



Marvell and TSMC Deliver Industry's Most Advanced Data Infrastructure Portfolio on 5nm Technology

Overview

Company founded

1995

FY20 revenue

\$2.7B

Employees

5,000+

Patents worldwide

10,000+

Located in **Santa Clara, CA**

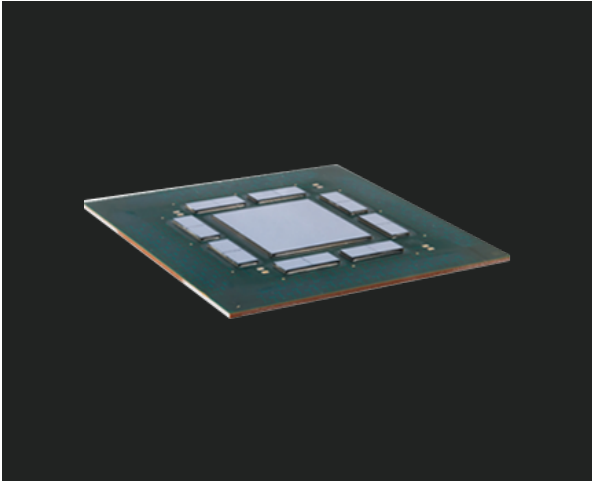
R&D centers in **US, Israel, India, Germany, China**



Marvell's mission

We develop and deliver semiconductor solutions that move, store, process and secure the world's data faster and more reliably than anyone else.

