FCC Radio Test Report

FCC ID: 2AYGCANY-NX1

This report concerns: Original Grant

Project No.	:	2203G020
Equipment	:	Smart Phone
Brand Name	:	HONOR
Test Model	:	ANY-NX1
Series Model	:	N/A
Applicant	:	Honor Device Co., Ltd.
Address	:	Suite 3401, Unit A, Building 6, Shum Yip Sky Park, No. 8089, Hongli West Road, Xiangmihu Street, Futian District, Shenzhen, P.R.China
Manufacturer	:	Honor Device Co., Ltd.
Address	:	Suite 3401, Unit A, Building 6, Shum Yip Sky Park, No. 8089, Hongli West Road, Xiangmihu Street, Futian District, Shenzhen, P.R.China
Date of Receipt	:	Jan. 04, 2022
Date of Test	:	Jan. 06, 2022 ~ Mar. 14, 2022
Issued Date	:	Mar. 25, 2022
Report Version	:	R00
Standard(s)	:	FCC CFR Title 47, Part 15, Subpart C FCC KDB 558074 D01 15.247 Meas Guidance v05r02 ANSI C63.10-2013

The above equipment has been tested and found compliance with the requirement of the relative standards by BTL Inc.

Grani Zhou

Prepared by : Grani Zhou

Steven Lu

Approved by : Steven Lu

TESTING CERT #5123.02

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Declaration

BTL represents to the client that testing is done in accordance with standard procedures as applicable and that test instruments used has been calibrated with standards traceable to international standard(s) and/or national standard(s).

BTL's reports apply only to the specific samples tested under conditions. It is manufacture's responsibility to ensure that additional production units of this model are manufactured with the identical electrical and mechanical components. **BTL** shall have no liability for any declarations, inferences or generalizations drawn by the client or others from **BTL** issued reports.

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BTL's laboratory quality assurance procedures are in compliance with the **ISO/IEC 17025** requirements, and accredited by the conformity assessment authorities listed in this test report.

BTL is not responsible for the sampling stage, so the results only apply to the sample as received.

The information, data and test plan are provided by manufacturer which may affect the validity of results, so it is manufacturer's responsibility to ensure that the apparatus meets the essential requirements of applied standards and in all the possible configurations as representative of its intended use.

Limitation

For the use of the authority's logo is limited unless the Test Standard(s)/Scope(s)/Item(s) mentioned in this test report is (are) included in the conformity assessment authorities acceptance respective.
Please note that the measurement uncertainty is provided for informational purpose only and are not use in determining the Pass/Fail results.

Table of Contents Page

Table of Contents Page

REPORT ISSUED HISTORY

Report No.	Version	Description	Issued Date	Note
BTL-FCCP-1-2203G020	R00	Original Report.	Mar. 25, 2022	Valid

1. SUMMARY OF TEST RESULTS

Test procedures according to the technical standard(s):

FCC CFR Title 47, Part 15, Subpart C				
Standard(s) Section	**Test Item**		**Judgment**	**Remark**
15.247 (a)(1)(iii)	Number of Hopping Frequency		PASS	------
15.247 (a)(1)(iii)	Average Time of Occupancy		PASS	------
15.247(a)(1)	Hopping Channel Separation		PASS	------
15.247(a)(1)	Bandwidth	6 dB Bandwidth	PASS	------
		99% Emission Bandwidth		
15.247(a)(1)	Maximum Output Power		PASS	------
15.247(d)	Conducted Spurious Emission		PASS	------
15.247(d)	Band Edge Measurements		PASS	------
15.203	Antenna Requirement		PASS	Note(2)

Note:

(1) “N/A” denotes test is not applicable in this test report

(2) The device what use a permanently attached antenna were considered sufficient to comply with the provisions of 15.203.

1.1 TEST FACILITY

The test facilities used to collect the test data in this report is at the location of No. 3 Jinshagang 1st Rd. Shixia, Dalang Town Dongguan City, Guangdong 523792 People's Republic of China.

