

SpecTek NAND MCP Part Numbering System



Last Update: 02/14/2014

S M J40D 2G NA A K X A JA F - S1

SpecTek Memory
FN, FT, FB = SpecTek

M = Marked
U = Unmarked

Design ID

NAND Density
56M = 256Mb 8G = 8Gib
12M = 512Mb AG = 16Gib
1G = 1Gib BG = 32Gib
2G = 2Gib CG = 64Gib
4G = 4Gib DG = 126Gib

LP-DRAM Density
56M = 256Mb 72M = 3Gib
12M = 512Mb 96M = 4Gib
40M = 640Mb 92M = 8Gib
24M = 1Gib 52M = 1152Mb
48M = 2Gib
NA = Not Defined

Operating Voltage Range
1 = 1.75V – 1.95V DRAM/ 2.7V – 3.6V NAND
A = 1.7V – 1.95V
C = 1.5V – 1.7V
D = 1.2V – 1.5V
F = 1.0V – 1.2V

NAND Flash I/O Width

NAND Flash I/O Width				NAND Flash I/O Width			
Width	Density	Generation		Width	Density	Generation	
1	x8	1Gib	First	U	x8	1Gib	Second
2	x16	1Gib	First	V	x16	1Gib	Second
3	x8	2Gib	First	Y	x8	4Gib	Second
4	x16	2Gib	First	Z	x16	4Gib	Second
5	x8	4Gib	First	AA	x8	2Gib	Third
6	x16	4Gib	Second	AB	x16	2Gib	Third
7	x16	4Gib	Second	AC	x8	1Gib	Third
8	x16	2Gib	First	AD	x16	1Gib	Third
9	x16	1Gib	First	AE	x8	8Gib	Fourth
C	x8	1Gib	First	AF	x16	8Gib	Fourth
D	x16	1Gib	First	AG	x8	4Gib	Fourth
J	x8	2Gib	Second	AH	x16	4Gib	Fourth
K	x16	2Gib	Second	AI	x8	1Gib	Fourth
N	x8	4Gib	First	AJ	x16	1Gib	Fourth
P	x16	4Gib	First	AL	x16	8Gib	Fourth
				AM	x16	2Gib	Fourth

Speed Grade
S1 = Untested Settle and Ship (100% of NAND Density)
S8 = Untested Settle and Ship (80% of NAND Density)
S7 = Untested Settle and Ship (70% of NAND Density)
B7 = Untested (75%)
BU = Untested (50%)
-5FT = -5 Speed / Fully Tested at 90 degrees (100%)
-6FT = -6 Speed / Fully Tested at 90 degrees (100%)
-5BT = -5 Speed / Fully Tested at 70 degrees (100%)
-6BT = -6 Speed / Fully Tested at 70 degrees (100%)
-75FT = -75 Speed / Fully Tested at 90 degrees (100%)
PT = Probe Fallout (90%)
-A1 = Fully Tested /Not Speed-graded (100%)
SS = Settle and Ship (25%)

L = PB
F = PB-free

Package Code (See Next Page)

Chip Count
A = 1 NAND, 1 LP-DRAM E = 1 NAND, 3 LP-DRAM
B = 2 NAND, 1 LP-DRAM F = 2 NAND, 3 LP-DRAM
C = 1 NAND, 2 LP-DRAM G = 1 NAND, 4 LP-DRAM
D = 2 NAND, 2 LP-DRAM

LP-DRAM I/O Configuration

	Type	Width	Density	Generation
1	DDR/SDR	x16 + x16	128Mb + 512Mb	External First
2	DDR/SDR	x16 + x16 (2)	128Mb + 1Gib	External First
A	DDR	x16	512Mb	First
C	DDR	x32	512Mb	First
J	DDR	x16	1Gib	First
L	DDR	x32	1Gib	First
N	DDR	x16	512Mb	Second
P	DDR	x16	512Mb	Second
R	DDR	x32	512Mb	Second
T	SDR	x32	512Mb	Second
U	SDR	x16 + x16	512Mb + 128Mb	First
V	DDR	x16	512Mb	Third
Y	DDR	x32	512Mb	Third
Z	SDR	x16	512Mb	First
AA	DDR	x16	512Mb	First
AD	SDR	x16 + x16	512Mb + 128Mb	First
AE	SDR	x16	512Mb	Third
AF	SDR	x32	512Mb	Third

X = No Value

Type	Width	Density	Generation	
AG	SDR	x16 + x16	512Mb + 128Mb	First
AH	DDR	x16	1Gib	Second
AJ	SDR	x16	1Gib	First
AK	DDR	x32	1Gib	Second
AL	SDR	x32	1Gib	First
AM	DDR	x16	2Gib	First
AN	SDR	x16	2Gib	First
AP	DDR	x32	2Gib	First
AR	SDR	x32	2Gib	First
AS	SDR	x16 (2) + x16	1Gib + 128Mb	First
AT	DDR	x16 (2) + x16	2Gib + 1Gib	First
AU	DDR	x32	256Mb	First
AV	SDR	x32	256Mb	First ^d
AX	DDR	x32 (x2)	4Gib + 1Gib	First
AY	DDR	x32 (x2)	4Gib + 1Gib	1 st /2
AZ	DDR	x16	2Gib	Third
BA	DDR	x32	2Gib	Third
BB	DDR	x32	2Gib	Fourth

