



INITIAL CERTIFICATION TEST REPORT

Module Integration

Test of:
Beijing InHand Networks Technology Co., Ltd – IR601 IR611 IR691

To:
Conformance Test Cases (NAPRD03 V5.20 and GCF-CC V3.61.2)

Test Report Serial No: GC631903
Test Report Version: Rev. 01
PTCRB Request No: 54126

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Declaration by Test Laboratory

The PCS1900, GSM850, UMTS FDDII, FDDIV, FDDV, E-UTRA FDD2, FDD4, FDD5 and FDD17 testing performed and shown in this report by Sporton International Inc. was conducted as per the requirements of the PTCRB (PCS Type Certification Review board).

The E-GSM900, DCS1800 testing performed and shown in this report by Sporton International Inc. was conducted as per the requirements of the GCF-CC (Global Certification Forum - Certification Criteria).

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Project Manager

Technical Manager

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1 Details of Test

1.1 Client

Address:	Beijing InHand Networks Technology Co., Ltd 101, West Wing, 11th Floor, No.101, Lize central Park, Wangjing, Chaoyang District, Beijing, 100102, P. R. China
Contact Name:	Biao Wang +010-64391099 wangbiao@inhand.com.cn

1.2 Manufacturer

Address:	Beijing InHand Networks Technology Co., Ltd 101, West Wing, 11th Floor, No.101, Lize central Park, Wangjing, Chaoyang District, Beijing, 100102, P. R. China
Contact Name:	Yinchun Ma +010-64391099 mayc@inhand.com.cn

1.3 Location of Test

1.3.1 Sporton International Inc.

Address:	Sporton International Inc. (Shenzhen) 1F & 2F, Building A, Morning Business Center, No. 4003 ShiGu Rd., Xili Town, Nanshan District, Shenzhen, Guangdong, P. R. China
Contact Name:	Mr. Michael Lin, Laboratory Manager
TAF Lab Code:	2353

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1.4 Test Environment

Testing Start Date:	06 April 2016
Testing End Date:	05 May 2016

Environmental Data:	Temperature (°C)	Humidity (%)
Ambient Condition	15~35	25~75
Maximum Extreme	+55	N.A.
Minimum Extreme	-10	N.A.

Normal Supply Voltage (V d.c.):	12.0
Maximum Extreme Supply Voltage (V d.c.):	26.0
Minimum Extreme Supply Voltage (V d.c.):	9.0

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2 Details of Equipment under Test

2.1 Final Equipment Build Status

The following is the build status for which compliance has been demonstrated by test and declaration

2.1.1 Product Build Status

Manufacturer Name:	Beijing InHand Networks Technology Co., Ltd
Brand Name:	Inhand
Model Name:	IR601 IR611 IR691
Product type:	Industrial Wireless Router
GSM Operating Band(s):	E-GSM900/ DCS1800/ PCS1900/ GSM850
UMTS Operating Band(s):	FDDII/ FDDIV/ FDDV
E-UTRA Operating Band(s):	FDD2/ FDD4/ FDD5/ FDD17
Hardware Version:	V34
Software Version:	V1.0.0
SVN (Software Version Number):	09

2.1.2 Module Build Status

Manufacturer Name:	Gemalto M2M
Model Name:	PLS8-US
GSM Operating bands:	E-GSM900/ DCS1800/ PCS1900/ GSM850
UMTS Operating bands:	FDDII/ FDDIV/ FDDV
E-UTRA Operating Band(s):	FDD2/ FDD4/ FDD5/ FDD17
Hardware Version:	B2 (Rev. 4.2.1)
Software Version:	Revision 02.011
SVN (Software Version Number):	09

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2.1.3 Key Features Supported

The following Table defines the key features supported in the device.

Feature	Supported	Release/Comments
GSM	Y	E-GSM900/ DCS1800/ PCS1900/ GSM850
UMTS	Y	FDDII/ FDDIV/ FDDV
E-UTRA	Y	FDD2/ FDD4/ FDD5/ FDD17
GPRS	Y	Supported
GPRS Multi-Slot	Y	GPRS Multi-Slot Class 12
EGPRS	Y	Supported
EGPRS Multi-Slot	Y	EGPRS Multi-Slot Class 12
UMTS Release	Y	Release 8
HSDPA	Y	Supported
HSUPA	Y	Supported

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2.2 Identification of Samples Tested

The following summary may be used to identify the samples referenced in the test summary and any declared hardware or software modifications. Where modifications have been made, conformance has been demonstrated by regression testing declared by the manufacturer.

