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AMENDMENT 8  
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**Telecommunications and exchange  
between information technology  
systems — Requirements for local and  
metropolitan area networks —**

Part 3:

**Standard for Ethernet**

**AMENDMENT 8: Physical layer  
specifications and management  
parameters for 2.5 Gb/s, 5 Gb/s, and  
10 Gb/s automotive electrical ethernet**

*Télécommunications et échange entre systèmes informatiques —  
Exigences pour les réseaux locaux et métropolitains —*

*Partie 3: Norme pour Ethernet*

*AMENDEMENT 8: Spécifications des couches physiques et paramètres  
de gestion pour l'ethernet électrique automobile à 2,5 Gb/s, 5Gb/s et  
10 Gb/s*



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**IEEE Std 802.3ch™-2020**

(Amendment to IEEE Std 802.3™-2018  
as amended by IEEE Std 802.3cb™-2018,  
IEEE Std 802.3bt™-2018,  
IEEE Std 802.3cd™-2018,  
IEEE Std 802.3cn™-2019,  
IEEE Std 802.3cg™-2019,  
IEEE Std 802.3cq™-2020,  
and IEEE Std 802.3cm™-2020)

# IEEE Standard for Ethernet

## Amendment 8: Physical Layer Specifications and Management Parameters for 2.5 Gb/s, 5 Gb/s, and 10 Gb/s Automotive Electrical Ethernet

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of the  
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**IEEE SA Standards Board**

## ISO/IEC/IEEE 8802-3:2021/Amd.8:2021(E)

**Abstract:** This amendment to IEEE Std 802.3-2018 adds physical layer specifications and management parameters for 2.5 Gb/s, 5 Gb/s, and 10 Gb/s operation on a single balanced pair of conductors suitable for automotive applications.

**Keywords:** 2.5GBASE-T1, 5GBASE-T1, 10GBASE-T1, Ethernet, IEEE 802.3ch™, MASTER-SLAVE, Medium Dependent Interface, Physical Coding Sublayer, Physical Layer, Physical Medium Attachment

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