



Shenzhen Bontek Electronic Technology Co., Ltd.

FCC PART 15 SUBPART B  
MEASUREMENT AND TEST REPORT

For

**FINGERTEC WORLDWIDE SDN BHD**

NO.6, 8 & 10, JALAN BK 3/2, BANDAR KINRARA, 47100 PUCHONG, SELANGOR,  
MALAYSIA

MODEL: H2i

June 15, 2011

<b>This Report Concerns:</b> <input checked="" type="checkbox"/> Original Report	<b>Equipment Type:</b> Fingerprint Access Control
<b>Test By:</b>	Yang yang/ <i>Yang yang</i>
<b>Report Number:</b>	BCT11ER-0685E
<b>Test Date:</b>	May 23- June 15, 2011
<b>Reviewed By:</b>	Kevin Chi/ <i>Kevin chi</i>
<b>Approved By:</b>	Kendy Wang/ <i>Kendy Wang</i>
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Note: This test report is limited to the above client company and the product model only. It may not be duplicated without prior written consent of Bontek Compliance Testing Laboratory Ltd.



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## 1 - GENERAL INFORMATION

### 1.1 Product Description for Equipment Under Test (EUT)

#### Client Information

Applicant: **FINGERTEC WORLDWIDE SDN BHD**  
Address of applicant: NO.6, 8 & 10, JALAN BK 3/2, BANDAR KINRARA, 47100  
PUCHONG, SELANGOR, MALAYSIA  
Manufacturer: **FINGERTEC WORLDWIDE LIMITED**  
Address of manufacturer: Peking University Founder Shiyuan Science Park, Bao'an,  
Shenzhen, China. 518108

#### General Description of E.U.T

EUT Description: **Fingerprint Access Control**  
Test Model: **H2i**  
Trade Mark: **FINGERTEC**  
Adapter Power Rating: **SWITCH MODE POWER SUPPLY**  
**Model No.:KSAFH1200300T1M3**  
**Input:AC100-240~50/60Hz 1.2A**  
**Output: 12VDC 3A**  
Power Rating: **Input : 12VDC 3A**

Remark: \* The test data gathered are from the production sample provided by the manufacturer.

### 1.2 Test Standards

The following Declaration of Conformity report of EUT is prepared in accordance with  
FCC Rules and Regulations Part 15 Subpart B 2006

The objective of the manufacturer is to demonstrate compliance with the described above standards.



### 1.3 Test Summary

For the EUT described above. The standards used were FCC Part 15 Subpart B for Emissions

Table 1 : Tests Carried Out Under FCC Part 15 Subpart B

Standard	Test Items	Status
FCC Part 15 Subpart B	Conduction Emission, 0.15MHz to 30MHz	√
FCC Part 15 Subpart B	Radiation Emission, 30MHz to 1000MHz	√

√ Indicates that the test is applicable  
× Indicates that the test is not applicable

### 1.4 Test Methodology

All measurements contained in this report were conducted with ANSI C63.4-2009, American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the range of 9 kHz to 40 GHz.

The equipment under test (EUT) was configured to measure its highest possible radiation level. The test modes were adapted accordingly in reference to the Operating Instructions.

The maximum emission levels emanating from the device are compared to the FCC Part 15 Subpart B limits for radiation emissions and the measurement results contained in this test report show that EUT is to be technically compliant with FCC requirements.

All measurement required was performed at SHENZHEN BONTEK ELECTRONIC TECHNOLOGY CO., LTD. at 1/F, Block East H-3, OCT Eastern Ind. Zone, Qiaocheng East Road, Nanshan, Shenzhen, China



### 1.5 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

#### **FCC – Registration No.: 338263**

SHENZHEN BONTEK ELECTRONIC TECHNOLOGY CO., LTD. , EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration 338263, March, 2008.

#### **IC Registration No.: 7631A**

The 3m alternate test site of SHENZHEN BONTEK ELECTRONIC TECHNOLOGY CO., LTD. EMC Laboratory has been registered by Certification and Engineer Bureau of Industry Canada for the performance of with Registration NO.: 7631A on August 2009.

#### **CNAS - Registration No.: L3923**

SHENZHEN BONTEK ELECTRONIC TECHNOLOGY CO., LTD. to ISO/IEC 17025:25 General Requirements for the Competence of Testing and Calibration Laboratories(CNAS-CL01 Accreditation Criteria for the Competence of Testing and Calibration Laboratories) for the competence in the field of testing.  
The acceptance letter from the CNAS is maintained in our files: Registration:L3923,February,2009.

#### **TUV - Registration No.: UA 50203122-0001**

SHENZHEN BONTEK ELECTRONIC TECHNOLOGY CO., LTD. An assessment of the laboratory was conducted according to the "Procedures and Conditions for EMC Test Laboratories" with reference to EN ISO/IEC 17025 by a TUV Rheinland auditor. Audit Report NO. 17010783-002

**1.6 Test Equipment List and Details**

Test equipments list of SHENZHEN BONTEK ELECTRONIC TECHNOLOGY CO., LTD. .

