

# FCC Test Report

# Report No.: AGC01110241184FR02A

FCC ID	:	2AOKB-A3878L
APPLICATION PURPOSE	:	Class II Permissive Change
PRODUCT DESIGNATION	:	Wireless Headphone
BRAND NAME	:	soundcore
MODEL NAME	:	A3878L
APPLICANT	:	Anker Innovations Limited
DATE OF ISSUE	:	Apr. 22, 2025
STANDARD(S)	:	FCC Part 15 Subpart C §15.247
<b>REPORT VERSION</b>	:	V1.0







## Report Revise Record

Report Version	Revise Time	Revise Time Issued Date Valid Version		Notes
V1.0	/	Apr. 22, 2025	Valid	Initial Release

Note: The original test report AGC01110241184FR02 (dated Nov. 26, 2024 and tested from Nov. 15, 2024 to Nov. 26, 2024) was modified on Apr. 22, 2025, including the following changes and additions:

-Updated battery:

Original:

Battery Information	Model: 1064H Rated Voltage & Cap.: 3.85V 55mAh 0.212Wh	
Updated:		
Battery Information	Model: M1154A7 Rated Voltage & Cap.: 3.85V 60mAh 0.231Wh	
Observed the setting the set	vision only fixed come by a and have no offect on the test	

-Changed the software version only fixes some bugs and have no effect on the test.

Based on the above changes, updated Radiated Spurious Emission



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## **1. General Information**

Applicant	Anker Innovations Limited
Address	Unit 56, 8th Floor, Tower 2, Admiralty Centre, 18 Harcourt Road, Hong Kong
Manufacturer	Anker Innovations Limited
Address	Unit 56, 8th Floor, Tower 2, Admiralty Centre, 18 Harcourt Road, Hong Kong
Factory	N/A
Address	N/A
Product Designation	Wireless Headphone
Brand Name	soundcore
Test Model	A3878L
Series Model(s)	N/A
Difference Description	N/A
Date of receipt of test item	Apr. 01, 2025
Date of Test	Apr. 01, 2025~ Apr. 22, 2025
Deviation from Standard	No any deviation from the test method
Condition of Test Sample	Normal
Test Result	Pass
Test Report Form No	AGCER-FCC-BR_EDR-V1

Note: The test results of this report relate only to the tested sample identified in this report.

Bibo 2hang Prepared By Bibo Zhang Apr. 22, 2025 (Project Engineer) in Lin **Reviewed By** Calvin Liu Apr. 22, 2025 (Reviewer) Approved By Angela Li Apr. 22, 2025

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(Authorized Officer)



## 2. Product Information

#### 2.1 Product Technical Description

Frequency Band	2400MHz-2483.5MHz
Operation Frequency Range	2402MHz-2480MHz
Bluetooth Version	V5.4
Modulation Type	BR 🖾 GFSK, EDR 🖾 $\pi$ /4-DQPSK, 🖾 8DPSK
Number of channels	79 Channels
Channel Separation	1 MHz
Hardware Version	V04A
Software Version	V0.25
Antenna Designation	Monopole Antenna
Antenna Gain	-2.8dBi
Power Supply	DC 3.85V by battery

#### 2.2 Test Frequency List

Frequency Band	Channel Number	Test Frequency		
	0	2402 MHz		
	1	2403 MHz		
	:	:		
2400~2483.5MHz	39	2441MHz		
	:	:		
	77	2479 MHz		
	78	2480 MHz		
Note: f = 2402 + 1k MHz, k =	0,, 78 ; "f "is the operating frequency	(MHz); "k" is the operating channel.		



## 2.3 Related Submittal(S) / Grant (S)

This submittal(s) (test report) is intended for FCC ID:**2AOKB-A3878L**, filing to comply with Part 2, Part 15 of the Federal Communication Commission rules.

#### 2.4 Test Methodology

The tests were performed according to following standards:

No.	Identity Document Title		
1	FCC 47 CFR Part 2	Frequency allocations and radio treaty matters; general rules and regulations	
2	FCC 47 CFR Part 15	Radio Frequency Devices	
3	ANSI C63.10-2013	American National Standard for Testing Unlicensed Wireless Devices	
4	KDB 558074 D01 15.247 Meas Guidance v05r02	Guidance for compliance measurements on Digital Transmission Systems, Frequency Hopping Spread Spectrum system, and Hybrid system devices operating under Section 15.247 of the FCC rules	

#### 2.5 Receiver Input Bandwidth

The input bandwidth of the receiver is 1.3MHz, in every connection one Bluetooth device is the master and the other one is slave. The master determines the hopping sequence. The slave follows this sequence. Both devices shift between RX and TX time slot according to the clock of the master. Additionally, the type of connection (e.g. single of multi slot packet) is set up at the beginning of the connection. The master adapts its hopping frequency and its TX/RX timing according to the packet type of the connection. Also, the slave of the connection will use these settings. Repeating of a packet has no influence on the hopping sequence. The hopping sequence generated by the master of the connection will be followed in any case. That means, a repeated packet will not be send on the same frequency, it is send on the next frequency of the hopping sequence.

