

---

## LASER EXPERIMENT KIT

---

### OBJECTIVE

1. *Determination of Power distribution within beam.*
2. *Measurement of beam spot size.*
3. *Measurement of divergence of LASER beam.*
4. *Determination of wavelength of LASER.*
5. *Determination of grating element of reflection type grating.*

Now a days, LASERS are widely used in all the fields of Medical, Science & Technology. It is very important for the students to understand the properties and physical parameters of Laser. A simple setup has been designed for better understanding of physical concepts and demonstration / measurement using LASER and a no of optical and electronics components.

With the help of this kit, a very simple technique is used to determine the spot size of the LASER. In this technique, a knife-edge is slowly inserted into the beam and the power output is measured with respect to knife-edge position and hence from the plot of relative power vs knife edge position, spot size is determined. In the same way, divergence of the beam is also measured.

**INSTRUMENT** The setup Consists of :

- a) He – Ne LASER (2 mW) with Power Supply,
- b) Optical bench
- c) Reflection Grating (15000 lpi, imported),
- d) Transmission Grating (15000 lpi, imported)
- e) Photo Detector with holder,
- f) Knife edge with holder
- g) Micropositioner Mounts : 4 nos
- h) Screen with Mount
- i) Digital Multimeter

*Manufacturers:*



**MITTAL ENTERPRISES®**

2151/T-7C, New Patel Nagar, New Delhi – 110008

Telefax: 011-25702784

Mobile: +91-9810681132, +91-9868532156

E-mail : mittalenterprises@bol.net.in, info@mittalenterprises.com

Website : <http://www.mittalenterprises.com>