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.

Table of Contents

List of Figures

List of Tables

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 6):

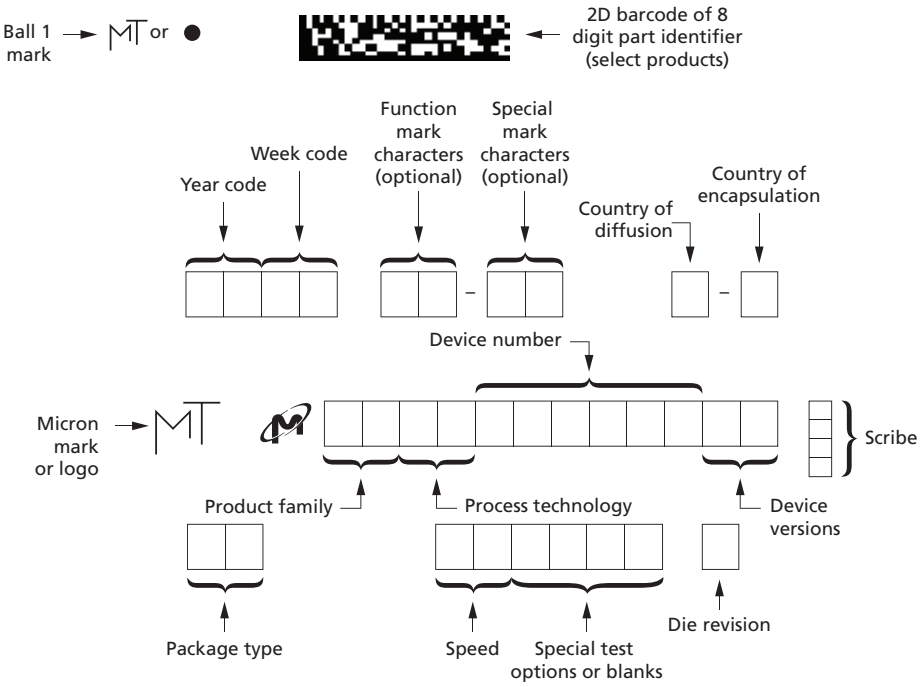
- Date code (year and workweek)
- Special mark characters
- Country of diffusion (see below for country codes)
- Country of encapsulation (see below for country codes)
- Micron® mark or logo
- Product family
- Process technology
- Device number
- Device versions
- Package type
- Speed
- Special test 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 7). 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	0 = 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:

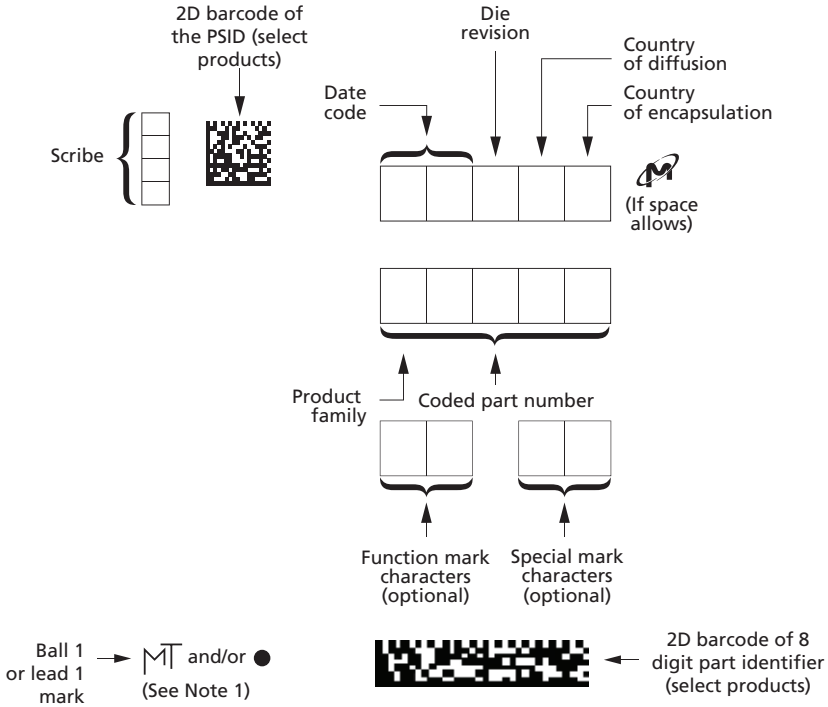
1 = USA	5 = China	B = Israel
2 = Singapore	7 = Taiwan	C = Ireland
3 = Italy	8 = Korea	D = Malaysia
4 = Japan	9 = Mixed	F = Philippines

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

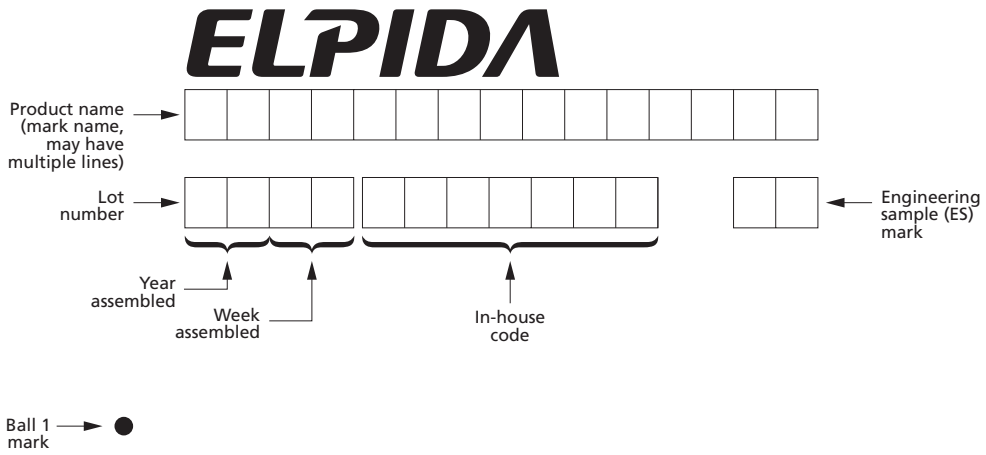
More information on product-specific designators is provided in Micron's various part numbering guides, which are available on Micron's Web site at www.micron.com/numbering. Information on the corresponding part numbers for part mark codes is available from the FBGA Part Marking Decoder at www.micron.com/decoder.

Figure 2: 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.