Package Code		Balls	Pkg	Outline	Ball Pitch	Pkg Type	Pinout Version	Pkg Height
09Z	137	MCP	10.5x13	0.80mm	LFBGA			
0DZ	137	MCP	10.5x13	0.80mm	TFBGA			
1HZ	168	MCP	12x12	0.50mm	VFBGA			1.00mm thick
7CZ	152	MCP	14x14	0.65mm	LFBGA			1.25mm thick
A4Z	153	MCP	8x9	0.50mm	VFBGA			0.90mm thick
ACZ	152	MCP	14x14	0.65mm	VFBGA			0.95mm thick
BCZ	168	MCP	12x12	0.50mm	TFBGA			1.10mm thick
C8Z	128		12x12	0.65mm	TFBGA			1.10mm thick
CA	152	PoP	14x14	0.65mm	VFBGA	OMAP		0.90mm thick
CG	152	PoP	14x14	0.65mm	VFBGA	OMAP		1.00mm thick
CL	152	PoP	14x14	0.65mm	VFBGA	OMAP		LOCK TIGHT
CZ	133	MCP	10x13	TBD	VFBGA	TBD		1.00mm thick
DKZ	168	MCP	12x12	0.50mm	WFBGA			0.80mm thick
HB	149	MCP	10x13.5	0.80mm	TFBGA	JEDEC		1.20mm thick
HIZ	107	MCP	10.5x13	0.80mm	TFBGA			
HP	160	PoP	15x15	0.65mm	TFBGA	JEDEC		1.10mm thick
HX	152	PoP	14x14	0.65mm	VFBGA/TFBGA	EMP		1.10mm thick
HY	152	PoP	14x14	0.65mm	TFBGA	EMP (U)		1.17mm thick
HZ	152	PoP	14x14	0.65mm	VFBGA/TFBGA	EMP		1.00mm thick
JA	137	MCP	10.5x13	0.80mm	TFBGA	JEDEC		1.20mm thick
JC	107	MCP	10.5x13	0.80mm	TFBGA	JEDEC		1.20mm thick
JF	152	PoP	14x14	0.65mm	VFBGA	JEDEC		1.00mm thick
JG	168	PoP	12x12	0.50mm	VFBGA	OMAP		0.90mm thick
JH	128	PoP	12x12	0.65mm	VFBGA	JEDEC		1.10mm thick
JI	168	PoP	12x12	0.50mm	TFBGA	OMAP		1.10mm thick
JLZ	133	MCP	11x10	0.50mm	VFBGA			1.00mm thick
JMZ	153	MCP	11x10	0.50mm	TFBGA			1.20mm thick
JQ	152	PoP	14x14	0.65mm	TFBGA	OMAP		1.10mm thick
JR	137	MCP	10.5x13	0.80mm	LFBGA	JEDEC		1.40mm thick
JS	137	MCP	10.5x13	0.80mm	TFBGA	QLC		1.20mm thick
JV	168	PoP	12x12	0.50mm	VFBGA	OMAP		1.00mm thick
JWZ	152		14x14	0.65mm	VFBGA			1.00mm thick
JZ	152	PoP	14x14	0.65mm	LFBGA	EMP		1.27mm thick
JZZ	168	MCP	12x12	0.50mm	VFBGA			0.90mm thick
KA	160	PoP	15x15	0.65mm	TFBGA	JEDEC A		1.10mm thick
KC	107	MCP	10.5x13	0.80mm	TFBGA	JEDEC		1.10mm thick
KD	137	MCP	10.5x13	0.80mm	TFBGA	JEDEC		1.10mm thick
KE	160	PoP	15x15	0.65mm	VFBGA	JEDEC		1.00mm thick
KL	168	MCP	12x12	0.50mm	WFBGA	JEDEC		0.80mm thick
KM	128	PoP	12x12	0.65mm	VFBGA	EMP		0.95mm thick
KN	184	PoP	14x14	0.50mm	VFBGA	EMP		1.00mm thick
KQ	168	PoP	12x12	0.50mm	WFBGA	OMAP		0.75mm thick
KS	137	MCP	10.5x13	0.80mm	VFBGA	JEDEC		1.00mm thick
KZ	152	PoP	14x14	0.65mm	TFBGA	OMAP		1.20mm thick
KZZ	152	MCP	14x14	0.65mm	VFBGA			1.05mm thick
M3Z	152	MCP	14x14	0.65mm	TFBGA			1.10mm thick
MA	168	PoP	12x12	0.50mm	WFBGA	OMAP		0.70mm thick
MB	152	PoP	14x14	0.65mm	WFBGA	OMAP		0.80mm thick
MC	240	PoP	14x14	0.50mm	WFBGA	QCT		0.80mm thick
MD	130	MCP	8x9	0.65mm	VFBGA	JEDEC		1.00mm thick
ME	240	PoP	14x14	0.50mm	TFBGA	QCT		1.12mm thick
MF	168	PoP	12x12	0.50mm	VFBGA	OMAP		0.85mm thick
MJ	240	PoP	14x14	0.50mm	VFBGA	QCT		0.85mm thick
MK	153	MCP	10x12	0.50mm	VFBGA	TBD		0.90mm thick
ML	153	MCP	8x9	0.50mm	VFBGA	JEDEC		0.90mm thick
MM	162	MCP	11x13.5	0.65mm	VFBGA	JEDEC		1.00mm thick
MS	191	PoP	12x12	0.40mm	VFBGA	CANON		0.80mm thick
NE	133	MCP	11x10	0.50mm	VFBGA			1.00mm thick
NPZ	153	MCP	11.5x13	0.50mm	TFBGA			1.10mm thick
TA	162	MCP	11x13.5	0.65mm	TFBGA	JEDEC		1.10mm thick
TE	153	MCP	10x12	0.50mm	VFBGA	JEDEC		1.00mm thick
TN	121	MCP	7.5x8	0.50mm	WFBGA	JEDEC		0.80mm thick
USZ	149	MCP	10x13.5	0.80mm	TFBGA			