



**APPLICATION NOTE**

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**APPLICATION NOTE**  
**Design & Installation of AlphaLink Interposer PCB Connectors**

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**APPLICATION NOTE**

**PCB Design of AlphaLink Interposer Connectors**

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## REVISION HISTORY

REVISION	DATE	REVISED PAGES	REVISIONS
A	1/31/2020		Initial Release

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## 1.0 Purpose

This document describes the proper way to design and install AlphaLink Interposer PCB connectors onto a PCB.

Deviating from the methods described herein will result in lesser performance.

## 2.0 Referenced Documents

Document Number/Name	Description
171-383	GLENAIR ALPHALINK INTERPOSER
171-383-1000	ALPHALINK INTERPOSER PCB LAYOUTS

**Table 1. Reference Documents**

## 3.0 Responsibility

This document is the responsibility of the Engineering team.

## 4.0 Methods of Performance Optimization

### 4.1 PCB Layout & Design

To achieve optimal impedance matching at the Interposer contact/PCB transition, we recommend using layouts as shown in 171-383-1000. The following is an example layout (for reference only):

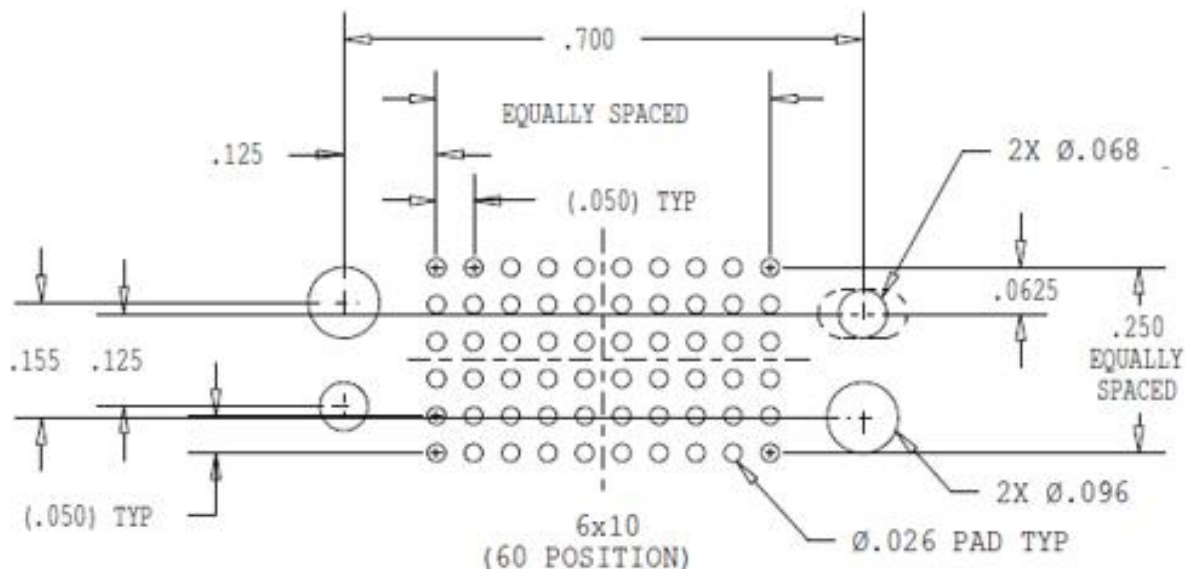


Figure 1 – PCB Layout for 6x10 Connector

### 4.2 Installation onto Board

Feed mounting/guide hardware into holes on first PCB until contacts are resting on their pads. Insert second PCB over the mounting/guide hardware from the exposed side of the connector until contacts are resting on their pads. Insert screws or other mounting hardware through all available mounting holes through both PCBs, as required, and secure connector on both sides. Secure one side completely before proceeding to opposing side. Torque all hardware to 2.5-3.0 in\*lb.

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### 4.3 Trace Routing

Route high-speed traces on the same side of the PCB as the connector, preventing the introduction of via parasitics.

The signal trace width needed for the desired impedance is dependent on the PCB Stack-up, PCB material, and whether the traces are routed as differential pairs or single-ended lines.