# **Semiconductor Test Systems**

#### 522 SOC, VLSI, Digital, Memory, Logic, Mixed Signal, RF, Semiconductor Parametric

- Hewlett-Packard is the global leader in High-Volume Electronics Manufacturing
- Hewlett-Packard Semiconductor Test Systems keep you one STEP ahead in Speed, Technology, Experience and Price/Performance
- HP's Semiconductor Test Systems offer cost effective production test solutions for a broad range of markets
- VLSI Test Systems cover data rates from 1 Megabit per second to 1.3 Gigabits per second with up to 1024 pins and HP's Test processor-per-pin technology lets you test High Speed Processors with embedded memory. With additional Smart DSP and Waveform capability HP's VLSI test systems can address Systems-on-a-Chip, Multimedia, VLSI, PLL, and other state-of-the-art building blocks



HP 93000

#### HP 93000 SOC Series IC System-On-a-Chip Production Test Systems for state of the art ICs

Production test of Systems-on-a-Chip, microprocessors and embedded processors

- High-speed bus testing for Rambus, Cache, PC133
- High-speed serial data testing for LVDS, Gigabit Ethernet,
- FireWire, Fiber Channel and SONET
- Single scalable platform
- · Pay-Per-Use temporary and permanent upgrades
- High Fidelity lowest noise audio testing
  Composite video testing
- PLL and frequency jitter testing
- Embedded memory testing
- Wide Algorithmic Pattern Generator per-pin for memory testing
- Highest throughput Test Processor-per-pin Architecture
- Up to 1 Gbit/sec data rate for "At-Speed" testing
- Up to 948 Digital pins plus 4 Analog
- Timing flexibility with "Change Waveform on the Fly"
- Up to ±50 p.s. overall measurement accuracy
- High-speed DRAM and SRAM testing
- · Easy and efficient docking to handlers and probers for TCI
- Multisite testing capability up to 32 sites

For more information, contact your HP sales engineer or see our web site: http://www.hp.com/go/semiconductor

#### Semiconductor Integration and Support Services

- · Global Application Development Centers
- Remote Support

16

- Integration Services of Handlers and Wafer Probers
- · Test Program Development and Conversion
- System Integration
- · Scheduled and On-Site Maintenance and User Training
- · Flexible Support Service Levels
- Custom Services and Support for 365 Day/24 Hour Operations
- Escalation Management
- Performance Improvement/Process Consulting
- IC Device Characterization Services
- Application Measurement Consulting
- Calibration Services

For more information, contact your HP sales engineer or see our web site: http://www.hp.com/go/semiconductor

- Mixed-Signal Test Systems offer a very low noise floor with DC to real-time DSP to RF capability along with up to 256-pin digital capability.
- HP's Memory and Logic Test Systems lead the market in Rambus, wafer level testing of Flash Memory, Non-Volatile Memory and field programmable devices.
- RFIC Test Systems, precision contactors, and wafer-probing solutions provide the ability to test wireless ICs at RF frequencies at the test site up to 3, 18, or 45 GHz
- HP's Semiconductor Parametric Test Systems offer high throughput, with links to SPECS modeling software, and maximize the instrumentation close to the wafer for maximum precision



HP 83000

#### **HP 83000 Series VLSI IC Production Test Systems** for "At-Speed" test of state-of-the-art ICs

Production test of microprocessors (CISC and RISC)/microcontrollers/ VLSI/ASIC/Rambus ICs/Telecom ICs/Multimedia ICs/FSRAM/RDRAM

- Up to 660 MHz for "At-Speed" test with up to 1024 pins
- Up to ± 50 p.s. measurement accuracy
- · High Speed Memory interface testing
- Algorithmic Pattern Generator per pin for memory testing
- High Speed DRAM and SRAM testing
- · Multisite testing capability up to 16 sites

For more information, contact your HP sales engineer or see our web site: http://www.hp.com/go/semiconductor



HP 94000IP

#### HP 94000 Mixed Signal IC Test System for testing telecom, data management, RF and photo imaging ICs

Production test IC test solutions for wireless and wired communications. graphics controllers, high speed PMRL HDD, integrated PC audio, digital subscriber line (xDSL), ATM, A/D, DAC, and a specialized test option for Photo Imaging ICs, the HP 94000IP. • Sourcing up to 3GHz and measuring up to 6Ghz

- Up to 256 pins at 532Mbps. digital capability
- Excellent Analog performance with low noise floor
- · Full Analog/Digital synchronization
- Multisite Testing Capability
- · Graphical software environment for rapid test development

For more information, contact your HP sales engineer or see our web site: http://www.hp.com/go/semiconductor

