



LoRaWAN® End-Device and Network Server Interoperability Test Report Template

Project Information

Batch End Device: **IKOM EPC LRwMB**

Date of Report: **July 27, 2026.**

Test Engineer: **Robert Pavleka**

Organization: **IKOM d.d.**

Interoperability Test Plan Version: **1.1.1**

LoRaWAN Version Tested (e.g. 1.0.2, 1.0.4): **1.0.2**

Frequency Plan ID (e.g. EU868, US915, AS923, etc.): **EU868**

Network Server Make/Model: **The Things Stack v3.36.1.8be3783258**

Gateway Make/Model: **MultiTech Conduit® IP67 200 Series Base Station**

Application Server Make/Model: **IKOM Data Manager**

Join Server Make/Model: **The Things Stack v3.36.1.8be3783258**

Device Under Test (DUT) Summary

DUT ID	DUT Make/Model	Act Modes (OTAA/ABP)	DUT Configuration Notes	Comments
1	IKOM EPC LRwMB	OTAA/ABP	Off the shelf device intended for sale	LoRa Alliance certified End device

Summary of Test Results

DUT ID	Test Case	Test Description	Result (Pass/Fail/Partial)	Observed Events	Comments
DUT-1	3.2.1	Activation by Personalization (ABP) Test	PASS	Device successfully activated using ABP. Uplink frames accepted by the Network Server. Successful bidirectional communication verified using MAC commands (DevStatusReq/DevStatusAns).	ABP activation completed successfully.
DUT-1	3.2.2	Over The Air Activation - Join/Rejoin Process	PASS	The device successfully completed multiple OTAA Join procedures. Each Join Request was accepted by the Network Server, a Join Accept was received by the device, and a valid LoRaWAN session was established.	Multiple OTAA Join scenarios were successfully verified using the TTS.
DUT-1	3.2.3	Uplink Transmission	PASS	Confirmed uplink received by the Network Server and successfully forwarded to the Application Server.	Uplink payload processed successfully without packet loss or protocol errors.



DUT-1	3.2.4	Downlink Transmission	PASS	Downlink transmitted by the Network Server and successfully received by the End Device. Device responded correctly to MAC commands.	Successful bidirectional communication verified using LoRaWAN MAC commands.
DUT-1	3.2.5	Class B Tests	N/A	Not supported.	Device supports Class A operation only.
DUT-1	3.2.6	Class C Tests	N/A	Not supported.	Device supports Class A operation only.

Test Engineer Summary and Notes (Batch Level)

Overall Interoperability Evaluation:

The IKOM EPC LRwMB (LoRaWAN 1.0.2 Class A) successfully completed all applicable interoperability tests using The Things Stack Network Server (TTS). Successful OTAA and ABP activation, repeated OTAA Join procedures, uplink and downlink communication, and LoRaWAN MAC command exchange were verified. No interoperability issues affecting normal device operation were observed during testing.

Any Issues Encountered Across DUTs:

No interoperability issues were identified during testing. All observed behavior was consistent with the supported LoRaWAN 1.0.2 Class A feature set.

General Recommendations:

No recommendations. The device demonstrated stable interoperability with The Things Stack Network Server (TTS) under the tested configuration.

Additional Comments:

Class B and Class C tests were not applicable because device supports LoRaWAN Class A operation only.

Test Sign-Off

Test Engineer Name: **Robert Pavleka**

Signature: 

Date: July 27, 2026.