

# AllWave® FLEX Fiber and the New ITU G.657 Standard

1 AllWave FLEX fiber is OFS' new bend-optimized single-mode fiber. It offers the optimum combination of:

- Low bending loss to enable smaller fiber management, reduced installation re-work, and improved service reliability
- Lower macrobending and microbending to allow more compact cable designs
- Seamless splicing to existing standard G.652 fibers to help reduce installation time
- Simple design compared to exotic, unconventional bend insensitive fiber designs, to help lower cost and ensure splice compatibility.

**What you should know:** AllWave FLEX bend-optimized fiber helps reduce installed system cost and offers new network design freedom for evolving FTTx applications.

2 AllWave FLEX fiber has all the benefits of OFS' AllWave fiber, plus exceptional bending performance. AllWave is the industry's first full spectrum Zero Water Peak single-mode fiber, providing low stable loss and 50% more bandwidth capability.

**What you should know:** With a history of technological leadership in developing application-specific fibers, OFS again demonstrates its innovative expertise by introducing AllWave FLEX fiber. This versatile fiber meets the increased demands of today's FTTx, enterprise, and access networks, while ensuring ample capacity for future upgrades.

3 OFS' AllWave FLEX fiber exceeds the requirements of the new ITU-T G.657.A standard, while maintaining full compatibility with G.652.D fibers.

**What you should know:** AllWave FLEX fiber is a truly "bend-optimized" fiber. OFS believes that such a fiber must have low attenuation, excellent macrobend performance (which also guards against any long-term reliability threat from risky bends), exceptional PMD, and be fully splice-compatible with the existing installed base of fibers

4 The G.657 standard was developed by the International Telecommunications Union (ITU) to provide consistency in the evolving requirements for bend loss insensitive single-mode fiber.

**What you should know:** OFS was an active participant in the development of the ITU-T G.657 standard. This class of fiber enables cost reductions through reduced space requirements for fiber management systems as well as more relaxed deployment requirements for installers, thereby helping to lower labor costs.

5 The G.657 standard describes two fiber categories. Class A has tightly specified fiber properties (more so than even G.652.D) with practical macrobend loss requirements. Class B has very stringent bend loss requirements but is otherwise specified more loosely than G.652.D. The liberal specs of G.657 Class B were necessary in order to support all existing unique and non-standard bend insensitive fibers.

**What you should know:** G.657 Class A fiber conforms to the widely regarded G.652.D standard, while G.657 Class B fiber does not. Class A fibers will serve the majority of applications requiring a G.652.D fiber with improved bend performance. Class B fibers can support unique or special tight bend applications, but with the added challenges of a non-standard fiber (splicing, reliability, higher cost, etc.). AllWave FLEX fiber meets and exceeds the requirements of G.657.A, making it the best choice for your networks requiring bend optimized performance.



A Furukawa Company

AllWave is a registered trademark of Furukawa Electric North America, Inc.

This document is for informational purposes only and is not intended to modify or supplement any OFS warranties or specifications relating to any of its products or services.

Copyright © 2007 Furukawa Electric North America

All rights reserved, printed in USA.