

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):

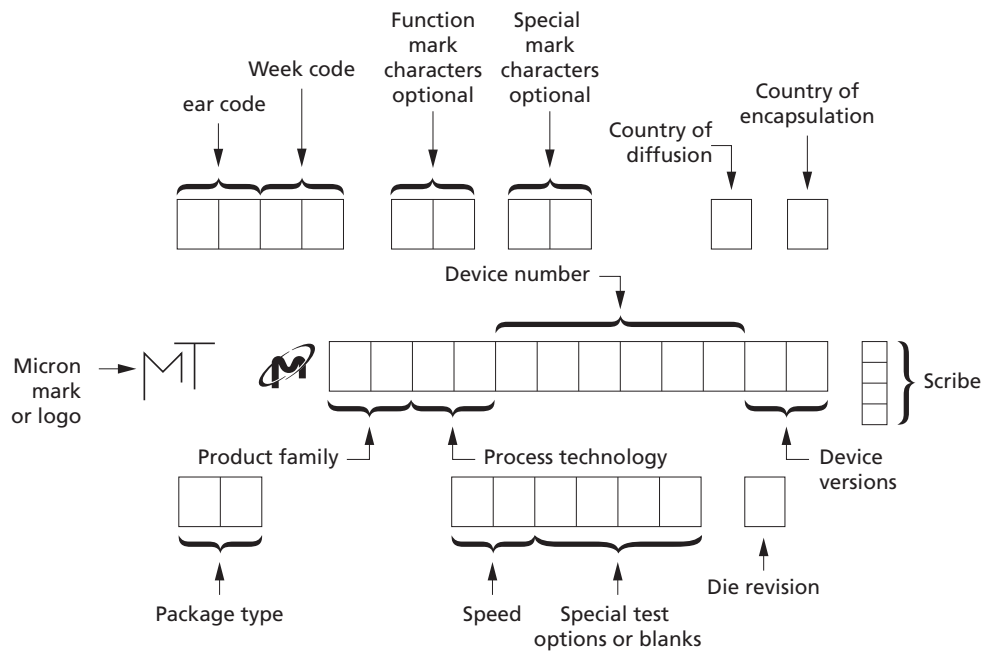
- Date code (year and workweek)
- Special mark characters
- Country of diffusion (see below for country codes)
- Country of encapsulation (see below for country codes)
- Micron[®] mark or logo
- Product family
- Process technology
- Device number
- Device versions
- Package type
- Speed
- Special test 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:

1 = USA	5 = China	B = Israel
2 = Singapore	7 = Taiwan	C = Ireland
3 = Italy	8 = Korea	D = Malaysia
4 = Japan	9 = Mixed	F = Philippines

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 (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.

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

Codes for the countries of diffusion and encapsulation:

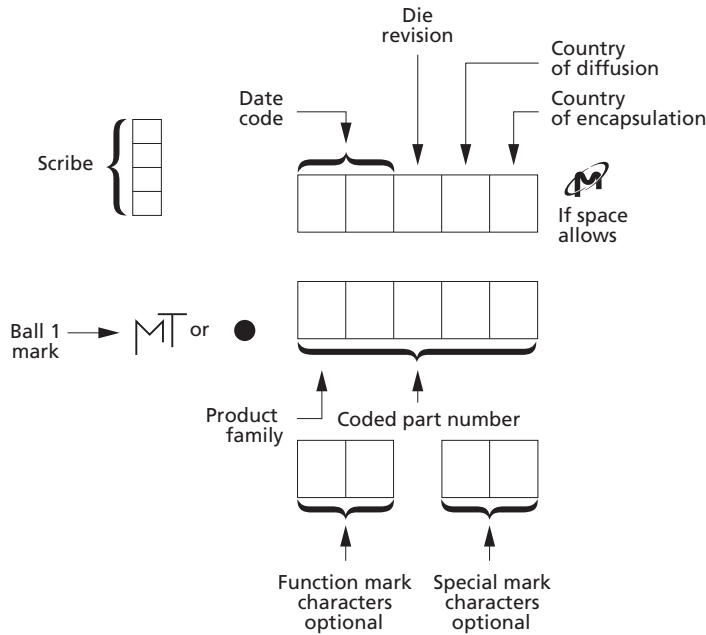
1 = USA	5 = China	B = Israel
2 = Singapore	7 = Taiwan	C = Ireland
3 = Italy	8 = Korea	D = Malaysia
4 = Japan	9 = Mixed	F = Philippines

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 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: BGA/LGA Abbreviated Component Mark



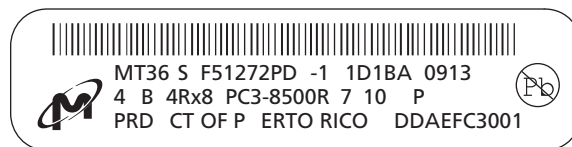
Module Label Information

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.