#### 2.6 Equally Average Use of Frequencies and Behaviour.

The generation of the hopping sequence in connection mode depends essentially on two input values:

1. LAP/UAP of the master of the connection.

2. Internal master clock.

The LAP (lower address part) are the 24 LSB's of the 48 BD\_ADDRESS. The BD\_ADDRESS is an unambiguous number of every Bluetooth unit. The UAP (upper address part) are the 24MSB's of the 48BD\_ADDRESS

The internal clock of a Bluetooth unit is derived from a free running clock which is never adjusted and is never turned off. For behavior action with other units only offset is used. It has no relation to the time of the day. Its resolution is at least half the RX/TX slot length of 312.5us. The clock has a cycle of about one day(23h30).

In most case it is implemented as 28 bits counter. For the deriving of the hopping sequence the entire. LAP (24 bits),4LSB's(4bits) (Input 1) and the 27MSB's of the clock (Input 2) are used. With this input values different mathematical procedures (permutations, additions, XOR-operations) are performed to generate the Sequence. This will be done at the beginning of every new transmission.

Regarding short transmissions the Bluetooth system has the following behavior:

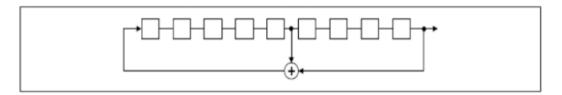
The first connection between the two devices is established, a hopping sequence was generated. For Transmitting the wanted data the complete hopping sequence was not used. The connection ended. The second connection will be established. A new hopping sequence is generated. Due to the fact the Bluetooth clock has a different value, because the period between the two transmission is longer (and it Cannot be shorter) than the minimum resolution of the clock(312.5us). The hopping sequence will always differ from the first one.



#### 2.7 Pseudorandom Frequency Hopping Sequence

The pseudorandom sequence may be generated in a nine-stage shift register whose 5th and 9th stage outputs are added in a modulo-two addition stage. And the result is fed back to the input of the first stage. The sequence begins with the first ONE of 9 consecutive ONEs; i.e. the shift register is initialized with nine ones.

- Number of shift register stages: 9
- Length of pseudo-random sequence: 29 1 = 511 bits
- Longest sequence of zeros: 8 (non-inverted signal)



Linear Feedback Shift Register for Generation of The PRBS Sequence

An example of Pseudorandom Frequency Hopping Sequence as follow:

44	35	78	03	20	76	02	19		21	64 75
								1		
			li							
				1					i i	
				i		<u>-</u>		1	i	

Each frequency used equally on the average by each transmitter.

The system receivers have input bandwidths that match the hopping channel bandwidths of their Corresponding transmitters and shift frequencies in synchronization with the transmitted signals.



#### 2.8 Special Accessories

Not available for this EUT intended for grant.

#### 2.9 Equipment Modifications

Not available for this EUT intended for grant.

#### 2.10 Antenna Requirement

#### Standard Requirement

#### 15.203 requirement:

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

## 15.247(b) (4) requirement:

The conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1), (b)(2), and (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi

#### EUT Antenna:

The non-detachable antenna inside the device cannot be replaced by the user at will. The gain of the antenna is -2.8dBi.



## 3. Test Environment

#### 3.1 Address of The Test Laboratory

Laboratory: Attestation of Global Compliance (Shenzhen) Co., Ltd.

Address: 1-2/F, Building 19, Junfeng Industrial Park, Chongqing Road, Heping Community, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China

#### 3.2 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

#### CNAS-Lab Code: L5488

Attestation of Global Compliance (Shenzhen) Co., Ltd. has been assessed and proved to follow CNAS-CL01 Accreditation Criteria for Testing and Calibration Laboratories (identical to ISO/IEC17025: 2017 General Requirements for the Competence of Testing and Calibration Laboratories.)

#### A2LA-Lab Cert. No.: 5054.02

Attestation of Global Compliance (Shenzhen) Co., Ltd. EMC Laboratory has been accredited by A2LA for technical competence in the field of electrical testing, and proved to follow ISO/IEC 17025: 2017 General Requirements for the Competence of Testing and Calibration Laboratories and any additional program requirements in the identified field of testing.

