



CYPRESS[®]
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Cypress Roadmap: Automotive Flash Memory

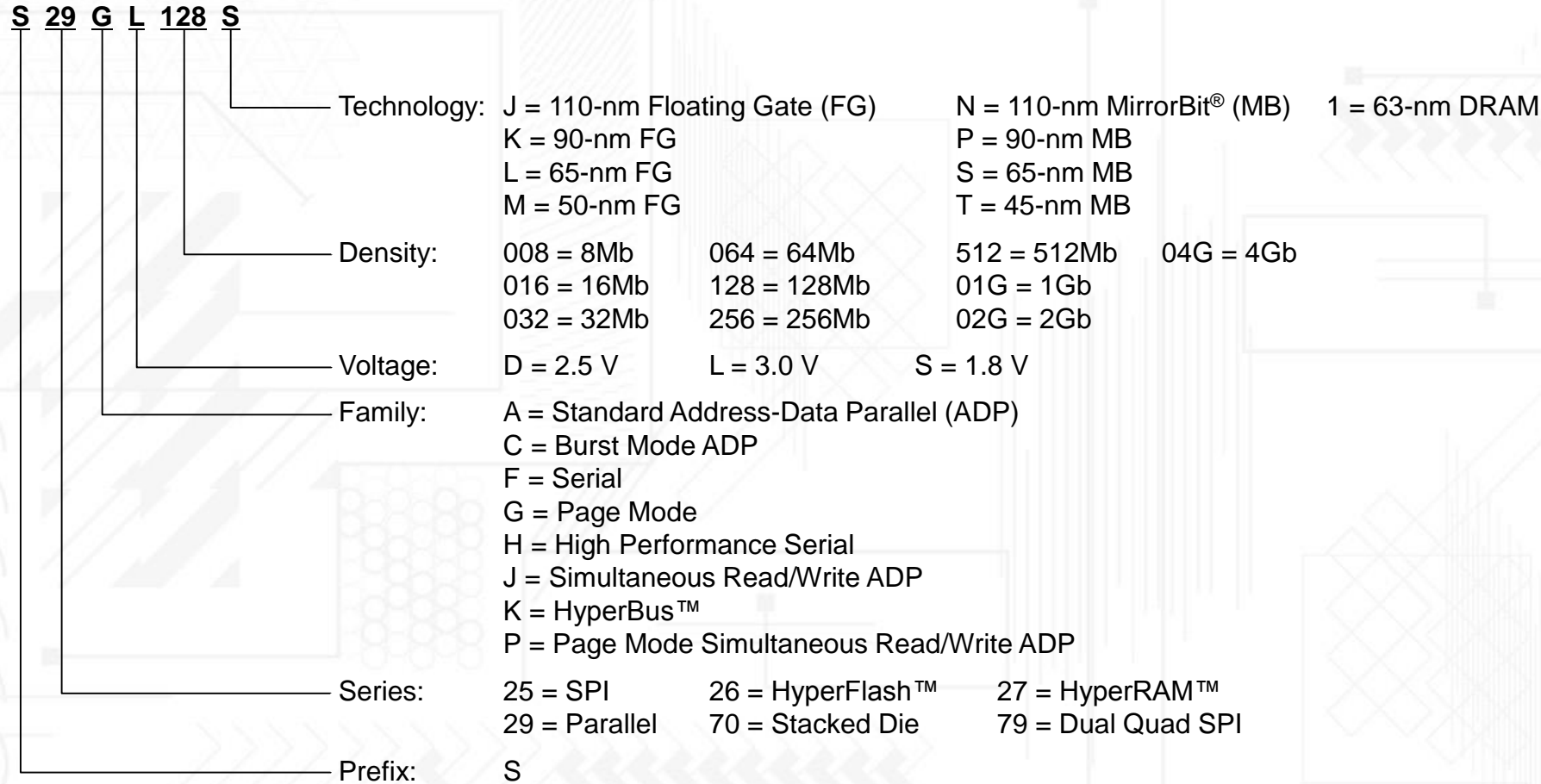
Q2 2017



NOR Flash Memory Automotive Family



NOR Flash Memory Automotive Family Decoder



HyperFlash™, HyperRAM™ and Burst Parallel NOR Memory Automotive Roadmap

Product Family	Density	(Prod) [EOL]	2017				2018				2019				2020				2021			
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
S26KS-S 65-nm MB 1.8 V	1Gb ¹ 512Mb 256Mb 128Mb	(TBD)	[Production]																			
S26KL-S 65-nm MB 3.0 V	1Gb ¹ 512Mb 256Mb 128Mb	(TBD)	[Production]																			
S27KS-1 63-nm DRAM 1.8 V	256Mb ¹ 128Mb ¹ 64Mb	(TBD) (Q2'17) (Q2'17)	[Production]																			
S27KL-1 63-nm DRAM 3.0 V	256Mb ¹ 128Mb ¹ 64Mb	(TBD) (Q2'17)	[Production]																			
S29CD-J 110-nm FG 2.5 V	32Mb 16Mb		[Production]																			
S29CL-J 110-nm FG 3.0 V	32Mb 16Mb		[Production]																			

¹ S70 Series

HyperFlash™, HyperRAM™, and Burst Parallel NOR Automotive Portfolio

	S29CL-J ¹ 110 nm, 3.0 V	S29CD-J ¹ 110 nm, 2.5 V	HyperRAM S27KL-1 ² 63 nm, 3.0 V	HyperRAM S27KS-1 ² 63 nm, 1.8 V	HyperFlash S26KL-S ³ 65 nm 3.0 V	HyperFlash S26KL-T ³ 45 nm, 3.0 V	HyperFlash S26KS-S ³ 65 nm 1.8 V	HyperFlash S26KS-T ³ 45 nm, 1.8 V
