Michael Hsing – CEO
Bernie Blegen – CFO

September 14, 2020

Forward Looking Statements

This presentation includes forward-looking statements that involve risks and uncertainties, including our belief in continued expansion of our product lines, advances in our technology, anticipated market opportunities, gross margin targets, net & operating margin targets, inventory targets, continuing business diversification, growth and opportunities in China and Taiwan, and increasing sales penetration in Japan, Korea, the U.S., Singapore and Europe. Other forward-looking statements can be identified by terms such as “would,” “could,” “may,” “will,” “should,” “expect,” “Wall Street estimates,” “intend,” “plan,” “anticipate,” “believe,” “estimate,” “predict,” “potential,” “targets,” “target ranges”, “seek,” or “continue,” the negative of these terms or other variations of such terms. These statements are only predictions based on our current expectations and projections about future events. Because these forward-looking statements involve risks and uncertainties, there are important factors that could cause our actual results, level of activity, performance or achievements to differ materially from the results, level of activity, performance or achievements expressed or implied by the forward-looking statements. In this regard, you should specifically consider the risks identified in our most recent 10-K in the section entitled “Risk Factors,” including the risks, uncertainties and cost of litigation and risks related to fluctuations in our operating results.

Outstanding Organic Revenue Growth ($M)

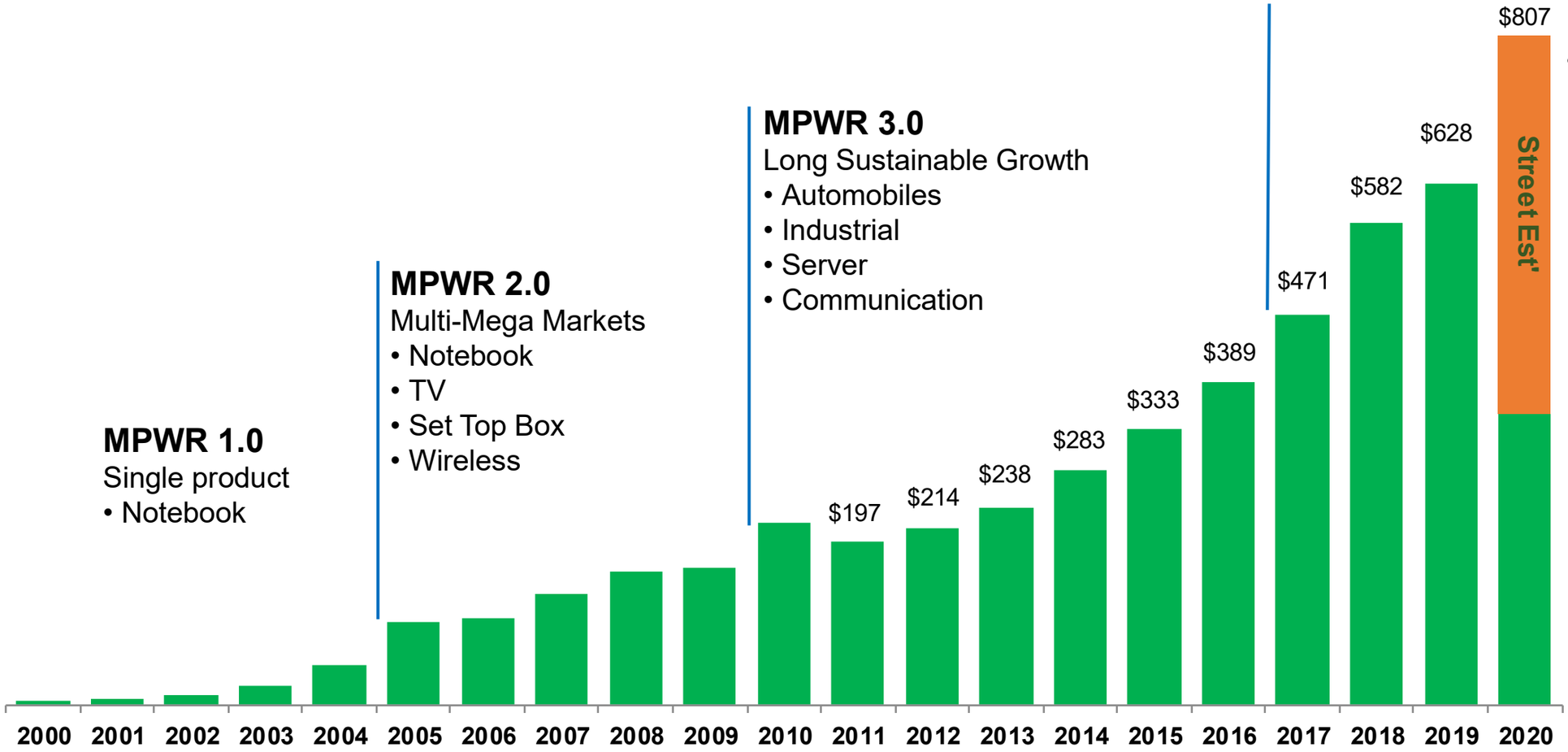
2019: MPS 7.8% vs. Analog (8.3%)

MPWR 1.0
Single product
• Notebook

MPWR 2.0
Multi-Mega Markets
• Notebook
• TV
• Set Top Box
• Wireless

MPWR 3.0
Long Sustainable Growth
• Automobiles
• Industrial
• Server
• Communication

MPWR 4.0
Balanced Growth
• eCommerce
• eMotion
• Computing Power Evolution
• Battery Mgmt.



* Wall Street analysts average revenue

MPS 3 Yr CAGR 17.3%

Growth Drivers by End Market

Computing	Automotive	Industrial	Infrastructure	Consumer
Cloud Based Data Center	Body Controls	Instrumentation	5G and Wireless	IOT
GPU's	LED Lighting	Factory & Bldg Automation	Base Stations	Wireless Charging
Portable	ADAS	Robotics	Networking	Power Management
Storage	Battery Management	Healthcare	Optical	Augmented Reality
Artificial Intelligence	Infotainment	Commercial Lighting		

Diverse End Markets

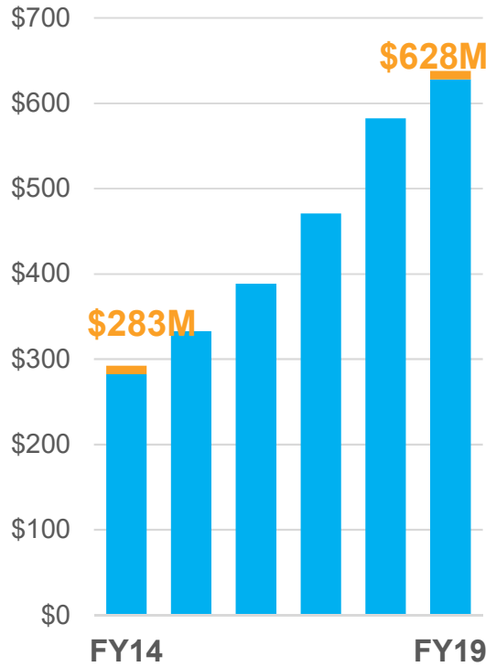
% of Revenue	2010	2016	2019	20Q2	2016-2019 CAGR
Automotive	1.9%	8.7%	14.4%	9.5%	38.5%
Storage / Computing	10.4%	20.7%	30.1%	34.4%	32.9%
Industrial / Other	4.8%	14.3%	15.8%	14.3%	21.3%
Consumer	65.1%	39.6%	26.2%	25.6%	2.2%
Communications	17.8%	16.7%	13.5%	16.2%	9.4%
Total	100%	100%	100%	100%	17.3%

SAM Expansion

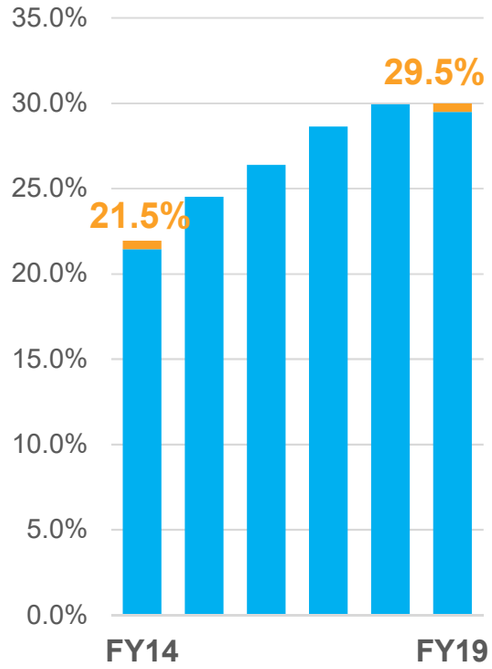
Market	2015 SAM	2018 SAM
Automotive	$6B	$7B
Motion Control	$2B	$3B
ACDC	$1B	$2B
Modules	$1B	$2B
Cloud Computing (Server / Storage)	$800M	$1B
Networking / Telecom	$600M	$1B
Battery Management	$600M	$1B
Total Market SAM	**$12B**	**$17B**

