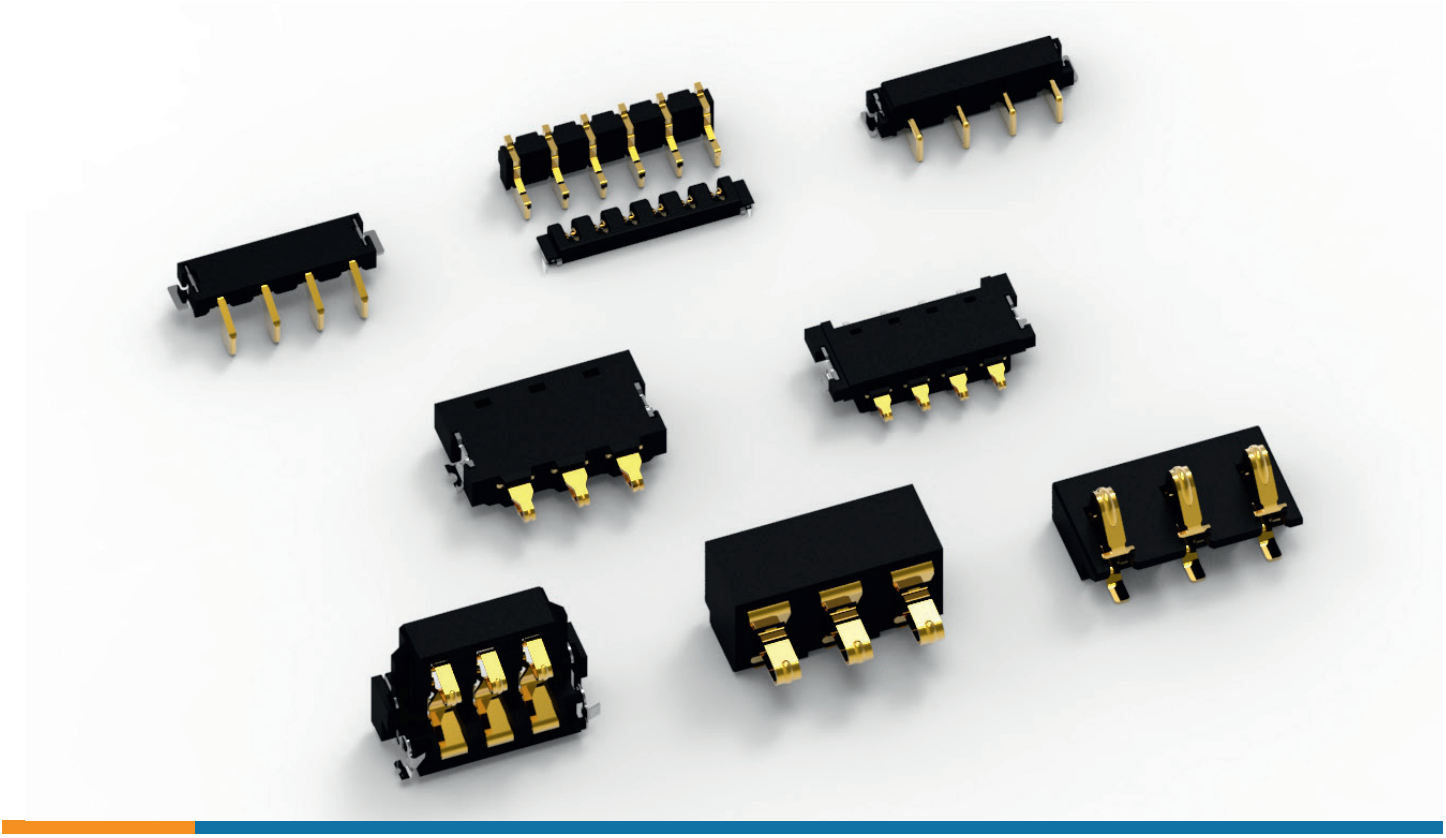


Mobile Battery Connectors

TE Connectivity' s (TE) series of mobile battery connectors consists of several types, including low profile battery connectors, leaf battery connectors and floating battery interconnection system (FBIS II). These products have been widely adopted across applications, such as mobile phones, tablet PCs, digital cameras and other mobile devices.