#### FCC-Registration No.: 975832

Attestation of Global Compliance (Shenzhen) Co., Ltd. EMC Laboratory has been registered and fully described in a report filed with the FCC (Federal Communications Commission). The acceptance letter from the FCC is maintained in our files with Registration 975832.

#### IC-Registration No.: 24842(CAB identifier: CN0063)

Attestation of Global Compliance (Shenzhen) Co., Ltd. EMC Laboratory has been registered and fully described in a report filed with the Certification and Engineering Bureau of Industry Canada. The acceptance letter from the IC is maintained in our files with Registration 24842.



#### **3.3 Environmental Conditions**

	Normal Conditions
Temperature range (°C)	15 - 35
Relative humidity range	20 % - 75 %
Pressure range (kPa)	86 - 106
Power supply	DC 3.85V

#### **3.4 Measurement Uncertainty**

The reported uncertainty of measurement y  $\pm$ U, where expended uncertainty U is based on a standard uncertainty multiplied by a coverage factor of k=2, providing a level of confidence of approximately 95%.

Item	Measurement Uncertainty
Uncertainty of Radiated Emission below 1GHz	$U_c = \pm 3.9 \text{ dB}$
Uncertainty of Radiated Emission above 1GHz	$U_c = \pm 4.9 \text{ dB}$



## 3.5 List of Equipment Used

• F	Radiated Spurious Emission								
Used	Equipment No.	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal. Date (YY-MM-DD)	Next Cal. Date (YY-MM-DD)		
$\boxtimes$	AGC-EM-E046	EMI Test Receiver	R&S	ESCI	10096	2025-01-14	2026-01-13		
$\boxtimes$	AGC-EM-E116	EMI Test Receiver	R&S	ESCI	100034	2024-05-24	2025-05-23		
$\square$	AGC-EM-E061	Spectrum Analyzer	Agilent	N9010A	MY53470504	2024-05-28	2025-05-27		
$\boxtimes$	AGC-EM-E086	Loop Antenna	ZHINAN	ZN30900C	18051	2024-03-05	2026-03-04		
$\boxtimes$	AGC-EM-E001	Wideband Antenna	SCHWARZBECK	VULB9168	D69250	2023-05-11	2025-05-10		
$\square$	AGC-EM-E029	Broadband Ridged Horn Antenna	ETS	3117	00034609	2024-03-31	2025-03-30		
$\square$	AGC-EM-E082	Horn Antenna	SCHWARZBECK	BBHA 9170	#768	2023-09-24	2025-09-23		
$\square$	AGC-EM-E146	Pre-amplifier	ETS	3117-PA	00246148	2024-07-24	2026-07-23		
$\boxtimes$	AGC-EM-A119	2.4G Filter	SongYi	N/A	N/A	2024-05-23	2025-05-22		
$\square$	AGC-EM-A138	6dB Attenuator	Eeatsheep	LM-XX-6-5W	N/A	2023-06-09	2025-06-08		
	AGC-EM-A139	6dB Attenuator	Eeatsheep	LM-XX-6-5W	N/A	2023-06-09	2025-06-08		

• Te	Test Software									
Used	Equipment No.	Test Equipment	Manufacturer	Model No.	Version Information					
	AGC-EM-S001	CE Test System	R&S	ES-K1	V1.71					
$\boxtimes$	AGC-EM-S003	RE Test System	FARA	EZ-EMC	VRA-03A					
	AGC-ER-S012	BT/WIFI Test System	Tonscend	JS1120-2	2.6					
$\square$	AGC-EM-S011	RSE Test System	Tonscend	TS+-Ver2.1(JS36-RSE)	4.0.0.0					



## **4.System Test Configuration**

#### 4.1 EUT Configuration

The EUT configuration for testing is installed on RF field strength measurement to meet the Commission's requirement and operating in a manner which intends to maximize its emission characteristics in a continuous normal application.

#### 4.2 EUT Exercise

The Transmitter was operated in the normal operating mode. The TX frequency was fixed which was for the purpose of the measurements.

