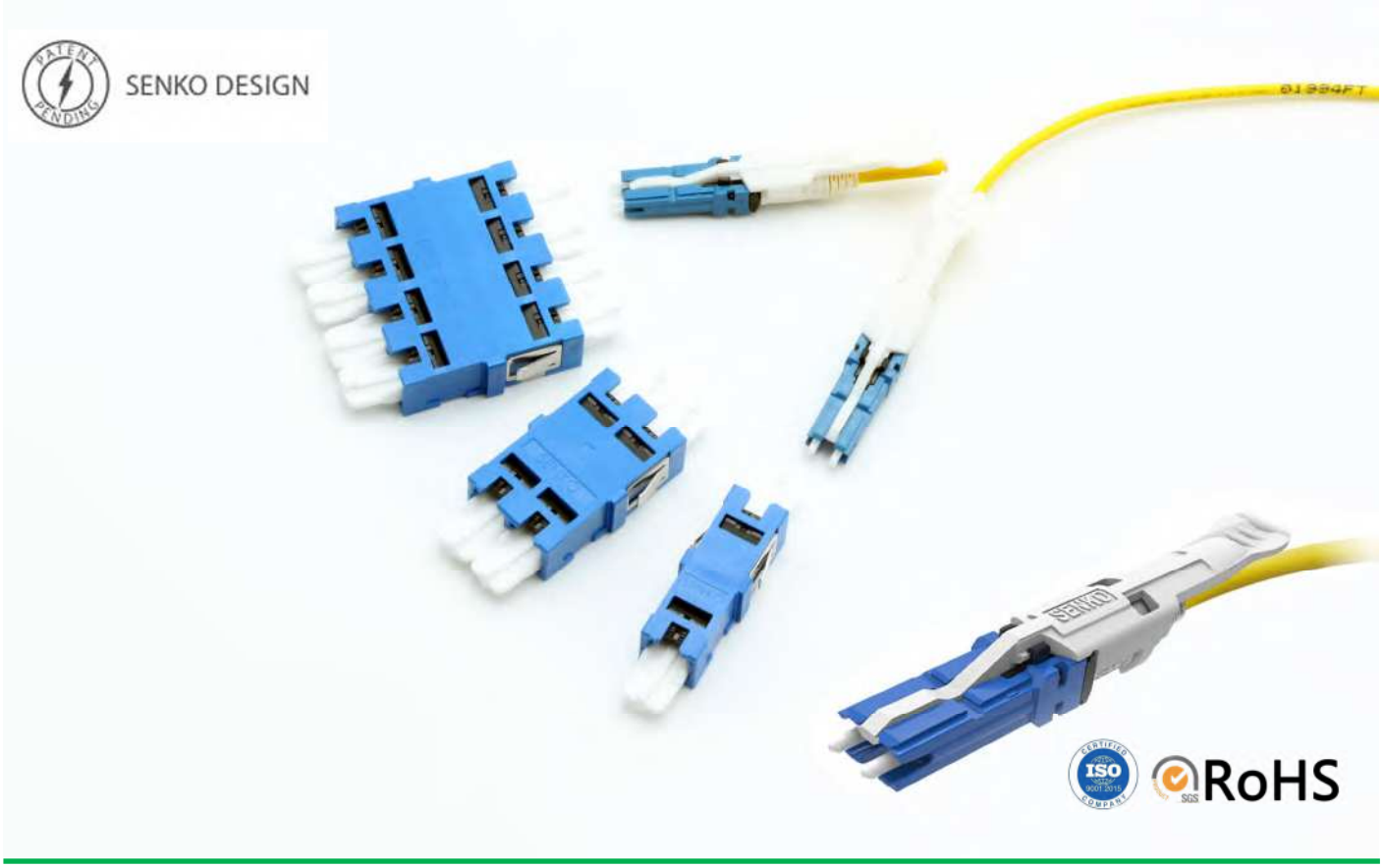
DATASHEET

CS Connector &Cable Assemblies

Designed for next gen 200/400G transceiver QSFP-DD and OSFP



OMC INDUSTRY CO.LIMTED

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CS Connector &Cable Assemblies

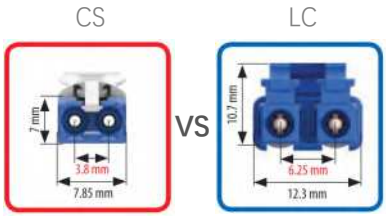
Introduction

Senko's new CS connector is specifically designed for Data Centre 400G optimization. To accommodate the "lightspeed" upgrades currently taking place in hyperscale DCs, the reduced size CS Connector is not only capable of delivering low insertion and high return loss comparable to existing LC connectors, but with significantly reduced footprint.

