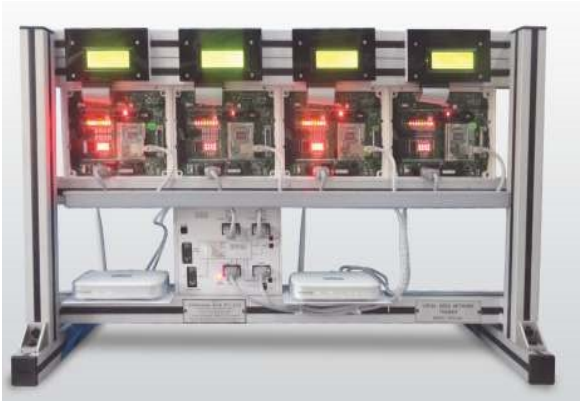
db-tech

LOCAL AREA NETWORK (LAN) TRAINER

GENERAL DESCRIPTION

DB-5200 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. 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 it will allow the student to observe the various effects and configurations on network along with the graphical representation.

DB-5200



Specification

SALIENT FEATURES

- It offers comprehensive experiment set up explaining various physical topology of LAN viz; Token Ring, Token Bus, Ethernet (CSMA/CD), Modbus etc. & variety of TCP, IP, HTTP, SMTP, wireless LAN (802.11) etc. Protocol demonstrator through error generation facility sans socket programming.
- Set of Users Guide provided with each unit.
- Table top setup made using light but sturdy aluminum profile (4X2) Rack complete
- With cables connectors, Optionally external USB to RS232 Converter is Provided.
- One PC with serial required for monitoring or as user not in scope of supply.

Technical Specification

Types of LAN IEEE	CSMA/CD (802.3)	Token Ring (802.5)	Token Bus (802.4)	Modbus (Industrial LAN)
Port	Ethernet	RS232	RS485	RS485
Connector	RJ45	9 pin D type (M)	2 pin relimate	2 pin relimate
Cable	5 or 8 port LAN switch with 5 straight CAT5 UTP cable + 1 cross cable (half length) 2 meter each.	9 pin D (F-F) straight cable 5 nos (0.75mx4 nos,1.5 m x 1nos)	9 pin D (F-F) straight cable 5 nos (0.75mx 4 nos,1.5 m x1nos) with RS232 to RS485 converter for PC connectivity	
Mode	Star, 4 nodes (Default) or 6 (as per order) client nodes with PC as user/ monitoring (PC) node.	Physical ring, logical ring, Full duplex, Token passing of 4 nodes(Default) or 6 (as per order) with PC monitoring	Physical bus, logical ring, Half duplex, Sliding, Token passing of 4 nodes (Default)or 6 (as per order) with PC monitoring	Master-Slave half duplex, Stop & wait of 4 nodes (Default)or 6 (as per order), one user (PC) mode
PC Software	Network Protocol Analyser	Network monitor		MODSCAN
PC Hardware	Any lab PC with (P4/XP, WIN7/8/10) CDROM, COM Port and one Ethernet port needed (PC is not in scope of supply).			
Node Hardware (Optional)	**a)** Embedded Controller device : 89C668 operating @ 16MHz. On chip RAM : 8 KB, Flash / EEPROM: 64KB. **b)** Serial port (RS232C) 9 pin D (M). **c)** In built USB to serial converter, **d)** Display : 20X4 LCD (Backlit), **e)** General Purpose SMD bi-color (green, red) 8X2 LEDs & 8 SMD Push button switches / DIP switches, **f)** Power (SMPS): 5V/2.5Amp SMPS with RCA plug. SMPS. AC I/P230Vac+/-10% / 50Hz x 4 Nos., **g)** USB to Serial interface using CP2102, **h)** Variable Slow Clock (2 Hz to 64Hz), **i)** 3 numbers of SPDT switches for selection of communication between PC, NIC & ECU.			

Lab Tool Kit (Optional): DMM, Drill Machine with bits, Small nose Plier, Stripper, Cutter, Blade knife, Solder Gun with metal & Flux, LAN cable tester RJ45 + RJ11, LAN wire cutter & crimper (each 1 No.)

Mechanical Dimension/Wt.: 960 (L)x300(W)x720(H) mm, Wt. = 30 Kg. (Approx)

Notes:
1. ***Specification is subject to change without notice.***
2. ***All dimensions are in mm unless otherwise stated.***