

Operation Procedure for NANO1 Nanometrics 210 Film Thickness Measurement

Keyboard Keys

The special keys on the Nanometrics keyboard function as follows:

CALIB	Returns to the “Available Programs” screen
NEW TEST	Initiates a new measurement sequence with the previously selected program
MEAS	Initiates a measurement
ENTER	Terminates an alphanumeric entry
YES/0	Is used to respond “YES” to certain program prompts
NO/.	Is used to respond “NO” to certain program prompts
TAB	Displays statistics of the current set of measurements

Start-Up

1. Press space bar on keyboard to bring computer out of sleep mode, if necessary
2. Turn up the brightness on the computer monitor
3. Computer monitor screen should be at the “Available Programs” menu. If it is not, press the **CALIB** key to return to this screen.

Operation

4. Enter the program number for the desired measurement
5. Choose the objective lens (10x is used for most applications)
6. Verify that the objective lens on the microscope is set to the value entered in the program
7. Perform a new reference scan (Enter **YES** at prompt) or bypass a new reference scan (Enter **NO** at prompt). *You should always perform a new reference scan if this is your first measurement of a new program. To perform a new reference scan, follow the on-screen instructions after answering “YES” at the prompt. Use the supplied bare silicon wafer for the reference scan if you are measuring films on silicon.*
8. Enter the sample identification
9. Enter the refractive index for the film you are measuring (*See page 4-9 in Nanometrics 210 manual for typical index of refraction values*)
10. Locate the region of interest on your sample and focus microscope
11. Press the **MEAS** key to initiate a measurement
12. Accept (Enter **YES**) or reject (Enter **NO**) the measurement
13. Repeat steps 9 - 11 to take multiple measurements of your sample
14. You may display statistics of your measurements by pressing **TAB**. Press **ENTER** to return to the measurement mode after viewing the statistics
15. To take a new set of measurements using the same program, press **NEW TEST**
16. To select a new program, press **CALIB**

Shut Down

17. Return to the “Available Programs” screen by pressing **CALIB**
18. Move stage so that bare silicon wafer is located under microscope objective
19. Turn down the brightness on the computer monitor