Mobile battery connectors' key benefits - low cost, high reliability and durability, low profile design and high design flexibility - allow them to be used in various fields. For example, they are used in mobile phones with removable batteries, since their high design flexibility allows them to be scaled up or down regardless of positions, working height and contact pitch. The low profile battery connector series improves cost effectiveness by reducing the number of components needed and the size of the tooling platform. They are designed for position extensions and height changes and can be used for SMT soldering and DIP type soldering, as well as fitted for a standard mount or mid-mount. TE' s technological capabilities make our mobile battery connector series a cost saving solution for our customers.

Key Features

- Can be used in mobile phone with removable battery
- 2.5 mm - 6.5 mm centerline
- Various positions include: 2, 3, 4 and 6
- Working height ranges from 0.4 mm to 6.7 mm
- Wide range of current ratings from 1.5 Amperes to 5 Amperes

Benefits

- Improve cost effectiveness by reducing the number of components needed and the size of the tooling platform
- Low profile design occupies a small area of PCB
- Design flexibility allows position extensions, height changes and customization
- Connection reliability and durability meets the general market requirements

Applications

- Mobile Phones
- Tablet PCs
- Mobile Media Players
- Digital Cameras
- Video Cameras
- Navigation Systems
- Gaming Consoles

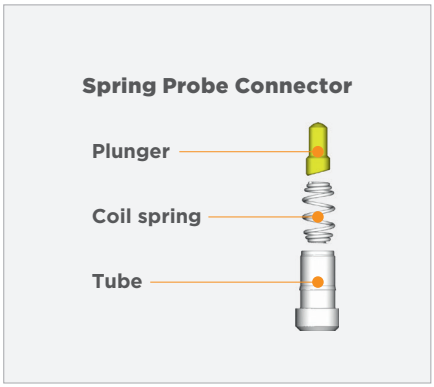
www.te.com/products/mobile-battery-connector

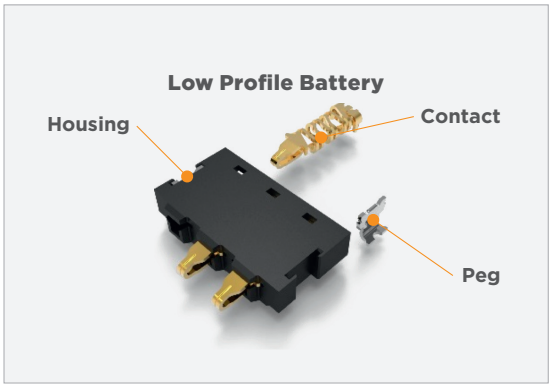
Key Features

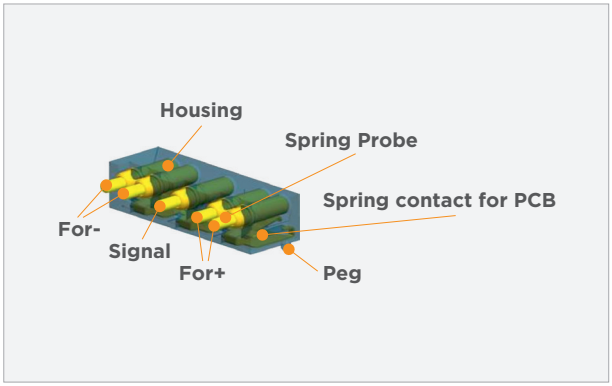
Low Profile Battery Connector

• Improved cost effectiveness by reducing components

- For removable battery connectors, spring probe connectors are typically used in mobile phones due to their low profile design. Thier disadvantage is due to a higher cost necessary as they require the customer to increase the component quantity and wide gold plating area. Moreover, they require additional pins to ensure a reliable connection. Low profile battery connectors require lesser components to achieve similar results.







