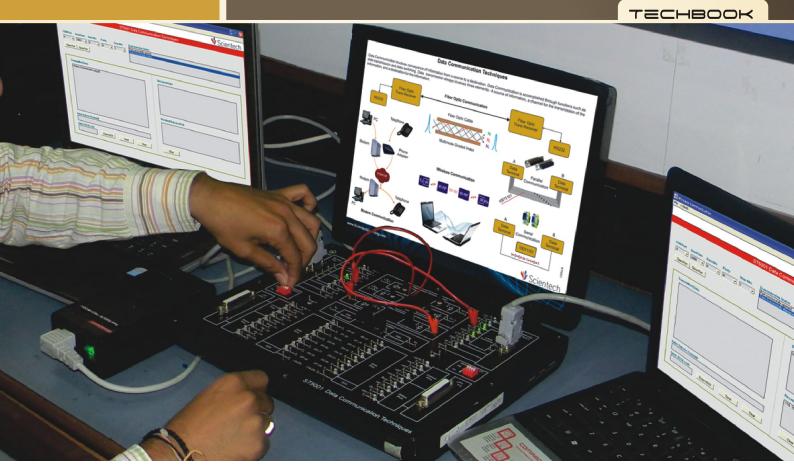
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Data Communication Techniques

Scientech 5001



Scientech TechBooks are compact and user friendly learning platforms to provide a modern, portable, comprehensive and practical way to learn Technology. Each TechBook is provided with detailed Multimedia learning material which covers basic theory, step by step procedure to conduct the experiment and other useful information.

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.

Scientech 5001 is 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 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.

Features

- 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
- Student friendly software
- Optional application boards for serial and parallel port
- On Board Touch Switch

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Scope of Learning

Study of:		Modem Communication	
Serial Port		Modem type	: Data
Parallel Port		Interface type	: Serial-RJ 11 Connector
Synchronous Serial Communication			
Asynchronous Serial Communication		RJ 11 Connector	: Two
PC-PC Serial Communication using RS-232 cable		Modulation	: FSK Modulation
Different Modem used in Serial Communication		Mark Frequency	: 340 KHz
Flow controls in Serial Communication			
Protocols in Serial Communication		Space Frequency	: 280 KHz
Fiber Optic Communication		Demodulation	: PLL Detector
Modem Communication		Mark Frequency	: 340 KHz
Wireless Communication			
PC-PC Parallel Communication using DB25 cable		Space Frequency	: 280 KHz
Printer interface using parallel port		Baud Rate	: 57600 bps
Technical Specifications		Test Points	: 74 nos
Serial Communication	: Two RS 232 ports	Product Tutorial	: Online on www.ScientechLearning.com
Parallel Communication	: Two 25 pin LPT ports		· W 22C ·· D 2F2 ·· U F2
Fiber Optic Communication		Dimensions (mm)	: W 326 x D 252 x H 52
Transmitter	Peak wave length of emission	Power Consumption : 1.6VA (approx.)	
		Power Supply	: 100V - 240V AC, 50/60Hz
		Weight	: 1.5Kg (approximately)
Receiver	: Two numbers. Fiber Optic photo detector	Operating Conditions: 0-40°C, 85% RH	
Core type	: Step indexed multimode PMMA	Included Accessories: RS 232 Serial cable-2nos.	
	plastic cable		DB25 Parallel Port cable-2nos.
Baud rate	: 115200 bps	RJ11 - RJ11 Connector cable-1nc	
Fiber length	: 0.5 & 1m		Plastic Fiber cable-2nos.
Wireless Communication			Plastic Fiber Cable-2110s.
Infrared Transmitter	: IR LED		TechBook Power Supply-1no.
Infrared Receiver	: Direct TTL output		Patch cords16" (2mm)-18nos.
Baud rate	: 2400 bps		Patch cords8" (2mm)-10nos.
Carrier Frequency	: 38 KHz/40KHz		Mains cord-1no.
			USB to serial converter-2nos