Sporton International Inc.

PAE
PTCRB AWARD
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TEST REPORT

Integrated Device

Test of:
NOTE-MBGLW

To:
Conformance Test Cases (NAPRD03 V6.18.1)

Test Report Serial No: PC540114
Test Report Version: Rev. 01
PTCRB Request No: 131325

Issue Date: 07 May 2025

Declaration by Test Laboratory

The E-UTRA testing performed and shown in this report by Sporton International Inc. Mobile Communications Laboratory was conducted as per the requirements of the PTCRB (PCS Type Certification Review board).

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Angus Wu	Hendry Yang
Project Manager	Technical Manager / Reviewer

Declaration of Conformity: The test results with all measurement uncertainty excluded are in accordance with the standards from SDOs (Standard Development Organization). The test plan assessment was based on the manufacturer's declaration from PICS/PIXIT/ICS.
Comments and Explanations: The declared values of supply voltages (Normal, Maximum, Minimum) for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of the values. The declared values of PICS/PIXIT/ICS for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of the PICS/PIXIT/ICS.

Revision History

Report Number	Revision	Description	Issue Date
PC540114	Rev. 01	Initial Version	07 May 2025

Table of Contents

1 Details of Test

1.1 Branding Manufacturer – Applicant

Address:	Blues Inc 50 Harbor Street, Manchester, MA 01944
Contact Name:	Robert Yomtov ryomtov@blues.com

Note 1: Applicant is the company applying for the certification and should be same as “manufacturer” on the GCF or PTCRB database.
Note 2: Applicant is considered as the owner of the test report if no other statement.

1.2 Test Lab of Report Issue

Address:	Sporton International Inc. Mobile Communications Laboratory No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.)
TAF Lab Code:	1533

1.3 Location of Test

1.3.1 Test Location 1

Address:	Sporton International Inc. Mobile Communications Laboratory No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.)
TAF Lab Code:	1533

1.3.2 Test Location 2

Address:	Sporton International Inc. (KunShan) Mobile Communications Laboratory No. 1098, Pengxi North Road, Kunshan Economic Development Zone, Jiangsu province, China
TAF Lab Code:	2627

1.3.3 Test Location 3

Address:	Sporton International Inc. (Shenzhen) Mobile Communications Laboratory 1/F, 2/F, Bldg5, Shiling Industrial Zone, Xinwei Village, Xili, Nanshan District, Shenzhen City, Guangdong Province, China
TAF Lab Code:	2353

1.4 Test Environment

Testing Start Date:	07 April 2025
Testing End Date:	21 April 2025

Environmental Data:	**Temperature (°C)**	**Humidity (%)**
Ambient Condition	22~26	28~59
Maximum Extreme	+55	N.A.
Minimum Extreme	-10	N.A.

Integrated Device Supply Voltage

Normal Supply Voltage (V d.c.):	12.00

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

The insertion loss from the antenna cable and/or connector from the EUT is provided by the manufacturer, Sporton International Inc. does not guarantee the accuracy of the values.

2.1.1 Product Build Status

Brand Name:	Blues
Model Name:	NOTE-MBGLW
Product type:	Notecard
RAN (Radio Access Network):	E-UTRA
Hardware Version:	2
Software Version:	7
SVN (Software Version Number):	35

Product Operation band(s) please reference to section Key Features Supported.

2.1.2 Module Build Status

Manufacturer Name:	Quectel
Model Name:	EG916Q-GL
RAN (Radio Access Network):	E-UTRA
E-UTRA Operating Band(s)	FDD1 / FDD2 / FDD3 / FDD4 / FDD5 / FDD7 / FDD8 / FDD12 / FDD13 / FDD18 / FDD19 / FDD20 / FDD25 / FDD26 / FDD28 / TDD34 / TDD38 / TDD39 / TDD40 / TDD41 / FDD66
Hardware Version:	R1.0
Software Version:	EG916QGLLGR01A05M04
SVN (Software Version Number):	35

2.1.3 Key Features Supported

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

Feature	Supported	Release/Comments
RAN	Y	E-UTRA
E-UTRA Operating Band(s)	Y	FDD1 / FDD2 / FDD3 / FDD4 / FDD5 / FDD7 / FDD8 / FDD12 / FDD13 / FDD18 / FDD19 / FDD20 / FDD25 / FDD26 / FDD28 / TDD34 / TDD38 / TDD39 / TDD40 / TDD41 / FDD66
E-UTRA DL Category	Y	Cat 1bis
E-UTRA UL Category	Y	Cat 1bis
USIM Application Toolkit	Y	Supported

