



QUALIFICATION LOT LABORATORY REPORT

DESCRIPTION:

MICREL LEAD-FREE PACKAGE SOLDERABILITY (MATTE TIN)

LOT INFORMATION:

Customer	: MCL	Requestor	: Jase Mah
Package	: 28SSOP	Department	: QA Program
Device	: MIC2563A	Date Received	: 9-Dec-03
Lot #	: 3A3275M42	Quantity	: 100 units
Serial #	: SS16149	Prepared by	: KC Ten
Die Attach	: SR4	CC	: WH Lai, KO Chew, Sri Ramesh, BK Tan, KH Wong, Raajan, YK Foong, John Lee, Kevin Khoo, Eric Tan, KH Tan, MS Tiong, CS Ho, KM Lam, CK Ng.
Mold Comp.	: MP8000C		
Date Code	: 034		
Pad Size	: 152*291 mils		
Die Size	: 137*79.1 mils		

REVIEW BY:

CK Mok
Sr R&QA Engineer

02 Jan 2004
Date

* This is a computer-generated document. No signature is required.

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Solder Wettability Test

Conditions : Steam Aging at 100°C/100% RH
 Solder Bath Composition : 95.8% Sn, 3.5% Ag and 0.7% Cu

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 External Visual Readouts : 8 hours
 Sample Size : 10 units
 Accept No. : 0 reject

Results (units)
 3X Dips at 255°C for 5 sec : 0/10

Refer attachment C / page 11

Plating Thickness

Sample Size : 10 readings from 10 units

Sample	Result (u'')
Unit 1	360
Unit 2	371
Unit 3	367
Unit 4	350
Unit 5	377
Unit 6	325
Unit 7	396
Unit 8	364
Unit 9	365
Unit 10	401

Plating Surface Composition

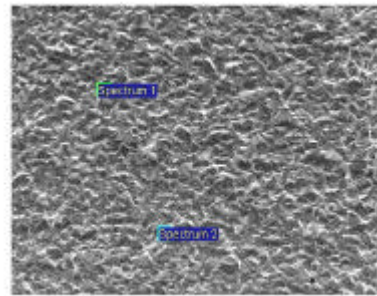
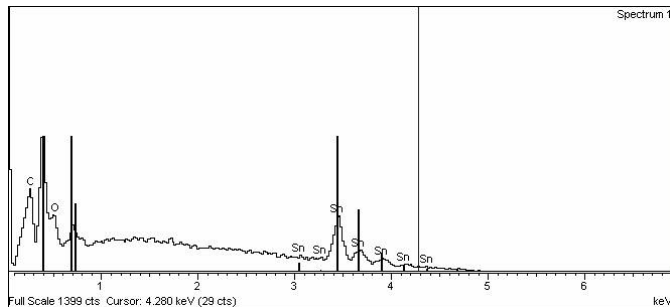
EDX ANALYSIS AT 5KV

Spectrum Label	Sn	Total
Spectrum 1	100	100
Spectrum 2	100	100

C & O did not take into account for this quantitative analysis [not interested material].

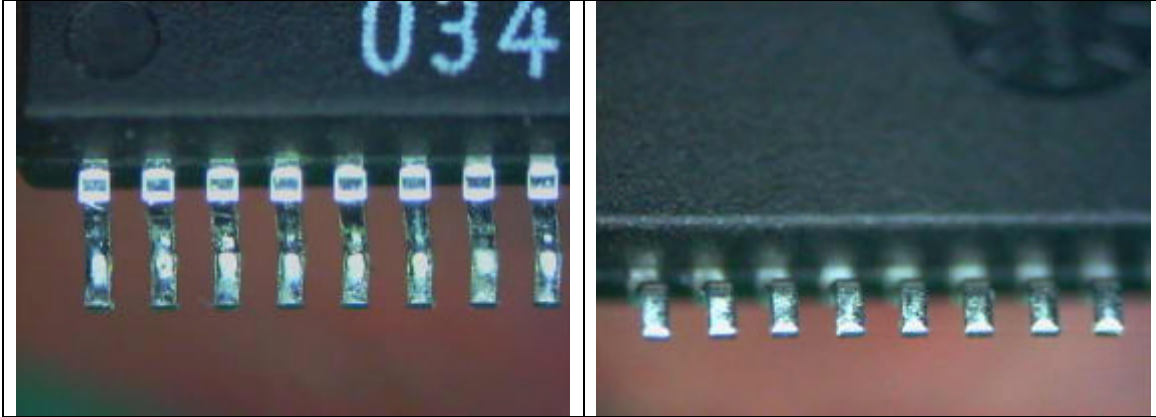
All elements analyzed (Normalised)

All results in Weight Percent





Attachment C – Solder Wettability Test



Remarks:
Solder coverage is more than 95%.