

# EXHIBIT B-30

Exhibit B-30

Invalidity Contentions: U.S. Patent No. 10,534,382

W.D. Tex., Case Nos. 6:20-cv-00075-ADA, 6:20-cv-00078, 6:20-cv-00080<sup>1</sup>

**REPRESENTATIVE CLAIM LIMITATION:** “wherein the determination of whether the building is occupied or unoccupied by the one or more processors is based on a third data received from a motion sensor”

**ASSERTED CLAIMS:** This limitation is present in the following Asserted Claims: ’382 patent claims 10, 17, 18, 20.

**CLOSURE:** To the extent Plaintiff alleges that any anticipatory reference identified in Exhibit A does not disclose any portion of the above limitation, the following exemplary pincites show that those allegedly missing portions would have been obvious to one of ordinary skill in the art at the time the alleged invention was made in light of the prior art references identified in the table below. Moreover, it would have been obvious to combine any anticipatory reference identified in Exhibit A with any one or more of the following references for at least the reasons explained in the prior document of Defendants’ Invalidity Contentions or as identified herein. All emphasis added unless otherwise indicated.

Reference	Disclosure*
demand response enabling technology development” (“Arens”)	<p><i>Arens discloses “wherein the determination of whether the building is occupied or unoccupied by the one or more processors is based on a third data received from a motion sensor.”</i></p> <p>“The sensors currently implemented include...</p> <ul style="list-style-type: none"> <li>• <b>Motion – used to determine occupancy of various spaces.</b> Also used to preserve power on the signal light units (see Actuators, below). It uses a passive infrared motion sensor to detect changes in infrared radiation when there is movement by an object with a temperature different than the surroundings (see Appendix B).”</li> </ul> <p>Arens at p. 11.</p>

<sup>1</sup> These contentions are being served by defendants in the following actions: *EcoFactor, Inc. v. Google LLC*, No. 6:20-cv-00075-ADA; *EcoFactor, Inc. v. Ecobee, Inc.*, No. 6:20-cv-00078-ADA; and *EcoFactor, Inc. v. Vivint, Inc.*, No. 6:20-cv-00080-ADA.

To the extent that these Invalidity Contentions rely on or otherwise embody particular constructions of terms or phrase in the Asserted Claims, Defendants are not proposing any such contentions as alternative constructions of those terms or phrases. Various positions put forth in this document are predicated on Plaintiff’s incorrectly and overly broad interpretation of the claims as evidenced by its Invalidity Contentions provided to Defendants. Those positions are not intended to and do not necessarily reflect Defendants’ interpretation of the true and proper scope of Plaintiff’s claims, and Defendants reserve the right to adopt claim construction positions that differ from or even conflict with various positions put forth in this document.

Reference	Disclosure*
	<p>“Initially, we installed three T-mote Sky motes, and continued adding and relocating motes until we had 13 motes installed in the house. Figure 6 below shows a plan of the house with the final configuration of <b>distributed indoor sensors (motion, air temperature, globe temperature, relative humidity, power sensing)</b> and outdoor weather station. All motes were battery-powered except for one ac-powered repeater mote, and the base mote connected to a Tablet PC. All battery-powered motes transmitted battery voltage data as well as sensor data.”</p> <p>Arens at p. 15.</p> <p>“As implemented, most generic motes have two temperature sensors (air and globe) and <b>a motion sensor</b> plugged in via the mono phone jacks. One port is available for future sensors, such as light sensor, reed switch to indicate door/window opening, or IR temperature sensor. See Figure 7 below.”</p> <p>Arens at p. 16.</p> <p>“We developed an HVAC actuation mote with four latching relays (24vac hot, heater, ac, fan) to replace the actuation functions of today’s thermostat. The HVAC mote was initially designed to include a temperature sensor and LCD display, price signal indicator, and <b>motion sensor</b>; the package was designed around the three C batteries required to operate price signal LEDs running full-time for several weeks. However, for this experiment, only the relay function was tested. See Figure 9 below.”</p> <p>Arens at p. 17.</p>
<p>3. Patent No. 2004/0117330 (Ehlers)</p>	<p><i>Ehlers discloses “wherein the determination of whether the building is occupied or unoccupied by the one or more processors is based on a third data received from a motion sensor.”</i></p> <p>“Additional two-way communicating sensors will also improve the operational capabilities of the system 3.08 by providing additional input data. <b>Occupancy sensors as an example would provide the system 3.08 with knowledge of if there were people present in the site 1.04.</b> The system 3.08 is capable of receiving authorization from any authorized entity to perform items like ramping, set point modifications or dehumidification differently depending on the presence or absence of the occupant. If unoccupied, the system 3.08 can be directed to take more savings related actions and defer comfort control options. This ability increases its ability to deliver savings and reduce demand on the supply chain without affecting the occupants’ level of comfort.”</p>

