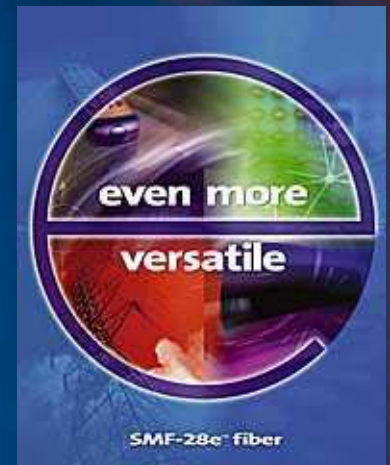


Corning® SMF-28e™ Fiber

Enables capable, compatible and versatile solutions for evolutionary networks

CORNING
Discovering Beyond Imagination





SUBMARINE FIBERS



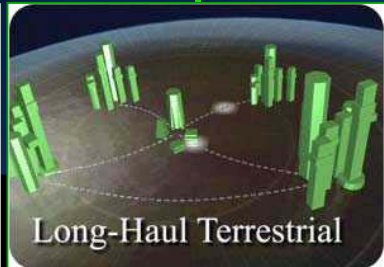
LEAF® FIBER



METROCOR™ FIBER



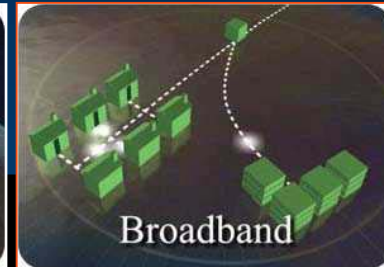
Long-Haul and Short-Haul Submarine



Long-Haul Terrestrial



Metro/Access



Broadband



Premises



SMF-28e™ FIBER



SMF-28™ FIBER



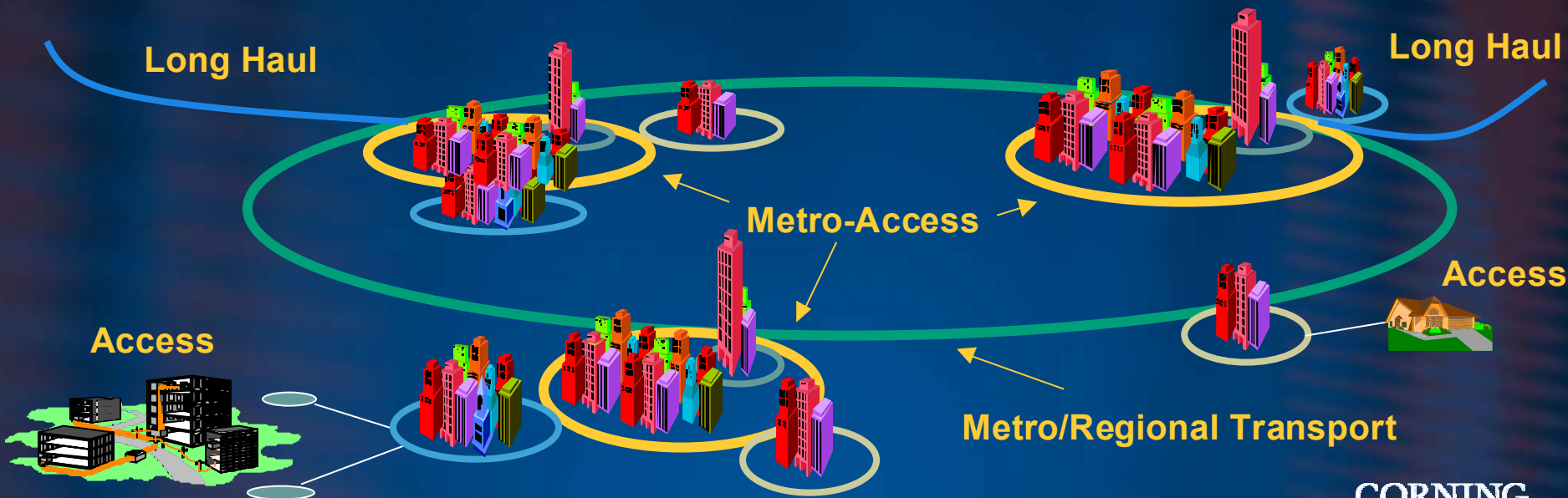
INFINICOR® FIBERS



Corning® Single-Mode Fiber Applications

Providing optimized, low cost, high data rate options for carriers' networks

- Long Haul - LEAF® Fiber
- Metro/Regional Transport - MetroCor® Fiber / LEAF® Fiber
- Metro-Access - SMF-28e™ Fiber
- Access - SMF-28e Fiber and SMF-28® Fiber



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Corning SMF-28eTM Fiber Overview

In 2001 Corning SMF-28e fiber was voted a technology award winner by the readers of *Fiberoptic Product News*!

