

# 1Gbps Optical Connector with Cable ASSY

Mass-  
Produced  
Product  
Since 2022

Automobile optical connector with cable ASSY that makes high-speed optical communication system achievable

## Background or Challenges

- Supports automotive high-speed communication for autonomous driving (data transmission between main ECUs)
- Manages noise and electrical insulation to meet vehicle electrification requirements
- Contributes to carbon neutrality by reducing weight

## Solutions to Challenges or Features

- 1 Reduces the weight and improves noise resistance performance by using plastic optical fibers (Shielded wire ratio volume 1/4)
- 2 Ensures high reliability in on-board environments by using plastic optical fibers
- 3 70% smaller than conventional MOST connectors

## Main performance, specifications/structure

Application case	Gigabit Ethernet
Data rate speed	Up to 1Gbps
Light source	LED
Optical fiber	SI-POF (Step Index Plastic Optical Fiber)
Operating temperature	Connector: -40°C to +105°C Optical fiber: -40°C to +90°C
PCB connector mass	4.7g
PCB connector size	20.1(W) × 22.8(D) × 12.1(H)mm
Modulation system	Multivalued
Power supply voltage	3.3V±5%
Transmission distance	Up to 40m
PCB mounting	Through hole reflow/SMT

