

SURFCOM 130A

Operator-oriented Operation for the Workplace Compact Field Surface Measuring Instrument



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

TFT color LCD

Monochrome LCD



Best of Class Straightness Accuracy
0.3 μ m/50mm !!



Simplified 16% rule
automatic discrimination



Supported Languages
English, Japanese, German, French, Italian,
Spanish and Chinese!



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)

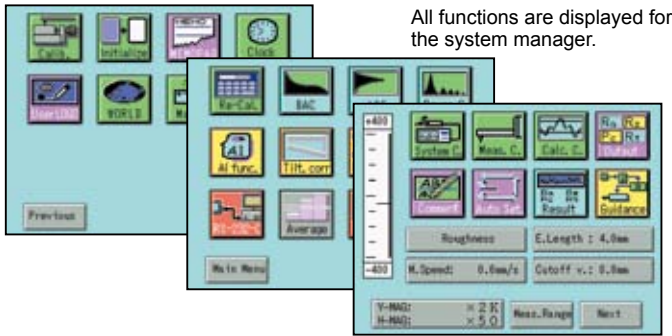
The waveform on the screen is enclosed by two cursors, allowing the desired evaluation range to be set and the parameters to be calculated.



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. Storage of data on CF cards and other types of memory cards is possible to use.

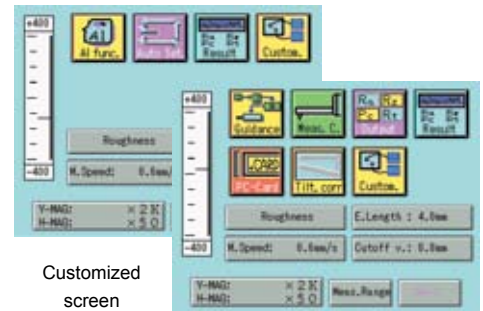
■ Convenient Mode Select Function for System Manager/Operator



All-function screen

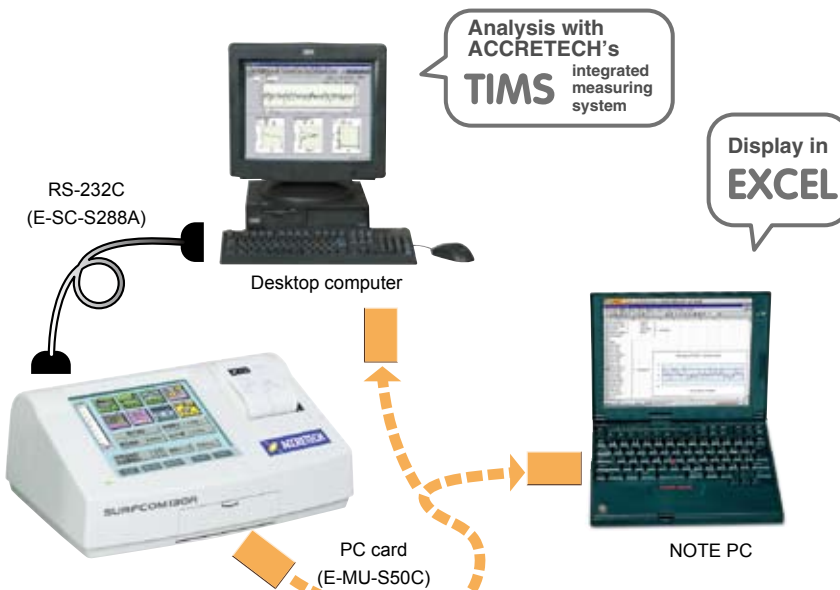
All functions are displayed for the system manager.

Only required functions are displayed for the operator.

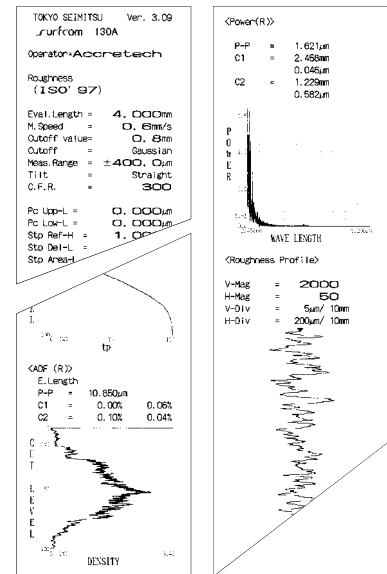


Customized screen

■ Flexible Data Analysis



■ Sample Data Sheet

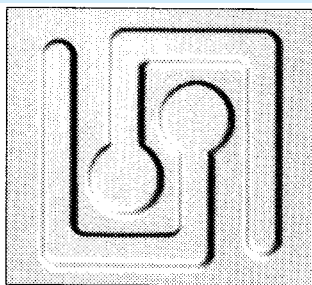


PC card(E-MU-S50C)及びPC接続用RS-232Cケーブル(E-SC-S288A)はオプションです。

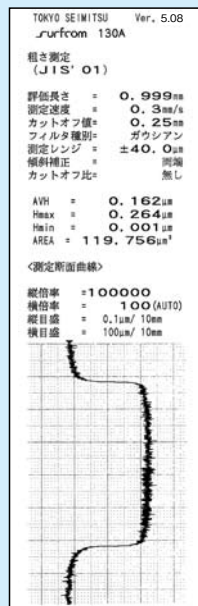
■ Outstanding Analysis Functions

● Step Profile Evaluation

【Example Measurement】
Hybrid IC

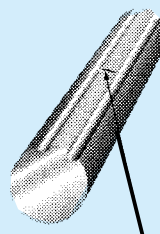


Can be used for hybrid IC, magnetic head, and other step measurement, film measurement, and surface area measurement.



