

ETX CN700

Computer on Module

PRODUCT INFORMATION



ETX CN700 - For the Engineers



ETX CN700 - The Headlines

- ▶ CPU options include 500MHz, 1GHz & 1GHz Nano
- ▶ Wide range of peripherals
- ▶ Fully compatible with existing ETX baseboards
- ▶ Both ISA and PCI bus retained for protecting legacy IO
- ▶ Supports LVDS LCD and analogue displays, optional TFT
- ▶ SATA interface with optional RAID support
- ▶ Passive Heatsink
- ▶ Ultra Compact Size - 114 x 95mm
- ▶ Designed, Manufactured and Technical Support in the UK
- ▶ Long life - available until at least 2019

ETX CN700 - In a few words

The ETX-CN700 extends and enhances Blue Chip Technology's established reputation in embedded design. The ETX format marries a core computer on module (COM) with a host board. The core module includes all the usual computer functions on a 114mm x 95mm footprint, with a standardised connector and signal layout. The COM connects to a host board which is tailored to the developers application and fully compatible with present and future ETX modules. This arrangement offers all the advantages of a custom solution but with a simple migration path, reduced engineering effort and faster time to market.

Based on the VIA C7 processor and CN700 chipset, the ETX CN700 has a range of processor options from the ultra low power 500MHz to the high performance 1GHz Nano. VIA's CoolStream™ Architecture ensures an efficient power profile with available processor options drawing an incredible 1W TDP. Incorporating some key enhancements such as two RAID enabled SATA connections, 1GB DDR2 memory and four port USB 2.0 support, the ETX CN700 remains fully backwards compliant with existing ETX carrier boards. The UniChrome Pro controller has integrated 128-bit 2D and 3D graphic support and offers screen resolutions of up to 1600 x 1200, including wide screen formats. The architecture delivers high quality MPEG-2 based video content and supports Duoview display. LVDS and CRT displays are accommodated as standard with optional parallel TTL TFT outputs.

The ETX CN700 includes a programmable watchdog timer and hardware monitor device managing the voltage rails and temperature. VIA's PowerSaver technology and ACPI power management, benefit power sensitive devices.

Our ETX CN700 comes with OS support for Windows® CE 6.0, Windows® XP Embedded, Windows® XP Professional, Windows® 7, Linux, ROM DOS and QNX. The ETX CN700 range is fully RoHS compliant and has availability through to at least 2019.



BS EN ISO 9001
Certificate No 33069

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System

- ▶ VIA C7 with CN700 north bridge and VT8237R plus south bridge
- ▶ Phoenix Trusted Core BIOS, with integrated Ethernet and RAID Boot ROMs.
- ▶ BIOS Support for APM, ACPI and hardware disabling of on board PCI devices
- ▶ Customer Splash screen option
- ▶ 256MB, 512MB and 1GB of DDR2 memory using a SODIMM, 128K L1 and 128K L2 cache

Enhanced I/O

- ▶ Quad USB 2.0 Compliant ports
- ▶ Two 16C550 compatible serial ports at TTL level signalling
- ▶ One IR port
- ▶ Parallel port with Bi-directional, EPP & ECP
- ▶ Floppy interface with support for single 1.44MB FDD PS/2 compatible keyboard and mouse port

Local Storage

- ▶ Onboard plug in Flash module
- ▶ Dual ATA100/66/33 EIDE ports
- ▶ Dual SATA interface

Local Area Network

- ▶ 10/100 BaseT - including PXE boot ROM for remote booting

Expansion

- ▶ As per ETX specification, 4 connectors (X1-X4). Supports four standard 5V 32 bit 33MHz PCI V2.2 devices. ISA Expansion supports three standard 16-bit ISA devices
- ▶ Connector X1 - PCI Bus, USB and Audio
- ▶ Connector X2 - ISA Bus Connector
- ▶ Connector X3 - VGA, LCD, COM1&2 (TTL) LPT1, M/KB
- ▶ Connector X4 - LAN (non-isolated), 2 x EIDE (4 drives), utilities signals and power management
- ▶ An optional SATA interface

Display/Audio

- ▶ Integrated UniChrome Pro controller, featuring 128-bit 2D and 3D graphics
- ▶ Screen resolutions up to 1600 x 1200, including wide screen formats
- ▶ High quality MPEG-2 based video content
- ▶ Duoview display - LCD and CRT
- ▶ 18/24-bit LVDS LCD and CRT displays, optional TFT support. Onboard LCD/CCFL power management

Operating System Support

- ▶ Windows® XP Embedded, Windows® XP Professional, Windows® 7, Windows® Embedded Standard 7, Windows® CE
- ▶ Linux
- ▶ QNX and ROM DOS

Power

- ▶ 5Volt only operation (and 5Vsb if ATX operation required)
- ▶ On board switching regulators for other voltages

System Management

- ▶ 12V, 5V, 3.3V and Vcore voltage monitors, Reset generated if the 5.0 volt rail falls
- ▶ System and CPU thermal monitoring
- ▶ Hardware Watchdog timer with programmable timeout for re-set or interrupt. Device driver support
- ▶ Real Time Clock with battery backup

Environmentals/Mechanicals

- ▶ ETX format 114 x 95mm, 5 mounting holes 12mm high including spreader
- ▶ 12 layer PCB with standard through hole via technology, all major BGA and silicon located on the upper side
- ▶ Operating temperature range 0°C to +60°C
- ▶ Storage temperature -20°C to +70°C
- ▶ Relative Humidity 5 - 95% non-condensing