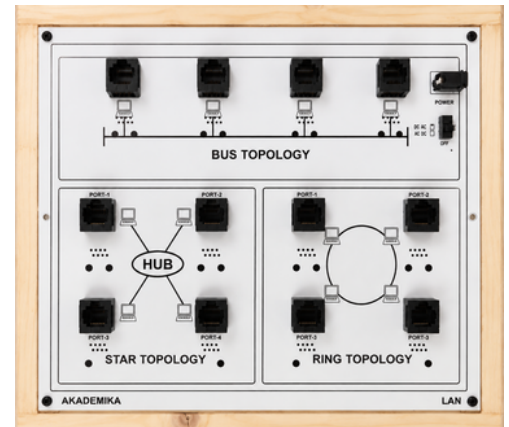


NL-LTS

Local Area Network Trainer Kit



FEATURES

- A hardware-plus-software LAN trainer covering star, bus and ring topologies with a full protocol suite, live protocol analysis and error-generation study.
- A Local Area Network (LAN) Trainer Kit is an educational tool designed to teach networking concepts, cabling, topologies, and troubleshooting.

SPECIFICATIONS

HARDWARE

Topology

i) Star ii) Bus iii) Ring

- Server : 1 Server
- Nodes : 3 Nodes
- Data Rate : 10/100 Mbps
- Interconnection : RJ45 connection cable to connect hardware to computer LAN card
- SOFTWARE : LAN

Topology selection

i) Star ii) Bus iii) Ring

Protocols selection

- Stop and Wait
- Go back to n
- Selective repeat
- Sliding window
- Token Ring
- Token Bus
- CSMA / CD
- CSMA / CA

SOFTWARE : Protocol Analyser

PROTOCOL ANALYSIS

- Indication of packet serial number, file name, file size, file number, receiver name, workgroup, receiver IP address, current packet, total packets, packet length, delay, protocol, topology, receiver MAC address, port number, packet send time, acknowledgment receive time, inter packet delay, data rate (MBPS), number of resend packets, acknowledgment value

NETWORK ANALYSIS

- Packet Size : 128, 256, 512, 1024, 2048, 4096, 8192, 16384
- Inter packet delay : 1000, 2000, 3000, 4000, 5000ms
- Error generation : Bad packet, acknowledgment lost and auto error generation. Encryption and decryption of data

NETWORK DETAILS

- Indication of computer name, IP address, Port number, status of network, MAC address and operating system on computer.

GRAPHICAL REPRESENTATION

- Graphic representation of Data on software screen with differentiation of packet to be transmitted, packet being transmitted, packet transmitted with acknowledgment, packet with acknowledgment lost error, packet with bad packet error and packet which is discarded or resend.

MEASUREMENT AND PLOTTING

- Error rate calculation, Throughput calculation
- Indication of packet serial number, file name, file size, file number, receiver name, work group, 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.
- 10/100 Mbps RJ-45 N way ports
- Complies with IEEE802.3 and IEEE802.3x standards
- Up to 100 Mbps data transfer rates (full duplex)

EXPERIMENTS

- Study of network topologies, data encryption and decryption Implementation and study go back to n protocol. token ring and token bus protocol CSMA / CA protocol Measure of throughput and the effect of bit errors on various protocols, Ethernet LAN and Wireless LAN, sliding window protocol, CSMA / CD protocol Socket programming
- Implementation and study of stop and wait protocol, selective repeat protocol