

# MT9928 xm



## Applications

- automotive power devices
- RF and communication
- logic, amplifier and linear
- flash memory
- MEMS and temperature

## Facts

- up to 8 contact sites
- tri-temp from -55 to +175° C
- fast and reliable kit exchange for SO and MLF/QFN packages
- throughput up to 5300 uph
- contacting: standard, high frequency and Kelvin
- tube and metal magazine loading and unloading
- bowl feed loading and bulk unloading
- installed MT99x8 base: more than 1,000 systems
- extended modularity: configure to end user's needs



## Solution for

- medium and small size SO and MLF
- packages with a pitch down to 0.4 mm
- device length from 2 to 21 mm



## 1. Base System

- 1.1 Available Versions
- ambient
  - ambient hot (+ 155° C, +175° C optional, +200° C on request)
  - tri-temp (- 55° C to +155° C, +175° C optional, +200° C on request)
  - 4 or 8 contact sites
  - loading: tube or metal or bowl
  - unloading: tube or metal or bulk
- 1.2 Available Options (Selection)
- IEEE 488.2
  - power monitoring
  - ground fault monitoring
  - fast conversion unloader

## 2. Packages Style Conversion

- 2.1 Conversion Kits/ Package Style Conversion
- mechanical package style conversion: typically takes 1-2 hours (depending on skills, number of persons and use of "fast conversion option")
- 2.2 Adjustment/ Calibration Necessary after Conversion
- adjustment (i.e. device length in singulator) may be necessary (depending on package type)
  - software change to new package/ kit typically takes 5 min
  - change from STD to VAC (or vice versa) takes approx. 20 min

## 3. Packages

- 3.1 Possible Package Styles
- SOT, SO, MLF, TO
  - SO packages: SO150, SO209, SO300, SO430, TSSOP173, TSSOP240, MSO118, MSO100
  - leadless packages: MLF2, MLF3, MLF3.5, MLF4, MLF5, MLF6, MLF7, MLF8, MLF9, MLF10, MLF11, MLF12, MLF14
- 3.2 Min and Max Size of Packages
- device width: MLF: 2 to 14 mm, SO: 1.6 to 11 mm
  - device length: 2 to 21.3 mm
  - device thickness: down to 0.5 mm
- 3.3 Min Lead Pitch
- down to 0.4 mm

## 4. Loading/ Unloading

- 4.1 Possible Loading Material and Size
- tubes: 170 to 560 mm, max. 20 mm width, 8 mm height
  - metal magazine: width up to 67 mm, length: 520 to 540 mm
- 4.2 Available Loader Types/ Capacity
- 36 tubes (for 8 mm wide tubes)
  - 30 metal magazines (for 6 mm thick magazines)
- 4.3 Possible Unloading Material
- tubes: 170 to 560 mm, max. 20 mm width, 8 mm height
  - metal magazine: width up to 67 mm, length: 520 to 540 mm
- 4.4 Available Unloader Types/ Capacity
- 36 tubes (for 8 mm wide tubes)
  - 30 metal magazine (for 6 mm thick magazine)

## 5. Contacting

- 5.1 Number of Contact Sites
- 1, 2, 4 or 8 contact sites
- 5.2 Contact Modes
- ping pong, alternating, parallel synchronous, asynchronous
  - further contact modes and site mapping feature available with option contact site mapping
- 5.3 Socket Integration Alternatives
- short contact (tri-temp)
  - standard contact (including thermal insulation)
- 5.4 Available Contact Sockets
- Multitest offers contact sockets for all package versions and application, i. e. high frequency, Kelvin and MEMS test

## 6. Temperature Accuracy

- 6.1 Test Site Accuracy
- +/- 2° C for STD application
  - +/- 5° C for PTB application
  - Device under test +/- 2° C typ. drift within 3 min
- 6.2 Test Site Stability
- +/- 0.5° C

## 7. Bin Categories

- 7.1 Tube Unloader
- 4(7) bins
- 7.2 Metall Magazine
- 4 bins total or 1 bin per magazine track

## 8. Docking

- 8.1 Docking Height
- octal: 937 mm floor to centre of contact unit
  - quad: 967 mm floor to centre of contact unit
- 8.2 Docking Compatible with
- all commonly used docking systems and test heads are supported

## 9. Performance

- 9.1 Throughput at 0 Test Time
- throughput up to 28.000 uph (for SO150, 5.1 mm, asynchr. mode, octal site)
- 9.2 Index Time
- STD, PTB:
- for single cassettes: 550 msec, 590 msec (TSSOP), 620 msec (MSOP118)
  - for dual cassettes: 1000 msec, 1050 msec (TSSOP), 1100 msec (MSOP118)
  - VAC:
  - for single cassettes: 800 ms
  - for dual cassettes: 1200 ms

## 10. Facility Requirements

- 10.1 Power Supply (Voltage/ Phase)
- 200 V to 250 V, 50Hz/ 60 Hz, 32 Amps, single phase
  - 230 V/ 400 V, +/-10%, 50/ 60 Hz, 2x16 Amps, dual phase
- 10.2 Power Consumption
- max. 4 kW
  - 10.3 LN2 Consumption:
  - 17 l/ h max.
- 10.3 Compressed Air Consumption
- 300 to 570 l/min (depending on configuration)
- 10.4 Mobility/ Number of People Necessary
- mobility on Casters / 1-2 persons to move
- 10.5 Height
- incl. signal light: 200 cm
  - for transport (without signal light): 194 cm
- 10.6 Weight
- typ.: 600 kg (600 kg to 650 kg depending on configuration)

## 11. Compliance and Standards

- 11.1 Compliant to CE, SEMI S2-0302, SEMI S8-0701

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

