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DIAMOND Fiber Optic Components

CABLE ASSEMBLIES AND ADAPTERS

Thanks to its different technologies, mechanical and optical interfaces, the E-2000[®] fiber optic connector family can cover the most common applications. The family includes: simplex, compact and backplane connectors and adapters, as well as a series of network accessories such as: attenuators, hybrid adapters, transition adapters, terminators, reflectors and receptacles.

FEATURES AND BENEFITS INCLUDE

- > Color-coding and mechanical keying to ensure correct matings.
- Spring-loaded protective cap for high power applications providing increased safety protection
- Specially designed body to prevent endface damage during mating
- Modular designed mating adapters with metal protective shutters for high power applications
- EtO sterilizable components with optional O-ring seals IP65-rated (for E-2000[®] Simplex and Compact) for safety, reliability, and quality in biomedical markets and applications subject to special environmental conditions.
- ▶ E-2000[®] Simplex with non-magnetic components available
- Assemblies available with different plastic and metal flexible jacketing: Elastometer (Hytrel), PEEK (Victrex 450), PA (Nylon), PTFE (Teflon), Stainless steel.
- > Diamond composite ferrule (zirconia ceramic sleeve and titanium insert):
 - Unique 0.1 dB Insertion Loss do to Active Core Alignment (A.C.A)
 - Custom drill sizes from 80µm to 800µm
 - Superior Ultra polishing
 - Custom ferrules for multi-fiber technology
 - Ultra-low ferrule O.D. tolerances



AVAILABLE TECHNOLOGIES AND OPTICAL INTERFACES

- Single-mode and multimode fiber connections
- PS optical interfaces: PS collimated, PSf free space, PM-PS, PSi Free Standing, PSm Multimode, PSc collimator.
- Polarization Maintaining (PM)
- VIS/NIR for low wavelengths and small core fibers
- Optical Line Identification OLID assemblies
- ▶ E-2000[®] FUSION for easy field termination of MM and SM fibers





E-2000[°] Family

SINGLE MODE PC/APC MULTIMODE PC PS, PSf, PM-PS, PSi, PSm, PSc, PM, VIS/NIR



E-2000[®] Simplex



E-2000[®] Compact



E-2000° Backplane 2-6 channels



E-2000[®] Interlock and Power Solution (PS)



E-2000® Accessories and active modules

Specifications subject to change without notice BDD 1951622 03_23

THE E-2000[®] CONNECTOR

STANDARDS

EN 86 275-801 "Connector sets of assessed quality for optical fibers and cables - Type LSH universal"
 EN 86 275-802 "Connector sets of assessed quality for optical fibers and cables - Type LSH-HRL universal"
 TIA/EIA 604-16
 IEC 61 754-15 "Fiber optic connector interfaces – Part 15: Type LSH connector family 1"

GENERAL SPECIFICATIONS

CONNECTOR PROPERTIES	
Connector locking type	Push-Pull
Max. optical channels per connector	1
Automatic dust and laser protection	yes
Dimensions	according to drawings
Ferrule type	2.5
Ferrule material	Ceramic-Titanium
Connector body material	Plastic
Boot Material	Plastic
Fiber dimensions [µm]	250 - 900
Cable dimensions [mm]	1.6 - 3.0
Simplex design	yes
Compact duplex design	yes
Duplex design	yes
Color coding	yes
Mechanical coding	yes
RoHS compliant	yes
REACH compliance:	yes



OPTICAL SPECIFICATIONS

STANDARD	MULTIMODE 0° PC	MULTIMODE 8° APC	SINGLE MODE 0° PC	SINGLE MODE 8° APC		TEST CONDITIONS
Insertion Loss (IL)*	typ. 0.15 max 0.3	typ. 0.15 max	typ. 0.15 max 0.3	typ. 0.15 max 0.3	dB	IEC 61300-3-4; λ = 1300/1550nm
Return Loss (RL)	min 40	0.5	min 50	min 70*	dB	IEC 61300-3-6; λ = 1300/1550nm
0.1 dB	MULTIMODE 0° PC	MULTIMODE 8° APC	SINGLE MODE 0° PC	SINGLE MODE 8° APC		TEST CONDITIONS
Insertion Loss (IL)*		-	typ. <0.1 max 0.15	typ. <0.1 max 0.15	dB	IEC 61300-3-4; λ = 1300/1550nm
Return Loss (RL)		-	min 70	min 85	dB	IEC 61300-3-6; λ = 1300/1550nm