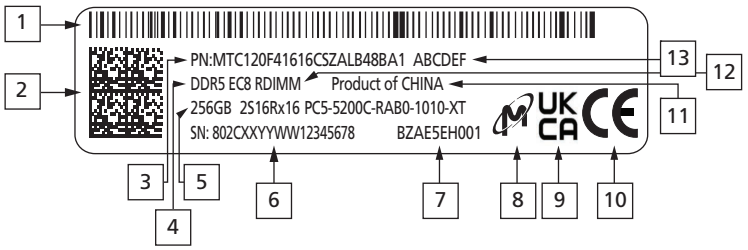
Figure 3: Legacy BGA Component with Elpida Part Mark



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 Figures 8). Micron's module label content and format conform to JEDEC label specifications.

Figure 4: DDR5 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:
   - MTC120F41616CSZALB48BA1 126
2. 2D barcode (see JEDEC DDR5 DIMM Label Specification)
   - (**L**)technical details(**S**)serial number(**P**)part number(**c**)process code
3. Micron DRAM module marketing part number
   - 3a. For more information about module part numbering, see Module Part Numbering Systems on micron.com
4. DRAM technology
5. JEDEC technical details (see JEDEC DDR5 DIMM Label Specification):
   - 5a. Module capacity, ranks, and number of data lines per DRAM device (256GB 2S16Rx16 shown)
   - 5b. DRAM technology (PC5 shown)
   - 5c. Module speed bin (5200C shown)
   - 5d. Module type, reference raw card and revision (RAB0 shown)
   - 5e. JEDEC SPD revision (1010 shown)
   - 5f. Temperature grade (XT shown)
6. JEDEC serial number (see JEDEC DDR5 DIMM Label Specification)
   - 6a. Micron's JEDEC manufacturer code, 802C (constant on all modules)
   - 6b. Manufacturing location (two characters, variable—see Table 6)
   - 6c. Date code (four characters: YYWW)
   - 6d. Module serial number (eight characters, unique to each module)
7. Module build lot ID
8. Micron logo
9. The UK Regulatory Requirement mark (may or may not be present on a particular module label)
10. The European Regulatory Requirement mark (may or may not be present on a particular module label)
11. Module assembly country of origin; Micron uses:
    - "Made in Taiwan" for Taiwan origin product
    - "Assembled in USA" for US origin product
    - "Product of xxx" for products of other origins

12. Module DIMM type
13. A process code is printed after the last character of module part numbers (ABCDEF shown; see Table 5). This additional information provided is not part of the module part number.

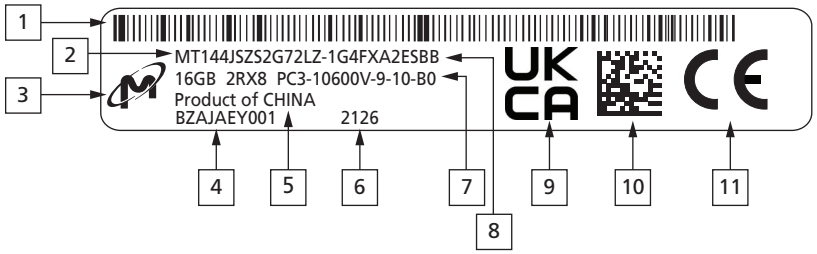
Figure 5: DDR5 MRDIMM DRAM Module Label Content

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:
   – MTC80F4048M1HC1AXB1 126
2. 2D barcode (see JEDEC DDR5 DIMM Label Specification)
   – (**L**)technical details(**S**)serial number(**P**)part number(**c**)process code
3. Micron DRAM module marketing part number
   3a. For more information about module part numbering, see Module Part Numbering Systems on micron.com
4. DRAM technology
5. JEDEC serial number (see JEDEC DDR5 DIMM Label Specification)
   5a. Micron's JEDEC manufacturer code, 802C (constant on all modules)
   5b. Manufacturing location (two characters, variable—see Table 6)
   5c. Date code (four characters: YYWW)
   5d. Module serial number (eight characters, unique to each module)
6. JEDEC technical details (see JEDEC DDR5 DIMM Label Specification):
   6a. Module capacity, ranks, and number of data lines per DRAM device (256GB 4RX4 shown)
   6b. DRAM technology (PC5 shown)
   6c. Module speed bin (8800B shown)
   6d. Module type, reference raw card and revision (HZZ shown)
   6e. JEDEC SPD revision (1110 shown)
   6f. Temperature grade (XT shown)
7. Module DIMM type
8. A process code is printed after the last character of module part numbers (ABCDEF shown; see Table 5). This additional information provided is not part of the module part number.
9. The European Regulatory Requirement mark (may or may not be present on a particular module label)
10. Module assembly country of origin; Micron uses:
    – "Made in Taiwan" for Taiwan origin product
    – "Assembled in USA" for US origin product
    – "Product of xxx" for products of other origins
11. The UK Regulatory Requirement mark (may or may not be present on a particular module label)

12. Module build lot ID
13. Micron logo

Figure 6: DDR4/DDR3 LRDIMM, RDIMM, UDIMM and SODIMM DRAM Module Label Content

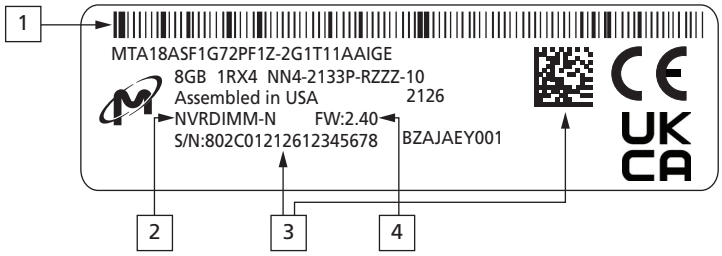


Key note definitions:

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: MTA18ASF1G72PDZ-2G6B1QG 126
2. Micron DRAM module marketing part number
   2a. For more information about module part numbering, see Module Part Numbering Systems on micron.com (see also number 8 below)
3. Micron logo
4. Module build lot ID
5. Module assembly country of origin; Micron uses:
   - "Made in Taiwan" for Taiwan origin product
   - “Assembled in USA" for US origin product
   - "Product of xxxx" for products of other origins
6. Module date code, four characters (YYWW)
7. DDR4 JEDEC label text (see JEDEC document Module 4.20.28)
   7a. Module capacity, ranks, and number of data lines per DRAM device (8GB 2RX8 shown)
   7b. DRAM technology (PC4 shown)
   7c. Module speed bin (2666V shown)
   7d. Module type, reference raw card and revision (REB shown)
   7e. JEDEC SPD revision (11 shown)
8. 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). This additional information is not part of the module part number.
   8a. The process code for ECC UDIMM and SODIMM labels differ slightly as shown in Figure 8. Labels on UDIMMs and SODIMMs without ECC do not have a process code appended to the part number.
9. The UK Regulatory Requirement mark (may or may not be present on a particular module label)
10. 2D barcode – Encoded data string (per ISO/IEC 15426-2:2005)
    10a. Data identifier, S (constant on all modules)
    10b. Micron's JEDEC manufacturer code, 802C (constant on all modules)
    10c. Manufacturing location, two characters, variable (see Table 6)
    10d. Datecode, four characters (YYWW)
    10e. Module serial number, eight characters, unique to each module

11. The European Regulatory Requirement mark (may or may not be present on a particular module label)

Figure 7: DDR4/DDR3 NVDIMM Additional Label Content

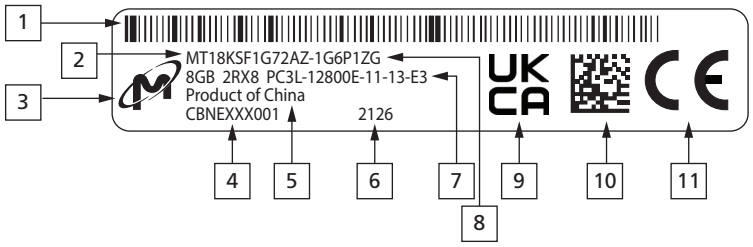


Micron's NVDIMM label has content not included on the standard label. This additional content is described below.

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; 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 6)
   3d. Datecode, four characters (YYWW)
   3e. Module serial number, eight characters, unique to each module
4. Firmware revision

Figure 8: DDR4/DDR3 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
   2a. For more information about module part numbering, see Module Part Numbering Systems on micron.com (see also number 8 below)
3. Micron logo
4. Module date code, four characters (YYWW)
5. Module assembly country of origin; Micron uses:
   – "Made in Taiwan" for Taiwan origin product

- "Assembled in USA" for US origin product
- "Product of xxxx" for products of other origins

6. Module build lot ID
7. DDR3 JEDEC label text (See JEDEC Doc. Module 4.20.20)
   7a. Module capacity (8GB shown)
   7b. Module ranks and number of data lines per DRAM device (2RX8 shown)
   7c. DRAM technology and supply voltage (V_{DD}; PC3L shown)
   7d. Module speed bin (12800 shown)
   7e. Module type (E shown)
   7f. CAS Latency, in clocks (11 shown)
   7g. JEDEC SPD revision (13 shown)
   7h. Reference raw card and revision (E3 shown)
8. A two-character process code is printed after the last character of the module part numbers (QG shown; see Tables 1-3). This additional information provided is not part of the module part number
   8a. The first character of the process code, Z, is a place holder that means there is no register on the module
   8b. The second character, G in this case, identifies the temperature sensor manufacturer and device version
9. The UK Regulatory Requirement mark (may or may not be present on a particular module label)
10. 2D barcode – Encoded data string (per ISO/IEC 15426-2:2005)
    10a. Data identifier, S (constant on all modules)
    10b. Micron's JEDEC manufacturer code, 802C (constant on all modules)
    10c. Manufacturing location, two characters, variable (see Table 6)
    10d. Datecode, four characters (YYWW)
    10e. Module serial number, eight characters, unique to each module
11. The European Regulatory Requirement mark (may or may not be present on a particular module label)

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 MUX, DDR5 RCD, PMIC, HUB, and temperature sensor/ EEPROM devices.

Table 1: DDR3 Process Code Options

Register Vendor	Register Vendor ID (First Character)	Register Vendor Part Number	Temp Sensor/ EEPROM Vendor	Temp Sensor/ EEPROM Vendor ID (Second Character)	Temp Sensor/ EEPROM Vendor Part Number
IDT	D	SSTE32882HLBAKG8	ST Micro	E	STTS2002B2DN3F
	H	SSTE32882KA1AKG8	Microchip	F	MCP98243T-BE/ MNYAA
	M	SSTE32882KB1AKG8	NXP	G	SE97BTP-547
Inphi	A	INSSTE32882LV-GS02			
	F	INSSTE32882UV-GS02			
	K	INSSTE32882XV-GS02			
Montage	N	M88SSTE32882H0-T			
TI	B	SN74SSQEA32882ZALR			
	G	SN74SSQEB32882ZALR			
	L	SN74SSQEC32882ZALR			
None	Z	–			

Table 2: DDR4 RDIMM, NVDIMM[1] Process Code Options

RCD Vendor	RCD Vendor ID (First Character)	RCD Vendor Part Number	Temp Sensor/ EEPROM Vendor	Temp Sensor/ EEPROM Vendor ID (Second Character)	Temp Sensor/ EEPROM Vendor Part Number
IDT	I	4RCD0124KC0ATG	IDT	G	TSE2004GB2B0NCG8
	S	4RCD0229KB1ATG8	ST Micro	I	STTS2004B2DN3F
	V	4RCD0232KC1ATG8	Microchip	K	MCP98244T-BE/MNY
Inphi	K	IDDR4RCD-GS02	Renasas	L	TSE2004GB2C0NCG8
	R	IDDR4RCD2-GS01			
Rambus	A (NVDIMM)	IDDR4NVRCD2-GS02			
	U	IDDR4RCD2-GS03			
Montage	H	M88DDR4RCD01B1-T			
	M	M88DDR4RCD01C0-T			
	Q	M88DDR4RCD02A0-T			
	T	M88DR4RCD02PH1			
TI	J	CAB4AZNRR			
None	Z	–			

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

RCD/Data Buffer Vendor	RCD/Data Buffer Vendor ID (First Character)	RCD Vendor Part Number Data Buffer Vendor Part Number	Temp Sensor/ EEPROM Vendor	Temp Sensor/ EEPROM Vendor ID (Second Character)	Temp Sensor/ EEPROM Vendor Part Number
IDT	I	4RCD0124KC0ATG 4DB0124KB1AVG53	IDT	G	TSE2004GB2B0NCG8
	P	4RCD0124KC0ATG 4DB0226KA3AVG	ST Micro	I	STTS2004B2DN3F
	S	4RCD0229KB1ATG8 4DB0226KB0AVG8	Microchip	K	MCP98244T-BE/MNY
	V	4RCD0232KC1ATG8 4DB0232KC2AVG8	Renasas	L	TSE2004GB2C0NCG8
Montage	H	M88DDR4RCD01B1-T M88DDR4DB01A1-T			
	M	M88DDR4RCD01C0-T M88DDR4DB01B0-T			
	Q	M88DDR4RCD02A0-T M88DDR4DB02A1-T			
	T	M88DR4RCD02PH1 M88DR4DB02PH2-T			
None	Z	–			

