Rugged contact systems, flexible power interconnects and rugged signal integrity create the foundation of Samtec’s micro rugged solutions for high cycle, high speed, high power and harsh environment applications. Samtec’s rugged products are offered in conjunction with full engineering support, online tools and a service attitude that is unmatched in the connector industry.

**RUGGED CONTACT SYSTEM**

- 1,000+ MATING CYCLES
- TIGER EYE™ HEAT-TREATED BeCu CONTACTS
- MULTIPLE POINTS OF CONTACT FOR HIGH-RELIABILITY

**RUGGED SIGNAL INTEGRITY**

- HIGH SPEEDS TO 56 Gbps PAM4
- EDGE RATE* CONTACT DESIGN INCREASES WEAR LIFE
- EXPERTISE IN SIGNAL INTEGRITY DESIGN & ANALYSIS

**FLEX POWER**

- 3 TO 60 AMPS
- CONFIGURABILITY OF POWER & SIGNAL
- SPACE-SAVING FORM FACTOR
RUGGED CONTACT SYSTEMS
Tiger Eye™ contact system for high-reliability in rugged applications
1,000+ mating cycles
0.80 mm to 2.00 mm pitch
Board-to-board, discrete wire and IDC cable assemblies

RUGGED SIGNAL INTEGRITY SYSTEMS
Edge Rate® contact system for rugged signal integrity performance
Performance to 56 Gbps PAM4
0.50 mm, 0.635 mm and 0.80 mm pitch
Edge card and ultra-micro connectors

FLEXIBLE POWER SYSTEMS
Ultra-micro power to 21 A and incredible design flexibility
Individually shrouded contacts
Small form factor, high power systems to 60 A
Board-to-board and cable assemblies

SEALED I/O SYSTEMS
IP67 and IP68 rated for dust and water
Variety of circular shell sizes with power, power/signal pinouts
Rectangular designs for space savings
Rugged latching

Modified & Custom Solutions ........................................................................................................18
Rugged Features ..............................................................................................................................19
Power Integrity & Extended Life Product™ ....................................................................................20
Severe Environment Testing ...........................................................................................................21
Solutionator® ...................................................................................................................................22
Technology Centers ......................................................................................................................23
**RUGGED TIGER EYE™ SYSTEMS**

HIGH-RELIABILITY • MULTI-FINGER BeCu CONTACT • HIGH MATING CYCLES

2.00 mm PITCH TIGER EYE™

- **Tiger Eye™** is Samtec’s most rugged contact system rated to 1,000+ mating cycles
- Wide range of stack heights
- Right-angle mating headers available
- Optional screw downs, weld tabs and locking clips
- Discrete wire assemblies available in 24-30 AWG PVC or Teflon® wire; contact asp@samtec.com for custom solutions

Optional strain relief and variety of wiring options

Metal latching and screw down options

Variety of stack heights

Surface mount or through-hole

**3.8 A per pin**

**8 Gbps**

EMI shielded 2.00 mm Tiger Eye™ discrete wire assembly (SS2SD/ST2M)

Components (ISD2/CC81) & tooling available: samtec.com/tooling

samtec.com/tigereye
**TIGER EYE™ CONTACT SYSTEM**

- Multi-finger design with several points of contact for high-reliability
- Smooth, flat mating area increases mating cycles and lowers contact resistance
- Heat-treated BeCu for the best combination of mechanical and electrical properties
- Surface mount, micro slot tail increases solder surface area for higher joint strength

---

**1.27 mm PITCH TIGER EYE™**

- Screw down, locking clip, friction latching and weld tab ruggedizing options
- Shrouded, polarized and keyed
- Discrete wire assemblies available in single or double row, 28 and 30 AWG PVC or Teflon® wire; contact asp@samtec.com for custom solutions
- Cable components (ISDF/CC03) and tooling available

