



LEADERS IN TRIBOLOGY TEST  
INSTRUMENTATION AND SERVICES

## Bench-top CMP Machine with Controlled Polishing

### <<< HARDWARE

### SOFTWARE >>>

#### Upper Specimen

*Wafer (up to 4")*

Self-Leveling  
Centering

Vertical  
Positioning + Loading

Lateral  
Positioning + Sliding

Rotation  
0.1-500 rpm

#### Upper Specimen Conditioning Ring/Bar (up to 4.25")

Self-Leveling  
Spring-Loading

Rotation  
Passive

#### Lower Specimen Polishing Pad (up to 9.5")

Rotation  
0.1-500 rpm

#### Data Analysis

Removal Rate

Non-Uniformity  
of Polishing

Coefficient of  
Friction

Average Acoustic  
Polish Intensity

Acoustic Peaks  
Micro-Scratching

Ata Average  
Smoothing

Data Summary  
Charts

#### Motion Control

Pad Rotation

Wafer Rotation

Wafer + Conditioner  
Reciprocation

#### Data Monitor Recording

Down-load  
Pressure

Friction Force  
Torque

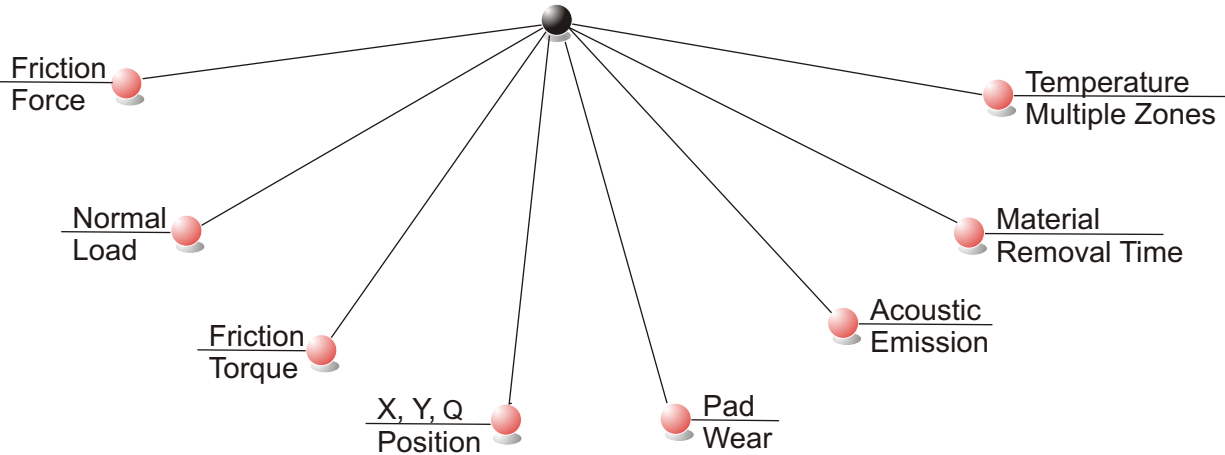
Contact Acoustics  
Temperature

#### Data Acquisition

8 channels

20 kHz Data Rate

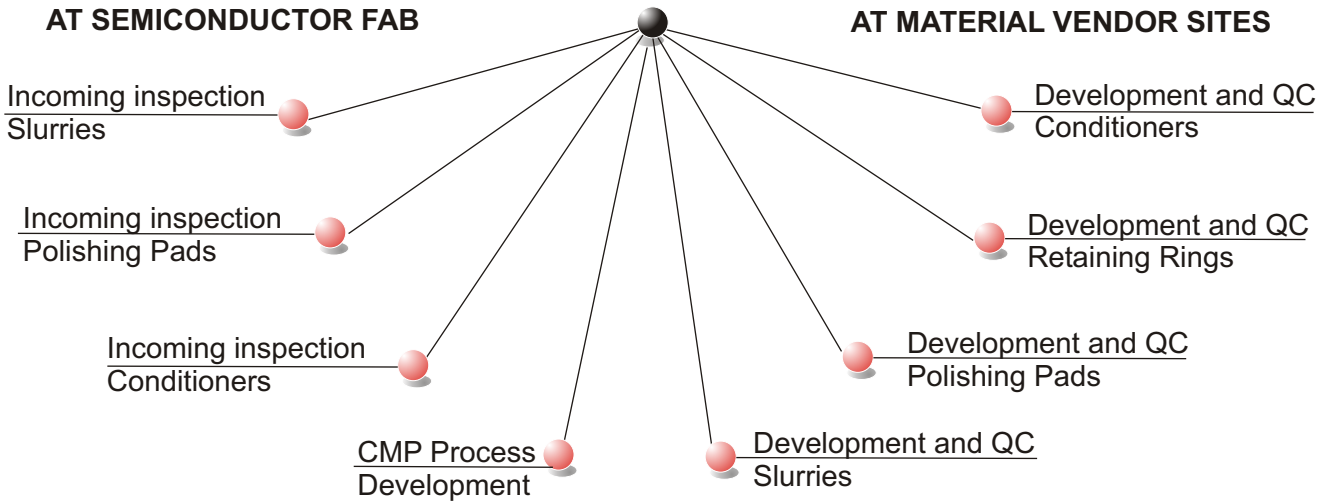
## PARAMETERS MEASURED & RECORDED



## FUNCTIONAL TESTING

### AT SEMICONDUCTOR FAB

### AT MATERIAL VENDOR SITES



## MATERIALS TESTING

