Customer Service Note
Product Marks, Product Labels, and Packaging Labels

Introduction

Micron uses various marks and labels on our products and packaging. The first section of this customer service note describes the product marks and labels we place on our devices. The second section describes the labels used on and in our packaging.
CSN-11: Product Marks/Product and Packaging Labels

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Product Marks and Labels

Most of Micron’s component products use one of two product mark variations to accommodate smaller components and different package sizes (for example, FBGA and CSP). Both product marks are right- and left-justified and have a character height of 0.040–0.050 inches depending on package size. Both marks also include a unique, laser-inscribed identification number on the top side of the part for traceability purposes.

Legacy component products with Elpida part marks use the same part marks used prior to Micron’s acquisition of Elpida. Further information may be found in our product guides and on Micron’s Web site: www.micron.com/numbering.

Component Mark Information

Most component marks contain the following details (see Figure 1 on page 5):

- Date code (year and workweek)
- Special mark characters
- Country of diffusion (see below for country codes)
- Country of encapsulation (see below for country codes)
- Micron® mark or logo
- Product family
- Process technology
- Device number
- Device versions
- Package type
- Speed
- Special test option (if relevant)
- Die revision
- Scribe

For more information on product-specific designators, see the part numbering guides on Micron’s Web site: www.micron.com/numbering.

Codes for the countries of diffusion and encapsulation:

<table>
<thead>
<tr>
<th>Code</th>
<th>Country</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>USA</td>
</tr>
<tr>
<td>2</td>
<td>Singapore</td>
</tr>
<tr>
<td>3</td>
<td>Italy</td>
</tr>
<tr>
<td>4</td>
<td>Japan</td>
</tr>
<tr>
<td>5</td>
<td>China</td>
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<tr>
<td>6</td>
<td>Japan</td>
</tr>
<tr>
<td>7</td>
<td>Taiwan</td>
</tr>
<tr>
<td>8</td>
<td>Korea</td>
</tr>
<tr>
<td>9</td>
<td>Mixed</td>
</tr>
</tbody>
</table>

B = Israel
C = Ireland
D = Malaysia
F = Philippines
Abbreviated Component Mark Information

Due to space limitations, FBGA-package component marks contain abbreviated details for two distinct types of information (see Figure 2 on page 6). The top row of the component mark contains the flooring details that are unrelated to product type:
- Date code (see below)
- Die revision
- Country of diffusion (see below for country codes)
- Country of encapsulation (see below for country codes)

Date codes are alphanumeric characters that indicate the year and workweek the parts were marked, in even-numbered workweeks. The first character is the last number in the year, and the second (alpha) character is the workweek.

<table>
<thead>
<tr>
<th>Code</th>
<th>Year Code</th>
<th>Workweek</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>2</td>
<td>E = 10</td>
</tr>
<tr>
<td>B</td>
<td>4</td>
<td>F = 12</td>
</tr>
<tr>
<td>C</td>
<td>6</td>
<td>G = 14</td>
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<tr>
<td>D</td>
<td>8</td>
<td>H = 16</td>
</tr>
<tr>
<td>E</td>
<td>10</td>
<td>J = 20</td>
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<tr>
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<tr>
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<td>14</td>
<td>L = 24</td>
</tr>
<tr>
<td>H</td>
<td>16</td>
<td>M = 26</td>
</tr>
<tr>
<td>I</td>
<td>18</td>
<td>N = 28</td>
</tr>
<tr>
<td>J</td>
<td>20</td>
<td>O = 30</td>
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<tr>
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<td>22</td>
<td>P = 32</td>
</tr>
<tr>
<td>L</td>
<td>24</td>
<td>Q = 34</td>
</tr>
<tr>
<td>M</td>
<td>26</td>
<td>R = 36</td>
</tr>
<tr>
<td>N</td>
<td>28</td>
<td>S = 38</td>
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<tr>
<td>O</td>
<td>30</td>
<td>T = 40</td>
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<td>P</td>
<td>32</td>
<td>U = 42</td>
</tr>
<tr>
<td>Q</td>
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<tr>
<td>R</td>
<td>36</td>
<td>W = 46</td>
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<tr>
<td>S</td>
<td>38</td>
<td>X = 48</td>
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<tr>
<td>T</td>
<td>40</td>
<td>Y = 50</td>
</tr>
<tr>
<td>U</td>
<td>42</td>
<td>Z = 52</td>
</tr>
<tr>
<td>V</td>
<td>44</td>
<td></td>
</tr>
<tr>
<td>W</td>
<td>46</td>
<td></td>
</tr>
<tr>
<td>X</td>
<td>48</td>
<td></td>
</tr>
<tr>
<td>Y</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>Z</td>
<td>52</td>
<td></td>
</tr>
</tbody>
</table>

Codes for the countries of diffusion and encapsulation:

<table>
<thead>
<tr>
<th>Code</th>
<th>Country</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>USA</td>
</tr>
<tr>
<td>2</td>
<td>Singapore</td>
</tr>
<tr>
<td>3</td>
<td>Italy</td>
</tr>
<tr>
<td>4</td>
<td>Japan</td>
</tr>
<tr>
<td>5</td>
<td>China</td>
</tr>
<tr>
<td>6</td>
<td>Korea</td>
</tr>
<tr>
<td>7</td>
<td>Taiwan</td>
</tr>
<tr>
<td>8</td>
<td>Mixed</td>
</tr>
<tr>
<td>9</td>
<td>Philippines</td>
</tr>
</tbody>
</table>

The middle and bottom rows of the component mark contain product-specific details such as:
- Micron logo/ball 1 designator
- Coded part number
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Product Marks and Labels

- Product family
- Special mark characters

More information on product-specific designators is provided in Micron’s various part numbering guides, which are available on Micron’s Web site at www.micron.com/numbering. Information on the corresponding part numbers for part mark codes is available from the FBGA Part Marking Decoder at www.micron.com/decoder.

