

# **OPERATIONAL DESCRIPTION**

## **Ubitag V2.1**

### **FCC ID SEATAG21**

The Ubitag V2.1 is a wireless device intended to be used for the real-time location of objects within buildings. It transmits ultra-wideband (UWB) pulses which are picked up by a network of basestations (Ubisensors) placed inside the building, allowing the 3D position of the tag to be found. The use of UWB technology enables greater positioning accuracy within buildings than other wireless technologies, because it is much less susceptible to multipath interference effects. Applications of the system include healthcare, workplace productivity, security, retail management and manufacturing.

The Ubitag V2.1 is a composite device consisting of an ultra-wideband transmitter, a conventional radio transceiver operating in the range 2402.5-2480.5MHz, and associated digital circuitry. It is never the case that both the ultra-wideband transmitter section of the device and the conventional radio transceiver section of the device are active simultaneously. Both the ultra-wideband transmitter and the conventional radio transceiver utilise permanently attached antennas that are integral to the device.