BTL's Registration Number for FCC: 357015
BTL's Designation Number for FCC: CN1240

1.2 MEASUREMENT UNCERTAINTY

ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor (k=2))
The BTL measurement uncertainty as below table:

Test Item	Extended Uncertainty
Transmit Output Power Data	U = 0.56 dB
RF Power Density, Conducted	U = 0.66 dB
Bandwidth	20MHz: U=41.78kHz 40MHz: U=82.12kHz 80MHz: U=163.5kHz
Band Edge Compliance	U = 0.9 dB
Spurious Emissions, Conducted	20MHz~3.6GHz：U＝0.92dB 3.6GHz~8.4GHz：U＝1.22dB 8.4GHz~13.6GHz：U＝1.44dB 8.4GHz~17.1GHz：U＝1.58dB 17.1GHz~22GHz：U＝1.98dB 22GHz~26.5GHz：U＝2.18dB
Frequency Stability	2500MHz: U=41.58Hz 5800MHz: U=82.24Hz
Duty Cycle	U=2.06 %

Note: Unless specifically mentioned, the uncertainty of measurement has not been taken into account to declare the compliance or non-compliance to the specification.

1.3 TEST ENVIRONMENT CONDITIONS

Test Item	Temperature	Humidity	Test Voltage	Tested By
Number of Hopping Frequency	19.5 ~ 25°C	45 ~ 55%	DC 3.87V	Jesse Wang
Average Time of Occupancy	19.5 ~ 25°C	45 ~ 55%	DC 3.87V	Jesse Wang
Hopping Channel Separation	19.5 ~ 25°C	45 ~ 55%	DC 3.87V	Jesse Wang
Bandwidth	19.5 ~ 25°C	45 ~ 55%	DC 3.87V	Jesse Wang
Maximum Output Power	19.5 ~ 25°C	45 ~ 55%	DC 3.87V	Jesse Wang
Band Edge Measurements	19.5 ~ 25°C	45 ~ 55%	DC 3.87V	Jesse Wang
Conducted Spurious Emission	19.5 ~ 25°C	45 ~ 55%	DC 3.87V	Jesse Wang

2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

Equipment	Smart Phone
Brand Name	HONOR
Test Model	ANY-NX1
Series Model	N/A
Model Difference(s)	N/A
Hardware Version	HN3ANYM
Software Version	4.2.0.42(C900E42R1P3)
Power Source	1# DC voltage supplied from AC adapter. 2# Supplied from battery.
Power Rating	1# I/P: 100-240V~ 50/60Hz 1.8A O/P: 5V ⎓ 2A or 10V ⎓ 4A or 11V ⎓ 6A Max 2# DC 3.87V, Rated Capacity:4700mAh
Operation Frequency	2402 MHz ~ 2480 MHz
Modulation Type	GFSK, π/4-DQPSK, 8-DPSK
Bit Rate of Transmitter	1Mbps, 2Mbps, 3Mbps
Max. Output Power	1Mbps: 12.75 dBm (0.0188 W)

Note:

1. For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.

2. Channel List:

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
00	2402	27	2429	54	2456
01	2403	28	2430	55	2457
02	2404	29	2431	56	2458
03	2405	30	2432	57	2459
04	2406	31	2433	58	2460
05	2407	32	2434	59	2461
06	2408	33	2435	60	2462
07	2409	34	2436	61	2463
08	2410	35	2437	62	2464
09	2411	36	2438	63	2465
10	2412	37	2439	64	2466
11	2413	38	2440	65	2467
12	2414	39	2441	66	2468
13	2415	40	2442	67	2469
14	2416	41	2443	68	2470
15	2417	42	2444	69	2471
16	2418	43	2445	70	2472
17	2419	44	2446	71	2473
18	2420	45	2447	72	2474
19	2421	46	2448	73	2475
20	2422	47	2449	74	2476
21	2423	48	2450	75	2477
22	2424	49	2451	76	2478
23	2425	50	2452	77	2479
24	2426	51	2453	78	2480
25	2427	52	2454		
26	2428	53	2455		

3. Table for Filed Antenna:

Brand	Model Name	Antenna Type	Connector	Gain (dBi)
N/A	N/A	Integral	N/A	-1.2

Note: The antenna gain is provided by the manufacturer.

4. The EUT contains following accessory devices:

Object / Part No.	Manufacturer / Trademark	Type / Model Name	Technical Data
Adapter	HONOR Device Co., Ltd.	HW-110600E00	I/P: 100-240V ~50/60Hz, 1.8A O/P: 5V ⎓ 2A or 10V ⎓ 4A or 11V ⎓ 6A Max
		HW-110600B00	
		HW-110600U00	
		HN-110600E00	
		HN-110600B00	
		HN-110600U00	
Battery		HB466596EFW	Rated capacity: 4700 mAh Nominal Voltage: +3.87V Charging Voltage: +4.45V

2.2 PARAMETERS OF TEST SOFTWARE

During testing, channel & power controlling software provided by the customer was used to control the operating channel as well as the output power level.