Sample Reference	IMEI	Hardware Version	Software Version	Date of Receipt	Note
01.01.01	359347050028788	V33	2.2.0.r3758	07-Apr-16	—
02.01.01	359347050026949	V33	2.2.0.r3758	06-Apr-16	—
03.02.03	359347050025255	V34	V1.0.0	14-Apr-16	—
04.02.02	359347050034976	V34	2.2.0.r3907	05-May-16	—
04.02.03	359347050034976	V34	V1.0.0	05-May-16	—

Description of Sporton Reference sample number

E.g. 01.01.01

01 – Sample Identification	01 - Hardware Version	01 - Software Version
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2.3 Description of Product

The product is a Industrial Wireless Router, operating in E-GSM900/ DCS1800/ PCS1900/ GSM850, UMTS FDDII/ FDDIV/ FDDV and E-UTRA FDD2/ FDD4/ FDD5/ FDD17 bands. The Mobile supports GPRS Multi-Slot Class 12, EGPRS Multi-Slot Class 12.

2.4 Generation of Conformance Test Plan

The following route has been chosen by the manufacturer to demonstrate compliance.

2.4.1 Module Integration Certification

Testing based on and according to the information supplied within the device integration information to:

NAPRD03 V5.20

GCF-CC V3.61.2

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2.5 Support Equipment

The following support equipment was used to exercise the EUT during testing.

Description	AC Charger
Manufacturer Name	None stated
Model Name or Number	None stated
Serial Number	None stated

Description	RF Cable
Manufacturer Name	None stated
Model Name or Number	None stated
Serial Number	None stated

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3 Reference Documents

Testing was performed according to the following reference documents and standards.

Document	Version	Applicable	Title
NAPRD03	V5.20	Y	Overview of PCS Type certification review board (PTCRB) Mobile Equipment Type Certification and IMEI control
GCF-CC	V3.61.2	Y	Global Certification Forum - Certification Criteria
3GPP TS 51.010-1	V12.7.0	Y	3rd Generation Partnership Project; Technical Specification Group GSM/EDGE Radio Access Network; Digital cellular telecommunications system (Phase 2+); Mobile Station (MS) conformance specification; Part 1: Conformance specification
3GPP TS 34.108	V12.1.0	Y	3rd Generation Partnership Project; Technical Specification Group Terminals; Common test environments for User Equipment (UE); Conformance testing
ETSI TS 102 230	V10.2.0	Y	Smart cards; UICC-Terminal interface; Physical, electrical and logical test specification
3GPP TS 34.123-1	V12.2.0	Y	3rd Generation Partnership Project; Technical Specification Group Terminals; User Equipment (UE) conformance specification; Part 1: Protocol conformance specification
3GPP TS 34.124	V12.0.0	Y	Universal Mobile Telecommunications System (UMTS); LTE; Electromagnetic compatibility (EMC) requirements for mobile terminals and ancillary equipment
3GPP TS 36.124	V13.1.0	Y	3rd Generation Partnership Project; Evolved Universal Terrestrial Radio Access (E-UTRA); Electromagnetic compatibility (EMC) requirements for mobile terminals and ancillary equipment

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4 Test Results

4.1 Result Summary

The following table summarises the test results obtained. A definition of the result categories may be found at the end of the result tables.

TOTAL RELEVANT TEST CASES PERFORMED	54
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	GERAN	UMTS	E-UTRA
PASS	16	30	8
FAIL	0	0	0
Total	16	30	8

4.2 Tests Performed

The following tables reflect the requirements of the relevant specification and show the tests performed. Result files verifying these verdicts are available for inspection at Sporton International Inc..

Where subcontracting has been performed these results are not covered by Sporton International Inc.'s accreditation.

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4.2.1 Test Results for GERAN

