



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

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# Testreport for Certification by Similarity according to LoRaWAN<sup>®</sup> (V1.0.4 US915)

for the Device

**“TX 4/20 mA 600-135“**

for the Customer

**“Enless Wireless”**

Jens Lerner

Yavuz Turan

22<sup>nd</sup> May, 2024

## 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 (US915)

Company and Contact Information:

Enless Wireless

Théo Benissan

6bis rue du Temple

33000 Bordeaux

France

Checked Device: TX 4/20 mA 600-135

Hardware version: Rev 3.00

Firmware version: V2.02.01

Type and Version of used Stack: Own, 02 Version

Original End-device identifier: TX TEMP INS 600-131

LoRa Device Class: A

LoRaWAN Specification version: V1.0.4

Certification requirements: LoRaWAN 1.0.4 End Device Certification Requirements V1.6.1

Frequency band(s): 915 MHz

Test Equipment: LCTT v3.12.0\_R1

Type of Certification by Similarity:

Case 2: 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

Transmitter with one 4/20 mA input

Date: 22<sup>nd</sup> May, 2024

The Test Report, No. 6240270 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 US915)

### 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**

### Supported Optional Features:

Adaptive Data Rate (ADR)	Yes
SF7BW250 (DR6)	Yes
FSK50 (DR7)	No

### Additional Tests By The Manufacturer:

Retransmission Back-Off for OTA devices only: **PASS**

Remarks: None

**Result: The device passed the test without limitations.**