AUTOMATIC CONFIGURATION OF PRIMARY AND SECONDARY PERIPHERAL DEVICES FOR A COMPUTER

ABSTRACT OF THE DISCLOSURE

A method of automatically configuring a computer peripheral device as a primary device or as a secondary device. There are four possible cases: (1) no other device present, (2) legacy primary device present, (3) legacy secondary device present and (4) second unconfigured jumperless device present. In each example embodiment, the host computer determines (108, 204, 304) whether any legacy devices are present by sending commands that are ignored by unconfigured jumperless devices. If a legacy device is present, the host computer sends a command (110, 112, 208, 210, 308, 310) recognized only by an unconfigured jumperless device commanding the particular configuration for the jumperless device. In a first example embodiment, jumperless devices assert a signal (104) after reset with a timing that is dependent on an electronically readable identification on the device. For case (4), the first device to assert the signal becomes the secondary device (110). For case (4) in the second example embodiment, each jumperless device drives (232), or monitors (230) a line during sequential time periods corresponding to bits in the electronically readable identification number. For case (4) in the third example embodiment, the jumperless devices arbitrate (320) for primary/secondary status without involvement by the host computer by a process that is dependent on the electronically readable identification number on each device.

Figure 2A