The CS connector is a miniature single-position plug which is characterized by duo cylindrical, spring-loaded butting ferrule(s) of a 1.25 mm typical diameter, and a push-pull coupling mechanism. The optical alignment mechanism of the connectors is a rigid bore sleeve or a resilient sleeve.

The CS connector meets the requirement for 2x100G/200G CWDM4 transceivers requiring two pairs of TX/RX. Our CS Cable Assembly support next-generation 200/400 Gbps QSFP-DD and OSFP transceivers with optimized performance.

Products Highlights

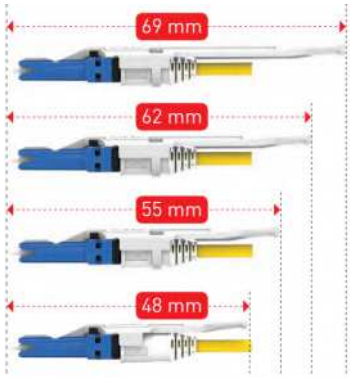


40% Higher Density compared to LC connector

2.0/3.0mm Ruggedized cable

Push pull tab for superior manageability in high density applications comes in various length and styles

2x LC style Ferrule Increase Reliability



0.9mm boot

⇒ Suitable for Inside cassette/Module application

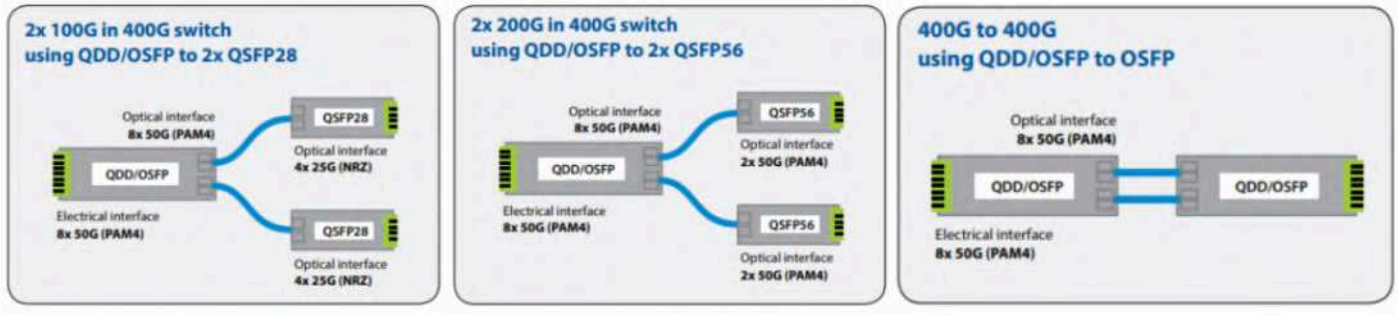
⇒ Accept 2x 900um cable

⇒ SM CS/UPC available
⇒ SM CS/APC available
⇒ MM CS/UPC available

⇒ 2.0/3.0mm Boot

Applications

⇒ CS Dual-Channel Cable assembly mating with QSFP-DD Interface



Optical Performance

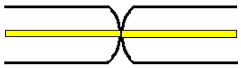
Insertion loss	≤0.25dB Mean (Standard)	Interchangeability	≤0.2dB
Return loss	SM UPC≥50dB SM APC≥60dB MM PC≥35dB	Vibration	≤0.2dB
Operating temperature	-40~75°C	Maximum pulling force	6N(900um cable) 70N(2.0mm cable) 100N(3.0mm cable)

Geometric Specification(if Customer requested)

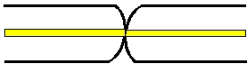
Items		Parameter	
Polishing		PC	APC
ROC	CS	7~ 25	5 ~ 12
Apex Offset		≤ 50	
Fiber Spherical Height		±100	
Angle		± 0.5	8 ± 0.5

Polishing Method

UPC(Ultra-Polished connector)



APC(8 Angled Polished connector)



Polishing End-face

SM UPC

SM APC

MM PC

End-face Quality (SM)

Zone	Range (μm)	Scratches	Defects	Reference
A: Core	0 to 25	None	None	IEC 61300-3-35:2015
B: Cladding	25 to 115	None	None	
C: Adhesive	115 to 135	None	None	
D: Contact	135 to 250	None	None	
E: Rest of ferrule		None	None	

End-face Quality (MM)

