# **MPS Management**

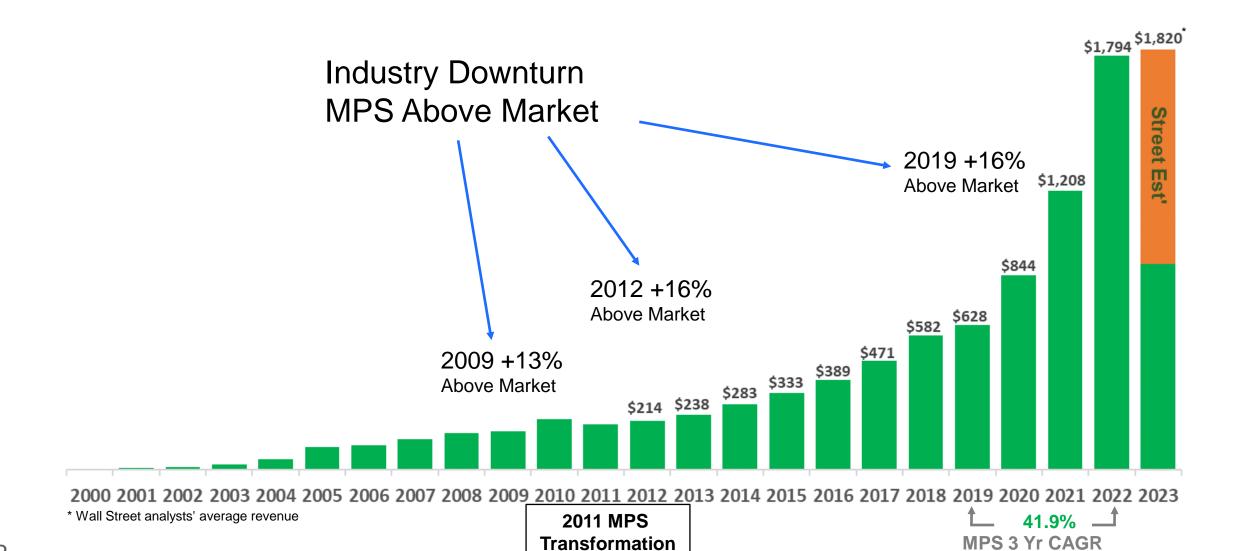
August 24th, 2023



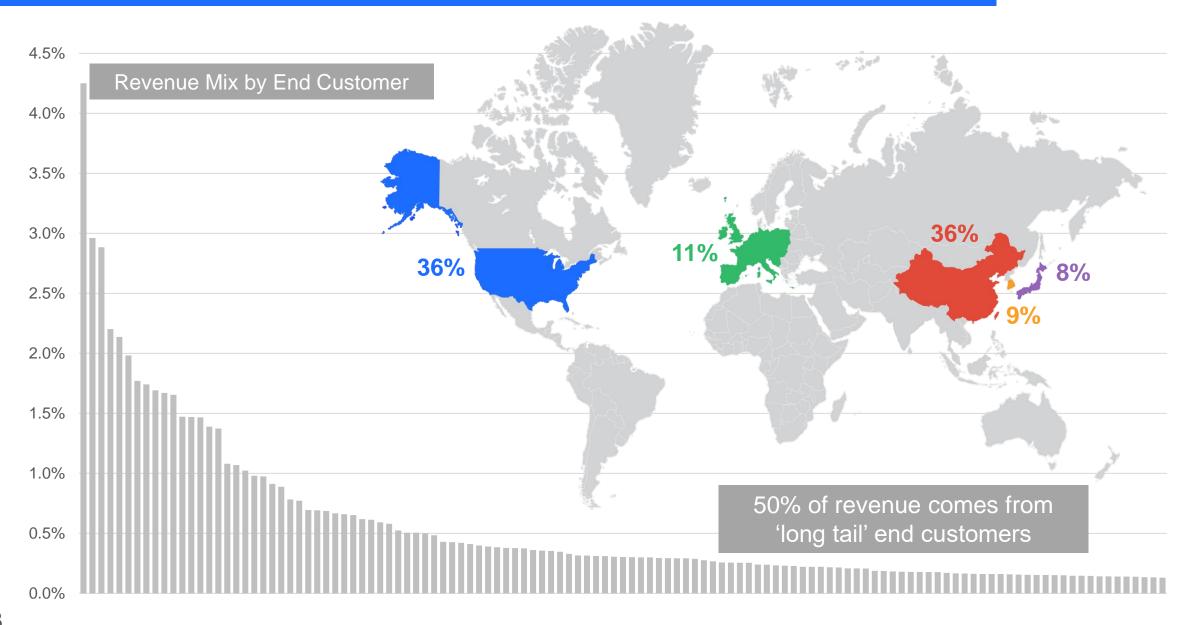
## **Forward Looking Statements**

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.

# MPS Growing, Even in Tough Markets (\$M)



# **Great Revenue Diversification by GEO & End Customer**



# **Growth Drivers by End Market**

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

### **Leveraging 4000+ Products**

#### **AC/DC Power Conversion**

- · High-Voltage Buck Regulators
- High-Voltage LDOs
- Flyback Controllers
- · Flyback Synchronous Rectifiers
- Active PFC Controllers
- LLC Resonant Converter Controllers
- · LLC Synchronous Rectifiers
- · PFC & LLC Combo Controllers
- X Capacitor Bleeders

#### **Display Backlighting Power**

- Backlight Drivers
- · Electroluminescent Drivers
- Photo Flash Drivers
- LCD Power Supplies

### **Computing Power**

- · CPU Core Power
- High-Current DrMOS
  - 60A DrMOS in a QFN (4mmx5mm) Package
- POL

#### **DC/DC Power Conversion**

- Step-Up (Boost)
- Step-Down (Buck)
- Buck/Boost
- · CPU Core Power
  - 50A DrMOS in a QFN (5mmx5mm) Package
- · Power Magnetics
  - Molded Inductors
  - o Semi-Shielded Inductors

#### 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
- Parallelable Up to 10 Devices
- PMBus Command and Control

#### **Motor Drivers & Position Sensors**

- · Brushless DC Motor Drivers
- Stepper Motor Drivers
- Brushed DC Motor/Solenoid Drivers
- Half-Bridge/Full-Bridge/Three-Phase Power Stages
- · Magnetic Angular Position Sensors

#### **Isolated Solutions**

- · Isolated Gate Drivers
- · Isolated Power Module
- · Digital Isolator with Integrated Power
- · Digital Isolators
- · Totem-Pole PFC/LLC Controller

#### **Battery Management**

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

#### **Automotive & Industrial**

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

### **LED Lighting & Illumination**

- TRIAC Dimmable AC/DC LED Controllers
- PWM and Analog Dimmable AC/DC LED Controllers
- DC/DC LED Controllers: Buck, Boost, & Buck-Boost
- · LED Protection ICs

