

SWITCHING DEVICE, PERIPHERAL COMPONENT INTERCONNECT EXPRESS SYSTEM, AND METHOD FOR INITIALIZING PERIPHERAL COMPONENT INTERCONNECT EXPRESS SYSTEM

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ABSTRACT

This application discloses a switching device, a PCIe system, and a method for initializing a PCIe system. The switching device includes: multiple PCIe upstream ports, configured to connect to at least one host; at least one PCIe downstream port, configured to connect to at least one I/O device; and an internal processing apparatus, connected to the at least one PCIe downstream port by using an internal connection line of the switching device. The internal processing apparatus is configured to: transmit a configuration read/write packet to the at least one PCIe downstream port by using the internal connection line; receive a configuration read/write response packet transmitted by the at least one PCIe downstream port by using the internal connection line, where the configuration read/write response packet carries a completer identification; and determine, according to the completer identification carried in the configuration read/write response packet, that the switching device is connected to an I/O device whose identification is the completer identification. The switching device, the PCIe system, and the method for initializing a PCIe system have relatively high stability and reliability.

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Figure 2