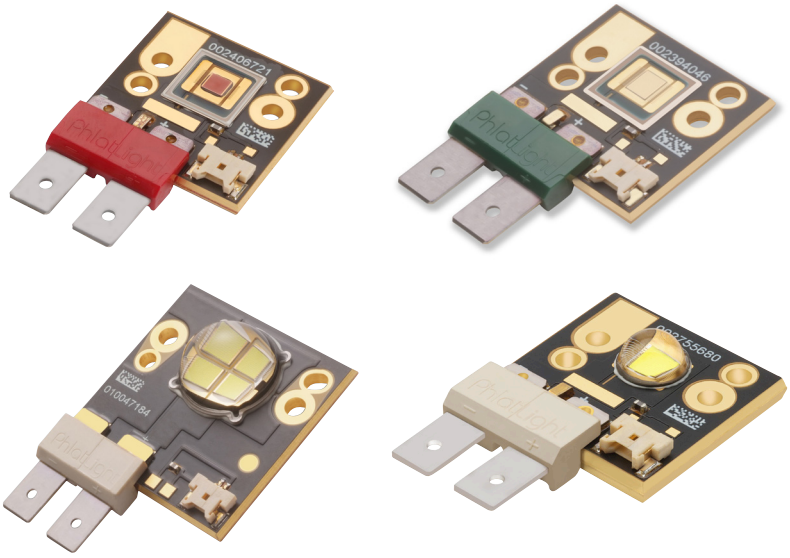
Connector Integrity



Luminus LEDs on coreboards contain connectors that allow for electrical connections. To maintain the integrity of the connectors and the package, and to ensure reliable operation of the LED, precautions must be taken when attaching or removing disconnects to the connector. This application note gives guidelines on the best practices to be employed when disconnects are attached or removed.

Luminus LEDs such as CBT-90, CST-90, PT-120, PT-121, CBM-360 and CSM-360 use a spade connector for electrical connections. A CBT-90 with a spade connector is shown as an example in Figure 1.

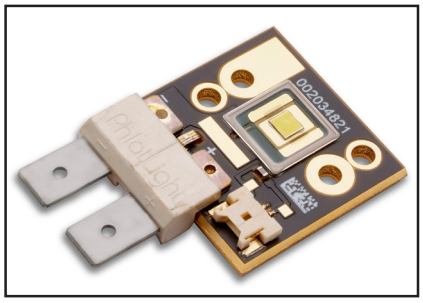


Figure 1: CBT-90 LED with spade connector

To maintain connector integrity, care must be exercised when attaching or removing female disconnects to the connector. The connector, which is soldered to the coreboard, can delaminate from the coreboard if forces applied to the connector when attaching or removing female disconnects are not parallel to the connector. Any force applied to the connector must be in the same plane and parallel to the connector. Figure 2 depicts the preferred direction in which female disconnects should be attached or removed.

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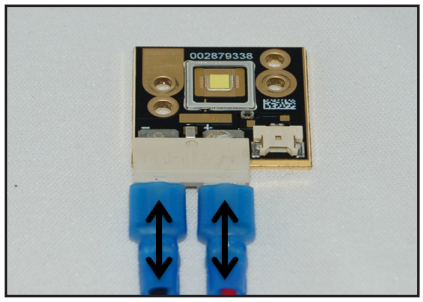

Figure 2: Arrows showing the preferred direction of attaching/removing female disconnects

Figure 3 depicts some examples of forces that are not parallel to the connector and must be avoided. Figure 4 shows the delamination of the connector from the coreboard as a result of applying forces that are not parallel to the connector.

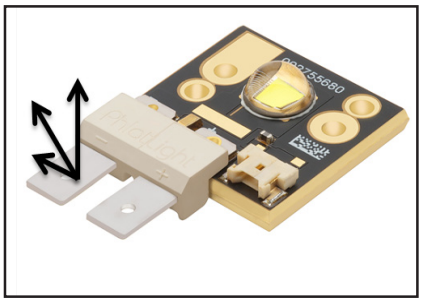

Figure 3 : Avoid forces that are not parallel to the connectors

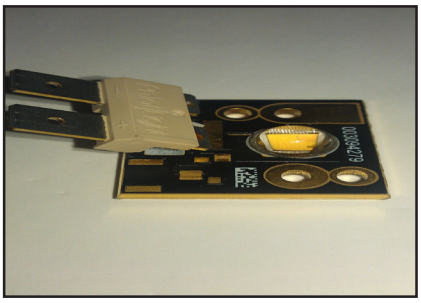

Figure 4: Delamination of connector resulting from non-parallel forces

Additionally, it is recommended that no constant force be applied to the connector—a force must be applied only when attaching or removing female disconnects.

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