#### 4.3 Configuration of Tested System

Radiated Emission Configure:



#### 4.4 Equipment Used in Tested System

The following peripheral devices and interface cables were connected during the measurement: Test Accessories Come From The Laboratory

No	Equipment	Manufacturer	Model No.	Specification Information	Cable
1	Control Box	USB-TTL			

#### Test Accessories Come From The Manufacturer

No.	Equipment	Manufacturer	Model No.	Specification Information	Cable
1					



#### 4.5 Summary of Test Results

ltem	FCC Rules	Description of Test	Result
1	§15.209	Radiated Spurious Emission	Pass



## 5. Description of Test Modes

Summary table of Test Cases						
Test Item	Data Rate / Modulation					
iest nem	Bluetooth – BR_EDR (GFSK/π /4-DQPSK/8DPSK)					
Radiated & Conducted Test Cases	Mode 1: Bluetooth Tx CH00_2402 MHz_1Mbps (Battery powered) Mode 2: Bluetooth Tx CH39_2441 MHz_1Mbps (Battery powered) Mode 3: Bluetooth Tx CH78_2480 MHz_1Mbps (Battery powered) Mode 4: Bluetooth Tx CH00_2402 MHz_2Mbps (Battery powered) Mode 5: Bluetooth Tx CH39_2441 MHz_2Mbps (Battery powered) Mode 6: Bluetooth Tx CH78_2480 MHz_2Mbps (Battery powered) Mode 6: Bluetooth Tx CH78_2480 MHz_3Mbps (Battery powered) Mode 7: Bluetooth Tx CH00_2402 MHz_3Mbps (Battery powered) Mode 8: Bluetooth Tx CH39_2441 MHz_3Mbps (Battery powered) Mode 9: Bluetooth Tx CH78_2480 MHz_3Mbps (Battery powered) Mode 9: Bluetooth Tx CH78_2480 MHz_3Mbps (Battery powered) Mode 10: Bluetooth Tx Hopping-1Mbps (Battery powered) Mode11: Bluetooth Tx Hopping-2Mbps (Battery powered)					

Note:

- 1. Only the result of the worst case was recorded in the report, if no other cases.
- 2. The battery is full-charged during the test.
- 3. For Radiated Emission, 3axis were chosen for testing for each applicable mode.
- 4. For Conducted Test method, a temporary antenna connector is provided by the manufacture.
  - Software Setting Diagram



## 6. Radiated Spurious Emission

#### 6.1 Measurement Limit

#### 15.209 Limit in the below table has to be followed

Frequencies	Field Strength	Measurement Distance
(MHz)	(microvolts/meter)	(meters)
0.009~0.490	2400/F(kHz)	300
0.490~1.705	24000/F(kHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
Above 960	500	3

Note: All modes were tested for restricted band radiated emission, the test records reported below are the worst result compared to other modes.

#### 6.2 Measurement Procedure

- 1. The EUT was placed on the top of the turntable 0.8 or 1.5 meter above ground. The phase center of the receiving antenna mounted on the top of a height-variable antenna tower was placed 3 meters far away from the turntable.
- 2. Power on the EUT and all the supporting units. The turntable was rotated by 360 degrees to determine the position of the highest radiation.
- 3. The height of the broadband receiving antenna was varied between one meter and four meters above ground to find the maximum emissions field strength of both horizontal and vertical polarization.
- 4. For each suspected emission, the antenna tower was scan (from 1 M to 4 M) and then the turntable was rotated (from 0 degree to 360 degrees) to find the maximum reading.
- 5. Set the test-receiver system to Peak or CISPR quasi-peak Detect Function with specified bandwidth under Maximum Hold Mode.
- 6. For emissions above 1GHz, use 1MHz RBW and 3MHz VBW for peak reading. Place the measurement antenna away from each area of the EUT determined to be a source of emissions at the specified measurement distance, while keeping the measurement antenna aimed at the source of emissions at each frequency of significant emissions, with polarization oriented for maximum response. The measurement antenna may have to be higher or lower than the EUT, depending on the radiation pattern of the emission and staying aimed at the emission source for receiving the maximum signal. The final measurement antenna elevation shall be that which maximizes the emissions. The measurement antenna elevation for maximum emissions shall be restricted to a range of heights of from 1 m to 4 m above the ground or reference ground plane.
- 7. When the radiated emissions limits are expressed in terms of the average value of the emissions, and pulsed operation is employed, the measurement field strength shall be determined by averaging over one complete pulse train, including blanking intervals, as long as the pulse train does not exceed 0.1 seconds. As an alternative (provided the transmitter operates for longer than 0.1 seconds) or in cases where the pulse train exceeds 0.1 seconds, the measured field strength shall be determined from the average absolute voltage during a 0.1 second interval during which the field strength is at its maximum values.



- 8. If the emissions level of the EUT in peak mode was 3 dB lower than the average limit specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions which do not have 3 dB margin will be repeated one by one using the quasi-peak method for below 1GHz.
- 9. For testing above 1GHz, the emissions level of the EUT in peak mode was lower than average limit (that means the emissions level in peak mode also complies with the limit in average mode), then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.
- 10. In case the emission is lower than 30MHz, loop antenna has to be used for measurement and the recorded data should be QP measured by receiver. High Low scan is not required in this case.

