SN[®] SIMPLIFIED NETWORKS EDITION 1.2





SN® SERIES



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Let go of the past. Connect with the now.



Innovative Optical Connectivity Solutions

SENKO Advanced Components design and manufacture precise, user-friendly, and application-focused fiber optic connectors that allow network operators to achieve the performance and reliability necessary to support the world's unquenchable demand for data. As you would expect from a Japanese company, precision is paramount to our offering, and we take pride in providing the global communications market with reliable and repeatable components that guarantee business-critical, error-free transmission.

We understand the challenges that network operators face in building networks that are not just quick and easy to construct, but also easy to manage and maintain over the complete life-cycle of the network. For this reason, SENKO pays special attention in developing connectors that are easy to identify and access even in when placed in the densest and demanding of applications. The world demands high-performance connectivity "always and everywhere". Our application-focused approach ensures that connectors are optimized for the environment whether it be inside a controlled data center, or high up on a remote antenna mast.

Resolving Industry Challenges

As markets continue to evolve, so do the requirements of fiber optic products. With over 30 years of experience and a highly skilled team of professionals, SENKO can resolve industry challenges quickly and effectively. With SENKO, the typical design and physical first prototyping takes weeks, not months. The majority of products are stocked and ready to be delivered in the same week. SENKO has fully embraced the idea that your success is our success.



Design

Working with our customers, SENKO helps define product application, functionality, and manufacturability



Prototype SENKO has the capability to create in-house functional prototyping

Refine SENKO continuously strives to enhance performance, reliability, usability, and cost



Validate

Products verified against established industry standards

VSFF Pioneer and Technology Leader with 90+ Patents

SENKO connectivity is driving next-generation applications that consume unparalleled amounts of data. Super-computing, AI and Big Data are just a few of the applications that demand data rates as high as 400G, 800G, 1,6TB or beyond. Our VSFF (Very Small Form Factor) connectivity is the first of its kind to deliver twice as many optical channels within the standard footprint of legacy transceivers. Whatever your connector requirements or application, SENKO is here to help you. We value every connection.

Patented Solutions

- and the SN° is in the process to standardization in IEC as the IEC 61754-36.
- connectors, adapters and high-data-rate transceivers on the market.
- and adapters without the risk of direct/indirect patent infringement

Global Presence

With offices all around the world, SENKO aims to provide local service on a Global footprint.



Your success is our success

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VSFF Patent Globally

 SN^{*}, SN^{*}-MT, CS^{*} are invented by SENKO Advanced Components and are standardized in the QSFP-DD MSA and OSFP-MSA specifications. The CS[°] currently a standardized connector in TIA as the TIA-604-19

SENKO is the global leader in VSFF connectivity, and our portfolio represents the broadest number of

• SENKO provides a licencing scheme to approved partners to manufacture SN^{*}, SN^{*}-MT and CS^{*} connectors

NETWORK CONGESTION DENSIFICATION COMPLEXITY

More and more fibers are required in Data Center applications. As the data traffic requirements and bandwidths grow, so does the need for new innovative interconnect solutions.



Network Data Rates





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Market Trends

Network Drive Toward Sustainability





SIMPLE. SCALABLE. SUSTAINABLE.

Meet the SN° Family

Reduce the number of patch panels and racks by optimizing available space

SN° links require no cassettes to transition

MORE FLEXIBLITY, LESS HARDWARE

40% DENSER THAN LC

SCALABLE UP TO 1.6TB

from Base-8 to Base-2

Learn how SN° is used in the data center

Legacy LC

Adapters and Cassettes



SN° Adapter

F-1

SN° Uniboot

Connector

SN° EZ-Flip

Connector

MPO 8

Connector



Let Go of the Past. Connect With the Now.

UPGRADE CABLE SYSTEMS Increase density and improve reliability with best-in-class performance







BASE-8 Speed & Flexiblity

1 x SN Gang-clipped (8-fibers) OR 1 x SN Uniboot (8-fibers)



1 x SN Gang-clipped (8-fibers) OR 1 x SN Uniboot (8-fibers)

SN[®] - Simplified Networks



Simplified

Maintenance

SN° networks can be built with fewer mated pairs across the link. This equates to fewer connectors that need to be inspected, cleaned and mated.

Simplified

Simplified

Transceiver shuffle

Up to 4 x SN° connectors can be plugged to a QSFP-DD or OSFP transceiver. These duplex connections can be broken out into four different transceivers without the need for transition cassettes or fan-outs.

Installation

The pullable, flexible boot on the SN° connector means that access is always guaranteed to the connector even when stacked side by side in static patch panels.

Increase Efficiency with SN[®] Simplified Cabling

Learn about SN[®]

Click to Watch Videos



Less connectivity points required No fanout or breakout cables are required



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HYPER DENSITY

allows operators to SN® increase the patch panel density by a factor of 3 versus legacy LC connectivity





Improve port identification, connector access and cable management with SN[®]



MEGA <360 fibers





HYPER 360 fibers+ **SN**[®]

HYPER Density

As much as 432 fibers per 1RU of rack space. Huge costper-port savings and significantly better rack utilization.

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2227 1222						Total Capacity
	2228 2220		8888 8888	8888 8585 8888	8888 8888	216 CH
a see a 3 wit		8888 8888			8888 88888	432 F
		8383 8388 8388 8388 8388 8388 8388 838		33333 33333 33333 33333 33333 23333	8888 88888	(1RU single sided rack/ cabinet)

MEGA Density

More than double the density of the current offering with LC connectivity. Significantly lower total cost per port.



ULTRA Density

Industry bench-mark density per 1RU using engineered chassis and cassette systems.



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Utilize Available Rack Space for Revenue-Generating Servers or Switches



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What is the Industry Saying?





Wirewerks has a long-established, collaborative relationship with SENKO, and we were pleased when our meticulous evaluation of next generation fiber connector technologies pointed to SENKO's SN[®] product line.

"



Edouard Tabet, Vice President of Engineering WIREWERKS >>



SN[®]*CONNECTOR*



A ceramic-based fiber optic connector so compact and flexible that it can be utilized either as a Base-8 trunk solution, a Base-2 patching interface or as a Base-8 connection to next-generation 200G, 400G and 800G transceivers





SN° COMPACT/MINI CONNECTOR Space-Saving Applications

BTW connectors designed for cassettes and optoelectronic equipment



SN[®] Connectors for Next-Generation Data Centers



FEATURED BENEFITS

Turn down

the heat

Improve air flow to

equipment and reduce energy consumption

with SN[®] and SN[®]-MT

SERNKO SUSTAINABILITY GREEN SERVI

SUSTAINABLE NETWORKS Smaller Footprint

Increase capacity and reduce the need for additional data centers with SN° and SN°-MT connectors

Quaduples Transceiver

Density

SN° Base-8 and Base-2 Flexibility

No cassettes or fan-outs required to transition from Base-8 to Base-2, allowing operators to build leaner, more sustainable networks.



SN[®] Application Guide

SN[®] Application Guide

Base-8 Structured Cabling

The SN° Uniboot is a logical choice when building highdensity, Base-8 topologies. It speeds up installation time and reduces cable bulk dramatically. Alternatively, the SN° Standard or EZ-Flip can be ganged together using a plastic clip and breakout cables or fanouts can be deployed in the same way.

SN[®] Uniboot Connector

SN EZ-Flip Connector



Individual SN° Patching

The SN° Standard and EZ-Flip connector are the right choice for plugging into the front side of patch panels or transceivers. The EZ-Flip is the only option that allows polarity switching in the field.

SN° 1.6mm/ 2.0mm Connector





Dual & Quad Transceiver Links

The SN° Standard and EZ-Flip connector can be joined together with special metal clips that allow two or four connectors to be patched simultaneously.

SN° 1.6mm/ 2.0mm Connector

SN° EZ-Flip Connector



Standard BTW

The Junior connector is the right choice for most BTW applications such as transition panels and LGX-style modules. It is significantly smaller than the senior connectors and is compatibe with 900 micron buffered fibers.

Reduced Height BTW

The Compact connector has a reduced height which allows it to fit inside miniature cassettes that do not have space for the standard Junior connector. These cassettes are often stacked 3-high within 1RU chassis.

SN^{*} Compact Connector

Reduced Depth BTW

The Mini connector is the shortest connector for BTW applications is a great choice when you need to utilize BTW space for optoelectronic equipment or other vital system components.

SN° Mini Connector



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SN° CONNECTORS

SN°*EZ-FLIP***°CONNECTOR** 1-Channel (2F) Switchable Polarity

SN EZ-Flip Connector

SENKO

Advanced Components

The SN[°] connector is the ultimate duplex connector combining 'best-in-class' packing density with carrier-grade performance and reliability. Designed and optimized for next-generation data rates, the SN[°] connector offers network operators the chance to densify their existing legacy infrastructure whilst at the same time providing an upgrade path to 400G and beyond.

The SN° EZ-Flip connector is the latest addition to the SN° family, allowing technicians to switch polarity in the field without disrupting fibers or repositioning ferrules. Not only can the polarity be changed with UPC ferrules, but APC connectors can also be polarity-flipped thanks to the unique orientation of the angled ferrules.

The SN° EZ-Flip connector has an integrated 'push-pull' boot that simplifies insertion and removal of the connector even in high-density patch panels where finger access is limited. A gang-clip can be added to two or four individual SN° connectors allowing them to be patched simultaneously to compatible adapters and transceivers.

FEATURES

- Meets IEC random mating Grade B
- Very Small Form Factor (VSFF) connector, 3 x fiber cabling density over duplex LC
- Push-pull boot for simple installation and removal
- Optimized for 400G data rates with QSFP-DD, OSFP, and SFP-DD transceivers
- Up to 4 x SN° connectors per transceiver
- Direct transceiver breakout in spine/leaf architectures
- Fast and easy polarity reversal of both UPC and APC connectors in the field
- Combines two 1.25 mm ceramic ferrules
- Pre-assembled design for fast assembly

APPLICATIONS

- High-density patching and equipment jumpers
- QSFP-DD, OSFP and SFP-DD transceiver links for higher data rates
- Hybrid duplex cable assemblies combining SN[®] and other duplex connector types
- Hyperscale, edge, enterprise, and colocation data centers

MEDIA

Click to Watch Videos



SN° *EZ-FLIP CONNECTOR* 1-channel (2F)

Mechanical Data

Durability	
Fiber Count	
Cable Suitablity	
Ferrule Material	
Dust Protection Method	

Optical Data

		Singlemode					
	UI	PC	AF	APC			
	SM Premium SM Premium S		SM Premium Low Loss	SM Premium	Premium		
Typical Insertion Loss (dB)*	0.05 0.08		0.07	0.12	0.05		
Max. Insertion Loss (dB)*	0.15 0.20		0.15	0.15			
Typical Return Loss (dB)*	2	55	≥65		≥25		
Ferrule Diameter (µm)		12	5.5		127		

 st Based on master grade jumper to low loss random mating test



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Value
500 matings per TIA-568
Duplex (2 fibers)
1.6 mm/2.0 mm jacketed
Zirconia
Removable dust plugs that encapsulate the ferrules

	DRMANCE	НОП	ISING COLOR	RO	OT TYPE		RUU	T COLOR
	JAMANCL	1100	SING COLON	DOU	JITTL		000	I COLON
151	SM Premium	1	Blue	4	44mm Boot (44T)		1	White
158	SM Premium Low Loss	5	Aqua					
251	MM Premium	6	Heather Violet					
]]			
ıst-ca	D				- 6D5 - 153 - 341	ORDE	ER COD)E example
QSFP	-DD and OSFP Transceivers (S	N EZ-F	lip Connectors Only	1)				
for SF	P-DD Transceivers (SN EZ-Flip	o Conn	ectors Only)					
or Shi	uttered Adapters or Adapter	s with	Walls Between Ea	ach Po	rt			
					- 6A5-CLIP-QD-02	ORDE	ER COD)E example

SN° CONNECTORS

SN° STANDARD CONNECTOR 1-Channel (2F) 1.6 mm Cable

SN Standard Connector

SENKO)

SENKU

Advanced Components

The SN° connector is the ultimate Base-2 connector combining 'best-in-class' packing density with carrier-grade performance and reliability. Designed and optimized for next-generation data rates, the SN° connector offers network operators the chance to densify their existing legacy infrastructure whilst at the same time providing an upgrade path to 400G and beyond.

