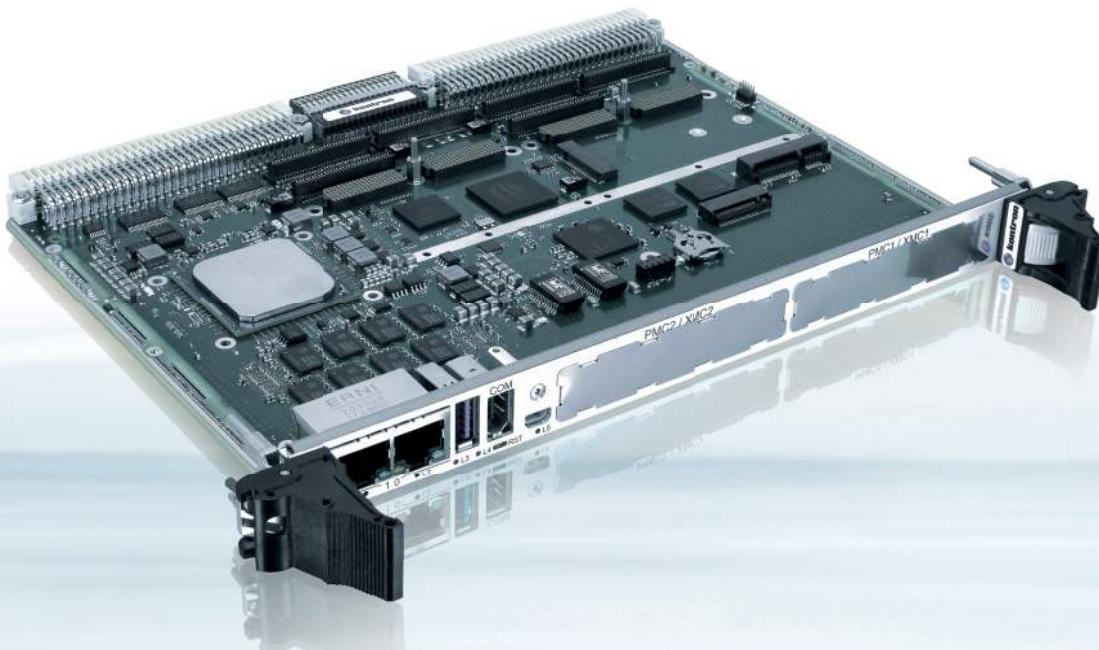


# VM6062

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## 6U VME Server-Class Blade Computer Designed for intensive Data I/O Processing

- ▶ 2-Core 2.2 GHz Intel® Xeon® Processor D-1500 Product Family
- ▶ Up to 32 GByte DDR4 on-board soldered memory with ECC
- ▶ Dual 1 Gb Ethernet, USB 3.0, HDMI, COM ports on front
- ▶ Dual PMC/XMC, Dual M.2 and mPCIe sockets
- ▶ Extended Life Cycle and Silicon Reliability

POSSIBILITIES START HERE

 **kontron**  
S&T Group

# VM6062

## A unique fully fledge I/O Blade Server PC

The VM6062 is a low power 2-Core/4-thread Intel® D1508 version of a pin compatible 6U VME SBC products range featuring a processor from the Server Class Intel® Xeon® Processor D-1500 family.

The VM6062 is a unique fully fledge I/O Blade Server PC as it features on the front panel HDMI, USB 3.0, COM and Dual Gigabit Ethernet ports aside the PMC/XMC slots.

### FIELD PROVEN AND OPEN TO MIGRATION ARCHITECTURE

The VM6062 features an Intel® Xeon® Processor D-1500 family processing unit already deployed in the field of applications ranging from the Telecommunications, Industry, Transportation and Defense on Kontron products such as High Performance VPX platforms, CompactPCI Blades, COM-Express modules and SYMKLOUD servers.

### TECHNOLOGY REFRESH CAPABILITY

The close pin compatibility of the VM6062 SBC with former Kontron 6U VME products such as the VM6050, VM6052 and VM6054 makes the VM6062 as a good candidate for both the expansion and the performance leveraging of existing programs.

### HIGH VERSATILITY AND CUSTOMIZATION

The I/O expansion options provided by the VM6062 makes this product suitable to fulfill a large range of applications. In addition to the Two Gigabit Ethernet interfaces, three USB links, two SATA interfaces, two serial lines, one HDMI and up to height GPIO

available on the base version, the VM6062 features the following I/O expansion possibilities:

- ▶ Two PMC/XMC slots
- ▶ Two M.2 slots
- ▶ One miniPCI Express slot as exclusive use of one PMC/XMC
- ▶ PCI Express® x4 expansion on high performance UHM P0 connector compatible with V2PMC2 carrier card.