Spectrum Parameter	Setting
Start ~Stop Frequency	9KHz~150KHz/RB 200Hz for QP
Start ~Stop Frequency	150KHz~30MHz/RB 9KHz for QP
Start ~Stop Frequency	30MHz~1000MHz/RB 120KHz for QP
Start ~Stop Frequency	1GHz~26.5GHz 1MHz/3MHz for Peak, 1MHz/3MHz for Average

The following table is the setting of spectrum analyzer and receiver.

Receiver Parameter	Setting
Start ~Stop Frequency	9KHz~150KHz/RB 200Hz for QP
Start ~Stop Frequency	150KHz~30MHz/RB 9KHz for QP
Start ~Stop Frequency	30MHz~1000MHz/RB 120KHz for QP



#### Quasi-Peak Measurements below 1GHz

- 1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
- 2. Span was set greater than 1MHz
- 3. RBW = as shown in the table above
- 4. Detector = CISPR quasi-peak
- 5. Sweep time = auto couple
- 6. Trace was allowed to stabilize

#### Peak Measurements above 1GHz

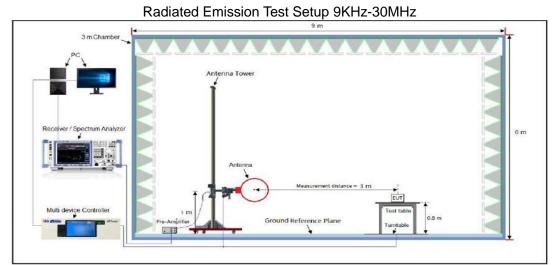
- 1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
- 2. RBW = 1MHz
- 3. VBW = 3MHz
- 4. Detector = peak
- 5. Sweep time = auto couple
- 6. Trace mode = max hold
- 7. Trace was allowed to stabilize

#### • Average Measurements above 1GHz

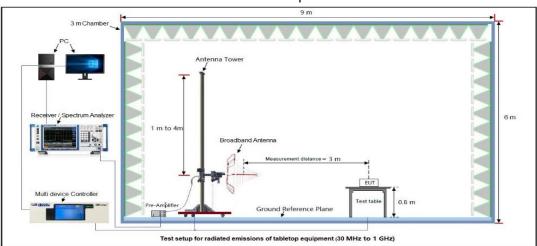
- 1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
- 2. RBW = 1MHz
- 3. VBW  $\geq$  [3 × RBW]
- 4. Detector = Power averaging (rms)
- 5. Averaging type = power (i.e., rms)
- 6. Sweep time = auto
- 7. Perform a trace average of at least 100 traces.
- 8. The applicable correction factor is [10\*log (1 / D)], where D is the duty cycle. The factor had been edited in the "Input Correction" of the Spectrum Analyzer.



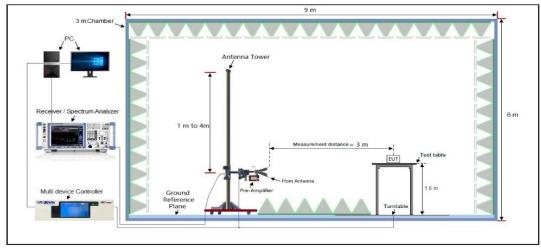
#### 6.3 Measurement Setup (Block Diagram of Configuration)



Radiated Emission Test Setup 30MHz-1000MHz



#### Radiated Emission Test Setup Above 1000MHz





#### 6.4 Measurement Result

#### Radiated Emission Below 30MHz

The amplitude of spurious emissions from 9kHz to 30MHz which are attenuated more than 20 dB below the permissible value need not be reported.

			Radia	ted Emiss	ion Test Res	ults at 30	0MHz-1G	Hz		
EUT N	lame					Mode	el Name		A3878L	
Tempe	erature	<b>20.3</b> ℃				Rela	Relative Humidity 50.8 %			
Press	ure	960hPa				Test	Voltage		DC 3.85V	by battery
Test N	lode	Mode 7				Ante	nna Pola	rity	Horizonta	
	72.0 d	lBuV/m					1			
									Limit: — Margin: —	
						J				
	-8		herropossible for			an ake ali kanan a	Warman and State			
Final I	30.000 Data List	) 40 50	60 70	80	(MHz)	3	00 400	500 60	0 700 1000.0	
NO.	Freq. [MHz]		evel µV/m]	Factor [dB]	Limit [dBµV/m]	Marg [dB]		eight [cm]	Angle [°]	Polarity
1	45.375	5 20	0.00	13.52	40.00	20.0	)	100	160	Horizontal
2	112.130	05 22	2.63	16.32	43.50	20.8	7	100	90	Horizontal
3	249.425	50 20	0.47	15.12	46.00	25.5	3	100	210	Horizontal
4	446.414	1 29	9.93	24.88	46.00	16.0	7	100	230	Horizontal
5	545.182	26 3 <sup>-</sup>	1.29	23.98	46.00	14.7	1	100	190	Horizontal
6	900.147	74 36	6.48	31.78	46.00	9.52	2	100	140	Horizontal



