Legacy DDR4, DDR3/L, & DDR2 SDRAM Part Numbering System

The part numbering system is available at www.micron.com/numbering

Legacy DDR4, DDR3/L, and DDR2 SDRAM

E D Y 40 4 A A BG - CR - F

Micron Technology

Type
D = Packaged device

Product Family
Y = DDR4 SDRAM
J = DDR3/DDR3L SDRAM
E = DDR2 SDRAM

Density/Bank

Mark	Density	Bank
DDR4 SDRAM		
20	2GB	
40	4GB	
DDR3 SDRAM		
53	512Mb	8-bank
11	1Gb	8-bank
21	2Gb	8-bank
42	4Gb	8-bank
82	8Gb	8-bank
84	8Gb	8-bank/2CS
A3	16Gb	8-bank

Mark	Density	Bank
DDR2 SDRAM		
25	256Mb	4-bank
51	512Mb	4-bank
10	1Gb	4-bank
14	1Gb	4-bank
11	1Gb	8-bank
21	2Gb	8-bank
23	2Gb	8-bank
42	4Gb	8-bank
A3	16Gb	8-bank

Organization
04 = x4
08 = x8
16 = x16
32 = x32

Power Supply
DDR4 SDRAM
A = 1.2V, V_{DDQ} termination (Interface)
DDR3 SDRAM
B = 1.5V, SSTL_15 (Interface)
D = 1.5V, SSTL_15 (Interface)
E = 1.35V
DDR2 SDRAM
A = 1.8V, SSTL_18 (Interface)
B = 1.5V, SSTL_15 (Interface)
C = 1.5V

Environment Code
E = Lead-free
(RoHS-compliant)
F = Lead-free and halogen-free
(RoHS-compliant)

Speed
DR = DDR4-2400 (16-16-16)
DU = DDR4-2400 (18-18-18)
CP = DDR4-2133 (15-15-15)
CR = DDR4-2133 (16-16-16)
BM = DDR4-1866 (13-13-13)
BN = DDR4-1866 (14-14-14)
AK = DDR4-1600 (11-11-11)
AL = DDR4-1600 (12-12-12)
MQ = DDR3-2133L (12-12-12)
MS = DDR3-2133M (13-13-13)
MU = DDR3-2133N (14-14-14)
JQ = DDR3-1866L (12-12-12)
JS = DDR3-1866M (13-13-13)
GL = DDR3-1600J (10-10-10)
GN = DDR3-1600K (11-11-11)
GS = DDR3-1600 (13-13-13)
DN = DDR3-1333 (11-11-11)
DG = DDR3-1333G (8-8-8)
DJ = DDR3-1333H (9-9-9)
AC = DDR3-1066E (6-6-6)
AE = DDR3-1066F (7-7-7)
AG = DDR3-1066G (8-8-8)
AJ = DDR3-1066 (9-9-9)
8C = DDR3-800E (6-6-6)
8A = DDR3-800D (5-5-5)
8E = DDR3-800 (7-7-7)
1J = DDR2-1066 (7-7-7)
1G = DDR2-1066 (6-6-6)
8E = DDR2-800 (5-5-5)
8G = DDR2-800 (6-6-6)
6C = DDR2-667 (4-4-4)
6E = DDR2-667 (5-5-5)
5C = DDR2-533 (4-4-4)
4A = DDR2-400 (3-3-3)
/L = Reduced self refresh (DDR3)

Package Code
BG = FBGA
SE = FBGA
EB = FCBGA
MA = Stacked FBGA
MB = Stacked FBGA

Die Rev./Revision

Rev. August 14, 2015

Legacy Graphics DRAM, RDRAM®, and XDR™ Part Numbering System

The part numbering system is available at www.micron.com/numbering

Legacy GDDR3, GDDR5, graphics DDR3, RDRAM, and XDR

E D X 10 16 B A SE - 4D A2 - F

Micron Technology

Type
D = Packaged device

Product Family
R = RDRAM
U = GDDR3
W = GDDR5
Q = graphics DDR3
X = XDR DRAM

Density/Bank

Mark	Density	Bank
Graphics DRAM		
10	1GB	16-bank
11	1Gb	8-bank
20	2Gb	16-bank
21	2Gb	8-bank
40	4Gb	16-bank
41	4Gb	8-bank

