REM-EMIESS24F385SKF-01Av0

MPE test report

According to the standard:

CFR 47 FCC PART 15

Equipment under test:

Enlight Collect IMx-1

FCC ID: 2AJ99-CMWA-6100-EX

Company:

SKF FRANCE

Distribution: Mr LIGNEE **(Company:** SKF FRANCE**)**

Number of pages: 7

Ed.	Date	Modified Page(s)	Technical Verification and Quality Approval Name and Function	Visa
0	30-Jul-25	Creation	M. DUMESNIL, Radio Laboratory Manager	

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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:	***Enlight Collect IMx-1***
Serial number (S/N):	**Sample 1 (BLE):** *C4BD6A01B99A* **Sample 2 (MIRA):** *0441A9D25C7480*
Reference:	**Sample 1 (BLE):** *SK-2831 B* **Sample 2 (MIRA):** *SK-2816 F*
HVIN:	***26053-HW01***
Model (P/N):	***CMWA 6100***
Software version:	**Sample 1 (BLE):** *LX_CMWA_6100_B_02 5* **Sample 2 (MIRA):** *radio_test-mkw41z-mesh*
MANUFACTURER:	***SKF FRANCE***
COMPANY SUBMITTING THE PRODUCT:	
Company:	SKF FRANCE
Address:	204, BOULEVARD CHARLES DE GAULLE TSA 40208 37542 SAINT-CYR SUR LOIRE CEDEX FRANCE
Responsible:	Mr LIGNEE
Person present during the tests:	/
DATES OF TEST:	From 26-Mar-25 to 27-Mar-25
TESTING LOCATION:	EMITECH ANGERS laboratory at BEAUCOUZE (49) FRANCE FCC Accredited under US-EU MRA Designation Number: FR0009 Test Firm Registration Number: 873677
TESTED BY:	B. VOVARD **VISA:**
WRITTEN BY:	B. VOVARD

CONTENTS

REVISIONS HISTORY

Revision	Date	Modified pages	Modifications
0	**30-Jul-25**	/	Creation

1. INTRODUCTION

This report presents the results of radio test carried out on the following radio equipment: ***Enlight Collect IMx-1***, in accordance with normative reference.

The equipment under test integrates:

- BLE transceiver radio part function declared already certified,
- MIRA transceiver radio part function declared already certified, (802.15.4)

These two functions used the same Radio part
This report concerns the two functions.

2. PRODUCT DESCRIPTION

Class:	B
Utilization:	Industrial
Antenna type and gain:	Integrated antenna (Maximum gain: -1.95 dBi)
Operating frequency range:	From 2400 MHz to 2483.5 MHz

Sample 1: BLE

Number of channel which it can operate:	40
Channel separation:	2 MHz
Nominal Channel bandwidth:	2 MHz
Modulation:	GFSK
Power setting:	15

Nominal Operating Frequencies:

Sample N°= 1 ⇨ 2402 MHz (Advertising mode)
Sample N°= 1 ⇨ 2426 MHz (Advertising mode)
Sample N°= 1 ⇨ 2480 MHz (Advertising mode)

Sample 2: MIRA

Number of channel which it can operate:	79
Channel separation:	1 MHz
Nominal Channel bandwidth:	2 MHz
Modulation:	GFSK
Power setting:	0

Nominal Operating Frequencies:

Sample N°= 2 ⇨ 2402 MHz
Sample N°= 2 ⇨ 2440 MHz
Sample N°= 2 ⇨ 2480 MHz

Power source: 3.6 Vdc by battery (not rechargeable)

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 FCC Part 15 (2025)	Radio Frequency Devices
ANSI C63.10	2020 + Corrigendum (2023) + Amendment 1 (2024) Procedures for ComplianceTesting of Unlicensed Wireless Devices.
447498 D01 General RF Exposure Guidance v06	RF Exposure procedures and equipment authorization policies for mobile and portable equipment

4. RF EXPOSURE

Sample N° 1

MPE

Maximum measured power = 86.25 dBµV/m = 0.127 mW at 2402 MHz
with $P = (E \times d)^2 / (30 \times Gp)$ with d = 3 m and Gp = 1

In accordance with KDB 447498 D01 General RF Exposure Guidance v06:

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

⇨ $0.127/(4*\pi*(20\ cm)^2)$= **25.17×10^{-6} mW/cm² (limit = 1 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.

Sample N° 2

MPE

Maximum measured power = 86.72 dBµV/m = 0.141 mW at 2480 MHz
with $P = (E \times d)^2 / (30 \times Gp)$ with d = 3 m and Gp = 1

In accordance with KDB 447498 D01 General RF Exposure Guidance v06:

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

⇨ $0.141/(4*\pi*(20\ cm)^2)$= **28.04×10^{-6} mW/cm² (limit = 1 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.

□□□ End of report □□□