

OSL reader is a light leakage free, precisely fabricated mechanical assembly, that houses ultra-fast and ultra-sensitive detection module with detection filter basket, Lightstimulation assemblies (four) diagonally placed around detector module inside the cylindrical enclosure.

Light Source Can Be Of Following

Wavelengths

460-470nm or 520 –535 nm or both based on the sample to be irradiated. The electronic circuits built-in provides constant current drive to each of the LED clusters with power control, to vary the luminous intensity. Proper heat sink and optical feedback should be present to ensure the stable light output. The output power density at the badge reader should be nearly 80 mW/cm2.

OSL

Detection Module

Ultra-fast and ultra-sensitive detector module with photocathode (dia. 1 inch) hermetically shielded having Peak wavelength: 400 nm; Quantum Efficiency: > 40%; Dark Current: < 5nA; Gain: > 106





Reference

Light source

Temperature-stabilized blue LED for dark count calibration

Optical

Filter

specific optical filters in front of Light source and detection module should be provided.

Display

System should be integrated with 7-inch touch TFT display supported by a high end 64 Bit Quad core Processor operating @ 1.5GHz with 4 GB RAM and 64 GB Data storage space.

Drawer

Assembly

Automatic controlled sample drawer opening/closing mechanism. Provision to operate the sample loader through software.





Mechanical

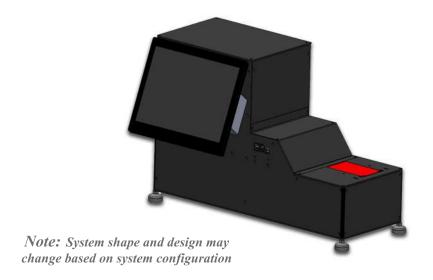
System should be light tight and black anodized to ensure no light from outside should enter system. Dimension of the system should be less than (50 cm x 45 cm x 45 cm)

Optional

Accessories

BAR CODE scanner to scan the card for sampling. USB camera to take the image of the sample card.

3D Representation Of The OSLD System







GUI

Of The System













