

*Copeland Comfort Control, LP, and
ecobee Technologies, ULC*

v.

Ollnova Technologies Ltd.

IPR2023-00624, U.S. Patent No. 8,224,282

Patent Owner's Demonstrative Exhibits

July 9, 2024

Ex. 2010

'282 Patent, Claim 7

[7.pre] An automation component configured for wireless communication within a building automation system, the automation component comprising:

[7.a] a multi-sensor package configured to generate a plurality of sensor data for each sensor within the multi-sensor package;

[7.b] a wireless communications component;

[7.c] a processor in communication with the wireless communications component and the sensor package;

[7.d] a memory in communication with the processor, the memory configured to store sensor data provided by the sensor package and computer readable instructions which are executable by the processor;

[7.e] wherein the computer readable instructions are programmed to:
receive status data related to sensor data in control at a **second automation component in communication with the building automation system**;

[7.f] determine the sensor data in control at the second automation component based on the received status data; and

[7.g] communicate the stored sensor data corresponding the sensor data in control to the second automation component.

Ex. 1001 ('282), Claim 7.

'282 Patent, Claim 13

[13.pre] An automation component configured for wireless communication within a building automation system, the automation component comprising:

[13.a] a multi-sensor package configured to detect a plurality of variables and generate sensor data for each detected variable;

[13.b] a wireless communications component;

[13.c] a processor in communication with the wireless communications component and the sensor package;

[13.d] a memory in communication with the processor, the memory configured to store sensor data provided by the sensor package and computer readable instructions which are executable by the processor;

[13.e] wherein the computer readable instructions are programmed to:
receive a wake-up command from a second automation component;

[13.f] communicate stored sensor data related to the sensor data in control at a second automation component; and

[13.g] receive a power-down command from the second automation component.

Ex. 1001 ('282), Claim 13.

Summary of Why The Petition Fails

- The Petition is premised on an erroneous construction of *multi-sensor package*.
- McFarland does not disclose a *multi-sensor package*.
- Ahmed-629 does not disclose a *multi-sensor package*.
- The Petition does not identify a second automation component that is *not within* the building automation system but is in communication *with* the building automation system.
- Neither McFarland, Stoner, nor Kates-089 discloses a second automation component that is *not within* the building automation system but is in communication *with* the building automation system.

Paper 19, 2-3, 13-19.

Grounds 1 - 8: No Multi-Sensor Package

Construction of Multi-Sensor Package

- A multi-sensor package is “a single packaged sensor device with multiple operational sensors.”
- The '282 Patent specification is directed to multiple operating sensors within the sensor package. de la Iglesia Decl., Ex. 2008, ¶¶ 30-32.

At block 602, the exemplary multi-sensor automation component 200 scans each of the sensors operating within the sensor package 220 and/or the sensor data stored in the

Ex. 1001 ('282), 8:65-67.

Moreover, some of the sensors within the sensor package 220 may require a great deal of power to operate. In order to increase the life of the battery 222, the high power requirement sensors within the sensor package 220 may be configured to operate periodically or on a set schedule.

Ex. 1001 ('282), 6:46-51.

At block 702, the exemplary multi-sensor automation component 200 scans each of the sensors operating within the sensor package 220 and/or the sensor data stored in the memory 204.

Ex. 1001 ('282), 9:44-47.

Paper 16, 6-9, 13-19; Paper 19, 4-9; Ex. 2008, ¶¶ 30-32.

McFarland does not disclose a multi-sensor package

- McFarland's sensor 209 does not have multiple operational sensors but instead is a sensor that senses a single condition or status of an event. de la Iglesia Decl., Ex. 2008, ¶¶ 38-39.

[0023] A sensing device monitors a condition and/or status of an event. The sensing device may report appropriate sensor information, such as a current value or indicator of the condition, timing of a reading, prior measurements, status of the sensor and/or a comparison of a measured value to a desired limit, range or a previous measurement.

Ex. 1027 (McFarland), [0023].

[0043] The sensor 209 may include a device or a collection of devices that sense conditions, parameters and/or events such as an environmental condition in a building. The sensor 209 generates information or data related to the sensed or monitored condition. The information may be provided an output as one or more signals that may be read by the processor 214.