* Measured tolerance max. 0.05 dB

MECHANICAL SPECIFICATIONS

MEASUREMENT / TEST	PARAMETERS	UNITS	METHOD
Service life	1000 mate / demate cycles	-	IEC 61300-2-2
Vibration resistant	10-55	Hz	IEC 61300-2-1
Impact resistant	+1.5	Meter	IEC 61300-2-12

Further tests and test reports are available on request

ENVIRONMENT SPECIFICATIONS

MEASUREMENT / TEST	PARAMETERS	UNITS	METHOD
Operating temperature	-40/+85**	°C	
Storage temperature	-40/+90**	°C	
Operating humidity	≤ 95	%	IEC 61300-2-46
Low pressure / altitude permanent	≤ 4572	Meter	MIL-STD-810F
Salt mist resistant	yes	-	IEC 61300-2-26

Further tests and test reports are available on request

TECHNOLOGY COMPATIBILITIES AND OPTIONS	AVAILABILITY
PM Fiber *	yes
MM Fiber OM1- OM4	yes
SM Fiber OS2	yes
Small core fiber <8µm*	yes
Large core fiber >62.5µm	yes
Narrow length tolerances	yes
Fiber diameter non-standard (80-800µm)	yes
High power SM*	yes
High power MM*	yes
Lens technology *	yes
Field assembling / repair*	yes
Water and dust protection	yes
EtO sterilizability	yes
Non-magnetic version	yes
Clean room packability	yes

* Data available in a dedicated data sheet

FIBER AND FURCATION TUBE COMPATIBILITY	AVAILABILITY
Furcation / Cable tube	yes
SS armored tube	yes
Tight buffered cable	yes
Loose tube cable	yes
Duplex cable	yes
Multifiber cable FanOut	yes

COLOR KEYING

The E-2000[®] system permits the user to specify the color of the thumb-latch and the mating adapter frame so that different line types, uses, destinations and points of origin, etc. can be readily identified. The thumb-latch and frame are available in eight distinct colors:

- 1. Blue
- 2. Beige (White)
- 3. Black
- 4. Red
- Orange
 Yellow
- 7. Green
- 8. Violet



MECHANICAL KEYING

Additionally, it will become increasingly necessary to guard against improper connection in multiple-service patch facilities. The E-2000[®] system permits the inclusion of a mechanical keying mechanism to ensure channel differentiation.

The mechanical keying options are also color-coded as follows:

Key Nr. 1	Red	Key Nr. 4	Orange
Key Nr. 2	Brown	Key Nr. 5	Violet
Key Nr. 3	Yellow	Key Nr. 6	Beige (White)



NOTE As standard, Diamond uses colored connector bodies, cable boots and mating adapter housings to identify the fiber type (SM or MM 50/62.5µm) and ferrule polish (PC or APC).

Diamond's standard **connector/boot/adaptor** colors are as follows: Beige/Black/Beige for MM PC 50µm, Beige/Beige/Beige for MM PC 62.5µm, Blue/Blue/Blue for SM PC, and Green/Green/Green for SM APC. Other colors are available upon request.

E-2000[®] ADAPTER

GENERAL SPECIFICATIONS

ADAPTER PROPERTIES	
Max. optical channels per adapter	2
Automatic laser protection	yes
Dimensions	according to drawings
Sleeve-type	2.5
Sleeve material	Ceramic
Adapter body material	Plastic
Flange material	Metal
Simplex design	yes
Compact Duplex design	yes
Duplex design	yes
Color coding	yes
Mechanical coding	yes
RoHS compliant	yes
REACH compliance	yes