The SN° Standard connector is suitable for termination to 1.6 mm round cable that incorporates a ruggedized jacket and internal strain relief.

The SN° Standard connector has an integrated 'push-pull' boot that simplifies insertion and removal of the connector even in dense patch panels where finger access is limited. A gang-clip can be added to four individual SN° connectors allowing them to be patched simultaneously to either adapters or 4-channel (8 fibers) transceivers (subject to product selection).

FEATURES

- Meets IEC random mating Grade B
- Very Small Form Factor (VSFF) connector, 3 x fiber cabling density over Duplex LC
- Unique push-pull boot for simple installation and removal
- Optimized for 400G data rates with QSFP-DD, OSFP and SFP-DD transceivers
- Up to 4 x SN° connectors per transceiver
- Direct transceiver breakout in spine/leaf architectures
- Combines two 1.25 mm ceramic ferrules
- Easy identification of the connector alignment key

APPLICATIONS

- High-density patching
- QSFP-DD, OSFP and SFP-DD transceiver links for higher data rates
- Hybrid Base-2 cable assemblies combining SN[®] and other duplex connector types
- Hyperscale, edge, enterprise and colocation data centers

KEY BENEFITS

Optimized for patching

SN° STANDARD CONNECTOR 1-channel (2F), 1.6 mm cable

Mechanical Data

Durability	
Fiber Count	
Cable Suitablity	
Ferrule Material	
Dust Protection Method	

Optical Data

		Singlemode					
	UI	PC	AF	MM			
	SM Premium Low Loss	SM Premium	SM Premium Low Loss	SM Premium	Premium		
Typical Insertion Loss (dB)*	0.05	0.08	0.07	0.12	0.05		
Max. Insertion Loss (dB)*	0.15	0.20	0.15	0.25	0.15		
Typical Return Loss (dB)*	≥55		≥(≥25			
Ferrule Diameter (µm)		12	5.5		127		

* Based on master grade jumper to low loss random mating test



Value
500 matings per TIA-568
Duplex (2 fibers)
1.6 mm jacketed
Zirconia
Removable dust plugs that encapsulate the ferrules

PERF(DRMANCE	HOUSING COLOR BOOT TYPE		BO	OT COLOR		
151	SM Premium	1	Blue	1	50 mm Boot (50T)	1	White
158	SM Premium Low Loss	5	Aqua	B	Flex-Angled Boot (57T)		
251	MM Premium	6	Heather Violet	C	Flex-Angled Boot (63T)		
				D	Flex-Angled Boot (71T)		
PERFORMANCE		ЦОІ		PO	ΟΤ ΤΥΡΕ	PO	

PERF	ORMANCE	HOU	SING COLOR	BOOLIYPE		BO	JI COLOR	
153	APC Premium	3	Green	1	50 mm Boot (50T)	1	White	
158	APC Premium Low Loss			В	Flex-Angled Boot (57T)			
				C	Flex-Angled Boot (63T)			
				D	Flex-Angled Boot (71T)			

602-CLIP-QD-02 Plastic Quad Gang-clip for Shuttered Adapters or Adapters with Walls Between Each Port

SN° STANDARD CONNECTOR 1-Channel (2F) 2.0 mm Cable

SN Standard Connector

SENKO,

SENKU

Advanced Components

The SN° connector is the ultimate Base-2 connector combining 'best-in-class' packing density with carrier-grade performance and reliability. Designed and optimized for next-generation data rates, the SN° connector offers network operators the chance to densify their existing legacy infrastructure whilst at the same time providing an upgrade path to 400G and beyond.

The SN[°] Standard connector is suitable for termination to 2.0 mm round cable that incorporates a ruggedized jacket and internal strain relief.

The SN° Standard connector has an integrated 'push-pull' boot that simplifies insertion and removal of the connector even in dense patch panels where finger access is limited. A gang-clip can be added to four individual SN° connectors allowing them to be patched simultaneously to either adapters or 4-channel (8 fibers) transceivers (subject to product selection).

FEATURES

- Meets IEC random mating Grade B
- Very Small Form Factor (VSFF) connector, 3 x fiber cabling density over duplex LC
- Unique push-pull boot for simple installation and removal
- Optimized for 400G data rates with QSFP-DD, OSFP and SFP-DD transceivers
- Up to 4 x SN[®] connectors per transceiver
- Direct transceiver breakout in spine/leaf architectures
- Combines two 1.25 mm ceramic ferrules
- Easy identification of the connector alignment key

APPLICATIONS

- High-density patching
- QSFP-DD, OSFP and SFP-DD transceiver links for higher data rates
- Hybrid Base-2 cable assemblies combining SN[®] and other duplex connector types
- Hyperscale, edge, enterprise and colocation data centers

KEY BENEFITS

Optimized for patching

SN° *STANDARD CONNECTOR* 1-channel (2F), 2.0 mm cable

Mechanical Data

Durability	
Fiber Count	
Cable Suitablity	
Ferrule Material	
Dust Protection Method	

Optical Data

		Singlemode					
	UI	PC	AF	MM			
	SM Premium Low Loss	SM Premium	SM Premium Low Loss	SM Premium	Premium		
Typical Insertion Loss (dB)*	0.05	0.08	0.07	0.12	0.05		
Max. Insertion Loss (dB)*	0.15	0.20	0.15	0.25	0.15		
Typical Return Loss (dB)*	≥55		≥0	≥25			
Ferrule Diameter (µm)		127					

* Based on master grade jumper to low loss random mating test



Value			
500 matings per TIA-568			
Duplex (2 fibers)			
2.0 mm jacketed			
Zirconia			
Removable dust plugs that encapsulate the ferrules			

	PERF	ORMANCE	HOUSING COLOR		BOOT TYPE		BOOT COLOR	
	151	SM Premium	1	Blue	1	50 mm Boot (50T)	1	White
	158	SM Premium Low Loss	5	Aqua	В	Flex-Angled Boot (57T)		
	251	MM Premium	6	Heather Violet	C	Flex-Angled Boot (63T)		
					D	Flex-Angled Boot (71T)		
	PERF	ORMANCE	HOL	JSING COLOR	BO	OT TYPE	BO	OT COLOR
	153	APC Premium	3	Green	1	50 mm Boot (50T)	1	White
	158	APC Premium Low Loss			В	Flex-Angled Boot (57T)		
					C	Flex-Angled Boot (63T)		
					D	Flex-Angled Boot (71T)		
ıst	-cap					- 614 - 153 - 311 ORD	ER COI	DE example
	PART NUMBER							

	PART NUMBER	
or QSFP-DD Transceivers	602-CLIP-QD-02	Plastic Quad Gang-clip for Shuttered Adapters
for SFP-DD Transceivers		or Adapters with Walls Between Each Port

602-CLIP-QD-02 ORDER CODE example

SN° CONNECTORS



SN° GANG-CLIPS **Quad and Duplex Design** for QSFP-DD, OSFP and **SFP-DD** Transceivers



SENKO's SN° Gang-clips are designed to hold four individual SN° connectors side by side so they can be plugged into either 4-channel QSFP-DD, OSFP or 2-channel SFP-DD transceivers simultaneously. This speeds up the patching time and simplifies the process of patching multiple connectors - it also allows the four duplex connectors to act as a single Base-4 or Base-8 connector.

The Gang-clip is generally deployed in transceiver breakout applications where, for example, a single 400G transceiver is broken out to 4 x 100G transceivers within spine-leaf architectures. The Quad Gang-clip is also compatible with non-shuttered SN° adapters that share the same footprint as QSFP-DD and OSFP transceivers.

FEATURES

- Allows multiple SN° connectors to be patched simultaneously
- The compact design prevents interference with transceiver pull-tab
- Suitable for OSFP-DD, OSFP and SFP-DD transceivers

APPLICATIONS

- Transceiver breakout applications
- Spine-leaf architectures
- Enterprise data centers
- Patching to standard SN[®] non-shuttered adapters

KEY BENEFITS

Patch 4 x SN° simultaneously to QSFP-DD and OSFP Patch 2 x SN° simultaneously to SFP-DD



602-CLIP-DX-02 Metal Duplex Gang-clip for SFP-DD Transceiver Types (Standard SN Connectors Only)

6A5-CLIP-QD-01 Metal Quad Gang-clip for QSFP-DD and OSFP Transceivers (SN EZ-Flip Connectors Only) 6A5-CLIP-DX-01 Metal Duplex Gang-clip for SFP-DD Transceivers (SN EZ-Flip Connectors Only

602-CLIP-QD-01 Metal Quad Gang-clip for QSFP-DD and OSFP Transceiver Types (Standard SN Connectors Only)

602-CLIP-DX-02 ORDER CODE example

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SN° GANG-CLIPS Quad and duplex designs

SN° GANG-CLIPS **Quad Design** for 4-Channel **Shuttered Adapters**

SENKO's SN° Gang-clips are designed to hold four individual SN° connectors side by side so they can be plugged into shuttered adapters (or adapters with walls between each channel) simultaneously. This unique functionality dramatically reduces the installation time required to patch multiple connectors to high-density patch panels, as well as allowing the four duplex connectors to act as one Base-8 connector.

The Gang-clip can be used to combine four individual connectors from duplex patch cords or alternatively, four connectors from a breakout cable or fanout cable. The Gang-clip is a critical solution in applications where multiple Base-8 connections are being patched to the rear side of a patch panels. Individual SN° connectors can be inserted or removed from the 4-way gang-clip thanks to flexible locking clips located on the upper face of the clip.

FEATURES

- Allows multiple SN[®] connectors to be patched simultaneously
- Connectors can be individually inserted and removed without disruption to adjacent connectors
- Compact design
- Suitable for shuttered 4-channel SN[®] adapters

ORDERING





Plastic Quad Gang-Cli SN EZ-Flip Connector E-1.1

Gang-Cli



APPLICATIONS

- Base-8 trunk deployment
- Patch cord consolidation
- Breakout and Fanout cable assemblies
- High fiber-count backbone trunks
- Enterprise data centers

KEY BENEFITS

Add and remove individual connectors Allows 4 x SN° connectors to be patched simultaneously

6A5-CLIP-QD-02 Plastic Quad Gang-clip for Shuttered Adapters or Adapters with Walls Between Each Port (SN EZ-Flip Connectors Only) - Color White 602-CLIP-QD-02 Plastic Quad Gang-clip for Shuttered Adapters or Adapters with Walls Between Each Port (Standard SN Connectors Only) - Color White

SN° JUNIOR CONNECTOR 1-Channel (2F) BTW (Behind The Wall)



SENKC

The SN° Junior connector is designed for applications that require less space consumption BTW (Behind The Wall) than conventional patch cord connectors. With a much shorter body length and boot length than conventional connectors, the SN° Junior offers users the chance to reduce the depth of transition cassettes and modules as well as free up valuable space within fiber management panels for additional hardware such as splice cassettes, coherent devices or optoelectronic equipment.

The SN[°] Junior connector has a latch on the upper side of the connector that provides an audible click when it is plugged into an adapter. At the rear of the connector is a boot that will accept two 600 or 900-micron buffered fibers. Junior connectors are most commonly used for applications such as pigtail splicing or transition assemblies where multi-fiber connectors break out to multiple duplex connectors within the same module or panel.

SN° Junior connectors are compatible with standard SN° adapters and SC Footprint SN° adapters.

