Embedded Navy-Pier** Platform

Intel® Atom™ N270 Processor & Intel® 954GSE Express chipset

Oct 2008

** Intel Internal Code names, subject to change

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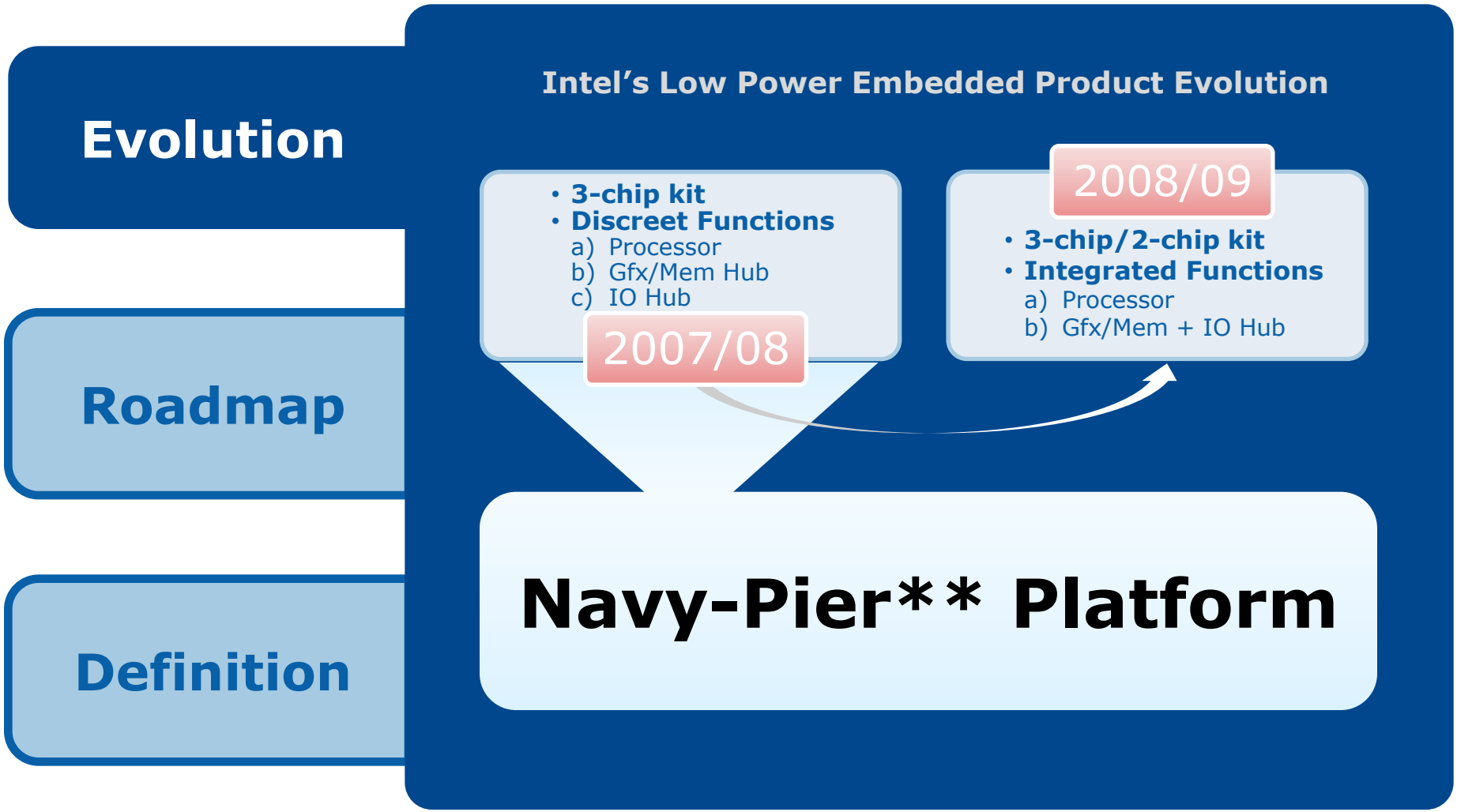
Platform Overview & Features