Ex. 1027 (McFarland), [0043].

Paper 16, 26-30; Paper 19, 13-16; Ex. 2008, ¶¶ 38-39.

Ahmed-629 does not disclose a multi-sensor package

- “[E]ach sensor module in Ahmed-629 is used for a specific purpose that is defined by the configuration information.” de la Iglesia Decl., Ex. 2008, ¶¶ 44-45.
- In Ahmed-629, only one sensor functionality is enabled in a particular sensor module. de la Iglesia Decl., Ex. 2008, ¶ 46.

[0052] The memory 38 further includes set-up configuration information related to the type of sensor or sensors being used. For example, if the sensor suite 42 is implemented as a number of sensor devices, the memory 38 includes the information that identifies which sensor functionality to enable.

Ex. 1036 (Ahmed-629), [0052].

[0056] As discussed above, the sensor module 28 is configured to operate as a temperature sensor. To this end, the memory 38 stores information identifying that the sensor module 28 is to operate as a temperature sensor. Such information may be programmed into the memory 28 via a wireless programmer. The sensor module 28 may be programmed upon shipment from the factory, or upon installation into the building control system. The microcontroller 36, responsive to the configuration information, causes the signal processing circuit 40 to process signals only from the temperature sensor, ignoring output from other sensors of the sensor suite 42.

Ex. 1036 (Ahmed-629), [0056].

Paper 16, 39-42, 45-47; Paper 19, 16-17; Ex. 2008, ¶¶ 44-46.

Dependent claims 8-11 and 14-16.

- Because the prior art does not teach or disclose the multi-sensor package limitations of independent claims 7 and 13, it does not anticipate or render obvious dependent claims 8-11 and 14-16.
- *Synqor, Inc. v. Artesyn Techs., Inc.*, 709 F.3d 1365, 1375 (Fed. Cir. 2013) (“Th[e] court need not consider Defendants’ arguments that certain dependent claim limitations would have been obvious where the base claim has not been proven invalid.”).
- *Callaway Golf Co. v. Acushnet Co.*, 576 F.3d 1331, 1344 (Fed. Cir. 2009) (a judgment is irreconcilably inconsistent where a dependent claim is found obvious and the independent claim from which it depends is nonobvious).

Paper 16, 2; Paper 19, 1-3.

Grounds 2, 4, 6, & 8: No 2nd automation component in communication WITH the building automation system

No 2nd automation component in communication WITH the building automation system

[7.e] wherein the computer readable instructions are programmed to: receive status data related to sensor data in control at a **second automation component in communication with the building automation system;**

Ex. 1002 ('282), Claim 7.

- An automation component may be **within** a building automation system (BAS), or it may be in communication **with** the building automation system. Ex. 1001 ('282), 2:29-31, 40-41, 55-57; de la Iglesia Decl., Ex. 2008, ¶ 27.
- The preposition “with” is defined as “in the performance, use or operation of,” “to : ONTO,” or “in relationship to.” Webster’s II New College Dictionary 1267-8 (2001).
- The preposition “within” is defined as “in the inner part or parts of : INSIDE” or “inside the fixed limits of : not beyond.” *Id.*, 1268.

Paper 16, 11-12; Paper 19, 11-13; Ex. 2006; Ex. 2008, ¶ 27.

Grounds 1, 3, 5, and 7

The '282 Patent Specification does not use with and within interchangeably.

- “[A] second automation component in communication **with** the first automation component and the building automation system, ...” Ex. 1001 ('282), 3:15-17.”
- “[O]ne or more automation components **200** *b* operating **within** the BAS **100** and/or **within** the individual FLNs that make up the BAS **100**.” Ex. 1001 ('282), 7:7-9.
- “[T]he exemplary multi-sensor automation component **200** scans each of the sensors operating **within** the sensor package **220** ...” Ex. 1001 ('282), 8:65-67.
- “[A] sensor package **220** in communication **with** the sub-components **202**, **204** and **210** via the communication bus **218**.” Ex. 1001 ('282), 6:23-25.

Paper 16, 14-15; Paper 19, 11-14; Ex. 2008, ¶ 27.

Grounds 1, 3, 5, and 7

Ollnova Technologies Ltd.

