

## Vertical Wafer Accessory – For Analysis of Semiconductor Wafers



### FEATURES OF THE VERTICAL WAFER ACCESSORY

- *Transmission analysis of semiconductor wafers for Carbon, Oxygen and BPSG*
- *Manual and/or fully-automated operation*
- *R-theta (rotation/translation) motion control providing complete wafer analysis*
- *Contamination-free wafer mount*
- *6", 5", 4", 3" and 2" wafer sizes and custom mounts and blanks*

PIKE Technologies offers the Vertical Wafer Accessory for analysis of semiconductor wafers. The Vertical Wafer Accessory is an in-compartment tool for transmission analysis of semiconductor wafers for Carbon, Oxygen and BPSG. The accessory accommodates wafers up to 6 inches (150 mm) in diameter. Wafers are located in a demountable ring. Dimensional tolerances conform to SEMI standards. Delrin (hard polymer) mounting clips eliminate contact between the wafer and metal surfaces during the analysis. The clip mechanism facilitates convenient and repeatable wafer placement.

The wafer support ring may be rotated through 360° and translated laterally through a distance of over 3" (75 mm) to produce an R-theta motion covering the entire surface of the wafer. The ring may be rotated and translated manually or automatically under stepper motor control using PIKE Technologies AutoPRO software. A scale is provided for each motion, providing verification of sample position.

The automated system incorporates two precision stepper motors for rotation and translation of the plate. The motors are driven by the Motion Control Unit connected to a PC. The operation is managed by PIKE AutoPRO software which provides full user programmability and an easy to learn "point-and-click" environment. Polar or Cartesian (X, Y) coordinates may also be used to define test points. The AutoPRO software is written in Visual BASIC and allows complex test sequences to be setup, stored as methods and implemented with full flexibility. The Motion Control Unit features a smart power supply and operates at 85-265 VAC, 47-63 Hz.

The PIKE Technologies Vertical Wafer Accessory requires minimum 3.5" beam height FTIR spectrometers. Please contact us for more product details.

### ORDERING INFORMATION

#### Vertical Wafer Accessory

PART NUMBER	DESCRIPTION
073-16XX	Vertical Wafer Accessory, Manual Version <i>Includes mount for your FTIR</i>
073-26XX	Vertical Wafer Accessory, Automated Version <i>Includes the Motion Control Unit and AutoPRO software</i>

*Notes: Please insert FTIR XX code found on the fold-out on the last page of this catalog. Requires 3.5" beam height or greater in FTIR.*

#### Options for Vertical Wafer Accessory

PART NUMBER	DESCRIPTION
073-3600	6" Wafer Mount, Blank
073-3660	Additional Wafer Mount
073-3650	Insert to Support 5" Wafer
073-3640	Insert to Support 4" Wafer
073-3630	Insert to Support 3" Wafer
073-3620	Insert to Support 2" Wafer

*Notes: For options not describe here, please contact PIKE Technologies.*