

EVIDEN

BullSequana eXascale Interconnect (BXI) V3: High-performance interconnect for AI and HPC workloads

With the rapid rise of HPC and AI workloads and the advent of Exascale, interconnect networks are under immense pressure. At this scale, optimizing the network, the backbone of the system, becomes crucial to enhancing overall performance.



The Eviden BullSequana eXascale Interconnect (BXI) V3 offers a game-changing solution enhancing GPU utilization and supercomputer system performance by offloading tasks from CPU and efficiently managing traffic.

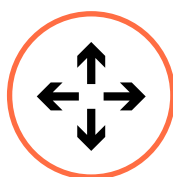
As Europe's leading interconnect player and a founding member of the Ultra Ethernet Consortium (UEC), Eviden provides a future-proof and sovereign solution tailored for AI and HPC workloads.



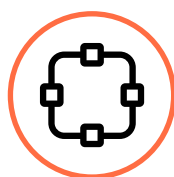
High
bandwidth



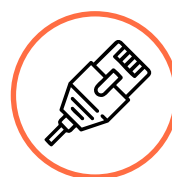
Ultra-low
latency



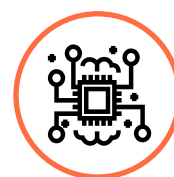
Congestion
management



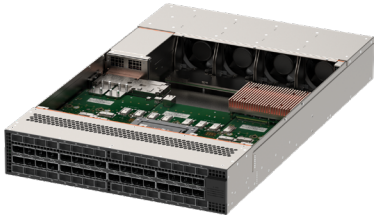
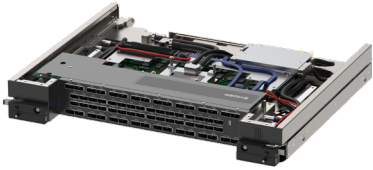
Guarantee of
packet delivery
& order



Ethernet
interoperability



Smart CPU
offloading

BXI V3 SWITCH		
Technology	BXI V3 Air switch	BXI V3 Direct Liquid Cooling switch
Ports	64 OSFP 800G ports – Supports both copper and optical cabling 800G max Switch to Switch, 2x400G for Switch to NIC Switch aggregated throughput: 51,2Tb/s	
Power supply	Dual hot plug 120V/240V AC C19 socket	55V DC Direct connection to rack busbar
Operating / Storage conditions	Operating range: 0°C to 35°C -8% to 80% humidity Storage range: -40°C to 70°C -5% to 95% humidity	Operating range: 10°C to 45°C -8% to 80% humidity Storage range: -40°C to 70°C -5% to 95% humidity
Cooling	Air cooling, redundant hot plug fans	100% Direct Liquid Cooling (DLC) Dripless connectors
Form factor	Standard 19" rack 2U chassis	BullSequana XH3x00 series rack 2U chassis
Management / Switch LEDs	1x RJ45/1Gbe - Out of band management port Per port: link status LED Fans, power supplies, unit ID and system LEDs	Management via rack infrastructure sideband network Per port: link status LED Fans, unit ID and system LEDs
Regulatory compliance	Safety compliance: CE and cCSAus, BIS, UKCA EMC compliance: CE, FCC Environmental RoHS II & WEEE directives, REACH regulation	
Warranty	Safety compliance: CE and cCSAus, BIS, UKCA EMC compliance: CE, FCC Environmental RoHS II & WEEE directives, REACH regulation	

BXI V3 Network Interface Card (NIC)		
	BXI V3 NIC PCIe card	BXI V3 NIC Mezzanine card
Port: Connector / Max Data Rate	QSFP-DD / 1x 400 Gbps	QSFP-DD / 2x 400 Gbps
Operating System	Red Hat Enterprise Linux 9/10	
MTU size	9000 Bytes, 64GBytes max message size	
System Interface	PCI Express Gen 5.0 x16	
Input voltage	12VDC + 3,3DVC from PCI interface 12V External power needed (4 pins PCIe)	12VDC + 3,3DVC from PCI interface
Operating / Storage conditions	Operating range: 5°C to 38°C – Storage range: -40°C to 70°C Humidity, operating and storage: 20% 60%, gradient 5%/h	Operating range: 10°C to 45°C – humidity 8% to 80% non-condensing Storage range: -10°C to 70°C – humidity 5% to 95% non-condensing
Cooling	100% Air cooled Passive heat sink	100% Direct Liquid Cooled Water-cooled cold plate
Form factor	Full Height, Half Length (FHHL*) (*: Width:18.22mm Depth:180.5mm Height:111.5mm)	OCP3 Large Form Factor (LFF+) BullSequana XH3x00 series compute blade mezzanine card
Server compatibility	Standard PCI slot – Regular server	BullSequana XH3x00 series compute blade
Management LED Indicators	Link status indicator (Green) Traffic indicator (Yellow blinking)	Link status indicator (Green) Traffic indicator (Yellow blinking)
Cabling	Passive/Active copper & fiber	Passive/Active copper
Regulatory compliance	Safety compliance: CE and cCSAus, BIS, UKCA EMC compliance: CE, FCC Environmental RoHS II & WEEE directives, REACH regulation	
Warranty	Standard warranty: 1 year Extended warranty: consult your local sales representative	

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107141-SB+JD- BullSequana eXscale Interconnect v3 launch