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
02.01.01	868531060198418	Host: 2 Module: R1.0	Host: 7 Module: EG916QGLLGR01A05M04	07-Apr-25	—

Description of Sporton Reference sample number

E.g. 02.01.03

02 – Sample Identification	**01** - Hardware Version	**03** - Software Version

2.3 Description of Product

The EUT (Equipment Under Test) is a Notecard, operating in E-UTRA bands listed in Section 2.1.3.

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 V6.18.1

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

3 Reference Documents

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

Document	Title
NAPRD03 V6.18.1	Overview of PCS Type certification review board (PTCRB) Mobile Equipment Type Certification and IMEI control
3GPP TS 36.521-1	3rd Generation Partnership Project; LTE; Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) conformance specification; Radio transmission and reception; Part 1: Conformance testing
3GPP TS 36.523-1	3rd Generation Partnership Project; LTE; Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification; Part 1: Protocol conformance specification
3GPP TS 36.124	3rd Generation Partnership Project; Evolved Universal Terrestrial Radio Access (E-UTRA); Electromagnetic compatibility (EMC) requirements for mobile terminals and ancillary equipment
ETSI TS 102 230-1	Smart cards; UICC-Terminal interface; Physical, electrical and logical test specification Part 1: Terminal features

4 Test Results

4.1 Result Summary

The following table summarizes 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	20

	UICC	E-UTRA
PASS	11	9
FAIL	0	0
Total	11	9

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. Mobile Communications Laboratory.

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

4.2.1 Test Results for UICC

SPEC	TCID	TITLE	BAND_CONDITION	BAND	CATEGORY	RESULT	EUT	LOC	NOTE
ETSI TS 102 230-1	5.1.1	Phase preceding Terminal power on	NI	Single	A	Pass	02.01.01	1	—
ETSI TS 102 230-1	5.1.2.2	Phase during UICC power on: 1,8 V - 3 V	NI	Single	A	Pass	02.01.01	1	—
ETSI TS 102 230-1	5.1.3.2	Phase during Terminal power off: 1,8 V - 3 V	NI	Single	A	Pass	02.01.01	1	—
ETSI TS 102 230-1	5.1.5.3	Reaction of Terminals supporting voltage classes B and C on recognition of UICCs accepting voltage classes B and C (see note 4)	NI	Single	A	Pass	02.01.01	1	—
ETSI TS 102 230-1	5.1.5.4	Reaction of Terminals supporting voltage classes B and C on recognition of UICCs accepting voltage classes A and B (see note 5)	NI	Single	A	Pass	02.01.01	1	—
ETSI TS 102 230-1	5.1.5.6.2	Reaction of Terminals receiving no ATR, 1.8 V - 3 V	NI	Single	A	Pass	02.01.01	1	—
ETSI TS 102 230-1	5.2.2.3	Electrical tests on contact C1, Test 1: 1,8 V - 3 V	NI	Single	A	Pass	02.01.01	1	—
ETSI TS 102 230-1	5.2.2.4	Electrical tests on contact C1, Test 2: 1,8 V - 3 V	NI	Single	A	Pass	02.01.01	1	—
ETSI TS 102 230-1	5.2.3.2	Electrical tests on contact C2: 1,8 V - 3 V	NI	Single	A	Pass	02.01.01	1	—
ETSI TS 102 230-1	5.2.4.2	Electrical tests on contact C3: 1,8 V - 3 V	NI	Single	A	Pass	02.01.01	1	—
ETSI TS 102 230-1	5.2.5.3	Electrical tests on contact C7, Test 1: 1,8 V - 3 V	NI	Single	A	Pass	02.01.01	1	—