FEATURES

- Meets IEC random mating Grade B
- Upper latch mechanism with an audible click
- Reduced connector/boot length
- Single boot for $2 \times 600/900 \mu m$ buffered fibers
- UPC and APC versions available
- Proven LC ferrule technology
- Extra small for space-limited applications

APPLICATIONS

- Pigtail splicing modules and panels
- Coherent and On-Board optics
- MPO/SN-MT to SN[®] transition modules
- Optoelectronic equipment
- Shallow-depth cassettes

KEY BENEFITS

Reduced connector length

SN° JUNIOR CONNECTOR 1-channel (2F)

Mechanical Data

Durability	
Fiber Count	
Cable Suitablity	
Ferrule Material	
Dust Protection Method	

Optical Data

		Singlemode					
	U	PC	A	ММ			
	SM Premium Low Loss	SM Premium	SM Premium Low Loss	SM Premium	Premium		
Typical Insertion Loss (dB)*	0.05	0.08	0.07	0.12	0.05		
Max. Insertion Loss (dB)*	0.15	0.20	0.15	0.25	0.15		
Typical Return Loss (dB)*	2	≥55		≥65			
Ferrule Diameter (µm)		12	5.5	127			

* Based on master grade jumper to low loss random mating test



E-1.1

Value

500 matings per TIA-568

Duplex (2 fibers)

2 x 600/900µm buffered fibers

Zirconia

PERF	DRMANCE HOUSING COLOR		ING COLOR	BOOT	COLOR
151	SM Premium	1	Blue	1	White
158	SM Premium Low Loss	5	Aqua		
251	MM Premium	6	Heather Violet		

PERF	DRMANCE	HOUSING COLOR		BOOT	COLOR
153	APC Premium	3	Green	1	White
158	APC Premium Low Loss				
- 613 - 153 - 31 ORDER CODE example					



SN° CONNECTOR Compact, 1-channel (2F)

Mechanical Data

C	Durability	
F	Fiber Count	
C	Cable Suitablity	
F	Ferrule Material	
C	Dust Protection Method	

Optical Data

		Singlemode			Multimode	
	U	UPC		APC		
	SM Premium Low Loss	SM Premium	SM Premium Low Loss	SM Premium	Premium	
Typical Insertion Loss (dB)*	0.05	0.08	0.07	0.12	0.05	
Max. Insertion Loss (dB)*	0.15	0.20	0.15	0.25	0.15	
Typical Return Loss (dB)*	≥55		≥(≥25		
Ferrule Diameter (µm)	125		5.5	127		

* Based on master grade jumper to low loss random mating test



SN° CONNECTOR		
Compact		
1-Channel (2F)		
BTW (Behind The Wall)	SN Compact Adapter	SN Compact Connector

SENKO's SN° Compact connector is explicitly designed for the SN° Compact adapter series in BTW (Behind The Wall) applications and is often deployed inside miniature cassette systems with little or no space above or below the adapters. The compact series allows for 3-channel and 6-channel configurations to suit different cassette types and fiber counts.

The SN° Compact Connector features a latch-locking mechanism to confirm engagement with the adapter and uses industry-standard 1.25 mm ferrule technology that has been used in LC connectors for decades.

SENKO offers product development support for hardware vendors and solution providers that want to adapt the SN° compact series to fit their particular fiber-management system or application.

FEATURES

- Meets IEC random mating Grade B
- Upper latch mechanism with an audible click
- Reduced connector height for low-profile cassette systems
- Works with SN[®] Compact adapters
- Single boot for $2 \times 600/900 \,\mu\text{m}$ buffered fibers
- UPC and APC versions are available
- Proven LC ferrule technology

APPLICATIONS

- Miniature low-profile cassettes
- High-density patch panels
- 1RU panels with three rows of adapters
- Front access fiber management systems

KEY BENEFITS

Reduced connector height

E-1.1

Value

500 matings per TIA-568

Duplex (2 fibers)

2 x 600/900 µm buffered fibers

Zirconia

PERF	DRMANCE	HOUSING COLOR		BOOT	COLOR
151	SM Premium	1	Blue	1	White
158	SM Premium Low Loss	5	Aqua		
251	MM Premium	6	Heather Violet		

PERFORMANCE		HOUSING COLOR		BC	BOOT COLOR	
153	APC Premium	3	Green	1	1	White
158	APC Premium Low Loss					
	ly called the PTW2 Connector			• <mark>616</mark> - 153 •	- 31	ORDER CODE example

SN° MINI CONNECTOR 1-Channel (2F) **BTW (Behind The Wall)**



The SN° Mini connector is the shortest connector in the SN° family and offers users the most space-efficient solution for applications demanding optimized BTW (Behind The Wall) space-saving. In combination with SN° Mini adapters, as much as 14.1 mm can be saved compared with standard adapters and connectors, making it the ideal solution for opto-electronic applications requiring circuit boards or other vital components to share the same BTW space as fiber optic connectivity.

The SN° Mini connector is a duplex design that combines two spring loaded 1.25 mm ceramic ferrules in a single miniature housing. On the upper face of the connector, there is a latch locking mechanism to maintain secure engagement to the adapter providing users with the additional benefit of an audible click.

FEATURES

- Up to 70% BTW space-saving compared with standard connectors
- Accepts 2 x 600/900 µm buffered fibers
- Uses proven LC ferrule technology
- Integrated upper latch for secure coupling
- Supports 200G/400G VSFF connectivity
- Telcordia, ANSI, TIA and IEC compliant
- Color-code for to denote optical performance

APPLICATIONS

- Coherent optic systems
- WDM systems
- Optoelectronic devices
- Automated robotic switches
- Ultra-short cassettes and modules

KEY BENEFITS

🧹 Maximum BTW space



SN° MINI CONNECTOR 1-channel (2F)

Mechanical Data

Durability	
Fiber Count	
Cable Suitablity	
Ferrule Material	
Dust Protection Method	

Optical Data

		Singlemode			Multimode	
	U	UPC		APC		
	SM Premium Low Loss	SM Premium	SM Premium Low Loss	SM Premium	Premium	
Typical Insertion Loss (dB)*	0.05	0.08	0.07	0.12	0.05	
Max. Insertion Loss (dB)*	0.15	0.20	0.15	0.25	0.15	
Typical Return Loss (dB)*	2	≥55		≥65		
Ferrule Diameter (µm)		125.5				

* Based on master grade jumper to low loss random mating test



E-1.1

Value

500 matings per TIA-568

Duplex (2 fibers)

2 x 600/900 µm buffered fibers

Zirconia

PERFORMANCE		HOU	ISING COLOR
151	SM Premium	1	Blue
158	SM Premium Low Loss	5	Aqua
251	MM Premium	6	Heather Violet

SN° CONNECTORS



The SN[®] Uniboot is a revolutionary connector that allows four duplex SN[®] connectors to be patched simultaneously in one operation. Subsequently, the SN° Uniboot offers the same degree of flexibility as an MPO 8-fiber connector but without the need for breakout cassettes or fan-out cables to transition from Base-8 to Base-2. This dual functionality makes the SN° Uniboot granular enough for duplex server connections, optimized for high-density trunks and the perfect match to high data rate transceivers utilizing four optical lanes (8 fibers).

The SN° Uniboot is the first telco-grade connector that combines the performance and reliability of ceramic ferrules with the modularity and scalability of the MPO connector. Network operators can now build networks that are more cost effective, more flexible and provide extended reach at higher data rates.

The SN° Uniboot connector boasts a distinctive feature, as it can be adjusted to accommodate either narrow adapters (those without walls between ports) or wide adapters (equipped with walls between ports). The SN[®] Uniboot is only compatible with adapters that have 4-ports vertically aligned.

FEATURES

- Fast patching with uniboot design
- Base-8 and Base-2 compatibility
- Allows up to 432 fibers per 1RU (Rack Unit)
- Eliminates the need for fan-outs and cassettes
- Provides ferrule-based alternative to MPO
- Increased flexibility and extended reach
- Significantly lower total cost of ownership
- Telco grade optics with zirconia ferrules
- Less complexity versus MPO
- Suitable for adapters with or without walls between ports

APPLICATIONS

- Base-2 server consolidation
- Base-8 switch replication
- Telco exchanges
- Broadcast
- Enterprise network
- Colocation data centers
- Finance data centers
- Backbone trunk cabling

KEY BENEFITS

- Base-8 and Base-2 compatibility
- Trunk cable systems

SN° UNIBOOT CONNECTOR 4-channel (8F)

Mechanical Data

Durability	
Fiber Count	
Cable Suitablity	
Ferrule Material	
Dust Protection Method	

Optical Data

		Singlemode			Multimode	
	UI	UPC		APC		
	SM Premium Low Loss	SM Premium	SM Premium Low Loss	SM Premium	Premium	
Typical Insertion Loss (dB)*	0.05	0.08	0.07	0.12	0.05	
Max. Insertion Loss (dB)*	0.15	0.20	0.15	0.25	0.15	
Typical Return Loss (dB)*	≥55		≥(≥25		
Ferrule Diameter (µm)	12		5.5	127		

* Based on master grade jumper to low loss random mating test



E-1.1

Va	lue

500 matings per TIA-568

Base-8 (8 fibers)

8-fiber micro cable

Zirconia

Leading the Fiber Optic Revolution

885+ million connectors deployed globally 97+ million connectors sold in 2022 **15** new products released in 2020

590 patents granted globally **90+** VSFF patents globally



SN[®] ADAPTERS



SN[®]ADAPTER



Compact and modular adapters in a wide range of footprints to deliver maximum patch panel density across the network



SENKO's Adapters Designed for the Next Generation Data Centers



Standard 1 and 4-channel adapters for high-density patch panels





E-1.2

Compact adapters for low-profile miniature cassette systems





SN° *MINI ADAPTER*

Mini adapters for maximum BTW space-saving



• SN° Mini

pg. 54



Adapter Selection Guide

FRONT Connector Options

BTW Connector Options



SN° *ADAPTER* Suitable for Most Applications

The SN[°] adapters can maximize port density while having the same footprint size as QSFP-DD transceivers. The 1-channel (2 fibers) is designed for applications requiring the separation of individual optical channels such as coherent optics or wave-splitting. The 4-channel (8 fibers) version allows operators to replicate switch-ports with inter-connected patch panels on a 1:1 basis. Shuttered and nonshuttered configurations available.



SN° *SC/LC FOOTPRINT ADAPTER* Retro-Fittable to SC/LC Footprint

Upgrade your system to SN[®]hyper-density without redesigning your current panels or hardware. The SC/LC footprint adapters are designed to fit legacy hardware incorporating an SC/LC cut-out, maximizing your current set-up without a costly overhaul.

These retro-fittable adapters are the ideal choice for cabling providers or equipment manufacturers. The 2-channel adapter fits into legacy hardware incorporating the SC duplex (LC quad) cut-out, while the 4-channel version incorporates the SC duplex (LC quad) cut-out.

E-1.1

E-1.1

Real World Applications







Adapter Selection Guide

Real World Applications









SN° COMPACT ADAPTER Lowest Height for BTW Cassettes

These compact adapters are designed for low-profile modular cassette systems that have little or no space above or below the adapter for fixing elements. It is held in place by the base and top cover of the cassette with sprung clips on the upper and lower face of the adapter. The 3-channel type fits legacy hardware incorporates the SC simplex (LC duplex) cut-out, and the 6-channel version is designed to fit the SC duplex (LC quad) cut-out.

SN° *MINI ADAPTER* Most Space-effecient BTW

Maximize packing density and save space all at once with the SN[®] Mini adapter. Designed to increase the packing density at the front of patch panels whilst significantly reducing the space consumption at the rear of the panel for BTW (Behind The Wall), this small adapter serves a big purpose. In combination with SN° Mini connectors, as much as 14.1mm can be saved compared with standard adapters and connectors, making it the ideal solution for optoelectronic applications.

E-1.1





Sustainability

The density of SN[®] and SN[®]-MT connectors allows operators to reduce the number of transceivers, switches, power-consumption, and racks needed to operate their data centers or telecom exchanges.





SN[®] NON-SHUTTERED



SN Adapt

with Walls 4CH (8F)

SN° ADAPTER **Standard with Walls** SN Uniboot & Gang-clip 1 (2F) and Compatible (4CH) SN Adapter with Walls 1CH (2F) 4-Channel (8F)

SENKO's SN° adapters with walls are available either as a 1-channel (2 fibers) or 4-channel variant (8 fibers). The single channel is designed for applications requiring the separation of individual optical channels such as coherent optics or wave-splitting. The 4-channel version is designed to maximize port density within patch panels.

This adapter is the same size as the shuttered version, and due to its compact size, users can achieve the highest possible density within patch panels and distribution frames. Up to 432 fibers can be presented in a single 1RU (Rack Unit) subject to cable management and connector-access limitations.

All of SENKO's SN° adapters are designed either to be snapped into panel cut-outs or screwed into place using an appropriate bolt and nut. Adapters incorporating an integrated fixing flange will require additional space between each cut-out.

