

## Physical Inspection Report

Customer:		Order ref:	
Manufacturer:		Requestor:	
Part Number:	CS4390-KS	Date/Time	2008-01-31
Technician	Arjen	Received by:	Oh Ling
datasheet :	<a href="http://pdf1.alldatasheet.com/datasheet-pdf/view/58118/CIRRUS/CS4390-KS.html">http://pdf1.alldatasheet.com/datasheet-pdf/view/58118/CIRRUS/CS4390-KS.html</a>		
Observations:	<p>Received 128 pieces and removed 13 for visual inspection.</p> <p>Found 2 pieces with bent leads, 8 pieces with exposed copper, 8 pieces with contaminants(dust) and 5 pieces with scratches on the leads.</p> <p>There are 8 pieces with chips, 2 pieces with random scratches and 7 pieces with contaminants (5pcs with dust, 2pcs with solder splash) on the body. The date code marking on the top-side are different.</p> <p>Decapsulation shows the IC is original Cyprus and the part number has been found on the Die</p> <p>X-ray shows the internal wiring is intact.</p>		
Analysis:	Original Cyprus 4390		



Top-side



Bottom-side

## Receiving Inspection

Number of boxes	No
Condition of box	N/A
Type of box	No Box received
Barcode label	No
Type of carrier	Tubes
ESD protection	No
MSL protection	No
Desiccant	No
HIC card	No
Bag open Date/Time	N/A
Unit weight	0.16g
Net weight	0.05kg

## External Visual Inspection - Terminals

Horizontal alignment	Fail	QTY	2
Vertical alignment	Pass	QTY	
Missing pins	No	QTY	
Exposed copper	Yes	QTY	8
Oxidation	Not apparent	QTY	
Contaminants	Dirt / dust	QTY	8
Lead integrity	Pass	QTY	
Surface finish	Scratched		
If BGA solder ball finishing	N/A	QTY	

## External Visual Inspection - Body

Count QTY	128		
AQL sample size	1		
Package style	SO-20		
Customer PO #	TM162019		
Description:	24-Bit, Stereo D/A Converter for Digital Audio		
Date code:	9824 / 0021 / 9834 / 9810 / 9849		
Lot code:			
Country of origin	PHILIPPINES		
Chips/ cracks	Yes, less than 15% of area	QTY	8
Scratches	Yes, random	QTY	2
Contaminants	Dirt / dust	QTY	7
Surface finish	Smooth		
Pin 1 indicator	Yes		
Dimensions:	Pass	QTY	13

## External Visual Inspection - Marking

Marking Location	Top-side	if mixed, QTY:	
Marking alignment	Off center	if mixed, QTY:	
Marking color	White	if mixed, QTY:	
Application technique	Ink Jet	if mixed, QTY:	
Font and logo consistency	consistent	if mixed, QTY:	
Surface adhesion	Surface adhesion on	if mixed, QTY:	
Physical removal test	Fail		
Chemical removal test	Fail		



