# Dual Technology Wireless Ceiling Occupancy Sensor

* 1. WIRELESS OCCUPANCY SENSOR
     1. Ceiling Vacancy Sensor
        1. The Vacancy sensor shall be the Echoflex RVS-DT or RCS-DT Series Occupancy Sensors by Echoflex Solutions, Inc., or equal.
        2. Mechanical
           1. The Sensor shall mount to a ceiling using screws, peel-and-stick attachment, wire straps, or with integrated magnets
           2. The Sensor shall support optional mounting to an electrical box
           3. The Sensor shall be available in white
           4. The Sensor shall have a button for linking the sensor to a wireless controller

The button shall be accessible when the Sensor is mounted

* + - * 1. The Sensor shall have a red LED indicator located behind a lens to show that PIR and/or acoustic functionality is present
        2. The Sensor shall be constructed of ABS injection molded plastic that fully encloses all components
        3. The Sensor shall support a start-assist battery option

The LED indicator will flash green instead of red when a new battery is installed

If the battery has depleted voltage, the LED indicator will flash an amber color

* + - * 1. The Sensor shall provide 360 degree hemispherical PIR coverage from the sensor mounting location
      1. Electrical
         1. The Sensor shall utilize photovoltaic energy harvesting for power. Sensors that require low voltage power input for normal operation shall not be acceptable

###### The Sensor shall begin operation within 2 minutes from a discharged state when charged at minimum 65 lux (6 FC)

###### The photovoltaic solar cells shall produce energy from natural or artificial light sources

* + - * 1. The Sensor shall use a 902 MHz EnOcean radio. Systems that use other radio frequencies shall not be acceptable
        2. The Sensor shall have a radio range of 24 m (80 ft.) – commercial office space, (typical), up to 100 m (330 ft.) line of sight
        3. The Sensor shall comply with FCC Part 15.231, IC RSS-210 and CEC Title 24
      1. Functional
         1. The Sensor shall wirelessly transmit occupancy state and battery charge level (when present) when there is sufficient battery power or sufficient solar energy for operation

###### PIR Coverage Area

RVS (RCS)-DT-UA, 1000 square feet

RVS (RCS)-DT-UB, 1900 square feet

###### Acoustic Coverage Area

RVS (RCS)-DT-UA, 1000 square feet

RVS (RCS)-DT-UB, 1000 square feet

* + - * 1. The Sensor shall have the ability to provide for either occupancy or vacancy operation based on the configuration settings of the compatible linked wireless lighting controllers
        2. The Sensor shall transmit minimum every 120 seconds when the PIR or acoustic detection is active
        3. The Sensor shall support Simple Tap programming for configuration of compatible wireless lighting controllers
        4. The Sensor shall provide a radio-range confirmation test mode

###### The Sensor shall provide visual indication of the communication signal strength with compatible lighting controllers when in this mode

* + - * 1. The Sensor shall provide a light-level evaluation test mode

The Sensor shall provide visual indication of the ambient light level where the sensor is mounted when operating in this mode

* + - * 1. The Sensor shall provide a walk-test mode

The Sensor shall provide immediate visual indication of PIR and acoustic activity when operating in this mode

* + - * 1. The Sensor shall provide a PIR and acoustic sensitivity adjustment mode

The Sensor shall provide three levels of PIR sensitivity selectable when operating in this mode

The Sensor shall provide two levels of acoustic sensitivity adjustment when operating in this mode

The Sensor shall provide the ability to disable the acoustic functionality when in this mode

* + - * 1. The Sensor shall have the ability to disable the LED indication of PIR and acoustic activity

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