Mark	Density
RDRAM	
2518	288Mb (x18)
XDR	
10	1Gb
51	512Mb

Organization
08 = x8
16 = x16
32 = x32

Power Supply
Graphics DRAM
A = 1.8V V_{DD}, V_{DDQ}
B = 1.5V V_{DD}, V_{DDQ}
C = 1.35V V_{DD}
RDRAM
A = 2.5V, RSL (Interface)
XDR
A = 1.8V V_{DD}, 1.2V V_{TERM}
B = 1.5V V_{DD}, 1.2V V_{TERM}

Environment Code
E = Lead-free
(RoHS-compliant)
F = Lead-free and halogen-free
(RoHS-compliant)

Internal Code
This code is used on XDR DRAM components only. The mark is not present on Graphics DRAM or RDRAM components.

Speed
7A = 7.0 Gb/s
70 = 7.0 Gb/s
6A = 6.0 Gb/s
60 = 6.0 G/ps
50 = 5.0 Gb/s
40 = 4.0 Gb/s
32 = 3.2 Gb/s
20 = 2.0 Gb/s
18 = 1.8 Gb/s
16 = 1.6 Gb/s
14 = 1.4 Gb/s
5E = 4.8G (^{t}RAC = 32, E Bin)
4C = 4.0G (^{t}RAC = 28, C Bin)
4D = 4.0G (^{t}RAC = 34, D Bin)
3A = 3.2G (^{t}RAC = 27, A Bin)
3B = 3.2G (^{t}RAC = 35, B Bin)
3C = 3.2G (^{t}RAC = 35, C Bin)
CF = 1200 MHz (^{t}RAC = 30ns)
CE = 1200 MHz (^{t}RAC = 32ns)
AEP = 1066 MHz (^{t}RAC = 32ns, ^{t}DAC = 3 clocks)
AE = 106 MHz (^{t}RAC = 32ns)
AD = 1066 MHz (^{t}RAC = 35ns)
AC = 1066 MHz (^{t}RAC = 40ns)
8C = 800 MHz (^{t}RAC = 40ns)

Package Code
BG = FBGA
SE = FBGA

Die Rev./Revision

Rev. August 14, 2015

Legacy MCP Part Numbering System

The part numbering system is available at www.micron.com/numbering

Legacy Multichip Packages

E H B0 xx 011 MA - 1A - E

Micron Technology

Type
H = MCP

Product Family
DRAM with low power function
C0: DDR Mobile RAM + NOR flash memory
D0: DDR Mobile RAM + NAND flash memory
G0: DDR2 Mobile RAM + NAND flash memory
H0: DDR Mobile RAM + OneNAND flash memory
J0: Mobile RAM + NAND flash memory

DRAM without low power function
A0: SDRAM + NOR flash memory
B0: DDR Mobile RAM + NOR flash memory
E0: DDR Mobile RAM + NAND flash memory
F0: Mobile RAM + NAND flash memory

Environment Code
E = Lead-free
(RoHS-compliant)

Speed
Refer to the component DRAM speed.

Package Code
MA = Stacked FBGA
PB = BGA for

Internal Code

Customer System Code
For reference only.

Rev. August 14, 2015

Legacy DDR4 Module Part Numbering System

The part numbering system is available at www.micron.com/numbering

Legacy DDR4 modules

E B Y A2 R A 4 A W A A - CR - F

Micron Technology

Type
B = Module

Product Family
Y = DDR4

Density/Rank

Mark	Density	Rank
DDR4 Module		
41	4GB	1-bank
81	8Gb	1-bank
A2	16Gb	2-bank
B4	32Gb	4-bank
C8	64Gb	8-bank
D8	128Gb	8-bank

Module Type
R = 288-pin RDIMM
H = 288-pin RDIMM with heat spreader
E = 288-pin unbuffered DIMM (ECC)
U = 288-pin unbuffered DIMM (nonECC)
S = 256-pin SODIMM

DRAM Density & Power Supply
A = 4Gb/1.2V
B = 8Gb/1.2V
C = 16Gb/1.2V

DRAM Organization
4 = x4
8 = x8
16 = x16

Die Rev.

DRAM Package
W = FBGA
D = DDP

Module Rev.

