Chipsmall

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!
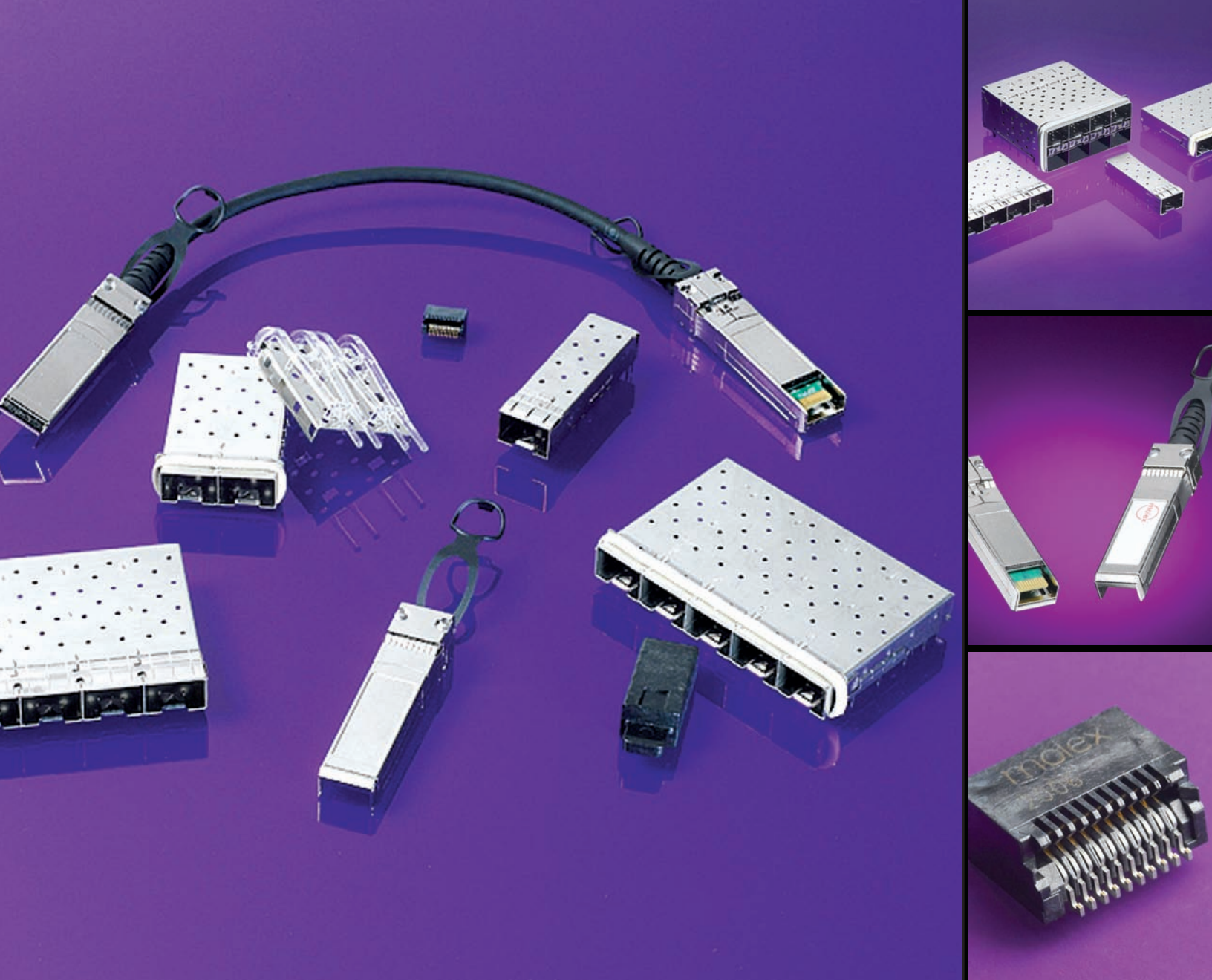

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SFP+ 10 Gbps Interconnect System

SFP+ 10 Gbps Interconnect System

SFP+ (Small Form-factor Pluggable Plus) 10 Gbps Interconnect System from Molex supports next-generation speeds of standard SFP applications, with a greater range of options for increased port density