### UP-TO-DATE DIGITAL SECURITY ENABLED PLATFORM

Digital security is of tremendous importance for embedded computing: the exploding number of deployed autonomous devices with no operator close by will represent a significant surface of attack. Moreover, embedded computers can be connected and active in the field during many years.

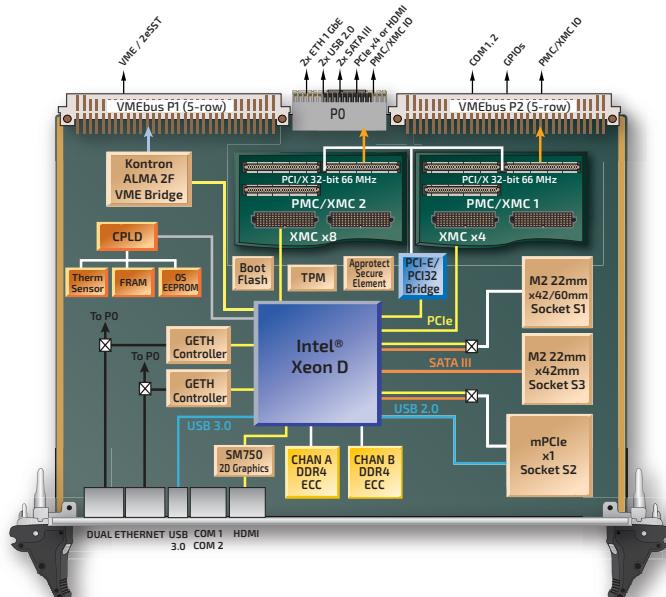
Kontron answers digital security requirements in the frame of the SEC-Line offer with hardware enforced root of trust (Dual secure elements) which are available on the VM6062, and software only techniques such as Secure Boot.

Furthermore, the design of the VM6062 already includes the host a third secure element to enhance digital security of the application.

### Long Term Supply and Support

The VM6062 is part of the Kontron Extended Life Cycle product family which offers a 15-year minimum life cycle organization on top of Intel® embedded product line silicon life cycle. And extended long term support achievement is render simple choosing among a set of catalog support packages.

### ► GRAPHIC AREA



### ASSOCIATED PRODUCTS

#### Evaluation System



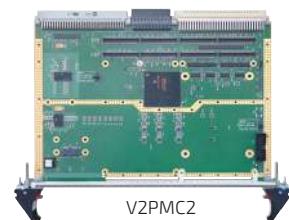
#### Multi-Head GP-GPU XMC

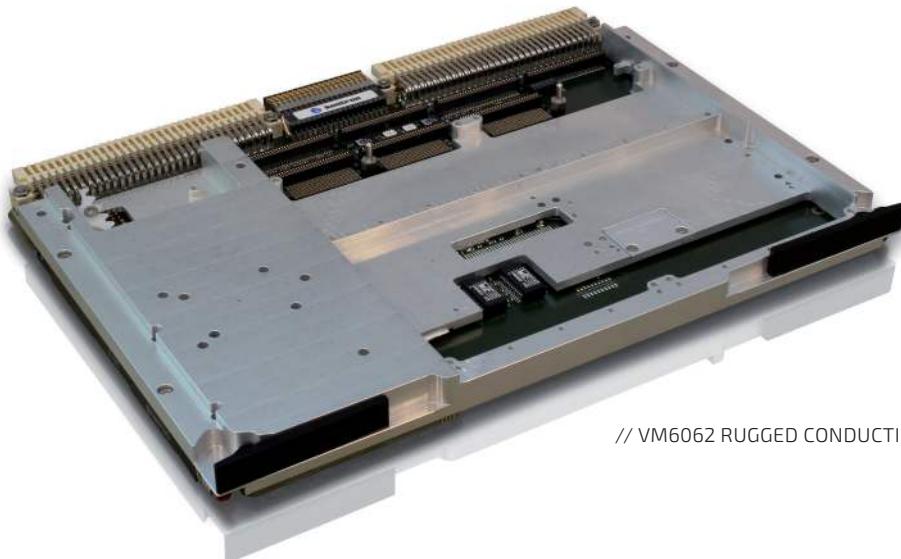


#### Rear Transition Module



#### PMCs carrier





// VM6062 RUGGED CONDUCTION COOLED (RC)

