VERITAS Engineering

Catalog
Of

Fiber Optic Transmission Training System

Brand: VERITAS

Model: VFOTT-001

Features

- Fiber-Optic communication is one of the most popular technologies in the modern days due to its high transfer speed and large capacity.
- It uses fiber optic as a transmission media for the whole experiment. With four different data transmission ways (self module transmission, module-to-module transmission, PC-to-module transmission and module-to-PC transmissions) and various different modulation / demodulation methods (CVSD, ASK, etc.) introduced in the training system, users can obtain a very clear view of how fiber-optic transmission works.
- With four different data transmission ways (self module transmission, module-to-module transmission, PC-to-module transmission, and module-to-PC transmission).
- The experiment of trainer shows you how easy it is to make productive use of fiber optic materials.
- The equipment that you assemble will transmit voice from one point to another, using light traveling through an optical fiber.

Fiber Optic Transmission Training System

Technical Specification

1. Power: AC-DC Adapter
   (1) AC input: 100 240V
   (2) DC output 15V, 500mA
2. Microphone Circuit:
   (1) Frequency range: 20Hz ~12KHz
   (2) With gain amplified circuit
3. Push-button Switch
   (1) N.O. Type
   (2) With LED indication
4. Function generator;
   (1) Output sine wave with adjustable output amplitude
   (2) Output square wave, with CMOS level
   (3) Frequency range : 6Hz ~ 2KHz
5. Output Speaker (1) 8Ω, 1/4W
6. Transmitter
   (1) Optical fiber light: Red LED, λ= 660nm
   (2) Max. drive current: 50mA
   (3) Effective coupling micro-lens spotlight
   (4) Emitter follower
7. Receiver:
   (1) Optical receiving diode
      a. λpeak: 880nm
      b. Connectable plastic optical fiber with 1000 μ m core
      c. Effective coupling micro lens spotlight
      d. Max. consumption power : 100mW
   (2) With amplified, gain, restoring-sharpness circuit
8. Data transmission elements:
   (1) Chip set: AVR8515, 8bits, 8MHz crystal
   (2) LCD: back-light 20 x 4 character
   (3) Keyboard: 4 x 4 16Key
   (4) Character mode: single letter or string letter available
   (5) Send mode : OFF (self module transmission), transceiver (module-to-module), PC>module, module>PC
   (6) With reset function
   (7) Communication interface: RS-232C, 9600 baud rate
   (8) Software environment: Windows base

Experiment Modules

1. 2mm or 4mm connection leads are used throughout the system
2. The building blocks and components symbols of the circuits are printed on the surface of each module.
3. Modules are secured in plastic housings (255 x 165 x 30 mm ±10%)
4. Comprehensive experimental manual
5. Use bridge plugs on circuit loop to reduce the possibility of errors

List of Experiments:

1. Characteristic of fiber optics experiment
2. Applications of fiber optics experiment
3. Light sources of fiber optics
4. Light and fiber optics interaction experiment
5. Fiber optic transmitters experiment
6. Receivers for fiber optic system experiment
7. Fiber optic expand and network experiment
8. Fiber optic connectors and lose-polishing experiment
9. Fiber optical data-transmission-self-transceiver experiment
10. Fiber optical data-transmission-double-transceiver experiment
11. Fiber optical data-transmission - PC"module experiment
12. Fiber optical data-transmission - module"PC experiment

Accessories:

1. 2mm-2mm test-lead : 1 set
2. Plastic fiber optics : 1 set
3. Experiment manual
4. RS-232 to USB adapter
5. Connection plug pitch = 10mm
6. Headphone and microphone