



Integrated Device Technology, Inc.  
6024 Silver Creek Valley Road  
San Jose, CA 95138 USA

## **Manufacturing Bulletin**

**Subject: Revise MSL label contents per latest IPC/JEDEC J-STD-033B.1 (Jan-2007)**

Date: March 30, 2009

**Integrated Device Technology, Inc. will implement the new MSL label effective March 30, 2009. This is applicable to MSL label for levels 2, 3, 4 and 5 for all facilities.**

**The purpose of this change is to follow latest IPC/JEDEC J-STD-033B.1 standard. Current IDT MSL label content is per IPC/JEDEC J-STD-033B (Oct 2005).**

**Please refer to attachment I and II for illustration of current and new MSL label.**

### **Changes in MSL labels:**

- **Item # 3.b) From "Stored at <10% RH" revised to "Stored per J-STD-033".**
- **Item # 4.a) From "Humidity indicator card is >10% when read at 23 +/-5 deg C" revised to "Humidity indicator card reads > 10% for level 2a-5a devices or >60% for level 2 devices when read at 23 +/-5 deg C".**
- **Item # 5. From "If baking is required, devices may be baked for 48 hours at 125 +/-5 deg C" revised to "If baking is required, refer to IPC/JEDEC J-STD-033 for bake procedure".**

**The "Note" will be deleted.**



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**Affected MSL label: English and Japanese language version**

**There will be no more Japanese version of the MSL label. The new MSL label will be in English language only after the change. Please refer to Attachment II.**

Yours sincerely,

A handwritten signature in black ink, appearing to read 'LS Koay', is written over a horizontal line.

**LS Koay**  
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## Manufacturing Bulletin Attachment I

**Subject: Revise MSL label contents per latest IPC/JEDEC J-STD-033B.1 (Jan-2007)**

Date: March 30, 2009

**Current MSL Label**

	<p><b>Caution</b> This bag contains <b>MOISTURE-SENSITIVE DEVICES</b></p>	<p>LEVEL</p> <div style="border: 1px solid black; width: 40px; height: 20px; margin: 0 auto;"></div> <p style="font-size: 8px;">If blank, see adjacent bar code label</p>
<ol style="list-style-type: none"> <li>1. Calculated shelf life in sealed bag: 12 months at &lt;math&gt;\leq 40^{\circ}\text{C}&lt;/math&gt; and &lt;math&gt;&lt; 90\%&lt;/math&gt; relative humidity (RH)</li> <li>2. Peak package body temperature: _____ <math>^{\circ}\text{C}</math> <span style="font-size: 8px;">If blank, see adjacent bar code label</span></li> <li>3. After bag is opened, devices that will be subjected to reflow solder or other high temperature process must             <ol style="list-style-type: none"> <li>a) Mounted within: _____ hours of factory conditions <span style="font-size: 8px;">If blank, see adjacent bar code label</span> <math>\leq 30^{\circ}\text{C}/60\% \text{ RH}</math>, OR</li> <li>b) Stored at &lt;math&gt;\leq 10\% \text{ RH}&lt;/math&gt;</li> </ol> </li> <li>4. Devices require bake, before mounting, if:             <ol style="list-style-type: none"> <li>a) Humidity Indicator Card is &gt;10% when read at <math>23 \pm 5^{\circ}\text{C}</math></li> <li>b) 3a or 3b not met</li> </ol> </li> <li>5. If baking is required, devices may be baked for 48 hours at <math>125 \pm 5^{\circ}\text{C}</math>   <p style="font-size: 8px;">Note: If device containers cannot be subjected to high temperature or shorter bake times are desired, reference IPC/JEDEC J-STD-033 for bake procedure</p> </li> </ol> <p>Bag Seal Date: _____ <span style="font-size: 8px;">If blank, see adjacent bar code label</span></p> <p style="font-size: 8px;">Note: Level and body temperature defined by IPC/JEDEC J-STD-020</p>		

