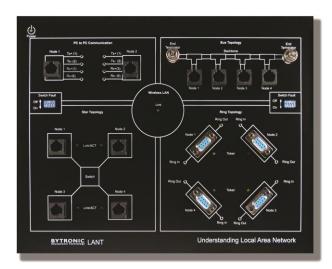


LANT - Local Area Network Trainer



Key Features:

- PC to PC communication with IEEE 802.3
- Peer to Peer network
- Client Server network
- Design of Star topology using 100Base-Tx
- Design of Bus topology using 10Base-2
- Design of Ring topology using DB9
- Creation of cables for network connections
- Socket programming and processing
- Data Encryption and Decryption
- Various LAN Protocols
- Data rate up to 100Mbps
- Variable packet size
- Variable packet delay
- Error generation (Manual and Auto)
- Switch faults in both hardware and software

The Local Area Network Trainer provides the student with an understanding of the fundamentals of networking. Student gain a knowledge of the different network layers, cable design and the building of complete networks used in computing. The student can understand and implement various topologies using different IEEE standards. Connections can be made in different topologies and data can be transferred. Topics covered include the protocols and topologies used in networking, measurement of error rate, throughput and the effect of errors on protocols. The versatile software provided with the LANT will allow the student to observe the various effects and configurations on network along with the graphical representation.

Experiments

- Addressing in TCP/IP
- PING Command
- Implementation of cable designs in Networking
- Implementation of PC to PC with IEEE 802.3
- Implementation of Peer to Peer Network
- Implementation of Client- Server Network
- Implementation of Star topology using 100Base Tx
- Implementation of Bus topology using 10Base2
- Implementation of Ring topology using DB9
- CSMA/CD (Carrier Sense Multiple Access with Collision Detection)
- Token Ring Protocol
- Token Bus Protocol
- Flow Control
- Socket Programming
- Wireless LAN

Specification

Hardware: PC to PC using RJ-45 Connector

Star topology using RJ45 Connector Bus topology using end terminator Ring topology using DB9 Connector Data transmission speed: 10/100 Mbps

4 Nodes

Software: Star, Bus and Ring selection

Protocols: CSMA/CD, CSMA/CA, Stop N Wait, Go back to N, Selective

repeat, Sliding Window, Token Bus, Token Ring

Packet size: 128, 256, 512, 1024, 2048, 4096, 8192, 16384

Inter Packet delay: 1000 - 5000 ms

Error generation: Acknowledgment lost, bad packet, auto error generation

Complete analysis of Network and Protocols

Graphical Representation: Graphic representation of data on s/w screen with packet details

Network details: Indication of computer name, IP address, Port number, status of network and MAC address.

Network & protocol analysis: Indication of packet serial number, file name, file size, file number, receiver name, receiver

IP address, total packets, packet length, time out, protocol, topology, receiver, MAC address,

port number, file send start time, file sent completion time, transmission time data

 $rate (Mbps),\,error.$

Power Supply : 110-240V AC, 50/60Hz **Dimensions (mm) :** W 326 × H 52 × D 252

Weight 1.5kg approx.

Ordering Information

Model Number: LANT
Consists of: LAN Trainer

Cable & Connector Set

Software CD

Notes.

1. Specification is subject to change without notice.

2. All dimensions are in mm unless otherwise stated

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