

Compact Fiber Optic Isolation for Renewable Energy and Medical Applications

SAN JOSE, Calif. & SINGAPORE -- (BUSINESS WIRE) -- Avago Technologies today announced the 10 MBd HFBR-3810Z Fiber Optic (FO) short link transmitter/receiver for isolating frequency inverter and power converter applications common in renewable energy installations.

In power generating wind and solar farms, fiber optics technology is widely considered the preferred isolation technology to interface between low voltage control logic or microprocessors and high voltage power inverters and switching circuits.

The FO short link technology pin-to-pin distance of 24.96 mm provides transient voltage suppression of 12 kV according IEC 60664-1. Avago's FO short link technology allows galvanic isolation on one PCB where previously separate transmitter/receiver pairs on two PCBs were linked by plastic optical fiber for isolation. The HFBR-3810Z allows much more compact designs.

FO short link devices have creepage and clearance specifications greater than existing optocoupler devices and offer superior galvanic isolation than transformer-based technology.

Fiber technology has excellent EMI resistance and EMC characteristics. The Avago HFBR-3810Z short link transmitter/receiver operates reliably in high noise environments common in high voltage switching and motor control equipment and systems. The DC coupled data link does not require data encoding or digitizing circuitry. The FO receiver has a CMOS/TTL output for easy interface design.

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