telefication bv
The Netherlands
Chamber of Commerce
51565536
www.telefication.com

telefication

FCC RF exposure report

Product name	: Ambient Sensor
Applicant	: Rockwool BV
FCC ID	: 2AUKP-CL002
IC ID	: 25447-CL002

Test report No. : 200701991 005 Ver 3.00

Laboratory information

Accreditation

Telefication complies with the accreditation criteria for test laboratories as laid down in ISO/IEC 17025:2017. The accreditation covers the quality system of the laboratory as well as the specific activities as described in the authorized annex bearing the accreditation number L021 and is granted on 30 November 1990 by the Dutch Council For Accreditation (RvA: Raad voor Accreditatie).

Telefication is designated by the FCC as an Accredited Test Firm for compliance testing of equipment subject to Certification under Parts 15 & 18. The Designation number is: NL0001.

Telefication is a Wireless Device Testing laboratory recognized by Innovation, Science and Economic Development Canada to test to Canadian radio equipment requirements.

Telefication is a registered Conformity Assessment body (CAB) under the Japan-EC MRA (Agreement on Mutual Recognition between Japan and the European Community). The registration number is: 201.

Documentation

The test report must always be reproduced in full; reproduction of an excerpt only is subject to written approval of the testing laboratory. The documentation of the testing performed on the tested devices is archived for 10 years at Telefication Netherlands.

Testing Location

Test Site	Kiwa Telefication BV
Test Site location	Wilmersdorf 50 7327 AC Apeldoorn The Netherlands Tel. +31 88998 3393
Test Site FCC	NL0001

Revision History

Version	Date	Remarks	By
v0.50	31-03-2021	Release version	K.K.
v1.00	04-06-2021	Release version	RvB
V2.00	07-06-2021	Updated EUT information in 1.3	K.K.
V3.00	13-09-2021	Updated model name	RvB

Table of Contents

1 General Description

1.1 Applicant

Client name:	Rockwool BV
Address:	Industrieweg 15, Roermond, The Netherlands
Zip code:	6045 JG
E-mail:	Edwin.dilling@grodan.com
Contact name:	Mr. E. Dilling

1.2 Manufacturer

Client name:	Rockwool BV
Address:	Industrieweg 15, Roermond, The Netherlands
Zip code:	6045 JG
E-mail:	Edwin.dilling@grodan.com
Contact name:	Mr. E. Dilling

1.3 Tested Equipment Under Test (EUT)

Product name:	Ambient Sensor
Brand name:	ROCKWOOL, Grodan, GroSens
Product type:	GS21CL12, GS21CL13
FCC ID:	2AUKP-CL002
IC ID	25447-CL002
Software version:	--
Hardware version:	--

1.4 SAR Measurement Evaluation

1.4.1 Maximum Output Power

The maximum radiated power including tune-up tolerance is shown as below.

Mode	Output power (dBm)
LoRa	2.30
BLE	2.72

1.4.2 SAR Testing Exclusions, Mobile use

Calculation method of RF Safety Distance:

$$PD = \frac{Pout * G}{4\pi r^2}$$

Where:
PD = Power Density in mW/cm^2
Pout = Output power in mW
G = Gain of antenna
R = Distance between observation point and centre of the radiator in cm

Antenna

Technology	LoRa/BLE
Antenna type	PCB Antenna
Antenna gain	-6.53 dBi/0 dBi

Calculation results

Technology	Frequency (MHz)	Max power (mW)	Antenna gain (numeric)	Distance (cm)	Power density (mW/cm^2)	Limit (mW/cm^2)
LoRa	914.9	1.69	0.22	20	0.018	1
BLE	2440	1.87	1	20	0.094	1

1.5 Summary

Since the SAR testing for all device orientations apply SAR test exclusion per KDB 447498, SAR testing for this device is not required.