

FCC Test Report

Client Name : TELEPHONE EST (HK) CO., LTD

Address : Room 603, 6F, FuLi tianhe commercial building, Linhe,
East Road and tianhe district, Guangzhou, China

Product Name : earphone

Date : Jul. 11, 2019

Shenzhen Anbotek Compliance Laboratory Limited



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TEST REPORT

Applicant : TELEPHONE EST (HK) CO., LTD
Manufacturer : Telephone Est Electronics Factory(Zhong Shan)
Product Name : earphone
Model No. : IJCB1030, TS-EP-01, TS-EP-02, TS-EP-03, TS-EP-04, TS-EP-05, TS-EP-06,
TS-EP-07, TS-EP-08, TS-EP-09, TS-EP-10, TS-EP-11, TS-EP-12, TS-EP-13,
TS-EP-14, TS-EP-15, TS-EP-16, TS-EP-17, TS-EP-18, TS-EP-19
Trade Mark : N.A.
Rating(s) : Input: DC 5V, 1A
Rated Input Power: 5mW,
Maximum Input Power: 10mW

Test Standard(s) : FCC Rules and Regulations Part 15 Subpart B: 2018

Test Method(s) : ANSI C63.4-2014

The device described above is tested by Shenzhen Anbotek Compliance Laboratory Limited To determine the maximum emission levels emanating from the device. The maximum emission levels are compared to the FCC Part 15 Subpart B Class B limits both radiated and conducted emissions. The measurement results are contained in this test report and Shenzhen Anbotek Compliance Laboratory Limited Is assumed full responsibility for the accuracy and completeness of these measurements.

This report applies to above tested sample only. This report shall not be reproduced in part without written approval of Shenzhen Anbotek Compliance Laboratory Limited

Date of Receipt: Jul. 03, 2019

Date of Test: Jul. 03~09, 2019

Prepared By:



Flora Luo
(Engineer / Flora Luo)

Reviewer:

Well Wang
(Supervisor / Well Wang)

Approved & Authorized Signer:

Sally Zhang
(Manager / Sally Zhang)

1. General Information

1.1. Client Information

Applicant	:	TELEPHONE EST (HK) CO., LTD
Address	:	Room 603, 6F, FuLi tianhe commercial building, Linhe, East Road and tianhe district, Guangzhou, China
Manufacturer	:	Telephone Est Electronics Factory(Zhong Shan)
Address	:	NO.2 Shengfeng Heyuan Road, Xiaolan Town, Zhongshan, Guangdong, China
Factory	:	Telephone Est Electronics Factory(Zhong Shan)
Address	:	NO.2 Shengfeng Heyuan Road, Xiaolan Town, Zhongshan, Guangdong, China

1.2. Description of Device (EUT)

Product Name	:	earphone
Model No.	:	IJCB1030, TS-EP-01, TS-EP-02, TS-EP-03, TS-EP-04, TS-EP-05, TS-EP-06, TS-EP-07, TS-EP-08, TS-EP-09, TS-EP-10, TS-EP-11, TS-EP-12, TS-EP-13, TS-EP-14, TS-EP-15, TS-EP-16, TS-EP-17, TS-EP-18, TS-EP-19 (Note: All samples are the same except the model number & appearance, so we prepare "IJCB1030" for test only.)
Trade Mark	:	N.A.
Test Power Supply	:	DC 5V
Test Sample No.	:	1-1-1
Product Description	:	Adapter: N/A
Remark: (1) For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.		

1.3. Auxiliary Equipment Used During Test

Tablet PC	:	Manufacturer: NOKIA
	:	Model: N1s
	:	Rating: DC 5V, 2A
	:	CE, FCC, DOC

1.4. Description of Test Mode

Pretest Mode	Description
Mode 1	On

For Mode 1 Block Diagram of Test Setup



1.5. Test Summary

Test Items	Test Mode	Status
Power Line Conducted Emission Test (150KHz To 30MHz)	/	N
Radiated Emission Test (30MHz To 1000MHz)	Mode 1	P
P) Indicates "PASS". N) Indicates "Not applicable".		