#### **Power Modules**

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

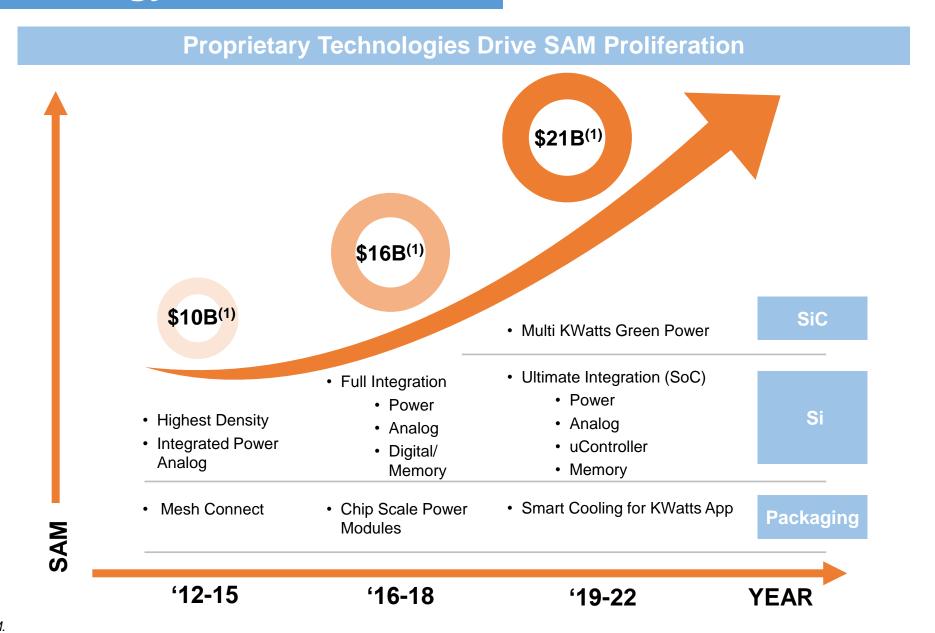
### Class-D Audio, Precision Analog

- Analog Input Class-D Amplifiers
- PWM Input Power Stages
- · Analog Switches
- · Current-Sense Amplifiers
- · Operational Amplifiers
- · Voltage Reference

# **Diverse End Markets**

% of Revenue	2010	2020	2022	23Q2	2019-2022 CAGR
Storage and Computing	10.4%	21.4%	25.3%	28.2%	47.4%
Consumer	65.1%	26.1%	17.8%	14.8%	24.8%
Automotive	1.9%	12.9%	16.7%	23.6%	49.2%
Communications	17.8%	16.9%	14.0%	11.2%	43.7%
Enterprise Data	-	8.6%	14.0%	10.9%	73.7%
Industrial / Other	4.8%	14.2%	12.2%	11.3%	30.2%
Total	100%	100%	100%	100%	41.9%

