REM-EMIESS23G756WAT-01Av0

MPE test report

According to the standard:

CFR 47 FCC PART 15

Equipment under test:

Toran'O

FCC ID: *2AGTV-50-70-244*

Company:
WATTECO

Distribution: Mr LEFORT **(Company:** WATTECO**)**

Number of pages: 6

Ed.	Date	Modified Page(s)	Technical Verification and Quality Approval Name and Function	Visa
0	13-Jan-25	Creation	S. LOUIS, Radio Technician	p/o

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Information in italics are declared by the manufacturer/customer and are under his responsibility

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DESIGNATION OF PRODUCT:	***Toran'O***
Serial number (S/N):	*Adresse MAC (DevEUI) = 70B3D5E75E017187*
MPN:	*50-70-252-000*
Model:	*Toran'O Product Line*
Software version:	*v3.5.2.6404*
MANUFACTURER:	*WATTECO*

COMPANY SUBMITTING THE PRODUCT:

Company:	WATTECO
Address:	POLE DE TECHNELLYS BATIMENT H – BOITE AUX LETTRE N°60 165 RUE DE LA MONTAGNE DY SALUT 56600 - LANESTER FRANCE
Responsible:	Mr LEFORT
Person(s) present during the tests:	/
DATES OF TEST:	From 2-Sep-24 to 6-Sep-24
TESTING LOCATION:	EMITECH ANGERS laboratory at JUIGNE SUR LOIRE (49) FRANCE FCC Accredited under US-EU MRA Designation Number: FR0009 Test Firm Registration Number: 873677
TESTED BY:	B. VOVARD
WRITTEN BY:	B. VOVARD

VISA:

CONTENTS

REVISIONS HISTORY

Revision	Date	Modified pages	Modifications
0	**10-Sep-24**	/	Creation

1. INTRODUCTION

This report presents the results of radio test carried out on the following radio equipment: ***Toran'O***, in accordance with normative reference.

The device under test integrates a LoRa not certified function.

2. PRODUCT DESCRIPTION

Category of equipment (ISED): I

Class: B

Utilization: Residential

Antenna type and gain: Integral antenna (Maximum Gain : 5.92 dBi)

Operating frequency range: From 902 MHz to 928 MHz

Frequency tested: 902.3 MHz, 908.7 MHz, 914.9 MHz for transmission

Frequencies plan detailed transmitter:

Channel frequencies	LoRa bandwidth (KHz)	Number of channel	Channel width (KHz)
902,3+i*0,2MHz (i=0 à 63)	125	64	200

Number of channels: 64

Channel spacing: 200 kHz

Modulation: LoRa with spread factor 7 to 10

Power source: 3.6 Vdc LS17500 battery 3.6 Ah

During test the output power was adjusted at the maximal level with the following setting (13 dB).

Power level, frequency range and channels characteristics are not user adjustable.
The details pictures of the product and the circuit boards are joined with this file.

3. NORMATIVE REFERENCE

The standards and testing methods related throughout this report are those listed below.
They are applied on the whole test report even though the extensions (version, date and amendment) are not repeated.

CFR 47 (2024)	Radio Frequency Devices
ANSI C63.10	2013 Procedures for ComplianceTesting of Unlicensed Wireless Devices.
447498 D04 Interim General RF Exposure Guidance v01	RF Exposure Pocedures and Equipment Authorization Policies for Mobile and Portable Devices

4. RF EXPOSURE

Maximum Permissive Exemption according paragraph 1.1310(d)(2) of CFR 47 FCC Part 15

In accordance with KDB 447498 D04 Interim General RF Exposure Guidance v01, paragraph 1.4.2 :

Maximum measured power = 103.33 dBµV/m = 0.071759 W at 902.3 MHz in SF7
with $P = (E \times d)^2 / (30 \times Gp)$ with d = 10 m and Gp = 1

PSD= $EIRP/(4*\pi*R^{2)}$

⇨ $71.759/(4*\pi*(20\ cm)^2)$= **0.01428 mW/cm² (limit = 0.601 mW/cm²)**

The equipment fulfils the requirements on power density for general population/uncontrolled exposure and therefore fulfils the requirements of 47 CFR §1.1310.