ARTISAN®
TECHNOLOGY GROUP

Your **definitive** source for quality pre-owned equipment.

Artisan Technology Group
(217) 352-9330 | sales@artisantg.com | artisantg.com

Full-service, independent repair center
with experienced engineers and technicians on staff.

We buy your excess, underutilized, and idle equipment
along with credit for buybacks and trade-ins.

Custom engineering
so your equipment works exactly as you specify.

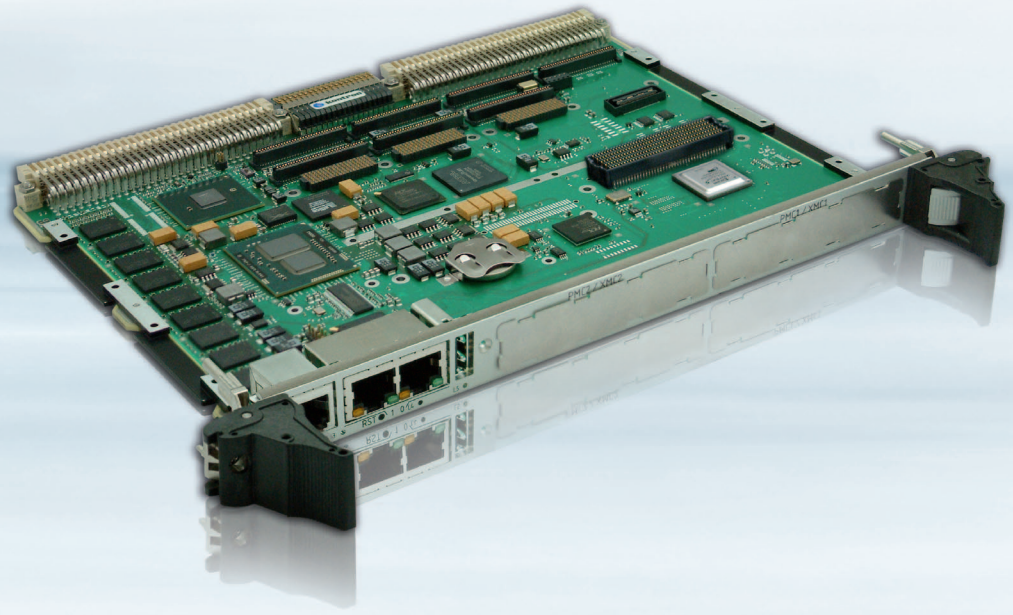
- Critical and expedited services
- In stock / Ready-to-ship
- Leasing / Rentals / Demos
- ITAR-certified secure asset solutions

Expert team | Trust guarantee | 100% satisfaction

All trademarks, brand names, and brands appearing herein are the property of their respective owners.

Find the *Kontron VM6050-2WA34* at our website: *Click HERE*

VM6050



6U VME INTEL® CORE™ I7 SINGLE BOARD COMPUTER

- High Processing Capacities
  Outstanding Performance in VME format with SSE 4.2 CPU Instruction Set
- Exceptional I/O Versatility
  Build the Solution fitting your Program Requirements: XMC, PMC and VITA 57 FMC Support, Digital Graphics, Virtex 5 FPGA, SATA Disk onboard
- Commercial and Rugged Versions
  Designed for the most Demanding Applications
- Extended Life Cycle
  Adapted Long Term Support Program to your Application Life Cycle

POSSIBILITIES START HERE kontron

VM6050 6U VME HIGH PERFORMANCE INTEL® CORE™ I7 COMPUTER

The VM6050 is built around Intel®'s state of-the-art Core™ i7 dual-core processor. The VM6050 provides exceptional I/O capabilities onboard and outstanding flexibility by providing support for both PMC, XMC and FMC mezzanine cards. The VM6050's VME interface helps customers preserve their investment in legacy VME equipment.

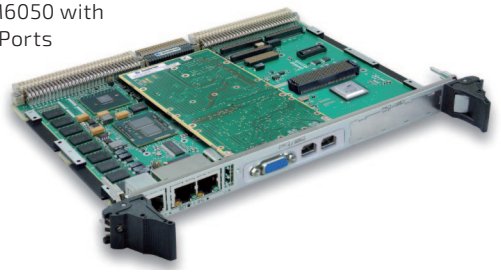
EXTENSIVE I/O CONNECTIVITY

The VM6050 standard version provides four Gigabit Ethernet interfaces, two serial lines, six GPIO, three USB links, two SATA interfaces, one 4x PCI-Express link and two onboard Mezzanine Sites, supporting PMC/XMC and FMC cards (VITA 57 FPGA I/O). The VM6050 supports the V2PMC2, a 6U VME PCI-X/PMC carrier card that holds up to two single-width or one double-width PCI-X/PMC module.