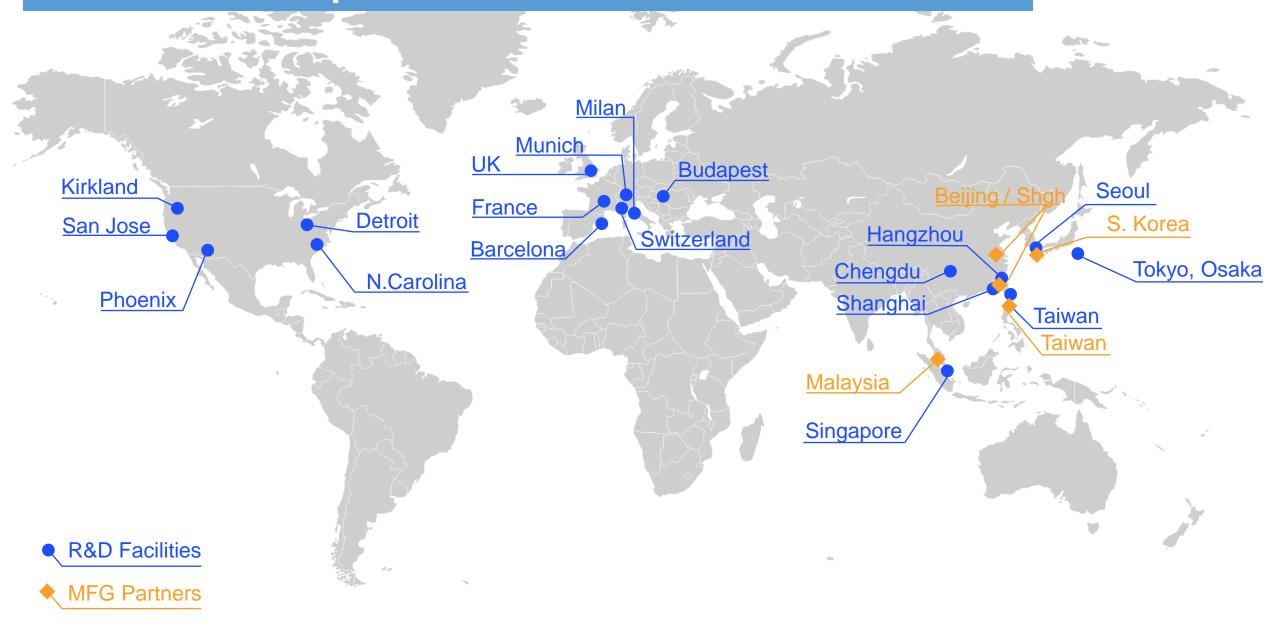
# **MPS Technology Evolution**



# **SAM Expansion**

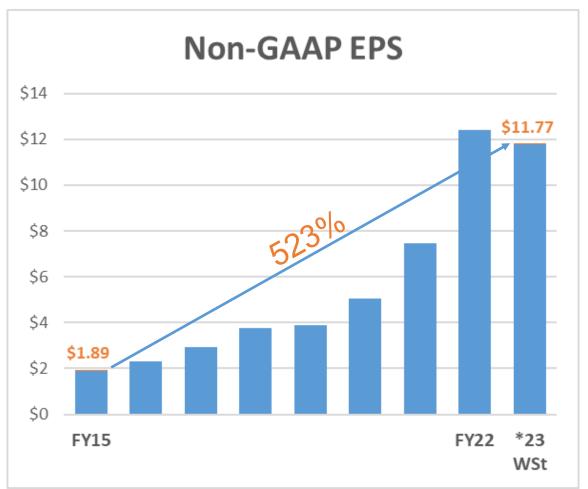
Market	2015 SAM	2018 SAM	2021 SAM
Automotive	\$4B	\$6B	\$7B
Motion Control	\$2B	\$3B	\$4B
ACDC	\$1B	\$2B	\$2B
Modules	\$1B	\$2B	\$2B
Cloud Computing (Server / Storage)	\$800M	\$1B	\$4B
Networking / Telecom	\$600M	\$1B	\$1B
Battery Management	\$600M	\$1B	\$1B
Total Market SAM	\$10B	\$16B	\$21B