Test_Spec	Identifier	Name	Condition_Designation	Category	Band	Verdict	Sample	Note
51.010-1	12.2.1	Radiated spurious emissions, MS allocated a channel	12.2.1; Frequency Band = 1800, VH	A	All	Pass	04.02.02 01.01.01	2
51.010-1	12.2.1	Radiated spurious emissions, MS allocated a channel	12.2.1; Frequency Band = 1900, VH	A	All	N.A	—	1
51.010-1	12.2.1	Radiated spurious emissions, MS allocated a channel	12.2.1; Frequency Band = 850, VH	A	All	N.A	—	1
51.010-1	12.2.1	Radiated spurious emissions, MS allocated a channel	12.2.1; Frequency Band = 900, VH	A	All	Pass	04.02.02 01.01.01	2
51.010-1	12.2.1	Radiated spurious emissions, MS allocated a channel	12.2.1; Frequency Band = 1800, VL	A	All	Pass	04.02.02 01.01.01	2
51.010-1	12.2.1	Radiated spurious emissions, MS allocated a channel	12.2.1; Frequency Band = 1900, VL	A	All	N.A	—	1
51.010-1	12.2.1	Radiated spurious emissions, MS allocated a channel	12.2.1; Frequency Band = 850, VL	A	All	N.A	—	1
51.010-1	12.2.1	Radiated spurious emissions, MS allocated a channel	12.2.1; Frequency Band = 900, VL	A	All	Pass	04.02.02 01.01.01	2
51.010-1	12.2.1	Radiated spurious emissions, MS allocated a channel	12.2.1; Frequency Band = 1800, VN	A	All	Pass	04.02.02 01.01.01	2
51.010-1	12.2.1	Radiated spurious emissions, MS allocated a channel	12.2.1; Frequency Band = 1900, VN	A	All	N.A	—	1
51.010-1	12.2.1	Radiated spurious emissions, MS allocated a channel	12.2.1; Frequency Band = 850, VN	A	All	N.A	—	1
51.010-1	12.2.1	Radiated spurious emissions, MS allocated a channel	12.2.1; Frequency Band = 900, VN	A	All	Pass	04.02.02 01.01.01	2
51.010-1	12.2.2	Radiated spurious emissions, MS in idle mode	12.2.2; Frequency Band = 1800, VN	A	All	Pass	01.01.01	—
51.010-1	12.2.2	Radiated spurious emissions, MS in idle mode	12.2.2; Frequency Band = 1900, VN	A	All	N.A	—	1
51.010-1	12.2.2	Radiated spurious emissions, MS in idle mode	12.2.2; Frequency Band = 850, VN	A	All	N.A	—	1

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Test_Spec	Identifier	Name	Condition_Designation	Category	Band	Verdict	Sample	Note
51.010-1	12.2.2	Radiated spurious emissions, MS in idle mode	12.2.2; Frequency Band = 900, VN	A	All	Pass	04.02.02	—
51.010-1	26.6.8.5	Ciphering mode / IMEISV request	26.6.8.5; Frequency Band = 1900	A	Single	Pass	04.02.03	—
51.010-1	26.7.3.1-1	General Identification	26.7.3.1-1; Frequency Band = 1900	A	Single	Pass	02.01.01	—
51.010-1	26.7.3.1-2	General Identification	26.7.3.1-2; Frequency Band = 1900	A	Single	Pass	02.01.01	—
51.010-1	27.17.1.1	Electrical tests - Phase preceding ME power on	27.17.1.1	A	Single	Pass	02.01.01	—

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4.2.2 Test Results for UMTS

Test_Spec	Identifier	Name	Condition_Designation	Category	Band	Verdict	Sample	Note
3GPP TS 34.123-1	9.3.1	General Identification	9.3.1; FDD2, ST0	A	Single	Pass	02.01.01	—
3GPP TS 34.124	8.2	Radiated Emission	8.2; FDD2, idle	A	All	N.A.	—	1
3GPP TS 34.124	8.2	Radiated Emission	8.2; FDD2, traffic	A	All	N.A.	—	1
3GPP TS 34.124	8.2	Radiated Emission	8.2; FDD4, idle	A	All	N.A.	—	1
3GPP TS 34.124	8.2	Radiated Emission	8.2; FDD4, traffic	A	All	N.A.	—	1
3GPP TS 34.124	8.2	Radiated Emission	8.2; FDD5, idle	A	All	N.A.	—	1
3GPP TS 34.124	8.2	Radiated Emission	8.2; FDD5, traffic	A	All	N.A.	—	1
ETSI TS 102 230	5.1.1	Phase preceding Terminal power on	5.1.1	A	Single	Pass	03.02.03	—
ETSI TS 102 230	5.1.2.2	Phase during UICC power on: 1,8 V - 3 V	5.1.2.2; b-1)	A	Single	Pass	03.02.03	—
ETSI TS 102 230	5.1.2.2	Phase during UICC power on: 1,8 V - 3 V	5.1.2.2; b-2)	A	Single	Pass	03.02.03	—
ETSI TS 102 230	5.1.3.2	Phase during Terminal power off: 1,8 V - 3 V	5.1.3.2; b-1)	A	Single	Pass	03.02.03	—
ETSI TS 102 230	5.1.3.2	Phase during Terminal power off: 1,8 V - 3 V	5.1.3.2; b-2)	A	Single	Pass	03.02.03	—
ETSI TS 102 230	5.1.5.3	Reaction of 1,8 V technology Terminals on type recognition of 1,8 V technology UICCs	5.1.5.3	A	Single	Pass	03.02.03	—
ETSI TS 102 230	5.1.5.4	Reaction of 1,8 V technology Terminals on type recognition of 3V technology UICCs	5.1.5.4	A	Single	Pass	03.02.03	—
ETSI TS 102 230	5.1.5.6	Reaction of a Terminals receiving no ATR	5.1.5.6; 1.8V-3V	A	Single	Pass	03.02.03	—
ETSI TS 102 230	5.1.5.6	Reaction of a Terminals receiving no ATR	5.1.5.6.2	A	Single	Pass	03.02.03	—
ETSI TS 102 230	5.2.2.3	Electrical tests on contact C1, Test 1: 1,8 V - 3 V	5.2.2.3; b-1)	A	Single	Pass	03.02.03	—
ETSI TS 102 230	5.2.2.3	Electrical tests on contact C1, Test 1: 1,8 V - 3 V	5.2.2.3; b-2)	A	Single	Pass	03.02.03	—
ETSI TS 102 230	5.2.2.4	Electrical tests on contact C1, Test 2: 1,8 V - 3 V	5.2.2.4; b-1), Proc1	A	Single	Pass	03.02.03	—
ETSI TS 102 230	5.2.2.4	Electrical tests on contact C1, Test 2: 1,8 V - 3 V	5.2.2.4; b-1), Proc2	A	Single	Pass	03.02.03	—

