영 문 규 격 서

Commodity Description

관세분류번호 HSK No.	품목번호 Item No.	품 명 및 규 격 서 Description	단 위 Unit	수 량 Q'ty
9012.10.1090	1	Pattern and Surface Test Equipment	Set	1

A. Feature

1. Pattern and Surface Test Equipment provides speed, sensitivity resolution and functionality enhancements.
2. The ability to acquire up to 5120x5120-pixel images eliminates the need to capture several images at lower pixel densities.
4. A/D and D/A converters operating at 50Mhz, to deliver reliable, high-speed data capture
5. Allows calibration of the cantilever spring constant at resonant frequencies up to 2Mhz
6. PeakForce QNM mode allows quantitative nanomechanical mapping of material properties, including modulus and adhesion with very fast force response curves at every single pixel in the image.

B. Components

1. Pattern and Surface Test Equipment
2. PeakForce QNM
3. Data systems

C. Specifications

1. Pattern and Surface Test Equipment
   - Includes 3 fully digital lock-in amplifiers for quantitative PhaseImaging, improved accuracy and enhanced image contrast
   - Up to 10X faster topographical scanning and PhaseImaging in air with TappingMode than provided by conventional Surface Potential Measurement Equipment for Printed Electronics
   - High-speed DSP interface electronics allow the fastest sustained throughput of data for scanning images at up to 3 frames per second
   - Nine 500 kHz and two 50 MHz analog-to-digital converters allow high speed sampling of the cantilever signals and multiple extra inputs for custom user experiments
   - Capable of performing thermal tuning of cantilevers with sampling at rates up to 6 MHz
   - Provides OneScan imaging with more data points per scan line (≥ 16,000) for the highest resolution available. Also allows images with up to 5012 by 5012 pixels. Allows zooming on large scans while maintaining nanoscale lateral resolution, without the need for repetitive smaller scans.
   - Increased data acquisition with up to 8 simultaneous real-time and offline data channels
   - Digital Q-control for enhanced force control, sensitivity and image contrast, and for studying tip-sample interactions.
   - Eight digital-to-analog converters (DACs) including those used for set point, tip and sample bias and two dedicated to the user controlled utility DACs
   - Fourteen BNCs on the front panel allow easy access to many input and output signals of the controller including, line sync (end-of-line), frame sync (end-of-frame), and the lock-in oscillator reference signal.
   - High-speed serial interface for improved hardware/software communication.
   - Windows XP-based SPM imaging software, including comprehensive image analysis.
   - 16-bit resolution on all three scanning axes, regardless of scan size or offset
   - Extremely flexible for adaptation to user-designed microscopes and/or custom applications
   - Extensive and expanded real-time control of feedback and other parameters
   - Includes a Pentium computer and one 30-inch LCD monitor (100-240V, 50/60Hz, auto switching).

2. PeakForce QNM
  • New imaging mode allows quantitative mapping of nano-mechanical properties including elastic modulus, adhesion, deformation, and dissipation while simultaneously imaging sample topography at high resolution
  • Precisely controlled force allows sample indentation to be limited to a few nanometers to maintain both resolution and prevent sample damage

3. Data systems
  • Pentium tower-style PCI computer
  • One 30-inch LCD color monitor, 100-240V, 50/60Hz, auto switching

D. Remarks
1. Warranty : One year after installation
2. Installation is provided at end user's site by qualified engineer
3. Technical support by qualified engineer