<table>
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<th>Classification</th>
<th>Item name</th>
<th>Found on:</th>
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<tbody>
<tr>
<td>major</td>
<td>Mid tray Assembly with Payload</td>
<td>08/09/2004 7:02:25 PM</td>
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**Part number**
LAT-DS-00180 (rev3)

**Serial number**
047

**Issued**
Marcello Marchetti

**Short NCR description**
Bias circuit delamination

**Approved by**
Alessandro Brez

**Detected**
Test

**Cause**
manufacturing mistake

**NCR description**
Bias circuits delamination found after the thermo-vacuum test. See annex 1.

**Action**
Refer MRB
disposition

A) Send to Plyform for rework of the Kapton. INFN-Pisa suggest to perform further investigation in order to verify the cause of the NCR.

B) Verify rework with standard flow of tests (dimensional test-flatness, New TVAC test)

C) Refer to MRB

Finding

<table>
<thead>
<tr>
<th>responsible</th>
<th>due date (mm/dd/yyyy)</th>
<th>closed</th>
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<tbody>
<tr>
<td>Alessandro Brez</td>
<td>08/30/2004</td>
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### MRB

**disposition**  **ID:**  1  
Waiting for disposition (08/10/2004)

### Finding

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Approval

Signatur

Customer approval date

NCR status open
### Annex

<table>
<thead>
<tr>
<th>annex N°</th>
<th>Identification</th>
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<tbody>
<tr>
<td>1</td>
<td>Defects image</td>
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The kapton was completely debonded from these 2 tiles.
After the 55°C thermo-vacuum test, the tray MID-046 showed the whole de-lamination of the kapton bias circuit from two tiles.  
The test was performed 2 weeks after the Kapton gluing.  
The Kapton has been cut away over the 2 tiles. The adhesive film is regular and uniform and attached to the Kapton foil. Only little spots of adhesive were left on the Tungsten tiles that are clean.  

The Kapton has been removed from the near tiles. Near the edge the adhesive film stays on the Tungsten; in the center of the tiles, for large part of the tile, the adhesive remains on the Kapton.  
The good adhesion of the 3M2216 to the Kapton bias circuit is demonstrated by the fig.3 example, where the bias circuit lower insulation foil remained attached to the tray: the adhesion of the circuit to the tray is higher than the adhesion between the circuit layers.  
On fig.2 a residual of not perfectly cured adhesive is shown.