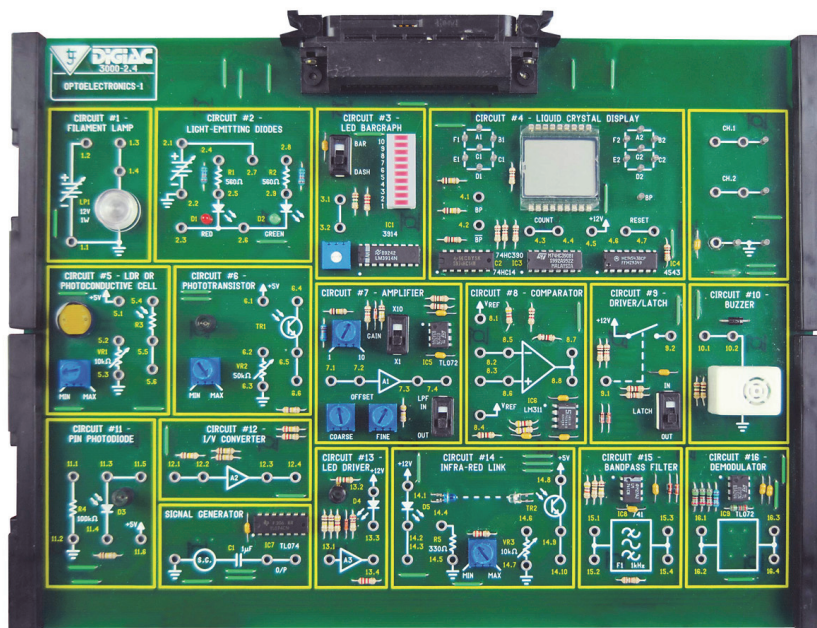


# Product Information Sheet

## Optoelectronic Devices Study Module



This electronics study module is designed to connect to the 300-01 or 300-02 Advanced Electronics Experiment Platforms as part of a modular electronics programme.

The study module is designed to introduce students to optoelectronic devices through a wide range of practical activities.

Using either of the Experiment Platforms, users can select from a range of faults to be inserted into the study module circuits to develop electronic diagnostic and faultfinding techniques.

The study module is supplied with PDF manuals that provide theory materials, practical tasks, faultfinding activities, and technical information.

### Topics Include the Following:

- State Indicators
- Display Devices
- Ancillary Circuits
- Photoconductive Cells
- Optic Fiber Devices
- Simple Bar-Code Reader
- PIN Photodiode
- Infra-Red Link
- Burglar Alarm

### Typical Activities Include:

- Measure power dissipation for red and green LEDs
- Interpret the I-V curve for an LED
- Identify the operation of a bargraph display
- Identify operational features of an LCD
- Diagnose faults in composite circuits
- Determine LDR resistance with varying ambient light
- Identify the response of a photoconductive cell to light falling upon it
- Measure phototransistor output voltage for high and low levels of illumination
- Determine by measurement and calculation the parameters and operation of a bar-code reader system

- Measure the current and voltage of a photoconductive PIN device
- Measure voltages occurring in a fiber optic link circuit
- Measure the voltage parameters of an infra-red link circuit
- Examine the voltages of an infra-red alarm system
- Faultfinding optoelectronics circuits

### Items Included:

- Circuit Card
- Storage Case
- Curriculum Manuals in PDF Format

### Other Items Required:

- 300-01 Advanced Electronics Experiment Platform
  - Digital Multimeter
  - Dual Trace Oscilloscope
  - Signal Generator
- or
- 300-02 Advanced Electronics Experiment Platform with Virtual Instrumentation

### General Information:

Dimensions: 81 x 323 x 256 mm (W, H, D)  
Shipping Volume: Approx 0.008 m<sup>3</sup>  
Shipping Weight: Approx 2 kg

**Order Code: 303-24**

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