Internal Code

Speed
DR = DDR4-2400 (16-16-16)
DU = DDR4-2400 (18-18-18)
CP = DDR4-2133 (15-15-15)
CR = DDR4-2133 (16-16-16)
BM = DDR4-1866 (13-13-13)
BN = DDR4-1866 (14-14-14)
AK = DDR4-1600 (11-11-11)
AL = DDR4-1600 (12-12-12)

Environment Code
F = Lead-free and halogen-free
(RoHS-compliant)

Rev. August 14, 2015

Legacy DDR3 Module Part Numbering System

The part numbering system is available at www.micron.com/numbering

Legacy DDR3 modules

E B J 41 U F 8 B C F 0 - GN - F

Micron Technology

Type
B = Module

Product Family
J = DDR3, DDR3L

Density/Rank

Mark	Density	Rank
DDR3 Module		
34	32GB	4-rank
17	16GB	2-rank
18	16GB	4-rank
80	8GB	1-rank
81	8GB	2-rank
82	8GB	4-rank
40	4GB	1-rank
41	4GB	2-rank
42	4GB	4-rank
20	2GB	1-rank
21	2GB	2-rank
10	1GB	1-rank
11	1GB	2-rank
51	512MB	1-rank
52	512MB	2-rank

Module Type
R = Registered DIMM
H = Registered DIMM with heat spreader
E = Unbuffered DIMM (ECC)
U = Unbuffered DIMM (nonECC)
L = Load reduced

DRAM Density
D = 512Mb
E = 1Gb
F = 2Gb
G = 4Gb
H = 8Gb

Environment Code
E = Lead-free
(RoHS-compliant)
F = Lead-free and halogen-free
(RoHS-compliant)

Speed
GN,GNL = PC3-12800(11-11-11)
DG = PC3-10660(8-8-8)
DJ,DJL = PC3-10660(9-9-9)
JS = PC3-14900(13-13-13)
AC = PC3-8500 (6-6-6)
AE = PC3-8500 (7-7-7)
AG = PC3-8500 (8-8-8)
8A = PC3-6400 (5-5-5)
8C = PC3-6400 (6-6-6)

Module Rev./
AMB Device Information for FBDIMMs only/
Thermal Sensor Information*
0 = Without thermal sensor
A = With thermal sensor
5 = Black PCB
* For unbuffered nonECC DIMMs,
both A and 0 = without thermal sensor

Module Outline
F, W = 240-pin DIMM
R , P = 240-pin DIMM (DDP)
S, U, J = 204-pin SODIMM
G, L = 240-pin VLP DIMM
Q = 240-pin VLP DIMM (DDP)

Die Rev.

Power Supply
B = 1.5V
E = 1.35V

DRAM Organization
4 = x4
8 = x8
6 = x16

Rev. August 14, 2015

Legacy DDR2 Module Part Numbering System

The part numbering system is available at www.micron.com/numbering

Legacy DDR2 modules

E B E 81 A F 4 A B H A - 5C - E

Micron Technology

Type
B = Module

Product Family
E = DDR2

Density/Rank

Mark	Density	Rank
DDR2 Module		
18	16GB	4-rank
81	8GB	2-rank
82	8GB	4-rank
41	4GB	2-rank
42	4GB	4-rank
20	2GB	1-rank
21	2GB	2-rank
10	1GB	1-rank
11	1GB	2-rank
51	512MB	1-rank
52	512MB	2-rank
25	256MB	1-rank
26	256MB	2-rank

Module Type
R = Registered
A = Registered (with address/command parity)
E = Unbuffered (ECC)
U = Unbuffered (nonECC)
F = Fully buffered

DRAM Density
C = 256Mb
D = 512Mb
E = 1Gb
F = 2Gb
1 = 2Gb (DDP)

DRAM Organization
4 = x4
8 = x8
6 = x16

Power Supply, Interface
A = 1.8V, SSTL_18

Die Rev.