OPTICAL SPECIFICATIONS

STANDARD / 0.1 dB Class	MULTIMODE 0° PC	MULTIMODE 8° APC	SINGLE MODE 0° PC	SINGLE MODE 8° APC	UNITS	TEST CONDITIONS
Repeatability of IL	max ±0.1				-	IEC 61300-2-2; λ = 1300/1550nm

MECHANICAL SPECIFICATIONS

MEASUREMENT / TEST	PARAMETERS	UNITS	METHOD
Service life	100 mate / demate cycles	-	IEC 61300-2-2
Vibration resistant	10-55	Hz	IEC 61300-2-1
Impact resistant	1.5	Meter	IEC 61300-2-12

Further tests and test reports are available on request

ENVIRONMENT SPECIFICATIONS

MEASUREMENT / TEST	PARAMETERS	UNITS	METHOD
Operating temperature	-40/+85**	°C	
Storage temperature	-40/+90**	°C	
Salt mist resistant	yes	-	IEC 61300-2-26

AVAILABILITY
yes

* Data available in a dedicated data sheet

THE E-2000[®] BACKPLANE

The E-2000[®] Backplane combines the advantages of the E-2000[®] SYSTEM and an optimal guiding mechanism for secure backplane connection. When mated, the PCB connector is retained in the mating adapter eliminating all stress on the PC Board.

It uses the common components of the E-2000[°] Simplex version which are joined by a simple clip-bridge which includes a radial, angular and longitudinal compensation. Clip bridges are available for 2 and 6 connectors.

The E-2000 $^{\circ}$ Backplane offers the same optical performances as the E-2000 $^{\circ}$ simplex connector.

The adapters can be easily mounted into the distribution panel.

The E-2000® Backplane covers all needs in this field of applications and offers:

- Same optical peformances as the E-2000[®] Simplex version
- Active push pull retention
- Sufficiently long pre-mating tracks for repeatable mating and high stability
- Backplane modules designed for integration into metric backplane system as per IEC 1070-4-100
- Injection moulded housing (UL 94 V0 flammability rating)
- > Positive latching mechanism with step process to prevent the backplane and the PCB from stress
- Backplane adapter with spring loaded shutters and connectors with protective metal caps
- Existing components can be upgraded to the backplane version with the use of a clip bridge and an adapted latch
- Longitudinal mating compensation

AVAILABLE AS

- Standard terminated connector
- Connector set (to be terminated with Diamond special equipment)

The E-2000[®] BACKPLANE is fully integrable into the IEC 1070-4-100 metric system for backplane copper connectors: the 2 channel unit is 1 SU high, the 6 channel unit is 2 SU high. Furthermore, they are fully modular combinable; to upgrade the E-2000[®] BACKPLANE to system of multiple channel design.



THE E-2000® INTERLOCK

DIAMOND presents a novel, reliable, and high-quality E-2000[®] fiber optic connector and mating adapter with an integrated electrical circuit breaker.

This is very useful in many laser systems where it is preferred to block the emission by means of an external shutter rather than, for instance, to alter the internal laser's driving conditions.

The E-2000[®] Interlock is particularly suitable for high-power applications or any other situation where light must be rapidly interrupted due to safety and protection reasons.

The E-2000[®] interlock is available in several Power Solution (PS) optical interfaces (i.e: PS collimated, PSf free space, PM-PS, PSm, etc.) and supports all other standard E-2000[®] features:

- Standard and small core fibers
- Standard, PM and other specialty fibers
- > High precision core placements thanks to the active core alignment (A.C.A.)
- Color & mechanical coding
- Automated metal protection cap

The E-2000[®] mating adapter also offers metal shutters and thanks to interchangeable mounting brackets supports a large variety of installation solutions, even on PCB.

