



### 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 suit the application. All of the functionality and performance benefits from a standard optical adapter are maintained in this versatile design. The universal optical adapters are now available with more options, including die-cast LC housing and interchangeable LC user interfaces.

The universal adapter allows for a common panel-mounting hole with the option of either an internally mounted SC or LC connector to be mated with a SC, ST, FC or LC connector on the opposite side. This design allows the user interface to be converted between the four 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 or LC 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. Electro Magnetic Interference (EMI) shielding is also available on select adapters.

Both options use a common SC or LC interface with the same mounting detail, benefiting OEM's by minimizing the number of panel designs required for different-style adapters. In addition, simplified stock management will result with fewer part numbers and stock quantities.



### Features and Benefits

- Die-cast SC and LC panel housing with EMI shielding provides EMI and Radio Frequency Interference (RFI) shielding on the internal SC and LC adapter side
- Interchangeable SC, ST, FC and LC 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
- LC, Series 106024

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, Phosphor Bronze (CuSn) or Metal

Operating Temperature: -40 to +85° C

## APPLICATIONS



## Universal Optical Adapter

# 106154

### 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, LC User Half, 2.50mm Zirconia Ceramic Alignment Sleeve Assembly, 2.50mm Phosphor Bronze Alignment Sleeve Assembly, 1.25mm to 2.50mm Metal Alignment Sleeve Assembly, EMI Shield, Dust Cap





### 2.50mm 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		Phosphor Bronze	Multimode	Beige		
	106154-1005	SC/APC to SC/APC	Zirconia	Single Mode	Green		No
	106154-1010	SC to FC			Phosphor Bronze	Multimode	
	106154-1011		Beige				
	106154-1015	SC/APC to FC/APC	Zirconia	Single Mode	Green		
	106154-1020	SC to ST			Phosphor Bronze	Multimode	
	106154-1021						
	106154-1030	SC to LC	Metal	Single Mode Multimode	Beige	Yes	
	106154-1530	LC to LC	Zirconia	Single Mode			Blue
	106154-1531		Phosphor Bronze	Multimode			Beige
	106154-1535	LC/APC to LC/APC	Zirconia	Single Mode			Green
	106154-1500	LC to SC	Metal	Single Mode Multimode	Beige	No	
	106154-1510	LC to FC					
	106154-1520	LC to ST					





**2.50mm 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		Phosphor Bronze	Multimode	Beige	
	106154-1105	SC/APC to SC/APC	Zirconia	Single Mode	Green	
	106154-1110	SC to FC			Phosphor Bronze	Multimode
	106154-1111		Beige			
	106154-1115	SC/APC to FC/APC	Zirconia	Single Mode	Green	
	106154-1120	SC to ST			Phosphor Bronze	Multimode
	106154-1121		Beige			
	106154-1130	SC to LC		Metal	Single Mode Multimode	Yes
	106154-1630	LC to LC	Zirconia	Single Mode	Blue	
	106154-1631		Phosphor Bronze	Multimode	Beige	
	106154-1635	LC/APC to LC/APC	Zirconia	Single Mode	Green	
	106154-1600	LC to SC	Metal	Single Mode Multimode	Beige	No
	106154-1610	LC to FC				
	106154-1620	LC to ST				





**Accessories, Base Sub Assembly**

	Order No.	Adapter	Alignment Sleeve	Color	EMI Shield
	106154-0010	SC	Zirconia 2.50mm	Metal	Yes
	106154-0012		Phosphor Bronze 2.50mm		
	106154-0013		Metal 1.25 to 2.50mm		
	106154-0210	LC	Zirconia 1.25mm		
	106154-0212		Phosphor Bronze 1.25mm		
	106154-0213		Metal 1.25 to 2.50mm		
	106154-0015	SC	Zirconia 2.50mm		No
	106154-0016		Phosphor Bronze 2.50mm		
	106154-0017		Metal 1.25mm to 2.50mm		
	106154-0215	LC	Zirconia 1.25mm		
	106154-0216		Phosphor Bronze 1.25mm		
	106154-0217		Metal 1.25 to 2.50mm		

**Accessories, End-User Interface**

	Order No.	End-User Interface	Color	Shutter
	106154-0020	SC	Blue	Yes
	106154-0022		Beige	
	106154-0025	SC/APC	Green	
	106154-0031	FC	Blue	No
	106154-0033		Beige	
	106154-0036	FC/APC	Green	
	106154-0041	ST	Blue	
	106154-0043		Beige	
	106154-0130	LC	Blue	Yes
	106154-0131		Beige	
	106154-0132	LC/APC	Green	

**Accessories**

	Order No.	Components
	106154-0006	Dust Cap, Removal Tool
	106154-0050	Alignment Sleeve Assembly, Zirconia 2.50mm
	106154-0051	Alignment Sleeve Assembly, Phosphor Bronze 2.50mm
	106154-0052	Alignment Sleeve Assembly, Zirconia 1.25mm
	106154-0053	Alignment Sleeve Assembly, Phosphor Bronze 1.25mm
	106154-0054	Alignment Sleeve Assembly, Metal 1.25 to 1.25mm

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