

Radio Frequency Hazard Information

Private land mobile transmitters operating in the 440 – 470 MHz band are required to be operated in a manner that ensures that the public is not exposed to RF energy levels in accordance with CFR 47, Section 1.1307(b)(1).

In accordance with Section 1.1310 this device would be classed as a portable device and therefore Section 2.1093 will apply.

Section 2.1093 requires SAR measurements to be carried out.

However the transmitter may come into close contact with humans so a SAR evaluation has been carried out in accordance with KDB Publication 447498 D01 General RF Exposure Guidance v05r02 dated February 7, 2014.

Clause 4.3.1 1 has been applied to this device as the power output is very low.

At 443.050 MHz the transmitter continuous peak output power was determined to have a worst case output level of -5.9 dBm or 0.26 mW

The highest frequency in use is 470 MHz.

A 5 mm safe distance has been applied

The 1-g SAR safe distance was calculated as follows:

$$1\text{-g SAR} = (P \text{ (mW)} / x \text{ (mm)}) * (\sqrt{f \text{ (GHz)}})$$

$$1\text{-g SAR} = (0.26 \text{ mW} / 5 \text{ mm}) * \sqrt{0.470 \text{ GHz}} = 0.0356$$

The 1-g SAR threshold level, for distances < 50 mm, is ≤ 3.0 .

The device will therefore meet the requirements of Section 2.1093 without any further testing by falling below the 1-g SAR threshold level.

Result: Complies.