No.	Instrument no.	Equipment	Manufacturer	Model No.	S/N	Calibration Date	Calibration Due Date
1	BCT-EMC001	EMI Test Receiver	R&S	ESCI	100687	2011-4-07	2012-4-06
2	BCT-EMC002	EMI Test Receiver	R&S	ESPI	100097	2011-4-07	2012-4-06
3	BCT-EMC003	Amplifier	HP	8447D	1937A02492	2011-4-07	2012-4-06
4	BCT-EMC004	Single Power Conductor Module	FCC	FCC-LISN-5-50-1-01-CISPR25	7101	2011-4-07	2012-4-06
5	BCT-EMC005	Single Power Conductor Module	FCC	FCC-LISN-5-50-1-01-CISPR25	7102	2011-4-07	2012-4-06
6	BCT-EMC006	Power Clamp	SCHWARZBECK	MDS-21	3812	2011-4-07	2012-4-06
7	BCT-EMC007	Positioning Controller	C&C	CC-C-1F	MF7802113	N/A	N/A
8	BCT-EMC008	Electrostatic Discharge Simulator	TESEQ	NSG437	125	2011-4-07	2012-4-06
9	BCT-EMC009	Fast Transient Burst Generator	SCHAFFNER	MODULA6150	34572	2011-4-07	2012-4-06
10	BCT-EMC010	Fast Transient Noise Simulator	Noiseken	FNS-105AX	31485	2011-4-07	2012-4-06
11	BCT-EMC011	Color TV Pattern Generator	PHILIPS	PM5418	TM209947	N/A	N/A
12	BCT-EMC012	Power Frequency Magnetic Field Generator	EVERFINE	EMS61000-8K	608002	2011-4-07	2012-4-06
14	BCT-EMC013	Capacitive Coupling Clamp	TESEQ	CDN8014	25096	2011-4-07	2012-4-06
15	BCT-EMC014	High Field Biconical Antenna	ELECTRO-METRICS	EM-6913	166	2010-4-14	2012-4-13
16	BCT-EMC015	Log Periodic Antenna	ELECTRO-METRICS	EM-6950	811	2010-4-14	2012-4-13
17	BCT-EMC016	Remote Active Vertical Antenna	ELECTRO-METRICS	EM-6892	304	2010-4-14	2012-4-13
18	BCT-EMC017	TRILOG Broadband Test-Antenna	SCHWARZBECK	VULB9163	9163-324	2010-4-14	2012-4-13
19	BCT-EMC018	Horn Antenna	SCHWARZBECK	BBHA9120A	B08000991-0001	2010-4-14	2012-4-13



20	BCT-EMC019	Teo Line Single Phase Module	SCHWARZBECK	NSLK8128	D-69250	2011-4-07	2012-4-06
21	BCT-EMC020	10dB attenuator	SCHWARZBECK	MTAIMP-136	R65.90.0001#06	2011-4-07	2012-4-06
22	BCT-EMC021	Electric bridge	Zentech	100 LCR METER	803024	N/A	N/A
23	BCT-EMC022	RF Current Probe	FCC	F-33-4	80	2011-4-07	2012-4-06
24	BCT-EMC023	Triple-Loop Antenna	EVERFINE	LLA-2	607004	2011-4-07	2012-4-06
25	BCT-EMC024	CDN	FRANKONIA	M2+M3	A3027019	2011-4-07	2012-4-06
26	BCT-EMC025	6dB Attenuator	FRANKONIA	75-A-FFN-06	1001698	2011-4-07	2012-4-06
27	BCT-EMC026	EMV-Mess-System GMBH	FRANKONIA	FLL-75	1020A1109	2011-4-07	2012-4-06
28	BCT-EMC027	EM Injection Clamp	FCC	F-203I-13mm	91536	2011-4-07	2012-4-06
29	BCT-EMC028	9KHz-2.4GHz Signal generator	MARCONI INSTRUMENTS	2024	112260/042	2011-4-07	2012-4-06
30	BCT-EMC029	Broadband Preamplifier	SCHWARZBECK	BBV 9718	9718-182	2011-4-07	2012-4-06
31	BCT-EMC030	Harmonics & Flicker Analyzer	Voltech	PM6000	200006700433	2011-4-07	2012-4-06
32	BCT-EMC031	Spectrum Analyzer	R&S	FSP30	1093.4495.30	2011-4-07	2012-4-06



## 2 - SYSTEM TEST CONFIGURATION

### 2.1 Justification

The system was configured for testing in a typical fashion (as only used by a typical user).

### 2.2 EUT Exercise Software

The EUT exercising program used during radiated and conducted testing was designed to exercise the various system components in a manner similar to a typical use. The software offered by manufacture, can let the EUT being ON operation.

### 2.3 Special Accessories

As shown in section 2.5, interface cable used for compliance testing is shielded as normally supplied by **FINGERTEC WORLDWIDE SDN BHD** and its respective support equipment manufacturers.