FEATURES

- Premium one-piece body design
- Up to 432 fibers per 1RU (Rack Unit)
- Same the same size as the shuttered version
- Accepts SN[®] standard and junior connectors
- Supports 200G/400G VSFF connectivity
- Color coded for rapid identification of fiber-type
- Telcordia, ANSI, TIA and IEC Compliant
- Identification marking for fast and simple connector alignment

APPLICATIONS

- High-density patch panels
- Spine/ILeaf architectures
- Switch replication
- Opto-electronic equipment
- WDM equipment
- MUX and DEMUX equipment
- Mass server consolidation EoR, MoR

KEY BENEFITS



SN° ADAPTER

Standard with walls, 1-channel (2F) and 4-channel (8F)

Mechanical Data

Durability	
Fixing Method	Snap-fit (
Housing Material Type	
Fixing Spring Material Type	
Sleeve Material	
Dust Protection Method	

Optical Data

	Value
Typical Insertion Loss (dB)*	0.10
Max. Insertion Loss (dB)*	0.20

* Based on master grade jumper to low loss random mating test

Environmental Data

Value
-40°C to +75°C
2015/863 RoHS
Yes
Yes
95%

ORDERING



1CH (4F)

691W SN 1-Channel (2F) with Wall Adapter SN 4-Channel (8F) with Wall Adapted

Note: Adapter supplied with protective dust-cap on both sides * Top mount for 694W only

E-1.1

M_{2}	110
Va	lue

500 matings per TIA-568

(adapter without flange) or screw and nut (adapter with flange)

Plastic

Metal stainless steel

Zirconia

Removable dust plugs

	FLA	NGE	HOU	SING COLOR
	1	With Flange	1	Blue (SM PC/UPC)
	2	Without Flange	3	Green (SM APC)
	3	Top Mount*	7	Heather Violet (MM OM4)
			9	Aqua (MM OM3)

SN[®] SHUTTERED



SENKO's SN° shuttered adapters are available either as a 1-channel (2 fibers) or 4-channel variant (8 fibers). The single channel is designed for applications requiring the separation of individual optical channels such as coherent optics or wave-splitting. The 4-channel (8 fibers) version is designed for maximizing port density within patch panels.

This adapter is slightly larger than the non-shuttered version due to the addition of dividing walls that support the integrated shutters. When the connector is inserted into the adapter, the body of the connector (not the ferrule) pushes the shutter open so that the ferrules can be guided into the adapter sleeve.

All of SENKO's SN° adapters are designed either to be snapped into panel cut-outs or screwed into place using an appropriate screw and nut. Adapters incorporating an integrated fixing flange will require additional space between each cut-out.

FEATURES

- Premium one-piece body design
- Maximum density 216CH/432F in 1RU
- Integrated shutter reduces the impact of contaminents
- Accepts SN[®] standard and junior connectors
- Supports 200G/400G VSFF connectivity
- Color-coded for rapid identification of fiber-type
- Telcordia, ANSI, TIA, and IEC compliant
- Identification marking for fast and simple connector alignment

APPLICATIONS

- High-density patch panels
- Spine/leaf architectures
- High-density cross-connects
- Switch replication
- Opto-electronic equipment
- MUX and DEMUX equipment
- Mass server consolidation EoR, MoR

KEY BENEFITS

- Integrated shutter
- Optimum panel packing density

SN° ADAPTER

SENKO

Advanced Components

Standard, shuttered, 1-channel (2F) and 4-channel (8F)

Mechanical Data

Durability	
Fixing Method	Snap-fit (
Housing Material Type	
Shutter Material Type	
Sleeve Material	
Dust Protection Method	Integr

Optical Data

	Value
Typical Insertion Loss (dB)*	0.10
Max. Insertion Loss (dB)*	0.20

* Based on master grade jumper to low loss random mating test

Environmental Data

	Value
Operating Temperature	-40°C to +75°C
RoHS Compliance	2015/863 RoHS
REACH Compliance	Yes
Free of Halogen	Yes
Humidity Resistance	95%

ORDERING

E-1.1



Note: Adapter supplied with protective dust-cap on both sides

* Top mount for 69D only

69A SN 1-Channel (2F) Shuttered Adapte

69D SN 4-Channel (8F) Shuttered

E-1.1

Value

500 matings per TIA-568

(adapter without flange) or screw and nut (adapter with flange)

Plastic

Metal stainless steel

Zirconia

rated shutter mechanism (operated by connector insertion)

	FLAN	GE	HOU	SING COLOR
	1	With Flange	1	Blue (SM PC/UPC)
	2	Without Flange	3	Green (SM APC)
	3	Top Mount [*]	7	Heather Violet (MM 0M4)
			9	Aqua (MM OM3)
69D - 17 ORDER CODE example				

SN[®] NON-SHUTTERED



SN° ADAPTER Non-Shuttered SC/LC-Footprint 2 (4F) and 4-Channel (8F)



SENKO's SN° SC/LC-footprint non-shuttered adapters are available either as a 2-channel (4 fibers) or 4-channel (8 fibers) variant. The 2-channel type is designed to fit to legacy hardware incorporating an SC simplex (LC duplex) cutout. The 4-channel version is designed to fit into legacy hardware incorporating the SC duplex (LC quad) cut-out.

These retro-fittable adapters are the ideal choice for cabling providers or equipment manufacturers that want to upgrade their existing systems to SN° hyper-density without redesigning new panels or hardware. Each adapter will double the density of existing LC-based hardware and subsequently reduce the total cost per port of the overall system. Operators can benefit from significantly reduced rack consumption and improve their RU (Rack Unit) revenue-efficiency accordingly.

SC/LC-footprint, non-shuttered adapters can be stacked side-by-side within extended multi-adapter panel cut-outs without consuming additional space beyond the SC/LC footprint size. For example 6x adapters could be place in one elongated slot if necessary.

FEATURES

- Retro-fittable to standard SC/LC panel cut-outs
- Double the patch-panel density of LC
- Accepts SN[®] standard and junior+ connectors
- Supports 200G/400G VSFF connectivity
- Color coded for rapid Identification of fiber-type
- Telcordia, ANSI, TIA and IEC compliant

APPLICATIONS

- Upgrading existing fiber management hardware from SC/LC to SN®
- Improved rack-space utilization in Brownfield data centers
- High-density centralized cross-connects and patch panels
- Mixed fiber panels combining different connector types

KEY BENEFITS

Retro-fittable to SC/LC cut-outs

Stackable side by side within SC/LC footprint

SN° ADAPTER

Non-shuttered, SC/LC-footprint, 2-channel (4F) and 4-channel (8F)

Mechanical Data

Durability	
Fixing Method	Snap-fit (
Housing Material Type	
Fixing Spring Material Type	
Sleeve Material	
Dust Protection Method	

Optical Data

Typical Insertion Loss (dB)*	
Max. Insertion Loss (dB)*	

* Based on master grade jumper to low loss random mating test

Environmental Data

Value
-40°C to +75°C
2015/863 RoHS
Yes
Yes
95%

ORDERING

E-1.1



Note: Adapter supplied with protective dust-cap on both sides

E-1.1

Value

500 matings per TIA-568

(adapter without flange) or screw and nut (adapter with flange)

Plastic

Metal stainless steel

Zirconia

Removable dust plugs

Value	
0.10	
0.20	

SN[®] SHUTTERED



SN° ADAPTER Shuttered **SC/LC-Footprint** 2 (4F) and 4-Channel (8F)



SENKO's SN° SC/LC-footprint shuttered adapters are available either as a 2-channel (4 fibers) or 4-channel (8 fibers) variant. The 2-channel type is designed to fit to legacy hardware incorporating an SC simplex (LC duplex) cut-out. The 4-channel version is designed to fit into legacy hardware incorporating the SC duplex (LC quad) cut-out.

These retro-fittable adapters are the ideal choice for cabling providers or equipment manufacturers that want to upgrade their existing systems to SN° hyper-density without redesigning new panels or hardware. Each adapter will double the density of existing SC/LC-based systems and subsequently reduce the total cost per port of the overall system. Operators can benefit from significantly reduced rack consumption and improve their RU (Rack Unit) revenue-efficiency accordingly.

SN° ADAPTER

Shuttered, SC/LC-footprint, 2-channel (4F) and 4-channel (8F)

Mechanical Data

Durability	
Fixing Method	Snap-fit (
Housing Material Type	
Fixing Spring Material Type	
Sleeve Material	
Dust Protection Method	Integr

Optical Data

	Value
Typical Insertion Loss (dB)*	0.10
Max. Insertion Loss (dB)*	0.20

* Based on master grade jumper to low loss random mating test

Environmental Data

	Value
Operating Temperature	-40°C to +75°C
RoHS Compliance	2015/863 RoHS
REACH Compliance	Yes
Free of Halogen	Yes
Humidity Resistance	95%

FEATURES

- Retro-fittable to standard SC/LC panel cut-outs
- Double the patch-panel density of LC
- Integrated shutter reduces impact of dust and dirt ingress
- Accepts SN[®] standard and junior+ connectors
- Supports 200G/400G VSFF connectivity
- Color coded for rapid identification of fiber-type
- Telcordia, ANSI, TIA and IEC compliant

APPLICATIONS

- Upgrading existing fiber management hardware from SC/LC to SN°
- Improved rack-space utilization in Brownfield data centers
- High-density centralized cross-connects and patch panels
- Mixed fiber panels combining different connector types

KEY BENEFITS

Integrated shutter

Retro-fittable to SC/LC cut-outs

ORDERING

E-1.1



Value

500 matings per TIA-568

(adapter without flange) or screw and nut (adapter with flange)

Plastic

Metal stainless steel

Zirconia

rated shutter mechanism (operated by connector insertion)

SN[®] NON-SHUTTERED



SN° ADAPTER Compact 3 (6F) and 6-Channel (12F)



SN° compact adapters are available either as a 3-channel (6 fibers) or 6-channel variant (12 fibers). The 3-channel type is designed to fit to legacy hardware incorporating the SC simplex (LC duplex) cut-out, and the 6-channel version is designed to fit legacy hardware incorporating the SC duplex (LC quad) cut-out.

These compact adapters are designed to be placed side by side in low-profile modular cassette systems that have little or no space above or below the adapter for fixing elements. The compact adapter is held in place by the base and top cover of the cassette, and therefore spring clips are placed on the upper and lower face of the adapter. The BTW (Behind The Wall) side of the adapter is lower in height than the front of the adapter to compensate for the material wall thickness of the cassette.

To achieve this reduced adapter height on the inside of the cassette, SENKO has designed the complimentary SN° compact connector which is an essential component when integrating this adapter into your system.