Table 4: DDR4 NVDIMM Process Code Third Character Options

MUX Vendor	Process Code Character	Vendor Part Number
TI	D	TS3DDR4000ZBAR
NXP	E	CBTV24DD12

Table 5: DDR5 Process Code Options

Position (SODIMM/ UDIMM)	Position (Client DIMMs >/= 6400 MT/s)	Position (RDIMM)	Position (MRDIMM)	Code	Part Type	Vendor	Vendor Part Number
1st	1st	N/A	N/A	B	Client PMIC	Renesas	P8911-Y0Z001FNG
1st	1st	N/A	N/A	C	Client PMIC	MPS	MP5431GLT-0010-Z
1st	1st	N/A	N/A	J	Client PMIC	Richtek	RTQ5132GQWF-310
1st	1st	N/A	N/A	K	Client PMIC	MPS	MP5431GLT-0012-Z
1st	1st	N/A	N/A	N	Client PMIC	Richtek	MP5431GLT-0012-Z
N/A	N/A	1st	1st	F	Server PMIC	Renesas	P8900-X0Z001FNG
N/A	N/A	1st	1st	G	Server PMIC	MPS	MPQ8895GU-0010-Z
N/A	N/A	1st	1st	H	Server PMIC	MPS	MPQ8894GU-0010-Z
N/A	N/A	1st	1st	I	Server PMIC	TI	TPS53830RWZR
N/A	N/A	1st	1st	J	Server PMIC	TI	TPS53832RWZR
N/A	N/A	1st	1st	M	Server PMIC	MPS	MPQ8895GU-0011-Z
N/A	N/A	1st	1st	N	Server PMIC	MPS	MPQ8894GU-0011-Z
N/A	N/A	1st	1st	P	Server PMIC	Richtek	RTQ5119AGQVF-71
N/A	N/A	1st	1st	Q	Server PMIC	TI	TPS53830ARWZR
N/A	N/A	1st	1st	S	Server PMIC	TI	TPS53832ARWZR
N/A	N/A	1st	1st	U	Server PMIC	Renesas	P8900-X1Z001FNG
N/A	N/A	1st	1st	2	Server PMIC	MPS	MPQ8895GU
N/A	N/A	1st	1st	3	Server PMIC	Renesas	P8900-W0Z001FNG8
N/A	N/A	N/A	1st	W	MRDIMM PMIC	MPS	MPQ8896GU-0010
N/A	N/A	N/A	1st	X	MRDIMM PMIC	TI	TPS53840RWZR PTPS53840M1RWZR
N/A	N/A	N/A	1st	Z	MRDIMM PMIC	Rambus	P1947XXGA112
N/A	N/A	2nd	N/A	G	RCD	Renesas	5RCD0148HC3AVG
N/A	N/A	2nd	N/A	H	RCD	Rambus	DDR5RCD1-G1EX
N/A	N/A	2nd	N/A	I	RCD	Montage	M88DR5RCD01B2
	N/A	2nd	N/A	L	RCD	Rambus	DDR5RCD2-G1B
N/A	N/A	2nd	N/A	M	RCD	Montage	M88DR5RCD02A1-T
N/A	N/A	2nd	N/A	P	RCD	Renesas	RG5R256A1C0GBY
N/A	N/A	2nd	N/A	S	RCD	Rambus	DDR5RCD3-G1A
N/A	N/A	2nd	N/A	W	RCD	Montage	M88DR5RCD03A1
N/A	N/A	2nd	N/A	X	RCD	Renesas	RG5R364B0C0GBY
N/A	N/A	N/A	2nd	C	MRDIMM RCD	Renesas	RG5R188B0AIGBY
N/A	N/A	N/A	2nd	F	MRDIMM RCD	Montage	M88MR5RCD01B1
2nd	2nd	3rd	3rd	C	HUB	Renesas	SPD5118-Y1B000NCG
2nd	2nd	3rd	3rd	F	HUB	Montage	M88SPD5118A5-T
N/A	N/A	4th	4th	C	TempSensor	Renesas	TS5111-Z2AHRI
N/A	N/A	4th	4th	F	TempSensor	Montage	M88TS5110A4-T

Table 5: DDR5 Process Code Options (Continued)

Position (SODIMM/ UDIMM)	Position (Client DIMMs >/= 6400 MT/s)	Position (RDIMM)	Position (MRDIMM)	Code	Part Type	Vendor	Vendor Part Number
N/A	N/A	4th	4th	H	TempSensor	TI	TMP139AIYAHR
N/A	N/A	N/A	5th	C	MRDIMM Data Buffer	Renesas	RG5D188C1AIGBX
N/A	2nd	N/A	5th	G	MRDIMM Data Buffer	Montage	M88MR5DB01B1
N/A	2nd	N/A	N/A	F	Clock Driver	Montage	M88DR5CK01B0-T
N/A	3rd	N/A	N/A	G	Clock Driver	Renesas	RG5C172C0C0GBX
N/A	3rd	N/A	N/A	H	Clock Driver	Rambus	DDR5CKD1GC0

Table 6: Module Manufacturing Locations

Location	ID Number	Hexadecimal Value
SIG (USA)	1	0x01
MTB (Taiwan)	2	0x02
MNG (Malaysia)	5	0x05
MMP (Malaysia)	6	0x06
SING (Singapore)	8	0x08
MXA (China)	15	0x0F
TSMT (Taiwan)	37	0x25
Hotayi (Malaysia)	26	0x1A

SSD Label Information

Figures 9 through 14 show representative label structures for our SSD products. The table below provides the details of each particular item found on the various labels. Not all items are present on all labels.