Module Outline
F, W = 240-pin DIMM
H = 240-pin DIMM (Stacked FBGA)
S, U = 200-pin SO-DIMM
D = 200-pin SO-DIMM (Stacked FBGA)
R = 240-pin DIMM (DDP)
G = 240-pin VLP DIMM
Q = 240-pin VLP DIMM (DDP)

Module Rev./
AMB Device Information for FBDIMMs only

Speed
8E = PC2-6400(5-5-5)
8G = PC2-6400(6-6-6)
6C = PC2-5300(4-4-4)
6E = PC2-5300(5-5-5)
5C = PC2-4200(4-4-4)
4A = PC2-3200(3-3-3)

Environment Code
E = Lead-free
(RoHS-compliant)
F = Lead-free and halogen-free
(RoHS-compliant)

Rev. August 14, 2015

Legacy DDR Module Part Numbering System

The part numbering system is available at www.micron.com/numbering

Legacy DDR modules

E B D 21 R D 4 A D N A - 6B - E

Micron Technology

Type
B = Module

Product Family
D = DDR

Density/Rank

Mark	Density	Rank
DDR Module		
12	128MB	1-rank
13	128MB	2-rank
25	256MB	1-rank
26	256MB	2-rank
51	512MB	1-rank
52	512MB	2-rank
10	1GB	1-rank
11	1GB	2-rank
20	2GB	1-rank
21	2GB	2-rank

Module Type
R = Registered DIMM
E = Unbuffered DIMM (ECC)
U = Unbuffered DIMM (nonECC)

DRAM Density
B = 128Mb
C = 256Mb
D = 512Mb

Environment Code
Blank = Sn-Pb solder
E = Lead-free
(RoHS-compliant)

Speed
5B = PC3200(3-3-3)
5C = PC3200(3-4-4)
6B = PC2700(2.5-3-3)
7B = PC2100B(2.5-3-3)
10 = PC1600(2-2-2)

Module Rev.

Module Outline
F = 184-pin DIMM
N = 184-pin DIMM (TCP)
S = 200-pin SODIMM
D = 200-pin SODIMM (TCP)
R = 200-pin SODIMM (sTSOP)

Die Rev.

Power Supply, Interface
A = 2.5V, SSTL_2

DRAM Organization
4 = x4
8 = x8
6 = x16

Rev. August 14, 2015

Legacy SDRAM Module Part Numbering System

The part numbering system is available at www.micron.com/numbering

Legacy SDRAM modules

E B S 11 R C 4 A C N A - 7A

Micron Technology

Type
B = Module

Product Family
S = SDRAM

Density/Rank

Mark	Density	Rank
SDRAM Module		
20	2GB	1-rank
21	2GB	2-rank
10	1GB	1-rank
11	1GB	2-rank
51	512MB	1-rank
52	512MB	2-rank
25	256MB	1-rank
26	256MB	2-rank
12	128MB	1-rank
13	128MB	2-rank

Module Type
R = Registered DIMM
E = Unbuffered DIMM (ECC)
U = Unbuffered DIMM (nonECC)

Speed
7A = PC133/CL2,3
75 = PC133/CL3, PC100/CL2
80 = PC100/CL2

Module Rev.

Module Outline
F = 168-pin DIMM
N = 168-pin DIMM (TCP)
S = 144-pin SO DIMM
D = 144-pin SO DIMM (TCP)
M = 144-pin Micro DIMM

Die Rev.

Power Supply, Interface
A = 2.5, SSTL_2

DRAM Organization
2 = x2
4 = x4
8 = x8
6 = x16

DRAM Density
B = 128Mb
C = 256Mb
D = 512Mb

Rev. August 14, 2015

Legacy RIMM™ Part Numbering System

The part numbering system is available at www.micron.com/numbering

Legacy RIMM

E B E 81 A F 4 A B H A - 5C - E

Micron Technology

Type
B = Module

Product Family
R = RDRAM

Density
51 = 512MB
25 = 256MB
12 = 128MB

Module Type
E = Unbuffered DIMM (ECC)
U = Unbuffered DIMM (nonECC)

DRAM Density
C = 288Mb

DRAM Organization
8 = x18

Environment Code
Blank = Sn-Pb solder
E = Lead-free
(RoHS-compliant)

Speed
CF = 1200 MHz (^{t}RAC = 30ns)
CE = 1200 MHz (^{t}RAC = 32ns)
AEP = 1066 MHz (^{t}RAC = 32ns, ^{t}DAC = 3 clocks)
AE = 1066 MHz (^{t}RAC = 32ns)
AD = 1066 MHz (^{t}RAC = 35ns)
AC = 1066 MHz (^{t}RAC = 40ns)
8C = 800 MHz (^{t}RAC = 40ns)

Module Rev.

