



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 6, December 2023

Company: **VOGO**
Address.....: 895 RUE DE LA VIEILLE POSTE,
34000 MONTPELLIER
FRANCE

Test item description: **Radio module in host**
Trade Mark: VOKKERO
Manufacturer.....: **VOGO**
Model/Type reference.....: VO8364AA+ /
• Into VOK-ELITE PLUS-US/CAN/AUS/NZ-WIRELESS INTERFACE - VO8161CA
• Into VOK-ELITE PLUS -US/CAN/AUS/NZ-SMART GATEWAY-4M - VO8346BA
FCC ID.....: 2AU6N-VO8364AA
IC: 25704-VO8364AA
Ratings.....: 3.7Vdc to 4.2Vdc or 100-240Vac/50-60Hz

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

Report Reference No.....: **RE-EVE-24B929-1A**
Test procedure: FCC IC Certification
Diffusion.....: M SAGUIN
Applicant's name: VOGO
Date of issue.....: November 26, 2024
Total number of pages.....: 10
Revision: 0
Compiled by.....: Fabien MOINACHE
Approved by (+ signature): Olivier HEYER (Deputy center manager)



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REVISION HISTORY:

Revision	Date	Modified pages	Modifications
0	November 26, 2024	/	Creation

1. GENERAL INFORMATION

This document submits the results of Radio tests performed on the equipment **VOK-ELITE-US/CAN/AUS/NZ-WIRELESS INTERFACE** (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 : Fabien MOINACHE Test supervisor : None Date of receipt of test item : N/A Date (s) of performance of tests : August the 5 th of 2024					
APPLICANT'S GENERAL INFORMATION:					
Company name : VOGO Company address : 895 RUE DE LA VIEILLE POSTE, 34000 MONTPELLIER FRANCE Person(s) present during the tests : M DE BARROS Responsible : M SAGUIN					
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 6, December 2023

