Procedure I – Functional Shock

i Objective

Designed to represent a shock condition typical of that in operational use. The following conditions are taken directly from Table 516.4 Mil-STD-810E.

ii Test Conditions

<table>
<thead>
<tr>
<th>Min Peak Value (g’s)</th>
<th>Duration (mS)</th>
<th>Qty</th>
<th>Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>40G</td>
<td>11</td>
<td>Min samples 2</td>
<td>To be operational. Repeat 3 times for each axis.</td>
</tr>
</tbody>
</table>

iii Analysis of Results

- Perform Visual and Functional checks before testing sample.
- Scope plots of Transient shock using appropriate accelerometer.
- Unit should not glitch or fail during or after each test.
- No mechanical failure / functional non-conformance of product.

iv Results

Product Code – V607FVH
Serial Number - 2051040394

- Unit was taken directly from production line. Unit was compliant with production standards.
- Scope plots were taken for 3 axis and are in files Run1, Run2, Run 3.
- Unit was on load during shock test.
- Unit passed production ATE test after test.
- No mechanical faults were found with unit.

PASS
Objective

Designed to test determine the structural and functional integrity of the unit in its packaged condition. The packaged condition in this case is a single unit packed in an outer cardboard box filled with foam squiggles.

Test Conditions

Using table 516.4 – II, the product should be dropped according to the following:

- Drop height = 122cm
- Total Drops = 26.
- Sample size = 5 max.
- Each corner/edge/ face to be tested = 26.

Use the following table and the diagram above to complete the drop sequence.

<table>
<thead>
<tr>
<th>Sample No</th>
<th>Serial Number</th>
<th>Surface No</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2051040396</td>
<td>1</td>
</tr>
<tr>
<td>1</td>
<td>2051040396</td>
<td>3</td>
</tr>
<tr>
<td>1</td>
<td>2051040396</td>
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<tr>
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<tr>
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<td>18</td>
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<tr>
<td>2</td>
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<td>15</td>
</tr>
<tr>
<td>2</td>
<td>2051040404</td>
<td>20</td>
</tr>
</tbody>
</table>
vi Analysis of Results

- Conduct visual and functional tests on each sample prior start.
- Document impact results (photos) for each sample.
- No mechanical failure / functional non-conformance of product.

viii Results

Product Code – V607FVH
Serial Number – 2051040403

- Unit was taken directly from production line. Unit was compliant with production standards.
- No mechanical damaged observed on unit.
- Unit passed production ATE test.
- Moderate crumpling of cardboard inner observed.

Product Code – V607FVH
Serial Number – 2051040395

- Unit was taken directly from production line. Unit was compliant with production standards.
- No mechanical damaged observed on unit.
- Unit passed production ATE test.
- Slight crumpling of cardboard inner observed.

Product Code – V607FVH
Serial Number – 2051040393

- Unit was taken directly from production line. Unit was compliant with production standards.
- No mechanical damaged observed on unit.
- Unit passed production ATE test.
- Moderate crumpling of cardboard inner observed.

PASS
Procedure VI – Bench Handling

ix Objective

Designed to test the ability of the product to withstand typical bench manual handling during operational / servicing use.

x Test Conditions

• Use a test bench with a thickness of at least 4.25cm
• With unit switched off.
• With the unit sat on its normal side (i.e. with label facing upwards).
• Lift one end of the unit to 100mm above surface of the bench.
• Repeat drop 4 times in total.

xi Analysis of Results

• Conduct visual and functional tests on each sample prior start.
• No mechanical failure / functional non-conformance of product.
• Document the results.

xii Results

Product Code - V607FVH
Serial Number - 2051040394

No visible damage observed.
Functional Test – PASS.

PASS