Operating Leverage and Margin Expansion

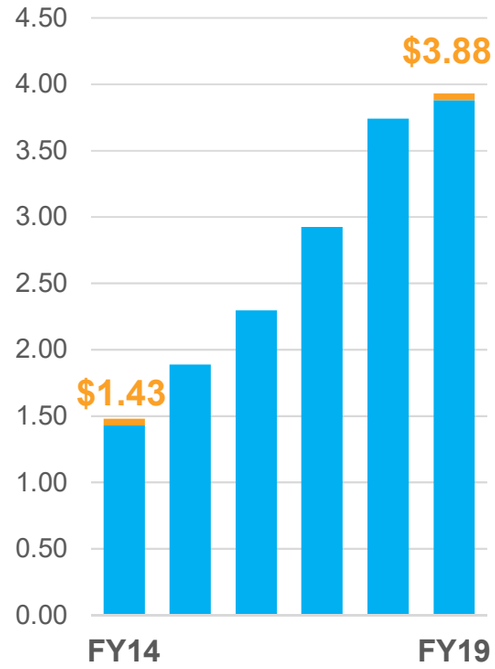
Revenue
122% Increase



Op Income%
38% Improvement



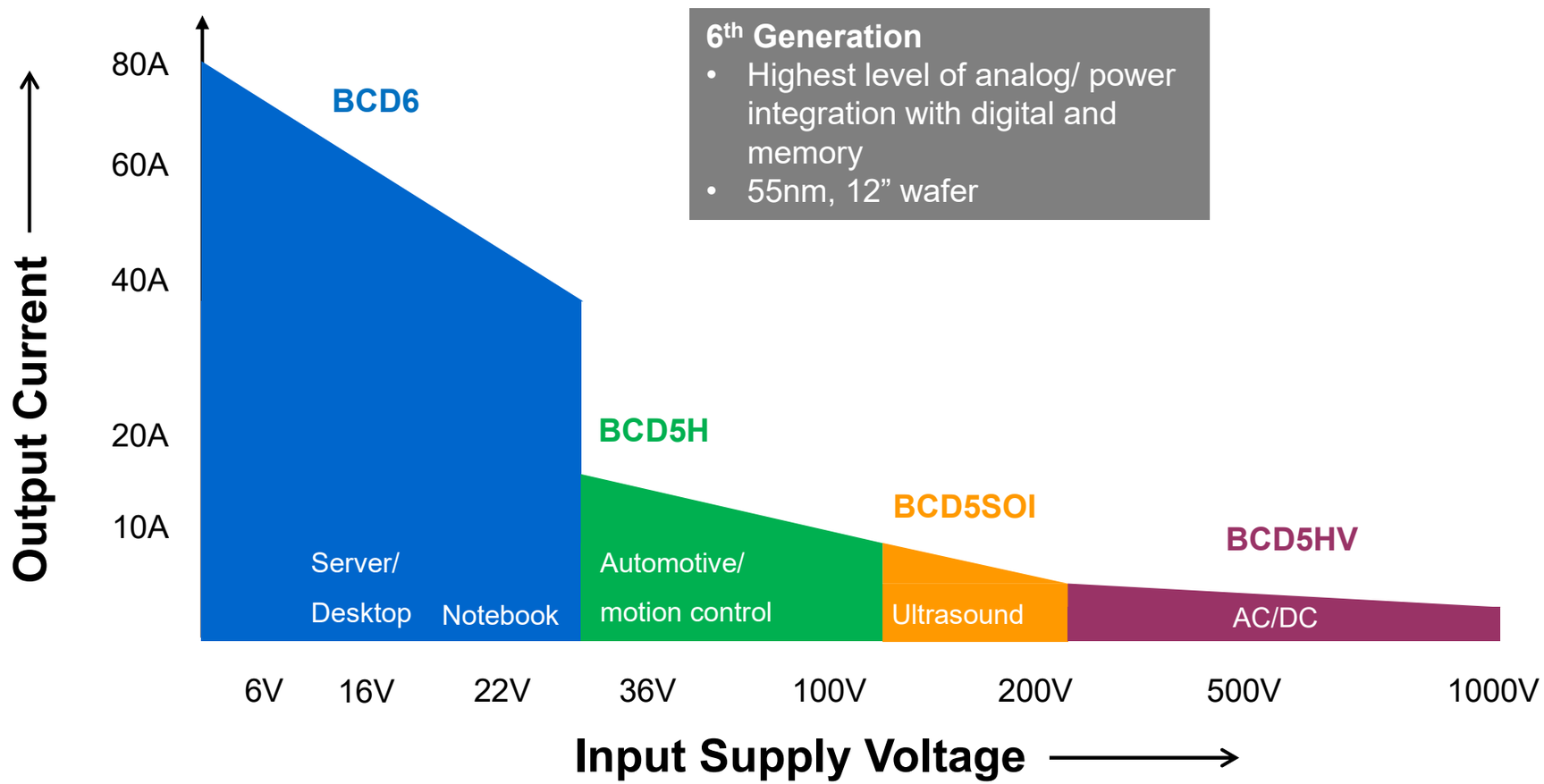
Non-GAAP EPS
171% Increase



Why is MPS Winning?

Monolithic Single Chip Solution up to 1000V

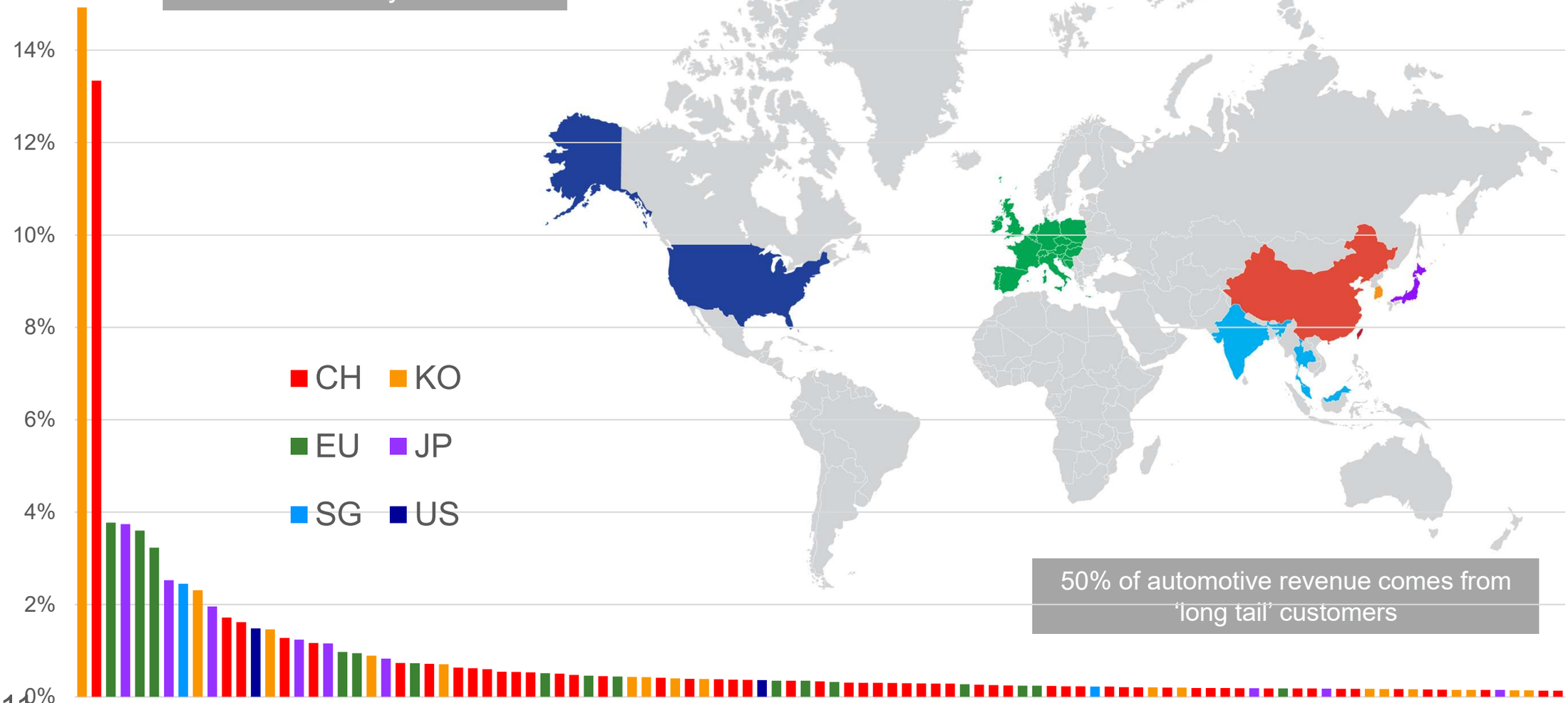
- **Fabless proprietary process technology**
- **Using most advanced fab equipment for analog power**



