

RF Exposure Evaluation Report

Product : Digital Night Vision
Trade mark : Sytong
Model/Type reference : HT-66
Serial Number : N/A
Report Number : EED32N80026502
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47 CFR Part 1.1307
47 CFR Part 1.1310
Test Standards : KDB447498D01 General RF Exposure
Guidance v06
Test result : PASS

Prepared for:

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2 Version

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4 General Information

4.1 Client Information

Applicant:	Shenzhen Shi Yutong Technology Co. LTD
Address of Applicant:	Lianjian Science and Technology Industrial Park, Dalang Street, Longhua District, Shenzhen city , China
Manufacturer:	Shenzhen Shi Yutong Technology Co. LTD
Address of Manufacturer:	Lianjian Science and Technology Industrial Park, Dalang Street, Longhua District, Shenzhen city , China
Factory:	Shenzhen Shi Hui Tong Technology Co. LTD
Address of Factory:	4th floor, No.4 Workshop, Lianjian Science and Technology Industrial Park, Huarong Road, Tongsheng Community, Dalang Street, Longhua District, Shenzhen city, Guangdong Province, China

4.2 General Description of EUT

Product Name:	Digital Night Vision
Model No.(EUT):	HT-66
Trade Mark:	Sytong
EUT Supports Radios application:	2.4G WIFI: IEEE 802.11 b/g/n(HT20): 2412MHz to 2462MHz

4.3 Product Specification subjective to this standard

Frequency Range:	2412MHz to 2462MHz	
Modulation Type:	IEEE for 802.11b: DSSS(CCK,DQPSK,DBPSK) IEEE for 802.11g :OFDM(64QAM, 16QAM, QPSK, BPSK) IEEE for 802.11n(HT20) : OFDM (64QAM, 16QAM,QPSK,BPSK)	
Test Power Grade:	Reference Table	
Test Software of EUT:	SecureCRT	
Antenna Type:	FPC Antenna	
Antenna Gain:	3 dBi	
Power Supply:	Adapter:	Model:HNT-M520RZ Input:100-240V~50/60Hz0.3A Output:5.0V--- 2.0A
Test voltage:	DC 5V	
Max Conducted Peak Output Power:	8.63 dBm The Max Conducted Peak Output Power data refer to the report EED32N80026501	
Sample Received Date:	Jan. 15, 2021	
Sample tested Date:	Jan. 15, 2021 to Feb. 18, 2021	
Company Name and Address shown on Report, the sample(s) and sample Information was/ were provided by the applicant who should be responsible for the authenticity which CTI hasn't verified.		

4.4 Test Location

All tests were performed at:

Centre Testing International Group Co., Ltd

Building C, Hongwei Industrial Park Block 70, Bao'an District, Shenzhen, China

Telephone: +86 (0) 755 33683668 Fax: +86 (0) 755 33683385

No tests were sub-contracted.

FCC Designation No.: CN1164

4.5 Deviation from Standards

None.

4.6 Abnormalities from Standard Conditions

None.

4.7 Other Information Requested by the Customer

None.

5 SAR Evaluation

5.1 RF Exposure Compliance Requirement

5.1.1 Standard Requirement

According to KDB447498D01 General RF Exposure Guidance v06
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.

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:

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

$f(\text{GHz})$ 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

5.1.2 EUT RF Exposure

The tune-up power is 8.0 dBm +/- 1.0dB, therefore the highest tune-up power is

9dBm (7.94mW) @2462 MHz

When the minimum test separation distance is < 5 mm, a distance of 5 mm according to 5) in section 4.1 is applied to determine SAR test exclusion.

So,

$$(7.94\text{mW} / 5\text{mm}) * (2.462\text{GHz}^{0.5}) = 2.49$$

$$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] * [\sqrt{f(\text{GHz})}] = 2.49 < 3.0$$

Therefore, standalone SAR measurements are not required for both head and body

PHOTOGRAPHS OF EUT Constructional Details

Refer to Report No. EED32N80026501 for EUT external and internal photos.

The test report is effective only with both signature and specialized stamp, The result(s) shown in this report refer only to the sample(s) tested. Without written approval of CTI, this report can't be reproduced except in full.

*** End of Report ***