



Spot Check Evaluation

APPLICANT : Amazon.com Services LLC
EQUIPMENT : Electronic Display Device
MODEL NAME : PA2MA3
FCC ID : 2A4DH-2423
STANDARD : 47 CFR Part 15 Subpart C §15.247
47 CFR Part 15 Subpart E §15.407
TEST DATE(S) : Jul. 30, 2025 ~ Sep. 10, 2025

We, Sporton International Inc. (Shenzhen), would like to declare that the tested sample has been evaluated in accordance with the test procedures and has been in compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of Sporton International Inc. (Shenzhen), the test report shall not be reproduced except in full.

Fly Liang

Approved by: Fly Liang



Sporton International Inc. (ShenZhen)

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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
510202-05A	Rev. 01	Initial issue of report	Aug. 14, 2025
510202-05A	Rev. 02	Updated AC Conducted Emission test data for Bluetooth on Page 8 This report is an udated version, replacing the report issued on Aug. 14, 2025.	Sep. 11, 2025

Conformity Assessment Condition:

1. The test results (PASS/FAIL) with all measurement uncertainty excluded are presented against the regulation limits or in accordance with the requirements stipulated by the applicant/manufacture who shall bear all the risks of non-compliance that may potentially occur if measurement uncertainty is taken into account.
2. The measurement uncertainty please refer to each test result in the section "Measurement Uncertainty"

Disclaimer:

The product specifications of the EUT presented in the test report that may affect the test assessments are declared by the manufacturer who shall take full responsibility for the authenticity.



1 General Description

1.1 Applicant

Amazon.com Services LLC

410 Terry Avenue N Seattle, WA 98109-5210 United States

1.2 Product Feature of Equipment Under Test

Product Feature	
Equipment	Electronic Display Device
Model Name	PA2MA3
FCC ID	2A4DH-2423
SN Code	Conducted: G0B4PL025254001V Radiation: G0B4PL025254001W DFS: P0B4GG0152520073 Conduction: G0B4PL025254001B

Remark: The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.

1.3 Modification of EUT

No modifications are made to the EUT during all test items.

1.4 Testing Site

Sporton International Inc. (ShenZhen) is accredited to ISO/IEC 17025:2017 by American Association for Laboratory Accreditation with Certificate Number 5145.01.

Test Firm	Sporton International Inc. (ShenZhen)		
Test Site Location	101, 1st Floor, Block B, Building 1, No. 2, Tengfeng 4th Road, Fenghuang Community, Fuyong Street, Baoan District, Shenzhen City, Guangdong Province 518103 People's Republic of China TEL: +86-755-86066985		
Test Site No.	Sporton Site No.	FCC Designation No.	FCC Test Firm Registration No.
	TH01-SZ DFS01-SZ 03CH03-SZ CO02-SZ	CN1256	421272

1.5 Test Software

Item	Site	Manufacturer	Name	Version
1.	03CH03-SZ	AUDIX	E3	6.2009-8-24
2.	DFS01-SZ	Sporton	Test Tools	1.0
3.	CO02-SZ	AUDIX	E3	6.120613b

1.6 Applicable Standards

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

- ♦ FCC KDB 484596 D01 Referencing Test Data v03
- ♦ 47 CFR Part 15 Subpart C §15.247
- ♦ 47 CFR Part 15 Subpart E §15.407
- ♦ ANSI C63.10-2013
- ♦ ANSI C63.26-2015



2 Re-use of Measured Data

2.1 Introduction Section

This application re-uses data collected on a similar device. The subject device of this application (Model: PA2MA3, FCC ID: 2A4DH-2423) is electrically identical to the reference device (Model: PA2MA4, FCC ID: 2A4DH-2424) for the portions of the circuitry corresponding to the data being re-used, following the FCC KDB 484596 D01 Referencing Test Data v03.

