

Project No.: TM-2207000268P
Report No.: TMXD2207003326DE

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Rev.: 00

FCC TEST REPORT

for

E-note device

MODEL: USMUK4

Issued to:

AlMobile Co., Ltd.

**6F., No. 166, Sec.4, Chengde Rd., Shilin Dist.,
Taipei City 11167 , Taiwan**

Issued by:

Compliance Certification Services Inc.

Xindian Lab.

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Issued Date: September 1, 2022

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Revision History

Rev.	Issue Date	Revisions	Effect Page	Revised By
00	September 1, 2022	Initial Issue	ALL	Amy Wang



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1 TEST RESULT CERTIFICATION

Product: E-note device

Model: USMUK4

Brand: ITOCHU

Applicant: AIMobile Co., Ltd.
6F., No. 166, Sec.4, Chengde Rd., Shilin Dist.,
Taipei City 11167 , Taiwan

Manufacturer: AIMobile Co., Ltd.
6F., No. 166, Sec.4, Chengde Rd., Shilin Dist.,
Taipei City 11167 , Taiwan

Tested: July 28, 2022 & August 9, 2022


EMISSION			
Standard	Item	Result	Remarks
FCC 47 CFR Part 15 Subpart B, ICES-003 Issue 7-2020 ANSI C63.4-2014	Conducted (Power Port)	PASS	Meet Class B limit
	Radiated	PASS	Meet Class B limit

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.



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2 EUT DESCRIPTION

Product	E-note device
Brand Name	ITOCHU
Model	USMUK4
Applicant	AIMobile Co., Ltd.
Housing material	Plastic
Received Date	July 19, 2022
EUT Power Rating	5VDC from Host PC Power Supply
AC Power During Test	120VAC / 60Hz to Host PC Power Supply

I/O PORT

I/O PORT TYPES	Q'TY	TESTED WITH
1. Type-c Port	1	1

Note: Client consigns only one model sample to test (Model Number: USMUK4).

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 mode is as the following:

Conduction Mode:

1	Normal Mode
---	-------------

Radiation Mode:

1	Normal Mode
	Normal Mode / 1-25GHz

Worst:

Conduction: Mode 1

Radiation: Mode 1

3.2. EUT SYSTEM OPERATION

1. Windows 10 boots system.
2. Run MyHWin.exe to activate all peripherals and display “H” pattern on monitor screen.
3. Run Setting to connected USB for USB File Trensfer.

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
1	CPU	i.MX8M 6019B1852701	NXP
2	RAM (16GB)	6019B1980701	Micron
3	HDD (32GB)	6019B1663501	Samsung
4	MB (13")	1310A3206521	AIM
5	Battery	6027B0168901	Murata
6	Panel (13")	ES133TE	EInk
7	RF module	AW-CM276NF	AzureWave
8	WLAN Antenna	6036B0289801	YAGEO
	WLAN Antenna	6036B0289901	YAGEO
9	NFC Antenna	6036B0289101	Mag.Layers

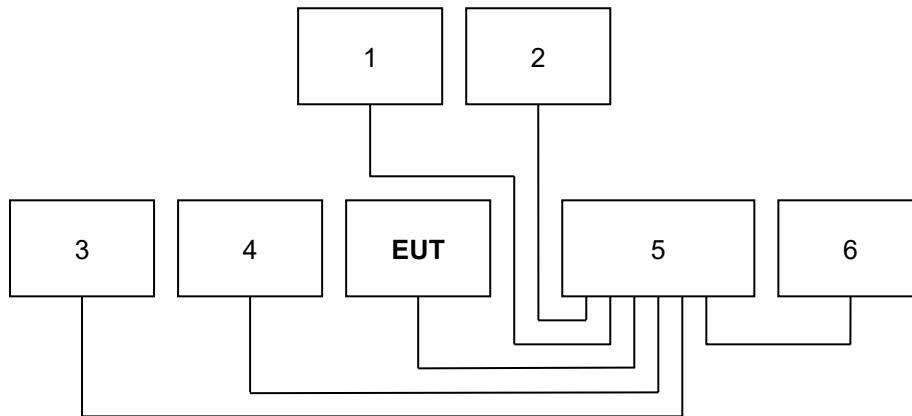
Peripherals Devices:

No.	Equipment	Model No.	Serial No.	FCC ID / BSMI ID	Brand Name	Data Cable	Power Cord
1	USB Mouse	M-U0026	N/A	BSMI: T41126	Logitech	Shielded, 1.8m	N/A
2	USB Keyboard	Y-U0009	N/A	BSMI: D51160	Logitech	Shielded, 1.8m	N/A
3	Printer	SNPRB-1202-01	CN54K185HY	BSMI: R33001	HP	Shielded, 1.8m	Unshielded, 1.8m
4	Monitor	PA248Q	G5LMQS071275	BSMI: R31018	ASUS	DP: Shielded, 1.8m	Unshielded, 1.8m
5	Host PC	Precision 3640	74ZVTC3	BSMI: R33002	DELL	Shielded, 1.5m	Unshielded, 1.8m
6	Modem	AL-56EI	7MEI037A0132	N/A	GALILEO	Unshielded, 1.8m	Unshielded, 1.8m

