tBG2 - FO Premium splice module 12x E2000 APC SM 3U/7HP with pigtails 09/125µ



tBG II - tde Subrack

The newest generation of tde - Subracks is developed especially for the application by loose tube cables with high fiber counts. Up to 288 fibers can be distributed to 12 splice modules. Alternative up to 12 tML® modules. By the application deep-adjustable 84HP Subrack with 7HP-grid is a simple module mounting possible. The modules are fixed by screws. Cable over lengths are accommodated certainly in a cable tray. The cable tray is removable. The cable entry is on the left and right back side. On the front side is a patch cord management panel with 5 rings integrated.

tBG II - tde subrack 19“/4U is for the equip of up to 12 x tBG II - splice modules 3U/7HP with high component density.

The tBG II – FO splice module 3U/7HP is intended for the installation in tBG II - subracks (for 12 x modules).

Features:

- Available for all standard FO connectors: E2000, FC/PC, LC, SC and ST

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- Integrated loose tube strain relief
- Module mounting with screws

Technical Data

Pre-mounted	12 E2000 APC adapters 12 E2000 APC Fiber pigtails 9/125µ OS2 12 Crimp Splice protectors 1 Splice cassettes 1 Splice holder 1 Splice cover
Alternative pre-mounted	TBG2-M12-xxE2A9APS
xx	(01 - 12) quantity of adapters

Type	Front panel for 12 x E2000 or SC Simplex
Color	Anodized E6 EV1
Inscription	1 - 12 Screen printing by label strips
Dimensions	Alu- AlMG3 G22

Type	Module slot for rack 84 HP
Dimensions	app. 250 x 100 mm

FO Adapters

Type	E2000 APC Simplex Adapter with flange
Flansch	Plastic, 3.5mm material thickness
Standardisation	IEC61754-15
	TIA 604-16
	RoHS
Connector class	coupling Adapter
Number of connectors (A)	1
Connector type (A)	E2000™
Alignment technology	Ceramic precision sleeve (Zirkonia Zr02)
Delta insertion loss	< 0.1dB
Mating cycles	min. 1000
Connector color (A)	green
Sleeve material	ceramic
Fiber type	Singlemode (SM)

FO Pigtails Premium

FO Connectors

Type	E2000 APC

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Ferrule	Ceramic
Ferrule Hole	125.5 µ
Ferrule Concentricity	≤ 0.6 µ
Connector colour	Green
Lever Colour	Green
Boot colour	Green
Manufacturer	RDM

Optical performance

Fiber	Type	Wavelength	Insertion loss typ.	Insertion loss max.	Return loss min.
9/125µ	E2000 APC	1550 nm	≤ 0.10 dB	0.25 dB	75 dB

FO Cables

Tight Buffer	Low smoke (IEC 61034 and EN 50268) and free of halogens (LS0H)
	Non corrosive after IEC 60754-2 and EN 50267
	Flame resistent after IEC 60332-3C and EN 50266-2-4
	Completly dry design
	Free from metal, no grounding problems and potential differences
	Tight Buffer for simple and direct connector mounting

Characteristics

Fiber Count	1 (Tight Buffer)
Core-Ø	0.9 mm
Coreweight	1 kg/km
Min. Bending radius - Installation	30 mm
Min. Bending radius - Operation	30 mm
Removal	1500 mm
Fire load	0.15 MJ/m
Temperature range - Installation	-5 to +50°C
Temperature range - Operation	-20 to +60°C
Temperature range - Transport / Lagerung	-25 to +70°C

FO Fiber

Type	Corning Ultra SMF-28® 09/125µ OS2 singlemode fiber
Maximum Attenuation	At 1310 nm max. 0.32 dB/km At 1383 nm max. 0.32 dB/km At 1490 nm max. 0.21 dB/km At 1550 nm max. 0.18 dB/km At 1625 nm max. 0.20 dB/km
Attenuation vs. Wavelength	Range: 1285 - 1330 mm; Ref. λ: 1310 nm; Max. Difference: 0.03 dB/km Range: 1525 - 1575 mm; Ref. λ: 1550 nm; Max. Difference: 0.02 dB/km