The criteria set in section 3 of KDB 484596 D01 v03 is followed to determine whether the data referencing is justified. For SAR, the higher between the referenced value and the spot check value is used to determine compliance in both standalone and simultaneous transmission conditions

The applicant takes full responsibility that the test data as referenced in this report represent compliance for this FCC ID: 2A4DH-2423 .

2.2 Model Difference Information

The **main** difference between FCC ID: 2A4DH-2424 and FCC ID: 2A4DH-2423 is as below:

- Changed to 2GB DRAM and 16GB Storage only.

Other differences and all the details of similarity and difference can be found in the confidential documents (2A4DH-2423 Operational Description of Product Equality Declaration).



2.3 Reference detail Section:

Rule Part	Equipment Class	Frequency Band (MHz)	Reference FCC ID (Parent)	Reference on test	Reference Title	FCC ID Filling (Variant)	Test on the variant	Data Referencing (Y/N)
15C	DSS (BR/EDR)	2400~2483.5	2A4DH-2424	Full test	FR510202-01A	2A4DH-2423	Spot check	Y, All test items
	DTS (BLE)	2400~2483.5	2A4DH-2424	Full test	FR510202-01B	2A4DH-2423	Spot check	Y, All test items
	DTS (WLAN)	2400~2483.5	2A4DH-2424	Full test	FR510202-01C	2A4DH-2423	Spot check	Y, All test items
15E	U-NII	5180~5240	2A4DH-2424	Full test	FR510202-01D	2A4DH-2423	Spot check	Y, All test items
		5260~5320	2A4DH-2424	Full test	FR510202-01D	2A4DH-2423	Spot check	Y, All test items
		5500~5720	2A4DH-2424	Full test	FR510202-01D	2A4DH-2423	Spot check	Y, All test items
		5745~5825	2A4DH-2424	Full test	FR510202-01D	2A4DH-2423	Spot check	Y, All test items
		5260~5320 5500~5720	2A4DH-2424	Full test	FZ510202-01	2A4DH-2423	Spot check	Y, All test items

Y: Pointer to spot-check exhibit; N: Pointer to full test exhibit

2.4 Spot Check Verification Data Section

All test items test against the variant model based on the worst-case condition from the original model was performed in this filing to demonstrate the test data from original model remains representative for the variant model.

All test procedures follow the related section of parent report.

Spot-check measurements, while being always compliant with the applicable rule part(s) for the test under consideration, show a deviation d_{dB} from the reference data no larger than 3 dB:

$$d_{dB} = |V_{dB} - R_{dB}| \leq 3 \text{ dB} \quad (1)$$

V_{dB} , the variant spot-check level

R_{dB} , the corresponding measurement level for the reference model

An alternative to the limit of eq. (1) is available, and is based on considering how far the reference data R_{dB} is from the compliance threshold C_{dB} (also expressed in dB), for the particular test under consideration. In this case, if $M_{dB} = |C_{dB} - R_{dB}|$ is the margin in dB from the compliance limit, a spot check may be considered acceptable when the deviation d_{dB} from the reference data satisfies the following condition:

$$d_{dB} = |V_{dB} - R_{dB}| \leq (3 + M_{dB}/20) \text{ dB}, \text{ for } 0 \leq M_{dB} \leq 60 \text{ dB} \quad (2)$$

$$d_{dB} = |V_{dB} - R_{dB}| = 6 \text{ dB}, \text{ for } M_{dB} > 60 \text{ dB}$$

where “| |” is the absolute value of the measured quantity.

When using the option in eq. (2), d_{dB} increases linearly from 3 dB to 6 dB.