### 2.4 Equipment Modifications

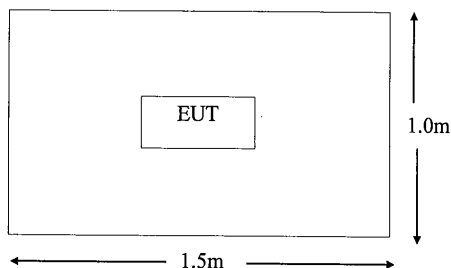
The EUT tested was not modified by BCT.

### 2.5 Configuration of Test System



EUT

### 2.6 Test Setup Diagram







### 3 - DISTURBANCE VOLTAGE AT THE MAINS TERMINALS

#### 3.1 Measurement Uncertainty

All measurements involve certain levels of uncertainties, especially in field of EMC. The factors contributing to uncertainties are spectrum analyzer, cable loss, and LISN.

The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of any conducted emissions measurement is 3.4 dB.

#### 3.2 Limit of Disturbance Voltage at The Mains Terminals

Frequency Range (MHz)	Limits ( dBuV)	
	Quasi-Peak	Average
0.150~0.500	66~56	56~46
0.500~5.000	56	46
5.000~30.00	60	50

Note: (1)The tighter limit shall apply at the edge between two frequency bands.

#### 3.3 EUT Setup

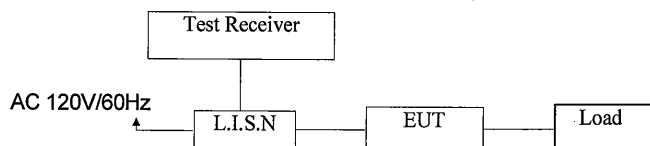
The setup of EUT is according with ANSI C63.4-2009 measurement procedure. The specification used was the FCC Rules and Regulations Part 15 Subpart B limits.

The EUT was placed center and the back edge of the test table.

The AV cables were draped along the test table and bundled to 30-40cm in the middle.

The spacing between the peripherals was 10 cm.

Maximum emission emitted from EUT was determined by manipulating the EUT, support equipment, interconnecting cables and varying the mode of operation and the levels in the final result of the test were recorded with the EUT running in the operating mode that maximum emission was emitted.



#### 3.4 Instrument Setup

The test receiver was set with the following configurations:

Test Receiver Setting:

Frequency Range.....150 KHz to 30 MHz  
Detector.....Peak & Quasi-Peak & Average  
Sweep Speed.....Auto  
IF Band Width.....9 KHz



### 3.5 Test Procedure

During the conducted emission test, the EUT power cord was connected to the auxiliary outlet of the first Artificial Mains.

Maximizing procedure was performed on the six (6) highest emissions to ensure EUT compliance using all installation combination.

All data was recorded in the peak detection mode. Quasi-peak and Average readings were only performed when an emission was found to be marginal (within -10 dB $\mu$ V of specification limits). Quasi-peak readings are distinguished with a "QP". Average readings are distinguished with a "AV".

### 3.6 Summary of Test Results

According to the data in section 3.6, the EUT complied with the FCC Part 15 B Conducted margin, with the *worst* margin reading of:

### 3.7 Disturbance Voltage Test Data

Temperature ( °C )	22~25
Humidity ( %RH )	50~55
Barometric Pressure ( mbar )	950~1000
EUT	Fingerprint Access Control
M/N	H2i
Operating Mode	Normal operation

Test data see following pages

**Remark:** (1) When PK reading is less than relevant limit 20dB, the QP reading and AV reading will not be recorded.  
(2) Where QP reading is less than relevant AV limit, the AV reading will not be measured

### 3.8 Test Result

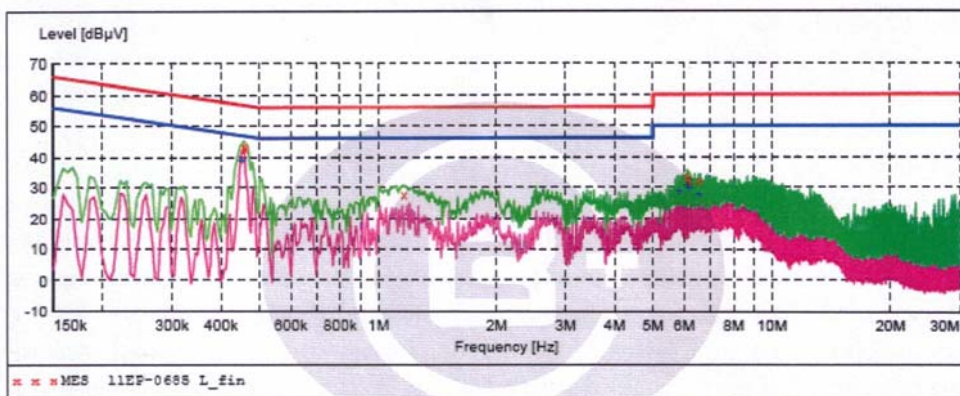
**PASS**



### Conducted Emission Test Data

EUT: Fingerprint Access Control  
M/N: H2i  
Operating Condition: Normal operation  
Test Site: Shielded Room  
Operator: Yang  
Test Specification: AC 120V/60Hz for Adapter  
Comment: Live Line  
Start of Test: 5/23/2011/ 20:02 Tem:24°C Hum:55%