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Test_Spec	Identifier	Name	Condition_Designation	Category	Band	Verdict	Sample	Note
ETSI TS 102 230	5.2.2.4	Electrical tests on contact C1, Test 2: 1,8 V - 3 V	5.2.2.4; b-1), Proc3	A	Single	Pass	03.02.03	—
ETSI TS 102 230	5.2.2.4	Electrical tests on contact C1, Test 2: 1,8 V - 3 V	5.2.2.4; b-1), Proc4	A	Single	Pass	03.02.03	—
ETSI TS 102 230	5.2.2.4	Electrical tests on contact C1, Test 2: 1,8 V - 3 V	5.2.2.4; b-1), Proc5	A	Single	Pass	03.02.03	—
ETSI TS 102 230	5.2.2.4	Electrical tests on contact C1, Test 2: 1,8 V - 3 V	5.2.2.4; b-1), Proc6	A	Single	Pass	03.02.03	—
ETSI TS 102 230	5.2.2.4	Electrical tests on contact C1, Test 2: 1,8 V - 3 V	5.2.2.4; b-2), Proc1	A	Single	Pass	03.02.03	—
ETSI TS 102 230	5.2.2.4	Electrical tests on contact C1, Test 2: 1,8 V - 3 V	5.2.2.4; b-2), Proc2	A	Single	Pass	03.02.03	—
ETSI TS 102 230	5.2.2.4	Electrical tests on contact C1, Test 2: 1,8 V - 3 V	5.2.2.4; b-2), Proc3	A	Single	Pass	03.02.03	—
ETSI TS 102 230	5.2.2.4	Electrical tests on contact C1, Test 2: 1,8 V - 3 V	5.2.2.4; b-2), Proc4	A	Single	Pass	03.02.03	—
ETSI TS 102 230	5.2.2.4	Electrical tests on contact C1, Test 2: 1,8 V - 3 V	5.2.2.4; b-2), Proc5	A	Single	Pass	03.02.03	—
ETSI TS 102 230	5.2.2.4	Electrical tests on contact C1, Test 2: 1,8 V - 3 V	5.2.2.4; b-2), Proc6	A	Single	Pass	03.02.03	—
ETSI TS 102 230	5.2.3.2	Electrical tests on contact C2: 1,8 V - 3 V	5.2.3.2; b-1)	A	Single	Pass	03.02.03	—
ETSI TS 102 230	5.2.3.2	Electrical tests on contact C2: 1,8 V - 3 V	5.2.3.2; b-2)	A	Single	Pass	03.02.03	—
ETSI TS 102 230	5.2.4.2	Electrical tests on contact C3: 1,8 V - 3 V	5.2.4.2; b-1)	A	Single	Pass	03.02.03	—
ETSI TS 102 230	5.2.4.2	Electrical tests on contact C3: 1,8 V - 3 V	5.2.4.2; b-2)	A	Single	Pass	03.02.03	—
ETSI TS 102 230	5.2.5.3	Electrical tests on contact C7, Test 1: 1,8 V - 3 V	5.2.5.3; b-1)	A	Single	Pass	03.02.03	—
ETSI TS 102 230	5.2.5.3	Electrical tests on contact C7, Test 1: 1,8 V - 3 V	5.2.5.3; b-2)	A	Single	Pass	03.02.03	—

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4.2.3 Test Results for E-UTRA

