

Experiment no. 7

Aim: To study Bending Loss in Optical Fiber

Lab Outcome: Set up fiber optic link using fiber optic trainer kit and measure different parameters

Equipment: FIBER OPTICSTRAINER (FOCT-04)

Optical Fiber cable

Oscilloscope with necessary connecting probe

Procedure to measure bending loss

1. Connect the AC Supply to Kit.
2. Ensure that all fault switches in normal position.
3. Make the connections as shown in Block Diagram
4. Connect 1KHz.Sine Wave signal to660nmFO Transmitter output and FO Receiver input.
5. Connect 1Mtr. FO Cable between660nmFO Transmitter output and660nmFO Receiver input.
6. Connect660nmFO Receiver output to AC Amplifier input.
7. Set the switch SW3 to Analog Mode.
8. Switch ON the power supply of the trainer.
9. Observe the output signal at FO Receiver on CRO.
10. Wind the 1 meter FO cable on the mandrel provided and observe the corresponding AC amplifier output on CRO. It will be gradually reducing showing loss due to bends.

Observation table:

Sr. no.	Diameter(cm)	Output (V)
1		
2		
3		
4		
5		

Conclusion:

Connection diagram to measure bending loss

