
**Information technology —
Telecommunications and information
exchange between systems — Local
and metropolitan area networks —
Specific requirements —**

**Part 3:
Standard for Ethernet**

**AMENDMENT 11: Physical layer and
management parameters for serial 25
Gb/s ethernet operation over single-
mode fiber**

*Technologies de l'information — Télécommunications et échange
d'information entre systèmes — Réseaux locaux et métropolitains —
Prescriptions spécifiques —*

Partie 3: Norme pour Ethernet

*AMENDEMENT 11: Paramètres de couche physique et de gestion pour
le fonctionnement Ethernet en 25 Gb/s série sur fibre unimodale*



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IEEE Std 802.3cc™-2017

(Amendment to

IEEE Std 802.3™-2015

as amended by

IEEE Std 802.3bw™-2015, IEEE Std 802.3by™-2016,

IEEE Std 802.3bq™-2016, IEEE Std 802.3bp™-2016,

IEEE Std 802.3br™-2016, IEEE Std 802.3bn™-2016,

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IEEE Standard for Ethernet

Amendment 11: Physical Layer and Management Parameters for Serial 25 Gb/s Ethernet Operation Over Single-Mode Fiber

LAN/MAN Standards Committee

of the

IEEE Computer Society

Approved 6 December 2017

IEEE-SA Standards Board

ISO/IEC/IEEE 8802-3:2017/Amd 11:2019

2019

Abstract: This amendment to IEEE Std 802.3-2015 adds Physical Layer (PHY) specifications and management parameters for 25 Gb/s operation over single-mode fiber at reaches of at least 10 km (25GBASE-LR) and 40 km (25GBASE-ER).

Keywords: 25 Gb/s Ethernet, 25GBASE-ER, 25GBASE-LR, 25GBASE-SR, Energy Efficient Ethernet (EEE), Ethernet, Forward Error Correction (FEC), IEEE 802.3™, IEEE 802.3by™, IEEE 802.3cc™, Physical Coding sublayer (PCS), Physical Medium Attachment (PMA) sublayer, Physical Medium Dependent (PMD) sublayer, Reconciliation sublayer (RS), single-mode fiber (SMF)

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PDF: ISBN 978-1-5044-4547-4 STD22910
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