Summary for spot check for each rule entry and technology is listed as below:

Mode	Test Item	2A4DH-2424 Parent Worst mode Test Result	2A4DH-2423 Variant Check Test Result	Deviation (dB)	Deviation Limit (dB)
BT 1Mbps (CH78)	Number of Channels	79	79	0	3
	Hopping Channel Separation	1.003	0.989	0.014	3
	Dwell Time of Each Channel	0.31	0.31	0	3
	20 Bandwidth	0.865	0.847	0.018	3
	99% Bandwidth	0.751	0.753	0.002	3
	Conducted Band Edges	-55.38	-56.66	1.28	3
	Conducted Spurious Emission	-37.78	-37.96	0.18	3
BT 1Mbps (CH78)	Radiated Band Edges and Radiated Spurious Emission	48.24	47.88	0.36	3
BT	AC Conducted Emission	19.53	19.82	0.29	3
BLE 1Mbps (CH39)	6 Bandwidth	0.656	0.656	0	3
	99% Bandwidth	1.013	1.015	0.002	3
	Power Spectral Density	-2.52	-3.21	0.69	3
	Conducted Band Edges	-45.83	-47.35	1.52	3
	Conducted Spurious Emission	-37.8	-37.77	0.03	3
BLE 1Mbps (CH19)	Radiated Band Edges and Spurious Emission	46.16	46.21	0.05	3
BLE	AC Conducted Emission	19.53	19.82	0.29	3
WIFI 2.4G (802.11b CH01)	6 Bandwidth	8.1	8.1	0	3
	99% Bandwidth	12.794	12.743	0.051	3
	Power Spectral Density	-8.03	-8.74	0.71	3
	Conducted Band Edges	-44.59	-45.83	1.24	3
	Conducted Spurious Emission	-37.08	-37.29	0.21	3
WIFI 2.4G (802.11b CH06)	Radiated Band Edges and Spurious Emission	49.37	50.31	0.38	3
WIFI 5G (802.11a CH149)	26dB & 99% Bandwidth	20.4	20.28	0.12	3
	Power Spectral Density	-1.45	-1.58	0.13	3
	DFS	0.026	0.0076	0.0184	3
WIFI 5G (802.11ac CH58)	Radiated Band Edges and Spurious Emission	50.73	50.23	0.5	3
WIFI 5G	AC Conducted Emission	19.82	20.57	0.75	3



Test Item	Mode	2A4DH-2424 Parent Worst mode Test Result	2A4DH-2423 Variant Check Test Result	Deviation (dB)	Deviation Limit (dB)
Conducted Power (dBm)	BT BR/EDR_Ant1	7.58	6.85	0.73	3
	BLE 1M_Ant1	-1.6	-2.5	0.9	3
	2.4G 11b_Ant1	15.1	14.9	0.2	3
	2.4G 11g_Ant1	15	14.8	0.2	3
	2.4G 11n20_Ant1	15	14.8	0.2	3
	5G 11a, UNII-2C_Ant1	14.44	15.3	0.86	3
	5G 11n HT20, UNII-2C_Ant1	12.29	13.03	0.74	3
	5G 11n HT40, UNII-2C_Ant1	12.34	13.26	0.92	3
	5G 11ac VHT20, UNII-2C_Ant1	12.27	13.02	0.75	3
	5G 11ac VHT40, UNII-2C_Ant1	12.31	13.2	0.89	3
	5G 11ac VHT80, UNII-2C_Ant1	12.21	13.14	0.93	3
	5G 11a, UNII-3_Ant1	14.93	15.85	0.92	3
	5G 11n HT20, UNII-3_Ant1	12.59	13.4	0.81	3
	5G 11n HT40, UNII-3_Ant1	12.64	13.5	0.86	3
	5G 11ac VHT20, UNII-3_Ant1	12.55	13.38	0.83	3
	5G 11ac VHT40, UNII-3_Ant1	12.59	13.46	0.87	3
	5G 11ac VHT80, UNII-3_Ant1	12.36	13.3	0.94	3
	BT BR/EDR_Ant2	7.36	6.68	0.68	3
	BLE 1M_Ant2	-1.6	-2.5	0.9	3
	2.4G 11b_Ant2	15.1	14.8	0.3	3
	2.4G 11g_Ant2	15	14.9	0.1	3
	2.4G 11n20_Ant2	14.9	14.8	0.1	3
	5G 11a, UNII-2C_Ant2	14.51	15.45	0.94	3
	5G 11n HT20, UNII-2C_Ant2	12.21	13.1	0.89	3
	5G 11n HT40, UNII-2C_Ant2	12.45	13.43	0.98	3
	5G 11ac VHT20, UNII-2C_Ant2	12.18	13.03	0.85	3
	5G 11ac VHT40, UNII-2C_Ant2	12.37	13.32	0.95	3
	5G 11ac VHT80, UNII-2C_Ant2	12.29	13.08	0.79	3
	5G 11a, UNII-3_Ant2	14.8	15.69	0.89	3
	5G 11n HT20, UNII-3_Ant2	12.52	13.43	0.91	3
	5G 11n HT40, UNII-3_Ant2	12.59	13.51	0.92	3
	5G 11ac VHT20, UNII-3_Ant2	12.47	13.4	0.93	3
	5G 11ac VHT40, UNII-3_Ant2	12.55	13.46	0.91	3
	5G 11ac VHT80, UNII-3_Ant2	12.22	13.16	0.94	3