SCAN TABLE: "Voltage (150K-30M) FIN"  
Short Description: 150K-30M Voltage



### MEASUREMENT RESULT: "11EP-0685 L\_fin"

5/23/2011 20:02

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.456000	43.80	9.9	57	13.0	QP	L1	GND
0.460500	42.90	9.9	57	13.8	QP	L1	GND
1.162500	27.90	9.9	56	28.1	QP	L1	GND
6.112500	33.40	10.0	60	26.6	QP	L1	GND
6.180000	32.20	10.0	60	27.8	QP	L1	GND
6.531000	32.30	10.0	60	27.7	QP	L1	GND

### MEASUREMENT RESULT: "11EP-0685 L\_fin2"

5/23/2011 20:02

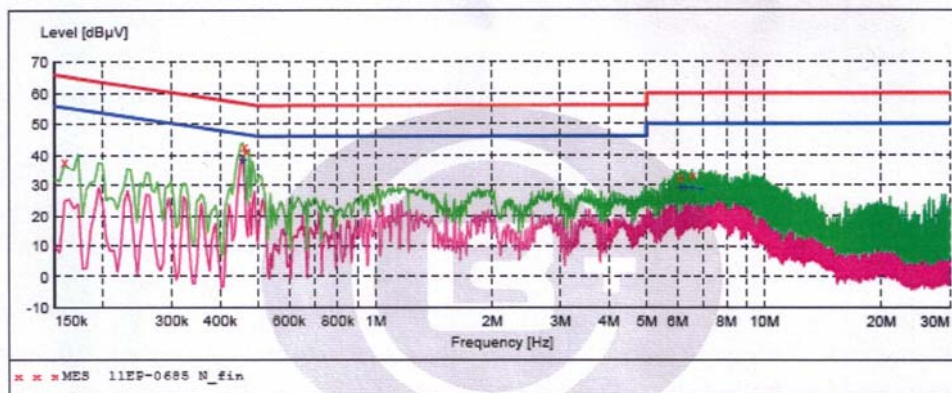
Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.451500	38.70	9.9	47	8.1	AV	L1	GND
5.833500	28.60	10.0	50	21.4	AV	L1	GND
6.112500	30.50	10.0	50	19.5	AV	L1	GND
6.180000	29.80	10.0	50	20.2	AV	L1	GND
6.526500	27.80	10.0	50	22.2	AV	L1	GND



### Conducted Emission Test Data

EUT: Fingerprint Access Control  
M/N: H2i  
Operating Condition: Normal operation  
Test Site: Shielded Room  
Operator: Yang  
Test Specification: AC 120V/60Hz for Adapter  
Comment: Neutral Line  
Start of Test: 5/23/2011/ 20:05 Tem:24°C Hum:55%

SCAN TABLE: "Voltage (150K-30M) FIN"  
Short Description: 150K-30M Voltage



### MEASUREMENT RESULT: "11EP-0685 N\_fin"

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.159000	38.00	9.9	66	27.5	QP	N	GND
0.460500	43.00	9.9	57	13.7	QP	N	GND
0.465000	41.50	9.9	57	15.1	QP	N	GND
6.112500	32.70	10.0	60	27.3	QP	N	GND
6.531000	32.80	10.0	60	27.2	QP	N	GND

### MEASUREMENT RESULT: "11EP-0685 N\_fin2"

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.456000	38.30	9.9	47	8.5	AV	N	GND
6.112500	28.90	10.0	50	21.1	AV	N	GND
6.252000	29.00	10.0	50	21.0	AV	N	GND
6.531000	28.90	10.0	50	21.1	AV	N	GND
6.877500	28.60	10.0	50	21.4	AV	N	GND



## 4 - RADIATED DISTURBANCES

### 4.1 Measurement Uncertainty

All measurements involve certain levels of uncertainties, especially in field of EMC. The factors contributing to uncertainties are spectrum analyzer, cable loss, antenna factor calibration, antenna directivity, antenna factor variation with height, antenna phase center variation, antenna factor frequency interpolation, measurement distance variation, site imperfections, mismatch (average), and system repeatability.

The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of a radiation emissions measurement is 4.0 dB.

### 4.2 Limit of Radiated Disturbances

Frequency (MHz)	Distance (Meters)	Field Strengths Limits (dB $\mu$ V/m)
30 ~ 88	3	40
88~216	3	43.5
216 ~ 960	3	46
960 ~ 1000	3	54

Note: (1) The tighter limit shall apply at the edge between two frequency bands.  
(2) Distance refers to the distance in meters between the test instrument antenna and the closest point of any part of the E.U.T.

