

**(12) United States Patent**  
**Stoner et al.**

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**(54) BUILDING CONTROL SYSTEM WITH REMOTE CONTROL UNIT AND METHODS OF OPERATION**

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**(58) Field of Classification Search 165/209; 236/51, 1 C**

See application file for complete search history.

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*Primary Examiner* — Cheryl J Tyler

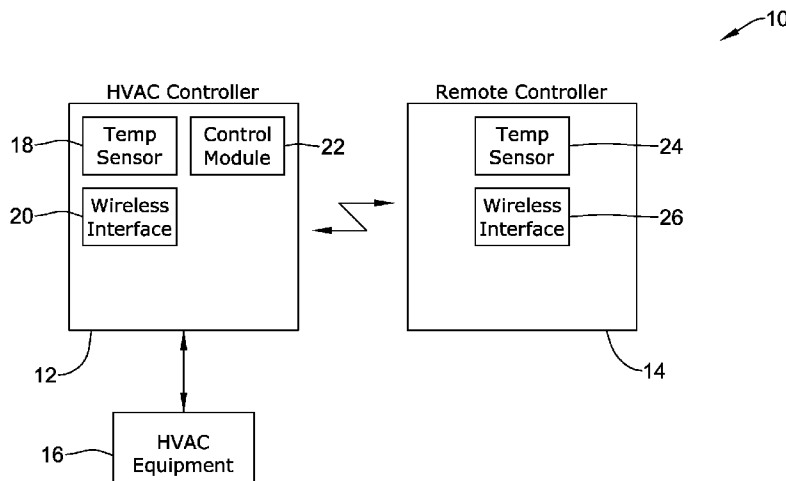
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**(57) ABSTRACT**

A building controller for controlling the comfort level in a building is described. The building controller may include a thermostat and wireless remote controller for communicating with the thermostat from a remote location. The thermostat may have access to a first temperature sensor for sensing a first temperature, sometimes at or near the thermostat. The remote controller may likewise have a second temperature sensor for sensing a second temperature, sometimes at or near the remote controller. Under some conditions, the thermostat may use the second temperature sensed by the remote controller to control the comfort level in a building unless or until a predetermined condition is detected, after which the thermostat may use a different temperature, such as the first temperature at or near the thermostat, to control the comfort level in a building.

**24 Claims, 20 Drawing Sheets**



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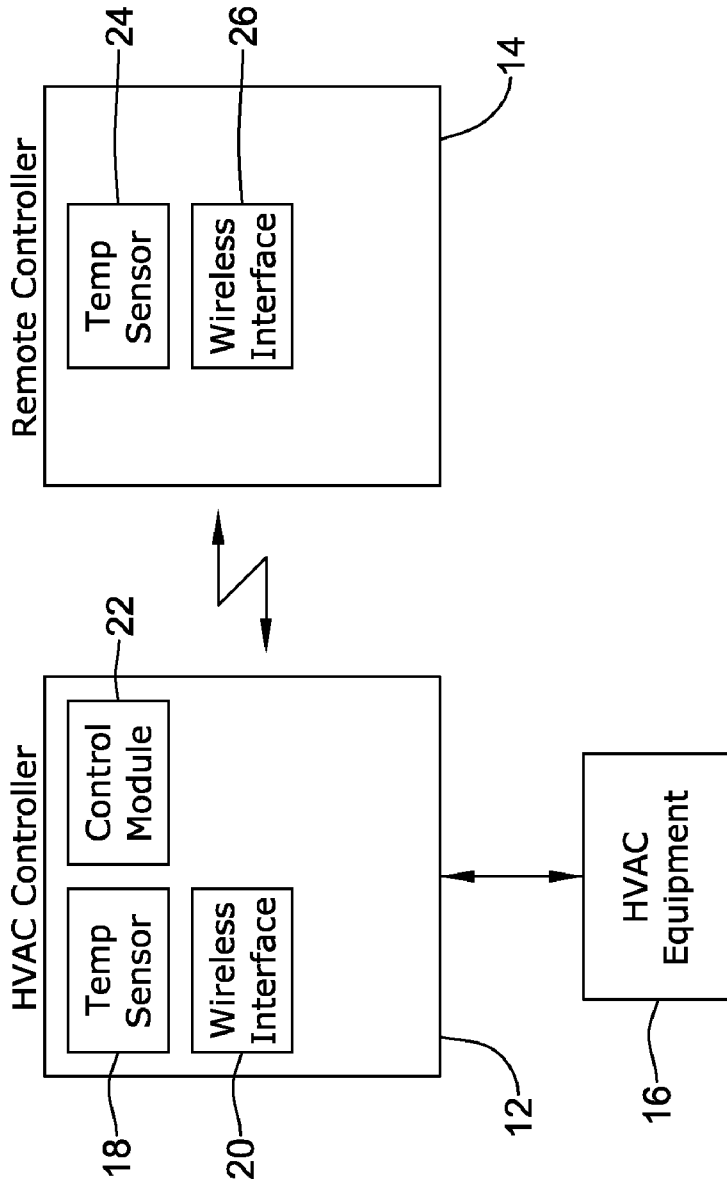