FEATURES

- Triple the patch-panel density of LC
- Designed for lowest profile modular cassette systems
- Accepts SN[®] compact connector (BTW side) and SN[®] standard connector (front side)
- Supports 200G/400G VSFF connectivity
- Color coded for rapid identification of fiber-type
- 3-channel and 6-channel variants available
- Telcordia, ANSI, TIA and IEC compliant

APPLICATIONS

- 1RU chassis with 3x rows of adapters
- Spine/leaf architectures within hyperscale data centers
- Modular low-profile fiber optic cassette systems
- Spine/leaf architectures within hyperscale data centers
- High-density centralized cross-connects
- Mass server consolidation EoR, MoR

KEY BENEFITS



SN° ADAPTER

Compact, 3-channel (6F) and 6-channel (12F)

Mechanical Data

Durability	
Fixing Method	
Housing Material Type	
Fixing Spring Material Type	
Sleeve Material	
Dust Protection Method	

Optical Data

Typical Insertion Loss (dB)*	
Max. Insertion Loss (dB)*	

* Based on master grade jumper to low loss random mating test

Environmental Data

Value
-40°C to +75°C
2015/863 RoHS
Yes
Yes
95%



Note: Adapter supplied with protective dust-cap on both sides

E-1.1

E-1.1

Value	
500 matings per TIA-568	
Snap-fit	
Plastic	
Integrated plastic spring clips	
Zirconia	
Removable dust pPlugs	

Valu	ie
0.1	0
0.2	0

FLANGE TYPE		HOU	HOUSING COLOR	
pter	3	Top Mount	1	Blue (SM PC/UPC)
apter			3	Green (SM APC)
			7	Heather Violet (MM 0M4)
			9	Aqua (MM 0M3)
				693 - 37 ORDER CODE example

SN[®] SHUTTERED



SN° *MINI ADAPTER*

Shuttered, SN-footprint, 4-channel (8F)

Mechanical Data

Durability	
Fixing Method	
Housing Material Type	
Shutter Material Type	
Sleeve Material	
Dust Protection Method	Integ

Optical Data

	Value
Typical Insertion Loss (dB)*	0.10
Max. Insertion Loss (dB)*	0.20

* Based on master grade jumper to low loss random mating test

Environmental Data

	Value
Operating Temperature	-40°C to +75°C
RoHS Compliance	2015/863 RoHS
REACH Compliance	Yes
Free of Halogen	Yes
Humidity Resistance	95%

ORDERING



6MD SN 4-Channel (8F) Mini Shuttered Ada

Note: Adapter supplied with protective dust-cap on both sides

SN°*MINI ADAPTER* **Shuttered SN-Footprint** 4-Channel (8F)



SENKO's SN° Mini, shuttered, 4-channel (8 fibers) adapters are designed to offer maximum packing density at the front of patch panels while significantly reducing the space consumption at the rear of the panel for BTW (Behind The Wall) connectivity. In combination with SN° Mini connectors, as much as 14.1mm can be saved compared with standard adapters and connectors, making it the ideal solution for opto-electronic applications requiring circuit boards or other vital components to share the same space as fiber the optic connectivity. The SN° Mini adapter incorporates integrated dust shutters on the front side to prevent unwanted contaminants entering the adapter during operation. When the connector is patched to the adapter, the body of the connector (not the ferrule) pushes the shutter open allowing the ferrules to be guided into the adapter sleeve.

All of SENKO's SN° adapters are designed either to be snapped into panel cut-outs or screwed into place. Adapters incorporating an integrated fixing flange will require additional space between each cut-out and the maximum density per 1 RU (Rack Unit) will be lower.

FEATURES

- Up to 70% BTW space saving compared with standard adapters and connectors
- Maximum density 216CH/432F in 1RU
- Integrated shutter reduces impact of dust and dirt ingress
- Accepts SN[®] standard and Mini connectors
- Supports 200G/400G VSFF connectivity
- Color coded for rapid Identification of fiber-type
- Telcordia, ANSI, TIA and IEC compliant
- Identification marking for fast and simple connector alignment

APPLICATIONS

- Customized opto-electronic equipment
- Highest packing density within patch panels
- Spine/Leaf architectures within hyperscale data centers
- High-density switch replication
- High-density centralized cross-connects
- Mass server consolidation EoR, MoR

KEY BENEFITS

- Integrated dust shutter
- Maximum BTW space

E-1.1

Va	lue
	-uc

500 matings per TIA-568

Snap-fit

Plastic

Metal stainless steel

Zirconia

rated shutter mechanism (operated by connector insertion)

	FLAN	IGE TYPE	HOUSING COLOR			
pter	1	With Flange	1	Blue (SM PC/UPC)		
	2	Without Flange	3	Green (SM APC)		
			7	Heather Violet (MM 0M4)		
			9	Aqua (MM OM3)		
				1		

HYPERSCALE DENSIFICATION

Future-proof your network with the SN[°]-MT Family

SN[®]-MT can be used in highdensity patch panels to connect legacy MPO-based transceivers today, and then in the future, they can be redeployed to connect nextgeneration transceivers using the SN[®]-MT interface.

> Density Increase Compared to MPO-16F

HYPER DENSE

Same

Footprint

As SN° Connector





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+

Let Go of the Past. Connect With the Now.

UPGRADE CABLE SYSTEMS increase density and improve reliability with best-in-class performance





Roadmap

to the Future

Hyperscale Data Centers SN-MT Trasceivers

SN[®]-MTSERIES

SN[®]-MTSERIES

RoHS, Reach SVHC and

Connect with the now - the journey to 1.6TB has already begun









Standard 1, 2, 4 and 6-port adapters for high-density patch panels



SN-MT Non-Shuttered Adapter

E-1.2

pg. 78



SENKO's SN[®]-MT for Hyperscale Density





Shuttered 1, 2, 4 and 6-port adapters for enhanced ingress protection



SN-MT Shuttered Adapter

pg. 80

FEATURED BENEFITS

Turn down the heat

Improve air flow to equipment and reduce energy consumption with SN[®] and SN[®]-MT









E-1.1



SN°-MT Shuttered Adapters

Integrated shutters on each port reduces the impact of dirt and dust ingress and offers a degree of laser protection for the user.





SN°-MT CONNECTOR 16 and 32-Fiber 200 µm, Single Row 2.0 mm Cable



SENKO's SN⁻-MT is an extension of the SN^e range and incorporates a single, compact SN⁻-MT ferrule with 16 x 200 µm fibers in a single row. Subsequently, the SN°-MT ferrule can achieve 2.7 times the density of MPO16 whilst leveraging the same proven alignment methods. This combination ensures low-loss performance for singlemode and multimode APC applications whilst delivering optimized patch-panel density required in today's Hyperscale data centers.

The SN°-MT further increases the density capabilities of the SN° family by providing a patch panel density of 3,456 fibers per 1RU. This is as much as 3 x the density of MPO16 connectors occupying the same rack space. Additionally, the SN°-MT is compatible with next-generation 200 µm 'rollable ribbon' cables that significantly reduce the cable congestion within cable pathways and trunks. The SN⁻MT connector is also suitable for ganged installations where as many as four connectors can be patched simultaneously to a 4-port adapter. This function converts the connector from a 16f connector to a 64f connector and makes it ideal for high-density trunk applications.

FEATURES

- Compatible with 200 µm rollable ribbon cables
- Allows up to 3,456 fibers per 1RU
- Low-loss, compact SN-MT ferrule
- 2.7 x denser than MPO16 per 1RU
- 1.3 x denser than MPO32 per 1RU
- Max. insertion loss 0.35 dB
- Push-pull boot for fast and simple MACs
- Optimized for 800G data rates with QSFP-DD, OSFP and SFP-DD transceivers
- Up to 4 x SN[®]-MT connectors per transceiver
- Wide range of connector and adapter types for legacy upgrades or greenfield applications

APPLICATIONS

- High-density trunks and patching
- Co-packaged optics
- High-density, high-data rate switches
- Al and super-compute clusters
- QSFP-DD and OSFP transceiver links
- Hyperscale, edge, enterprise and colocation data centers

KEY BENEFITS

2.7 x denser than MPO ✓ Future-proofed for next-gen data rates

SN°-MT CONNECTOR

16 and 32-fiber, 200 µm, single row

Mechanical Data

	Value
Durability	50 matings per GR-1435-Core
Fiber Count	Multi-fiber (16 or 32 Fibers)
Cable Suitablity	2.0 mm jacketed
Ferrule Material	Polymer
Dust Protection Method	Removable dust plugs that encapsulate the ferrules

Optical Data

	Singlemode	Multimode		
	APC	MM (APC)		
	SM Premium Low Loss	Premium		
Typical Insertion Loss (dB)*	0.15	0.15		
Max. Insertion Loss (dB)*	0.35	0.35		
Typical Return Loss (dB)*	≥60	≥45		
Ferrule Diameter (µm)	SN-MT ferrule 16-fiber,	200 μm in a single row		

* Specifications provided are target only based on master grade jumper to low loss random mating test



E-1.2

E-1.2

									_	
	PERF	ORMANCE	FIBE	R COUNT	HO	USING COLOR	BO	OT TYPE	BOO	OT COLOR
n)	SL	SM Super	16	16 Fiber	G	SM Green	1	Bare Ribbon Fiber Boot	3	Black
		Low Loss		(200 µm)			4	50mm Boot (50T), 2mm		
			32	32 Fiber			5	70 mm Boot (70T), 3mm		
				(200 µm)						
	PERF	ORMANCE	FIRF	R COUNT	HC	USING COLOR	BO	OT TYPE	BOC	OT COLOR
in)	SL	SM Super	16	16 Fiber	G	SM Green	2	44mm Boot (44T),	1	White
		Low Loss		(200 µm)				2.6mm	3	Black
			32	32 Fiber			3	44mm Boot (44T),		
				(200 µm)				3.0mm		
	PERF	ORMANCE	FIBE	R COUNT	HC	USING COLOR	BO	OT TYPE	BOC	OT COLOR
in)	ML	MM Low	16	16 Fiber	В	MM Black	1	Bare Ribbon Fiber Boot	3	Black
		Loss		(200 µm)			4	50 mm Boot (50T), 2mm		
			32	32 Fiber			5	70 mm Boot (70T), 3mm		
				(200 µm)						
dust-	cap					ntac ENKO		Contact sales@sen for availability and to		



SN°-MT CONNECTOR 12 and 24-Fiber 250 µm, Single Row 2.0 mm Cable



SENKO's SN⁻-MT is an extension of the SN^e range and incorporates a single, compact SN⁻-MT ferrule with 12 x 250 µm fibers in a single row. Subsequently, the SN°-MT ferrule can achieve 2.7 times the density of MPO16 whilst leveraging the same proven alignment methods. This combination ensures low-loss performance for singlemode and multimode APC applications whilst delivering optimized patch-panel density required in today's Hyperscale data centers.

The SN°-MT further increases the density capabilities of the SN° family by providing a patch panel density of 3,456 fibers per 1RU. This is as much as 3 x the density of MPO16 connectors occupying the same rack space. Additionally, the SN°-MT is compatible with next-generation 250 µm 'rollable ribbon' cables that significantly reduce the cable congestion within cable pathways and trunks. The SN⁻MT connector is also suitable for ganged installations where as many as four connectors can be patched simultaneously to a 4-port adapter. This function converts the connector from a 12f connector to a 64f connector and makes it ideal for high-density trunk applications.

FEATURES

- Compatible with 250 µm rollable ribbon cables
- Allows up to 3,456 fibers per 1RU
- Low-loss, compact SN-MT ferrule
- 2.7 x denser than MPO16 per 1RU
- 1.3 x denser than MPO32 per 1RU
- Max. insertion loss 0.35 dB
- Push-pull boot for fast and simple MACs
- Optimized for 800G data rates with QSFP-DD, OSFP and SFP-DD transceivers
- Up to 4 x SN[®]-MT connectors per transceiver
- Wide range of connector and adapter types for legacy upgrades or greenfield applications

APPLICATIONS

- High-density trunks and patching
- Co-packaged optics
- High-density, high-data rate switches
- Al and super-compute clusters
- QSFP-DD and OSFP transceiver links
- Hyperscale, edge, enterprise and colocation data centers

KEY BENEFITS

2.7 x denser than MPO

✓ Future-proofed for next-gen data rates

SN°-MT CONNECTOR

12 and 24-fiber, 250 µm, single row

Mechanical Data

	Value
Durability	50 matings per GR-1435-Core
Fiber Count	Multi-fiber (12 or 24 Fibers)
Cable Suitablity	2.0 mm jacketed
Ferrule Material	Polymer
Dust Protection Method	Removable dust plugs that encapsulate the ferrules

Optical Data

	Singlemode	Multimode		
	APC	MM (APC)		
	SM Premium Low Loss	Premium		
Typical Insertion Loss (dB)*	0.15	0.15		
Max. Insertion Loss (dB)*	0.35	0.35		
Typical Return Loss (dB)*	≥60	≥45		
Ferrule Diameter (µm)	SN-MT ferrule 12-fiber,	250 μm in a single row		

* Specifications provided are target only based on master grade jumper to low loss random mating test



E-1.2

E-1.2

	PERF	ORMANCE	FIBE	R COUNT		HOU	SING COLOR	BOO	OT TYPE	BOO	OT COLOR
1)	SL	SM Super	12	12 Fiber		G	SM Green	1	Bare Ribbon Fiber Boot	3	Black
		Low Loss		(250 µm)				4	50mm Boot (50T), 2mm		
			24	24 Fiber				5	70 mm Boot (70T), 3mm		
				(250 µm)							
	PERF	ORMANCE	FIBE	R COUNT		HOU	SING COLOR	BO	OT TYPE	BO(OT COLOR
n)	SL	SM Super	12	12 Fiber		G	SM Green	2	44mm Boot (44T),	1	White
		Low Loss		(250 µm)					2.6mm	3	Black
			24	24 Fiber				3	44mm Boot (44T),		
				(250 µm)					3.0mm		
								_			
	PERF	ORMANCE	FIBE	R COUNT		HOUSING COLOR		BOOT TYPE		BOOT COLOR	
n)	ML	MM Low	12	12 Fiber		В	MM Black	1	Bare Ribbon Fiber Boot	3	Black
		Loss		(250 µm)				4	50 mm Boot (50T), 2mm		
			24	24 Fiber				5	70 mm Boot (70T), 3mm		
				(250 µm)							
dust-cap Contact sales@senko.com SENKO for availability and to learn											

SN°-MT CONNECTORS



SN[®]-MT GANG-CLIPS Quad and Duplex Design for QSFP-DD and SFP-DD Transceivers



SENKO's SN[®]-MT Gang-clips are designed to hold two or four individual SN[®]-MT connectors side by side so they can be plugged into either 4-port QSFP-DD, OSFP or 2-port SFP-DD transceivers simultaneously. This speeds up the patching time and simplifies the process of patching multiple connectors - it also allows the four duplex connectors to act as a single Base-4 or Base-8 connector.

