



Intel Tolapai



LINK (<https://www.nexthardware.com/news/processor-chipset/700/intel-tolapai.htm>)

Presentati i nuovi SoC di casa Intel

Gadi Singer, Vice Presidente di Intel's Mobility Group, e Doug Davis, Vice Presidente di Intel's Digital Enterprise Group hanno svelato le caratteristiche della nuova soluzione SoC (System On a Chip) dedicata a sistemi embedded (telefonia cellulare, POS, etc).

I processori Intel EP80579 sono basati su processori Pentium M (probabilmente anche Atom) con integrati Memory Controller Hub (MCH), I/O hub (ICH), TDM e in alcuni casi sarà disponibile un sistema di accelerazione Intel QuickAssist Technology.

Importante è il supporto di questi chip all'architettura x86.

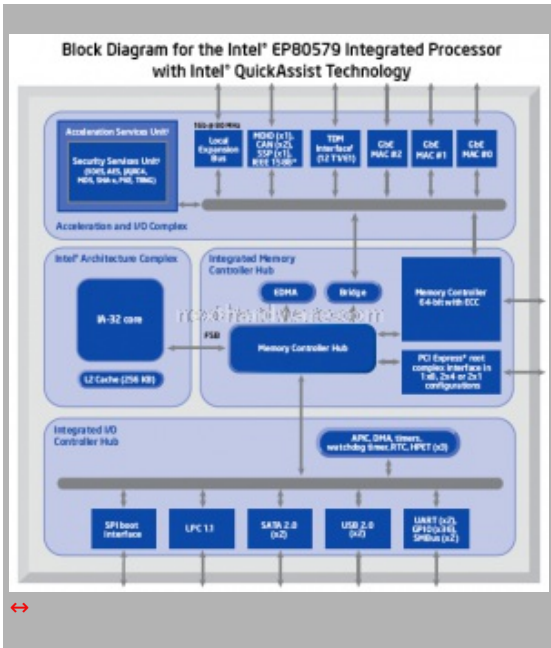
Innumerevoli saranno le applicazioni dove potrà trovare spazio questa nuova soluzione che ha ridotto spazi e consumi: console portatili, smartphone/palmari, Home Entertainment, Apparecchiature biomedicali, elettrodomestici, PLC.

Intel EP80579 Integrated Processor with Intel QuickAssist Technology*

Model	Core	DDR2	Temperature	L2 Cache	TDP
NU80579EB600C	600MHz	400/533/667	Commercial 0-70↔°C	256KB	13W
NU80579ED004C	1.066GHz	400/533/667/800	↔ Industrial - 40-85↔°C	256KB	20W
NU80579ED004CT	1.066GHz	400/533/667/800	Commercial 0-70↔°C	256KB	20W
NU80579ED009C	1.2GHz	400/533/667/800	Commercial 0-70↔°C	256KB	21W

Intel EP80579 Integrated Processor for Embedded Computing

Model	Core	DDR2	Temperature	L2 Cache	TDP
NU80579EZ600C	600MHz	400/533/667	Commercial 0-70↔°C	256KB	11.5W
NU80579EZ600CT	600MHz	400/533/667	Industrial -40-85↔°C	256KB	11.5W
NU80579EZ004C	1.066GHz	400/533/667/800	Commercial 0-70↔°C	256KB	18W
NU80579EZ009C	1.2GHz	400/533/667/800	Commercial 0-70↔°C	256KB	19W



Intel Smart SoC

Characteristics of Smart SoC Design

- High performance, Low power: Fast CPU; Dynamic range; Performance per watt
- Multiple sophisticated sub-systems; Workload acceleration. Examples: Hi-def video, Security
- High complexity & integration on die: >100M transistors
- Support of full operating systems and multi-source complex software
- Simplified platform implementation

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"Exceptional user experience"-on-chip

1B Transistors On-The-Go

1B Transistors Embedded

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Intel Architecture Processors for Embedded

• Traditional Intel Architecture for Embedded

Desktop Mobile Server

• Smart SoCs for Embedded

45% Smaller Footprint with 34% Lower Power*

- Full Feature SoC
- Embedded Requirements
- Integrated Accelerators support with Intel® QuickAssist Technology

• Low Power Intel Architecture

- Fan-less
- Ultra Low Power
- Small Footprint
- Launched Q2'08

Smaller - Cooler - Faster

*Comparison to previous platform containing the single architecture IA processor. Intel® Atom™, Intel® Atom™ N270 and Intel® Atom™ network processor.

Intel® EP80579 Integrated Processor Product Line

Smart IA System-On-a-Chip

45% Smaller Footprint with 34% Lower Power*

- 4 chips to 1 for smaller form factors
- 11 to 21 watts
- 600MHz to 1.2GHz

Full-Feature SoC

- Integrated memory controller
- Flexible integrated I/O
- TDM & analog voice connectivity

Embedded Requirements

- 7 year extended life cycle support
- Industrial Temp
- Intel Architecture compatible
- Multiple operating systems

Intel® QuickAssist Technology

- Integrated accelerators
- Software for security & VoIP
- > 10Gbps security processing

*Comparison to previous platform containing the single architecture IA processor. Intel® Atom™, Intel® Atom™ N270 and Intel® Atom™ network processor.

SoC Development Continues

Increased Performance and Performance per Watt

Embedded

- Smart SoCs for embedded
- Future Roadmap of increased data and control plane performance

CE

- Bringing the Internet to TV
- IA performance, with CE features
- Optimized for CE Internet content compatibility

MIDs

- Projected >10X Reduction In Idle Power Compared to 2008 Platform
- First Entry Into Phone Form Factors
- First SoC for MIDs Intel Atom Architecture

Source: Intel's Roadmap, Embedded, mobile systems, Atom and Atom architecture on embedded hardware. Intel Corporation and its subsidiaries. © 2008 Intel Corporation. All rights reserved.

Intel's First Integrated x86 SoC with QuickAssist Technology

Intel EP80579 Integrated Processor Product Line

Four Chips to One

Lower Power

Comprehensive I/O

Smaller Footprint

Integrated Acceleration