

# Product Change Notification

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The information below reflects a change that is being implemented.

Notice Date: 09/27/2004

Product Category: Audio Amplifiers; A/D Converters; Battery Chargers; Battery Management; Binary and BCD A to D Converters; Comparators; DC to DC Converters; Digital Pot; Display A to D Converters; Dual Slope A to D Converters; Infrared Devices; Linear Devices; Linear Integrated Devices; Linear Regulators; Mixed Signal Devices; Op Amps; Power Management; Power MOSFET Drivers; PWM Controllers; RS232; SigmaDelta A to D Converters; Supervisor; Switching Regulators; System A to D Converters; Thermal Management; Voltage Detectors; Voltage to Frequency; dsPIC; CAN Bus; CAN Communication; Infrared Communication; LIN Communication; Serial Communication; 24xxx; 25xxx; 93xxx; Other; Core 12; Core 14; Core 16; PIC12xxx; PIC16xxx; PIC18xxx; rPIC; RFID; SDP

Notification Subject: Change # 524 - Change plating from SnPb to pure Sn (Matte Tin)

Notification Body:

CCB #: 524  
Change plating from SnPb to pure Sn (Matte Tin)

## Microchip Part#s Affected

Affected packages for this notice are as follows. All standard Microchip part numbers containing these package codes are affected.

14-lead TSSOP (package codes "ST" or "ST14")  
8-lead TSSOP (package code "ST")  
6-lead SOT-23 (package code "OT")

## Description of Change:

All standard Microchip devices in the listed packages will change from SnPb plating (standard tin-lead solder) to "Matte Tin" plating (industry-standard pure Sn) of the device leads. The base lead material (copper) is not changing, only the final plating material.

1. All devices have been qualified to meet the 260oC Pb-Free soldering temperatures required by Pb-free solder reflow processes and can use a Pb-Free soldering paste such as Sn/Ag/Cu.

2. This new Matte Tin finish is also backward compatible with existing SnPb soldering temperatures down to 215oC and can use standard SnPb soldering paste. Therefore, no action is required on your part due to this change.
3. During a transition period you may receive parts with either SnPb or Sn-only plating, due to existing inventory of SnPb-plated product.

Impacts to Data Sheet:

None. Eventually Microchip may add an optional Pb-free mark to its data sheets, but no data sheet parameters are affected.

Reason for Change:

1. New regulations being imposed in Europe (RoHS) and some Asian countries necessitate the elimination of lead (Pb) in electronics manufacturing processes. The conversion from SnPb finish to Matte Tin finish on the device leads is being implemented to meet these new requirements.
2. All electronic component manufacturers worldwide are affected and all will begin using a Pb-free plating compound soon, many using the same Matte Tin plating that Microchip has chosen.
3. Matte Tin was chosen above other materials due to its low cost and its backward- and forward-compatibility with existing SnPb and future Pb-free reflow processes.

Estimated Change Implementation Date(s):

October 25, 2004

Markings to Distinguish Revised From Unrevised Devices: (e.g.: Date Code, Device Marking, Ship Container Marking)

1. A JEDEC-standard (e3) logo for Matte tin plating will be added to topside mark where space permits.
2. Cartons, bags and/or reels for all three packages will be marked with a new label (see attached), showing both a standard "Pb-free" mark and the new JEDEC (e3) logo. See attached example.
3. Once each package begins its first production lot with the new Matte Tin plating, the date code of that lot will be published on Microchip's website [www.microchip.com](http://www.microchip.com). Please refer to device datasheets to decode the top mark trace codes, and contact any Microchip sales office for assistance if needed.

Summary of Qualification Results: (Reference Report Number if applicable):  
0703461 Pb-Free Summary Qualification Report

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