

MSC CXB-PM915

Intel® Pentium® M Basic






Description

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).

The design of the MSC CXB-PM915 module supports the latest Pentium® M/Celeron® M technology on Intel's Embedded Roadmap with modern interfaces to PCI Express, SATA and GbE 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 MSC provides evaluation baseboards to speed up your integration effort. These board offer PC type connectors for simple access to all module interfaces.

Special Starter Kits for Linux are available upon request.

95x125 
20 / 30 W 
High 

Highlights

- Intel® Pentium® M LV 1.4GHz, Intel® Celeron® M ULV 600MHz and ULV 1.0GHz
- Mobile Intel® 915GM Chipset with integrated Intel® Graphics Accelerator or PCI Express Graphics multiplexed with two SDVO channels
- Resolution up to 2.048 x 1.536
- Up to 2 GB DDR2 (SO-DIMM, 533 MHz)
- Two SATA-150 mass storage interfaces
- 10/100/1000 Base-TX Ethernet interface (GbE)
- LVDS interface (18 bit, dual channel)
- Dual Independent Display supported
- Four PCI Express™ x1 lanes
- Eight USB 2.0 interfaces
- AC'97 or Intel® High Definition audio interface
- RTC (battery buffered)
- System monitoring, watchdog
- ACPI power management
- Fully COM Express™ Type 2 compliant
- Windows® XP (embedded) and Linux supported

Technical Data – MSC CXB-PM915

Module Standard

PICMG COM Express™ Standard COM.0

Type 2 compliant interface, extended form factor

Core Logic, Memory

CPU

Intel® Celeron® M ULV 600MHZ,
Intel® Celeron® M ULV 1GHz,
Intel® Pentium® M LV 1.4GHz
all versions soldered, optional heat spreader

Chipset

Intel® 82915GME, ICH6-M

Memory

200-pin SO-DIMM socket for up to 2GB DDR/DDR2 SDRAM (DDR 333; DDR2 400/533), ECC possible with ECC-SODIMM

Storage Interfaces

EIDE

One Enhanced IDE port ATA/UDMA100

Floppy

External USB Floppy supported

Bus Interfaces

USB

8 x USB 2.0

PCI Express™

Three PCI Express™ x1 and one PCI Express™ x16 lane for external graphics multiplexed with two SDVO channels. One PCIe x1 used for GbE.

PCI Serial Bus

S32-bit standard interface, 32bit @ 33MHz
Serial Bus, I2C Bus, SMBus Interface

Display Interface

Graphics

Intel® 915GME Chipset with integrated Intel® Graphics Accelerator

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

Miscellaneous

Watchdog Timer

Activates system reset (programmable, 0.4s, 1s, 5s, 10s, 30s, 1min, 5min, or 10min)

Battery

External

System Monitoring

Voltage, Temperature

Network Interface

Ethernet

10/100/1000 Base-TX controller (Intel® 82573) utilizing one PCI Express x1 interface

LAN Boot

RPL PXE

Audio Interface

AC-Link for external AC'97 Codec

BIOS

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

Power Management

ACPI 2.0 compliant, no Suspend-to-RAM, Geyserville 3 Support

USB

USB support for Keyboard and Mouse

Video

VGA BIOS with flat panel extensions

Flash Update

BIOS update via storage media

Setup

CMOS setup backup in serial EEPROM

Power Supply

Power Supply Voltage

+12V +/-5% primary power supply

Power Consumption

+5V +/-5% standby power supply, 13W typ. (1.4GHz), 10W typ. (1.0GHz), 8W typ. (600MHz)

Environment

Ambient Temperature

0° ... 60°C (operating)
-25° ... 85°C (storage)

Humidity

5 ... 95% (operating, non-condensing)
5 ... 95% (storage, non-condensing)

Mechanical

Dimensions

125mm x 95mm x13mm

Order Reference – MSC CXB-PM915

Order Number	Description	Reference
32286	Intel® Celeron™ M ULV 600MHz 10/100/1000 Base-TX	MSC CXB-PM915-CPU600-222000
32325	Intel® Celeron™ M ULV 1GHz 10/100/1000 Base-TX, TPM	MSC CXB-PM915-373-264000

Accessories

Order Number	Description	Reference
	Cooling	
27490	Heat spreader for CXB-PM915/CD945, consisting of a specially formed aluminum plate with pressed in distance sleeves (2.7mm inner diameter), screws and two thermo pads	MSC CXB-945/915GM-01 HSP-001
26913	Heat spreader for CXB-PM915/CD945, consisting of a specially formed aluminum plate with 2.5mm mounting holes with female thread distance holders, screws, grommets and two thermo pads	MSC CXB-945/915GM-02 HSP-001

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