

Spot Check Evaluation

APPLICANT : vivo Mobile Communication Co., Ltd.
EQUIPMENT : Mobile Phone
BRAND NAME : vivo
MODEL NAME : V2208
FCC ID : 2AUCY-V2202V
STANDARD : 47 CFR Part 2, 22, 24, 27
47 CFR Part 15 Subpart C §15.225
47 CFR Part 15 Subpart C §15.247
47 CFR Part 15 Subpart E §15.407

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.

Jason Jia

Approved by: Jason Jia



Sporton International Inc. (ShenZhen)

1/F, 2/F, Bldg 5, Shiling Industrial Zone, Xinwei Village, Xili, Nanshan, Shenzhen, 518055

People's Republic of China



TABLE OF CONTENTS

REVISION HISTORY.....	3
1 GENERAL DESCRIPTION.....	4
1.1 Applicant.....	4
1.2 Manufacturer.....	4
1.3 Product Feature of Equipment Under Test.....	4
1.4 Modification of EUT	4
1.5 Testing Location	5
1.6 Test Software.....	5
2 RE-USE OF MEASURED DATA.....	6
2.1 Introduction Section.....	6
2.2 Model Difference Information	6
2.3 Reference detail Section:	7
2.4 Spot Check Verification Data Section.....	7
3 LIST OF MEASURING EQUIPMENT.....	9
APPENDIX A. SETUP PHOTOGRAPHS	



REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
281001	Rev. 01	Initial issue of report	Sep. 14, 2022



1 General Description

1.1 Applicant

vivo Mobile Communication Co., Ltd.

No.1, vivo Road, Chang'an, Dongguan,Guangdong,China

1.2 Manufacturer

vivo Mobile Communication Co., Ltd.

No.1, vivo Road, Chang'an, Dongguan,Guangdong,China

1.3 Product Feature of Equipment Under Test

Product Feature	
Equipment	Mobile Phone
Brand Name	vivo
Model Name	V2208
FCC ID	2AUCY-V2202V
HW Version	MP_0.1
SW Version	PD2215EF_EX_A_12.0.4.9.W30.V2403L6
EUT Stage	Production Unit

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

1.4 Modification of EUT

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

1.5 Testing Location

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	1/F, 2/F, Bldg 5, Shiling Industrial Zone, Xinwei Village, Xili, Nanshan, Shenzhen, 518055 People's Republic of China TEL: +86-755-86379589 FAX: +86-755-86379595		
Test Site No.	Sporton Site No.	FCC Designation No.	FCC Test Firm Registration No.
	TH01-SZ	CN1256	421272

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 China 518103 TEL: +86-755-33202398		
Test Site No.	Sporton Site No.	FCC Designation No.	FCC Test Firm Registration No.
	03CH02-SZ	CN1256	421272

1.6 Test Software

Item	Site	Manufacturer	Name	Version
1.	03CH02-SZ	AUDIX	E3	6.2009-8-24a

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: V2208, FCC ID: 2AUCY-V2202V) is electrically identical to the reference device (Model: V2202, FCC ID: 2AUCY-V2202) for the portions of the circuitry corresponding to the data being re-used. Based on their similarity, the FCC Part 15C (equipment class: DTS, DSS, DXX) and FCC Part 15E (equipment class: NII) and FCC Part 22, 24, 27 (equipment class: PCE) reuse the original model's result and do spot-check, following the FCC KDB 484596 D01 v01.

The applicant takes full responsibility that the test data as referenced in this report represent compliance for this FCC ID: 2AUCY-V2202V.

2.2 Model Difference Information

The **main** difference between FCC ID: 2AUCY-V2202 and FCC ID: 2AUCY-V2202V is as below:

- Add WLAN 2.4G 11n HT40/ ax HE40 modes and 5GNR Band n5/n41.
- Remove LTE Band 13/26/66 and 5GNR Band n2/n66/n78.
- Bluetooth/ WLAN 2.4G change the gain from -3.0 dBi to -1.9dBi; WLAN 5G U-NII-1 change the gain from -3.0 dBi to 0.6dBi; WLAN 5G U-NII-2A change the gain from -3.0 dBi to -2.2dBi; WLAN 5G U-NII-3 change the gain from -3.0 dBi to -3.5dBi.