≥256Mb	Density (Name) SDR Clock / DDR Clock * Temp Range	All parts supported by Longevity Program unless noted				2Gb ⁴ 96 ns / 200 MHz Contact Sales		2Gb ⁴ 96 ns / 100 MHz Contact Sales
					1Gb ⁴ 96 ns / 100 MHz Contact Sales	1Gb 96 ns / 200 MHz Contact Sales	1Gb ⁴ 96 ns / 166 MHz Contact Sales	1Gb 96 ns / 100 MHz Contact Sales
					512Mb 96 ns / 100 MHz * A, B and M	512Mb Q318 96 ns / 200 MHz * A, B and M	512Mb 96 ns / 166 MHz * A, B and M	512Mb Q318 96 ns / 100 MHz * A, B and M
64–128Mb			256Mb ⁴ 36 ns / 100 MHz Contact Sales	256Mb ⁴ 36 ns / 166 MHz Contact Sales	256Mb 96 ns / 100 MHz * A, B and M		256Mb 96 ns / 166 MHz * A, B and M	
			128Mb ⁴ Q217 36 ns / 100 MHz Contact Sales	128Mb ⁴ Q217 36 ns / 166 MHz Contact Sales	128Mb 96 ns / 100 MHz * A, B and M		128Mb 96 ns / 166 MHz * A, B and M	
			64Mb 36 ns / 100 MHz * A and B	64Mb Q217 36 ns / 166 MHz * A and B				
≤32Mb	32Mb 54 ns / 75 MHz * A, M and T	32Mb 54 ns / 75 MHz * A, M and T						
	16Mb 54 ns / 66 MHz * A, M and T	16Mb 54 ns / 66 MHz * A, M and T						

* A = Automotive, AEC-Q100 Grade 3: -40°C to +85°C
 B = Automotive, AEC-Q100 Grade 2: -40°C to +105°C
 M = Automotive, AEC-Q100 Grade 1: -40°C to +125°C
 T = Automotive, AEC-Q100 Grade 0: -40°C to +145°C

¹ ADP (Address Data Parallel) Burst

³ S26 = HyperFlash

² S27 = HyperRAM

⁴ S70 series (stacked die)

Status Availability

EOL (Last-Time-Ship)

