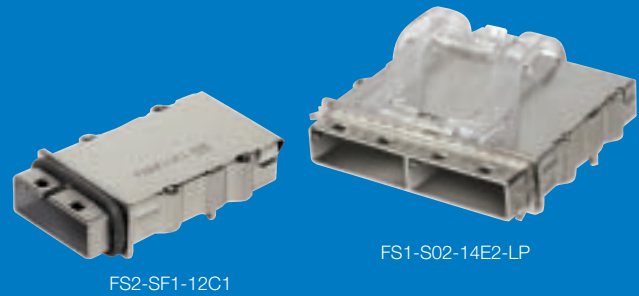


Mini-SAS FS Series



The Mini-SAS external I/O connector system consists of a die-cast metal cage and a Compact MultiLane SMT Connector, featuring proven "cut edge" style contacts. Providing 4 serial send/receive channels per port, this connector system is designed to satisfy the needs for gigabit serial data transmission applications with signal speeds across the connector interface of 6 Gbps per channel.

The cage is mounted separately to the body so that the stress imposed by insertion and removal of the cable plug does not affect the signal/body solder joints. The connector is available with unique solder hold-down tabs designed to provide additional mechanical robustness in demanding applications.

Specification Highlights

The Mini-SAS interconnect system is comprised of a cage assembly which is used with 26-position, 0.8 mm pitch connectors complying with SFF-8086, SFF-8087 and SFF-8088.

Mechanical Characteristics

- Co-planarity specification: 0.1 mm
- Connector insertion force: 55.5 N max
- Connector withdrawal force: 49.0 N max
- Durability: 250 mating cycles minimum
- Reverse keying for active copper cables per SAS 2.0

Electrical Characteristics

- Operating voltage: 30 V
- Operating current: 0.5 A
- Differential impedance: 100 Ω +/- 10 Ω
- DWV: 300V AC
- Insulation resistance: 1000 M Ω min
- Contact resistance: 80 m Ω max
- Near end isolation: -40 dB (frequencies up to 3 GHz)
- Insertion loss: 1.0 dB maximum (frequencies up to 1.6 GHz)
- Rise time for impedance measurement: 50 ps
- Within pair skew: 5 ps

Configurations (Rows x Ports per row)

- 1x1
- 1x2
- 1x4

Packaging

- Tape and reel packaging: connector
- Tray packaging: cage
- Bulk packaging: mounting screw or dust cover

Materials

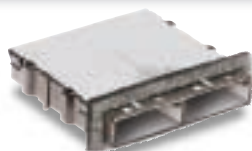
- Cage
 - Base material: zinc alloy
 - Plating: nickel
 - Mounting screw: AISI 1010 steel
 - Light pipe: optical grade polycarbonate
 - Dust cover: thermoplastic
- Connector
 - Contact base material: copper alloy
 - Contact plating: gold on mating area; matte tin on termination
 - Housings: glass reinforced, lead-free solder reflow process compatible thermoplastic, UL94V-0 rated

Temperature Rating

- Operating temperature: -55 °C to +85 °C
- Storage temperature: -55 °C to +85 °C

Options

- Cage inclination from printed circuit board
 - 0° angle
 - 1° angle (PCI applications)
- Keying
- Dust cover
- Light pipe
- EMI shielding
 - Conductive elastomeric gasket
 - Soft shield foam gasket
 - Stainless steel gasket



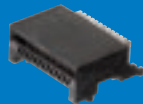
1x2 Mini-SAS 2.0 Cage
with Foam Gasket
FS2-S02-14F1



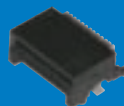
1x4 Mini-SAS 1.0 Cage with
Stainless Steel Gasket
FS1-SF4-14E1



1x2 Mini-SAS 2.0 Cage with
Elastomeric Gasket
FS2-SF2-16C1



FS1-R26-2000



FS1-R26-2001

Ordering Information

Contact Amphenol for additional options

Mini-SAS Connector

FS1 - R26 - X00X

FS1 SERIES DESIGNATION

R26 STYLE
R26 - 26 position connector

X PLATING
2 - 30µ" Gold in Mating Area/
100µ" Matte Tin on Tails over Nickel Under-plate
3 - 15µ" Gold in Mating Area/
100µ" Matte Tin on Tails over Nickel Under-plate

OPTIONS

0 - Standard Connector
1 - Connector with Hold Down Tabs

0 - Standard

0 - Standard

X

0

0

Ordering Information

Contact Amphenol for additional options

Mini-SAS Cage

FSX - SXX - 1X - XX

FSX TYPE
1 - Standard
2 - With SAS 2.0 Guide Keyway
A - With SAS 2.1 Guide Keyway

S S - Shell

XX SIZE
01 - 1x - 1 degree
F1 - 1x - 0 degree
P01 - 1x - 1 degree PCI Express
02 - 2x - 1 degree
F2 - 2x - 0 degree
04 - 4x - 1 degree
F4 - 4x - 0 degree

1 PLATING
1 - Nickel (ROHS)

SPECIAL

Blank - No Light Pipe
LP - With Two Barrel Light Pipes - One Light Pipe per Port

OPTIONS

C1 - Conductive Elastomer Gasket - 8 mm Long Mounting Screw, No Lock Washer
C2 - Conductive Elastomer Gasket - No Mounting Screw
E1 - Stainless Steel Gasket - 8 mm Long Mounting Screw, No Lock Washer
E2 - Stainless Steel Gasket - No Mounting Screws
E3 - Stainless Steel Gasket - 10 mm Long Mounting Screw with Lock Washer
F1 - Foam Gasket

KEYING

0 - No key
1 - Key #1
4 - Key #4 Universal SAS port
7 - Key #7
24 - Key #2 and #4 SAS Out
46 - Key #4 and #6 SAS In
D22 - Left Port Key #2 & #4 / Right Port Key #2 & #4
D66 - Left Port Key #4 & #6 / Right Port Key #4 & #6
D26 - Left Port Key #2 & #4 / Right Port Key #4 & #6
D62 - Left Port Key #4 & #6 / Right Port Key #2 & #4

XX

XX

X