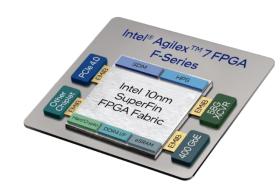




## Agilex<sup>TM</sup> FPGA card with PCle Gen4 x16 200Gbps with up to 16GBytes DDR4 SDRAM

Wisewave's WD200SF is an Intel® Agilex™-based FPGA card designed to deliver next generation performance for data center, networking and storage. The NIC-sized card provides a balance of I/O and memory using the Agilex chip's unique tiling architecture for diverse applications. The card also supports shell while customer just need to develop role, which enables an abstracted development flow for dramatically simplified code re-use across multiple architectures.



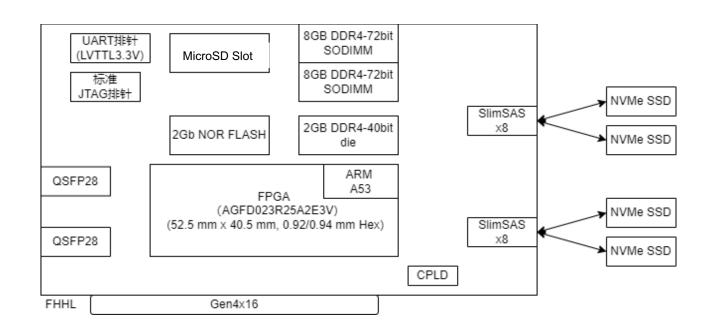
key features

**2\*QSFP28** for 2\*100G

2\*SlimSASx8 for 4x NVME drives PCle Gen4 x16

Intel Aglex™ FPGA with up to **2.3M LogicElements**  16G DDR4
With 72-bit

**Board Shell**Including FW & SW



## **Board Specifications**

FPGA	<ul> <li>Agilex<sup>™</sup> 7 FPGA F-Series 023 R25A</li> <li>AGFB023R25A2E3V</li> <li>Core speed grade -3: I/O speed grade -3</li> </ul>	Board Management Controller	<ul> <li>Voltage, current, temperature monitoring</li> <li>Power sequencing and reset</li> <li>Field upgrades</li> <li>FPGA configuration and control</li> <li>Clock configuration</li> <li>Low bandwidth BMC-FPGA comms with SM-Bus link</li> <li>Voltage overrides</li> </ul>
On-board Flash	2Gbit Flash memory for booting FPGA and SOC ARM		
FPGA memory	2x banks on-board DDR4-2400, 8GB per bank with 72-bit, 16GB total		
ARM memory	• DDR4 2GB 40-bit	Cooling	Standard: single-slot passive heatsink
Host interface	x16 Gen4 interface direct to FPGA, connected to PCle hard IP	Electrical	<ul> <li>On-board power derived from PCIe slot</li> <li>Power dissipation is application dependent</li> <li>Typical power consumption 60W</li> </ul>
QSFP28 cages for 2*100G Port	<ul> <li>QSFP28 cage on front panel connected directly to FPGA via 8 transceivers</li> <li>User programmable low jitter clocking supporting 10/25/40/100GbE</li> <li>Jitter cleaner for network recovered clocking</li> </ul>	Environmental	Operating temperature: 0°C to 85°C
		Quality	<ul><li>Manufactured to IPC-A-610 Class 2</li><li>RoHS compliant</li></ul>
MicroSD Slot	<ul><li>For FPGA version update</li><li>DIP10</li></ul>	Form factor	<ul> <li>Low profile (full-height, half-length) PCle slot card</li> <li>Size: 165mm x 97.9mm x 17mm / 6.50in x 3.85in x 0.63in</li> </ul>
JTAG Pin			
UART Pin	• SIP3		

## **Board Shell / BSP**

	IO interface including PCIe, SlimSaS and Ethernet port
FPGA Component Netlist	Basic flow: DMA, NVMe
	Protocol: AES256-XTS, RDMA
	Firmware Load
Software	Host Management
Software	Firmware update
	Golden Image

## To learn more, visit **www.WisewaveTech.com**

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