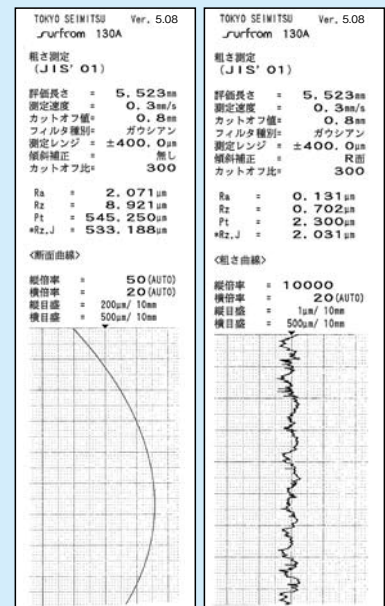
● R-Surface Correction

【Example Measurement】
Shaft



Measurement points

A notched workpiece measuring function makes it possible to eliminate unused parted.



Options



Roll Foot E-MA-S62A

Attachment for placing the drive unit on a roll shaped object for measurement
Roll outer diameter: $\phi 60$ mm or more



Pickup Holder for All-Orientations E-DH-S107A

For measuring surface roughness of slanted surfaces, vertical surfaces, ceiling surfaces, and other non-flat surfaces.
Photograph shows unit with E-MA-S63A roll foot.



Pickup Holder for Horizontal Tracing E-DH-S17A

Attachment for horizontal tracing of items, such as a crankshaft, that have obstacles in the front and back in the measuring direction (using double-side straddling skid)



Battery Option Set E-MA-S65A

For measuring and recording in a location where there is no power outlet available.

Included items: AC adaptor, battery, charger



PC card E-MU-S50C

Provides storage for approximately 500 measurement conditions, or approximately 500 data measurements (100 text management items).

Specifications: 64 MB



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: 410x200mm

Maximum measuring height: 200mm

| Model | | SURFCOM 130A |
|-----------------------|--------------------------------|---|
| Measuring Range | X-axis (horizontal) | 50mm |
| | Z-axis (vertical) | 800 μ m (Measuring range/resolution: 800 μ m/10nm, 80 μ m/1nm, 8 μ m/0.1nm) |
| Straightness accuracy | | 0.3 μ m/50mm |
| Analysis items | Standards | Complies with JIS-2001, JIS-1994, JIS-1982, ISO-1997, ISO-1984, DIN-1990, ASME-1995, CNOMO |
| | Parameters | Ra, Rq, Ry, Rp, Rv, Rc, Rz, Rmax, Rt, Rz.J, R3z, Sm, S, R Δ a, R Δ q, R Δ a, R Δ q, TILT A, Ir, Pc, Rsk, Rku, Rk, Rpk, Rvk, Mr1, Mr2, VO, K, tp, Rmr, tp2, Rmr2, R δ c, 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 (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) |
| | Vertical (Z-axis) | 50, 100, 200, 500, 1K, 2K, 5K, 10K, 20K, 50K, 100K auto |
| | Horizontal (X-axis) | 1, 2, 5, 10, 20, 50, 100, 200, 500, 1K, 2K, 5K, auto |
| Filter types | | Standard filter (2RC), phase compensation filter (2RC), phase compensation filter (Gaussian) |
| Measuring Speed | | 0.3, 0.6, 1.5, 3mm/s (4 speeds) |
| Detector | | Tip radius: 2 μ m, Material: Diamond, Measuring force: 0.75mN |
| Special functions | AI Function | AI functions provides for easy procedures, enabling beginners to make measurements. |
| | Step analysis | 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 | | Standard specimen (E-MC-S24B), recording paper (E-CH-S21A), touch pen (E-MA-S54A), instruction manual |
| Dimensions and weight | Power Source | AC100–240V \pm 10%, 50/60Hz, 30VA |
| | Installation dimensions | 700 (W) \times 300 (D) \times 150 (H) mm |
| | Weight | 8kg |