The Gang-clip is generally deployed in transceiver breakout applications where, for example, a single 400G transceiver is broken out to 4 x 100G transceivers within spine-leaf architectures.

FEATURES

- Allows multiple SN[®]-MT connectors to be patched simultaneously
- The compact design prevents interference with transceiver pull-tab
- Suitable for QSFP-DD, OSFP and SFP-DD transceivers

APPLICATIONS

- Transceiver breakout applications
- Spine-leaf architectures
- Hyperscale data centers
- Patching to standard SN*-MT non-shuttered adapters

SN°-MT *GANG-CLIPS* Quad and Duplex Designs

SN[®]-MT *GANG-CLIPS* Quad Design for 4-Port Shuttered Adapters

SENKO's SN[®]-MT Gang-clips are designed to hold four individual SN[®]-MT connectors side by side so they can be plugged into shuttered adapters (or adapters with walls between each channel) simultaneously. This unique functionality dramatically reduces the installation time required to patch multiple connectors to high-density patch panels, as well as allowing the four SN[®]-MT connectors to act as one Base-64 connector (subject to connector-fiber count).

The Gang-clip can be used to combine four individual connectors from SN[°]-MT cords or alternatively, four connectors from a breakout cable or fanout cable. The Gang-clip is a critical solution in applications where multiple connectors are being patched to the rear side of patch panels. Individual SN[°]-MT connectors can be inserted or removed from the 4-port gang-clip thanks to flexible locking clips located on the upper face of the clip.

FEATURES

- Allows multiple SN[®]-MT connectors to be patched simultaneously
- Connectors can be individually inserted and removed
 without disruption to adjacent connectors
- Compact design
- Suitable for shuttered 4-channel SN[®]-MT adapters





ORDERIN

PART



602-CLIP-QD-01 Metal Quad Gang-clip for QSFP-DD and OSFP Transceiver Types

602-CLIP-DX-02 Metal Duplex Gang-clip for SFP-DD Transceiver Types

602-CLIP-DX-02 ORDER CODE example



APPLICATIONS

- Spine-Leaf switch connections
- Patch cord consolidation
- Breakout and fanout cable assemblies
- High fiber-count backbone trunks
- Hyperscale data centers

641-CLIP-QD-02 Plastic Quad Gang-clip for Shuttered Adapters or Adapters with Walls Between Each Port - Color Black

641-CLIP-QD-02 ORDER CODE example
SN[®]-MTCONNECTORS



SN°-MT JUNIOR CONNECTOR

16 and 32-Fiber with 200 μm, 12 and 24-Fiber with 250 μm

SN[®]-MT JUNIOR CONNECTOR 16 and 32-Fiber, 200 µm 12 and 24-Fiber, 250 µm BTW (Behind The Wall)



The SN[®]-MT Junior connector is designed for applications that require less space consumption BTW (Behind The Wall) than conventional cable-based connectors. With a much shorter body length and boot length than conventional connectors, the SN°-MT Junior offers users the chance to reduce the depth of cassettes and modules as well as free up valuable space within fiber management panels for additional hardware such as coherent devices or electronic equipment.

The SN°-MT Junior connector has a latch on the upper side of the connector that provides an audible click when it is plugged into an adapter. At the rear of the connector is a boot that will accept 16-fiber ribbon with a 200 µm construction. Junior connectors are most commonly used for applications such as high fiber-count ribbon splicing or optoelectronic applications where additional space is required BTW.

The SN°-MT Junior connector is compatible with standard SN°-MT adapters.

FEATURES

- Compatible with 200 µm/ 250 µm rollable ribbon cables
- Upper latch mechanism with an audible click
- Reduced connector/boot length
- Low-loss, compact SN-MT ferrule
- 2.7 x denser than MPO16 per 1RU
- 1.3 x denser than MPO32 per 1RU
- Max. Insertion loss 0.35 dB
- No special adapter required

APPLICATIONS

- High-density ribbon splicing
- Pre-terminated fiber-management
- Co-packaged optics
- Coherent optics
- Optoelectronic equipment panels

KEY BENEFITS

2.7 x denser than MPO

High fiber-count ribbon splicing

Mechanical Data

Durability	
Fiber Count	
Cable Suitablity	
Ferrule Material	
Dust Protection Method	

Optical Data

	Singlemode	Multimode				
	APC	MM (APC)				
	SM Premium Low Loss	Premium				
Typical Insertion Loss (dB)*	0.15	0.15				
Max. Insertion Loss (dB)*	0.35	0.35				
Typical Return Loss (dB)*	≥60	≥45				
Ferrule Diameter (µm)	SN-MT ferrule 16-fiber, 200 μm in a single row SN-MT ferrule 12-fiber, 250 μm in a single row					

* Specifications provided are target only based on master grade jumper to low loss random mating test



E-1.1

E-1.1

Value

50 matings per GR-1435-Core

Multi-fiber (12, 16, 24 or 32 Fibers)

16-fiber, 200 μm ribbon or 12-fiber 250 μm ribbon

Polymer

Removable dust plugs that encapsulate the ferrules

	PERFORMANCE			R COUNT	HOU	ISING COLOR	BO	OT TYPE	BOOT COLOR		
ut Pin)	SL	SM Super	12	12 Fiber (250 µm)	G	SM Green	1	Bare Ribbon	3	Black	
n)		Low Loss	16	16 Fiber (200 μm)				Fiber Boot			
ble			24	24 Fiber (250 µm)							
			32	32 Fiber (200 μm)							
	PERFORMANCE FIBER COUNT				HOU	SING COLOR	BO	OT TYPE	BOOT COLOR		
ut Pin)	ML	MM Low	12	12 Fiber (250 μm)	В	MM Black	1	Bare Ribbon	3	Black	
n)		Loss	16	16 Fiber (200 μm)				Fiber Boot			
ble											
ıst-cap			fc	Contact sales@sen or availability and to		more		ntact NKO			

SN[®]-MTCONNECTORS



SN°-MT MINI CONNECTOR Multi-fiber (16f), 200 µm, single row

SN°-MT MINI CONNECTOR Multi-fiber (16f), 200 µm BTW (Behind The Wall)



The SN°-MT Mini connector is the shortest in the SN°-MT family and offers users the most space-efficient solution for applications demanding optimized BTW (Behind The Wall) space-saving. In combination with SN° Mini adapters, as much as 14.1mm can be saved compared with standard adapters and connectors, making it the ideal solution for optoelectronic applications requiring circuit boards or other vital components to share the same space as fiber optic connectivity.

The SN°-MT Mini connector has a latch on the upper side of the connector that provides an audible click when it is plugged into an adapter. At the rear of the connector is a boot that will accept 16-fiber ribbon with a 200 µm construction. Mini connectors are most commonly used for applications such as high fiber-count ribbon splicing or optoelectronic applications where additional space is required BTW.

The SN°-MT Mini connector is only compatible with SN°-MT Mini adapters.

FEATURES

- Compatible with 200 µm rollable ribbon cables
- Upper latch mechanism with an audible click
- Reduced connector/boot length
- Low-loss, compact SN[®]-MT ferrule
- 2.7x denser than MPO16 per 1RU
- 1.3x denser than MPO32 per 1RU
- Max. insertion loss 0.35dB for SM
- No special adapter required

APPLICATIONS

- High-density ribbon splicing
- Pre-terminated fiber-management
- Co-packaged optics
- Coherent optics
- Optoelectronic equipment panels

KEY BENEFITS

- 2.7 x denser than MPO
- High fiber-count ribbon splicing



Durability	
Fiber Count	
Cable Suitablity	
Ferrule Material	
Dust Protection Method	

Optical Data

ORDERING

	Singlemode	Multimode					
	SM	ММ					
	APC	APC					
Typical Insertion Loss (dB)*	0.15	0.15					
Max. Insertion Loss (dB)*	0.35	0.35					
Typical Return Loss (dB)*	≥60	≥45					
Ferrule Diameter (µm)	SN-MT ferrule 16-fiber, 200 μm in a single row						

* Based on master grade jumper to low loss random mating test



APC for 16-fiber 200 µm Rbbon

CONNECTOR TYPE			DE PIN GENDER	PERFORMANCE			FIBER COUNT			ISING COLOR	BOOT COLOF	
647	SN-MT Mini Connector with Ferrule	F	Female (Without Pin)	SL	SM Super	16	5	16 Fiber	G	SM Green	3	Black
		Μ	Male (With Pin)		Low Loss							
		G	With Changeable Keeper									
CONNECTOR TYPE			DE PIN GENDER	PERFORMANCE		FIBER COUNT		R COUNT	HOUSING COLOR		BOOT COLOF	
647	SN-MT Mini Connector with Ferrule	F	Female (Without Pin)	ML	MM Low	10	5	16 Fiber	В	MM Black	3	Black
		Μ	Male (With Pin)		Loss							
		G	With Changeable Keeper									
No	te: Connector supplied with protective		Contact sales@ wailability an					onta ENK				



MM Mini Connector APC for 16-fiber 200 µm Ribbon

Value
200 matings per GR-326-Core
Multi-fiber (16 Fibers)
16-fiber, 200 μm ribbon
Polymer
Removable dust plugs that encapsulate the ferrules

SN[®]-MTCONNECTORS

SN°-MT UNIBOOT CONNECTOR 200 µm Pitch **SN-MT Ferrule**

Uniboot Connecto

SENKO

Advanced Components

The SN°-MT16 Uniboot is a pioneering connector that combines four individual SN°-MT connectors into one single housing and boot so that all connectors can be plugged into high-density patch panels or transceivers simultaneously. This approach of 'ganging' multiple connectors together reduces the installation time and associated cable clutter that accumulates at the rear of high-density patch panels. A standard 1RU patch panel with a recommended maximum density of 216 SN°-MT ports per 1RU can be reduced to 54 connectors and cables with the SN°-MT Uniboot connector.

In terms of panel density, the SN-MT Uniboot is an essential component in achieving hyperscale density without compromising practicality and user-friendliness. The SN°-MT16 Uniboot offers an unparalleled density 3,456 fibers per 1RU which is significantlh higher than that achievable with the MPO connector

The SN°-MT16 Connector offers an ultra-low insertion loss of less than 0.35 dB per mated connector pair, guaranteeing repeatable and reliable links. Its high-performance MT ferrules and alignment pins further improve reliability, ensuring stable connections and optimal network performance.

