

RF Exposure Evaluation Report

Product : Smart Projector
Trade mark : TOUMEI
Model/Type reference : C800S, C800, C800W, C800i, V3, V5, V5X, V6, V7, V8, V9, Q1, Q3, Q5, Q6, Q8, C1, C2, C3, C4, C5, C6, C7, C8, T5, T6, T7, T8, T9, X1, X2, X3, X4, X5, X6, X7, X8, X9, S1, S2, S3, S4, S5, S6, S7, S8, S9, K1, K2, K3, K4, K5, K6, K7, K8, K9, A3, A4, A5, A6, A7, A8, A9
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Report Number : EED32L00007204
FCC ID : 2AJCMC800S
Date of Issue : May 15, 2019
47 CFR Part 1.1307(2015)
Test Standards : 47 CFR Part 1.1310(2015)
KDB 447498D01v06
Test result : PASS

Prepared for:

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2 Version

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4 General Information

4.1 Client Information

Applicant:	SHENZHEN TOUMEI TECHNOLOGY CO., LTD
Address of Applicant:	6th Floor, Building i, Jinchangda Science Park, Shanwei Village, Zhangkengjing, Guanlan Street, Longhua New District, Shenzhen
Manufacturer:	SHENZHEN TOUMEI TECHNOLOGY CO., LTD
Address of Manufacturer:	6th Floor, Building i, Jinchangda Science Park, Shanwei Village, Zhangkengjing, Guanlan Street, Longhua New District, Shenzhen
Factory:	SHENZHEN TOUMEI TECHNOLOGY CO., LTD
Address of Factory:	6th Floor, Building i, Jinchangda Science Park, Shanwei Village, Zhangkengjing, Guanlan Street, Longhua New District, Shenzhen

4.2 General Description of EUT

Product Name:	Smart Projector
Model No.:	C800S, C800, C800W, C800i, V3, V5, V5X, V6, V7, V8, V9, Q1, Q3, Q5, Q6, Q8, C1, C2, C3, C4, C5, C6, C7, C8, T5, T6, T7, T8, T9, X1, X2, X3, X4, X5, X6, X7, X8, X9, S1, S2, S3, S4, S5, S6, S7, S8, S9, K1, K2, K3, K4, K5, K6, K7, K8, K9, A3, A4, A5, A6, A7, A8, A9
Test Model No.:	C800
Trade mark:	TOUMEI
EUT Supports Radios application:	BT 4.2 Dual mode, 2402-2480MHz; 2.4G WiFi, 802.11b/g/n(20MHz), 2412-2462MHz

4.3 Product Specification subjective to this standard

Frequency Range:	BT 4.2 Dual mode, 2402-2480MHz; 2.4G WiFi, 802.11b/g/n(20MHz), 2412-2462MHz
Hardware Version:	D306_V1.1(manufacturer declare)
Firmware Version:	05(manufacturer declare)
Test Power Grade:	N/A
Test Software of EUT:	Ampak RFTestTool,VER:5.4(manufacturer declare)
Antenna Type:	FPC antenna
Antenna Gain:	1dBi
Power Supply:	Adapter: Model: AW018WR-0500300UV Input: 100-240V~50/60Hz 0.5A Output: 5V 3A
Max Conducted Peak Output Power:	16.49dBm The Max Conducted Peak Output Power data refer to the report EED32L00007203
Sample Received Date:	Jan. 09, 2019
Sample tested Date:	Jan. 28, 2019 to May 14, 2019
Remark:	The tested sample(s) and the sample information are provided by the client. Model No.: C800S, C800, C800W, C800i, V3, V5, V5X, V6, V7, V8, V9, Q1, Q3, Q5, Q6, Q8, C1, C2, C3, C4, C5, C6, C7, C8, T5, T6, T7, T8, T9, X1, X2, X3, X4, X5, X6, X7, X8, X9, S1, S2, S3, S4, S5, S6, S7, S8, S9, K1, K2, K3, K4, K5, K6, K7, K8, K9, A3, A4, A5, A6, A7, A8, A9 Only the model C800 was tested, Different models are the different outer case colors, but internal structure, circuit principle and all key components related to EMC performance are identical. The differences do not affect product safety and EMC performance.

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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

5.1.1 Limits

According to FCC Part1.1310: The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) radiation as specified in part1.1307(b)

TABLE 1—LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposures				
0.3–3.0	614	1.63	*(100)	6
3.0–30	1842/f	4.89/f	*(900/f ²)	6
30–300	61.4	0.163	1.0	6
300–1500 .....	.....	.....	f/300	6
1500–100,000 .....	.....	.....	5	6
(B) Limits for General Population/Uncontrolled Exposure				
0.3–1.34	614	1.63	*(100)	30
1.34–30	824/f	2.19/f	*(180/f ²)	30
30–300	27.5	0.073	0.2	30
300–1500 .....	.....	.....	f/1500	30
1500–100,000 .....	.....	.....	1.0	30

A rough estimation of the expected exposure in power flux density on a given point can be made with the following equation:

$$S = \frac{P \times G}{4 \times \pi \times R^2}$$

Where:

S = power density

P = power input to the antenna

G = numeric gain of the antenna in the direction of interest relative to an isotropic radiator

R= distance to the centre of radiation of the antenna

EIRP = P*G

The antenna of the product, under normal use condition is at least 20 cm away from the body of the user.

Warning statement to the user for keeping at least 20cm separation distance and the prohibition of operating to a person has been printed on the user's manual. Therefore, the S of the device is calculated with R=20cm, and if it is below the limit S, then we can conclude the device complies with the rules.

5.1.2 Test Procedure

Software provided by client enabled the EUT to transmit data at lowest, middle and highest channel individually.

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5.1.3 EUT RF Exposure Evaluation

Antenna Gain: 1dBi

Output Power Into Antenna & RF Exposure Evaluation Distance:

Channel	Frequency (MHz)	Max Conducted Peak Output Power(dBm)	Gain (dBi)	EIRP* (dBm)	EIRP (mW)	R (cm)	S (mW/cm ²)	Limit (mW/cm ²)	Result
Middle	2437	16.49	1	17.49	56.10	20	0.011	1.0	Pass

Note: Refer to report No. EED32L00007203 for EUT test Max Conducted Peak Output Power value.

PHOTOGRAPHS OF EUT Constructional Details

Refer to Report No. EED32L00007201 for EUT external and internal photos.

***** End of Report *****

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