



The Testcenter facility 'LoRa[®] Test Lab' within IMST GmbH is recognized by the LoRa[®] Alliance for testing in accordance to the LoRaWAN[®] Specification V1.0.2

Report for Test of Conformance LoRaWAN[®] V1.0.2 (EU868)

for the Device

“Supercom W1-L”

for the Customer

“Sontex SA”

Jens Lerner

Yavuz Turan

10th October, 2023

Administrative Summary

Location: IMST GmbH, Test Centre, Kamp-Lintfort, Germany

Responsible Test Engineer: Yavuz Turan, Jens Lerner

Subject: Test of Conformance to LoRaWAN® Specification V1.0.2 (EU868)

Company and Contact Information:

Sontex SA

Patrick Bucher

Rue de la gare 27

2605 Sonceboz

Switzerland

Tested Device: Wireless Supercom W1-L

Hardware version: Rev. D

Software version: V 0.9.0

End-device identifier: B0B353FFFE4111CD

LoRa Device Class: A

LoRaWAN Specification version: V1.0.2

Certification requirements: LoRa End Device Certification EU Version 1.6.2

Frequency band(s) tested: 868 MHz

Test Equipment: LCTT v3.11.0_R1

IMST LGW (iC880A + Raspberry Pi): Gateway software version 5.0.1

Packet forwarder software version 4.0.1


Test Result: PASS

Quality Engineer: Jens Lerner

Date: October 10th, 2023

The Test Report, No. 6230400 has the following conclusion:

The device has PASSED the tests hereunder.

Responsibility: 
Yavuz Turan
Test Engineer

Approved: 
Jens Lerner
Quality Engineer

Copyright Notice & Disclaimer: No part of this test report may be reproduced without written permission of IMST GmbH. The test results herein only refer to the tested sample. IMST GmbH cannot be made responsible for any generalizations or conclusions drawn from the test results presented herein concerning further samples of the tested device. Modification of the tested sample(s) is prohibited and leads to invalidity of this report.

1 Description of the Device Under Test (DUT)

1.1 General

Item	Value
Product name	Supercom W1-L
Product Vertical(s)	Buildings, Industry
Series (if any)	N/A
Hardware Version	Rev. D
Software Version	V 0.9.0
Type of DUT	<input type="checkbox"/> Module <input checked="" type="checkbox"/> End Device/Sensor <input type="checkbox"/> others
Geographical area of operation	<input checked="" type="checkbox"/> Europe <input type="checkbox"/> USA
Operating frequency	<input type="checkbox"/> 433 MHz <input checked="" type="checkbox"/> 868 MHz <input type="checkbox"/> 915 MHz
Adaptive Data Rate (ADR) supported?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Optional data rates supported?	<input type="checkbox"/> DR6 <input type="checkbox"/> DR7
Activation possibilities	<input checked="" type="checkbox"/> Over the air <input type="checkbox"/> by personalization <input type="checkbox"/> both
Test According LoRaWAN® Spec	<input type="checkbox"/> V1.0.1 <input checked="" type="checkbox"/> V1.0.2
Output Power	0 -14 dBm
Number / Type of Antenna(s)	1 internal antenna
Antenna Gain	N/A

Table 1 Device Information

1.2 DUT Modes of Operation

During the tests the device operated in the following modes:

- Test mode according to document “LoRa Alliance End Device certification Requirements for EU863-870 MHz Version 1.6.2” Chapter 2.

1.3 DUT Setup

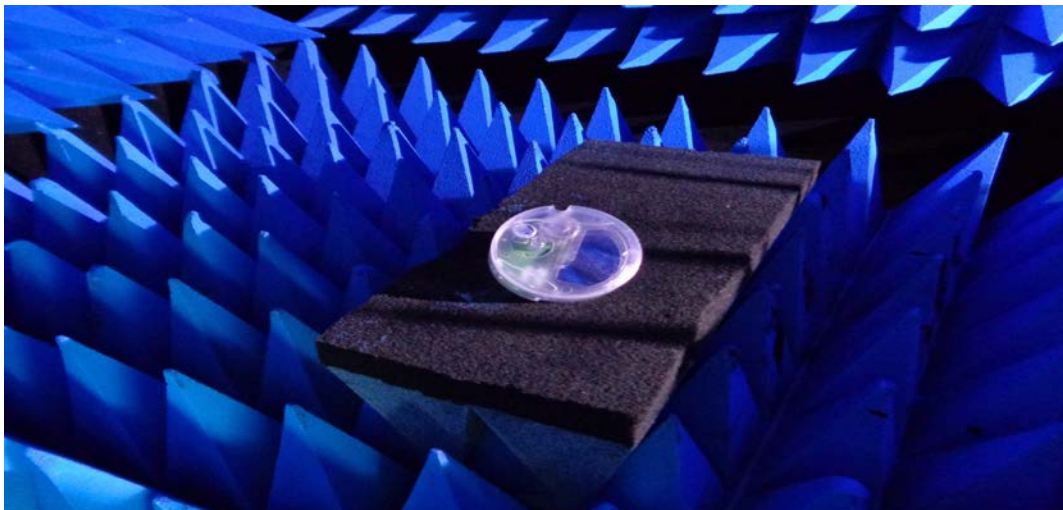


Figure 1 DUT Setup

Applied Methods of Measurement

1.4 Protocol Testing according to LoRaWAN® specification V1.0.2 (EU868)

Detailed Test Results:

Device Activation: **PASS**
Over the Air Activation: **PASS**
Channel Plan and Usage: **PASS**
Cryptography: **PASS**
Downlink Error Rate: **PASS**
Receive Window Timing: **PASS**
Frame Sequence Number: **PASS**
Device Status Request: **PASS**
Mac Commands: **PASS**
New Channel Request: **PASS**
DI Channel Request: **PASS**
Confirmed Frames: **PASS**
RX Parameter Setup Request: **PASS**
RX Timing Setup Request: **PASS**
Link ADR Request: **PASS**
RX1 Receive Window: **PASS**
RX2 Receive Window: **PASS**
RX1 and RX2 Simultaneous Frames: **PASS**
TX Parameter Setup Request: **PASS**
Link Check Request: **PASS**
RX Oversized Payload: **PASS**
Maximum Allowed Payload: **PASS**

Supported Optional Features:

Adaptive Data Rate (ADR):	Yes
DR6 (SF7BW250):	No
DR7 (FSK50):	No
Link ADR Request Block:	No
DI Channel Request:	No
Join Synch DevNonce:	No
Confirmed Re-transmissions:	Yes (retransmission number 7)

Remarks: None

Result: The device passed the test without limitations.