## ► TECHNICAL INFORMATION

PROCESSOR		2-Core/4-thread Intel® D1508 Member of the Server Class Intel® Xeon® Processor D-1500 family 3 MByte Cache 2.2 GHz Processor Base Frequency 2.6 GHz Maximum Turbo Frequency Intel® Virtualization features VT-d, VT-x and AVX2
ONBOARD CONTROLLER	WATCHDOG SYSTEM CPLD  RTC	PLD-based, timeout ranging from 2 µs to 510s, IRQ, Reset, dual-stage One CPLD Board controller for power sequencing, reset handling, monitoring, failure detection Separated low power RTC with optional onboard battery
MEMORY	SYSTEM MEMORY  FLASH (UEFI BIOS) EEPROM  M.2 OPTION	8 GByte DDR4 dual channel memory with ECC Expandable to 32 GByte 2x 16 MByte FLASH, with recovery image and uEFI BIOS settings One serial 256 Kbit EEPROM dedicated to system data One serial 256 Kbit EEPROM dedicated to application data Dual M.2 SSD slots.
FRONT INTERFACES	USB GIGABIT ETHERNET HDMI SERIAL LINE LEDs RESET	1x USB 3.0 2x RJ-45 10/100/1000BASE-T Ethernet switchable to rear P0 connector HDMI port IEEE1394 connector. 2x EIA-232 simplified lines 4 Reset push button
REAR INTERFACES	USB GIGABIT ETHERNET SATA HDMI PCI EXPRESS®	2x USB 2.0 2x 10/100/1000BASE-T Ethernet switchable to front 2x SATA III HDMI port exclusive with PCI Express® x1 or x4 without HDMI, PCI-Express 2.0
ONBOARD INTERFACES	PMC XMC  M.2 MINI-PCIE	PCIbus 32/66 VITA 42, PCIe x8 (XMC#2) and PCIe x4 (XMC#1) VITA 61 XMC 2.0 support: contact Kontron 2x M.2, one exclusive to PMC/XMC#1 1x PCIe/USB interface, exclusive to PMC/XMC#1
BUILT IN TEST	SOFTWARE OPTIONS	PBIT Power-on Built in Test CMON control monitoring
POWER	STANDARD 5V ONLY OPTION	3.3 V, 5 V (+12/-12 V if required for mezzanine) Contact Kontron
DIMENSIONS	(BASELINE)	VME 1 slot, 6U, 4HP, 0.8" slot pitch, P1 P2 P0 equipped, 5-row backplane connector
WEIGHT (BASELINE)		Standard Air Cooled Version: 480 g approx. / Conduction Cooled Version: 800 g approx.

## ► TECHNICAL INFORMATION

	SA - STANDARD COMMERCIAL		WA - EXTENDED TEMPERATURE		RA - RUGGED AIR-COOLED	RC - RUGGED CONDUCTION-COOLED
CONFORMAL COATING	Optional		Standard		Standard	Standard
COOLING METHOD	Convection		Convection		Convection	Conduction
OPERATING TEMPERATURE	0 °C to +55 °C		-20 °C to +65 °C		-40 °C to +70 °C	-40 °C to +85 °C
STORAGE TEMPERATURE	-40 °C to +85 °C		-45 °C to +100 °C		-50 °C to +100 °C	-50 °C to +100 °C
VIBRATION SINE (OPERATING)	20-500 Hz - 2 g		20-500 Hz - 2 g		20-2000 Hz - 3 g	22-2000 Hz - 5 g
RANDOM	f (Hz)	10	40	100	200	2000
	PSD (g <sup>2</sup> /Hz)	0.01	0.01			
SHOCK (OPERATING)	20 g/11 ms Half Sine		20 g/11 ms Half Sine		20 g/20 ms Half Sine	40 g/20 ms 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	PART NO.	DESCRIPTION
VM6062	VM6062-SA28-00000000	6U single slot 4 HP (0,8") VME SBC Intel® Dual-Core D1508 processor, 8 GByte dual bank DDR3-SDRAM with ECC, two PMC/XMC slots, two M.2, one mPCIe, P0 connector. Air-Cooled SA Class (0 °C to +55 °C) Conformal coating in option.
VM6062	VM6062-WA28-00000000	6U single slot 4 HP (0,8") VME SBC Intel® Dual-Core D1508 processor, 8 GByte dual bank DDR3-SDRAM with ECC, two PMC/XMC slots, two M.2, one mPCIe, P0 connector. Air-Cooled WA Class (-20 °C to +65 °C). Conformal coating (default).
VM6062	VM6062-RA28-00000000	6U single slot 4 HP (0,8") VME SBC Intel® Dual-Core D1508 processor, 8 GByte dual bank DDR3-SDRAM with ECC, two PMC/XMC slots, two M.2, one mPCIe, P0 connector. Air-Cooled RA Class (-40 °C to +75 °C). Conformal coating (default).
VM6062	VM6062-RC28-00000000	6U single slot 4 HP (0,8") VME SBC Intel® Dual-Core D1508 processor, 8 GByte dual bank DDR3-SDRAM with ECC, two PMC/XMC slots, two M.2, one mPCIe, P0 connector. Air-Cooled SA Class (-40 °C to +85 °C). Conformal coating (default).

## ► Global Headquarters

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