**New MSL Label**

	<p><b>Caution</b> This bag contains <b>MOISTURE-SENSITIVE DEVICES</b></p>	<p>LEVEL</p> <div style="border: 1px solid black; width: 40px; height: 20px; margin: 0 auto;"></div> <p style="font-size: 8px;">If blank, see adjacent bar code label</p>
<ol style="list-style-type: none"> <li>1. Calculated shelf life in sealed bag: 12 months at &lt;math&gt;\leq 40^{\circ}\text{C}&lt;/math&gt; and &lt;math&gt;&lt; 90\%&lt;/math&gt; relative humidity (RH)</li> <li>2. Peak package body temperature: _____ <math>^{\circ}\text{C}</math> <span style="font-size: 8px;">If blank, see adjacent bar code label</span></li> <li>3. After bag is opened, devices that will be subjected to reflow solder or other high temperature process must be             <ol style="list-style-type: none"> <li>a) Mounted within: _____ hours of factory conditions <span style="font-size: 8px;">If blank, see adjacent bar code label</span> <math>\leq 30^{\circ}\text{C}/60\% \text{ RH}</math>, or</li> <li>b) Stored per J-STD-033</li> </ol> </li> <li>4. Devices require bake, before mounting, if:             <ol style="list-style-type: none"> <li>a) Humidity Indicator Card reads &gt;10% for level 2a - 5a devices or &gt;60% for level 2 devices when read at <math>23 \pm 5^{\circ}\text{C}</math></li> <li>b) 3a or 3b are not met</li> </ol> </li> <li>5. If baking is required, refer to IPC/JEDEC J-STD-033 for bake procedure</li> </ol> <p>Bag Seal Date: _____ <span style="font-size: 8px;">If blank, see adjacent bar code label</span></p> <p style="font-size: 8px;">Note: Level and body temperature defined by IPC/JEDEC J-STD-020</p>		



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## Manufacturing Bulletin Attachment II

**Subject: Revise MSL label contents per latest IPC/JEDEC J-STD-033B.1 (Jan-2007)**

Date: March 30, 2009

**Current MSL Label  
(Japanese version)**

	<p style="font-size: 24px; margin: 0;"><b>注意</b></p> <p style="font-size: 18px; margin: 0;">湿度管理要製品梱包</p>	<p style="font-size: 10px; margin: 0;">吸湿管理レベル</p> <div style="border: 1px solid black; width: 30px; height: 30px; margin: 0 auto;"></div>
<ol style="list-style-type: none"> <li>1. 梱包開封前保管期間温度40℃以下/相対湿度90%以下で12ヶ月以内。</li> <li>2. 製品単体耐熱温度：</li> <li>3. 密封梱包開封後防湿管理条件             <ol style="list-style-type: none"> <li>a) 開封後時間以内の使用 (30℃/60%以下の環境下にて)</li> <li>b) 開封後保管湿度 相対湿度10%以内。</li> </ol> </li> <li>4. ベーキング実施必要条件             <ol style="list-style-type: none"> <li>a) 湿度インジケータ (密封梱包内同梱) が開封時に規定値を超えている場合。規定値：環境温度23.5℃で10%以上の変色。</li> <li>b) 上記3項のa)、b)の範囲を超えた場合。</li> </ol> </li> <li>5. ベーキング条件125_5℃、48時間以上</li> </ol> <p style="font-size: 10px; margin-top: 5px;">備考) 製品梱包形態が耐熱使用対応していない場合、IPC/JEDEC J-STD-033規定 (ベーキング条件手順) をご参照ください。</p> <p style="text-align: center; margin-top: 5px;">密封梱包実施日 _____</p> <p style="font-size: 10px; margin-top: 5px;">注意：吸湿管理レベル、製品耐熱温度決定はIPC/JEDEC J-STD020に準拠。</p>		

**New MSL Label  
(English version)**

	<p style="font-size: 18px; margin: 0;"><b>Caution</b></p> <p style="font-size: 12px; margin: 0;">This bag contains MOISTURE-SENSITIVE DEVICES</p>	<p style="font-size: 10px; margin: 0;">LEVEL</p> <div style="border: 1px solid black; width: 30px; height: 30px; margin: 0 auto;"></div> <p style="font-size: 8px; margin: 0;">If blank, see adjacent bar code label</p>
<ol style="list-style-type: none"> <li>1. Calculated shelf life in sealed bag: 12 months at &lt;40°C and &lt;90% relative humidity (RH)</li> <li>2. Peak package body temperature: _____ °C <small>If blank, see adjacent bar code label</small></li> <li>3. After bag is opened, devices that will be subjected to reflow solder or other high temperature process must be             <ol style="list-style-type: none"> <li>a) Mounted within: _____ hours of factory conditions <small>If blank, see adjacent bar code label</small></li> <li>≤30°C/60% RH, or</li> <li>b) Stored per J-STD-033</li> </ol> </li> <li>4. Devices require bake, before mounting, if:             <ol style="list-style-type: none"> <li>a) Humidity Indicator Card reads &gt;10% for level 2a - 5a devices or &gt;60% for level 2 devices when read at 23 ± 5°C</li> <li>b) 3a or 3b are not met</li> </ol> </li> <li>5. If baking is required, refer to IPC/JEDEC J-STD-033 for bake procedure</li> </ol> <p style="font-size: 10px; margin-top: 5px;">Bag Seal Date: _____ <small>If blank, see adjacent bar code label</small></p> <p style="font-size: 8px; margin-top: 5px;">Note: Level and body temperature defined by IPC/JEDEC J-STD-020</p>		