

CSN-11: Product Marks/Product and Packaging Labels Introduction

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.

Product Marks and Labels

Micron now has 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.

Component Mark Information

Most component marks contain the following details (see Figure 1 on page 2):

- Date code (workweek and year)
- · 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.

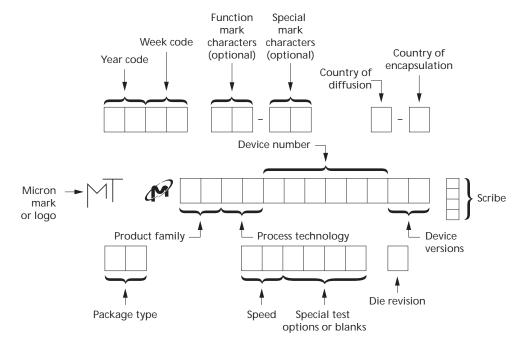
Codes for the countries of diffusion and encapsulation:

1 = USA 4 = Japan 8 = Korea

2 = Singapore 5 = China 3 = Italy 7 = Taiwan



Figure 1: TSOP Component Mark



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 3). The top row of the component mark contains the flooring details that are unrelated to product type:

- Date code (workweek and year)
- Country of diffusion (see below for country codes)
- Die revision
- Country of encapsulation (see below for country codes)

The middle and bottom rows of the component mark contain product-specific details such as:

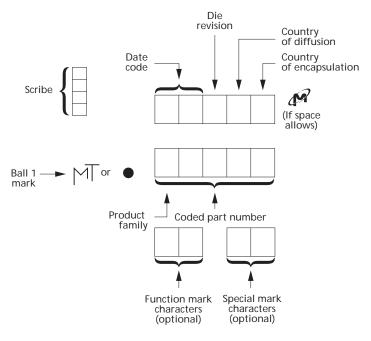
- · Micron logo/ball 1 designator
- Coded part number
- Product family
- Special mark characters

More information on product-specific designators and abbreviated date codes for FBGA packages is provided in Micron's part numbering guides, and information on the corresponding part numbers for part mark codes is available from the FBGA Part Marking Decoder. These documents are available on Micron's Web site: www.micron.com.

Codes for the countries of diffusion and encapsulation:

1 = USA 4 = Japan 8 = Korea 2 = Singapore 5 = China 3 = Italy 7 = Taiwan

Figure 2: BGA/LGA Abbreviated Component Mark



Module Label Information

Labels typically used for module production have standard requirements for each line printed on the label (see Figure 3):

- Line 1: Code 128 subset B bar code of Micron part number
- Line 2: Marketing part number/date code
- · Line 3: JEDEC label as appropriate/optional project number
- Line 4: Module assembly country of origin/lot ID code

The Micron logo and the Pb-free symbol are printed on the left and right sides of the label, respectively.

Figure 3: Module Label

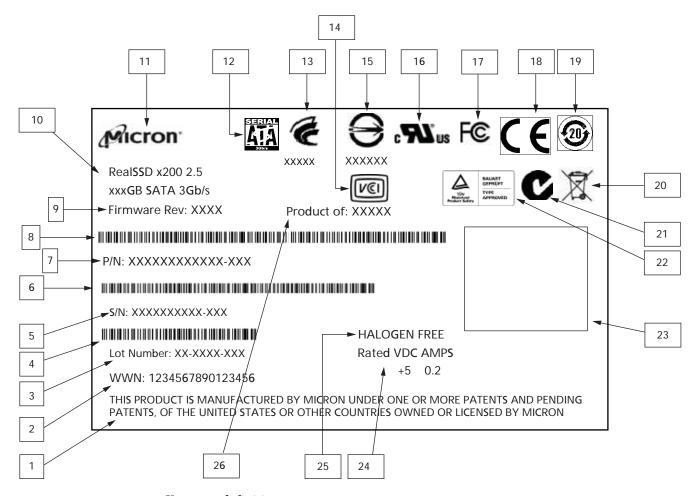


SSD Label Information

Figures 4 and 5 show the label structures for our SSD products. Figure 4 on page 4 shows the 2.5-inch form factor label used on the C200 and P200 devices, and Figure 5 on page 6 shows the 1.8-inch form factor label that is used only on C200 devices. Each item has designated "key notes" that outline the details of that particular item.



