Today’s customer demands and expectations require safe launch in mass production of a qualified & designed IC.
The Qualification process, in general, is well known (established) in the semiconductor industry and mostly guided (driven) by well-defined standards and accepted by the semiconductor community and users. The actual summary outlines, in general, a set of information to be used as guideline when undertaking Product Qualification, as well as a description of advanced test Techniques & Methodology.

The presentation will include detailed information on how advanced finished products are stressed, tested and released as a fully functional device to mass production, based on positive response from data analysis and objective pass/fail release criteria.

Also, Product Quality is important to guarantee that a determined product delivers the specific function for which it has been designed; Product Reliability is even a major concern, as it simulates the expected life when the device operates in the field and it’s expected to deliver a specific function over a specified lifetime period.

To ensure Product Reliability lifetime (Quality over the time), the following Qualification tests and techniques are commonly used in general:

- Environmental stress tests
- (Addressing packaging and material limitation and potential defect)
- ESD & LU and High Operating Life Testing (HTOL)
- Board level Reliability (2nd level Reliability)

These are very important and critical to ensure device functionality and performance for a minimum specified life time, once products are released to the field.

The presentation will show examples and details on the above qualification levels and how and where the process is undertaken.

Additionally, testing is known to play a major role in the execution and the delivery of the full functional device, whereby advanced test techniques and methods will need to be identified and used. The current presentation will show and describe in detail the activity surrounding the test environment as well as the cost implications, process optimization and benefits for the business growth at the end.

Finally, the presentation will provide key information and details related to the Manufacturing process and how the product realization is driven and managed from development to Mass production.

This presentation will provide also relevant information related to Assembly & package selection suppliers in addition to the process technology needed to accommodate the IC design.