Module Outline
F = 184-pin RIMM
S = 160-pin SORIMM
K = 232-pin RIMM

Die Rev.

Power Supply, Interface
A = 2.5V, RSL

Rev. August 14, 2015

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Legacy Mobile Bare Die Part Numbering System

The part numbering system is available at www.micron.com/numbering

Legacy Mobile Wide IO, LPDDR3, LPDDR2, Mobile RAM™

E C 1 40 51 A A VA Y3 xx - F

Micron Technology

Type
C = Bare die

Product Family
1 = Mobile Wide IO
F = LPDDR3
B = LPDDR2
K = LPDDR
L = LPSDR
M = DDR Mobile RAM/Mobile RAM

Density/Page Size
40 = 4Gb
84 = 8Gb/4KB
62 = 6Gb/4KB
44 = 4Gb/4KB
24 = 2Gb/2KB
22 = 2Gb/4KB
10 = 1Gb/2KB, 4KB
14 = 1Gb/4KB
13 = 1Gb/2KB
51 = 512Mb/1KB
54 = 512Mb/2KB
25 = 256Mb/1KB
26 = 256Mb/2KB
28 = 256Mb/1KB, 2KB
12 = 128Mb/1KB
64 = 64Mb/512B

Organization
51 = x512 (128 I/O x 4 channel)
16 = x16
0A = x16 /x32 (x32 optional on LPDDR2 and Mobile RAM)
32 = x32
64 = x64

Environment Code
(Not shown on Mobile RAM)
F = Lead-free and halogen-free
(RoHS-compliant)

Wafer Type
(Not shown on all products)
V1,blank = Hiroshima Epi
V2 = Hiroshima Non-Epi
V3 = RexChip Epi
V4 = RexChip Non-Epi

Speed (Mobile RAM only)
LPSDR
Blank = 133 MHz
60 = 166 MHz
LPDDR: 65nm 以降
Blank = 370 Mb/s
50 = 400 Mb/s
LPDDR: 70nm 迄
Blank = 133 MHz
60 = 166 MHz
54 = 185 MHz
50 = 200 MHz

ϕ300mm Wafer (bare die only)

Package Codes
Vx, CN = Bare die
VA = Die with surface bump and solder

Die Revision

Power Supply, Interface
Wide IO
A = V_{DD1} = 1.8V; V_{DD2} = V_{DDCA} = V_{DDQ} = 1.2V
LPDDR3
A = V_{DD1} = 1.8V; V_{DD2} = V_{DDCA} = V_{DDQ} = 1.2V; S8 device, HSUL_12
LPDDR2
B = V_{DD1} = 1.8V; V_{DD2} = V_{DDCA} = V_{DDQ} = 1.2V; S4B device, HSUL
Mobile RAM
C = V_{DD} = 1.8V; V_{DDQ} = 1.8V; LVCMOS

Rev. August 14, 2015

Legacy LPDRAM Part Numbering System

The part numbering system is available at www.micron.com/numbering

Legacy LPDDR3 PoP

E D F A1 64 A 1 PB - JD TJ - F - D

Micron Technology

Type
D = Packaged device
M = Daisy chain sample

Product Family
F = Mobile LPDDR3

Density/Chip Select
B1 = 32Gb/4-CS
B2 = 32Gb/2-CS
P1 = 24Gb/4-CS
P2 = 24Gb/4-CS
A1 = 16Gb/4-CS
A2 = 16Gb/2-CS
A3 = 16Gb/2-CS
M4 = 12Gb/2-CS
81 = 8Gb/2-CS
44 = 4Gb/1-CS

Organization
32 = x32
64 = x64
12 = x128

Power Supply, Interface
A = V_{DD1} = 1.8V; V_{DD2} = V_{DDCA} = V_{DDQ} = 1.2V; S8 device; HSUL

Revision Designator

Packing Media Code
D = Dry pack (tray)
R = Tape & reel

Environment Code
F = Lead-free & halogen-free (RoHS-compliant)

Special Detail (WTR only)
Blank = Normal (–30°C to +85°C)
TJ = WTR (–30°C to +105°C)

