



Test report issued under the responsibility of:
EMITECH MONTPELLIER laboratory
MRA US-EU Designation Number: FR0006
Canadian CAB Identifier: FR0003

RF EXPOSURE TEST REPORT

KDB 447498 D01 V06
RSS-102 - Issue 5, March 2015

Company: **ENLESS WIRELESS**
Address.....: 45 TER AVENUE DE VERDUN
33520 BRUGES
FRANCE

Test item description: **LoRa wireless repeater**
Trade Mark: ENLESS WIRELESS
Manufacturer.....: ENLESS WIRELESS
Model/Type reference.....: 600501532 / RX REPEATER 600-501
FCC ID.....: 2BEZP600501
IC: 32107-600501
Ratings.....: 7.5 Vdc to 24 Vdc

Testing Laboratory: **EMITECH MONTPELLIER laboratory**
Address.....: 145 rue de Massacan
34740 VENDARGUES
FRANCE

Report Reference No.....: **RE-EVE-23B292-4A**
Test procedure: FCC IC Certification
Diffusion.....: Mr PETIT
Applicant's name: ENLESS WIRELESS
Date of issue.....: August 23, 2024
Total number of pages.....: 11
Revision: 0
Compiled by.....: Morgan PATEY
Approved by (+ signature).....: Olivier HEYER (Deputy Laboratory Manager)

*Duplication of this test report is only permitted for an integral photographic facsimile. It includes the number of pages referenced here above.
This document is the result of testing a specimen or a sample of the product submitted. It does not imply an assessment of the conformity of
the whole manufactured products of the tested sample.*

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REVISION HISTORY:

Revision	Date	Modified pages	Modifications
0	August 23, 2024	/	Creation

1. GENERAL INFORMATION

This document submits the results of Radio tests performed on the equipment **Proprietary LoRa Signal Repeater RX REPEATER 600-501** (denominated hereafter E.U.T.: equipment under test) according to document(s) listed in §2 of this test report.

TESTING PROCEDURE AND TESTING LOCATION:					
Testing Location : EMITECH MONTPELLIER laboratory Address : 145 rue de Massacan 34740 VENDARGUES FRANCE Test procedure : FCC IC Certification Tested by : Morgan PATEY Test supervisor : None Date of receipt of test item : N/A Date (s) of performance of tests : From November 22 nd of 2023 to January 10 th of 2024					
APPLICANT'S GENERAL INFORMATION:					
Company name : ENLESS WIRELESS Company address : 45 TER AVENUE DE VERDUN 33520 BRUGES FRANCE Person(s) present during the tests : No representative for company attended the tests. Responsible : Mr PETIT					
GENERAL REMARKS:					
The information in italics is declared by the manufacturer and is under his responsibility The test results presented in this report relate only to the object tested. The results contained in this report reflect the results for this particular model and serial number. It is the responsibility of the manufacturer to ensure that all production models meet the intent of the requirements detailed within this report. "(see Enclosure #)" refers to additional information appended to the report. "(see appended table)" refers to a table appended to the report. Throughout this report the decimal separator is point.					
POSSIBLE TEST CASE VERDICTS:					
Test case does not apply to the test object .: N/A Test case not performed : N/P Test object does meet the requirement : P (Pass) Test object does not meet the requirement . F (Fail) :					
DEFINITIONS AND ABBREVIATIONS:					
E.U.T.	Equipment Under Test	AE	Ancillary Equipment	Pk	Peak detector
RBW	Resolution BandWidth	VBW	Video BandWidth	QP	Quasi-peak detector
FSOATS	Free Space Open Area Test Site	FAR	Full Anechoic Room	Av	Average detector
VP	Vertical Polarization	HP	Horizontal Polarization	RMS	Root Mean Square
RF	Radio Frequency	N.T.R	Nothing To Report	N/C	Not Communicated
SAC	Semi Anechoic Chamber				

2. REFERENCE DOCUMENT(S)

NORMATIVE REFERENCES:

The following referenced documents are necessary for the application of the present test report.