Dupont™ Teflon® is a registered trademark of the E.I. du Pont de Nemours and Company or its affiliates.
0.80 mm PITCH TIGER EYE™

- Micro pitch and slim body for space-savings
- 6 mm, 7 mm and 10 mm stack heights
- Locking clip, alignment pins and weld tab ruggedizing features
- Discrete wire assembly available with 32 AWG Teflon® wire; contact asp@samtec.com for custom solutions
- Extended Life Product™ testing available

Rugged latching system for increased withdrawal force

2.9 A

8 Q.s.p.s

SAMTEC COMPONENTS (ISDE/CC396) and tooling available: samtec.com/tooling

Compatible with UMPT/UMPS for power/signal flexibility
1.00 mm PITCH CABLE SYSTEM

- Crimp-style dual leaf contact system for reliable wire-to-board connection
- 28 and 30 AWG wire options in PVC or Teflon®

- Rugged positive latching for increased retention
- Socket or terminal, single or double row assemblies
- Vertical and right-angle mating headers

Components (ISS1, ISD1/CC09; T1SS, T1SD, T1PS, T1PD/T1M137-X) and tooling available: samtec.com/tooling

Custom solutions available (twisted pair cable shown); contact asp@samtec.com

Dual leaf contact system for a reliable connection

samtec.com/tigereye | 7
RUGGED SI EDGE RATE® SYSTEMS

OPTIMIZED FOR SI PERFORMANCE • INCREASED CONTACT WIPE • HIGH CYCLES

0.50 mm PITCH EDGE RATE®

- 1.00 mm contact wipe for a reliable connection
- Rugged friction locks and weld tabs available
- Up to 40% PCB savings vs. ERM8/ERF8
- Compatible with UMPT/UMPS for flexible power/signal solutions

Stack Height Flexibility (Actual Size in mm)

0.635 mm PITCH EDGE RATE®

- Extremely slim 2.5 mm body width
- Up to 120 positions in a 2-row design
- 5 mm stack height with others in development
- Compatible with UMPT/UMPS for flexible power/signal solutions

Sockets shown actual size at 40 total positions

- ERX5
- ERX6
- ERX8
- ERM5/ERF5
- ERM6/ERF6

samtec.com/edgerate
EDGE RATE® CONTACT SYSTEM

- Smooth milled mating surface reduces wear and increases durability
- Lower insertion and withdrawal forces
- Robust when “zippered” during unmating
- Minimized parallel surface area reduces broadside coupling and crosstalk
- Designed, simulated and optimized for 50 Ω and 100 Ω systems

0.80 mm PITCH EDGE RATE®

- 1.50 mm extended wipe
- Rugged metal latching for increased retention force
- 360° shielding option reduces EMI
- Compatible with UMPT/UMPS for flexible power/signal solutions
- Cost-effective metal solder lock in development for a more secure connection to the board

Stack Height Flexibility
(Actual Size in mm)

* In development
RUGGED SI EDGE CARD

UP TO 56 Gbps PAM4 • CHOICE OF PITCH • EDGE RATE® CONTACTS

0.80 mm & 1.00 mm PITCH SYSTEMS

- High-speed Edge Rate® contact system
- Vertical, right-angle and edge mount
- Power/signal combo to 60 A per power bank
- Pass-through application
- Misalignment mitigation

HIGH-DENSITY EDGE CARD

- Justification beam enables use of standard PCB tolerance
- 0.50 mm ultra-fine pitch with up to 300 total I/Os
- PCIe® Gen 4 compatible

MICRO EDGE CARDS

- 0.635 mm, 0.80 mm, 1.00 mm, 1.27 mm and 2.00 mm pitch
- Optional rugged weld tabs, board locks and solder locks
- Solutions for 1.60 mm (.062") and 2.36 mm (.093") thick cards

PCI-SIG®, PCI Express® and the PCIe® design marks are registered trademarks and/or service marks of PCI-SIG.
**RUGGED SI MICRO SYSTEMS**

