



Long-Term Support
World Class Quality

Complete Memory Solutions For the Embedded Market

DRAM Product Portfolio

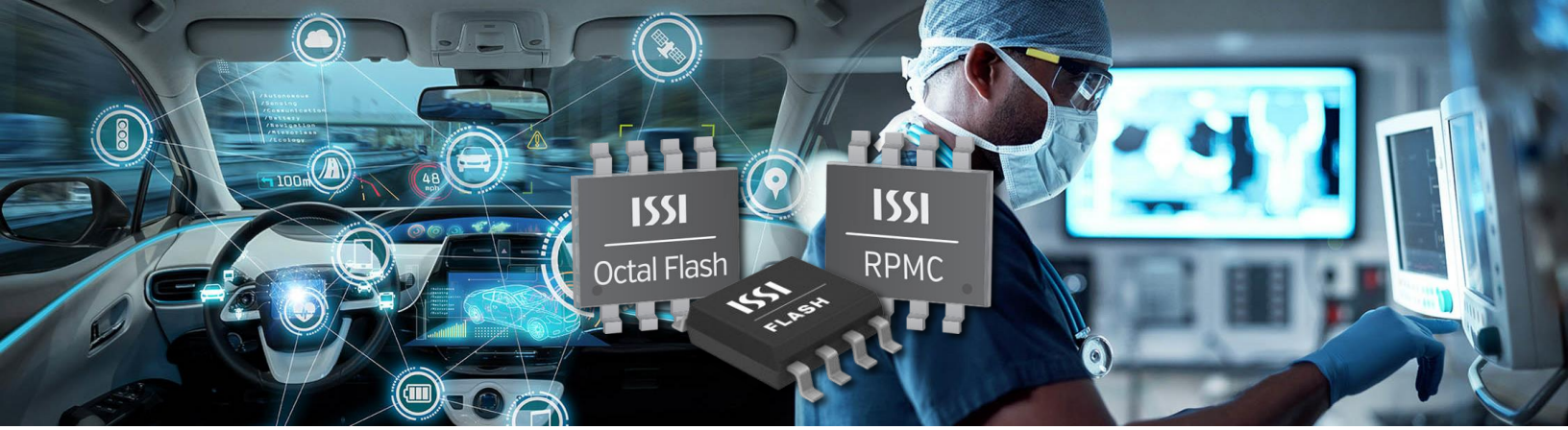
DRAM	16Mb	32Mb	64Mb	128Mb	256Mb	512Mb	1Gb	2Gb	4Gb	8Gb	16Gb	
EDO/FP (3.3V)	✓											
SDRAM (3.3V)	✓		✓	✓	✓	✓						
DDR				✓	✓	✓						
DDR2					✓	✓	✓	✓				
DDR3/DDR3L							✓ ECC	✓ ECC	✓ ECC	✓ ECC	✓	
DDR4									✓	✓	✓	
Mobile DRAM		32Mb	64Mb	128Mb	256Mb	512Mb	1Gb	2Gb	4Gb	8Gb	16Gb	32Gb
Mobile SDRAM (1.8V/2.5V/3.3V)		✓	✓	✓	✓	✓						
LPDDR		✓	✓	✓	✓	✓	✓	✓				
LPDDR2					✓	✓	✓	✓	✓	✓		
LPDDR4 (1.1V), LPDDR4X (0.6V)							✓	✓ ECC	✓ ECC	✓ ECC	✓	✓
Specialty DRAM					288Mb	576Mb	1Gb	2Gb				
RLDRAM 2					✓	✓	✓					
RLDRAM 3						✓	✓	✓				



Scan for Product Selector Guide

Industrial & Automotive Temperature Grade, Long Term Support, RoHS Compliant, Halogen-free, and TSCA Compliant

STATUS ✓ Production ✓ Sampling ✓ In Development ✓ Under Consideration **ECC:** On-chip Error Correcting Code is an available option



Product offering of **NOR Flash**

SPI/QSPI (Serial NOR)	512Kb	1Mb	2Mb	4Mb	8Mb	16Mb	32Mb	64Mb	128Mb	256Mb	512Mb	1Gb	2Gb
2.5/3V	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓ ECC	✓ ECC	✓ ECC	✓ ECC
1.8V	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓ ECC	✓ ECC	✓ ECC	✓ ECC

1.2V and Wide I/O 1.5V - 3.6V Serial Flash products under development

Security Flash (RPMC)	32Mb	64Mb	128Mb	256Mb
3V			✓	✓
1.8V	✓	✓	✓	✓

xSPI (Octal Flash)	64Mb	128Mb	256Mb	512Mb	1Gb	2Gb
3V	✓	✓	✓	✓	✓	✓
1.8V	✓	✓	✓	✓	✓	✓

Parallel Flash (NOR)	32Mb	64Mb	128Mb	256Mb
3V w/ VIO = 1.65-3.6V	✓	✓	✓	✓

MCP	128Mb+ 128Mb	128Mb+ 256Mb	256Mb+ 256Mb	256Mb+ 512Mb	512Mb+ 512Mb
OctalRAM + OctalFlash	✓	✓	✓	✓	✓
HyperRAM + OctalFlash	✓	✓	✓	✓	✓



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NAND Products

SPI NAND	1Gb	2Gb	4Gb	8Gb	
3V/1.8V	✓ 1bit ECC	✓ 8bit ECC	✓ 8bit ECC	✓ 8bit ECC	
Parallel SLC NAND	1Gb	2Gb	4Gb	8Gb	16Gb
3V/1.8V; (x8 & x16)	✓ 1/4bit ECC	✓ 1/4bit ECC	✓ 1/4/8bit ECC	✓ 8bit ECC	✓ 8bit ECC

eMMC 5.0/5.1	4GB	8GB	16GB	32GB	64GB	128GB
3V/1.8V; (100 & 153 BGA)	✓	✓	✓	✓	✓	✓
UFS 2.1/3.1				64GB	128GB	256GB
3V/1.8V; (153 BGA)				✓	✓	✓

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Complete **SRAM** Solution

Asynchronous SRAM /Pseudo SRAM	64Kb	256Kb	512Kb	1Mb	2Mb	3Mb	4Mb	8Mb	16Mb	32Mb	64Mb	
	5V	✓	✓	✓	✓			✓	✓			
High Speed Asynchronous		✓	✓	✓ ECC	✓ ECC	✓	✓ ECC	✓ ECC	✓ ECC	✓		
Ultra Low Power		✓		✓	✓		✓ ECC	✓ ECC	✓			
Pseudo SRAM								✓	✓	✓	✓	
Low Pin Count	512Kb	1Mb	2Mb	4Mb	8Mb	16Mb	32Mb	64Mb	128Mb	256Mb	512Mb	1Gb
Serial SRAM	✓	✓	✓	✓								
SerialRAM (SPI/QPI)					✓	✓	✓	✓	✓			
QUAD RAM(x4)					✓ ECC	✓ ECC	✓	✓				
HyperRAM™/ OctalRAM(x8)							✓	✓ ECC	✓ ECC	✓ 1.2 V Option	✓ 1.2 V Option	✓ 1.2 V Option
Extended I/O(x16) HyperRAM™/OctalRAM										✓	✓	✓
Muxed/Latch Async				✓								
Synchronous SRAM	2Mb	4Mb	8Mb	16Mb	36Mb	72Mb						
Standard/ No-Wait(ZBT) Synchronous	✓	✓ ECC	✓ ECC	✓	✓	✓						
QUAD/QUADP (Compatible to QDR-II™/QDR-II+™)				✓	✓	✓						



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