



PRECISION IS OUR PROFESSION

Catalog No. E11018

Introduction to Precision Measuring Instrument Solutions

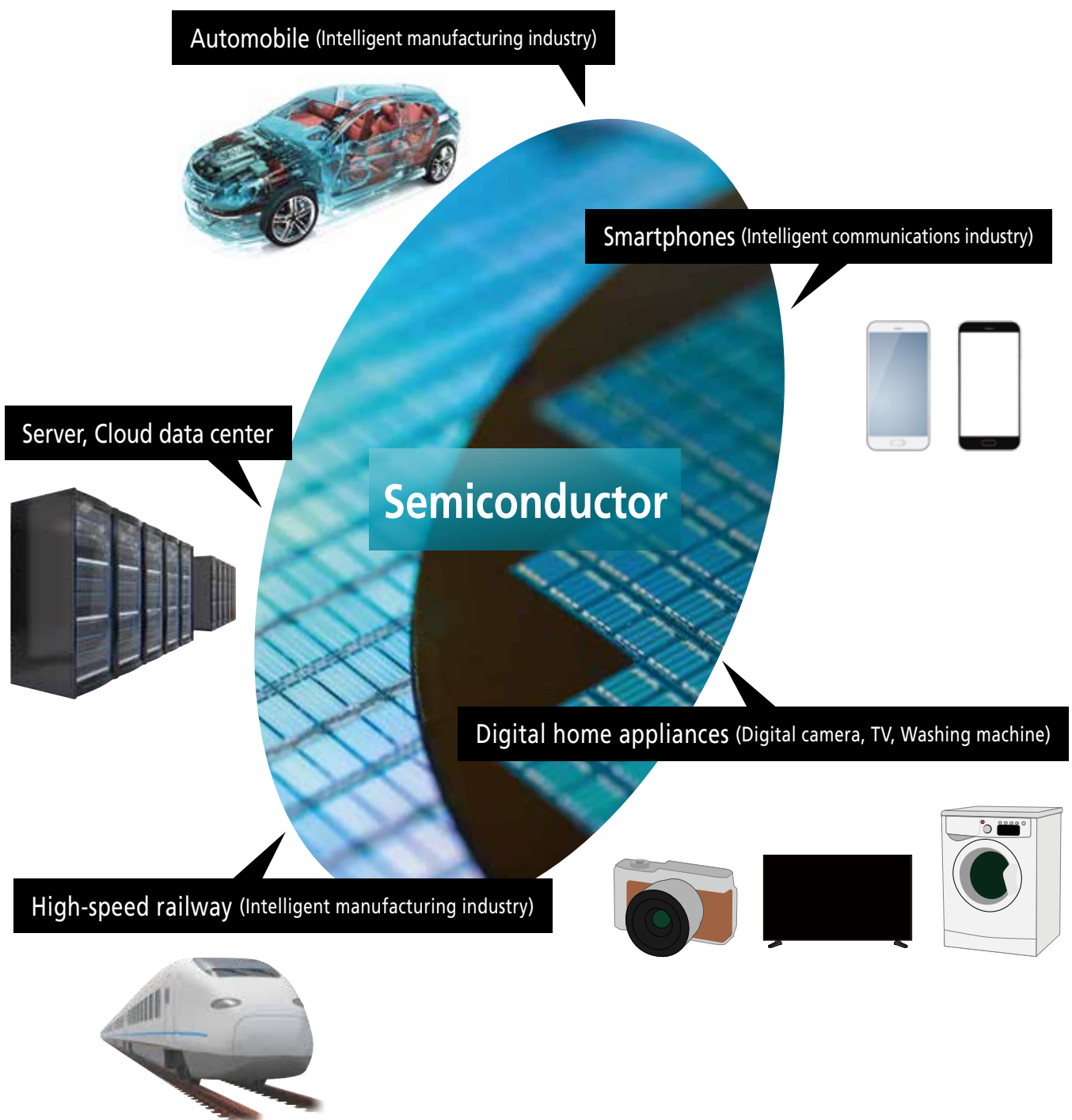
— Semiconductor Industry Measurements —

Mitutoyo

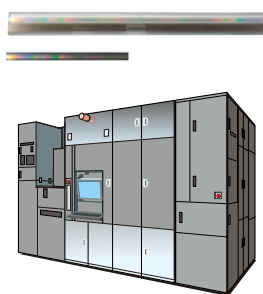
Measurement Solutions for Semiconductor Manufacturing Processes