Test_Spec	Identifier	Name	Condition_Designation	Category	Band	Verdict	Sample	Note
3GPP TS 36.124	8.2	Radiated Emission	8.2; eFDD17, idle, TCB = 10 MHz	A	All	Pass	01.01.01	—
3GPP TS 36.124	8.2	Radiated Emission	8.2; eFDD17, traffic, TCB = 10 MHz	A	All	Pass	04.02.02 01.01.01	2
3GPP TS 36.124	8.2	Radiated Emission	8.2; eFDD2, idle, TCB = 10 MHz	A	All	Pass	01.01.01	—
3GPP TS 36.124	8.2	Radiated Emission	8.2; eFDD2, traffic, TCB = 10 MHz	A	All	Pass	04.02.02 01.01.01	2
3GPP TS 36.124	8.2	Radiated Emission	8.2; eFDD4, idle, TCB = 10 MHz	A	All	Pass	01.01.01	—
3GPP TS 36.124	8.2	Radiated Emission	8.2; eFDD4, traffic, TCB = 10 MHz	A	All	Pass	04.02.02 01.01.01	2
3GPP TS 36.124	8.2	Radiated Emission	8.2; eFDD5, idle, TCB = 10 MHz	A	All	Pass	01.01.01	—
3GPP TS 36.124	8.2	Radiated Emission	8.2; eFDD5, traffic, TCB = 10 MHz	A	All	Pass	04.02.02 01.01.01	2

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4.3 Key to Result Codes

The following codes are used in the table of results.

Code	Meaning
PASS	Test result shows that the requirements of the relevant specification have been met.
FAIL	Test result shows that the requirements of the relevant specification have not been met.
NA	Test is either not required/not applicable in the specified frequency band or is not applicable according to the specific PICS/PIXIT for the equipment under test.

4.4 Key to Tested Bands Code

The following codes are used in the table of results.

Code	Meaning
Single	Test case is required to be completed in one of the supported frequency bands.
All	Test case is required to be completed in all supported frequency bands.
Network Independent	A test case which is validated without the use of a radio access bearer
Bearer Agnostic	A test case which is independent of the radio access bearer or frequency band used during the test
I-RAT Single	An InterRAT test case that should be tested in a single band combination.
multi	indicates that a band combination is required, e.g. GSM1900/850 MHz bands.
Blank	indicates that the test does not require a bearer

4.5 Key to Notes

The following table describes the special notes, which are relevant to each test.

Note	Meaning
1	Radiated Spurious Emissions testing of a UE supporting multiple RATs shall be tested according to the RAT priority.
2	Test was fully performed with sample 01.01.01 and harmonic checked again using sample 04.02.02.

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5 Test Equipment

Conformance testing was performed using test equipment calibrated in accordance with Taiwan Accreditation Foundation accreditation requirements. Calibration, configuration records and equipment details used for conformance testing are available in Annex A.

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6 People performing Accredited Testing

Knight Ye

Steven Tian

Tomes Zheng

Tom Tang

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Annex A – Test Equipment Configuration Information

The following information details the configuration of the test equipment used in assessing the conformance of this product.

1 Test Equipment

Conformance testing was performed using test equipment calibrated in accordance with TAF accreditation requirements. Calibration, configuration records and equipment details used for conformance testing are available for inspection at Sporton International Inc., if required.

1.1 TP09 – Rohde & Schwarz CRTU-G/CRTU-S (Shenzhen)

Hardware	Serial No.	Calibration Due Date		
CRTU-G	100409 100777	28-May-16		
CRTU-S	100836 100436	15-Nov-16		
CRTU-S	100162 100521	21-Feb-17		
CRTU-S	100403 100762	14-Apr-17		
Software Version				
<u>Testcase Software</u>	<u>Version</u>	<u>ASP</u>	<u>BP</u>	<u>EP</u>
CRTKEGS-900	V3.20	V5.61	V1.50	V4.00
CRTKLU1	V3.20	V5.61	V1.50	V4.00
CRTKSS1	V2.51	V5.61	V1.50	V4.00
CRTKSS2	V2.10	V5.61	V1.50	V4.00
CRTKSS3	V2.00	V5.61	V1.50	V4.00
CRTKSS5	V2.10	V5.61	V1.50	V4.00
CRTKSS6	V1.91	V5.61	V1.50	V4.00
CRTPK1	V3.40	V5.61	V1.50	V4.00
CRTPK2	V3.41	V5.61	V1.50	V4.00
CRTPK3	V3.42	V5.61	V1.50	V4.00
CRTPK4	V3.70	V5.61	V1.50	V4.00
CRTPK6	V3.31	V5.61	V1.50	V4.00
CRTPK8	V3.30	V5.61	V1.50	V4.00
CRTPK9	V3.40	V5.61	V1.50	V4.00
CRTPKB	V3.20	V5.30	V1.50	V4.00
CU-GC01	V2.21	V5.61	V1.50	V4.00
CRTU-GC02	V2.50	V5.61	V1.50	V4.00
CRTU-GC03	V2.10	V5.61	V1.50	V4.00
CRTU-GC04	V1.81	V5.61	V1.50	V4.00
CRTU-GC05	V2.10	V5.61	V1.50	V4.00
CRTU-GC06	V1.90	V5.61	V1.50	V4.00
CRTU-GC07	V2.00	V5.50	V1.50	V4.00
CRTU-GC08	V2.00	V5.50	V1.50	V4.00
CRTU-GC09	V4.50	V5.61	V1.50	V4.00
CRTU-GC10	V1.80	V5.61	V1.50	V4.00
CRTU-GC12	V1.60	V5.61	V1.50	V4.00
CRTU-GC16	V1.80	V5.61	V1.50	V4.00
CRTU-GC18	V4.90	V5.61	V1.50	V4.00

