

Loranger International Corporation

Your Turn Key Solution

For Sockets, Boards and Systems

For Over 30 Years

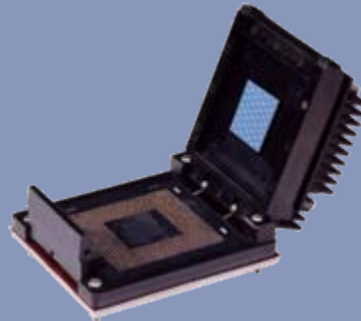


Loranger Socket Families

Over 3,000 Socket Designs - 0.25mm and Larger Pitches



QFN – MLF - LLP



BGA - LGA



CSP

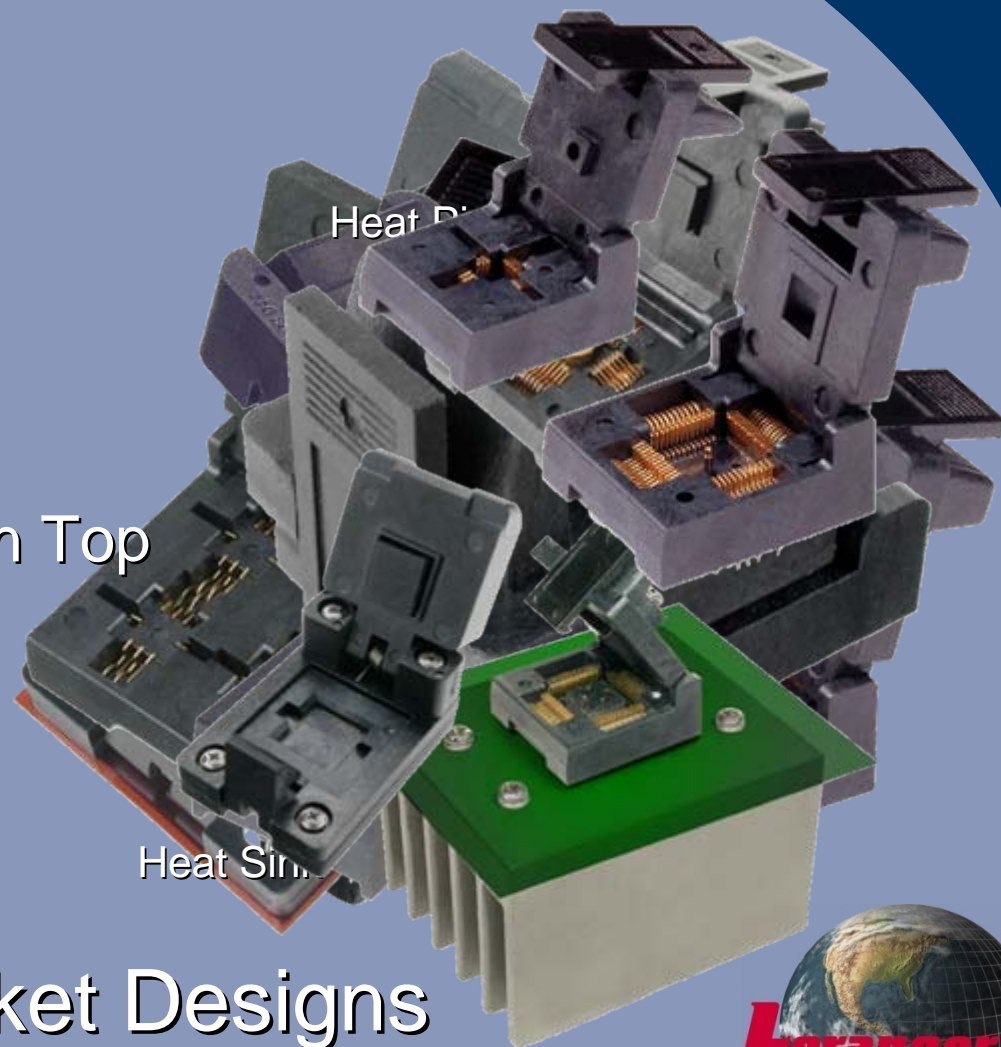


Other Socket Types



QFN - MLF - LLP Socket Features

- 0.25 mm Pitch and Up
- Dual Row
- Non-Magnetic Option
- Double Duty Kelvin
- PTH / Clam Shell or Open Top
- SMT / Compliant Cover
- Thermal Management