## MPS Global Footprint: R&D Centers and MFG Partners



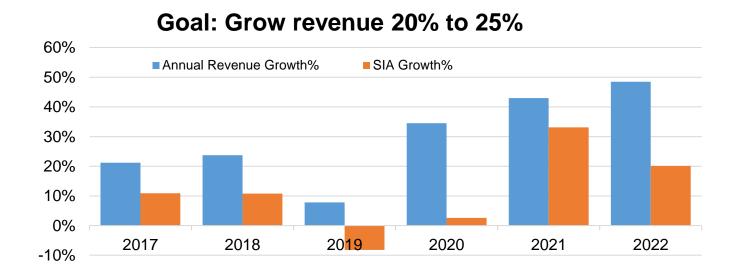
# **EPS Growing Faster Than Revenue**



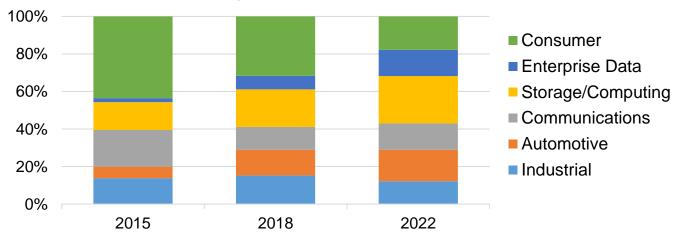


<sup>\*</sup> Wall Street Forecast

# **Execution Against Our Commitments**





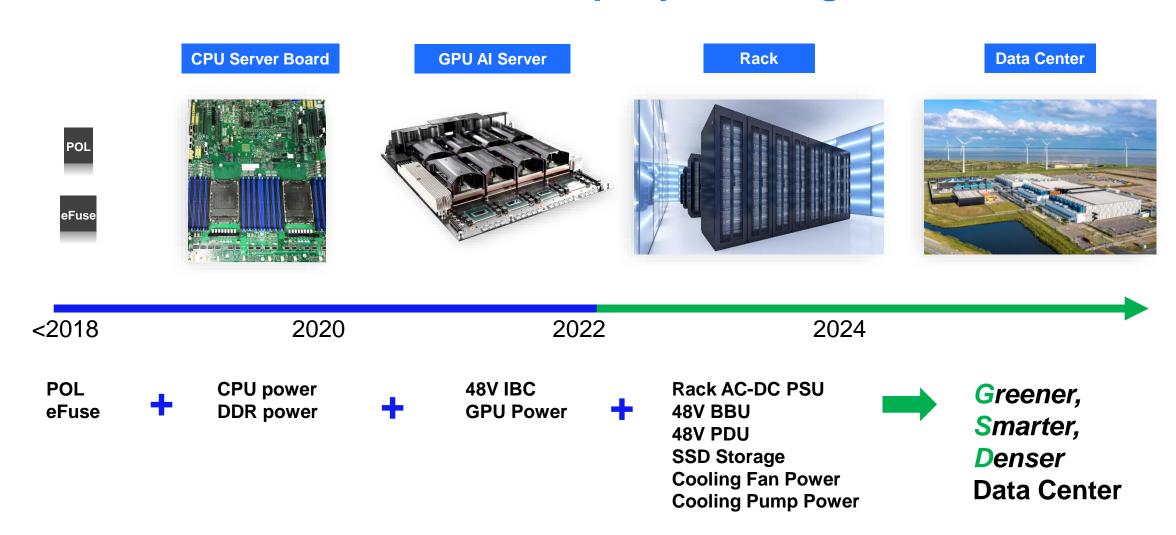


Computing

MP5

### From Board Level Power to Rack and Beyond

# >\$4B SAM and Rapidly Growing



### **Server Board Level Power Solutions**

**CPU Server: \$1B SAM** 

\$80 MPS Content / Server

CPU Power \$600M SAM

DDR5 Memory Power \$280M SAM

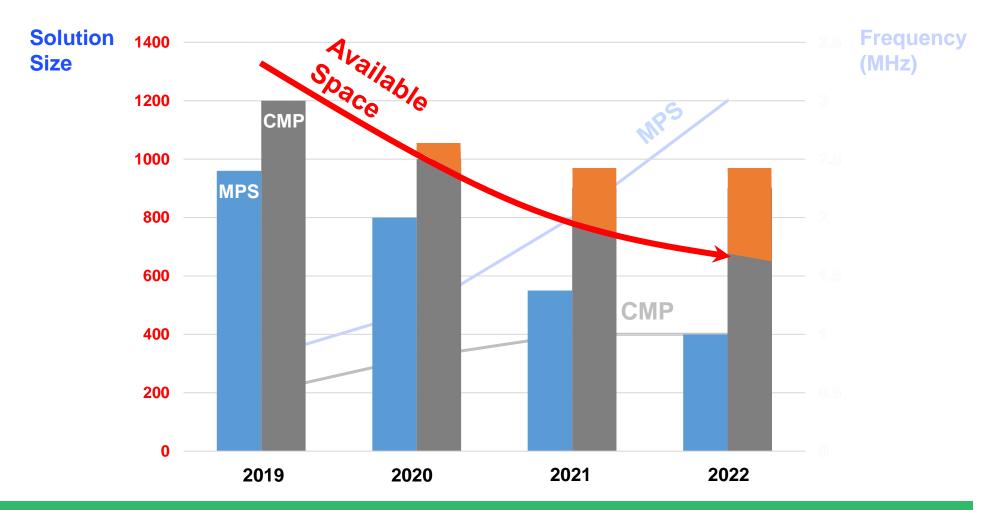
Point of Load \$60M SAM

EFuse \$60M SAM

**GPU Server: \$500M SAM** 



# Why is MPS Winning?



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

