

Test Report on

Beijing ManThink Technology Co.Ltd

UM801LP

Test Report Reference: MDE_MANTHINK_1601_01

Date: 2016-10-11

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1 Administrative Data

1.1 Project Information

Project Name: MDE_MANTHINK_1601
Responsible for Testing and Report: Abdellah Ahakki
Date of Report: 2016-10-11
Testing Time Frame: 2016-09-05 to 2016-09-05

1.2 Applicant Information

Company Name: Beijing ManThink Technology Co.Ltd
Address: Room601 Ronghua International Building No.5
Ronghua South Road No.10, 100176, Beijing
P.R.China

Contact Person: Mingfei Zhao
Phone: +86-15810684257
Email: zhaomingfei@manthink.cn

1.3 Test Laboratory Information

The following list shows all Locations and Test Resources involved in the generation of test results:

7layers DE, Ratingen, Germany

Company Name: 7layers GmbH
Address: Borsigstr. 11
40880 Ratingen
Germany

Test Resource Details

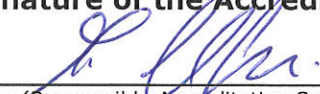
ID	Name	Responsible	Accreditation Info
1	InterLab LoRa Device Test Solution EU		

1.4 Signature of the Testing Responsible



(Responsible for Testing and Report)
Abdellah Ahakki

1.5 Signature of the Accreditation Responsible(s)



(Responsible Accreditation Scope)
Mohamed El-Fikri

2 Test Object Data

2.1 Object Under Test (OUT) Description(s)

The following section lists all Objects Under Test (OUTs) involved during testing.

Object Under Test: UM801LP

Description: Module
Hardware Version: v1.0
Software Version: v1.03
Type / Model: UM801LP

Manufacturer:

Company Name: Beijing ManThink Technology Co.Ltd
Address: Room601 Ronghua International Building No.5 Ronghua South
Road No.10, 100176, Beijing
P.R.China
Contact Person: Hao Zheng
Email: zhenghao@manthink.cn

2.2 Sample Description(s)

Sample Name: DE1205000ad02

Object Under Test: UM801LP
Description: Module
Serial Number: 000C160906000006
Code: ad02

For further details see Annex.

3 Results

3.1 Applicable Test Specification(s)

Test Specification:	LoRa End Device Certification EU v1.2
Date / Version:	Aug 30, 2016 / v1.2
Description:	LoRa alliance End Device Certification Requirements for EU 863-870 MHz ISM Band devices, v1.2

3.2 Result Summary

Test Specification	Total	Result Verdict			Pass Ratio
		Pass	Fail	Declaration	
LoRa End Device Certification EU v1.2	16	16	0	0	100.00 %

Note: Pass, Declaration, Fail and Inconclusive results are regarded for the Pass Ratio calculation. Pass and Declaration are summarized as Pass results. Fail and Inconclusive are summarized as Fail results. All are summarized as Total count (Pass + Declaration + Fail + Inconclusive). The Pass Ratio is calculated by the number of Pass results divided by the number of Total results. All other results like Error or Not Tested are not regarded for the calculation.

3.3 Result Details

Test Specification: LoRa End Device Certification EU v1.2

Test Case Name / Description Test Condition	Verdict	Date	Sample/Setup
TC_MAC_EU_001 / Test Mode activation activation mode = Activation-by-Personalization	Passed	2016-09-05	DE1205000ad02
TC_MAC_EU_002 / Test application functionality	Passed	2016-09-05	DE1205000ad02
TC_MAC_EU_003 / Over The Air Activation	Passed	2016-09-05	DE1205000ad02
TC_MAC_EU_004 / Packet Error Rate RX2 SF12	Passed	2016-09-05	DE1205000ad02
TC_MAC_EU_005 / Cryptography	Passed	2016-09-05	DE1205000ad02
TC_MAC_EU_006 / Downlink Window Timing	Passed	2016-09-05	DE1205000ad02
TC_MAC_EU_007 / Frame Sequence Number	Passed	2016-09-05	DE1205000ad02
TC_MAC_EU_008 / Device Status Request	Passed	2016-09-05	DE1205000ad02
TC_MAC_EU_009 / MAC Commands	Passed	2016-09-05	DE1205000ad02
TC_MAC_EU_010 / New Channel Request	Passed	2016-09-05	DE1205000ad02
TC_MAC_EU_011 / Confirmed packets	Passed	2016-09-05	DE1205000ad02
TC_MAC_EU_012 / RX Parameter Setup Request	Passed	2016-09-05	DE1205000ad02
TC_MAC_EU_013 / RX timing setup request	Passed	2016-09-05	DE1205000ad02
TC_MAC_EU_014 / Link ADR Request	Passed	2016-09-05	DE1205000ad02
TC_MAC_EU_015 / Packet Error Rate Rx1 Window	Passed	2016-09-05	DE1205000ad02
TC_MAC_EU_016 / Packet Error Rate Rx2 Window	Passed	2016-09-05	DE1205000ad02

4 Annex

4.1 Object Under Test (OUT) Features

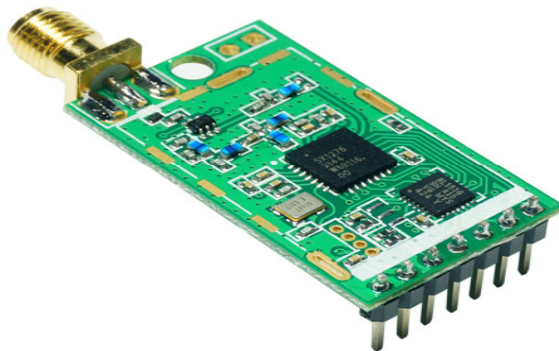
Supported Features for Object Under Test: UM801LP

Name	Description
LoRa End Device Certification EU v1.2	
Band 868 MHz	Support of Band 868 MHz
OTA	Support of optional over-the-air feature
ADR	Support of optional adaptive data rate control feature
JOIN	allow to trigger join request on port 224
DR6	Support of DR6 (SF7BW250)

4.2 Additional Documentation for Samples

The following documents have been attached to Sample definitions as supporting documentation.

Sample Name: DE1205000ad02



Object Under Test

End of Test Report