

Intel® Core™ i7 Processor Dual PMC/XMC Embedded Controller



APPLICATIONS

The VR 737/08x is a PC-compatible, high performance, high functionality 6U VPX processor board based on the Intel® Core™ i7 processor up to 2.53 GHz (32 nm process technology), the Mobile Intel® QM57 Express chipset and up to 8 Gbytes of DDR3-1066 ECC SDRAM. This single slot board features 2 PMC/XMC sites and a variety of interfaces including an option for an on-board 2.5-inch storage drive and CompactFlash™. The VR 737/08x is an air-cooled commercial VPX board and is suitable for a

range of applications within industrial control, transport, aerospace, security and defense applications. For rugged applications two VPX-REDI versions are available, the VR 737/08x-RCS is a VPX-REDI Type 1 Two-Level Maintenance conduction-cooled board and the VR 737/08-RCT is VPX-REDI Type 2. For all board versions, to simplify integration, many operating systems are supported.

HIGHLIGHTS

- 6U VPX (VITA 46.0) N-Series single board computer:
 - air-cooled, 0°C to +55°C operating temperature
 - use in commercial (non-rugged) applications
 - 6U VPX 0.8 inch slot
 - optional rear transition module available
- I/O interfaces compatible with several OpenVPX profiles
- 2.53 GHz, 2.0 GHz or 1.33 GHz Intel® Core™ i7 processor:
 - dual-core processor
 - 1066 MHz DRAM Bus (800 MHz for 1.33 GHz processor)
 - 4 Mbytes shared last level cache
 - Intel® Hyper-Threading Technology
 - Intel® Turbo Boost technology
 - Intel® 64 Technology (64-bit computing support)
- Up to 8 Gbytes dual channel DDR3-1066 SDRAM
- Configurable PCI Express® fabric interface (VITA 46.4):
 - four x8 or eight x4 PCI Express ports, with DMA
 - compatible with OpenVPX™ (VITA 65) module profiles
 - supports four transparent/non-transparent links
- 2 x Gigabit Ethernet and 2 x 1000Base-BX interfaces via P4 (VITA 46.6)
- 1 x Gigabit Ethernet port via front panel
- 2 x PMC/XMC module interfaces:
 - 32/64-bit, 33/66/100 MHz PCI/PCI-X™
 - 2 x XMC module interfaces (x8 PCI Express®)
 - rear I/O options via Pn4 or Pn6 connector
- 2 x SATA300 interfaces
- 8 x GPI, 8 x GPIO, 5 x USB 2.0 and 6 x serial interfaces
- Dual digital and analog graphics interface
- Stereo audio
- Watchdog and long duration timers
- Optional Built-In Test (BIT) supports:
 - Power-on BIT, Initiated BIT, Continuous BIT
- Ruggedized conduction-cooled versions (RCx-Series):
 - conduction-cooled to VITA 48.2
 - -40°C to +85°C (at card edge), conformally coated
- Support for Linux®, Windows® 7, Windows® Embedded Standard 7, Windows® XP, Windows® XP Embedded, Windows® Server 2008, Windows® Server 2003, QNX®, VxWorks®, Solaris™ and LynxOS®