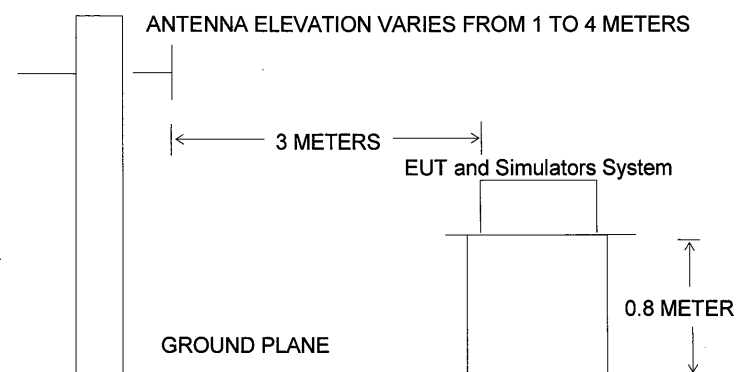
### 4.3 EUT Setup

The radiated emission tests were performed in the in the 3-meter anechoic chamber, using the setup accordance with the ANSI C63.4-2009. The specification used was the FCC Part 15 Subpart B limits.

The EUT was placed on the center of the test table.

Maximum emission emitted from EUT was determined by manipulating the EUT, support equipment, interconnecting cables and varying the mode of operation and the levels in the final result of the test were recorded with the EUT running in the operating mode that maximum emission was emitted.

Block diagram of test setup (In chamber)





#### 4.4 Test Receiver Setup

According to FCC Part 15 rule, the frequency was investigated from 30 to 1000 MHz. During the radiated emission test, the test receiver was set with the following configurations:

Test Receiver Setting:

Detector.....Peak & Quasi-Peak  
IF Band Width.....120KHz  
Frequency Range.....30MHz to 1000MHz  
Turntable Rotated.....0 to 360 degrees

Antenna Position:

Height.....1m to 4m  
Polarity.....Horizontal and Vertical

#### 4.5 Test Procedure

Maximizing procedure was performed on the highest emissions to ensure that the EUT complied with all installation combinations.

All data was recorded in the peak detection mode. Quasi-peak readings performed only when an emission was found to be marginal (within -10 dB $\mu$ V of specification limits), and are distinguished with a "QP" in the data table.

#### 4.6 Corrected Amplitude & Margin Calculation

The Corrected Amplitude is calculated by adding the Antenna Factor and Cable Factor, and subtracting the Amplifier Gain from the Amplitude reading. The basic equation is as follows:

$$\text{Corr. Ampl.} = \text{Indicated Reading} + \text{Antenna Factor} + \text{Cable Factor} - \text{Amplifier Gain}$$

The "Margin" column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of -7dB $\mu$ V means the emission is 7dB $\mu$ V below the maximum limit for Subpart B. The equation for margin calculation is as follows:

$$\text{Margin} = \text{Limit} - \text{Corr. Ampl.}$$

#### 4.7 Radiated Emissions Test Result

Temperature ( °C )	22~25
Humidity ( %RH )	50~54
Barometric Pressure ( mbar )	950~1000
EUT	Fingerprint Access Control
M/N	H2i
Operating Mode	Normal operation

Test data see following pages

Remark: (1) When PK reading is less than relevant limit 20dB, the QP reading and AV reading will not be recorded.  
(2) Where QP reading is less than relevant AV limit, the AV reading will not be measured

#### 4.8 Test Result

PASS



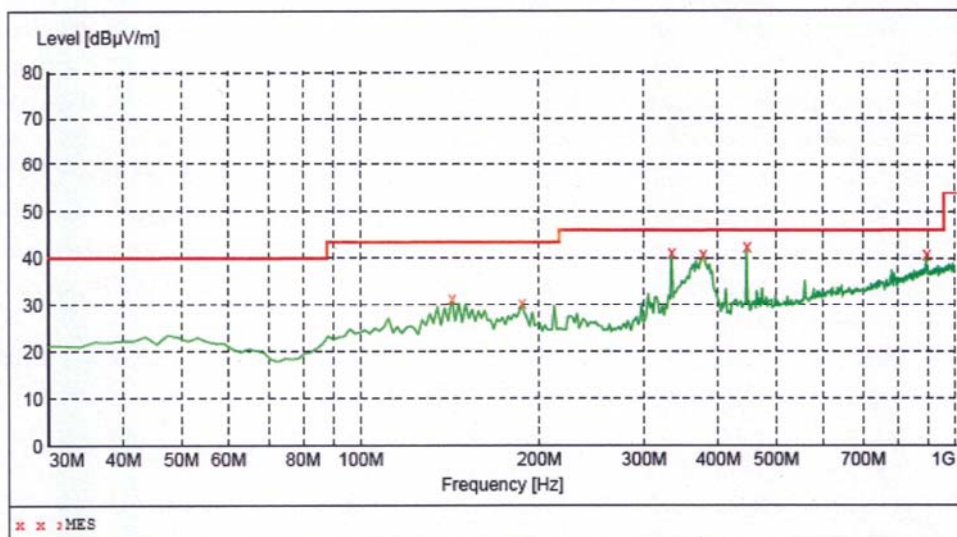


## Radiated Emission Test Data:

EUT: Fingerprint Access Control  
M/N: H2i  
Operating Condition: Normal operation  
Test Site: 3m CHAMBER  
Operator: Chen  
Test Specification: AC 120V/60Hz for Adapter  
Comment: Polarization: Horizontal  
Start of Test: 5/26/2011/ 14:43 Tem:25°C Hum:50%

