



FCC RADIO TEST REPORT

FCC ID : APYHRO00327
Equipment : Smart phone
Brand Name : SHARP
Model Name : APYHRO00327
Applicant : SHARP CORPORATION
1 Takumi-Cho, Sakai-Ku, Sakai-Shi,
Osaka 590-8522, Japan
Manufacturer : SHARP CORPORATION
1 Takumi-Cho, Sakai-Ku, Sakai-Shi,
Osaka 590-8522, Japan
Standard : FCC Part 15 Subpart C §15.247

The product was received on Mar. 14, 2023 and testing was performed from Mar. 31, 2023 to Jun. 08, 2023. We, Sporton International Inc. Wensan Laboratory, 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 variant report apply exclusively to the tested model / sample. Without written approval from Sporton International Inc. Wensan Laboratory, the test report shall not be reproduced except in full.

Louis Wu

Approved by: Louis Wu

Sporton International Inc. Wensan Laboratory

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Appendix A. Conducted Test Results



Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
-	15.247(a)(2)	6dB Bandwidth	Not Required	-
-	2.1049	99% Occupied Bandwidth	Not Required	-
3.1	15.247(b)	Power Output Measurement	Pass	-
-	15.247(e)	Power Spectral Density	Not Required	-
-	15.247(d)	Conducted Band Edges	Not Required	-
		Conducted Spurious Emission	Not Required	-
-	15.247(d)	Radiated Band Edges and Radiated Spurious Emission	Not Required	-
-	15.207	AC Conducted Emission	Not Required	-
-	15.203	Antenna Requirement	Not Required	-

Note:

1. Not required means after assessing, test items are not necessary to carry out.
2. This is a variant report by adding ac mode. After assessing, since the test result is not affected by the changes, the FR322209-01 report reuses test data from the FR322209C report.

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/manufacturer 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.

Reviewed by: Keven Cheng

Report Producer: Lea Yu



1 General Description

1.1 Product Feature of Equipment Under Test

Product Feature
<p>General Specs GSM/WCDMA/LTE, Bluetooth, Wi-Fi 2.4GHz 802.11b/g/n/ac, Wi-Fi 5GHz 802.11a/n/ac, FM Receiver, NFC, and GNSS.</p> <p>Antenna Type WWAN: <Ant. 0>: Monopole Antenna <Ant. 1>: PIFA Antenna <Ant. 2>: Monopole Antenna WLAN: Loop Antenna Bluetooth: Loop Antenna GPS / Glonass / BDS / Galileo: PIFA Antenna NFC: Loop Antenna FM: Using earphone as antenna</p>

Antenna information		
2400 MHz ~ 2483.5 MHz	Peak Gain (dBi)	-1.36

Remark: The EUT's information above is declared by manufacturer. Please refer to Disclaimer in report summary.

SKU List				
Item	Main		2nd Source	
	Main Sample		Sample 2	
	Vendor	Model Number	Vendor	Model Number
Battery	SCUD	BPSX1000010	UTL	BPSX300001S
Main PCB	Wuzhu	SB0SX31BW0C	ZDT	SB0SX31BK0C
CPU	MTK	SA06833V010 (MT6833V_NZA)	MTK	SA06833V010 (MT6833V_NZA)
G- sensor	Bosch	SA0MI320020(BMI320)	TDK	SA042670020(ICM-42670-N)
rear housing	DY	MESX361010A	LF	MESX361011A
FPC_USB	SUNFLEX	MESX114012A	PBH	MESX314004A
FPC_AJ	SUNFLEX	MESX114013A	PBH	MESX314003A
FPC_Main	SUNFLEX	MESX314002A	PBH	MESX314012A
FPC_SPK	AKM	MESX114005A	PBH	MESX314005A
FPC_Side_Key	SUNFLEX	MESX314001A	PBH	MESX314011A
Memory	SAMSUNG	KM5P9001DM-B424	SAMSUNG	KM5P9001DM-B424



