

01 xSmartNIC

The FPGA/CPU-based Smart NIC series leverages high-performance hardware offloading technology to intelligently offload network processing tasks, reducing CPU computational burden and achieving seamless acceleration. By optimizing packet forwarding, protocol processing, and traffic scheduling, it significantly enhances network throughput and effectively reduces communication latency, meeting the demands of high-concurrency, low-latency application scenarios.

					
Models:	xSmartNIC-200-OVS	xSmartNIC-250-OVS	xSmartNIC-500-X	xSmartNIC-500-TOE	xSmartNIC-200-TOE
Ports:	2*10G	2*25G	2*25G	2*25G	2*10G
Controller:	Xilinx vu3p	Xilinx vu3p	Xilinx vu3p	Xilinx vu3p	Xilinx ku3p
Speeds:	10Gbps	25Gbps	25Gbps	25Gbps	25/10/1GbE
PCIe interface:	PCIe3.0 x8	PCIe3.0 x8	PCIe3.0 x8	PCIe 3.0x8	PCIe 4.0x8
Connector Type:	SFP+,DAC,AOC	SFP28+,DAC,AOC	SFP28+,DAC,AOC	QSFP28,DAC,AOC	SFP28,DAC,AOC
Form Factor:	Half-Height, Half Length	Half-Height, Half Length	Half-Height, Half Length	Half-Height, Half Length	Half-Height, Half Length
Warranty:	1年	1年	1年	1年	1年

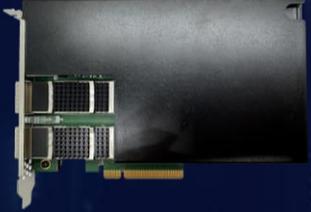
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Models:	xSmartNIC-500-BXW	xSmartNIC-500-BIW	xSmartNIC-1000D	xSmartNIC-1000D-3PG2	xSmartNIC-2000-P4
Ports:	2*25G	2*25G	2*40G/2*50G	2*40G/2*50G	2*100G
Controller:	Xilinx ku5p+E810XXVAM2	Intel s10及E810	Xilinx vu3p	Xilinx vu3p	Xilinx vu3p
Speeds:	25/10/1GbE	25Gbps	40Gbps/50Gbps	40Gbps/50Gbps	100Gbps
PCIe interface:	PCIe 4.0x8	2*PCIe 3.0x8	PCIe3.0 x16	PCIe3.0 x16	PCIe 3.0x16
Connector Type:	SFP28,DAC,AOC	QSFP+,DAC,AOC	QSFP+,DAC,AOC	QSFP+,DAC,AOC	QSFP28,DAC,AOC
Form Factor:	Half-Height, Half Length	Full-Height, Half Length	Half-Height, Half Length	Half-Height, Half Length	Half-Height, Half Length
Warranty:	1year	1year	1year	1year	1year

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Models:	xSmartNIC-2000-P4G2	xSmartNIC-2000	xSmartNIC-2000-3PG2
Ports:	2*100G	2*100G	2*100G
Controller:	Xilinx vu3p	Xilinx vu3p	Xilinx vu3p
Speeds:	100Gbps	100Gbps	100Gbps
PCIe interface:	PCIe3.0 x16	PCIe3.0 x16	PCIe 3.0x16
Connector Type:	QSFP28,DAC,AOC	QSFP28,DAC,AOC	QSFP28,DAC,AOC
Form Factor:	Half-Height, Half Length	Half-Height, Half Length	Half-Height, Half Length
Warranty:	1年	1年	1年

01 xSmartNIC - DPU

		
Models:	xSmartNIC-2000-CN106	xSmartNIC-2000-CN103
Ports:	2*100G	1*200G/2*100G
Controller:	Marvel CN106 DPU	Marvel CN103 DPU
Speeds:	100Gbps	200Gbps
PCIe interface:	PCIe5.0*8(Server PCIe 5.0x4 Interface)	PCIe5.0*8 (Server PCIe 5.0x4 Interface)
Connector Type:	QSFP28+,DAC,AOC	QSFP28+,DAC,AOC
Memory:	Max128G	Max 128G
Form Factor:	半长全高	半长半高
Warranty:	1年	1年