Value Propositions & Positioning

Reference solutions

Platform Overview



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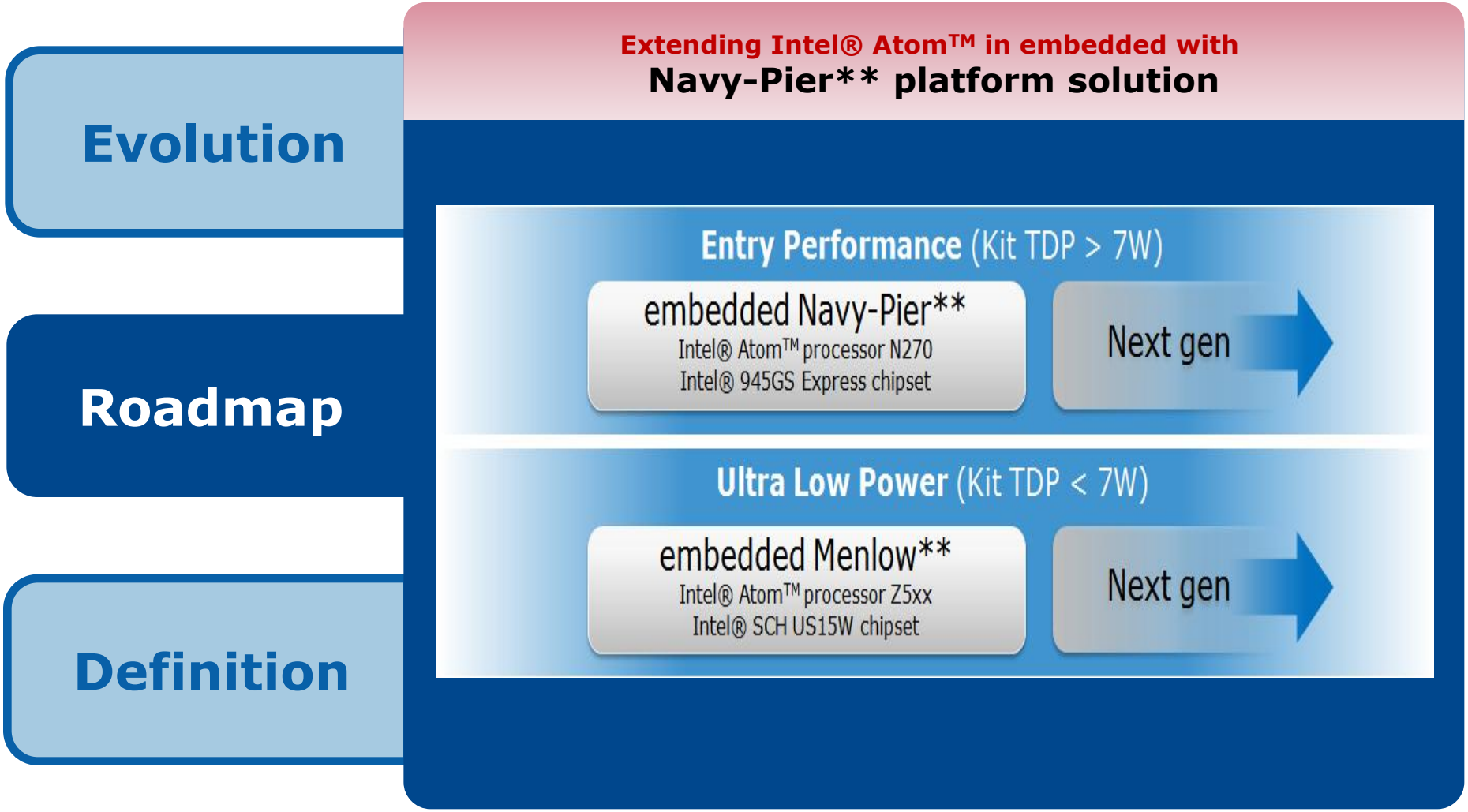
Platform Overview



