



In this world of faster, better, cheaper it is important to understand the primary differences between the commercial level, Class H level and Class K level of Avago Technologies Hermetic Optocouplers. Some users have made the choice to procure a commercial level device and up-screen into a pseudo Military or Space grade product. While we understand the cost restraints our customers are under, we urge you to consider the following.

Cost of ownership. Up-screening generally carries hidden costs that can exceed the cost of a higher grade product. Up-screening may be labor intensive for the engineering staff and failures found are not covered under warranty.

Additionally, the quality level of the device is originated in the piece part selection and the build processes and up-screening may not provide the confidence you need in the product. Please view the following "Class level build comparison" page which will provide you with insight you need to be able to make an informed decision. As you will see, a commercial device has relatively few processing steps within the assembly flow as compared to the highest reliability Class K device.

Other important items to consider are issues such as Change Control Notification Requirements, Device Traceability and Device Pedigree.

Assembly Comparison - The Difference is Built In!

COMMERCIAL

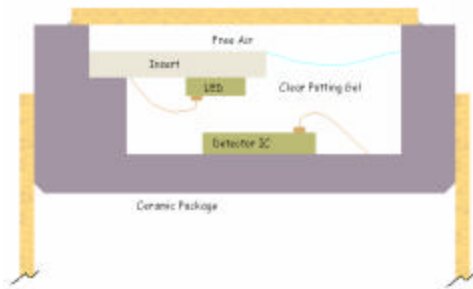
Die Attach
Sample Die Shear (min 1x)
Cure
Wire Bond
Sample Destruct Bond Pull (min 1x)
100% Visual *
Combine
Sample Insert Pull Test
100% Combine Visual *
Pot and Cure
Seal

CLASS H

H Level Element Evaluation
Die Attach
Sample Die Shear (min 1x)
Cure
Wire Bond
Sample Destruct Bond Pull (min 2x)
100% Visual *
QA Sample Pre-Cap Visual
Combine
Sample Insert Pull Test
100% Combine Visual *
Pot and Cure
Seal
100% Seal Visual *
Backside Mark

CLASS K

K Level Element Evaluation
Die Attach
Sample Die Shear (min 2x)
Cure
100% Die Attach Visual
QA Sample Die Attach Visual
Wire Bond
Sample Destruct Bond Pull (min 2x)
Group B Bond Pull (300°C bake)
100% Non-Destruct Bond Pull
100% Visual *
QA Sample Pre-Cap Visual
Group B Internal Visual & Mechanical
Combine
Sample Insert Pull Test
100% Combine Visual *
QA Sample Combine Visual
Pot and Cure
Seal
100% Seal Visual *
Backside Mark



* Acceptance criteria differ between device classes

AVAGO
TECHNOLOGIES

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微波光电部专业代理经销高频、微波、光纤、光电元器件、组件、部件、模块、整机；电磁兼容元器件、材料、设备；微波 CAD、EDA 软件、开发测试仿真工具；微波、光纤仪器仪表。欢迎国外高科技微波、光纤厂商将优秀产品介绍到中国、共同开拓市场。长期大量现货专业批发高频、微波、卫星、光纤、电视、CATV 器件：晶振、VCO、连接器、PIN 开关、变容二极管、开关二极管、低噪晶体管、功率电阻及电容、放大器、功率管、MMIC、混频器、耦合器、功分器、振荡器、合成器、衰减器、滤波器、隔离器、环行器、移相器、调制解调器；光电子器件和组件：红外发射管、红外接收管、光电开关、光敏管、发光二极管和发光二极管组件、半导体激光二极管和激光器组件、光电探测器和光接收组件、光发射接收模块、光纤激光器和光放大器、光调制器、光开关、DWDM 用光发射和接收器件、用户接入系统光收发器件与模块、光纤连接器、光纤跳线/尾纤、光衰减器、光纤适配器、光隔离器、光耦合器、光环行器、光复用器/转换器；无线收发芯片和模组、蓝牙芯片和模组。

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