Component Qty. for Battery Connector		
	Spring Probe Connector	Low Profile Battery
Spring Probe	5(x3=15)	-
Housing	1	1
Peg	2	2
Contact	5	3
	13 (23)	6

• High connection reliability and durability

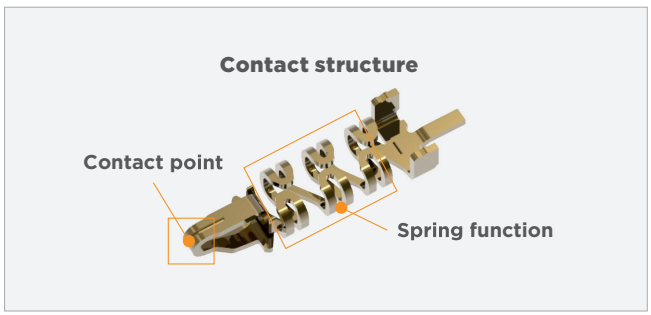
- Connection reliability is high because the contact is produced from one single material

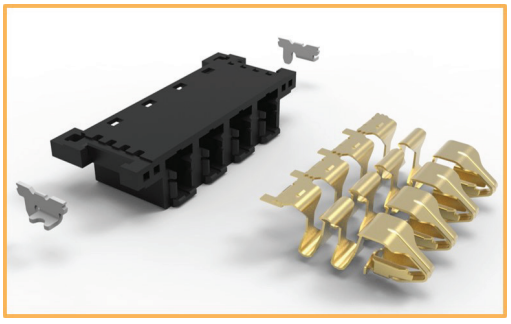
- Durability cycle stands at 5,000 cycles and meets the general market requirement

• NEW 5A low profile batter connector

- Provides a more reliable one-piece contact design

- Supports faster charging speeds required for today's consumer devices





Key Features

Low Profile Battery Connector

• Low profile design and design flexibility allow position extensions and height changes

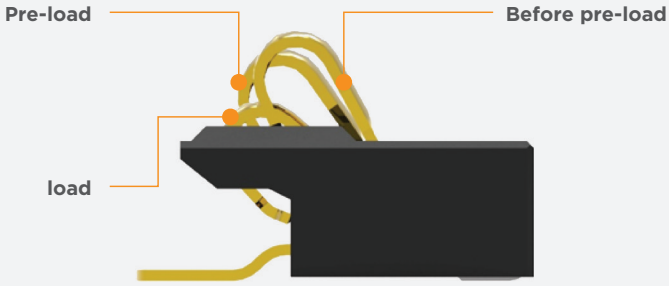
- A new contact design allows for a low profile design. Traditional solutions like the leaf battery connector that is made from one material contact do not meet the low profile design.
- Developing 4 positions and mid mount types with the same contact concept allows the development of a variety products that fits customers' requirements.

Connector height is 1.9mm, contact point is 0.8mm

Connector height from PCB is 1.4mm, contact points is 0.4mm from PCB surface

Leaf Battery

• Improved cost effectiveness • Long stroke contact • Features a pre-load contact for reliability



Pre-load Concept

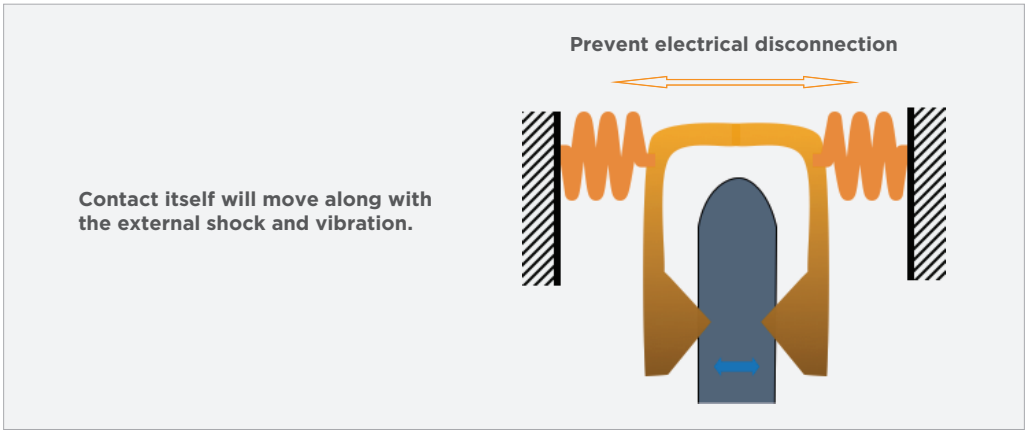
• Flexible mating direction for various applications

- Right angled and vertical mating directions are available.