Test Software Version	N/A		
Frequency (MHz)	2402	2441	2480
1Mbps	default	default	default
2Mbps	default	default	default
3Mbps	default	default	default

3. NUMBER OF HOPPING FREQUENCY

3.1 LIMIT

Section	Test Item	Limit
FCC 15.247(a)(1)(iii)	Number of Hopping Frequency	15

3.2 TEST PROCEDURE

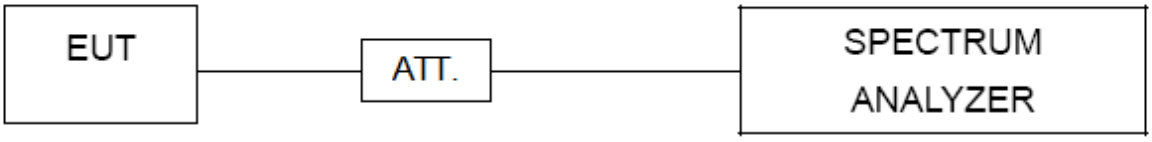
a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below.
b. The following table is the setting of the spectrum analyzer:

Spectrum Parameters	Setting
Span Frequency	> Operating Frequency Range
RBW	100 kHz
VBW	100 kHz
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

3.3 DEVIATION FROM STANDARD

No deviation.

3.4 TEST SETUP



3.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

3.6 TEST RESULTS

Please refer to the APPENDIX.

4. AVERAGE TIME OF OCCUPANCY

4.1 LIMIT

Section	Test Item	Limit
FCC 15.247(a)(1)(iii)	Average Time of Occupancy	0.4sec

4.2 TEST PROCEDURE

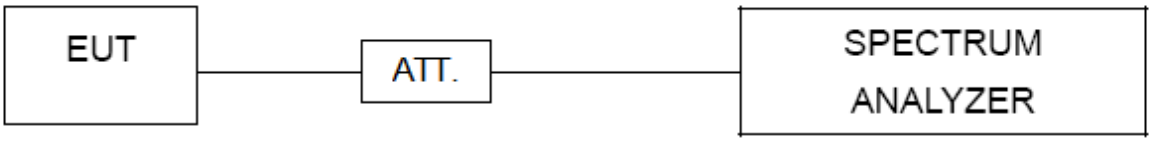
a. Set the EUT for DH1, DH3 and DH5 packet transmitting.
b. Measure the maximum time duration of one single pulse.
c. DH1 Packet permit maximum 1600 / 79 /2 = 10.12 hops per second in each channel (1 time slot TX, 1 time slot RX). So, the dwell time is the time duration of the pulse times 10.12 x 31.6 = 320 within 31.6 seconds.
d. DH3 Packet permit maximum 1600 / 79 / 4 = 5.06 hops per second in each channel (3 time slots TX, 1 time slot RX). So, the dwell time is the time duration of the pulse times 5.06 x 31.6 = 160 within 31.6 seconds.
e. DH5 Packet permit maximum 1600/ 79 / 6 = 3.37 hops per second in each channel (5 time slots TX, 1 time slot RX). So, the dwell time is the time duration of the pulse times 3.37 x 31.6 = 106.6 within 31.6 seconds.
f. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below.
g. The following table is the setting of the spectrum analyzer:

Spectrum Parameters	Setting
Span Frequency	0 MHz
RBW	1 MHz
VBW	1 MHz
Detector	Peak
Trace	Max Hold
Sweep Time	As necessary to capture the entire dwell time per hopping channel

4.3 DEVIATION FROM STANDARD

No deviation.

4.4 TEST SETUP



4.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

4.6 TEST RESULTS

Please refer to the APPENDIX.

5. HOPPING CHANNEL SEPARATION

5.1 LIMIT

Frequency hopping systems operating in the 2400-2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater, provided the systems operate with an output power no greater than 125 mW.

5.2 TEST PROCEDURE

a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below.

b. The following table is the setting of the spectrum analyzer:

Spectrum Parameters	Setting
Span Frequency	Wide enough to capture the peaks of two adjacent channels
RBW	30 kHz
VBW	100 kHz
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

5.3 DEVIATION FROM STANDARD

No deviation.