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 CCSrf 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	± 2.8
Radiated emissions	30MHz ~ 1000MHz	± 6.0
	1000MHz ~ 18000MHz	± 4.7
	18000MHz ~ 40000MHz	± 4.1

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 based on the results of the compliance measurement. Consequently the measured emissions being less than the maximum allowed emission result in this being a compliant test or passing test.

The acceptable measurement uncertainty value without requiring revision of the compliance statement is based on conducted and radiated emissions being less than U_{CISPR} which is 3.8dB(AMN); 6.3dB(30-1000MHz) 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 # B				
Name of Equipment	Manufacturer	Model	Serial Number	Calibration Due
Attenuator	MCL	HAT-10	SD-C012	03/21/2023
BNC Cable	EMEC	CFD300-NL	SD-C020	01/03/2023
EMI Test Receiver	R&S	ESR3	102166	03/27/2023
LISN	Schwarzbeck	NSLK 8127	8127382	04/05/2023
LISN(EUT)	Schwarzbeck	NSLK 8127	8127526	04/05/2023
Thermo-Hygro Meter	Wisewind	N/A	SD-S017	09/01/2022
Test S/W	EZ-EMC			

- 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

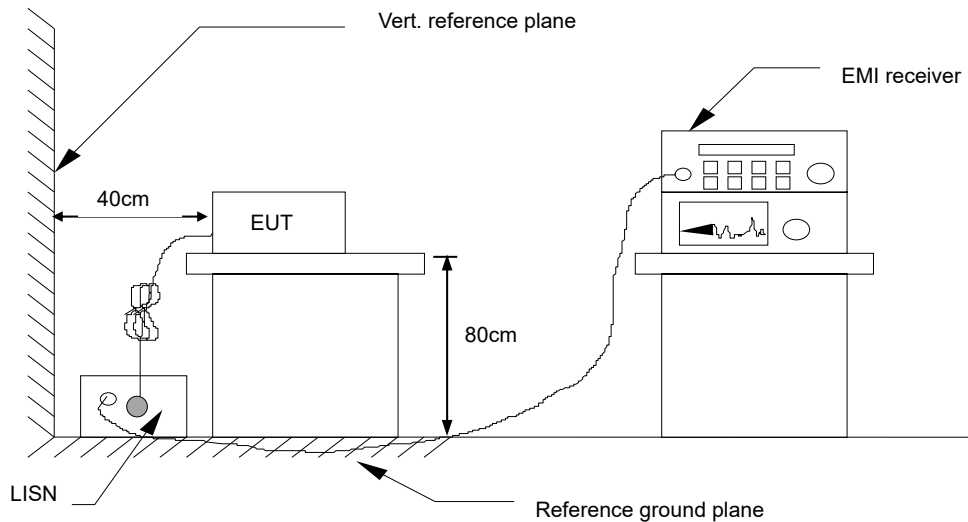
Procedure of Preliminary Test

- 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	56	-12.50	Q	L1

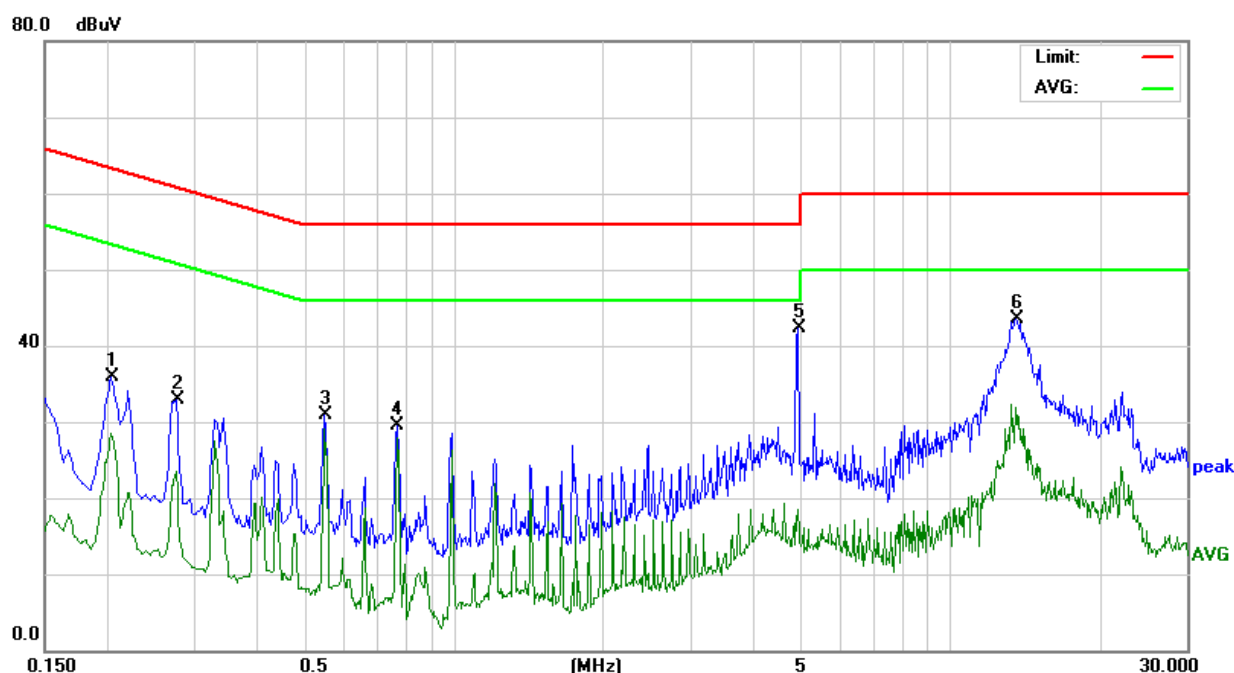
Freq. = Emission frequency in MHz
 Reading = Uncorrected Analyzer/Receiver reading
 Factor = Insertion loss of LISN + Cable Loss + Pulse Limit
 Result = Reading + Factor
 Limit = Limit stated in standard
 Margin = Reading in reference to limit
 P = Peak Reading
 Q = Quasi-peak Reading
 A = Average Reading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

Calculation Formula

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

6.6. TEST RESULTS

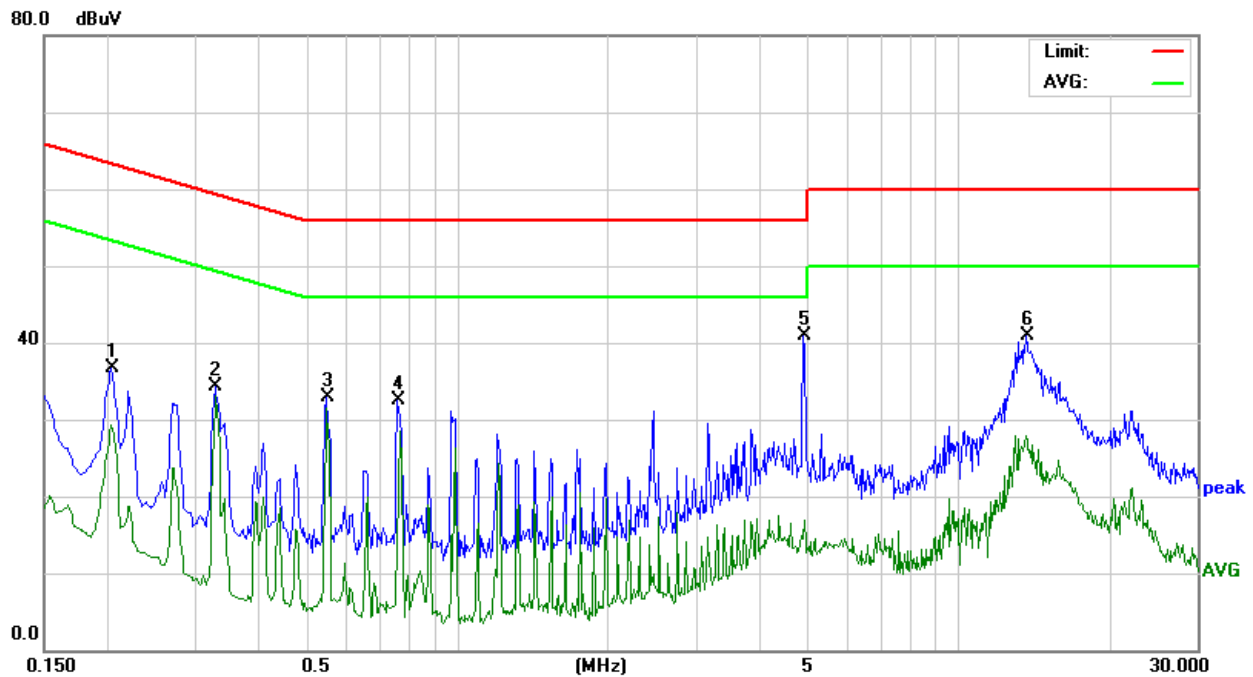
Model No.	USMUK4	6dB Bandwidth	9 kHz
Environmental Conditions	22.5°C, 64% RH	Test Mode	Mode 1
Tested by	Jack Chen	Phase	L1
Standard	FCC CLASS B / ICES-003 CLASS B		



