frequency for which a radiated emission limit is specified, up to the frequency shown in the following table:

Highest frequency generated or used in the device or on which the device operates or tunes (MHz)	Upper frequency of measurement range (MHz)
Below 1.705	30
1.705-108	1000
108-500	2000
500-1000	5000
Above 1000	5th harmonic of the highest frequency or 40GHz, whichever is lower

7.2. TEST INSTRUMENTS

Open Area Test Site # H				
Name of Equipment	**Manufacturer**	**Model**	**Serial Number**	**Calibration Due**
Bilog Antenna	Teseq	CBL 6112D	35411	05/03/2024
Cable	EMEC	CFD400E-LW	SD-R074	08/10/2023
EMI Test Receiver	R&S	ESCI	101340	02/03/2024
Pre-Amplifier	HP	8447D	1937A01554	09/21/2023
Thermo-Hygro Meter	Wisewind	201A	No. 03	05/22/2024
Test S/W	EZ-EMC Ver.CCS-03A1			
Chamber #E (Above 1GHz Used)				
Horn Antenna	ETS	3117	00139062	07/05/2023
Microflex Cable x 7m	EMCI	EMC107-NM-NM-7000	SD-R077	07/04/2023
K-Type Cable x 1m	EMCI	EMC101G-KM-KM-1000	SD-R075	07/04/2023
Pre-Amplifier	Com-Power	PAM-118A	551041	06/27/2023
Signal Analyzer	R&S	FSV40	101269	06/23/2023
Thermo-Hygro Meter	Wisewind	201A	SD-R046	07/31/2023
Test S/W	EZ-EMC Ver.CCS-03A1			

NOTE: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. N.C.R = No Calibration Request.

7.3. TEST PROCEDURES

Procedure of Preliminary Test

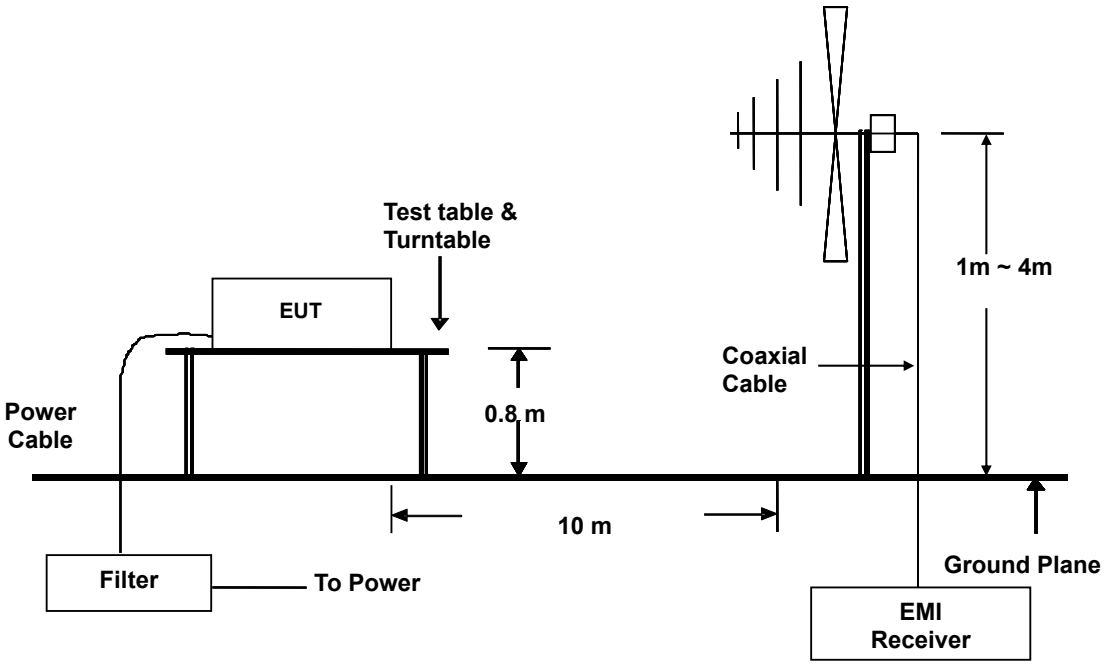
- The equipment was set up as per the test configuration to simulate typical usage per the user's manual. When the EUT is a tabletop system, a wooden turntable with a height of 0.8 meters is used which is placed on the ground plane. When the EUT is a floor standing equipment, it is placed on the ground plane which has a 12 mm non-conductive covering to insulate the EUT from the ground plane.
- Support equipment, if needed, was placed as per ANSI C63.4.
- All I/O cables were positioned to simulate typical usage as per ANSI C63.4.
- The EUT received AC power source from the outlet socket under the turntable. All support equipment power received from another socket under the turntable.
- The antenna was placed at 3 or 10 meter away from the EUT as stated in ANSI C63.4. The antenna connected to the Spectrum Analyzer via a cable and at times a pre-amplifier would be used.
- The Analyzer / Receiver quickly scanned from 30MHz to 40GHz. The EUT test program was started. Emissions were scanned and measured rotating the EUT to 360 degrees and positioning the antenna 1 to 4 meters above the ground plane, in both the vertical and the horizontal polarization, to maximize the emission reading level.
- The test mode(s) described in Item 3.1 were scanned during the preliminary test:
- After the preliminary scan, we found the test mode described in Item 3.1 producing the highest emission level.
- The worst configuration of EUT and cable of the above highest emission level were recorded for reference of the final test.