Concept
 Development
 Sampling
 Production

Concept
 Development
 Sampling
 Production

Concept
 Development
 Sampling
 Production

Concept
 Development
 Sampling
 Production



Serial NOR Flash Memory Automotive Roadmap

Product Family	Density	(Prod) [EOL]	2017				2018				2019				2020				2021			
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
S25FS-T 45-nm MB ¹ / 1.8 V	4Gb ³ 2Gb ³ 1Gb 512Mb	(TBD) (TBD) (Q4'18) (Q3'18)																				
S25FS-S 65-nm MB ¹ / 1.8 V	1Gb ³ 512Mb 256Mb 128Mb 64Mb																					
S25FL-T 45-nm MB ¹ / 3.0 V	4Gb ³ 2Gb ³ 1Gb 512Mb	(TBD) (TBD) (Q4'18) (Q3'18)																				
S79FL-S 65-nm MB ¹ / 3.0 V	1Gb ⁴ 512Mb ⁴ 256Mb ⁴																					
S25FL-S 65-nm MB ¹ / 3.0 V	1Gb ³ 512Mb 256Mb 128Mb ⁵																					
S25FL-P 90-nm MB ¹ / 3.0 V	256Mb ³ 128Mb ⁶	[Q2'18] [Q2'18]																				
S25FL-P 90-nm MB ¹ / 3.0 V	64Mb 32Mb																					
S25FL-L 65-nm FG ² / 3.0 V	256Mb 128Mb 64Mb	(Q3'17) (Q2'17)																				
S25FL1-K 90-nm FG ² / 3.0 V	64Mb 32Mb 16Mb	[Q119] [Q119] [Q119]																				

¹ Hybrid Sector

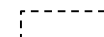
³ S70 Series

⁵ S25FL127S and S25FL128S

² Uniform Sector

⁴ S79 Dual Quad SPI

⁶ S25FL128P and S25FL129P



Concept



Samples



Production



EOL - LTB



EOL - LTS

Products supported by
Longevity Program unless noted



SPI NOR Flash Memory Automotive Portfolio

	S25FL1-K 90 nm, 3.0 V Uniform Sector ¹	S25FL-L 65 nm, 3.0 V Uniform Sector ¹	S25FL-P 90 nm, 3.0 V Hybrid Sector ¹	S25FL-S 65 nm, 3.0 V Hybrid Sector ¹	S79FL-S ² 65 nm, 3.0 V Hybrid Sector ¹	S25FL-T 45 nm, 3.0 V Hybrid Sector ¹	S25FS-S 65 nm, 1.8 V Hybrid Sector ¹	S25FS-T 45 nm, 1.8 V Hybrid Sector ¹
≥256Mb	Density (Name) SDR Clock / DDR Clock * Temp Range					4Gb ³ 166 MHz / 100 MHz * A, B and M		4Gb ³ 166 MHz / 100 MHz * A, B and M
	All parts supported by Longevity Program unless noted			1Gb ³ 133 MHz / 80 MHz * A, B and M	1Gb 133 MHz / 80 MHz * A and B	2Gb ³ 166 MHz / 100 MHz * A, B and M	1Gb ³ 133 MHz / 80 MHz * A, B and M	2Gb ³ 166 MHz / 100 MHz * A, B and M
		256Mb 133 MHz / 66 MHz * A, B and M		512Mb 133 MHz / 80 MHz * A, B and M	512Mb 133 MHz / 80 MHz * A and B	1Gb 166 MHz / 100 MHz * A, B and M	512Mb 133 MHz / 80 MHz * A, B and M	1Gb 166 MHz / 100 MHz * A, B and M
64–128Mb		128Mb Q317 133 MHz / 66 MHz * A, B and M	256Mb ³ Q218 104 MHz / -- * A	256Mb 133 MHz / 80 MHz * A, B and M	256Mb 133 MHz / 80 MHz * A and B	512Mb Q318 166 MHz / 100 MHz * A, B and M	256Mb 133 MHz / 80 MHz * A and B	512Mb Q318 166 MHz / 100 MHz * A, B and M
	64Mb Q119 108 MHz / -- * A and B	64Mb Q217 108 MHz / 54 MHz * A, B and M	128Mb ⁴ Q218 104 MHz / -- * A and B	128Mb ⁶ 133 MHz / 80 MHz * A, B and M			128Mb 133 MHz / 80 MHz * A and B	
	32Mb Q119 108 MHz / -- * A and B		128Mb ⁵ Q218 104 MHz / -- * A and B	128Mb ⁷ 108 MHz / -- * A and B				
≤32Mb		16Mb Q119 108 MHz / -- * A and B	64Mb 104 MHz / -- * A and B				64Mb 133 MHz / 80 MHz * A, B and M	
			32Mb 104 MHz / -- * A and B					

* A = Automotive, AEC-Q100 Grade 3: -40°C to +85°C
 B = Automotive, AEC-Q100 Grade 2: -40°C to +105°C
 M = Automotive, AEC-Q100 Grade 1: -40°C to +125°C