Measurement solutions for a wide range of fields in the semiconductor manufacturing industry, which is growing rapidly following a shift to production of electric vehicles, expansion of services in line with the implementation of 5G, etc.

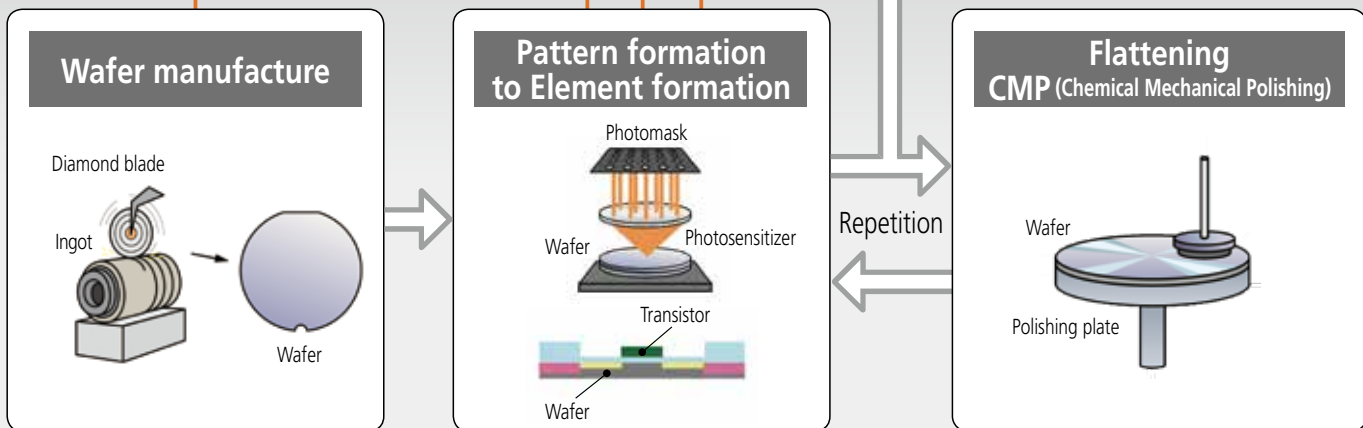
Industries Using Semiconductors




Measurement Solutions for Upstream Semiconductor Manufacturing Processes

<p>External diameter of ingot Laser Scan Micrometer</p> 	<p>Lithography equipment High-accuracy Linear Scale</p> 	<p>Parts for CVD equipment: Ceramic heater, Silicone ring Flatness, Cross-sectional form analysis, Surface roughness Coordinate Measuring Machine, Surface Roughness Measuring Instrument, Contour Measuring Instrument, Non-contact Laser Probe-equipped CNC Vision Measuring System (QV HYBRID TYPE4)</p> 	<p>Parts for CVD equipment: Shower head Nozzle hole inside diameter, Roundness, True position Non-stop CNC Vision Measuring System (QV STREAM PLUS)</p> 
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Upstream Process



A/N MARK (SEMI standards): Width, Position, Dot diameter and depth
Vision Measuring System (QV Apex), Non-contact 3D Vision Measuring System (Hyper QVWLI)



Wafer thickness
High-accuracy Linear Gage (LGH), High-accuracy / resolution Measuring Machine (Litematic VL-50)