Automotive

Great Revenue Diversification

Revenue Mix by Customer

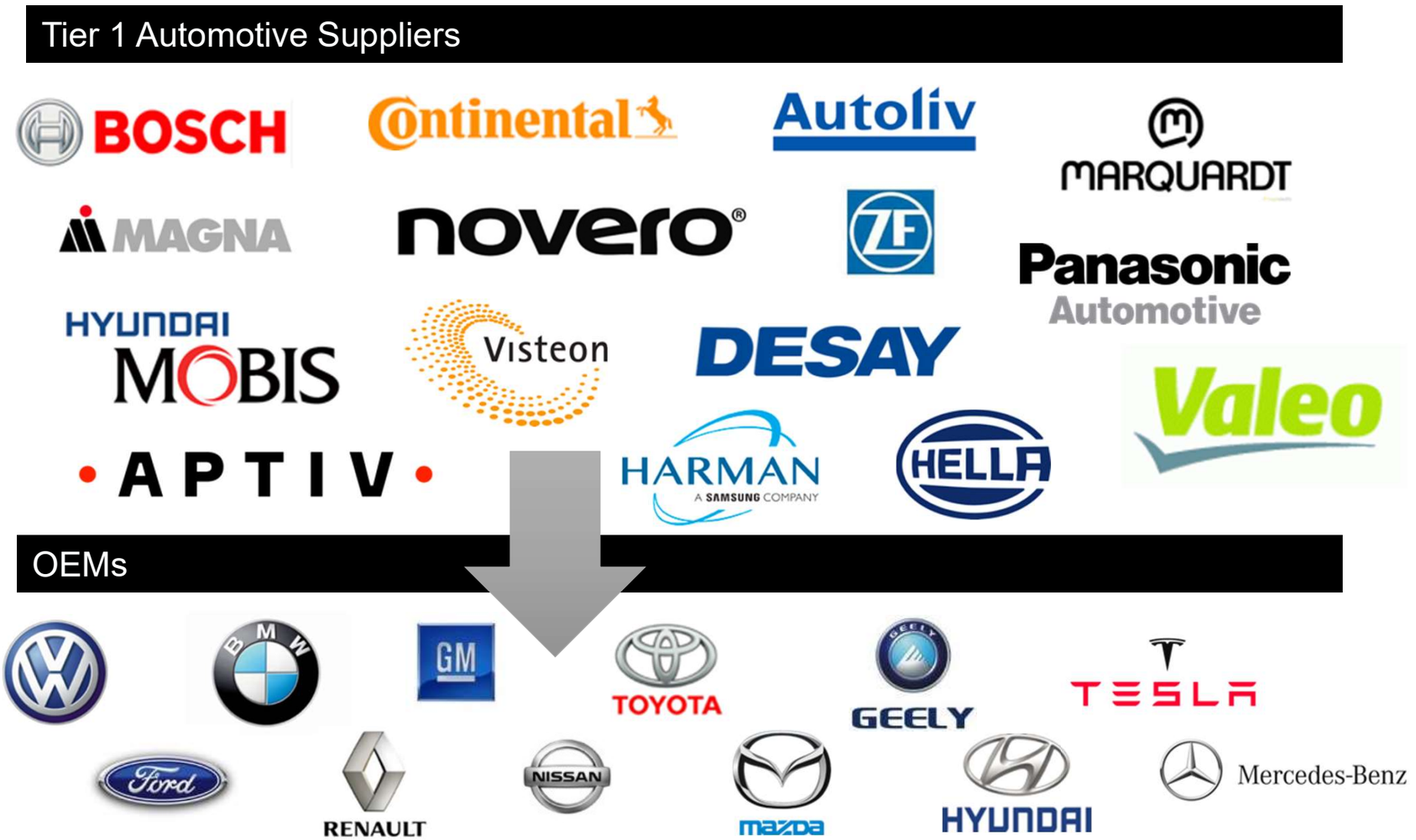


Automotive revenue shared amongst North America, Europe, China, Japan, South Korea

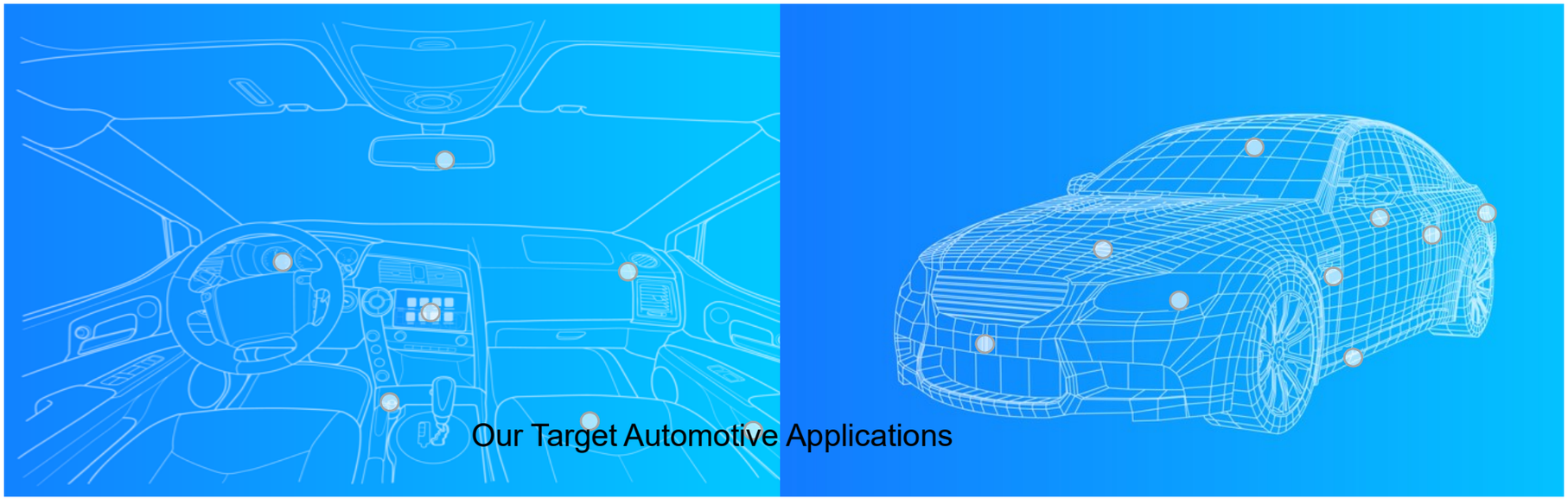
50% of automotive revenue comes from ‘long tail’ customers

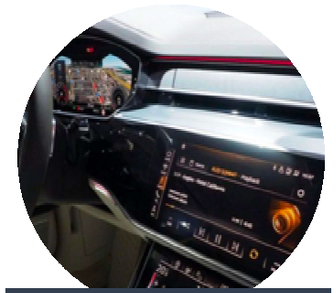
MPS Ramping At Half of Top 50 Tier 1s

…and engaged with most of the rest



Our Target Automotive Applications





Digital Cockpit
Infotainment, Cluster, HUD, USB Charging

Lighting
Matrix Headlamp, Dynamic Lighting, Interior

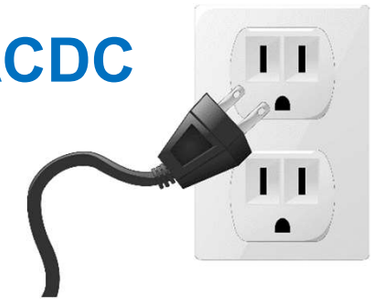
Body Electronics
HVAC, Seat, Lift Gate, Auto Door Handle, Moonroof