Other differences and all the details of similarity and difference can be found in the confidential documents (V2208_Operational Description of Product Equality Declaration).



2.3 Reference detail Section:

Rule Part	Equipment Class	Frequency Band (MHz)	Reference FCC ID(Parent)	Type Grant/ Permissive Change	Reference Title	FCC ID Filling (Variant)	Report Title/Section
15C	DSS (BR/EDR)	2400~2483.5	2AUCY-V2202	Original Grant	FR260813A	2AUCY-V2202V	All sections applicable
	DTS (BLE)	2400~2483.5	2AUCY-V2202	Original Grant	FR260813B	2AUCY-V2202V	All sections applicable
	DXX (NFC)	13.56	2AUCY-V2202	Original Grant	FR260813D	2AUCY-V2202V	All sections applicable
15E	NII	5150~5250	2AUCY-V2202	Original Grant	FR260813E	2AUCY-V2202V	All sections applicable
	NII	5250~5350	2AUCY-V2202	Original Grant	FR260813E	2AUCY-V2202V	All sections applicable
	NII	5470~5725	2AUCY-V2202	Original Grant	FR260813E	2AUCY-V2202V	All sections applicable
	NII	5725~5850	2AUCY-V2202	Original Grant	FR260813F	2AUCY-V2202V	All sections applicable
	DFS	5250~5350 5470~5725	2AUCY-V2202	Original Grant	FZ260813	2AUCY-V2202V	All sections applicable
22, 24, 27,	PCE (GSM)	GSM 850/1900	2AUCY-V2202	Original Grant	FG260813A	2AUCY-V2202V	All sections applicable
	PCE (WCDMA)	Band II, IV, V	2AUCY-V2202	Original Grant	FG260813A	2AUCY-V2202V	All sections applicable
	PCE/CBE (LTE)	B2/4/5/7/12/17/38/41 ULCA 7C/38C/41C	2AUCY-V2202	Original Grant	FG260813B& FG260813C	2AUCY-V2202V	All sections applicable
	PCE (NR)	n7	2AUCY-V2202	Original Grant	FG260813D	2AUCY-V2202V	All sections applicable

2.4 Spot Check Verification Data Section

Conducted power test and radiated spurious emission 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

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

Test Item	Mode	2AUCY-V2202 Parent Worst Result	2AUCY-V2202V Variant Check Result	Difference (dB)
Conducted Power (dBm)	BLE1M CH19	11.58	10.7	-0.88
	BLE2M CH19	11.64	10.8	-0.84
	DH5 CH39	11.97	10.7	-1.27
	2DH5 CH39	8.73	8.2	-0.53
	3DH5 CH39	8.81	8.2	-0.61
	11a CH60 setting 17	17.80	17.03	-0.77
	11n20 CH44 setting 17	17.82	16.97	-0.85
	11n40 CH46 setting 16	16.63	16.03	-0.6
	11ac20 CH60 setting 15.5	16.01	15.63	-0.38
	11ac40 CH46 setting 15.5	16.16	15.73	-0.43
	11ac80 CH122 setting 15.5	15.43	14.90	-0.53
	11ax20 CH64 setting 15.5	16.18	15.78	-0.4
	11ax40 CH46 setting 15.5	16.10	15.65	-0.45
	11ax80 CH122 setting 15.5	15.74	15.32	-0.42
	11a CH157 setting 17	17.71	17	-0.71
	11n20 CH157 setting 17	17.10	16.84	-0.26
	11n40 CH159 setting 16	16.41	15.93	-0.48
	11ac20 CH157 setting 15.5	15.69	15.44	-0.25
	11ac40 CH151 setting 15.5	15.92	15.50	-0.42
	11ac80 CH155 setting 15.5	15.37	14.96	-0.41
	11ax20 CH165 setting 14.5	15	14.71	-0.29
	11ax40 CH159 setting 14.5	15.08	14.77	-0.31



