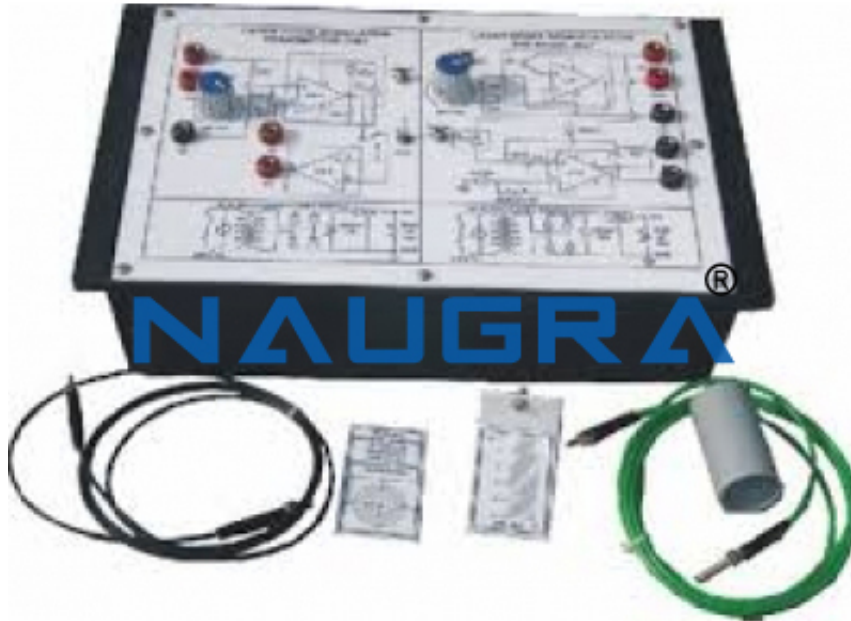


**Product Name :**  
Optical Fibers Communication Trainer

**Product Code :**  
Lab Trainers0002



**Description :**

Optical Fibers Communication Trainer

We are Leading Supplier of Optical Fibers Communication Trainer in India We also bulk supply Optical Fibers Communication Trainer for laboratory tensors.

**Features :**

Textbook includes the theoretical & practical details

Textbook includes the expected results for reference

Problem discussion attached together with answers for instructor

Only need Oscilloscope & Spectrum analyzer to obtain the measured results

( not included )

Specifications :

Module One : Transmitter Module

Transmitted light wavelength : 660 nm & 820 nm

Data rate : 1 Mbps

Transmitter bandwidth : 1 MHz

Includes digital & analog transmitter, and also covers with E/O conversion circuit

Built in microphone input terminal and audio amplifier

Built in sine wave output signal, and also includes tunable amplitude and frequency output

Amplitude : 2Vpp, Frequency : 100Hz ~ 2.5KHz

Built in digital data generator, used to produce TTL signal & CMOS level output

The wavelength of optical fibers transmission line : 500nm ~ 1200nm; ST & DIN connectors

Module Two : Receiver

Received light wavelength : 660 nm & 820 nm

Data rate : 1 Mbps

Transmitter bandwidth : 1 MHz

Includes digital & analog receiver, and also covers with E/O conversion circuit

Provided with tunable amplifier, which can drive the 8 ohm loud speakers

The wavelength of optical fibers transmission line : 500nm ~ 1200nm; ST & DIN connectors

Module Three : Computer Control Module

Transmitter interface : RS-232

Transmission baud rate : 9600bps

Type of display : LCD 16×2 characters

Ability to display numerals and English characters

Input interface : 4 x 4 keypad

Serial characters can be inputted from keypad

Includes data transmission operations software

The operation software environment : Windows

Keypad switch provides with normal open type

Provides with LED indicator function

Module Four : Analog and Digital Signal Modulations Module

AM Modulation & Demodulation :

(1) AM Modulation : Carrier signal : 540KHz ~ 1600KHz

Audio frequency signal : 1KHz ~ 2KHz

(2) AM Demodulation : Carrier signal : 540KHz ~ 1600KHz

Audio frequency signal : 1KHz ~ 2KHz

Modulation index : 50%

FM Modulation & Demodulation :

(1) FM Modulation : Carrier signal : 20 KHz

Audio frequency signal : 1KHz ~ 5KHz

(2) FM Demodulation : Nature frequency : 20 KHz

Audio frequency signal : 1KHz ~ 3KHz

ASK Modulation & Demodulation :

(1) ASK Modulation : Carrier signal : 20 KHz ~ 100KHz

Data signal : 100bps ~ 1kbps

(2) ASK Demodulation : Carrier signal : 20 KHz ~ 100KHz

Data signal : 100bps ~ 1kbps

FSK Modulation & Demodulation :

(1) FSK Modulation : Space signal : 1370 Hz

Mark signal : 870 Hz

Data signal : 100bps ~ 500bps

(2) FSK Demodulation : Space signal : 1370 Hz

Mark signal : 870 Hz

Data signal : 100bps ~ 500bps

Module Five : Digital Signal Processing Module

(1) Signal Source Encoder & Decoder (CVSD) : Sampling frequency : 16KHz ~ 50KHz

Audio frequency signal : 100Hz ~ 2KHz

TTL input & output level signals

(2) Channel Encoder & Decoder (Manchester) : Input TTL level signal

CLK : 500Hz ~ 1KHz

Data Rate : 250bps ~ 500bps

Module Six : TV Signal Modulator and Demodulator

(1) TV Signal Generator : Built in 4 MHz quartz crystal oscillator

8 selected types of TV signal

Output signal : ladder wave signal

Output frequency : 15.6 KHz

(2) TV Signal Modulator : Audio signal : FM demodulating signal

FM carrier signal : 5.5 MHz

Built in low pass filter to remove the noise of the audio signal

(3) TV Signal De-Modulator : Audio signal : FM demodulating signal

FM carrier signal : 5.5 MHz

Built in audio signal generator,

output frequency : 100Hz ~ 1KHz,

output amplitude : 600mV ~ 1.2 V

Function Generator

Ports : Two signal outputs ports

Frequency range : 10Hz ~ 100KHz

100Hz ~ 1MHz

Waveforms : Sine, Triangle, Square, TTL Plus

Amplitude : 10Vpp

Built In 6 digit frequency counter

Large 0.5 LED / LCD display

Overload protection

D C POWER SUPPLY

Triple bipolar voltage outputs

Consultant voltage operation

Low ripple & noise

Constant voltage output :  $\pm 5V$ ,  $\pm 12V$

Variable voltage output : 0V ~ ±15V

## Naugra Export

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