Battery Management
48V, HEV, EV

ADAS
Radar, Camera, Lidar, Self-Driving Compute

How MPS Wins in AC/DC

Wide Applications that Adopt MPS AC/DC Product Solutions



$2B market opportunity

Gaming Consoles

Quick Chargers and USB3

Smart TVs

Industrial

Server Power

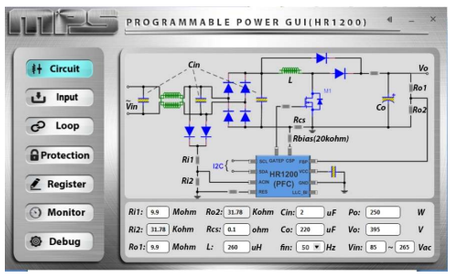
Appliances

LED Street Lighting

PC Power

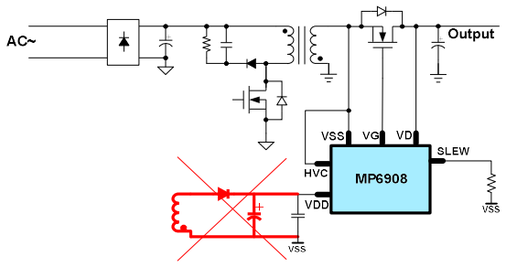
High Efficiency, Compact and Ease of Use Solution

Software Reconfigurable



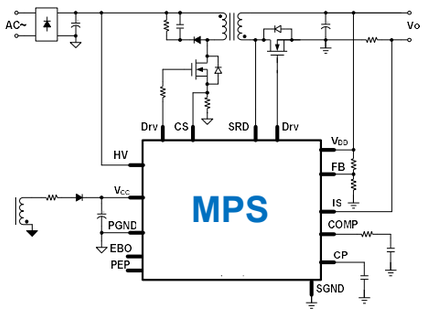
MPS offers graphic user interface for easy digital power design with high performance

High Integration



Highly integrated solutions allow to save on system BOM

High Density



High density solutions allow compact end product design

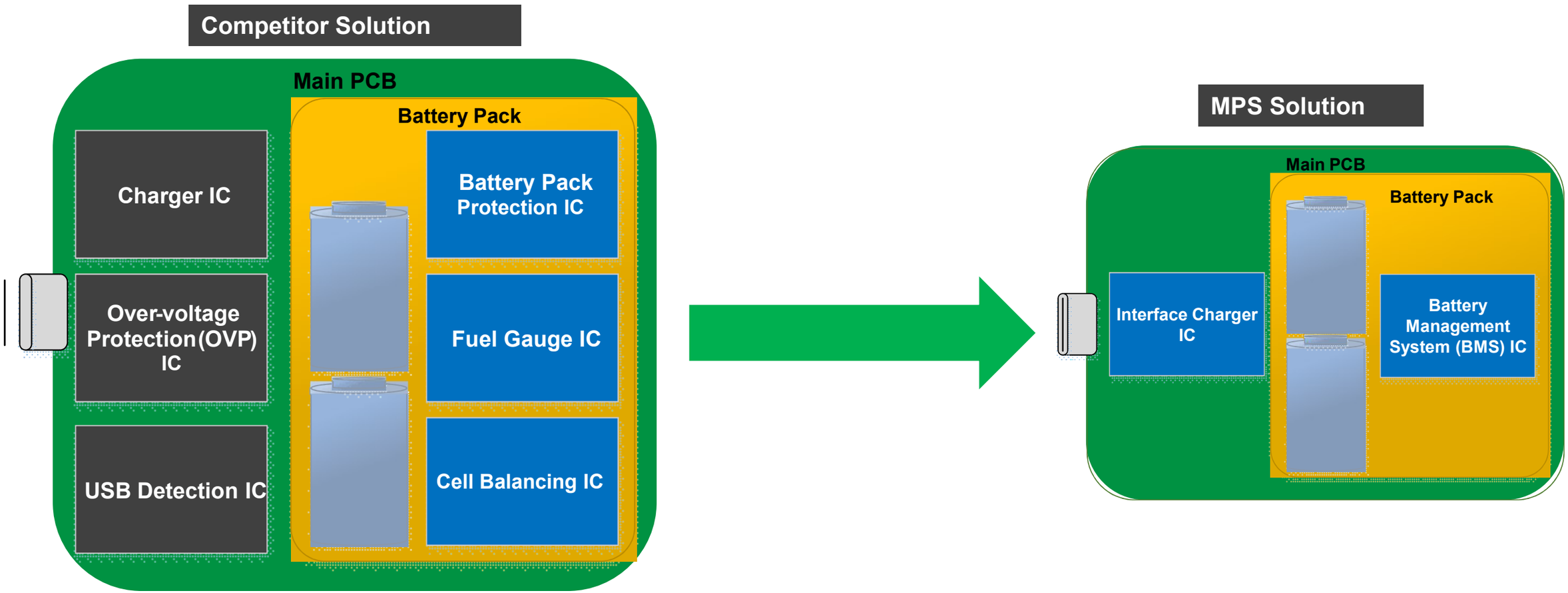
Battery Management

MPS Battery Management Applications

Portable Power	2-6 Cell non-USB Applications	Wearable Devices	Connected Devices	Mobile Computing	Battery Management Systems (BMS)
					

Increasing Value

MPS Battery Management Advantages



- MPS solutions use our leading power FET technology to offer a high level of integration which means smaller total solution size, easier system design, and better cost structure

Why MPS Battery Management Will Win

- Increasing product offering diversity driving SAM expansion
- Growth strategy focused on high level of integration of charger, BMS, USB, and protection functions
- Fully monolithic chargers for high-power USB Power Delivery applications
- R & D investment on precision accuracy monitoring and protection circuits for BMS

e.Motion™

A Market in Motion

e.Motion™

Our Solution for Integrated Motion Control

One-stop Solution for Advanced Drive Tasks

POSITION SENSING

Angle Feedback

Magnetic

Small & Robust

MOTOR DRIVERS

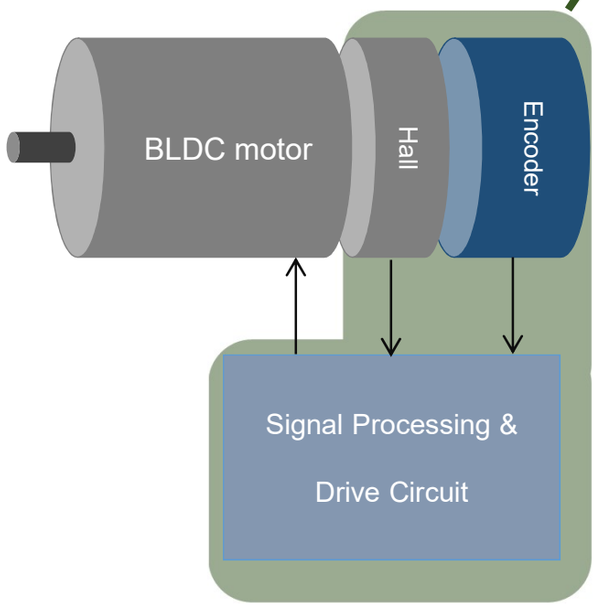
Energizing the Windings

Efficiency

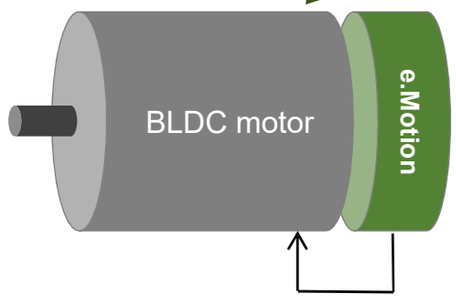
Size

Integrated Motion Control – e.Motion™

Standard Solution

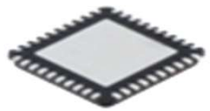


e.Motion™ solution



Position sensing
Signal processing
Motor driver

Combined into single e.Motion™ chip



4x4mm²

Customer Benefits

- Replace bulky optical encoders
- Fast sensing
- Robust setup
- Lower power consumption
- Small components
- Attractive pricing

Controlled Motion

Leveraging MPS' strength in power semiconductors

Technology | **Packaging** | **Testing** | **Support**

Customer benefits

Size | **Efficiency** | **Thermal** | **Cost**

Stepper	Brushed DC	Brushless DC
		

Huge and Diverse Market

	Consumer	Industrial	Automotive
Pure Sensing			
Controlled Motion			

How MPS Wins with Field Programmable Modules and e-Commerce

Leveraging 2000+ Products

AC/DC Power Conversion

- High-Voltage Buck Regulator
- High-Voltage LDO
- Flyback Controller
- Flyback Synchronous Rectifier
- Active PFC Controller
- LLC Resonant Converter Controller
- LLC Synchronous Rectifier
- PFC&LLC Combo Controller
- X Cap Bleeder

DC/DC Power Conversion

- Step-Up (Boost)
- Step-Down (Buck)
- Buck/Boost
- CPU Core Power
  - 50A DrMOS in a 5x5mm QFN

Battery Management

- Li-Ion Single and Multi-Cell
- USB Complaint Chargers
- Switching Chargers
- Linear Chargers
- Integrated Power Bank Solutions