**HIGH-DENSITY • HIGH-RETENTION CONTACTS • SLIM ROW-TO-ROW DESIGNS**

**HERMAPHRODITIC RAZOR BEAM™ INTERFACES**

- High-retention, high-speed Razor Beam™ contacts
- 0.50 mm, 0.635 mm and 0.80 mm pitch
- EMI shielding available to limit signal degradation and optimize performance

**FLOATING CONNECTORS**

- Provides 0.50 mm contact float in the X and Y axes to compensate for misalignment
- 5 mm and 7 mm stack heights
- Micro 0.50 mm pitch

**ONE-PIECE INTERFACES**

- Robust design and mechanical hold-downs for high-shock and vibration applications
- Optional rugged weld tabs and locking clips
- 1.00 mm, 1.27 mm and 2.54 mm pitch designs

---

Right-angle available for micro backplane applications

Profiles from 1.65 mm to 10 mm
**FLEXIBLE POWER**

**ULTRA MICRO POWER**

21 A PER BLADE • MICRO 2.00 mm PITCH • DESIGN FLEXIBILITY

**MICRO 2.00 mm PITCH**

- Design flexibility as a power-only system or a two-piece system for power/signal applications
- Use with Samtec’s high-speed connector systems for a unique power/signal system (see chart)

- Tin or 10 µ” Gold plated power blades; 30 µ” Gold plating available to meet specific regulations
- Standard creepage (2.20 mm) and clearance (1.65 mm)
- Selectively loading contacts achieves customer specific creepage and clearance requirements; contact asp@samtec.com

**UMPT/UMPS** compared to other small form factor power solutions

Terminals shown actual size at 4 positions

---

**CURRENT RATING (PER CONTACT)**

<table>
<thead>
<tr>
<th>PINS</th>
<th>-T</th>
<th>-G</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>17.2 A</td>
<td>21.5 A</td>
</tr>
<tr>
<td>2</td>
<td>14.7 A</td>
<td>17.6 A</td>
</tr>
<tr>
<td>3</td>
<td>13.1 A</td>
<td>16.8 A</td>
</tr>
<tr>
<td>4</td>
<td>13.0 A</td>
<td>15.6 A</td>
</tr>
<tr>
<td>5</td>
<td>12.9 A</td>
<td>15.4 A</td>
</tr>
</tbody>
</table>

**SIGNAL CONNECTOR**

<table>
<thead>
<tr>
<th>SIGNAL CONNECTOR</th>
<th>MATED HEIGHT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5 mm</td>
</tr>
<tr>
<td>ADM6/ADF6</td>
<td>X</td>
</tr>
<tr>
<td>BTE/BSE, BTH/BSH, BTS/BSS</td>
<td>X</td>
</tr>
<tr>
<td>ERM5/ERF5</td>
<td></td>
</tr>
<tr>
<td>ERM6/ERF6</td>
<td></td>
</tr>
<tr>
<td>ERM8/ERF8</td>
<td></td>
</tr>
<tr>
<td>LPAM/LPAF</td>
<td></td>
</tr>
<tr>
<td>QMS/QFS</td>
<td></td>
</tr>
<tr>
<td>QRM8/QRF8</td>
<td></td>
</tr>
<tr>
<td>QTE/QSE, QTH/QSH, QTS/QSS</td>
<td>X</td>
</tr>
<tr>
<td>SEAM/SEAF</td>
<td></td>
</tr>
<tr>
<td>SEAM8/SEAF8</td>
<td></td>
</tr>
<tr>
<td>ST4/SS4, ST5/SS5</td>
<td></td>
</tr>
<tr>
<td>TEM/SEM</td>
<td></td>
</tr>
</tbody>
</table>
Samtec now offers power simulation that can calculate temperature increase in the connector area; contact microruggedgroup@samtec.com for more details.