## SWEEP TABLE: "test (30M-1G)"

Short Description:		Field Strength			
Start Frequency	Stop Frequency	Detector	Meas. Time	IF Bandw.	Transducer
30.0 MHz	1.0 GHz	MaxPeak	Coupled	100 kHz	VULB9163 NEW



## MEASUREMENT RESULT:

5/26/2011 14:43

Frequency MHz	Level dBμV/m	Transd dB	Limit dBμV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
142.520000	31.20	13.1	43.5	12.3	QP	100.0	0.00	HORIZONTAL
187.140000	30.20	15.8	43.5	13.3	QP	100.0	0.00	HORIZONTAL
334.580000	41.40	19.9	46.0	4.6	QP	100.0	0.00	HORIZONTAL
377.260000	41.10	20.9	46.0	4.9	QP	100.0	0.00	HORIZONTAL
447.100000	42.70	22.1	46.0	3.3	QP	100.0	0.00	HORIZONTAL
895.240000	40.80	31.1	46.0	5.2	QP	100.0	0.00	HORIZONTAL

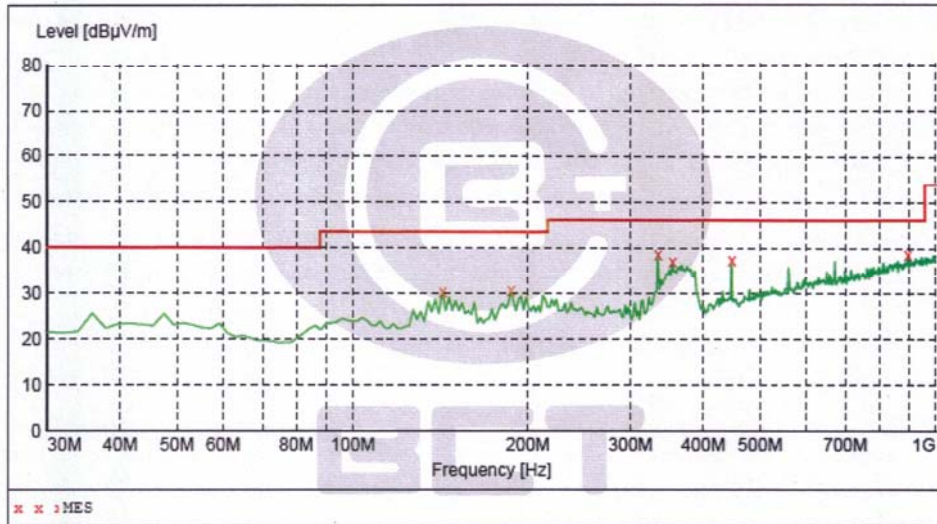


**Radiated Emission Test Data:**

EUT: Fingerprint Access Control  
M/N: H2i  
Operating Condition: Normal operation  
Test Site: 3m CHAMBER  
Operator: Chen  
Test Specification: AC 120V/60Hz for Adapter  
Comment: Polarization: Vertical  
Start of Test: 5/26/2011/ 14:44 Tem:25°C Hum:50%

**SWEEP TABLE: "test (30M-1G)"**

Short Description:	Field Strength				
Start Stop	Detector	Meas. Time	IF Bandw.	Transducer	
Frequency Frequency	MaxPeak	Coupled	100 kHz	VULB9163 NEW	
30.0 MHz 1.0 GHz					



**MEASUREMENT RESULT:**

5/26/2011 14:44

Frequency MHz	Level dBμV/m	Transd dB	Limit dBμV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
142.520000	30.20	13.1	43.5	13.3	QP	100.0	0.00	VERTICAL
187.140000	30.50	15.8	43.5	13.0	QP	100.0	0.00	VERTICAL
334.580000	38.60	19.9	46.0	7.4	QP	100.0	0.00	VERTICAL
353.980000	37.00	20.5	46.0	9.0	QP	100.0	0.00	VERTICAL
447.100000	37.30	22.1	46.0	8.7	QP	100.0	0.00	VERTICAL
895.240000	38.60	31.1	46.0	7.4	QP	100.0	0.00	VERTICAL