### Direct to Data Center Builders & Owners, Additional \$2B SAM

# Datacenter Rack Front View

**Network Switch** 

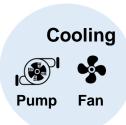
**CPU Servers** 

**GPU Servers** 

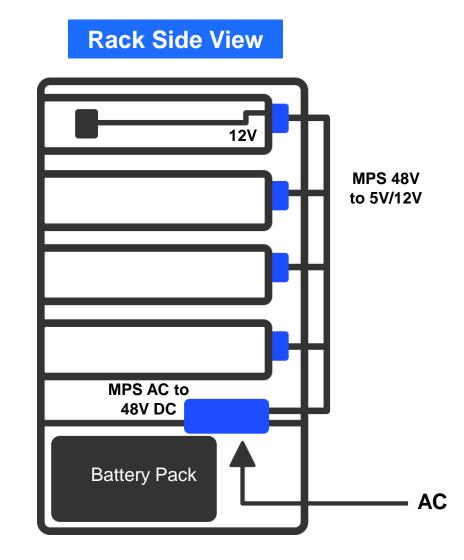
**Network Storage** 

**AC Power Supply** 





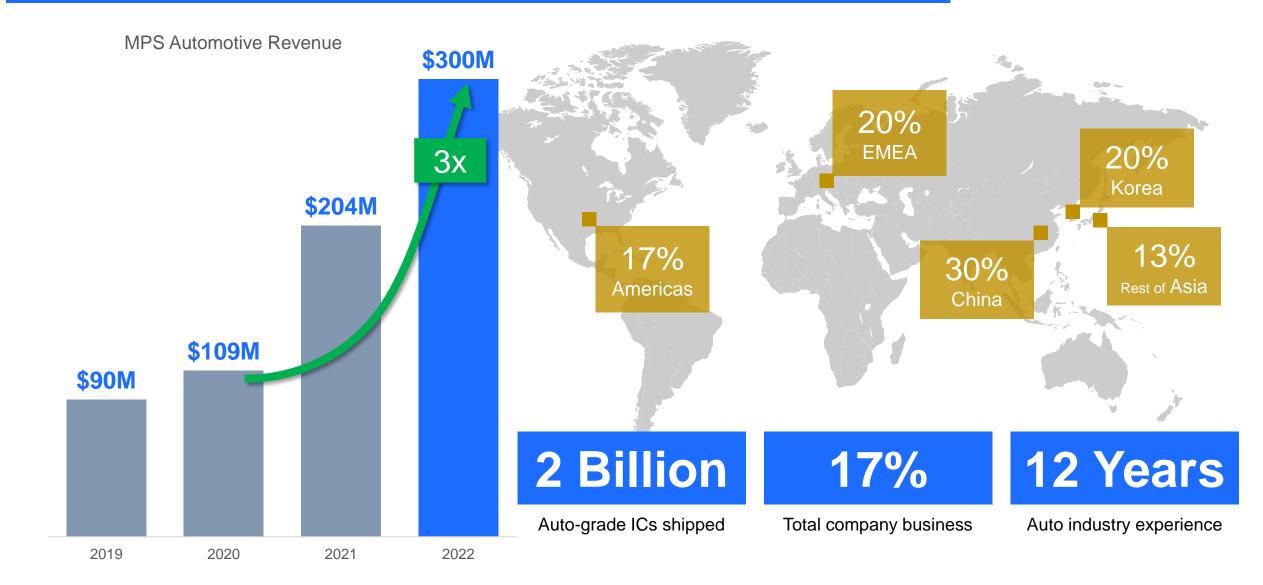
Battery Management System



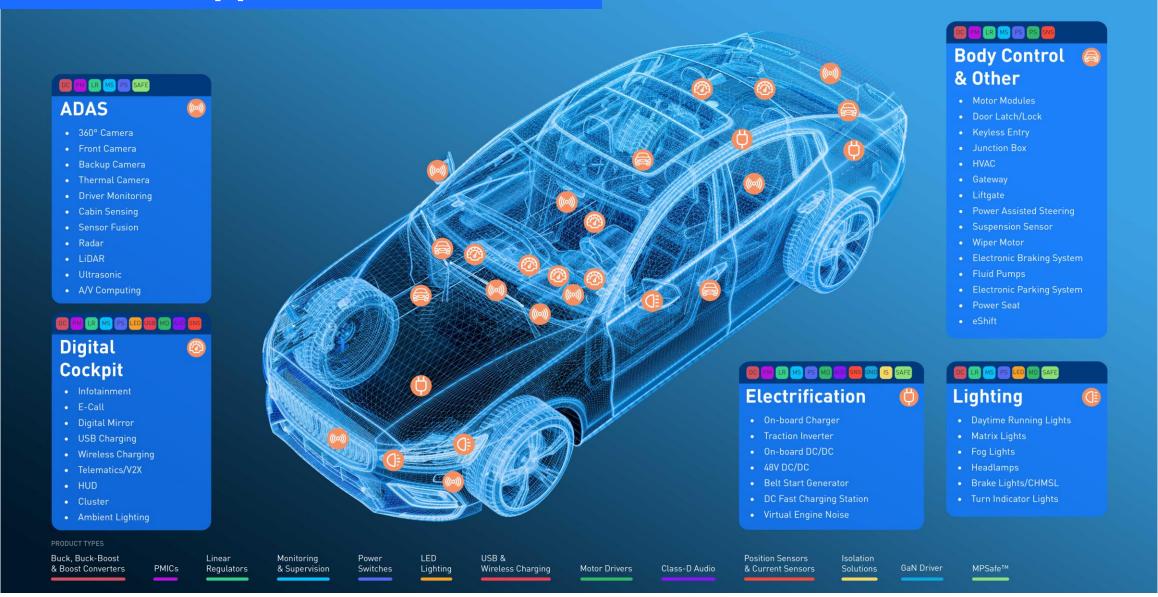
# **Automotive**

MPS

## MPS Automotive – Global and Growing



# **Automotive Applications Covered**



### **MPS Exclusive Solutions for ADAS / Electrification**

### Smaller, Safer ADAS

### **ONLY Single Vendor**



MPSafe™ High Power Controller + DrMOS For ADAS Compute SoC

### **40% Smaller Footprint**



MPSafe™ Camera PMIC
For L2/L3/L4 Surround View Cameras

### **4X Higher Power Density**



**30W Buck-Boost Converter**For Sensor Fusion modules

# **Higher Power Electrification**

### **4X Faster Switching**



Power Supply