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Macrobend Loss	Mandrel Radius: 10mm; Number of Turns: 1; Wavelength: 1550nm; Induced Attenuation: ≤ 0.50 dB Mandrel Radius: 10mm; Number of Turns: 1; Wavelength: 1625nm; Induced Attenuation: ≤ 1.5 dB Mandrel Radius: 15mm; Number of Turns: 10; Wavelength: 1550nm; Induced Attenuation: ≤ 0.05 dB Mandrel Radius: 15mm; Number of Turns: 10; Wavelength: 1625nm; Induced Attenuation: ≤ 0.30 dB Mandrel Radius: 25mm; Number of Turns: 100; Wavelength: 1310nm, 1550nm, 1625nm; Induced Attenuation: ≤ 0.01 dB
Point Discontinuity	Wavelength: 1310 nm; Point Discontinuity: ≤ 0.05 dB Wavelength: 1550 nm; Point Discontinuity: ≤ 0.05 dB
Cable Cutoff Wavelength (λccf)	λccf ≤ 1260 nm
Mode-Field Diameter	At 1310 nm = 9.2 ± 0.4 µm At 1550 nm = 10.4 ± 0.5 µm
Dispersion	At 1550 nm = ≤ 18.0 [ps/(nm*km)] At 1625 nm = ≤ 22.0 [ps/(nm*km)]
	Zero Dispersion Wavelength (λ_0): 1304 nm ≤λ_0≤ 1324 nm Zero Dispersion Slope (S_0): ≤ 0.092 ps/(nm² *km)
Polarization Mode Dispersion (PMD)	PMD Link Design Value = ≤ 0.04 ps/√km Maximum Individual Fiber = ≤ 0.1 ps/√km

Dimensional Specifications

Fiber Curl	≥ 4.0 m radius of curvature
Cladding Diameter	125.0 ± 0.7 µm
Core-Clad Concentricity	≤ 0.5 µm
Cladding Non-Circularity	≤ 0.7%
Coating Diameter	242 ± 5 µm
Coating-Cladding Concentricity	< 12 µm

Environmental Specifications

Environmental Test	Test Condition	Induced Attenuation 1310 nm, 1550 nm & 1625 nm
Temperature Dependence	-60°C to +85°C	≤ 0.05
Temperature Humidity Cycling	-10°C to +85°C up to 98% RH	≤ 0.05
Water Immersion	23°C ± 2°C	≤ 0.05
Heat Aging	85°C ± 2°C	≤ 0.05
Operating Temperature Range	-60°C to +85°C	

Mechanical Specifications

Proof Test	The entire fiber length is subjected to a tensile stress ≥ 100 kpsi (0.69 GPa).
Length	Fiber lengths available up to 63.0 km/spool.

Performance Characterizations

Core Diameter	8.2 µm
Numerical Aperture	0.14
Effective Group Index of Refraction	1310 nm: 1.4676 1550 nm: 1.4682

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Fatigue Resistance Parameter (nd)	20
Coating Strip Force	Dry: 0.6 lbs (3N) Wet: 14 days room temperature: 0.6 lbs (3N)
Rayleigh Backscatter Coefficient (for 1 ns Pulse Width)	1310 nm: -77 dB 1550 nm: -82 dB

Product variants & accessories

Art.-No.	Description
TBG2-M12-12E2-50-3PS	tBG2 - FO Premium splice module 12x E2000 MM 3U/7HP with pigtails 50/125µ OM3
TBG2-M12-12E2-50-4PS	tBG2 - FO Premium splice module 12x E2000 MM 3U/7HP with pigtails 50/125µ OM4
TBG2-M12-12E2-9PS	tBG2 - FO Premium splice module 12x E2000 SM 3U/7HP with pigtails 09/125µ
TBG2-M12-12E2A9APS	tBG2 - FO Premium splice module 12x E2000 APC SM 3U/7HP with pigtails 09/125µ

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