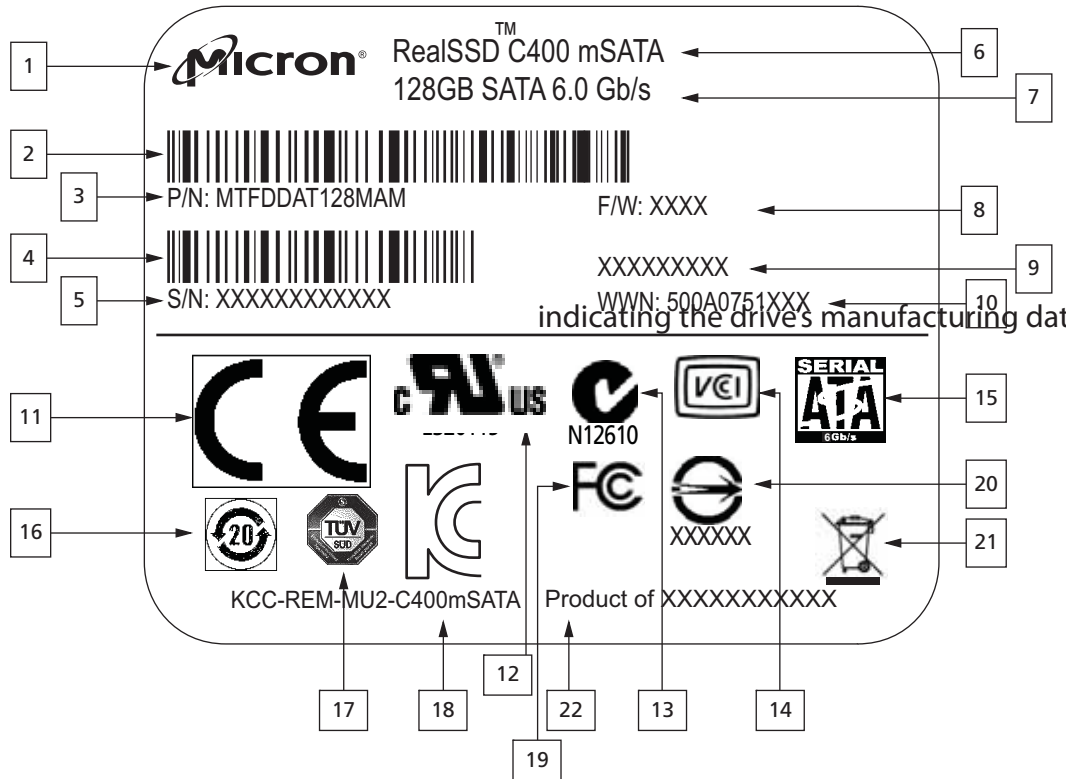
Figure 3: Module Label



SSD Label Information

Figures 4 through 7 show the label structures for our SSD products. Figure 4 shows the label used on mSATA devices, Figure 5 on page 6 shows the 2.5-inch form factor label used on the C200 and P200 devices, and Figure 6 on page 8 shows the 1.8-inch form factor label that is used only on C200 devices. The figures have designated “key notes” that outline the details of each particular item on the label.

