



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 US915)

for the Device

“TX PULSE 600-136“

for the Customer

“Enless Wireless”

Jens Lerner

Yavuz Turan

22nd 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 PULSE 600-136

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

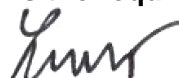
Transmitter with 3 pulse inputs (2 dry contacts and one open collector)

Date: 22nd 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.