Over **850** QFN Socket Designs



BGA / CSP / LGA Socket Features

- Micro-spring / APS Contacts
- 0.25 mm Pitch and Up
- Current Rating: Up to 1AMP / Contact
- Frequency: 5 GHz
- > 50,000 Cycles
- Non-Magnetic Option
- Clam Shell Style
- SMT / Compliant Cover
- Thermal Management
 - Heat Sink
 - RTD - Heater
- Programmable Smart Socket



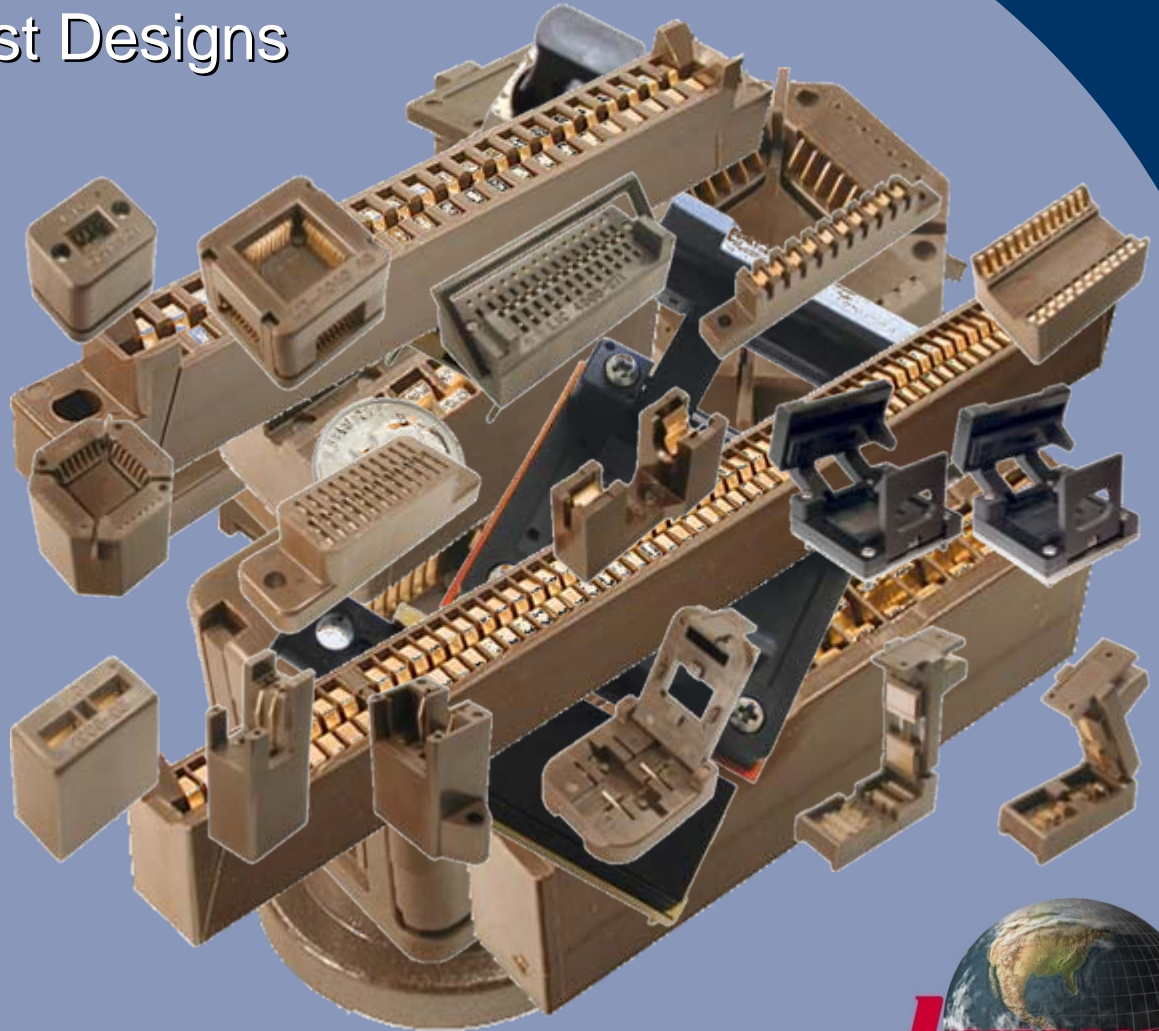
Over **700** BGA / CSP / LGA Socket Designs



