



## AAA Components Test Lab, LLC.

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## Parts and Material Analysis Report

Customer :		Manufacturer :	<b>Siemens</b>
Customer PO :	<b>186251A</b>	Part number :	<b>SO42P</b>
Date :	<b>January 30, 2015</b>	Date Code(s) :	<b>88+</b>
Report revision :	<b>0</b>	Quantity :	<b>total: 801 test: 40 (Random sample)</b>

External visual inspection :	<input checked="" type="checkbox"/>
Internal visual inspection :	<input checked="" type="checkbox"/>
Pin Correlation	<input checked="" type="checkbox"/>
Programming test :	<input type="checkbox"/>
Solderability test :	<input type="checkbox"/>
Radiography (X-Ray) :	<input checked="" type="checkbox"/>
ROhS test :	<input type="checkbox"/>
Baking :	<input type="checkbox"/>
Tape and Reel :	<input type="checkbox"/>

## **1. Analysis Summary**

### **External Visual Inspection**

After HCT (Heated Chemical Test) was performed, no secondary coating was removed.

Device's package characteristic and dimensions matched manufacturer's specification.

### **Internal Visual Inspection**

After Decapsulation was performed no markings were observed on the die.

### **Electrical Test**

Parts tested: 40

Parts Passed: 40

Test notes: All 40 devices passed all tested parameters.

Device pins correlated to the manufacturer's specification

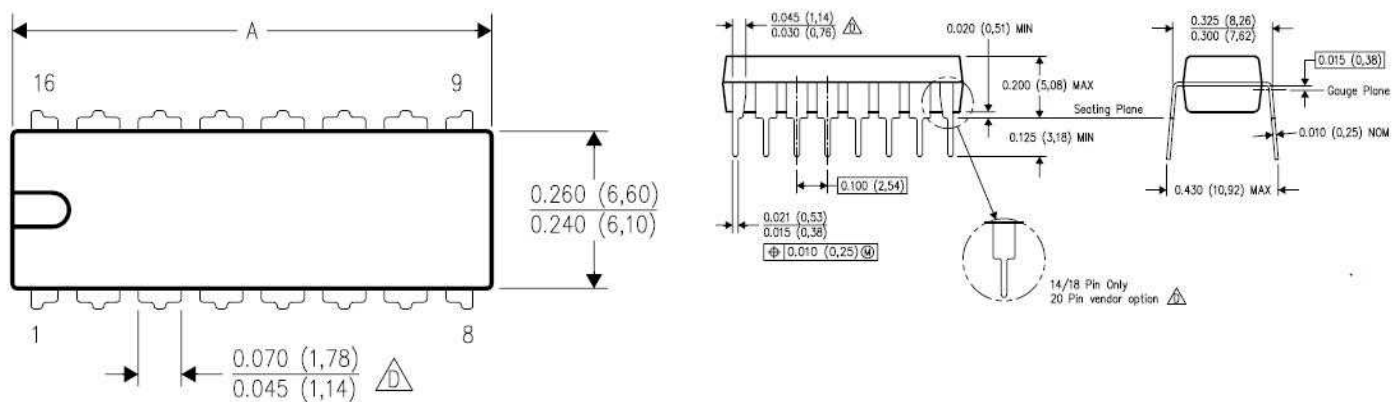
### **X-Ray Inspection**

X-Ray Analysis of (40) random sample(s) revealed the same internal structure on all the samples. No internal damages were observed during inspection.

Represented images are typical. All images are available on request.

## 2. Device Description

Device	<b>Symmetrical mixer for trequencies up to 200 MHz. It can be driven by an external source or by the built-in oscillator</b>
Case	<b>14 PIN PDIP</b>
PDF	



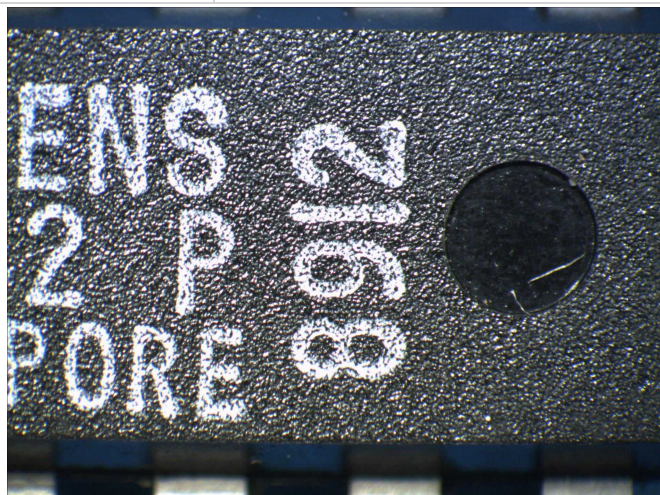
### 3. Receiving Inspection

Gross weight	<b>2.0000 lbs</b>	Parts total	<b>801</b>
Number of boxes	<b>1</b>	Box condition	<b>Acceptable</b>
Package type	<b>Tube</b>	ESD protection	<b>Present</b>
MSL	<b>N/A</b>	Moisture protection	<b>Not Present</b>
Observation	<b>Device was received in acceptable condition.</b>  <b>NOTE: AAA Components Test Lab cannot authenticate labels on packages coming in. Customers who require this type of authentication will need to contact the Manufacturer directly</b>		

