Claims

1. A method for inspection of multiple features of patterned objects during manufacturing of electrical circuits, the method comprising: performing defect detection on said patterned object, employing an optical defect detection machine (ODDM), wherein the patterned object is a printed circuit board, a flexible printed circuit (FPC), or a flat panel display; employing said ODDM to output at least one of spatial coordinates and physical attributes of at least some of said multiple features; measuring distortion in measurement of said physical attributes of at least some of said multiple features as a function of a location of at least some of said multiple features in a field of view; and cropping said field of view to a region having acceptably low distortion.
2. The method for inspection of multiple features of patterned objects according to claim 1, wherein said ODDM comprises a printed circuit board inspection machine and said patterned object is said printed circuit board.
3. The method for inspection of multiple features of patterned objects according to claim 1, wherein said ODDM comprises an automated optical inspection machine for electrical circuits.
4. The method for inspection of multiple features of patterned objects according to claim 1, wherein said employing said ODDM to output includes employing at least one of a motion sensor, an accelerometer, a distance sensor, a 3D sensor and a temperature sensor to increase spatial accuracy of measurement of said physical attributes
5. The method for inspection of multiple features of patterned objects according to claim 1, wherein said employing said ODDM to output also comprises employing a calibration target.
6. The method for inspection of multiple features of patterned objects according to claim 1, wherein said employing said ODDM to output comprises employing multiple discrete electromagnetic spectral frequency bands.
7. The method for inspection of multiple features of patterned objects according to claim 6, wherein said employing said ODDM to output further comprises employing multiple, mutually spatially offset images at said multiple discrete electromagnetic spectral frequency bands.
8. The method for inspection of multiple features of patterned objects according to claim 7, wherein said employing said ODDM to output further comprises employing said multiple, mutually spatially offset images at said multiple discrete electromagnetic spectral frequency bands to study the way three-dimensional changes in patterned objects are visible in a two-dimensional image.
9. The method for inspection of multiple features of patterned objects according to claim 1, wherein said employing said ODDM to output also comprises employing a high accuracy measurement sensor to detect a bias in measurements by said ODDM and compensating for said bias in run time.

10. The method for inspection of multiple features of patterned objects according to claim 1, wherein said measuring distortion takes place during calibration of said ODDM.
11. The method for inspection of multiple features of patterned objects according to claim 10, wherein said measuring distortion, which takes place during said calibration of said ODDM, includes compensating by employing calibration tables.
12. The method for inspection of multiple features of patterned objects according to claim 1, wherein said measuring distortion takes place during run time of said ODDM.
13. The method for inspection of multiple features of patterned objects according to claim 1, wherein said ODDM is operated, when inspecting multiple identical patterned objects, so as not to measure all of said multiple features of all of said patterned objects in each scan but to ensure that each of said multiple features is measured in at least one scan.
14. The method for inspection of multiple features of patterned objects according to claim 1, wherein said ODDM is operated to produce multiple scans at at least two different resolutions.
15. The method for inspection of multiple features of patterned objects according to claim 14, wherein at least one lower resolution is employed for ensuring positional accuracy and at least one higher resolution is employed for said measuring said attributes.
16. The method for inspection of multiple features of patterned objects according to claim 1, further comprising evaluating, in run time, correspondence between said measurements of said physical attributes and reference CAM data for at least some of said physical attributes in order to compensate for distortions attributable to operation of said ODDM.
17. The method for inspection of multiple features of patterned objects according to claim 16, further comprising compensating in run time for distortions attributable to operation of said ODDM.
18. A system for inspection of multiple features of patterned objects during manufacturing of electrical circuits, the system comprising: an inspection subsystem operative to detect defects in said patterned object, wherein the patterned object is a printed circuit board, a flexible printed circuit (FPC), or a flat panel display; a physical attribute measurement subsystem operative to output measurements of at least one of physical attributes and spatial coordinates of at least some of said multiple features; and a workstation configured to measure distortion in measurement of said physical attributes of at least some of said multiple features as a function of a location of at least some of said multiple features in a field of view and crop said field of view to a region having acceptably low distortion.
19. The system according to claim 18, further comprising at least one of a motion sensor, an accelerometer, a distance sensor, a 3D sensor and a temperature sensor.
20. The system according to claim 18, further comprising a high accuracy sensor.
21. The system according to claim 18, further comprising at least one high accuracy encoder.