

# Surface Texture Measuring Instruments >>>

## Compact Field Surface Texture Measuring Instrument with High Operational Ease



# SURFCOM 130A

### LCD Panel Simplifies Operation

- Simply select the desired operation from the color LCD touch panel with a wide field of view or the reasonable monochrome LCD.

### Highly Portable Compact Unit

- The unit is small enough for use at virtually any location.

### Supports International Standard Analysis Parameters

- Select the desired standard: JIS, ISO, DIN, ASME or CNOMO.

### Satisfies European Directives for CE Marking

Best of Class Straightness Accuracy  
0.3 μm/50mm!



Monochrome LCD



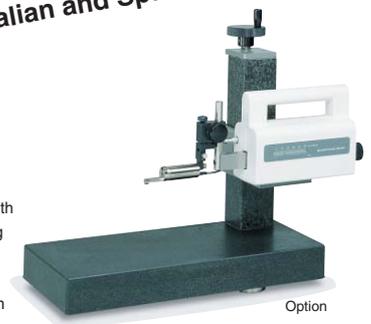
TFT color LCD



Can use English/Japanese/German/  
French/Italian and Spanish!

### Compact Measuring Stand E-ST-S130A

The height and inclination of the drive unit can be adjusted in accordance with the size and shape of the object being measured.  
Table size: 410 × 200 mm  
Maximum measuring height: 200 mm



### Customize Icons

The customize function can be used to create a special menu where only the icons that are used most frequently are displayed, substantially enhancing operational efficiency.



### AI Function (patented)

The AI (artificial intelligence) function automatically selects the ideal cut-off value, measuring range and other conditions by simply entering the parameters and allowable values denoted on the machining drawing. This automates measurement.



### Guidance Function

This function guides the user through the measuring procedures, enabling beginners to make measurements.



### Memo Function

A short note or diagram can be entered with the touch pen and printed using the memo function.



### Host of Analysis Functions

The unit incorporates 34 types of roughness parameters (Ra, Rz, Ry, Sm, S, tp, etc.) and 32 types of waviness parameters. The steps on electrical parts, film thickness, surface area and other items can be analyzed.



### Tilt Correction Function

Six types of automatic tilt correction are provided: Linear, first half, latter half, both end, round surface and spline curve (patented).



### Evaluation Range Setting (patented)

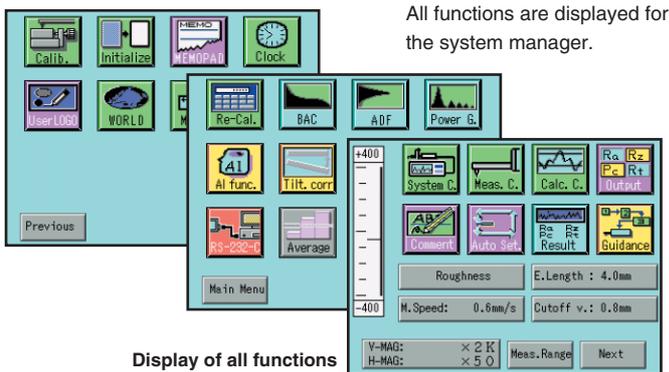
The waveform on the screen is enclosed by two cursors, allowing the desired evaluation range to be set and the parameters to be calculated.



### PC Card Slot

Measuring conditions, measured result management or measured data can be output in binary and text format. This data can be easily read from the PC card slot on a personal computer.

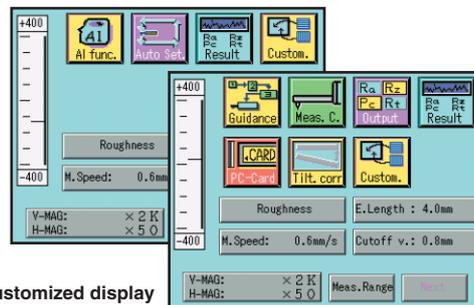
### Convenient Mode Select Function for System Manager/Operator



