



VPX-based Rugged Mission Computer for data processing, video, graphics and AI

- Rugged, extended temperature, SWaP-C optimized computer
- Small form factor 272 mm x 202 mm x 100 mm (housing only)
- Intel® Core™ i7-1185GRE quad-core CPU, 32 GByte soldered DDR4 with ECC
- 2x 10GbE LAN ports, dual DVI ports, optional GPU/GPGPU card
- Made in France, ITAR free

DARC™ VX208 - High performance SWaP-C rugged computer with high definition video processing capabilities

The Kontron DARC™ VX208 is a very high performance embedded computing platform based on the VPX technology designed for tough SWaP constrained missions. The combination of its sealed compact enclosure and power-to-performance optimization make the Kontron DARC™ VX208 ideally suited for typical military applications requiring high performance, reduced size, weight and power in an environmentally ruggedized platform like CSIR (Command/Control, Electronic warfare, Electro-Optical Infra-red Sensor Processing) or Vetronics (Vehicle Management, Crew Controls and Displays, Mission computing, Video processing, Image fusion, 360° awareness, Tracking).

Based on the Intel® Core™ i7-1185GRE quad-core processor, the DARC™ VX208 combines dense processing and I/O connectivity. Its two 10 GbE ports make the DARC™ VX208 ideal for radars or any other applications requiring high bandwidth to handle and transmit a large amount of data.

Networked video streaming and processing, such as image fusion, are also possible through an optional GPU hardware acceleration for real-time situational awareness. Multiple expansion slots allow the customization of the platform interfaces, making the Kontron DARC™ VX208 configurable for various customer needs.

Technical Information

PROCESSOR	VIRTUALIZATION SECURITY	Intel® Core™ i7-1185GRE quad-core @1,8 GHz Support of Intel® VT-x virtualization TPM2.0, secure boot support
MEMORY	SYSTEM MEMORY MASS STORAGE	32 GByte soldered DDR4 with ECC 1x internal SSD (via M.2 socket below) 1x externally removable SSD
DEFAULT SYSTEM I/Os	ETHERNET SERIAL USB DISPLAY	2x optical 10Gigabit Ethernet links (10GBASE-SR) 2x 1Gigabit Ethernet links (1000BASE-T) compliant to STANAG 4754 1x RS232, 2x RS485 half-duplex or 1x RS422 Up to 4x USB2.0 (3 or 4 depending on variant) 2x DVI-D single link
EXTENSIONS SLOTS		2x M.2 sockets for modules with SATA/PCIe support 1x MXM 3.1 type A slot
POWER SUPPLY		+28 VDC nominal input (+18 VDC to +36 VDC) acc. to MIL-STD-1275E
DIMENSIONS (WxDxH)		272 x 202 x 120 mm for housing only 300 x 233 x 120 mm with baseplate and D38999 connectors
WEIGHT		Less than 7,6 kg (depending on configuration)
OPTIONS AVAILABLE	GRAPHICS / GPGPU STORAGE USB3.0 RTC HOLDER	Default options: Nvidia RTX A1000 or AZ200; Other GPU on-request Industrial Grade SSDs (MLC, iMLC or SLC) 1x USB3.0 on dedicated circular connector (J7) Supercapacitor or battery for RTC
OPTIONS ON -REQUEST	DISCRETE I/Os CAN VIDEO CAPTURE LED HOLD-UP TIME	GPIOs TTL 3V3 Dual CAN Bus Frame Grabber SDI Dual-Channel 1x Power Led, 4x User Leds Hold-up time according to D0160
OPERATING SYSTEM	LINUX WINDOWS	BSP for Linux x64 distribution with recent kernel. By default: pre-installed Fedora remix distribution BSP for Windows 10 IoT 64bits
ENVIRONMENTAL	CONNECTORS OPERATING TEMPERATURE STORAGE TEMPERATURE DUST / WATER PROTECTION SHOCK / VIBRATIONS EMI / EMC /RFI HUMIDITY SALT FOG FLUIDS CONTAMINATION	Military circular IP67 locking connectors MIL-DTL-38999 -40 °C to +55 °C (with GPU option equipped), MIL-STD-810 -40 °C to +71 °C (depending on configuration) -40 °C to 71 °C (with GPU option equipped), MIL-STD-810 -40 °C to +85 °C (depending on configuration) MIL-STD-810G Method 510.6, Procedure I - Blowing Dust MIL-STD-810G Method 506.6, Procedure III - Drip MIL-STD-810G, Eight wheeled boxer and Tracked tank MIL-STD-461F, MIL-STD1275E 0 % - 95 % relative humidity MIL-STD-810 Method: 509.6 MIL-STD-810 Method: 504.2

ARTICLE	PART NO.	DESCRIPTION
DARC-VX208	1067-2578	Processor 11th Gen Intel® Core™, Tiger Lake -1185GRE Intel® Core™ i7, quad core CPU @ 1.8 GHz - 256 GByte Removable Tray - RAM 32 GByte - MXM Industrial Grade GPU Nvidia 1050TI - Trusted Platform Module (TPM 2.0) - 3x USB2.0 ports - 1x RS232 serial port (without flow control) - 2x RS485 serial ports - 2x DVI-D single link interfaces - 2x 10G Base-SR 10 Gigabit Ethernet interfaces - 2x 1G Base-T 1 Gigabit Ethernet- 28V DC according to MIL-STD 1275E
DARC-VX208-H	1070-2897	Processor 11th Gen Intel® Core™, Tiger Lake -1185GRE Intel® Core™ i7, quad core CPU @ 1.8 GHz - 256 GByte Removable Tray - RAM 32 GByte - MXM Industrial Grade GPU Nvidia A1000 - Trusted Platform Module (TPM 2.0) - 1x USB3.0 port - 4x USB2.0 ports - 1x RS232 serial port (with flow control) - 2x RS485 serial ports - 2x DVI-D single link interfaces - 2x 10G Base-SR 10 Gigabit Ethernet interfaces - 2x 1G Base-T 1 Gigabit Ethernet- 28V DC according to MIL-STD 1275E - battery holder

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