Class-D Audio

- Analog Input Class-D Amplifiers
- PWM Input Power Stages

Display Backlighting Power

- Backlight Drivers
- Electro-Luminescent Drivers
- Photo Flash Drivers
- LCD Power Supplies

E-Fuse, USB & Load Switches

- Programmable Current Limit up to 50A per Device
- Adjustable Slew Rate
- Reverse Current Blocking
- Output Discharge (Load Switch)
- Integrated Auto Detection
- Pin Compatible
- Parallel able up to 10 Devices
- PMBus Command and Control

Automotive & Industrial

- AEC-Q100
  - DC/DC
  - LED Lighting
  - Power Modules
  - Motor Drivers
  - USB Charging
  - Display Backlighting
  - Precision Analog

LED Lighting & Illumination

- TRIAC Dimmable AC/DC LED Controller
- PWM and Analog Dimmable AC/DC LED Controller
- DC/DC LED Controller: Buck, Boost, & Buck-Boost
- LED Protection IC

Computing Power

- CPU Core Power
- High current DrMOS
  - 60A DrMOS in a 4x5mm QFN
- POL

Motor Drivers & Position Sensors

- Brushless DC Motor Driver
- Stepper Motor Driver
- Brushed DC Motor/Solenoid Driver
- Half-bridge/Full-bridge/Three-phase Power Stages
- Magnetic Angular Position Sensors

Power Modules

- 6V, 600mA- 4A
- 16V, 600mA – 60A
- 21V, 600mA – 2A
- 36V, 600mA – 5A
- 55V, 1A – 3A
- 75V, 300mA

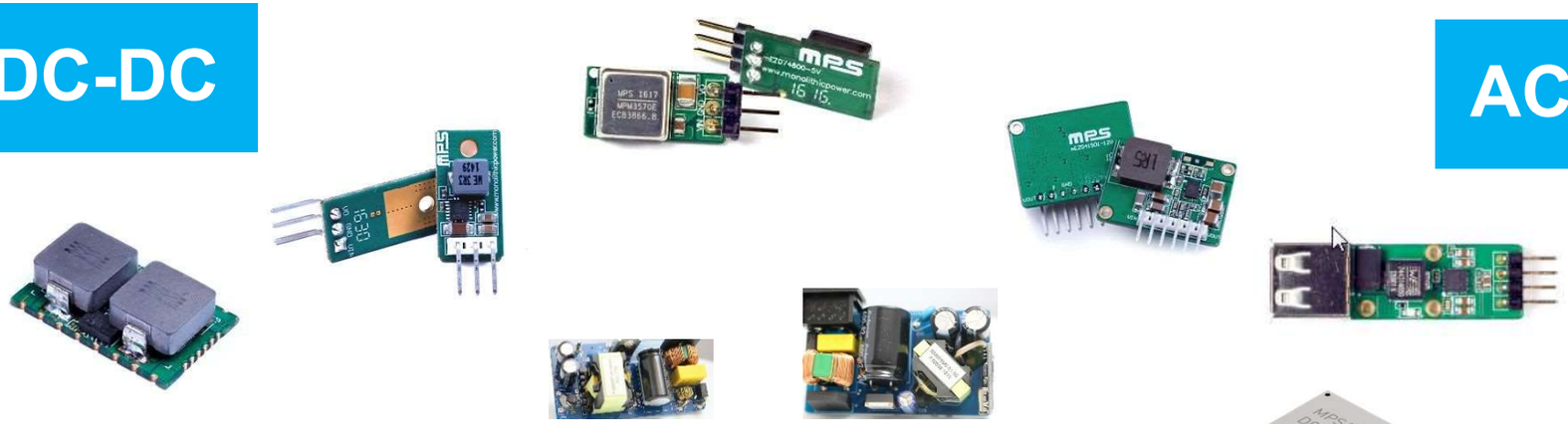
Precision Analog

- Analog Switches
- Current Sense Amplifiers
- Operational Amplifiers
- Voltage Reference