Display of all functions

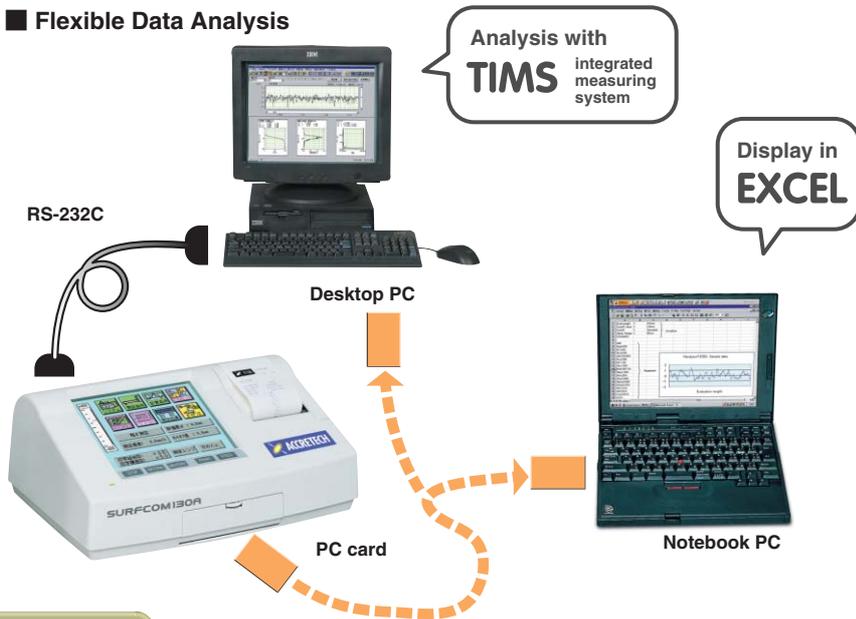
All functions are displayed for the system manager.

Only the required functions are displayed for the operator.

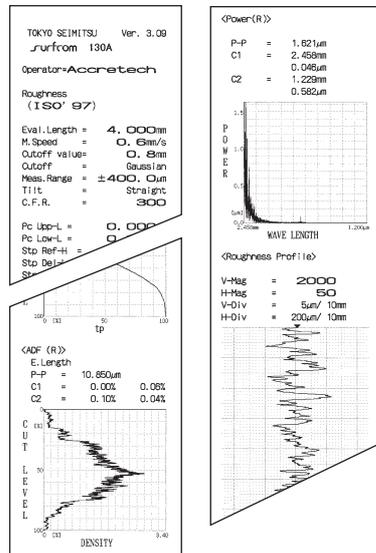


Customized display

### Flexible Data Analysis



### Sample Data Sheet



### Specifications

Model		SURFCOM 130A
Measuring range	X axis (horizontal)	50mm
	Z axis (vertical)	800µm (Measuring range/resolution: 800µm/10nm, 80µm/1nm, 8µm/0.1nm)
Straightness accuracy		0.3 µm / 50 mm
Analysis items	Standards	Complies with JIS-2001, JIS-1994, JIS-1982, ISO-1997, ISO-1984, DIN-1990, ASME-1995 and CNOMO.
	Parameters	Ra, Rq, Ry, Rp, Rv, Rc, Rz, Rmax, Rt, Rz.J, R3z, Sm, S, RΔa, RΔq, λa, Rλq, TILT A, Ir, Pc, Rsk, Rku, Rk, Rpk, Rvk, Mr1, Mr2, VO, K, tp, Rmr, tp2, Rmr2, Rδc, AVH, Hmax, Hmin, AREA, NCRX, R, Rx, AR, NR, CPM, SR, SAR
	Evaluation curves	Section profile curve, roughness curve, filtered waviness curve, filtered center line waviness curve, rolling circle waviness curve, rolling circle center line waviness curve, DIN4776 special curve, roughness motif curve, waviness motif curve, envelope waviness curve
	Surface characteristics graphs	Load curve, amplitude distribution (ADF) curve, power graph
Tilt correction		Linear correction, round surface correction, first half correction, latter half correction, both end correction, spline curve correction (linear, round surface and both end correction possible at arbitrary range)
Magnification	Vertical magnification (Z axis)	Automatic: 50, 100, 200, 500, 1K, 2K, 5K, 10K, 20K, 50K, 100K
	Horizontal magnification (X axis)	Automatic: 1, 2, 5, 10, 20, 50, 100, 200, 500, 1K, 2K, 5K
Type of filter		Standard filter (2RC), phase compensation filter (2RC), phase compensation filter (Gaussian)
Measuring speed		0.3, 0.6, 1.5, 3 mm/s (4 speeds)
Detector		Tip radius: 2µm, Material: Diamond, Measuring force: 0.75 mN
Special functions	Measuring AI	AI function provides easy procedures, enabling beginners to make measurements.
	Step analysis function	Ideal for film thickness and surface area measurement of semiconductor parts.
	PC card	Output as text file allows transfer of data to personal computer.
Standard accessories		Automatic (E-MC-S24B), recording paper (E-CH-S21A), touch-pen (E-MA-S54A), instruction manual
Power source/consumption		AC 100 – 240 V ±10%, 50/60 Hz, 30 VA
Installation dimensions		700 (W) × 300 (D) × 150 (H) mm
Weight		8 kg

\* PC card (E-MU-S550A) and PC connection cable (E-SC-S288A) are optional.