Conducted Emission Readings							
Frequency Range Investigated				150 kHz to 30 MHz			
Freq. (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector (P/Q/A)	Line (L1/L2)
0.2040	25.73	10.08	35.81	63.44	-27.63	P	L1
0.2760	22.78	10.10	32.88	60.93	-28.05	P	L1
0.5505	20.85	10.14	30.99	56.00	-25.01	P	L1
0.7710	19.27	10.17	29.44	56.00	-26.56	P	L1
4.9290	31.92	10.39	42.31	56.00	-13.69	P	L1
13.5555	32.85	10.59	43.44	60.00	-16.56	P	L1

Note: 1. L1 = Line One (Live Line) / L2 = Line Two (Neutral Line).

Model No.	USMUK4	6dB Bandwidth	9 kHz
Environmental Conditions	22.5°C, 64% RH	Test Mode	Mode 1
Tested by	Jack Chen	Phase	L2
Standard	FCC CLASS B / ICES-003 CLASS B		



Conducted Emission Readings							
Frequency Range Investigated				150 kHz to 30 MHz			
Freq. (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector (P/Q/A)	Line (L1/L2)
0.2040	26.64	10.08	36.72	63.44	-26.72	P	L2
0.3300	24.16	10.11	34.27	59.45	-25.18	P	L2
0.5505	22.86	10.14	33.00	56.00	-23.00	P	L2
0.7620	22.32	10.17	32.49	56.00	-23.51	P	L2
4.9200	30.62	10.36	40.98	56.00	-15.02	P	L2
13.6275	30.36	10.56	40.92	60.00	-19.08	P	L2

Note: 1. L1 = Line One (Live Line) / L2 = Line Two (Neutral Line).

7 RADIATED EMISSION MEASUREMENT

7.1. LIMITS OF RADIATED EMISSION MEASUREMENT

FCC 47 CFR Part 15 Subpart B

Below 1GHz (for digital device)

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	5 th harmonic of the highest frequency or 40GHz, whichever is lower

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Below 1GHz

Class A Radiated Emission limit

Frequency (MHZ)	(dBuV/m)Q.P. Distances (3m)	(dBuV/m)Q.P. Distances (10m)
30 - 88	50	40
88 - 216	54	43.5
216 - 230	56.9	46.4
230 – 960	57	47
960 - 1000	60	49.5

Class B Radiated Emission limit

Frequency (MHZ)	(dBuV/m)Q.P. Distances (3m)	(dBuV/m)Q.P. Distances (10m)
30 - 88	40	30
88 - 216	43.5	33.1
216 - 230	46	35.6
230 – 960	47	37
960 - 1000	54	43.5

Above 1GHz

Frequency (MHz)	Class A (dBuV/m) (At 3m)		Class B (dBuV/m) (At 3m)	
	Average	Peak	Average	Peak
Above 1000	60	80	54	74

Required highest measurement frequency for radiated emissions

Highest frequency generated or used in the device or on which the device operates or tunes (MHz)	Upper frequency of measurement range (MHz)
Fx-108	1000
108-500	2000
500-1000	5000
Above 1000	5 x FX up to a maximum of 40 GHz

NOTE: Fx is the highest fundamental frequency generated and/or used in the ITE or digital apparatus under test.

7.2. TEST INSTRUMENTS

Chamber # D				
Name of Equipment	Manufacturer	Model	Serial Number	Calibration Due
Bilog Antenna	Sunol	JB1	A100209-2	03/14/2023
EMI Test Receiver	R&S	ESCI	101202	08/19/2022
N-Type Cable	EMEC	CFD400NL-LW	SD-R048	04/17/2023
Pre-Amplifier	EMCI	EMC330H	980111	08/11/2022
Thermo-Hygro Meter	Wisewind	N/A	SD-R027	09/01/2022
Test S/W	EZ-EMC			
Chamber # D (Above 1GHz Used)				
Horn Antenna	ETS	3117	00078732	10/24/2022
K-Type Cable x 1m (1-40GHz)	EMCI	EMC101G-KM-KM-1000	SD-R069	10/25/2022
Microflex Cable x 7m	EMCI	EMC106-SM-NM-7000	SD-R056	10/25/2022
Pre-Amplifier	HP	8449B	3008A01266	10/25/2022
Signal Analyzer	Agilent	N9010A	MY53440125	10/25/2022
Thermo-Hygro Meter	Wisewind	N/A	SD-R027	09/01/2022
Horn Antenna	Schwarzbeck	BBHA 9170	666	07/04/2023
K-Type Cable x 1m (1-40GHz)	EMCI	EMC101G-KM-KM-1000	SD-R069	10/25/2022
K-Type Cable x 5m	EMCI	EMC101G-KM-KM-5000	SD-R076	07/04/2023
Pre-Amplifier	Com-Power	PAM-840A	461378	06/27/2023
Test S/W	EZ-EMC			

