

# RF Exposure Assessment

**Report Reference: MDE\_SKF\_1901\_MPEa**

on

CMWA6600

IMx1 Gateway

**Test Laboratory:**

7layers GmbH  
Borsigstrasse 11  
40880 Ratingen  
Germany

**Note:**

The following test results relate only to the devices specified in this document. This report shall not be reproduced in parts without the written approval of the test laboratory.

**7layers GmbH**  
Borsigstraße 11  
40880 Ratingen, Germany  
T +49 (0) 2102 749 0  
F +49 (0) 2102 749 350

Geschäftsführer/  
Managing Directors:  
Frank Spiller  
Bernhard Retka  
Alexandre Norré-Oudard

Registergericht/registered:  
Düsseldorf HRB 75554  
USt-Id.-Nr./VAT-No. DE203159652  
Steuer-Nr./TAX-No. 147/5869/0385

*a Bureau Veritas  
Group Company*

*www.7layers.com*

## **Administrative Data:**

### **Testing Laboratory**

Company Name: 7layers GmbH  
Address: Borsigstr. 11  
40880 Ratingen  
Germany

### **Project Data**

Responsible for report: Mr. Abdellah Ahakki  
Date of Report: 2020-07-02  
Testing Period: 2020-02-03 to 2020-06-04

### **Applicant Data**

Company Name: SKF Sverige AB  
Address: Aurorum 30  
977 75 Lulea  
Sweden  
Contact Person: Mr. Ludo Gommers

### **Manufacturer Data**

Company Name: please see Applicant data  
Address: -  
-  
-  
Contact Person: -

**Test object Data**

**General Description of Radio Device**

Kind of Device product description	Enlight Collect Gateway
Product name	IMx1 Gateway
Type	CMWA6600
<b>Declared EUT data by the supplier</b>	
Voltage Type	DC (24 V nom.) or PoE (DC, 48 V nom.)
Voltage Level	DC input: 9..36 V; PoE: 44..57 V (DC)
Tested Modulation Type	GFSK (802.15.4 based mesh radio network)
General product description	Radio Transceiver supporting WLAN, BT-LE and 802.15.4 based mesh radio ("Mira-Mesh").
Specific product description for the EUT	The IMx-1 Enlight Collect Gateway is gateway for SKF wireless sensor vibration monitoring network.
The EUT provides the following ports:	DC, LAN1 +PoE, LAN2, Speed Sensor, Enclosure
Tested data rates	1 Mbps
Special software used for testing	special firmware offers commanding from linux sub-system

## RF Exposure evaluation

Model: CMWA6600

FCC ID: 2AVQ2-CMWA6600

IC: 25894-CMWA6600

Standards
OET Bulletin 65 Edition 97-01 August 1997
FCC 47 CFR §1.1307
FCC 47 CFR §1.1310

### Test limits

As specified in Table 1B of 47 CFR 1.1310 – Limits for Maximum Permissible Exposure (MPE), Limits for General Population/Uncontrolled Exposure.

Frequency range (MHz)	Power density (mW/cm <sup>2</sup> )
300 – 1,500	f/1500
1,500 – 100,000	1.0

Equation OET bulletin 65, page 18, edition 97-01:  $S = \frac{PG}{4\pi R^2} = \frac{EIRP}{4\pi R^2}$

Where:

S = power density

P = power input to the antenna

G = power gain of the antenna in the direction of interest relative to an isotropic radiator

R = distance to the center of radiation of the antenna

Maximum peak output power at antenna terminal: +3.4 dBm (2.19 mW)

Antenna gain: 3.4 dBi

Prediction distance: 20cm

MPE limit for General Population/Uncontrolled Exposure: 1 mW/cm<sup>2</sup>

### Intermediate results:

Power density reached value: **0.0010 mW/cm<sup>2</sup>**

Yours sincerely,



Abdellah Ahakki