Wide Range of Socket Styles

Burn-in and Kelvin Test Designs

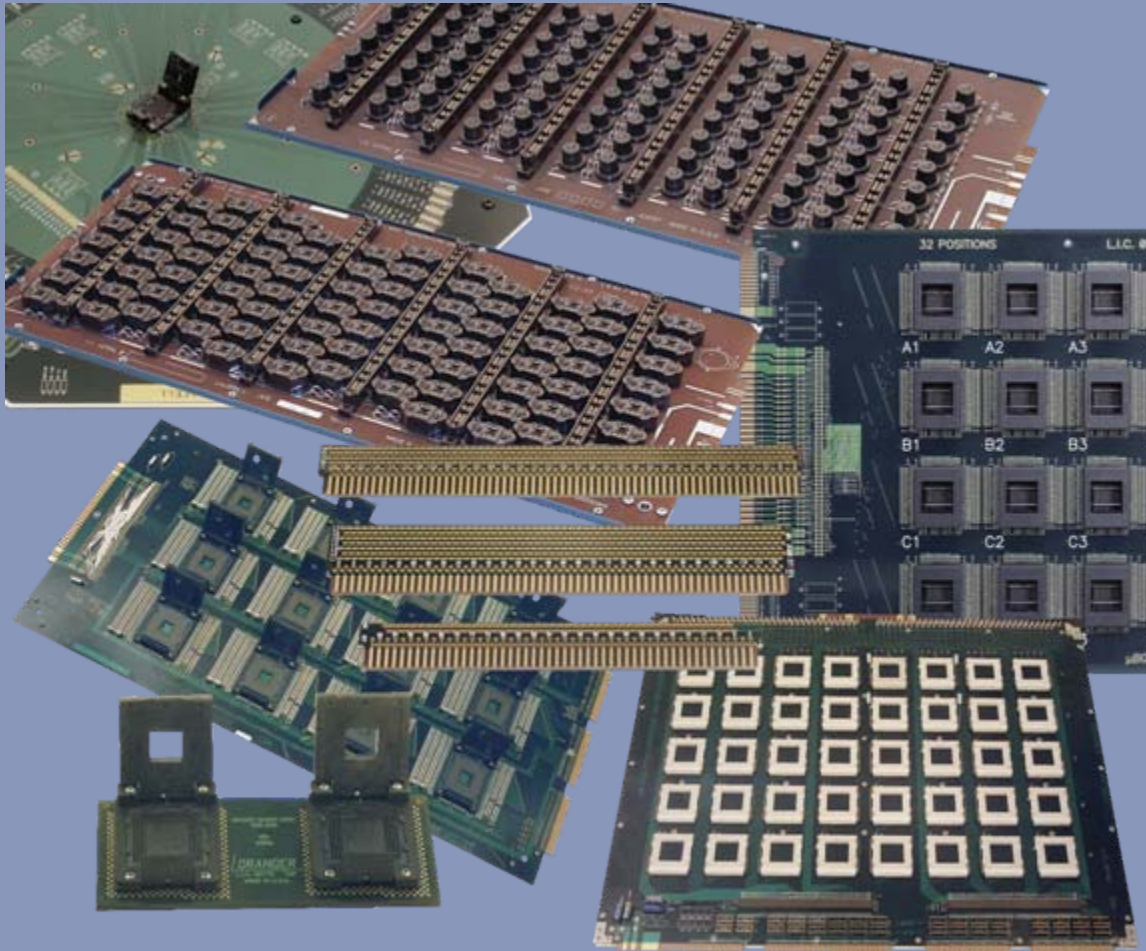
- Gull Wing
- TO
- SMD
- ZigZag
- Microwave / Hybrid
- LCC / PLCC
- Axial / Radial / Melf
- SIP / DIP
- Optical Transceivers
- Connectors