Figure 4: 2.5-inch Label Structure



Key note definitions:

- 1. Micron intellectual property statement
- 2. Worldwide name assigned to Micron (as defined by IEEE)
- 3. Lot number indicating the drive's manufacturing date
 - 3a. This is listed as xxyyyyyzzz
 - 3b. xx = 2 digits to denote manufacturing site
 - 3c. yyyyy = 5 digits to denote the kit number (randomly generated)
 - 3d. zzz = 3 digits denoting a sublot size (to provide greater resolution of manufacturing information)
- 4. Lot number bar code for item #2 data (follows the Code 128 standard)
- 5. Drive serial number
 - 5a. Format: 12 characters: YYWWXXXXXXX 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
- 6. Drive serial number bar code for item #5 data (follows the Code 128 standard)
- 7. Drive part number
- 8. Drive part number bar code for item #7 data (follows the Code 128 standard)
- 9. Drive firmware revision number

http://www.BDTIC.com/Micron



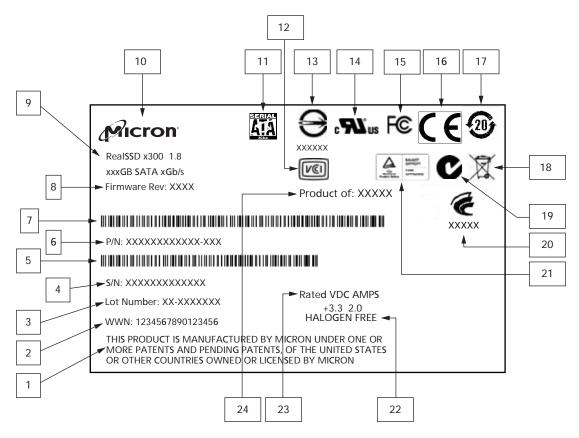
CSN-11: Product Marks/Product and Packaging Labels **Product Marks and Labels**

- 10. Brief description of the product, form factor, its capacity, interface, and maximum interface rate
 - 10a. Example: RealSSD C200 2.5 64GB SATA 3 Gb/s
 - 10b. If for an engineering sample, place "ENGINEERING SAMPLE" (in all caps) under the description
- 11. Micron official logo
- 12. Reserved for the official Serial ATA logo
- 13. Reserved for the official Ministry of Information and Communications (MIC) logo. In addition, the certification number assigned to this Micron product shall be listed below the logo in a legible font
- 14. Reserved for the official Japan VCCI logo.
- 15. Reserved for the official Bureau of Standards Metrology and Inspection (BSMI) logo In addition, the certification number assigned to this Micron product shall be listed below the logo in a legible font
- 16. Reserved for the official United Underwriters logo
- 17. Reserved for the official Federal Communications Commission logo 17a. Cispr B is required
- 18. Reserved for the official European Regulatory Requirement logo
- 19. Reserved for the official Restriction of Hazardous Substances logo
 - 19a. This device must meet the standards of RoHS to enable the 20 year indication of the RoHS logo
- 20. Reserved for the official Waste Electrical and Electronics Equipment (WEEE) logo
- 21. Reserved for the official C-TICK (Australian) mark. In addition, the certification number assigned to this Micron product shall be listed below the logo in a legible font
- 22. Reserved for the official TUV logo
- 23. Empty space to be used by the end customer
- 24. The device's voltage level with its related amperes at normal operation (defined by
- 25. Halogen-free mark indicating that the drive meets the IPC low-halogen requirements
- 26. Country where the device is assembled, written in English
 - 26a. With the exception of "US" and "UK," the full English name of the country should be included: for example, Product of Taiwan

See customer addenda for all/any uniqueness beyond this standard outline.