Procedure of Final Test

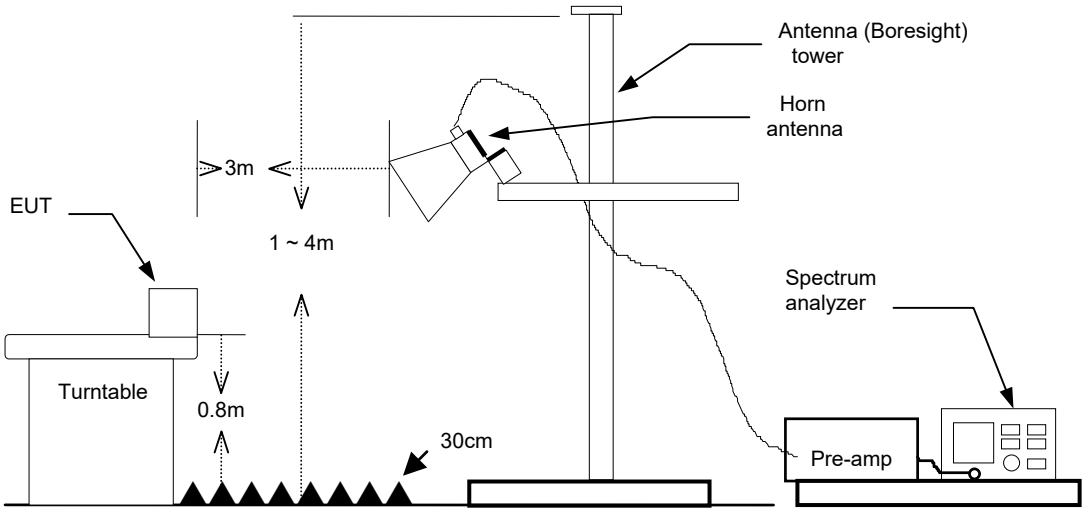
- EUT and support equipment were set up on the turntable as per the configuration with highest emission level in the preliminary test.
- The Analyzer / Receiver scanned from 30MHz to 40GHz. Emissions were scanned and measured rotating the EUT to 360 degrees, varying cable placement and positioning the antenna 1 or 1 to 4 meters above the ground plane, in both the vertical and the horizontal polarization, to maximize the emission reading level.
- Recording at least the six highest emissions. Emission frequency, amplitude, antenna position, polarization and turntable position were recorded into a computer in which correction factors were used to calculate the emission level and compare reading to the applicable limit. Below 1GHz the Q.P. reading and above 1GHz the Peak and Average reading are presented.
- The test data of the worst-case condition(s) was recorded.