More than Moore for next generation infrastructure



40%
lower power

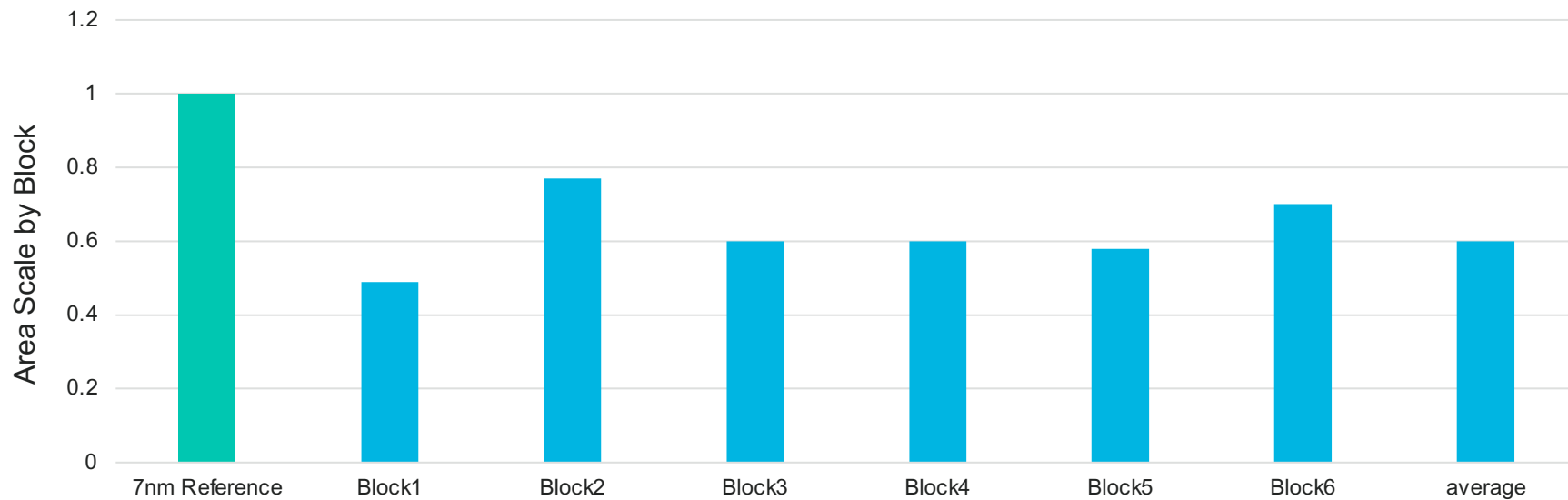


40%
greater
integration



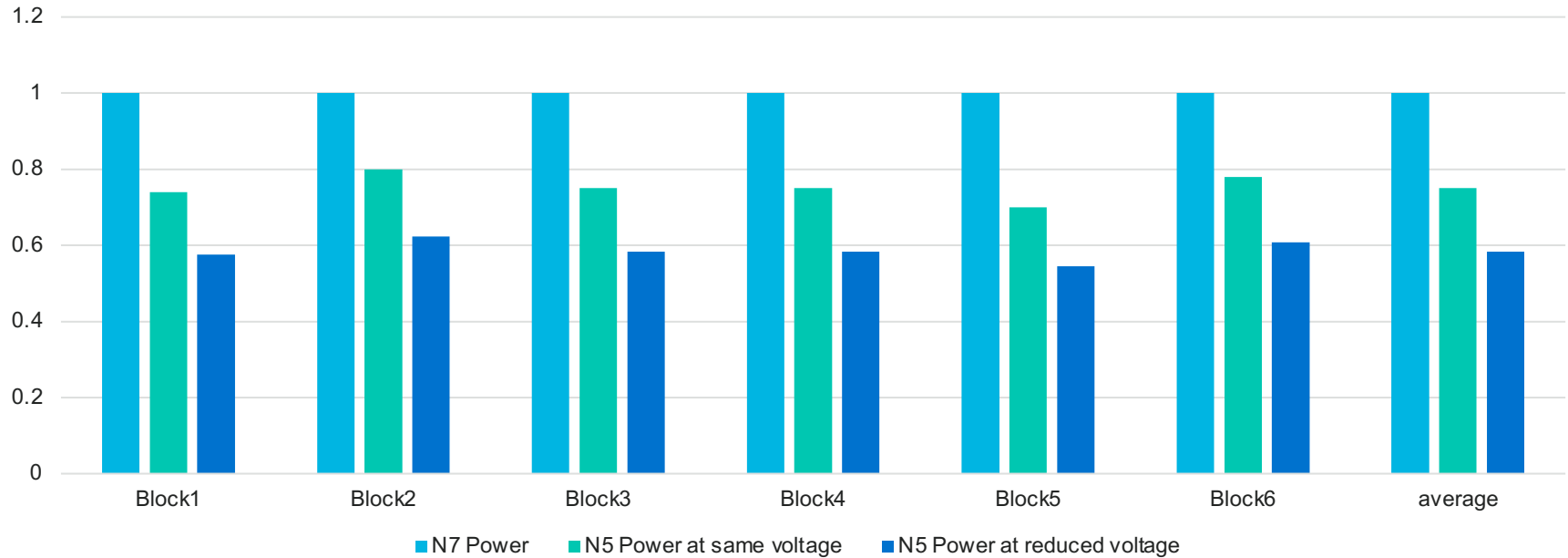
More than
Moore using
system-level
innovations

Significant N5 vs. N7 silicon area benefits



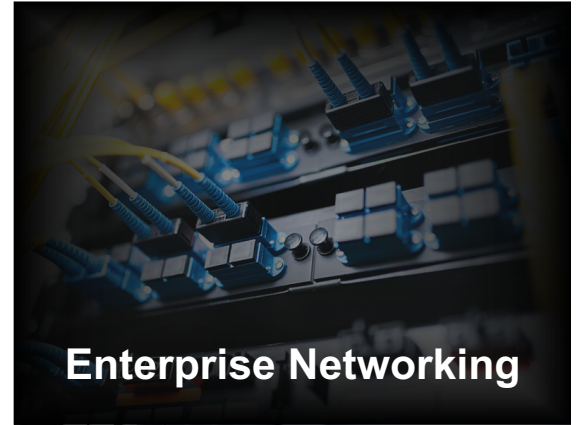
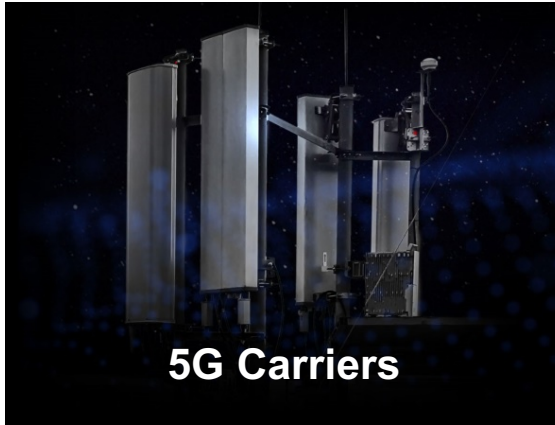
On average >40% more content