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

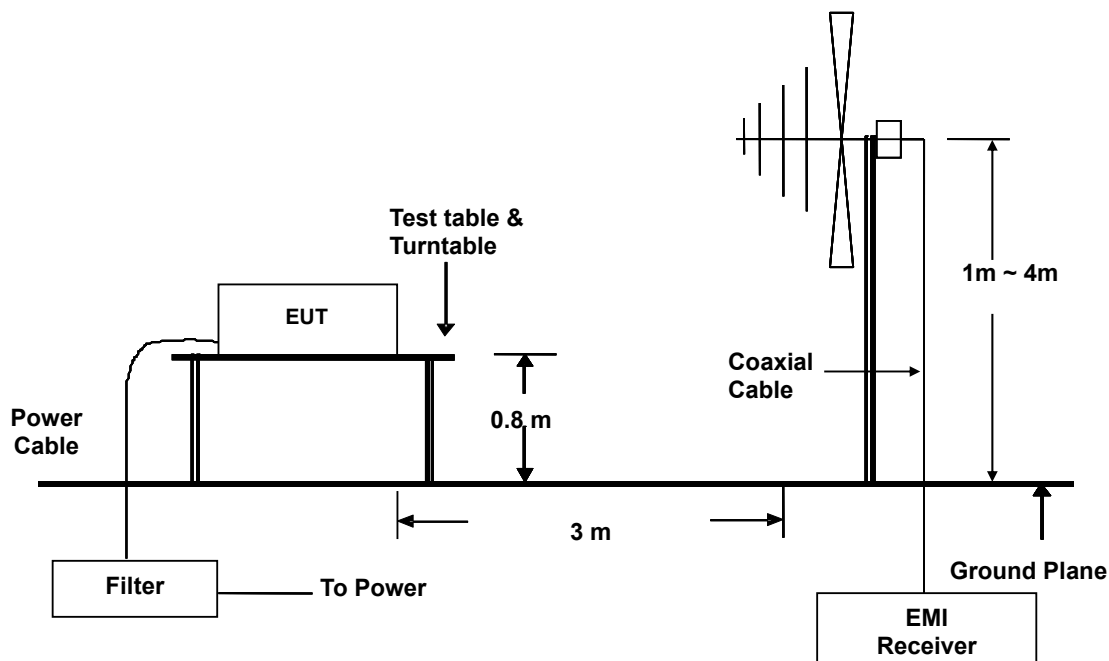
- The equipment was set up as per the test configuration to simulate typical usage per the user's manual. When the EUT is a tabletop system, a wooden turntable with a height of 0.8 meters is used which is placed on the ground plane. When the EUT is a floor standing equipment, it is placed on the ground 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

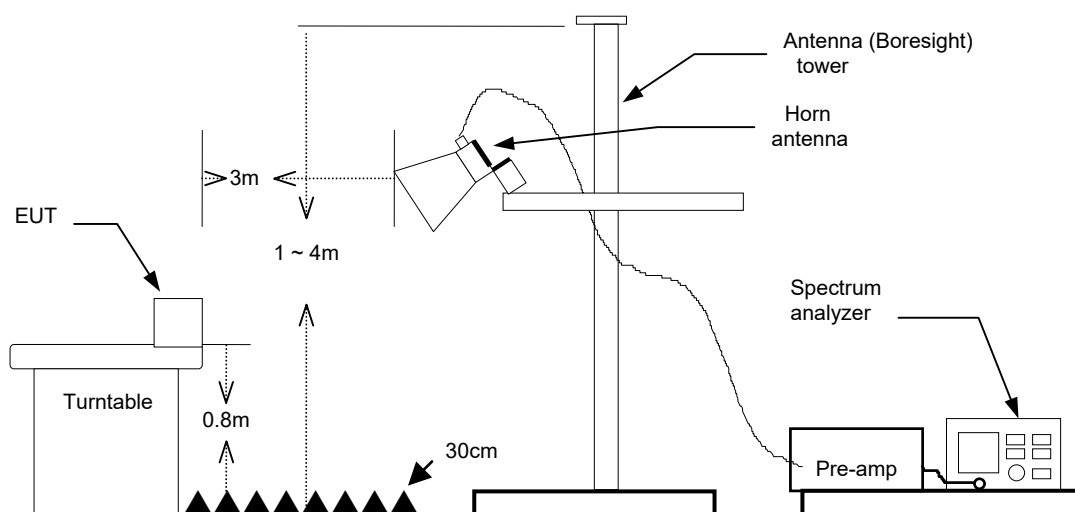
- EUT and support equipment were set up on the turntable as per the configuration with highest emission level in the preliminary test.
- The Analyzer / Receiver scanned from 30MHz to 40GHz. Emissions were scanned and measured rotating the EUT to 360 degrees, varying cable placement and positioning the 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.