**PHASE 2**

10 Position Right-Angle

**Right-Angle UMPT Series**

**POSITIONS**

2, 3, 4, 5, 6, 7, 8, 9, 10

**OPTIONS**

Latch for mating with cable assembly

**PHASE 3**

4 Position Cable Assembly and UMPT Right-Angle with Staged Blades

**Cable Assembly with Latch**

**POSITIONS**

2, 3, 4, 5, 6, 7, 8, 9, 10

**MATES**

UMPT Series vertical and right-angle with latch

**PHASE 4**

6 Position, 9 mm Stack Height

**Vertical UMPT & UMPS Series**

**POSITIONS**

6, 7, 8, 9, 10

**STACK HEIGHTS**

6, 8, 9, 11, 13, 14, 15, 16, 18, 20

**IN DEVELOPMENT**

30 A Ultra Micro Power System in development for higher power in a compact design. Designed for flexibility as a power-only system, or as a two-piece power/signal system alongside Samtec’s high-speed connectors. Initial options will include 2-5 position counts and 5, 7, 10 and 12 mm stack heights.
FLEXIBLE POWER
HIGH-POWER

SMALL FORM FACTORS • 10–60 A PER PIN/BLADE • INDIVIDUALLY SHROUDED CONTACTS

MINI MATE® & POWER MATE®

• Individually shrouded contacts for electrical and mechanical protection
• .100" (2.54 mm) and .165" (4.19 mm) pitch
• Discrete wire assemblies with 16-30 AWG PVC or Teflon® wire
• Selectively loading contacts achieves customer specific creepage and clearance requirements; contact asp@samtec.com

10.3 A per pin

<table>
<thead>
<tr>
<th></th>
<th>CREEPAGE</th>
<th>CLEARANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>IPT1/IPS1 MMSS(T)/MMSD(T)</td>
<td>2.55 mm</td>
<td>1.91 mm</td>
</tr>
<tr>
<td>IPBT/IPBS PMSS(T)/PMSD(T)</td>
<td>4.27 mm</td>
<td>3.05 mm</td>
</tr>
</tbody>
</table>

EXTREME POWER

• AC or DC power, AC-DC combos and split power options (ET60T/ET60S)
• High-density, double stacked power blades (LPHT/LPHS)
• Selectively loading contacts achieves customer specific creepage and clearance requirements; contact asp@samtec.com

30-60 A per blade

<table>
<thead>
<tr>
<th></th>
<th>CREEPAGE</th>
<th>CLEARANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>LPHT/LPHS</td>
<td>5.63 mm</td>
<td>2.69 mm</td>
</tr>
<tr>
<td>ET60T/ET60S</td>
<td>3.02 mm</td>
<td>1.87 mm</td>
</tr>
</tbody>
</table>
POWERSTRIP™ SYSTEM

- 23.5 A/blade to 58.7 A/blade (1 blade powered)
- 5.00 mm and 6.35 mm pitch
- Discrete wire assemblies with 10-16 AWG wire
- Selectively loading contacts achieves customer specific creepage and clearance requirements; contact asp@samtec.com

<table>
<thead>
<tr>
<th></th>
<th>CREEPAGE</th>
<th>CLEARANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>PET/PES/PETC/</td>
<td>3.66 mm</td>
<td>3.31 mm</td>
</tr>
<tr>
<td>PESC/PESS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MPT/MPS/MPTC/</td>
<td>2.95 mm</td>
<td>2.71 mm</td>
</tr>
<tr>
<td>MPSC/MPSS/MPPT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>UPT/UPS/UPPT</td>
<td>5.80 mm</td>
<td>1.51 mm</td>
</tr>
</tbody>
</table>

Discrete wire components (IMSS,IMSC5/CC46,CC81; IPS6/CC10) and tooling available: samtec.com/tooling

“Hinging” for 90° mating radius, ideal for blind mating (FMPT/FMPS)