SKU List				
Item	2nd Source			
	Sample 3		Sample 4	
	Vendor	Model Number	Vendor	Model Number
Battery	SCUD	BPSX1000010	SCUD	BPSX1000010
Main PCB	Wuzhu	SB0SX31BW0C	Wuzhu	SB0SX31BW0C
CPU	MTK	SA06833V011 (MT6833V_ZA)	MTK	SA06833V010 (MT6833V_NZA)
G- sensor	Bosch	SA0MI320020(BMI320)	Bosch	SA0MI320020(BMI320)
rear housing	DY	MESX361030A	DY	MESX361010A
FPC_USB	PBH	MESX314004A	PBH	MESX314004A
FPC_AJ	PBH	MESX314003A	PBH	MESX314003A
FPC_Main	SUNFLEX	MESX314002A	SUNFLEX	MESX314002A
FPC_SPK	AKM	MESX114005A	AKM	MESX114005A
FPC_Side_Key	SUNFLEX	MESX314001A	SUNFLEX	MESX314001A
Memory	SAMSUNG	KM5P9001DM-B424	Hynix	H9QG9G5AN6X154

Note: All the tests were performed with Main Sample.

1.2 Modification of EUT

No modifications made to the EUT during the testing.

1.3 Testing Location

Test Site	Sporton International Inc. Wensan Laboratory
Test Site Location	No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist., Taoyuan City 333010, Taiwan (R.O.C.) TEL: +886-3-327-0868 FAX: +886-3-327-0855
Test Site No.	Sporton Site No. TH05-HY

FCC designation No.: TW3786

1.4 Applicable Standards

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

- ♦ FCC Part 15 Subpart C §15.247
- ♦ FCC KDB Publication No. 558074 D01 15.247 Meas Guidance v05r02
- ♦ ANSI C63.10-2013

Remark:

1. All the test items were validated and recorded in accordance with the standards without any modification during the testing.
2. The TAF code is not including all the FCC KDB listed without accreditation.



2 Carrier Frequency and Channel

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
2400-2483.5 MHz	1	2412	7	2442
	2	2417	8	2447
	3	2422	9	2452
	4	2427	10	2457
	5	2432	11	2462
	6	2437		

2.1 Test Mode

The final test modes include the worst data rates for each modulation shown in the table below.

Modulation	Data Rate
802.11ac VHT20	MCS0
802.11ac VHT40	MCS0

2.2 EUT Operation Test Setup

The RF test items, utility “wifi FW version:2022-12-16-112901” was installed in EUT which was programmed in order to make the EUT get into the engineering modes to provide channel selection, power level, data rate and the application type and for continuous transmitting signals.

3 Test Result

3.1 Output Power Measurement

3.1.1 Limit of Output Power

For systems using digital modulation in the 2400-2483.5 MHz, the limit for output power is 30 dBm. If transmitting antenna with directional gain greater than 6 dBi is used, the peak output power from the intentional radiator shall be reduced below the above stated value by the amount in dB that the directional gain of the antenna exceeds 6 dBi. In case of point-to-point operation, the limit has to be reduced by 1 dB for every 3 dB that the directional gain of the antenna exceeds 6 dBi.

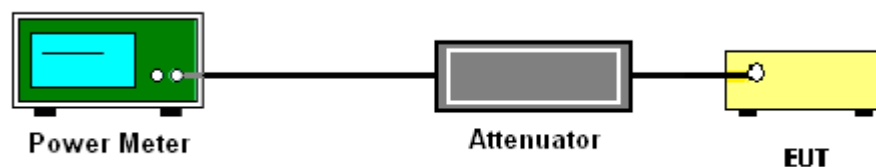
3.1.2 Measuring Instruments

Please refer to the measuring equipment list in this test report.

3.1.3 Test Procedures

1. For Peak Power, the testing follows ANSI C63.10 Section 11.9.1.3 PKPM1
2. For Average Power, the testing follows ANSI C63.10 Section 11.9.2.3.2 Method AVGPM-G
3. The RF output of EUT is connected to the power meter by RF cable and attenuator. The path loss is compensated to the results for each measurement.
4. Set the maximum power setting and enable the EUT to transmit continuously.
5. Measure the conducted output power and record the results in the test report.