HIGH VERSATILITY AND CUSTOMIZATION

The VM6050 offers many options to fit a large range of application requirements: SATA disk onboard, FMC VITA 57 support, USB/SATA Flash slot. And thanks to a specific module plugged on left hand mezzanine slot, the VM6050 can feature Digital Graphics, VGA, additional GPIOs, USB and High Definition Audio IO coming from Core I7 processor.

Example: VM6050 with two Display Ports module



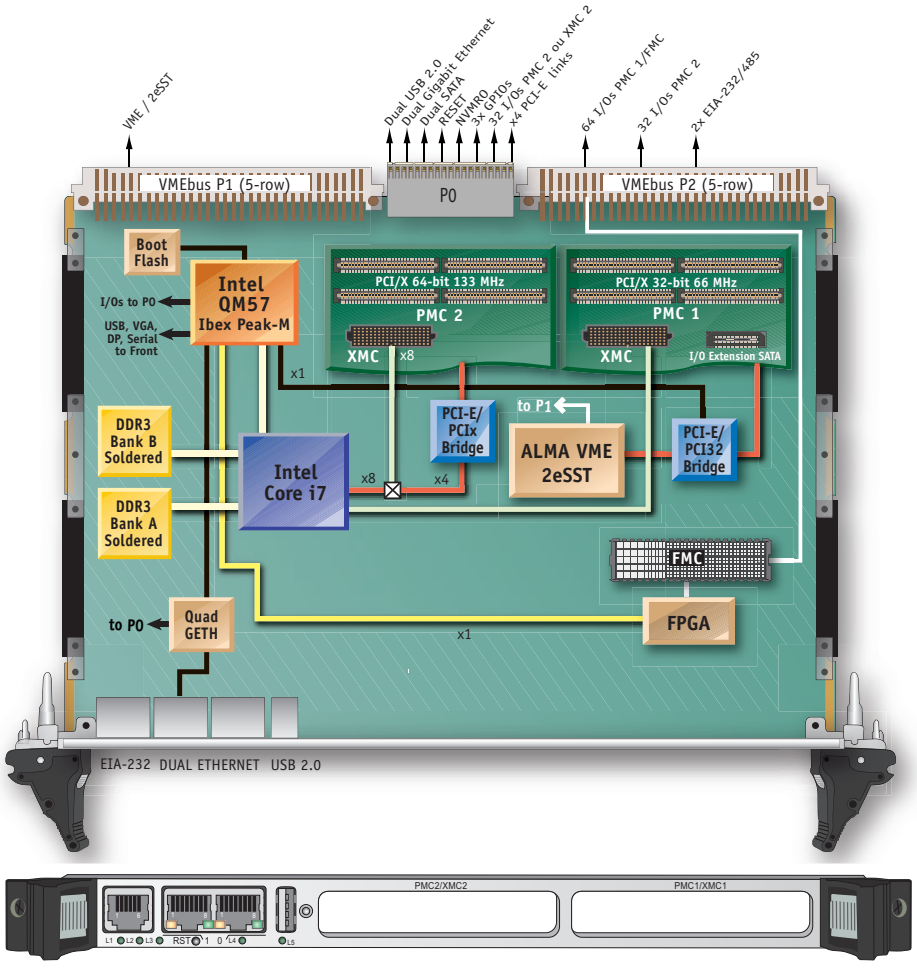
LONG TERM AVAILABILITY

Maximizing the lifetime of an application is a critical issue when it comes to saving development investments. The VM6050 has been designed with long life-cycle components. Beyond the use of standard commercially available components, Kontron offers Longevity of Supply services which are designed to make the VM6050 available for ten years or longer.

LEGACY COMPATIBILITY

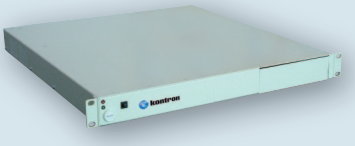
The VM6050 is front and rear I/O compatible with Kontron's PENTXM2/4 and VM6250 SBCs, supporting the same peripherals, Rear Transition Module and PMCs Carrier.

