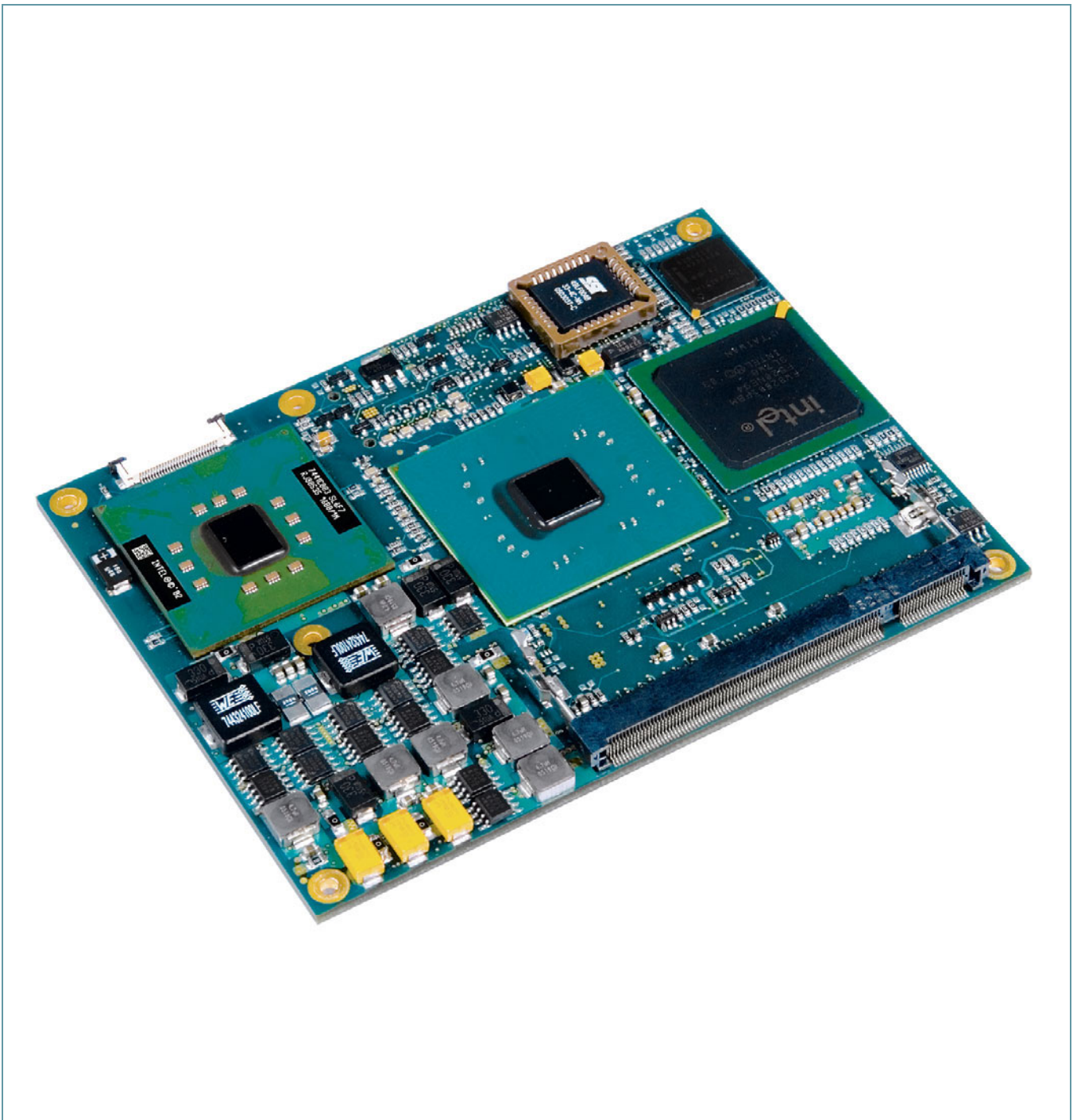


COMe 915 BASIC MODULES

Com Express™ Family

- Intel® Pentium® M 1.4 GHz-2.0 GHz or Intel® Celeron® M 1.0 GHz
- Intel® 915 GM Chipset with integrated Intel® Graphics Media Accelerator 900
- Up to 1 GB PC2-4300 DDR2 SDRAM

COMe 915 B Pentium M/Celeron M Basic Module



COM Express, an open specification of the PICMG (PCI Industrial Computer Manufacturer Group), is a module concept to bring PCI Express and other latest technologies like SATA, USB 2.0 and LVDS on a COM (Computer On Module).

COM Express is plugged onto an application-specific base board similar to the ETX concept, but offers more options and a growth path to future CPU technologies. Utilizing different sizes, COM Express can be used for highly embedded solutions up to high performance platforms.

