


FCC RF EXPOSURE REPORT

FCC ID: 2BNRD-NX30PLUS

Project No. : 2505C004
Equipment : Dual-Band Gigabit Wi-Fi 6 Router
Brand Name : H3C
Test Model : H3C Magic NX30 Plus
Model Name : H3C Magic NX30 Plus, H3C Magic NX18 Plus
Hardware Version : 10.1.001
Software Version : A0
Applicant : New H3C Intelligence Terminal Co., Ltd.
Address : Room 406-100, 1 Yichuang Street, China-Singapore Guangzhou Knowledge City, Huangpu District, Guangzhou, China
Manufacturer : New H3C Intelligence Terminal Co., Ltd.
Address : Room 406-100, 1 Yichuang Street, China-Singapore Guangzhou Knowledge City, Huangpu District, Guangzhou, China
Date of Receipt : May 06, 2025
Date of Test : May 07, 2025 ~ Aug. 07, 2025
Issued Date : Aug. 21, 2025
Test Sample : Engineering Sample No.: DG20250506324
Standard(s) : FCC Guidelines for Human Exposure IEEE C95.1 & FCC Part 2.1091
 FCC Title 47 Part 2.1091 & KDB 447498 D01 v06

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

Prepared by : 
 Sheldon Ou

Approved by : 
 Steven Lu

No.3, Jinshagang 1st Road, Dalang, Dongguan, Guangdong People's Republic of China.
 Tel: +86-769-8318-3000 Web: www.newbtl.com Service mail: btl_qa@newbtl.com

REVISION HISTORY

Report No.	Version	Description	Issued Date	Note
BTL-FCCP-4-2505C004	R00	Original Report.	Aug. 20, 2025	Invalid
BTL-FCCP-4-2505C004	R01	This report only updated antenna model name in chapter 2. It is a revision of the report BTL-FCCP-4-2505C004 R00. This is a newly released report, replacing the BTL-FCCP-4-2505C004 R00 report.	Aug. 21, 2025	Valid

1. MPE CALCULATION METHOD

Calculation Method of RF Safety Distance:

$$S = \frac{PG}{4\pi^2} = \frac{EIRP}{4\pi^2}$$

where:

S = power density



P = power input to the antenna

G = power gain of the antenna in the direction of interest relative to an isotropic radiator

R = distance to the center of radiation of the antenna

2. ANTENNA SPECIFICATION



For 2.4GHz:

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	 South star	N12	Dipole	Soldering	4.56
2	 South star	N102	Dipole	Soldering	4.55

Note:

- 1) This EUT supports MIMO, and all antenna gains are not equal and not correlated with each other, so Directional gain= $10\log[(10^{G1/10}+10^{G2/10}+...10^{GN/10})/N]$ dBi, that is Directional gain = $10\log[(10^{4.56/10}+10^{4.55/10})/2]$ dBi =4.56.
- 2) Beamforming Gain: 3.01 dB.
- 3) The antenna gain and beamforming gain are provided by the manufacturer.

For 5GHz:

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	 South star	N102	Dipole	N/A	5.81
2	 South star	N102	Dipole	N/A	5.78

Note:

- 1) This EUT supports MIMO, and all antenna gains are not equal and not correlated with each other, so Directional gain= $10\log[(10^{G1/10}+10^{G2/10}+...10^{GN/10})/N]$ dBi, that is Directional gain = $10\log[(10^{5.81/10}+10^{5.78/10})/2]$ dBi =5.80.
- 2) Beamforming Gain: 3.01 dB.
- 3) The antenna gain and beamforming gain are provided by the manufacturer.

3. CALCULATED RESULT

Tune up tolerance(dBm)	
2.4GHz	5GHz
±0.5	±0.5

For 2.4GHz:

Directional gain (dBi)	Directional gain (numeric)	Max. Output Power (dBm)	Max. Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
4.56	2.8576	26.73	470.9773	0.26789	1	Complies

For 5GHz:

Directional gain (dBi)	Directional gain (numeric)	Max. Output Power (dBm)	Max. Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
5.80	3.8019	27.19	523.6004	0.39623	1	Complies

For the max simultaneous transmission MPE:

Ratio		Total	Limit of Ratio	Test Result
2.4GHz	5GHz			
0.26789	0.39623	0.66412	1	Complies

Note:

(1) The calculated distance is 20 cm.

(2) Ratio=Power Density (S) (mW/cm²)/Limit of Power Density (S) (mW/cm²)

End of Test Report