▶ VM6054 BLOCK DIAGRAM AND FRONT PANEL



ASSOCIATED PRODUCTS

EVALUATION SYSTEM



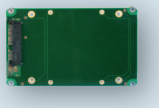
EZ1-VM6050

REAR TRANSITION MODULE



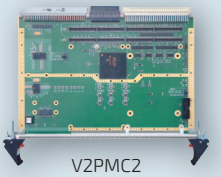
PBV36-P0-VM6-00

SATA DISK CARRIER



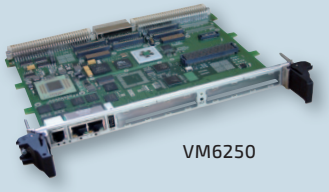
KIT-DISK25-SATA

PMCs CARRIER



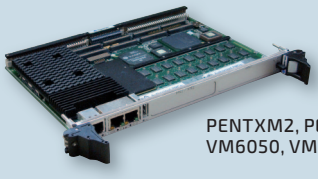
V2PMC2

PowerPC



VM6250

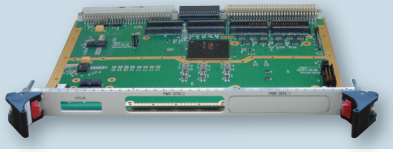
X86



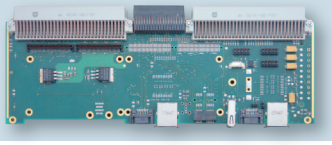
PENTXM2, PENTXM4
VM6050, VM6052, VM6054

PINOUT COMPATIBILITY ACROSS PROCESSOR FAMILIES

MEZZANINE CARRIER



REAR TRANSITION MODULE



FRONT PANEL I/OS



FULL COMPATIBILITY WITH LEGACY PRODUCTS

TECHNICAL INFORMATION

PROCESSOR		Intel® Core™ i7 processor (32nm manufacturing process): ▶ Core i7-620LE Low Voltage, 4 MB L3 cache (shared instruction/data cache between both cores) ▶ Two Cores with Hyperthreading (4 threads total) from 1.2 GHz to 2 GHz ▶ 4 Mbytes cache ▶ Intel Hyper-Threading Technology ▶ Intel Turbo Boost Technology ▶ Intel 64 Technology
MEMORY	System Memory	Up to 8 GB dual channel DDR3 SDRAM running at 1066 MHz, with ECC, soldered
	Flash (uEFI BIOS)	4 MB FLASH, with recovery image and uEFI BIOS settings
	EEPROM	Serial EEPROM (24LC64) 8 KB for storing product VPD
	USB/SATA NAND Flash	Flash mezzanine socket for USB or SATA NAND Flash modules (typically 8, 16 or 32 GB)
ONBOARD CONTROLLER	Platform Controller Hub	Mobile Intel® QM57 Express Chipset:
	Gigabit Ethernet	4 x 1000BASE-T (2 front and 2 rear)
	Watchdog	FPGA-based, timeout ranging from 1s to 510s, IRQ, Reset, dual-stage
	RTC	Integrated in QM57 with 256 Byte CMOS RAM
FRONT INTERFACES	Standard version	1 x RS232/422/485, 2 x 1000BASE-T, 1 x USB 2.0, LEDS, 2 x PMC/XMC slots
ONBOARD INTERFACES	Debug Interface	XDP port for processor emulation probe connection
	USB/SATA	1 x onboard FLASH mezzanine socket for USB or SATA modules
	Mezzanines slots	PMC/XMC/FMC connectors
	SATA onboard	SATA connector
OPTIONS	Graphics	Core i7 processor provides high performance 3D graphics features that can be used thanks to an optional module providing two Display Ports either on front panel or on the backplane through P0. ▶ Support for two independent displays ▶ Supports digital display resolutions up to 2560 x 1600 pixels @ 60Hz ▶ Dynamic Video Memory Technology (DVMT) This module is plugged on PMC/XMC left-hand slot.
	FMC VITA 57 option	FMC VITA 57 slot with Xilinx Virtex5 LX20T FPGA I/O instead of PMC/XMC right-hand slot
	SATA disk carrier option	SATA disk carrier instead of PMC/XMC right-hand slot
	5V only/no P0	VMC64 compatible version: 3.3V not required, under power consumption restrictions regarding mezzanines No P0 connector fitted
	Other options	Additional USB, HDA, GPIO instead of PMC/XMC left-hand slot, please contact Kontron
SOFTWARE		Power-on Built-In-Tests testing over 95% of board features AMI BIOS version 2.00.1201 Linux Operating System Fedora 14 Board Support Package Real Time Operating System VxWorks Windows

▶ TECHNICAL INFORMATION

POWER	Core i7-620LE @1.2 GHz Core i7-620LE @ 2 GHz	Power needs: 3.3V, 5V (+12/-12V if required for mezzanine) Typical/Max: 30W / 42W Typical/Max: 40W / 54W
WEIGHT		Standard Air-Cooled Version: 430g approx. / Conduction-Cooled Version: 700g approx.