3.1.4 Test Setup



3.1.5 Test Result of Peak Output Power

Please refer to Appendix A

3.1.6 Test Result of Average Output Power (Reporting Only)

Please refer to Appendix A



4 List of Measuring Equipment

Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Hygrometer	TECPEL	DTM-303A	TP201996	N/A	Nov. 17, 2022	Mar. 31, 2023~ Jun. 08, 2023	Nov. 16, 2023	Conducted (TH05-HY)
Power Sensor	DARE	RPR3006W	16I00054SNO 12 (NO:113)	10MHz~6GHz	Dec. 13, 2022	Mar. 31, 2023~ Jun. 08, 2023	Dec. 12, 2023	Conducted (TH05-HY)
Signal Analyzer	Rohde & Schwarz	FSV40	101905	10Hz - 40GHz(amp)	Aug. 03, 2022	Mar. 31, 2023~ Jun. 08, 2023	Aug. 02, 2023	Conducted (TH05-HY)
Power Meter	Anritsu	ML2495A	1218006	N/A	Oct. 06, 2022	Mar. 31, 2023~ Jun. 08, 2023	Oct. 05, 2023	Conducted (TH05-HY)
Power Sensor	Anritsu	MA2411B	1207363	300MHz~40GHz	Oct. 06, 2022	Mar. 31, 2023~ Jun. 08, 2023	Oct. 05, 2023	Conducted (TH05-HY)

Appendix A. Test Result of Conducted Test Items

Test Engineer:	River Tsai and Sylvia Li	Temperature:	21~25	°C
Test Date:	2023/03/31~2023/06/08	Relative Humidity:	51~54	%

TEST RESULTS DATA
Average Output Power

2.4GHz Band Single Antenna																
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Conducted Power (dBm)			Conducted Power Limit (dBm)		DG (dBi)		EIRP Power (dBm)		EIRP Power Limit (dBm)		Pass /Fail
					Ant4	Ant2	SUM	Ant4	Ant2	Ant4	Ant2	Ant4	Ant2	Ant4	Ant2	
VHT20	MCS 0	1	1	2412	15.80	-		30.00	-	-1.36	-	14.44	-	36.00	-	Pass
VHT20	MCS 0	1	6	2437	18.50	-		30.00	-	-1.36	-	17.14	-	36.00	-	Pass
VHT20	MCS 0	1	11	2462	14.40	-		30.00	-	-1.36	-	13.04	-	36.00	-	Pass
VHT40	MCS 0	1	3	2422	14.60	-		30.00	-	-1.36	-	13.24	-	36.00	-	Pass
VHT40	MCS 0	1	6	2437	17.00	-		30.00	-	-1.36	-	15.64	-	36.00	-	Pass
VHT40	MCS 0	1	9	2452	13.20	-		30.00	-	-1.36	-	11.84	-	36.00	-	Pass

Note: Measured power (dBm) has offset with cable loss.

TEST RESULTS DATA
Peak Output Power

2.4GHz Band Single Antenna																
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Peak Conducted Power (dBm)			Conducted Power Limit (dBm)		DG (dBi)		EIRP Power (dBm)		EIRP Power Limit (dBm)		Pass /Fail
					Ant4	Ant2	SUM	Ant4	Ant2	Ant4	Ant2	Ant4	Ant2	Ant4	Ant2	
VHT20	MCS 0	1	1	2412	23.49	-		30.00	-	-1.36	-	22.13	-	36.00	-	Pass
VHT20	MCS 0	1	6	2437	24.55	-		30.00	-	-1.36	-	23.19	-	36.00	-	Pass
VHT20	MCS 0	1	11	2462	23.05	-		30.00	-	-1.36	-	21.69	-	36.00	-	Pass
VHT40	MCS 0	1	3	2422	23.26	-		30.00	-	-1.36	-	21.90	-	36.00	-	Pass
VHT40	MCS 0	1	6	2437	24.10	-		30.00	-	-1.36	-	22.74	-	36.00	-	Pass
VHT40	MCS 0	1	9	2452	22.11	-		30.00	-	-1.36	-	20.75	-	36.00	-	Pass

THE END