

Test report No:

NIE: 58727RMV.002

Test Report

LoRa Alliance End Device Certification Requirements

Identification of item tested.....:	LoRa Connectivity Board
Trade	NETOP
Model and /or type reference.....:	LRBS4001
Final HW version	1.5
Final SW version	1.2
Manufacturer	NETOP IOT NETWORK OPERATOR EURO B.V. Westerstraat 2A, 1156 AB, Marken THE NETHERLANDS
Test method requested	Lora Alliance Certification Program
Standard	LoRaWAN v1.0.2
Test procedure(s)	LoRa Alliance End-Device Certification Requirements for EU 868VMHz ISM Band Devices.v1.5
Approved by (name / position & signature).....:	Noemí Pérez Dans IoT Lab Manager
Date of issue	2018-10-04

LoRa accredited Test Lab



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Uncertainty

Uncertainty (factor $k=2$) was calculated according to the DEKRA internal document PODT000.

Usage of samples

Samples undergoing test have been selected by: Telit.

Following samples have been used:

Control N°	Description	Model	HW version	SW version	Serial N°	Date of reception
58727B/2.1	LRBASE4 device	LRBS4001	1.5	1.2	10000063	2018-10-03

All Samples have undergone total or partially the test(s) specified in subclause “Test method requested”.

Test sample description

The test sample consists of a LoRa connectivity board.

Applicant

NETOP IOT NETWORK OPERATOR EURO B.V.

Westerstraat 2A, 1156 AB, Marken

THE NETHERLANDS

Testing period

The performed test started on 2018-10-03 and finished on 2018-10-03.

Environmental conditions

The testing has been performed within the following limits:

NORMAL	
Temperature	Min. = 15 °C Max. = 35 °C
Relative humidity	Min. = 25 % Max. = 75 %

Remarks and comments

The tests have been performed by the technical personnel: José Gómez Ramírez.

Testing verdicts

Not applicable	N/A
Pass	P
Fail	F
Not measured	N/M

Appendix A – Test result

Test Results

EU 863-870MHz ISM



TC ID	Packet Version	Name	Date	Test sample	Result
TC_A_EU868_ED_MAC_BV_000	5.6.0_R1	Device Activation	2018-10-03	58727B/2.1	PASS
TC_A_EU868_ED_MAC_BV_001	5.6.0_R1	Test application functionality	2018-10-03	58727B/2.1	PASS
TC_A_EU868_ED_MAC_BV_002	5.6.0_R1	Over The Air Activation	2018-10-03	58727B/2.1	PASS
TC_A_EU868_ED_MAC_BV_003	5.6.0_R1	Packet Error Rate Part 1	2018-10-03	58727B/2.1	PASS
TC_A_EU868_ED_MAC_BV_004	5.6.0_R1	Cryptography	2018-10-03	58727B/2.1	PASS
TC_A_EU868_ED_MAC_BV_005	5.6.0_R1	Downlink window timing	2018-10-03	58727B/2.1	PASS
TC_A_EU868_ED_MAC_BV_006	5.6.0_R1	Frame sequence number	2018-10-03	58727B/2.1	PASS
TC_A_EU868_ED_MAC_BV_007	5.6.0_R1	DevStatusReq MAC command	2018-10-03	58727B/2.1	PASS
TC_A_EU868_ED_MAC_BV_008	5.6.0_R1	MAC commands	2018-10-03	58727B/2.1	PASS
TC_A_EU868_ED_MAC_BV_009	5.6.0_R1	NewChannelReq MAC command	2018-10-03	58727B/2.1	PASS
TC_A_EU868_ED_MAC_BV_010	5.6.0_R1	Confirmed packets	2018-10-03	58727B/2.1	PASS
TC_A_EU868_ED_MAC_BV_011	5.6.0_R1	RXParamSetupReq MAC command	2018-10-03	58727B/2.1	PASS
TC_A_EU868_ED_MAC_BV_012	5.6.0_R1	RXTimingSetupReq MAC command	2018-10-03	58727B/2.1	PASS
TC_A_EU868_ED_MAC_BV_014A	5.6.0_R1	LinkADRReq MAC command	2018-10-03	58727B/2.1	PASS
TC_A_EU868_ED_MAC_BV_014B	5.6.0_R1	LinkADRReq MAC command	2018-10-03	58727B/2.1	PASS
TC_A_EU868_ED_MAC_BV_015	5.6.0_R1	Packet Error Rate RX1	2018-10-03	58727B/2.1	PASS
TC_A_EU868_ED_MAC_BV_015	5.6.0_R1	Packet Error Rate RX2	2018-10-03	58727B/2.1	PASS

Appendix B – Test Systems

ITEM	EU868 SETUP	
TEST SYSTEM	TACS4 LPWAN	
	Equipment	Serial N°
	Semtech GW IOT SX1301 Starter Kit	PCB_E340V02A 0915
	Equipment	
	TACS4 LORA GUI v1.10.0 TACS4 LORA Reporting Module v1.5.0 TACS4 LORA Technology Package v5.6.0_r1 TACS4 LORA ED Certification EU v1.5	

Appendix C – ICS

NAME	DESCRIPTION	VALUE
C_ED_ADR	DUT supports Adaptive Data Rate (ADR) feature	TRUE
C_ED_ADR_BLOCK	DUT supports LinkADRReq block	TRUE
C_ED_DL_CHAN	DUT supports DChannelReq MAC Command	TRUE
C_ED_OTAA	DUT supports Over-The-Air Activation (OTAA) mechanism	TRUE
C_ED_RESET	DUT needs a reset after deactivating Test Mode	TRUE
C_ED_TM_TRI	DUT supports Trigger Join request command in Test Mode.	FALSE

Appendix D – IXIT

NAME	DESCRIPTION	VALUE
I_ED_APPEUI	Application identifier (AppEUI)	AA:4E:54:50:10:00:00:15
I_ED_DEVEUI	End Device identifier (DevEUI)	DD:4E:54:50:10:00:00:63
I_OTAA_APPKEY	Application Key (AppKey)	E4:B7:D8:96:06:39:3F:45:5B:1C:E2:9B:98:AA:27:8E

Appendix E – Photographs

FRONT VIEW



REAR VIEW

