



The Testcenter facility 'LoRa[®] Test Lab' within IMST GmbH is recognized by the LoRa[®] Alliance for testing in accordance to the LoRaWAN[®] Specification V1.0.4

Testreport for Certification by Similarity according to LoRaWAN[®] (V1.0.4 EU868)

for the Device

“ERS Eco CO2“

for the Customer

“Elektroniksystem i Umea AB (Elsys)“

Jens Lerner

Yavuz Turan

13th October, 2022

Administrative Summary

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

Responsible Test Engineer: Yavuz Turan, Jens Lerner

Subject: Test of Conformance to LoRaWAN® Specification V1.0.4 (EU868)

Company and Contact Information:

Elektroniksystem i Umea AB (Elsys)

Johannes Karlsson

Tvistevägen 48

90736 Umea

Sweden

Checked Device: ERS Eco CO2

Hardware version: 2

Firmware version: 3

Type and Version of used Stack: Stackforce 4.6.0

Original End-device identifier: ERS

LoRa Device Class: A

LoRaWAN Specification version: V1.0.4

Certification requirements: LoRaWAN 1.0.4 End Device Certification Requirements V1.6

Frequency band(s): 868 MHz

Test Equipment: LCTT v3.7.0_R1

Type of Certification by Similarity:

Case 3: Certification of an end-device variant from a certified end-device

Variant device differences to the referenced certified device:

- Same LoRa transceiver
- Same LoRaWAN protocol SW version
- Same MCU Core
- Same Clock design and implementation

Brief description of the differences between the primary and the variant device

ERS Eco CO2: Different set of internal sensors

Date: 13th October, 2022

The Test Report, No. 6220306 has the following conclusion:

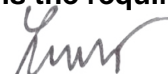
The device fulfils the requirements.

Responsibility:



Yavuz Turan
Test Engineer

Approved:



Jens Lerner
Quality Engineer

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Applied Methods of Measurement

1.1 Protocol Testing according to LoRaWAN® specification V1.0.4 (Class A device for EU868)

Certification By Similarity Test Results By the Manufacturer:

Join tests with various parameters: **PASS**

Device Status Request: **PASS**

New Channel Request: **PASS**

Di Channel Request: **PASS**

RX Parameter Setup Request: **PASS**

RX Timing Setup Request: **PASS**

TX Parameter Setup Request: **PASS**

Link ADR Request: **PASS**

Remarks: None

Result: The device passed the test without limitations.