Hermaphroditic power system with rugged screw downs (MPPT, UPPT)
ACCLIMATE™ SYSTEMS

IP67 & IP68 • BAYONET/PUSH-PULL CIRCULARS • SPACE-SAVING RECTANGULARS

FLEXIBLE SEALED CIRCULAR SYSTEMS

- Metal or plastic, 12 mm, 16 mm and 22 mm shells
- Flexible pin configuration, gender and panel interface termination
- Bayonet-style latching systems meet IP68 requirements
- Cost-effective crimp version available
- Mini push-pull latching system meets IP67 requirements for dust and waterproof sealing

Kitted components for efficient field assembly
SEALED RECTANGULARS

- Space saving design
- Meets IP68 requirements
- USB and Ethernet signal systems
- Rugged dust caps available
- 1 or 2-port vertical and right-angle panel mount sockets

THREADED CIRCULARS

- Meets IP68 requirements for dust and waterproof sealing
- Rugged overmold design
- USB, Mini USB and Ethernet signal systems
- 10 and 17 shell sizes
- Rugged dust caps and panel-to-board termination available
MODIFIED & CUSTOM SOLUTIONS

WILLINGNESS, SUPPORT & EXPERTISE

Customs and Modifications make up about 28% of Samtec’s total sales. A substantial percentage of each Micro Rugged product segment is custom. Tiger Eye™ makes up 19% of the total sales, followed by Discrete Wire at 24%, Edge Rate™ at 9%, Edge Card at 44%, Power at 30%, and Sealed I/O at 8%.

INDUSTRY LEADING CUSTOMER SERVICE

FLEXIBLE IN-HOUSE MANUFACTURING

SIGNAL INTEGRITY EXPERTISE

FLEXIBLE RUGGED SOLUTIONS

- Full engineering, design and prototype support
- Design, simulation and processing assistance
- Quotes and samples turned around in 24 hours
- Dedicated Application Specific Product engineers and technicians
- Modified or custom options for board level connectors and cable assemblies including: contacts, bodies, stamping, plating, wiring, molding, ruggedizing features and much more

FLEXIBLE DISCRETE WIRE SOLUTIONS

- Variety of end 2 options
- Nylon woven sleeves
- Twisted pairs
- Heat shrink
- Color coding
- Selectively populated
- Barrel crimp
- Ring/spade lug terminal
- Break out
- Panel mount
- Sealed
- Harness style crimp

Contact the Application Specific Products Group at asp@samtec.com for express modifications or engineered customs.
RUGGED FEATURES

OPTIONS FOR HIGH-RELIABILITY, HIGH-RETENTION AND HIGH-CYCLE LIFE

RUGGEDIZING OPTIONS

JACK SCREWS
Ideal for high normal force, zippering and other rugged applications

POSITIVE LATCHING
Manually activated latches increase unmating force by up to 200%

FRICITION LOCKS
Metal or plastic friction locks increase retention/withdrawal force

RETENTION PINS
Increase unmating force by up to 50%

BOARD LOCKS
Boards are mechanically locked together

WELD TABS
Significantly increase shear resistance of connector to PCB

GUIDE POSTS
Easy and secure mating

SHIELDING
360° shielding reduces EMI

SCREW DOWNS
Secure mechanical attachment to the board

BOARD STANDOFFS
Precision machined standoff for 5 mm to 25 mm board spacing

CONTACT SYSTEMS

TIGER EYE™
High-reliability High Mating Cycles Multi-finger Contact

TIGER CLAW™
Dual Wipe Contact Pass-through Applications Ultra-low Profile

BLADE & BEAM
Mating/Alignment “Friendly” Cost-effective

TIGER BEAM™
Best Cost Reliable Performance Post & Beam Contact

EDGE RATE™
Designed for Signal Integrity Superior Impedance Control Reduced Broadside Coupling
POWER INTEGRITY SERVICES

