

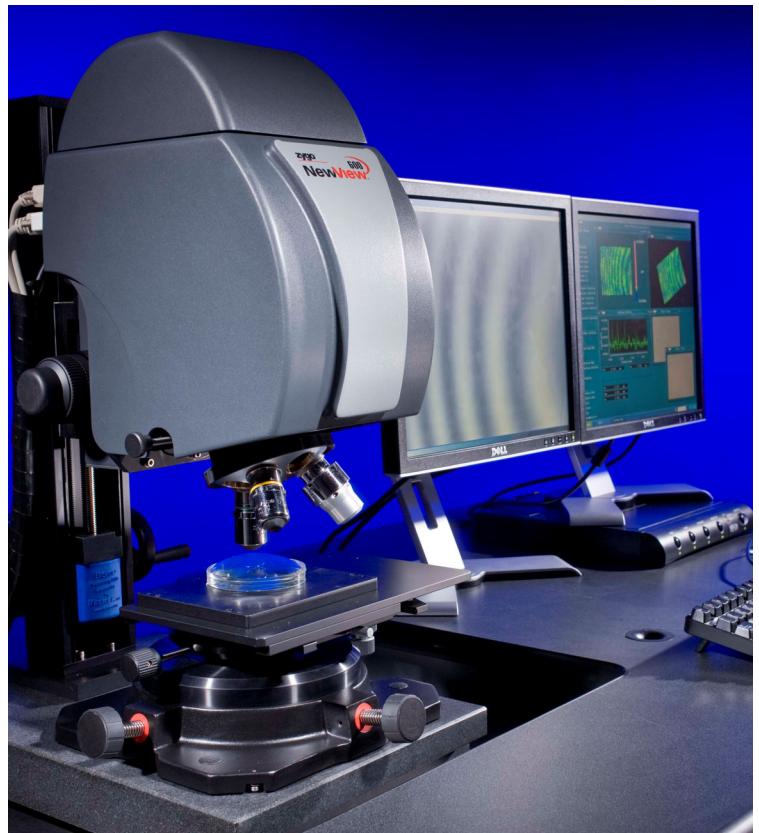
# NewView™ 600s Specifications

## SYSTEM

Measurement Technique	Non-contact, three-dimensional, scanning white light interferometry
Scanner	Closed-loop piezo-based, with highly linear capacitive sensors
Field of View	0.05 to 3.5 mm (0.002 to 0.138 in.); objective dependent
Illuminator	Integrated long-life white-light LED with computer-controlled light level
Objective Mounting	Quick mount single objective dovetail
Controls	Optical Filter Tray and Focus Aid
Measurement Array	640x480; user-selectable
Part Viewing	On-screen live display standard; second LCD monitor optional
Fine Focus Stage	Medium and fine manual control, with 1.2 in. (30 mm) of travel
Coarse Z-Stage	Coarse, large range manual control, with 10 in. (250 mm) of travel; actual travel is configuration dependent
Dimensions (HWD)	27.6 x 12 x 16.5 in. (702 x 300 x 420 mm) NewView only
Weight	~70 lb (32 kg), including part stage
Input Voltage	100/120/220/240 VAC, 50/60 Hz
Computer	High-performance Pentium-based Dell PC with LCD monitor
Software	ZYGO MetroPro software running under Microsoft Windows XP

## ACCESSORIES (OPTIONS)

Objectives	Infinite conjugate interferometric objectives; 2X, 2.5X, 5X, 10X, 20X, 50X, 100X. Refer to the NewView Objective Chart for objective specifications.
Turrets	<ul style="list-style-type: none"> <li>• Manual 6-position turret</li> <li>• Motorized 6-position turret</li> </ul>
Part Stage	<ul style="list-style-type: none"> <li>• Manual Tip/Tilt/X/Y, with <math>\pm 6^\circ</math> tip/tilt, 4 in. (100 mm) x/y travel</li> </ul>
Vibration Isolation System	<ul style="list-style-type: none"> <li>• Table, 31 x 24 x 24 in. (HWD) (787 x 610 x 610 mm); weight ~600 lb (272 kg); requires compressed air at 60 psi (4 bar) with 1/4 in. input hose</li> <li>• Platform, tabletop, 2.75 x 20 x 24 in. (HWD) (70 x 508 x 610 mm); includes air pump</li> </ul>
Worktable	<ul style="list-style-type: none"> <li>• Wrap-around, 34 x 52 x 35 in. (HWD) (864 x 1321 x 889 mm); nests next to the vibration isolation table</li> </ul>
Measurement Standards	<ul style="list-style-type: none"> <li>• Lateral Calibration Standard</li> <li>• Precision Lateral Calibration Standard</li> <li>• SiC Reference Flat</li> <li>• Step Height Standards</li> </ul>



## PERFORMANCE

Vertical Scan Range	$\leq 150 \mu\text{m}$ (5906 $\mu\text{in}$ )
Vertical Res.	$< 0.1 \text{ nm}$ (0.004 $\mu\text{in}$ )
Lateral Res.	0.36 to 5.18 $\mu\text{m}$ (14.2 to 204 $\mu\text{in}$ ); objective dependent
Data Scan Rate	$\leq 15 \mu\text{m}/\text{sec}$ (591 $\mu\text{in}/\text{sec}$ )
Maximum Data Points	307,200
RMS Repeatability	$< 0.01 \text{ nm}$ (0.0004 $\mu\text{in}$ ) $\text{RMS}_\sigma$
Step Height	Accuracy $\leq 0.75\%$ Repeatability $\leq 0.1\%$ @ $1\sigma$

## TEST PART CHARACTERISTICS

Material	Various surfaces: opaque, transparent, coated, uncoated, specular, and nonspecular
Reflectivity	1-100%

## ENVIRONMENTAL REQUIREMENTS

Temperature	15 to 30°C (59 to 86°F)
Rate of Temp. Change	$< 1.0^\circ\text{C}$ (1.8°F) per 15 min
Humidity	5 to 95% relative, noncondensing
Vibration Isolation	Required for vibration frequencies in the range of 1 Hz to 120 Hz



ZYGO CORPORATION  
LAUREL BROOK ROAD • MIDDLEFIELD, CT 06455  
VOICE: 860 347-8506 • FAX: 860 346-4188  
WWW.ZYGO.COM • EMAIL: inquire@zygo.com

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