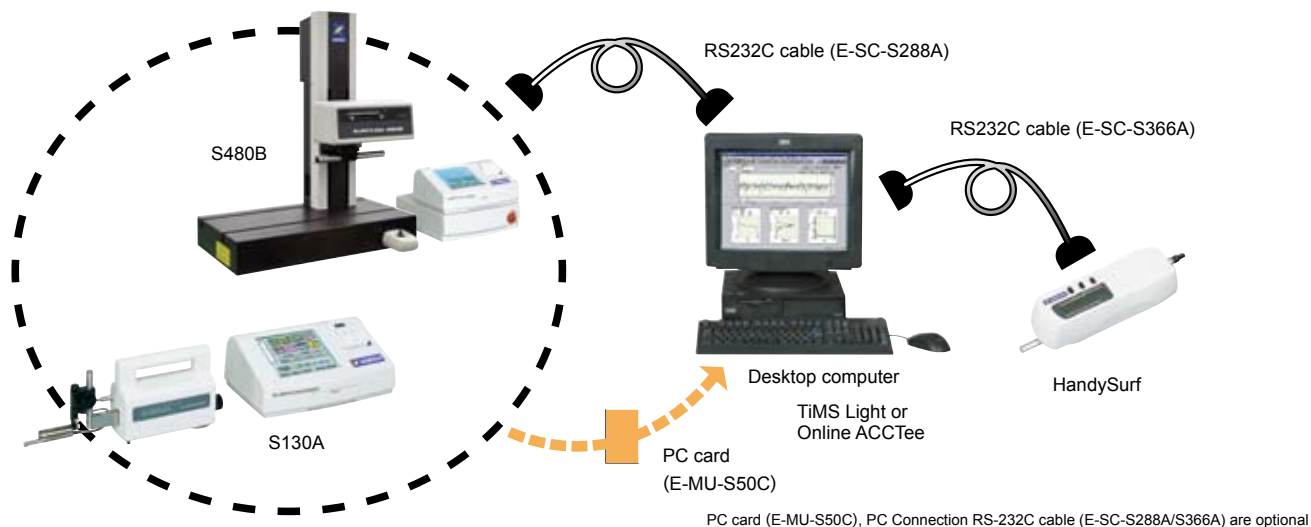
Able to use PC based analysis software

TiMS Light

TiMS has achievements at many users. It provides various function and complicated analysis

Offline ACCTee

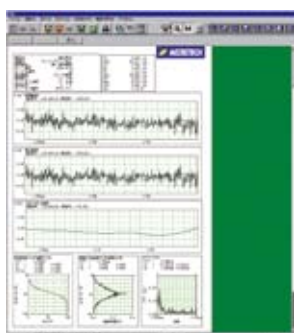
Newly developed ACCTee software is new generation of integrated software with new concept. It provide complicated analysis with comfortable operation.



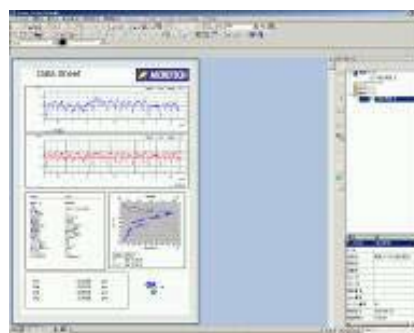
- Data Transfer using an RS-232C interface (S130A, S480B, E35A) or PC card (S130A, S480B).



TiMS analysis display



TiMS print display

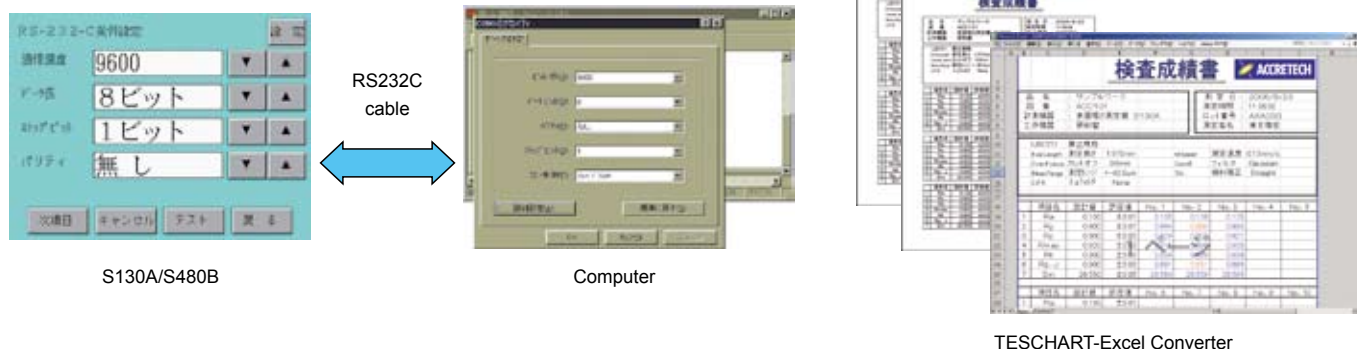


ACCTee analysis&print display

- Data save to files
- Allows analysis of measured data to be performed on-site. Computer-based operation allows sharing of data with other computers.

TESCHART – Excel Converter

- Any parameter value obtained as measured results can be transferred via RS-232C data communication in real time to a cell in Microsoft Excel running on a computer connected to the S130A/S480B or HANDY SURF. (Waveform data cannot be transferred.)
- Also effective for collecting data from multiple workpieces.



S130A/S480B

Computer

TESCHART-Excel Converter