- Capability.....
 - Leading optical and geometry attributes
 - Specifications out to 1625 nm
- Compatibility.....
 - Fully compatible with all G.652 installed fiber base
 - Meets current and emerging standards (ITU G.652.C, TIA/EIA)
- Versatility.....
 - Enables the use of the full spectrum for transmission
 - Opens transmission in the E-band (1360 nm-1460 nm)
 - Provides 50% more wavelength spectrum
 - Allows more flexibility in system design, upgrade and emerging applications



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Capable Fiber Specifications

Attenuation

Wavelength (nm) *Maximum Value (dB/km)

1310	≤ 0.34 - ≤ 0.35
1383*	≤ 0.31 - ≤ 0.35
1550	≤ 0.20 - ≤ 0.22
1625	≤ 0.22 - ≤ 0.24

*Attenuation values at this wavelength represent post hydrogen aging performance

*Maximum attenuation value available within the stated ranges

Capable Fiber Specifications



- Industry-leading standard single-mode PMD specifications
 - PMD link value: ≤ 0.08 ps/km²
 - Maximum individual fiber: ≤ 0.2 ps/km²
- Same excellent geometric performance as SMF-28™ fiber
 - Cladding Diameter: 125.0 ± 0.7 μ m
 - Core-Clad Concentricity: ≤ 0.5 μ m
 - Coating Diameter: 245 ± 5 μ m
- Expanded optical properties:

	Mandrel Size	Number of Turns	Induced Attenuation
Bending at 1625 nm:	75 mm	100	≤ 0.10 dB

Compatible with network practices of SMF-28 fiber

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Compatible **Standards Compliant**

- Approved standard ITU G.652.C includes “low water peak” requirements
 - Attenuation 1383 - 1480 nm (post-hydrogen aging) $\leq$ attenuation 1310 nm
 - Attenuation value 1600 - 1625 nm $\leq$ 0.4 dB/km
 - Macrobend loss at 100 turns on 37.5 mm radius mandrel at 1600 - 1625 nm $\leq$ 0.50 dB
 - Not all LWP fiber manufacturers are G.652.C compliant
- Approved standard TIA/EIA-492CAAB includes “low water peak” requirements
 - Attenuation 1383 nm (post-hydrogen aging) $\leq$ attenuation 1310 nm

Compliant with all ITU G.652 standards (table A, B and C)