HP 83000 HP 93000 HP 94000 RF 94000 HP 84000 HP 95000 HP V1300 HP V3300 HP 4072A



# **Semiconductor Test Systems**

### SOC, VLSI, Digital, Memory, Logic, Mixed Signal, RF, Semiconductor Parametric



HP 95000

#### HP 95000 HSM Series Production Ready, Integrated Test Cell for High Speed DRAM

- Unique Test Processor-Per-Pin architecture provides maximum flexibility for developing complex protocol based test patterns.
- Per Pin Ålgorithmic Pattern Generator (APG) for generating atspeed patterns up to a 1GHz data rate.
- 1GHz algorithmic patterns, 1GHz logic vectors, and 1GHz error capture without pin multiplexing or pattern generator interleaving on every pin across all test sites provides true "At-Speed" testing in the production environment.
- 1M vector memory per pin for complex memory interface testing.
- Up to 32 devices tested in parallel on a single test head for high throughput production testing.

For more information, contact your HP sales engineer or see our web site: http://www.hp.com/go/semiconductor

#### **Custom Support Products and Services for** Semiconductor Test

- Integration Services for Handler / Prober Interface
- IC Device Characterization Services
- · Test Program creation and conversion
- Custom services and support for 365 day/ 24 hour operations.

For more information, contact your HP sales engineer or see our web site: http://www.hp.com/go/semiconductor



HP V1300

#### **HP Mixed Memory/Logic IC Production Test** Systems for Flash and Non-volatile Memory Devices.

#### **HP V1300 Unique Features**

• True 16 site system ensures the highest throughput, lowest cost production wafer sort system for non-volatile memory.

#### HP V1300 & HP V3300 Standard Features

- · Tester-per-site architecture for high-throughput testing.
- Combined site resource mode for up to 128 I/O per site ensures test floor flexibility for high pin count devices.
- · Ability to test both memory and logic addresses the complex test needs of non-volatile memory products.
- Channel Assignment Module (CAM) provides software flexibility to assign any APG address or data channel to any I/O channel; and any I/O channel to any Error Catch RAM channel.
- Standard interfaces for Electroglas TSK and TEL wafer probers.





#### **HP V3300 Unique Features**

- True 8 site system with 20 MHz data rates and 100ps edge placement ensures the highest throughput, lowest cost production wafer sort system for NVM where critical AC specifications for memory data patterns must be verified during wafer sort.
- AD Option facilities testing 16 devices on 8 sites for optimum throughput versus system cost.
- Handler interface available for final test applications.

For more information, contact your HP sales engineer or see our web site: http://www.hp.com/go/semiconductor

#### Product & Order Info See page 607

523

**NEW** 

## **Semiconductor Test Systems**

#### 524

SOC, VLSI, Digital, Memory, Logic, Mixed Signal, RF, Semiconductor Parametric

HP 83000 HP 93000 HP 94000 RF 94000 HP 84000 HP 95000 HP V1300 HP V3300 HP 4072A



HP 4072A

#### HP 4072A High-Speed Semiconductor Parametric 📾 Test Systems for monitoring the IC fabrication process

- Integrated tester-in-test head designHigh throughput for all measurements
- Higher accuracy, resolution, repeatability
- Built-in diagnostics for fewer operator assists
- · Direct docking to probe card for optimum performance
- Maintains laminar air flow for clean room operation
- HP SPECS new test shell for HP 4062UX and HP 4071A

For more information, contact your HP sales engineer or see our web site: http://www.hp.com/go/semiconductor

#### **Semiconductor Integration and Support Services**

- Global Application Development Centers
- Remote Support
- Integration Services of Handlers and Wafer Probers
- Test Program Development and Conversion
- System Integration
- Scheduled and On-Site Maintenance and User Training
- Flexible Support Service Levels
- Custom Services and Support for 365 Day/24 Hour Operations
- Escalation Management
- Performance Improvement/Process Consulting
- IC Device Characterization Services
- Application Measurement Consulting
- Calibration Services

16

For more information, contact your HP sales engineer or see our web site: http://www.hp.com/go/semiconductor



HP 84000

#### HP 84000 RFIC Test Systems for testing RFIC's and MMIC's used in Wireless Systems

- · Production- and R&D-testing of RF and MMICs
- Up to 3 GHz, 18 GHz or 45 GHz solutions available
- Configurations with up to 12 RF ports to test LNAs, up/down converters, power amplifiers, integrated transmitters, receivers, and complete tranceivers
- · Error corrected S-parameters, noise figure, ACPR and EVM measurements
- · Simplified graphical user interface for rapid test plan development • Simplified RF calibration
- Complete packaged-DUT fixturing available to 18 GHz, including the HP YieldPro Contactor, and on-wafer solutions to 45 GHz

For more information, contact your HP sales engineer or see our web site: http://www.hp.com/go/semiconductor