Tubes as arrived



Different marking on the top-side



Different marking on the top-side



Different marking on the top-side



Different marking on the top-side



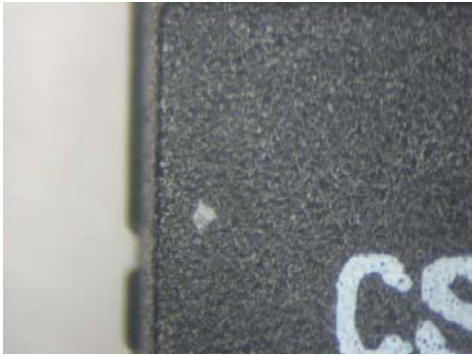
Country of origin



Random scratches on the body



Contaminants(solder splash) on the body



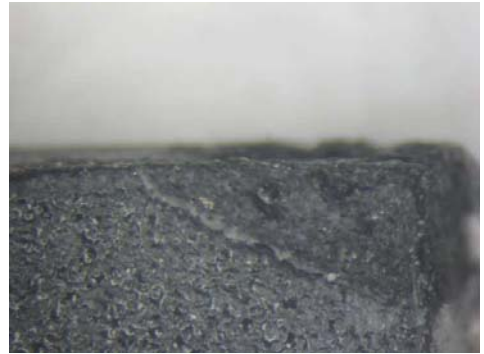
Contaminants(dust) on the body



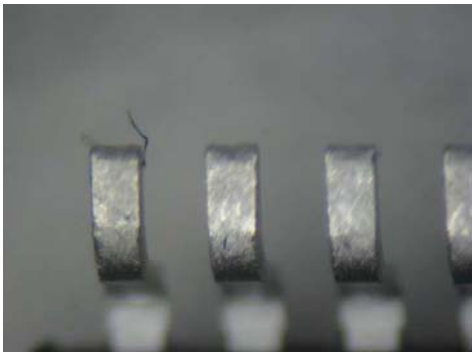
Scratches on the body



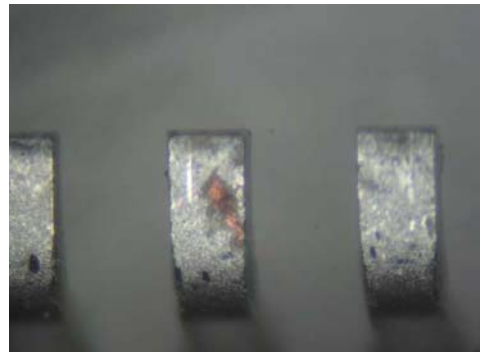
Scratches on the body



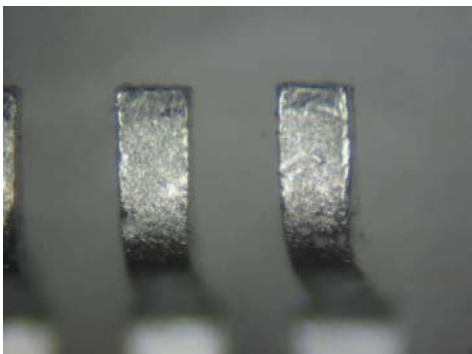
Chips on the body



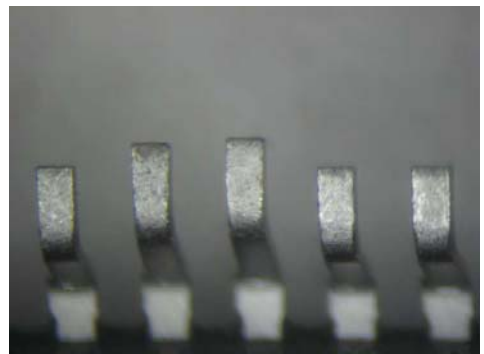
Contaminants on the leads



Exposed copper on the leads



Scratches on the leads



Bent leads



Before chemical test



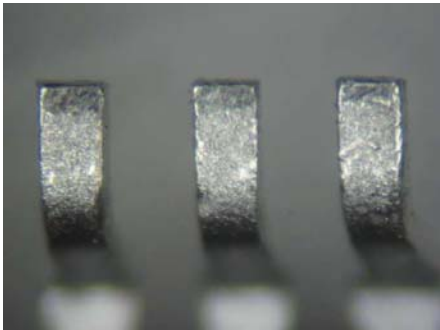
After chemical test

# Solderability Test

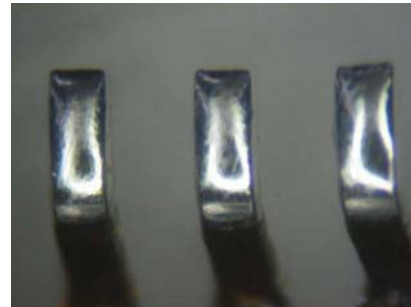
Kind of test performed	Dip and look test
Equipment used	Solder pot
Leaded / Lead free	Lead free
Test result	Pass

Notes on the test result:

The solderability test shows more than 95% solder covered on the leads.



Before Testing

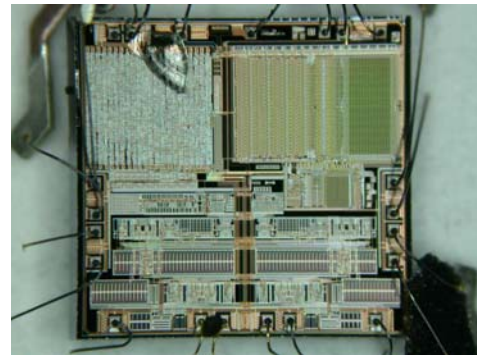


After Testing

# Decapsulation

Comments on the Decapsulation pictures

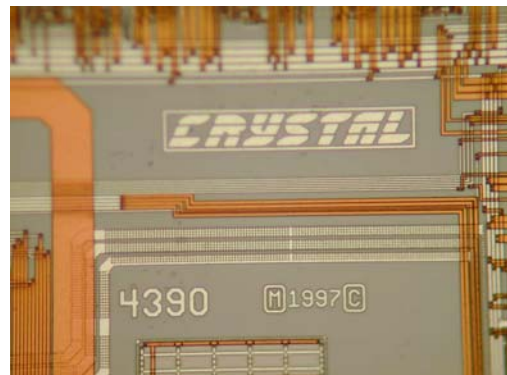
Decapsulation shows the IC is original Cyprus and the part number has been found on the Die



Die as found inside



Manufacturer logo found on the die

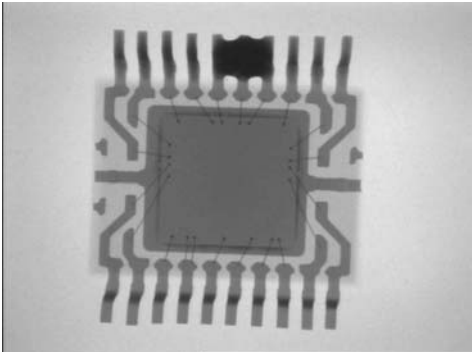


Manufacturer logo and P/N found on the die

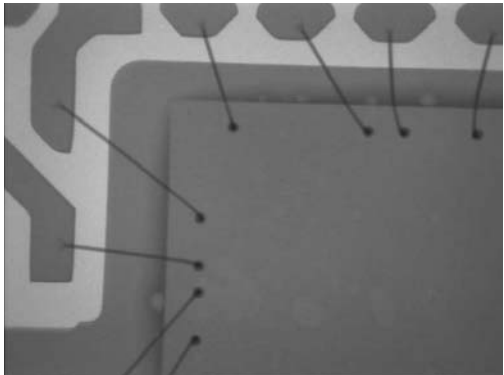
# X-Ray

Comments on the X-Ray pictures

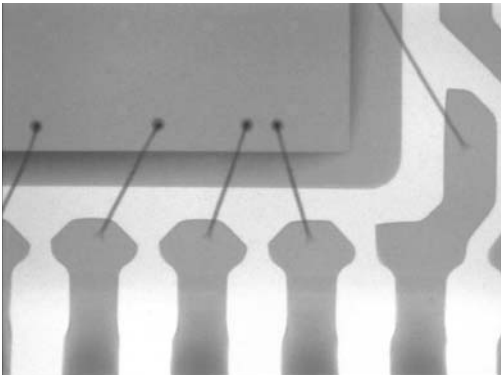
X-ray testing shows internal wiring intact.



Internal wiring intact



Internal wiring intact



Internal wiring intact