MPS Reconfigurable Standard Products

DC-DC

AC-DC



Motion Control

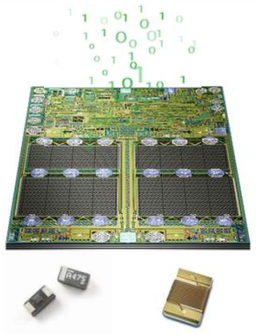
LED Lighting

Audio Amp

Sensors

Engineer to Engineer (E2e) - eCommerce

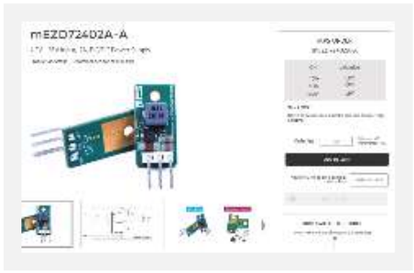
MPS AI Algorithm



BCD 5 Technology

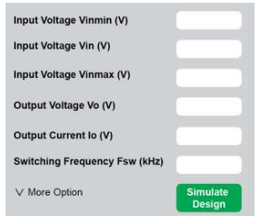
- Digital
- Memory
- Power
- Analog

eCommerce Website

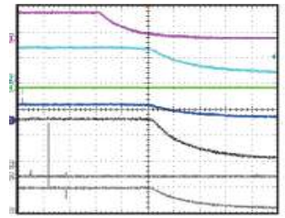


Interactive Web Based Design

User input



Performance Verification



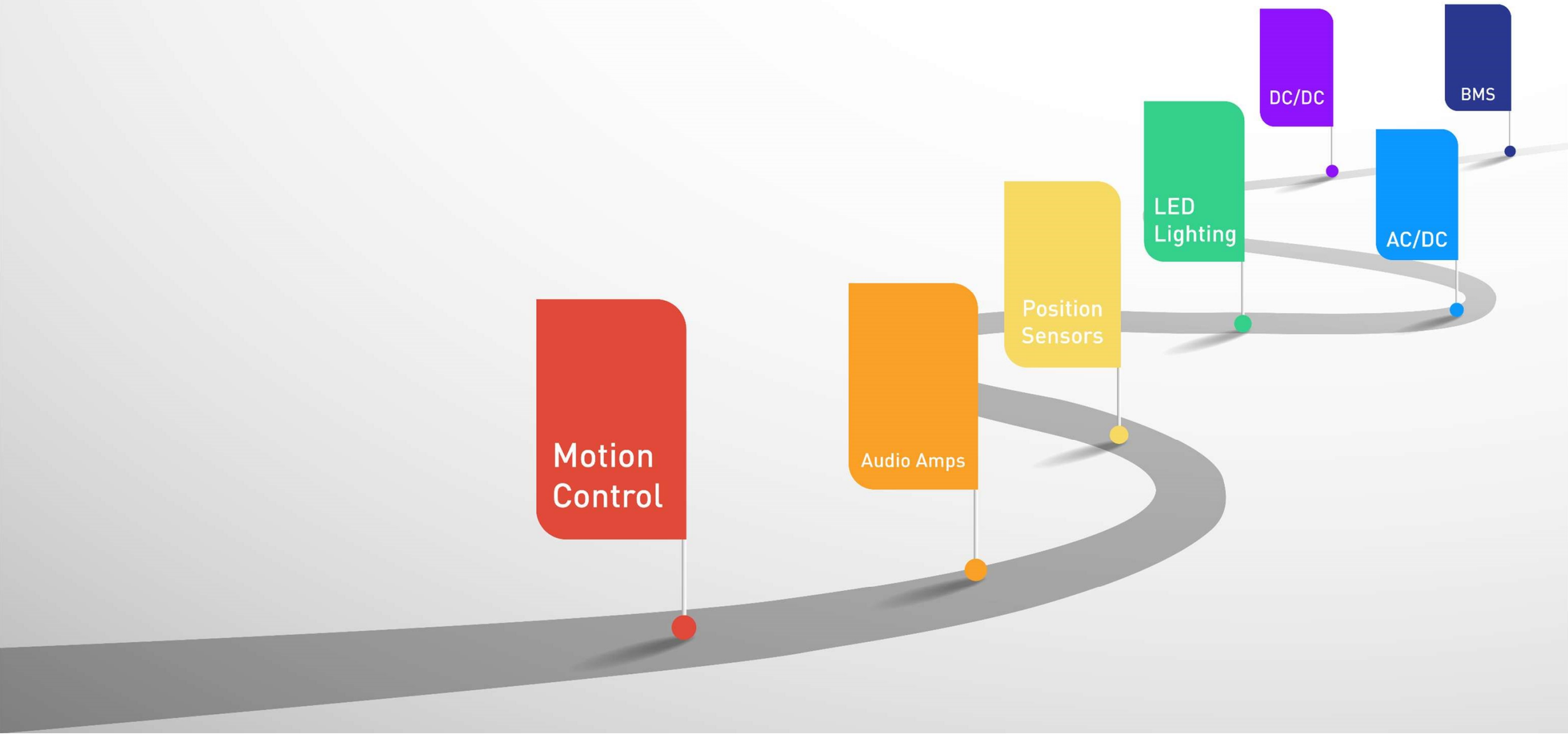
Order

Auto Programming

Custom Parts

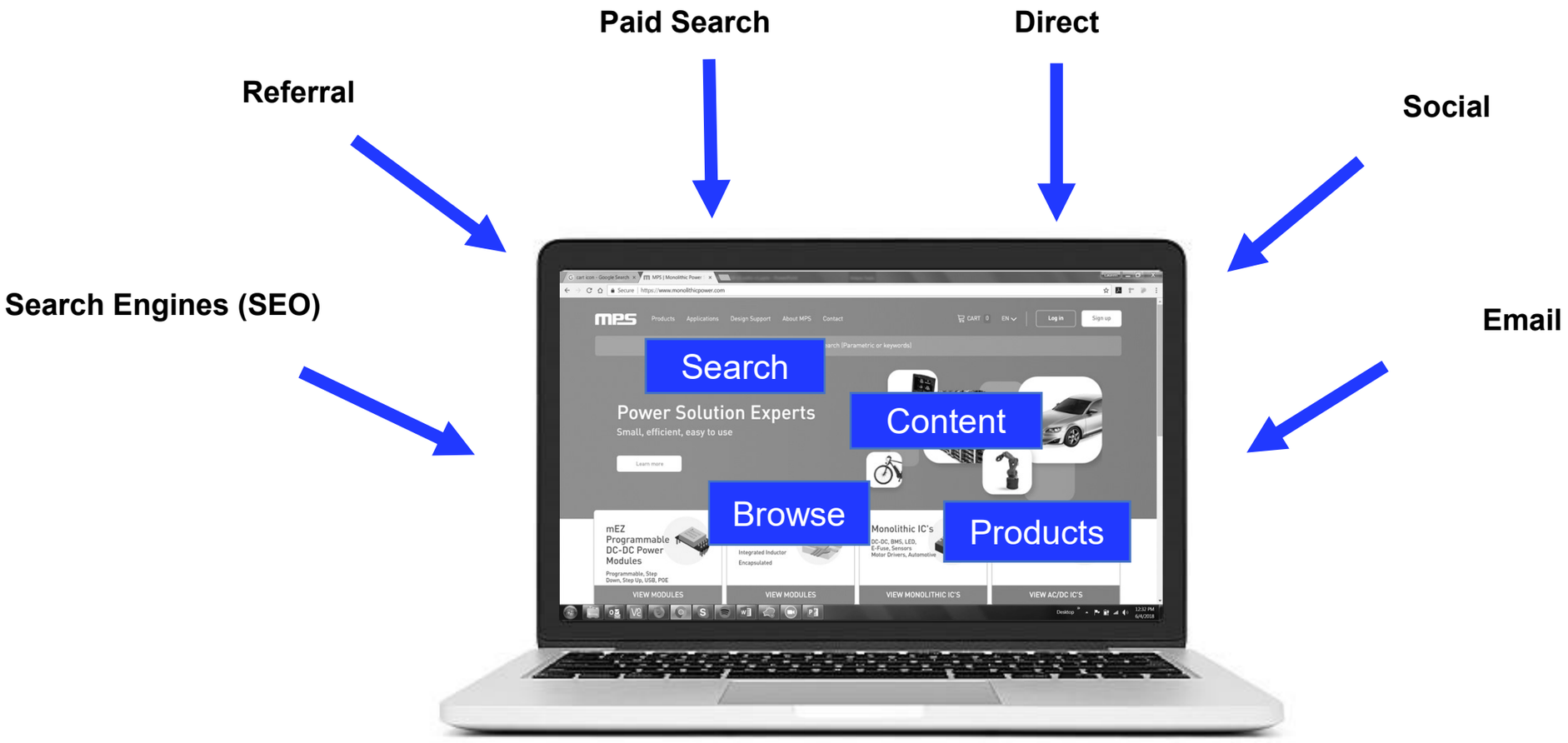
Delivered in Days

Product Roadmap



Reaching Customers at Scale

Website Customer Acquisition



Computing Power Evolution

It All Started with Two Innovations

- **MPS Invented Intelli-phase in 2010**

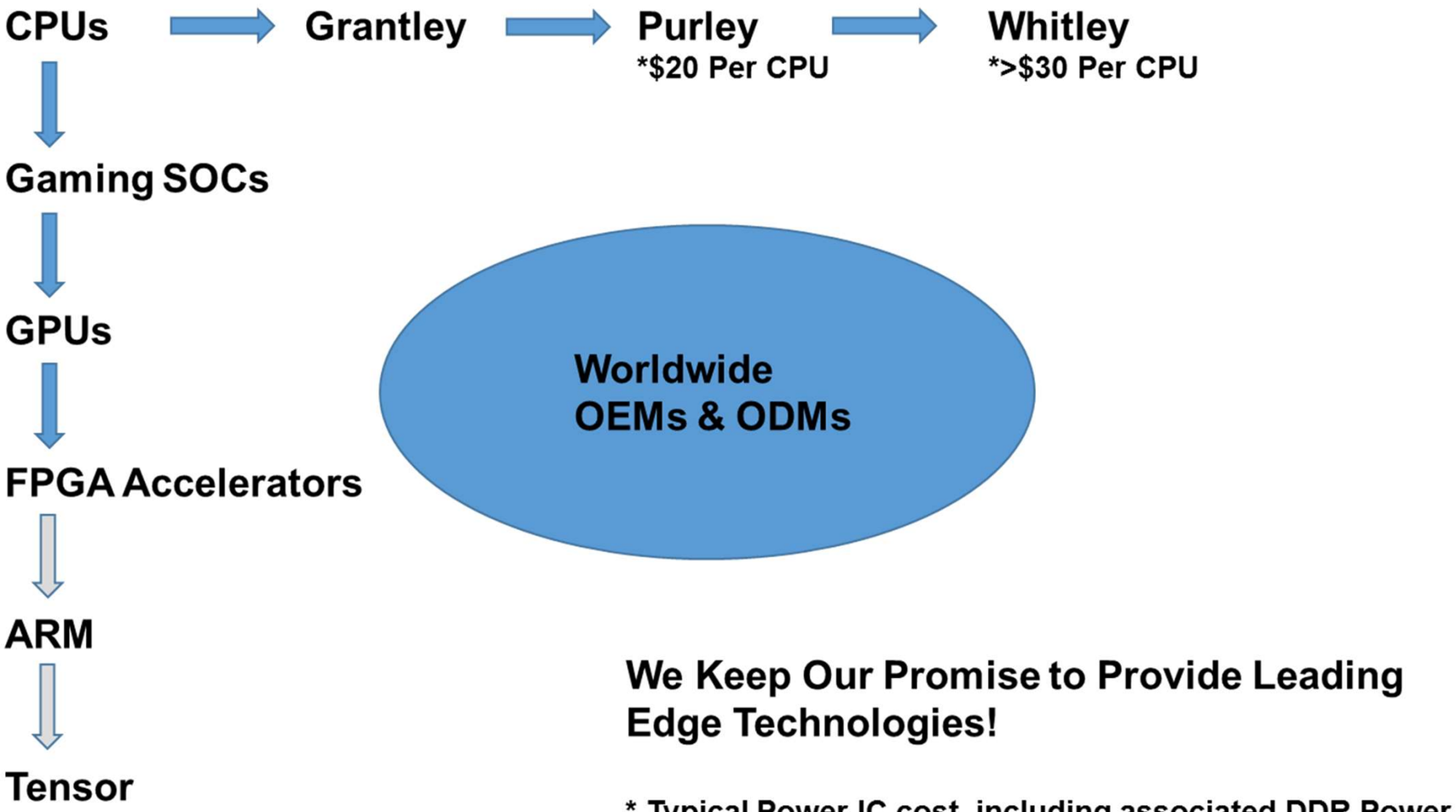
  World's first monolithic power stage with integrated Accu-sense.

- **MPS Invented QSMOD in 2012**

  Quantum State Modulation- Modulation based on finest digital steps to determine the real-time output voltage.