Back-surface roughness
Surface Roughness Measuring Instrument

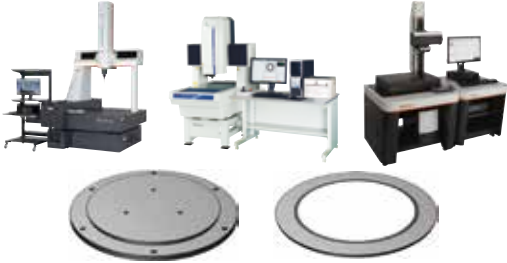


Parts for CMP equipment: Polishing pad
Groove width, Groove depth, Groove pitch, Surface roughness
Vision Measuring System, Surface Roughness Measuring Instrument



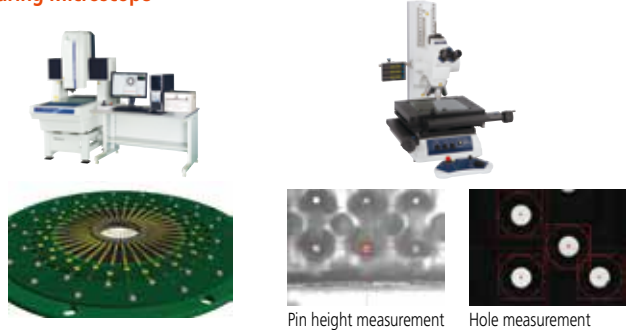
Parts for etching equipment: Electrostatic chuck, Silicone ring
Flatness, Cross section, Surface roughness

Coordinate Measuring Machine, Surface Roughness Measuring Instrument, Contour Measuring Instrument, Non-contact Laser Probe-equipped CNC Vision Measuring System (QV HYBRID TYPE4)

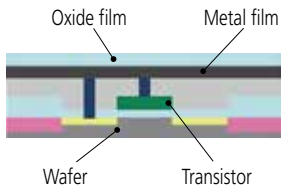


Probe card, IC test socket

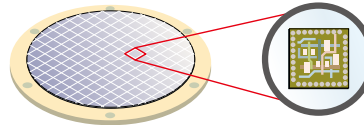
**Non-stop CNC Vision Measuring System (QV STREAM PLUS),
Measuring Microscope**



Wiring formation



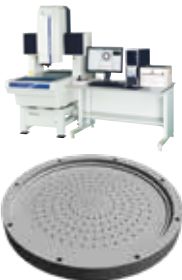
Wafer inspection



To Downstream Process

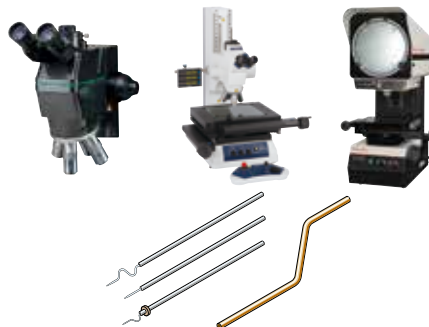
Parts for etching equipment: Shower head
Nozzle hole inside diameter, Roundness,
True position

