



## Innovative Solutions for Small Devices

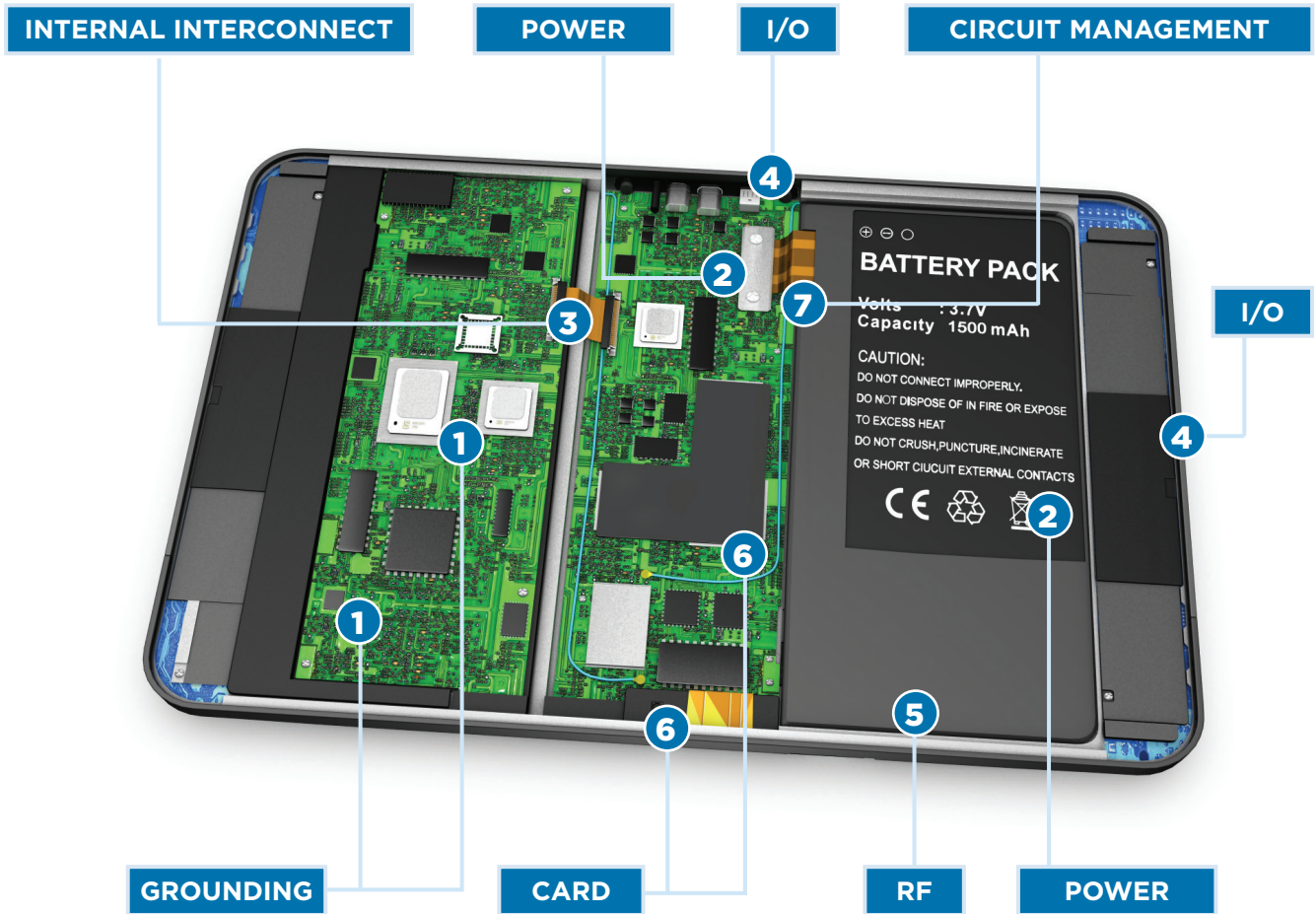
TE Connectivity (TE) is on the cutting edge of technology innovation and a world leader in connectivity with more than 50 years of experience. TE has an extensive understanding of electromechanical and electronic components providing solutions in support of designs with space constraints. This solutions guide will allow you to easily select the components required for small devices, while providing access to additional online information through TE.com. TE's advanced technology in product development can help ease the transition to higher data rates, increased protection and smaller packaging with our industry leading components.

