



# Particle Vision® II particle counting software

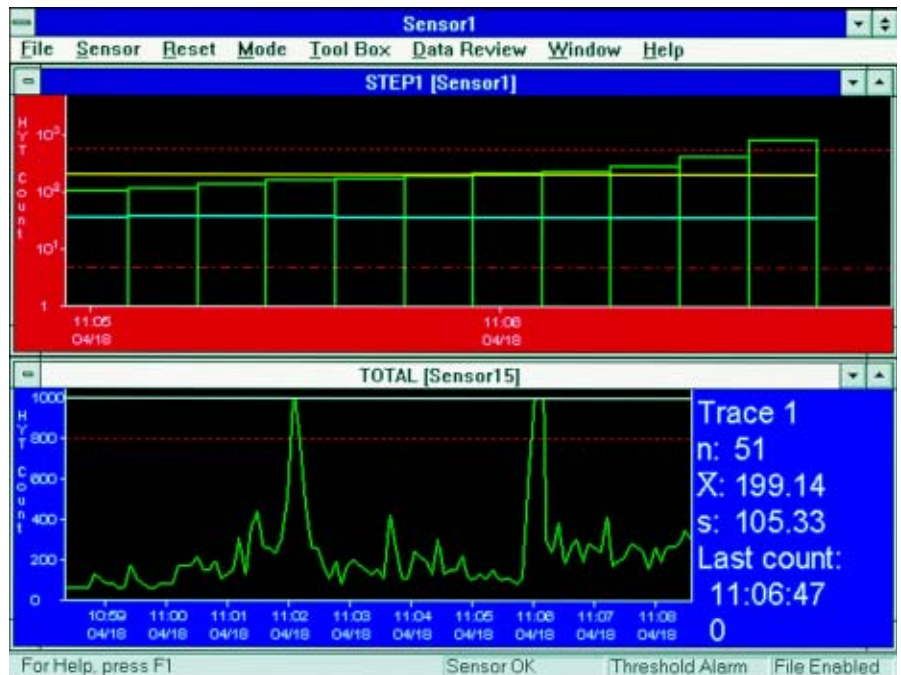
## Particle Vision II Software for Vacuum Monitoring Systems

### FEATURES

- Event and recipe step-synchronized data collection
- Large data display
- Rolling statistics

### APPLICATIONS

- Process optimization
- Equipment troubleshooting
- Research and development
- Commissioning of new process equipment



Particle Vision® II software from Hach Ultra Analytics provides data acquisition, display, and analysis capabilities for HYT vacuum particle monitors. The complete monitoring system includes an *in situ* particle sensor, an HYT PM-250E controller, and Particle Vision software.

*In situ* particle monitors are used to continuously monitor particle levels in chambers or pump lines of production vacuum equipment. A change in the particle count rate reflects a change, either expected or unexpected, in the wafer process environment. Particle trends can be identified and used to qualify cleaning procedures or to optimize maintenance intervals. An unexpected increase in particles may be an indication of a catastrophic failure.

Particle Vision II software uses the patented Machine Trigger™ capability which allows the user to synchronize data collection with the individual steps of the wafer processing cycle. The HYT controller will accept up to 256 different Machine Trigger input signals from the host system to give the user flexibility in integrating the particle monitor. Evaluating data from each process step separately facilitates trend analysis and identification of particle sources.



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## Particle Vision II Particle Counting Software

For production use, control limit thresholds and statistical rules can be defined by the user. If the thresholds are exceeded, an alarm condition is created. Color graphics allow users to visually identify trends and out-of-control conditions. Sensor diagnostic parameters for confirming sensor functionality can be tracked concurrently. The data is stored in Microsoft® Excel format for analysis and archival purposes. An error log is available to track sensor alerts and threshold alarms.

HYT offers an extensive line of in situ particle monitoring systems for pump lines and chambers. Training courses as well as applications and service support are available.

### SPECIFICATIONS

Sensors	Up to 10 HYT <i>in situ</i> particle sensors can be monitored at one time. Response time is best with five or fewer sensors attached.
Controllers	Compatible with HYT PM-250E controller with firmware version 5.5I
Computer requirements	IBM PC or compatible with 486 processor 8 Mbyte RAM Microsoft® Windows 3.1 (U.S. English version) 3.5" DS/HD floppy disk drive VGA or SVGA color monitor Mouse or trackball
PM-250E communication	RS232, RS422, or RS485 serial port 9600 baud



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