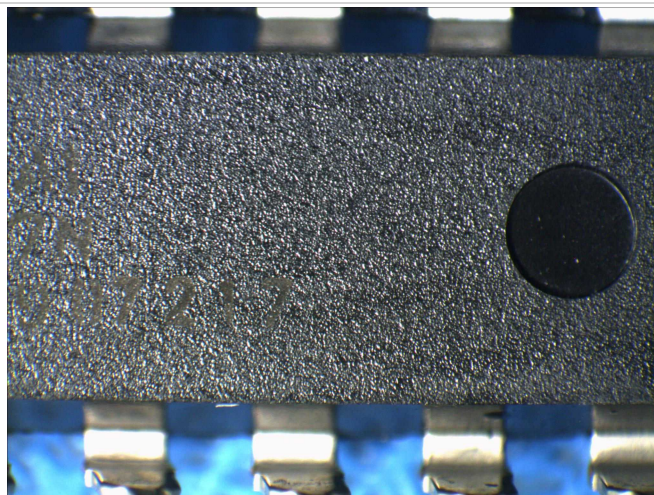
#### 4. External Visual Inspection

Applicable Standard: Mil-Std-883 Method 2009.9

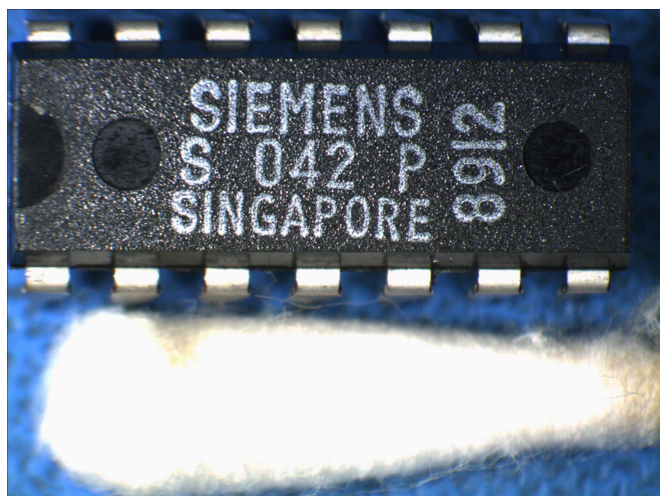
Observation	<p>After HCT (Heated Chemical Test) was performed, no secondary coating was removed.</p> <p>Device's package characteristic and dimensions matched manufacturer's specification.</p>
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Device Top Surface after HCT



Device Bottom Surface after HCT

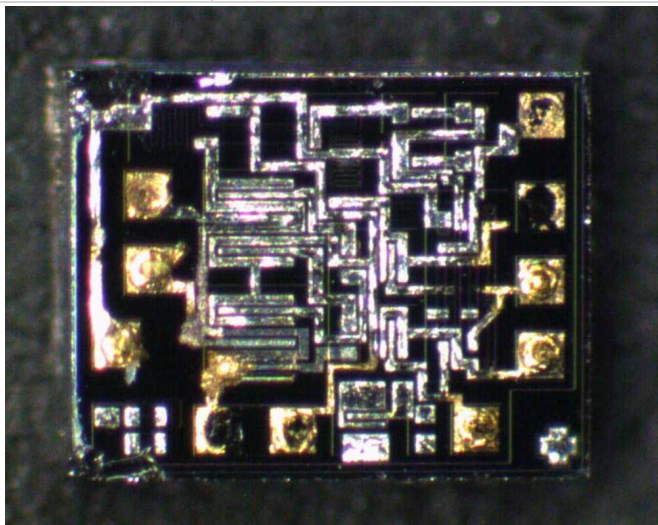


Cotton Swab Test Results after HCT

## 5. Internal Visual Inspection

Applicable Standard: MIL-STD-883 Method 2014

Observation	After Decapsulation was performed no markings were observed on the die.
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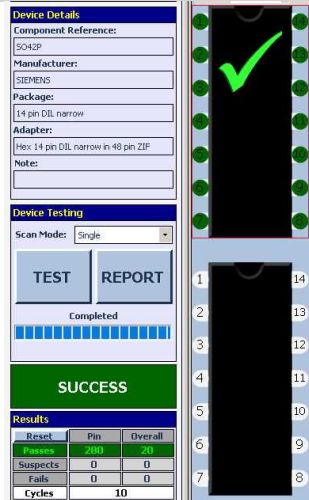