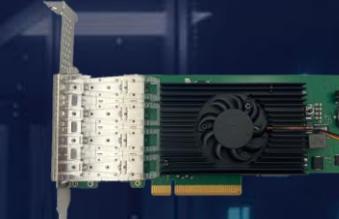
Features

- PCIe 5.0 x4 interface
- 2 × QSFP28 100GbE ports
- 2 × DDR5 SODIMM slots
- High reliability with over-temperature/over-current/over-power protection
- Supports customized development
- Optional passive/active cooling

Application

- Network Acceleration
IPU/Smart NIC
- Storage Acceleration
- 5G Communications & Networking
- Network Security
- Supports IPSec Acceleration
- DPU Workload Acceleration
- Virtualization Support
- Hardware Acceleration
- Supports VPP Hardware Acceleration
- Supports UPF Acceleration
- Supports NPC Acceleration
- Supports Nginx Acceleration
- Cryptography
- Supports SM2/SM3/SM4
- Supports Crypto Encryption/Decryption

01 xSmartNIC

					
Models:	xSmartNIC-200-L	xSmartNIC-200	xSmartNIC-400	xSmartNIC-400-L	xSmartNIC-500
Ports:	2*10G	2*10G	4*10G	4*10G	2*25G
Controller:	Xilinx ku040	Xilinx ku040	Xilinx ku040	Xilinx ku040	Xilinx ku5p
Speeds:	10Gbps	10Gbps	10Gbps	10Gbps	25Gbps
PCIe interface:	PCIe3.0x8	PCIe3.0x8	PCIe3.0x8	PCIe3.0x8	PCIe3.0x8
Connector Type:	SFP+,DAC,AOC	SFP+,DAC,AOC	SFP+,DAC,AOC	SFP+,DAC,AOC	SFP28,DAC,AOC
Form Factor:	Half-Height, Half Length	Half-Height, Half Length	Half-Height, Half Length	Half-Height, Half Length	Half-Height, Half Length
Warranty:	1year	1year	1year	1year	1year

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Models :	xSmartNIC-800	xSmartNIC-800-3PG2	xSmartNIC-2000T	xSmartNIC-2000T-3PG2
Ports :	2*40G	2*40G	2*100G	2*100G
Controller :	Xilinx vu3p	Xilinx vu3p	Xilinx vu3p	Xilinx vu3p
Speeds :	100Gbps	100Gbps	100Gbps	100Gbps
PCIe interface:	PCIe3.0 x16	PCIe3.0 x16	PCIe3.0 x16	PCIe3.0 x16
Connector Type:	QSFP28,DAC,AOC	QSFP28,DAC,AOC	QSFP28,DAC,AOC	QSFP28,DAC,AOC
Form Factor :	Half-Height, Half Length	Half-Height, Half Length	Half-Height, Half Length	Half-Height, Half Length
Warranty :	1 year	1 year	1 year	1 year

01 xSmartNIC - RDMA

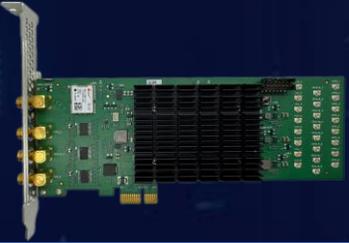


Model:	xSmartNIC-2000-R
Ports:	2*100G
Chip:	Xilinx
Speeds:	2*100Gbps
PCIe interface:	PCIe3.0*16
Connector Type:	QSFP28+,DAC,AOC
Memory:	32G
Form Factor:	Full-Height, Half Length
Warranty:	1年

