SURFCOM 130A

Operator-Oriented Operation for the Workplace
Compact Surface Texture Measuring Instrument for Easy Operation

Straightness accuracy is 0.3 μm/50 mm, highest in its class!!

Supported languages; Japanese, English, German, French, Italian, Spanish and Chinese

Simplified 16% rule automatic discrimination

Roll foot	All-position pickup folder	Horizontal trace pickup folder

LCD Panel Simplifies Operation
A Color LCD touch panel with a wide field of view is available.

Highly Portable Compact Unit
The unit is small enough for use at virtually any location.

Complied with International Standard Analysis Parameters
Desired standards such as JIS, ISO, DIN, ASME or CNOMO can be selected.

Satisfies European Directives for CE Marking

Able to Measure Level Difference and Film Thickness

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 simply by 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. Level difference of electrical parts, film thickness, surface area and other items can be analyzed with maximum precision.

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 and measured data can be stored in a PC card and read whenever necessary. This data can be output in text format and read on a personal computer. Storage of data on CF cards is also possible.

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Convenient Mode Select Function for System Manager/Operator

All functions are displayed for the system manager.

Only required functions are displayed for the operator.

All-function screen

Customized screen
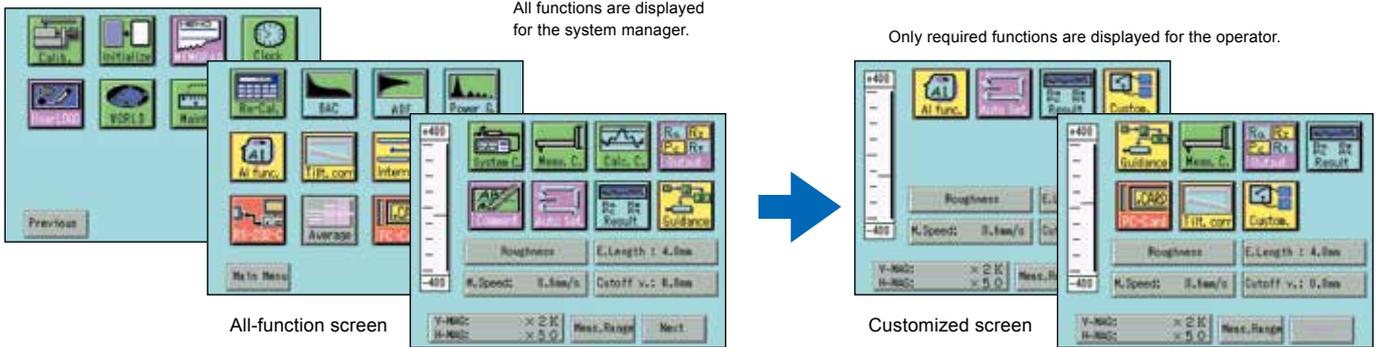
Level difference profile evaluation function

[Measurement example]
Hybrid IC
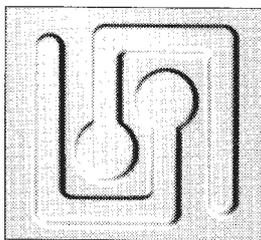
Can be used for measurement of level difference, film thickness and area of hybrid IC, magnetic head, etc.
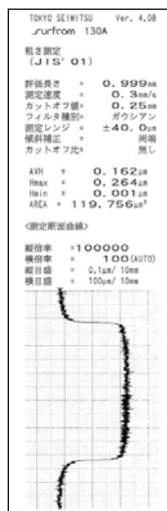
Data Sheet
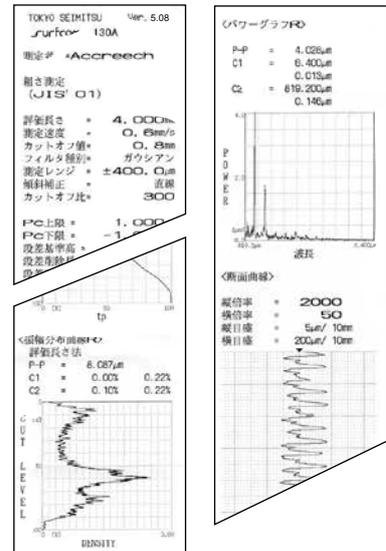
Specifications

Model		SURFCOM 130A
Measuring range	Z-axis (vertical)	800 μm (Measuring range/resolution: 800 μm/0.012 μm, 80 μm/0.001 μm, 8 μm/0.0001 μm)
	X-axis (horizontal)	50 mm
Straightness accuracy		0.3 μm/50 mm
Analysis items	Standards	Complies with JIS2013, JIS2001, JIS1994, JIS1982, ISO2009, ISO1997, ISO1984, DIN1990, ASME1995, CNOMO
	Parameters	Ra, Rq, Ry, Rp, Rv, Rc, Rz, Rmax, Rt, Rz.J, R3z, Sm, S, RΔa, RΔq, Rλa, Rλq, TILT A, Ir, Pc, Rsk, Rku, Rk, Rpk, Rvk, Mr1, Mr2, VO, K, tp, Rmr, tp2, Rmr2, Rσc, 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	Bearing area curve, amplitude distribution curve, power spectrum curve
	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 in arbitrary range)
Magnification	Vertical (Z-axis)	50, 100, 200, 500, 1 k, 2 k, 5 k, 10 k, 20 k, 50 k, 100 k, auto
	Horizontal (X-axis)	1, 2, 5, 10, 20, 50, 100, 200, 500, 1 k, 2 k, 5 k, auto
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: 2 μm, Material: Diamond, Measuring force: 0.75 mN
Special functions	AI function	AI function provide for easy procedures, enabling beginners to conduct measurements.
	Level difference analysis function	Ideal for film thickness and surface area measurement of semiconductor parts.
	PC card	Data output as text file for transfer to a personal computer.
Standard accessories		Reference specimen (E-MC-S24C), recording paper (E-CH-S21A), touch pen (E-MA-S54A), operation manual, support ware
Dimensions and weight	Power supply, frequency, consumption	AC 100 V to 240 V ±10%, 50 Hz/60 Hz, 30 VA
	Installation dimensions (W x D x H)	700 mm × 300 mm × 150 mm
	Weight	8 kg

*The correspondence to the special specification of measuring pressure power or stylus is also possible.

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