Ask about Thermal and Non-Magnetic Options

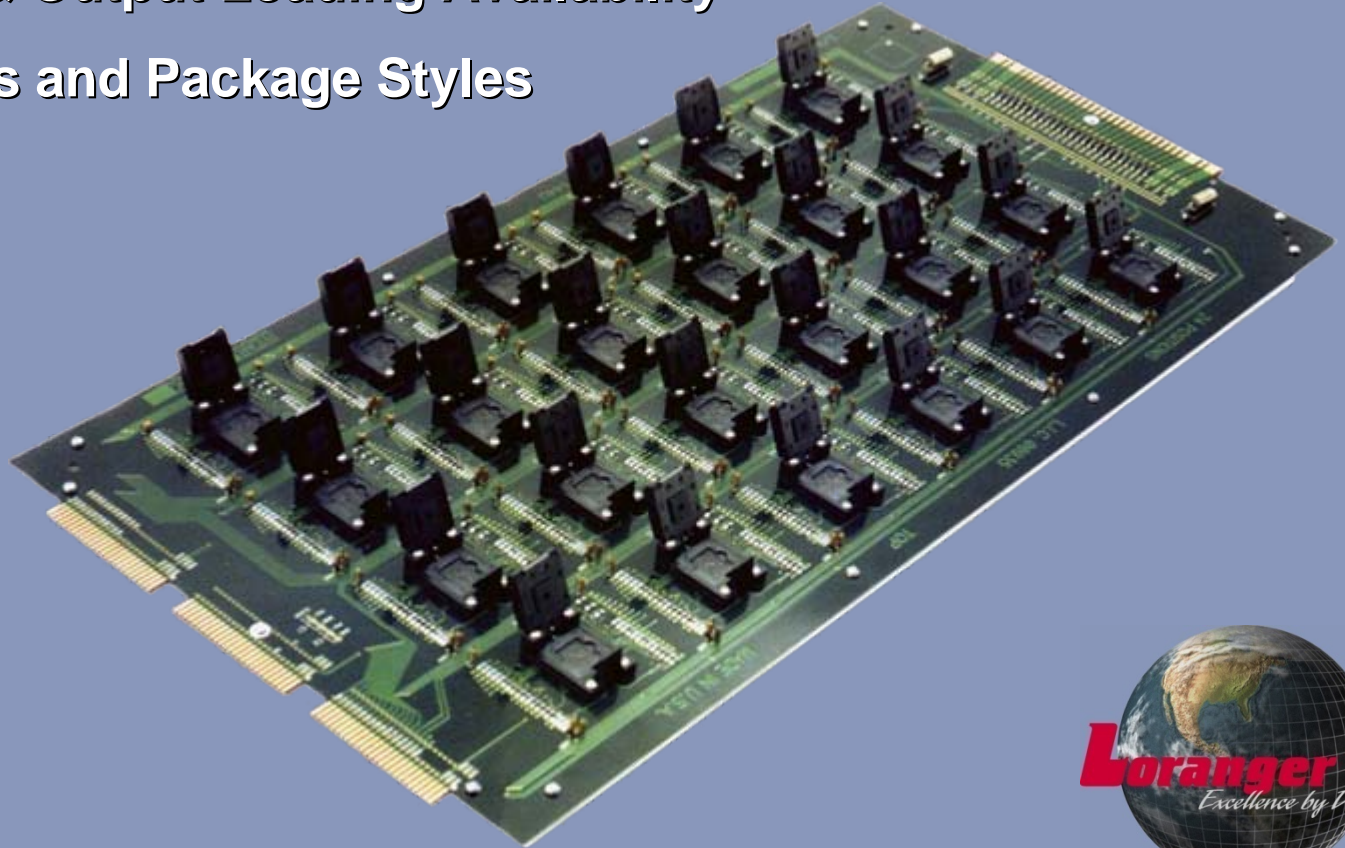


Printed Circuit Boards



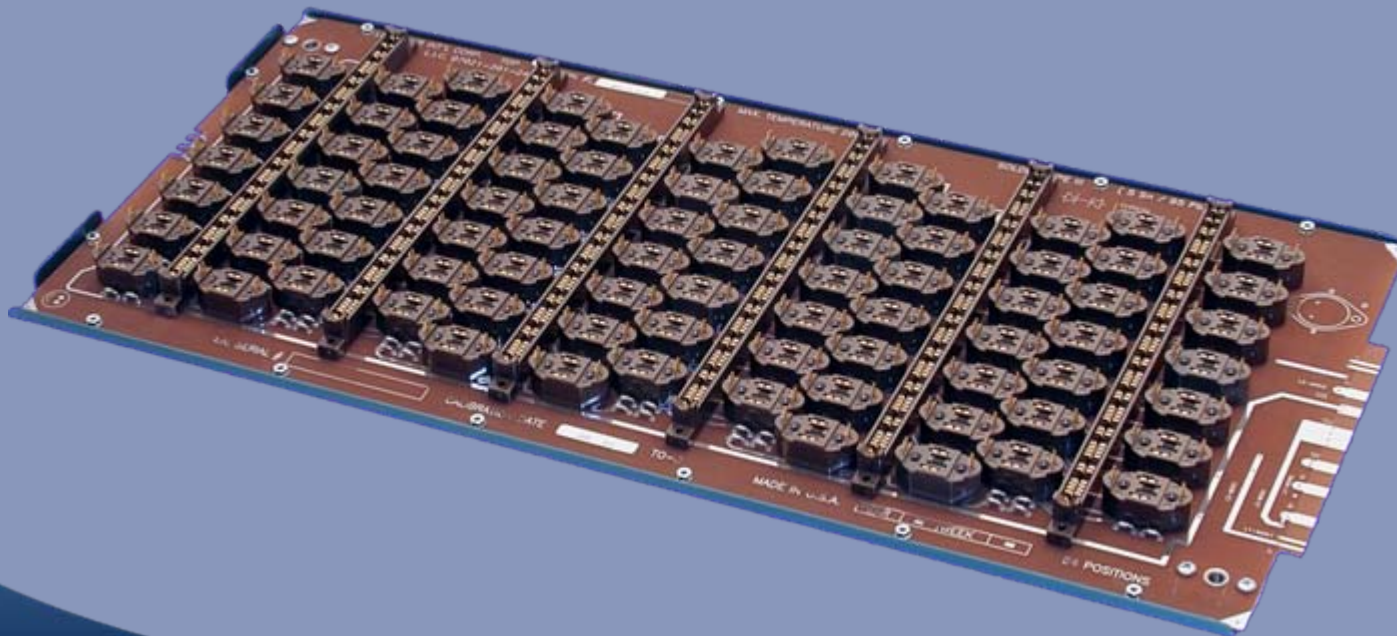
Dedicated Burn-in Boards

- Highest Density to Maximize Throughput
- Lowest Cost per Device Position for Volume
- Input Isolation & Output Loading Availability
- All Device Types and Package Styles