The SFP+ stacked multi-port connectors with and without light pipes are the latest additions to Molex's extensive SFP product line of connectors, cages and patch cables. SFP+ takes SFP to the next level. SFP+ interconnects are designed to support applications for 8 Gbps Fibre Channel and 10 Gbps Gigabit Ethernet, as compared to SFP, which is designed to support 2.125 Gbps Fibre Channel and 2.5 Gbps Gigabit Ethernet applications. SFP+ interconnects use the same space-per-port as standard SFP interconnects, therefore providing 11.1 Gbps capability in a space that is 30% smaller than XFP.
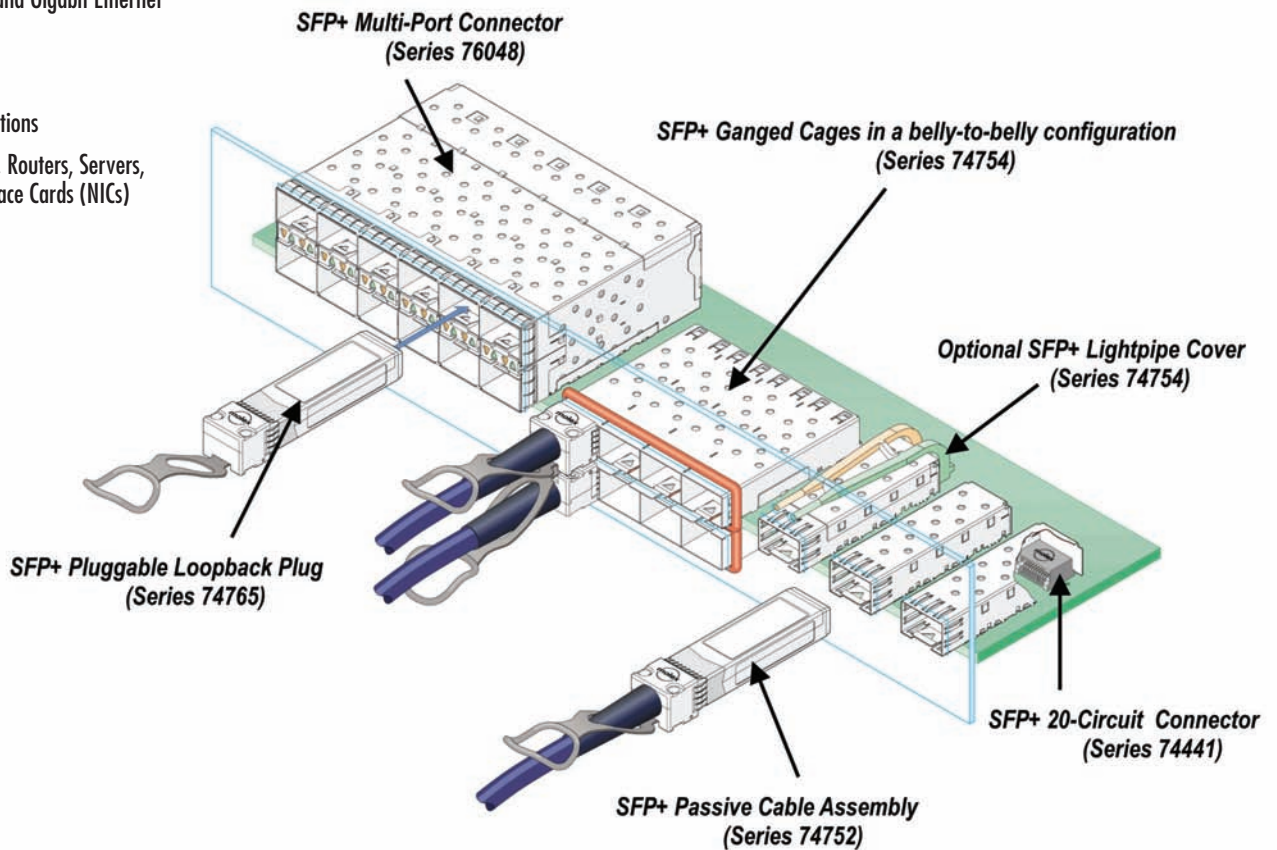
The SFP+ interconnect system supports the SFP+ specifications covering 6 different standards, which define data rates ranging from 8.5 to 11.1 Gbps. The SFP+ system is commonly referred to as 10

Gbps system although the specification is rated up to 11.1 Gpbs. (See page 7 of product release for SFP+ standards and associated speeds).

SFP+ (SFF-8431 specification) was developed under a Multi-Source Agreement (MSA) by a group of diverse companies to ensure industry-wide compatibility. The SFP+ specification addresses requirements for greater power, reduced cost and smaller footprints than existing 10 Gbps MSA's (XENPAK, XPAK, X2 and XFP).

