



QUALITY TERMS

STATISTICAL SAMPLING

Statistical sampling is an internationally accepted methodology for determining whether a production lot substantially complies with the product requirements without inspecting every item in the lot. This method assures the best possible results at the lowest possible cost. This approach is typically used in the inspection of pre-production raw materials and components, during various stages of the manufacturing process, and post-production of finished products and out-going shipments.

ACCEPTABLE QUALITY LEVEL (AQL)

The AQL is the maximum allowed percent defective. The designated value of defects, expressed as a percentage by the particular sampling procedure and level used, will identify what the buyer will normally accept in the majority of cases.

Unless otherwise specified by customers, HQTS adopts the AQL as follows:

	High valued products	Low or medium valued products
Critical defects	Not allowed	Not allowed
Major defects	AQL 1.0/1.5	AQL 2.5
Minor defects	AQL 2.5/4.0	AQL 4.0

MIL-STD-105E/ISO2859-1/ANSI/ASQC Z1.4

It is a random sampling plan that indicates the number of units of product from each lot or batch to be inspected (sample size or series of sample sizes) and the criteria for determining the acceptability of the lot or batch (acceptance and rejection numbers), which is comprised of Sample Size Code Letter and Acceptable Quality Level (AQL).

DEFECT CLASSIFICATION

Defects detected during visual inspection are classified within 3 categories, "Critical", "Major" and "Minor". Normal definitions are:

Critical Defect:

A defect that fails to meet mandatory regulations and/or affects the safety of the consumer when using the product.

Major Defect:

A defect that is likely to result in product failure, reduction of the usability of the product, and obvious appearance issues affecting the salability of the product.

Minor Defect:

A defect that is not likely to reduce the usability of the product, but could reduce the salability, or is a variation from the defined quality requirements.