

22 nm SRAM Announcement

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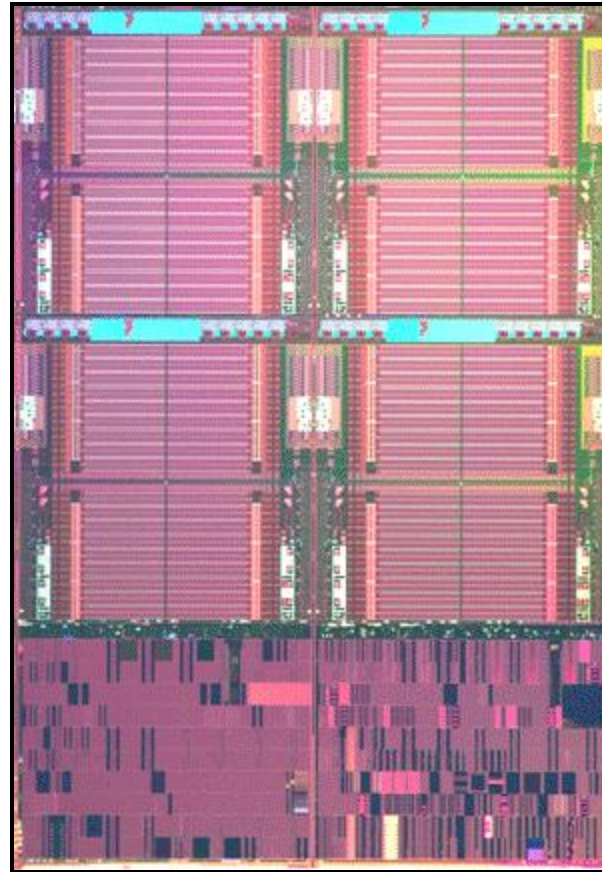
Sept 2009

22 nm Shuttle Test Chip

SRAM, Logic, Mixed-Signal
Test Circuits

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Test Circuits

Discrete
Test Structures

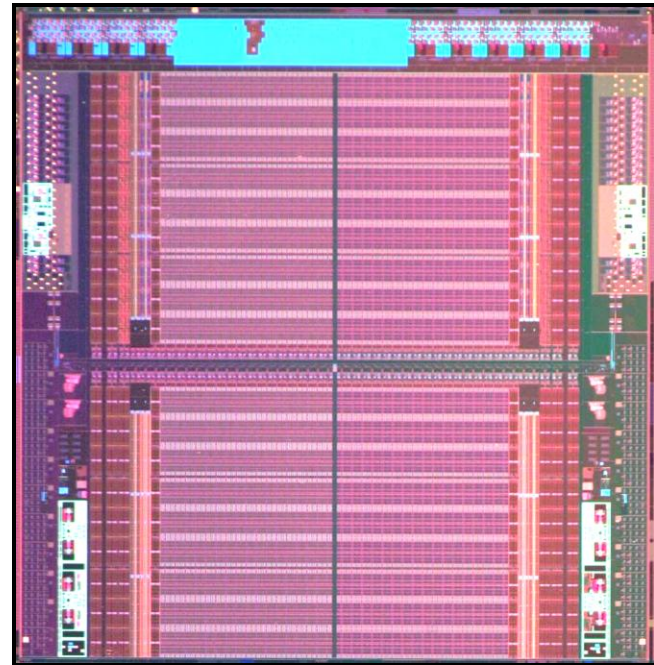


*Intel is first in the industry to
demonstrate working 22 nm circuits*



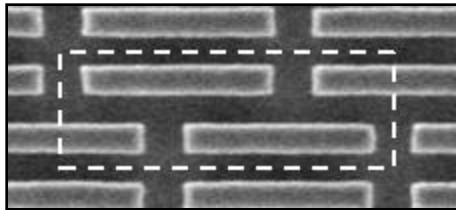
22 nm SRAM Test Chip

- 364 Mbit array size
- >2.9 billion transistors
- 3rd generation high-k + metal gate transistors
- Same transistor and interconnect features as on 22 nm CPUs

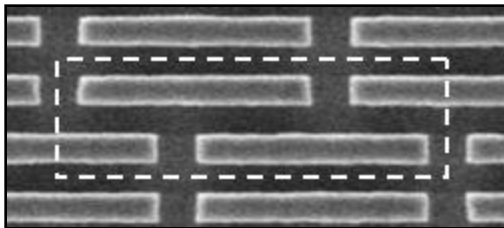


Demonstrating working 22 nm SRAMs is an important milestone towards building working 22 nm microprocessors