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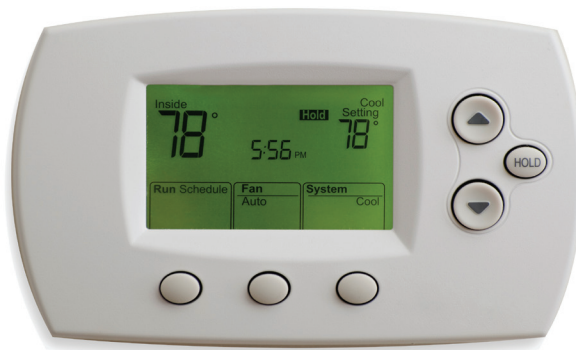
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TE offers solutions for your space-saving design needs.



Products within each component type can be applied to small devices across various industries.

- 1 Grounding
- 2 Power
- 3 Internal Interconnect
- 4 Input/Output (I/O)
- 5 RF
- 6 Card
- 7 Circuit Management



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# Design Navigator

Get more information on [te.com](http://te.com) by clicking on the product names below.


	Pitch (mm)	Max Current Rating (A) <sup>1</sup>	Protection from EMI/RFI/Noise	High Speed	Circuit Protection Products Available	High-Vibration Performance	Low Profile Design	Standards
<b>1 GROUNDING</b>								
Solder Pads	N/A	1	●			●		N/A
Spring Fingers - PCB Grounding Contacts	N/A	1	●			●		N/A
Spring Probes	N/A	1	●			●		N/A
<b>2 POWER</b>								
Battery Connectors	2.0 - 2.5	10				●		N/A
<b>3 INTERNAL INTERCONNECT</b>								
0.8mm Free Height (FH) Board-to-Board Connectors	0.8	0.5				●		N/A
AMP CT & Mini CT Wire-to-Board Connectors	1.5 & 2.0	4				●		N/A
AMPMODU 50/50 Grid Board-to-Board & Wire-to-Board Conn.	0.050 x 0.050	0.5			●	●		UL, CSA
AMPMODU System 50 Board-to-Board & Wire-to-Board Conn.	0.050 x 0.100	3			●	●		UL, CSA
Card Edge Connectors for PCI Express Applications	1.0	1.1		●				MIL-STD-202*
Economy Power (EP) 2.5 Wire-to-Board Connectors	2.5	4.5				●		UL, CSA
Flexible Printed Circuit (FPC) Connectors	0.25 - 1.25	1			●	●		N/A
Grace Inertia Wire-Applied Connectors	3.5	7				●		UL, CSA
LCD Coaxial Embedded Display Interface (LCEDI) Conn.	0.5	1	●		●	●		VESA*
M8/M12 I/O Connector Systems	N/A	5	●	●		●		UL, CSA
Micro MATE-N-LOK Wire-Applied Connectors	3.0	5				●		UL, CSA, VDE
Mini-Universal MATE-N-LOK Wire-Applied Connectors	4.14	11.2				●		UL, CSA, VDE (250 V Max)
Signal Double Lock Wire-Applied Connectors	2.5	3				●		UL, CSA, VDE
Sockets	0.9144	N/A				●		UL
Wire-to-Board High Performance Interconnects (HPI)	0.1 - 3.96	1-3				●	●	N/A
<b>4 INPUT/ OUTPUT</b>								
Cable Assemblies <sup>2</sup>	N/A	N/A	●	●		●		UL, CSA, VDE
CHAMP Docking Series I/O Connectors	0.6 - 0.8	0.3	●	●		●	●	Mobile, Tablet*
Connectors for HDMI Standards	N/A	N/A	●				●	HDMI*
Industrial Ethernet Products	N/A	0.5	●	●		●		UL, CSA, ODVA Ethernet/IP, Profinet, CC-Link IE*
Micro USB Connectors	N/A	N/A			●		●	Industry*
Products Designed for DisplayPort Standard	N/A	N/A	●				●	VESA*
RJ45 Modular Jacks & Plugs	1.27	1.5	●	●		●	●	RU, UL, CSA, TIA-1096-A*
RJ point five Connector Systems	7.0	0.5	●	●		●	●	N/A
USB 2.0 Connectors	2.0	0.5		●	●			Industry*
USB 3.0 Connectors	2.0	0.9		●	●			Industry*
USB Stacked 3.0 Connectors	2.0	0.9		●				Industry*
<b>5 RF</b>								
Antenna Products	N/A	N/A						N/A
Switching Coax Connectors	2.0	0.5	●	●		●	●	ETSI*
<b>6 CARD</b>								
Connectors for Micro Secure Digital (SD)	1.1	0.5	●	●	●		●	SDA*
Connectors for Secure Digital (SD) Memory Cards	2.5	0.5	●	●	●		●	SDA*
SIM Card Connectors	2.54	0.5	●				●	ETSI*
<b>7 CIRCUIT MANAGEMENT</b>								
Cable ID Labels	N/A	N/A						UL 969
Circuit Protection Devices <sup>2</sup>	N/A	N/A			●			N/A
Force Guided Relays	N/A	8						UL, VDE, TUV, CQC, Industry*
Precision Resistors <sup>2</sup>	N/A	N/A						N/A
Pressure Sensitive Adhesive Labels	N/A	N/A						UL, CSA, Mil, Industry*
Signal Relays	N/A	2						UL, VDE, TUV, CQC, Industry*
Slide Switches	N/A	3					●	N/A
Tactile Switches	N/A	50					●	N/A