- Standard power test data, including current carrying capacity, working voltage, voltage drop and resistance, creepage and clearance, is available for select power systems
- Current Cycling Test Data, which demonstrates connector performance in realistic and common applications, is available for select series
- Power Integrity Guidelines are based on test data and proven design parameters, and are designed to help in connector selection and PCB design maximization
- Power Integrity Certified products undergo testing and additional requirements unique to Samtec. To be certified, products must pass Current Cycling Test EIA 365-55, have current carrying capacity, resistance vs. number of contacts data available and Power Integrity Guidelines developed
- Visit samtec.com/powerintegrity to learn more

EXTENDED LIFE PRODUCT™

E.L.P.™ products are tested to rigorous standards, which evaluate contact resistance in simulated storage and field conditions.
- 10 year Mixed Flowing Gas (MFG)
- High Mating Cycles (250 to 2,500)
- Certain plating and/or contact options will apply
- For complete details on Samtec’s E.L.P.™ program, a list of qualifying products and test results, please visit samtec.com/ELP or email the Customer Engineering Support Group at ASG@samtec.com

<table>
<thead>
<tr>
<th>PITCH</th>
<th>TYPE</th>
<th>CONTACT</th>
<th>SERIES*</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.50 mm</td>
<td>Q Series® Strip</td>
<td>Blade &amp; Beam</td>
<td>QSH/QTH</td>
</tr>
<tr>
<td></td>
<td>Basic Strip</td>
<td>Blade &amp; Beam</td>
<td>BSH/BTH</td>
</tr>
<tr>
<td>0.635 mm</td>
<td>Q Series® Strip</td>
<td>Blade &amp; Beam</td>
<td>QSS/QTS</td>
</tr>
<tr>
<td></td>
<td>Basic Strip</td>
<td>Blade &amp; Beam</td>
<td>BSS/BTS</td>
</tr>
<tr>
<td>0.80 mm</td>
<td>Edge Rate® Strip</td>
<td>Edge Rate*</td>
<td>ERF8/ERM8</td>
</tr>
<tr>
<td></td>
<td>Edge Card</td>
<td>Edge Rate*</td>
<td>HSEC8</td>
</tr>
<tr>
<td></td>
<td>Q Series® Strip</td>
<td>Edge Rate*</td>
<td>QRM8/QRF8</td>
</tr>
<tr>
<td></td>
<td>Basic Strip</td>
<td>Blade &amp; Beam</td>
<td>OSE/QTE</td>
</tr>
<tr>
<td></td>
<td>Strip</td>
<td>Tiger Eye™</td>
<td>BSE/BTE</td>
</tr>
<tr>
<td></td>
<td>Strip</td>
<td>Tiger Eye™</td>
<td>SEM/TEM</td>
</tr>
<tr>
<td>1.00 mm</td>
<td>Strip</td>
<td>Tiger Claw™</td>
<td>CLM/FTMH</td>
</tr>
<tr>
<td>1.27 mm</td>
<td>SEARAY™ Array</td>
<td>Edge Rate*</td>
<td>SEAF/SEAM</td>
</tr>
<tr>
<td></td>
<td>Strip</td>
<td>Tiger Eye™</td>
<td>SRF/SFM</td>
</tr>
<tr>
<td></td>
<td>Strip</td>
<td>Tiger Claw™</td>
<td>CLP/FTSH</td>
</tr>
<tr>
<td></td>
<td>Strip</td>
<td>Tiger Claw™</td>
<td>FLE/FTSH</td>
</tr>
<tr>
<td>2.00 mm</td>
<td>Strip</td>
<td>Tiger Eye™</td>
<td>SMM/TMM</td>
</tr>
<tr>
<td></td>
<td>Strip</td>
<td>Tiger Claw™</td>
<td>CLT/TMMH</td>
</tr>
<tr>
<td>2.54 mm</td>
<td>Strip</td>
<td>Tiger Claw™</td>
<td>SSM/TSM</td>
</tr>
<tr>
<td></td>
<td>Strip</td>
<td>Tiger Claw™</td>
<td>BCS/TSW</td>
</tr>
</tbody>
</table>