CRTU-GC19	V2.20	V5.61	V1.50	V4.00
CRTU-GC20	V2.00	V5.61	V1.50	V4.00
CRTU-GC21	V1.50	V5.61	V1.50	V4.00
CRTU-GC22	V2.01	V5.61	V1.50	V4.00
CRTU-GC23	V1.91	V5.61	V1.50	V4.00
CRTU-GC24	V2.10	V5.61	V1.50	V4.00
CRTU-GC28	V1.40	V5.50	V1.50	V4.00
CRTU-GC29	V1.71	V5.61	V1.50	V4.00
CRTU-GC31	V4.61	V5.50	V1.50	V4.00
CRTU-GC32	V4.60	V5.61	V1.50	V4.00
CRTU-GC33	V4.70	V5.61	V1.50	V4.00
CRTU-GC34	V5.00	V5.61	V1.50	V4.00
CRTU-GC35	V4.80	V5.61	V1.50	V4.00
CRTU-GC36	V4.70	V5.61	V1.50	V4.00
CRTU-GC37	V4.70	V5.61	V1.50	V4.00
CRTU-GC38	V4.60	V5.61	V1.50	V4.00
CRTU-GC47	V1.30	V5.61	V1.50	V4.00
CRTU-GC41	V4.90	V5.61	V1.50	V4.00
CRTU-GC52	V1.20	V5.50	V1.50	V4.00
CRTU-GC53	V1.60	V5.50	V1.50	V4.00
CRTU-GC54	V1.41	V5.61	V1.50	V4.00
CRTU-GC55	V1.50	V5.61	V1.50	V4.00
CRTU-GC56	V1.50	V5.61	V1.50	V4.00
CRTU-GC57	V1.40	V5.50	V1.50	V4.00
CRTU-GC59	V1.30	V5.70	V1.50	V4.00
CRTU-GC61	V4.60	V5.50	V1.50	V4.00
CRTU-GC62	V4.60	V5.61	V1.50	V4.00
CRTU-GC63	V4.60	V5.61	V1.50	V4.00
CRTU-GC64	V4.80	V5.61	V1.50	V4.00
CRTU-GC65	V4.70	V5.61	V1.50	V4.00
CRTU-GC68	V4.70	V5.61	V1.50	V4.00
CRTU-GC69	V5.00	V5.61	V1.50	V4.00
CRTU-GC70	V4.71	V5.61	V1.50	V4.00
CRTU-GC71	V4.60	V5.61	V1.50	V4.00
CRTU-GC72	V4.80	V5.61	V1.50	V4.00
CRTU-GC73	V4.71	V5.61	V1.50	V4.00
CRTU-GC74	V4.60	V5.61	V1.50	V4.00
CRTU-GC75	V4.80	V5.61	V1.50	V4.00
CRTU-GC76	V4.70	V5.61	V1.50	V4.00
CRTU-GC77	V4.91	V5.61	V1.50	V4.00
CRTU-GC78	V4.81	V5.61	V1.50	V4.00
CRTU-GC79	V4.60	V5.50	V1.50	V4.00
CRTU-GC80	V4.60	V5.61	V1.50	V4.00

CRTU-GC81	V4.70	V5.61	V1.50	V4.00
CRTU-GC82	V4.50	V5.61	V1.50	V4.00
CRTU-GC83	V4.70	V5.61	V1.50	V4.00
CRTU-GC84	V4.80	V5.61	V1.50	V4.00
CRTU-GC85	V4.90	V5.61	V1.50	V4.00
CRTU-GC86	V4.70	V5.61	V1.50	V4.00
CRTU-GC87	V4.70	V5.61	V1.50	V4.00
CRTU-GC88	V4.80	V5.61	V1.50	V4.00
CRTU-GC89	V4.70	V5.61	V1.50	V4.00
CRTU-GC90	V4.82	V5.61	V1.50	V4.00
CRTU-GC91	V4.61	V5.61	V1.50	V4.00
CRTU-GC92	V1.60	V5.61	V1.50	V4.00
TC12-2	V1.30	V5.61	V1.50	V4.00
CRTU-GF02	V1.40	V5.61	V1.50	V4.00