1.6. Test Equipment List

Radiated Emission Measurement

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	EMI Test Receiver	Rohde & Schwarz	ESCI	100627	Nov. 05, 2018	1 Year
2.	Pre-amplifier	SONOMA	310N	186860	Nov. 05, 2018	1 Year
3.	Bilog Broadband Antenna	Schwarzbeck	VULB9163	VULB 9163-289	Nov. 19, 2018	1 Year
4.	Software Name EZ-EMC	Ferrari Technology	ANB-03A	N/A	N/A	N/A

1.7. Measurement Uncertainty

Radiation Uncertainty	:	Ur = 3.9 dB (Horizontal)
		Ur = 3.8 dB (Vertical)
Conduction Uncertainty	:	Uc = 3.4 dB
Disturbance Uncertainty	:	Ud = 3.4 dB

1.8. Description of Test Facility

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

FCC-Registration No.: 184111

Shenzhen Anbotek Compliance Laboratory Limited, 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. Registration No. 184111, September 30, 2018.

ISED-Registration No.: 8058A

Shenzhen Anbotek Compliance Laboratory Limited, EMC Laboratory has been registered and fully described in a report filed with the (ISED) Innovation, Science and Economic Development Canada. The acceptance letter from the ISED is maintained in our files. Registration 8058A, March 07, 2019.

Test Location

Shenzhen Anbotek Compliance Laboratory Limited.

1/F, Building D, Sogood Science and Technology Park, Sanwei community, Hangcheng Street, Bao'an District, Shenzhen, Guangdong, China.518102

2. Radiated Emission Test

2.1. Test Standard and Limit

Test Standard	FCC Part 15 Subpart B
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Radiated Emission Test Limit (Subpart B Class B)

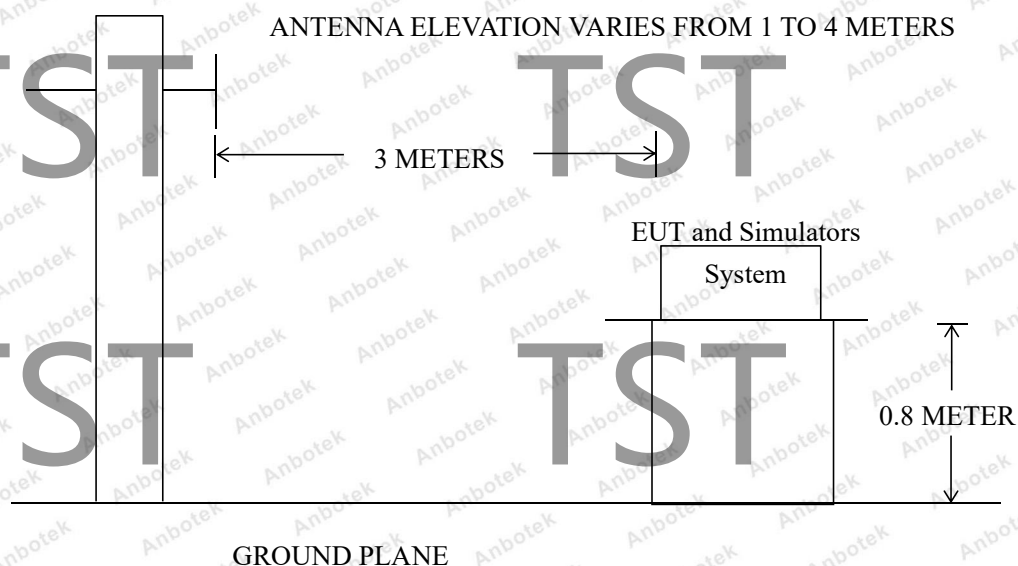
Test Limit	Frequency (MHz)	DISTANCE (Meters)	FIELD STRENGTHS LIMIT	
			$\mu\text{V/m}$	$(\text{dB}\mu\text{V/m})$
	30 ~ 88	3	100	40
	88 ~ 216	3	150	43.5
	216 ~ 960	3	200	46
	960 ~ 1000	3	500	54

Remark: (1) Emission level $(\text{dB})\mu\text{V} = 20 \log \text{Emission level } \mu\text{V/m}$

(2) The smaller limit shall apply at the cross point between two frequency bands.