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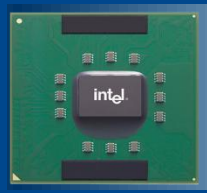
Platform Overview

Evolution

Roadmap

Definition

Extending Intel® Atom™ in embedded with
Navy-Pier platform solution**



Intel® Atom™ N270 Processor

45 nm Hi-K Metal gate, 1.6GHz, 533 MHz FSB, Speedstep
C4 Sleeping states, Extreme Low Power (TDP: ~2.5W)

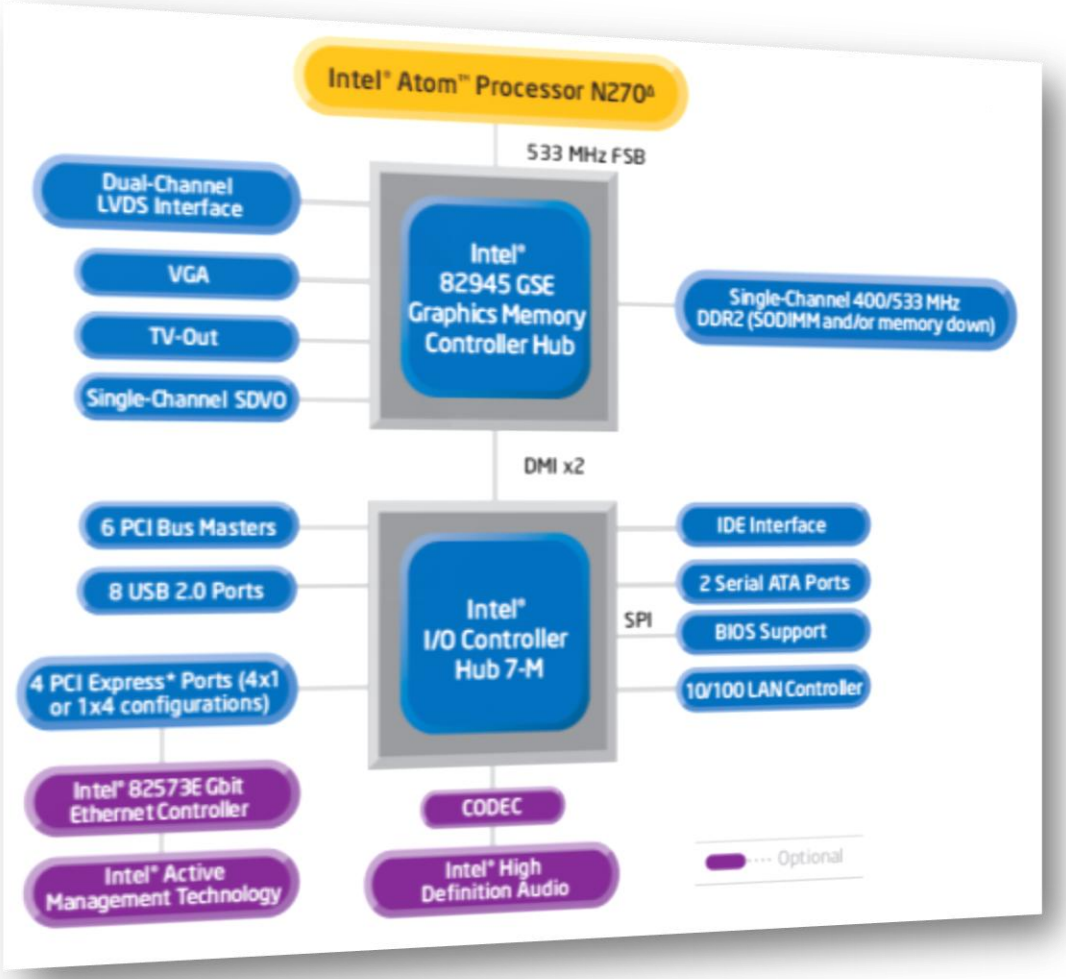
Mobile Intel® 945GSE Express Chipset

VGA, LVDS, SDVO, TV-Out
TDP: ~6W

Mobile Intel® ICH7M chipset

4 PCI-e, 6 PCI, 2 SATA, 1 PATA, 8 USB, HD Audio, 10/100 LAN
TDP: ~2.5W

Navy-Pier** Platform Features



Navy-Pier** Platform Solution

Software Drivers and Design Environments

- Device Drivers
- Intel® Embedded Graphics Drivers
- Intel Development Tools and IPP's

Operating Systems

- Microsoft* Windows XPe OS
- Fedora* Core Linux OS
- Suse* Linux OS
- Microsoft* Windows CE OS

Processor & Chipsets

- Intel® ATOM™ N270 Mobile Processor
- Intel® 945GSE
- Intel® ICH7-M

Reference Board

- Roe River Customer Reference Board

Rich IA Eco System

IBV's
AMI, Insyde, General Software, Phoenix

OSV's/Communities
Fedora*, SUSE*, Microsoft*

Windows CE Support
Adeneo*, Bsquare*, Wipro*

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Detailed Platform Features

CPU Features	Intel® Atom™ N270 Processor 45 nm process, Hi-K Metal gate transistors technology 1.6GHz, 533MHz FSB, 512KB L2 cache, Hyper-threading
Graphics Details	LVDS, VGA, SDVO, TV-Out Dual Independent Display Intel® Embedded Graphics Driver, Intel® GMA Driver
Memory Details	2 GB addressable Memory DDR2 533MHz Memory Down & SODIMM supported
IO availability	4x1 and 1x4 PCI Express, 6 PCI 8 USB, 2 SATA, 1 PATA 10/100 LAN controller, SPI etc.
Software	Linux: SUSE* Enterprise, Fedora* Core 8 Microsoft: Windows Xpe, Windows CE 6.0 Drivers: Intel® Embedded Graphics Driver v9.x