Figure 2: SOP2/W-PDFN/BGA/LGA Abbreviated Component Mark

Notes:
1. If the "MT" and "dot" are both present, ball 1 or lead 1 are identified by the "dot."
2. For BGA packages, the scribe and ball 1 or lead 1 indicator may swap positions if the package is wider than its length. The scribe and ball 1 or lead 1 indicator will always be marked along the short side of the component.

Figure 3: Legacy BGA Component with Elpida Part Mark
Module Label Data and Examples

Labels used for module production have standard requirements for each line printed on the label, but can vary by type (see Figure 4 through Figure 6). In the following examples Figure 4 is used as the standard label. Micron’s module label content and format conform to JEDEC label specifications.

Figure 4: LRDIMM, RDIMM, UDIMM and SODIMM DRAM Module Label Content

Key note definitions:
1. Code 128 subset B bar code (per ISO/IEC 15417:2007) of Micron part number/date code (YWW) with a space separator between the data. Example: MT18ASF1672PDZ-2G6B1 626
2. Micron DRAM module marketing part number
   2a. A process code is printed after the last character of RDIMM, LRDIMM, NVDIMM, and ECC UDIMM/SODIMM module part numbers (QG shown; see Tables 1–3)
   2b. The process code for ECC UDIMM and SODIMM labels differ slightly as shown in Figure 6. Labels on UDIMMs and SODIMMs without ECC do not have a process code appended to the part number.
   2c. For more information about module part numbering, see Module Part Numbering Systems on micron.com
3. Micron logo
4. Module assembly country of origin
   4a. Micron uses "Made in Taiwan" for Taiwan origin product, "Assembled in USA" for US origin product and "Product of xxxx" for products of other origins
5. Module build lot ID
6. DDR4 JEDEC label text (see JEDEC document Module 4.20.28)
   6a. Module capacity, ranks, and number of data lines per DRAM device (8GB 2RX8 shown)
   6b. DRAM technology (PC4 shown)
   6c. Module speed bin (2666V shown)
   6d. Module type, reference raw card and revision (REB shown)
   6e. JEDEC SPD revision (11 shown)
7. 2D barcode – Encoded data string (per ISO/IEC 15426-2:2005)
   7a. Data identifier, S (constant on all modules)
   7b. Micron's JEDEC manufacturer code, 802C (constant on all modules)
   7c. Manufacturing location, two characters, variable (see Table 5)
   7d. Datecode, four characters (YYWW)
   7e. Module serial number, eight characters, unique to each module
8. The European Regulatory Requirement mark (may or may not be present on a particular module label)
9. Module date code, four characters (YYWW)

Figure 5: NVDIMM Additional Label Content

Micron’s NVDIMM label has content not included on the standard label. This additional content is described below.

Key note definitions:
1. The process code on the NVDIMM label includes a third character (E shown) that identifies the multiplexer (MUX) vendor and device ID (See Table 4)
2. JEDEC hybrid memory module type
   2a. Function designators:
       N = Persistent
       F = Block
       P = Combined
3. 2D barcode and human readable text – Encoded data string (per ISO/IEC 15426-2:2005)
   3a. Data identifier, S (constant on all modules), applies only to barcode area
   3b. Micron’s JEDEC manufacturer code, 802C (constant on all modules)
   3c. Manufacturing location, two characters, variable (see Table 5)
   3d. Datecode, four characters (YYWW)
   3e. Module serial number, eight characters, unique to each module
4. Firmware revision

Figure 6: ECC UDIMM/SODIMM Label Example
Key note definitions:
1. Code 128 subset B bar code (per ISO/IEC 15417:2007) of Micron part number/date code (YWW) with a space separator between the data
2. Micron DRAM module marketing part number, which has a two-character process code printed after the last character
   2a. The first character of the process code, Z, is a place holder that means there is no register on the module
   2b. The second character, G in this case, identifies the temperature sensor manufacturer and device version
   2c. For more information about module part numbering, see Module Part Numbering Systems on micron.com
3. Micron logo
4. Module assembly country of origin
   4a. Micron uses "Made in Taiwan" for Taiwan origin product, "Assembled in USA" for US origin product and "Product of xxxx" for products of other origins
5. Module build lot ID
6. DDR3 JEDEC label text (See JEDEC Doc. Module 4.20.20)
   6a. Module capacity (8GB shown)
   6b. Module ranks and number of data lines per DRAM device (2RX8 shown)
   6c. DRAM technology and supply voltage (V_DD; PC3L shown)
   6d. Module speed bin (12800 shown)
   6e. Module type (E shown)
   6f. CAS Latency, in clocks (11 shown)
   6g. JEDEC SPD revision (13 shown)
   6h. Reference raw card and revision (E3 shown)
7. 2D barcode – Encoded data string (per ISO/IEC 15426-2:2005)
   7a. Data identifier, S (constant on all modules)
   7b. Micron’s JEDEC manufacturer code, 802C (constant on all modules)
   7c. Manufacturing location, two characters, variable (see Table 5)
   7d. Datecode, four characters (YYWW)
   7e. Module serial number, eight characters, unique to each module
8. The European Regulatory Requirement mark (may or may not be present on a particular module label)
9. Module date code, four characters (YYWW)

Non-ECC UDIMM and SODIMM module labels do not have a process code ID printed on the label.
Process Codes

The following tables provide the process code options for DDR3 register, DDR4 register clock driver (RCD) and temperature sensor/EEPROM devices.

