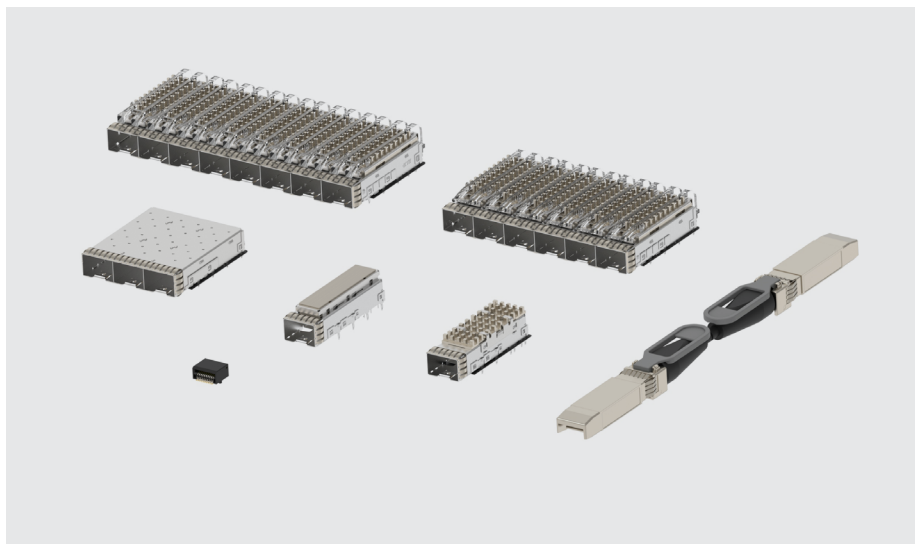


SMALL FORM-FACTOR PLUGGABLE (SFP) 112G I/O INTERCONNECT PRODUCT PORTFOLIO

112G PLUGGABLE I/O SOLUTIONS





TYPICAL APPLICATIONS

- Servers
- Switches
- Routers
- Storage equipment
- Base stations

Target Markets

- Networking
- Data center
- Wireless infrastructure

High Speed 112G Pluggable I/O solutions

TE Connectivity's (TE) SFP 112 interconnect solutions are currently one of the fastest single-channel I/O connectors on the market today, transferring data rate of 56Gbps NRZ and 112 Gbps PAM-4. Through a design that is backward-compatible to SFP/SFP+/zSFP+ products, the interconnect is hot swappable with existing SFP+ connectors for fast system upgrades of 56-112 Gbps. Our new SFP 112 connector can adopt our existing zSFP+ cages with customized designs to meet your needs and light pipes providing superior thermal and signal integrity performance.

FEATURES

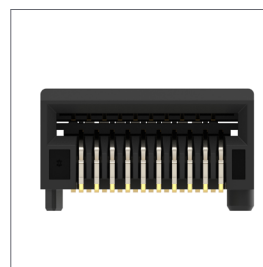
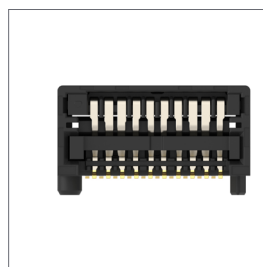
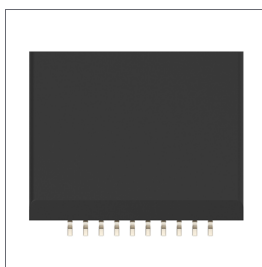
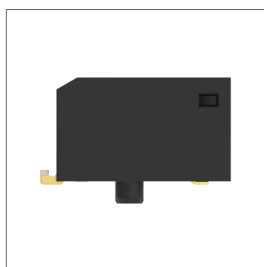
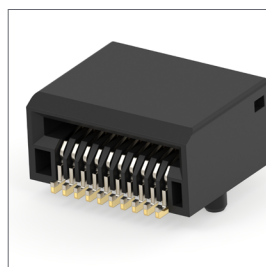
- Data rates: Up to 112 Gbps PAM-4
- Surface-mount connector design for single high 1xN cages
- Press-fit 1xN cages and stacked assemblies (connector and cage) for one-step, easy PCB placement
- Backwards-compatibility: Shares same mating interface and cage dimensions with the SFP+ connector (connector/single high cages are also PCB footprint-compatible)
- Elastomeric gasket or spring finger options for EMI containment
- Single high cages (1xN) for design flexibility; accommodates belly-to-belly applications for increased density and PCB space savings; available in 1x1, 1x2, 1x3, 1x4 or 1x6 port configurations
- Heat sinks, LEDs and plating choices offered
- Additional light pipe configurations available