20-Circuit Host Connector 74441
Single and Ganged Cages 74754
Passive Cable Assembly 74752
Stacked Connectors 76044, 76045, 76046, 76047, 76048, 76090, 76091, 76092, 76093, 76094, 76100, 76101, 76102, 76103, 76104, 76064, 76065, 76066, 76067, 76068, 76352

APPLICATIONS

- Fibre Channel and Gigabit Ethernet
- Networking
- Storage
- Telecommunications
- Hubs, Switches, Routers, Servers, Network Interface Cards (NICs)

SFP+ Multi-Port Connector (Series 76048)

SFP+ Ganged Cages in a belly-to-belly configuration (Series 74754)

Optional SFP+ Lightpipe Cover (Series 74754)

SFP+ Pluggable Loopback Plug (Series 74765)

SFP+ 20-Circuit Connector (Series 74441)

SFP+ Passive Cable Assembly (Series 74752)

SFP+ 10 Gbps Interconnect System

Host Connector
Single Cages
Ganged Cages

SFP+ 20 Circuit Host Connector (Series 74441)

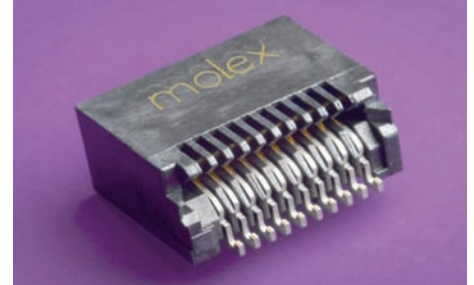#### Upgrade to high-speed Ethernet and Fibre Channel ports with Molex's SFP+ connectors

The SFP+ host connectors are a key component in Molex's extensive SFP product line. Molex originally designed the 74441 series to be capable of handling 10 Gbps data rates. With the launch of SFP+, Molex is well positioned with a host connector that is tooled and in volume production.

The standard SFP host connectors offer excellent signal integrity at 10 Gbps. Thus, a customer using the standard part does not need a board re-spin. Also offered is a new version with a modified housing to protect against a mis-mated module. This offers the same electrical performance as the original host connector. The part numbers for this version are 74441-5001 and -5010.

The connector is used in conjunction with single or ganged SFP+ cages (Series 74754).

Features and Benefits

■ High-speed contact design provides excellent electrical performance

■ Capable of handling 10 Gbps data rates to meet SFP+ industry standard requirements

■ SMT design packaged in tape and reel to ensure easy pick-and-place to the PCB

■ Available in 0.38 or 0.76µm (15 or 30µ") Gold (Au) plating, accommodating cost and performance preferences

■ Lubricated contacts available which are ideal for extended life and harsh environment applications, or applications that require telecom reliability levels

20-Circuit Connector, Series 74441

SFP+ Single and Ganged Cages (Series 74754)

Improved EMI performance and additional gasket options for SFP+

The SFP+ 1x ganged cages provide improved EMI shielding to the bezel by featuring an advanced 360° elastomeric gasket design with multiple ground-pin locations for 10 Gbps Ethernet and 8 Gbps Fibre Channel applications.
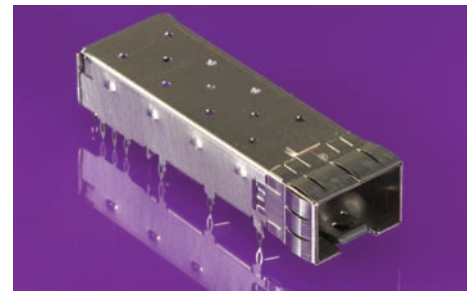
Spring-finger gasket versions are now available for the 1x ganged cages and for single-port cages. Single port cages are available in press-fit, solder-post and PCI (1°) versions with ganged cages available in a press-fit version. SFP+ cages offer customers a flexible solution for use with various board thicknesses and assembly processes at a lower applied cost.

The press-fit tails accommodate belly-to-belly applications for both single and ganged cages to ensure the best use of PCB real estate.
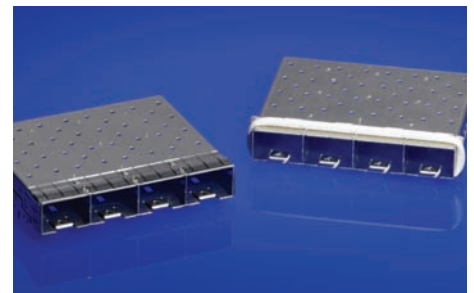
The cage is used in conjunction with the 20-circuit host connector (Series 74441).