Conclusion:

All test items test against the variant model based on the worst-case condition from the original model was performed in this filing to demonstrate the test data from original model remains representative for the variant model.

Based on the spot check test result, the test data from the original model is representative for the variant model. All spot check test data are shown within expected level compliant to limit line.

We are using power measurements from the original parent model reports to list on the grant.

We confirm that the test data referencing policy of FCC KDB 484596 D01 Referencing Test Data v03 has been followed and the test data as referenced from the parent model report represents compliance with new FCC ID.



3 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Spectrum Analyzer	R&S	FSV40	101078	10Hz~40GHz	Apr. 02, 2025	Aug. 05, 2025	Apr. 01, 2026	Conducted (TH01-SZ)
Pulse Power Sensor	Anritsu	MA2411B	1339473	30MHz~40GHz	Dec. 25, 2024	Aug. 05, 2025	Dec. 24, 2025	Conducted (TH01-SZ)
Power Meter	Anritsu	ML2495A	1218010	50MHz Bandwidth	Oct.14, 2024	Aug. 05, 2025	Oct. 13, 2025	Conducted (TH01-SZ)
EMI Test Receiver&SA	KEYSIGHT	N9038A	MY54450083	20Hz~8.4GHz	Apr. 02, 2025	Jul. 30, 2025~Jul. 31, 2025	Apr. 01, 2026	Radiation (03CH03-SZ)
EXA Signal Analyzer	KEYSIGHT	N9010B	MY59071191	10KHz~44GHz	Apr. 02, 2025	Jul. 30, 2025~Jul. 31, 2025	Apr. 01, 2026	Radiation (03CH03-SZ)
Loop Antenna	R&S	HFH2-Z2E	101141	9kHz~30MHz	Dec. 28, 2024	Jul. 30, 2025~Jul. 31, 2025	Dec. 27, 2025	Radiation (03CH03-SZ)
Bilog Antenna	TeseQ	CBL6112D	35408	30MHz~2GHz	Aug. 20, 2023	Jul. 30, 2025~Jul. 31, 2025	Aug. 19, 2025	Radiation (03CH03-SZ)
Double Ridge Guide Antenna	ETS-Lindgren	Burgeon-3117	00240107	1GHz~18GHz	Jul. 13, 2025	Jul. 30, 2025~Jul. 31, 2025	Jul. 12, 2026	Radiation (03CH03-SZ)
HF Amplifier	MITEQ	TTA1840-35-HG	1871923	18GHz~40GHz	Jul. 03, 2025	Jul. 30, 2025~Jul. 31, 2025	Jul. 02, 2026	Radiation (03CH03-SZ)
SHF-EHF Horn	com-power	AH-840	101071	18GHz~40GHz	Apr. 03, 2025	Jul. 30, 2025~Jul. 31, 2025	Apr. 02, 2027	Radiation (03CH03-SZ)
Amplifier	EM Electronics	EM330	060756	0.01Hz~3000MHz	Apr. 02, 2025	Jul. 30, 2025~Jul. 31, 2025	Apr. 01, 2026	Radiation (03CH03-SZ)
HF Amplifier	MITEQ	AMF-7D-00101800-30-10P-R	1943528	1GHz~18GHz	Oct. 14, 2024	Jul. 30, 2025~Jul. 31, 2025	Oct. 13, 2025	Radiation (03CH03-SZ)
HF Amplifier	Keysight	83017A	MY53270357	500MHz~26.5GHz	Apr. 02, 2025	Jul. 30, 2025~Jul. 31, 2025	Apr. 01, 2026	Radiation (03CH03-SZ)