¹ Logical sector size ³ S79 series (stacked die) ⁵ S25FL128P Dual SPI ⁷ S25FL127S 108-MHz SDR
² S79 series, Dual Quad SPI (stacked die) ⁴ S25FL129P Quad SPI ⁶ S25FL128S 133-MHz SDR / 80-MHz DDR

Status Availability EOL (Last-Time-Ship)

Concept
 Development
 Sampling
 Production

QQYY
 QQYY
 QQYY



Parallel NOR Flash Memory Automotive Roadmap

Product Family	Density	(Prod) [EOL]	2017				2018				2019				2020				2021			
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
S29GL-T ¹ 45-nm MB / 3.0 V	2Gb ³ 1Gb 512Mb		[Production]																			
S29GL-S ¹ 65-nm MB / 3.0 V	2Gb ³ 1Gb 512Mb 256Mb 128Mb 64Mb		[Production]																			
S29GL-N ¹ 110-nm MB / 3.0 V	64Mb 32Mb		[Production]																			
S29PL-J ^{1,2} 110-nm FG / 3.0 V	128Mb 64Mb 32Mb		[Production]																			
S29JL-J ² 110-nm FG / 3.0 V	64Mb 32Mb		[Production]																			
S29AL-J 110-nm FG / 13.0 V	16Mb 8Mb		[Production]																			
S29AS-J 110-nm FG / 1.8 V	16Mb 8Mb		[Production]																			

¹ Supports Page Mode ² Supports Simultaneous Read/Write Operation ³ S70 series (stacked die)

Products supported by Longevity Program unless noted

- Concept
- Samples
- Production
- EOL - LTB
- EOL - LTS



Parallel NOR Automotive Portfolio

	S29AS-J 110 nm, 1.8 V	S29AL-J 110 nm, 3.0 V	S29JL-J ¹ 110 nm, 3.0 V	S29PL-J ^{1,2} 110 nm, 3.0 V	S29GL-N ² 110 nm, 3.0 V	S29GL-S ² 65 nm, 3.0 V	S29GL-T ² 45 nm, 3.0 V
≥256Mb	Density Initial / Page Access * Temp Range					2Gb³ 110 ns / 20 ns * A and B	2Gb³ 110 ns / 20 ns * A and B
	All parts supported by Longevity Program unless noted					1Gb 100 ns / 15 ns * A and B	1Gb 100 ns / 15 ns * A, B and M
						512Mb 100 ns / 15 ns * A and B	512Mb 100 ns / 15 ns * A, B and M
						256Mb 90 ns / 15 ns * A and B	
64–128Mb				128Mb 60 ns / 20 ns * A		128Mb 90 ns / 15 ns * A and B	
			64Mb 55 ns / -- * A	64Mb 55 ns / 20 ns * A	64Mb 90 ns / 25 ns * A	64Mb 70 ns / 15 ns * A and B	
≤32Mb			32Mb 60 ns / -- * A	32Mb 55 ns / 20 ns * A	32Mb 90 ns / 25 ns * A		
	16Mb 70 ns / -- * A	16Mb 55 ns / -- * A and M					
	8Mb 70 ns / -- * A	8Mb 55 ns / -- * A and M					

* A = Automotive, AEC-Q100 Grade 3: -40°C to +85°C
 B = Automotive, AEC-Q100 Grade 2: -40°C to +105°C
 M = Automotive, AEC-Q100 Grade 1: -40°C to +125°C

¹ Supports Simultaneous Read/Write Operation ² Supports Page Mode ³ S70 series (stacked die)

Status Availability

EOL (Last-Time-Ship)