5.4 TEST SETUP

5.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

5.6 TEST RESULTS

Please refer to the APPENDIX.

6. BANDWIDTH

6.1 LIMIT

Section	Test Item
FCC 15.247(a)(1)	Bandwidth

6.2 TEST PROCEDURE

a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below.
b. The following table is the setting of the spectrum analyzer:

Spectrum Parameters	Setting
Span Frequency	> Measurement Bandwidth
RBW	30 kHz
VBW	100 kHz
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

6.3 DEVIATION FROM STANDARD

No deviation.

6.4 TEST SETUP

6.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

6.6 TEST RESULTS

Please refer to the APPENDIX.

7. MAXIMUM OUTPUT POWER

7.1 LIMIT

Section	Test Item	Limit
FCC 15.247(a)(1)	Maximum Output Power	0.1250 Watt or 20.97 dBm

Note: Frequency hopping systems operating in the 2400-2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater, provided the systems operate with an output power no greater than 125 mW.

7.2 TEST PROCEDURE

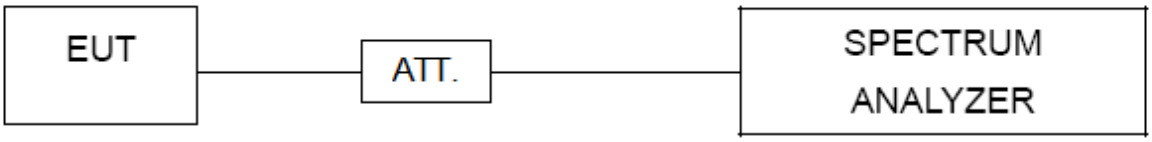
a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below.
b. The following table is the setting of the spectrum analyzer:

Spectrum Parameters	Setting
Span Frequency	Approximately five times the 20 dB bandwidth, centered on a hopping channel.
RBW	3 MHz
VBW	3 MHz
Detector	RMS
Trace	Max Hold
Sweep Time	Auto

7.3 DEVIATION FROM STANDARD

No deviation.

7.4 TEST SETUP



7.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

7.6 TEST RESULTS

Please refer to the APPENDIX.

8. CONDUCTED SPURIOUS EMISSION & BAND EDGE MEASUREMENTS

8.1 LIMIT

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak Output Power limits. If the transmitter complies with the Output Power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in Section 15.209(a) is not required.

8.2 TEST PROCEDURE

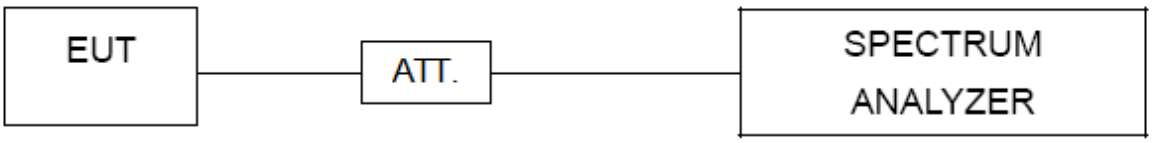
a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below.
b. The following table is the setting of the spectrum analyzer:

Spectrum Parameters	Setting
Start Frequency	30 MHz
Stop Frequency	26.5 GHz
RBW	100 kHz
VBW	100 kHz
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

8.3 DEVIATION FROM STANDARD

No deviation.

8.4 TEST SETUP



8.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

8.6 TEST RESULTS

Please refer to the APPENDIX.

9. MEASUREMENT INSTRUMENTS LIST

Conducted Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Power Meter	R&S	NRX	102795	Sep. 26, 2022
2	Power Sensor	R&S	NRP6A	103126	May 14, 2022
3	Power Sensor	R&S	NRP6A	103127	May 14, 2022
4	Spectrum Analyzer	R&S	FSW43	101625	May 13, 2022
5	Temperature Chamber	WEISS	WKL64/40	56246014990010	May 24, 2022
6	Universal Radio Communication Tester	R&S	CMW500	164699	May 13, 2022
7	Universal Radio Communication Tester	R&S	CMW500	164543	May 13, 2022
8	Vector Signal Generator	R&S	SMW200A	107864	May 13, 2022

Remark "N/A" denotes no model name, serial no. or calibration specified.
All calibration period of equipment list is one year.

End of Test Report