for Traction Inverter,
On-Board Charger,
DC Fast Charging Stations

### **2X Smaller Footprint**



100V GaN
Gate Driver
for 48V Mild Hybrid

### **2X Higher Power**



**5kV Isolated SiC Gate Driver**for Traction Inverter

# Relentless Expansion of Product Categories



# MPS Automotive: \$1B Wins in Pipeline





















































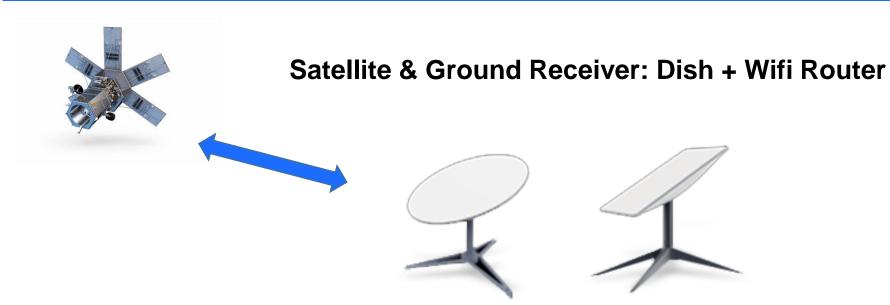




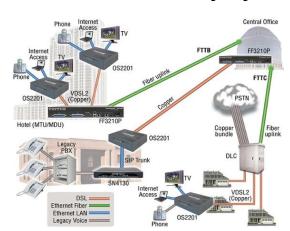
# **Data Com**

MPS

# Data Com / Security – \$4B SAM

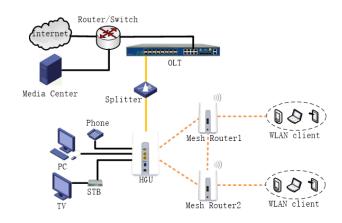


### **DSL/VDSL & Security Systems**





### **Enterprise WiFi & Security Systems**



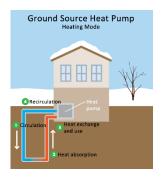
# Clean Energy & Storage



# \$2B SAM Opportunities in Carbon Reduction: Clean Energy and Storage

Over \$150M design wins 25+ products in development