Figure 1

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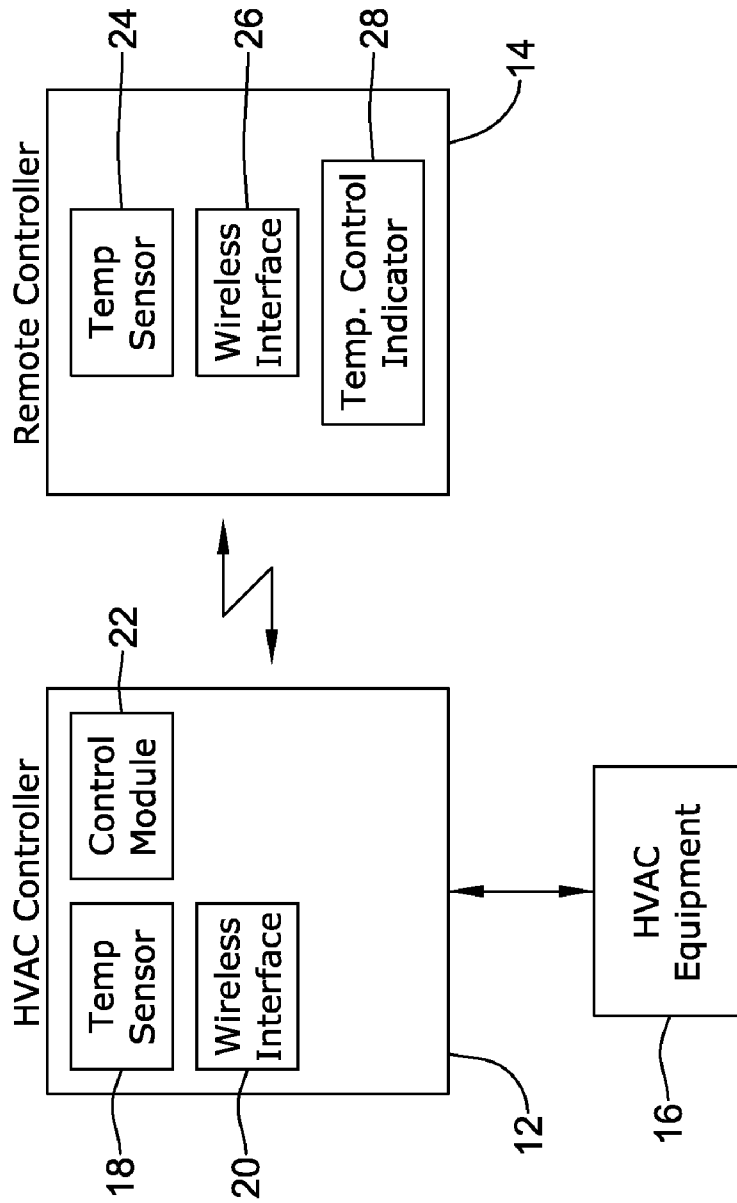


