



PULSE POSITION STATEMENT ON TIN-BASED PLATING FOR LEAD-FREE PRODUCTS

September 3, 2003

In compliance with customer requirements and the European Directives WEEE/RoHS to eliminate Lead in the electronics industry, Pulse will offer plating with tin or tin alloys on the component to PCB solderable termination (leadframes or pins). The decision to use tin alloys on the solderable termination is based on the material's excellent properties of solderability and resistance to corrosion. In addition, these alloys are common with plating houses facilitating sourcing and availability.

Pulse is aware of the ongoing studies to determine the propensity of these alloys to develop Tin Whiskers. Until an industry standard is developed to test and validate the propensity of tin to grow tin whiskers, Pulse does not plan to implement and run any type of environmental testing to demonstrate tin whisker growth. For completion of the test standard, Pulse is monitoring the progress of the task force created by the National Electronics Manufacturing Initiative (NEMI). The final report with recommendations is expected to be available during the first half of year 2004.

As a preventive measure to reduce the possibility of tin whisker growth, Pulse has adopted the following mitigation factors.

- ***Use of matte Tin finish with a plating thickness of 300 to 500 μ inches***
- ***Use of a Nickel underplate with a plating thickness of 50 to 100 μ inches***

Contacts

If you have a need for Pulse products in Lead-free configurations or for questions on product availability, and, pricing information, please contact your sales account manager, customer service, or distributor representative.

For technical questions regarding the materials used, qualifications, profiles or other technical issues, please contact the Pulse Product Quality Organization at the location nearest you. These addresses are available on the Pulse web site.

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