Features

- Supports RoCEv2 protocol
- Supports RC mode
- Supports RDMA Read/Write operations
- Supported QP count: 2K
- Supports Flow Control
- Supports traffic statistics
- Supports VA/PA address types
- Supports Verbs API interface
- Supports standard PerfTest tools
- Ethernet modes: Supports DPDK and kernel mode
- High reliability with over-temperature, over-current, and over-power protection
- Optional passive/active cooling
- Powered by PCIe or external power supply

xSync is a high-performance clock synchronization card based on FPGA design, specifically developed for application scenarios demanding high time and frequency accuracy as well as precise clock synchronization. The card is equipped with an onboard high-precision GPS chip and a voltage-controlled temperature-compensated crystal oscillator (DCTCXO), delivering high-stability clock signals with an accuracy of $\pm 6.25\text{ppm}$. The hardware design of the xSync card is flexible and efficient, integrating a rich array of interface resources. These include: 1 SMA GPS input interface, 3 SMA output interfaces, 3 sets of 8 IPEX output interfaces each (24 channels in total). It supports simultaneous output of 10MHz, PPS, and B code signals, catering to diverse and complex application requirements.

	
PCIe interface:	PCIe Gen2x1
Connector Type:	SMA Interface IPEX Interface
Power	Powered by PCIe
Compatible with CPU	Intel、AMD、ARM
Operating System	Ubuntu, CentOS, Linux
Temperature Range	Operating Temperature: 0°C to 80°C Storage Temperature: -10°C to 60°C
Technical Support & Warranty Period	1 year

Features

High-Precision Clock Synchronization

- On-board GPS chip enables real-time acquisition of precise timing information, providing a reliable time reference for accurate clock synchronization.
- Voltage-Controlled Temperature-Compensated Crystal Oscillator (DCTCXO): Delivers a highly stable clock signal with $\pm 6.25\text{ppm}$ accuracy, ensuring clock precision even in complex environments.

Comprehensive Interface Support

- On-board GPS chip enables real-time acquisition of precise timing information, providing a reliable time reference for accurate clock synchronization.
- Features 3 SMA output interfaces and 3 sets of 8 IPEX output interfaces (totaling 24 channels), capable of simultaneously outputting 10MHz, PPS, and B code signals.
- The multi-channel output design adapts to diverse application scenarios, enhancing flexibility and compatibility.

Powerful FPGA Support

- Developed based on FPGA, offering high programmability and supporting custom clock synchronization logic and expansion functions.
- Easily upgradable or customizable, providing flexible solutions for varying requirements.

Wide Range of Application Scenarios

- Suitable for communication base stations, precision measurement, industrial automation, financial systems, military equipment, and other fields, facilitating highly reliable clock synchronization.
- Enhances overall system efficiency and reliability through high-precision time synchronization.

Cost-Effective Design

- The overall solution is designed to be concise and efficient, balancing performance with cost, making it suitable for large-scale deployment.
- Reduces dependence on external clock equipment, saving resources for users.

		
Model:	xCapture-200	xCapture-500
Ports:	2*10G	2*25G
Chip:	Xilinx	Xilinx
Speeds:	10Gbps	25Gbps
PCIe interface:	PCIe3.0*8	PCIe3.0*8
Connector Type:	SFP+,DAC,AOC	SFP+,DAC,AOC
Memory:	8G	8G
Form Factor:	Half-Height, Half Length	Half-Height, Half Length
Warranty:	1 year	1 year

Features

- Supports both DPDK and kernel mode
- Enables line-rate packet capture for dual-port 10G
- Storage format: PCAP with timestamped recording
- Supports symmetric RSS for L3/L4 with RSS value reporting
- Supports data preprocessing offload
- Offloads checksum calculation for IP/TCP/UDP/ICMP/IGMP
- Supports up to 16 RX/TX queues
- PCIe 3.0 interface with backward compatibility
- Supports Jumbo Frame up to 16KB
- Compliant with PCIe half-height, half-length standard
- Supports online upgrades
- High reliability with over-temperature, over-current, and over-power protection
- Optional passive/active cooling
- Powered by PCIe slot
- Supports customized application development and hardware-level acceleration