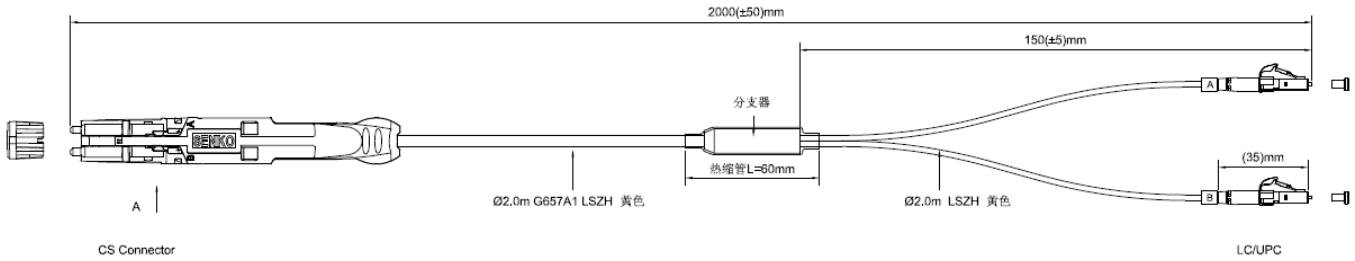
Zone	Range (μm)	Scratches	Defects	Reference
A: Core	0 to 65	None	None	IEC 61300-3-35:2015
B: Cladding	65 to 115	None	None	
C: Adhesive	115 to 135	None	None	
D: Contact	135 to 250	None	None	
E: Rest of ferrule		None	None	

CS Connector &Cable Assemblies

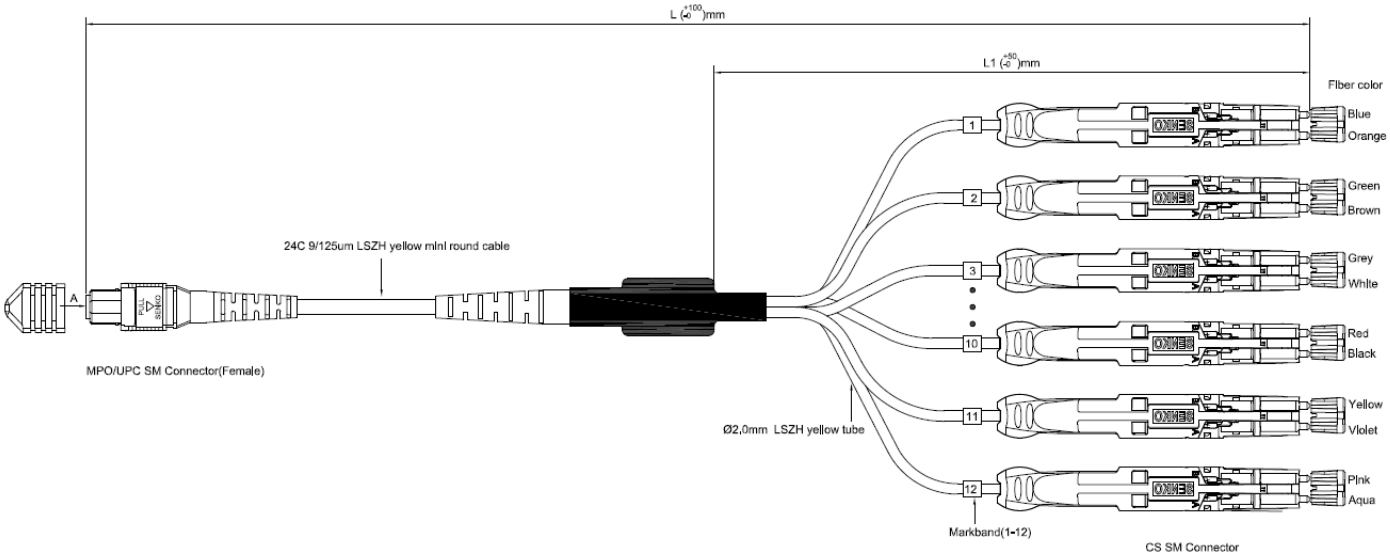
Available for

⇒ CS 2cores Pigtail (include 2.0mm,0.9mm,250um type)

