

EZ

Supporting Multiple Dwelling Unit (MDU) and In-Home Wiring Applications



A Furukawa Company

EZ-Bend[®] Optical Technology

Drop cables featuring EZ-Bend Optical Technology can be bent to 5 mm radius and be stapled, with negligible signal loss and no degradation in picture quality, offering reliable support for FTTX applications, including high-definition television (HDTV), on-demand video, ultra high speed data, voice, online gaming and many other revenue-generating services.



Supporting multiple dwelling unit (MDU) and in-home wiring applications, the new EZ-Bend Optical Technology addresses the critical need to speed and simplify installations by allowing optical cables to be bent and routed in ways never before feasible with traditional optical drop cables, to facilitate rapid deployment of fiber to and within the residence.

The EZ-Bend Optical Technology can provide up to a 100-fold improvement in bending performance over conventional single-mode fiber (SMF) optical cables, to help avoid service disruptions and lower installation costs. Conventional optical fiber technologies require large bend radii to function properly, complicating the installation process. In contrast, service providers need drop cables that support tight corner bends and stapling. Sometimes the cables need to be routed around corners, behind moldings, and stapled.

The EZ-Bend Technology enables in-residence optical cable installation with the same simple practices used for copper or coaxial cables. Cables using EZ-Bend Technology can be stapled in place using existing copper cable installation tools and routed around corners.

OFS' EZ-Bend Technology integrates two critical elements: a new bend-optimized fiber design in a new cable construction. This innovative optical fiber technology is the first to provide such world class macrobend performance using a solid glass fiber construction, while the optical fiber is fully compatible with typical installed fibers including splicing and connectorization. A robust optical cable design helps protect the optical fiber from being kinked or crushed. This construction differs from conventional optical cables where the excessive stress might break the glass fibers housed inside. In addition, EZ-Bend Technology features the only commercial solid glass optical fiber that allows a typical video signal to pass through a 5 mm radius bend with 0.1 dB maximum loss per turn, where conventional approaches would fully block the service.

EZ-Bend Technology Demo

Tests show that a video streamed over optical cables using EZ-Bend Technology, bent around numerous corners and stapled, does not suffer any degradation in picture quality. In contrast, a conventional cable, subjected to far less bending, shuts down the video and "freezes" the screen. This occurs because the EZ-Bend Technology enables negligible video signal loss (0.1 dB maximum at 1550 nm) for one turn at 5 mm radius, while conventional fibers under the same conditions lose nearly all the signal and shut down service to customers.



What Standards does EZ-Bend Technology Meet?

Products featuring EZ-Bend Technology exceed ITU G.657 Standard, Classes A and B, and are backward compatible with G.652D fiber.

Bending Loss Performance

The following macro bend attenuation levels for bends of 5 mm radius can be expected in products featuring EZ-Bend Technology:

- ≤ 0.1 dB maximum loss per turn at 1550 nm
- ≤ 0.25 dB maximum loss per turn at 1625 nm

When will EZ-Bend Technology be Available in Products?

OFS will provide EZ-Bend Technology in the V-Linx™ drop cables used in its recently released V-Linx Spool & Play Solution for MDU deployments. A key component of the FOX™ Solution for FTTX applications, the V-Linx Solution can simplify MDU installations and lower overall costs by up to 50%. The V-Linx drop cables will be commercially available in 2008. For further details, please contact your OFS representative.



Watch a video of a cable featuring EZ-Bend Optical Technology on:

www.YouTube.com/ofsmarcom,

or at OFS Videos section:

www.ofsoptics.com/products/videos.php



Use electronic files, available at:
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For additional information please contact your sales representative. You can also visit our website at www.ofsoptics.com or call 1-888-fiberhelp (1-888-342-3743) from inside the USA or 1-770-798-5555 from outside the USA.

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