



ThunderX2® CN99XX Product Brief

High Level Features

- Core:

Arm architecture – Arm@v8.1
 Highest supported core count – Up to 32 in single socket, 64 in dual socket
 Highest supported Frequency – Up to 2.5GHz in nominal mode, 3GHz in Turbo mode
 Simultaneous multithreading – Up to 4 per physical core
 Virtualization – Arm virtual extensions
 Advanced RAS supported using RAS extension

- Cache:

32 KB L1 instruction and data cache, 256KB L2 per core
 32 MB distributed L3 cache
 Advanced RAS supported using RAS extension

- Memory:

Controllers: Up to 8 DDR4 per chip
 Speeds: Up to 2666MHz in 1DPC and up to 2400MHz in 2DPC
 Capacity per socket: Up to 4TB in dual socket

- Coherent Processor Interconnect:

Generation: CCPI2™
 Speed: 600Gbps
 Number of sockets :2

- I/O:

Integrated: Yes
 PCIe: Up to 56 PCIe Gen3 lanes with 14 controllers
 Supported widths x1, x2, x4, x8 and x16
 Storage: 2 SATA Gen 3.0 ports
 USB: 2 USB 3.0 ports
 Advanced RAS support

- Power Management:

Autonomous Turbo (DVFS)
 On-chip management processor
 Low Power Idle State support

- Security:

Supported by Arm Trustzone™

- Package:

Process Technology: 16nm FinFET
 Connectivity: LGA, BGA