DEMONSTRATIVE EXHIBIT - NOT EVIDENCE

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The '282 Patent discloses and claims a device that isn't **within** the building automation system but communicates **with** it.

- A POSITA would have understood that an automation component can be a device that is not **within** the building automation system and wirelessly communicates using direct, indirect or routed wireless communications in accordance with the teachings of the '282 Patent specification. de la Iglesia Decl., Ex. 2008, ¶ 35.
- The claims of the '282 Patent are directed to such a component when they recite “a second automation component in communication **with** the building automation system.” de la Iglesia Decl., Ex. 2008, ¶¶ 42-43.
- The claim term “second automation component in communication with ... the building automation system” in claim limitation [7.e] should be construed as “an automation component that communicates with, but is not within, the building automation system.”

Paper 16, 11-15; Paper 19, 10-13; Ex. 2008, ¶¶ 27, 35, 42-43.

Grounds 1, 2, 5, and 7

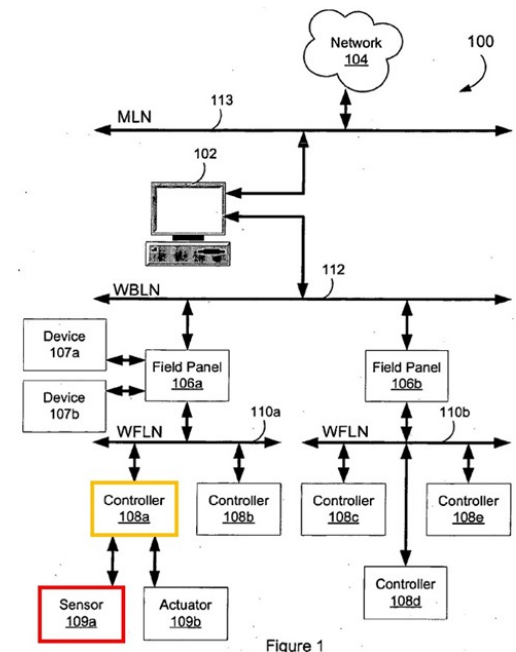
McFarland does not disclose or teach a second automation component in communication with the building automation system.”

- McFarland discloses communications over a building automation network by devices that are within the building automation network.

[0022] The devices of the system **100** communicate information, data and commands according to an assigned binding association. That is, devices may be commissioned as an operating pair or group according to a binding association. Even though devices may be commissioned as an operating pair or group, communications between devices may be routed, or hopped, via one or more other devices of the network. That is, the communication of information between and among devices includes transmitting, routing, and/or information hopping using low-power wireless RF communications across a network defined by the devices.

Ex. 1027 (McFarland), [0022].

- The Network 104 provides communications for computer workstation 102 and the Management Level Network (MLN) (i.e., other supervisory computers, servers, or gateways) but not the building automation network. Ex. 1027(McFarland), [0035].



Paper 16, 19-21, 33-35; Paper 19, 10-13; Ex. 2008, ¶¶ 27, 35, 42-43.

Grounds 1, 3, 5, and 7

McFarland + Stoner do not disclose or teach a second automation component in communication with the building automation system

- The Petition does not contend that McFarland's automation device modified in accordance with Stoner's teachings would not be **within** the building automation system.
- Petitioner does not argue that Stoner's remote portable controller is not within the building automation system. To the contrary, Petitioner proposes modifying McFarland by making McFarland's automation component (which is within the Building Automation System) a remote controller - but still within the building automation system.
- Petitioner's reply argument that McFarland's modified device could be outside of the building automation system is conclusory.

Paper 16, 36-38; Paper 19, 18-19.

Conclusion

Claims 7 - 16 are nonobvious

- The Petition fails to establish that the prior art teaches, discloses or suggests the *multi-sensor package* recited in claims 7-16.
- *McFarland* does not disclose a *multi-sensor package*.
- *Ahmed-629* does not disclose a *multi-sensor package*.
- The Petition fails to establish that the prior art teaches, discloses or suggests a second automation component in communication with the building automation system as recited in claims 7-12.
- The Petition fails to show that *McFarland*, *Stoner*, or *Kates-089*, alone or in combination, discloses a second automation component that is *not within* the building automation system but is in communication *with* the building automation system.

Paper 19, 2-3, 13-19.