Figure 5: 1.8-inch Label Structure



Key note definitions:

- 1. Micron intellectual property statement
- 2. Worldwide name assigned to Micron (as defined by IEEE)
- 3. Lot number indicating the drive's manufacturing date
 - 3a. This is listed as xxyyyyyzzz
 - 3b. xx = 2 digits to denote manufacturing site
 - 3c. yyyyy = 5 digits to denote the kit number (randomly generated)
 - 3d. zzz = 3 digits denoting a sublot size (to provide greater resolution of manufacturing information)
- 4. Drive serial number
 - 4a. Format: 12 characters: YYWWXXXXXXX
 - 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
- 5. Drive serial number bar code for item #5 data (follows the Code 128 standard)
- 6. Drive part number
- 7. Drive part number bar code for item #7 data (follows the Code 128 standard)
- 8. Drive firmware revision number

http://www.BDTIC.com/Micron



CSN-11: Product Marks/Product and Packaging Labels Micron Packaging Labels

- Brief description of the product, form factor, its capacity, interface, and maximum interface rate
 - 9a. Example: RealSSD C200 2.5 64GB SATA 3 Gb/s
 - 9b. If for an engineering sample, place "ENGINEERING SAMPLE" (in all caps) under the description
- 10. Micron official logo
- 11. Reserved for the official Serial ATA logo
- 12. Reserved for the official Japan VCCI logo.
- 13. Reserved for the official Bureau of Standards Metrology and Inspection (BSMI) logo In addition, the certification number assigned to this Micron product shall be listed below the logo in a legible font
- 14. Reserved for the official United Underwriters logo
- 15. Reserved for the official Federal Communications Commission logo 15a. Cispr B is required
- 16. Reserved for the official European Regulatory Requirement logo
- 17. Reserved for the official Restriction of Hazardous Substances logo
 - 17a. This device must meet the standards of RoHS to enable the 20 year indication of the RoHS logo
- 18. Reserved for the official Waste Electrical and Electronics Equipment (WEEE) logo
- 19. Reserved for the official C-TICK (Australian) mark.
 In addition, the certification number assigned to this Micron product shall be listed below the logo in a legible font
- 20. Reserved for the official Ministry of Information and Communications (MIC) logo. In addition, the certification number assigned to this Micron product shall be listed below the logo in a legible font
- 21. Reserved for the official TUV logo
- 22. Halogen-free mark indicating that the drive meets the IPC low-halogen requirements
- 23. The device's voltage level with its related amperes at normal operation (defined by QA)
- 24. Country where the device is assembled, written in English
 - 24a. With the exception of "US" and "UK," the full English name of the country should be included: for example, Product of Taiwan

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-17 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 7 on page 9 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) Country of Origin: The country in which the product was made

Figure 6: **Standard Master Container Shipping Label**

US01 Micron Technology, Inc. For Company Name 8000 S. Federal Way BOISE ID 83707-0006 **USA COMPANY NAME ADDRESS** CITY STATE/PROVINCE ZIP CODE **COUNTRY** WB # 638030055867 / 0087659818 Child W/B:63803005867 ****** Piece 1 of 1 ****** PKG ID: 87659819A1 PO #s XXXXXXXX XXXXXXXX



Figure 7: Standard Master Container Bar Code Label



Additional Label Information

The following information appears in the far-right portion of the master container labels:

- Ship-to name: Customer's name and ship-to address
- Ship-from name: Micron's name and address
- PACKAGE COUNT: Master container package count
- PACKAGE WEIGHT: Package size
- 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 8 on page 10 shows an example of the standard bar code label, Figure 9 on page 10 shows an example of Micron's inner packing container label, and Figure 10 on page 10 shows an example of Micron's MST label. Refer to Figure 11 on page 11 for approximate placement of these labels on Micron's moisture-barrier and static-shielding bags.