Figure 2

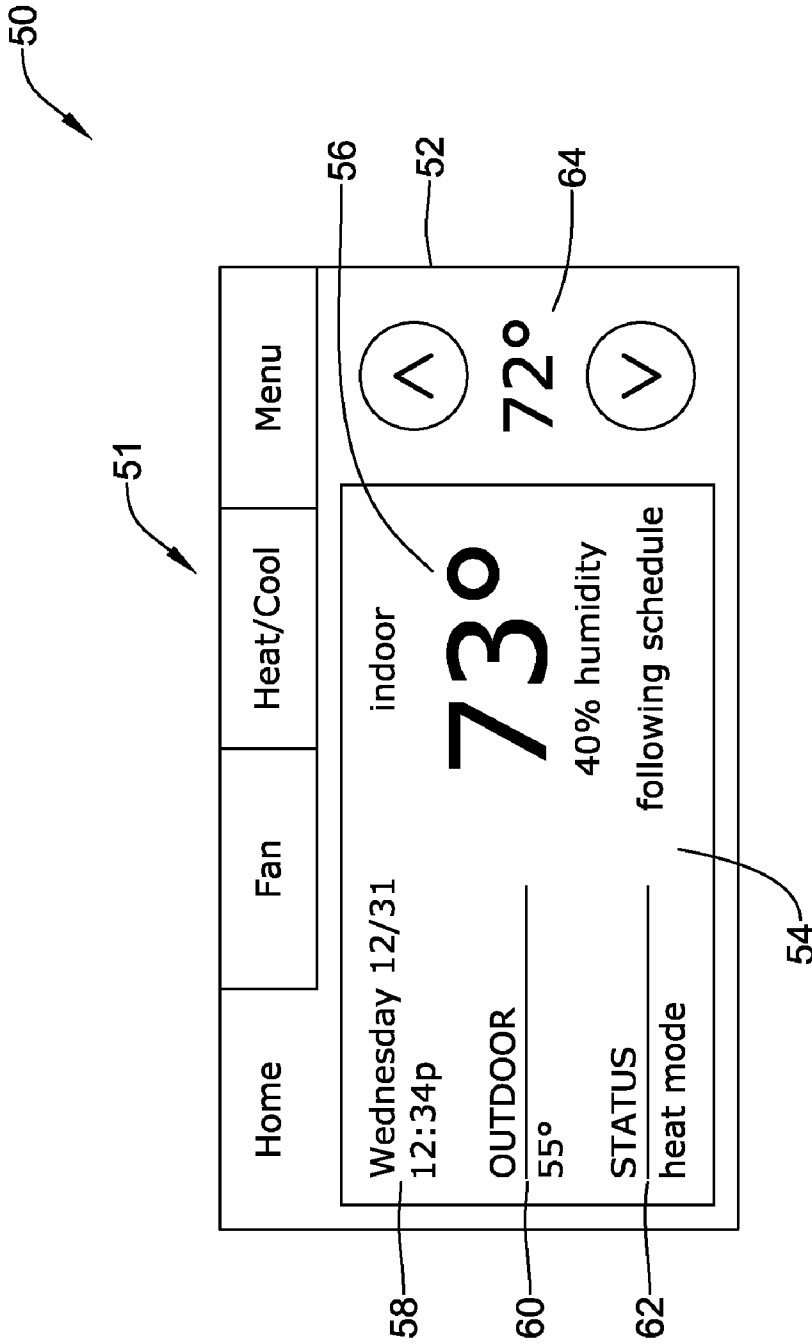


Figure 3

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