Key Features

Floating Battery Interconnection System - FBIS II

- **High connection reliability and durability**
- **Features dual beam floating contact function to absorb misalignment**
- **Prevents electrical disconnection due to physical shock and vibration**

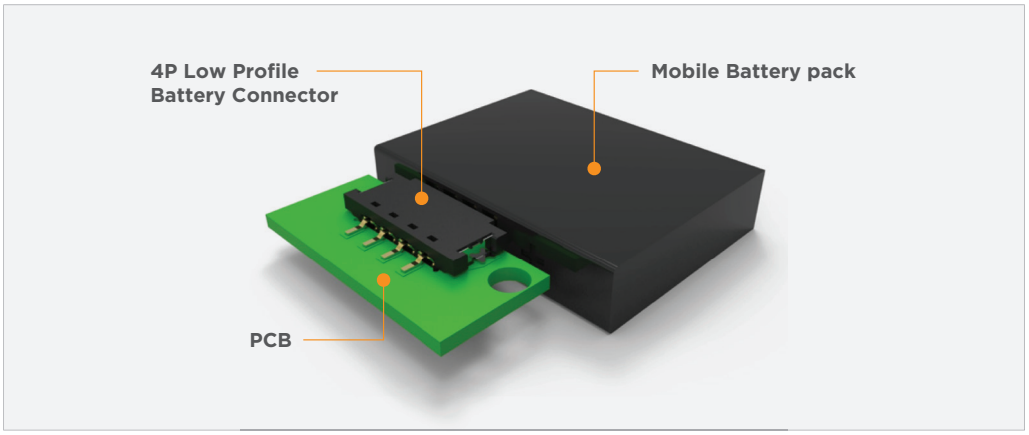


- **Flexible mating direction for various applications**

- Right angled and vertical mating directions are available.

Application Picture in the Device

Low Profile Battery Connector



Mobile Battery Connectors

Low Profile Battery Connector

Picture	Part Number	Mount / Solder Type	Mating Direction	Pos.	Pitch	Working Height	Dimensions	Description	Status*
	2229056-1	TOP Mount / SMT	Right Angle	3	2.5	0.8	9.6x4.8x1.9	Preloaded 3p SMT Low Profile Battery Connector	MP GD
	2199206-1	Mid-Mount / SMT	Right Angle	4	2.5	0.4	13.7x5.4x3.0	4p Mid-Mount Low Profile Battery Connector	MP GD
NEW 5A 	2289817-1	Mid-Mount	Right Angle	4	2.5	-0.6 (below PCB surface)	13.7x5.4x3.0	4p Mid-Mount Low Profile Battery Connector	MP GD

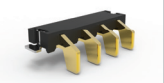
Leaf Battery

Picture	Part Number	Mount / Solder Type	Mating Direction	Pos.	Pitch	Working Height	Dimensions	Description	Status*
	6337194-1	SMT	Vertical	2	4.25	5.7	7x6.2x6.8	2p 4.25 pitch Battery Connector Assembly	MP GD
	292331-3	SMT	Vertical	3	1.6	2.8	7.0x5.0x3.75	Preloaded 3p 1.6 pitch Leaf Spring Battery Connector	MP SH
	292448-1	SMT	Vertical	3	3.0	2.95	8.2x5.0x3.7	Preloaded 3p 3.0 Pitch Leaf Spring Battery Connector	MP SH
	1932076-1	SMT	Vertical	3	3.0	2.4	8.2x5.4x3.15	Preloaded 3p 3.0 pitch Leaf Spring Battery Connector	MP SH
	1982633-1	SMT	Right Angle	3	3.0	2.28	8.7x3.53x4.45	3p 3.0 pitch Leaf Battery Connector	MP SH
	1717838-1	SMT	Right Angle	3	6.5	6.6	20.0x5.0x11.5	3p 6.5 pitch Leaf Spring Battery Connector	MP GD