AVAILABLE AS

Standard terminated connector



TRANSMITTER (SOURCE) —	Standard FO cable	Fiber	
Adapter	Connector E-2000™		

OPTICAL SPECIFICATIONS FOR THE PS VERSION

	WAVELENGHT	IL (db) Agair	nst Reference	RL Against Reference			
CONNECTOR		typ	may	conn	ected	unmated	
ITE	(1111)		PC 0°	APC 4°	APC 4°		
E-2000° PS	1625 - 1550 - 1310	0.2	0.4	45	75	FO	
	1060 - 980	0.3	0.6	35*	60*	50	
TEST CONDITIONS		IEC 61300-3-4		IEC 61300-3-6 OLCR method / *OCWR method			

* Values obtained with Diamond qualified fibers

CONSTRUCTION





MOUNTING INSTRUCTION



PCB thickness: 1,6mm her fixation types upon request)



SAFETY INFORMATION

The Interlock feature in the E-2000[®] connector has to be considered as being part of a complete safety system, as it cannot be deemed as a stand-alone safety device.

In order to ensure safe operation it is mandatory to follow the operational information below:

- Although equipped with connectors having an Interlock system, lasers should be operated only when connectors are mated
- > The light source must be switched off during mating and de-mating.

WARNING: The user is responsible for ensuring that all local, state, and national laws, rules, codes, and regulations relating to the use of the E-2000[®] Interlock in any particular application are satisfied.

THE E-2000® FUSION

The E-2000® FUSION allows you to quickly and easily make field terminations with the performance you expect from Diamond-quality E-2000® connectors. The key to this system is DIAMOND's advanced "crocodile alberino" fusion field ferrule assembly. The ferrule assembly consists of a factory-terminated fiber endface, fiber stub, and integrated splice protection. The fiber endface is core-centered via Diamond's well-known Active Core Alignment process and factory-polished to the company's precise specifications.

The E-2000 $^{\circ}$ FUSION is then field terminated via a low loss fusion splice using the new Diamond Zeus D50 Fusion Field Termination Kit.

The E-2000[®] FUSION is available for SM and MM fiber (250 μ m, 600 μ m and 900 μ m) and cable (1.6-to 3.1mm) in both 0° PC or 8° APC versions.

FEATURES AND BENEFITS

- Simple, fast and reliable field termination reduces operator error and cost per termination
- No need of glue
- Outstanding optical performance consistent and repeatable low IL / high RL
- No polishing

eliminates the need for costly consumables

Fusion spliced pigtail performance and reliability without the cost and space associated with splice enclosures, trays and protectors

AVAILABLE AS

Connector set, (to be terminated with Diamond special equipment)

COMPATIBLE SPLICERS WITH DIAMOND FUSION CROCODILE

- Fitel (Types: S132C, S153, S178)
- Sumitomo (Types: 71-C, T81C, Q101-CA)

SPECIFICATIONS

	MULTIMODE 0° PC	SINGLE MODE 0° PC	SINGLE MODE 8° APC	UNITS	TEST CONDITIONS
Insertion Loss (IL)	typ. 0.2 max 0.5	typ. 0.25 max. 0.5	typ 0.25 max. 0.5	dB	IEC 61300-3-4; λ = 1300/1550nm
Return Loss (RL)	min. 40	min. 50	min. 70*	dB	IEC 61300-3-6; λ = 1300/1550nm
Repeatability of IL		max. ±0.1	dB	IEC 61300-2-2; λ = 1300/1550nm	
Service life	10	00 mate/demate cyc		According to field experiences	
Operating temperature	-25/+70**				
Storage temperature		-25/+70**		°C	



ZEUS D50 Fusion Splicer

* Measured with high precision reflectometer

** May be further limited by cable specifications

E-2000[®] FUSION INSTALLATION CONCEPT







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THE E-2000® ACCESSORIES

The E-2000[®] network accessories are available for many uses and can be deployed at several points in fiberoptic networks, as well as in LABs or special applications.

These include the following product families:

Attenuators (OAF), transition adapters (UGT), optical termination modules (OTM), hybrid-adapters, optical reflectors (OGR), multipurpose adapter system (MAS), ADT-UNI universal connector/adapter solutions, Interfaces modules (IMOD), and active modules (MAT/MAR).

OAF E-2000® ATTENUATORS

Attenuators are used to adapt the transmitted light power to the characteristics of the implanted receiver. The OAF E-2000[®] in-line fixed attenuator provide a precise and repeatable amount of light loss (attenuation) via a doped fiber. This results in wavelength independent and stable attenuation values for typical wavelength bands used in telecommunication applications (1260-1360 and 1460-1580 nm). OAF E-2000[®] are available in single mode PC and APC version, for attenuations from 2 dB to 30 dB, for optical power up to +20 dBm. Other available OAF types are: F-3000[®], FC, SC, LSA (DIN) and ST.