FEATURES

- Patch 64 fibers simultaneously
- Low insertion loss at 0.35dB per connector
- 200-micron fiber pitch (SN-MT16)
- Compatible with 200-micron rollable ribbon
- Push-pull Uniboot for fastest deployment
- Allows up to 3,456 fibers per 1RU (Rack Unit)
- Significantly lower total cost of ownership
- Simplified cable management and reduced cable clutter

APPLICATIONS

- High-density backbone cabling
- Spine/Leaf and Super-Spine Patching
- Dual 800G backbone cabling
- High-Density Intra-DC Trunk Cables
- Pre-connectorized Trunk cables
- High density patch panels (rear-side)
- Hyperscale data centers

KEY BENEFITS

High density connector 64F (4 x 16F) Trunk cable systems

SN°-MT UNIBOOT CONNECTOR 200 µm pitch SN-MT ferrule

Mechanical Data

Durability	
Fiber Count	
Cable Suitablity	
Ferrule Material	
Dust Protection Method	

Optical Data

	Singlemode
	АРС
	SM Premium Low Loss
Typical Insertion Loss (dB)*	0.15
Max. Insertion Loss (dB)*	0.35
Typical Return Loss (dB)*	≥ 60
Ferrule Diameter (µm)	SN-MT ferrule 16-fiber, 200 µm in a single row

* Based on master grade jumper to low loss random mating test

CONNECTOR TYPE		GUIDE PIN GENDER		PERFORMANCE		FIBER COUNT		HOUSING COLOR		BOOT COLOR		BOOT TYPE		SPACER	
54A	SN-MT Uniboot Connector with Ferrrule 4CH	F	Female (<i>Without Pin</i>) Male (<i>With Pin</i>)	SL	SM Super Low Loss	12 16	12 Fiber (250 μm) 16 Fiber (200 μm)	G B	SM Green MM Black	3	Black	21 22	2.0mm Boot with Crimp 2.0mm Boot without Crimp	NS	No Spacer (for Narrow
54C	SN-MT Uniboot Connector with Ferrrule 2CH	G	With Changeable Keeper	ML	MM Super Low Loss	24 32	24 Fiber (250 μm) 32 Fiber (200 μm)					23 31	2.4mm boot 3.0mm boot	W	White Blue
												33 41	3.0mm Short Boot 3.6mm Boot	В	Black (Standard)
												46 54	3.6mm Short Boot 4.0 mm	A V	Aqua Heather
												51 52	4.5 mm 5.0 mm		Violet
Star Star Star Star Star Star Star Star															



E-1.2

Value						
50 Matings per GR-1435-Core						
Base-16 (64 fibers)						
64-fiber micro cable						
PPS						
Removable dust plugs that encapsulate the ferrules						

SN-MT[®]ADAPTERS



SENKO's SN°-MT non-shuttered adapters are available either as a 1, 2, or 4-port variant. The single port is designed for applications such as BASE-16 to Base-2 transitions where the adapter is placed at the rear of fiber management cassettes or panels. The 4-port version is designed to maximize port density within high-density patch panels or active equipment. The 4-port adapter has individual walls between each port for clearer separation and improved connector alignment.

Due to its compact size, the SN^{*}-MT, 4-port adapter allows users to achieve the highest possible density within patch panels and optical distribution frames. Up to 3,456 fibers can be presented in a single 1RU (Rack Unit) subject to cable management and connector-access limitations. These adapters can either to be snapped into panel cut-outs or screwed into place using an appropriate bolt and nut. Adapters incorporating an integrated fixing flange will require additional space between each cut-out, and the maximum density per RU will be lower.

FEATURES

- Premium one-piece body design
- Up to 3,456 fibers per 1RU (Rack Unit)
- Accepts SN®-MT16 standard and Junior connectors
- Individual port separation
- Supports 800G VSFF connectivity
- Telcordia, ANSI, TIA and IEC compliant
- Identification marking for fast and simple connector alignment

APPLICATIONS

- High-density patch panels
- Backbone trunks
- Base-16 transition modules
- Spine/Leaf architectures
- High-density cross-connects
- Switch replication
- Opto-electronic equipment

KEY BENEFITS



Optimum panel packing density

SENKO[®] Advanced Components

SN°-MT *ADAPTER* Non-shuttered, SN footprint

Mechanical Data

Mechanical Data	
Durability	
Fixing Method	Snap-fit (
Housing Material Type	
Fixing Spring Material Type	
Sleeve Material	Pla
Dust Protection Method	

Optical Data

Optical Data	Value
Typical Insertion Loss (dB)*	0.10
Max. Insertion Loss (dB)*	0.20

* Based on master grade jumper to low loss random mating test

Environmental Data

Environmental Data	Value
Operating Temperature	-40°C to +75°C
RoHS Compliance	2015/863 RoHS
REACH Compliance	Yes
Free of Halogen	Yes
Humidity Resistance	95%

ORDERING



SN-MT FOOTPRINT TY

Adapter 1-Port 651W SN-MT 1-Port Non-Shuttered Adapter 652W SN-MT 2-Port Non-Shuttered Adapter 654W SN-MT 4-Port No

Note: Adapter supplied with protective dust

Value

50 matings per GR-1435-Core

(adapter without flange) or screw and nut (adapter with flange)

Plastic

Metal stainless steel

lastic (alignment achieved with male/female connectors)

Removable dust plugs

	FLAN	IGE	HOUS	SING COLOR
ter	1	With Flange	2	Black (Multimode)
ter	2	Without Flange	3	Green (Singlemode)
ter	3	Top Mount		
:t-cap on bo	oth side.	s Contact sales@senko.c for availability and to lear		Contact SENKO



SENKO's SN°-MT shuttered adapters are available either as a 1, 2, or 4-port variant. The single port is designed for applications such as BASE-16 to Base-2 transitions, where the adapter is placed at the rear of fiber management cassettes or panels. The 4-port version is designed to maximize port density within high-density patch panels or active equipment.

Due to its compact size, the SN°-MT, 4-port adapter allows users to achieve the highest possible density within patch panels and optical distribution frames. Up to 3,456 fibers can be presented in a single 1RU (Rack Unit) subject to cable management and connector-access limitations. These adapters feature integrated shutters on each port that reduces the impact of dirt and dust ingress and offers a degree of laser protection for the user. When the connector is inserted into the adapter, the body of the connector (not the ferrule) pushes the shutter open so that the ferrules can be guided into the adapter. Shuttered SN®-MT adapters can either be snapped into panel cut-outs or screwed into place using an appropriate bolt and nut (with flange type). Adapters incorporating an integrated fixing flange will require additional space between each cut-out, and the maximum density per RU may be reduced.

FEATURES

- Premium one-piece body design
- Up to 3,456 fibers per 1RU (Rack Unit)
- Accepts SN®-MT16 standard and junior connectors
- Integrated port shutters
- Supports 800G VSFF connectivity
- Telcordia, ANSI, TIA and IEC compliant
- · Identification marking for fast and simple connector alignment

APPLICATIONS

- High-density patch panels
- Backbone trunks
- Base-16 transition modules
- Spine/leaf architectures
- High-density cross-connects
- Switch replication
- Opto-electronic equipment

KEY BENEFITS

Up to 3,456f per 1RU Optimum panel packing density

SN°-MT ADAPTER

Shuttered, SN footprint

Mechanical Data

Mechanical Data	
Durability	
Fixing Method	Snap-fit (d
Housing Material Type	
Fixing Spring Material Type	
Sleeve Material	Pla
Dust Protection Method	

Optical Data

Optical Data	Value
Typical Insertion Loss (dB)*	0.10
Max. Insertion Loss (dB)*	0.20

* Based on master grade jumper to low loss random mating test

Environmental Data

Environmental Data	Value
Operating Temperature	-40°C to +75°C
RoHS Compliance	2015/863 RoHS
REACH Compliance	Yes
Free of Halogen	Yes
Humidity Resistance	95%

ORDERING

E-1.2



Value

50 matings per GR-1435-Core

adapter without flange) or screw and nut (*adapter with flange*)

Plastic

Metal stainless steel

astic (alignment achieved with male/female connectors)

Integrated shutter

	FLANGE		HOU	HOUSING COLOR		
oter	1	With Flange	2	Black (Multimode)		
oter	2	Without Flange	3	Green (Singlemode)		
	3	Top Mount				
FLANGE		HOU	HOUSING COLOR			
oter	1	With Flange	2	Black (Multimode)		
	2	Without Flange	3	Green (Singlemode)		
Contact calor@conko.com						

Contact sales@senko.com for availability and to learn more

Contact

SENKO

SN-MT[®]ADAPTERS



SN°-MT *MINIADAPTER* Shuttered SN Footprint



SENKO's SN°-MT Mini adapter is designed to maximize port density within high-density patch panels or active equipment. Due to its compact size, the SN°-MT Mini, 4-port adapter allows users to achieve the highest possible density within patch panels and optical distribution frames. Up to 3,456 fibers can be presented in a single 1RU (Rack Unit) subject to cable management and connector-access limitations. This adapter features integrated shutters on each port that reduces the impact of dirt and dust ingress and offers a degree of laser protection for the user. When the connector is inserted into the adapter, the body of the connector (not the ferrule) pushes the shutter open so that the ferrules can be guided into the adapter. SN°-MT mini adapters can either be snapped into panel cut-outs or screwed into place using an appropriate bolt and nut (with flange type). Adapters incorporating an integrated fixing flange will require additional space between each cut-out, and the maximum density per RU may be reduced.

FEATURES

- Premium one-piece body design
- Up to 3,456 fibers per 1RU (Rack Unit)
- Accepts SN®-MT16 standard and junior connectors
- Integrated port shutters
- Supports 800G VSFF connectivity
- Telcordia, ANSI, TIA and IEC compliant
- Identification marking for fast and simple connector alignment

APPLICATIONS

- High-density patch panels
- Backbone trunks
- Base-16 transition modules
- Spine/leaf architectures
- High-density cross-connects
- Switch replication
- Opto-electronic equipment

KEY BENEFITS

🗸 Up to 3,456f per 1RU

V Optimum panel packing density

SN°-MT *MINI ADAPTER*

Shuttered, SN footprint

Mechanical Data

Mechanical Data	
Durability	
Fixing Method	Snap-fit (d
Housing Material Type	
Fixing Spring Material Type	
Sleeve Material	Pla
Dust Protection Method	

Optical Data

Optical Data	Value
Typical Insertion Loss (dB)*	0.10
Max. Insertion Loss (dB)*	0.20

* Based on master grade jumper to low loss random mating test

Environmental Data

Environmental Data	Value
Operating Temperature	-40°C to +75°C
RoHS Compliance	2015/863 RoHS
REACH Compliance	Yes
Free of Halogen	Yes
Humidity Resistance	95%

ORDERING

E-1.1



SN-MT FOOTPRINT TYPE

SN-MT 4-Port (64F) Shuttered Adapt

Note: Adapter supplied with protective dust

Value

50 matings per GR-1435-Core

(adapter without flange) or screw and nut (adapter with flange)

Plastic

Metal stainless steel

lastic (alignment achieved with male/female connectors)

Integrated shutter

	FLAN	IGE	HOUS	SING COLOR
ter	1	With Flange	2	Black (Multimode)
	2	Without Flange	3	Green (Singlemode)
	3	Top Mount		
t-cap on bot	th side:	s Contact sales@senko.c for availability and to lear		Contact SENKO

SN-MT[®]ADAPTERS



SN°-MT MINI MBMC

12,16 and 24-fiber, Stackable design, BTW (Behind the Wall)

Mechanical Data

Mechanical Data	
Durability	
Fixing Method	Snap-fit (a
Housing Material Type	
Fixing Spring Material Type	
Sleeve Material	Pla
Dust Protection Method	

Optical Data

Optical Data	Value
Typical Insertion Loss (dB)*	0.10
Max. Insertion Loss (dB)*	0.20

* Based on master grade jumper to low loss random mating test

Environmental Data

Environmental Data	Value
Operating Temperature	-40°C to +75°C
RoHS Compliance	2015/863 RoHS
REACH Compliance	Yes
Free of Halogen	Yes
Humidity Resistance	95%

ORDERING



6Q1 Stackable SN-MT Mini MBMC Adapt

6Q15 Stackable SN-MT Mini MBMC Adapt Stacked assembly

Note: Adapter supplied with protective dust

SN°-MT*MINIMBMC* **ADAPTER** 12, 16 and 24-Fiber Stackable design **BTW (Behind The Wall)**





The SN°-MT Mini MBMC adapter is the shortest in the SN°-MT family and offers users the most space-efficient solution for applications demanding optimized BTW (Behind The Wall) space-saving. In combination with SN[®] Mini connectors, as much as 14.1mm can be saved compared with standard adapters and connectors, making it the ideal solution for optoelectronic applications requiring circuit boards or other vital components to share the same space as fiber optic connectivity.

