Rambus at a Glance

**Market Megatrends**
- Renaissance of computer architectures, memory critical and driving innovation
- Internet giants moving SoC design in-house, enabling TAM expansion
- Secure semiconductor HW, SW and supply chain essential for global commerce

**Rambus Offerings**
- Architecture Licenses
- IP Cores
- Chips
- Key Management
- High-speed IO & DPA Countermeasures
- Memory & SerDes PHYs; Secure Cores
- Memory Buffers
- Secure Supply Chain Provisioning

**Financial Performance**
- **Revenue**
  - Q219: $58.3M
  - 2018: $231.2M
  - $401.1M (ASC 605)
- **Cash from Operations**
  - Q219: $38.7M
  - 2018: $87.1M

**Other Information**
- NASDAQ: RMBS
- Employees Worldwide: ~800
- Tech leadership & innovation
- 25+ Years
- 2600+ Patents and Applications
- California
- WW Offices in India, EU, Asia

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All Growth Markets Are Impacted by Megatrends

**Artificial Intelligence**
Accurate training requires enormous amounts of data - memory bandwidth is key

**Data Center**
Explosion of data from connect devices and real-time processing needs pushing demands on interconnects to move data faster

**Autonomous/ADAS Automotive**
Real-time decisions from multiple inputs increase demand on processing and trust in the data

**Edge Compute (5G)**
Near edge (base stations) drive performance and far edge (gateways and routers) demand power efficiency and trust

**Internet of Things**
Billions of connected endpoints make device-level security critical to enabling trust across the ecosystem

**Government**
Trusted device authentication is critical to global supply chain
Semiconductor Solutions Built on Leading-Edge IP

- **Architecture License**: Foundational IP
- **IP Cores**: High-speed Interfaces and Embedded Security
- **Chips**: Buffer Chips
- **Provisioning**: Secure Supply Chain Provisioning
Complementary Physical and Digital IP Portfolios

Comprehensive Interface IP Portfolio

Rambus
Memory and SerDes PHYs

+ Northwest Logic
Memory and SerDes Controllers

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Delivering More Data, Faster

- High-speed memory and SerDes interfaces are critical for performance in data-intensive applications
- Every interface requires a physical layer (PHY) and digital controller
## Complementary Physical and Digital IP Portfolios

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Thank you