SPECIFICATIONS

	SINGLEMODE 0° PC				SINGLE MODE 8° APC				UNITS		
Fiber	9/125							μm			
Wavelengths	1260-1360 and 1460-1580					nm					
Nominal attenuation Tolerance*	2 ±0.5	4 ±0.5	5 ±0.5	6 ±0.5	10 ±1		15 ±1.5	20 ±2	25 ±2.5	30 ±2.5	dB dB
Repeatability	<0.5 over service life						dB				
Service life	1000 matings (According to field experience)										
Return loss	>45					>	65		dB		
Temperature range					-25/	+70					°C



^e Values measured using 1310 or 1550 nm LED source. Additional IL induced by modal noise 0,05 dB/dB. The excess attenuation due to the 2 connections may be as high as 0.5 dB max.

E-2000[®] UGT-SI (Optical Transition Adapters)

Optical Sacrificial Interfaces are compact, in-line, male-to-female components, especially used in laboratory and field test equipment to protect front panel connector end-faces from the damage and contamination of repeated mating and de-mating.

Optical Transition Adapters (UGT) are compact, in-line, male-to-female elements used to transition between similar or dissimilar endface geometries, eg. from 0° PC connectors to 8° angle-polished (APC) connectors. (Or the reverse.) They are also of value as "sacrificial" interfaces to protect connector endfaces from the damage and contamination of repeated matings. Other available UGT-SI types are: F-3000[®], FC, SC and ST.

SPECIFICATIONS

	SM G. 652D	ММ	UNITS	TEST CONDITIONS
Insertion Loss (IL)*	max 0.7 dB	max 0.7 dB	dB	IEC 61300-3-4; λ = 1300/1550nm SM - 850/1300nm MM
Return Loss (RL)	PC min 45 / APC min 70**	min 35 dB	dB	IEC 61300-3-6; λ = 1300/1550nm SM - 850/1300nm MM
Repeatability of IL	max ±0.3			IEC 61300-2-2; λ = 1300/1550nm SM - 850/1300nm MM
Service life	500 mate/demate cycles			
Operating temperature	-40/+85			
Storage temperature	-40/+9	0	°C	



Total Insertion Loss. Additional IL due to modal noise max 0.5 dB
 ** Measured with high resolution reflectometer HP

Other fibers available upon request

E-2000® OTM (Optical Termination Modules)

E-2000[®] OTM Optical Termination Modules are used as fiber termination on open, unused channels in telecommunication distribution panels, measuring devices and CATV installations, in order to have a stable and lower back reflection in the system. Other available OTM types are: F-3000[®], FC, and SC.

SPECIFICATIONS

	SINGLE MODE 0° PC	SINGLE MODE 0° PC	UNITS	TEST CONDITIONS
Insertion Loss (IL)	NA			
Return Loss (RL)	min 45	min 70*	dB	IEC 61300-3-6; λ = 1300/1550nm
Service life	500 mate/de	emate cycles		
Operating temperature	-40/+85			
Storage temperature	-40/+90			



* Measured with high precision reflectometer

E-2000[®] HYBRID ADAPTERS

 $E\text{-}2000^{\circ}$ hybrid adapters ensure a connection between a $E\text{-}2000^{\circ}$ and SC/FC/ST/LSA (DIN) fiber optic connectors.

Their optical performance and compact size make is a logical and cost-effective alternative to hybrid patch assemblies.

SPECIFICATIONS

	MULTIMODE 0° PC	SINGLE MODE 0° PC	SINGLE MODE 8° APC	UNITS	TEST CONDITIONS
Insertion Loss (IL)*	typ. 0.15	typ. 0.2 typ. 0.2			IEC 61300-3-4; λ = 1300/1550nm
Repeatability of IL		max ±0.1	dB	IEC 61300-2-2; λ = 1300/1550nm	
Service life	10	00 mate/demate cyc		According to field experience	
Operating temperature		-40/+85	°C		
Storage temperature		-40/+90		°C	



* IL measured using twoo reference cables

NOTE Optical and mechanical specifications are based on the use of the connector of corresponding standard; the above table reflects typical values.