General Part Number Offering

Part number	Description
2378765-1	SFP112 Receptacle Connector

EMI Suppression	Light Pipe Option	Heat Sink Option	1X1	1X2	1x3	1X4	1X6	1X8
EMI Spring Fingers	No*	No	2274001-1	2363891-4	2349050-1	2227730-1	2357732-3	2304921-1
	No*	Heatsink opening	2274001-6	2363891-2	*	*	2357732-1	*
	No*	PCI HS	2297033-1	2321406-1	**	2363990-1	2302141-1	2302014-1
	No*	SAN HS	2297033-2	2321406-2	**	2363990-2	2302141-2	**
	No*	Networking HS	2297033-3	2321406-3	**	2363990-3	2302141-3	**
	Yes	Yes	2318802-1	2373109-1	**	2309976-1	2293156-2	2294408-1
	No*	Thermal Bridge	2374068-1	**	-	2410610-1**	-	-

*Tooling in process **Not yet tooled but planned



SFP28 and SFP56 Direct Attach Copper Cable Assemblies

TE's SFP28 and SFP56 passive copper cable assembly features two differential copper pairs, providing one data transmission channel at speeds up to 56Gbps per channel that meets 50G Ethernet performance requirements. SFP28 and SFP56 are designed for applications in the data center, networking and telecommunications markets that require a high speed, reliable cable assembly,

Offered in a broad range of wire gages – from 26AWG through 33AWG – this next generation copper cable assembly features low insertion loss and low cross talk. TE's SFP28 and SFP56 assemblies share the same mating interface with SFP+ form factors, making it backward compatible with existing SFP+ I/O ports. SFP28 and SFP56 can be used with legacy 10G Ethernet and 16G Fibre Channel applications with substantial signal integrity margin.

In addition to straight cables, TE offers breakout assemblies with a QSFP28 or QSFP56 module on one end breaking out to four SFP28 or SFP56 modules on the opposite end of the assembly. In-line SI based production testing ensures that each cable assembly meets the electrical performance requirements of the applicable industry standard specification.

Features and Benefits

- SFP28 is compatible with IEEE 802.3by and Fibre Channel industry standards
- SFP56 is compatible with IEEE 802.3cd and Fibre Channel industry standards
- Supports single lane data rate up to 56 Gbps
- Optimized construction to minimize insertion loss and cross talk
- Customized cable braid termination limits EMI radiation
- Backward compatible with existing SFP+ form factor connectors and cages
- Pull-to-release latch design
- 26AWG through 32AWG cable
- Straight and breakout cable assembly configurations available
- Customizable EEPROM mapping for cable signature
- RoHS compliant

Industry Standards

- 25G Ethernet (IEEE 802.3by)
- 50G Ethernet (IEEE 802.3cd)
- Fibre Channel
- SFF-8402 SFP+ 1X 28Gb/s Pluggable Transceiver Solution (SFP28)
- SFF-8665 QSFP+ 28G 4X Pluggable Transceiver Solution (QSFP28)



SFP28 to SFP28 Straight Cable Assembly



QSFP28 to 4x SFP28 Breakout Cable Assembly

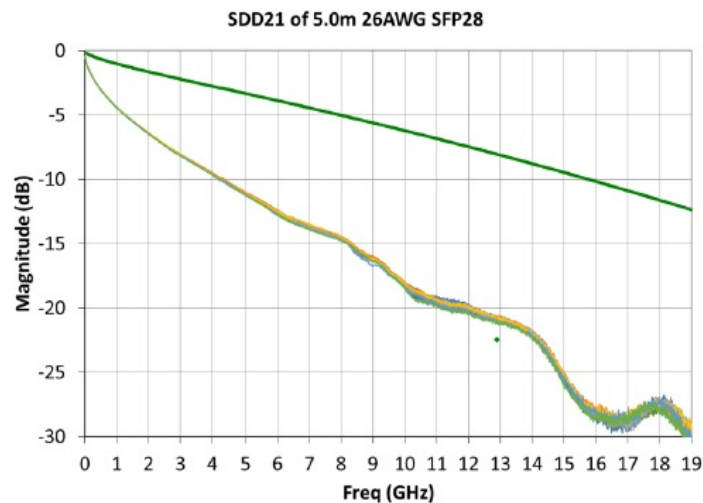
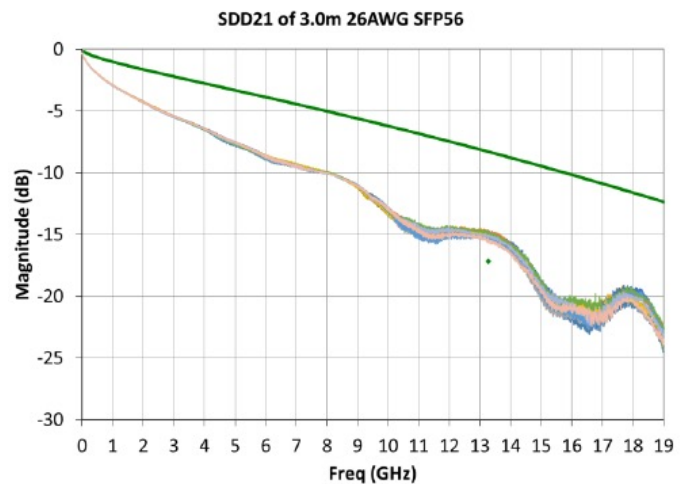
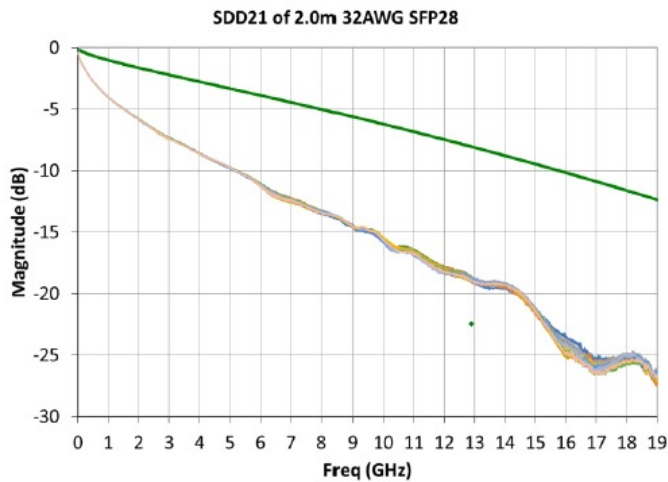
SFP28 Part Number Detail

