UP-SCREENING PER MIL-STD-202

What is Up-screening?
Testing commercial-off-the-shelf (COTS) components to verify they will perform as intended when used beyond the original equipment manufacturer’s environmental specifications.

Benefits of Using COTS

1. More Readily Available
   Higher production rates for more commonly used parts make COTS more accessible than military grade parts.

2. More Cost Effective
   In a highly competitive marketplace, commodity pricing has driven down as competitors strive for market share.

3. More Advanced Technology
   Commercial electronics is a highly competitive, rapidly evolving market. This drives innovation to constantly improve processing power, storage capacity and network bandwidth.

Up-screening with IEC Electronics

High-quality Testing Standards
Only EMS with an on-site lab to have earned the highly selective MIL-STD-202 suitability as part of the DLA QTSL program

Quick Turnaround
Dedicated staff to ensure project timelines are met

Seamless Integration with Manufacturing
72,000 square foot EMS facility on-site with laboratory

Tailored Testing Plan
Test to a required industry standard or develop a customized test plan for specific application
Background

In 1994, the U.S. Secretary of Defense, William Perry, issued a memo directing the Department of Defense to use COTS parts wherever and whenever possible. At that time, many in the industry had concerns about the reliability of using COTS parts for the more extreme environmental stresses required for military and aerospace applications. However, in the past twenty-five years, there have been drastic improvements in quality and performance of commercial components. Today, it is common, and often necessary due to market factors, to use COTS devices for military applications. The industry continues to see COTS successfully operating in their chosen application.

Case Study

A Tier 1 global defense company needed to use COTS components to support a program for weapons guidance systems. As a vertically integrated manufacturing partner, IEC Electronics has been able to support the entire outsourcing for the program. By utilizing our on-site Analysis & Testing Laboratory to perform environmental, physical, and electrical testing, the defense company has realized several benefits over using a third party lab.

Decreased lead time by more than 3x

By utilizing the on-site analysis & testing lab at IEC to perform validation testing of components, the up-screening turnaround time decreased from 14 weeks to 4 weeks. This, in turn, also improved the overall manufacturing lead time and the ability to respond quickly to unexpected demand fluctuations.

Improved reliability of testing process

Our lab is part of a small group that has received Lab Suitability by the Defense Logistics Agency (DLA) as part of the QTSL for MIL-STD-202. Only selective laboratories have been issued suitability for this method are eligible to test federal electronic and electrical components.

Cost savings & simplified supply chain

Components are shipped directly to our on-site analysis & testing lab and flowed seamlessly into the manufacturing environment. The Customer has experienced a cost savings and minimized complexity within their supply chain.