

Product Name : Communication Protocols module HDLC, SDLC, X.25, Frame Relay, ATM	Product Code : SH251
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Description :

Communication Protocols module HDLC, SDLC, X.25, Frame Relay, ATM

Technical Specification :

Communication Protocols module: HDLC, SDLC, X.25, Frame Relay, ATM

Training of an engineer for the installation and maintenance of Digital Telecommunications and Internetworking systems.

The system study the OSI Model and the communication protocols that are most widely used in data transmission systems and in package switching networks: HDLC, SDLC, X.25, Frame Relay, ATM. Objectives: Basic training of an installation and maintenance technician for Digital Telecommunications and Internetworking. This package provide the background for the next study of the ISDN network, of the Wide Area Networks and of Internet.

Educational path: The educational path of this Training Package cover the following subjects: The communication architecture of the OSI model. Introduction to the communication protocols, The OSI reference model, Format of the information, The OSI model: Physical Level (level 1), Line Level (level 2), Network Level (level 3), Transfer Level (level 4), Session Level (level 5), Presentation Level (level 6), Application Level (level 7). HDLC/SDLC protocols: Introduction to SDLC/HDLC protocols, The structure of the HDLC frame, CONTROL field and type of frames, The HDLC frames: Information, Supervisory, Unnumbered, Examples of HDLC session: NRM and ABM connection Network and Frame Relay protocol Introduction to the network and to the Frame Relay protocol, The virtual circuits Frame Relay and DLCI, The permanent (PVC) and switched (SVC) virtual circuits, Congestion control: DE, FECN, BECN parameters, Management of the throughput: CIR, BC, BE, TC parameters, LMI: Local Management Interface, Format of the Frame Relay frames, Format of the LMI frames. Package switching network X.25 Characteristics and operating parameters, Format of the level 2 frame, Format

of the level 3 package.

Technical specification Communication Protocols module

This module allows the simulation of the operation of the communication protocols. It includes 2 LCD displays for the visualization of the frames and of the packages that the communication devices exchange. Furthermore, it includes a simulation boards insertion system for the different protocols.

The following simulation boards are provided: HDLC protocol Network X.25 Frame Relay.

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