



PharmaLIBS™ 250



**A novel tool
for rapid,
reliable
pharmaceutical
materials
analysis and
process
monitoring**

- **Blend and Tablet Uniformity**
- **Coating Thickness Uniformity**
- **Lubricant and Disintegrant Distribution**
- **Spatial Resolution and Mapping**

Specifications & Requirements



PharmaLIBS™ 250 is an innovative, patented, laser-based analytical instrument designed for rapid, reliable testing of solid and oral dosage pharmaceuticals.

Analyses are performed directly on the tablets without any sample preparation or solvents required.

The PharmaLIBS™ 250 is mobile and user-friendly making it the ideal tool for quick decision-making.

Specifications:**Physical characteristics:**

Dimension: 135 x 60 x 99 cm (53 x 24 x 39")
 Weight: 201 kg (442 lbs)
 Wheeled for mobility.
 Full safety interlock protection.
 Large laser-safe viewing port.
 HEPA filtration of exhaust air.

CDRH Classification:

Class I Laser System (No safety eyewear necessary)

Spectrograph:

Imaging Czerny-Turner configuration
 Triple indexable grating (for greater flexibility)
 Spectral resolution: 0.26 nm
 Grating and wavelength selection under full computer control.

CCD Detector:

Interline readout scientific grade CCD
 Thermoelectrically cooled
 Electronic gating
 Exposure window: 100 ns and up
 Spectral sensitivity range 300-1000 nm

Laser:

Pulse Nd: YAG laser operated at fundamental wavelength of 1064 nm
 Pulse duration: 3-5 ns
 Pulse energy: computer controlled, up to 190 mJ per pulse
 Repetition rate: computer controlled, up to 10 Hz
 Spot size: ~ 200 µm

Sample Tray:

Capacity of 26 samples
 Laser sampling positions are fully software selectable.
 Removable sample holders for customization to different sample size and shapes.
 Disposable or reusable sample holders.

Computer:

High Power Computer
 Compact LCD flat panel display
 High quality printer
 BaseT Ethernet
 Hard drive, CD-ROM drive and 3.5" diskette drive
 System interfacing hardware
 Operating system: Microsoft® Windows® 2000 or higher version.

System Software:

PharmaLIBS™ 250 software
 Fully automated data acquisition and results processing.
 'Methods' based.
 Real time display of acquired spectra and processed results.
 Graphical and tabular output of data.
 Data export to text and Microsoft Excel® format.
 Graphical export to BMP, WMF and JPG formats.
 Fully 21 CFR Part 11 Compliant Software

Requirements:**Power:**

Single phase 208 to 242 Vac, 15 A, 50/60 Hz

Environmental:

Operating Temperature: 15-30° C < 2°C/hr
 Operating Humidity: 20-80% (non-condensing)

