

Manufacturer: Abloy Oy
Address: Wahlforssinkatu 20, FI-80100 Joensuu, Finland
Model: SHK/A1
Type: -
FCC ID: -

Test laboratory: SGS Fimko Oy
Address: Karakaarenkuja 4, FI-02610 Espoo, Finland
Accreditation body: FINAS
Designation number: FI0002

REFERENCE DOCUMENTS

KDB 447498 D01 General RF Exposure Guidance v06
 Test Report HELEM2404000146-1 v1.0

EUT SPECIFICATION

The equipment under test is a swing handle with Bluetooth Low Energy radio.

Operating frequency range:	2402 – 2480 MHz
Channels:	40
Channel width:	1 MHz
Channel separation:	2 MHz
Spectrum access technique:	DSSS
Modulation:	GFSK
Maximum peak conducted output power	5.5 mW (measured)
Antenna type:	Integral inverted F antenna
Antenna gain:	-3.86 dBi (declared by the manufacturer)
Device category:	Fixed
Environment:	General Population/Uncontrolled
Separation distance:	Not known, ≤ 5 mm assumed

ASSESSMENT

Exemption limits:

A single RF source is exempt if it satisfies the SAR Test Exclusion Threshold conditions presented in KDB document 447498 D01 v06 clause 4.3.1. For equipment operating between 100 MHz and 6 GHz and for test separation distances ≤ 50 mm, the SAR Test Exclusion Threshold is calculated according to clause 4.3.1 a):

$$P_{(\text{mW})} = \frac{d_{(\text{mm})} \times 3.0}{\sqrt{f_{(\text{GHz})}}}$$

where $d_{(\text{mm})}$ is the test separation distance, and $f_{(\text{GHz})}$ is the operating frequency of the equipment.

Assessment results:

For $d_{(\text{mm})} = 5$ and $f_{(\text{GHz})} = 2.480$ the SAR Test Exclusion Threshold is:

$$P_{(\text{mW})} = \frac{5 \times 3.0}{\sqrt{2.480}} \approx 9.5 \text{ mW}$$

The maximum peak conducted output power of the EUT (5.5 mW) is below the threshold.

CONCLUSION

The assessment shows that the device qualifies for SAR Test Exclusion.

Date: July 12, 2024



Henri Mäki
Testing Engineer