FCC 47 CFR PART 15

Code of federal regulations – Title 47 telecommunication

Part 15- Radio frequency devices

KDB 447498 D01 v06

RF exposure procedures and equipment authorization policies for mobile and portable devices.

RSS-102 - Issue 5, March 2018

Radio Frequency (RF) Exposure Compliance of Radiocommunication Apparatus (All Frequency Bands)

RR-EVE-23B292-7A Ed.1

Radio Test Report Emitech.

Although the product standard uses obsolete technical standards, the latest versions of standards achievable by the laboratory will be used for testing.

INFORMATIVE REFERENCES:

The following referenced documents are not necessary for the application of the present test report but they assist the user with regard to a particular subject area.

3. EQUIPMENT TECHNICAL DESCRIPTION

3.1. Test Conditions

Test item description. : LoRa wireless repeater
Model/Type reference..... : 600501532 / RX REPEATER 600-501
Trade Mark. : ENLESS WIRELESS
Serial number (S/N)..... : Not communicated
Part number (P/N). : Not communicated
Software version..... : *Not communicated*
Firmware version..... : *Not communicated*
Type of sample. : Standard equipment
Function(s)..... : Not communicated
Manufacturer name. : ENLESS WIRELESS
Address. : 45 TER AVENUE DE VERDUN
33520 BRUGES
FRANCE

General product information:

N/A

3.2. E.U.T. Marking plate



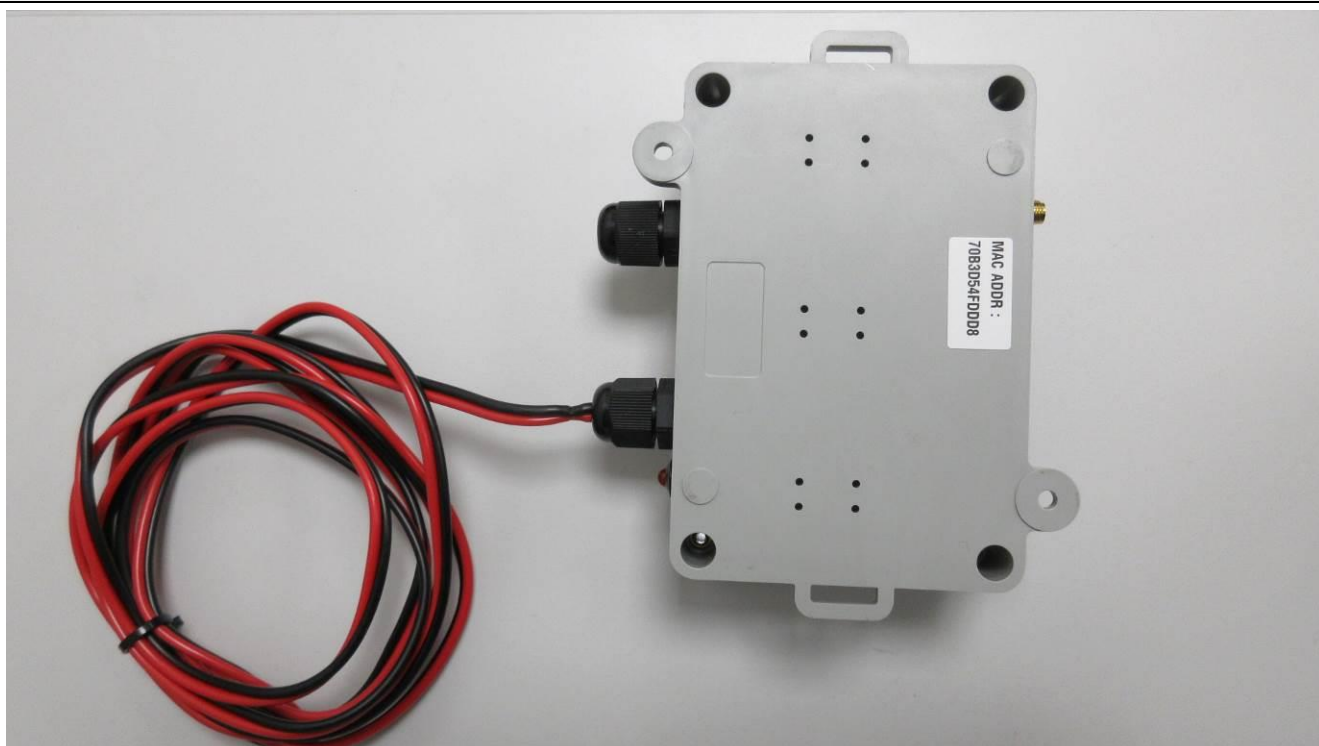
3.3.E.U.T. General view



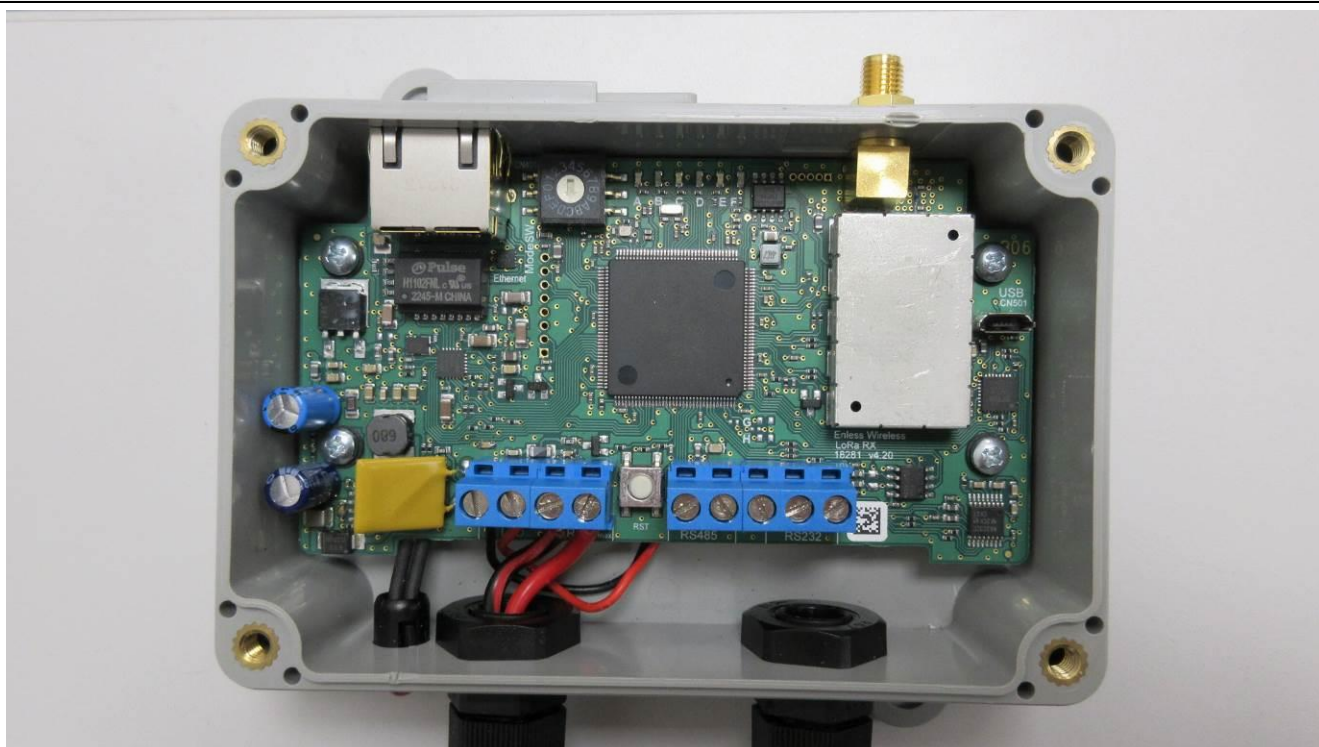
3.4.E.U.T. Front view



3.5.E.U.T. Back view



3.6.E.U.T. Internal view & Electronic board



3.7.E.U.T. 0541-915 antenna



3.8.E.U.T. 0138 antenna



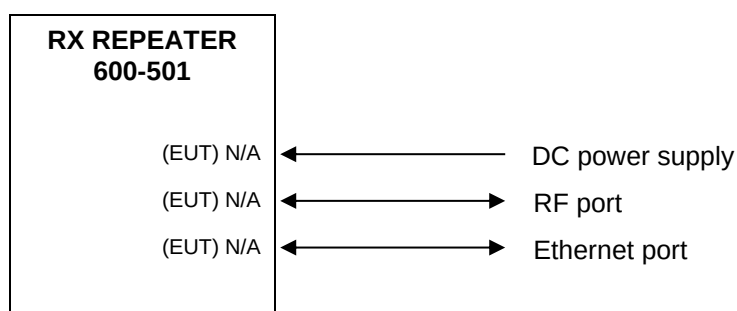
3.9.E.U.T. Mechanical and Electrical Design

Power supply. : 12 VDC
Power supply range..... : 7.5 Vdc to 24 Vdc
Power type..... : DC
Power (W)..... : Not communicated
Nominal current (A). : Not communicated
Dimensions (L x W x H) (m). : 0.118 x 0.079 x 0.048
Weight (kg). : 0.450
Temperature range (°C). : -25 to +55
Ground bounding strap..... : No

Comments:

N/A

3.10. E.U.T. Input/Output ports



PORT	NAME	TYPE	LENGTH	CABLE TYPE	COMMENTS
0	Main frame	N/E	N/A	Plastic	N/A
1	DC power supply	AC/DC	N/A	N/A	12Vdc
2	RF port	I/O	N/A	N/A	900MHz
3	Ethernet port	I/O	N/A	N/A	N/A

AC/DC : AC/DC Converter port AC..... : Alternative current port DC..... : Direct current port
I/O : Input or Output port TP : Telecommunication port RF : Radio frequency port
N/E : Non Electrical port

3.11. EUT Radio Specifications

a) GENERAL INFORMATIONS	
According to manufacturer's declarations :	
EUT type.....	Transceiver
Technology	LoRa
Environmental profile.....	Data transmissions
Temperature range.....	-25°C to +55°C