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

Figure 9: SSD MID Label

Table 7: SSD Label Mark Definitions

Mark or Text Example	Definitions
	Micron logo
	
XXXX U.X	Market segment, form factor, product and FIPS security (if applicable) Example: 1100 2.5 SSD FIPS 140-2 L2
XV X.XA	The device's voltage level with its related amperes at normal operation (defined by Micron QRA)
F/W: XXXXXXXX	Drive firmware revision number
	Data matrix (2D) barcode containing the PSID (if applicable for a security feature enabled drive) or the drive serial number, drive part number and PSID
	Reserved for the official USA Federal Communications Commission (FCC) mark
	Reserved for the official China Restriction of Hazardous Substances mark This device must meet the standards of China RoHS to enable the 20 year indication of the RoHS mark
	Reserved for the official Japan VCCI mark
	Reserved for the official mark based on the drive interface (SATA, NVMe, and so on)
	

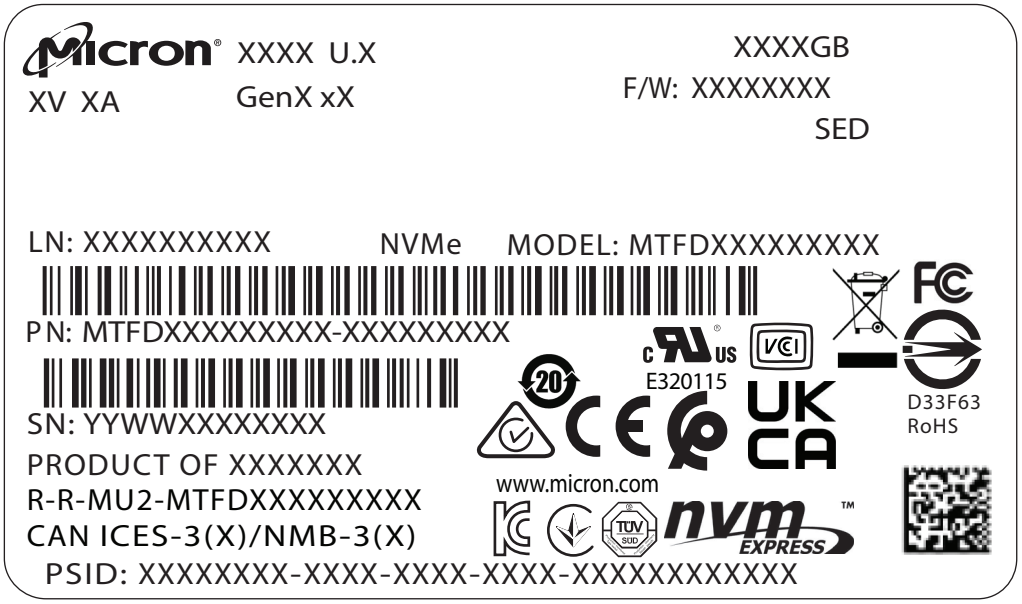
Table 7: SSD Label Mark Definitions

Mark or Text Example	Definitions
	Reserved for the official Ukraine mark
	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.
	Reserved for the official European Regulatory Requirement mark
CAN ICES-3(X)/NMB-3(X)	Reserved for the official Industry of Canada certification number
	Reserved for official UK Regulatory Requirement mark
	Reserved for the official RCM (Australian) mark
	Reserved for the official European Waste Electrical and Electronics Equipment (WEEE) mark
	Reserved for the official TUV mark
	Reserved for the official Underwriters Laboratories (UL) mark
	Reserved for the official Morocco mark
	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 Example: MSIP-REM-MU2-MTFDDAKXXXXXX or R-R-MU2-MTFDXXXXXXXXX
	Warning Hot Surface symbol
PSID: XXXXXXXX-XXXX-XXXX-XXXX-XXXXXXXXXXXX	PSID alphanumeric code

Table 7: SSD Label Mark Definitions

Mark or Text Example	Definitions
Product of XXXXXXXX	Country where the device is assembled, written in English; Micron uses: "Made in Taiwan" for Taiwan origin product "Assembled in USA" for US origin product "Product of XXXX" for products of other origins
LN: XXXXXXXXXX	Lot number for tracking the drive's manufacturing data This is listed as xxyyyyyzzz: xx = 2 digits to denote manufacturing site yyyyy = 5 digits to denote the kit number (randomly generated) zzz = 3 digits denoting a sublot size (to provide greater resolution of manufacturing information)
HALOGEN-FREE	Halogen-free mark indicating that the drive meets the IPC low-halogen requirements
XXXXGB XXX XGb/s XXXX	Drive's capacity, product type, maximum interface rate, and security feature set (SED, Opal 2, FIPS, and so on, if applicable); Example: 512GB SATA 6 Gb/s SED
SN: YYWWXXXXXXXX	Drive serial number 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
	Drive serial number bar code data for item above (follows the Code 128 standard) (The example shown is a representation, not an actual barcode)
PN: MTFDXXXXXXXXX-XXXXXXXXX	Drive part number
	Drive part number bar code data for item above (follows the Code 128 standard) (The example shown is a representation, not an actual barcode)
MTFDXXXXXXXXX	Micron model number
MDL:MTFDXXXXXXXXX	
EUI-64:00A0750XXXXXXXX	EUI-64 number
Yellow bar	Applicable to select products, a yellow bar may or may not be present on the label edge and may indicate Gen4 product.

Figure 10: Micron Standard SATA/NVMe 2.5/U.x SSD Label Structures



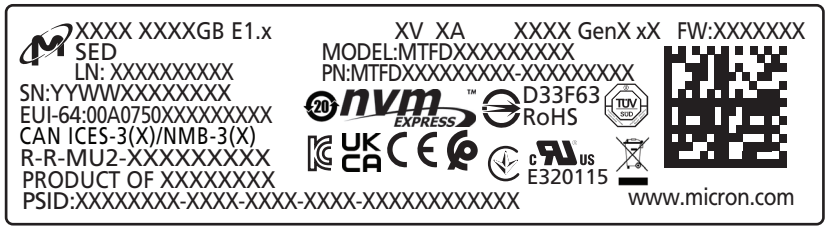
Not shown is the worldwide name assigned to Micron (as defined by IEEE), which may or may not be present on the label. WWN: 500A0751XXXXXXXX

