Cohu

MT9928 xm

High Speed Gravity Handler

Applications:

- Automotive power devices
- RF and communication
- Logic, amplifier and linear
- Flash memory
- MEMS and temperature

Solution for:

- Medium and small size SO and MLF
- Packages with a pitch down to 0.4 mm
- Device length from 2 mm to 21 mm

Facts:

- Up to 8 contact sites
- Tri-temp from -55 °C to +175 °C
- Fast and reliable kit exchange for SO and MLF/QFN packages
- Throughput up to 28,000 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 need

MT9928 xm

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. Package 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 mm to 14mm, SO: 1.6 mm to 11 mm
- Device length: 2 mm to 21.3 mm
- Device thickness: down to 0.5 mm

3.3 Min. Lead Pitch

- Down to 0.4mm

4. Loading/ Unloading

4.1 Possible Loading Material and Size

- Tubes: 170 mm 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 mm to 560 mm, max 20 mm width, 8 mm height
- Metal magazines (width up to 67 mm, length: 520 mm to 540 mm

4.4 Available Unloader Types/ Capacity

- 36 tubes (for 8 mm wide tubes)
- 30 metal magazines (for 6 mm thick magazines)

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 Socket

- Cohu offers contact socket 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 3min

6.2 Test Site Stability

- +/- 5 °C

7. Bin Categories

7.1 Tube Unloader

- 4(7) bins

7.2 Metal Magazine

- 4 bins total or 1 bin per magazine track

8. Docking

8.1 Docking Height

- Octal: 937 mm floor to center of contact unit
- Quad: 967 mm floor to center 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 ms, 590 ms (TSSOP), 620 ms (MSOP18)
- For dual cassettes: 1000 ms, 1050 ms (TSSOP), 1100 ms (MSOP18)

VAC:

- For single cassettes: 800 ms
- For dual cassettes: 1200 ms

10. Facility Requirements

10.1 Power Supply (Voltage/ Phase)

- 230 V to 250 V, 50Hz/ 60Hz, 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 LN_2 Consumption:

- 17 l/ h max

10.4 Compressed Air Consumption

- 300 to 570 l/min (depending on configuration)

10.5 Mobility/ Number of People Necessary

- Mobility on Casters / 1-2 persons to move

10.6 Height:

- Incl. signal light: 200 cm
- For transport (without signal light: 194 cm)

10.7 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

Rev20181107

www.xcerra.com/mt9928
info@cohu.com
Test Handler Group
www.xcerra.com/handlers

Cohu, Inc.
12367 Crosthwaite Circle, Poway, CA 92064-6817 | Tel. +1 858.848.8000
www.cohu.com | © 2018 Cohu, Inc.: All rights reserved.