Speed
MD = 2133 Mb/s
JD = 1866 Mb/s
GD = 1600 Mb/s
DD = 1333 Mb/s

Mobile Package Codes

	8Gb		**12Gb**		**16Gb**		**24Gb**	
	30nm	**25nm**	**30nm**	**25nm**	**30nm**	**25nm**	**30nm**	**25nm**
168-ball BGA		PD PF		PD PH		PD PF		
216-ball BGA	PB PF	PK			PB PK	PB PH PK PM		PB
216-ball -1ch (B) BGA	PB	PB		PF		PB		
220-ball BGA					PF			
256-ball BGA		PF				PF PH		
504-ball BGA						PD		PB

Rev. August 14, 2015

Legacy LPDRAM Part Numbering System

The part numbering system is available at www.micron.com/numbering

Legacy LPDDR3 FBGA

E D F A1 64 A 1 MA - GD - F - D

Micron Technology

Type
D = Packaged device
M = Daisy chain sample

Product Family
F = Mobile LPDDR3

Density/Chip Select
B1 = 32Gb/4-CS（2-CS/channel）
B2 = 32Gb/2-CS
A1 = 16Gb/4-CS
A2 = 16Gb/2-CS
A3 = 16Gb/2-CS
81 = 8Gb/2-CS
44 = 4Gb/1-CS

Organization
32 = x32
64 = x64

Power Supply, Interface
A = V_{DD1} = 1.8V; V_{DD2} = V_{DDCA} = V_{DDQ} = 1.2V; S8 device; HSUL_12
B = V_{DD1} = 1.8V; V_{DD2} = V_{DDCA} = V_{DDQ} = 1.0V; S8 device; HSUL_12

Packing Media Code
D = Dry pack (tray)
R = Tape & reel

Environment Code
F = Lead-free (RoHS-compliant) & halogen-free

Speed
JD = 1866 Mb/s
GD = 1600 Mb/s
DD = 1333 Mb/s

Mobile Package Codes

	4Gb		**8Gb**		**16Gb**		**32Gb**	
	30nm	**25nm**	**30nm**	**25nm**	**30nm**	**25nm**	**30nm**	**25nm**
178-ball FBGA	BJ							
178-ball Stacked FBGA			MC	MA	MA	MA		
253-ball Stacked FBGA			MA	MA	MA	MA		MA

Revision Designator

Rev. August 14, 2015

Legacy LPDRAM Part Numbering System

The part numbering system is available at www.micron.com/numbering

Legacy LPDDR2 PoP

E D B A1 64 B 1 PD – xx x xx - F - D

Micron Technology

Type
D = Packaged device
M = Daisy chain sample

Product Family
B = Mobile LPDDR2

Density/Chip Select
A1 = 16Gb/4-CS
A2 = 16Gb/2-CS
M1 = 12Gb/3-CS (2-CS/channel B;
(1-CS/channel A)
M4 = 12Gb/2-CS
40 = 4Gb/2-CS
44 = 4Gb/1-CS
81 = 8Gb/2-CS
80 = 8Gb/4-CS
61 = 6Gb/2-CS
60 = 6Gb/ 3-CS
44 = 4Gb/1-CS
40 = 4Gb/2-CS
24 = 2Gb/1-CS

Organization
32 = x32
64 = x64

Power Supply, Interface
B = V_{DD1} = 1.8V; V_{DD2} = V_{DDCA} = V_{DDQ} = 1.2V; S4B device; HSUL

Revision Designator

Packing Media Code
D = Dry pack (tray)
R = Tape & reel

Environment Code
F = Lead-free (RoHS-compliant) & halogen-free

Operating Temperature
AT = –40°C to +105°C
UT = –40°C to +125°C
IT = –40°C to +85°C

Special Options
A = Automotive grade

Speed
1D = 1066 Mb/s
8D = 800 Mb/s

Mobile PoP Package Codes

	2Gb		4Gb		6Gb		8Gb		12Gb	
	30nm	**25nm**	**30nm**	**25nm**	**30nm**	**25nm**	**30nm**	**25nm**	**30nm**	**25nm**
168-ball BGA	PE		PA	PA		PB PF	PB PP			PB PF
216-ball BGA			PB				PF			
216-ball -1ch (B) BGA			PC	PC	PD	PD	PD PH	PD		PD
220-ball BGA			PP		PB	PF	PD	PF PP	PD	
240-ball BGA			PD				PH			