Figure 11: Micron Standard SATA/NVMe M.2 SSD Label Structures

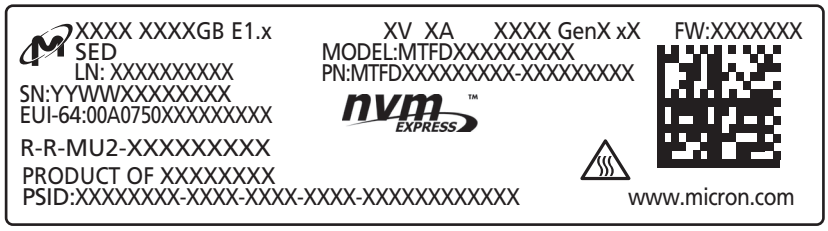
Not shown is the worldwide name assigned to Micron (as defined by IEEE), which may or may not be present on the label. WWN: 500A0751XXXXXXXX

Figure 12: Micron Standard NVMe E1.x SSD Label Structures

Example 1

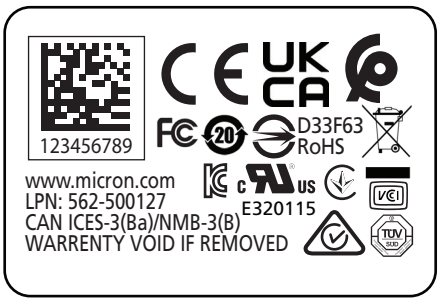


Example 2



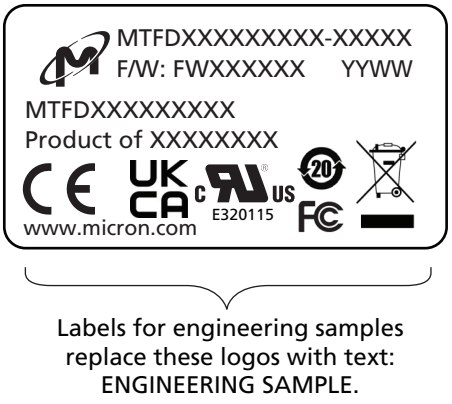
Not shown is the worldwide name assigned to Micron (as defined by IEEE), which may or may not be present on the label. WWN: 500A0751XXXXXXXX

Figure 13: MID/CERT Label Structure



The MID/CERT label may be used as needed where an SSD label does not include regulatory marks. The printed label has a black background with the text and marks in white.

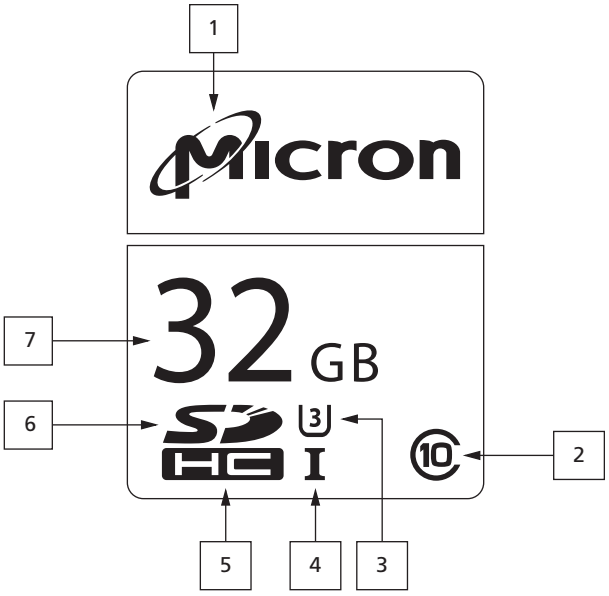
Figure 14: Embedded USB Label Structure



SD and microSD Label Information

Figure 15 shows a representative front label structure for our SD and microSD products. Figure 17 shows the backside markings. The figures have designated “key notes” that outline the details of each particular item.

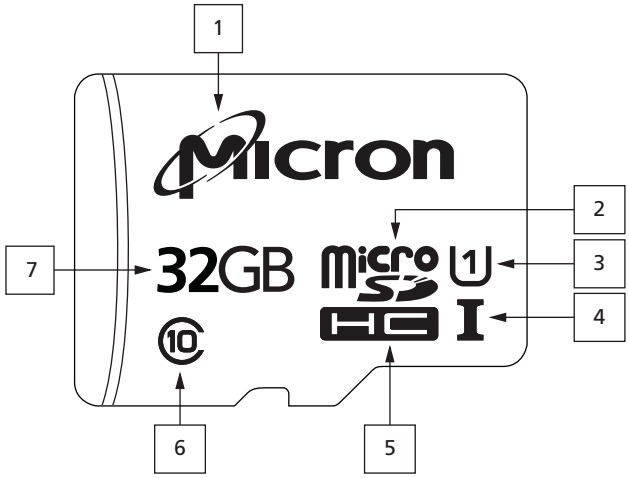
Figure 15: Micron SD Label Structure



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

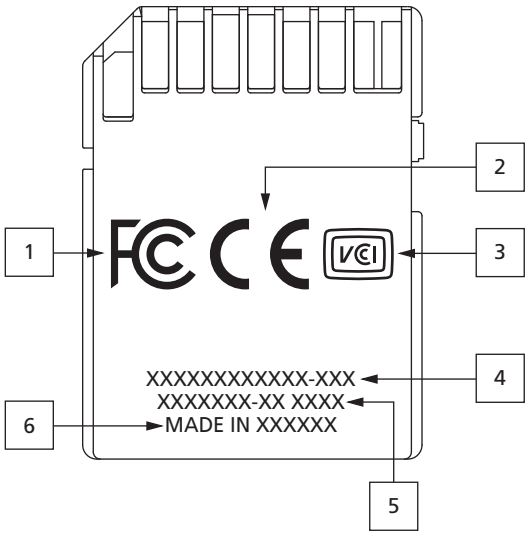
Figure 16: Micron microSD Label Structure



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

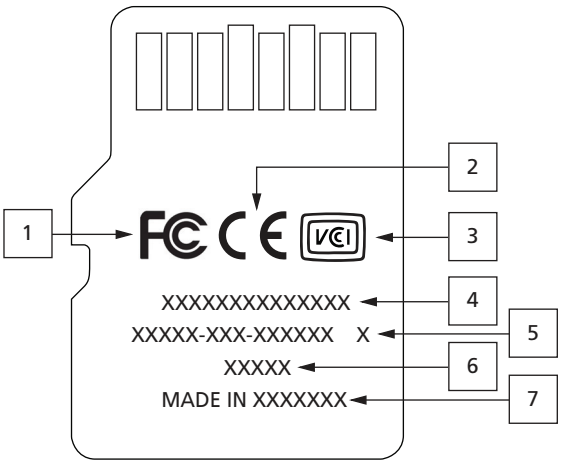
Figure 17: Micron SD Backside Markings



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

Figure 18: Micron microSD 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. 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 20 on page 28 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).