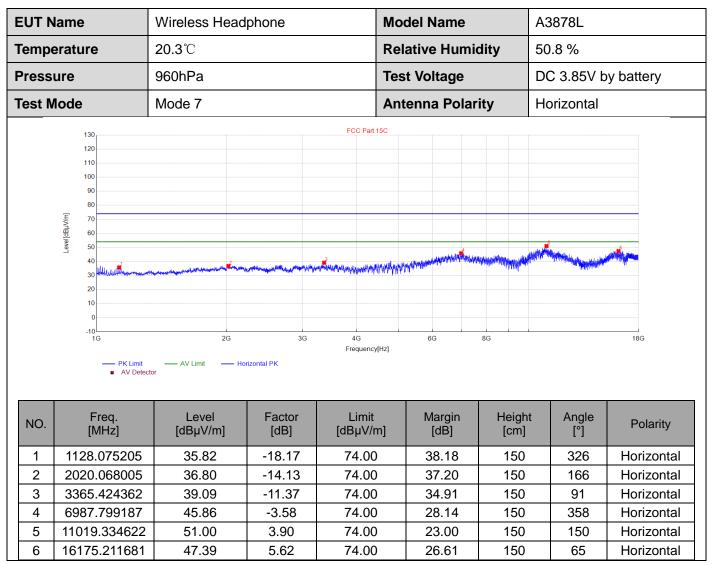
				Radia	ted En	niss	ion Test Res	sult	s at 30M	Hz-10	Hz				
EUT N	lame	Wir	eless He	adphor	ne				Model Name			A38	A3878L		
Tempe	erature	20.3	<b>3</b> ℃				Relative Humic			nidity	50.8	3 %			
Press	ure	960	hPa						Test Vo	ltage		DC	3.85V	by battery	
Test N	lode	Мос	de 7						Antenna	a Pol	arity	Ver	lical		
	72.0	dBu∀/n	n												
												Limit: Margin:	_		
	-												E		
								_							
	32										4	5	6 Martin		
			1	2			3		with the second second second	p. Marshell and and	Mayler Mr. M. 10	w			
	h.,	MANANAN	ilennition and	workhowskippe	and the second second	per liviter	n-hander the new for a point of the former o	where we want	WWWWWWWWWWW						
	_														
	_														
	-8														
Final	30.00	00 4	10 50	60 70	80		(MHz)		300	400	500	600 700	1000.00	00	
	Data List Freq		Lev	ما	Fact	or	Limit		Margin		Height	Δι	ngle		
NO.	[MHz		[dBµ\		[dB		[dBµV/m]		[dB]		[cm]		[°]	Polarity	
1	46.016	64	22.3	35	16.9	6	40.00		17.65		100	1	30	Vertical	
2	70.83 <sup>2</sup>	15	22.8	35	16.9	9	40.00		17.15		100	1	10	Vertical	
3	142.32	43	24.2	20	18.2	0	43.50		19.3		100	9	90	Vertical	
4	443.29	43	31.4	14	25.9	5	46.00		14.56		100	2	10	Vertical	
5	719.19	95	34.4	46	28.7	7	46.00		11.54		100		70	Vertical	
6	952.09	37	36.0	)5	30.5	2	46.00		9.95		100	2	200	Vertical	

#### **RESULT: Pass**

Note: 1. Factor=Antenna Factor + Cable loss, Margin= Limit-Measurement.

