1. Record Nr. UNINA9910135268203321 IEEE Std 802.3-2012 (Revision to IEEE Std 802.3-2008): IEEE Standard **Titolo** for Ethernet / / Institute of Electrical and Electronics Engineers Pubbl/distr/stampa New York:,: IEEE,, 2012 **ISBN** 0-7381-7312-6 Descrizione fisica 1 online resource: illustrations 410.18802855133 Disciplina Soggetti Data processing Local area networks (Computer networks) Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Sommario/riassunto Ethernet local area network operation is specified for selected speeds of operation from 1 Mb/s to 100 Gb/s using a common media access control (MAC) specification and management information base (MIB). The Carrier Sense Multiple Access with Collision Detection (CSMA/CD) MAC protocol specifies shared medium (half duplex) operation, as well as full duplex operation. Speed specific Media Independent Interfaces (MIIs) allow use of selected Physical Layer devices (PHY) for operation over coaxial, twisted-pair or fiber optic cables. System considerations for multisegment shared access networks describe the use of Repeaters that are defined for operational speeds up to 1000 Mb/s. Local Area Network (LAN) operation is supported at all speeds. Other specified capabilities include various PHY types for access networks, PHYs suitable for metropolitan area network applications, and the provision

of power over selected twisted-pair PHY types.