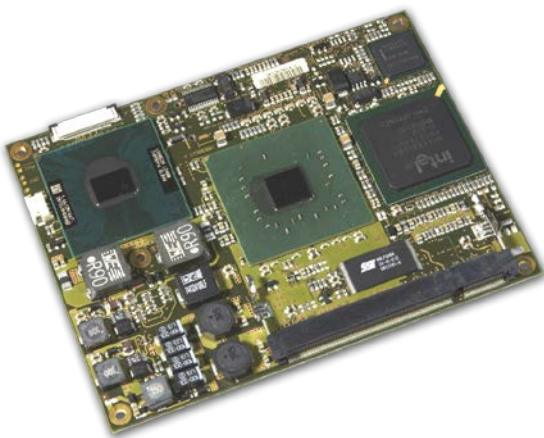


MSC CXB-CD9455

Intel® Core™ Duo Basic
supporting five PCI Express x1 lanes

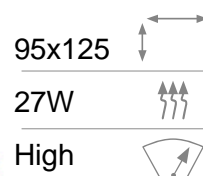


Description

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

The design of the MSC CXB-CD9455 module is based on Intel's dual core CPU technology enabling high performance levels.

Besides an extensive set of interfaces and features, the MSC CXB-CD9455 offers hardware and BIOS based security compliant to the requirements of TCG (Trusted Computing Group). For evaluation and design-in of the COM Express™ modules we provide evaluation baseboards and develop motherboards providing the interface infrastructure for the COM Express™ module offering PC type connectors for external access. Special starter kits for Linux are available on request.



Highlights

- Intel® Celeron M 440 (1.86GHz) or Intel® Core™ Duo L2400 (1.66GHz)
- Mobile Intel® 945GME Chipset with integrated Intel® Graphics Media Accelerator 950
- PCI Express™ x16 (PEG) Support
- Up to 2GB DDR2 SDRAM
- Two SATA-300 mass storage Interfaces
- 10/100/1000 Base-TX Ethernet interface
- LVDS interface (18 / 24 / 36 / 48 Bit)
- Resolution up to 2.048 x 1.536
- CRT interface up to 2.048 x 1.536
- Dual Independent Display supported
- Five PCI Express™ x1 lanes
- Eight USB 2.0 interfaces
- High Definition or AC'97 audio interface
- Infineon TPM 1.2
- Phoenix TrustedCore BIOS
- Windows XP (embedded) and Linux supported

Technical Data – MSC CXB-CD9455

Core Logic, Memory

COM Express: Intel® Celeron M 440 (1.86 GHz), Intel® Core™ Duo L2400 (1.66 GHz)

Chipset: Intel® 82945GME, ICH7DH

Memory: 200-pin SO-DIMM socket for up to 2GB PC4200 DDR2 SDRAM

Drives

SATA: 2 x SATA-2 channels (up to 300MB/s)

EIDE: 1 x Enhanced IDE port (ATA/UDMA100)

Standard Interfaces

USB: 8 x USB 2.0

Bus Interfaces

COM Express™ Interface: Type 2 interface, fully compliant

PCI Express™: Five channels PCI Express x1, One PCI Express Graphic (PEG) x 16

PCI: 32 Bit, 33MHz standard interface (PCI 2.3)

LPC: Low Pin Count bus for heritage interface

Flat Panel / CRT Interface

Graphics Controller: Intel® Graphics Media Accelerator 950 (integrated in Intel® 945GM chipset)

Video Memory: UMA, up to 224 MB

LCD Interface: LVDS 24/48 Bit, dual channel, Resolution 1600 x 1200

CRT Interface: Resolution 2048 x 1536

Miscellaneous

Watchdog Timer: Initiates system reset (programmable, 1s ... 255h)

Fan Supply: 3-pin header (5V)

Battery: External

System Monitoring: Voltage, Temperature, Fan

LAN Interface

Ethernet: 10/100/1000Base-TX (Intel® 82573E)

Sound Interface

Audio : High Definition Audio Interface or AC'97 Audio Interface

Security Device

Infineon Trusted Platform Module 1.2 SLB 9635

Firmware, Software

Phoenix TrustedCore

Boot Options: Quick Boot, MultiBoot XP (FD, HD, CD, LAN, USB), Boot without keyboard, LAN Boot via PXE (RPL optional), Wake on LAN (WOL) supported

Security: Phoenix StrongROM technology, TPM 1.2 support, Pre-Boot-Authentication, Phoenix SecureFlash for safe BIOS updates

Power Management: ACPI (S3, S4, S5 supported), Management Enhanced Intel SpeedStep® technology supported, Active/passive cooling

USB: USB legacy support (Keyboard, Mouse, Hub)

Video : VGA BIOS with flat panel extensions (EPI)

Setup: CMOS configuration backup in EEPROM

HW Programming I/F: UspEpc (Universal board support package for embedded PCs)

Power Supply

Power: +12V +/-10%, 5V Stby optional

Power Consumption: 27W typ. (440, 1.86GHz), 20W typ. (L2400, 1.66GHz)

Environment

Ambient: 0° ... 60° C (operating)

Temperature: -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-CD9455

Order Number	Description	Reference
32315	Intel® Celeron M 440, 10/100/1000Base-TX, TPM 1.2	MSC CXB-CM9455-440-065000
32316	Intel® Core™ Duo L2400, 10/100/1000Base-TX, TPM 1.2	MSC CXB-CD9455-L2400-16200

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