1.2 TP19/28/30 – Rohde & Schwarz CRTU-W/M / CRTU-RRM / CRTU-2G3 (Shenzhen)

Test Platform Info		TP019 - R&S CRTU-W System Simulator TP028 - R&S CRTU-RRM TP030 - R&S CRTU-2G3		
Hardware Info	Equipment List			
Manufacturer	Model Info	Description	Serial Number	Calibration Due Date
Rohde & Schwarz	CRTU-PU CRTU-W	Universal Protocol Tester	100441 100275	NCR
Rohde & Schwarz	CRTU-RU CRTU-W	Universal Protocol Tester	100417 100275	14-Nov-16
Rohde & Schwarz	CRTU-PU CRTU-W	Universal Protocol Tester	100291 100185	NCR
Rohde & Schwarz	CRTU-RU CRTU-W	Universal Protocol Tester	100265 100185	10-Sep-16
Rohde & Schwarz	CRTU-PU CRTU-M	Universal Protocol Tester	100442 100118	NCR
Rohde & Schwarz	CRTU-RU CRTU-M	Universal Protocol Tester	100408 100118	23-Feb-17
Rohde & Schwarz	CRTU-RU CRTU-S	Universal Protocol Tester	100836 100436	7-Nov-16
Rohde & Schwarz	NGMO1	Power Supply	100572	29-May-16
Rohde & Schwarz	FSU3	Spectrum Analyzer	101462	08-Mar-17
Rohde & Schwarz	AMU200A	Baseband Signal Generator and Fading Simulator	100731	28-Jul-17
Software Version	Operational Software	Version		
	CR02P2P BP	v1.50		
	CRTU-MDDB	v20.09.1.74		
	J2SE Runtime	V6.00.220		
	CR02P2P EP	V4.10		
	CR02P2P ASP	v5.28		
		v5.30		
		v5.40		
		v5.50		
		v5.61		
	R&S 3GPP HSD-ENH-R5	v06.90.01		
	R&S HSU-ENH-R6	v06.90.01		
	Testcase Software	Version		
	CRTU-RRM	v5.98.1		
	WE01-04,06-10,15,18	V14.09.1.3		
	WE02	v6.90.1.2		
	WE03	v6.90.1.2		
	WE04	v6.90.1.2		
	WE06	v6.90.1.2		
WE07	v6.90.1.2			
WE08	v6.90.1.2			
WE09	v6.90.1.2			
WE10	v6.90.1.2			

	WE11	v6.90.1.2
	WE12	v6.90.1.2
	WE13	v6.90.1.2
	WE14	v6.90.1.2
	WE15	v6.90.1.2
	WE17	v6.90.1.2
	WE18-RFT067	v6.90.1.2
	WE18-RFT08	v6.90.1.2

1.3 TP12/13 – COMPRION UICC/USIM/USAT Simulator IT3 & InterLab (Shenzhen)

Test Platform Info		TP012 - COMPRION IT3 SIM Simulator TP013 - COMPRION IT3 USIM Simulator		
		TP031 - InterLab® USIM Test Solution TP077 - InterLab® USAT Test Solution		
Hardware Info	IT ³ SIM Simulator v1.0			
	Equipment List			
Manufacturer	Model Info	Description	Serial Number	Calibration Due Date
Comprion	IT ³ Test System	Control PC	B2004-50102	NCR
Comprion	IT ³ Analog Probe	IT ³ APR v1.2	50143	25-Feb-17
Software Version	IT³ Test System	Operation System		
		Windows XP Professional Pack 3		
	Platform Software			Version
	IT ³ Test Platform			V5.0.3
	Network Simulation Controller			V5.0.3
	Software Modules			Version
	3GPP TS 31.121 (digital)			V5.0.3
	3GPP TS 31.124 Stage 1			V5.0.3
	3GPP TS 31.124 Stage 2			V5.0.3
	3GPP TS 31.124 Stage 3			V5.0.3
	3GPP TS 51.010-1 (analog) 850/1900			V5.0.3
	3GPP TS 51.010-1 (analog) 900/1800			V5.0.3
	3GPP TS 51.010-1 (digital) 850/1900			V5.0.3
	3GPP TS 51.010-1 (digital) 900/1800			V5.0.3
	3GPP TS 51.010-4 SAT Rel.99 Stage 1 850/1900			V5.0.3
	3GPP TS 51.010-4 SAT Rel.99 Stage 1 900/1800			V5.0.3
	3GPP TS 51.010-4 SAT Rel.99 Stage 2 850/1900			V5.0.3
	3GPP TS 51.010-4 SAT Rel.99 Stage 2 900/1800			V5.0.3
	ETSI TS 102 230 (analog)			V5.0.3
	ETSI TS 102 230 (digital)			V5.0.3

