

Manufacturer: Iiwari Tracking Solutions Oy
Address: Kidekuja 2, FI-88610 Vuokatti, Finland
Model: Master Base Station
Type: -
FCC ID: 2BFQ6MBS101

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 HELEM2402000055-1 v1.0

EUT SPECIFICATION

The equipment under test is a master base station for indoor positioning system.

Operating frequency range:	3993.6 MHz (UWB channel 2)
Channel width:	541.5 MHz
Maximum output power (e.i.r.p.)	-0.98 dBm/50 MHz
Antenna model/type:	Integral
Antenna gain:	+2 dBi
Device category:	Fixed
Environment:	General Population/Uncontrolled
Separation distance:	50 mm assumed for assessment

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 $d_{(\text{mm})} = 50$ and $f_{(\text{GHz})} = 3.9936$ the SAR Test Exclusion Threshold is:

$$P_{(\text{mW})} = \frac{50 \times 3.0}{\sqrt{3.9936}} \approx 75 \text{ mW (19 dBm)}$$

The maximum output power of the EUT (-0.98 dBm e.i.r.p.) is below the threshold.

CONCLUSION

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

Date: August 30, 2024



Henri Mäki
Testing Engineer