

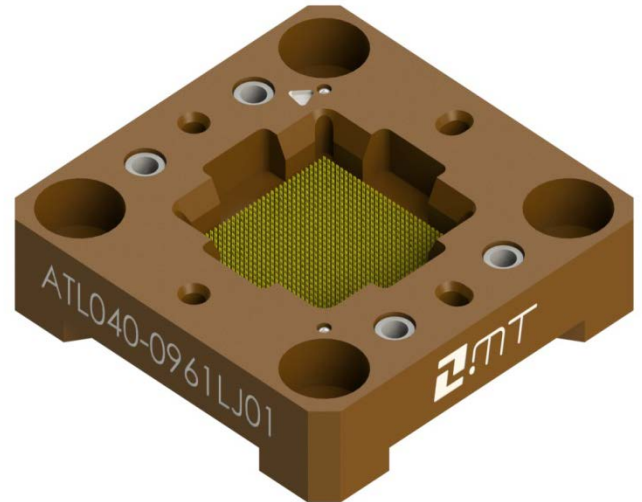
Atlas Contactor



Optimal Performance for Large I/O Count Devices and High End Digital Test

Features:

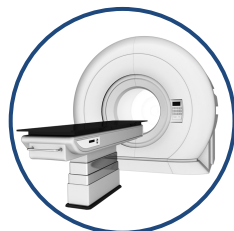
- extra tip strength with box beam design
- fewer moving parts with no floating alignment plate
- high frequency >21 GHz @-1dB
- excellent contactor for large array packages
- BGA, LGA, WLP
- highly integrated devices
- high frequency requirements



- long uninterrupted test runs
- site-to-site consistency on a global scale
- high bandwidth for next generation digital devices
- short signal path for low-noise high-fidelity contacting
- excellent R_c repeatability over hundreds of thousands of insertions



RF / Analog



Digital



Power / Sensor



Wafer Level Test



Atlas Contactor



Optimal Performance for Large I/O Count Devices and High End Digital Test

1. Packages and Application

- 1.1 Packages
 - grid array packages: BGA, LGA and WLP
 - use with our without floating alignment plate
 - singulated packages, strip test, InCarrier and waferscale parallel test

2. Environmental

- 2.1 Temperature Range
 - -55° C +155° C

3. Reliability*

- 3.1 Typical Probe Life
 - 500 k cycles

4. Electrical

- 4.1 Bandwidth
 - ATLO30 @ 0.3 mm pitch: 24.1 GHz @-1dB
 - ATLO40 @ 0.4 mm pitch: 23.2 GHz @-1dB
 - ATLO80 @ 0.8 mm pitch: 21.7 GHz @-1dB
- 4.2 Loop Inductance
 - ATLO30 @ 0.3 mm pitch: 1.26 nH
 - ATLO40 @ 0.4 mm pitch: 0.97 nH
 - ATLO80 @ 0.8 mm pitch: 1.43 nH
- 4.3 Typical Contact Resistance**
 - ATLO30: 125 mOhm
 - ATLO40: 50 mOhm
 - ATLO80: 40 mOhm
- 4.4 Current Carrying Capacity
 - 20° Celsius Temperature Rise
 - ATLO30: 1.33 A continuous
 - ATLO40: 1.66 A continuous
 - ATLO80: 2.81 A continuous
 - maximum @ 1% duty cycle
 - ATLO30: 7.10 A continuous
 - ATLO40: 10.45 A continuous
 - ATLO80: 21.56 A continuous

specifications are subject to change without notification and are for reference only. use contactor drawing to design interface hardware.

*cleaning frequency and life specifications are estimates based on customer feedback. actual values are dependent on the application (DUT materials, handler kit, maintenance, etc.)

** typical resistance measured between Au plated sheets

5. Mechanical

- 5.1 Contact Pitches Supported
 - 0.3 mm – 1.0 mm
- 5.2 Contact Force at Test Height
 - ATLO30: 13 g (0.13 N)
 - ATLO40: 22 g (0.22 N)
 - ATLO80: 23 g (0.23 N)
- 5.3 Test Height
 - ATLO30: 3.46 mm (0.136 in)
 - ATLO40: 3.65 mm (0.43 in)
 - ATLO80: 4.4 mm (0.173 in)
- 5.4 Pin Travel at Test Height
 - ATLO30: 0.31 mm (0.012 in)
 - ATLO40: 0.50 mm (0.02 in)
 - ATLO80: 0.75 mm (0.03 in)
- 5.5 DUT Tip Style
 - ATLO30: Four Point Crown 0.105mm tip-to-tip (Ø0.225 mm)
 - ATLO40: Four Point Crown 0.140mm tip-to-tip (Ø0.338 mm)
 - ATLO80: Four Point Crown 0.365mm tip-to-tip (Ø0.555 mm)
- 5.6 PCB Tip Style
 - ATLO30: 0.10 mm radius (0.004 in)
 - ATLO40: 0.16 mm radius (0.006 in)
 - ATLO80: 0.50 mm radius (0.019 in)

6. Materials

- 6.1 Housing Material
 - Vespel
 - MDS 100
 - Photoveel Ceramic
- 6.2 Spring Probe Material
 - hard, proprietary material
- 6.3 Spring Material
 - stainless steel
- 6.4 Plating Material
 - hard gold

7. Configurations / Interface Options

- 7.1 Automated Test
 - handler specific design/configuration
 - optional manual actuator
 - e-beam probe support
 - WLP probe head configuration

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.

