

# Technical Details

## *J-Mount PCBA Mounting Solution*

### 1 Features

- Designed to securely mount a UUT during testing
- Fast & simple lock/release mechanism
- Alignment templates makes set-up very quick & easy
- Low cost
- Accepts PCBs from 1mm to 2.5mm thickness
- Minimal PCB area required
- Conductive nickel finish
- 12 mm height
- Usable on any suitable surface/plate
- 100% compatible with J-Testr top mounting plate

### 2 Overview

Mechanically mounting a UUT during functional test can be a challenge when the test requires that the UUT is tested via its native connectors (e.g. some military applications).

The PCB assembly (PCBA) needs to be well supported and securely held in place, off the work surface, such that inserting & removing connectors does not excessively bend the PCBA and damage/crack components or solder joints. Additionally, insertion, lock/release, and removal of the PCBA must be easy, quick, accurate and not require any hand tools.

To solve these issues, Eiger Design GmbH has designed the J-Mount system which consists of the below mechanical elements:

Edge Support Clamp



Edge Support

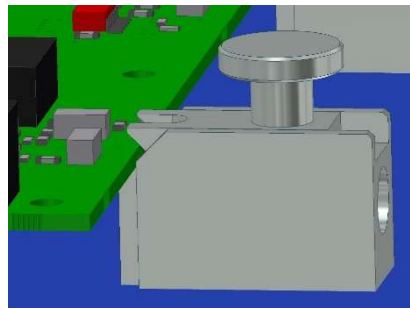
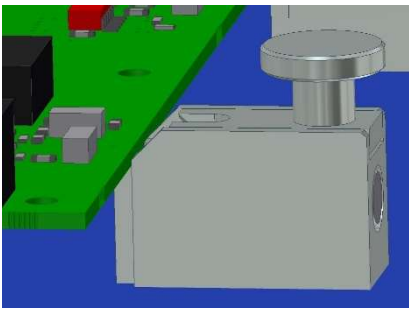


Center Support



The J-Mount system supports all shapes and sizes of PCBs with thicknesses between 1mm and 2.5mm, and is machined from hard-wearing steel with a conductive nickel finish for excellent ESD performance. With compact physical dimensions, the J-Mount minimises the amount of PCB area required at each mounting point.

### 3 Edge support clamp



#### 3.1 Description

The edge clamp is used to clamp the edge of a PCBA, typically either on a straight edge or a 90 degree corner, but can also be used on curved edges and rounded corners. The PCBA edge is clamped onto a 2mm deep, 8mm wide, 0.5mm high 'shelf' which is 12mm above the mounting surface. The central cut-out feature of the clamp is what allows it to be used at the corners of PCBAs as well as at the edges.

The large thumb-screw provides a dual role as a lock/release mechanism and as a handle for the sliding action to position the clamp. This not only provides very swift and simple operation, but also provides excellent tactile feedback to the operator.

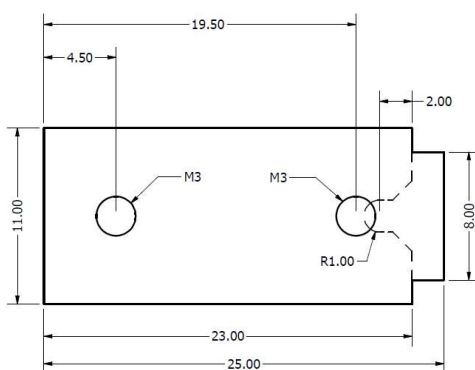
The clamp provides a large sloped lead-in to guide the PCBA quickly and accurately into the correct location before sliding and locking the clamp mechanism.

#### 3.2 Specification

Dimensions	-	25mm x 11mm x 15.50mm (without thumb screw)
PCB Standoff Height	-	12mm
Material	-	Steel
Finish	-	Nickel plating (Thumb Screw Zinc plated)
Screw Thread	-	2 x M3
Screw insertion depth	-	2mm to 4mm
Recommended Screw*	-	Bossard BN20367 (M3x6)

*\*When attaching to a 0.8mm to 1.5mm thick material and using 1.57mm thick alignment washer*

