

OPTO ELECTRONICS TRAINING & MEASUREMENT KIT

HBE-OPT-202



1. measure the features of Si, Ge diodes
 2. measure the features of LED, which is an electricity-optical conversion device
 3. measure the features of PD, which is an electricity-optical conversion device
 4. measure the features of PD, which is an optical-electricity conversion device
 5. measure the critical angle of total reflection
 6. experiment the optics feature using lenses
 7. measure the loss due to the radius of curvature of optical fiber
 8. observe the noise of multi-mode optical fiber
 9. measure the loss due to the connection of the optical connector
 10. understand the principles of the optical coupler and measure the divergence ratio
 11. experiment to transmit random digital and analog signals
 12. measure the loss due to the length of the optical fiber
 13. compare the features of uni-mode and multi-mode optical fibers with different wide diameters
 14. experiment the transmission of optical signals using amplitude modulation
 15. experiment the transmission of optical signals using frequency modulation
 16. experiment the transmission of RS-232C signals using IrED
- 🔧 12-13 : additional optical fiber, 14-16 : option board

■ Technical Specification

| | | |
|------------------------|---|--|
| Light Source | Laser Diode1 | Wave length 650 nm, Package : RTO-SC/PC, Ith (mA) : 12 ~ 15, Pout (dBm) - 0.1 ~ 0.5 @ 40mA |
| | Laser diode2 | Wave length 650 nm, Package cable length : 25cm |
| | LED(Green)LED(Red) | |
| Diode | Si,Ge | |
| Detector | Photo Diode1 | Si type, Package : STO-SC-SC/PC, Response (mA/mW)- 0.33 ~ 0.53@ -5 Vbias Optical input 1 mW @ 650 nm |
| | Photo Diode2 | Si type |
| | Photo Diode3 | Si type |
| Signal input | Internal- Function generator | Frequency range : 10 Hz ~ 50 kHz, Amplitude : 0 V ~ 7 Vp-p, Wave type : Sinusoidal, Triangle, Square, Duty cycle adj, Symmetry adj. |
| | External-Analog | Amplitude : 0 V ~ 10 Vp-p, Frequency : Audio frequency, Digital - TTL, ECL |
| Signal output terminal | BNC, RCA, RS-232C | |
| Power supply | Input : 220 Vrms/60 Hz | |
| | Output : ±5 Vdc, 1.25W (Average) | |
| Digital Volt Meter | Display : 3 and 1/2 | |
| | Accuracy : ±0.15 % rdg ±1 digit (Average) | |
| Optical coupler | Multi mode (6 : 4 ratio) | |
| Speaker | Impedance : 8ohms | |
| Audio amp | 250 mW | |
| Lens | Lens : Double convex, Plano concave | |
| | Holder : Holder & Stand | |
| Optical guide | Plastic guide | |
| Fiber | Plastic fiber, Glass fiber(multi-mode) | |