ALSI : Leader in Multi Beam laser dicing & laser grooving equipment

Semi Networking day June 2013
Our Markets

- Dicing (RF, Bonded LED, Power Devices)
- Thin wafers
- Grooving (Low $k$)
- Advanced materials
Core Technology Concepts

1. LBD-Optics
2. Wafer Stage 300mm
3. Active Mounts for Vibration Compensation (IP propriety)
4. Through lens vision concept
5. Wafer handling & process support

Patented Multi Laser Beam

Laser → DOE → Camera

Focussing device

DOE – Diffractive Optical Element
Beams: 2 – 48 or more
Distance: 10 – 1000 um
Multiple Beam Principle

- Less power per beam will help reduce the Heat Affected Zone (HAZ)
- Higher speed while maintaining high quality

Check video: www.alsi-international.com/files/single_vs_multi_website.swf
Multiple Beam Principle

Depth of laser drilled holes on moving wafer

• Multiple beams in a row to reduce the energy per beam
• Less Heat Affected Zone (HAZ)
• Improved quality at high speed

Check video : www.alsi-international.com/technology/multibeam_process/laser_seperation_techniques/
Multi Beam Grooving Productivity

- Multiple beams in a row to reduce the energy per beam
- Smooth groove surface
- Firm U-shape groove profile
- Less Heat Affected Zone (HAZ)
- Improved quality and flexibility at high productivity

Check video: http://www.alsi-international.com/application/ic/
Thank you!