The Gold Plating of the POGO contact land of the PCB for wafer inspection

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The contact land of the PCB that is to inspect semiconductor wafer contacted with POGO pin tends to be easily worn due to spring tension of POGO. Therefore, gold plating that is $1\mu\text{m}$ or more in thickness is required for the contact land to improve durability of the PCB for wafer inspection. Normally, for gold plating, electrolytic plating or electroless plating is applied to the contact land of PCB but there have been some problem with thickness control including economic weakness. In this study, the process that can plate the target part with gold economically, effectively has been developed by combining the strong points of electrolytic plating with the merits of electroless plating. Furthermore, we intended to optimize the process by controlling the related variables. According to the test results, when applying current density of $2\sim3\text{A/dm}2$ at 40°C or more for more than 5 minutes, gold plating whose thickness is $1\mu\text{m}$ or more has been found.