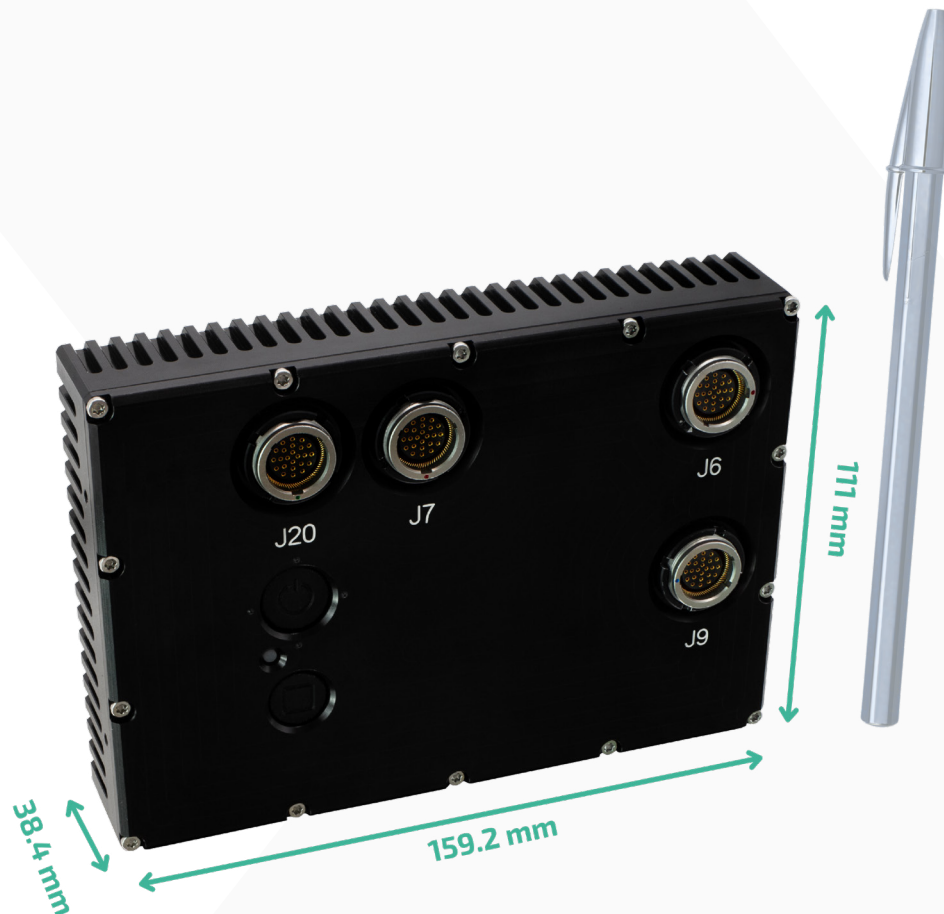


Kontron μ DARC

Rugged Microserver



Ultra-rugged and mobile Microserver for Tactical Edge Computing

- Quad-Core Arm® processor i.MX8X
- Power efficient: less than 5 Watts
- Ultra compact IP67 sealed enclosure: 159.2 x 111 x 38.4 mm
- Lightweight: 735g
- Robust and secure design with cybersecurity chain of trust
- Long term support and ITAR free

Ultra-Rugged Microserver for Tactical Edge Computing

Kontron µDARC is an ultra-rugged, compact and resilient mobile Microserver dedicated to mobile applications in harsh environments.

Powered by a high-efficiency NXP Arm® i.MX8X quad-core processor, it delivers robust computing performance with ultra-low power consumption. Featuring a wide range of I/O options, µDARC ensures seamless connectivity and data processing at the tactical edge of the battlefield.

Its very small form factor, robust and reliable design, light weight and low consumption make it perfect for any SWaP-constrained missions. Kontron µDARC enables secure, real-time data collection and transmission, making it a critical node for connecting field equipment in modern, network-centric operations.

TYPICAL USECASES

- Wearable computer embedded in soldier gear to gather and analyze sensor data on the battlefield.
- Tactical Edge Computing in Unmanned Ground Vehicles (UGVs) where µDARC processes sensor data, including LiDAR, GPS, and cameras, in real time and securely transmits it to the command center
- Onboard data processing for UAVs and drones providing low-latency edge computing for object recognition, path planning, and telemetry aggregation during aerial surveillance missions.
- Mobile Cybersecurity Gateway designed to inspect, encrypt, and route sensitive battlefield communications

Technical Information

PROCESSOR	CPU	Low Power i.MX8X Series processor, Quad-core Arm® Cortex A-35, one Cortex M4F, GPU, VPU
MEMORY	RAM	3 GByte DDR4
STORAGE	FLASH	8 GByte eMMC soldered flash (NAND pSLC), option up to 32 GByte pSLC (or 64GByte MLC)
INTERFACES	USB 2.0 ETHERNET SERIAL WI-FI BLUETOOTH	3x USB 2.0 (which one is OTG) 1x Gigabit Ethernet (1000BASE-T), with an additional port as an option 2x EIA-232 with flow control (TXD, RXD, RTS, CTS) Optional WiFi IEEE802.11 b/g/n, with integrated antenna Optional Bluetooth and BLE 4.2, with integrated antenna
POWER SUPPLY	POWER CONSUMPTION DC IN BATTERY OPERATION OPTION	Less than 5 W 12 VDC nominal Batteries Type 1: 14.5 V; Type 2: 10.2 V nominal
MECHANICAL	DIMENSIONS WEIGHT IP LEVEL	159.2 x 111 x 38.4 mm 735 g IP67
SOFTWARE	FIRMWARE OPERATING SYSTEM	U-Boot Linux Yocto 4.0
MONITORING	TEMPERATURE PRESSURE VOLTAGE	Battery and computer temperature monitoring Pressure sensor Voltage monitoring
SECURITY	TPM	Cryptographic keys management memory
TEMPERATURE RANGE	OPERATING TEMPERATURE STORAGE TEMPERATURE	-19 °C to +49 °C -21 °C to +71 °C
CERTIFICATION	THERM/MECH STORAGE TEMPERATURE OTHERS	MIL-STD-810G, STANAG 4370 (AECTP 400) STANAG 4370 (AECTP 300 & 500), MIL-STD-461G CE, REACH / RoHS

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