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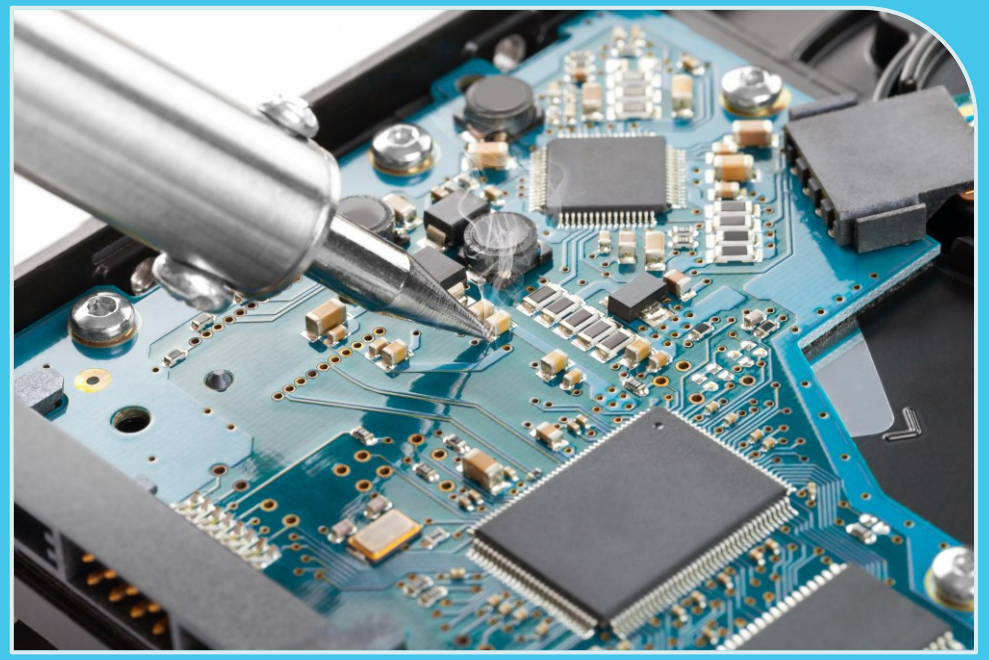
Measuring markets

Competitive Intelligence Briefing: Data Center Chips

Intel’s comeback hinges on execution, as rivals make further inroads with new process technologies



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Product Offerings Analysis (1/2)

Xeon and EPYC are the two most popular x86 CPUs targeting the server market, while ARM-based CPUs are gaining traction with start-up companies like Ampere Computing. Nvidia will also be entering the CPU market in 2023 with ARM-based “Grace”

Top-of- the-Line Data Center CPU Comparison			
Parameters	**Intel Xeon**	**AMD EPYC**	**Ampere Altra (ARM)**
Platform	Ice Lake	Milan	QuickSilver
Processor	8380	7763	Q80-33
Architecture	Sunny Cove	Zen 3	ARM Neoverse N1
Process Node	10nm	7nm	7nm
Cores	40	64	80
TDP – Watts (lower the better)	270	280	250
Base Clock Speed	2300 or 2.3 GHz	2450 or 2.4 GHz	3300 or 3.3 GHz
Turbo Clock Speed	3400 or 3.4 GHz	3500 or 3.5 GHz	3300 or 3.3 GHz
DRAM Capacity	4TB	4TB	4TB
Price	US$8,099	US$7,890	US$4,050

Source: Company reports; MTN Consulting analysis