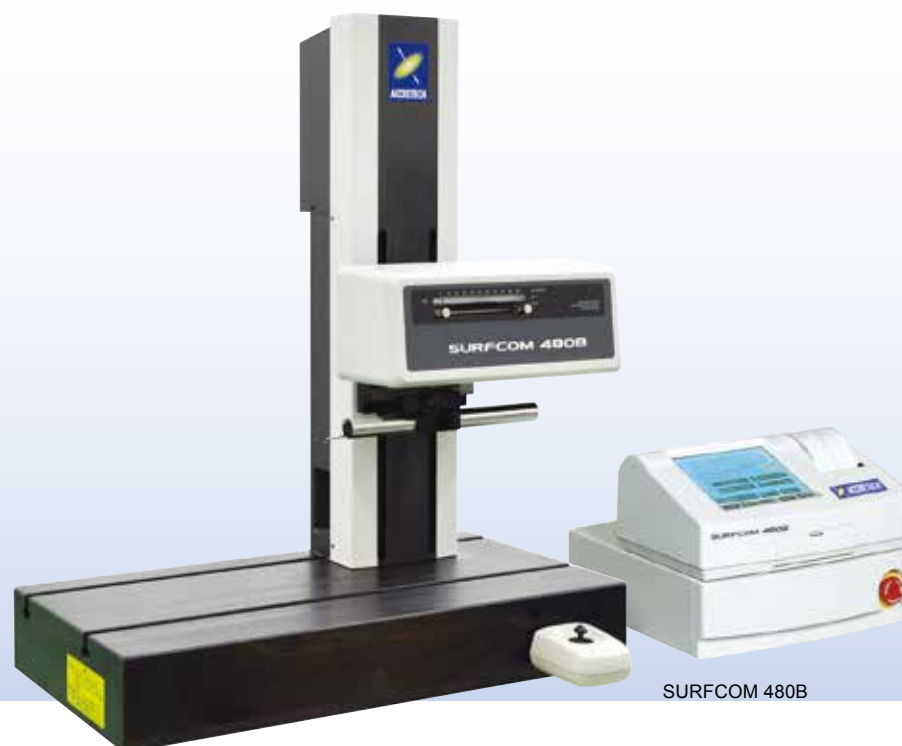


SURFCOM 480B

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



SURFCOM 480B

TFT Color LCD Touch Panel

The widescreen color LCD touch panel's sharp, clear display helps make operation easier. Simply touch the desired icon to execute an operation. Touch panel input is possible using either your finger or the provided touch-pen, facilitating on-site measurements.

Supports International Standards

The 480B supports analysis parameters for JIS (2001/1994/1982), ISO, DIN, ASME and CNOMO standards, and can be switched between Japanese, Chinese, English, German, Italian, French and Spanish. In addition, any power source between AC100 V and 240 V can be used, and the unit satisfies the European Directives for the CE Marking.



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.



Evaluation Range Setting

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



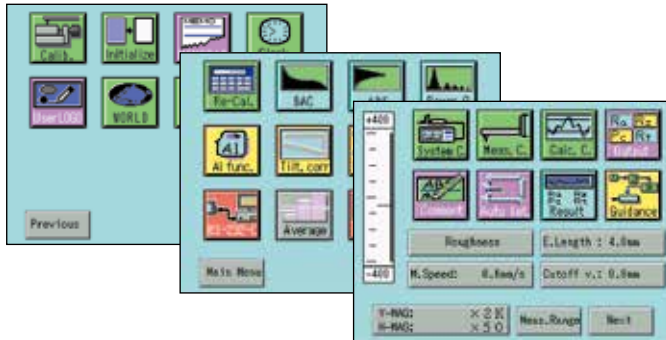
PC Card Slot

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.