4.2.2 Test Results for E-UTRA

SPEC	TCID	TITLE	BAND_CONDITION	BAND	CATEGORY	RESULT	EUT	LOC	NOTE
3GPP TS 36.124	8.2	Radiated emission (traffic)	FDD 12	All	A	Pass	02.01.01	1	—
3GPP TS 36.124	8.2	Radiated emission (traffic)	FDD 13	All	A	Pass	02.01.01	1	—
3GPP TS 36.124	8.2	Radiated emission (traffic)	FDD 25	All	A	Pass	02.01.01	1	—
3GPP TS 36.124	8.2	Radiated emission (traffic)	FDD 26	All	A	Pass	02.01.01	1	—
3GPP TS 36.124	8.2	Radiated emission (traffic)	FDD 2	All	A	NA	—	—	1
3GPP TS 36.124	8.2	Radiated emission (traffic)	FDD 4	All	A	NA	—	—	1
3GPP TS 36.124	8.2	Radiated emission (traffic)	FDD 5	All	A	NA	—	—	1
3GPP TS 36.124	8.2	Radiated emission (traffic)	FDD 66	All	A	Pass	02.01.01	1	—
3GPP TS 36.124	8.2	Radiated emission (idle)	FDD 66	All	A	Pass	02.01.01	1	—
3GPP TS 36.124	8.2	Radiated emission (traffic)	FDD 7	All	A	Pass	02.01.01	1	—
3GPP TS 36.124	8.2	Radiated emission (traffic)	TDD 41	All	A	Pass	02.01.01	1	—
3GPP TS 36.523-1	9.1.4.2	Identification procedure / IMEI / IMEISV requested	FDD 4; ChBW = 5	Single	A	Pass	02.01.01	1	—

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	Condition according from NAPRD03: Radiated Spurious Emissions testing of a Device supporting multiple RATs shall be tested according to the RAT priority below on a per band basis. Devices indicating support of E-UTRA FDD 25 and (E-UTRA FDD 2 or UTRA FDD II or GSM 1900 MHz) shall test in E-UTRA FDD 25. Devices indicating support of E-UTRA FDD 26 and E-UTRA FDD 5 shall test in E-UTRA FDD 26. Devices indicating support of E-UTRA FDD 4 and E-UTRA FDD 66 shall test in E-UTRA FDD 66.

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.

6 People performing Accredited Testing

Jay Wang
Kyle Chuang
Louis Huang

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 TP116 - Anite Conformance Toolset

Test Platform Info		TP116 - Anite Conformance Toolset		
		Conformance Protocol Test System for 2/3/4G Protocol, LTE IMS and SAS.		
Hardware Info	**Devices**		**Firmware Version**	
	Anite 9000		A167	
	Devices List			
Manufacturer	**Model Info**	**Description**	**Serial Number**	**Calibration Due Date**
Anite	Anite 9000 2.5	Anite 9000 Mobile Test Accelerator	TB25294	23-May-25
Anite	Anite 9000 2.5	Anite 9000 Mobile Test Accelerator	TB25194	21-Nov-25
Anite	A9143-60000	DA Combiner	TC21178	08-Apr-26
Dell	OptiPlex7040	Control PC	6YPWMK2	NCR
Software Version	**OptipLex790**	**Operational System**		
		Windows 7 Professional SP1		
	Platform Software			**Version**
	Conformance Toolset (UTRAN)			V49.24
	Conformance Toolset (LTE)			V49.24
	Core Software			V62.0.0.0
	Software Modules			**Version**
	3G ETSI TC			V49.24
	3G SUPP TC			V49.24
	IMS TC			V49.24
	LTE TC			V49.24