7.4. TEST SETUP

Below 1GHz



Above 1GHz



- For the actual test configuration, please refer to the related item – Photographs of the Test Configuration.

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7.5. DATA SAMPLE

Below 1GHz

Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector (P/Q)	Pol. (H/V)
x.xx	14.0	12.2	26.2	40	-13.8	Q	H

Above 1GHz

Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector (P/A)	Pol. (H/V)
x.xx	42.95	0.55	43.50	60	-16.50	A	H

Freq. = Emission frequency in MHz
Reading = Uncorrected Analyzer/Receiver reading
Factor = Antenna Factor + Cable Loss - Amplifier Gain
Result = Reading + Factor
Limit = Limit stated in standard
Margin = Reading in reference to limit
P = Peak Reading
Q = Quasi-peak Reading
A = Average Reading
H = Antenna Polarization: Horizontal
V = Antenna Polarization: Vertical

Calculation Formula

Margin (dB) = Result (dBuV/m) – Limit (dBuV/m)

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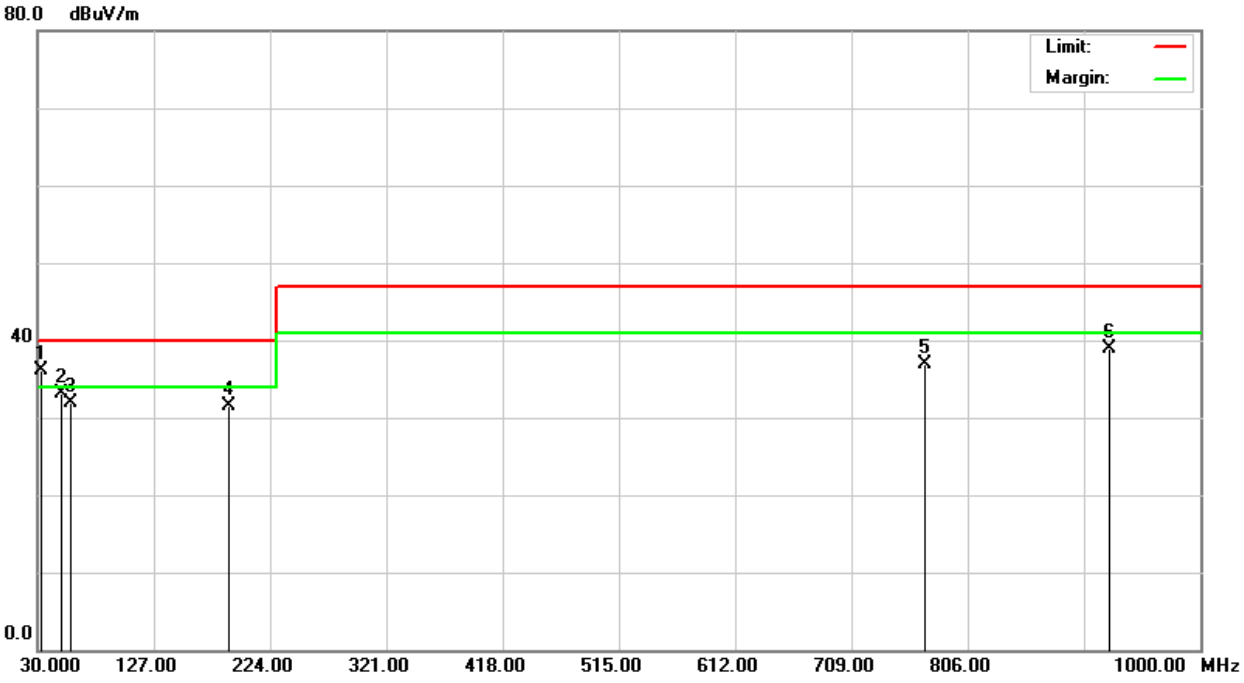
7.6. TEST RESULTS

