

UNCERTAINTY OF MEASUREMENT DECISION POLICY

Swantest work to an international standard, ISO/IEC 17025:2017. Clause 7.8.6 of ISO/IEC 17025:2017 requires that when a statement of conformity to a specification or standard is provided, Swantest will:-

- document the decision rule employed,
- consider the level of risk associated with the decision rule employed,
- apply the decision rule.

Furthermore, this decision rule will be agreed with the customer and the results reported within the test report.

It should be noted it is not mandatory for Swantest to report statements of conformity, i.e. pass/fail. These rules apply when Swantest has:-

- agreed with a customer that such statements will be reported
or
- the normal practice, which is where the test method/specification details that these statements are required.

The decision rule describes how measurement uncertainty is accounted for when stating conformity with a specified requirement. The uncertainty is the risk associated with the probability of false accepting a nonconforming item or the probability of false rejection of a conforming item.

With that in mind Swantest has chosen to apply the **simple acceptance shared risk rule** to all test reports which include a statement of conformance. A result is accepted when its value falls within the defined limit(s) of tolerance/ specification and there is a shared risk, the customer and Swantest sharing the consequences of an incorrect decisions.

The rule to be applied can be found In ILAC G8:09/2019 Guidance on Decision Rules and Statements of Conformity.

To meet the requirements of the rule and prove the level of risk has been considered and accounted for, Swantest will determine an uncertainty budget for all features measured and reported in a Test Report. The uncertainty value must be no greater than the relevant tolerance applied from the appropriate product specification

Scenarios and Report Statements

The report will include a state:-

Swantest has applied the simple acceptance shared risk rule for all features of the test and the item and items shown as within the report as either:-

- “Pass” where measured values fall within the defined limits of the test specification tolerance and taking into account the uncertainty budget is no greater than the applied tolerance,
- “Failed” where measured values fall outside the defined limits of the test specification tolerance and taking into account the uncertainty budget is outside the applied tolerance.
- “False Pass/Fail” where the measurement is close to the tolerance and by applying the uncertainty of measurement budget, the item could either be judged to have passed or failed. The customer will be notified and will advise on the action to be taken, this could be for example

to accept the finding, request a second test by a different method or take the mean of several readings. The report shall include the actual measurement recorded, the decision based upon this measurement and the uncertainty budget.

Other Decision Rules

Other rules may be:-

- imposed by Regulators,
- industry-based norms,
- required by the customer at the contract review stage.

Where decision rules proposed by the customer are not considered appropriate or applicable to the results being reported, then Swantest will discuss this with their customer to ensure that the outcome is fit for purpose.

For and on behalf of
SWANTON CONSULTING LIMITED
Approved



Simon Bahaire BEng Hons DIS CEng MICE
Director

20th June 2025