

# Consideration the response from ISO TC22/SC32/WG10

Yuji Watanabe , AGC Inc.

# Liaison letter from IEEE802.3 to ISO TC22/ SC32/ WG10 after March plenary

From: David Law  
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Subject: Request for information regarding ISO TC 22/SC 32/WG 10

Approval: Agreed at IEEE 802.3 plenary meeting, Atlanta, GA, USA, 16 March 2023

Dear Mr Goto,

To address feasibility in the automotive environment, the current IEEE P802.3dh Multi-Gigabit Automotive Ethernet over Plastic Optical Fiber Task Force is requesting information on the specifications of the fiber and connector under consideration in ISO TC 22/SC 32/WG 10. The IEEE P802.3dh Task Force is considering a baseline draft that utilizes wavelengths from 850 nm through 980 nm center wavelength with up to 3 connectors that are suitable for transmission on an automotive Ethernet link.

The IEEE P802.3dh Task Force respectfully requests that ISO TC 22/SC 32/WG 10 share information regarding the wavelength and temperature ranges under consideration for the automotive environment.

Sincerely,  
David Law  
Chair, IEEE 802.3 Ethernet Working Group

# Response from ISO TC22/ SC32/ WG10

Dear Mr. David Law,

Thank you for your letter to ISO TC22/ SC32/ WG10. We would like to respond as follows regarding the wavelength and temperature range under consideration in our current project of ISO 24581.

Wavelength:

ISO 24581, for which we are currently developing a standard as glass optical fibre media, doesn't specify the operating wavelength. However, unless otherwise specified between parties (OEM and supplier), a reference light source of 850 nm is used to measure the characteristics of optical wire harnesses in order to specify the criteria.

Temperature:

ISO 24581 has been established to cover temperatures up to 125°C, although it is basically stipulated that this is to be agreed upon by the parties concerned. If there is no specific requirement, Class C on Table 1 of ISO 19642 - 1 is applied as a temperature range for optical components. However, it does not restrict to use components at temperatures below 125°C.

Sincerely,

Naoshi Serizawa,

Convenor, ISO TC22/ SC32/ WG10

## ISO19642-1:2019 Road vehicles - Automotive cables – Part 1: Vocabulary and design guidelines

Table 1

Class	Temperature (°C)
A	-40 ~ 85
B	-40 ~ 100
C	-40 ~125
D ~H	-40 ~ 150 175 / 200 / 225 / 250

Many temperature ranges are defined based on application where the cable is used.

## Wavelength:

- 850 nm is no conflict with TC22/ SC32/ WG10

## Temperature range:

- Although ISO 24581 has been established to cover temperatures up to 125°C, it does not restrict to use components at temperatures below 125°C.
- Temperature range of automobile cable should be agreed by user and supplier base on application the cable is used.

**Thank you!**