* MP = Mass Production
GD = Guangdong Plant
SH = Shanghai Plant

Mobile Battery Connectors

	Picture	Part Number	Mount / Solder Type	Mating Direction	Pos.	Pitch	Working Height	Dimensions	Description	Status*
Leaf Battery		2134161-1	SMT	Right Angle	3	3.2	6.6	11.3x5.7x8.6	Assembly Floating Battery Connector Small Type, 3p	MP GD
		2040647-1	SMT	Right Angle	3	3.2	6.7	13.8x5.7x9.0	Preloaded Floating Battery Connector, H=9.0	MP GD
		1981061-1	SMT	Right Angle	3	3.2	5.75	11.2x2.5x7.6	Preloaded 3p 3.2 pitch Leaf Type Battery Connector, without boss	MP GD
		1827928-1	SMT	Right Angle	3	3.2	5.75	11.2x2.5x7.6	3p 3.2 pitch Leaf Type Spring Battery Connector	MP GD
		1746142-1	SMT	Right Angle	3	3.2	3.5	12.4x3.7x6.5	Preloaded 3p 3.2 pitch Leaf Spring Battery Connector	MP GD

	Picture	Part Number	Mount / Solder Type	Mating Direction	Pos.	Pitch	Dimensions	Description	Status*
Floating Battery Interconnection System - FBIS		2108074-2	SMT	Right Angle	4	3.0	15.4x3.7x2.06	FBIS, Battery side receptacle 4p	MP SH
		2134758-1	SMT	Right Angle	4	3.0	14.2x6.1x3.4	FBIS, Plug 4p Standoff	MP SH

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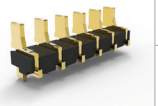
Mobile Battery Connectors

Floating Battery Interconnection System - FBIS

Picture	Part Number	Mount / Solder Type	Mating Direction	Pos.	Pitch	Dimensions	Description	Status*
	2134167-1	SMT	Right Angle	4	3.0	13.4x5.1x3.0	FBIS, Plug 4p Low	MP SH
	1932859-1	SMT	Right Angle	4	3.0	13.4x5.1x3.7	FBIS, Plug 4p High	MP SH
	1932869-1	SMT	Right Angle	6	3.0	21.4x3.25x3.9	FBIS, 6p Rec, 0.05um Gold	MP SH
	1932869-2	SMT	Right Angle	6	3.0	21.4x3.25x3.9	FBIS, 6p Rec, 1.27um Gold	MP SH
	1554953-1	SMT	Vertical	4	3.0	13.4x5.1x3.0	FBIS, Plug 4p Vertical	MP SH
	1932870-1	SMT	Vertical	6	3.0	16.4x3.65x4.67	FBIS, 6p Plug, 0.05um Gold	MP SH
	1932870-2	SMT	Vertical	6	3.0	16.4x3.65x4.67	FBIS, 6p Plug, 1.27um Gold	MP SH

* MP = Mass Production
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Frequently Asked Questions

Question 1
What is the working height of the TE mobile battery connector?

Answer 1
There are two working heights for low profile battery connectors: 0.4 mm and 0.8 mm, and they are smaller in size. Leaf battery connectors: it ranges from 2.28 mm to 6.7 mm. FBIS II can mate directly.

Question 2
What is the centerline (pitch) requirement?

Answer 2
TE offers the centerline space of 2.5 mm for low profile battery connectors, 3.2 mm to 6.5 mm for leaf battery connectors and 3.0 mm for FBIS II.

Question 3
What are the positions of the TE mobile battery connector?

Answer 3
TE offers mobile battery connectors ranging from 2 to 6 positions.

Question 4
What are the major applications of the TE mobile battery connector?

Answer 4
This product series can be used in mobile phones, tablet PCs, mobile media players, digital cameras, video cameras, navigation systems and gaming consoles.

Question 5
What is the maximum current rating of the TE mobile battery connector?

Answer 5
In general, the maximum current rating for FIBS II is 1.5 amperes, leaf battery connectors is 2 amperes, and for low profile battery connectors can be up to 5 amperes. Please refer to the TE product specification for more information.

FOR MORE INFORMATION

TE Connectivity Technical Support Center

USA:	+1 (800) 522-6752	UK:	+44 (0) 800-267666
Canada:	+1 (905) 475-6222	France:	+33 (0) 1-3420-8686
Mexico:	+52 (0) 55-1106-0800	Netherlands:	+31 (0) 73-6246-999
Latin/South America:	+54 (0) 11-4733-2200	China:	+86 (0) 400-820-6015
Germany:	+49 (0) 6251-133-1999		

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