

# High Insertion Count (HIC) Adapters

- · Long life and high yield sockets
- Statistical monitoring



1-800-3-DATAIO www.dataio.com



## **Featuring**

- 4-site package specific adapters
- · Parallel programming
- Status LEDS
- Easy replaceable sockets (2 screws)

## **Package Support**

- CSP
- µBGA
- BGA

## **Long Life**

- Up to 250K actuations per socket
- Up to 1million actuations per adapter

# **High Yield**

Superior signal integrity

#### **Statistical Monitoring**

- · Adapter insertion counts
- Passed device counts per socket
- Failed device counts per socket
- Socket yield performance

#### **Socket Clean Counter**

- Socket clean alerts
- Clean counter reset
- User configurable counter

### **Currently Ball Pitch Support**

• .75mm, .80mm, 1.0mm

#### **Socket Counter Reset**

 Reset individual socket counts to zero

### **Contact Integrity**

- · Pre-alignment, centering
- Safety and careful contacting

#### **TaskLink Software**

 Analyze socket performance statistics HIGH INSERTION COUNT ADAPTERS, ANOTHER INDUSTRY FIRST FROM DATA I/O, DELIVER THE LOWEST PROGRAMMING COST PER INSERTION AND HIGHEST PROGRAMMING YIELDS.

# Designed to make device programming easy.

Data I/O has combined our long-life/high-yield programming sockets with statistical monitoring capabilities built right onto the adapter board. High Insertion Count Adapters support the principles of lean thinking by reducing non-value-added steps and costs associated with managing and tracking socket inventories.

# **Highest Performance**

High Insertion Count Adapters are designed for use in high volume production environments where continuous uptime and high programming yields are required to maximize production outputs. Contact pins made from the highest quality materials, deliver low noise programming signals for maximum cell charge. In addition, stainless steel/gold plated spring probe contact provides accurate repeatability for long insertion life.

# **Supporting Principles of Lean Thinking**

A lean enterprise uses time and the relentless pursuit of waste elimination as competitive leverage. High Insertion Count Adapters make value flow from raw material through consumption using the least amount of resources, including time, people and materials. Efficiencies are gained through simplified socket inventory management, lower overall socket costs, reduced scrap costs, less rework, and optimized operator utilization. The end result is higher manufacturing profits.





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# **Platform Support**

- ProLINE-RoadRunner
- PS200/300

#### **Application**

 Designed for device programming

# **Signal Transfer**

· Spring contacts in SMT

# **Pin Configurations**

- Currently available pin counts: 48, 56, 64 and 96pins
- Other pin counts available upon request

# **Pitch Configurations**

- Currently Available pitches: 0.75mm, 0.8mm, 1.0mm
- Additional pitch configurations available upon request

#### **Package Support**

- CSP, µBGA, BGA
- · Variable body dimensions

#### Insulation resistance

100Milliohms or more at 500VDC

# Dielectric withstanding voltage

500VAC for 1 minute

#### **Alignment**

Floating base for precise device centering

#### **Periodic Maintenance**

 No socket cleaning procedure available at this time

# **Contact Specifications**

Data is dependent on confirguation and test methods

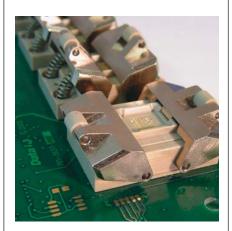
- Contact Resistance: 60-80 milliohms throughout 750,000 cycles in fixtured position
- Contact Capacitance: 1.04 pF
- Propogation Delay: 48 picoseconds
- Self Inductance: approximately 2.7nH
- Insertion Loss: <0.5dB to 3.5 GHz
- Cross Talk: < -10db up to 3GHz
- Rise Time: 87.6 picoseconds
- Contact Force: 8g initial, 30g at working position
- Operating Temp: Range: -50° C to +150° C
- Device Insertions: up to 250,000

# **Materials and Finish**

- Plungers: Hardened BeCu / Gold Plated
- Barrel: Copper Alloy/Gold Plated
- Spring: Stainless Steel/Gold Plated

# Socket Cycle Life (Mechanical)

• Up to 250,000 actuations



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