

Title (en)  
ISOLATED HIGH-SPEED COMMUNICATION BUS

Title (de)  
ISOLierter HOCHGESCHWINDIGKEITSKOMUNIKATIONSBUS

Title (fr)  
BUS DE COMMUNICATION RAPIDE ISOLE

Publication  
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Application  
**EP 00936831 A 20000529**

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Abstract (en)  
[origin: WO0075796A1] Isolation components (320, 420) are connected directly between a communications bus (180) and a connector (110a-z) that connects plug-in modules (200) to the common bus, to minimize the capacitive loading on the communications bus. In one embodiment of this invention, a diode (320) is placed between the communications bus (180) and the connector (110), thereby isolating the communications bus from the capacitance of the connector and associated wiring when the diode is in the off condition. In a preferred embodiment of the invention, an isolation transistor (420) is placed between the communications bus (180) and the connector (110), and is configured to present a small and consistent collector capacitance to the communications bus in both an on and off condition. By providing a known capacitance at known points on the transmission line forming the communications bus, conventional compensation techniques can be employed to minimize or eliminate the effects of these capacitances. The techniques present herein may be applied to both unidirectional and bi-directional bus communications.

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