**Table 1: DDR3 Process Code Options**

<table>
<thead>
<tr>
<th>Register Vendor</th>
<th>Register Vendor ID (First Character)</th>
<th>Register Vendor Part Number</th>
<th>Temp Sensor/EEPROM Vendor</th>
<th>Temp Sensor/EEPROM Vendor ID (Second Character)</th>
<th>Temp Sensor/EEPROM Vendor Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>IDT</td>
<td>D</td>
<td>SSTE32882HLBAKG8</td>
<td>ST Micro</td>
<td>E</td>
<td>STTS2002B2DN3F</td>
</tr>
<tr>
<td></td>
<td>H</td>
<td>SSTE32882KA1AKG8</td>
<td>Microchip</td>
<td>F</td>
<td>MCP98243T-BE/MNYAA</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>SSTE32882KB1AKG8</td>
<td>NXP</td>
<td>G</td>
<td>SE97BTP-547</td>
</tr>
<tr>
<td>Inphi</td>
<td>A</td>
<td>INSSTE32882LV-GS02</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>F</td>
<td>INSSTE32882UV-GS02</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>K</td>
<td>INSSTE32882XV-GS02</td>
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<td>Montage</td>
<td>N</td>
<td>M885STE32882H0-T</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>TI</td>
<td>B</td>
<td>SN74SSQEA32882ZALR</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>G</td>
<td>SN74SSQEB32882ZALR</td>
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<td></td>
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<tr>
<td></td>
<td>L</td>
<td>SN74SSQEC32882ZALR</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>Z</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Table 2: DDR4 RDIMM, NVDIMM¹ Process Code Options**

<table>
<thead>
<tr>
<th>RCD Vendor</th>
<th>RCD Vendor ID (First Character)</th>
<th>RCD Vendor Part Number</th>
<th>Temp Sensor/EEPROM Vendor</th>
<th>Temp Sensor/EEPROM Vendor ID (Second Character)</th>
<th>Temp Sensor/EEPROM Vendor Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>IDT</td>
<td>I</td>
<td>4RCD0124KC0ATG</td>
<td>IDT</td>
<td>G</td>
<td>TSE2004GB2B0NCG8</td>
</tr>
<tr>
<td></td>
<td>S</td>
<td>4RCD0229KB1ATG8</td>
<td>ST Micro</td>
<td>I</td>
<td>STTS2004B2DN3F</td>
</tr>
<tr>
<td></td>
<td>V</td>
<td>4RCD0232KC1ATG8</td>
<td>Microchip</td>
<td>K</td>
<td>MCP98244T-BE/MNY</td>
</tr>
<tr>
<td>Inphi</td>
<td>K</td>
<td>IDR4RCD-GS02</td>
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<td></td>
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</tr>
<tr>
<td></td>
<td>R</td>
<td>IDR4RCD2-GS01</td>
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<td>Rambus</td>
<td>A (NVDIMM)</td>
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<td></td>
</tr>
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<td></td>
<td>U</td>
<td>IDR4RCD2-GS03</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Montage</td>
<td>H</td>
<td>M88DDR4RCD01B1-T</td>
<td></td>
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<tr>
<td></td>
<td>M</td>
<td>M88DDR4RCD01C0-T</td>
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<td></td>
<td>Q</td>
<td>M88DDR4RCD02A0-T</td>
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</tbody>
</table>

Notes: 1. DDR4 NVDIMMs’ process code includes a third character that identifies the multiplexer (MUX) vendor and device version (see Table 4).
### Table 3: DDR4 LRDIMM Process Code Options

<table>
<thead>
<tr>
<th>RCD/Data Buffer Vendor</th>
<th>RCD/Data Buffer Vendor ID (First Character)</th>
<th>RCD Vendor Part Number</th>
<th>Data Buffer Vendor Part Number</th>
<th>Temp Sensor/EEPROM Vendor</th>
<th>Temp Sensor/EEPROM Vendor ID (Second Character)</th>
<th>Temp Sensor/EEPROM Vendor Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>IDT</td>
<td>I 4RCD0124KC0ATG 4DB0124KB1AVG53</td>
<td>IDT</td>
<td>G</td>
<td>TSE2004GB280NC8G</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>P 4RCD0124KC0ATG 4DB0226KA3AVG</td>
<td>ST Micro</td>
<td>I</td>
<td>STTS2004B2DN3F</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>S 4RCD0229KB1ATG8 4DB0226KB0AVG8</td>
<td>Microchip</td>
<td>K</td>
<td>MCP98244T-BE/MNY</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>V 4RCD0232KC1ATG8 4DB0232KC2AVG8</td>
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<tr>
<td>Montage</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>H M88DDR4RCD01B1-T M88DDR4DB01A1-T</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>M M88DDR4RCD01C0-T M88DDR4DB01B0-T</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Q M88DDR4RCD02A0-T M88DDR4DB02A1-T</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>T M88DR4RCD02PH1 M88DR4DB02PH2-T</td>
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<td></td>
<td></td>
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<tr>
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<td>Z –</td>
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</tr>
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### Table 4: DDR4 NVDIMM Process Code Third Character Options

