

Control & Visualization Module Evaluation System

Key Features

- High Speed Miniature Single Board Computer (Freescale i.MX35x; SO-DIMM-200 Connector)
- Open VG 2.5D graphics acceleration for best multimedia experience
- Up to 256MB DDR2 RAM
- 1GB NAND Flash memory
- 100Mbps Ethernet interface
- USB OTG + USB Host Port
- SDHC / SDIO Slot
- CAN Port
- RS232 Port
- LCD/Touch Interface
- Audio Interface
- Single 5V supply
- Low power consumption for fan-less design
- Industrial qualification

Typical Applications for the Control & Visualization CPU Module

- Industrial controller with enhanced user interface
- Medical devices
- Operator terminal
- Computation intensive numerical control
- POS terminal
- Infotainment

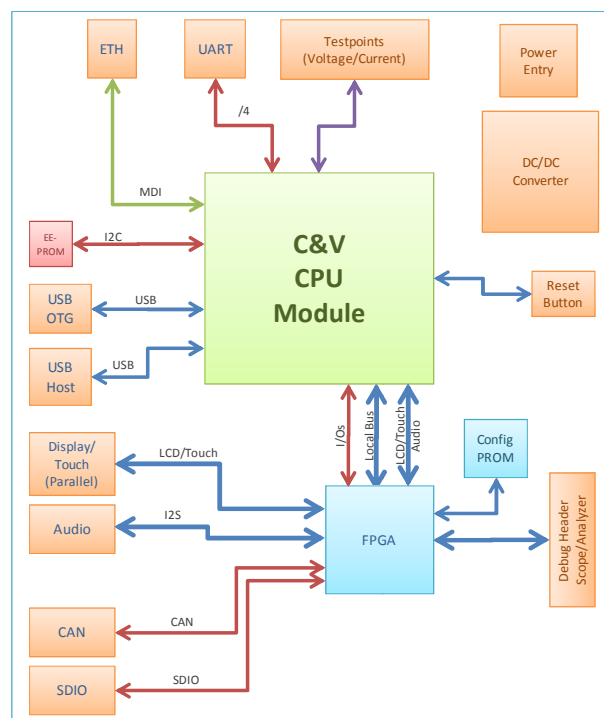
C&V Module Evaluation System

The NetModule Control & Visualization (C&V) Module is a high performance Single Board Computer (SBC) module aimed for the rapid development of industrial controllers with feature rich user interfaces and multimedia applications. The C&V module is ideally suited for designs with critical time to market and demanding environmental requirements.

The Evaluation System consists of the NetModule Control & Visualization Module with a WinCE 6 Board Support Package, the Baseboard which supports the most important features of the CPU Module and the necessary user documentation.

The Baseboard has a 10/100Mbps twisted pair Ethernet Interface, a high speed USB OTG port, a full speed USB Host port, a RS-232 port, a CAN2.0b port, a SDHC/SDIO Card Slot, a LCD/Touch Interface and an audio interface. The Xilinx Spartan 3A FPGA of the Baseboard supports system functions and can be extended with user functionality if required

The baseboard contains provisions to support the functional test with your EMS partner.



Features	
SBC	<p>Miniature Single Board Computer on 67.6mm x 60mm module.</p> <p>SODIMM-200 card edge connector, mates with standard inexpensive SODIMM connector (1.8V keying). Additional mounting holes for reliable attachment are available.</p> <p>Board layout optimized for minimal EMI (Electro Magnetic Interference) and robustness against EMC (Electro Magnetic Compatibility).</p> <p>Single 5.0V supply. All required voltages generated on module.</p> <p>Power consumption ~4W during full operation. Support for energy saving low power modes.</p> <p>Operation Temperature Range: 0°C to 60°C or -20°C to 85°C depending on model.</p>
CPU	<p>Freescalar i.MX356 CPU running at 532MHz. ARM1136 processor core with 16kB L1 data/instruction cache, 128kB unified L2 cache, 128kB internal high speed SRAM. High performance integer and vector floating point units for industrial control and graphics acceleration. 2D graphics acceleration for feature rich user interfaces. Advanced power management for very low power consumption.</p>
Memory	<p>Up to 256MB DDR2-266 memory, 32 Bit bus (128MB default).</p> <p>256MB to 1GByte NAND Flash on 8 Bit bus. Hardware accelerated high speed access with ECC support.</p> <p>32kBit Serial EEPROM (higher capacity available upon request).</p>
Connectivity	<p>Twisted Pair Fast Ethernet (10/100Mbps) interface with Auto-MDIX support.</p> <p>USB High Speed Host or On-The-Go (OTG) port.</p> <p>USB Full Speed Host port.</p> <p>CAN2.0B bus interface with large FIFOs for up to 64 messages; bus speed up to 1MBps.</p> <p>16450/16650 compatible UART Port.</p>
HMI	<p>Audio Interface (Line In, Line Out, Microphone In, Speaker Out)</p> <p>LCD/TFT video interface. 18bit (RGB666) color format, SVGA 800x600 pixel resolution, PWM signal for contrast/brightness control, LED backlight power supply (optimized for EDT ET070080DH6).</p> <p>Resistive Touch Screen Interface and I2C support for Capacitive Touch Screen Controllers on the LCD</p>
FPGA	<p>Xilinx Spartan 3A FPGA for System- and User-Functions.</p> <p>8 Bits width Debug Connector with parallel LED outputs.</p>
Misc Peripherals	<p>Temperature sensor (Range -55°C to 125°C, resolution 0.5°C, alarm interrupt).</p> <p>Real Time Clock</p>
System Supervisor	<p>Power sequencing and voltage monitoring on module.</p> <p>Dedicated watchdog for improved system reliability.</p> <p>Real Time Clock with alarm function and battery backup</p>
Operation System	<p>Bootloader UBoot; Windows CE 6; others available on request</p>

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