Concept
 Development
 Sampling
 Production

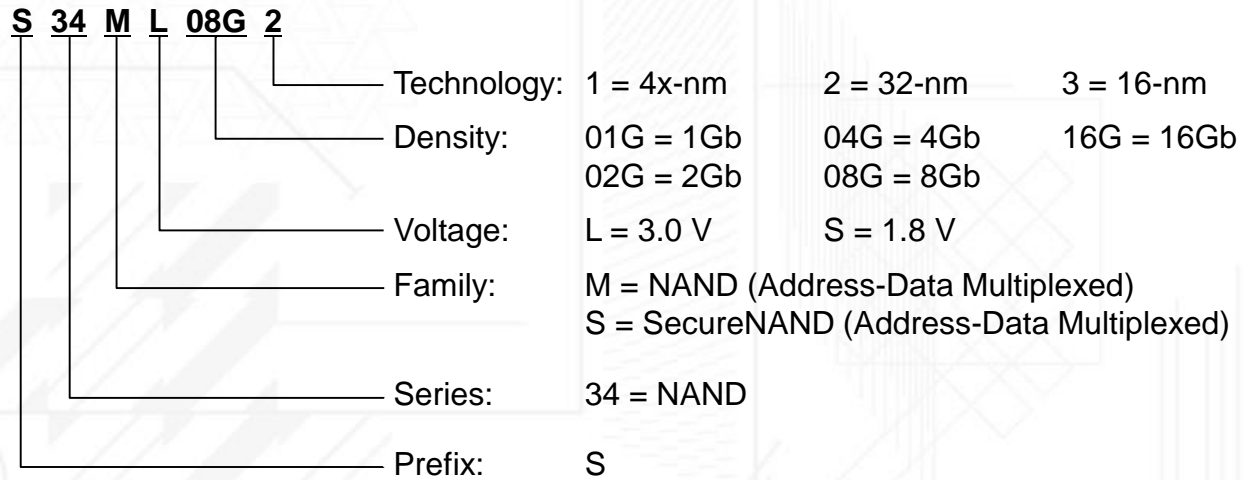
QQYY
QQYY
QQYY



NAND Automotive Family

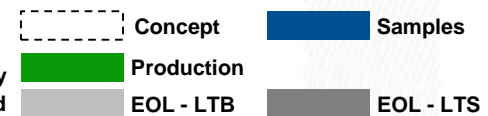


NAND Automotive Family Decoder



SLC NAND Flash Memory Automotive Roadmap

Product Family	Density	(Prod) [EOL]	2017				2018				2019				2020				2021			
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
S34MS-3 16-nm SLC, ONFI 1.0 / 1.8 V	16Gb	(TBD)																				
	8Gb	(TBD)																				
	4Gb	(Q1'19)																				
	2Gb	(TBD)																				
	1Gb	(TBD)																				
S34MS-2 32-nm SLC, ONFI 1.0 / 1.8 V	16Gb																					
	8Gb																					
	4Gb																					
	2Gb																					
	1Gb																					
S34MS-1 4x-nm SLC, ONFI 1.0 / 1.8 V	4Gb	[Q4'19]																				
	2Gb	[Q4'19]																				
	1Gb	[Q4'19]																				
S34SL-2 32-nm SLC, ONFI 1.0 / 3.0 V	4Gb																					
	2Gb																					
	1Gb																					
S34ML-3 16-nm SLC, ONFI 1.0 / 3.0 V	16Gb	(TBD)																				
	8Gb	(TBD)																				
	4Gb	(Q3'18)																				
	2Gb	(TBD)																				
	1Gb	(TBD)																				
S34ML-2 32-nm SLC, ONFI 1.0 / 3.0 V	16Gb																					
	8Gb																					
	4Gb																					
	2Gb																					
	1Gb																					
S34ML-1 4x-nm SLC, ONFI 1.0 / 3.0 V	8Gb	[Q4'19]																				
	4Gb	[Q4'19]																				
	2Gb	[Q4'19]																				
	2Gb	[Q4'19]																				
	1Gb	[Q4'19]																				



Products supported by Longevity Program unless noted



SLC NAND Automotive Portfolio

		S34ML-1 ¹ 4x nm, 3.0 V SLC, ONFI 1.0 ²	S34ML-2 ³ 32 nm, 3.0 V SLC, ONFI 1.0 ²	S34ML-3 ¹ 16 nm, 3.0 V SLC, ONFI 1.0 ²	S34SL-2 ^{3, 4} 32 nm, 3.0 V SLC, ONFI 1.0 ²	S34MS-1 ¹ 4x nm, 1.8 V SLC, ONFI 1.0 ²	S34MS-2 ³ 32 nm, 1.8 V SLC, ONFI 1.0 ²	S34MS-3 ¹ 16 nm, 1.8 V SLC, ONFI 1.0 ²
8-16Gb	Density; Bus Width Interface Bandwidth * Temp Range							
	All parts supported by Longevity Program unless noted							
1-4Gb		8Gb; x8 40 MBps * A and B	8Gb; x8 40 MBps * A and B	8Gb; x8 40 MBps * A and B		8Gb; x8 40 MBps * A and B	8Gb; x8 40 MBps * A and B	8Gb; x8 40 MBps * A and B
		4Gb; x8/16 Q419 40 MBps * A and B	4Gb; x8/16 40 MBps * A and B	4Gb; x8 Q118 40 MBps * A and B	4Gb; x8 40 MBps * I, V	4Gb; x8 Q419 40 MBps * A and B	4Gb; x8/16 40 MBps * A and B	4Gb; x8 Q318 40 MBps * A and B
		2Gb; x8/16 Q419 40 MBps * A and B	2Gb; x8/16 40 MBps * A and B	2Gb; x8 40 MBps * A and B	2Gb; x8 40 MBps * I, V ⁵	2Gb; x8/16 Q419 40 MBps * A and B	2Gb; x8/16 40 MBps * I and V ⁵	2Gb; x8 40 MBps * A and B
		1Gb; x8 Q419 40 MBps * A and B	1Gb; x8/16 40 MBps * A and B	1Gb; x8 40 MBps * A and B	1Gb; x8 40 MBps * I, V	1Gb; x8/16 Q419 40 MBps * A and B	1Gb; x8/16 40 MBps * A and B	1Gb; x8 40 MBps * A and B

