



PCB HARDWARE **SOLUTIONS**

Which standoff and spacer mounting type should you choose? Which card guide and LED hardware best suits your needs? This guide is designed to help.

From managing space to conductivity in your application, there are lots of factors to take into consideration when building electrical solutions.

When it comes to circuit board hardware, material and mounting type are key. We strongly recommend that you try before you buy-request <u>free samples</u> so that your team can ensure they have the perfect solution for the application. They can also download free CADs.

This guide is designed to give buyers an introduction. For expert advice, we're always happy to help. We can also help with our vast range of PCB standoffs and spacers, PCB support pillars, PCB card guides and LED mounts and holders.

Here's a look at the **printed circuit board components** your team will need:

SUPPORTS

When your application is in constant use you require reliable components. Maintain functionality and end-user safety with our range of heat-stabilized and easy-to-apply PCB support posts.



FEATURES:

- Support types include Adhesive Base, Edge Locking, Reverse Locking, Screw Locking and Snap Lock
- Fixing methods are diverse, covering Fir Tree Mount, Locking Arrowhead, Locking Bayonet, Quarter-Turn and Flat Rest

MATERIAL:

• Available in Acetal, Nylon, EPDM, allowing operation in temperatures between -40°F (-40°C) and 185°F (85°C)

PCB SUPPORT PILLARS - TWO-PRONG SNAP-LOCK/TWO-PRONG **SNAP-FIT**

View online ☑

- Mounted on both sides with low-profile two-prong fastener
- One side locks and the other is a releasable snap-fit



PCB SUPPORT PILLARS - ARROWHEAD SNAP-LOCK/BAYONET NOSE **SNAP-FIT**

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- Snap locking PCB support
- Quick assembly in stacking applications
- Snap-lock and snap-fit features add a secure hold



PCB SUPPORT PILLARS -**FLAT REST MOUNT**

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- Self-adhesive PCB support
- Release tab for quick release
- Flat rest mount provides secure support option



PCB SUPPORT PILLARS - HEXAGONAL/ THREADED MALE/MINI

View online ☑

- Male end mounts securely using hex nut
- Releasable snap-fit fastener with low profile

PCB SUPPORT PILLARS - REVERSE **DUAL-LOCKING/ SNAP FIT/TWO-PRONG**

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- Snap locking PCB support
- Reverse mount supports are reinstalled from the underside of the chassis.
- Thin button head for minimal protrusion under the chassis.



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WHICH IS THE RIGHT **MOUNTING TYPE?**

Choosing the right spacing component as part of your PCB hardware design can be a challenge. Many considerations such as board substrate, application and material are key elements in the decision-making process. However, one of the most important choices you can make is mounting type.

HERE ARE SOME EXAMPLES:



THREADED - 1. Standard: Held in position with the use of a nut to give a very secure fixing that can be released and re-tightened.

- 2. Undercut: Provides a more secure connection by being fixed into the thread.
- **3. Self-tapping:** No closing washers or nuts necessary due to self-tapping thread.



SNAP LOCK - Pushes into a panel or chassis hole, giving a secure but easily releasable fix.



SNAP FIT – Quickly pushes into a panel or chassis hole, giving a strong but efficient mounting that saves you time when undergoing installation.

DIFFERENT TYPES AVAILABLE: edge lock, bayonet and fir tree.



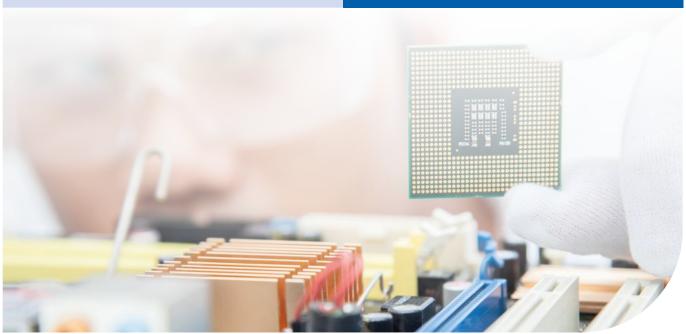
PRESS FIT/BLIND HOLE - Fins hold securely to a range of binding holes with a painted style that drives easily into applications with space restrictions.



ADHESIVE BASE – Adhesive tape eliminates the need for a mounting hole, providing time and space efficiencies.

WHAT ELSE SHOULD YOU KNOW?

To learn about PCB substrate materials, click <u>here</u>. To learn how to efficiently design your PCB, click here.





SPACERS & STANDOFFS

Applications often have limited space whilst needing to house lots of components. Our range of solutions provide versatility and space, giving your customers ease of access and peace of mind.



