

# Test Report on

Blues Wireless

Model: NOTE-NBGLW

SW Version: 5

HW Version: 5

PTCRB # 120092

SVN: 03

**Test Report Reference:** MUS\_BLUES\_2304\_CON\_Rev0

**Date:** 2023-08-30



**Cert# 3699.02**

**Test Laboratory:**

Bureau Veritas CPS Inc.  
1293 Anvilwood Avenue  
Sunnyvale, CA 94089  
USA



Authorized  
Test Lab

Lab Code: 20131001- 00

**Note:**

The following test results relate only to the devices specified in this document. This report shall not be reproduced in parts without the written approval of the test laboratory

## Table of Contents

<b>1</b>	<b>Administrative Data</b>	<b>3</b>
1.1	Project Information	3
1.2	Applicant Information	3
1.3	Test Laboratory Information	4
1.4	Signature of responsible for testing	5
1.5	Signature of responsible for accreditation scope	5
1.6	Revision History	5
<b>2</b>	<b>Test Object Data</b>	<b>6</b>
2.1	Object Under Test (OUT) Description(s)	6
<b>3</b>	<b>Results</b>	<b>7</b>
3.1	General	7
3.2	Measurement Uncertainties	8
3.3	Applicable Quality Policies	9
3.4	Applicable Test Specification(s)	9
3.5	Result Statistics	10
3.6	Result Summary	11
<b>4</b>	<b>Test Equipment Details</b>	<b>12</b>
4.1	List of Test Equipment	12
<b>5</b>	<b>Annex</b>	<b>13</b>
5.1	Object Under Test (OUT) Features	13
5.2	Sample AA01	13



# 1 Administrative Data

## 1.1 Project Information

Project Name	MUS_BLUES_2304
Responsible for Testing	Jenil Nathwani
Date of Report	2023-08-30
Testing Time Frame	2023-07-13 to 2023-08-23

## 1.2 Applicant Information

Company	Blues Wireless
Address	50 Harbor Street Manchester, MA 01944 United States
Contact Person	James Batson
Phone	+1 (339) 293 7956
Email	jbatson@blues.com



### 1.3 Test Laboratory Information

The following list shows all Locations and Test Resources involved in the generation of test results:

#### **Bureau Veritas, USA, CA, Sunnyvale**

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Company Name	Bureau Veritas Consumer Products Services, Inc.
Address	1293 Anvilwood Avenue Sunnyvale, CA 94089 United States
Contact	Detlef van't Hof
Phone	+1 (949) 297 8071
Email	Detlef.vantHof@7Layers.com
Laboratory accreditation no.	A2LA 3699.02

#### **List of Test Resources**

<b>ID</b>	<b>Name</b>	<b>Responsible</b>	<b>Accreditation Info</b>
1	TP118 - COMPRION UT3 USIM Simulator	Benjamin Ho	A2LA 3699.02

#### 1.4 Signature of responsible for testing

*Jenil Nathwani*

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Jenil Nathwani

#### 1.5 Signature of responsible for accreditation scope

*Marco Orantes*

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Marco Orantes

#### 1.6 Revision History

Report version control			
Version	Release date	Change Description	Version validity
Initial	2023-08-30	Initial Release	Valid

## 2 Test Object Data

### 2.1 Object Under Test (OUT) Description(s)

The following section lists all Objects Under Test (OUTs) involved during testing.

#### Object Under Test: NOTE-NBGLW

Type / Model	Blues Wireless Model: NOTE-NBGLW SW Version: 5 HW Version: 5 PTCRB # 120092 SVN: 03
Normal Temperature	23°C
Normal Voltage	5V

#### Manufacturer:

Company	Blues Wireless
Address	50 Harbor Street Manchester, MA 01944 United States
Contact Person	James Batson
Phone	+1 (339) 293 7956
Email	jbatson@blues.com

## 3 Results

### 3.1 General

**Documentation of tested devices**

Available at the test laboratory.

