

Populate multiple optical-connector interfaces with Molex's Universal Optical Adapter

The Universal Optical Adapter allows customers to interchange one half of the optical interface to suite the application. All of the functionality and performance benefits from a standard optical adapter are maintained in this versatile design.

The universal optical adapter provides a common panel-mounting hole, which permits an internally mounted SC connector to be mated to a SC, ST or FC connector on the opposite side. This design allows the user interface to be converted between the three connector styles as needed. The universal adapter can also be used to mate SC/APC (angle-polished endface) to SC/APC and FC/APC terminations. When the customer interface is removed, the alignment sleeve may be easily extracted, exposing the ferrule and endface of the internally-mounted SC connector. With the sleeve removed, the customer has access to clean the internally-mated connector without disconnecting it from the adapter and without entering the enclosure, providing a safe and fast method to ensure proper optical performance.

The universal optical adapter is offered in two options, as a pre-assembled adapter as well as individual components, providing the OEM design flexibility.



The first option, pre-assembled adapters, are provided ready to install and use. The second option is to only populate the internal-adapter side, allowing customized configuration prior to shipping or by the customer after delivery. By using a common SC interface, OEM's can minimize the number of panel designs required for multiple adapter styles. In addition, simplified stock management will result with fewer part numbers and stock quantities.

Electro Magnetic Interference (EMI) shielding is available on select adapters. Future designs will also incorporate an LC version which is compatible with the existing user interface, allowing the interconnection of 2.5mm ferrule connectors (FC, SC or ST) to Small Form Factor (SFF) 1.25mm (LC) connectors.

Features and Benefits

- Die-cast SC panel housing with EMI shielding provides EMI and Radio Frequency Interference (RFI) shielding on the internal SC adapter side
- Interchangeable SC, ST and FC user interfaces allows fast and easy conversion for multiple applications
- Easy front-access to the alignment sleeve and internally-mated connector endface allows easy inspection and cleaning without entering the enclosure
- Available as individual components allows for customized configuration prior to shipping or after delivery to customer

SPECIFICATIONS

Reference Information

Packaging: Individual bag or tray

Mates With Connectors:

SC Tunable, Series 106032

SC Non-tunable, Series 106063

SC/APC, Series 106065

FC, Series 106053

FC/APC, Series 106055

ST, Series 106010

STII, Series 106012

Designed In: Millimeters

Mechanical

Durability: >200 mate and demate cycles

Insertion Loss: $\leq 0.2\text{dB}$ typical

Mounting Style: Snap

Physical

Panel Housing: Zinc Die-cast

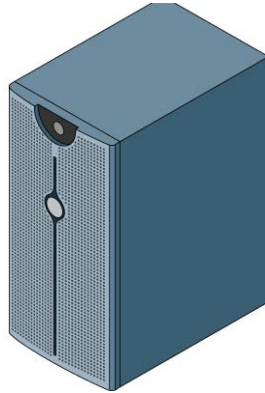
Plating: Nickel

User Interface: Polymer

Alignment sleeve: Zirconia (Zr) Ceramic or Phosphor Bronze (CuSn)

Operating Temperature: -40 to $+85^\circ\text{C}$

- Telecommunication equipment
 - Routers
 - Servers
- Other markets
 - Test equipment
 - Lab use
 - Storage servers



ORDERING INFORMATION

Development Kit

Order No.	Kit Contents
106154-0000	SC Universal EMI Base, SC User-Half, ST User-Half, FC User-Half, Zirconia Ceramic Alignment Sleeve, Phosphor Bronze Alignment Sleeve, EMI Shield, Dust Cap

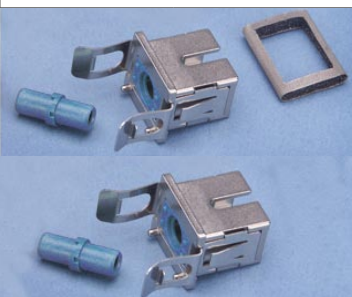
2.5mm Universal Optical Adapter Assemblies with EMI Shielding

	Order No.	Adapter	Alignment Sleeve	Mode	Color	Shutter
	106154-1000	SC to SC	Zirconia	Single Mode	Blue	Yes
	106154-1001	SC to SC	Phosphor Bronze	Multimode	Beige	Yes
	106154-1005	SC/APC to SC/APC	Zirconia	Single Mode	Green	Yes
	106154-1010	SC to FC	Zirconia	Single Mode	Blue	No
	106154-1011	SC to FC	Phosphor Bronze	Multimode	Beige	No
	106154-1015	SC/APC to SC/APC	Zirconia	Single Mode	Green	No
	106154-1020	SC to ST	Zirconia	Single Mode	Blue	No
	106154-1021	SC to ST	Phosphor Bronze	Multimode	Beige	No




2.5mm Universal Optical Adapter Assemblies, No EMI Shielding

	Order No.	Adapter	Alignment Sleeve	Mode	Color	Shutter
	106154-1100	SC to SC	Zirconia	Single Mode	Blue	Yes
	106154-1101	SC to SC	Phosphor Bronze	Multimode	Beige	Yes
	106154-1105	SC/APC to SC/APC	Zirconia	Single Mode	Green	Yes
	106154-1110	SC to FC	Zirconia	Single Mode	Blue	No
	106154-1111	SC to FC	Phosphor Bronze	Multimode	Beige	No
	106154-1115	SC/APC to SC/APC	Zirconia	Single Mode	Green	No
	106154-1120	SC to ST	Zirconia	Single Mode	Blue	No
	106154-1121	SC to ST	Phosphor Bronze	Multimode	Beige	No

ORDERING INFORMATION
Accessories, SC Base Sub Assembly

	Order No.	Alignment Sleeve	Color	EMI Shield
	106154-0010	Zirconia	Metal	Yes
	106154-0012	Phosphor Bronze	Metal	Yes
	106154-0015	Zirconia	Metal	No
	106154-0016	Phosphor Bronze	Metal	No

Accessories, End-User Interface

	Order No.	End-User Interface	Color	Shutter
	106154-0020	SC	Blue	Yes
	106154-0022	SC	Beige	Yes
	106154-0025	SC/APC	Green	Yes
	106154-0031	FC	Blue	No
	106154-0033	FC	Beige	No
	106154-0036	FC/APC	Green	No
	106154-0041	ST	Blue	No
	106154-0043	ST	Beige	No

Accessories

	Order No.	Components
	106154-0006	Dust Cap, Removal Tool
	106154-0050	Alignment Sleeve Assembly, Zirconia
	106154-0051	Alignment Sleeve Assembly, Phosphor Bronze

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Visit our website at www.molex.com/product/fiber/emiadapter.html