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(71)**Name of Applicant :**
1)ATI Technologies ULC
Address of Applicant :One Commerce Valley Drive E. Markham Ontario L3T 7X6 Canada
(72)**Name of Inventor :**
1)LEUNG Andrew K.
2)MCLELLAN Neil

(57) Abstract :
A ball grid array package device includes a substrate with a copper ball grid array pad formed on the substrate. A nickel layer may be formed on the copper pad and a tin layer formed on the nickel layer. The nickel layer may be formed using an electroless nickel plating process. The tin layer may be formed using an immersion tin process. In some cases silver may be used instead of tin and formed using an immersion silver process.

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