

## **Executive Summary:**

The results of this report show how when diagnostics were run on the Connectivity Module 1.1, the problems discovered such as potential short-circuiting, 90-degree copper tracing angles, and components overheating/tombstoning were addressed. By using the method of “DMAIC,” which stands for Design, Measure, Analyze, Implement, Control, successful corrections were made. In the first design of the Printed Circuit Board (PCB), 1454 critical issues were found. With the newly designed PCB’s modifications being implemented, only 12 critical issues remained, which were later addressed and corrected. The results from this report are a functional Automobile Connectivity Module 1.1.