▶ ENVIRONMENTAL SPECIFICATION

	SA - STANDARD COMMERCIAL	WA - EXTENDED TEMPERATURE	RA - RUGGED AIR-COOLED	RC - RUGGED CONDUCTION-COOLED
CONFORMAL COATING	Optional	Standard	Standard	Standard
AIRFLOW	1.2 m/s	1.5 m/s	1.8 m/s	NA
TEMPERATURE	VITA 47-Class AC1	VITA 47-Class AC2	VITA 47-Class AC3	VITA 47-Class CC4
Cooling Method	Convection	Convection	Convection	Conduction
Operating	0° to +55°C	-20° to +65°C	-40° to +71°C	-40° to +85°C
Storage	-40° to +85°C	-45° to +85°C	-45° to +100°C	-45° to +100°C
VIBRATION SINE (OPERATING)	20-500 Hz - 2g	20-500 Hz - 2g	20-2,000 Hz - 3g	20-2,000 Hz - 5g
RANDOM	VITA 47-Class V1	VITA 47-Class V1	VITA 47-Class V2	VITA 47-Class V3
SHOCK (OPERATING)	20g/11 ms Half Sine	20g/11 ms Half Sine	40g/11 ms Half Sine	40g/11ms Half Sine
ALTITUDE (OPERATING)	-1,500 to 60,000 ft	-1,500 to 60,000 ft	-1,500 to 60,000 ft	-1,500 to 60,000 ft
RELATIVE HUMIDITY	90% without condensation	95% without condensation	95% without condensation	95% without condensation

▶ ORDERING INFORMATION

ARTICLE	ORDER CODE	DESCRIPTION
VM6050	VM6050-2SA34-00110	6U VME SBC Core i7 620LE @ 2 GHz, SA class, 4 GB SDRAM, 2 PMC/XMC
VM6050	VM6050-2WA34-00110	6U VME SBC Core i7 620LE @ 2 GHz, WA class, 4 GB SDRAM, 2 PMC/XMC
VM6050	VM6050-2RA34-00110	6U VME SBC Core i7 620LE @ 2 GHz, RA class, 4 GB SDRAM, 2 PMC/XMC
VM6050	VM6050-2RC34-10110	6U VME SBC Core i7 620LE @ 2 GHz, RC class, 4 GB SDRAM, 8GB USB Flash, 2 PMC/XMC
TURNKEY EVALUATION PLATFORM:		
EZ1-VM6050	EZ1-VM6050-00-L	Turnkey VME development System based on VM6050-2SA34-10110-L. I/Os: 4xGbE, 3xUSB, 2xSATA, 2 front DisplayPorts + one PMC/XMC slot. Linux Fedora 14 distribution - Kernel 2.6.35

VM6050 OPTIONS: MAKE YOUR CHOICE !

- ▶ Class: SA, WA, RA, RC
- ▶ Digital and VGA Graphics onboard
- ▶ Conformal Coating, additional USB & GPIOs and HDA.
- ▶ Memory: 4 GB, 8 GB
- ▶ Mezzanine slots: 2 PMC, 2 PMC/XMC, VITA 57 FMC support, onboard SATA connector

Please contact Kontron sales.KFR@kontron.com or your Kontron Sales representative to define the version fitting your requirements.

▶ CORPORATE OFFICES

FRANCE
150 rue Marcelin Berthelot
ZI de Toulon-Est - BP 244
83078 TOULON CEDEX 9
Tel.: + 33 4 98 16 34 00
Fax: + 33 4 98 16 34 01
sales.KFR@kontron.com

HEAD OFFICE
Lise-Meitner-Str. 3-5
86156 Augsburg
Germany
Tel.: + 49 821 4086 0
Fax: + 49 821 4086 111
info@kontron.com

NORTH AMERICA
14118 Stowe Drive
Poway, CA 92064-7147
USA
Tel.: + 1 888 294 4558
Fax: + 1 858 677 0898
info@us.kontron.com

ASIA PACIFIC
1~2F, 10 Building, No. 8 Liangshuihe 2nd Street,
Economical & Technological Development Zone,
Beijing, 100176, P.R.China
Tel.: +86 10 63751188
Fax: +86 10 83682438
info@kontron.cn

Copyright © 2017 Kontron AG. All rights reserved. All data is for information purposes only and not guaranteed for legal purposes. Information has been carefully checked and is believed to be accurate; however, no responsibility is assumed for inaccuracies. Kontron and the Kontron logo and all other trademarks or registered trademarks are the property of their respective owners and are recognized. Specifications are subject to change without notice. Datasheet VM6050- 20170206MB

Artisan Technology Group is an independent supplier of quality pre-owned equipment

Gold-standard solutions

Extend the life of your critical industrial, commercial, and military systems with our superior service and support.

We buy equipment

Planning to upgrade your current equipment? Have surplus equipment taking up shelf space? We'll give it a new home.

Learn more!

Visit us at **artisantg.com** for more info on price quotes, drivers, technical specifications, manuals, and documentation.

Artisan Scientific Corporation dba Artisan Technology Group is not an affiliate, representative, or authorized distributor for any manufacturer listed herein.

We're here to make your life easier. How can we help you today?

(217) 352-9330 | sales@artisantg.com | artisantg.com

ARTISAN® TECHNOLOGY GROUP