

## j-FiberUnit 40

### enabling 40 Gb/s Ethernet OM3 parallel transmission

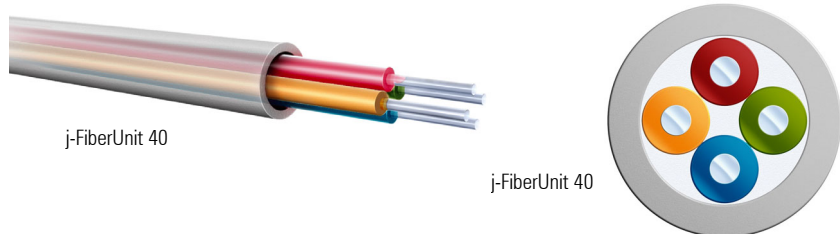
#### The new j-fiber solution to enable parallel 40 Gb/s Ethernet transmission for highly flexible cable installations

Advanced cabling in datacenters demands for higher data rate transmission already today while reducing network complexity and costs. j-FiberUnit 40 is j-fiber's new solution for 40 Gb/s OM3 parallel high-bandwidth transmission.

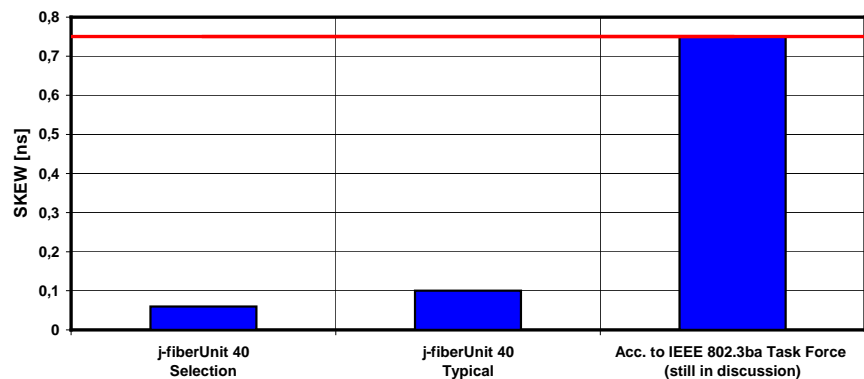
j-fiber FiberUnit 40 uses 4 j-fiber OptiGrade OM3 multimode fibers with 10Gb/s data-rate transmission capacity each.

Unlike current fiber ribbon constructions, j-FiberUnit 40 has no preferential bend orientation. With a minimum skew value far below the required  $\leq 0.75\text{ns}$  (run time differences between the signal of the fibers) j-FiberUnit 40 ensures reliable 40 Gb/s parallel transmission. With a link length up to 150 m<sup>1</sup> j-FiberUnit 40 performs even beyond approved IEEE objectives and thereby allows to make IT cabling installations in advanced datacenters future-safe, well-structured and cost-efficient.

<sup>1</sup> Final fiber-unit length in the IEEE 802.3ba Task Force is still in discussion



Typical Skew Advantage of j-FiberUnit 40  
Skew/100 m Link Length



For further information about j-fiber products and services, please contact us:

**j-fiber GmbH**  
Im Semmicht 1  
D-07751 Jena, Germany  
Tel.: +49-3641-352 100  
Fax: +49-3641-352 101  
Email: info@j-fiber.com  
Internet: www.j-fiber.com

### Application

j-FiberUnits have been designed as a parallel transmission solution for next generation datacenter or office IT-cabling with demand for high-bandwidth of up to 40 Gb/s transmission rates. j-FiberUnits support link-lengths of 150 m to allow for structured, cost-efficient cabling and future-safe planning perspectives.

### Flexible Use. Best Skew. High Link-Lengths.

- No preferential bend orientation
- Enables 40 Gb/s transmission using 4 OM3 OptiGrade fibers
- Up to 150 m link-length
- Excellent skew values of far below  $\leq 0.75\text{ ns}$
- Easy removable buffer material
- Different color coded fiber sets for full 40Gb/s duplex operation

## Specification FiberUnit 40

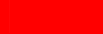







| j-FiberUnit 40                     | Spec. Values                       | Unit  |
|------------------------------------|------------------------------------|-------|
| Number of Fibers in Unit           | 4                                  |       |
| Max. Attenuation in Unit at 850nm  | ≤2.6                               | dB/km |
| Max. Attenuation in Unit at 1300nm | ≤0.8                               | dB/km |
| Skew                               | ≤0.75                              | ns    |
| Transmission Link length           | ≤150                               | m     |
| Outside Diameter                   | 850 ±50                            | μm    |
| Color Set Fibers                   | 2 color sets for Duplex Deployment |       |
| Buffer Material                    | UV cured Acrylate                  |       |
| Color Buffer Material              | Clear                              |       |
| Filling Compound                   | Easy removable gel                 |       |
| Operating Temperature Range        | -20 to +80                         | °C    |

## Specification Fiber

| OptiGrade 50/125/250 OM3 Fiber      | Spec. Values                          | Unit |
|-------------------------------------|---------------------------------------|------|
| Fiber Type                          | OptiGrade 50/125/250 OM3 <sup>1</sup> |      |
| Core Diameter                       | 50 ± 2.5                              | μm   |
| Cladding Diameter                   | 125 ± 1.0                             | μm   |
| Coating Diameter                    | 245 ± 10.0                            | μm   |
| Numerical Aperture                  | 0.200 ± 0.015                         |      |
| Effective Group Index of Refraction | 850nm: 1.483<br>1300nm: 1.478         |      |

<sup>1</sup>See j-fiber OptiGrade Multimode Fiber Series datasheet for details

## Colors according to IEC 60304<sup>1</sup>

|                  | Color  |   |
|------------------|--------|---|
| j-FiberUnit 40 A | Red    |  |
|                  | Green  |  |
|                  | Blue   |  |
|                  | Yellow |  |
| j-FiberUnit 40 B | White  |  |
|                  | Grey   |  |
|                  | Brown  |  |
|                  | Purple |  |

<sup>1</sup> Other colors and color combinations available upon request

## Ordering Information

To order our j-FiberUnit 40 please call, fax or email us and specify the following parameters when ordering:

|                      |  |
|----------------------|--|
| Desired Attenuation: | at 850 nm/1300 nm                                |
| Unit Quantity:       | m/km   |
| Color Set:           | Specific colors                                  |
| Other:               | desired ship date, reel length, special requests |

All fibers and preforms are subject to j-fiber's ongoing process and quality improvement programs ensuring excellent performance and high reliability. We reserve the right to make changes to the above specification without notice.

DB-FU-NG-001-03-0111 Issued January 2011

Supersedes DB-FU-NG-001-02-1109

Copyright 2011 © j-fiber GmbH with regard to DIN ISO 16016

Officially registered facility according to EWG No. 761/2001