Platform Overview & Features

Value Propositions & Positioning

Reference solutions

Value Propositions

Fan Less Embedded Designs

- Low TDP
- Appropriate mechanical design needed

Dual Independent Display

- Support of Embedded graphics driver

Comprehensive IO availability

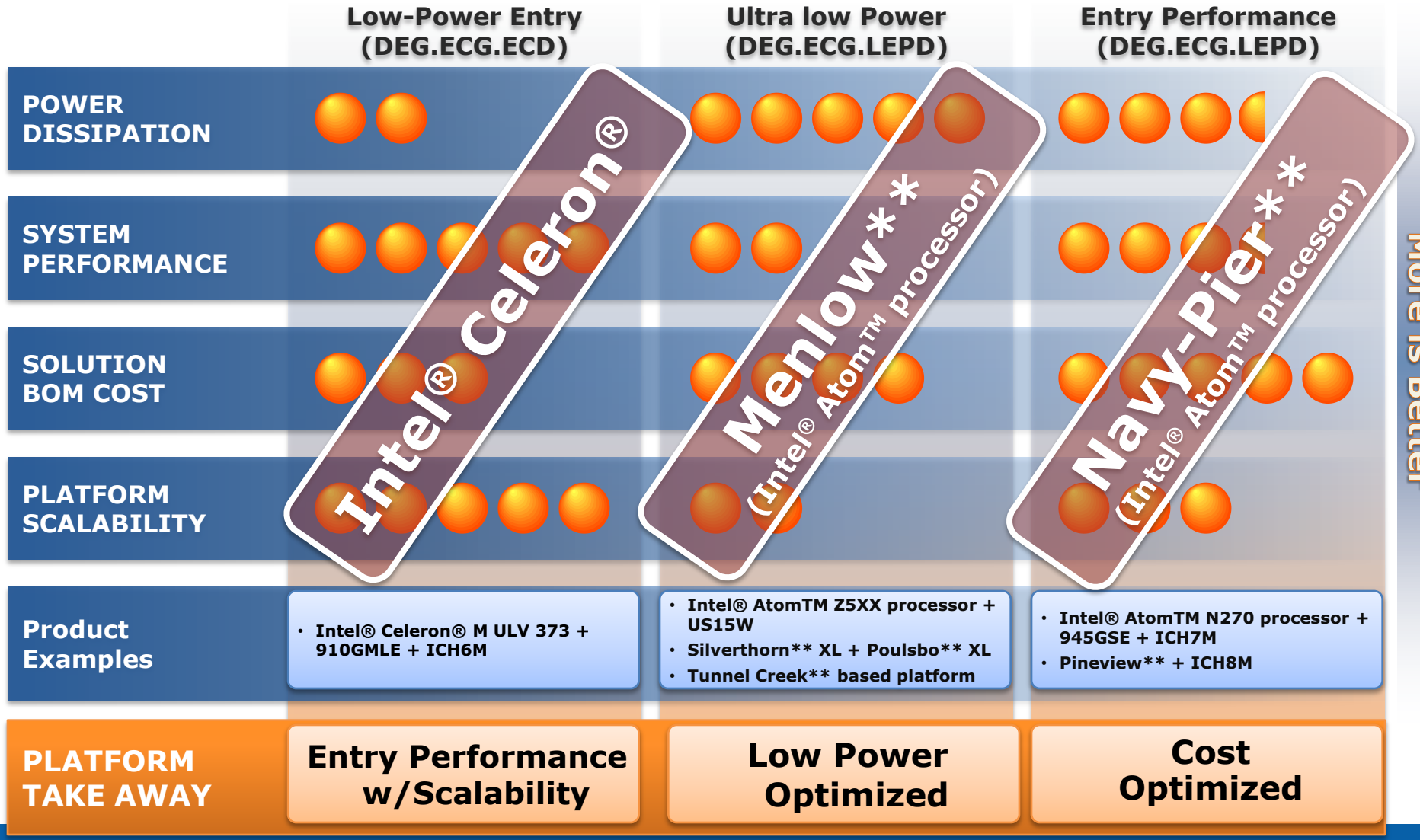
- SATA, USB for storage, LAN controller, Sufficient PCI-e
- PCI, SPI etc. for legacy needs