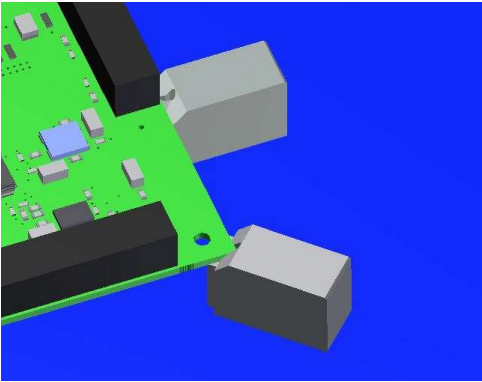
#### 3.3 Footprint Drawing



#### 3.4 Alignment

The J-Mount edge clamp is provided with both a precision 'Hole Template' and a special 'Alignment washer'. The 'Hole Template' is used to help precisely mark the drill holes, whilst the 'Alignment Washer' is used to assist accurate alignment, to the PCB (using a blank unpopulated PCB), whilst tightening the clamp securely into place.

## 4 Edge support clamp



### 4.1 Description

The J-Mount edge support has exactly the same physical dimensions, alignment features and fixing locations as the edge clamp, but without the sliding clamp mechanism. It is used to support the PCBA edge in locations where it does not require clamping, but does require supporting.

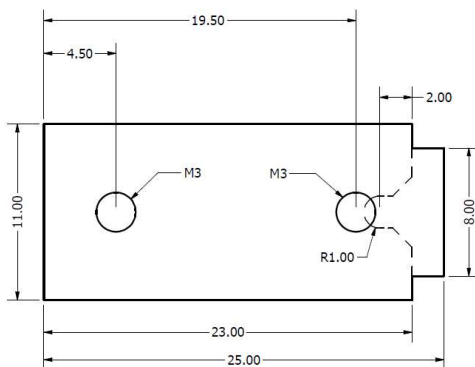
Like the edge clamp, the edge support is typically used either on a straight edge or a 90-degree corner, but can also be used on curved edges and rounded corners

### 4.2 Specification

Dimensions	-	25mm x 11mm x 15.50mm
PCB Standoff Height	-	12mm
Material	-	Steel
Finish	-	Nickel plating
Screw Thread	-	2 x M3
Screw insertion depth	-	2mm to 6mm
Recommended Screw*	-	Bossard BN20367 (M3x6)

*\*When attaching to a 0.8mm to 1.5mm thick material and using 1.57mm thick alignment washer*

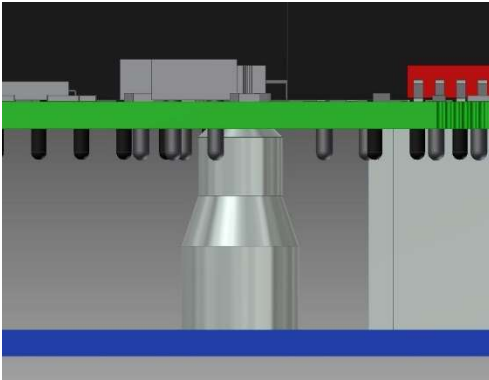
### 4.3 Footprint Drawing



### 4.4 Alignment

The J-Mount edge support is provided with both a precision 'Hole Template' and a special 'Alignment washer'. The 'Hole Template' is used to help precisely mark the drill holes, whilst the 'Alignment Washer' is used to assist accurate alignment, to the PCB (using a blank unpopulated PCB), whilst tightening the support securely into place.

## 5 Center Support



### 5.1 Description

The center support can be used in areas where support is required underneath the central area of a PCBA.

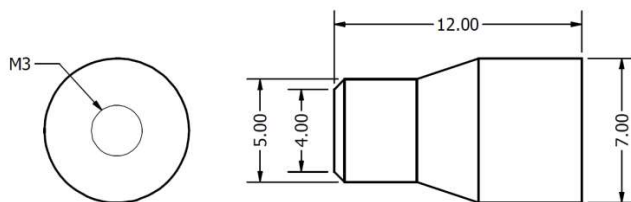
The support is 12mm high with a tip diameter of 5.0mm. The small 5.0mm tip allows it to be used in the positions of a UUTs normal mounting holes (up to 3.2mm), or other convenient locations. The center support has a simple single central M3 fixing

### 5.2 Specification

Dimensions	-	12mm x 7mm
PCB Standoff Height	-	12mm
Material	-	Steel
Finish	-	Nickel plating
Screw Thread	-	1 x M3
Screw insertion depth	-	2mm to 6mm
Recommended Screw*	-	Bossard BN20367 (M3x6)

*\*When attaching to a 0.8mm to 3mm thick material and using 1.57mm thick alignment washer*

### 5.3 Footprint Drawing



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