**Non-stop CNC Vision Measuring System
(QV STREAM PLUS)**

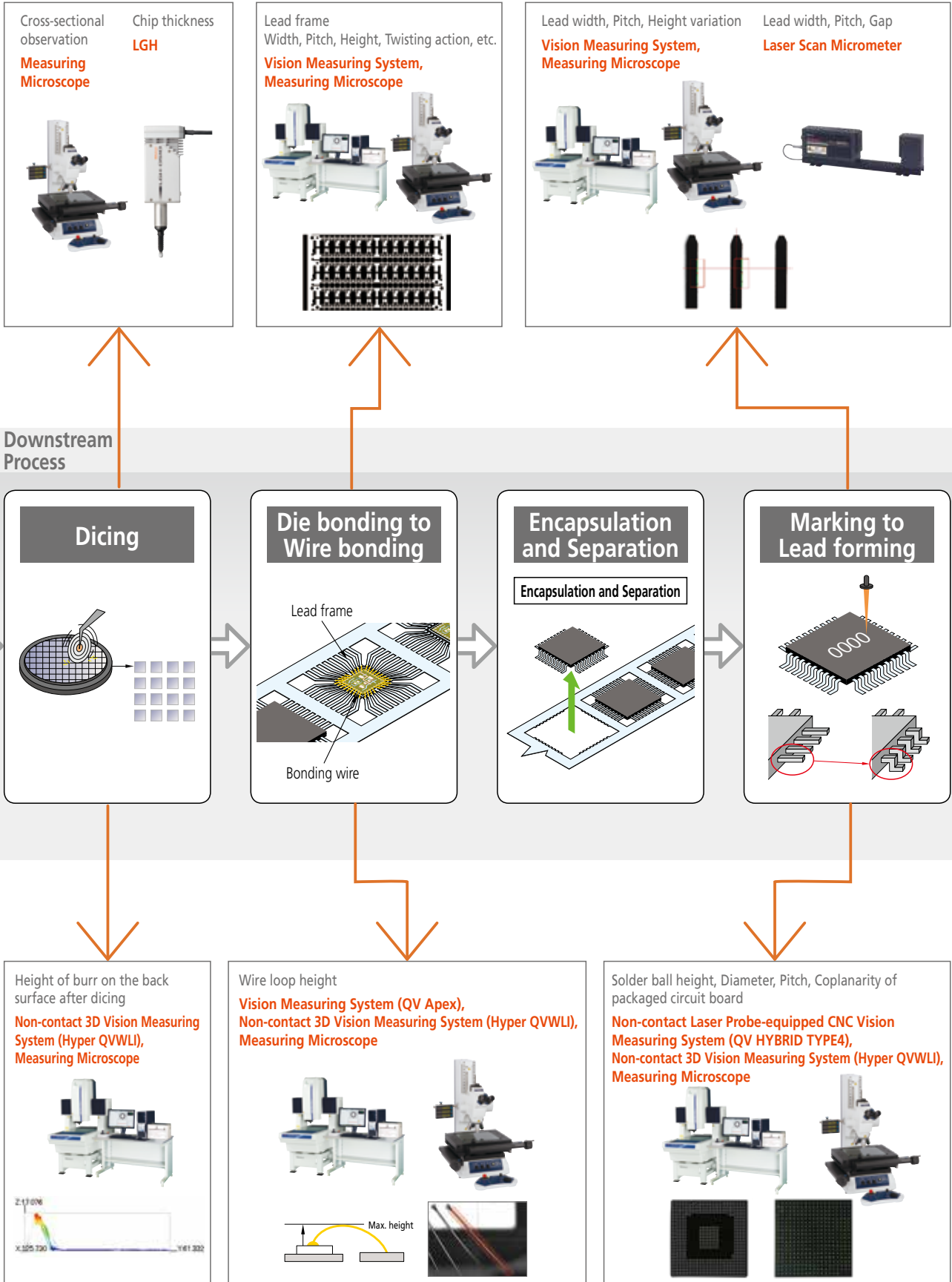


Wafer prober, Probe needle

**Video Microscope Unit (VMU),
Measuring Microscope, Profile Projector**



Measurement Solutions for Downstream Semiconductor Manufacturing Processes





Whatever your challenges are, Mitutoyo supports you from start to finish.

Mitutoyo is not only a manufacturer of top quality measuring products but one that also offers qualified support for the lifetime of the equipment, backed up by comprehensive services that ensure your staff can make the very best use of the investment.

Apart from the basics of calibration and repair, Mitutoyo offers product and metrology training, as well as IT support for the sophisticated software used in modern measuring technology. We can also design, build, test and deliver bespoke measuring solutions and even, if deemed cost-effective, take your critical measurement challenges in-house on a sub-contract basis.



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