**Interpretation of the test results**

The results of the inspection are described on the following pages, where 'Conformity' or 'Passed' means that the certification criteria were verified and that the tested device conforms to the applied standard.

In cases where 'Declaration' is stated, the required documents are available in the manufacturer's product documentation.

In cases where 'not applicable' is stated, the test case requirements are not relevant to the specific equipment implementation.

**Notes**

1. This report contains the abbreviated information content pertaining to services rendered. Supporting documentation not included herein is maintained and available at the test laboratory.
2. All tests are performed under environmental conditions within the requirements of the specifications. Environmental condition records are available at the test laboratory.
3. Test sample (NOTE-NBGLW) of this project received in good condition.

**Project specific notes**

This is a delta test report based on PTCRB modular approval guideline for a final product that integrates a Quectel BG95-M3 Module which has been approved by PTCRB (Request# 113557) according to NAPRD.03 v6.10 with HW version: R2.1 and SW version: BG95M3LAR02A03 (SVN03) on November 18, 2022.

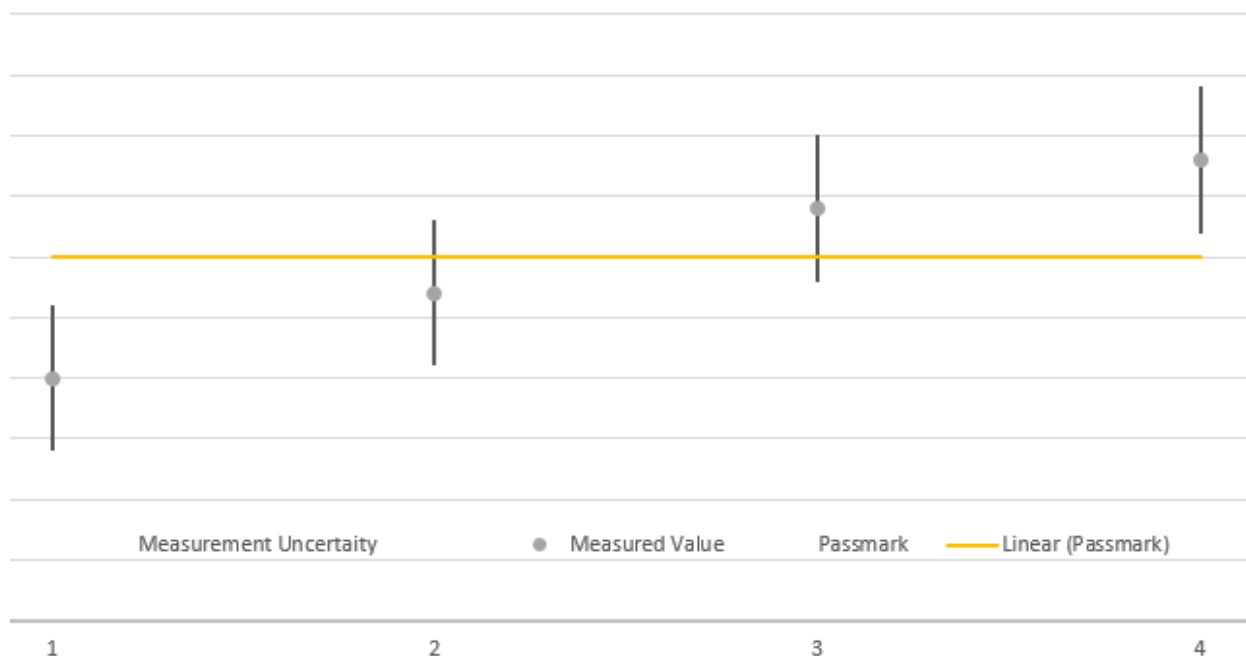
### 3.2 Measurement Uncertainties

<b>Parameter</b>	<b>Uncertainty</b>
Occupied channel Bandwidth	± 2%
Radiated Emissions	30 MHz – 1 GHz: ± 2.4 dB 180 MHz – 18 GHz: ± 2.6 dB
Spurious emissions, conducted	0.22 – 1.82 dB (*)
Transmitter tests, conducted	0.33 – 0.8 dB (*)
Receiver tests, conducted	0.22 – 1.027 dB (*)
Frequency error, conducted	< 15 Hz (*)
Phase error, conducted	≤ 02 °RMS EVM: ≤ 2.5%
Temperature	± 1.0 °C
Humidity	± 3%
DC and low frequency voltages	± 0.05%
Time	0.28 ms
Duty Cycle	± 5%

(\*) Depending on the used test resource and the performed test case the uncertainty is in the given range. Detailed documentation is available at Bureau Veritas Consumer Products Services, Inc.

The measurement uncertainties for all parameters are calculated with an expansion factor (coverage factor)  $k = 1.96$ . This means, that the true value is in the corresponding interval with a probability of 95 %.





The verdicts in this test report are given according the above diagram:

Case	Measured Value	Uncertainty Range	Verdict
1	below pass mark	below pass mark	Passed
2	below pass mark	within pass mark	Passed
3	above pass mark	within pass mark	Failed
4	above pass mark	above pass mark	Failed