Below 1GHz

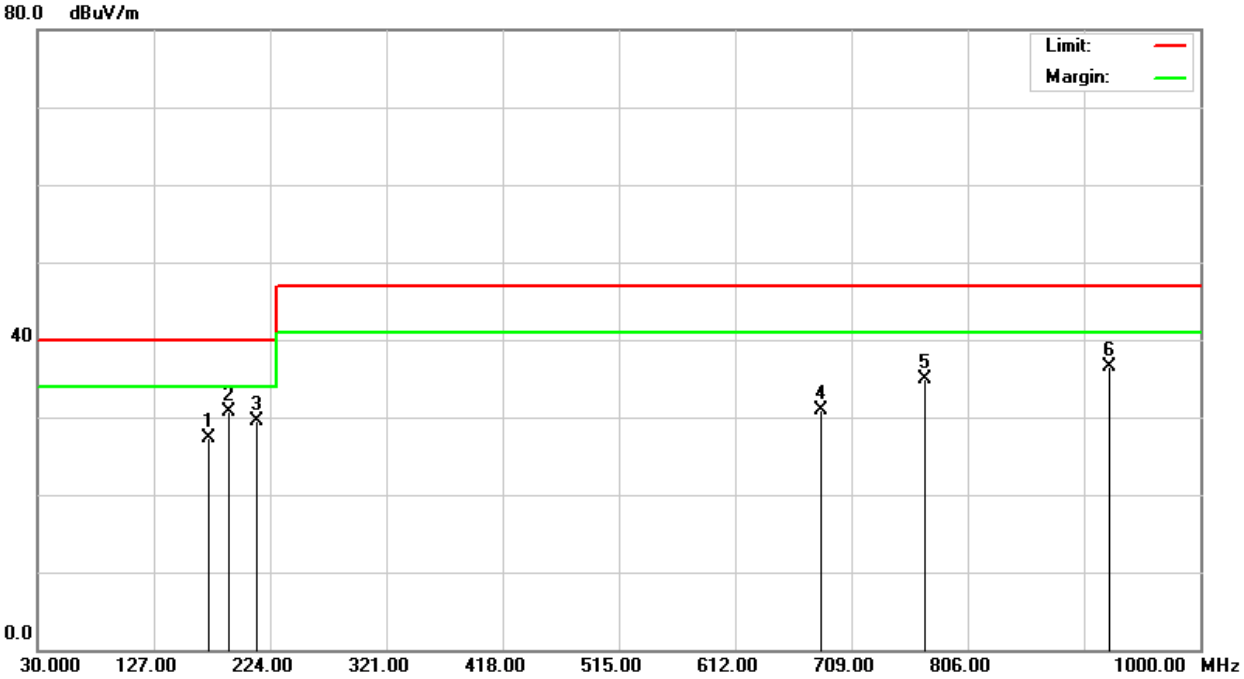
Model No.	R4600-3A1	**Test Mode**	Mode 1 (Normal Mode (110VDC))
Environmental Conditions	26.7°C, 64% RH	**6dB Bandwidth**	120 kHz
Antenna Pole	Vertical	**Antenna Distance**	10m
Detector Function	Quasi-peak.	**Tested by**	Jim Lian
Standard	FCC CLASS A W/ CISPR 22 CLASS A LIMIT	**Test Date**	May 26, 2023



Radiated Emission Readings									
Frequency Range Investigated				**30 MHz to 1000 MHz at 10m**					
Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (°)	Detector (P/Q)	Pol. (H/V)
32.8400	**39.80**	**-3.70**	**36.10**	**40.00**	**-3.90**	**100**	**262**	**Q**	**V**
50.4600	**45.40**	**-12.31**	**33.09**	**40.00**	**-6.91**	**100**	**184**	**Q**	**V**
57.3200	**45.80**	**-13.86**	**31.94**	**40.00**	**-8.06**	**100**	**76**	**Q**	**V**
189.1600	**42.20**	**-10.72**	**31.48**	**40.00**	**-8.52**	**100**	**349**	**Q**	**V**
770.0060	**34.10**	**2.78**	**36.88**	**47.00**	**-10.12**	**400**	**155**	**Q**	**V**
924.0120	**35.00**	**3.91**	**38.91**	**47.00**	**-8.09**	**400**	**297**	**Q**	**V**

Note: 1. 30MHz to 1000MHz test is Applicable CISPR 22 standard.
2. P= Peak Reading; Q= Quasi-peak Reading.