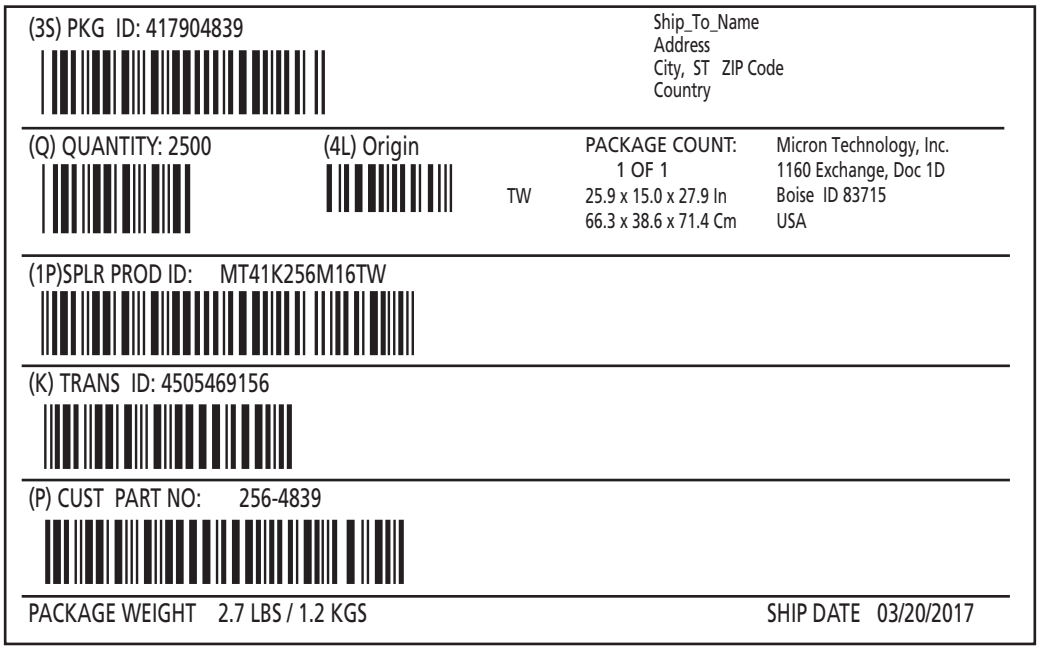
Bar Code Information

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 19: Standard Master Container Shipping Label

Figure 20: Standard Master Container Bar Code Label



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 21 on page 29 shows an example of the standard bar code label, Figure 22 on page 29 shows an example of Micron's inner packing container label, and Figure 24 on page 30 shows an example of Micron's MST label. Refer to Figure 25 on page 30 for approximate placement of these labels on Micron's moisture-barrier and static-shielding bags.

Figure 21: Standard Bar Code Label

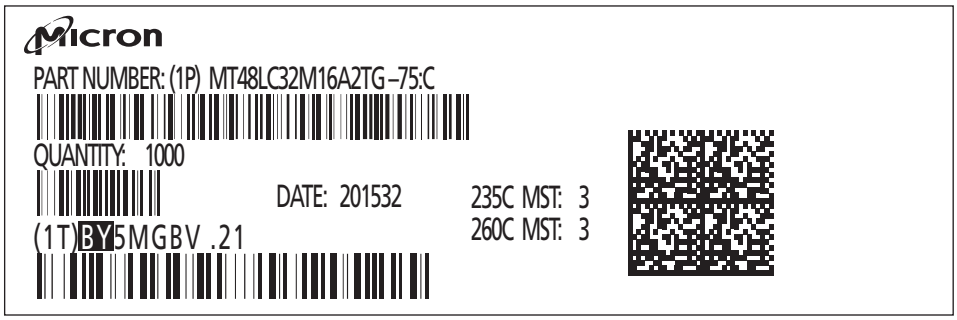


Figure 22, Micron's Inner Packing Container Label, indicates the RoHS status of compliance with either RoHS or RoHS and HF (for those products that are also free of halogens). This space will be blank on labels for containers that hold parts with lead. Also, an asterisk (*) at the end of the date code 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 22: Micron's Inner Packing Container Label

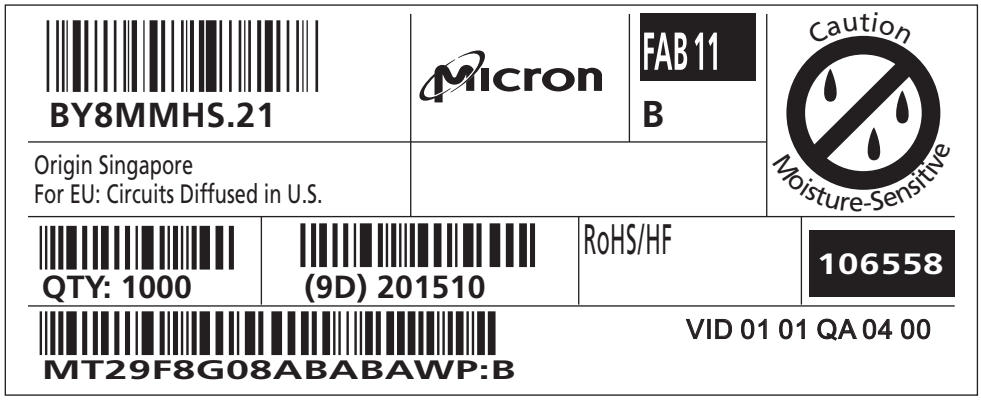
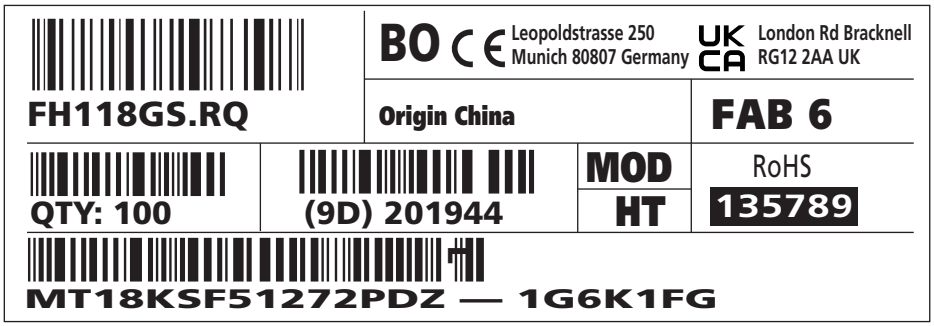


