

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

MDE_BOSCH_1925

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: -

MDE_BOSCH_1925

Test object Data

General Description of Radio Device

Kind of Device product description	Enlight Collect Gateway
Product name	IMx1 Gateway
Type	CMWA6600
Declared EUT data by the supplier	
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 ²)
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/cm²

Intermediate results:

Power density reached value: **0.0010 mW/cm²**

Yours sincerely,



Abdellah Ahakki