* Tested socket/terminal combination shown. Other mating headers also available. Contact Samtec if header design you need is not shown.
Severe Environment Testing is a new Samtec initiative to test our products beyond typical industry standards and specifications, many set forth by common requirements for rugged industries. Several of our products undergo additional testing to ensure they are more than suitable for industrial, military, automotive and other extreme applications. Please contact set@samtec.com for more information and test results when available.

PRODUCTS TO BE TESTED:

- Rugged Tiger Eye™ connectors
- Hermaphroditic Razor Beam™ connectors
- SEARAY™ high-density arrays
- Edge Rate® rugged signal integrity connectors
- AcceleRate® HD ultra-micro connectors
- Ultra Micro Power systems
- High-speed coax and twinax cable assemblies

TESTING INCLUDES:

MATING/UNMATING/DURABILITY: Measures the change in LLCR and mating/unmating after products have been cycled and exposed to various environmental conditions (100% RH humidity, 250 cycles).

MECHANICAL SHOCK/RANDOM VIBRATION/LLCR: Measures the product’s ability to withstand a series of mechanical shocks and random vibration. LLCR is a before and after check for damage (40G Peak, 11 ms, Half Sine & 12gRMS, 5 - 2,000 Hz, 1 Hour/Axis).

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 (40G Peak, 11 ms, Half Sine & 12gRMS, 5 - 2,000 Hz, 1 Hour/Axis).

TEMPERATURE CYCLING: Evaluates the product’s reliability through thermal fatigue by cycling through two temperature extremes (-65 °C to 125 °C, 30 minute dwell time at each extreme).

NON-OPERATING CLASS TEMPERATURE: Determines the temperature range at which the product operates at peak level (-55 °C to 125 °C at 100 cycles and -65 °C to 125 °C at 100 cycles; 200 total cycles).

DWV AT ALTITUDE: Measures the peak voltage that a part can withstand before dielectric breakdown at high altitudes (70,000 feet).

ELECTROSTATIC DISCHARGE (ESD): Measures the level of electrostatic voltage the product can withstand (exposure to 5k, 10k and 15k Volts, repeated 10 times).
• Wide variety of search parameters and filters: creepage and clearance (power), pitch, stack height, etc.

• Easily sort results to find the right mated set

• Live chat with engineers for custom options

• Immediately download models and open Specs Kit

---

To build your mated set, visit [samtec.com/solutionator](http://samtec.com/solutionator)
INTEGRATION LEADS TO INNOVATION

SAMTEC TECHNOLOGY CENTERS ENABLE COMPLETE SYSTEM OPTIMIZATION FROM SILICON-TO-SILICON™

Samtec’s Technology Centers offer high-level design and development of advanced interconnect systems and technologies, along with industry-leading signal integrity expertise which allows us to provide effective strategies and technical support for optimizing the entire serial channel of high-performance systems.

Because Samtec’s Technology Centers are not limited by the boundaries of traditional business units, we are able to work in a fully integrated capacity that enables true collaboration and innovation to support the demands of today, and the challenges of tomorrow.

ADVANCED INTERCONNECTS
High precision stamping, plating, molding and automated assembly

HIGH-SPEED CABLE
In-house R&D and manufacturing of precision extruded cable and assemblies

OPTICS
R&D, design, development and support of micro optical engines and assemblies

SYSTEM SIGNAL INTEGRITY
Full channel signal and power integrity analysis, testing and validation services

PRECISION RF
RF interconnect design and development expertise, with testing to 65 GHz

MICROELECTRONICS
Advanced IC packaging design, support and manufacturing capabilities

samtec.com/tech-centers