Reference	Disclosure*
	<p>Ehlers at [0266].</p> <p>“The system’s 3.08 performance and energy reduction capabilities are further enhanced during all periods by applying the most energy effective set point or its related off set if the occupancy mode is “vacant” and applying the comfort management off set if the occupancy mode is “home”. <b>This occupancy sensitive control is further enhanced by the addition of occupancy sensing devices that communicate with the system 3.08.</b>”</p> <p>Ehlers at [0245].</p> <p>“This type of temperature control device provides the occupant the convenience of not having to manually select either the heating or cooling system, as is the case of the standard single control device, and allows the occupant to define a temperature range between which they are comfortable. Using these two main types of design as a base line, there are many variations, which have been developed over time. Over the years, these sensing and control devices have moved from traditional bi-metal contractors to more sophisticated electronic devices over the years, and have incorporated the ability to be programmed with multiple set points for both heating and cooling as well as having the ability to activate these different set points based on time of day, day of week, and/or externally generated control signals from utility companies indicating a fixed cost tier that is in effect, e.g., low, medium, high &amp; critical, and to interface with an <b>infra-red motion sensor that automatically sets back the temperature to a predetermined point based on the presence of a person in the area. However, most end use consumers do not have the time, experience, and/or access to data to monitor, track, and use these devices.</b>”</p> <p>Ehlers at [0013].</p>
<p>6. Patent Pub. No. 2003/0050737 (Osann)</p>	<p><i>Osann discloses “wherein the determination of whether the building is occupied or unoccupied by the one or more processors is based on a third data received from a motion sensor.”</i></p> <p>“The most common mechanism today for controlling lights is <b>based on motion detectors</b> incorporated into the controlling switch assembly or alternately incorporated into the light socket assembly. <b>These work fairly well in some circumstances—especially in spaces where people seldom go such as attics and closets.</b> However, in primary living areas, they can often cause a negative interaction with the user. For instance, the inventor installed a light switch with motion detector at the entry to his living room. Unfortunately, the detector's range does not cover the entire room, thus occasionally leaving the inventor ‘in the dark’. <b>Were there a multitude of motion detectors scattered around this same room—communicating through a data</b></p>

Reference	Disclosure*
	<p><b>communications link such that the light control circuit was guided in a more informed manner (as described later in this invention)—the inventor would be more positively illuminated.”</b></p> <p>Osann at ¶ 13.</p>
s. Patent No. 6,324,008 Baldwin”)	<p><i>Baldwin discloses “wherein the determination of whether the building is occupied or unoccupied by the one or more processors is based on a third data received from a motion sensor.” It would have been obvious to a POSITA to implement Baldwin’s motion sensor in Oswald’s system as one way to determine whether the building is occupied or unoccupied, at least because Oswald explicitly refers to Baldwin as disclosing such a motion sensor.</i></p> <p>“A universal multifunction sensor having multiple optical designs and providing a plurality of parameter sensors in one sensor module which can interface with and control operation of one or more processor control systems in an occupied space networked environment. <b>The universal multifunction sensor comprises a passive infrared occupancy sensor</b> and an ambient light sensor. A common network communications and control processor coupled to a common communication transceiver are shared in common by the occupancy sensor and the ambient light sensor, such that the multifunction sensor can interface with and control operation of one or more processor control systems in an occupied space networked environment. A segmented lens array comprises a plurality of lens segments forming a lens array for directing infrared radiation onto the passive infrared occupancy sensor, and is selected from one of the group of segmented lens arrays comprising: a wide view wallmount lens array providing both a wide field of view and both a long and short range detection optical pattern; a hallway wall mount lens array providing a narrow field of view and a long range detection optical pattern; a cubicle wall mount lens array providing a wide field of view and a very short range detection optical pattern; whereby the universal multifunction sensor can be provided with a segmented lens array designed to optimize the field of view and <b>motion detection</b> for a particular mounting application. The present invention also provides a novel detailed design for a cubicle wall mount segmented lens array providing a wide field of view and a very short range detection optical pattern suitable for operation in a close-in environment as in a cubicle.”</p> <p>Baldwin at Abstract.</p> <p>“Different multifunction sensors 12 (1 to n) can be placed at various locations throughout a building, typically several on each floor level. The multifunction sensors are typically housed in small plastic enclosures such as those illustrated in FIGS. 2, 3 and 4. <b>The occupancy (or motion) sensor 14 technology can be passive infrared (PIR), IR, ultrasonic, sonic, RF, microwave, radar or any other effective occupancy sensing</b></p>

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