- **MPS First Server Core Power Solution Successfully Powered Intel Grantley Platform in June 2014.**

Great Technology Wins Its Own Way

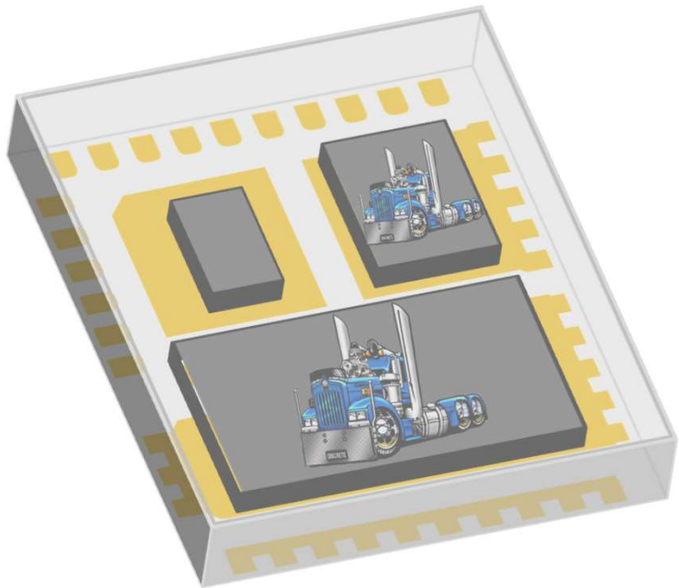


We Keep Our Promise to Provide Leading Edge Technologies!

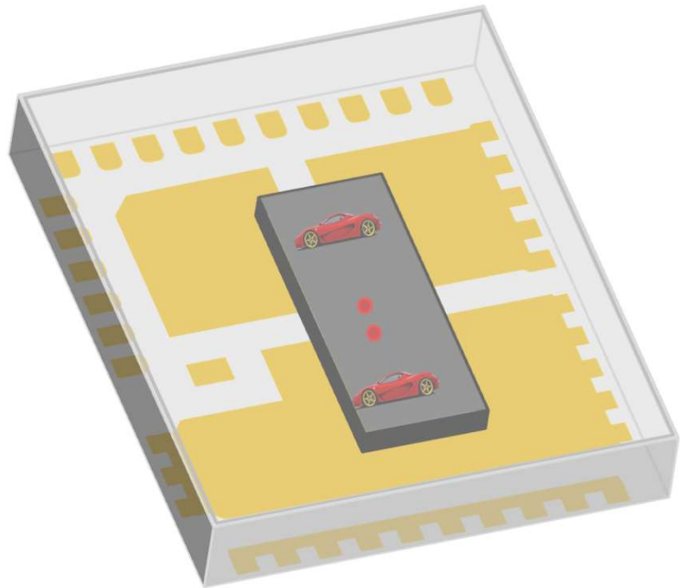
* Typical Power IC cost, including associated DDR Power

Common Footprint, Uncommon Performance

- Discrete Die DrMOS

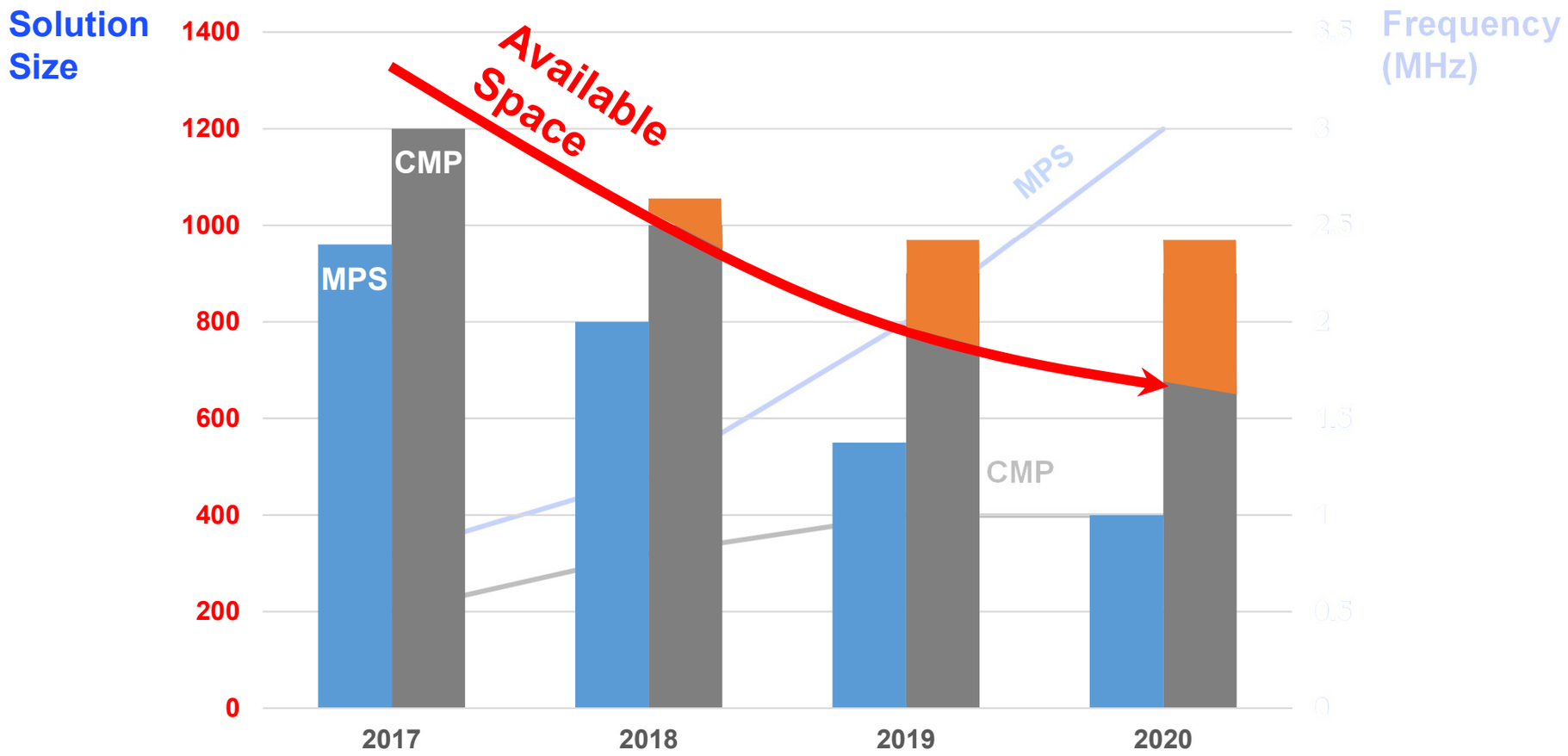


- Monolithic Intelli-Phase



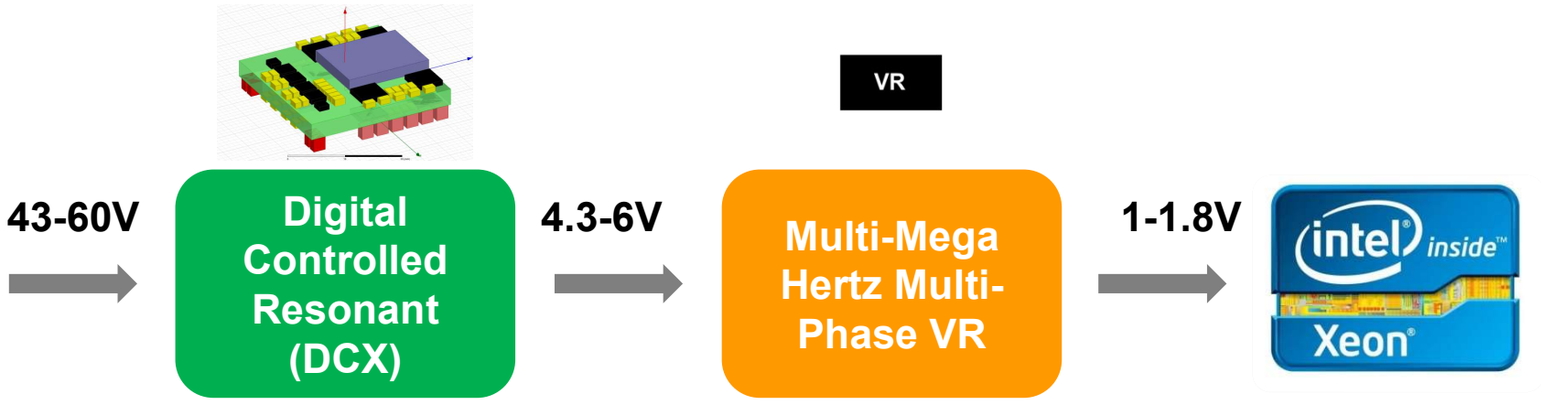
- **Common Footprint Allows Access to Today's Markets**
- **Monolithic Die Provides Superb Switching Performance and Intelligence**

Why MPS is Winning?