<sup>1</sup> May vary based on application and product selection  
<sup>2</sup> Refer to the featured products section for more product detail

UL - Underwriters Laboratories Listed  
 RU - Recognized Under  
 CSA - Canadian Standards Association  
 \* Industry / Mil - Meets product specific industry standards or Mil specs  
 (see product page on [te.com](http://te.com) for more detail)



## Featured Products

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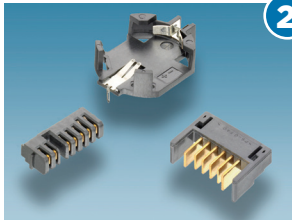


1

**Spring Fingers - PCB Grounding Contacts**

- Small footprint allows for versatility in design on PC board
- Uses standard equipment for soldering and pick-and-place to help eliminate the need for expensive specialized equipment
- Scalable family with common footprint allows for quick design changes

[Website](#)  
[Quick Reference Guide](#)  
[Video](#)

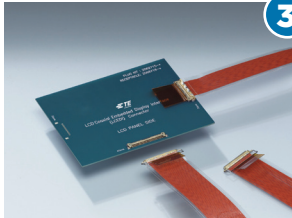


2

**Battery Connectors**

- Low profile design enables use in small factor devices allowing for design flexibility
- High current capacity enables battery connector to charge quickly
- Multi-directional mating allows for design flexibility when mating the battery to the desired board

[Website](#)  
[Catalog I](#)  
[Catalog II](#)



3

**LCD Coaxial Embedded Display Interface (LCEDI) Connectors**

- Low profile height allows for design flexibility when configuring a PC board
- Full lock mechanism with pull bar is available to maintain greater mating retention
- Fully intermateable with I-PEX CABLINE-VS series to help standardize inventory

[Website](#)  
[Quick Reference Guide](#)  
[Product Presentation](#)



