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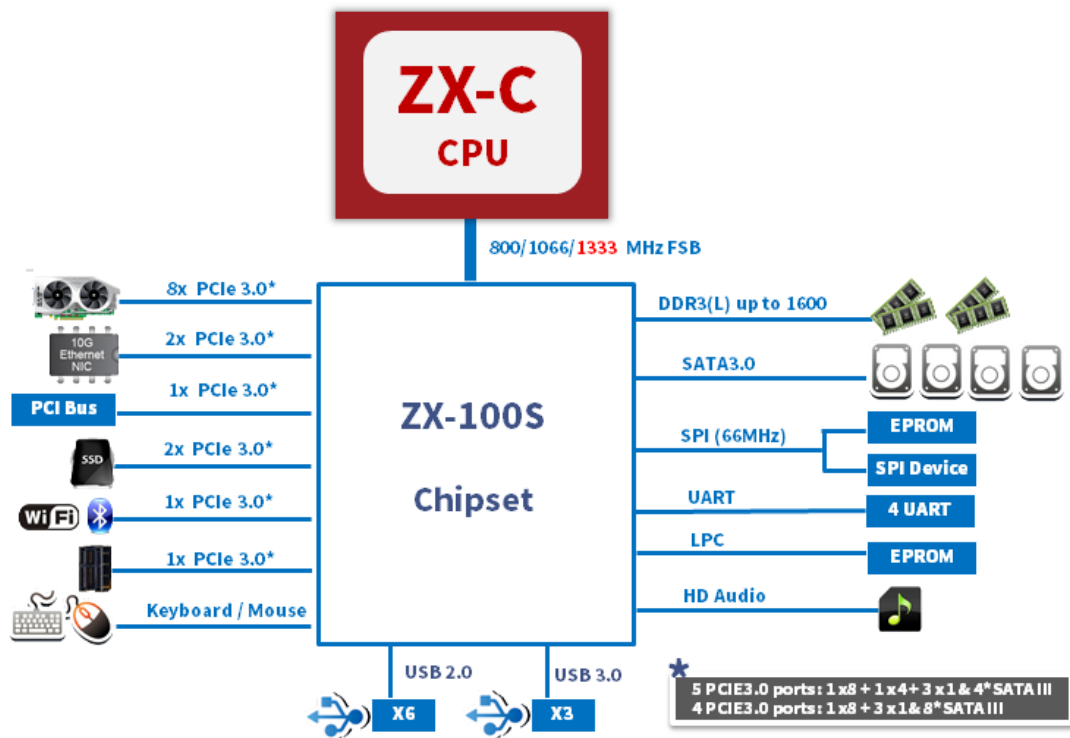
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Desktop and AIO Solution

Kaixian ZX-C Processor + ZX-100S Chipset



Desktop Solution

ZX-C series processor is a new generation of quad-core processors, they are designed for high performance computing, where there are 4 CPU cores integrated inside. ZX-C series processor delivers industry leading performance-per-watt and improved multi-tasking ability, without consuming more power.

ZX-C processors leverage a multi-core architecture to offer up to quad the performance in multi-threaded optimized applications, while staying within the same signature low-power envelope. Featuring four out-of-order x86 cores, ZX-C processors support native 64-bit software support, VT CPU virtualization technology, and physical encryption and decryption.

ZX-C series processor has been offered in several different models, each model has different clock speed preset region from 1.2GHz to 2.0GHz. They are designed to meeting the needs of different applications.

ZX-C processors are built using the latest 28nm fabrication process. ZX-C processors' package size is 21mm x 21mm and pin to pin match with ZX-A series.

There is a unique security engine in ZX-C series processor, which could provide hardware-based high-performance and affordable security features. It is a very useful and important tool for information protection and system security.

ZX-100S is a new generation and high performance chipset for both PC and server/storage solution. It can support dual channel architecture with up to 64GB physical memory with 4 ECC UDIMMs.



ZX-100S offers a better IO scalability. It can support PCIe 3.0 with hot-plug and VT-d technology. There are up to 19 PCIe 3.0 lanes, 6 ports, and 14 of those lanes can be shared with SATA.

Moreover, it can also support three USB 3.0 and six USB2.0 for data transfer.

On the display side, ZX-100S supports for the latest connectivity standards including Display Port, HDMI, DVP, VGA. Furthermore, there is an eBMC in this chipset for remote control function.

Targeting variety desktop products, ZX-C processors + ZX-100S solution extend the reach into multitasking and performance-oriented segments and offer end users an optimal, power-efficient computing experience.

ZX-C Specifications

Essentials	
CPU Name	C46XX
Launch Date	Q2'15
CPU TDP	18W
# of Cores/ Threads	4C/4T
Clock Speed	2.0GHz
Adaptive Overclocking	NO
Max Turbo Frequency	NO
L2 Cache	2MB With ECC(Shared)
Instruction Set	x86 and x64 (64-bit)
Instruction Set Extensions	SSE4.2/AVX
System Bus Type	FSB
System Bus Clock	1333MHz
APIC Supported	Yes
Hardware Virtualization (VMX) Supported	
VT-x with EPT Supported (INTEL®VT-X Compatible)	Yes
Dynamic Power Saving	
Thermal Monitoring and Catastrophic Thermal Protection	Yes
Low power consumption	Yes
Enhanced PowerSaver	Yes
Power Management States Support	Yes
C-State Support (C1-C4)	Yes
P-State Support	Yes
Data Protection Technology (PADLOCK)	
Advanced Cryptography Engine (ACE)	Yes
Secure Hash Algorithm: SHA-1	Yes
Secure Hash Algorithm: SHA-256	Yes
Secure Algorithm: SM3/SM4	No
Random Number Generator	Yes
Platform Protection Technology	
Trusted Execution Technology(TXT)	No
NoExecute Support	Yes
Manufacturing & Package Specifications	
Manufacturing Process	28nm
Package Type	FCBGA
T _{junction} (°C)	90
Package Size	21mm x 21mm
Wide Temperature (-40~60°C)	No

ZX-100S Specifications

Essentials	
Chipset Name	ZX-100S
Launch Date	Q2'16
Chipset TDP	15.5W---UMA case 13W---No UMA
Max Memory Size (dependent on memory type)	64GB
Memory Clock	1333/1600MHz
Memory Types	DDR3/DDR3L UDIMM/SODIMM
# of Memory Channels	2
Max Memory Slots	4
Max Memory Size per Slots	16GB
ECC Memory Supported	YES
Physical Address Extensions	64-bit
Graphics Specifications	
Integrated Graphics Processor	YES
DisplayPort	DP/HDMI/DVP/VGA
Expansion Options & I/O Specifications	
PCI express Revision	3
Max # of PCI express Lanes	19
Max # of PCI express Ports	6
SATA Revision	3
Total # of SATA Ports	14 max, all shared with PCIE
Total # of USB3.0	3
Total # of USB2.0	6
MISC	LPC, SMBus, SPI, UART, GPIO
Manufacturing Package Specifications	
Manufacturing Process	40nm
Package Type	FCBGA
T _{junction} (°C)	90
Package Size	33mmx33mm
Wide Temperature (-40~60°C)	No