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	30	-10.8	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	54	-10.50	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

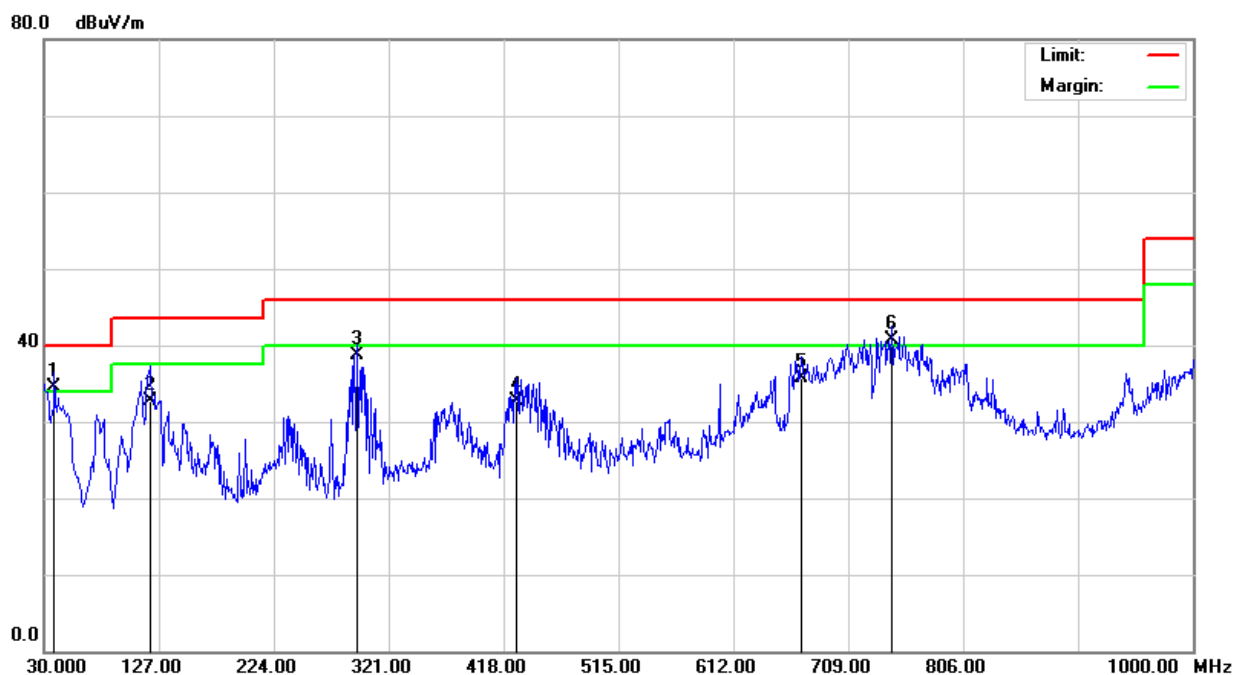
Margin (dB) = Result (dBuV/m) – Limit (dBuV/m)