N5 enables 40% power savings over N7

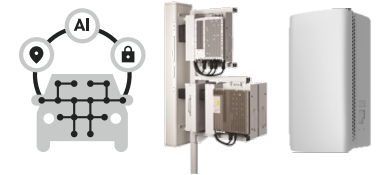
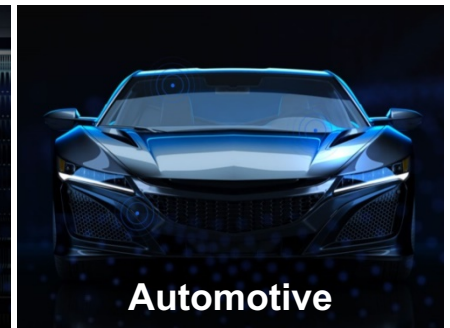
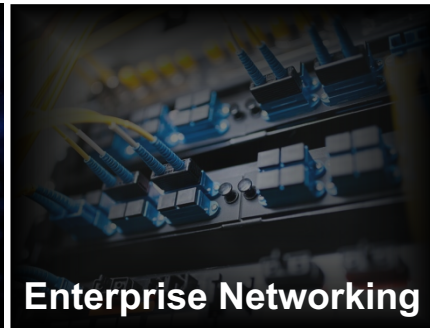


Higher performance with reduced voltage driving savings

N5 scales next generation data infrastructure

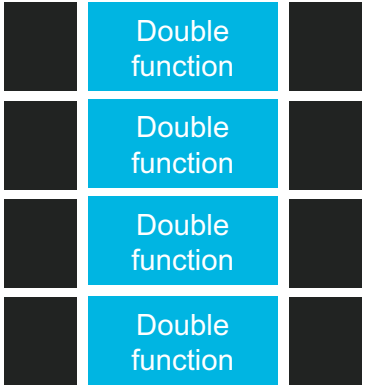
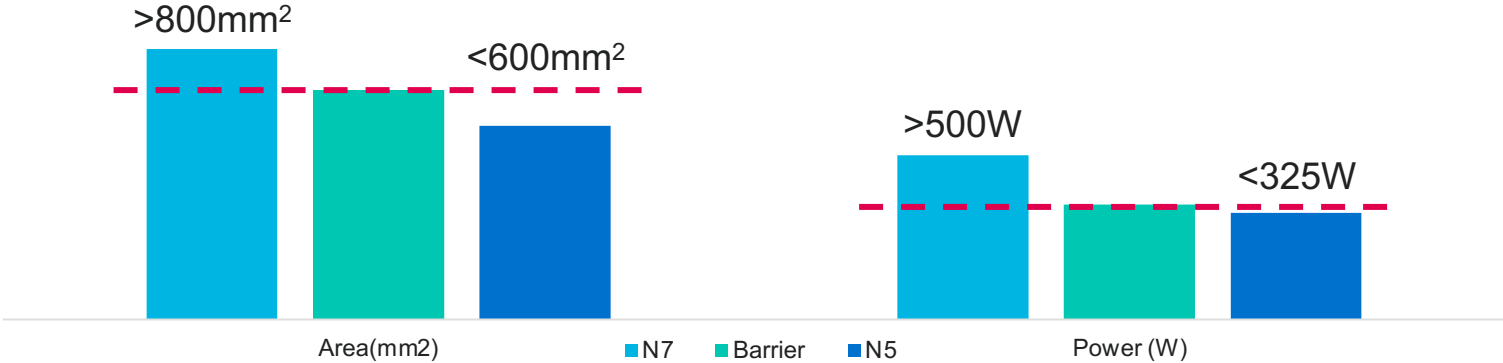