1.2 TP118/151 - COMPRION UT³ Platform

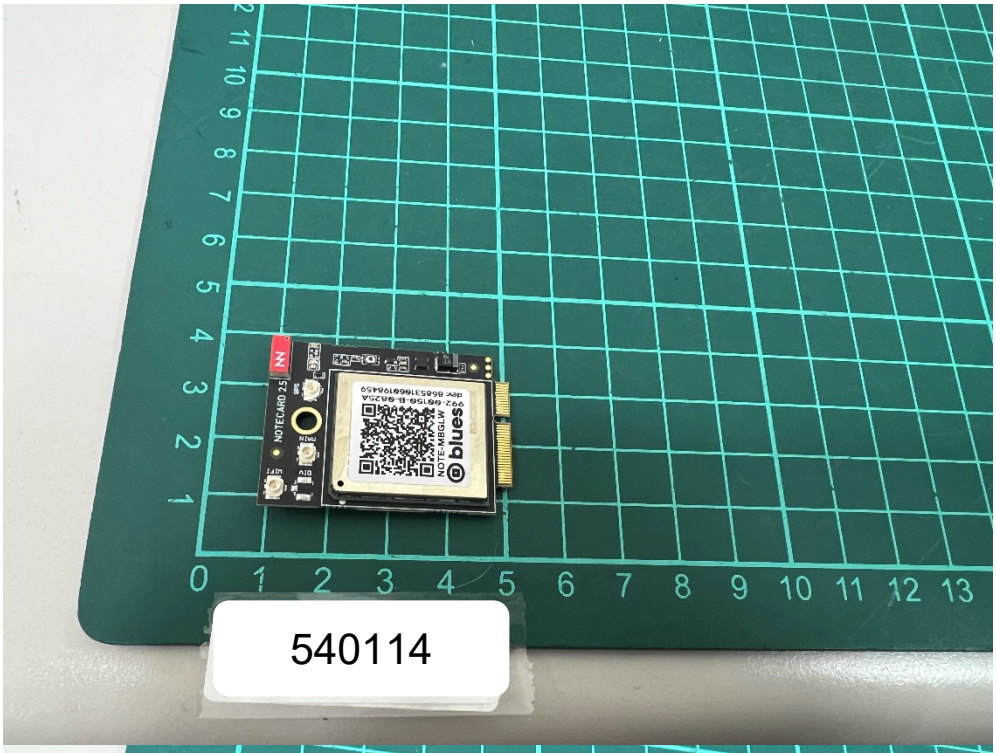
Test Platform Info		TP118/TP151 - COMPRION UT³ Platform -		
Hardware Info	COMPRION UT³ v3.0			
	Equipment List			
Manufacturer	**Model Info**	**Description**	**Serial Number**	**Calibration Due Date**
COMPRION	UT³ Test System	Control PC	40305	NCR
COMPRION	UT³ Probe	UT³ APR v2.0	45002	16-Dec-25
Anritsu	MD8475A	Signaling Tester	6201357747	25-Apr-25

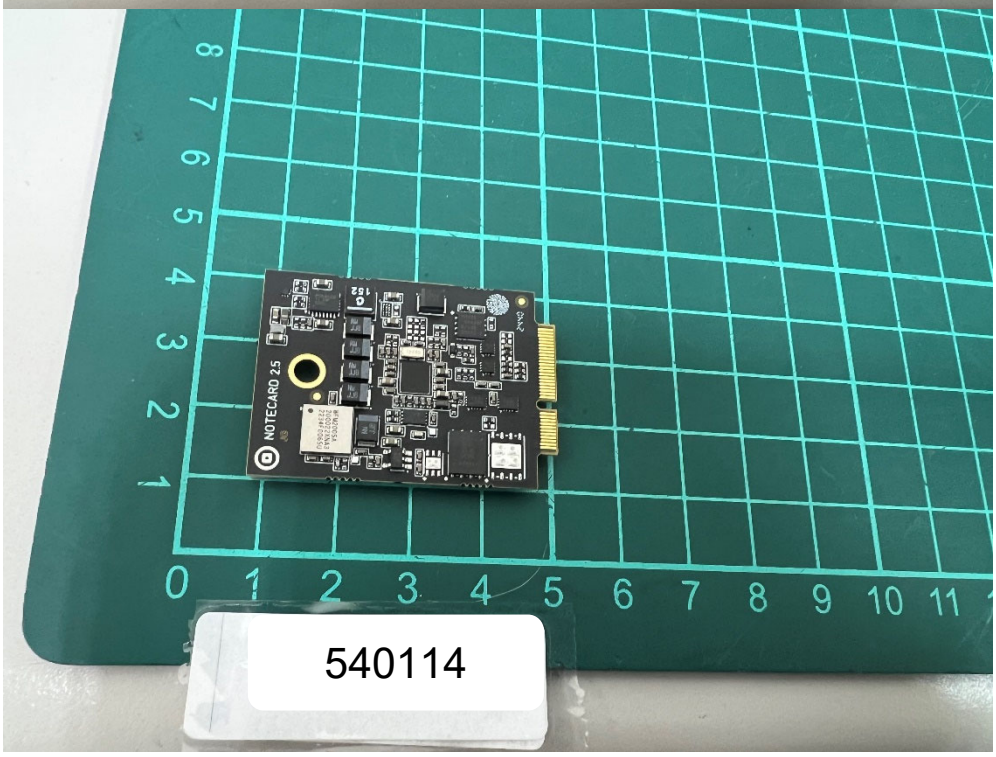
Software Version			
	UT³ Test System	**Operation System**	
		Windows 10 Enterprise LTSC	
	Platform Software		**Version**
	Device Test Center		R8.5.1/2/3
	Network Simulation Controller		R8.1.0
	Software Modules		**Version**
	3GPP TS 31.121 (digital)		V2.6
	3GPP TS 31.121 (digital) Stage 3		V2.6
	3GPP TS 31.124 Stage 1		V2.6.1
	3GPP TS 31.124 Stage 2		V2.6
	3GPP TS 31.124 Stage 3		V2.6
	3GPP TS 51.010-1 (analog) Stage 1		V2.3
	3GPP TS 51.010-1 (digital) 850/1900		V2.6
	3GPP TS 51.010-1 (digital) 900/1800		V2.6
	3GPP TS 51.010-4 Stage 1 850/1900		V2.6
	3GPP TS 51.010-4 Stage 1 900/1800		V2.6
	3GPP TS 51.010-4 Stage 2 850/1900		V2.5
	3GPP TS 51.010-4 Stage 2 900/1800		V2.6
	ETSI TS 102 230 (analog) Stage 1		V2.6
	ETSI TS 102 230 (digital)		V2.6
	MD8475A	**Operation System**	
		Windows 7 Professional SP1	
	Signaling Tester Software		**Version**
	COMPRION MD8475A 3GPP TS 31.121 USIM USS Set 1		R8.1.0
	COMPRION MD8475A 3GPP TS 31.124 USAT USS Set 1		R8.1.0
	COMPRION MD8475A 3GPP TS 31.124 USAT USS Set 2		R8.1.0
	COMPRION MD8475A 3GPP TS 31.124 USAT USS Set 4		R8.1.0
	COMPRION MD8475A 3GPP TS 51.010-1 SIM SS Set 1		R8.1.0
	COMPRION MD8475A 3GPP TS 51.010-4 SAT SS Set 1		R8.1.0

