

무연솔더볼 신뢰성평가규격 개발  
(Development of reliability specification of  
lead free solder ball)

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**Abstract**

Reliability specification of Korean government established on a lead free solder ball by RIST at the beginning of 2003. It includes quality test criteria such as composition, appearance, melting temperature, dimension and etc. How-to-make test coupon of solder joints by lead free solder ball and PCB design also suggested. Reliability test items include shear test, pull test, spreadability test, thermal cycle test, aging test, high temperature resistance test, and bending test. Gurantee life of solder joint was suggested from relationship between acceleration factor and counts of thermal cycle. Results showed that tested specimens passed specification and guaranteed 7 years B<sub>10</sub> life at 90% confidence level.