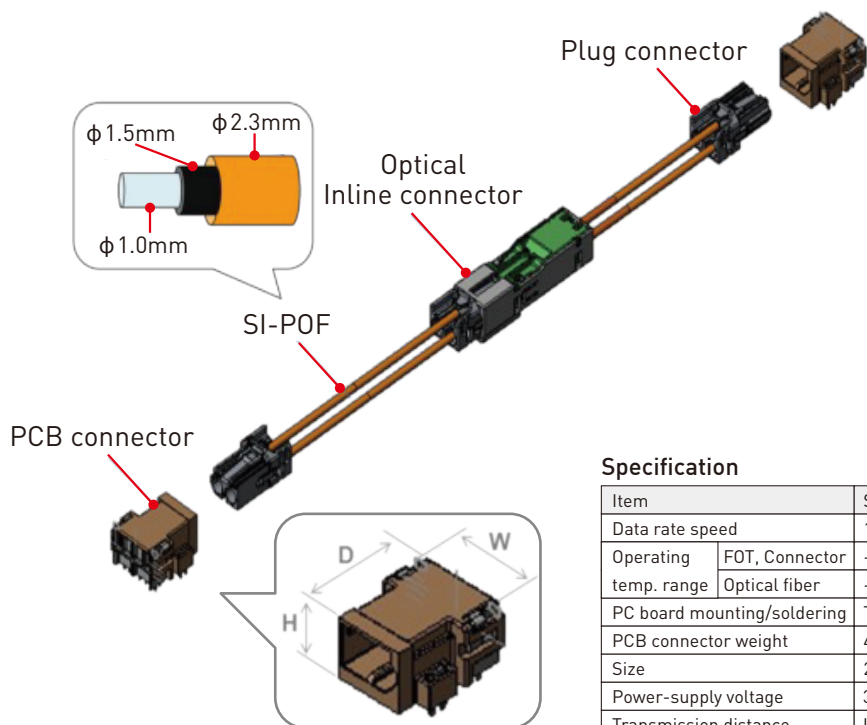


# 1Gbps Ethernet Communication

- Support automotive high speed communication (Transfer high accuracy images)
  - Anti-noise needs associated with vehicle electrification
- 
- Noise-free and weight reduction by using optical fibers (1/4 mass compared to shielded cables)
  - Ensure reliability in automotive environment
  - 70% smaller than current MOST connectors (25Mbps)

USA PACE Award Winner in 2022

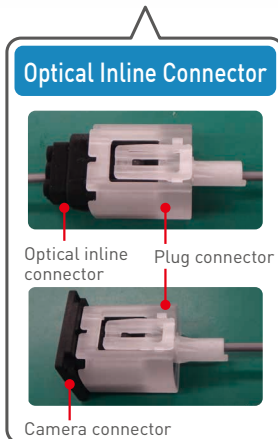
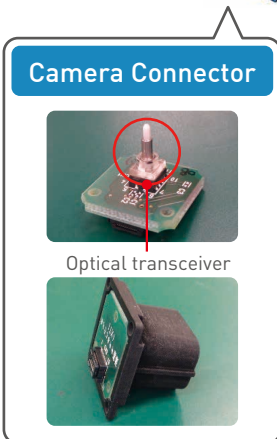
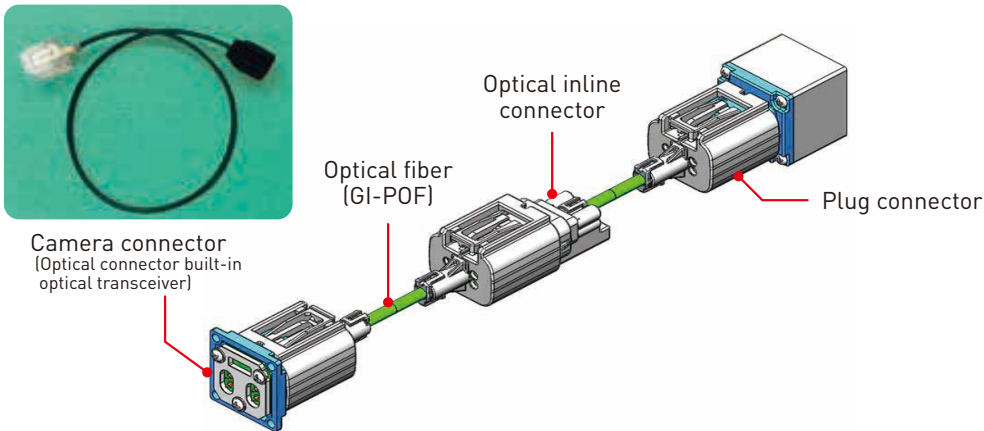


## Specification

Item	Specification	
Data rate speed	1G bps	
Operating temp. range	FOT, Connector	-40 to 105degC
	Optical fiber	-40 to 95degC
PC board mounting/soldering	Through-hole flow/dip	
PCB connector weight	4.7 g	
Size	20.1(W)x22.8(D)×12.1(H) mm	
Power-supply voltage	3.3 V +/-5%	
Transmission distance	Up to 40m ex. 15m with 4in-line connectors /40m without in-line connectors	
SI- POF min. bend radius	R 10 mm	

# 10Gbps Ethernet Communication

- Support automotive high speed communication (Transfer high accuracy images)
  - Anti-noise needs associated with vehicle electrification
- 
- Noise-free and weight reduction by using optical fibers (1/4 mass compared to shielded cables)
  - Comply with IEEE802.3dh standard (Plan)
  - 10Gbps high speed communication by using GI-POF



## Specification

Item	Specification	
Function / Feature	10GbEthernet	
Data rate speed	<b>10Gbps</b>	
Optical source	<b>VCSEL</b>	
Optical fiber	<b>GI(Graded Index)-POF</b> ( $\phi 55\mu\text{m}$ )	
Operating temp. range	FOT, Connector	-40 to 105degC
	Optical fiber	-40 to 105degC
Modulation system	Binary	
PC board mounting/soldering	Reflow (Pb free)	
Power-supply voltage	3.3V $\pm 5\%$	
Transmission distance/Relay number	15m/3pcs., 40m/none	

Back Ground  
Feature  
Performance/Specification