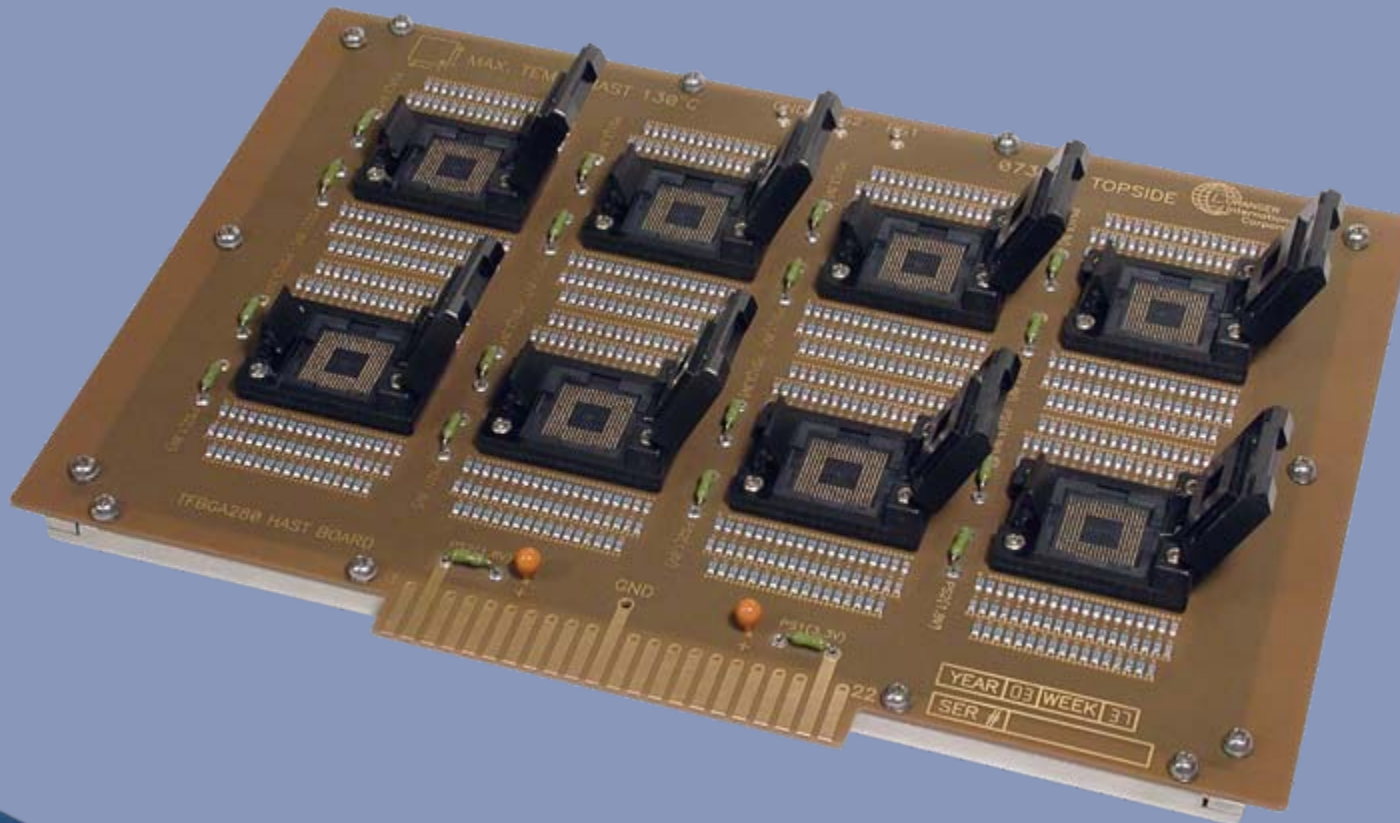
Universal Burn-in Boards

- Decreases Board Inventory
- Device Pin Programmability
- High Density of Burn-in Sockets
- Quick Response to New Schematics
- Increase Board Service Life with Programming Features



