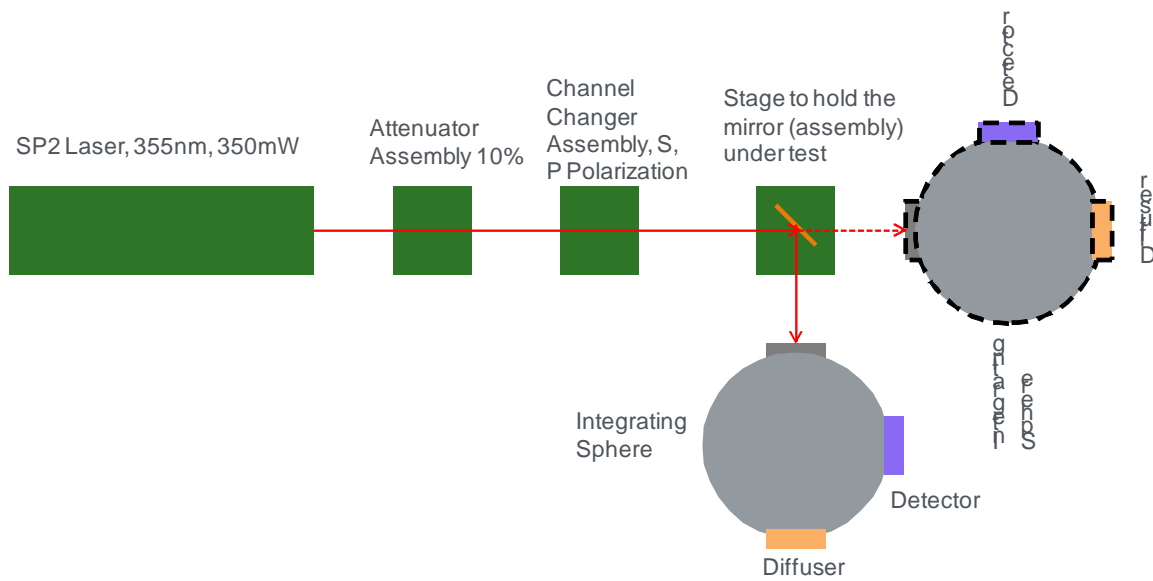


Internship Request Form

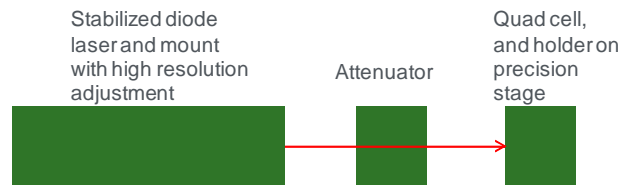
Company Name	KLA-Tencor (Singapore) Pte Ltd
Company Address	4, Serangoon North Ave 5, Singapore, 554532
Website	http://www.kla-tencor.com
Intern Job Title	Optics Test and Measurement
Duration	3~6 months
Brief Job Description	<p>The intern student will be working on two test and measurement setups. Please refer to attached figure for configuration. Requirements:</p> <p>(1) Optics reflectance and transmittance test</p> <ol style="list-style-type: none"> a. Set up the system on optics table, with DPSS 355nm DPSS laser and 632.8nm HeNe laser, attenuator, wave plates, rotation stage, integrating sphere, detector/power meter. b. Validate the test setup by correlating test result with spec and vendor test method; c. Analysis on impact of alignment tolerance to test accuracy; d. Test on optical parts including mirrors, lens, beam splitter cubes and wave plates. <p>(2) Quad-cell mounting eccentricity variation test</p> <ol style="list-style-type: none"> a. Set up the system on optics table, with stabilized diode laser, adjustment fixture, quad-cell mounted on optical stage; b. Data collection and analyze on setup stability contributed by laser pointing stability, stage stability, and quad-cell drift; c. Test multiple times to check the setup repeatability; d. Test multiple parts to check quad cell fixture part to part variation; e. Data analysis and check whether parts are within spec. <p>A report will be generated at the end of the intern period.</p>

Learning outcome	<ol style="list-style-type: none"> 1. Optics setup and alignment; 2. Characterization of critical optical component in metrology system for semiconductor industry; 3. Cleanroom protocol and laser safety.
Requirement	<ol style="list-style-type: none"> 1. Basics of laser, optics components, and optical alignment; 2. Data processing and analysis basics; 3. Good communication, documentation and problem solving skills.

Appendix:



Setup 1: optics reflectance and transmittance test setup



Setup 2: quad-cell mounting eccentricity variation test setup