

RF EXPOSURE REPORT



Report No.:16020287-FCC-H1

Supersede Report No.: N/A

Applicant	Beijing WatchSmart Technologies Co.LTD.	
Product Name	WatchKeyOCL MB	
Main Model	WatchKeyOCL MB	
Test Standard	FCC 2.1093	
Test Date	March 31 to April 15, 2016	
Issue Date	April 25, 2016	
Test Result	☒ Pass ☐ Fail	
Equipment complied with the specification	☒	
Equipment did not comply with the specification	☐	
<i>Amos Xia</i>	<i>Herve Idoko</i>	
Amos Xia Test Engineer	Herve Idoko Checked By	
This test report may be reproduced in full only Test result presented in this test report is applicable to the tested sample only		

Issued by:

SIEMIC (Nanjing-China) Laboratories

2-1 Longcang Avenue Yuhua Economic and

Technology Development Park, Nanjing, China

Tel:+86(25)86730128/86730129 Fax:+86(25)86730127 Email: China@siemic.com.cn

Laboratories Introduction

SIEMIC, headquartered in the heart of Silicon Valley, with superior facilities in US and Asia, is one of the leading independent testing and certification facilities providing customers with one-stop shop services for Compliance Testing and Global Certifications.



In addition to testing and certification, SIEMIC provides initial design reviews and compliance management throughout a project. Our extensive experience with China, Asia Pacific, North America, European, and International compliance requirements, assures the fastest, most cost effective way to attain regulatory compliance for the global markets.

Accreditations for Conformity Assessment

Country/Region	Scope
USA	EMC, RF/Wireless, SAR, Telecom
Canada	EMC, RF/Wireless, SAR, Telecom
Taiwan	EMC, RF, Telecom, SAR, Safety
Hong Kong	RF/Wireless, SAR, Telecom
Australia	EMC, RF, Telecom, SAR, Safety
Korea	EMI, EMS, RF, SAR, Telecom, Safety
Japan	EMI, RF/Wireless, SAR, Telecom
Singapore	EMC, RF, SAR, Telecom
Europe	EMC, RF, SAR, Telecom, Safety

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1 Report Revision History

Report No.	Report Version	Description	Issue Date
16020287-FCC-H1	NONE	Original	April 25, 2016

2 Customer information

Applicant Name	Beijing WatchSmart Technologies Co.LTD.
Applicant Add	F7 Qi Ming International Mansion, No.101 Li Ze Zhong Yuan Beijing,China
Manufacturer	Beijing WatchSmart Technologies Co.LTD.
Manufacturer Add	F7 Qi Ming International Mansion, No.101 Li Ze Zhong Yuan Beijing,China

3 Test site information

Lab performing tests	SIEMIC (Nanjing-China) Laboratories
Lab Address	2-1 Longcang Avenue Yuhua Economic and Technology Development Park, Nanjing, China
FCC Test Site No.	986914
IC Test Site No.	4842B-1
Test Software	Labview of SIEMIC version 1.0

4 Equipment under Test (EUT) Information

Description of EUT:	WatchKeyOCL MB
Main Model:	WatchKeyOCL MB
Serial Model:	N/A
Date EUT received:	March 29,2016
Test Date(s):	March 31 to April 15, 2016
Antenna Gain:	BLE: 0 dBi
Type of Modulation:	BLE: GFSK
RF Operating Frequency (ies):	BLE: 2402-2480 MHz
Number of Channels:	BLE: 40CH
Port:	USB Port
Input Power:	3.7V 90mAh
Trade Name :	OCL
FCC ID:	AMGWATCHKEYOCLMB

5 FCC §2.1093 - RF Exposure

Standard Requirement:

According to §15.247 (i) and §1.1307(b)(1), systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

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:

$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f_{\text{(GHz)}}}] \leq 3.0$ for 1-g SAR and ≤ 7.5 for 10-g extremity SAR,¹⁶ 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.

Routine SAR evaluation refers to that specifically required by § 2.1093, using measurements or computer simulation. When routine SAR evaluation is not required, portable transmitters with output power greater than the applicable low threshold require SAR evaluation to qualify for TCB approval.

Test Result:

Type	Test mode	CH	Freq (MHz)	Conducted Power (dBm)	Tune Up Power (dBm)
Output power	BLE	Low	2402	-5.838	-6.5±1
		Mid	2440	-6.460	
		High	2480	-7.394	

One antennas are available for the EUT (BLE antenna).

BLE Mode:

The maximum average output power(turn-up power) in low channel of WIFI is -5.5 dBm=0.28mW

The calculation results= $0.28/5 \cdot \sqrt{2.402} = 0.087 < 3$

The maximum average output power(turn-up power) in middle channel of Bluetooth is -5.5 dBm=0.28mW

The calculation results= $0.28/5 \cdot \sqrt{2.440} = 0.087 < 3$

The maximum average output power(turn-up power) in high channel of Bluetooth is 9.5 dBm=0.28mW

The calculation results= $0.28/5 \cdot \sqrt{2.480} = 0.088 < 3$

Test Result: Pass

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6 DECLARATION OF SIMILARITY

N/A