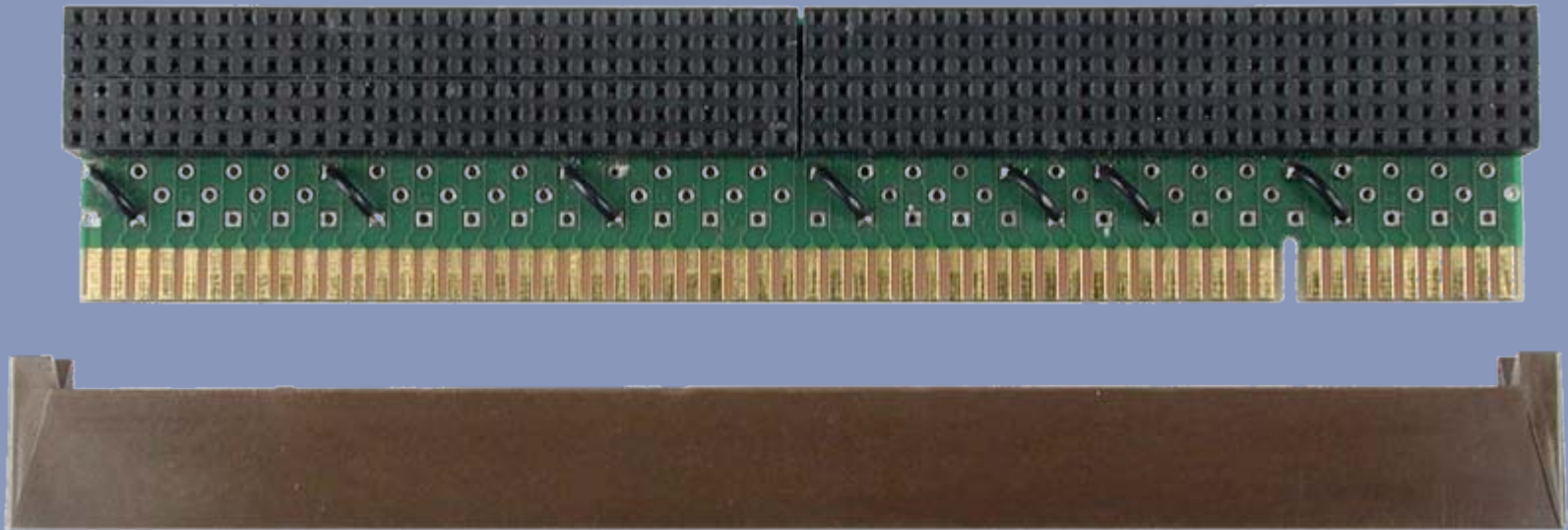
HAST • 85 / 85 THB

Loranger HAST and Humidity boards use special board materials, optional inner layer trace routings, optimal trace spacing, surface mount or PTH components, and low thermal mass designs to aid in rapid temperatures changes.



Program Cards & Connectors

- Several Styles of Program Cards are available, including dedicated designs with components, or universal designs that can be configured by the user.
- Also, several Loranger Edge Connectors are available in various pitches and I/O.



Loranger 03199 A01 6218A connector with 49/98 contacts on 0.100 pitch to accommodate a keyed 98 I/O universal program card



Environmental Systems

Dynamic • Static • Humidity • Ambient

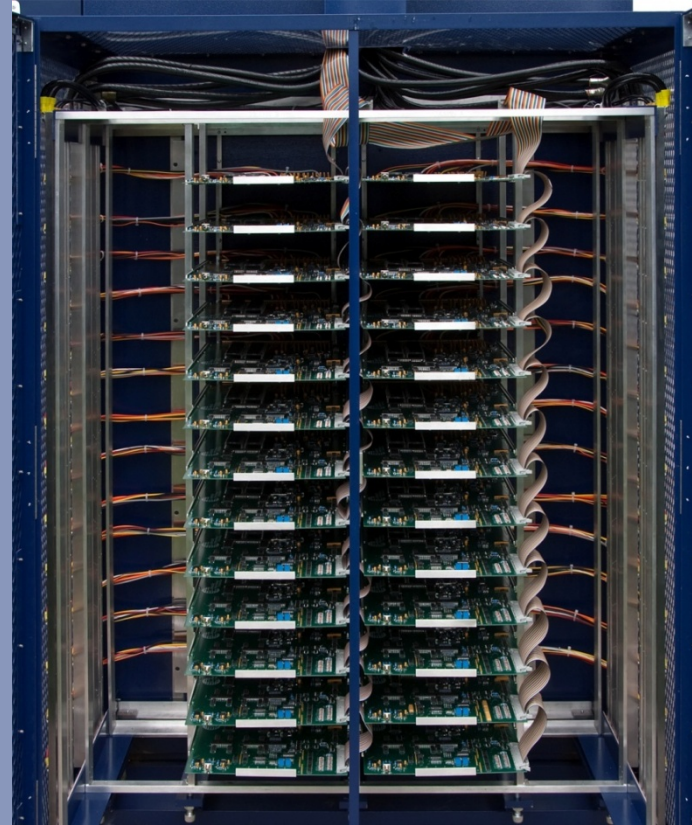
- Optional computer controlled burn-in and data collection
- Custom signal generation boards
- Single or multiple chamber systems
- Various chamber sizes
- Powered cool down racks
- Feed through back chamber wall



Environmental Systems

Backplane Multifunction Boards

- Custom board designs for signal generation, data collection, fuses, and resistive loads
- Caged, external rack on rear of system holds the multifunction boards
- Burn in boards pass through the chamber back wall to connect to an interconnect assembly
- Power and ground buss bars inside the rear cage provide power to the interconnect assemblies
- Multifunction boards plug into the interconnect assemblies



Environmental Systems

Four Chamber Burn-in System



Environmental Systems

Ambient Burn-in System

- Room temperature burn-in for high power devices
- Board racks set at an angle to provide proper airflow and cooling
- Ventilated walls for airflow
- Backplane connectors and power supplies