(3) Distance is the distance in meters between the measuring instrument, antenna and the closest point of any part of the device or system.

2.2. Test Setup



2.3. EUT Configuration on Measurement

The following equipments are installed on Radiated Emission Measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

2.4. Operating Condition of EUT

2.4.1. Setup the EUT as shown in Section 2.2.

2.4.2. Turn on the power of all equipments.

2.4.3. Let the EUT work in test mode and measure it.

2.5. Test Procedure

EUT and its simulators are placed on a turn table, which is 0.8 meter high above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. EUT is set 3.0 meters away from the receiving antenna, which is mounted on a antenna tower. The antenna can be moved up and down between 1.0 meter and 4 meters to find out the maximum emission level. Broadband antenna (Trilog Broadband Antenna) is used as receiving antenna. Both horizontal and vertical polarizations of the antenna are set on measurement. In order to find the maximum emission levels, all of the interface cables must be manipulated according to ANSI C63.4-2014 on radiated emission measurement.

The bandwidth of the EMI test receiver (ESCI) is set at 120kHz.

The frequency range from 30MHz to 1000MHz is checked.

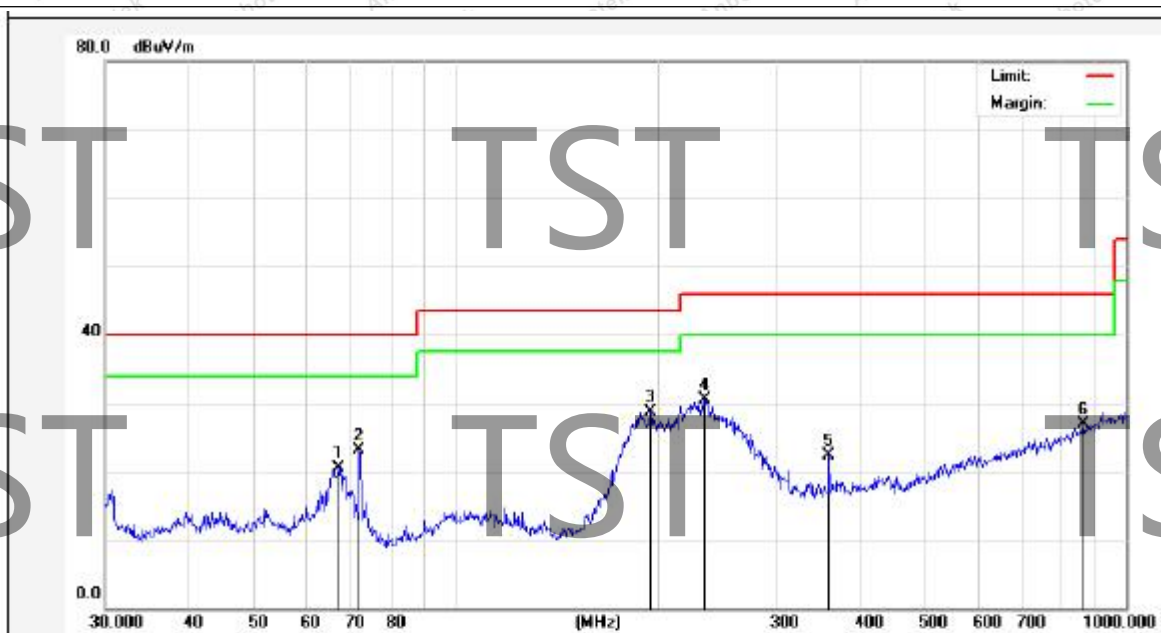
The test results are listed in Section 2.6.

2.6. Test Results

PASS

The test curves are shown in the following pages.