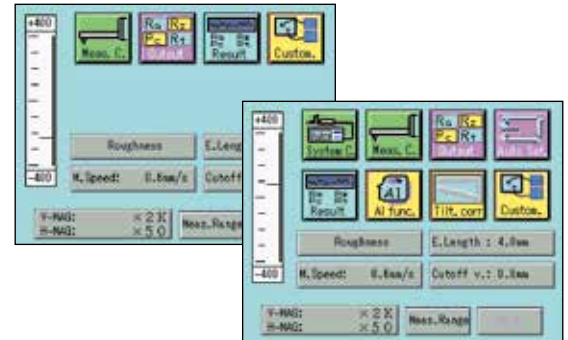
Sample Display

The customize function on the menu allows icons to be edited and arranged as desired.

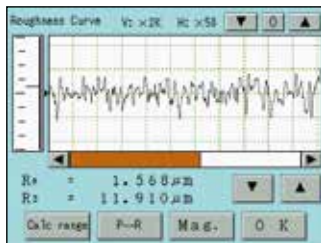
Main Menu



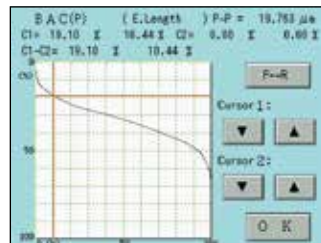
Sample Customized Screen



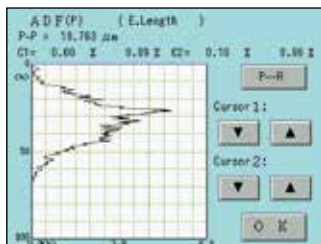
Analysis Results



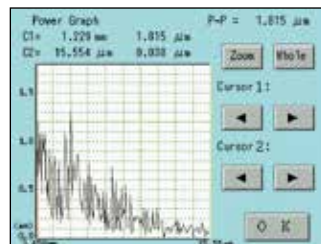
Roughness measurement result



Load curve

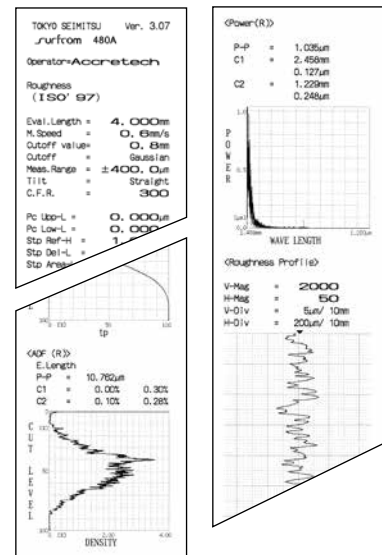


Amplitude distribution curve



Power graph

Data Sheet



Specifications

Model		SURFCOM 480B
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)	100 mm
Straightness accuracy		(0.05 + 1.5L/1000) μm (L: Measuring length mm)
Analysis items	Standard	Complies with JIS2013, JIS2001, JIS1994, JIS1982, ISO2009, ISO1997, ISO1984, DIN1990, ASME1995, CNOMO
	Parameter	Ra, Rq, Ry, Rp, Rv, Rc, Rz, Rmax, Rt, Rz.J, R3z, Sm, S, RΔa, RΔq, RΔa, RΔq, 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 curve	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 graph	Bearing area curve, amplitude distribution curve, power spectrum curve
Magnification	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)
	Vertical (Z-axis)	50, 100, 200, 500, 1 k, 2 k, 5 k, 10 k, 20 k, 50 k, 100 k, 200 k*, 500 k*, auto
Type of filter	Horizontal (X-axis)	1, 2, 5, 10, 20, 50, 100, 200, 500, 1 k, 2 k, 5 k, auto
	Standard filter (2RC), phase compensation filter (2RC), phase compensation filter (Gaussian)	
Measuring speed		0.03, 0.06, 0.15, 0.30, 0.60, 1.5, 3, 6 mm/s (8 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% (grounding required), 50 Hz/60 Hz, 90 VA
	Installation dimensions (W x D x H)	1000 mm x 800 mm x 750 mm
	Weight	98 kg (for SURFCOM 480B-12)

* When high magnification pickup is used.