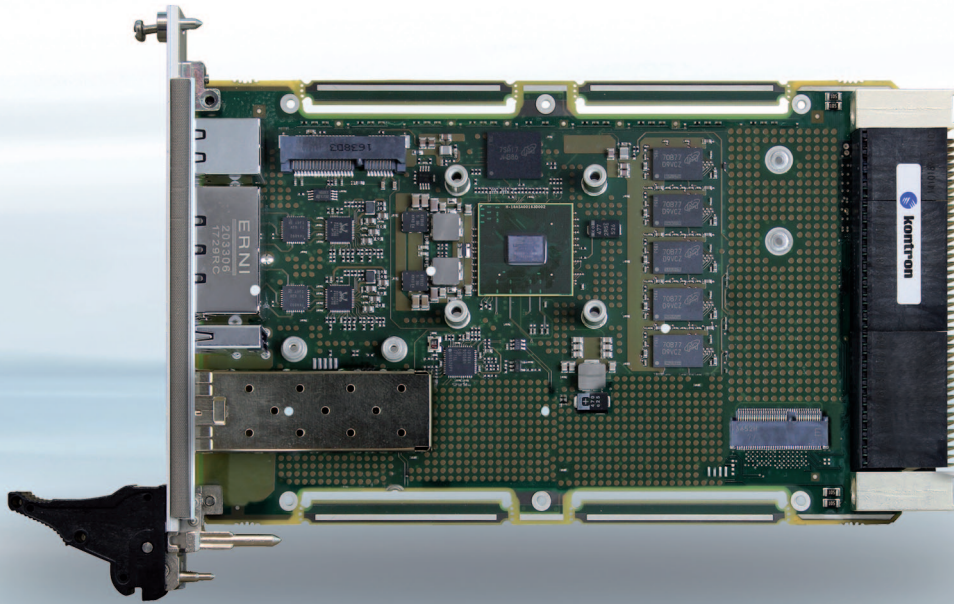


# VX3106



## LOW POWER NETWORKED BLADE COMPUTER DESIGNED FOR TRANSPORTATION AND SWAP-C DEFENSE APPLICATIONS

- ▶ Quad-Core 1.2 GHz Multicore 64-bit ARM® A72 "Layerscape" Processor
- ▶ High Performance Neon SIMD Co-processor and DP FPU
- ▶ 6 Ethernet Ports, option for 2 Ethernet 10 G BASE-KR
- ▶ High Capacity of Storage: 32 GB eMMC and M.2 SATA III SSD Sockets
- ▶ Low Power, <20 W on single +12 VDC Supply, Natural Convection enabled
- ▶ 10 years Long Term Supply and Support

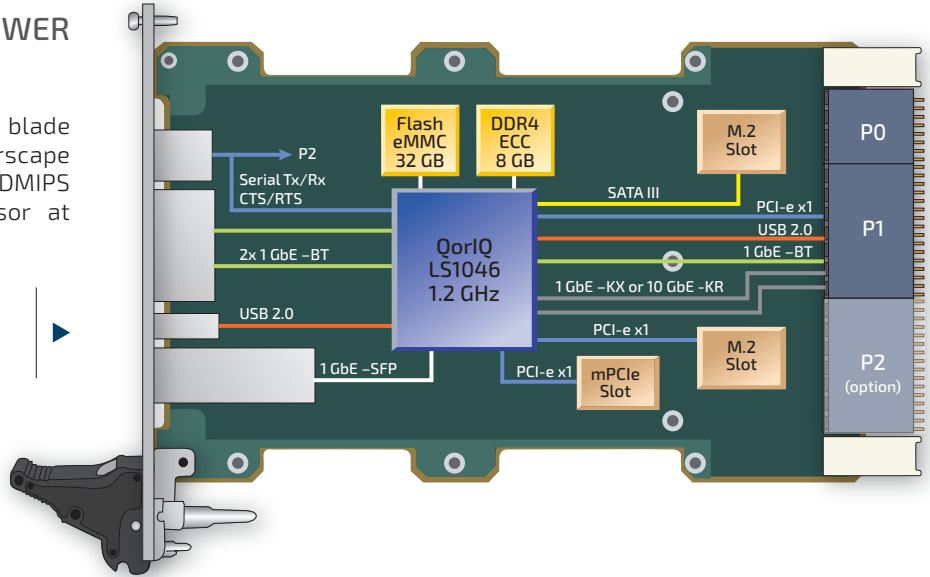
POSSIBILITIES START HERE



## VX3106 – 3U VPX LOW POWER CONNECTIVITY ENGINE

The VX3106 is a low-power 3U VPX blade computer featuring the NXP Layerscape LS1046, a high performance 30 k DMIPS quad-core 64-bit ARM A72 processor at 1.2 GHz.

VX3106  
BLOCK DIAGRAM



### TECHNICAL INFORMATION

FEATURES	Form Factor	3U VPX, 1" (5HP) 4 HP build version as option Slot profiles: SLT3-PAY-2F2U-14.2.3, SLT3-PAY-1F1F2U-14.2.4, SLT3-PAY-1F1U-14.2.10
	Processor	One NXP QorIQ Layerscape LS1046A Quad-Core 64-bit ARM® Cortex®-v8 A72 1.2 GHz upgradable to 1.8 GHz, 2 MB L2 cache, Neon SIMD Co-processor and DP FPU
	System Memory	8 GB 72-bit DDR4 SDRAM at 1600 MT/s with ECC
	SPI Flash	Firmware Boot Device, 2x 128 Mbits
	eMMC Flash	32GB eMMC MLC flash
	F-RAM	F-RAM 1 Mbit of non-volatile ferroelectric RAM
	EEPROM	One serial 256 Kbit EEPROM dedicated to VPD data, One serial 256 Kbit EEPROM dedicated to system data
	Security	Dual secure elements, TPM and Wiblu, which can be enhanced with Kontron SEC-LINE product
FRONT I/O INTERFACES (AIR-COOLED BUILDS):	Ethernet ports	2 x 1G BASE-T on RJ-45 connectors, 1 x SFP cardcage, copper 1000BASE-T and fiber are supported
	USB	USB 2.0
	Serial	EIA-232 Tx, Rx, RTS, CTS serial line on IEEE1394 connector
REAR I/O INTERFACES	PCI-Express	x1 Gen. 3, second x1 lane as option
	Ethernet ports	2 x 1 G BASE-KX; dual 10 Gb BASE-KR as a build option, 1 x 1 G BASE-T
	USB	Up to 2 depending on build version
	GPIO	Up to 5 GPIOs
	Monitoring port	SMB on P0 connector
	Serial Lines	2x Tx, Rx EIA-232 on optional P2 connector
	M.2	M.2 on Top: SATA III, M.2 on bottom (5 HP version): PCI-Express x1
EXPANSION SLOTS	mPCIe	PCI-Express x1, USB 2.0 as option
	CPU debug Interface	JTAG debug connector for CodeWarrior TAP
VARIOUS INTERFACES	Board Temperature	ADT7461A on-chip thermal sensor and remote thermal diode. Three LM73 thermal sensors.
	Firmware	U-Boot
	Power Supply	+12 VDC only
	Power Consumption	Less than 20 W without mezzanines
	Environmental Specification	Forced Air Cooled "SA" (0°C to +55°C), Forced Air Cooled "WA" (-20°C to +65°C) Rugged Conduction Cooled "RC" (-40°C to +85°C), Natural Convection cooled: contact Kontron

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