Figure 4: mSATA Label

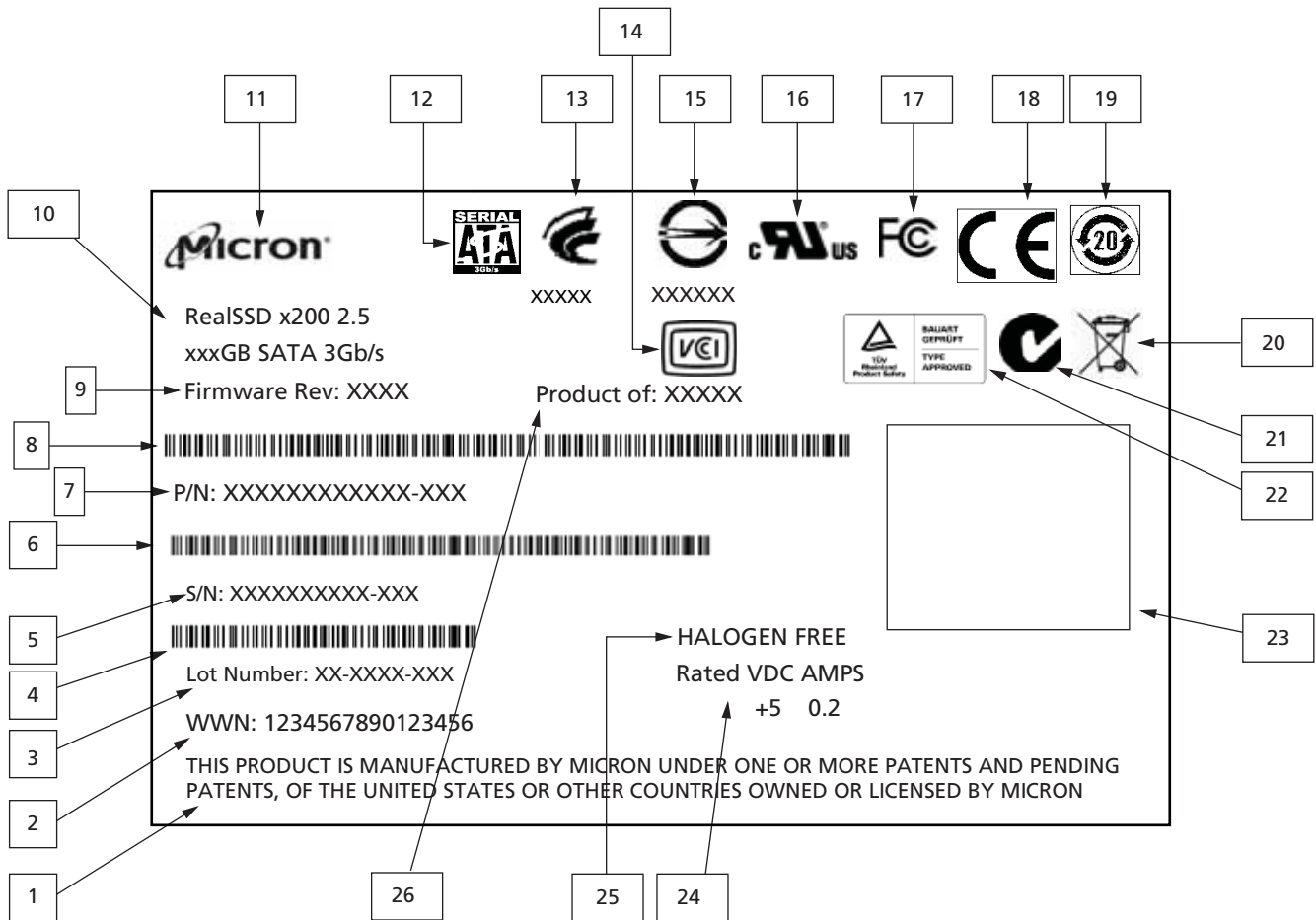


Key note definitions:

1. Micron official logo
2. Drive part number bar code for item #3 data (follows the Code 128 standard)
3. Drive part number
4. Drive serial number bar code for item #5 data (follows the Code 128 standard)
5. Drive serial number
 - 5a. Format: 12 characters: YYWWXXXXXXXXXX
 YY is the current year
 WW is the current Micron workweek
 XXXXXXXXX is an eight digit hex (base 16 0–9, A–F) serial number
6. Brief description of the product and its form factor
 - 6a. Example: RealSSD™ C400 mSATA
7. The product’s capacity, interface, and maximum interface rate
 - 7a. 64GB mSATA 3 Gb/s
8. Drive firmware revision number