* I = Industrial: -40°C to +85°C
 A = Automotive, AEC-Q100 Grade 3: -40°C to +85°C
 V = Industrial-plus: -40°C to +105°C
 B = Automotive, AEC-Q100 Grade 2: -40°C to +105°C

¹ 1-bit Error-Correcting Code (ECC) ⁴ SecureNAND™: Cypress's SLC NAND Flash Memory with full-capacity volatile and nonvolatile block protection
² Open NAND Flash Interface
³ 4-bit Error-Correcting Code (ECC) ⁵ Contact Sales

Status Availability

EOL (Last-Time-Ship)

Concept
 Development
 Sampling
 Production

Concept
 Development
 Sampling
 Production

Concept
 Development
 Sampling
 Production

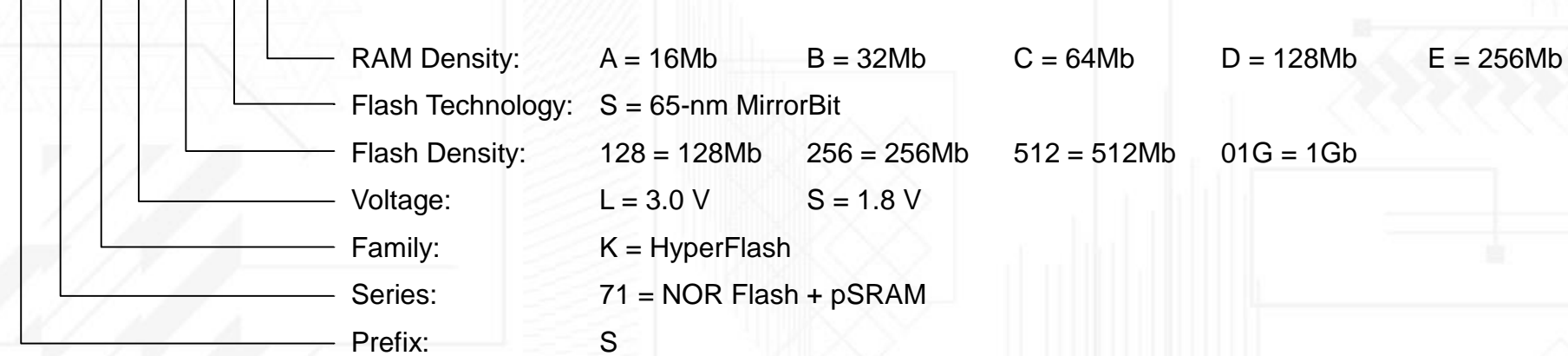


Flash and RAM Automotive MCP



Flash and RAM Automotive MCP Decoder

S 71 K S 512 R D



Flash and RAM MCP Flash Memory Automotive Roadmap

Product Family Flash / RAM	Flash / RAM Density	(Prod) [EOL]	2017				2018				2019				2020				2021			
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
S71KS-S HyperFlash / HyperRAM 1.8 V	512Mb / 64Mb 256Mb / 64Mb 128Mb / 64Mb	(Q4'17) (TBD) (TBD)																				
S71KL-S HyperFlash / HyperRAM 3.0 V	512Mb / 64Mb 256Mb / 64Mb 128Mb / 64Mb	(Q2'17) (Q3'17) (TBD)																				

