

Optical Microscopy Analysis

Optical microscopy analysis is an easy to operate, intuitive and efficient surface observation method which is not only used for identification of surface defects of all kinds of metal, alloy and non-metallic products and the inspection of surface phenomena such as integrated circuit, printed circuit board, wire, fiber and surface spraying, but also can be used to observe opaque and transparent substances in electronic, chemical and instrumentation industries.

STEMart conducts optical microscopy analysis to help manufacturers fully understand microstructure and product property relationships.

Test Capabilities

Root cause determination of fracture: Identify the properties of the fracture through identification of the micro-morphological features of the fracture.

- Brittle fracture analysis: Observation of morphologies such as fatigue strips, tire tracks, cleavage fans, intergranular brittle separation and structural equality
- Plastic fracture analysis: Observation of dimple patterns

Visual inspection

- Check product shape
- Detect cracks, holes and poor welding on the surface
- Inspect the quality of the printed circuit board
- Detect welding defects in the circuit assembly

Size measurement: Measure the inner and outer dimensions (length, width, thickness, inner diameter and outer diameter), hole distance, height and depth, connector pin spacing, testing coplanarity, etc., of electronic components and PCB/PCBA products.

Identification and measurement of contaminants

Observation of internal micro-structure

For more information about our optical microscopy analysis services,
please [contact us](#).