7.6. TEST RESULTS

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Below 1GHz

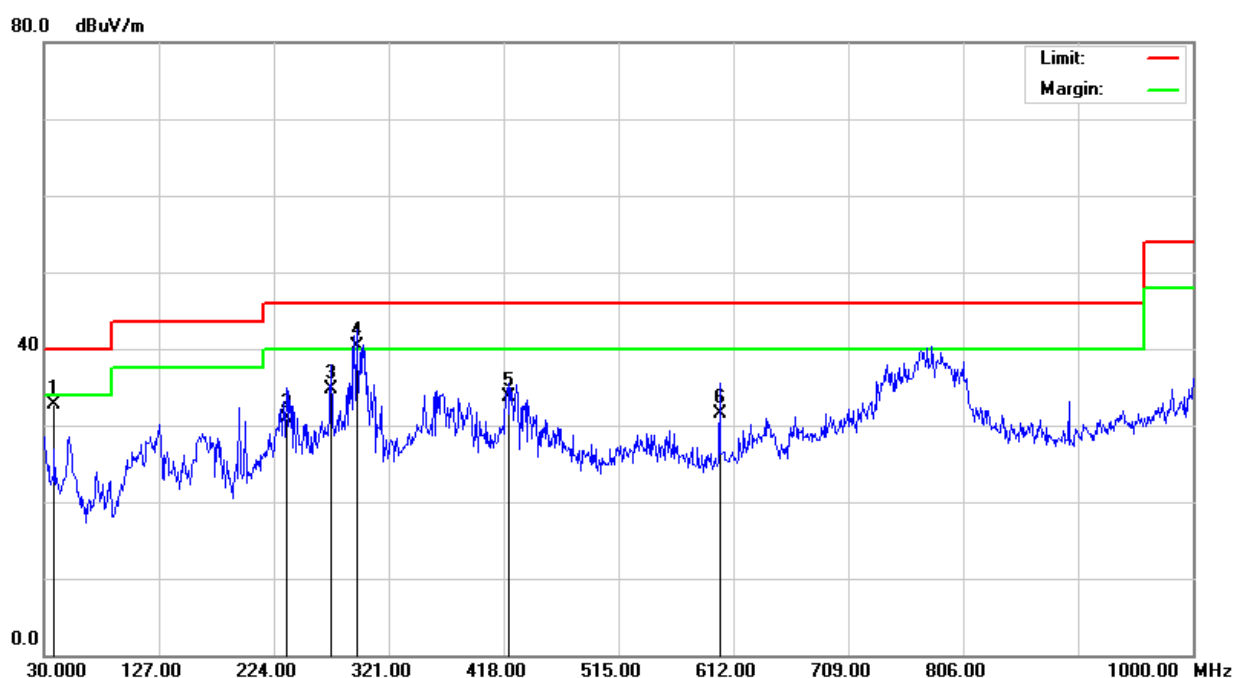
Model No.	USMUK4	Test Mode	Mode 1
Environmental Conditions	25.2°C, 45% RH	6dB Bandwidth	120 kHz
Antenna Pole	Vertical	Antenna Distance	3m
Detector Function	Quasi-peak.	Tested by	Jack Chen
Standard	FCC CLASS B		



Radiated Emission Readings									
Frequency Range Investigated				30 MHz to 1000 MHz at 3m					
Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (°)	Detector (P/Q)	Pol. (H/V)
38.7300	44.78	-10.34	34.44	40.00	-5.56	100	226	Q	V
119.2400	44.20	-11.51	32.69	43.50	-10.81	100	176	Q	V
294.8100	50.60	-11.88	38.72	46.00	-7.28	100	146	Q	V
428.6700	41.20	-8.54	32.66	46.00	-13.34	400	76	Q	V
669.2300	40.30	-4.59	35.71	46.00	-10.29	400	282	Q	V
745.8600	43.30	-2.62	40.68	46.00	-5.32	400	164	Q	V

Note: P= Peak Reading; Q= Quasi-peak Reading.

Model No.	USMUK4	Test Mode	Mode 1
Environmental Conditions	25.2°C, 45% RH	6dB Bandwidth	120 kHz
Antenna Pole	Horizontal	Antenna Distance	3m
Detector Function	Quasi-peak.	Tested by	Jack Chen
Standard	FCC CLASS B		



Radiated Emission Readings									
Frequency Range Investigated					30 MHz to 1000 MHz at 3m				
Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (°)	Detector (P/Q)	Pol. (H/V)
38.5800	42.95	-10.20	32.75	40.00	-7.25	100	169	Q	H
234.6700	44.86	-13.96	30.90	46.00	-15.10	100	263	Q	H
272.5000	46.81	-12.01	34.80	46.00	-11.20	100	314	Q	H
293.8400	52.19	-11.86	40.33	46.00	-5.67	100	89	Q	H
421.8800	42.51	-8.74	33.77	46.00	-12.23	400	123	Q	H
600.3600	37.95	-6.44	31.51	46.00	-14.49	400	178	Q	H

Note: P= Peak Reading; Q= Quasi-peak Reading.

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Below 1GHz

Model No.	USMUK4	Test Mode	Mode 1
Environmental Conditions	25.2°C, 45% RH	6dB Bandwidth	120 kHz
Antenna Pole	Vertical	Antenna Distance	3m
Detector Function	Quasi-peak.	Tested by	Jack Chen
Standard	ICES-003 CLASS B		



Radiated Emission Readings									
Frequency Range Investigated					30 MHz to 1000 MHz at 3m				
Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (°)	Detector (P/Q)	Pol. (H/V)
38.7300	44.78	-9.81	34.97	40.00	-5.03	100	226	Q	V
119.2400	44.20	-10.46	33.74	43.50	-9.76	100	176	Q	V
294.8100	50.60	-11.37	39.23	47.00	-7.77	100	146	Q	V
428.6700	41.20	-8.26	32.94	47.00	-14.06	400	76	Q	V
669.2300	40.30	-4.37	35.93	47.00	-11.07	400	282	Q	V
745.8600	43.30	-2.54	40.76	47.00	-6.24	400	164	Q	V

Note: 1. P= Peak Reading; Q= Quasi-peak Reading.

