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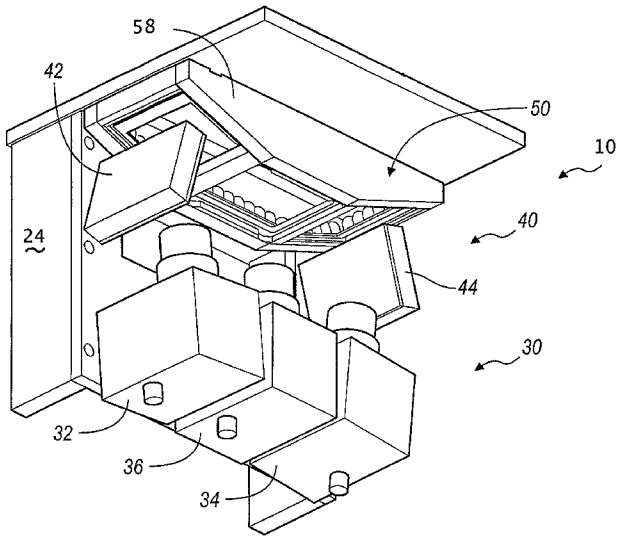
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(54) Title: MACHINE VISION SYSTEM FOR THREE-DIMENSIONAL METROLOGY AND INSPECTION IN THE SEMICONDUCTOR INDUSTRY



(57) Abstract: The system (10) of the preferred embodiment includes a structural subsystem (20) to provide both a stable platform and vibration isolation, a camera subsystem (30) to capture the image of a moving object when the object moves into a viewing area, a lighting subsystem (50) to illuminate a moving object, and a controller to selectively activate the lighting subsystem (50) to allow observation of the reflectance of complex objects under different conditions. The system (10) has been specifically designed for illuminating and capturing the image of a moving object, such as the connecting terminals (e.g., leads, ball grids, and pads) of packaged electronic components in a manufacturing facility. The system (10) may, however, be used to illuminate and capture the image of any suitable moving or non-moving object.

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