<table>
<thead>
<tr>
<th>MUX Vendor</th>
<th>Process Code Character</th>
<th>Vendor Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>TI</td>
<td>D</td>
<td>TS3DDR4000ZBAR</td>
</tr>
<tr>
<td>NXP</td>
<td>E</td>
<td>CBT24DD12</td>
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### Table 5: Module Manufacturing Locations

<table>
<thead>
<tr>
<th>Location</th>
<th>ID Number</th>
<th>Hexadecimal Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>SIG (USA)</td>
<td>1</td>
<td>0x01</td>
</tr>
<tr>
<td>MTB (Taiwan)</td>
<td>2</td>
<td>0x02</td>
</tr>
<tr>
<td>MNG (Malaysia)</td>
<td>5</td>
<td>0x05</td>
</tr>
<tr>
<td>MMP (Malaysia)</td>
<td>6</td>
<td>0x06</td>
</tr>
<tr>
<td>SING (Singapore)</td>
<td>8</td>
<td>0x08</td>
</tr>
<tr>
<td>MXA (China)</td>
<td>15</td>
<td>0x0F</td>
</tr>
<tr>
<td>TSMT (Taiwan)</td>
<td>37</td>
<td>0x25</td>
</tr>
</tbody>
</table>
SSD Label Information

Figures 7 through 12 show representative label structures for our SSD products. The figures have designated “key notes” that outline the details of each particular item on the label.

Micron has added a manufacturing identification (MID) label to all SSD products. This 2D barcode label is for Micron internal use only.

**Figure 7: SSD MID Label**

**Figure 8: Micron Standard 2.5 SSD Label Structure**

Key note definitions:
1. **Market segment, form factor, product and FIPS security (if applicable)**
   1a. Example: 1100 2.5 SSD FIPS 140-2 L2
2. The device’s voltage level with its related amperes at normal operation (defined by Micron QRA)
3. Drive firmware revision number
4. PSID data matrix (2D) barcode
5. Reserved for the official China Restriction of Hazardous Substances mark
   5a. This device must meet the standards of China RoHS to enable the 20 year indication of the RoHS mark
CSN-11: Product Marks/Product and Packaging Labels
SSD Label Information

6. Reserved for the official Japan VCCI mark
7. Reserved for the official USA Federal Communications Commission (FCC) mark
8. Reserved for the official Taiwan Bureau of Standards Metrology and Inspection (BSMI) mark
   In addition, the certification number assigned to this Micron product shall be listed below the mark in a legible font
9. Reserved for the official Morocco mark.
10. Reserved for the official Industry of Canada certification number
11. Reserved for the official European Waste Electrical and Electronics Equipment (WEEE) mark
12. Reserved for the official Ukraine mark
13. Reserved for the official TUV mark
14. Reserved for the official RCM (Australian) mark
15. Reserved for the official Underwriters Laboratories (UL) mark
16. Reserved for the official Korean Certification (KC) mark
   In addition, the certification number assigned to this Micron product shall be listed near the mark in a legible font
17. Reserved for the official European Regulatory Requirement mark
18. Reserved for the official mark based on the drive interface (SATA, SAS, and so on)
19. PSID alphanumerical code
20. Country where the device is assembled, written in English
   20a. Micron uses "Made in Taiwan" for Taiwan origin product, "Assembled in USA" for US origin product and "Product of xxxx" for products of other origins
21. Lot number for tracking the drive’s manufacturing data
   21a. This is listed as xxyyyyyyyyyyzzz
   21b. xx = 2 digits to denote manufacturing site
   21c. yyyyy = 5 digits to denote the kit number (randomly generated)
   21d. zzz = 3 digits denoting a sublot size (to provide greater resolution of manufacturing information)
22. Halogen-free mark indicating that the drive meets the IPC low-halogen requirements
23. Drive's capacity, product type, maximum interface rate, and security feature set (SED, Opal 2, FIPS, and so on, if applicable)
   23a. Example: 512GB SATA 6Gb/s SED
24. Drive serial number
   24a. Format: 12 characters: YYWWXXXXXXXX
      YY is the current year
      WW is the current Micron workweek
      XXXXXXX is an eight digit hex (base 16 0–9, A–F) serial number
25. Drive serial number bar code for item #22 data (follows the Code 128 standard)
26. Drive part number
27. Drive part number bar code for item #24 data (follows the Code 128 standard)
28. Micron model number
29. Micron logo