Model No.	USMUK4	Test Mode	Mode 1
Environmental Conditions	25.2°C, 45% RH	6dB Bandwidth	120 kHz
Antenna Pole	Horizontal	Antenna Distance	3m
Detector Function	Quasi-peak.	Tested by	Jack Chen
Standard	ICES-003 CLASS B		



Radiated Emission Readings									
Frequency Range Investigated				30 MHz to 1000 MHz at 3m					
Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (°)	Detector (P/Q)	Pol. (H/V)
38.5800	42.95	-9.66	33.29	40.00	-6.71	100	169	Q	H
234.6700	44.86	-13.17	31.69	47.00	-15.31	100	263	Q	H
272.5000	46.81	-11.41	35.40	47.00	-11.60	100	314	Q	H
293.8400	52.19	-11.33	40.86	47.00	-6.14	100	89	Q	H
421.8800	42.51	-8.47	34.04	47.00	-12.96	400	123	Q	H
600.3600	37.95	-6.43	31.52	47.00	-15.48	400	178	Q	H

Note: 1. P= Peak Reading; Q= Quasi-peak Reading.

Above 1GHz

Model No.	USMUK4	Test Mode	Mode 1
Environmental Conditions	25.4°C, 58% RH	6dB Bandwidth	1 MHz
Antenna Pole	Vertical / Horizontal	Antenna Distance	3m
Highest frequency generated or used	5000MHz	Upper frequency	25000MHz
Detector Function	Peak and average.	Tested by	Jack Chen
Standard	FCC CLASS B / ICES-003 CLASS B		

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)
1765.000	49.89	-4.69	45.20	74.00	-28.80	P	V
3074.000	46.76	-0.46	46.30	74.00	-27.70	P	V
6100.000	45.91	1.80	47.71	74.00	-26.29	P	V
9245.000	46.16	3.27	49.43	74.00	-24.57	P	V
16702.462	33.12	11.66	44.78	54.00	-9.22	A	V
16708.000	46.69	11.69	58.38	74.00	-15.62	P	V
17945.819	32.75	11.64	44.39	54.00	-9.61	A	V
17949.000	46.88	11.64	58.52	74.00	-15.48	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)
3108.000	46.38	-0.31	46.07	74.00	-27.93	P	H
4757.000	45.19	1.27	46.46	74.00	-27.54	P	H
7307.000	45.78	3.01	48.79	74.00	-25.21	P	H
9908.000	46.35	3.91	50.26	74.00	-23.74	P	H
15943.000	46.70	9.32	56.02	74.00	-17.98	P	H
15944.726	33.04	9.31	42.35	54.00	-11.65	A	H
16589.000	47.04	11.13	58.17	74.00	-15.83	P	H
16590.356	33.57	11.14	44.71	54.00	-9.29	A	H

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

Model No.	USMUK4	Test Mode	Mode 1
Environmental Conditions	25.4°C, 58% RH	6dB Bandwidth	1 MHz
Antenna Pole	Vertical / Horizontal	Antenna Distance	1m
Highest frequency generated or used	5000MHz	Upper frequency	25000MHz
Detector Function	Peak and average.	Tested by	Jack Chen
Standard	FCC CLASS B / ICES-003 CLASS B		

Radiated Emission Readings							
Frequency Range Investigated				Above 1GHz at 1m			
Freq. (MHz)	Reading (dBUV)	Factor (dB/m)	Result (dBUV/m)	Limit (dBUV/m)	Margin (dB)	Detector (P/A)	Pol. (H/V)
18448.000	46.80	6.22	53.02	83.50	-30.48	P	V
19505.000	48.38	5.41	53.79	83.50	-29.71	P	V
20639.000	49.21	5.43	54.64	83.50	-28.86	P	V
21682.000	49.64	5.12	54.76	83.50	-28.74	P	V
23117.000	49.28	5.71	54.99	83.50	-28.51	P	V
24615.000	50.30	6.64	56.94	83.50	-26.56	P	V

Radiated Emission Readings							
Frequency Range Investigated				Above 1GHz at 1m			
Freq. (MHz)	Reading (dBUV)	Factor (dB/m)	Result (dBUV/m)	Limit (dBUV/m)	Margin (dB)	Detector (P/A)	Pol. (H/V)
18413.000	47.24	6.22	53.46	83.50	-30.04	P	H
19491.000	48.63	5.42	54.05	83.50	-29.45	P	H
20394.000	49.29	5.25	54.54	83.50	-28.96	P	H
21500.000	49.03	5.05	54.08	83.50	-29.42	P	H
22809.000	49.31	5.47	54.78	83.50	-28.72	P	H
23873.000	48.81	6.07	54.88	83.50	-28.62	P	H

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



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