Extending OCTEON data infrastructure leadership

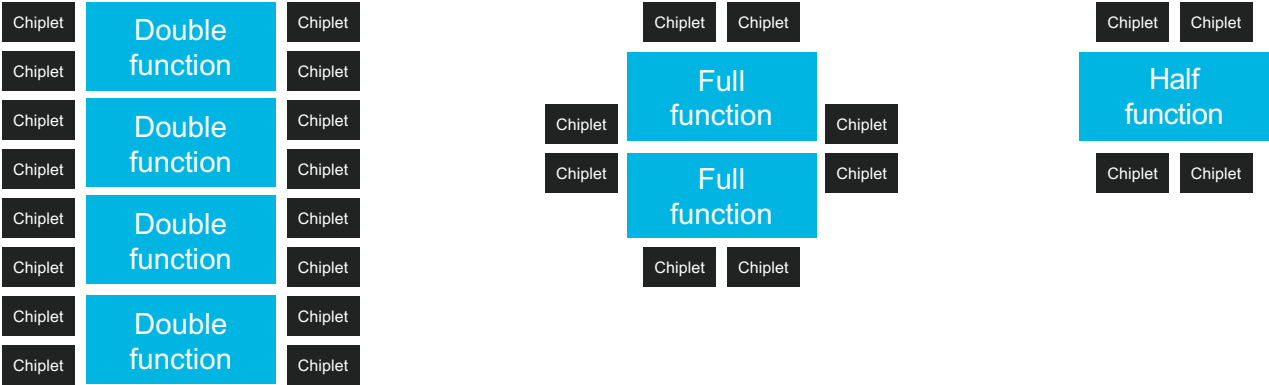
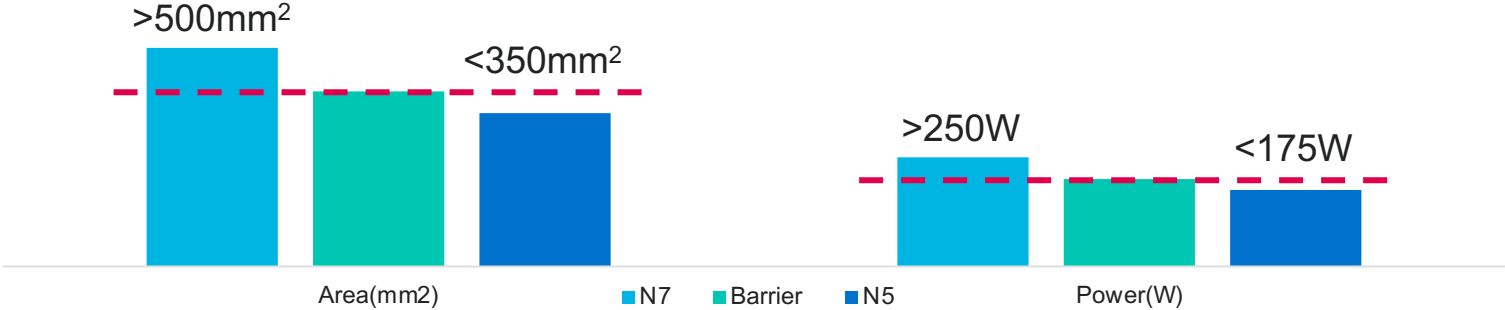


Power-performance and accelerator integration advantages vs leading competitors

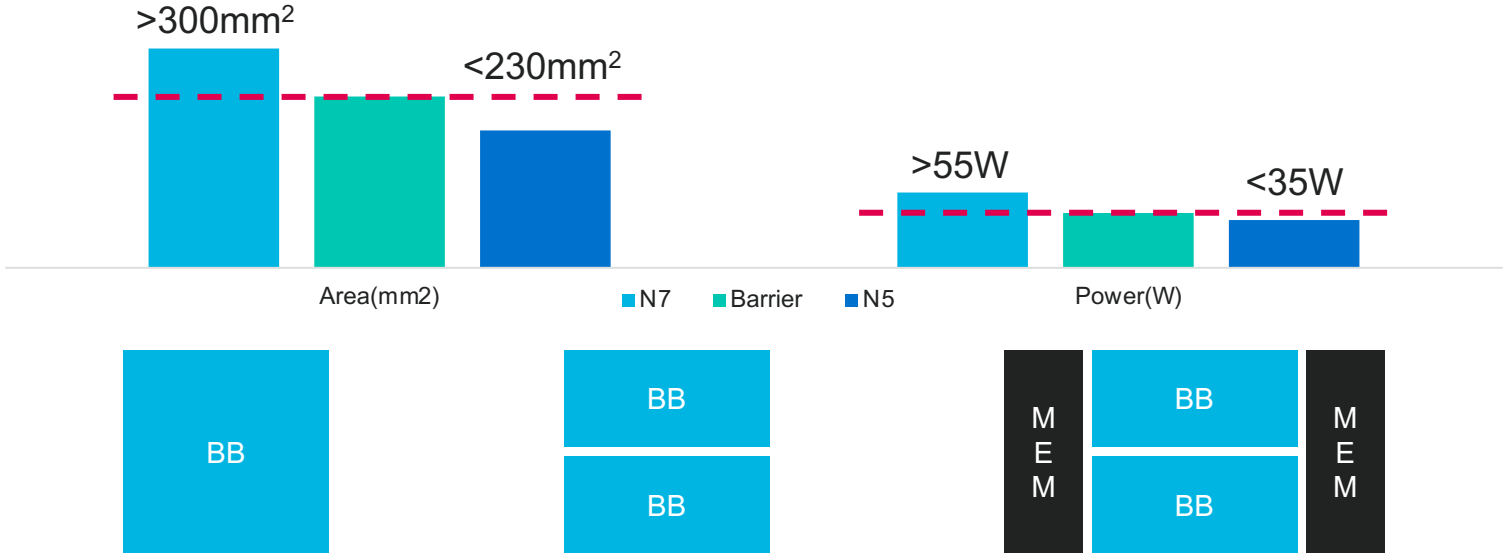
N5 machine learning accelerator silicon benefits