Model No.	R4600-3A1	**Test Mode**	Mode 1 (Normal Mode (110VDC))
Environmental Conditions	26.7°C, 64% RH	**6dB Bandwidth**	120 kHz
Antenna Pole	Horizontal	**Antenna Distance**	10m
Detector Function	Quasi-peak.	**Tested by**	Jim Lian
Standard	FCC CLASS A W/ CISPR 22 CLASS A LIMIT	**Test Date**	May 26, 2023



Radiated Emission Readings									
Frequency Range Investigated				**30 MHz to 1000 MHz at 10m**					
Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (°)	Detector (P/Q)	Pol. (H/V)
173.4200	**37.80**	**-10.46**	**27.34**	**40.00**	**-12.66**	**400**	**347**	**Q**	**H**
189.1400	**41.40**	**-10.73**	**30.67**	**40.00**	**-9.33**	**400**	**81**	**Q**	**H**
213.4200	**40.10**	**-10.69**	**29.41**	**40.00**	**-10.59**	**400**	**154**	**Q**	**H**
683.8200	**29.30**	**1.68**	**30.98**	**47.00**	**-16.02**	**100**	**296**	**Q**	**H**
770.0040	**32.10**	**2.78**	**34.88**	**47.00**	**-12.12**	**100**	**231**	**Q**	**H**
924.0100	**32.50**	**3.91**	**36.41**	**47.00**	**-10.59**	**100**	**112**	**Q**	**H**

Note: 1. 30MHz to 1000MHz test is Applicable CISPR 22 standard.
2. P= Peak Reading; Q= Quasi-peak Reading.

Report No.: TMXD2301000039DE

Above 1GHz

Model No.	R4600-3A1	**Test Mode**	Mode 1 (Normal Mode (110VDC))
Environmental Conditions	24.2°C, 59% RH	**6dB Bandwidth**	1 MHz
Antenna Pole	Vertical / Horizontal	**Antenna Distance**	3m
Highest frequency generated or used	2700MHz	**Upper frequency**	13500MHz
Detector Function	Peak and average.	**Tested by**	Jim Lian
Standard	FCC CLASS A	**Test Date**	May 26, 2023

Radiated Emission Readings							
Frequency Range Investigated				**Above 1GHz at 3m**			
Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector (P/A)	Pol. (H/V)
1085.000	**53.18**	**-8.51**	**44.67**	**80.00**	**-35.33**	**P**	**V**
1850.000	**47.27**	**-5.19**	**42.08**	**80.00**	**-37.92**	**P**	**V**
2309.000	**59.07**	**-4.61**	**54.46**	**80.00**	**-25.54**	**P**	**V**
2462.000	**50.34**	**-4.02**	**46.32**	**80.00**	**-33.68**	**P**	**V**
2615.000	**47.91**	**-3.94**	**43.97**	**80.00**	**-36.03**	**P**	**V**
8718.000	**45.47**	**1.93**	**47.40**	**80.00**	**-32.60**	**P**	**V**

Radiated Emission Readings							
Frequency Range Investigated				**Above 1GHz at 3m**			
Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector (P/A)	Pol. (H/V)
1017.000	**50.48**	**-8.75**	**41.73**	**80.00**	**-38.27**	**P**	**H**
1425.000	**49.61**	**-8.33**	**41.28**	**80.00**	**-38.72**	**P**	**H**
2309.000	**53.41**	**-4.61**	**48.80**	**80.00**	**-31.20**	**P**	**H**
3074.000	**45.77**	**-3.47**	**42.30**	**80.00**	**-37.70**	**P**	**H**
4145.000	**47.03**	**-2.94**	**44.09**	**80.00**	**-35.91**	**P**	**H**
9415.000	**45.50**	**2.29**	**47.79**	**80.00**	**-32.21**	**P**	**H**
12781.000	**45.62**	**5.79**	**51.41**	**80.00**	**-28.59**	**P**	**H**

Note: 1. P= Peak Reading; A= Average Reading.

Report No.: TMXD2301000039DE

----End of Test Report----