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(54) **SINGLE PAIR ETHERNET SENSOR DEVICE AND SENSOR NETWORK**

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(57) **ABSTRACT**

A sensor device may include an environmental sensor configured to sense an environmental parameter and generate a signal representative thereof, a single pair ethernet (SPE) interface configured to cooperate with an SPE link, and a controller provided in communication with the environmental sensor and the SPE interface. The controller may be configured to receive the signal representative of the sensed environmental parameter and to control the SPE interface to generate at least one ethernet frame including data indicative of the sensed environmental parameter for transmission over the SPE link. The controller may be further configured to automatically configure communication with a remote server over the SPE link via the SPE interface.