

Record of clarifications provided to the queries of the prospective bidders during the Pre-bid Conference held at SCL on May 30, 2018 in response to Public Tender Notice No. SCL/PT/117 (Tender Ref. No. SCL/PS2/2018E0100801) for UV-Vis-NIR spectrophotometer Optical Thin Films Characterization.

S.No.	Clause Reference of Tender	Bidder's Query/Clarification Sought	Clarification from SCL
Query raised by M/s Agilent			
1.	Sr No. 4.6	Photometric Accuracy: 0.0002Abs or better should be 0.0003Abs or better	0.0002A is required for some critical application requirements hence it cannot be relaxed.
Query raised by M/s Perkin Elmer			
1.	Photometric Accuracy: 0.0002Abs or better S.no.4.6	Photometric Accuracy: 0.0003 Abs Perkin Elmer suggestion	0.0002A is required for some critical application requirements hence , it cannot be relaxed.
2.	Photometric Range: 8Abs or better UV-Vis-NIR Range S.no.4.5	Photometric Range: 8Abs UV-Vis 7 6Abs for NIR Range (As most of this photometric range would suffice all application needs.)	8Abs for the entire spectral range is a must requirement for the applications.
3.	For reflectance-Angle of incidence (5°-85°) For Transmission-Angle of incidence (0°-90°) S. no. 4.1	Modification in angle of incidence of measurement (Reflectance) - (8°-65°) Modification in angle of incidence of measurement (Transmittance) (0°- 60°)	Based on application requirements, the specification cannot be relaxed.
4.	Automated and software controlled Diffused scattering, Diffuse reflection and Diffuse transmission through independent sample rotation (360°) and detector positioning between 10°-350° at 0.02° in intervals S. no. 4.1	Diffused scattering data can be collected in integrating sphere without the need for moving the sample or the detector. As Integrating sphere meets the end result (i.e collection diffused scattering or reflectance hence sample rotation and detector rotation specs should be eliminated)	Automated and software controlled Diffused scattering, Diffuse reflection and Diffuse transmission through independent sample rotation (360°) and detector positioning between 10°-350° at 0.02° in intervals or any other method to measure diffused scattering, reflection and transmission exiting the sample (8" wafer) in any direction.

5.	Measuring absolute reflection and transmission from exactly the same point on the sample without moving or disturbing it or the light incident upon it. S. no. 4.1	As multiple reading are collected at different points (<i>taking into account the non homogeneity of the sample</i>) of the wafer, and the result is then averaged out for the different reading collected. Then this spec holds no significance from analysis point of view as area of sample collection is usually a number of random spots of the wafer.	For repeatability- check the system should be able to measure the sample automatically at same point before and after environmental tests to check the change in thin films quality and uniformity.
6.	Provide a measurement system capable of measuring optical properties viz: absolutereflectance, transmission and scattering without contacting the sample and wafer. S. no. 4.1	Sample will be at any point in contact with some clip/screw/clamp etc to mount the sample on the accessory.	The wafer may be held from the back side and/or by clamps along the edge of the front side (no more than 3mm from the edge). There should not be any contact more than 3mm from the edge of a 6" or an 8" wafer. Vendor to provide drawing describing the mounting mechanism along with the bid.
7.	Ability to move the detector and the sample independently of each other, providing a true multimodal measurement system capable of absolute reflectance, transmission and scattering without moving the sample S. no. 4.1	The instrument design of URA and Integrating sphere does not require the sample to be moved for the collection of data. This system design is suitable for delicate samples like thin coatings or wafer which might be affected due to the movement.	The system should be able to carry out true multimodal measurement of absolute reflectance, transmission and scattering by any method ofcollecting the light exiting the sample in any direction.

General Comment:

1. Vendors expressed satisfaction on the response/clarifications provided to their queries.
2. The prospective bidders must take the response/clarifications as recorded herein into account while submitting the bid to SCL.

Sr. Purchase & Stores Officer