**Geothermal** In development



**Solar Inverter** 



Wind Farm In development



**Smart meter** 



Megawatt Battery Storage



Home Battery Storage



# **Other Revenue**



# Over \$3B SAM

Super Computer /
Big Data



**5G Base Station** 



**Semi-equipment** 



**Inspection Robot** 



Co-Robot



**Home appliances** 



Point of sale



**USB PD** 



**RV&Boat** 



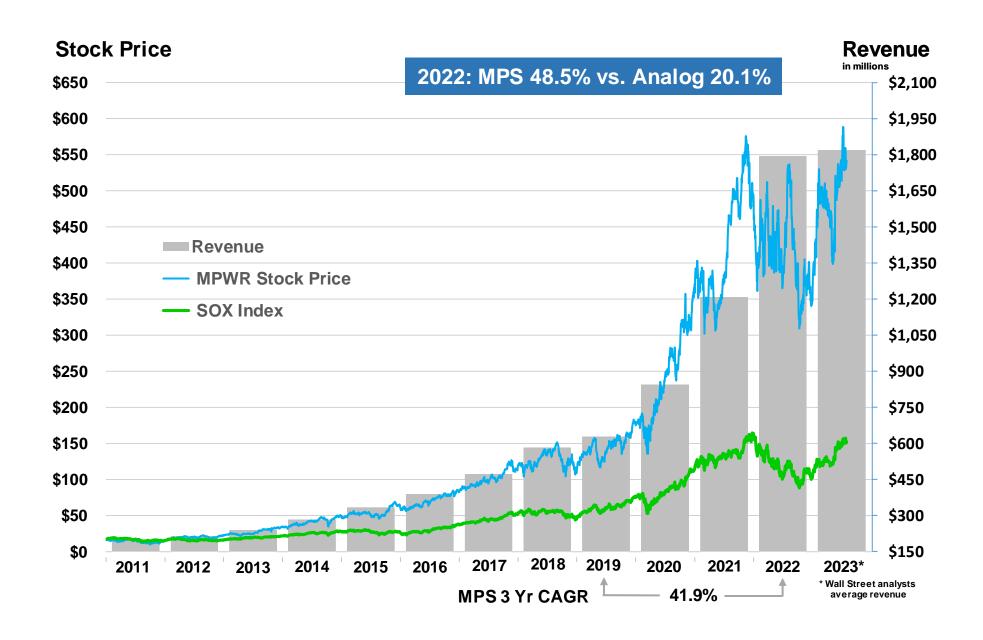
X-Ray



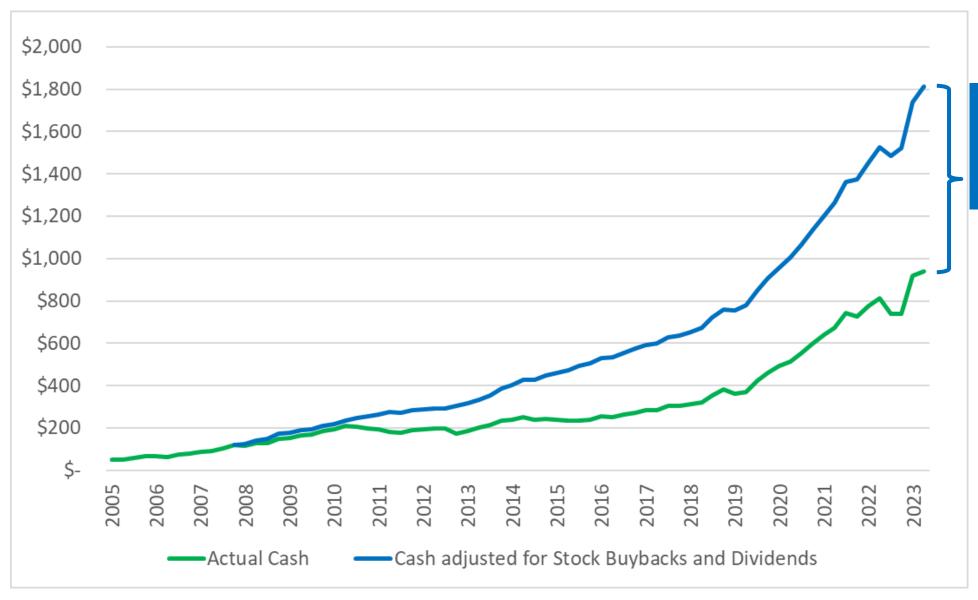
# Well Positioned with Excellent Financial Strength



## Consistent Revenue Growth & Shareholders' Return



## Capital Allocation – 48% of Cash Returned to Shareholders



48% Cash returned to shareholders through stock buybacks and dividends

# MPS grows regardless of the market environment



Q&A