2. All test modes had been pre-tested. The mode 7 is the worst case and recorded in the report.





#### **Radiated Emissions Test Results Above 1GHz**



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UT N	lame	Wireless Head	phone	none Model Name				A3878L		
empe	erature	<b>20.3</b> ℃		R	elative Humi	dity	50.8 %			
ress	ure	960hPa		т	est Voltage		DC 3.85V b	y battery		
est N	lode	Mode 7	Antenna Polarity Vertical							
	130 120 110 100 90 80 70 60 50 40 30 40 40 40 50 40 50 40 50 40 50 40 50 40 50 40 50 40 50 40 50 40 50 40 50 40 50 50 40 50 50 50 50 50 50 50 50 50 50 50 50 50	2G AV Limit Ve	36	FCC Part 15C	6G	8G		186		
			Factor	Limit	Margin	Height	Angle			
NO.	Freq. [MHz]	Level [dBµV/m]	[dB]	[dBµV/m]	[dB]	[cm]	[°]	Polarity		
1	[MHz] 1224.414961	[dBµV/m] 34.63	[dB] -18.08	[dBµV/m] 74.00	[dB] 39.37	[cm] 150		Vertical		
1 2	[MHz] 1224.414961 2009.867325	[dBµV/m] 34.63 37.02	[dB] -18.08 -14.17	[dBµV/m] 74.00 74.00	[dB] 39.37 36.98	[cm] 150 150	[°] 138 102	Vertical Vertical		
1	[MHz] 1224.414961 2009.867325 3456.097073	[dBµV/m] 34.63 37.02 38.01	[dB] -18.08 -14.17 -11.19	[dBµV/m] 74.00 74.00 74.00	[dB] 39.37 36.98 35.99	[cm] 150 150 150	[°] 138 102 27	Vertical Vertical Vertical		
1 2 3 4	[MHz] 1224.414961 2009.867325 3456.097073 6978.731916	[dBµV/m] 34.63 37.02 38.01 47.02	[dB] -18.08 -14.17 -11.19 -3.61	[dBµV/m] 74.00 74.00 74.00 74.00	[dB] 39.37 36.98 35.99 26.98	[cm] 150 150 150 150	[°] 138 102 27 24	Vertical Vertical Vertical Vertical		
1 2 3	[MHz] 1224.414961 2009.867325 3456.097073	[dBµV/m] 34.63 37.02 38.01	[dB] -18.08 -14.17 -11.19	[dBµV/m] 74.00 74.00 74.00	[dB] 39.37 36.98 35.99	[cm] 150 150 150	[°] 138 102 27	Vertical Vertical Vertical		

## **RESULT: Pass**



EUT Na	ame	Wireless Head	ohone	Μ	odel Name	/	43878L	
Temper	rature	<b>20.3</b> ℃		R	elative Humi	dity t	50.8 %	
Pressu	re	960hPa		Т	est Voltage	[	DC 3.85V	by battery
Test Mo	ode	Mode 8		Α	ntenna Polar	ity I	Horizontal	
-1	0 0 0 0 0 0 0 0 0 0 0 0 0 0	2G	36	FCC Part 15C	66 86			18G
NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1139.409294	35.25	-18.16	74.00	38.75	150	313	Horizontal
2	2084.672312	37.68	-13.93	74.00	36.32	150	0	Horizontal
3	4881.925462	41.36	-9.21	74.00	32.64	150	176	Horizontal
4	6842.722848	45.91	-4.06	74.00	28.09	150	110	Horizontal
5	9763.517568	47.11	-0.49	74.00	26.89	150	1	Horizontal
6	15874.858324	47.72	5.55	74.00	26.28	150	307	Horizontal



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Pressure 9	20.3℃ 960hPa ⁄lode 8			Relative Test Volt			50.8 %	
Test Mode N				Test Volt	200			
	Node 8				aye		DC 3.85V k	by battery
130				Antenna	Polari	ty	Vertical	
120 110 100 90 80 70 60 50 40 30 40 30 40 30 40 30 40 30 40 30 40 30 40 50 40 50 40 50 40 50 40 50 40 50 40 50 40 50 40 50 40 50 40 50 40 50 40 50 40 50 40 50 50 50 50 50 50 50 50 50 5	2G — AV Limit — Vertic	36	FCC Part 1	66		8G		18G
NO. Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/n		urgin JB]	Height [cm]	Angle [°]	Polarity
1 1211.947463	33.94	-18.09	74.00		0.06	150	215	Vertical
2 2084.672312	38.38	-13.93	74.00		6.62	150	113	Vertical
3 4448.963264	39.03	-9.61	74.00		.97	150	195	Vertical
4 6558.237216	44.93	-5.01	74.00		0.07	150	215	Vertical
5 9764.650977 6 15858.990599	46.56	-0.48	74.00		.44	150	346	Vertical
6 15858.990599	48.38	5.51	74.00	25	6.62	150	340	Vertical

#### **RESULT: Pass**



<b>Radiated Emissions</b>	Test Results for Above 1GHz
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Test Mode Mode 9 Antenna Polarity Horizonta	' by battery
Test Mode Mode 9 Antenna Polarity Horizonta   130 60 60 60 60	
FCC Part 15C	
Image: state	
Frequency[Hz]	18G
NO. Freq. Level Factor Limit [dBµV/m] [dBµV/m] [dB] [dBµV/m] [dB] [dBµV/m] [dB] [dB] [cm] [cm] [cm] [cm] [cm] [cm] [cm] [cm	e Polarity
1     1140.542703     36.13     -18.16     74.00     37.87     150     316	
2     2076.738449     38.28     -13.95     74.00     35.72     150     280	Horizontal
3     4960.130675     41.84     -9.16     74.00     32.16     150     126	6 Horizontal
4     7085.272352     45.72     -3.57     74.00     28.28     150     96	Horizontal
5     10887.859191     50.18     3.52     74.00     23.82     150     310	Horizontal
6     15917.927862     47.82     5.65     74.00     26.18     150     77	Horizontal