The design of the COMe 915 B module supports the latest Pentium M/Celeron M technology on Intel's Embedded Roadmap with modern interfaces to PCI Express, SATA and Gbit LAN. A well-balanced price/performance ratio and a rich feature set are the perfect foundation to start with the COM Express technology in new designs and applications.

For evaluation and design-in of COM Express modules we provide evaluation baseboards to speed up your integration effort offering PC type connectors for simple access of all module interfaces.

Special Starter Kits for Linux are available on request.

III Features

- Intel Pentium M 1.4 GHz-2.0 GHz or Intel Celeron M 1.0 GHz
- Mobile Intel 915 GM Chipset with integrated Intel Graphics Media Accelerator (GMA) 900 or PCI Express Graphics multiplexed with two SDVO channels
- Resolution up to 2.048 x 1.536
- Up to 1 GB DDR2 (SO-DIMM, 533 MHz)
- Two SATA-150 mass storage Interfaces
- 10/100/1000 Base-TX Ethernet Interface
- LVDS Interface (18 Bit, dual channel) Dual Independent Display supported
- Four PCI Express x1 lanes
- Eight USB 2.0 Interfaces
- AC'97 Audio Interface
- RTC (Battery-buffered)
- System Monitoring, Watchdog
- ACPI Power Management including suspend-to-RAM
- Fully COM Express™ Type 2 compliant
- Windows®XP (embedded) and Linux supported

Product description	Clock	TDP
COMe Celeron M ULV 373 Basic Module	1.00 GHz	16 Watt
COMe Pentium M 760 Basic Module	2.00 GHz	37 Watt
COMe Pentium M LV 738 Basic Module	1.40 GHz	20 Watt

III Core Logic, Memory

CPU	Intel Pentium M LV 738 (1.4 GHz, 400 MHz FSB) or 760 (2.0 GHz, 533 MHz FSB) or Celeron M ULV 373 1.0 GHz, 400 MHz FSB all versions soldered with optional heatspreader
Chipset	Intel 82915GM, ICH6-M
Memory	200-pin SO-DIMM socket for up to 1 GB

DDR/DDR2 SDRAM (DDR 333; DDR2 400/533), ECC possible with ECC-SODIMM

III Drives

EIDE	One Enhanced IDE port ATA/UDMA100
Floppy	External USB Floppy supported

III Standard Interfaces

USB	8 x USB 2.0
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III Bus Interfaces

COM Express Interface	Typ2 Interface with PCI and IDE support Three PCI Express x1 and one PCI Express x16 lane for external graphics multiplexed with two SDVO channels
PCI	32-bit standard interface, 32bit @ 33 MHz
Serial Bus	I ² C Bus, SMBus interface

III Flat Panel/ CRT Interfaces

Graphics Controller	Intel Graphics Media Accelerator (GMA) 900 (integrated in Intel 915GM Chipset)
Video Memory	UMA, up to 32 MB
LCD Interface	Dual channel LVDS 18-bit max. resolution 1.600 x 1.200 (1.920 x 1.200 for Wide Panels)
CRT Interface	Max. resolution 2.048 x 1.536

III Miscellaneous

Watchdog Timer	Creates system reset (programmable, 0.4s, 1s, 5s, 10s, 30s, 1 min, 5 min or 10 min)
Battery	External

III System Monitoring

Voltage	yes
Temperature	yes

III Sound Interface

Audio	AC-Link for external AC'97-Codec
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III LAN Interface

Ethernet	10/100Base-T controller in ICH6-M + Intel® 82562EZ or 10/100/1000 Base-TX controller (Intel 82573) utilizing one PCI Express x1 interface
LAN Boot	RPL PXE

III BIOS

Type	Phoenix cME FirstBios Embedded Pro (in on-board Flash)
Auto Configuration	Plug & Play (PCI, ISA) PCI Auto Configuration (PCI 2.1) Automatic DRAM configuration
Boot Options	Quick Boot, MultiBoot XP (FD, HD, CD, USB) Boot without keyboard
Security	System and setup password Write protection for BIOS Flash

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Power Management	APM ACPI 2.0 compliant (including suspend-to-RAM)
USB	Fixed frequency option (Setup) Geyserville 3 Support
Video	USB support for Keyboard and Mouse
Flash Update	VGA Bios with flat panel extensions
Setup	BIOS update via storage media
	CMOS setup backup in serial EEPROM

III Power Supply

Power	+12V +/-5% primary power supply +5V +/-5% standby power supply
Power Consumption	20W typ. (1.4GHz, 256MB) 3W typ. (suspend S3)

III Environment

Ambient Temperature	0° ... 60°C (operating)
Humidity	-25° ... 85°C (storage)
	5 ... 95% (operating)
	5 ... 95% (storage, non-cond.)

III Mechanical

Dimensions	125 mm x 95 mm x 12 mm
Heatspreaders	125 mm x 95 mm x 2 mm with through hole standoffs (3 mm) or threaded corner standoffs (2.5mm)

