Data Communications and Networking are one of the fastest growing segments today. The major reason for this growth is the dramatic increase in Networked offices, PC based products and internet users. More Students are taking courses to learn about them.

Designed to assist students and practitioners to understand the various methods of exchange of data between two devices.

It is designed to be user friendly and it supports self learning through the flexibility of making the connections by the user itself. For proper understanding of various protocols in serial and parallel communication, various experiments can be performed. In depth knowledge of ports and its functional details can be studied with the use of the supporting software provided. Manuals and notes help the user to understand the major terminologies and theory related to Data Communication.

- ❏ Pin to pin study of serial and parallel port
- ❏ Different methods of serial communication
- ❏ Different methods of parallel communication
- ❏ Wireless communication (IR/RF)
- ❏ Full duplex fiber optics communication
- ❏ FSK modem communication
- ❏ Software & hardware based data flow controls
- ❏ Protocols of parallel port
- ❏ Protocols of serial port
- ❏ High speed data transmission
- ❏ Visual indication by LED's for displaying data, status & control pins of port
- ❏ Printer interface
- ❏ Windows based operating software
- ❏ Switch faults in both hardware & software
- ❏ Exhaustive course material & references
- ❏ Student friendly software
- ❏ Optional application boards for serial and parallel port

Experiments that can be performed
- ■ To Study of Serial Port
- ■ Study of Parallel Port
- ■ Study of Synchronous Serial Communication
- ■ Study of Asynchronous Serial Communication
- ■ Study of PC-PC Serial Communication using RS-232 cable
- ■ Study of different Modem used in Serial Communication
- ■ Study of Flow controls in Serial Communication
- ■ Study of Protocols in Serial Communication
- ■ Study of Fiber Optic Communication
- ■ Study of Modem Communication
- ■ Study of Wireless Communication
- ■ Study of PC-PC Parallel Communication using DB25 cable
- ■ Study of printer interface using parallel port

Technical Specifications

Serial Communication	:	Two RS-232 ports
Parallel Communication	:	Two 25 pin LPT ports
Fiber Optic Communication		
Transmitter	:	Two numbers. Fiber optic LED's having peak wave length of emission 660nm
Receiver	:	Two numbers. Fiber optic photo detector
Core type	:	Step indexed multimode PMMA plastic cable
Baud rate	:	115200 bps
Fiber Length	:	0.5 & 1m
Wireless Communication		
Infrared Transmitter	:	IR LED
Infrared Receiver	:	Direct TTL output
Baud rate	:	2400 bps
Carrier Frequency	:	38 KHz/40KHz
Modem Communication		
Modem type	:	Data
Interface type	:	Serial-RJ 11 Connector
RJ 11 Connector	:	Two
Modulation	:	FSK Modulation
Mark Frequency	:	340 KHz
Space Frequency	:	280 KHz
Demodulation	:	PLL Detector
Mark Frequency	:	340 KHz
Space Frequency	:	280 KHz
Baud Rate	:	57600 bps
General		
Power Supply	:	220 V ±10%, 50 Hz / 60 Hz on request
Power Consumption	:	1.8 VA (approx.)
Dimensions (mm)	:	W 370 × H 265 × D 125
Accessories		
		Two RS-232 Serial Cable
		Two DB25 Parallel Port cable
		One RJ11 RJ11 Connector Cable
		Two Plastic Fiber Cable
		Operating Manual
		Software CD
		Patch Cords
Optional Accessories	:	Application boards for Serial and Parallel Port

Note: Specifications are subject to change.

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