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[54] POWERLINE NETWORKED USB POWER ADAPTER FOR IOT 用於物聯網 IOT 設備的電力線網絡 USB 電源適配器

[57] This short-term patent application discloses a USB power adapter has a built-in powerline communication interface and includes an electrical power connection to a powerline, such as a home power socket. The USB power adapter also includes one or more USB receptacles to connect to USB peripheral devices. The USB power adapter includes power converter circuitry and power delivery control logic for sourcing the USB power to the USB peripheral device connected to the USB power adapter, wherein the sourced USB power is compliant with the USB protocol. The USB power adapter includes a microcontroller unit (MCU) that interfaces with both the USB host controller and the powerline communication controller and has a protocol to establish the communication between the USB peripheral device and the powerline communication gateway server in order to create an IoT operation.

本短期專利公開了一種 USB 電源適配器具有內置的電力線通信接口，並包括與電力線（例如家用電源插座）的電力連接。USB 電源適配器還包括一個或多個 USB 插座以連接到 USB 外圍設備。USB 電源適配器包括功率轉換器電路和電力傳輸控制邏輯，用於將 USB 電力供應到連接到 USB 電源適配器的 USB 外圍設備，其中源 USB 電力符合 USB 協議。USB 電源適配器包括與 USB 主機控制器和電力線通信控制器都接口的微控制器單元 (MCU)，並具有建立 USB 外圍設備與電力線通信網關服務器之間的通信的協議，以創建物聯網 (IoT) 操作。