11ax80 CH155 setting 14.5	14.74	14.37	-0.37
GSM850	32.38	32.36	-0.02
GSM1900	29.76	29.76	0
EDGE850	26.89	27.19	0.3
EDGE1900	25.92	26.41	0.49
WCDMA B2	23.28	23.27	-0.01
WCDMA B5	23.04	23.09	0.05
WCDMA B4	23.12	23.11	-0.01
LTE B2	23.05	23.03	-0.02
LTE B4	22.59	22.59	0
LTE B5	22.89	23.37	0.48
LTE B7	22.29	22.29	0
LTE B12	23.59	23.54	-0.05
LTE B17	23.54	23.52	-0.02
LTE B38	22.79	22.78	-0.01
LTE B41	22.83	22.82	-0.01
LTE B7C	22.26	22.25	-0.01
LTE B38C	22.77	22.75	-0.02
LTE B41C	22.81	22.80	-0.01
Part 27M NSA 2A_n7A	21.38	21.86	0.48

Test Item	Mode	2AUCY-V2202 Parent Worst Result	2AUCY-V2202V Variant Check Result	Difference (dB)
Field Strength (dBuV/m) @ 30m	NFC 13.56MHz	-65.69	-64.59	1.1
Radiated Spurious Emission (dBuV/m) @ 3m	BLE2M CH39	-9.05	-9.87	-0.82
	EDR CH78 1DH5	-23.23	-24.28	-1.05
	11ac80ch106 setting 10.5	-2.70	-7.16	-4.46
	11ac80ch155 setting 14.5	-14.22	-13.94	0.28
Radiated Spurious Emission (dBm)	Part 22H GSM 850	-33.32	-40.31	-6.99
	Part 27M LTE 41C	-26.08	-24.63	1.45
	Part27L WCDMA Band4	-41.98	-42.13	-0.15
	Part 27M NSA 2A_7N	-26.88	-24.44	2.44

Conclusion:

Radiated spurious emission 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. The power level and RSE spot check are shown within expected level compliant to limit line.

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

The same DFS detection mechanism/software is used in the variant. Hence, there is no spot check data for DFS hand-shaking mechanism.

We confirm that the test data reuse policy of FCC KDB 484596 D01 Referencing Test Data v01 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. 07, 2022	Aug. 15, 2022~ Aug. 26, 2022	Apr. 08, 2023	Conducted (TH01-SZ)
Power Divider	TOJOIN	PS-2SM-04265	60.06.020.0077	0.4GHz~26.5GHz	Dec. 25, 2021	Aug. 15, 2022~ Aug. 26, 2022	Dec. 24, 2022	Conducted (TH01-SZ)
EXA Spectrum Analyzer	KEYSIGHT	N9010A	MY55150213	10Hz~44GHz	Jul. 07, 2022	Aug. 22, 2022	Jul. 06, 2023	Radiation (03CH02-SZ)
Bilog Antenna	TeseQ	CBL6112D		30MHz~2GHz	Oct. 22, 2021	Aug. 22, 2022	Oct. 21, 2022	Radiation (03CH02-SZ)
Double Ridge Horn Antenna	ETS-Lindgren	3117	00119436	1GHz~18GHz	Jul. 07, 2022	Aug. 22, 2022	Jul. 06, 2023	Radiation (03CH02-SZ)
HF Amplifier	MITEQ	TTA1840-35-HG	1871923	18GHz~40GHz	Jul. 07, 2022	Aug. 22, 2022	Jul. 06, 2023	Radiation (03CH02-SZ)
SHF-EHF Horn	com-power	AH-840	101071	18GHz~40GHz	Apr. 10, 2022	Aug. 22, 2022	Apr. 09, 2023	Radiation (03CH02-SZ)
LF Amplifier	Burgeon	BPA-530	102211	0.01~3000Mhz	Oct. 22, 2021	Aug. 22, 2022	Oct. 21, 2022	Radiation (03CH02-SZ)
HF Amplifier	KEYSIGHT	83017A	MY53270105	0.5GHz~26.5GHz	Oct. 22, 2021	Aug. 22, 2022	Oct. 21, 2022	Radiation (03CH02-SZ)
AC Power Source	Chroma	61601	616010002470	N/A	NCR	Aug. 22, 2022	NCR	Radiation (03CH02-SZ)
Turn Table	Chaintek	T-200	N/A	0~360 degree	NCR	Aug. 22, 2022	NCR	Radiation (03CH02-SZ)
Antenna Mast	Chaintek	MBS-400	N/A	1 m~4 m	NCR	Aug. 22, 2022	NCR	Radiation (03CH02-SZ)

NCR: No Calibration Required.

-THE END-