Antenna type	¼ wave antennas
Antenna Gain.....	2.1dBi for 0541-915 antenna and 2.19dBi for 0138 antenna
Comments:	
N/A	
b) TRANSMITTER PARAMETERS (Tx)	
Frequency bands.....	902 MHz to 928 MHz
RF Power.....	25 mw
Number of channels / Separation.....	Not communicated
Modulation type	Not communicated
Duty cycle	Not communicated
Tested frequency.....	904.0 MHz
c) RECEIVER PARAMETERS (Rx)	
Frequency bands.....	902 MHz to 928 MHz
Category/Class	Not communicated
Bandwidth.....	Not communicated

4. RF EXPOSURE

Maximum Conducted power is = 9.62 dBm at 904 MHz (see Radio test report referenced in §2). With a 2.19 dBi antenna (worst case), EIRP should be 11.81 dBm (**15.17 mW**).

For USA

In accordance with KDB 447498 D01 General RF Exposure Guidance v06 Appendix A, as EIRP is lower than **15.97 mW** at 904 MHz, SAR exemption for FCC can be considered for a distance $\leq 5\text{cm}$.

It is therefore not necessary to carry out measurements to assess human exposure to radiofrequencies.

For Canada

In accordance with RSS-102, Issue 5, Section 2.5.1., as EIRP is lower than **16.35 mW** at 904 MHz, SAR exemption for ISED can be considered for a distance $\leq 5\text{mm}$.

It is therefore not necessary to carry out measurements to assess human exposure to radiofrequencies.

●●● End of test report ●●●