9. Lot number for tracking the drive's manufacturing data
 - 9a. This is listed as xxyyyyyzzz
 - 9b. xx = 2 digits to denote manufacturing site
 - 9c. yyyyy = 5 digits to denote the kit number (randomly generated)
 - 9d. zzz = 3 digits denoting a subplot size (to provide greater resolution of manufacturing information)
10. Worldwide name assigned to Micron (as defined by IEEE)
11. Reserved for the official European Regulatory Requirement logo
12. Reserved for the official United Underwriters logo
13. 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
14. Reserved for the official Japan VCCI logo.
15. Reserved for the official Serial ATA logo
16. Reserved for the official Restriction of Hazardous Substances logo
 - 16a. This device must meet the standards of RoHS to enable the 20 year indication of the RoHS logo
17. Reserved for the official TUV logo
18. 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
19. Reserved for the official Federal Communications Commission logo
 - 19a. Cisp B is required
20. 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
21. Reserved for the official Waste Electrical and Electronics Equipment (WEEE) logo
22. Country where the device is assembled, written in English
 - 22a. With the exception of "US" and "UK," the full English name of the country should be included: for example, Product of Taiwan

Figure 5: 2.5-inch Label Structure – C200/P200



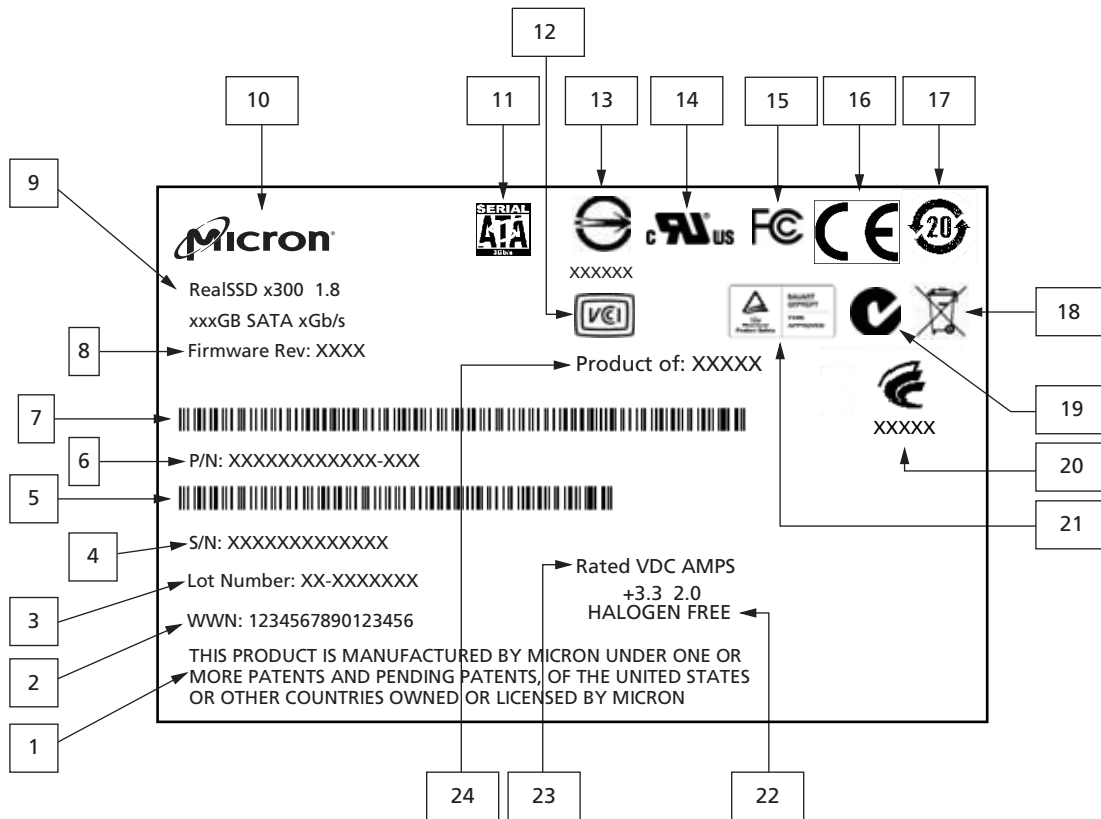
Key note definitions:

