

ABSTRACT**TITLE OF INVENTION: SOLDERING ALLOY, CREAM SOLDER
AND SOLDERING METHOD**

The present invention relates to a soldering alloy composed mainly of Sn and free from lead which is a toxic substance. An addition of a small quantity of Ag to the soldering alloy can fine the alloy structure, minimize structural changes of the alloy and increase thermal fatigue resistance thereof. An addition of a small quantity of Bi to the soldering alloy lowers the melting point and improves the wettability thereof. Further, an addition of a small quantity of Cu restrains the growth of intermetallic compounds in the bonding interface between a copper land and the solder. Furthermore, an addition of a small quantity of In improves the elongation property and thermal fatigue resistance of the alloy.