

1Gbps Optical Connector with Cable ASSY

Automotive optical connector with cable ASSY that realizes high-speed optical communication systems with good noise resistant.

- Supported automotive high-speed communication for autonomous driving.
(Transmit high-definition videos and integrated sensor information)
- Respond needs for noise and insulating actions according to vehicle electrification.
- Contribute carbon neutrality by reducing weight.



Feature

1

Reduce the weight and improve noise resistant performance by adopting plastic optical fibers (Shielded wire ratio volume 1/4)

2

Ensure high reliability in the on-board environment by adopting plastic optical fibers.

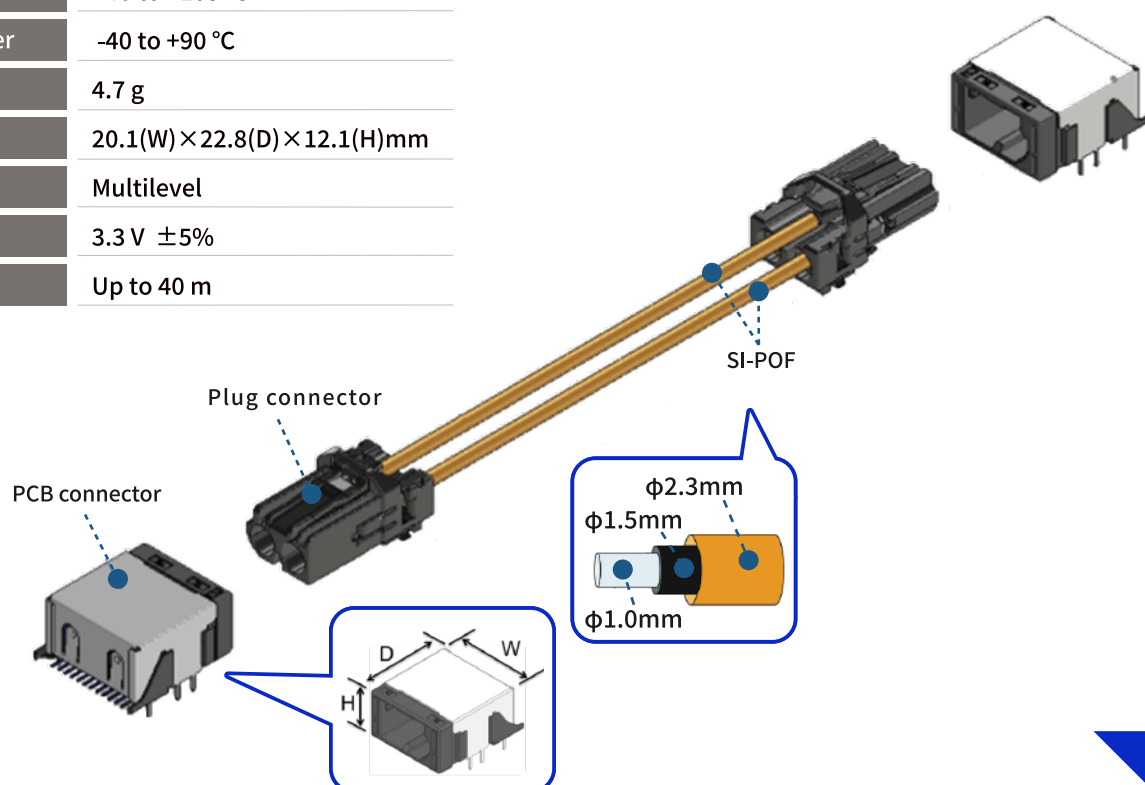
3

70% smaller and faster than conventional MOST connectors

Performance/Specification

Application Case		Gigabit Ethernet
Data Rate Speed		Up to 1Gbps
Optical Source		LED
Optical Fiber		SI-POF(Step Index POF)
Operating Temperature	Connector	-40 to +105 °C
	Optical Fiber	-40 to +90 °C
PCB Connector Volume		4.7 g
PCB Connector Size		20.1(W)×22.8(D)×12.1(H)mm
Modulation System		Multilevel
Power-supply Voltage		3.3 V ±5%
Transmission Distance		Up to 40 m

Awarded Automotive News
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25Gbps Optical Connector with Cable ASSY

Automotive optical connector with cable ASSY that realizes super high-speed optical communication systems with good noise resistant.

- Supported automotive high-speed communication for autonomous driving.
(Transmit high-definition videos and integrated sensor information)
- Respond needs for noise and insulating actions according to vehicle electrification.
- Contribute carbon neutrality by reducing weight.



Feature

- 1** High-speed communication up to 25Gbps by adopting high-bandwidth plastic optical fibers
- 2** Same handling and routing as electrical wiring
- 3** Reduce the weight due to unnecessary EMC actions in transmission channel

Performance/Specification

Application Case	Multi-Gigabit Ethernet	
Data Rate Speed	Up to 25Gbps	
Optical Source	VCSEL	
Optical Fiber	GI-POF(Graded Index POF)	
Operating Temperature	Connector	-40 to +105°C
	Optical Fiber	-40 to +105°C
PCB Connector Volume	TBD	
PCB Connector Size	TBD	
Modulation System	2 values (NRZ)	
Power-supply Voltage	3.3V ± 5%	
Transmission Distance	Up to 40m	

Achieved automotive high-speed optical communication system with high reliability and routing performance by adopting GI-POF as optical fibers, and contribute eco-driving. (CO₂ reduction)

