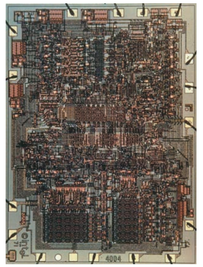
Intel Chips

Throughout Intel's history, new and improved technologies have transformed the human experience.

Decades of Intel chips, including the 22nm 3rd generation Intel® Core™ processor with its revolutionary 3-D Tri-Gate transistors, illustrate Intel's unwavering commitment to delivering technology and manufacturing leadership to the devices you use every day. As you advance through the chart, the benefits of Moore's Law, which states that the number of transistors roughly doubles every couple of years, are evident as Intel increases transistor density and innovates the architecture designs that deliver more complex, powerful, and energy-efficient chips that transform the way we work, live, and play.



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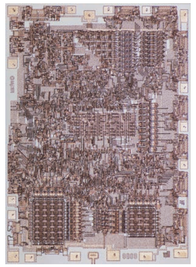

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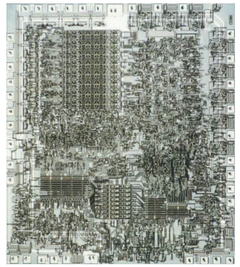

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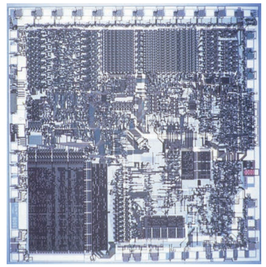

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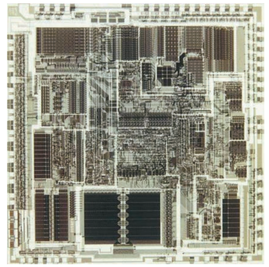

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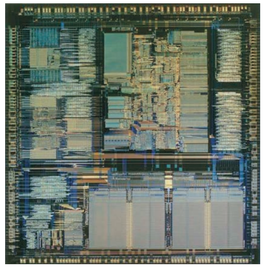

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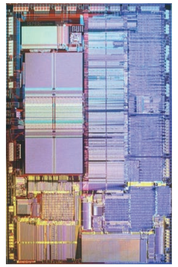

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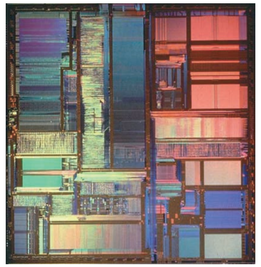

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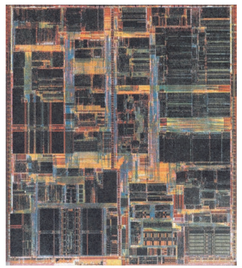

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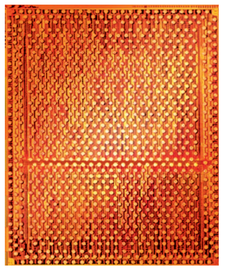

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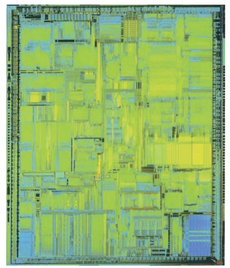

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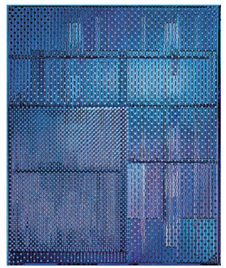

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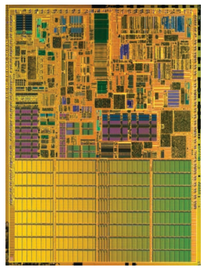

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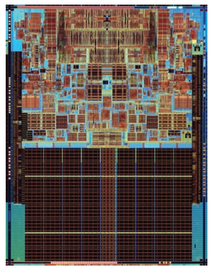

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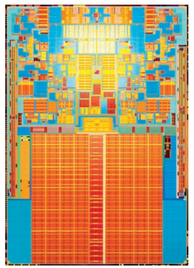

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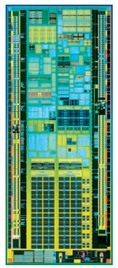

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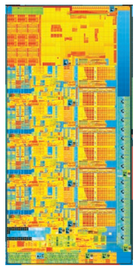

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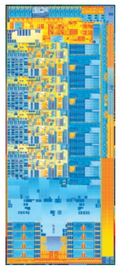

20

1
1971
Intel® 4004 processor
Initial clock speed: 108KHz
Transistors: 2,300
Manufacturing technology: 10 micron

2
1972
Intel® 8008 processor
Initial clock speed: 800KHz
Transistors: 3,500
Manufacturing technology: 10 micron

3
1974
Intel® 8080 processor
Initial clock speed: 2MHz
Transistors: 4,500
Manufacturing technology: 6 micron

4
1978
Intel® 8086 processor
Initial clock speed: 5MHz
Transistors: 29,000
Manufacturing technology: 3 micron

5
1982
Intel® 286™ processor
Initial clock speed: 6MHz
Transistors: 134,000
Manufacturing technology: 1.5 micron

6
1985
Intel386™ processor
Initial clock speed: 16MHz
Transistors: 275,000
Manufacturing technology: 1.5 micron

7
1989
Intel486™ processor
Initial clock speed: 25MHz
Transistors: 1.2 million
Manufacturing technology: 1 micron

8
1993
Intel® Pentium® processor
Initial clock speed: 66MHz
Transistors: 3.1 million
Manufacturing technology: 0.8 micron

9
1995
Intel® Pentium® Pro processor
Initial clock speed: 200MHz
Transistors: 5.5 million
Manufacturing technology: 0.35 micron

10
1997
Intel® Pentium® II processor
Initial clock speed: 300MHz
Transistors: 7.5 million
Manufacturing technology: 0.25 micron

11
1998
Intel® Celeron® processor
Initial clock speed: 266MHz
Transistors: 7.5 million
Manufacturing technology: 0.25 micron

12
1999
Intel® Pentium® III processor
Initial clock speed: 600MHz
Transistors: 9.5 million
Manufacturing technology: 0.25 micron

13
2000
Intel® Pentium® 4 processor
Initial clock speed: 1.5GHz
Transistors: 42 million
Manufacturing technology: 0.18 micron

14
2001
Intel® Xeon® processor
Initial clock speed: 1.7GHz
Transistors: 42 million
Manufacturing technology: 0.18 micron

15
2003
Intel® Pentium® M processor
Initial clock speed: 1.7GHz
Transistors: 55 million
Manufacturing technology: 90nm

16
2006
Intel® Core™2 Duo processor
Initial clock speed: 2.66GHz
Transistors: 291 million
Manufacturing technology: 65nm

17
2008
Intel® Core™2 Duo processor
Initial clock speed: 2.4GHz
Transistors: 410 million
Manufacturing technology: 45nm

18
2008
Intel® Atom™ processor
Initial clock speed: 1.86GHz
Transistors: 47 million
Manufacturing technology: 45nm

19
2010
2nd generation Intel® Core™ processor
Initial clock speed: 3.8GHz
Transistors: 1.16 billion
Manufacturing technology: 32nm

20
2012
3rd generation Intel® Core™ processor
Initial clock speed: 2.9GHz
Transistors: 1.4 billion
Manufacturing technology: 22nm

Die not shown to scale.