

RF Exposure Evaluation

Test report
On Behalf of
Okaylight Technology Co.,LTD
For
Digital wireless thermostat

Model No.: OTS600+OPS600, OTS600+OPS200N

FCC ID: 2ARTQ-OPTS600

Prepared for : Okaylight Technology Co.,LTD
1st Floor, Building 3, LiKe Science and Technology Park,
Changsheng North Road, Dalang Town, Dongguan 523000,
Guangdong Province, China

Prepared By : Shenzhen HUAK Testing Technology Co., Ltd.
1F, B2 Building, Junfeng Zhongcheng Zhizao Innovation
Park, Fuhai Street, Bao'an District, Shenzhen City, China

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1 General Description of EUT

| | |
|---------------------|--|
| Equipment | Digital wireless thermostat |
| Model Name | OTS600+OPS600 |
| Serial No. | OTS600+OPS200N |
| Model Difference | All model's the function, software and electric circuit are the same, only model named different. Test sample model: OTS600+OPS600 |
| Trade Mark | OKAYLIGHT / WEBER / NASHONE |
| FCC ID | 2ARTQ-OPTS600 |
| Hardware Version: | V2.0 |
| Software Version: | V1.0 |
| Operation frequency | 2416MHz -- 2480MHz |
| Number of Channels | 5 |
| Antenna Type | PCB antenna |
| Antenna Gain | 0dBi |
| Modulation Type | GFSK |
| Power Source | DC 3.0V from battery |

2 RF Exposure Compliance Requirement

2.1 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.

2.2 Limits

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

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

$f(\text{GHz})$ is the RF channel transmit frequency in GHz

Power and distance are rounded to the nearest mW and mm before calculation¹⁷
the result is rounded to one decimal place for comparison

The test exclusions are applicable only when the minimum test separation distance is ≤ 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

3 EUT RF Exposure

| GFSK | | | | | | |
|--|---|-------------------------|-----------------------|-------|------------------|---------------------|
| Channel | Maximum Peak Conducted Output Power (dBm) | Tune up tolerance (dBm) | Maximum tune-up Power | | Calculated value | Exclusion threshold |
| | | | (dBm) | (mW) | | |
| Lowest (2416MHz) | -2.888 | -3.5 ± 1 | -2.5 | 0.562 | 0.175 | 3.0 |
| Middle (2448MHz) | -3.282 | -3.5 ± 1 | -2.5 | 0.562 | 0.176 | |
| Highest (2480MHz) | -4.166 | -3.5 ± 1 | -2.5 | 0.562 | 0.177 | |
| Conclusion: the calculated value ≤ 3.0 , SAR is exempted. | | | | | | |

Remark: The Max Conducted Peak Output Power data refer to report Report No.: HK1910252675-E