



Sciencetech 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.

Sciencetech 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

### Scope of Learning

#### Study of:

- Serial Port
- Parallel Port
- Synchronous Serial Communication
- Asynchronous Serial Communication
- PC-PC Serial Communication using RS-232 cable
- Different Modem used in Serial Communication
- Flow controls in Serial Communication
- Protocols in Serial Communication
- Fiber Optic Communication
- Modem Communication
- Wireless Communication
- PC-PC Parallel Communication using DB25 cable
- 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

Test Points : 74 nos

Product Tutorial : Online on  
[www.SciencetechLearning.com](http://www.SciencetechLearning.com)

Dimensions (mm) : W 326 x D 252 x H 52

Power Consumption : 1.6VA (approx.)

Power Supply : 100V - 240V AC, 50/60Hz

Weight : 1.5Kg (approximately)

Operating Conditions: 0-40°C, 85% RH

**Included Accessories:** RS 232 Serial cable-2nos.

DB25 Parallel Port cable-2nos.

RJ11 - RJ11 Connector cable-1no.

Plastic Fiber cable-2nos.

TechBook Power Supply-1no.

Patch cords 16" (2mm)-18nos.

Patch cords 8" (2mm)-10nos.

Mains cord-1no.

USB to serial converter-2nos