That means, the laboratory applies, as decision rule (see ISO/IEC 17025:2017), the so-called shared risk principle.

### 3.3 Applicable Quality Policies

Quality Policy	Version	Expiration Date
NAPRD03	6.10	

### 3.4 Applicable Test Specification(s)

Test Specification	ETSI TS 102 230-1
Version	V14.1.0
Description	Smart Cards; UICC-Terminal interface; Physical, electrical and logical test specification (Release 14)

### 3.5 Result Statistics

Test Specification	Total	Result Verdict					Pass ratio
		Pass	Fail	Declaration	Blocked	Performed	
ETSI TS 102 230-1	13	13	0	0	0	0	100.00 %

Note: Pass, Declaration, Performed, Fail and Inconclusive results are regarded for the pass ratio calculation. Pass, Performed and Declaration are summarized as Pass results. Fail and Inconclusive are summarized as Fail results. All are summarized as total count (Pass + Declaration + Performed + Fail + Inconclusive). The pass ratio is calculated by the number of Pass results divided by the number of total results. All other results like Error, Not Tested or Blocked are not regarded for the calculation.

## 3.6 Result Summary

### 3.6.1 Pass Results

#### Test Specification: ETSI TS 102 230-1

Test Case Name / Description Test Condition	Category	Verdict	Date	Test Res. ID	Sample/Setup
<b>5.1.1 / Phase preceding Terminal power on</b>					
	A	Passed	2023-07-13	TR 1	AA01
<b>5.1.2.2 / Phase during UICC power on: 1,8 V - 3 V</b>					
Parameter = 1.8V-3V (1.8V mode)	A	Passed	2023-07-13	TR 1	AA01
<b>5.1.3.2 / Phase during Terminal power off: 1,8 V - 3 V</b>					
Parameter = 1.8V-3V (1.8V mode)	A	Passed	2023-07-13	TR 1	AA01
<b>5.2.2.3 / Electrical tests on contact C1, Test 1: 1,8 V - 3 V</b>					
Parameter = 1.8V-3V (1.8V mode)	A	Passed	2023-07-13	TR 1	AA01
<b>5.2.2.4 / Electrical tests on contact C1, Test 2: 1,8 V - 3 V</b>					
Parameter = (1) 1.8V-3V (1.8V mode)	A	Passed	2023-07-13	TR 1	AA01
Parameter = (2) 1.8V-3V (1.8V mode)	A	Passed	2023-07-13	TR 1	AA01
Parameter = (3) 1.8V-3V (1.8V mode)	A	Passed	2023-07-13	TR 1	AA01
Parameter = (4) 1.8V-3V (1.8V mode)	A	Passed	2023-07-13	TR 1	AA01
Parameter = (5) 1.8V-3V (1.8V mode)	A	Passed	2023-07-13	TR 1	AA01
Parameter = (6) 1.8V-3V (1.8V mode)	A	Passed	2023-07-13	TR 1	AA01
<b>5.2.3.2 / Electrical tests on contact C2: 1,8 V - 3 V</b>					
Parameter = 1.8V-3V (1.8V mode)	A	Passed	2023-07-13	TR 1	AA01
<b>5.2.4.2 / Electrical tests on contact C3: 1,8 V - 3 V</b>					
Parameter = 1.8V-3V (1.8V mode)	A	Passed	2023-07-13	TR 1	AA01
<b>5.2.5.3 / Electrical tests on contact C7, Test 1: 1,8 V - 3 V</b>					
Parameter = 1.8V-3V (1.8V mode)	B	Passed	2023-07-13	TR 1	AA01