## APPENDIX A - EUT PHOTOGRAPHS

EUT – Whole View



EUT – Front View



EUT – Rear View





EUT – Side View



EUT – Open View

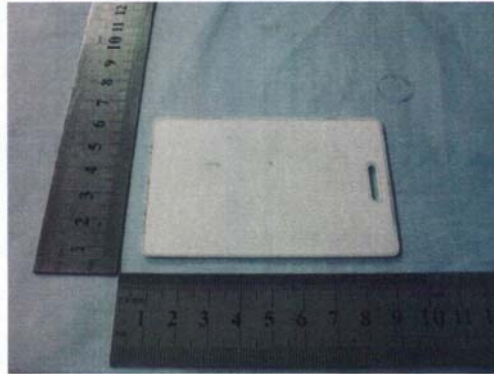


EUT – Card View

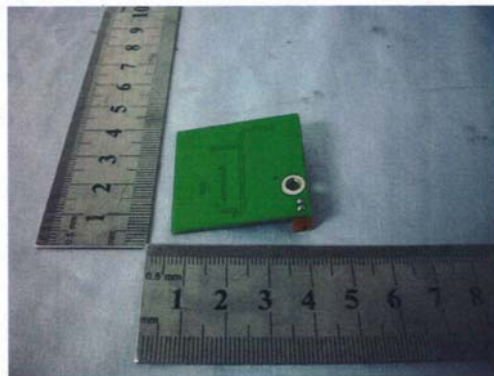
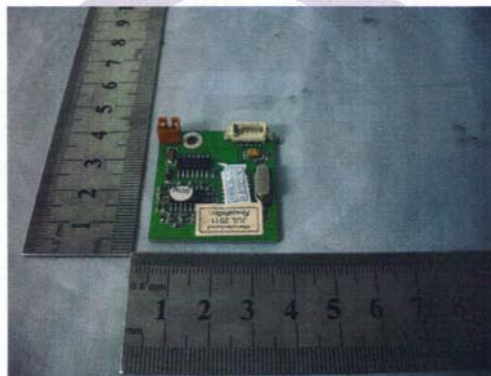




EUT – Card View

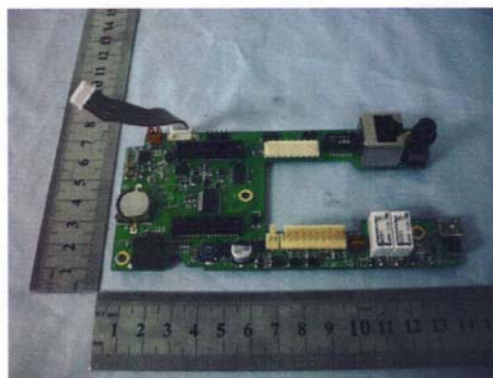
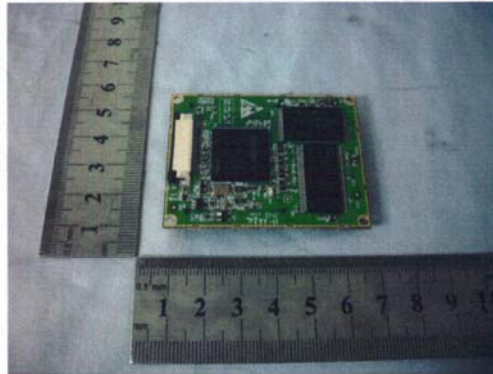


EUT – PCB View





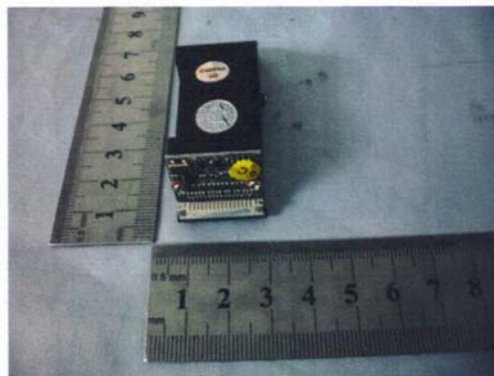
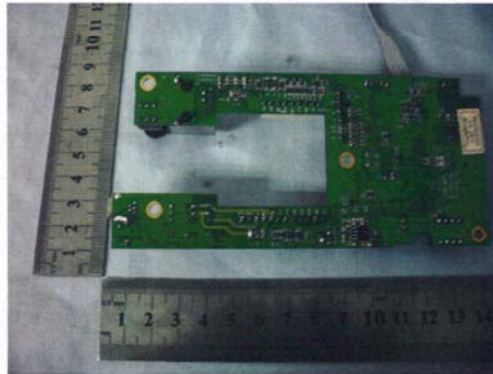
EUT – PCB View





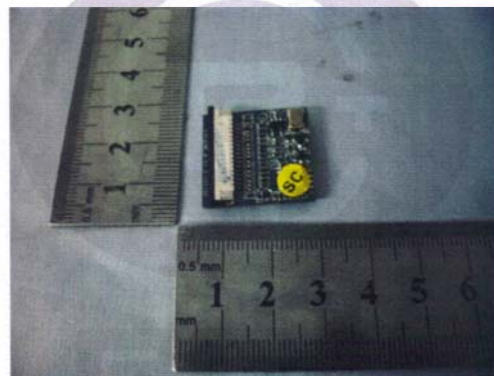
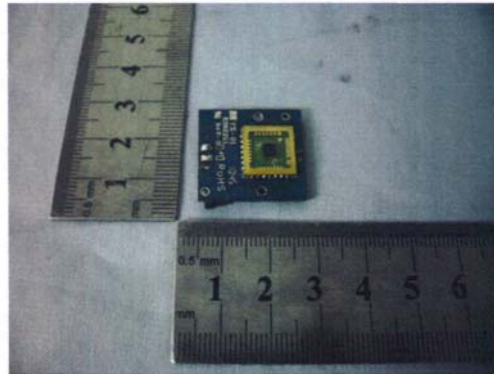


EUT – PCB View





EUT – PCB View





## APPENDIX B - TEST SETUP PHOTOGRAPHS

### Conducted Emission



### Radiated Emission





Shenzhen Bontek Electronic Technology Co., Ltd.

