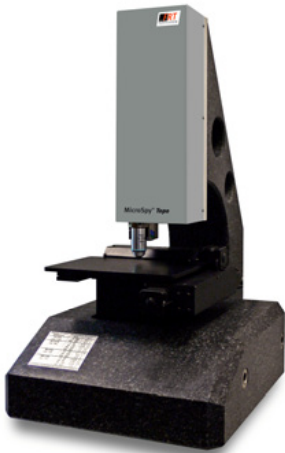


# Unique, Non-Contact Multisensor Metrology Solutions



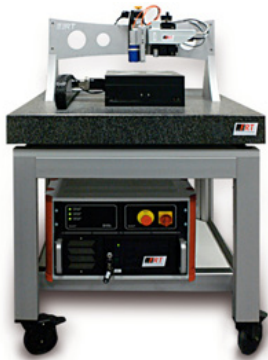
MicroSpy® Topo  
Confocal Microscope

## Measurement Tasks

- Roughness
- Step Height
- Profile, Contour
- Film Thickness
- Pitch, Trench
- TTV (total thickness variation)
- Bumps
- 3D
- Bow, Warp
- Coplanarity
- Parallelism
- Angle
- CD (critical dimensions)



MicroProf®  
Multisensor Tool for Production



MicroProf®  
Multisensor Tool



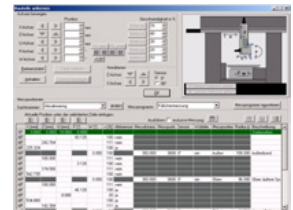
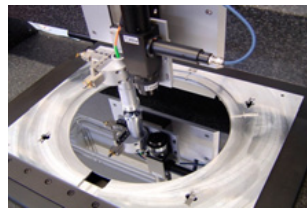
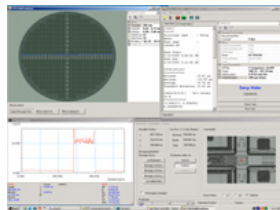
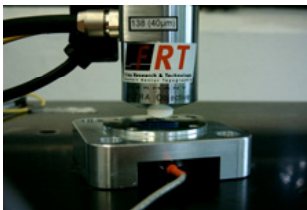
MicroProf® MFE TTV  
Multisensor TTV Tool  
for Wafer Inspection.



MicroProf® MFE  
Multisensor bridge tool for  
200/300 mm wafer inspection.  
Equipped with class 1 mini environment.

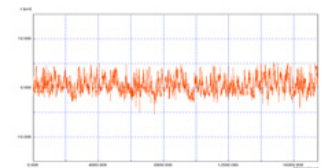
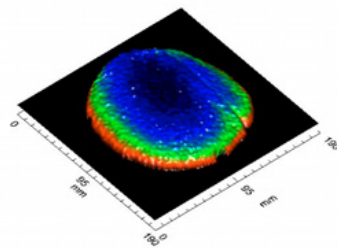
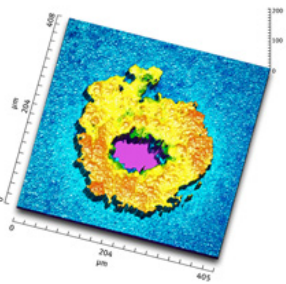
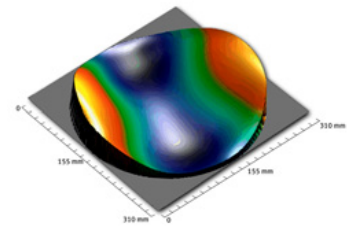
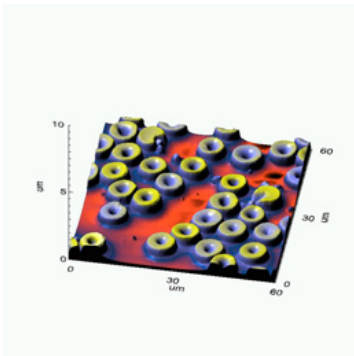
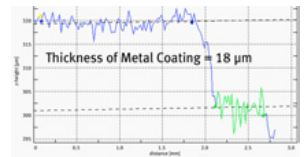
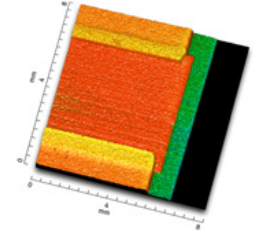
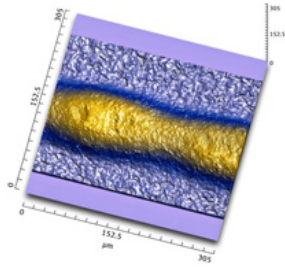
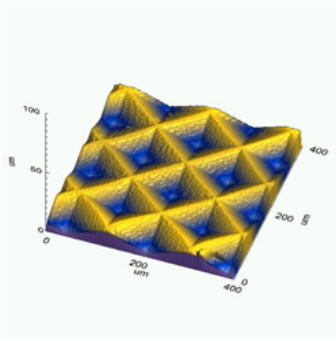
## Major Target Industries

- Semiconductor/ MEMS
- PV / Solar
- Optics
- Automotive



## Reference Customers

ASE Inc.  
 Audi AG  
 Ball Packaging Europe GmbH  
 Bayer AG  
 Beiersdorf AG  
 BMW AG  
 Boehringer Ingelheim microParts GmbH  
 Carl Zeiss SMT AG  
 DAIMLERCHRYSLER  
 Dow Benelux N.V.  
 EKO Stahl GmbH  
 Fraunhofer-Institute  
 Freescale  
 Fuji Magnetics GmbH  
 General Electric Plastics B.V.  
 Gillette  
 HILTI AG  
 Hoechst Trespaphan GmbH  
 Human Optics AG  
 IBM  
 Infineon Technologies AG  
 Lexmark International, Inc.  
 MAN Roland Druckmaschinen AG  
 Matsushita Electric Works  
 Nortel Networks Optical Components (Switzerland) AG  
 Océ-Technologies B.V.  
 Optische Werke G. Rodenstock GmbH  
 Philips Electronics Nederland B.V.  
 Robert Bosch GmbH  
 Schott Glas  
 SGL Carbon AG  
 SIEMENS AG  
 Sulzer Innotec AG  
 Texas Instruments  
 Universities  
 Voestalpine Stahl GmbH  
 Volkswagen AG  
 Western Digital Fremont, Inc.



Wafer No.	Parameter										Thickness		
	TTV	TIR	LTV	PLTV	LTIR	PLTIR	LFPD	PLFPD	WARP	BOW	Min	Mean	Max
1	2,746	2,719	2,525	100,0	2,515	62,7	-1,472	32,1	1,517	-3,995	607	609	611
2	4,741	4,706	2,746	82,6	2,671	62,7	-1,298	60,9	1,083	6,346	599	603	605
3	15,040	12,866	4,116	0,0	4,109	0,0	3,557	12,7	1,386	-8,540	638	643	655

All values in µm

Ra:	1.257 µm	Rku:	2.647
Rq:	1.527 µm	RPc:	94.392/cm
Rz(ISO):	9.082 µm	RK:	3.792 µm
Rz(DIN):	8.371 µm	Rpk:	1.775 µm
Rmax:	10.098 µm	Rvk:	0.944 µm
Rp:	4.587 µm	Mr1:	17.311 %
Rv:	5.519 µm	Mr2:	95.928 %
Rt:	10.106 µm	V0:	0.019 µm³/µm²
Rsk:	0.403		

**FRT** the art of metrology™

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