Figure 8: Standard Bar Code Label

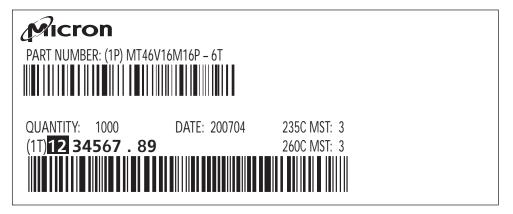


Figure 9, Micron's Inner Packing Container Label, includes a Pb-free symbol that will be printed on labels for containers that hold only lead-free parts. That space will be blank on labels for containers that hold parts with lead. Also, an asterisk (*) at the end of the date code indicates that the container holds a mix of product from more than one date; the date shown is that of the oldest product in the container.

Figure 9: Micron's Inner Packing Container Label

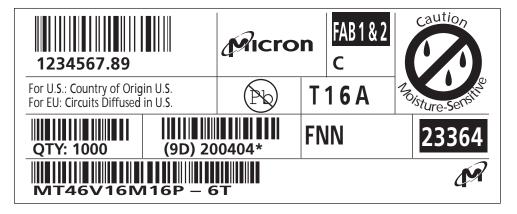


Figure 10: Micron's Moisture Sensitivity (MST) Label

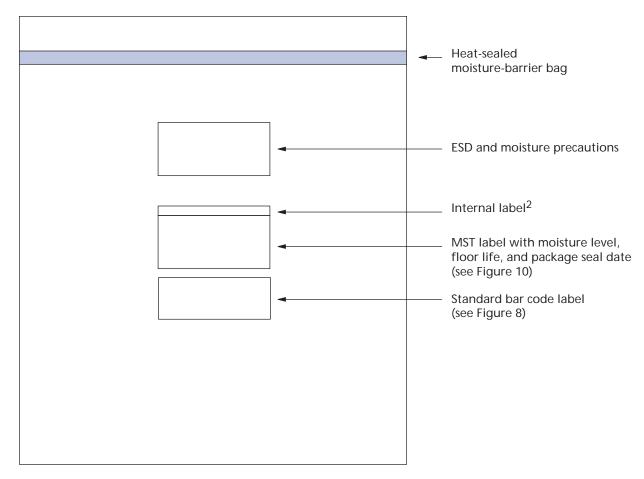
235C Peak Package Body Temp Moisture Level: 2
Floor Life: One Year Condition < = 30 deg. C/60% RH

260C Peak Package Body Temp Moisture Level: 2
Floor Life: One Year Condition < = 30 deg. C/60% RH

Package Seal Date: Apr 08 2004
Operator: JDOE



Figure 11: Labeling on Moisture-Barrier and Static-Shielding Bags¹



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.

8000 S. Federal Way, P.O. Box 6, Boise, ID 83707-0006, Tel: 208-368-3900 www.micron.com/productsupport Customer Comment Line: 800-932-4992 Micron and the Micron logo are trademarks of Micron Technology, Inc. All other trademarks are the property of their respective owners.

http://www.BDTIC.com/Micron



CSN-11: Product Marks/Product and Packaging Labels Revision History

Revision History · Added date code information to the text for Figure 9 Corrected typo Added SSD product labels • Added packaging label information from CSN-16 Updated template • Updated Figure 3, "Module Label" Added Korea to note 1 country codes • Updated and renamed Figure 2 • Deleted Figure 3, "DDR2/GDDR3 FBGA Abbreviated Component Mark" • Added Taiwan to note 1 country codes Rev. 12/9/05 Added logo information to Figure 1 on page 2 and Figure 2 on page 3 Rev. 2/14/05

· Added China to note 1 country codes