



# GroqCard™ Accelerator.

Ready, set, done. Guaranteed low latency.

For plug and play low latency, scalable performance, GroqCard accelerator packages a single GroqChip™ processor into a standard PCIe Gen4 x16 form factor providing hassle-free server integration. Featuring up to 11 RealScale™ chip-to-chip connections alongside an internal software-defined network, GroqCard enables near-linear multi-server and multi-rack scalability without the need for external switches.

## Key Features

**Fully deterministic processor** provides predictable and repeatable performance with no run-to-run variation.

**230 MB of on-die memory** delivers large globally sharable SRAM for high-bandwidth, low-latency access to model parameters without the need for external memory.

**Up to 80 TBs on-die memory bandwidth** facilitates massive concurrency and data parallelism needed for bandwidth sensitive applications.

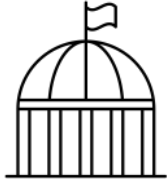
**11 RealScale™ chip-to-chip connectors** enable near-linear multi-server and multi-rack scalability without the need for external switches.

**End-to-end on-chip protection** improves uptime and reliability with error-correction code (ECC) protection throughout the entire GroqChip data path.

**PCIe Gen4 x16 interface** delivers up to 31.5GBs of bi-directional bandwidth in an industry standard interface for fast device and network connections - all with a lightweight open source driver and no CPU burden.

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## Targeted Applications



**Government**



**Financial Services**



**Enterprise Comms**



**Oil & Gas**



**Cyber & InfoSec**



**Research & Sciences**

## GroqCard SKUs

Available within GroqNode™ Servers

**GCI-010B**

11 RealScale chip-to-chip connectors  
Modified PCIe CEM specification form factor  
Designed for users that need the ultimate scalability

Available as an add-in card supported with select 3rd Party Qualified Servers. Contact Groq for supported servers.

**GCI-0109**

9 RealScale chip-to-chip connectors  
PCIe CEM specification form factor  
Designed for users that require OEM server support

## Specifications

Item	Description
Availability	Shipping now
Form Factor	Dual width, full height, ¾ length PCI Express Gen4 x16 adapter
Performance	Up to 750 TOPs, 188 TFLOPs (INT8, FP16 @900 MHz)
Memory	230 MB SRAM per chip Up to 80 TB/s on-die memory bandwidth
Chip Scaling	Up to 11 RealScale™ chip-to-chip connectors
Numerics	INT8, INT16, INT32 & TruePoint™ technology MXM: FP32 VXM: FP16, FP32
Power	Max: 375W; TDP: 275 ; Typical: 240W

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