



## 1 Version

### Revision History Of Report

Report No.	Version	Description	Issue Date
CQASZ20210500032EX-02	Rev.01	Initial report	Jul. 19, 2021

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### 3 General Information

#### 3.1 Client Information

Applicant:	Shenzhen ThreeNH Technology Co.,Ltd
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Manufacturer:	Shenzhen ThreeNH Technology Co.,Ltd
Address of Manufacturer:	Floor 6, Building 5B, Skyworth Innovation Valley, Tangtou No.1 Road, Shiyan Street, Bao an District, Shenzhen, Guangdong, China

#### 3.2 General Description of EUT

Product Name:	Color Haze meter
Test Model No.:	YH1600
Trade Mark:	3nh
Hardware Version:	V1.6
Software Version:	V1.0
Operation Frequency:	2402-2480MHz
Modulation Type:	GFSK
Transfer Rate:	1Mbps(Test software see page 6)
Number of Channel:	40
Product Type:	<input type="checkbox"/> Mobile <input type="checkbox"/> Portable <input checked="" type="checkbox"/> Fix Location
Antenna Type:	Ceramic antenna
Antenna Gain:	2dBi
EUT Power Supply:	AC ADAPTER
Adapter	MODEL: B06240300 INPUT:110-240 50/60Hz 1.3A max OUTPUT: 24V 3A

Note:

All model: YH1600, YH1860, YH1810, YH1800, YH1610, YH1210, YH1200, YH1100, YH1000, YH900, YH800, YH1260, YH1060, YH1102

Only the model YH1600 was tested, since the electrical circuit design, layout, components used and internal wiring were identical for the above models, with difference being model name.

## 4 RF Exposure Evaluation

### 4.1 RF Exposure Compliance Requirement

#### 4.1.1 Standard Requirement

According to KDB447498D01 General RF Exposure Guidance v06

##### 4.3.1. Standalone SAR test exclusion considerations

Unless specifically required by the published RF exposure KDB procedures, standalone 1-g head or body and 10-g extremity SAR evaluation for general population exposure conditions, by measurement or numerical simulation, is not required when the corresponding SAR Exclusion Threshold condition, listed below, is satisfied.

#### 4.1.2 Limits

The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances  $\leq 50$  mm are determined by:

$$\left[ \frac{\text{max. power of channel, including tune-up tolerance, mW}}{\text{min. test separation distance, mm}} \right] \cdot \sqrt{f(\text{GHz})} \leq 3.0 \text{ for 1-g SAR and } \leq 7.5 \text{ for 10-g extremity SAR, where}$$
$$f(\text{GHz}) \text{ is the RF channel transmit frequency in GHz}$$

Power and distance are rounded to the nearest mW and mm before calculation<sup>17</sup>

The result is rounded to one decimal place for comparison

The test exclusions are applicable only when the minimum test separation distance is  $\leq 50$  mm and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is  $< 5$  mm, a distance of 5 mm is applied to determine SAR test exclusion

### 4.1.3 EUT RF Exposure

#### 1) For BLE

#### Measurement Data

GFSK mode						
Test Channel	Peak Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power		Calculated value	LIMIT
			(dBm)	(mW)		
Lowest(2402MHz)	2.558	3±1	4	2.512	0.779	3
Middle(2440MHz)	2.708	3±1	4	2.512	0.785	
Highest(2480MHz)	2.960	3±1	4	2.512	0.791	

Conclusion: the calculated value < 3.0 ,SAR is exempted

Remark: The Max Conducted Peak Output Power data refer to report Report No.: CQASZ20210500033EX-01