FEATURES:

- Choose from varied internal diameter and length options to ensure the right position for your application. PCB standoffs available in Male-Male, Female-Male and Female-Female variants
- Bodies available: hexagonal standoff, round standoff - also, Round with Crossed Body, allowing for different tightening possibilities
- Also available: metric threaded standoff, standoff insulator, self-tapping standoff, and more

MATERIAL:

• Ceramic spacers, PCB plastic spacers (Heat-Stabilized Nylon, Impact Modified Nylon, Acetal, PVC and Polystyrene). Also, Nylon PCB standoffs, plus Glass-Filled Nylon and Nylon with Brass Inserts

SCREW AND LOCK SUPPORT

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- Retaining Nylon PCB spacer designed to grip the screw shank. holding it in place
- · Available in different spacing and screw options

PCB SPACER - NON-THREADED/ **ROUND/THROUGH**

View online ☑

- Non threaded spacer
- No assembly equipment required-apply by hand
- Round spacers available in a range of materials

PCB SUPPORT PILLARS -**SELF-RETAINING**

View online ☑

- Snaps into the printed circuit board design
- Maintains spacing even when the screw is removed

PCB STANDOFFS - ROUND/ **METRIC THREADED/ INSULATOR/NYLON & BRASS**

View online ☑

- Female to female threaded round standoffs
- Metric nylon standoffs with brass inserts
- No assembly equipment required-apply by hand
- Ideal for when high mechanical strength is required
- Provides sturdy, insulated spacing for high-power electronic applications
- Also available as male to male round standoff spacers and male to female





PCB STANDOFFS - HEXAGONAL /THREADED/SELF-TAPPING

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- Female through standoffs
- Self-tapping screw threads the plastic for a strong hold
- Hexagonal body



FEMALE TO FEMALE STANDOFF

- HEXAGONAL BOTTOM, METRIC-THREADED, **INSULATOR, NYLON/BRASS**

View online ☑

- Round Nylon standoff with hexagonal bottom
- No assembly equipment required – apply by hand



PCB STANDOFFS - HEXAGONAL BOTTOM/INSULATOR/ **NYLON & BRASS**

View online ☑

- Male hexagonal standoffs
- No assembly equipment required - apply by hand
- Ideal for when high mechanical strength is required
- Provides sturdy, insulated spacing for high-power electronic applications



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CARD GUIDES

Access is essential in electrical cable enclosures and electrical cabinets. Ensure your circuitry is fully accessible with our range of easy-to-install- and -remove PCB card guides and circuit card pullers.



FEATURES:

• Available in different mounting directions. Mounting methods range from Screw, Snap In, Adhesive and Push Fit, offering a semi-permanent or removable locking function

MATERIAL:

• Material options include Acetal, Stainless Steel, Polystyrene, Nylon, Polycarbonate, PVC, and ABS giving operating temperatures ranging between -40°F (-40°C) and 284°F (140°C)

PCB CARD GUIDES - VERTICAL/ THREADED/METAL PIN

View online \square

- PCB vertical card guide
- Secure, locking threaded metal pin holds PCB boards in place
- Pins easily engaged and disengaged with a finger press
- Tension guides support boards vertically in tight spaces



PCB CARD GUIDES - HORIZONTAL/ ADHESIVE/NO MOUNT

View online ☑

- For mounting a PCB board assembly in tight spaces
- Supports horizontal mounting
- Adhesive-based mounts provide an added stability



HORIZONTAL CARD GUIDES - ADHESIVE/ NO MOUNT, SLIDE-IN, DUAL-SIDED

View online ☑

- Plastic PCB card guides PVC
- Horizontal mount for boards of any length or width
- Suitable for parallel mounting



PCB CARD GUIDES - HORIZONTAL/ **SNAP-IN/DOUBLE TAPERED ENDS**

PCB CARD GUIDES - VERTICAL/

Tension guides with double channel permit

SNAP-IN/NON LOCKING

• Vertical mount PCB card guide

Holds PCBs of any width

side-by-side mounting

• Fast, easy slide in and slide out

View online ☑

View online ☑

- Card quides nylon 6.6
- Tapered ends for quick and easy insertion of PCB
- Supports boards in tight spaces, e.g., PCB rack







LED HARDWARE

Ensure product quality and prevent malfunctions with a range of easy-to-install solutions that provide an impactful and attractive finish. Our LED light guide shows you how: LED Light Guide for Product and Panel Building.



FEATURES:

- Range built to get the most from LEDs, including these categories: LED Lens Holder, LED Light Pipe, LED Light Mount and LED Spacer
- LED Mounts provide an easy snap-in application and give users the opportunity to mount LEDs in an upright or 90° angle

ADAPTABILITY:

• LED Spacers give height control and wire retention with a number of LED types, designed to fit your PCB

LED LENS HOLDER

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- ullet LED lens holder designed to hold a standard T-1 3/4 LED while transmitting light at a 10° angle
- Available with or without a sealing O-ring



LED LIGHT PIPE

View online ☑

- Available with either a flat or domed front shape
- Provides LED ESD protection (electrostatic discharge)



LED MOUNT - 90°ANGLE

View online ☑

- Mounts LEDs at a 90° angle
- Mounts easily by hand



LED SPACERS - ROUND, METRIC SPACERS

View online ☑

- Three different styles to accommodate both T-1 and T-1 3/4 LEDs
- Provides height control
- Lead wire retention and stability



LED SPACERS - SQUARE

View online ☑

- Minimizes shifting and height variation
- Ensures product uniformity and production ease
- Square design ideal for angled applications



LED SPACERS - ROUND, IMPERIAL SPACERS, MOLDED, T-1 3/4

View online ☑

- Internal tapered dividers guide lead wires and prevent the leads from shorting
- Minimizes shifting and height variation
- Ensures product uniformity and production ease







DOWNLOAD FREE CADSAND TRY BEFORE YOU BUY

Free CADs are available for most solutions, which you can download for free. You can also request free samples to ensure the solutions you've chosen are exactly what you need. If you're not quite sure which product will work best for your application, our experts are always happy to advise you.

Request your <u>free samples</u> or download <u>free CADs</u> now.

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