N5 data center networking switching silicon benefits



N5 5G baseband processing silicon benefits

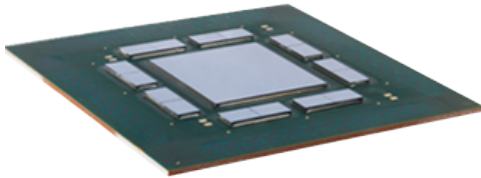


Marvell best-in-class developed N5 IP

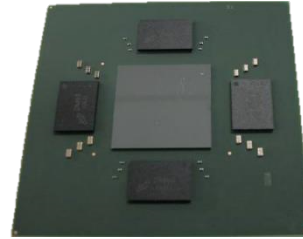
IP			
112G long reach		✓	✓
112G power optimized	✓	✓	✓
64G long reach	✓	✓	✓
Low power multicore Arm	✓		✓
High-performance multi-core Arm	✓		✓
Security	✓	✓	✓
Connectivity	✓	✓	✓
Packet Processing	✓	✓	✓
High performance memories	✓	✓	✓

More than Moore: N5 with Marvell system level innovations

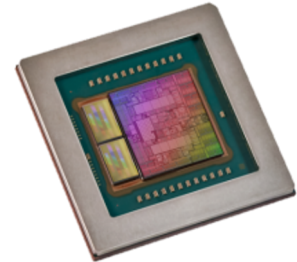
MCM integration



Chiplet solutions

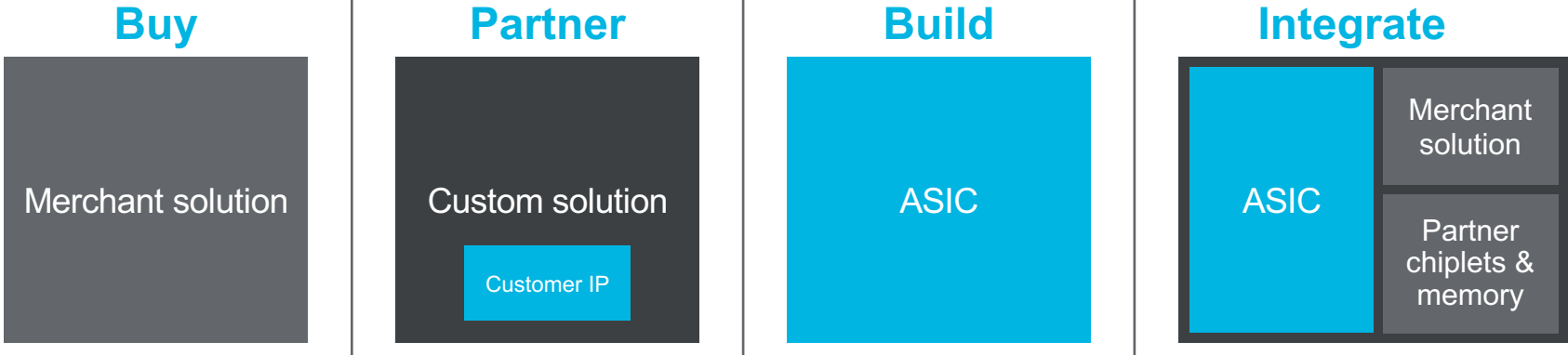


In package memory



Marvell leading in advanced technology readiness and system integration

Delivering multiple R&D models that evolve with you



Key takeaways

1 Leading the industry in 5nm standard and custom data infrastructure solutions

2 Enabling 40% power reduction and integration of 40% more functionality

3 Extending OCTEON infrastructure processor leadership

4 More than Moore – TSMC N5 + Marvell system level innovations

5 We are not resting...3nm development is underway



Essential technology, done right™