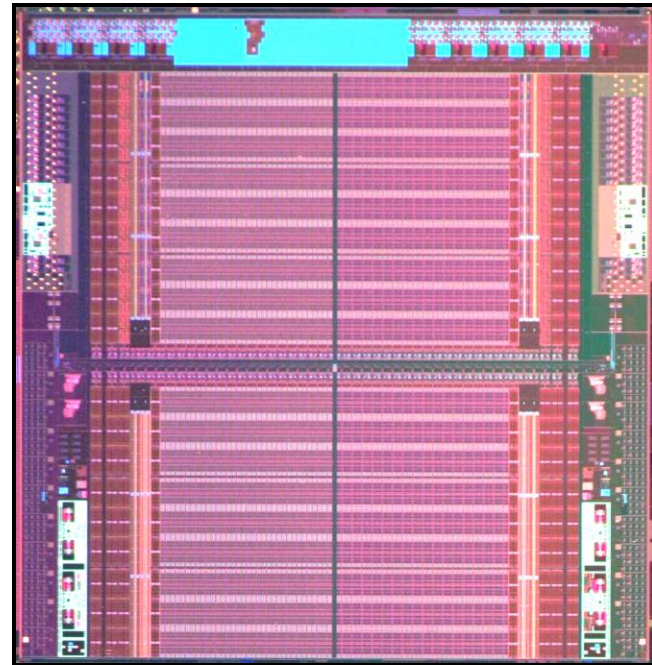
22 nm SRAM Test Chip



0.092 μm^2 SRAM cell
for high density applications

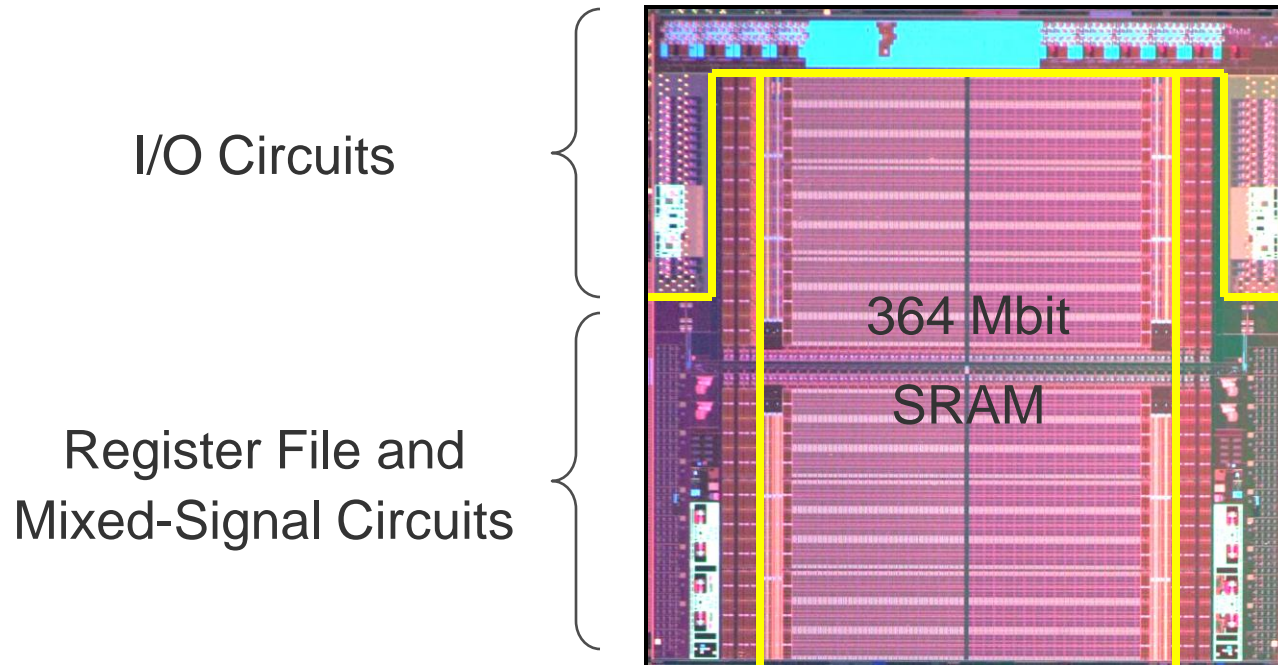


0.108 μm^2 SRAM cell
for low voltage applications



*0.092 μm^2 is the smallest SRAM cell
in working circuits reported to date*

22 nm SRAM Test Chip



Test chip includes logic and mixed-signal circuits to be used on 22 nm microprocessors

Intel Logic Technology Roadmap

	<u>45 nm</u>		<u>32 nm</u>		<u>22 nm</u>	
Name:	P1266	P1266.8	P1268	P1269	P1270	P1271
Products:	CPU	SoC	CPU	SoC	CPU	SoC

Intel is now developing both CPU and SoC versions of each technology generation



THANK YOU



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