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

RR-EVE-24B929-3A, RR-EVE-24B929-4A

Radio Test Reports 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

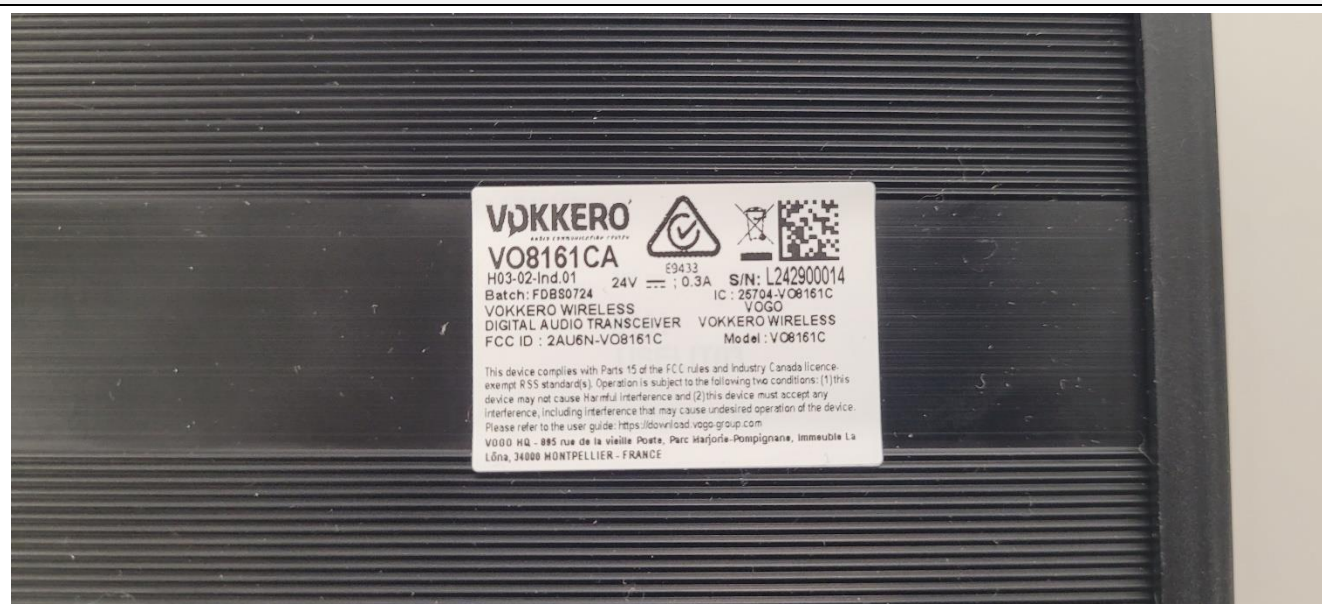
3.1. Test Conditions

Test item description. : Radio module in host
Model/Type reference..... : VO8364AA+ /
• Into VOK-ELITE PLUS-US/CAN/AUS/NZ-WIRELESS INTERFACE - VO8161CA
• Into VOK-ELITE PLUS -US/CAN/AUS/NZ-SMART GATEWAY-4M - VO8346BA
Trade Mark. : VOKKERO
Serial number (S/N)..... : L242900014 / L242900022 / L242500324
Part number (P/N). : Not communicated
Software version. : *Not communicated*
Firmware version. : *Not communicated*
Type of sample. : S  rial
Function(s)..... : Wireless interface (WI) / Digital Analogic Audio Gateway / VOK-ELITE-US/CAN/AUS/NZ
Manufacturer name. : VOGO
Address. : PARC TECHNOLOGIQUE LES FONTAINES
ACTIVILLAGE - BATIMENT 3A
38190 BERNIN
FRANCE

General product information:

N/A

3.2. E.U.T. Marking plate VO8161CA



3.3.E.U.T. Marking plate VO8346BA



3.4.E.U.T. General view VO8161CA



3.5.E.U.T. General view VO8346BA



3.6.E.U.T. Mechanical and Electrical Design VO8161CA

Power supply : 120Vac/60Hz
Power supply range..... : 100-240Vac/50-60Hz
Power type..... : Single phase without earth
Power (W)..... : Not communicated
Nominal current (mA). : 400-200 to 750
Dimensions (L x W x H) (mm). : 230 x 110 x 50
Weight (kg). : 0.650
Temperature range (°C). : -0 to +45
Ground bounding strap..... : No

Comments:

N/A

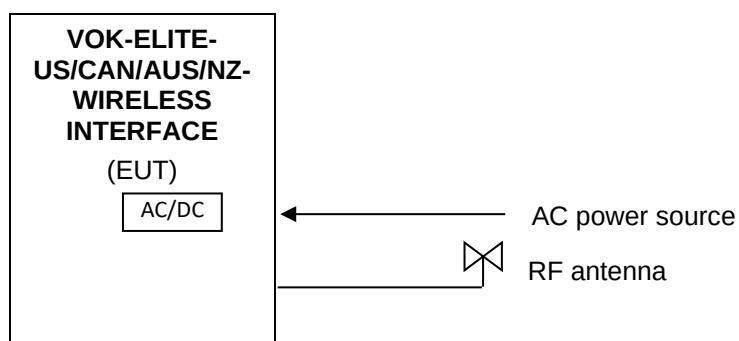
3.7.E.U.T. Mechanical and Electrical Design VO8346BA

Power supply : 120Vac/60Hz
Power supply range..... : 100-240Vac/50-60Hz
Power type..... : Single phase with earth
Power (W)..... : 90
Nominal current (A). : 2.5
Dimensions (L x W x H) (m). : 0.483 x 0.253 x 0.088
Weight (kg). : 5
Temperature range (°C). : 0 to 40
Ground bounding strap..... : No

Comments:

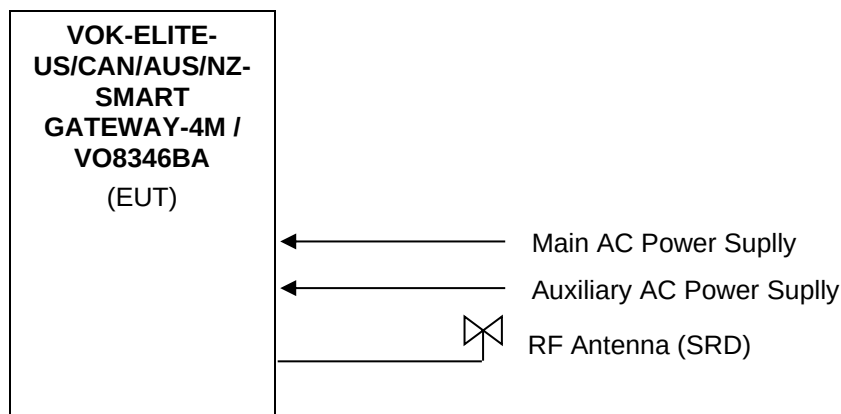
N/A

3.8.E.U.T. Input/Output ports VO8161CA



PORT	NAME	TYPE	LENGTH	CABLE TYPE	COMMENTS
0	Main frame	N/E	N/A	Plastic	N/A
1	AC power source	AC/DC	N/A	2P	N/A
2	RF antenna	RF	N/A	N/A	N/A

3.9. EUT Input/Output ports VO8346BA



PORT	NAME	TYPE	LENGTH	CABLE TYPE	COMMENTS
0	Main frame	N/E	N/A	Metallic	N/A
3	Main AC Power Supply	AC	>3m	2P+T	120Vac/60Hz
4	Auxiliary AC Power Supply	AC	>3m	2P+T	120Vac/60Hz
5	RF Antenna (SRD)	RF	N/A	N/A	used for SRD (902-928MHz)

3.10. EUT Radio Specifications

a) GENERAL INFORMATIONS

According to manufacturer's declarations :

EUT type..... : *Transceiver*
Technology..... : *DTS*
FHSS
Environmental profile..... : *Data Transmissions*
Temperature range..... : *0°C to +45°C (VO8161CA)*
0°C to 40°C (VO8161BA)
-20°C to +55°C (VO8161AA)
Antenna type : *External*
Antenna Gain..... : *Not communicated*

Comments:

N/A

b) TRANSMITTER PARAMETERS (Tx)	
Frequency bands.....	DTS band 902.4 MHz to 927.6 MHz FHSS band 915.42 MHz to 927.42 MHz
RF Power.....	Not communicated
Number of channels / Separation.....	DTS: 127 FHSS: 25/26
Modulation type	GFSK
Duty cycle	Not communicated
Tested frequency.....	902.4MHz (Low Freq.) 915MHz (Mid. Freq.) 927.6MHz (High Freq.)
c) RECEIVER PARAMETERS (Rx)	
Frequency bands.....	DTS band 902.4 MHz to 927.6 MHz FHSS band 915.42 MHz to 927.42 MHz

4. RF EXPOSURE

For USA

In accordance with KDB 447498 D04 Appendix B.3 and FCC Part 2.1091:

$$ERP_{20cm}(mW) = \begin{cases} 2040f & \text{for } 0.3GHz \leq f < 1.5GHz \\ 3060 & \text{for } 1.5GHz \leq f \leq 6GHz \end{cases}$$

Thanks to test report in §2 of this document :

Configuration	Frequency (MHz)	EIRP (dBm)	ERP (W)	Limit (W)
VO8364BA	915	18.8	0.12	1.87
VO8161CA	915	19.3	0.14	1.87

It is therefore not necessary to carry out other specific measurements to assess human exposure to radiofrequencies when the product is used more than 20 cm from the human body.

For Canada

In accordance with RSS-102, Issue 6, Section 6.6., the maximum EIRP must be lower than $1,31 \times 10^{-2} f^{0,6834}$

Thanks to test report in §2 of this document :

Configuration	Frequency (MHz)	EIRP (dBm)	EIRP (W)	Limit (W)
VO8364BA	915	18.8	0.08	1.38
VO8161CA	915	19.3	0.09	1.38

It is therefore not necessary to carry out measurements to assess human exposure to radiofrequencies when the product is used more than 20 cm from the human body.

●●● End of report ●●●