The SN°-MT Mini MBMC adapter has a latch on the upper side of the connector that provides an audible click when it is plugged into an adapter. At the rear of the connector is a boot that will accept 16-fiber ribbon with a 200 µm construction. Mini connectors are most commonly used for applications such as high fiber-count ribbon splicing or optoelectronic applications where additional space is required BTW.

The SN°-MT Mini MBMC adapter is only compatible with SN°-MT Mini connectors.

FEATURES

- Premium one-piece body design
- Up to 3,456 fibers per 1RU (Rack Unit)
- Supports 800G VSFF connectivity
- Telcordia, ANSI, TIA and IEC compliant
- Stackable design for multi-port applications

APPLICATIONS

- Backbone trunks
- Spine/leaf architectures
- Opto-electronic equipment

KEY BENEFITS

Up to 3,456f per 1RU 🗸 Optimum for on-board interconnect

Value

50 matings per GR-1435-Core

adapter without flange) or screw and nut (*adapter with flange*)

Plastic

Metal stainless steel

astic (alignment achieved with male/female connectors)

Integrated shutter

			HOUSING COLOR						
ter	er 2 Blag			Black (Multimode)					
			3	Gre	Green (Singlemode)				
	HOUSING COLOR		STACKING			QT	QTY OF ADAPTER		
ter,	2	Black (Multimo	de)		1	V	Vertical	2	2 pcs
	3	Green (Singlem	node)			3	Horizontal	3	3 pcs
								4	4 pcs
								X	Хрс
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<i>t-са</i> р	o on do	th sides		fo			ct sales@senko.com bility and to learn m	ore	Contact
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SN[°]and **SN**[°]-**MT** Maintenance

SENKO provides a comprehensive portfolio of 'factory-based' and 'field-based' tools and accessories to support the assembly, deployment and maintenance of SN° and SN°-MT connectivity.

UUU



SUMIX



SN° MAINTENANCE Inspection

SN[®] Inspection

SUMIX Scopio-B Inspection Scope

SMX-Scopio-B is a digital inspection probe for visualization of connector end faces and analysis of connector defects. Excellent analysis for single fiber SN and CS with 1.25mm ferrules. This inspection scope can be used for both in adapter and unmated end faces in the SN and many legacy products including SC, FC, ST, LC, CS, SN E2000[™] – PC and APC as well as MT, MPO, SMA and many MIL spec connections.



ORDERING

- SMX-SCOPIO-B SUMIX Scopio-B Inspection Scope
- IEC inspection analysis
- 1.8 µm resolution
- 600x variable magnification





SN-MT Verifier Verifying a SN-MT polarity and continuity

SN-MT Tips Tips for both SN-MT

SUMIX Maanta Viewing Screen Works for Google PIXEL and other Android devices

FEATURES

E-1.2

- 4.1 mm x 3.0 mm field of view
- Detailed high-resolution picture with 1.8 µm resolution

ferrule and assembly

- Autofocus and pass-fail analysis and measurements for 16F in 3 seconds
- Able to identify surface defects as small as 0.75 μm
- Weighted benchtop base available to prevent slips
- Mobile inspection and reporting possible with viewing screen accessory

E-1.1

SN° and SN°-MT Inspection

SUMIX Manta HM

scratches, contamination and other surface defects as small as 0.75 µm on the end face of the connector.

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ORDERING	
ORDERING	
SMX-Manta-HM	SUMIX Manta HM Inspection Scope
ACCESSORIES	
MNT-VSFF-PC-F-A	Inspection tip for in adapter SN/UPC
MNT-W-VSFF/PC-M	Inspection of SN/UPC duplex connectors in adapters with 2 ferrules visible at once
SMX-T-1.25/PC-M	Inspection tip for unmated SN/UPC
SMX-T-1.25/APC-M	Inspection tip for unmated SN/APC
MNT-ADP	Adapter for use with the SMX inspection tips
MNT-W-MT/APC-SN-FER	Inspection tip for SN-MT ferule
MNT-W-MT/APC-SN	Inspection tip for SN-MT assembly
MNT-W-MT/APC-SN-BTW	Inspection tip for SN-MT BTW connectors
MNT-W-Stand	Benchtop stand for MANTA W+ and HM scopes
SN-MT Verifier	SN-MT Polarity Verifier Module



SN° *MAINTENANCE* Interferometry

SN[®] Interferometry

SUMIX MAX QS+ Inspection Scope



The MAX-QS+ is a white-light and phase-shift interferometer for inspection of single fiber SN. MAX-QS+ features portable design, autofocus, 100 micron scan range for fiber height and resolution of 1.1 μ m. This scope end measures end face geometry while featuring surface anomaly detection.

ORDERING	
ORDERING	
NAX-QS+	SUMIX Max QS+ Interferometer

SUMIX MAX Quantum Interferometer



Only compatible with SN[®]

SUMIX WIZ-QS Inspection Scope



The WIZ-QS-110 is an automated interferometer for inspection of single fiber connectors and bare fiber. This interferometer is a basic solution for interferometric inspection of fiber optic connectors in high-volume production environment, where speed, simplicity and precision matter the most. The white light measurement algorithm and precision-aligned fixtures do not require frequent calibration making it stand out from the competition in the same category of interferometers. End face geometry measurement only.

ORDERING

ORDERING
WIZ-QS-110
SUMIX WIZ-QS Interferometer

SUMIX MAX QM+ Inspection Scope



E-1.2

E-1.1

SN[®] and SN[®]-MT Interferometry

ORDERING		
ORDERING		
MAX-Quantum	SUMIX Manta Quantum Interferometer	
ACCESSORIES		
ACCESSURIES		
MAX-F-1.25/PC-SN	Fixture for SN/UPC connectors	
MAX-F-1.25/PC-VS	F Fixture for SN/UPC ferrules	
MAX-F-1.25/APC-V	FF Fixture for SN/APC ferrules	
MAX-SVF-SN/APC	Inspection tip for SN-MT (needs handler)	
MAX-H-SN-MT-C2	Handle for SN-MT ferrule inspection	
MAX-H-SN-MT-CON	Handler for SN-MT connector inspection	
MAX-H-SN-MT-CON	BTW Handler for SN-MT BTW connector	
AC-SN-MT-PI-C2	Pin insertion tool for female SN-MT ferrules and connec	tors

MAX-QM+ is an automated interferometer for inspection of single and multi-fiber connectors. This interferometer provides high measurement speed with a portable design. The software autofocus and a large field of view enables the MAX-QM+ interferometer ideal for testing SN or MT and MPO with the 12 or 16 fibers arrays. End face geometry measurement only, and can measure hole parallelism which is essential for mating multi-fiber arrays.





SN° *MAINTENANCE* Cleaning consumables and sticks

Cleaning Consumables and Sticks for SN[®] and SN[®]-MT



The SMART CLEANER CASSETTE is an economical cleaning device that utilizes a micro-woven fabric cleaning ribbon for wiping away residue and dust-based contamination from fiber optic end faces. A manual advance of the cleaning ribbon allows operators to maximize the efficiency of the product in operation.

ORDERING

RDERING

SCK-CC-100SMART CLEANER CASSETTE Cleans Unpinned MT and Single FiberSCK-CC-200SMART CLEANER CASSETTE Male MT Cleans 400 pinned MPO, MT and SN-MT

Cleaning Consumables and Sticks for SN[®] and SN[®]-MT



Optipop R Cassette



The OPTIPOP R cassette effectively wipes residue, and dustbased contamination from ferrule end faces. The cassettes feature an ergonomic trigger for advancing a fresh section of the micro woven cleaning ribbon with engagement. Using replacement cleaning spools will lower your overall cleaning costs. A wide range of compatiblity, including legacy connectors, allows standardized cleaning of multifiber projects on a single cassette.

ORDERING

 ORDERING

 CRE-01
 OPTIPOP R Standard - Single Slot Unpinned MT and Single Fiber Cleans SN, CS and unpinned (female) SN-MT

 CRC-RS-01
 Refill for 800 Duplex Connector End Faces

 CRE-03
 OPTIPOP R Standard Male MT Cleans SN, SN-MT and 12F/16F MPO

The OPTRES Gel Cleaning Pad by Tomoegawa uses optical-grade cleaning gel. The cleaning process is as simple as pulling back the cover and touching the end face of the connector onto the gel. The OPTRES Gel Cleaning Pad's compact size makes it ideal for use with test equipment and network installation cleaning kits. The gel material is non-toxic and non-flammable. Compatible with SN, SN-MT, CS and MPO connectors.





SN° *MAINTENANCE* Cleaning consumables and sticks

Cleaning Consumables and Sticks for SN®

One Click Duplex SN

Only compatible with SN[®]

Smart Cleaner

Mini 1.25 mm



The ONE-CLICK DUPLEX SN CLEANER is effective for wiping away residues and dust contamination from SN/ UPC and SN/APC end faces. The dual cleaning tips clean both end-faces with each engagement. This makes this cleaner ideal for high density applications including hyperscale data centers and central offices.



The SMART CLEANER MINI 1.25 MM tool effectively cleans residue and dust-based contamination from fiber optic end-faces. Its small form factor allows for cleaning in tight spaces while still allowing up to 400 connectors to be cleaned.

Section Statements for CAN

ORDERING

ORDERING

SCK-SS-M-C125 SMART CLEANER MINI 1.25MM (400 cleanings)



Cleaning Consumables and Sticks for SN[®] and SN[®]-MT



E-1.1

E-1.1

SENKO'S Optical Grade Wipes are ideal for cleaning your network's connectors end faces and bare fibers including ribbons for splicing. The wipes are lint free, soft and highly absorbent. There are 100 4X4 wipes in the resealable bag.

ORDERING

SN CLEANING AFT-G-NW OPTICAL GRADE Wipes

Note: Wipes are sold in packs of 100

The 1.25MM NEOCLEAN sticks are an effectively option for wiping away residue and dust contamination from the SN and SN-MT end-faces of in adapter assemblies and transceiver ports. The fabric cleaning tip enables cleaning without the need for solvents. The hexagon shaped handle with notches prevent accidental roll aways and shortening the handle for use in confined spaces.





SN° *MAINTENANCE* Tools

SN[®] Tools Make the Job Easier

SN Insert-Extract Tool



Insert and extract SN° assemblies into tight spaces. A spring grip securely holds onto the SN assembly's pushpull boot. The ergonomic design of the handles make it comfortable to use by both left or right handed operators.



Smart Checker[™] Visual Fault Locator (VFL)



SN Crimp Tool



The SN° Crimp tool is designed to allow users to crimp SN connectors during the factory assembly process.

ORDERING ACCESSORIES CRT-201 SN Crimp Tool CRT-202 SN EZ-Flip Crimp Tool





E-1.2

SN[®] Tools Make the Job Easier

The Visual Fault Locator (VFL) is an effective tool for verifying the polarity of fiber optic cable assemblies and sliced fibers, locating broken fibers and for identifying micro and macro bending points with optic assemblies. The VFL has a 2.5mm port. A 1.25mm adapter is also available.

ORDERING	
ACCESSORIES	
AFT-G-FC	Smart Checker VFL
AFT-G-CAC	1.25 mm Adapter
r Checker	
	Only compatible with SN

The APC ferrule alignment tool allows technicians to align the APC ferrules after the connector polishing process.



Smart Cleaner

SN-MT



SN°-MT *MAINTENANCE* Tools

SN[®]-MT Tools Make the Job Easier

The SMART CLEANER tool effectively cleans residue and dust-based contamination from fiber optic end-faces. Its small form factor allows for cleaning in tight spaces while still allowing up to 500 connectors to be cleaned.

ORDERING SCK-SS-SNMT SN-MT Smart Cleaner

SN-MT 200 µm Ribbonizer Tool

Only compatible with SN°-MT

SN-MT Crimp Tool



SENKO MER

The SN° Crimp tool is designed to allow users to crimp SN connectors during the factory assembly process.

ORDERING

CCESSORIES

CRT-203 SN-MT Crimp Tool for 2.6 mm

SN-MT Housing Removal Tool

E-1.2

SN[®]-MT Tools Make the Job Easier



Only compatible with SN°-MT

UNDENING	
ACCESSORIES	
RMT-205-xx	SN-MT Housing Removal Tool 5"
RMT-205-xx	SN-MT Housing Removal Tool 7"





senko.com/contact

sales@senko.com 1-858-623-3300