Rev. February 29, 2016

Legacy LPDRAM Part Numbering System

The part numbering system is available at www.micron.com/numbering

Legacy LPDDR2 FBGA

E D B A2 32 B 1 MA – xx x xx - F - D

Micron Technology

Type
D = Packaged device
M = Daisy chain sample

Product Family
B = Mobile LPDDR2

Density/Chip Select or Density/Page Size
A2 = 16Gb/2-CS
81 = 8Gb/2-CS
44 = 4Gb/1-CS
40 = 4Gb/2-CS
13 = 1Gb/2KB
54 = 512Mb/2KB

Organization
32 = x32
64 = x64

Power Supply, Interface
B = V_{DD1} = 1.8V; V_{DD2} = V_{DDCA} = V_{DDQ} = 1.2V; S4B device; HSUL

Revision Designator

Packing Media Code
D = Dry pack (tray)
R = Tape & reel

Environment Code
F = Lead-free (RoHS-compliant) & halogen-free

Operating Temperature
AT = –40°C to +105°C
UT = –40°C to +125°C
IT = –40°C to +85°C

Special Options
A = Automotive grade

Speed
1D = 1066 Mb/s
8D = 800 Mb/s

Mobile Package Codes

	1Gb	**4Gb**		**8Gb**		**16Gb**	
	25nm	**30nm**	**25nm**	**30nm**	**25nm**	**30nm**	**25nm**
134-ball FBGA	BH	BH		MA	MA	MA	MA
134-ball Stacked FBGA				MC			
178-ball FBGA	BH	BH					
178-ball Stacked FBGA				MC	MA	MA	MA

Rev. February 29, 2016

Legacy LPDRAM Part Numbering System

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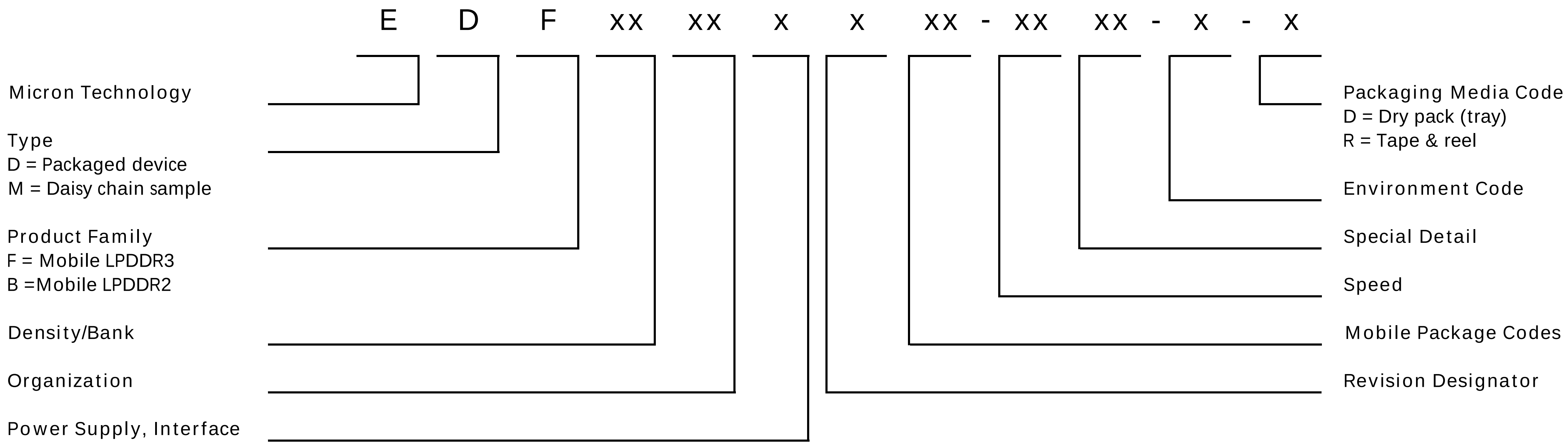
Legacy LPDDR3 and LPDDR2



E D F xx xx x x xx - xx xx - x - x

Micron Technology

Type
D = Packaged device
M = Daisy chain sample

Product Family
F = Mobile LPDDR3
B =Mobile LPDDR2

Density/Bank

Organization

Power Supply, Interface

Packaging Media Code
D = Dry pack (tray)
R = Tape & reel

Environment Code

Special Detail

Speed

Mobile Package Codes

Revision Designator

Rev. August 14, 2015