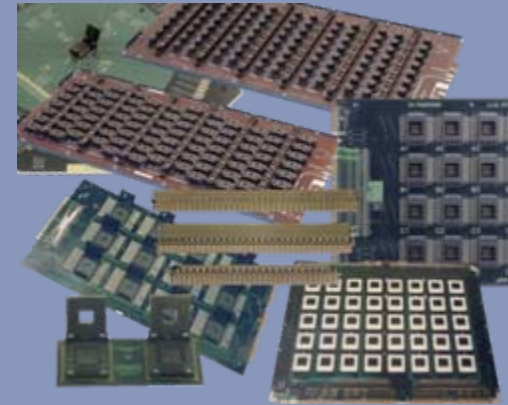
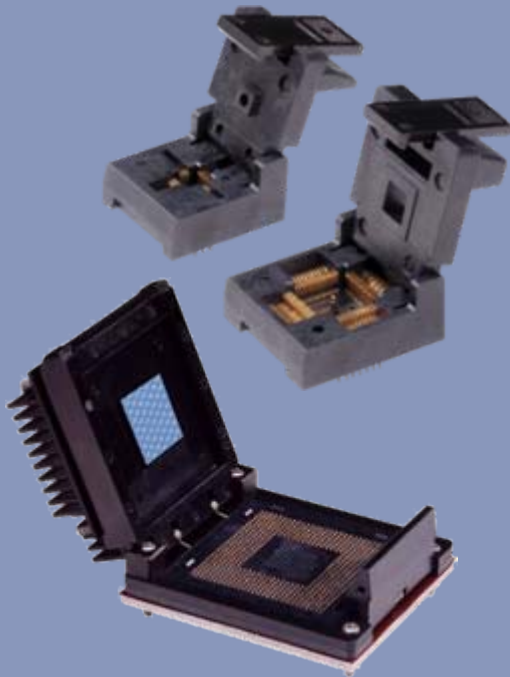
Loranger International Corporation

Visit Us At www.bce.it for Information Regarding

Sockets

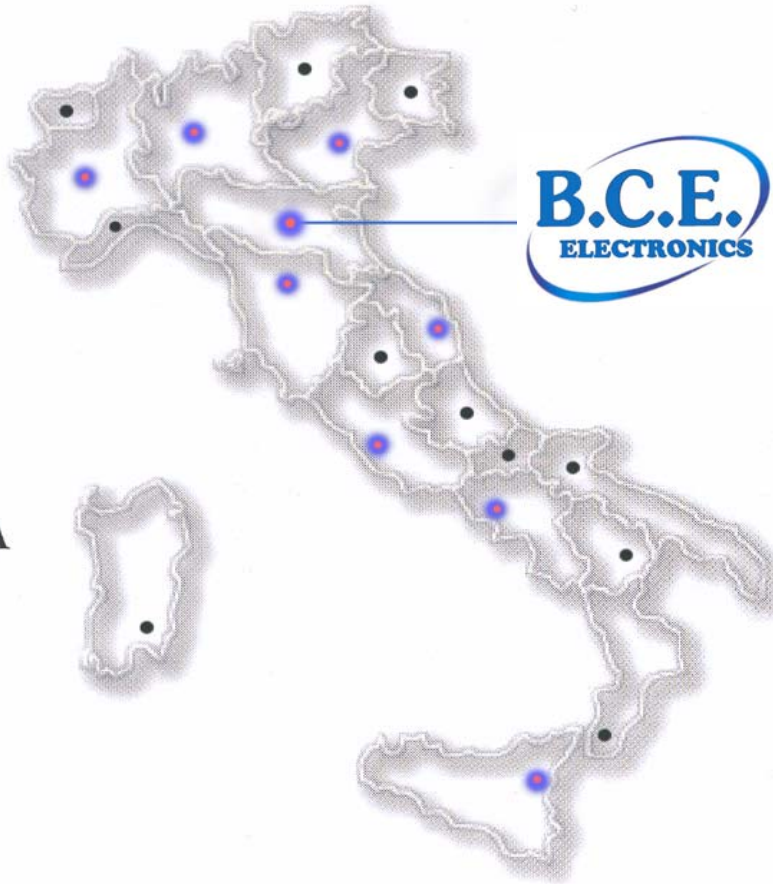
PC Boards

Systems



Italy Support

MILANO
TORINO
PADOVA
FIRENZE
MACERATA
ROMA
NAPOLI
CATANIA



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