

FCC Radio Partial Test Report

FCC ID: 2AYGCVNE-N41

This report concerns: Original Grant

Project No. : 2204C233
Equipment : Smart Phone
Brand Name : HONOR
Test Model : VNE-N41
Series Model : N/A
Applicant : Honor Device Co., Ltd.
Address : Shum Yip Sky Park, No. 8089, Hongli West Road, Shenzhen, China
Manufacturer : Honor Device Co., Ltd.
Address : Shum Yip Sky Park, No. 8089, Hongli West Road, Shenzhen, China
Date of Receipt : Apr. 22, 2022
Date of Test : Apr. 25, 2022 ~ Apr. 28, 2022
Issued Date : Jun. 15, 2022
Report Version : R01
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.

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TESTING CERT #5123.02

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Declaration

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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.

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REPORT ISSUED HISTORY

Report No.	Version	Description	Issued Date	Note
BTL-FCCP-2-2204C233	R00	Original Report.	May 27, 2022	Invalid
BTL-FCCP-2-2204C233	R01	Updated the factory of adapter.	Jun. 15, 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)(2)	Bandwidth	6 dB Bandwidth	PASS	-----
		99% Emission Bandwidth		
15.247(b)(3)	Maximum Output Power		PASS	-----
15.247(d)	Conducted Spurious Emission		PASS	-----
15.247(d)	Band Edge Measurements		PASS	-----
15.247(e)	Power Spectral Density		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
Bandwidth	15 ~35°C	25 ~ 75%	DC 3.87V	Jesse Wang
Maximum Output Power	15 ~35°C	25 ~ 75%	DC 3.87V	Jesse Wang
Conducted Spurious Emission	15 ~35°C	25 ~ 75%	DC 3.87V	Jesse Wang
Band Edge Measurements	15 ~35°C	25 ~ 75%	DC 3.87V	Jesse Wang
Power Spectral Density	15 ~35°C	25 ~ 75%	DC 3.87V	Jesse Wang

2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

Equipment	Smart Phone
Brand Name	HONOR
Test Model	VNE-N41
Series Model	N/A
Model Difference(s)	N/A
Hardware Version	HN2VNEM
Software Version	4.2.0.55(C900E55R1P1)
Power Source	1# DC voltage supplied from AC adapter. 2# Supplied from battery.
Power Rating	1# I/P: 100-240V~ 50/60Hz 0.75A O/P: 5V \equiv 2A or 9V \equiv 2A or 10V \equiv 2.25A 2# DC 3.87V, Rated Capacity: 4900mAh
Operation Frequency	2402 MHz ~ 2480 MHz
Modulation Type	GFSK
Bit Rate of Transmitter	1Mbps, 2Mbps
Max. Output Power	2Mbps: 9.57 dBm (0.0091 W)

Note:

- 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)
00	2402	20	2442
01	2404	21	2444
02	2406	22	2446
03	2408	23	2448
04	2410	24	2450
05	2412	25	2452
06	2414	26	2454
07	2416	27	2456
08	2418	28	2458
09	2420	29	2460
10	2422	30	2462
11	2424	31	2464
12	2426	32	2466
13	2428	33	2468
14	2430	34	2470
15	2432	35	2472
16	2434	36	2474
17	2436	37	2476
18	2438	38	2478
19	2440	39	2480

3. Table for Filed Antenna:

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	N/A	N/A	Integrated	N/A	-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. (Factory: Salcomp)	HN-100225E00	I/P: 100-240V ~50/60Hz, 0.75A O/P: 5V  2A or 9V  2A or 10V  2.25A
		HN-100225U00	
	Honor Device Co., Ltd. (Factory: Huntkey)	HW-100225E00	
		HW-100225U00	
		HW-100225B00	
Battery	Honor Device Co., Ltd. (Manufacturer: SCUD)	HB496590EFW	Rated capacity: 4900 mAh Nominal Voltage: +3.87V Charging Voltage: +4.45V
		HB496590EFW-F	
	Honor Device Co., Ltd. (Manufacturer: SCUD)	HB496590EFW	
		HB496590EFW-F	

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	2440	2480
1Mbps	default	default	default
2Mbps	default	default	default

3. BANDWIDTH

3.1 LIMIT

Section	Test Item	Limit
FCC 15.247(a)(2)	6 dB Bandwidth	≥ 500 kHz
	99% Emission Bandwidth	-

3.2 TEST PROCEDURE

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

For 6 dB Bandwidth:

Spectrum Parameters	Setting
Span Frequency	$>$ Measurement Bandwidth
RBW	100 kHz
VBW	300 kHz
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

For 99% Emission Bandwidth:

Spectrum Parameters	Setting
Span Frequency	Between 1.5 times and 5.0 times the OBW
RBW	30 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. MAXIMUM OUTPUT POWER

4.1 LIMIT

Section	Test Item	Limit
FCC 15.247(b)(3)	Maximum Output Power	1.0000 watt or 30.00 dBm

4.2 TEST PROCEDURE

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

Spectrum Parameters	Setting
Span Frequency	At least 1.5 times the OBW
RBW	1% to 5% of the OBW, not to exceed 1 MHz
VBW	$\geq 3 \times \text{RBW}$
Detector	RMS
Trace	Max Hold
Sweep Time	$\leq (\text{number of points in sweep}) \times T$ (Note)

Note: Where T is defined in 11.6 of ANSI C63.10-2013.

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. CONDUCTED SPURIOUS EMISSION & BAND EDGE MEASUREMENTS

5.1 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.

5.2 TEST PROCEDURE

- The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below.
- 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	300 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. POWER SPECTRAL DENSITY

6.1 LIMIT

Section	Test Item	Limit
FCC 15.247(e)	Power Spectral Density	8 dBm (in any 3 kHz)

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	2 MHz (1 Mbps) / 4 MHz (2 Mbps)
RBW	3 kHz
VBW	10 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. 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