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CNAS L0310



FCC SAR Exemption Evaluation Report

Product Name: Selfie Stick

Model: CF33

Report No.: SYBH(Z-SAR)015012018-2

FCC ID: QISCF33

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1. The laboratory has passed the accreditation by China National Accreditation Service for Conformity Assessment (CNAS). The accreditation number is L0310.
2. The laboratory has passed the accreditation by The American Association for Laboratory Accreditation (A2LA). The accreditation number is 2174.01 & 2174.02 & 2174.03
3. The laboratory (Reliability Lab of Huawei Technologies Co., Ltd) is also named as “Global Compliance and Testing Center of Huawei Technologies Co., Ltd”, the both names have coexisted since 2009.
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※ ※ Modified History ※ ※

REV.	DESCRIPTION	ISSUED DATE	REMARK
v1.0	Initial Test Report Release	2018-01-19	Zheng Xuan

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1 EUT Description

Device Information:			
Product Name :	Selfie Stick		
Model :	CF33		
FCC ID:	QISCF33		
Device Type :	Portable Device		
Device Phase:	Identical Prototype		
Exposure Category:	Uncontrolled environment/general population		
Hardware Version :	V0.5		
Software Version :	V0.6		
Antenna Type :	Internal Antenna		
Device Operating Configurations:			
Supporting Mode(s)	BT		
Test Modulation	GFSK		
Operating Frequency Range(s)	Band	Tx (MHz)	Rx (MHz)
	BT	2400-2483.5	2400-2483.5

1.1 General Description

CF33 is Bluetooth selfie stick with LED light and sleek appearance. It controls the mobile phone camera with 4.2 Bluetooth chip, at the same time it has LED lights to fill light when taking photos in the dark environment. With the brightness of two lights, it can also meet the requirement of different selfie scene.

Battery information:

Name	Manufacture	Description
Lithium-ion polymer battery	Tianjin Lishen Battery. Joint-Stock Co., Ltd.	Battery Model: SP281428SE Rated capacity: 95 mAh Nominal Voltage:  3.8V Charging Voltage:  4.35V
Lithium-ion polymer battery	SYNergy ScienTech Corp.	Battery Model: AHB401030PM Rated capacity: 92 mAh Nominal Voltage:  3.7V Charging Voltage:  4.2V

2 Test specification(s)

ANSI Std C95.1-1992	Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz – 300 GHz.(IEEE Std C95.1-1991)
KDB 447498 D01	General RF Exposure Guidance v06

3 Testing laboratory

Test Site	The Reliability Laboratory of Huawei Technologies Co., Ltd.
Test Location	Section G1,Huawei Base Bantian, Longgang District, Shenzhen 518129, P.R. China
Telephone	+86 755 28780808
Fax	+86 755 89652518
State of accreditation	The Test laboratory (area of testing) is accredited according to ISO/IEC 17025. CNAS Registration number: L0310 A2LA TESTING CERT #2174.01& 2174.02 & 2174.03

4 Applicant and Manufacturer

Company Name	HUAWEI TECHNOLOGIES CO., LTD
Address	Administration Building, Headquarters of Huawei Technologies Co., Ltd., Bantian, Longgang District, Shenzhen, 518129, P.R.C

5 Application details

Start Date of test	2018-01-19
End Date of test	2018-01-19

6 Ambient Condition

Ambient temperature	18°C – 25°C
Relative Humidity	30% – 70%

7 RF Exposure Limits

Human Exposure	Uncontrolled Environment General Population	Controlled Environment Occupational
Spatial Peak SAR* (Brain/Body/Arms/Legs)	1.60 mW/g	8.00 mW/g
Spatial Average SAR** (Whole Body)	0.08 mW/g	0.40 mW/g
Spatial Peak SAR*** (Hands/Feet/Ankle/Wrist)	4.00 mW/g	20.00 mW/g

Table 1: RF exposure limits

The limit applied in this test report is shown in **bold** letters.

Notes:

* The Spatial Peak value of the SAR averaged over any 1 gram of tissue (defined as a tissue volume in the shape of a cube) and over the appropriate averaging time

** The Spatial Average value of the SAR averaged over the whole body.

*** The Spatial Peak value of the SAR averaged over any 10 grams of tissue (defined as a tissue volume in the shape of a cube) and over the appropriate averaging time.

Uncontrolled Environments are defined as locations where there is the exposure of individuals who have no knowledge or control of their exposure.

Controlled Environments are defined as locations where there is exposure that may be incurred by persons who are aware of the potential for exposure, (i.e. as a result of employment or occupation.

8 SAR Exemption Evaluation

Per FCC KDB 447498D01, the 1-g SAR and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:

$[(\text{max. power of channel, including tune-up tolerance, mW})/(\text{min. test separation distance, mm})] \cdot \sqrt{f(\text{GHz})} \leq 3.0$ for 1-g SAR and ≤ 7.5 for Product Specific 10-g 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
- The result is rounded to one decimal place for comparison

When the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test exclusion.

Exposure Condition	Band	P_{max} (dBm)*	P_{max} (mW)	Distance (mm)	f (GHz)	Calculation Result	Exclusion threshold	SAR evaluation
Product Specific 10-g SAR (Hands)	BT	0	1.00	<5	2.48	0.31	7.50	Not required

Table 2: Standalone SAR test exclusion for BT

Note:

1)*- Maximum possible output power (including tune-up tolerance) declared by manufacturer.

2) The test separation distance for Product Specific 10-g SAR exposure is ≤ 5 mm, so a distance of 5 mm is applied to determine SAR test exclusion per FCC KDB 447498D01.

According to the table above, the device can meet the SAR test exclusion thresholds requirement of FCC KDB 447498 D01 and SAR evaluation is not required.

End