Features and Benefits

■ Available in press-fit, solder-post and PCI (1°) versions to enable use with various board thicknesses and assembly processes

■ Optional rear and side-mounted lightpipe cover assemblies allow for flexibility of PCB signal routing of LED's

■ Newly designed spring-finger gasket for single cages provide optimal EMI grounding

■ Ganged cages have 360° elastomeric gaskets, spring fingers and multiple ground-pin locations for advanced EMI shielding to the bezel

■ Press-fit tails accommodate belly-to-belly applications for single and ganged cages to ensure best use of PCB real estate

■ Ganged cages available with up to 6 ports provide multiple design options

Single Cages, Series 74754

Ganged Cages, Series 74754

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SFP+ 10 Gbps Interconnect System

Stacked Multi-Port Connectors
Passive Cable Assembly

SFP+ Stacked Multi-Port Connectors:
Metal Gasket (Series 76044, 76045, 76046, 76047, 76048)
Elastomeric Gasket (Series 76090, 76091, 76092, 76093, 76094)

Upgrade to 10 Gbps Ethernet and 8 Gbps Fibre Channel ports with Molex's Stacked Multi-Port SFP+ Connectors

The new SFP+ Stacked Multi-Port Connectors are the latest additions to Molex's extensive Stacked SFP connector product line. These high-port-density connectors offer complete integration of the connector within a cage and include optional lightpipes to provide port-status indication to the user. These 25.50mm (1.004" height stacked connectors provide two rows of belly-to-belly vertically stacked SFP+ ports. The SFP+ product line encompasses connectors offered in six port configurations: 2-by-1,2-by-2,2-by-4,2-by-5,2-by-6 and 2-by-8.

Like the standard Stacked SFP connectors, SFP+ connectors feature compliant-pin tails for attachment to the PCB. Application tooling is available for use with flat-rock press methods. Tin/Lead press-fit connector tails are provided as the standard option. Tin-plated tails are also available to meet lead-free requirements. The footprint is the same as the light pipe version of the standard Stacked SFP connectors. The footprint of the connectors with light pipes is the same as the version without light pipes for each port configuration.

Molex's SFP+ Stacked Multi-Port Connectors accept SFP MSA-compliant modules, allowing installers to configure and upgrade high-speed Ethernet and Fibre Channel (FC) ports.

Features and Benefits

- Elastomeric or metal gasket provide two options for superior EMI protection
- Integrated lightpipes for use with SMT Light Emitting Diode's (LEDs) provide port status and activity feedback to the user
- Design integrates 2 (2-by-1), 4 (2-by-2), 8 (2-by-4), 10 (2-by-5) or 12 (2-by-6) SFP+ ports and lightpipes into one assembly to increase port density and reduces assembly labor

- Press-fit termination to PCB eliminates soldering, lowering the applied cost and avoiding solder-related issues
- Modules oriented "belly-to-belly" when inserted provides ease of removal of the module from the port

2-by-4 Connector with Elastomeric Gasket, Series 76092

2-by-2 Connector with Metal Gasket, Series 76045

SFP+ Passive Cable Assembly (Series 74752)

Connect 10 Gbps host systems with SFP+ Passive Cable Assemblies at a much lower cost than optical cables

The superior electro magnetic interference (EMI) girdle design ensures the industry's lowest EMI interference. Low power helps to maximize the number of ports that can be used per host board. I2C (Inter-IC bus protocol) interface and on-board EEPROM features enable the host to detect or configure specific performance characteristics.

Molex's active SFP+ copper cable assemblies will incorporate optional active circuitry. The active assemblies will require no additional special-driver circuitry than what is used for optical modules. The assemblies will also provide loss of signal (LOS), transmit disable and offer a number of additional host- management capabilities.