1. Micron intellectual property statement
2. Worldwide name assigned to Micron (as defined by IEEE)
3. Lot number for tracking the drive's manufacturing data
 - 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 subplot 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: YYWXXXXXXXXXX
 - YY is the current year
 - WW is the current Micron workweek
 - XXXXXXXXXX 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

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. Cisp 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 QA)
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 6: 1.8-inch Label Structure – C200

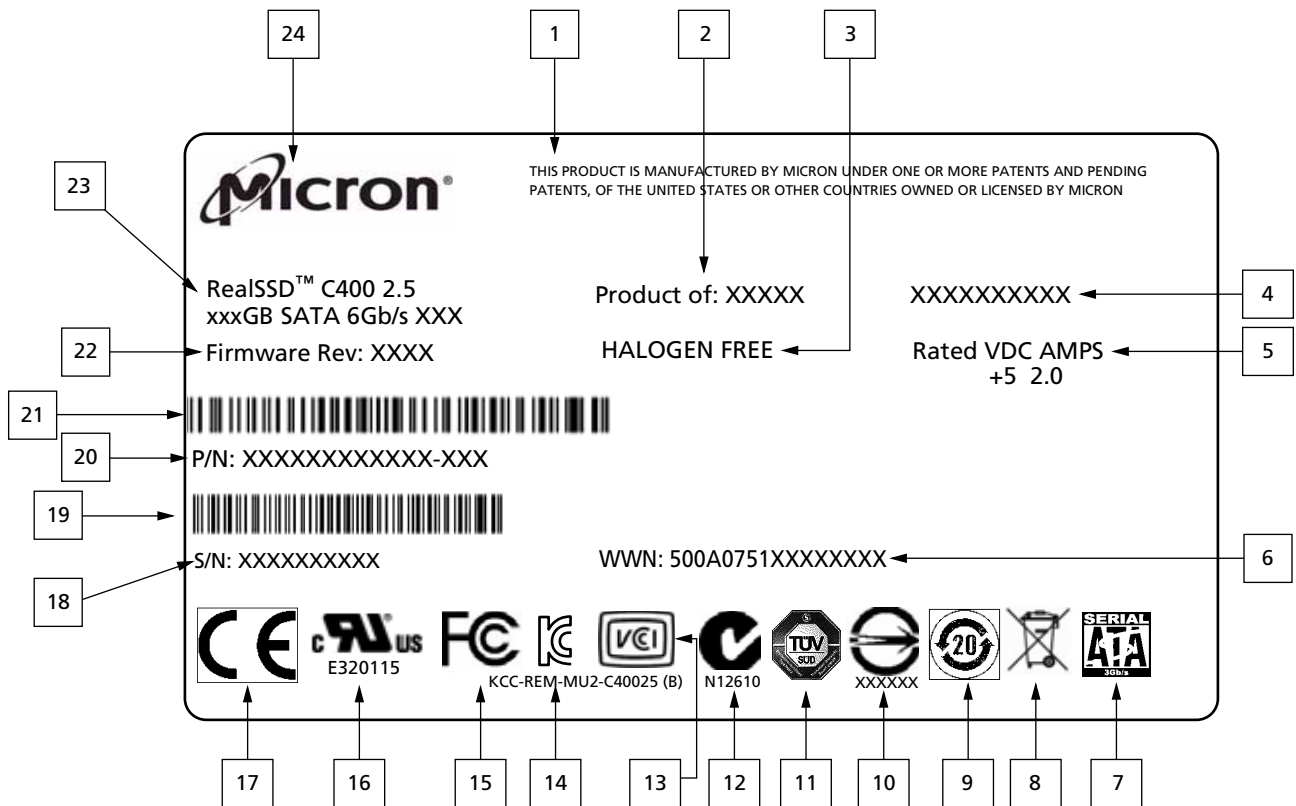


Key note definitions:

1. Micron intellectual property statement
2. Worldwide name assigned to Micron (as defined by IEEE)
3. Lot number for tracking the drive's manufacturing data
 - 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 subplot size (to provide greater resolution of manufacturing information)
4. Drive serial number
 - 4a. Format: 12 characters: YYWWXXXXXXXXX
 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 #4 data (follows the Code 128 standard)
6. Drive part number
7. Drive part number bar code for item #6 data (follows the Code 128 standard)
8. Drive firmware revision number

