

K120711

**510(k) Summary of Safety and Effectiveness**

May 1, 2012

**1. Submitter**

NOV 19 2012

K-jump Health Co., Ltd.

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**2. Name of Device**

Common/Usual Name: Non-contact Thermometer  
Regulation Number: 21 CFR 880.2910  
Regulation Name: Thermometer, Electronic, Clinical  
Regulatory Class: II  
Product Code: FLL

**3. Predicate Device**

<u>Device Name</u>	<u>510(k) Number</u>	<u>Decision Date</u>
K-jump Health Co., Ltd. Non-Contact Infrared Thermometer, Model KI-8280	K102947	2/25/2011

**4. Device Description**

The Non-contact Thermometer is a compact, small and light-weight device, which is powered by a battery and can be connected to a smartphone through headphone jack, for detecting body temperature without contact to human body. The measured temperature will be displayed on the screen of a smartphone.

**5. Indications for Use**

The Non-contact Thermometer is intended to measure the human body temperature for children and adults without contact to human body. It can be used by consumers in household environment and doctor in clinics as reference.

## 6. Technological Characteristics

The Non-contact Thermometer uses an infrared sensor to detect the infrared energy radiated from objects. As the intensity of the radiated energy will depend on the temperature of the air, solid, liquid or human body, the detected infrared energy can be acquired and calculated to temperature reading. The technological characteristics of Non-contact Thermometer have no difference with predicate device.

## 7. Comparison to Predicate Device

The Non-contact Thermometer is substantially equivalent to the predicate devices, K102947, the Non-contact infrared Thermometer. The comparison of their technological characteristics is summarized in the table below.

<b>Characteristics</b>	<b>Non-contact Thermometer</b>	<b>Non-contact Infrared Thermometer</b>
<b>510(k) Number</b>	K120711	K102947
<b>Intended Use</b>	Similar	Similar
<b>Technology</b>		
<b>Measurement method</b>	Infrared radiation detection	Infrared radiation detection
<b>Function</b>		
<b>Measuring Range</b>	Forehead Mode 32.2°C~43.3°C, (90.0°F~109.9°F)	Forehead Mode 32.2°C~43.3°C, (90.0°F~109.9°F)
<b>C/F Switchable</b>	Yes	Yes
<b>Performance</b>		
<b>Display Resolution</b>	0.1°C (0.1°F)	0.1°C (0.1°F)
<b>Measuring accuracy</b>	Forehead Mode, ±0.2°C(0.4°F)	Forehead Mode, ±0.2°C(0.4°F)
<b>Low battery detection</b>	Yes	Yes
<b>Environmental</b>		
<b>Operating condition</b>	10°C ~40°C (50.0 ~ 104°F) 15%-95% RH	10°C ~40°C (50.0 ~ 104°F) 15%-95% RH
<b>Storage condition</b>	-20°C ~55°C (-13.0 ~ 131°F) 15%-95% RH	-20°C ~55°C (-13.0 ~ 131°F) 15%-95% RH
<b>Power</b>	One CR2032	Two AAA batteries
<b>Physical</b>		
<b>Dimensions</b>	59 x 22 x 61 mm	138 x 90 x 45 mm
<b>Weight</b>	25g (with battery)	125g (with batteries)

## **8. Performance Summary**

The performance of the Non-contact Thermometer is verified and validated to comply with following recognized standards.

1. ANSI/AAMI ES60601-1:2005 Medical Electrical Equipment – Part 1: General Requirements for Basic Safety and Essential Performance

*The Non-contact Thermometer complies with to applicable ANSI/AAMI ES60601-1 requirements including general requirements, protection against electrical hazards, protection against mechanical hazards, protection against excessive temperatures, hazardous situations and fault conditions, and constructions.*

2. ANSI/AAMI/IEC 60601-1-2:2007 Medical Electrical Equipment – Part 1-2: General Requirements for Safety; Electromagnetic Compatibility

*The Non-contact Thermometer complies with applicable ANSI/AAMI/IEC 60601-1-2 requirements including radiated emission test, electrostatic discharge immunity test, radiated RF electromagnetic field immunity test, and power frequency magnetic field immunity test.*

3. ASTM E1965-98 Standard Specification for Infrared Thermometers for Intermittent Determination of Patient Temperature

*The Non-contact Thermometer complies applicable ASTM E1965-98 requirements including displayed temperature range, maximum permissible laboratory error, ambient conditions, low power supply operation, display and human interface, constructions.*

## **9. Conclusions**

*The Non-contact Thermometer has the similar intended use, same fundamental scientific technology, similar technological characteristics with the predicate device. Moreover, both devices comply with similar safety and performance standards. All information described above can demonstrate the Non-contact Thermometer is substantial equivalent to the predicate device.*



Food and Drug Administration  
10903 New Hampshire Avenue  
Document Control Center - WO66-G609  
Silver Spring, MD 20993-002

November 19, 2012

Mr. JM Lin  
Regulatory Affairs Representative  
K-Jump Health Company, Limited  
Number 56, Wu Kung 5<sup>th</sup> Road  
New Taipei Industrial Park  
New Taipei City, Taiwan 24890

Re: K120711

Trade/Device Name: Non-Contact Thermometer  
Regulation Number: 21 CFR 880.2910  
Regulation Name: Clinical Electronic Thermometer  
Regulatory Class: II  
Product Code: FLL  
Dated: October 30, 2012  
Received: October 31, 2012

Dear Mr. Lin:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration. Please note: CDRH does not evaluate information related to contract liability warranties. We remind you, however, that device labeling must be truthful and not misleading.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the Federal Register.

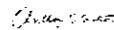
Page 2 – Mr. Lin

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); medical device reporting (reporting of medical device-related adverse events) (21 CFR 803); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801), please go to <http://www.fda.gov/AboutFDA/CentersOffices/CDRH/CDRHOffices/ucm115809.htm> for the Center for Devices and Radiological Health's (CDRH's) Office of Compliance. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21CFR Part 807.97). For questions regarding the reporting of adverse events under the MDR regulation (21 CFR Part 803), please go to <http://www.fda.gov/MedicalDevices/Safety/ReportaProblem/default.htm> for the CDRH's Office of Surveillance and Biometrics/Division of Postmarket Surveillance.

You may obtain other general information on your responsibilities under the Act from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (301) 796-7100 or at its Internet address <http://www.fda.gov/MedicalDevices/ResourcesforYou/Industry/default.htm>.

Sincerely yours,



DN: c=US, o=U.S. Government,  
ou=HHS, ou=FDA, ou=People,  
cn=Anthony D. Watson,  
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Center for Devices and  
Radiological Health

Enclosure



### Indications for Use

510(k) Number (if known): K120711

Device Name: Non-contact Thermometer

#### Indications For Use:

The Non-contact Thermometer is intended to measure the human body temperature for children and adults without contact to human body. It can be used by consumers in household environment and doctor in clinics as reference.

Prescription Use \_\_\_\_\_  
(Part 21 CFR 801 Subpart D)

AND/OR

Over-The-Counter Use X  
(21 CFR 807 Subpart C)

(PLEASE DO NOT WRITE BELOW THIS LINE-CONTINUE ON ANOTHER PAGE IF NEEDED)

Concurrence of CDRH, Office of Device Evaluation (ODE)

Kwame O. Ulmer

Digitally signed by Kwame O. Ulmer  
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(Division Sign-Off)

Division of Anesthesiology, General Hospital  
Infection Control, Dental Devices

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Concurrence of CDRH, Office of Device Evaluation (ODE)

 11/19/12  
(Division Sign-Off)  
Division of Anesthesiology, General Hospital  
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