1.3 Radiated Spurious Emission — RF8604

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Due Date	Remark
Signal Analyzer	R&S	FSV3044	101247	10Hz~44GHz	May. 23, 2024	May. 22, 2025	Radiation (05CH02-HY)
Base Station	Agilent	E5515C	MY48364121	GSM/GPRS/WCDMA	Aug. 11, 2024	Aug. 10 2025	Radiation (05CH02-HY)
Bilog Antenna	Schaffner	CBL6112B	2892	25MHz ~ 2GHz	Oct. 05, 2024	Oct. 04, 2025	Radiation (05CH02-HY)
Preamplifier	Keysight	83017A	MY57280138	1GHz ~ 26.5GHz	Oct. 11, 2024	Oct. 10, 2025	Radiation (05CH02-HY)
Base Station	Anritsu	MT8821C	6201107507	FDD/TDD/NB-IoT/Cat-M1/SEQ	Jan. 21, 2025	Jan. 20, 2026	Radiation (05CH02-HY)
Hygrometer	Testo	608-H1	34893240	N/A	Nov. 01, 2024	Oct. 31, 2025	Radiation (05CH02-HY)
Horn Antenna	ETS-Lindgren	3117	00243526	1GHz~18GHz	May. 15, 2024	May. 14, 2025	Radiation (05CH02-HY)
Preamplifier	Langer	EM330	060364	100kHz~3GHz	Oct. 07, 2024	Oct. 06, 2025	Radiation (05CH02-HY)
Antenna Mast	INN-CO	MM 3000	N/A	1m~2m	N/A	N/A	Radiation (05CH02-HY)
Turn Table	INN-CO	DS2000	520604	Deg 0~ 360	N/A	N/A	Radiation (05CH02-HY)
software	AUDIX	e3 210616 sporton	RK-002309	N/A	N/A	N/A	Radiation (05CH02-HY)
Preamplifier	Jet-Power	JPA00101800-30-10P	1601180001	1GHz~18GHz	Jul. 15, 2024	Jul. 14,2025	Radiation (05CH02-HY)

Annex B – EUT Photographs





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