9. Brief description of the product, form factor, its capacity, interface, and maximum interface rate
 - 9a. Example: RealSSD C200 1.8 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. Cisp 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

Figure 7: 2.5-inch Label Structure – C400



Key note definitions:

1. Micron intellectual property statement
2. Country where the device is assembled, written in English
 - 2a. With the exception of “US” and “UK,” the full English name of the country should be included: for example, Product of Taiwan
3. Halogen-free mark indicating that the drive meets the IPC low-halogen requirements
4. Lot number for tracking the drive’s manufacturing data
 - 4a. This is listed as xyyyyyzzz
 - 4b. xx = 2 digits to denote manufacturing site
 - 4c. yyyyy = 5 digits to denote the kit number (randomly generated)
 - 4d. zzz = 3 digits denoting a subplot size (to provide greater resolution of manufacturing information)
5. The device’s voltage level with its related amperes at normal operation (defined by QA)
6. Worldwide name assigned to Micron (as defined by IEEE)
7. Reserved for the official Serial ATA logo
8. Reserved for the official Waste Electrical and Electronics Equipment (WEEE) logo
9. Reserved for the official Restriction of Hazardous Substances logo
 - 9a. This device must meet the standards of RoHS to enable the 20 year indication of the RoHS logo
10. 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

11. Reserved for the official TUV logo
12. 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
13. Reserved for the official Japan VCCI logo.
14. 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
15. Reserved for the official Federal Communications Commission logo
 - 15a. Cisp B is required
16. Reserved for the official United Underwriters logo
17. Reserved for the official European Regulatory Requirement logo
18. Drive serial number
 - 18a. 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
19. Drive serial number bar code for item #18 data (follows the Code 128 standard)
20. Drive part number
21. Drive part number bar code for item #20 data (follows the Code 128 standard)
22. Drive firmware revision number
23. Brief description of the product, form factor, its capacity, interface, maximum interface rate, and security feature set
 - 23a. Example: RealSSD C400 2.5 64GB SATA 3 Gb/s
 - 23b. If for an engineering sample, place “ENGINEERING SAMPLE” (in all caps) under the description
 - 23c. Feature set example: RealSSD C400 2.5 128GB SATA 6 Gb/s SED
24. Micron official logo

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 9 on page 13 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 8: Standard Master Container Shipping Label


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

Figure 9: Standard Master Container Bar Code Label

3S P ID: 87189127A1 	Ship_To_Name Address City, ST ZIP Code Country
1P SPLR PROD ID: MT29F2G08AACWP 	Micron Technology, Inc. 1160 Exchange, Doc 1D Boise ID 83715 USA
ANTIT: 1793 EA 	PACKAGE COUNT: 1 OF 1 16.0 x 12.0 x 8.0 in 40.6 x 30.5 x 20.8 cm
TRANS ID: 2596PW3329100 	PACKAGE WEIGHT: 10.9 lb/4.9 kg SHIP DATE: 08/16/2007
P C ST P ART NO: MT29F2G08AACWP 	4L CO NTR OF OR I IN  US

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 10 on page 14 shows an example of the standard bar code label, Figure 11 on page 14 shows an example of Micron’s inner packing container label, and Figure 12 on page 14 shows an example of Micron’s MST label. Refer to Figure 13 on page 15 for approximate placement of these labels on Micron’s moisture-barrier and static-shielding bags.