## APPENDIX C - BONTEK ACCREDITATION CERTIFICATES

 
<b>China National Accreditation Service for Conformity Assessment</b>
<b>LABORATORY ACCREDITATION CERTIFICATE</b>
<b>(No. CNAS L3923 )</b>
<i>China National Accreditation Service for Conformity Assessment has accredited</i>
<b>Shenzhen Bontek Electronic Technology Co., Ltd.</b>
<u>1/F, Block East H-3, OCT Eastern Ind. Zone,</u>
<u>Qiaocheng East Road, Nanshan District, Shenzhen, China</u>
<i>to ISO/IEC 17025:2005 General Requirements for the Competence of Testing and Calibration Laboratories(CNAS-CL01 Accreditation Criteria for the Competence of Testing and Calibration Laboratories) for the competence in the field of testing.</i>
<i>The scope of accreditation is detailed in the attached schedule bearing the same accreditation number as above. The schedule forms an integral part of this certificate.</i>
Date of Issue: 2009-02-27
Date of Expiry: 2012-02-26
Date of Initial Accreditation: 2009-02-27

Signed on behalf of China National Accreditation Service for Conformity Assessment
<small>China National Accreditation Service for Conformity Assessment (CNAS) is authorized by Certification and Accreditation Administration of the People's Republic of China (CNCA) to operate the national accreditation systems for conformity assessment (CNAS) with signature in International Laboratory Accreditation Cooperation Multilateral Recognition Arrangement (ILAC-MRA), and the signature in Asia Pacific Laboratory Accreditation Cooperation Multilateral Recognition Arrangement (APLAC-MRA).</small>





# Certificate

of

## Appointment

No. UA 50203122-0001

The Applicant

**Bontek Compliance Testing  
Laboratory Ltd**  
1/F, Block East H-3, OCT Eastern  
Industrial Zone, Qiaocheng East Rd.  
Nanshan, Shenzhen, Guangdong  
P.R. China

has been authorized to carry out EMC tests  
by order and under supervision of TÜV Rheinland according to .  
EN55011, EN55012, EN55013, EN55014-1, EN55014-2, EN55015, EN55020  
CISPR11, CISPR12, CISPR13, CISPR14-1, CISPR14-2, CISPR15, EN55022  
EN55024, EN55025, CISPR20, CISPR22, CISPR24, CISPR25  
EN/IEC61000-3-2/-3, EN/IEC61000-4-2/-4/-5/-6/-8/-11  
EN/IEC61547, EN/IEC62040-2, EN/IEC61000-6-1  
EN/IEC61000-6-2, EN/IEC61000-6-3, EN/IEC61000-6-4  
EN/IEC60601-1-2, EN/IEC61326-1, EN/IEC61326-x(x=2,3,4, or 5)

An assessment of the laboratory was conducted according to the "Procedures and  
Conditions for Appointments of EMC Test Laboratories" with reference to  
EN ISO/IEC 17025 by a TÜV Rheinland auditor.

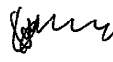

Audit Report No. 17010783-002

This certificate is valid until the next scheduled audit or up to 18 months,  
at the discretion of TÜV Rheinland.

Date of issue: 06.05.2011

TÜV Rheinland/CCIC (Qingdao) Co., Ltd.  
18 Hong Kong Middle Road, Qingdao 266071, P.R.China  
Tel: +86-532-8578-1778  
Fax: +86-532-8578-1079 <http://www.chn.tuv.com>

Certification Body

  
Shawn Peng  




Shenzhen Bontek Electronic Technology Co., Ltd.

**FEDERAL COMMUNICATIONS COMMISSION**

Laboratory Division  
7435 Oakland Mills Road  
Columbia, MD 21046

March 20, 2008

Registration Number: 338263

Bontek Compliance Testing Laboratory Ltd  
1/F, Block East H-3, OCT Eastern Ind. Zone,  
Qiaocheng East Road, Nanshan,  
Shenzhen, 518055  
China

Attention: Tony Wu

Re: Measurement facility located at Hua Qiao Cheng East Ind. Area, Shenzhen, China  
Anechoic chamber (3 meter)  
Date of Listing: March 20, 2008

Dear Sir or Madam:

Your request for registration of the subject measurement facility has been reviewed and found to be in compliance with the requirements of Section 2.948 of the FCC rules. The information has, therefore, been placed on file and the name of your organization added to the list of facilities whose measurement data will be accepted in conjunction with applications for Certification under Parts 15 or 18 of the Commission's Rules. Please note that the file must be updated for any changes made to the facility and the registration must be renewed at least every three years.

Measurement facilities that have indicated that they are available to the public to perform measurement services on a fee basis may be found on the FCC website [www.fcc.gov](http://www.fcc.gov) under E-Filing, OET Equipment Authorization Electronic Filing, Test Firms.

Sincerely,

Katie Hawkins  
Electronics Engineer