1.4 Radiated Spurious Emission (Shenzhen)

NO.	Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Due Date
1	Spectrum Analyzer	R&S	FSP30	101362	9kHz~30GHz	1-Sep.-15	31-Aug.-16
2	Radio communication analyzer	Anritsu	MT8820C	6201432835	2G/3G/4G/CDMA	13-Jan.-16	12-Jan.-17
3	Bilog Antenna	TESEQ	CBL 6112D	37877	25MHz~2GHz	17-Oct.-15	16- Oct. -16
4	Horn Antenna	SCHWARZBEC K	BBHA 9120D	9120D-1131	1GHz~18GHz	10-Jun.-15	9-Jun.-16
5	Horn Antenna	COM POWER	AH-840	101073	15GHz~40GHz	3-Jun.-15	2-Jun.-16
6	Amplifier	EM Electronics	EM330	060433	100KHz~3GHz	7-Aug.-15	6-Aug.-16
7	Amplifier	Keysight	8449B	3008A02575	1GHz~26.5GHz	20-Oct.-15	19-Oct.-16
8	Controller	MF	3000	MF780208143	N/A	N/A	N/A
9	Turn Table	MF	MF7802	N/A	0 ~ 360 degree	N/A	N/A
10	Antenna Mast	MF	MF7802	N/A	1 m - 4 m	N/A	N/A
11	AC Power Source	APC	AFC-110009	F104090004	N/A	N/A	N/A
12	3GHigh Pass Filter	Microwave Circuits	WHKX3.0/18 G-10SS	97	3G-18G	Note	Note
13	1GHigh Pass Filter	Wainwright Instruments Gmbh	WHKX1.0/15 G-10SS	10	1G-15G	Note	Note
14	2GHigh Pass Filter	Wainwright Instruments Gmbh	WHKX2.0/18 G-12SS	19	2G-13G	Note	Note
15	1.2GLow Pass Filter	Wainwright Instruments Gmbh	WLKS 1200- 8SS	5	0-1.22G	Note	Note
16	Turnable Notch Filter	Wainwright Instruments Gmbh	WRCT800/9 60-0.2/40- 8SS	35	800-960 MHz	Note	Note
17	Notch Filter	Wainwright Instruments Gmbh	WRCD1747. 5	N/A	1747.5MHz Notch	Note	Note
18	Notch Filter	Wainwright Instruments Gmbh	WRCT902.5	N/A	902.5MHz Notch	Note	Note
19	Notch Filter	Wainwright Instruments Gmbh	WRCD1700/ 2000-0.2/40- 10SS	N/A	1700~2000MHz Tunable Notch	Note	Note
20	Notch Filter	Wainwright Instruments Gmbh	WRCT800/9 60-0.2/40- 8SS	N/A	800~960MHz Tunable Notch	Note	Note
21	Notch Filter	Wainwright Instruments Gmbh	SN4	N/A	1850~2170 MHz Tunable Notch	Note	Note

Test of: Beijing InHand Networks Technology Co., Ltd – IR601 IR611 IR691
To: Conformance Test Cases (NAPRD03 V5.20 and GCF-CC V3.61.2)

Annex B – Product Equality Declaration

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Declaration

We, Beijing InHand Networks Technology Co., Ltd declare that:

Our product IR601/IR611/IR691 applying for PTCRB certification are the same in hardware and software, only different in their model name.

Signature: *Biao Wang*

Title: EMC Engineer

Email: wangbiao@inhand.com.cn

Tel: +86-010-64391099

Test of: Beijing InHand Networks Technology Co., Ltd – IR601 IR611 IR691
To: Conformance Test Cases (NAPRD03 V5.20 and GCF-CC V3.61.2)

Annex C – Software Change Notes

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Declaration

Model Information:	
Manufacturer's Name:	Beijing InHand Networks Technology Co., Ltd
Manufacturer's Business Address:	101, West Wing, 11th Floor, No.101, Lize central Park, Wangjing, Chaoyang District, Beijing, 100102, P.R.China
Model Name:	IR601 IR611 IR691
HW version:	V34
SW version:	V1.0.0

Hardware change history is list below

Date	Version	Hardware	Change Note
	V01	V33	Initial
2016.5.3	V02	V34	Add 1 aux cellular antenna; add components C550 D45; Delete components U9 R91,Q8,C110; change SIM welding technique

Software change history is list below

Date	Version	Software	Change Note
	V01	V2.2.0 r3758	Initial
2016.4.29	V02	V2.2.0 r3907	Fix bugs
2016.5.4	V03	V1.0.0	Change version number

This declaration is issued to: Sporton International Inc.

Person responsible for making this statement.

Name/Surname: Biao Wang

Position/Title: EMC Engineer

Address/Location: 101, West Wing, 11th Floor, No.101, Lize central Park, Wangjing, Chaoyang District, Beijing, 100102, P.R.China

Issue Date: 2016.5.5

Test of: Beijing InHand Networks Technology Co., Ltd – IR601 IR611 IR691
To: Conformance Test Cases (NAPRD03 V5.20 and GCF-CC V3.61.2)

Annex D – DUT Photographs