EUT Na	ame	Wireless Head	phone	Мо	del Name	A3	878L		
Temperature Pressure Test Mode		20.3℃ 960hPa Mode 9			ative Humid	lity 50	50.8 % DC 3.85V by battery Vertical		
					t Voltage	DC			
					enna Polari	ty Ve			
	130 120 110 100 90 80 70 60 50 40 30 40 100 100 90 80 100 90 80 100 90 80 100 90 80 100 90 80 100 90 80 100 90 80 100 90 80 100 90 80 100 100 90 80 100 100 100 90 80 100 100 100 100 100 100 100		3G rtical PK	FCC Part 15C	6G	8G		18G	
NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	
1	1151.876792	34.63	-18.15	74.00	39.37	150	303	Vertical	
2	2064.270951	37.60	-13.99	74.00	36.40	150	186	Vertical	
3	3483.298887	38.68	-11.14	74.00	35.32	150	166	Vertical	
4	6970.798053	45.70	-3.64	74.00	28.30	150	195	Vertical	
5	10947.929862	51.28	3.77	74.00	22.72	150	360	Vertical	
	16001.80012	48.52	5.82	74.00	25.48	150	244	Vertical	

#### **RESULT: Pass**

#### Note:

- 1. The amplitude of other spurious emissions from 18G to 40 GHz which are attenuated more than 20 dB below the permissible value need not be reported.
- 2. Factor = Antenna Factor + Cable loss Pre-amplifier gain, Margin = Emission Level-Limit.
- 3. The "Factor" value can be calculated automatically by software of measurement system.



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## Appendix I: Photographs of Test Setup

Refer to the Report No.: AGC01110241184AP01A

## Appendix II: Photographs of Test EUT

Refer to the Report No.: AGC01110241184AP02A



## Conditions of Issuance of Test Reports

1. All samples and goods are accepted by the Attestation of Global Compliance (Shenzhen) Co., Ltd (the "Company") solely for testing and reporting in accordance with the following terms and conditions. The company provides its services on the basis that such terms and conditions constitute express agreement between the company and any person, firm or company requesting its services (the "Clients").

2. Any report issued by Company as a result of this application for testing services (the "Report") shall be issued in confidence to the Clients and the Report will be strictly treated as such by the Company. It may not be reproduced either in its entirety or in part and it may not be used for advertising or other unauthorized purposes without the written consent of the Company. The Clients to whom the Report is issued may, however, show or send it, or a certified copy thereof prepared by the Company to its customer, supplier or other persons directly concerned. The Company will not, without the consent of the Clients, enter into any discussion or correspondence with any third party concerning the contents of the Report, unless required by the relevant governmental authorities, laws or court orders.

3. The Company shall not be called or be liable to be called to give evidence or testimony on the Report in a court of law without its prior written consent, unless required by the relevant governmental authorities, laws or court orders.

4. In the event of the improper use of the report as determined by the Company, the Company reserves the right to withdraw it, and to adopt any other additional remedies which may be appropriate.

5. Samples submitted for testing are accepted on the understanding that the Report issued cannot form the basis of, or be the instrument for, any legal action against the Company.

6. The Company will not be liable for or accept responsibility for any loss or damage however arising from the use of information contained in any of its Reports or in any communication whatsoever about its said tests or investigations.

7.Clients wishing to use the Report in court proceedings or arbitration shall inform the Company to that effect prior to submitting the sample for testing.

8. The Company is not responsible for recalling the electronic version of the original report when any revision is made to them. The Client assumes the responsibility to providing the revised version to any interested party who uses them.

9. Subject to the variable length of retention time for test data and report stored hereinto as otherwise specifically required by individual accreditation authorities, the Company will only keep the supporting test data and information of the test report for a period of six years. The data and information will be disposed of after the aforementioned retention period has elapsed. Under no circumstances shall we provide any data and information which has been disposed of after retention period. Under no circumstances shall we be liable for damage of any kind, including (but not limited to) compensatory damages, lost profits, lost data, or any form of special, incidental, indirect, consequential or punitive damages of any kind, whether based on breach of contract of warranty, tort (including negligence), product liability or otherwise, even if we are informed in advance of the possibility of such damages.

#### ----End of Report----