Section 15.247(i) – Radio Frequency Hazard Information

As per Section 15.247 (i) spread spectrum transmitters operating in the 900 – 928 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 as the device is portable.

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.

A worst case scenario has been applied to this device with the application of the 1-g SAR limits even though the device will most likely be held in the hand where the 10-g SAR limits could be applied.

At 924.500 MHz the transmitter continuous peak output power was determined to be +9.6 dBm or 9.1 mW EIRP

The highest frequency in use is 924.5 MHz or 0.9245 GHz.

A 5 mm safe distance has been applied

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

1-g SAR = (P (mW) / x (mm)) * (√f (GHz))

1-g SAR = (31 mW / 5 mm) * √ 0.9245 GHz) = 1.8

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.