Not shown is the worldwide name assigned to Micron (as defined by IEEE), which may or may not be present on the label. WWN: 500A0751XXXXXXXX
Key note definitions:
1. Market segment, form factor and product
   1a. Example: M600 2.5 SSD
2. The device’s voltage level with its related amperes at normal operation (defined by Micron QRA)
3. Drive firmware revision number
4. PSID data matrix (2D) barcode
5. PSID alphanumeric code
6. Halogen-free mark indicating that the drive meets the IPC low-halogen requirements
7. Reserved for the official Taiwan Bureau of Standards Metrology and Inspection (BSMI) mark
   In addition, the certification number assigned to this Micron product shall be listed below the mark in a legible font
8. Reserved for the official USA Federal Communications Commission (FCC) mark
9. Reserved for the official Japan VCCI mark
10. Reserved for the official China Restriction of Hazardous Substances mark
    10a. This device must meet the standards of China RoHS to enable the 20 year indication of the RoHS mark
11. Reserved for the official European Waste Electrical and Electronics Equipment (WEEE) mark
12. Reserved for the official TUV mark
13. Reserved for the official RCM (Australian) mark
14. Reserved for the official Underwriters Laboratories (UL) mark
15. Reserved for the official Korean Certification (KC) mark
   In addition, the certification number assigned to this Micron product shall be listed
   below the mark in a legible font
16. Reserved for the official European Regulatory Requirement mark
17. Reserved for the official mark based on the drive interface (SATA, SAS, and so on)
18. Country where the device is assembled, written in English
   18a. Micron uses "Made in Taiwan" for Taiwan origin product, "Assembled in USA" for
        US origin product and "Product of xxxx" for products of other origins
19. Lot number for tracking the drive’s manufacturing data
   19a. This is listed as xxyyyyyzzz
   19b. xx = 2 digits to denote manufacturing site
   19c. yyyyy = 5 digits to denote the kit number (randomly generated)
   19d. zzz = 3 digits denoting a subplot size (to provide greater resolution of manufactur-
        ing information)
20. Worldwide name assigned to Micron (as defined by IEEE)
21. Drive’s capacity, product type, maximum interface rate, and security feature set (SED,
    Opal 2, FIPS, and so on, if applicable)
   21a. Example: 512GB SATA 6Gb/s SED
22. Drive serial number
   22a. Format: 12 characters: YYWWXXXXXXXX
        YY is the current year
        WW is the current Micron workweek
        XXXXXXXX is an eight digit hex (base 16 0–9, A–F) serial number
23. Drive serial number bar code for item #22 data (follows the Code 128 standard)
24. Drive part number
25. Drive part number bar code for item #24 data (follows the Code 128 standard)
26. Micron model number
27. Micron logo
Key note definitions:
1. Market segment, form factor and product and FIPS security (if applicable)
   1a. Example: 1100 M.2 SSD  FIPS 140-2 L2
2. Drive’s capacity, product type, maximum interface rate, and security feature set (SED, Opal 2, FIPS, and so on, if applicable)
   2a. Example: 512GB SATA 6Gb/s SED
3. Data matrix (2D) barcode containing the drive serial number, drive part number, and PSID (if applicable for a security feature enabled drive)
4. Drive firmware revision number
5. Reserved for the official Taiwan Bureau of Standards Metrology and Inspection (BSMI) mark
   In addition, the certification number assigned to this Micron product shall be listed below the mark in a legible font
6. Reserved for the official USA Federal Communications Commission (FCC) mark
7. Reserved for the official mark based on the drive interface (SATA, SAS, and so on)
8. Reserved for the official China Restriction of Hazardous Substances mark
   8a. This device must meet the standards of China RoHS to enable the 20 year indication of the RoHS mark
9. Reserved for the official Morocco mark
10. Reserved for the official Ukraine mark
11. Reserved for the official Japan VCCI mark
12. Reserved for the official Underwriters Laboratories (UL) mark
13. Reserved for the official European Regulatory Requirement mark
14. Reserved for the official TUV mark
15. Reserved for the official European Waste Electrical and Electronics Equipment (WEEE) mark
16. Reserved for the official RCM (Australian) mark
17. Halogen-free mark indicating that the drive meets the IPC low-halogen requirements
18. Reserved for the official Korean Certification (KC) mark. In addition, the certification number assigned to this Micron product shall be listed near the mark in a legible font

19. PSID alphanumeric code

20. The device’s voltage level with its related amperes at normal operation (defined by Micron QRA)

21. Country where the device is assembled, written in English
21a. Micron uses "Made in Taiwan" for Taiwan origin product, "Assembled in USA" for US origin product and "Product of xxxx" for products of other origins

22. Drive serial number
22a. Format: 12 characters: YYWWXXXXXXX
   YY is the current year
   WW is the current Micron workweek
   XXXXXXX is an eight digit hex (base 16 0–9, A–F) serial number

23. Drive part number
24. Micron model number

25. Lot number for tracking the drive’s manufacturing data
25a. This is listed as xyyyyyzzz
25b. xx = 2 digits to denote manufacturing site
25c. yyyyy = 5 digits to denote the kit number (randomly generated)
25d. zzz = 3 digits denoting a subplot size (to provide greater resolution of manufacturing information)

26. Micron logo

Not shown is the worldwide name assigned to Micron (as defined by IEEE), which may or may not be present on the label. WWN: 500A0751XXXXXXXX
CSN-11: Product Marks/Product and Packaging Labels
SSD Label Information

