

AUTOMATED DIMENSION MEASUREMENT SYSTEM FOR POGO PIN

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ABSTRACT: To perform a quick measurement of multi-characteristics of one pogo pin, whose length no more than 5.5 mm and diameter of 1.5 mm, with a tolerance within 50 μm , automated optical inspection (AOI) can be a good option to reach the target. Comparing to the traditional production line with groups of operators or inspectors to finish the job, automated measurement system can increase the quality with higher efficiency. The index plate on the platform allows the multi-task measurement to save time while a variety of measurements of one single pin have to be done. Motion control and human interface is implemented via Labview. Instead of using part feeder, special designed part feeding trays are applied to feed part to the part carrier on the plate. They can be also redesigned and replaced easily for another model if needed. The integrated system, which performs with high capacity, accuracy, distinguishing ability, and reliability, can satisfies variant requirement of production line.

Keywords: *Pogo Pin, Automated Dimension Measurement, Labview Vision, Part Feeding Tray*