E-2000[®] OGR (Optical Reflectors)

E-2000[®] OGR are normally used as fiber termination with the highest possible back reflection. They are mainly deployed in device manufacturing or LABs for calibration purposes, or for measuring back reflection within fiber-optic components. They are also used to provide reference reflection levels by measuring the sensitivity of sources to back reflection from other devices.

Other available OGR types are: F-3000[®], FC, SC and ST.

SPECIFICATIONS

	SINGLE MODE PC/APC	UNITS	TEST CONDITIONS
Return Loss (Including connector loss)	Тур. 0.5	dB	IEC 61300-3-6; λ = 1310/1550nm
Polarization dependence of return loss	Typ. 0.2 max. 0.3	dB	IEC 61300-3-2; λ = 1550nm
Wavelength dependence of return loss	Typ. 0.5 max. 0.8	dB	IEC 61300-3-7; λ = from 1280 to 1580nm
Repeatability of RL	max +/- 0.1	dB	IEC 61300-3-6; λ = 1310/1550nm
Service life	500 mate/demate		IEC 61300-2-2
Operating temperature	-25 / +70	°C	IEC 61300-2-22
Storage temperature	-40 / +85	°C	



E-2000[®] MAS (Multipurpose Adapter System)

The E-2000[®] MAS is a modular interchangeable adapters based on 2.5 mm diameter ferrule whose size, ease of cleaning and inspection, and optical performance make it an ideal choice for high performance applications such as test and measurement equipment.

This system is composed of a flange which provides an internal connection via a FC or Mini AVIM[®] style connector and a wide range of interchangeable adapters including the E-2000®, FC, SC, ST and LSA (DIN).

SPECIFICATIONS

	MULTIMODE 0° PC	SINGLE MODE 0° PC	SINGLE MODE 8° APC	UNITS	TEST CONDITIONS
Insertion Loss (IL)*	max 0.25				IEC 61300-3-4; λ = 1300/1550nm
Repeatability of IL*	max ±0.15				IEC 61300-2-2; λ = 1300/1550nm
Service life (adapters)	500 mating cycles				
Service life (connectors)	1000 mating cycles				
Operating temperature	-25/+70				

Measured using two reference connectors. Valid for ferrule type 2.5 mm diameter. For other types, please contact your local DIAMOND representative

E-2000® ADT-UNI UNIVERSAL CONNECTOR/ADAPTER

The ADT-UNI is a universal connector/adapter slution, which provides unparalleled optical performance and proven long-term reliability. The universal adapters which allows the acceptance of E-2000®, FC, SC, LSA (DIN) and ST connectors, are modular interchangeable adapters based on 2.5 mm diameter mating sleeve whose size, ease of cleaning and inspection make them an ideal choice for test and measurement equipment.

ADT/UNI are available in SM (typ. 0.2 dB) and MM (typ. 0.15dB).

E-2000[®] IMOD (Interfaces Modules)

The E-2000® Interface Module (IMOD) has been developed as a half adapter for free space application of optical connector. These modules are used more commonly for PC 0° connection, but version for using APC 8° ferrules can be offered as custom component. The two major reasons for using a high quality IMOD are the need of repeatable positioning in both axial and radial direction between each connector and each IMOD.

Other available IMOD types are: F-3000°, FC, SC, ST, LSA (DIN), Mini AVIM°, F-SMA.

E-2000[®] MAT/MAR (Module Active Transmitter and Receivers)

E-2000[®] Transmitter (MAT) and Receiver (MAR) modules are designed as an IMOD with the appropriate fitting to adapt to an active component. The MAT requires an optical component to focus the light source (Laser, LED) to the ferrule position in the housing. Depending on the type of fiber (SM, PM or MM) the active alignment device secured by laser welds on the fixing flange is designed to guarantee optimal performance.