**Die Topography**

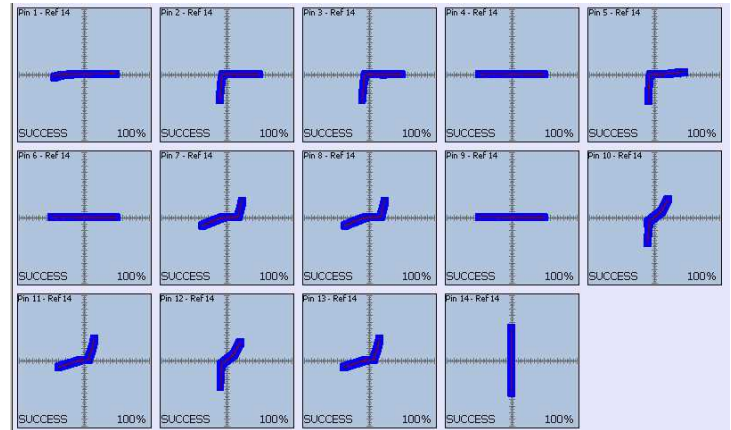
## 6. Electrical Test

Test procedure

Devices were tested for Pin Correlation/Opens and Shorts using the ABI Sentry platform at 25°C:



ABI Sentry Pin Correlation Test Results



Curves: Typical Pin Structures

### Electrical Test Results :

Total quantity tested **40 pcs.**Total quantity passed **40 pcs.**Total quantity failed **0 pcs. ( 0.00% )**

### Electrical Test Notes :

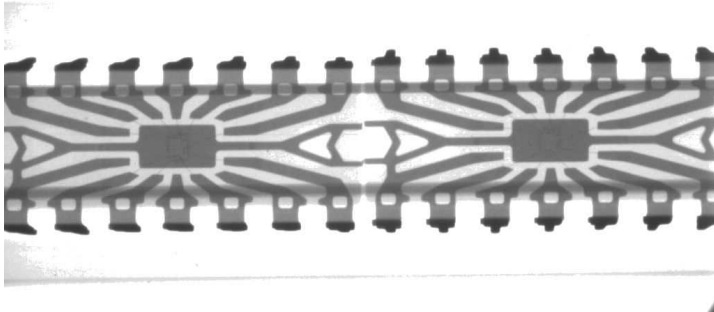
All 40 devices passed all tested parameters.

Device pins correlated to the manufacturer's specification

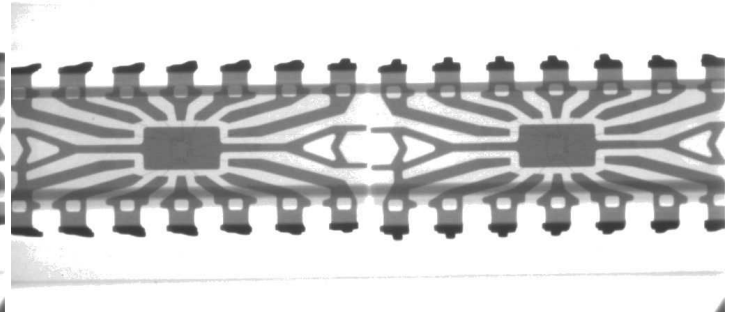
## 7. Radiography (X-Ray)

Applicable Standard: MIL-STD-883H Method 2012.8.

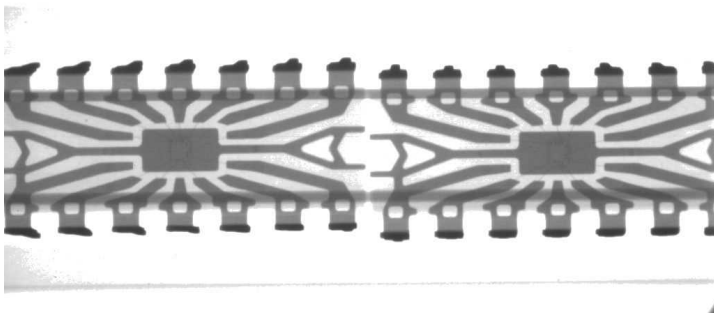
Observation	<b>X-Ray Analysis of (40) random sample(s) revealed the same internal structure on all the samples. No internal damages were observed during inspection.</b>  <b>Represented images are typical. All images are available on request.</b>
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**X-Ray Analysis on Devices 1 and 2**



**X-Ray Analysis on Devices 3 and 4**




**X-Ray Analysis on Devices 5 and 6**



## 8. Shipping

Carrier	<b>UPS</b>	Service	<b>Ground</b>
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Approved by :   
Anthony Calderone  
Director of Engineering

AAA Components Test Lab is dedicated to ensuring the highest standard of product testing in the industry; it is not always possible within the scope of any given test to completely and exhaustively validate every variation of capabilities and / or functionality of any particular product tested and / or guarantees that any particular product tested is fit for any given purpose. All test results represent a snapshot of capability and not a guarantee of future product effectiveness. AAA Components Test Lab provides test results for any particular product tested and within the specified scope of testing and relative to the specific data sheet during the specific test process. AAA Components Test Lab is unable to directly endorse or certify the overall reliability of any particular product tested for any given situation or deployment. In no event shall AAA Components Test Lab, LLC be liable any special, indirect or consequential damages or any damages whatsoever resulting from loss of any kind including profits, in any action arising out of or in connection with the test report or data associated with the report.