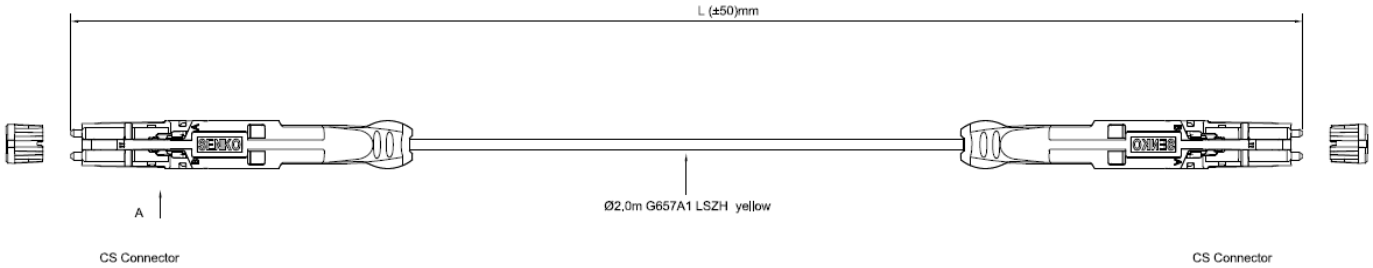
⇒ CS-LC 2cores Patch cable (CS-FC/SC/ST/E2000 are available too)



⇒ MPO/MTP-CS 8/12/16/24cores fanout cables（Include fanout 0.9mm and 2.00mm OD)



⇒ CS-CS 2cores patch cables



Length Tolerance

Overall Length(L)(m)	length of tolerance(cm)
0<L<1	+5/-0
1<L<10	+10/-0
10<L<40	+15/-0
40<L	+0.5% x L/-0

How to choose the right fiber for your Optical Network

This 9/125 OS2 single mode fiber optic cable is ideal for connecting 1G/10G/40G/100G/400G Ethernet connections. It can transport data for up to 10km at 1310nm, or up to 40km at 1550nm.

This 62.5/125 OM1 multimode fiber optic cable is ideal for connecting 100/1000BASE-SX transceivers etc. for fast Ethernet, gigabit Ethernet and fiber channel applications.

This 50/125 OM2 multimode fiber optic cable is ideal for connecting 1000BASE-SX, SFP transceivers etc. for gigabit Ethernet and fiber channel applications.

This 50/125 OM3 multimode fiber optic cable is ideal for connecting 10G SR, 10G LRM, SFP+ transceivers etc. for 10G/40G/100G Ethernet connections and is the preferred fiber specification for 10G Ethernet connections.

This 50/125 OM4 multimode fiber optic cable is ideal for connecting 40G BIDI SR, 10G SR, QSFP+, SFP+ transceivers etc. for 10G/40G/100G Ethernet connections and is the preferred fiber specification for 40G/100G applications.

OM5 wideband multimode bend insensitive fiber optimized for multi-wavelengths transmission systems operating in the range of 850-950nm, enabling optimal support of emerging Shortwave Wavelength Division Multiplexing (SWDM) applications that reduce parallel fiber count by at least a factor of four to allow continued use of just two fibers (rather than eight) for transmitting 40 Gb/s and 100 Gb/s and reduced fiber counts for higher speeds.
OM5 meets TIA-492AAAE and draft IEC 60793-2-10 A1a.4 requirements while completely backward compatible with existing OM4 networks and applications. It meets RoHS compliant and the fiber patch cord is optically tested for insertion loss to ensure high quality.

50/125 OM5 multimode fiber optic cable is ideal for connecting 40G BIDI SR, 10G SR, QSFP+, SFP+ transceivers etc. for 10G/40G/100G Ethernet connections and is the preferred fiber specification for 40G/100G applications.

Designation	Fiber Dia. (μm)	Type	Fast Ethernet 100BASE-FX	1 Gigabit Ethernet 1000BASE-SX	1 Gigabit Ethernet 1000BASE-LX	10Gbps Ethernet 10GBASE	40Gbps Ethernet 40GBASE	100Gbps Ethernet 100GBASE
OM1	62.5/125	Multi-mode	2000 Meters	275 Meters	550 Meters	33 Meters	Not supported	Not supported
OM2	50/125	Multi-mode	2000 Meters	550 Meters	550 Meters	82 Meters	Not supported	Not supported
OM3(Laser Optimized)	50/125	Multi-mode	2000 Meters	550 Meters	550 Meters	300 Meters	100 Meters (SR4)	100 Meters (SR4)
OM4(Laser Optimized)	50/125	Multi-mode	2000 Meters	550 Meters	550 Meters	400 Meters	150 Meters (SR4)	150 Meters (SR4)
Singlemode	9/125	Single-mode	2000 Meters	5km at 1310nm	5km at 1310nm	10km at 1310nm	N/A	N/A