3

**AMPMODU System 50 Board-to-Board & Wire-to-Board Connectors**

- Integral latches ensure a positive locking to the shrouded mating headers
- Housings on all board-mounted assemblies are made of high temperature tolerant materials and incorporate stand-offs for free drainage of flux cleaning solutions
- High pitch ribbon cable connectors are designed to save board space

[Website](#)  
[Catalog](#)  
[Quick Reference Guide](#)



3

**Sockets**

- Allows replacement of central processing units without soldering process
- Automated socket placement during product manufacturing helps ensure a secure fit
- Able to withstand lead-free process temperature and compliant with environmental regulations

[Website I](#)  
[Website II](#)



3

**Micro MATE-N-LOK Wire-Applied Connectors**

- Single-row and dual-row configurations are available to increase design flexibility
- Crimp, snap-in pin and receptacle contacts are used to terminate 24-20 [0.2-0.6] and 30-26 [0.05-0.15] AWG wire
- Header assemblies for wire-to-board interconnections include vertical and right-angle components

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[Catalog](#)  
[Quick Reference Guide](#)  
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[Data Sheet](#)



4

**RJ point five Connector Systems**

- Double density design and 7mm centerline spacing allows for additional space on the PC board
- Footprint will support both integrated magnetic and nonintegrated solutions for ease of design
- Cable assemblies are capable of field termination

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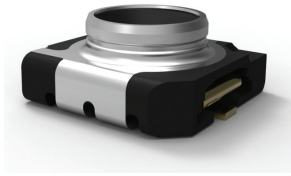
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Featured Products

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5

Switching Coax Connectors



- Designed with an ultra low profile for use in applications with space constraints
- High force contact allows for improved and more reliable interconnection
- High speed allows for improved data rates for today's faster and more efficient applications

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6

SIM Card Connectors

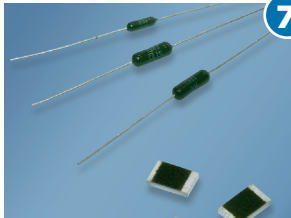


- Large portfolio covering several styles and card sizes to meet unique design requirements
- Fully-automated processing leads to stable quality
- Global footprint means enhanced support for all regions

[Website](#)  
[Quick Reference Guide](#)

7

Precision Resistors



- Ultra low temperature conditions allow for long term application stability
- Thin film precision resistors minimize electronic noise
- Flexibility in lead-time/packaging helps minimize inventory cost

[Website I](#)  
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7

Tactile Switches

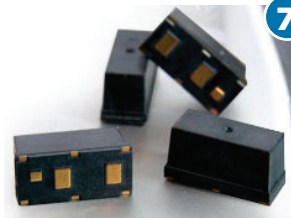


- High life cycle allows for a longer life expectancy for your applications
- IP 67 (sealed version) available to help prevent any potential liquid or particle contamination within the switch

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[eLearning Module](#)

7

Circuit Protection Devices



- Helps protect sensitive electronics from overcurrent and overvoltage events which can cause system failure
- Helps equipment comply with regulatory safety standard certifications such as UL, IEC, TIA and ITU-T and other protection requirements
- Helps provide protection against thermal runaway

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	OVERCURRENT CIRCUIT PROTECTION						OVERVOLTAGE CIRCUIT PROTECTION		HYBRID CIRCUIT PROTECTION	
	Chip Fuses				PolySwitch Devices	2410 Very Fast Acting Fuse	ESD	SESD	MHP Devices	PolyZen Devices
	Pulse Tolerant Chip Fuses	0603 Very Fast Acting	Fast Acting	Slow Blow						
<b>SMALL DEVICES</b>										
Antennas							●			
Audio Input/Output	●	●	●	●	●	●	●	●		
Batteries	●			●	●				●	
Buttons	●	●			●		●	●		
Displays	●	●	●	●	●	●	●	●		
LEDs	●	●	●	●	●	●	●	●		
Ports	●	●	●	●	●	●	●	●		
Power Input	●	●	●	●	●	●				●

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