Products supported by Longevity Program unless noted



Flash and RAM MCP Memory Automotive Portfolio

	S71KL-S 65nm, MB 3.0V	S71KS-S 65nm, MB 1.8V
	<p>Flash Density RAM Density * Temp Range</p> <p>All parts supported by Longevity Program unless noted</p>	
≥256Mb	<p>512Mb¹ Q217 64Mb² * A and B</p>	<p>512Mb¹ Q417 64Mb² * A and B</p>
64–128Mb	<p>256Mb¹ Q317 64Mb² * A and B</p>	<p>256Mb¹ 64Mb² * A and B</p>
	<p>128Mb¹ 64Mb² * A and B</p>	<p>128Mb¹ 64Mb² * A and B</p>

* A = Automotive, AEC-Q100 Grade 3: -40°C to +85°C
 B = Automotive, AEC-Q100 Grade 2: -40°C to +105°C

¹ HyperFlash
² HyperRAM



HyperRAM™, HyperFlash™, and Burst Parallel NOR Packages

Family	Density	Device	BGA24 8 x 8 mm 5 x 5 Ball	BGA24 8 x 6 mm 5 x 5 Ball	80-ball FBGA (1.0-mm pitch)	80-pin PQFP	KGD
KS-T	512Mb	S26KS512T	CF	CF			CF
	1Gb	S26KS01GT	CF				CF
	2Gb	S70KS02GT	CF				
	4Gb	S70KS04GT	CF				
KS-S	128Mb	S26KS128S		✓			CF
	256Mb	S26KS256S		✓			CF
	512Mb	S26KS512S		✓			CF
	1Gb	S70KS01GS		✓			
KL-T	512Mb	S26KL512T	CF	CF			CF
	1Gb	S26KL01GT	CF				CF
	2Gb	S70KL02GT	CF				
	4Gb	S70KL04GT	CF				
KL-S	128Mb	S26KL128S		✓			CF
	256Mb	S26KL256S		✓			CF
	512Mb	S26KL512S		✓			CF
	1Gb	S70KL01GS		✓			
KS-1	64Mb	S26KS0641		✓			CF
	128Mb	S70KS1281		✓			
	256Mb	S70KS2561		✓			
KL-1	64Mb	S26KL0641		✓			CF
	128Mb	S70KL1281		✓			
	256Mb	S70KL2561		✓			
CD-J	16Mb	S29CD016J			✓	✓	✓
	32Mb	S29CD032J			✓	✓	
CL-J	16Mb	S29CL016J			✓	✓	
	32Mb	S29CL032J			✓	✓	

CF = Contact Factory

SPI NOR Flash Memory Packages

Family	Density	Device	SOIC-8 150 mil	SOIC-8 208 mil	SOIC-16 300 mil	WSON 4 x 4 mm	WSON 6 x 5 mm	WSON 8 x 6 mm	BGA24 8 x 8 mm 5 x 5 Ball	BGA24 8 x 6 mm 5 x 5 Ball	BGA24 8 x 6 mm 4 x 6 Ball	KGD
FS-T	512Mb	S25FS512T			CF				CF	CF		CF
	1Gb	S25FS01GT			CF				CF			CF
	2Gb	S70FS02GT							CF			
	4Gb	S70FS04GT							CF			
FS-S	64Mb	S25FS064S		✓			✓			✓		✓
	128Mb	S25FS128S		✓	CF		✓	✓		✓	✓	CF
	256Mb	S25FS256S			✓			✓		✓	✓	✓
	512Mb	S25FS512S			✓			✓		✓	✓	CF
	1Gb	S70FS01GS			✓					✓		
FL-T	512Mb	S25FL512T			CF				CF	CF		CF
	1Gb	S25FL01GT			CF				CF			CF
	2Gb	S70FL02GT							CF			
	4Gb	S70FL04GT							CF			
FL-S Dual Quad	256Mb	S79FL256S			✓							
	512Mb	S79FL512S			✓							
	1Gb	S79FL01GS								✓		
FL-S	128Mb	S25FL127S		✓	✓		✓			✓	✓	
	128Mb	S25FL128S			✓			✓		✓	✓	
	256Mb	S25FL256S			✓			✓		✓	✓	
	512Mb	S25FL512S			✓					✓	✓	✓
	1Gb	S70FL01GS			✓					✓		
FL-P	32Mb	S25FL032P		✓	✓		✓	✓		✓	✓	✓
	64Mb	S25FL064P			✓			✓		✓	✓	✓
	128Mb	S25FL128P			✓			✓				
	128Mb	S25FL129P			✓			✓		✓	✓	
	256Mb	S70FL256P			✓			✓		✓		
FL-L	64Mb	S25FL064L		✓		✓			✓		✓	CF
	128Mb	S25FL128L		✓			✓		✓		✓	CF
	256Mb	S25FL256L			✓			✓		✓	✓	CF
FL1-K	16Mb	S25FL116K	✓	✓			✓		✓	✓	✓	✓
	32Mb	S25FL132K	✓	✓		✓	✓		✓	✓	✓	✓
	64Mb	S25FL164K		✓	✓		✓		✓	✓	✓	✓