Construction for LED source transmitters and receivers (2 axis alignment)













DRAWINGS AND DIMENSIONS

E-2000[®] SIMPLEX AND COMPACT CONNECTORS

E-2000[®] Simplex connectors 900µm - 3mm boot style

Ferrule material:Zirconia/metal insertExternal parts:Plastic







E-2000[®] Simplex connectors 900µm short boot





E-2000[®] Compact connectors 900µm - 3mm boot styles



 $E\text{-}2000^{\ensuremath{\$}}$ Compact connectors $900\mu m$ - 3mm 90° boot style



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E-2000® SIMPLEX ADAPTERS

E-2000[®] Simplex mating adapter with screw fixing clip



E-2000® Simplex mating adapter with quick fixing clip (Typ A: for higher packaging density within E-2000[®] cutout)



E-2000[®] Simplex mating adapter with quick fixing clip (Typ B: for excellent stability within SC cutout)



E-2000[®] Simplex mating adapter with print fixing clip



E-2000[®] Simplex mating adapter with 45° screw fixing clip



E-2000[®] COMPACT ADAPTERS

E-2000[®] Compact mating adapter with screw fixing clip



E-2000[®] Compact mating adapter with quick fixing clips



E-2000[®] Compact mating adapter with print fixing clip (snap closure)



E-2000[®] Compact mating adapter with print fixing clip (6 pins)





14.7





$E\text{-}2000^{\ensuremath{\$}}$ Compact mating adapter with 45° screw fixing clip











E-2000[®] BACKPLANE CONNECTOR AND ADAPTERS

 $\text{E-}2000^{\scriptscriptstyle \otimes}$ Backplane connectors on 900 μm fiber, without boot

Ferrule material: External parts: Zirconia/metal insert Plastic



E-2000[®] PCB adapters, 2 and 6 channels

Material:

PBT (black)



E-2000[®] Backplane adapters, 2 and 6 channels

Material: Plastic Mating sleeve: Zirconia

NOTE Standard colors: MM PC (beige); SM PC (blue); SM APC (green), PS (red)







MOUNTING HOLES

6 channel unit



APPLICATIONS NOTES

Fiber optic connectors for backplane also require the pre-mating of all involved components, to prevent lateral forces, while mated.

For repeatable and secure pre-mating and mating procedures, the E-2000[®] BACKPLANE has a high adaptation degree of the connectors at the PC Board to the backplane mating adapter.

PRE-MATING CONDITIONS

The system is designed to ricover lateral misalignment up to \pm 1.5 mm.



MATED CONDITIONS

Angular misalignment of $\pm 1.5^{\circ}$ degree and lateral misalignment of ± 0.5 mm resp. ± 1 mm are compensated.

PROPOSED SPACE REQUIREMENT AND CONTROL ZONE

The E-2000[®] BACKPLANE mechanism garantees secure retention and eliminates stress at the PC Board when mated. After completion of the mating procedure the system has a 2.5 mm longitudinal way compensation.



OAF E-2000® ATTENUATORS





UGT E-2000® TRANSITION ADAPTERS

OTM E-2000® OPTICAL TERMINATION MODULES





E-2000® HYBRID ADAPTERS

Hybrid E-2000[®] / LSA (DIN)







Hybrid E-2000[®] / FC

34.8 12.4 4.9 9.2* Ø 2.5 13.302 1.08 α 9.5^{+0.5} 6.5 Ō M2102223 Stand. max wall thickness 2 mm 13.1+0.4 M2 Max wall thickness 2 mm 12.8

Hybrid E-2000[®] / ST



OGR E-2000® OPTICAL REFLECTORS



E-2000® MAS (MULTIPURPOSE ADAPTER SYSTEM)

MAS Universal flange (FC interface)

MAS Universal flange (Mini AVIM[®] interface)

E-2000® ADT-UNI UNIVERSAL ADAPTER

MAS E-2000®

E-2000® IMOD (INTERFACE MODULE)

E-2000[®] MAT/MAR

ORDER INFORMATION

Please contact your nearest local Diamond representative or visit www.diamond-fo.com website.



PCB mount

22.5

23.5



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PCB mounting clip



