SH-5300

High-Performance Tri-Temp Strip Test Handler


Automotive


Mobility


IoT/IoV & Optoelectronics


Computing & Network


Industrial & Medical


Consumer

Productivity

- Supports high parallelism testing for both leaded and leadless devices
- Conduction-based thermal control system means no soak limitations and no LN2
- Superb productivity benefits: higher tester utilization and first pass-yields, and lower jam rates
- Superior contacting methodology for both leaded and leadless devices

Flexibility

- Ambient to +160°C or -55°C to +160°C with optional chiller for cold testing
- Choose I/O for stacked magazines, slotted cassettes, or both
- Simple, inexpensive device change kits
- Higher accuracy temperature options available

- **Chamberless open architecture**
- **Optional Reject Mark Laser (RML)**
- **Interfaces for every major ATE tester**
- **5th generation - field-proven performance at OSATs and IDMs**

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Specifications

Platform

Performance Characteristics

- Strip-to-Strip index time: <3.5 seconds (<750 Newtons) and <4.3 seconds (>750 Newtons)
- Intra-Strip Index Time: <750 Newtons: <350 ms for <24 mm move. >750 Newtons: <400 ms for <24 mm move
- Positioning Accuracy: +/- 25 microns with vision
- Jam rate: <1: 1,000 strips run
- Uptime >97%
- MTBF: >200 hours
- MTTR: <20 mins
- MTBA: >4 hours
- Z-force: 770 Newtons (standard); 1,170 Newtons and 1,900 Newtons options available

Strip Dimensions

- Length: 150 mm – 300 mm
- Width: 23 mm – 100 mm
- Thickness: 50 – 750 microns
- Body Height: 6 mm (max.)
- Strip Warpage: ≤ 3 mm (max.)

Temperature Characteristics

- Range: Tri-Temp -55˚C to +160˚C (with optional chiller) and Ambient to +160˚C
- Soak Limitation: Not soak limited for total strip test times >5 seconds after first strip in a lot
- Defrosting: up to 2 weeks without requiring defrosting
- Time to temperature: ambient to any set point: <45 minutes
- Soak capacity: 3 strips

Facilities Requirements

- Electrical: 208-220V single phase, 50-60 Hz, 20 Amps
- Chiller (for cold testing): 208-220V three phase, 50-60 Hz, 40 Amps
- Compressed Air: Clean Dry Air, 5.5 bar (approx. 80 psi)

ESD Protection

- Decay Time: <10 seconds
- Ion Balance: ± 30V
- Ionizers (optional): three ionizers: one at Input Area, one at Input Test Area, one at Output Test Area
- Device Path: conductive and grounded

Physical Dimensions

- Machine Size: 1.4 m (L) x 1.7 m (W) x 1.1 m (H)
- Machine Weight: 1500 Kg
- Mobility: Transportable. Setup after transport not to exceed 30 min
- Clearance: 100 mm under the machine for manipulator feet

Electrical Interfaces

- Factory Network: Ethernet (TCP/IP, Microsoft)
- Digital/Tester Interfaces: GPIB, TCP/IP or RS-232
- Software Interface: SECS/GEM compliant
- Strip Mapping: SECS/GEM and XML, Semi G84 & G85 & E142

Contactors or Probe Cards

- Nearly unlimited range for substrate-based bare dies, WLP's or molded IC's
- Smart power, analog, RF, mixed signal, digital MEMS, and KGD contactors are available

Input and Output Capabilities

- Stacked magazines: 1 input, 1 output
- Slotted cassettes: 3 input and 3 output typical. Size dependent

Options to the Base System

- Ground Fault Monitoring
- ESD Ionizers/Mounting Kits
- Reject Mark Laser
- Automatic Contactor Cleaning
- Automatic Test Chuck Cleaning
- Assembly Map Importation and Use
- Ambient-only option available

Specifications subject to change without notice. For detailed performance specifications, please contact Cohu.

REV20230912

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