CF = Contact Factory
UD = Under Development

Parallel NOR Flash Memory Packages

Family	Density	Device	48-ball FBGA (0.8-mm pitch)	48-ball FBGA (0.5-mm pitch)	56-ball BGA (0.8-mm pitch)	64-ball BGA (0.8-mm pitch)	64-ball Fortified BGA (1.0-mm pitch)	48-pin TSOP	56-pin TSOP
GL-T	512Mb	S29GL512T			✓		✓		✓
	1Gb	S29GL01GT			✓		✓		✓
	2Gb	S70GL02GT					✓		
GL-S	64Mb	S29GL064S	✓				✓	✓	✓
	128Mb	S29GL128S			✓		✓		✓
	256Mb	S29GL256S			✓		✓		✓
	512Mb	S29GL512S			✓		✓		✓
	1Gb	S29GL01GS					✓		✓
	2Gb	S70GL02GS					✓		
GL-N	32Mb	S29GL032N	✓				✓	✓	✓
	64Mb	S29GL064N	✓				✓	✓	✓
PL-J	32Mb	S29PL032J	✓		✓				
	64Mb	S29PL064J	✓		✓				
	128Mb	S29PL127J				✓			✓
JL-J	32Mb	S29JL032J	✓					✓	
	64Mb	S29JL064J	✓					✓	
AL-J	8Mb	S29AL008J	✓					✓	
	16Mb	S29AL016J	✓				✓	✓	
AS-J	8Mb	S29AS008J	✓					✓	
	16Mb	S29AS016J	✓	✓				✓	

SLC NAND Packages

Family	Density	Device	63-Ball BGA (0.8-mm pitch)	67-Ball BGA (0.8-mm pitch)	48-Pin TSOP
MS-3	1Gb	S34MS01G3	✓		
	2Gb	S34MS02G3	✓		
	4Gb	S34MS04G3	✓		
	8Gb	S34MS08G3	✓		
	16Gb	S34MS16G3	✓		
MS-2	1Gb	S34MS01G2	✓	✓	✓
	2Gb	S34MS02G2	✓	✓	✓
	4Gb	S34MS04G2	✓		✓
	8Gb	S34MS08G2	✓		
	16Gb	S34MS16G2	✓		
MS-1	1Gb	S34MS01G1	✓		
	2Gb	S34MS02G1	✓		✓
	4Gb	S34MS04G1	✓		✓
ML-3	1Gb	S34ML01G3	✓		✓
	2Gb	S34ML02G3	✓		✓
	4Gb	S34ML04G3	✓		✓
	8Gb	S34ML08G3	✓		✓
	16Gb	S34ML16G3	✓		✓
ML-2	1Gb	S34ML01G2	✓	✓	✓
	2Gb	S34ML02G2	✓	✓	✓
	4Gb	S34ML04G2	✓		✓
	8Gb	S34ML08G2	✓		✓
	16Gb	S34ML16G2	✓		✓
ML-1	1Gb	S34ML01G1	✓		✓
	2Gb	S34ML02G1	✓		✓
	4Gb	S34ML04G1	✓		✓
	8Gb	S34ML08G1	✓		✓

SecureNAND Packages

Family	Density	Device	63-Ball BGA (0.8-mm pitch)
SL-2	1Gb	S34SL01G2	✓
	2Gb	S34SL02G2	✓
	4Gb	S34SL04G2	✓

Flash and RAM MCP Memory Packages

Family	Flash Density	RAM Density	BGA24 8 x 6 mm, 1.0 mm pitch 5 x 5 Ball
S71KS-S	128Mb	64Mb	✓
	256Mb	64Mb	✓
	512Mb	64Mb	✓
S71KL-S	128Mb	64Mb	✓
	256Mb	64Mb	✓
	512Mb	64Mb	✓



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