



Ubisense Limited, St Andrews House, St Andrews Road, Chesterton, Cambridge CB4 1DL

26 October 2009

Attn: Reviewing Engineer,  
Federal Communications Commission,  
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Columbia,  
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**RE: MODULAR UBITAG V2.0, FCC ID SEAMOD 21  
REQUIREMENTS OF FCC PART 15.517(a)**

To the Reviewing Engineer:

FCC Part 15.517(a) "Technical Requirements for indoor UWB systems" states that:

Operation under the provisions of this section is limited to UWB transmitters employed solely for indoor operation.

- (1) Indoor UWB devices, by the nature of their design, must be capable of operation only indoors. The necessity to operate with a fixed indoor infrastructure, e.g., a transmitter that must be connected to the AC power lines, may be considered sufficient to demonstrate this.
- (2) The emissions from equipment operated under this section shall not be intentionally directed outside of the building in which the equipment is located, such as through a window or a doorway, to perform an outside function, such as the detection of persons about to enter a building.
- (3) The use of outdoor mounted antennas, e.g., antennas mounted on the outside of a building or on a telephone pole, or any other outdoors infrastructure is prohibited.
- (4) Field disturbance sensors installed inside of metal or underground storage tanks are considered to operate indoors provided the emissions are directed towards the ground.
- (5) A communications system shall transmit only when the intentional radiator is sending information to an associated receiver.



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The applicant hereby declares that:

- The Modular Ubitag V2.0 is a wireless device intended to be used for the real-time location of objects within buildings (applications include healthcare, workplace productivity, security, retail management and manufacturing), and will be marketed as such.
- The Modular Ubitag V2.0 will not transmit ultra-wideband signals unless it receives suitable trigger commands (over a separate §15.249 conventional radio link) from an associated base station. Base stations will be professionally installed, in accordance with instructions detailing procedures for adjusting the power of the base stations' conventional radio signals to ensure that they cannot trigger Ubitags outside the building.
- Furthermore, the Modular Ubitag V2.0 User's Guide (see Exhibits) also stresses the requirement for indoor use, and reiterates the technical requirements for indoor UWB systems listed in §15.517.

Sincerely,

Dr Andy Ward  
Chief Technology Officer