Figure 23: Micron's Inner Packing Container Label for Modules and SSDs



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 24: Micron's Moisture Sensitivity (MST) Label

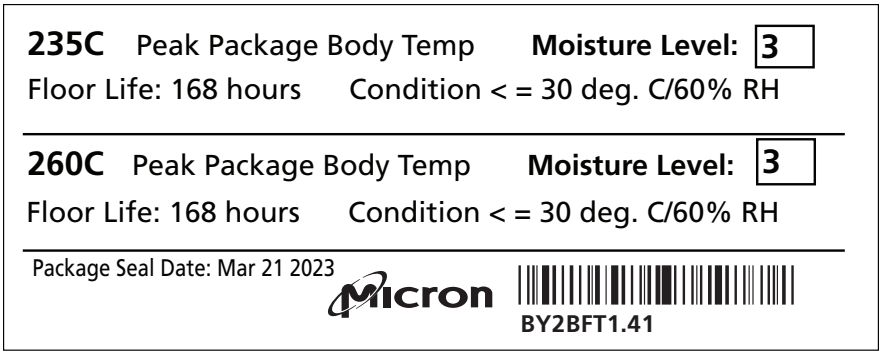
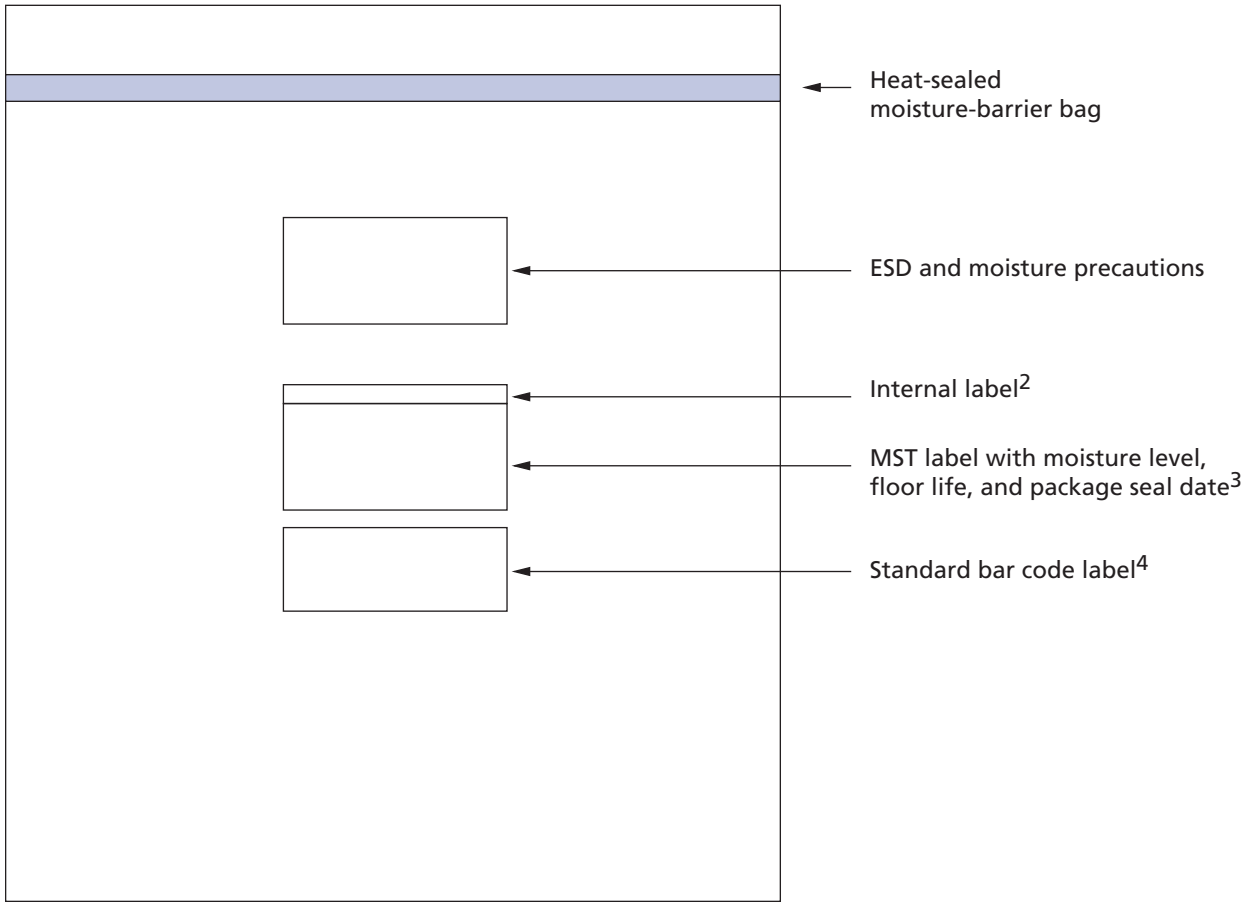


Figure 25: Labeling on Moisture-Barrier and Static-Shielding Bags[1]



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 24.
4. See Figure 21.

Revision History

Rev. AX 7/24

- Updated Table 5: DDR5 Process Code Options

Rev. AW 3/24

- Updated Table 5: DDR5 Process Code Options

Rev. AV 12/23

- Added DDR5 MRDIMM DRAM Module Label Content
- Updated Micron's Moisture Sensitivity (MST) Label

Rev. AU 12/22

- Updated Table 5

Rev. AT 6/22

- Updated Figure 20

Rev. AS 3/22

- Updated Table 5

Rev. AR 1/22

- Updated Table 5

Rev. AQ 11/21

- Updated Table 5
- Updated Figures 4 through 7
- Updated SSD section Figures and text

Rev. AP 7/21

- Updated Tables 2, 3 and 6
- Updated Figures 4, 5 and 7
- Removed DDR5 NVDIMM section

Rev. AO 1/21

- Updated Figure 4

Rev. AN 1/21

- Added Figure 4, Figure 5
- Updated Figure 6, Figure 7, Figure 8, Figure 21
- Added Table 5
- Removed figures: 2.5-inch Label Structure - M5XX(DC/IT)/M600 and mSATA Label Structure - M6XX and mSATA Label Structure - M6XX

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
- 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 11, 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.

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 it's 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 6 and Figure 2 on page 7

Rev. 2/14/05

- Added China to note 1 country code

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