Figure 10: Standard Bar Code Label

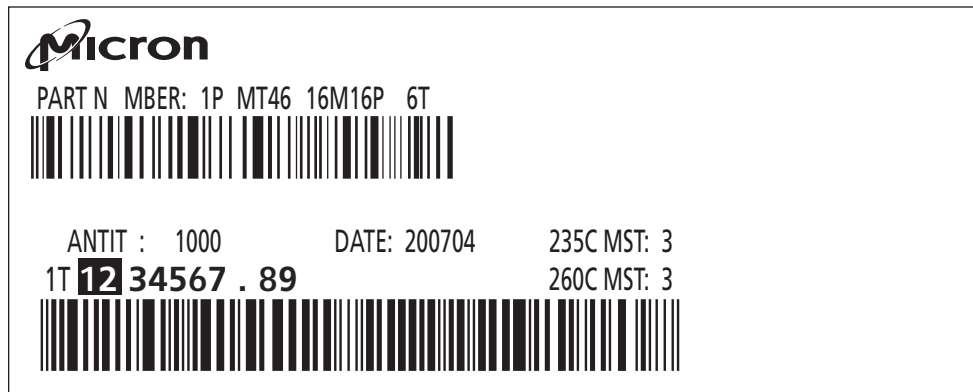


Figure 11, Micron’s Inner Packing Container Label, includes a Pb-free symbol that will be printed on labels for containers that hold only lead-free parts. That space will be blank on labels for containers that hold parts with lead. Also, an asterisk (*) at the end of the date code indicates that the container holds a mix of product from more than one date; the date shown is that of the oldest product in the container.

