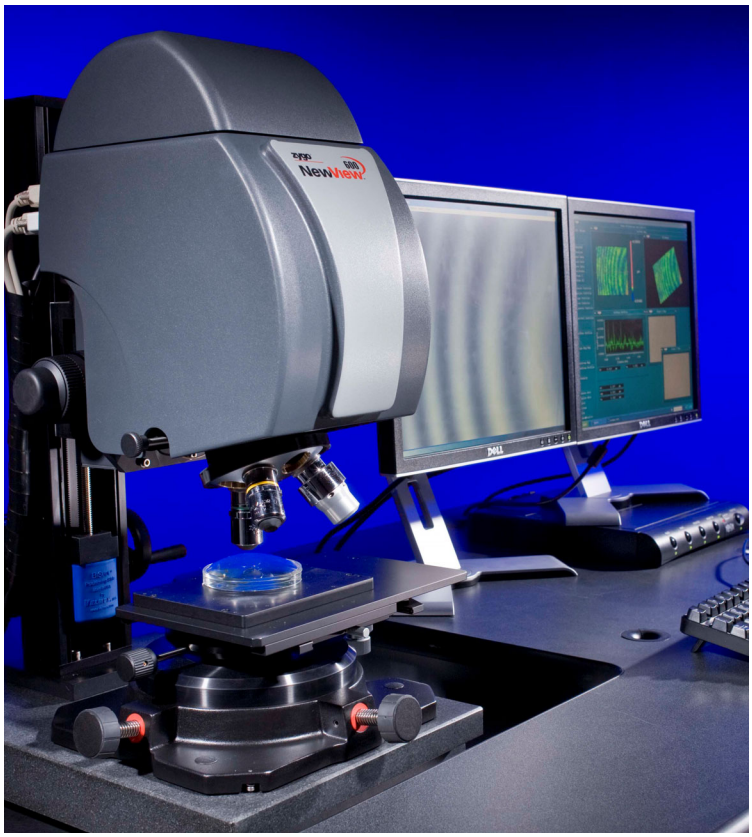
NewView™ 600s Specifications



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	• Manual 6-position turret • Motorized 6-position turret
Part Stage	• Manual Tip/Tilt/X/Y, with ±6° tip/tilt, 4 in. (100 mm) x/y travel
Vibration Isolation System	• 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 • Platform, tabletop, 2.75 x 20 x 24 in. (HWD) (70 x 508 x 610 mm); includes air pump
Worktable	• Wrap-around, 34 x 52 x 35 in. (HWD) (864 x 1321 x 889 mm); nests next to the vibration isolation table
Measurement Standards	• Lateral Calibration Standard • Precision Lateral Calibration Standard • SiC Reference Flat • Step Height Standards

PERFORMANCE

Vertical Scan Range	≤ 150 µm (5906 µin)
Vertical Res.	< 0.1 nm (0.004 µin)
Lateral Res.	0.36 to 5.18 µm (14.2 to 204 µin); objective dependent
Data Scan Rate	≤ 15 µm/sec (591 µin/sec)
Maximum Data Points	307,200
RMS Repeatability	< 0.01 nm (0.0004 µin) RMSσ
Step Height	Accuracy ≤ 0.75% Repeatability ≤ 0.1% @ 1σ

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°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

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