Figure 11: mSATA Label Structure – M6XX

Key note definitions:
1. Market segment, form factor and product
   1a. Example: M600 mSATA SSD
2. Drive firmware revision number
3. Drive’s capacity, product type, maximum interface rate, and security feature set (SED, Opal 2, FIPS, and so on, if applicable)
   3a. Example: 512GB SATA 6Gb/s SED
4. The device’s voltage level with its related amperes at normal operation (defined by Micron QRA)
5. Lot number for tracking the drive’s manufacturing data
   5a. This is listed as xxyyyyyzzz
   5b. xx = 2 digits to denote manufacturing site
   5c. yyyyy = 5 digits to denote the kit number (randomly generated)
   5d. zzz = 3 digits denoting a sublot size (to provide greater resolution of manufacturing information)
6. Halogen-free mark indicating that the drive meets the IPC low-halogen requirements
7. PSID data matrix (2D) barcode
8. Worldwide name assigned to Micron (as defined by IEEE)
9. Reserved for the official Taiwan Bureau of Standards Metrology and Inspection (BSMI) mark
   In addition, the certification number assigned to this Micron product shall be listed below the mark in a legible font
10. Reserved for the official China Restriction of Hazardous Substances mark
    10a. This device must meet the standards of China RoHS to enable the 20 year indication of the RoHS mark
11. Reserved for the official European Waste Electrical and Electronics Equipment (WEEE) mark
12. Reserved for the official RCM (Australian) mark
13. Reserved for the official TUV mark
14. Reserved for the official USA Federal Communications Commission (FCC) mark
15. Reserved for the official European Regulatory Requirement mark
16. Reserved for the official Japan VCCI mark.
17. Reserved for the official Underwriters Laboratories (UL) mark
18. Reserved for the official mark based on the drive interface (SATA, SAS, and so on)
19. Reserved for the official Korean Certification (KC) mark
20. Country where the device is assembled, written in English
    20a. Micron uses "Made in Taiwan" for Taiwan origin product, "Assembled in USA" for US origin product and "Product of xxxx" for products of other origins
21. The KC number assigned to this Micron product.
22. PSID alphanumeric code
23. Drive serial number
    23a. Format: 12 characters: YYWWXXXXXXXX
         YY is the current year
         WW is the current Micron workweek
         XXXXXXXX is an eight digit hex (base 16 0–9, A–F) serial number
24. Drive serial number bar code for item #23 data (follows the Code 128 standard)
25. Drive part number
26. Drive part number bar code for item #25 data (follows the Code 128 standard)
27. Micron model number
28. Micron logo
Key note definitions:
1. Micron logo
2. USB part number
3. Firmware revision, lot ID for tracking the USB’s manufacturing data (if applicable) and date code 4- or six-digit
   3a. Format: YYWW or YYYYWW
       YY or YYYY is the current year
       WW is the current Micron workweek
4. Reserved for the official European Waste Electrical and Electronics Equipment (WEEE) mark
5. Reserved for the official China Restriction of Hazardous Substances mark
   5a. This device must meet the standards of China RoHS to enable the 20 year indication of the RoHS mark
6. Reserved for the official USA Federal Communications Commission (FCC) mark
7. Reserved for the official European Regulatory Requirement mark
8. Reserved for the official Underwriters Laboratories (UL) mark
9. Country where the device is assembled, written in English
   9a. Micron uses "Made in Taiwan" for Taiwan origin product, "Assembled in USA" for US origin product and "Product of xxxx" for products of other origins
10. Lead free statement (if applicable), Micron model number and density (if applicable)
   10a. Example: RealSSD™ e230 6GB or MTEDXXXXXXXX-XXXXXX
SD and microSD Label Information

Figure 13 shows a representative front label structure for our SD and microSD products. Figure 15 shows the backside markings. The figures have designated “key notes” that outline the details of each particular item.

**Figure 13: Micron SD Label Structure**

Key note definitions:
1. Micron logo
2. Speed class rating
3. UHS speed class rating
4. UHS Rating
5. Type
6. Form factor
7. Capacity
Figure 14: Micron microSD Label Structure

Key note definitions:
1. Micron logo
2. Form factor
3. UHS speed class rating
4. UHS Rating
5. Type
6. Speed class rating
7. Capacity
Figure 15: Micron SD Backside Markings

Key note definitions:
1. Reserved for the official USA Federal Communications Commission (FCC) mark
2. Reserved for the official European Regulatory Requirement mark
3. Reserved for the official Japan VCCI mark
4. Micron part number
5. Lot number and date code
6. Country of origin
Key note definitions:
1. Reserved for the official USA Federal Communications Commission (FCC) mark
2. Reserved for the official European Regulatory Requirement mark
3. Reserved for the official Japan VCCI mark
4. Manufacturing lot number
5. Internal assembly part number
6. Date code
7. Country of origin
Micron Packaging Labels

Micron uses various packaging labels to enable quick identification of packaged contents, provide a simple order verification method, and indicate inner-package moisture levels. All labels are manufactured from matte-coated facestock or synthetic paper and contain acrylic- or water-based adhesive. See CSN-16 for complete information on all Micron packaging materials, including recyclable materials.

Master Container Labels

For all shipments, Micron uses standard bar code labels that conform to EIA Standard 556. The bar code labels enable customers to scan Micron containers for quick order verification. Figure 18 on page 26 shows an example of the standard bar code label used on master containers. Each box also carries its own bar code label (see the Individual Packaging Labels section).

