



Report No.: PTC24051325302E-FC04

FCC TEST REPORT

FCC ID: 2BG92-N100

Product	:	QN10-SE
Model Name	:	N100
Brand	:	YCTipc
Report No.	:	PTC24051325302E-FC04
Prepared for		
Shenzhen Youchuangtong Information Technology Co., Ltd.		
407, Building 3, No.8, Shangcun Community embankment Road, Gongming Street, Guangming District, Shenzhen City		
Prepared by		
Precise Testing & Certification Co., Ltd.		
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TEST RESULT CERTIFICATION

Applicant's name : Shenzhen Youchuangtong Information Technology Co., Ltd.
Address : 407, Building 3, No.8, Shangcun Community embankment Road,
Gongming Street, Guangming District, Shenzhen City
Manufacture's name : Shenzhen Youchuangtong Information Technology Co., Ltd.
Address : 407, Building 3, No.8, Shangcun Community embankment Road,
Gongming Street, Guangming District, Shenzhen City
Product name : QN10-SE
Model name : N100
Test procedure : FCC CFR47 Part 1.1307(b)(1)
Test Date : Jun. 10, 2024 to Jun. 25, 2024
Date of Issue : Jul. 17, 2024
Test Result : PASS

This device described above has been tested by PTC, and the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.

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Test Engineer:

A handwritten signature in black ink, appearing to read 'Jack Zhou'.

Jack Zhou / Engineer

Technical Manager:

A handwritten signature in black ink, appearing to read 'Simon Pu'.

Simon Pu / Manager



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2 Test Summary

Test Items	Test Requirement	Result
Maximum Permissible Exposure (Exposure of Humans to RF Fields)	15.247 (i)	PASS
Remark:		
N/A: Not Applicable		



3 General Information

3.1 General Description of E.U.T.

Product Name	:	QN10-SE
Model Name	:	N100
Additional model	:	N/A
Specification	:	Bluetooth BDR+EDR; Bluetooth BLE 802.11b/g/n HT20/HT40 802.11a/n HT20/HT40
Operation Frequency	:	2400-2480MHz for BT 2412-2462MHz for 802.11b/g/ n(HT20) 2422-2452MHz for 802.11 n(HT40)
Number of Channel	:	79 channels for BDR+EDR 40 channels For DTS 11 channels for 802.11b/g/ n(HT20) 7 channels for 802.11n(HT40)
Type of Modulation	:	GFSK, $\pi/4$ -DQPSK, 8DPSK For DSS GFSK, For DTS DSSS with DBPSK/DQPSK/CCK for 802.11b; OFDM with BPSK/QPSK/16QAM/64QAM for 802.11g/n; OFDM with BPSK/QPSK/16QAM/64QAM for 802.11g/n
Antenna installation	:	FPC antenna
Smart System	:	<input checked="" type="checkbox"/> SISO:(for 802.11 b/g/n20/n40) <input type="checkbox"/> MIMO:(for 802.11 b/g/n20/n40)
Antenna Gain	:	ANT1:4.63 dBi ANT2:4.63 dBi
Power supply	:	Input: 12V-2.5A,30W Adapter: Input: BSY036A120250U W
Hardware Version	:	KPADLU3R10
Software Version	:	KPADLU3R10.V01



4 RF Exposure

Test Requirement : FCC Part 1.1307(b)(1)

Evaluation Method : KDB 447498 D01 General RF Exposure Guidance v06

4.1 Requirements

Systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy levels in excess limit for maximum permissible exposure. In accordance with 47 CFR FCC Part 2 Subpart J, section 2.1091 this device has been defined as a mobile device whereby a distance of 0.2 m normally can be maintained between the user and the device.

4.2 The procedures / limit

(A) Limits for Occupational / Controlled Exposure

Frequency Range	Electric Field	Magnetic Field	Power Density (S)	Averaging Time
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842 / f	4.89 / f	(900 / f)*	6
30-300	61.4	0.163	1.0	6
300-1500			F/300	6
1500-100,000			5	6

(B) Limits for General Population / Uncontrolled Exposure

Frequency Range	Electric Field	Magnetic Field	Power Density (S)	Averaging Time
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f)*	30
30-300	27.5	0.073	0.2	30
300-1500			F/1500	30
1500-100,000			1.0	30

Note: f = frequency in MHz ; *Plane-wave equivalent power density



4.3 MPE Calculation Method

$$E \text{ (V/m)} = \frac{\sqrt{30 \times P \times G}}{d} \quad \text{Power Density: } P_d \text{ (W/m}^2\text{)} = \frac{E^2}{377}$$

E = Electric field (V/m)

P = Peak RF output power (W)

G = EUT Antenna numeric gain (numeric)

d = Separation distance between radiator and human body (m)

The formula can be changed to

$$P_d = \frac{30 \times P \times G}{377 \times d^2} \theta_{\phi}$$

From the peak EUT RF output power, the minimum mobile separation distance, d=0.2m, as well as the gain of the used antenna, the RF power density can be obtained

4.4 Test Result

Test Mode	Test Frequency(MHz)	Antenna Gain (numeric)	Max. Peak Output Power (dBm)	Tune up tolerance (dBm)	Max Tune Up Power (mW)	Power Density (mW/cm ²)	Limit of Power Density (mW/cm ²)	Result
2DH5	2402	2.90	6.13	6.13 ± 1	5.164164	0.002984	1	Pass
BLE_1M	2402	2.90	4.44	4.44 ± 1	3.499452	0.002022	1	Pass
11G_Ant2	2412	2.90	23.42	23.42 ± 1	276.694165	0.159856	1	Pass

*****THE END REPORT*****