

# MT9510 x16



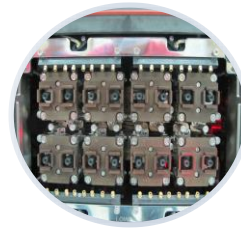
## Tri-Temp Pick & Place Handler

### Applications

- automotive power devices
- RF and communication
- logic, amplifier and linear
- processors and DSP's

### Facts

- up to 16 contact sites
- outstanding temperature performance
- tri-temp from -55° C to +175° C
- kitable system for QFP, BGA, PGA, QFN and other packages
- advanced, scalable ESD protection
- contacting: standard, high frequency & Kelvin
- throughput up to 5300 uph
- installed MT9510 base: more than 800 systems



### Solution for

- large and small size packages  
e.g. QFP, BGA, PGA and QFN
- device size from 2 x 2 to 20 x 20 mm



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## Tri-Temp Pick & Place Handler

### 1. Base System

- 1.1 Available Versions:
  - ambient, ambient hot (+ 155° C standard, +175° C optional)
  - tri-temp (- 55° C to +155° C, +175° C optional)
  - tray to tray
  - up to 16 contact sites
- 1.2 Available Options (Selection)
  - Interface SECS-II / GEM
  - automatic feet
  - ionizer, I/O area and contact chamber
  - charged plate monitor (CPM)
  - <5x5mm device handling
  - double device detection
  - InSite®
  - vacuum insulated LN2 connection
  - safe LN2 tank change
  - de-icing monitoring
  - color tray detection

### 2. Package Style Conversion

- 2.1 Conversion Kits:
  - uses conversion kits for easy package style conversion
- 2.2 Required Conversion Time:
  - typ. 20 min for 1 person
- 2.3 Adjustments:
  - no adjustments required after package style conversion

### 3. Packages

- 3.1 Conversion Kits for:
  - QFP, BGA, µBGA, PLCC, TSSOP, CSP, QFN (MLF/MLP), PGA, LGA, MCM, other package styles on request
- 3.2 Min. and Max. Size of Packages:
  - 2x2 to 35x35 mm (for up to 8 contact sites)
  - 2x2 to 20x20 mm (for 16 contact sites)
  - min. lead/pad/ball pitch: 0.4 mm

### 4. Loading/ Unloading

- 4.1 Loading/Unloading Material and Size:
  - all commonly used trays acc. to JEDEC standard CO-012, CO-029 and CO-034, others on request.
- 4.2 Type of Loader:
  - tray stack, separate input/output tray loop
- 4.3 Loading/Unloading Possible During Operation:
  - yes

### 5. Contacting

- 5.1 Contact Modes
  - Parallel
  - ping-pong
- 5.2 Applications
  - short contact ambient (plunge to board)
  - short contact tri-temp (plunge to board)
  - standard (including temperature insulation and hot air purge)
- 5.3 Available Contactors
  - Multitest offers contactors for all package versions and applications, i.e. standard, high frequency and Kelvin.
  - Sockets from other suppliers may be used, e.g. Yamaichi, Synergetix, JTI, Enplas, Aries, OzTek, Seiken- others on request.

### 6. Temperature

- 6.1 Test Site Accuracy
  - +/- 3° C
- 6.2 Test Site Temperature Stability
  - +/- 0.5° C

### 7. Bin Categories

- 7.1
  - high volume plus 3 or 6 manual categories
  - software binning categories: 32

### 8. Docking

- 8.1 Docking Height
  - 990 mm (floor to CUH center)
- 8.2 Compatibility
  - all commonly used docking systems and test heads are supported

### 9. Performance

- 9.1 Throughput
  - up to 5,300 uph
- 9.2 Index Time
  - (virtual index time for multiple contact sites)
  - octal mode: 0.08 s / device
  - x16 mode: 0.04 s / device

### 10. Facility Requirements

- 10.1 Power Supply
  - factory setting:
  - 400 V AC 3 phases/N/PE, 16 Amps each
  - alternative connections:
  - 208 V AC 3 phases/N/PE, 16 Amps each
  - 230 V AC 1 phase/N/PE, 32 Amps 50/60
- 10.2 Power Consumption
  - all heaters on: max. 5,200 W
- 10.3 LN2 Consumption (for Cold Operation Only)
  - typ. 18 l/h for cold operation
  - typ. 33 l/h for cooling down from ambient to -55°
- 10.4 Compressed Air Pressure and Consumption
  - nominal pressure: 5 to 10 bar (70 to 145 psi)
  - consumption depends on temperature and operation mode: 170 to 940 l/min
- 10.5 Mobility
  - system is on casters, handler can be moved by one person
- 10.6 Weight
  - operation condition: 850 kg (1900 lbs)
  - incl. packing crate: 1050 kg (2350 lbs)

### 11. Compliance and Standards

- 11.1 Compliant to:
  - CE

All performance figures such as MTBF, MTBA, Uptime, Yield, Jam Rate, Life Span, Cleaning Cycles etc. can vary with specific package type, test program and / or specific application environment. They assume that only original Multitest spare and consumable parts are used, recommended maintenance intervals and procedures are respected, operators/maintenance technicians have successfully participated in formal equipment training by Multitest to the appropriate level, and only Multitest approved software is used on the systems. Multitest assumes no warranty or liability if any of these requirements is not met. All listed data are for information only. For binding specification please contact your sales person