SFP+ passive cable assemblies are designed to interconnect a variety of common physical-layer standards including Gigabit Ethernet, Fibre Channel, Serial Attached SCSI, and InfiniBand.
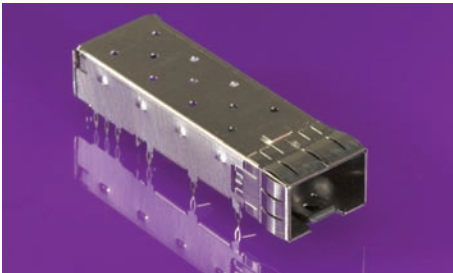
Features and Benefits

- Copper cable data transmission to meet customer requirements for speeds up to 10 Gbps and up to 25 meters
- Re-designed pull latch enables belly-to-belly cable use and ensures highest possible port density
- Improved backshell design conforms to Small Form Factor (SFF)-8431 specifications and provides the highest quality design features to ensure trouble-free operation

- Identical mechanical dimensions as standard SFP, enables backwards compatibility
- Available in passive and active designs to provide system design flexibility, minimize design requirements in the host, enables "optical module" performance, provides extended reach to 25 meters and ensures an inexpensive 10 Gbps interconnect
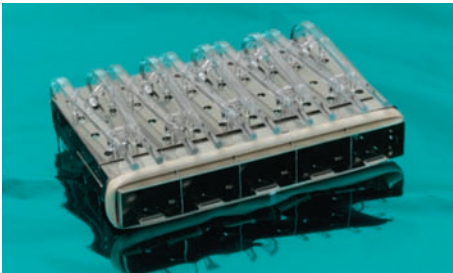- EMI girdle provides superior EMI performance for up to 10 Gbps transmission

SFP+ Passive Cable Assembly, Series 74752

SFP+ 10 Gbps Interconnect System

Host Connectors

Order No.	Plating Gold (Au)	Comment
74441-0001	0.38µm (15µ")	-
74441-0010	0.76µm (30µ")	
74441-0021	0.76µm (30µ")	With Lubricated Contacts
74441-5001	0.38µm (15µ")	With Modified Housing
74441-5010	0.76µm (30µ")	

Single Cages

Order No.	PCB Mounting	Pin Length
74754-0101	Press-fit	3.05mm (.120")
74754-0104	Press-fit, PCI	
74754-0102	Single Port SFP+ Cage - Press Fit (0.090 Legs), Belly-to-Belly	
74754-0103	Single Port SFP+ Cage - Solder Post (0.133 Legs) Wave Solder for 0.093 PCB	
74754-0105	Single Port SFP+ Cage - Press Fit (0.120 Legs), No Belly EMI pins	
74754-0106	Single Port SFP+ Cage - Solder Post, PCI	

Note: Single port SFP+ cages use standard SFP light pipe covers (series 74726)

Ganged Cages

Order No.	PCB Mounting	Pin Length	EMI Protection	Port Size
74754-0210	Press-fit, Belly-to-Belly	3.05mm (0.120")	Elastomeric gasket	1-by-2
74754-0410				1-by-4
74754-0610				1-by-6
74754-0220	Press Fit		Spring Finger gasket	1-by-2
74754-0420				1-by-4

Light Pipe Cover Assembly

Order No.	Port Size
74754-0011	1-by-1
74754-0021	1-by-2
74754-0041	1-by-4
74754-0061	1-by-6

Note: For ganged cages with light pipes, 1-by-5 press-fit and spring-finger gasket cages, contact Molex

Stacked Multi-Port Connectors

Type	Elastomeric Gasket		Metal Gasket		With or Without Lightpipes
	Tin/Lead Plating Order No.	Tin Plating Order No.	Tin/Lead Plating Order No.	Tin Plating Order No.	
2-by-1	76090-0001	76090-5001	76044-0001	76044-5001	Yes
2-by-2	76091-0001	76091-5001	76045-0001	76045-5001	
2-by-4	76092-0001	76092-5001	76046-0001	76046-5001	
2-by-5	76093-0001	76093-5001	76047-0001	76047-5001	
2-by-6	76094-0001	76094-5001	76048-0001	76048-5001	
2-by-1	76100-0001	76100-5001	76064-0001	76064-5001	No
2-by-2	76101-0001	76101-5001	76065-0001	76065-5001	
2-by-4	76102-0001	76102-5001	76066-0001	76066-5001	
2-by-5	76103-0001	76103-5001	76067-0001	76067-5001	
2-by-6	76104-0001	76104-5001	76068-0001	76068-5001	

Passive Cable Assembly

Order No.	Length	Cable Gauge (AWG)
74752-1051	0.50m (1.640')	30
74752-1101	1.00m (3.280')	30
74752-2101	1.00m (3.280')	28
74752-2301	3.00m (9.843')	28
74752-3301	3.00m (9.843')	26
74752-3501	5.00m (16.404')	26
74752-4701	7.00m (22.966')	24
74752-9007	15.00m (49.213')	24

Note: Multiple lengths and cable gauges available. Contact Molex Customer Service for ordering.

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www.molex.com/product/sfp-plus.html