

RF Exposure Evaluation Report

Product : Easi-Scope Visual
Trade mark : TTS
Model/Type reference : SC10202
Serial Number : N/A
Report Number : EED32M80075902
FCC ID : 2ADRESC10202
Date of Issue : Dec. 18, 2020
47 CFR Part 1.1307
Test Standards : 47 CFR Part 2.1091
KDB447498D01v06
Test result : PASS

Prepared for:

TTS-Group Ltd

**Unit 1, Park Lane Business Park Park Lane, Kirkby in
Ashfield, NG179GU, United Kingdom**

Prepared by:

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Dec. 18, 2020



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2 Version

Version No.	Date	Description
00	Dec. 18, 2020	Original

3 Contents

	Page
1 COVER PAGE.....	1
2 VERSION.....	2
3 CONTENTS.....	3
4 GENERAL INFORMATION.....	4
4.1 CLIENT INFORMATION.....	4
4.2 GENERAL DESCRIPTION OF EUT.....	4
4.3 PRODUCT SPECIFICATION SUBJECTIVE TO THIS STANDARD.....	4
4.4 TEST LOCATION.....	5
4.5 DEVIATION FROM STANDARDS.....	5
4.6 ABNORMALITIES FROM STANDARD CONDITIONS.....	5
4.7 OTHER INFORMATION REQUESTED BY THE CUSTOMER.....	5
5 RF EXPOSURE EVALUATION.....	6
5.1 RF EXPOSURE COMPLIANCE REQUIREMENT.....	6
5.2 MAXIMUM PERMISSIBLE EXPOSURE.....	7
PHOTOGRAPHS OF EUT CONSTRUCTIONAL DETAILS.....	8

4 General Information

4.1 Client Information

Applicant:	TTS-Group Ltd
Address of Applicant:	Unit 1, Park Lane Business Park Park Lane, Kirkby in Ashfield, NG179GU, United Kingdom
Manufacturer:	Sunpet Industries Limited
Address of Manufacturer:	Unit 618, Lakeside 2, No. 10 Science Park West Avenue, Hong Kong Science Park, Shatin, Hong Kong
Factory:	Zhongshan Sunpet Plastics & Electronics Mfy. Ltd.
Address of Factory:	109 Zhongshan Port Avenue, Zhongshan Torch Development Zone, Zhongshan City, Guangdong Province, China

4.2 General Description of EUT

Product Name:	Easi-Scope Visual
Model No.(EUT):	SC10202
Trade Mark:	TTS
EUT Supports Radios application	IEEE 802.11 b/g/n(HT20)(HT40): 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 and HT40) : OFDM (64QAM, 16QAM,QPSK,BPSK	
Number of Channels:	IEEE 802.11b/g, IEEE 802.11n HT20: 11 Channels IEEE 802.11n HT40: 7 Channels	
Test Power Grade:	Reference Table	
Test Software of EUT:	SecureCRT	
Antenna Type:	Dipole Antenn	
Antenna Specification	3dBi	
Max Conducted Peak Output Power:	12.9dBm	
	The Max Conducted Peak Output Power data refer to the report EED32M80075901.	
Power Supply:	DC 5V	
	Lithium Polymer Battery	Model:ICR17335 DC 3.7V 700mAh
Sample Received Date:	Nov. 16, 2020	
Sample tested Date:	Nov. 16, 2020 to Nov. 27, 2020	
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.		

Report No. : EED32M80075902

Page 5 of 8

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 RF Exposure Evaluation

5.1 RF Exposure Compliance Requirement

Given $E = \frac{\sqrt{30 \times P \times G}}{d}$ & $S = \frac{E^2}{377}$

Where E = Field strength in Volts / meter

P = Power in Watts

G = Numeric antenna gain

d = Distance in meters

S = Power density in milliwatts / square centimeter

Combining equations and re-arranging the terms to express the distance as a function of the remaining variables yields:

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

Changing to units of mW and cm, using:

$$P \text{ (mW)} = P \text{ (W)} / 1000 \text{ and}$$

$$d \text{ (cm)} = d \text{ (m)} / 100$$

Yields

$$S = \frac{30 \times (P/1000) \times G}{377 \times (d/100)^2} = 0.0796 \times \frac{P \times G}{d^2} \quad \text{Equation 1}$$

Where d = Distance in cm

P = Power in mW

G = Numeric antenna gain

S = Power density in mW / cm²

5.2 Maximum Permissible Exposure

Substituting the MPE safe distance using $d = 20$ cm into Equation 1:

$$S = 0.000199 \times P \times G$$

Where P = Power in mW

G = Numeric antenna gain

S = Power density in mW / cm²

IEEE 802.11b mode:

Ch.	Frq.(MHz)	P (mW)	Gain (num.)	D (cm)	Power density in mW / cm ²	Limit (mW/cm2)
1	2472	19.498	1.995	20	0.0077	1

IEEE 802.11g mode:

Ch.	Frq.(MHz)	P (mW)	Gain (num.)	D (cm)	Power density in mW / cm ²	Limit (mW/cm2)
6	2472	18.967	1.995	20	0.0075	1

IEEE 802.11n HT20 mode:

Ch.	Frq.(MHz)	P (mW)	Gain (num.)	D (cm)	Power density in mW / cm ²	Limit (mW/cm2)
6	2472	16.595	1.995	20	0.0066	1

IEEE 802.11n HT40 mode:

Ch.	Frq.(MHz)	P (mW)	Gain (num.)	D (cm)	Power density in mW / cm ²	Limit (mW/cm2)
7	2452	14.588	1.995	20	0.0058	1

PHOTOGRAPHS OF EUT Constructional Details

Refer to Report No. EED32M80075901 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 ***