

Tucson

Date May 13, 2005

Sheet 1 of 2

Project Title

RoHS – Compliant Program

Report No.

2005-01

Subject Title

Conversion of Tusonix parts to become RoHS compliant

Prepared By

Randy Cook

Dept No.

54

Date

5/13/05

Approved By

Date

Scope/Text (Attach Additional Sheets as Required)

Technical Summary:

Beginning in April of 2003 Tusonix entered a project to transition to RoHS compliant products. From May of 2003 until August of 2004 engineering conducted an extensive industry product search of lead-free alloys, acquired sample lead-free alloys, and conducted evaluations to determine the lead-free alloys best for use in Tusonix product manufacturing.

In August of 2004 Tusonix began an extensive product evaluation using the alloys selected. For the evaluation 73 products were chosen representing 21 product groups. Individual engineering projects were designed for each of the 73 products having a lead-free product lot and a standard product control lot. Tusonix manufacturing facility carried out the evaluations under typical per product manufacturing conditions.

Test Performed, results:

Manufacturing recorded all process variables for the standard product and the lead-free product lots. Lots were manufactured and tested in parallel to obtain reliable concurrent results.

Each lot was subjected to the following body of tests:

Group I

Initial readings for Capacitance, Df, Insulation Resistance, Flash, and Insertion Loss were conducted and results recorded.

Thermal Shock - Five cycles of; -55° C to +25° C to +125° C to +25° C.

Steady-State Humidity - Conditions: 90% to 95% RH, 40° C, 30 VDC, for 504 hours.

Post test readings for Capacitance, Df, Insulation Resistance, Flash, and Insertion Loss were conducted and results recorded.

Group II

Initial readings for Capacitance, Df, Insulation Resistance, Flash, and Insertion Loss were conducted and results recorded.

Distribution

John Lane

Kent Liesemeyer

Thomas Spuhler