Bar Code Information

The following information appears on the master container labels only:

- (3S/4S) - PKG ID: Invoice or packing slip number
- (1P) - SPLR PROD ID: Reserved for individual customer requirements
- (Q) - QUANTITY: Number of parts in master container
- (K) - TRANS ID: Customer purchase order number
- (P) - CUST PART NO: If a customer part number is not designated, the Micron part number will be printed
- (4L) - Origin: The country in which the product was made

Figure 17: Standard Master Container Shipping Label

<table>
<thead>
<tr>
<th>Micron Technology, Inc.</th>
<th>US01</th>
</tr>
</thead>
<tbody>
<tr>
<td>For Company Name</td>
<td></td>
</tr>
<tr>
<td>8000 S. Federal Way</td>
<td></td>
</tr>
<tr>
<td>BOISE ID 83707-0006</td>
<td></td>
</tr>
<tr>
<td>USA</td>
<td></td>
</tr>
<tr>
<td>COMPANY NAME</td>
<td></td>
</tr>
<tr>
<td>ADDRESS</td>
<td></td>
</tr>
<tr>
<td>CITY STATE/PROVINCE</td>
<td></td>
</tr>
<tr>
<td>ZIP CODE</td>
<td></td>
</tr>
<tr>
<td>COUNTRY</td>
<td></td>
</tr>
<tr>
<td>WB # 638030055867 / 0087659818</td>
<td></td>
</tr>
<tr>
<td>Child W/B: 00821466</td>
<td></td>
</tr>
<tr>
<td>*****************</td>
<td>PKG ID: 87659819A1</td>
</tr>
<tr>
<td>Piece 1 of 1</td>
<td></td>
</tr>
<tr>
<td>*****************</td>
<td></td>
</tr>
<tr>
<td>PO #s XXXXXXXX XXXXXXXX</td>
<td></td>
</tr>
</tbody>
</table>
Figure 18: Standard Master Container Bar Code Label

<table>
<thead>
<tr>
<th>(3S) PKG ID: 417904839</th>
<th>Ship To Name</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Address</td>
</tr>
<tr>
<td></td>
<td>City, ST ZIP Code</td>
</tr>
<tr>
<td></td>
<td>Country</td>
</tr>
<tr>
<td>(Q) QUANTITY: 2500</td>
<td>PACKAGE COUNT: 1 OF 1</td>
</tr>
<tr>
<td></td>
<td>Micron Technology, Inc.</td>
</tr>
<tr>
<td></td>
<td>1160 Exchange, Doc 1D</td>
</tr>
<tr>
<td></td>
<td>Boise, ID 83715</td>
</tr>
<tr>
<td></td>
<td>USA</td>
</tr>
<tr>
<td>(K) TRANS ID: 4505469156</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(P) CUST PART NO: 256-4839</td>
</tr>
<tr>
<td></td>
<td>PACKAGE WEIGHT 2.7 LBS / 1.2 KGS</td>
</tr>
<tr>
<td></td>
<td>SHIP DATE 03/20/2017</td>
</tr>
<tr>
<td>(1P) SPLR PROD ID: MT41K256M16TW</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes: 1. For the "CUST PART NO:" field, if no CPN is provided by the customer, the Micron part number will be displayed.

Additional Label Information

The following information appears in the upper right and bottom portion of the master container labels and may differ slightly depending on whether the label has a (3S) or (4S) PKG ID:

- Ship-to name: Customer’s name and ship-to address
- Ship-from name: Micron’s name and address
- PACKAGE COUNT (3S): Master container package count, or TOTAL COUNT (4S): Master container package count
  - (3S) label includes master container size in inches and centimeters
- PACKAGE WEIGHT (3S): Package weight in pounds and kilograms, or TOTAL WEIGHT (4S): Master container weight in pounds and kilograms
- SHIP DATE: Date the product leaves the factory

Individual Packaging Labels

For quick order verification, Micron attaches a standard bar code label and inner packing container label on the inner packing container. Additionally, the moisture-barrier or static-shielding bag has a moisture sensitivity (MST) label and a standard bar code label attached to the front. If ordering in tape and reel, the tape-and-reel carrier will have a standard bar code label attached. Figure 19 on page 27 shows an example of the standard bar code label, Figure 20 on page 27 shows an example of Micron’s inner packing container label, and Figure 22 on page 28 shows an example of Micron’s MST label. Refer to Figure 23 on page 28 for approximate placement of these labels on Micron’s moisture-barrier and static-shielding bags.
Figure 19: Standard Bar Code Label

![Standard Bar Code Label](image)

Figure 20, Micron’s Inner Packing Container Label, indicates the RoHS status of compliance with either RoHS or RoHS and HF (for those products that are also free of halogens). This space will be blank on labels for containers that hold parts with lead. Also, an asterisk (*) at the end of the date code indicates that the container holds a mix of product from more than one date; the date shown is that of the oldest product in the container. The “VID...” text is printed on the label as applicable for specific products.

Figure 20: Micron’s Inner Packing Container Label

![Micron's Inner Packing Container Label](image)

Figure 21: Micron’s Inner Packing Container Label for Modules and SSDs

![Micron's Inner Packing Container Label for Modules and SSDs](image)

Notes:
1. The European Regulatory Requirement mark may or may not be present on a particular inner packing label.
2. Some module product labels may include additional characters after the Micron marketing part number. For more information, see the Module Label Data section.
Figure 22: Micron’s Moisture Sensitivity (MST) Label

<table>
<thead>
<tr>
<th>Temperature</th>
<th>Peak Package Body Temp</th>
<th>Moisture Level:</th>
<th>Floor Life: One Year</th>
<th>Condition ≤ 30 deg. C/60% RH</th>
</tr>
</thead>
<tbody>
<tr>
<td>235°C</td>
<td></td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>260°C</td>
<td></td>
<td>2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Package Seal Date: Apr 08 2004
Operator: JDOE