While Others Hitting Size and Frequency Boundaries, MPS Monolithic Solution Takes Off

Ready for the 48V Power Architecture for Data Centers



2-Stage Structure

- **Simplicity – well-understood architecture**
- **Scalability – can address different power levels**
- **Transient performance – independent second-stage offers superior performance**
- **Interchangeability – each stage can be upgraded independently**
- **Efficiency. Size. Cost – Optimized.**

Intel image source: https://en.wikipedia.org/wiki/Xeon#/media/File:Intel_xeon_inside.jpg

The Evolving of the Computing Eco-System

Datacenter, Cloud

5G Network, Coming Soon

5G Enabled Cloud 2.0

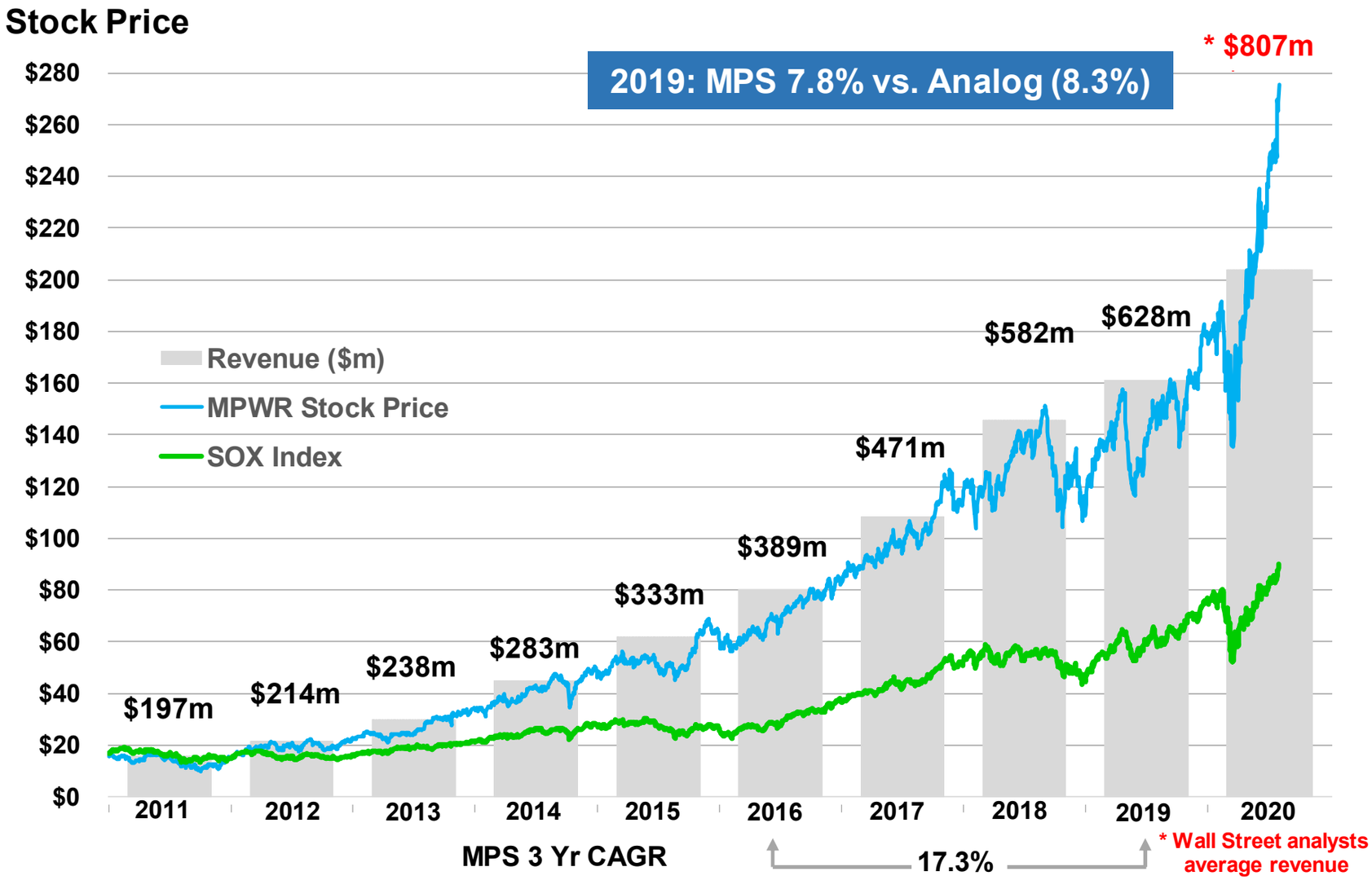
Happening Now

Hyper Converged
-Storage
-Computing
-Networking

MPS High Speed, High Density Power Solutions- Well Suited for Computing Infrastructure Now and Beyond

Well Positioned with Excellent Financial Strength

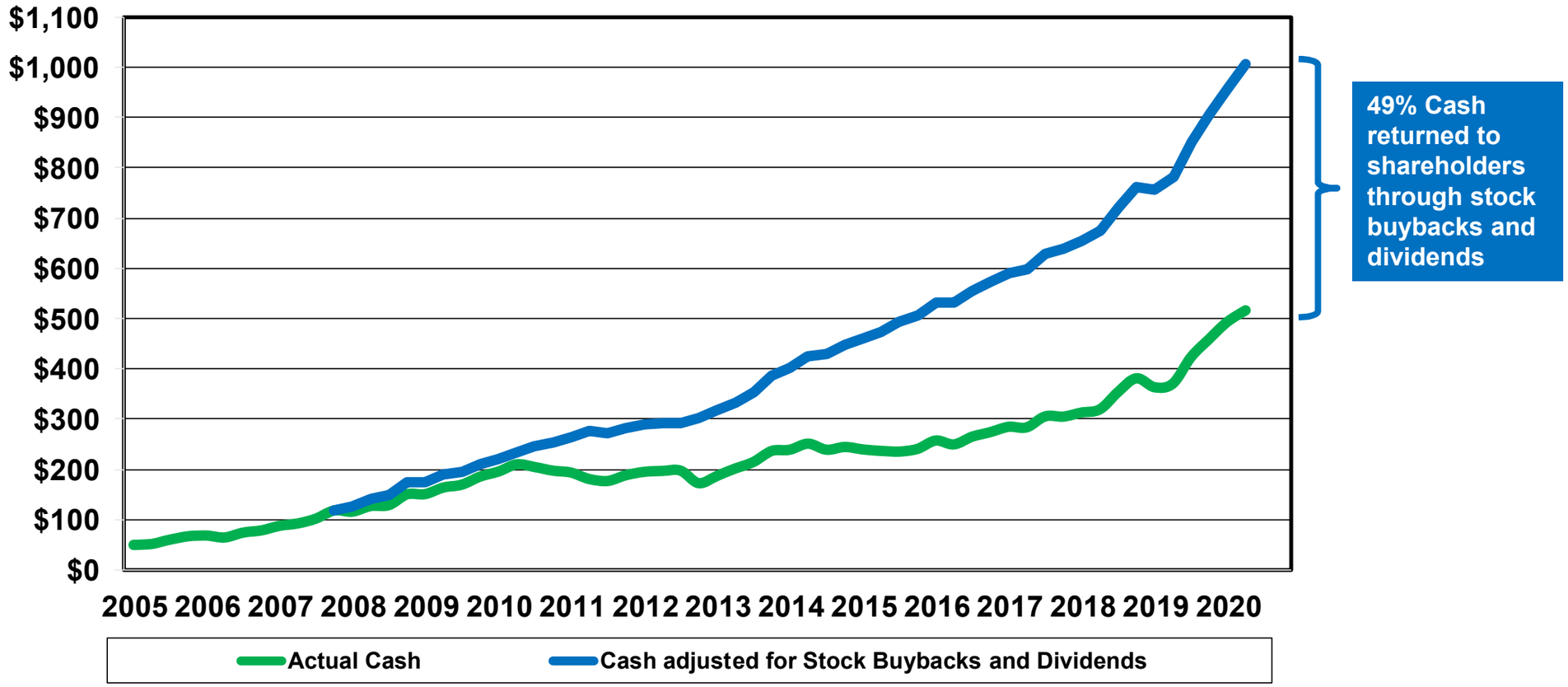
Consistent Revenue Growth & Shareholders' Return



Strategic Goals

- Full digital solutions – Synthetic Analog
- Integrated, software based, control across all product lines
- Advanced power analog processes
- Continued Compute and Automotive gains
- Future Network Infrastructure and Industrial wins

Capital Allocation – 49% of Cash Returned to Shareholders



Closing Summary

- Disruptive new products allowing unprecedented levels of integration, efficiency and ease of use.
- Pressing ahead with process technology lead
- Expanding in high growth, end markets of Automotive, Industrial, Cloud Computing and Networking
- Significant operating leverage while continuing to invest in next generation products and markets

Q&A