AC Power Source	Chroma	61601	616010002729	N/A	Oct. 18, 2024	Jul. 30, 2025~Jul. 31, 2025	Oct. 17, 2025	Radiation (03CH03-SZ)
Turn Table	EM	EM1000	N/A	0~360 degree	NCR	Jul. 30, 2025~Jul. 31, 2025	NCR	Radiation (03CH03-SZ)
Antenna Mast	EM	EM1000	N/A	1 m~4 m	NCR	Jul. 30, 2025~Jul. 31, 2025	NCR	Radiation (03CH03-SZ)
Spectrum Analyzer	Rohde & Schwarz	FSV 40	101829	10Hz~40GHz	Oct. 14, 2024	Aug. 05, 2025	Oct. 13, 2025	Conducted (DFS01-SZ)
Signal Generator	Keysight	N5182B	MY56200424	9KHz~6GHz	Apr. 02, 2025	Aug. 05, 2025	Apr. 01, 2026	Conducted (DFS01-SZ)
Combiner	MTJ Cooperation	MTJ7112	N/A	0.4-6GHz	NCR	Aug. 05, 2025	NCR	Conducted (DFS01-SZ)
EMI Receiver	R&S	ESR7	102297	9kHz~7GHz;	Jul. 02, 2025	Aug. 11, 2025~Sep. 10, 2025	Jul. 01, 2026	Conduction (CO02-SZ)
AC LISN	R&S	ENV216	101499	9kHz~30MHz	Jul. 03, 2025	Aug. 11, 2025~Sep. 10, 2025	Jul. 02, 2026	Conduction (CO02-SZ)
AC Power Source	CHROMA	61601	616010002470	100Vac~250Vac	Dec. 25, 2024	Aug. 11, 2025~Sep. 10, 2025	Dec. 24, 2025	Conduction (CO02-SZ)

NCR: No Calibration Required.

4 Measurement Uncertainty

The measurement uncertainties shown below were calculated in accordance with the requirements of ANSI 63.26-2015. All the measurement uncertainty value were shown with a coverage K=2 to indicate 95% level of confidence. The measurement data show herein meets or exceeds the CISPR measurement uncertainty values specified in CISPR 16-4-2 and can be compared directly to specified limit to determine compliance.

Uncertainty of Conducted Measurement (BT/WIFI2.4G/5G)

Test Item	Uncertainty
Conducted Spurious Emission & Bandedge	±1.34 dB
Occupied Channel Bandwidth	±0.012 MHz
Conducted Power	±1.34 dB
Conducted Power Spectral Density	±1.32 dB
Frequency	±1.3 Hz

Uncertainty of Conducted Measurement (DFS)

Test Item	Uncertainty
Conducted Generated signal Levels	±0.62 dB
Conducted Time	0.38%

Uncertainty of AC Conducted Emission Measurement (0.15 MHz ~ 30 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	2.5dB
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Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	5.0dB
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Uncertainty of Radiated Emission Measurement (1 GHz ~ 18 GHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	4.9dB
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Uncertainty of Radiated Emission Measurement (18 GHz ~ 40 GHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	5.0dB
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-THE END-