Base Part Number	Description	AWG	Dash to Length (meters)									
			0.5	1	1.5	2	2.5	3	3.5	4	4.5	5
2334985	SFP28 to SFP28 Straight Assembly	32	-1	-2	-3	-4	-	-	-	-	-	-
2821222		30	-5	-3	-4	-2	-6	-1	-	-	-	-
2821223		28	-1	-2	-3	-4	-5	-6	-7	-8	-	-
2821224		26		-1	-2	-3	-4	-5	-6	-7	-	-8
2340654	QSFP28 to 4x SFP28 Breakout Assembly	32	-1	-2	-3	-4	-	-	-	-	-	-
2334236		30	-1	-2	-3	-4	-5	-6	-	-	-	-
2334877		28	-1	-2	-3	-4	-5	-6	-7	-8	-	-
2334878		26	-1	-2	-3	-4	-5	-6	-7	-8	-9	-10

Contact your TE Representative for customized lengths.

Base Part Number	Description	AWG	Dash to Length (meters)					
			0.5	1	1.5	2	2.5	3
2334985	SFP56 to SFP56 Straight Assembly	32	-41	-42	-43	-	-	-
2821222		30	-41	-43	-44	-45	-	-
2821223		28	-41	-42	-43	-44	-45	-
2821224		26		-41	-42	-43	-44	-45
2340654	QSFP56 to 4x SFP56 Breakout Assembly	32	-41	-42	-43	-	-	-
2334236		30	-41	-42	-43	-44	-	-
2334877		28	-41	-42	-43	-44	-45	-
2334878		26	-41	-42	-43	-44	-45	-46

Contact your TE Representative for customized lengths.



TE Technical Support Center

USA:	+1 (800) 522-6752
Canada:	+1 (905) 475-6222
Mexico	+52 (0) 55-1106-0800
Latin/S. America:	+54 (0) 11-4733-2200
Germany:	+49 (0) 6251-133-1999
UK:	+44 (0) 800-267666
France:	+33 (0) 1-3420-8686
Netherlands:	+31 (0) 73-6246-999
China:	+86 (0) 400-820-6015

Part numbers in this brochure are RoHS Compliant*, unless marked otherwise.

*as defined www.te.com/leadfree

te.com

TE Connectivity, TE Connectivity (logo) and Every Connection Counts are trademarks. zSFP+ is a part of the ZXP* family of connectors and uses the ZXP technology. ZXP is a registered trademark of Molex LLC. All other logos, products and/or company names referred to herein might be trademarks of their respective owners.

The information given herein, including drawings, illustrations and schematics which are intended for illustration purposes only, is believed to be reliable. However, TE Connectivity makes no warranties as to its accuracy or completeness and disclaims any liability in connection with its use. TE Connectivity's obligations shall only be as set forth in TE Connectivity's Standard Terms and Conditions of Sale for this product and in no case will TE Connectivity be liable for any incidental, indirect or consequential damages arising out of the sale, resale, use or misuse of the product. Users of TE Connectivity products should make their own evaluation to determine the suitability of each such product for the specific application.

© 2022 TE Connectivity Ltd. family of companies All Rights Reserved.

05/22 Original