APPLICATION NOTE

AE-AN-TR-013-TR Multicoax Series Quick Latch Installation

Purpose:
This application note provides detailed instructions on successfully mounting the TR Quick Latch Multicoax Series connector to a printed circuit board.

Board Preparation:
Prior to installing a TR series multicoax device, it is necessary to inspect and clean the PCB. The following guidelines should be observed prior to installation of the TR device to the PCB.

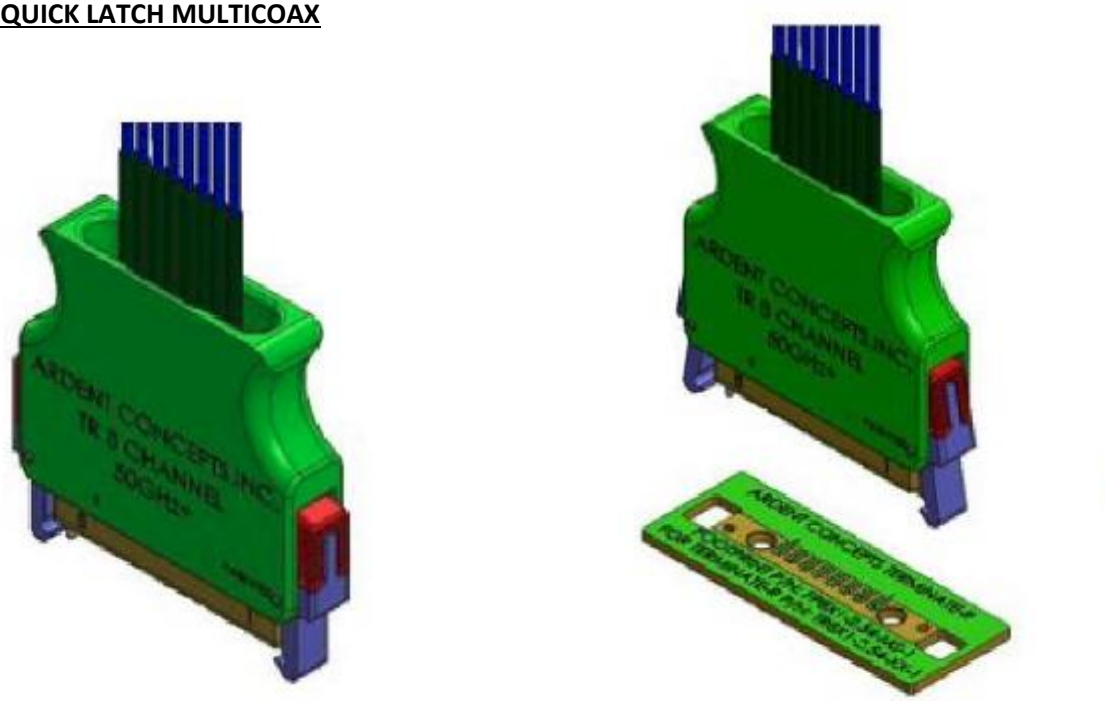
- Inspect the TR board mounting surface for contamination and any obvious surface obstructions, bumps, or imperfections.
- Inspect the surface for solder and solder flux contaminants, surface should be solder free.
- Use lint free cleaning cloth to wipe the board mounting surface clean of dust and contaminants.
- Apply a few drops of uncontaminated isopropyl ≥90% alcohol to a cleaning cloth to remove particles that are not easily removed from initial cleaning.
- Ensure most alcohol is removed from the PCB surface by wiping the surface with a dry lint free cleaning cloth.
- After the board footprint surface has been inspected and cleaned, avoid contact with the board surface with fingers or other contaminating objects.

CAUTION: The TR must rest evenly on the board surface to work correctly

NOTE: An alternative solution to remove dust is to use filtered compressed air.

CAUTION: All vias must be filled and capped. There should be no solder mask within the TR footprint area

MOUNTING TR QUICK LATCH MULTICOAX



Step 1: Push red latch locks downwards.

Step 2: Pinch latches inwards and orient with PCB.

Aligning TR to PCB Footprint:

1. Locate the alignment dowels on the bottom of the TR Assembly. Take note of the larger to smaller diameter dowel pins which will be used as a reference when alignment is made to the board. (See Figure 5)

CAUTION: Always avoid contact with the interface springs to prevent *damage.*

2. Inspect the PCB TR footprint for through holes that will receive the locating dowel pins of the TR Multicoax Series. Again, take note of the larger and smaller holes, as they will correspond to the diameter difference seen on the TR Multicoax Series Connector.

3. Carefully align the two dowel pins with their corresponding holes on the PCB, 1.5mm dowel pin with the 1.5mm hole and the 1mm dowel slot pin with the 1mm slot hole (See Figure 6).

NOTE: The 1.5mm dowel will always align near Channel 1.

NOTE: Quick Latch can be used on PCB thickness ranges of 1.60 mm (0.063”) to 6.35 mm (0.250”).

Step 3: Insert latch ends into PCB holes. Release latches, but continue to push TR by its shroud downwards until latches bite.

Step 4: Release TR. The red latch locks will already be in their “up” position, locking the latches in place.

Application Note Summary:

- Inspect board and ensure it is free of contaminents
- Carefully align the dowels of the TR properly with clearance of the holes in the PC.
- Apply downward force on the TR until latches bite
- Quick Latch can be used on PCB thickness ranges of 1.60 mm (0.063”) to 6.35 mm (0.250”).

Who Is Amphenol Ardent Concepts?

Amphenol Ardent Concepts is a leading designer and manufacturer of high performance multicoax and coaxial assemblies, connectors, and sockets used in the development of next generation semiconductors and electronics systems. Our core technology is the smallest, fastest, most electrically efficient compression mount connector technology worldwide. As data rate requirements increase and devices and systems shrink, Ardent's products deliver superior signal integrity in a dense footprint that can be reusable across programs to maximize cost savings.