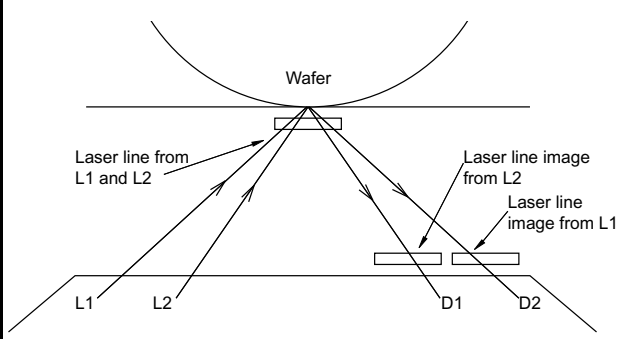
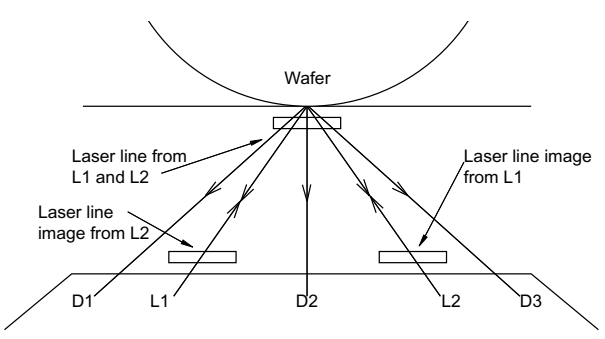


# EX vs. WX Feature Comparison

**The EX Wafer Mapping Sensor has better detection of dark/coated and ultra-thin wafers, improved cross-slot detection, plus it is less sensitive to stray reflections and fluorescent lighting.**

- New laser wavelength of 850nm closer to peak response of phototransistors, while maintaining Class 1 status (CDRH)
- Improved electrical gain
  - At least 6 times more sensitive to reflected laser signal
- Improved detector geometry
  - Provides constant response with angle
  - Less sensitive to alignment during setup
  - Able to scan on or off axis
  - Allows for higher optical gain
  - Triggering from spurious reflections highly unlikely
- Standard ambient light filter makes sensor gain constant with fluorescent lighting level
- Decreased laser stripe thickness
  - More light hits wafer edge simultaneously improving precision
  - Allows for smaller stripe at wafer edge
- Increased laser collimator focal length
  - Less “tail” above and below the stripe
- Added three laser collimator apertures
  - Decreased noise above and below the stripe

Feature	EX	WX
Laser Wavelength	2 @ 850nm	2 @ 780nm
Electrical Gain	Relative Gain = 6	Relative Gain = 1.0
Detector Geometry	 <p>Figure 1 – EX detector configuration when sensor is positioned on the wafer radial axis</p>	 <p>Figure 2 – WX detector configuration when sensor is positioned on the wafer radial axis</p>
Ambient Light Filter	Standard	Optional
Thinner Laser Stripe	0.13 – 0.17mm	0.4mm
Laser Collimator Focal Length	12mm	4mm
Laser Collimator Apertures	3	None

Note: The mechanical and electrical interfaces remain unchanged.

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