## 4 Test Equipment Details

### 4.1 List of Test Equipment

The information shown below is valid for the testing time frame of this test report.

#### Test Resource 1: TP118 - COMPRION UT3 USIM Simulator

Description:

##### Single Devices of Test Resource TP118 - COMPRION UT3 USIM Simulator

Name	Serial Number	Manufacturer	
Analog Probe (UT3 APR) S/N 45175	45175	COMPRION GmbH	
Thermo-Hydrometer	200591895		
	<i>Deactivation</i>	<i>Start Date</i>	<i>End Date</i>
	Deactivated due to out-of-cal	2023-04-07	

##### Test System TP118 - COMPRION UT3 USIM Simulator of Test Resource TP118 - COMPRION UT3 USIM Simulator

Description: UT<sup>3</sup> Platform s/n 40414  
 Manufacturer: COMPRION GmbH  
 Serial Number: 40414

Event	Execution Date	Next Execution
Calibration	2023-01	2024-01
Software Version	Start Date	End Date
UT3 DTC Version 8.5	2022-09-02	

##### Single Devices of Test System TP118 - COMPRION UT3 USIM Simulator

Name	Serial Number	Manufacturer
Analog Probe (UT3 APR) S/N 45175	45175	COMPRION GmbH
COMPRION UT3 SIM Simulator		COMPRION GmbH

## 5 Annex

### 5.1 Object Under Test (OUT) Features

Supported Features for Object Under Test: NOTE-NBGLW

<b>Name</b>	<b>Short Description</b>
<b>3GPP TS 36.523-2</b>	
A.4.1-1/1	E-UTRA FDD
A.4.3.1-1/1	eFDD1
A.4.3.1-1/2	eFDD2
A.4.3.1-1/3	eFDD3
A.4.3.1-1/4	eFDD4
A.4.3.1-1/5	eFDD5
A.4.3.1-1/8	eFDD8
A.4.3.1-1/12	eFDD12
A.4.3.1-1/13	eFDD13
A.4.3.1-1/18	eFDD18
A.4.3.1-1/19	eFDD19
A.4.3.1-1/20	eFDD20
A.4.3.1-1/25	eFDD25
A.4.3.1-1/26	eFDD26
A.4.3.1-1/28	eFDD28
A.4.3.1-1/34	eFDD66
A.4.3.1-1/39	eFDD71
A.4.3.1-1/85	eFDD85
<b>ETSI TS 102 230-1</b>	
A.1/3	Class A
A.1/4	Class B
A.1/5	Class C

### 5.2 Sample AA01

<b>Sample Name: AA01</b>	
Object Under Test	NOTE-NBGLW
Description	Sample_AA01
Hardware Version	5
Software Version	5
<b>Parameter Name</b>	<b>Value</b>
IMEI	863257069922815

## APPENDIX A. EUT Set-up Photographs



**Sample**

**End of Test Report**