Figure 23: Labeling on Moisture-Barrier and Static-Shielding Bags

Notes:
1. This figure indicates the approximate locations only of the various labels.
2. Internal labels are applicable to tube and tray shipments only and may or may not be present on every bag.
3. See Figure 22.
4. See Figure 19.
Revision History

Rev. AM ........................................................................................................................................... 9/19
- Updated Table 5

Rev. AL ........................................................................................................................................... 4/19
- Updated country of origin key note text for Figures 4, 6, 8, 9, 10 and 11
- Added “Reserved for the official Industry of Canada certification number” to Figure 8 key notes
- Updated Figure 18 1P and P fields and added note 1
- Updated Figure 21 and added note 2

Rev. AK ........................................................................................................................................... 11/18
- Updated Figure 5 and notes
- Updated Table 5
- Updated Figures 8, 10, 18 and 20

Rev. AJ ........................................................................................................................................... 8/18
- Added note 2 to Figure 2
- Added the official Morocco mark to Figures 8 and 10
- Updated Figure 20

Rev. AI ........................................................................................................................................... 3/18
- Updated Tables 2 and 3

Rev. AH ........................................................................................................................................... 12/17
- Added SD and microSD Label Information

Rev. AG ........................................................................................................................................... 10/17
- Updated Figures 8–11

Rev. AF ........................................................................................................................................... 7/17
- Updated Figure 16

Rev. AE ........................................................................................................................................... 5/17
- Updated Data matrix (2D) barcode description for Figure 10
- Deleted Figures 11 and 12 (EoL product)

Rev. AD ........................................................................................................................................... 3/17
- Updated Figure 16 and the following explanatory paragraphs

Rev. AC ........................................................................................................................................... 11/16
- Added Table of Contents and List of Figures
- Updated Figures 1 and 2
- Updated and expanded Module Label Data and Examples
  - Added Process Codes
- Updated all SSD labels and key note definitions
- Updated Figures 15 through 19

Rev. AB ........................................................................................................................................... 5/16
- Added DDR3, DDR4 Process Code Reference section

Rev. AA ........................................................................................................................................... 3/16
- Corrected typo in Note 3 of Figure 4
CSN-11: Product Marks/Product and Packaging Labels

Revision History

- Updated Figures 12, 16 and added new Figure 17. 1/16

Rev. Z .......................................................... 10/15
- Updated module label explanation and notes.
- Added M6xx SSD labels.
- Deleted links to specific SSD label figures under SSD Label Information.
- Added Table of Contents and List of Figures.
- Updated Figure 2 title.

Rev. Y .......................................................... 7/15
- Added SSD MID label.

Rev. X .......................................................... 5/15
- Updated Figure 4.
- Updated Figure 23.

Rev. W .......................................................... 5/15
- Added Note 2 to Figure 4.

Rev. V .......................................................... 10/14
- Updated information on page one.
- Added information for legacy components with Elpida part marks.
- Added DC and IT mark to M5xx SSD label title.
- Added 2.5in P420m label information.

Rev. U .......................................................... 7/14
- Added M.2 M510/M550 label.

Rev. T .......................................................... 1/14
- Added “/date code (YWW)” to Line 1 of the Module Label Information section.

Rev. S .......................................................... 12/13
- Added European Regulatory Requirement logo and note to Figures 3 and 20.
- Corrected numbering on pages 4 and 5.

Rev. R .......................................................... 8/13
- Corrected label titles for Figure 9, Figure 16, and Figure 17.

Rev. R .......................................................... 7/13
- Added new SSD labels.

Rev. Q .......................................................... 5/13
- Added new SSD labels.

Rev. P .......................................................... 2/13
- Updated Inner Packing Container and Standard Master Container Shipping labels.
- Corrected note references for Figure 15.

Rev. O .......................................................... 6/12
- Added Microdisplay panel label.

Rev. N .......................................................... 3/12
- Added the Embedded USB label.
Revision History

Rev. M  ................................................................. 2/12
  • Added the SSD mSATA label.

Rev. L  ................................................................. 2/12
  • Corrected references in Figure 12.

Rev. K  ................................................................. 10/11
  • Updated security feature set to Figure 6 and its notes.

Rev. J  ................................................................. 6/11
  • Added aliases to the links for the part numbering guides and FBGA date codes, and
    the FBGA Part Marking Decoder.
  • Added specific date code information.
  • Updated country codes.
  • Added SSD C400 label information.

Rev. H  ................................................................. 2/10
  • Added date code information to the text for Figure 9

Rev. G  ................................................................. 1/10
  • Corrected typo

Rev. F  ................................................................. 12/09
  • Added SSD product labels
  • Added packaging label information from CSN-16

Rev. E  ................................................................. 10/09
  • Updated template
  • Updated Figure 3, “Module Label”

Rev. D  ................................................................. 6/08
  • Added Korea to note 1 country codes
  • Updated and renamed Figure 2
  • Deleted Figure 3, “DDR2/GDDR3 FBGA Abbreviated Component Mark”

Rev. C  ................................................................. 5/07
  • Added Taiwan to note 1 country codes

Rev. 12/9/05
  • Added logo information to Figure 1 on page 5 and Figure 2 on page 6

Rev. 2/14/05
  • Added China to note 1 country codes