



# FCC TEST REPORT

## FCC ID: 2BXY7-HG19-BW

|                                                                                                   |   |                           |
|---------------------------------------------------------------------------------------------------|---|---------------------------|
| Product                                                                                           | : | hydroponic growing system |
| Model Name                                                                                        | : | hg19-BW                   |
| Brand                                                                                             | : | N/A                       |
| Report No.                                                                                        | : | PTC26052914401E-FC04      |
| <b>Prepared for</b>                                                                               |   |                           |
| Ningbo Nanyao Technology Co., Ltd.                                                                |   |                           |
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| <b>Prepared by</b>                                                                                |   |                           |
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## TEST RESULT CERTIFICATION

Applicant's name : Ningbo Nanyao Technology Co., Ltd.

Address : Room 1802-6, No. 568 Tiantong South Road, Yinzhou District,  
Ningbo City, Zhejiang Province, China

Manufacture's name : Ningbo Nanyao Technology Co., Ltd.

Address : Room 1802-6, No. 568 Tiantong South Road, Yinzhou District,  
Ningbo City, Zhejiang Province, China

Product name : hydroponic growing system

Model name : hg19-BW

Test procedure : FCC CFR47 Part 1.1307(b)(1)

Test Date : Jun. 16, 2026 to Aug. 07, 2026

Date of Issue : Aug. 07, 2026

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



## Contents

|                                       | <b>Page</b> |
|---------------------------------------|-------------|
| <b>2 TEST SUMMARY .....</b>           | <b>4</b>    |
| <b>3 GENERAL INFORMATION .....</b>    | <b>5</b>    |
| 3.1 GENERAL DESCRIPTION OF E.U.T..... | 5           |
| <b>4 RF EXPOSURE .....</b>            | <b>6</b>    |
| 4.1 REQUIREMENTS.....                 | 6           |
| 4.2 THE PROCEDURES / LIMIT .....      | 6           |
| 4.3 MPE CALCULATION METHOD .....      | 7           |
| 4.4 TEST RESULT .....                 | 7           |



Report No.:PTC26052914401E-FC03

## 2 Test Summary

| Test Items                                                        | Test Requirement            | Result |
|-------------------------------------------------------------------|-----------------------------|--------|
| Maximum Permissible Exposure<br>(Exposure of Humans to RF Fields) | FCC CFR47 Part 1.1307(b)(1) | PASS   |
| Remark:                                                           |                             |        |
| N/A: Not Applicable                                               |                             |        |



### 3 General Information

#### 3.1 General Description of E.U.T.

|                      |   |                                                                                                                  |
|----------------------|---|------------------------------------------------------------------------------------------------------------------|
| Product Name         | : | hydroponic growing system                                                                                        |
| Model Name           | : | hg19-BW                                                                                                          |
| Specification        | : | BLE<br>802.11b/g/n HT20/HT40                                                                                     |
| Operation Frequency  | : | 2402-2480MHz<br>2412-2462MHz for 802.11b/g/ n(HT20/HT40)                                                         |
| Number of Channel    | : | 11 channels for 802.11b/g/ n(HT20)<br>7 channels for 802.11n(HT40)<br>40 channels for DTS                        |
| Type of Modulation   | : | GFSK, For DTS<br>DSSS with DBPSK/DQPSK/CCK for 802.11b;<br>OFDM with BPSK/QPSK/16QAM/64QAM for 802.11g/n;        |
| Antenna installation | : | PCB antenna                                                                                                      |
| Antenna Gain         | : | 3.73 dBi                                                                                                         |
| Power supply         | : | Input: DC 24V=1.8A 43W<br>Adapter:<br>Model: XSI-2402000HUS<br>Input: 100-240V~50/60Hz 1.2A Max<br>Output:24V=2A |
| Hardware Version     | : | N/A                                                                                                              |
| Software Version     | : | N/A                                                                                                              |



## 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

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

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

| Item          | Antenna Gain (numeric) | Max. Peak Output Power (dBm) | Tune up tolerance (dBm) | Max Tune Up Power (mW) | Power Density (mW/cm <sup>2</sup> ) | Limit of Power Density (mW/cm <sup>2</sup> ) | Result |
|---------------|------------------------|------------------------------|-------------------------|------------------------|-------------------------------------|----------------------------------------------|--------|
| 2480(BLE_1 M) | 2.36                   | 2.03                         | 2.03±1                  | 2.009093               | 0.000943                            | 1                                            | Pass   |
| 2462(11B)     | 2.36                   | 15.02                        | 15.02±1                 | 39.994500              | 0.018781                            | 1                                            | Pass   |

Note: BT and WLAN can't Simultaneous transmission.

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