Intel's leading Perf./Price in low power

- Complements performance/power leadership of Menlow
- Non-HDI board designs

Product Vectors Differentiation

Entry level offerings for Low-power embedded designs



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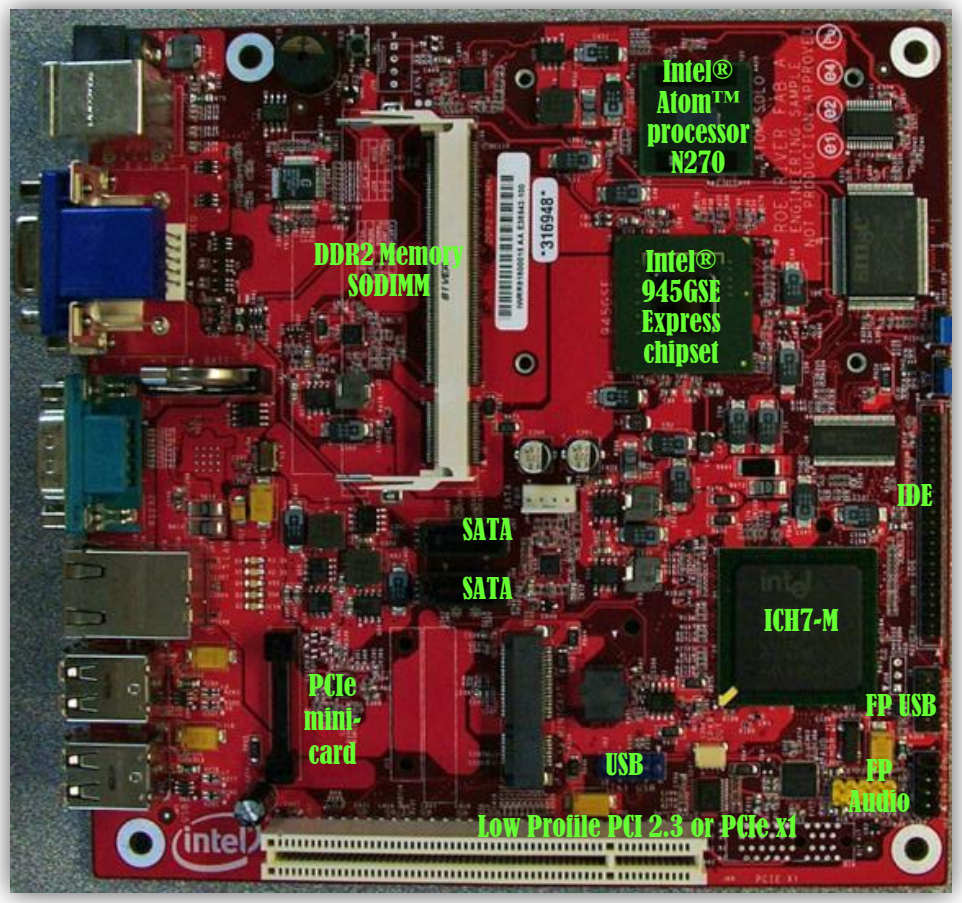
Market Segments Affinity

Platform Overview & Features

Value Propositions & Positioning

Reference solutions

Reference Board: Roe-River**



Loaner Reference Systems are available for evaluation
Dev. Kits (with Chassis & Linux) available for sale
Contact your nearest field rep. for more info

Feature	Specification
CPU	Intel® Atom™ N270 processor
MCH	Intel® 945GSE Express chipset
ICH	Intel® ICH7-M
Form Factor	Mini-ITX
Board Layers	6 layers
PS/2	Keyboard + Mouse
USB 2.0	4 USB – rear; 2 USB – front; 2 USB – internal BIOS ability to lock individual ports
Serial Port	1
SATA	2
GfX	VGA + DVI-D
Power	Adapter 12 VDC
Audio	HDA (front: mic, line-out)
LAN	1- GbE
PCIe Minicard	1 (PCIe, USB)
Storage	Disk On Module via 44-pin IDE (Flash)
Legacy	SPI
Firmware	EFI
BIOS	Optional
TPM 1.2	None
Parallel Port	1/Header
PCI 2.3/PCIe	DDR2 up to 2 GB
SODIMM	12V input <30W (w/o PCI)
Pwr. Adapter	Fanless mini-ITX
Chassis	TBD
Cables	ANSI
Keyboard	TBD
Mouse	USB based
Ext. Storage	None (SATA header only)
Hard Disk	None

Partner Solution: Sunshine-Valley**

clientron
embedded system provider

http://www.clientron.com

Mini-ITX form factor

Platform Features	
Processor	Intel® Atom™ Processor
Chipset	Mobile Intel® 945GSE Express Chipset + ICH-7M
Storage	▪ x 1 CF/DOM Interface (2*22 pin IDE port) ▪ x 2*SATA
Specification	▪ 4*USB and 3*USB (pin headers) ▪ 1*COM and 3*COM (pin headers) ▪ 1*10/100 LAN ▪ 1*Gigabit LAN ▪ 1*MIC-in ▪ 1*Line-out ▪ 1*DVI-I ▪ 1*VGA ▪ 1* S-video ▪ 1* PCI ▪ 1*PCIe ▪ 1*Wireless Mini-PCIe ▪ 1* SD card slot ▪ PS2
	Specification to be changed

Green Commerce Remote Client

How can Intel® Atom™ solve your needs?