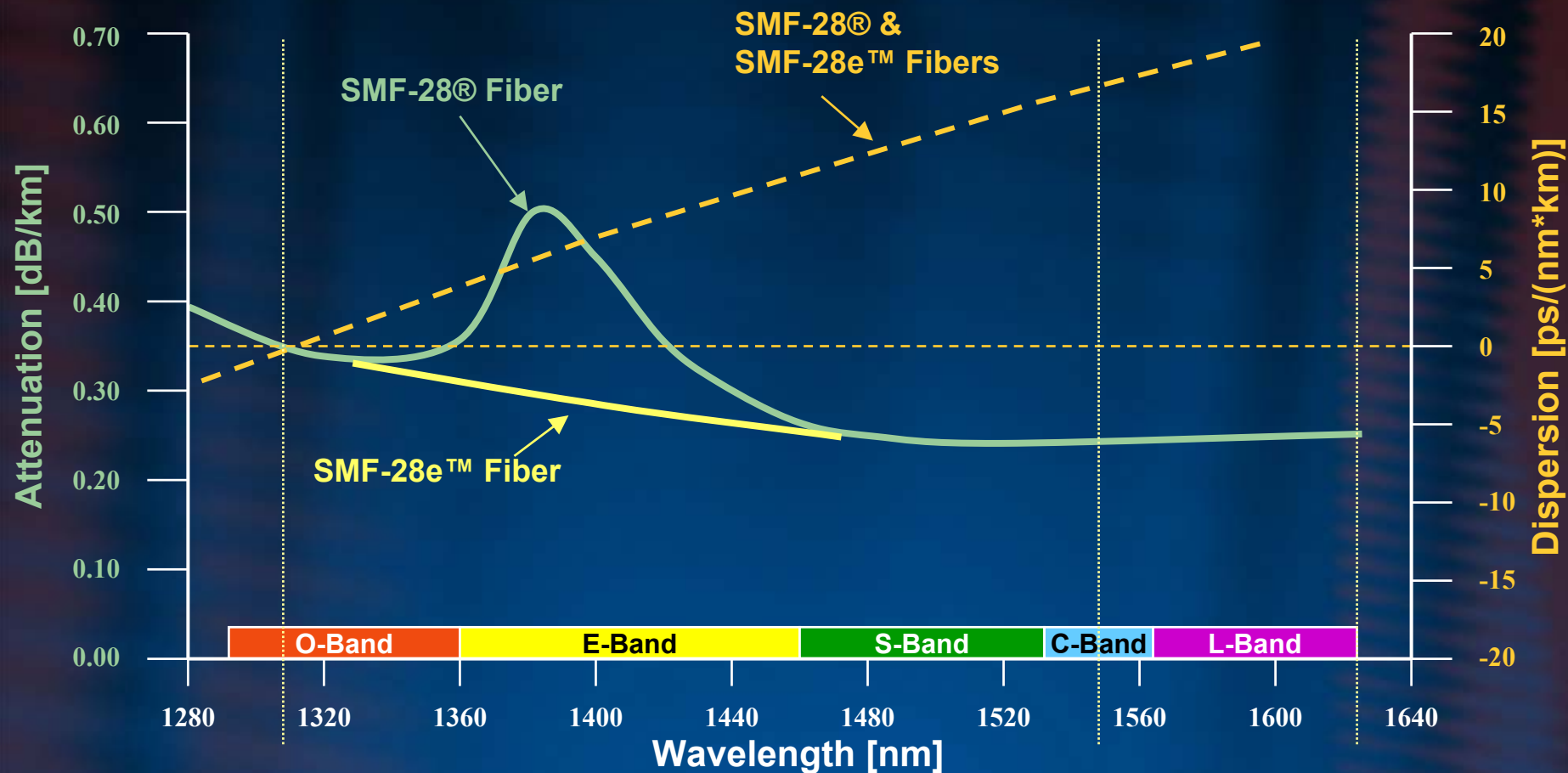
Compatible Seamless Network Integration

- Fully compatible with installed base of SMF-28®, G.652 and G.652.C single-mode fibers
 - Equivalent splice performance
 - Equivalent or improved specifications in...
 - Attenuation performance at 1310 and 1550 nm
 - Zero dispersion wavelength and slope
 - Mode field diameter
 - Fiber and cable cut-off
 - No need for new network design rules or OSP practices

Predictable results without the need for lengthy and costly network (re)qualification tests

Versatility

Attenuation and Dispersion Profiles



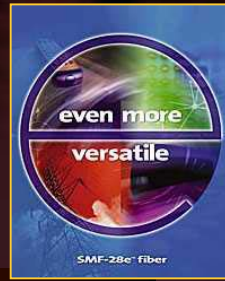
Increases spectral efficiency and network capacity

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Versatile Design Flexibility

- Upgrade
 - Provides compatibility with existing infrastructure
 - Increase in TDM rates
 - Lower overall system costs
- Emerging Technologies
 - 1625 nm attenuation specification enables emerging L-band (1565-1625 nm) technology
 - Enables use of low cost uncooled lasers and wide passband filters
- Future Proofing
 - Compatible with emerging full-spectrum CWDM technologies
 - Allows flexibility in system design
 - Industry leader in comprehensive fiber performance

Corning® SMF-28e™ Fiber Capable, Compatible, & Versatile Solution



- Corning SMF 28e™ fiber.....
 - Enables full spectrum transmission capability
 - Is optimized for un-amplified regional, metropolitan, local access telephony and cable television network
 - Is the industry's leading ITU G.652.C compliant low water peak fiber
 - Matched to the specifications of the installed base of standard single-mode fibers
 - Provides versatile network design solution for current and emerging architectures

SMF-28e™ fiber provides all the functionality of SMF-28® fiber with full spectrum capability and flexibility CORNING