Figure 11: Micron’s Inner Packing Container Label

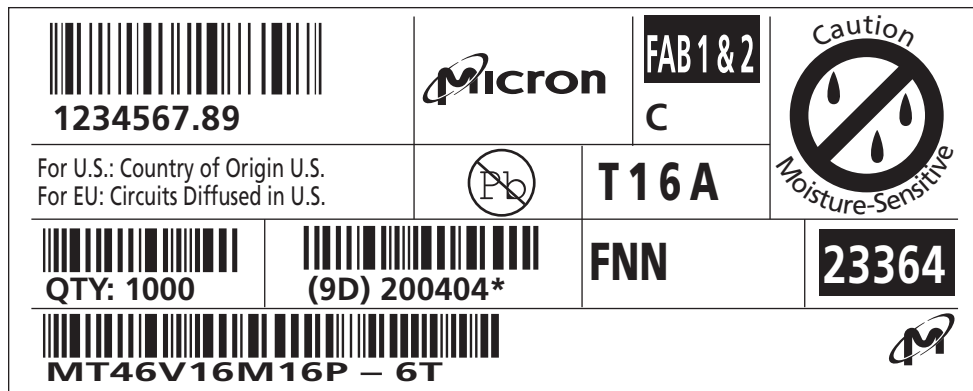


Figure 12: Micron’s Moisture Sensitivity (MST) Label

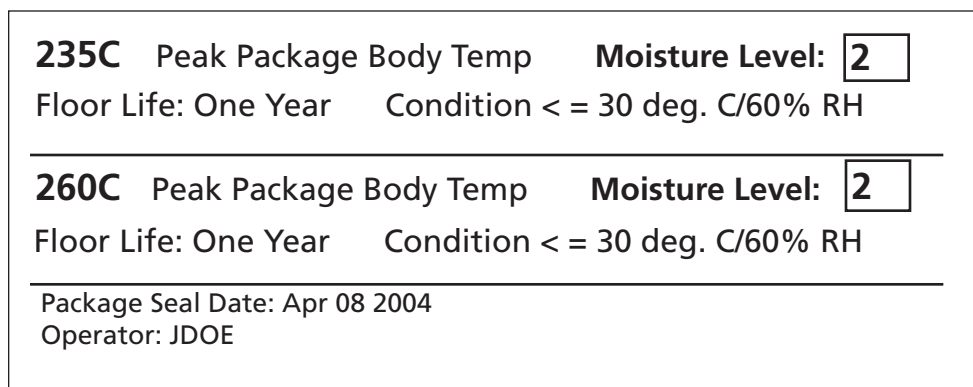
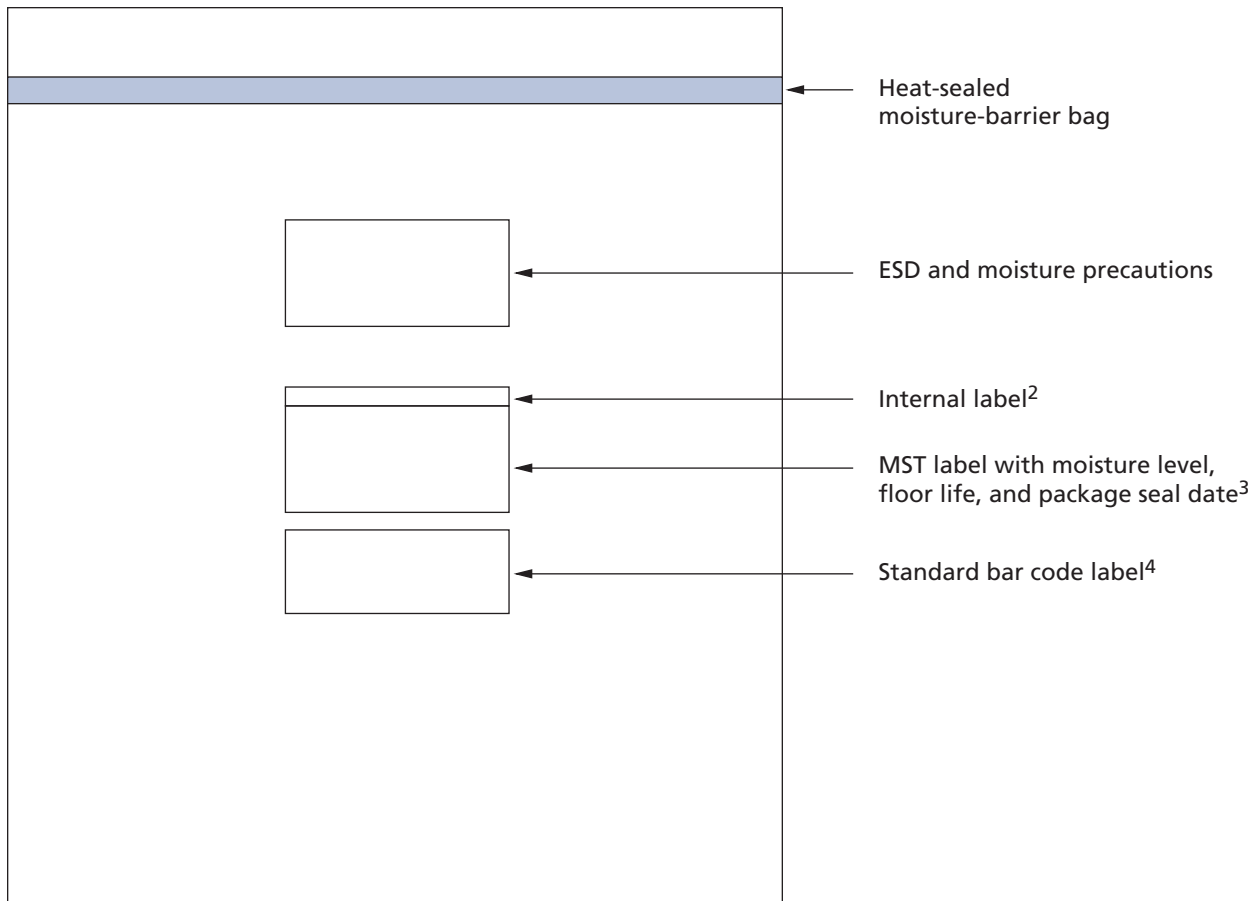


Figure 13: Labeling on Moisture-Barrier and Static-Shielding Bags¹



- 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.
 3. See Figure 12.
 4. See Figure 10.

8000 S. Federal Way, P.O. Box 6, Boise, ID 83707-0006, Tel: 208-368-3900
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Revision History

Rev. M	2/12
<ul style="list-style-type: none">• Corrected typo in Figure 13.	
Rev. M	2/12
<ul style="list-style-type: none">• Added the SSD mSATA label.	
Rev. L	2/12
<ul style="list-style-type: none">• Corrected references in Figure 12.	
Rev. K	10/11
<ul style="list-style-type: none">• Updated security feature set to Figure 6 and it's notes.	
Rev. J	6/11
<ul style="list-style-type: none">• 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
<ul style="list-style-type: none">• Added date code information to the text for Figure 9.	
Rev. G	1/10
<ul style="list-style-type: none">• Corrected typo.	
Rev. F	12/09
<ul style="list-style-type: none">• Added SSD product labels.• Added packaging label information from CSN-16.	
Rev. E	10/09
<ul style="list-style-type: none">• Updated template.• Updated Figure 3, "Module Label."	
Rev. D	6/08
<ul style="list-style-type: none">• 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
<ul style="list-style-type: none">• Added Taiwan to note 1 country codes.	
Rev. 12/9/05	
<ul style="list-style-type: none">• Added logo information to Figure 1 on page 2 and Figure 2 on page 3.	
Rev. 2/14/05	
<ul style="list-style-type: none">• Added China to note 1 country codes.	