LOT SCREEN TESTING

Samtec's Lot Screen Testing program provides added assurance for upscreening board-to-board interconnects for mission critical applications.

ENSURING RELIABILITY FOR CRITICAL APPLICATIONS

Targeting industries that require high-reliability components (such as military and aerospace), Samtec's program offers two levels of rigorous testing: **Lot Screen Testing** and **Qualification Conformance Inspection (QCI)**. Both include a complete test plan as well as reports on each specific build, ensuring compliance with stringent standards and specifications. See next page for testing details.

By focusing on individual orders, Samtec's Lot Screen Testing program offers an unparalleled level of assurance and reliability, crucial for applications where performance cannot be compromised.

Both Lot Screen Testing and QCI are modeled after board-to-board connector MIL-DTL-55302 standards and parallel the traditional EIA-364 standards used in the electronics industry. For more information, visit samtec.com/MilAero or contact MAP@samtec.com.

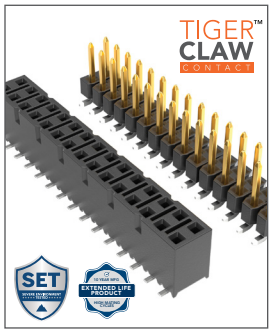
ADDITIONAL PRODUCT TESTING

Samtec offers a comprehensive suite of testing options for optimal product performance. All Samtec series undergo **Design Qualification Testing (DQT)** – an extensive qualification process to verify a product will perform as designed.

For applications requiring additional rigor, Samtec's **Extended Life Product™ (E.L.P.™)** program certifies that products can withstand extreme conditions, such as 10-year Mixed Flowing Gas exposure and high mating cycles in simulated prolonged storage and field environments.

Samtec's **Severe Environment Testing (SET)** confirms that products can withstand the harsh environments encountered in military, space, automotive, industrial and other extreme applications.

SET & E.L.P.™ certified products are ideal for Lot Screen Testing and QCI. Visit **samtec.com/elp** or **samtec.com/set** for a current list of products and test reports, or contact MAP@samtec.com to inquire about a specific series.



.100" Surface Mount
Socket & Terminal Strips
(SSM/TSM Series)

0.50 mm High-Speed
Hermaphroditic Strips
(LSHM Series)

1.27 mm High-Density
Open-Pin-Field Arrays
(SEAM/SEAF Series)

1.27 mm Rugged
High-Reliability Strips
(SFM/TFM Series)

2.00 mm Ultra Micro
Power System
(UMPT/UMPS Series)

QUICK GUIDE TO SAMTEC'S LOT SCREEN TESTING OPTIONS

Test	Lot Screen Testing	Qualification Conformance Inspection (QCI)
Visual and Mechanical Inspection	✓	✓
Mating and Unmating Forces	✓	✓
Low Level Contact Resistance (LLCR)	✓	✓
Insulation Resistance (IR)	✓	✓
– Pin-to-Pin	✓	✓
– Row-to-Row	✓	✓
– Closest Metallic Hardware		✓
Dielectric Withstanding Voltage (DWV)	✓	✓
– Sea Level	✓	✓
– High Altitude		✓
Solderability	✓	✓
Current Carrying Capacity (CCC)		✓
Mechanical Shock		✓
Random Vibration		✓
Extended Life		✓
– Plating Thickness Verification		✓
– Mating Cycling		✓
– Thermal Shock		✓
– Humidity		✓
Workmanship		✓

For more information, visit **samtec.com/MilAero** or contact **MAP@samtec.com**.

Visual Inspection
Parts rotated 360° vertically and horizontally to inspect for flash/debris, feature identification, and cleanliness under magnification.

Mating/Unmating/Durability
Measures the change in LLCR and mating/unmating after products have been cycled and exposed to various environmental conditions.

Low Level Contact Resistance (LLCR)
Measures the electrical resistance at contact interfaces under low voltage and current conditions. This is done before and after other tests to verify there is no degradation in the contact interface.

Insulation Resistance/Dielectric Withstanding Voltage (IR/DWV)
Determines the testing voltage and then ensures environmental exposure will not cause the product to fail at the test voltage.

DWV at Altitude
Measures the peak voltage that a product can withstand before dielectric breakdown at high altitudes (70,000 feet).

Current Carrying Capacity (CCC)
Establishes the amount of electric current a conductor can safely carry without exceeding its safe operational temperature.

Mechanical Shock/Random Vibration/Nanosecond Event Detection
Measures the product's ability to withstand a series of mechanical shocks and vibrations. Event detection monitors continuity during testing.

Mating Cycles
Measures the maximum number of mating/unmating cycles the product can withstand while maintaining the maximum resistance and pull force.

Workmanship
Confirming parts are free from defects that will adversely affect the life, serviceability, or appearance under 20x magnification.