



## Shenzhen Huaxia Testing Technology Co., Ltd

1F., Block A of Tongsheng Technology Building, Huahui Road, Dalang Street, Longhua District, Shenzhen, China

Telephone: +86-755-26648640

Fax: +86-755-26648637

Website: [www.cqa-cert.com](http://www.cqa-cert.com)

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# RF Exposure Evaluation Report

**Report No.:** CQASZ20210400468E-02  
**Applicant:** ShenZhen YueKe Technology Co.,LTD  
**Address of Applicant:** Rm 13E, Xiang Ya Yuan 4#, Qiao Xiang Road, Fu Tian District, ShenZhen  
**Equipment Under Test (EUT):**  
**EUT Name:** Smart Remote  
**Model No.:** YSG03  
**Brand Name:** YOCTOP  
**FCC ID:** 2ANSG-YSG03  
**Standards:** 47 CFR Part 1.1307  
47 CFR Part 2.1093  
KDB447498D01 General RF Exposure Guidance v06  
**Date of Receipt:** 2021-04-21  
**Date of Test:** 2021-04-21 to 2021-06-07  
**Date of Issue:** 2021-06-07  
**Test Result:** **PASS\***

\*In the configuration tested, the EUT complied with the standards specified above

**Tested By:**

*Lewis Zhou*

( Lewis Zhou )

**Reviewed By:**

*Jun Li*

( Jun Li )

**Approved By:**

*Sheek Luo*

( Sheek Luo )



## 1 Version

### Revision History Of Report

| Report No.           | Version | Description    | Issue Date |
|----------------------|---------|----------------|------------|
| CQASZ20210400468E-02 | Rev.01  | Initial report | 2021-06-07 |

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### 3 General Information

#### 3.1 Client Information

|                          |                                                                                                    |
|--------------------------|----------------------------------------------------------------------------------------------------|
| Applicant:               | ShenZhen YueKe Technology Co.,LTD                                                                  |
| Address of Applicant:    | Rm 13E, Xiang Ya Yuan 4#, Qiao Xiang Road, Fu Tian District, ShenZhen                              |
| Manufacturer:            | ShenZhen YueKe Technology Co.,LTD                                                                  |
| Address of Manufacturer: | Rm 13E, Xiang Ya Yuan 4#, Qiao Xiang Road, Fu Tian District, ShenZhen                              |
| Factory:                 | ShenZhen SPOM Technology Co., LTD                                                                  |
| Address of Factory:      | Third floor, B Building, Yiyuantong Industrial Park, Putian Street,<br>Longgang District, Shenzhen |

#### 3.2 General Description of EUT

|                   |                                                    |
|-------------------|----------------------------------------------------|
| Product Name:     | Smart Remote                                       |
| Model No.:        | YSG03                                              |
| Trade Mark:       | YOCTOP                                             |
| Hardware Version: | V1.0                                               |
| Software Version: | V1.6                                               |
| Power Supply:     | lithium battery:3.8V 1.653Wh, power by DC 5V 500mA |

#### 3.3 General Description of BLE

|                      |                                                                                                                    |
|----------------------|--------------------------------------------------------------------------------------------------------------------|
| Operation Frequency: | 2402MHz~2480MHz                                                                                                    |
| Modulation Type:     | GFSK                                                                                                               |
| Transfer Rate:       | 1Mbps                                                                                                              |
| Number of Channel:   | 40                                                                                                                 |
| Product Type:        | <input type="checkbox"/> Mobile <input checked="" type="checkbox"/> Portable <input type="checkbox"/> Fix Location |
| Antenna Type:        | Internal antenna                                                                                                   |
| Antenna Gain:        | 0dBi                                                                                                               |

## 4 SAR 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:

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

$f(\text{GHz})$  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<br>(dBm) | Tune up tolerance<br>(dBm) | Maximum tune-up Power |       |
|                  |                            |                            | (dBm)                 | (mW)  |
| Lowest(2402MHz)  | 4.83                       | 4±1                        | 5                     | 3.162 |
| Middle(2440MHz)  | 5.54                       | 5±1                        | 6                     | 3.981 |
| Highest(2480MHz) | 5.76                       | 5±1                        | 6                     | 3.981 |

| Worst case: GFSK mode                                   |                                                    |                               |                           |       |                     |                        |
|---------------------------------------------------------|----------------------------------------------------|-------------------------------|---------------------------|-------|---------------------|------------------------|
| Channel                                                 | Maximum Peak<br>Conducted<br>Output Power<br>(dBm) | Tune up<br>tolerance<br>(dBm) | Maximum tune-<br>up Power |       | Calculated<br>value | Exclusion<br>threshold |
|                                                         |                                                    |                               | (dBm)                     | (mW)  |                     |                        |
| Lowest<br>(2402MHz)                                     | 4.83                                               | 4±1                           | 5                         | 3.162 | 0.980               | 3.0                    |
| Middle<br>(2440MHz)                                     | 5.54                                               | 4.5±1                         | 6                         | 3.981 | 1.244               |                        |
| Highest<br>(2480MHz)                                    | 5.76                                               | 5±1                           | 6                         | 3.981 | 1.254               |                        |
| Conclusion: the calculated value ≤3.0, SAR is exempted. |                                                    |                               |                           |       |                     |                        |

Remark: The Max Conducted Peak Output Power data refer to report Report No.: CQASZ20210400468E-01  
BDR and BLE can not simultaneous transmitting at same time.