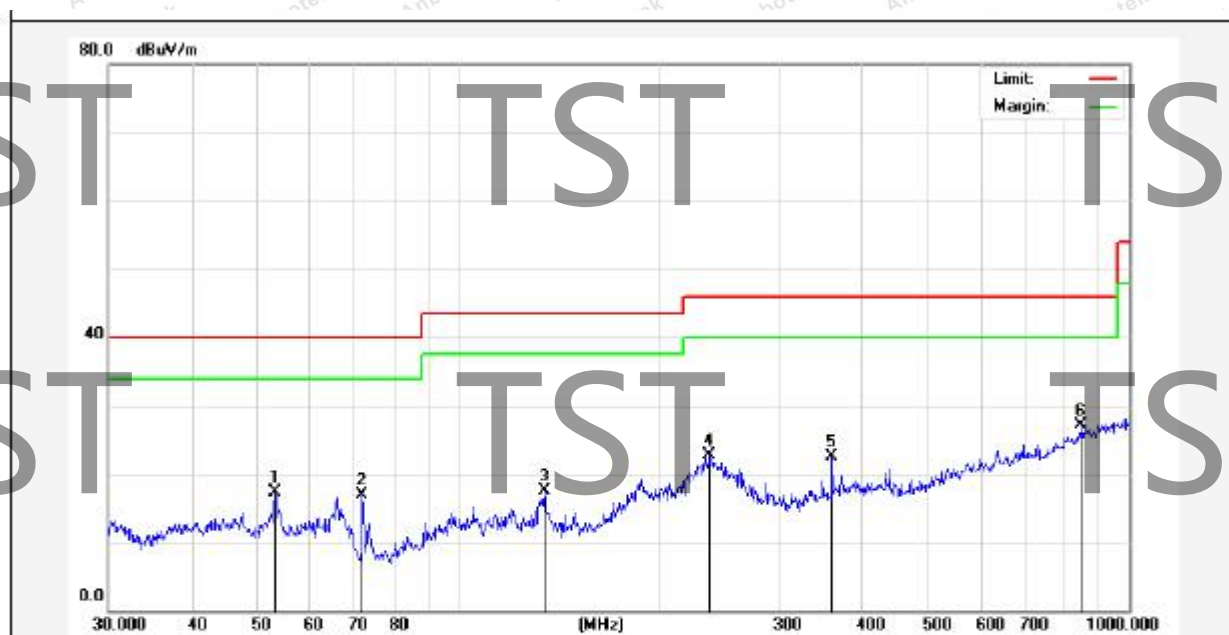
Test item: Radiation Test Polarization: Horizontal
Standard: (RE)FCC Part 15 Subpart B Power Source: DC 5V
Distance: 3m Temp.(°C)/Hum.(%RH): 24.9(°C)/51%RH



No.	Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Detector	Height (cm)	degree (deg)	Remark
1	66.9669	41.65	-21.21	20.44	40.00	-19.56	peak			
2	71.8320	45.91	-22.78	23.13	40.00	-16.87	peak			
3	195.1365	49.95	-21.26	28.69	43.50	-14.81	peak			
4	234.9909	49.96	-19.46	30.50	46.00	-15.50	peak			
5	360.4476	37.13	-14.76	22.37	46.00	-23.63	peak			
6	863.0562	33.46	-6.56	26.90	46.00	-19.10	peak			

Note: Result=Reading+Factor Over Limit=Result-Limit

Test item: Radiation Test Polarization: Vertical
Standard: (RE)FCC Part 15 Subpart B Power Source: DC 5V
Distance: 3m Temp.(°C)/Hum.(%RH): 24.9(°C)/51%RH



No.	Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Detector	Height (cm)	degree (deg)	Remark
1	53.1313	34.27	-16.93	17.34	40.00	-22.66	peak			
2	71.8320	38.59	-21.78	16.81	40.00	-23.19	peak			
3	134.0882	36.60	-19.12	17.48	43.50	-26.02	peak			
4	236.6447	37.90	-15.12	22.78	46.00	-23.22	peak			
5	360.4476	36.19	-13.76	22.43	46.00	-23.57	peak			
6	848.0563	32.85	-5.81	27.04	46.00	-18.96	peak			

Note: Result=Reading+Factor Over Limit=Result-Limit

APPENDIX I -- TEST SETUP PHOTOGRAPH

Photo of Radiated Emission Test



APPENDIX II -- EXTERNAL PHOTOGRAPH



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

