



August 2021



# **Forward-Looking Statements/Non-GAAP Metrics**

These slides accompany an oral presentation by Power Integrations, Inc., which contains forward-looking statements. Each statement relating to events that will or may occur in the future is a forward-looking statement. The Company's actual results may differ materially from those suggested in the presentation. Information concerning factors that could cause such a difference is contained in the Company's most recent report on Form 10-K.

This presentation may also contain certain non-GAAP financial information. Reconciliations of non-GAAP financial metrics to GAAP results are available on the investor page of the Power Integrations website, <u>http://investors.power.com</u>.



## **ICs for Energy Production, Transmission & Consumption**



Technology leader in ICs for energyefficient AC-DC power supplies



**High-efficiency driver ICs energizing** the LED-lighting revolution



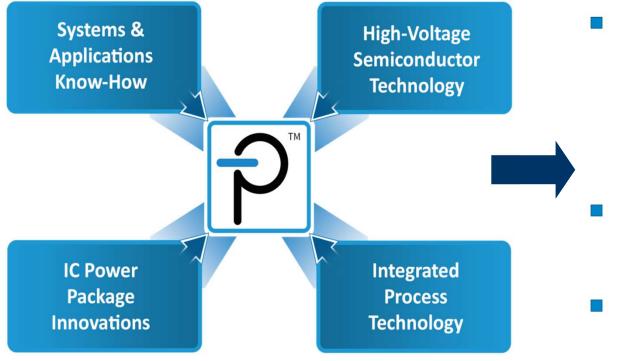
Reliable gate drivers for vital systems when safety is paramount



Highly efficient, reliable and integrated motor drivers



# **Comprehensive Expertise in High Voltage**



## Ultra-simple power converters

- Fewer components
- Shorter design cycles
- Easier to manufacture
- ► Higher reliability
- BOM cost similar to discrete designs
- Highly energy-efficient

# **Long-Term Secular Growth Drivers**

#### Ongoing transition to highly integrated power supplies

Integration saves labor and materials, improves reliability

#### Enabler of reduced carbon emissions

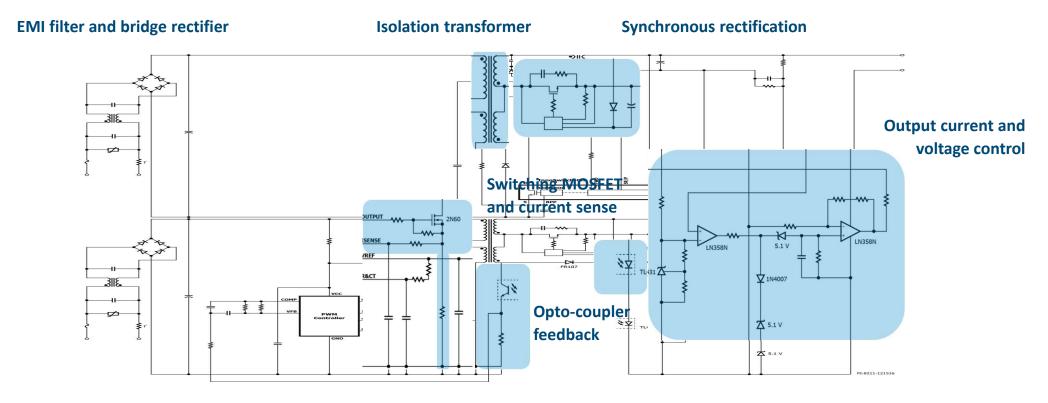
- Reducing energy consumption in electronics and appliances
- Strong presence in renewable energy, electric transportation, efficient high-voltage DC transmission

### GaN technology expands dollar content, increases efficiency

#### Expanding market opportunity – SAM up nearly 3x since 2010

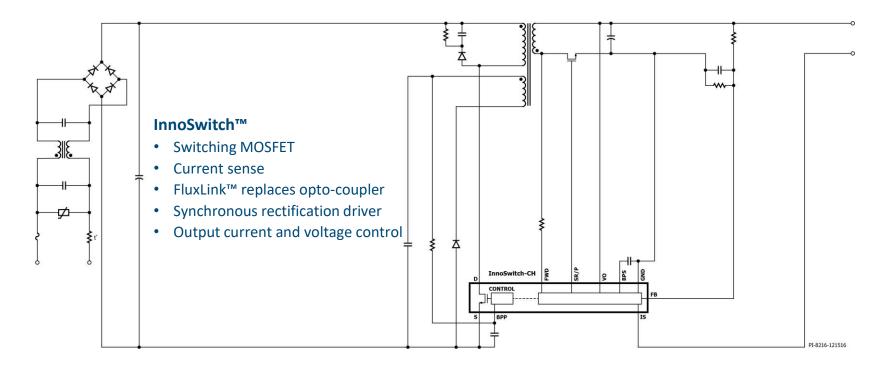
- Advanced chargers for smartphones, tablets, notebooks
- ▶ Home & building automation / smart lighting and appliances / IoT / smart utility meters
- Electrification of tools and transportation
- BridgeSwitch<sup>™</sup> motor-drive ICs expand appliance SAM
- ▶ LED lighting
- Sizeable opportunity in electric vehicles

# **The Power Integrations Advantage**



**Conventional Phone Charger - More than 60 Components** 

## **The Power Integrations Advantage**

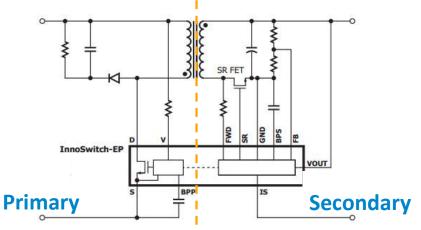


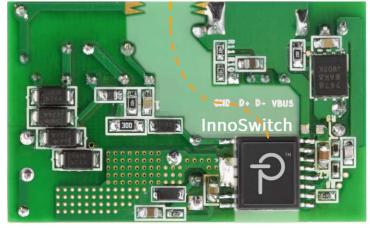
#### Phone-charger Power Supply Using InnoSwitch-CH – only 24 parts



# **InnoSwitch™: A Higher Level of Integration**

- First IC to integrate primary and secondary sides of power supply across safety barrier
  - ► Enabled by FluxLink<sup>™</sup> technology
- Drastic reduction in component count, complexity
- Highly energy-efficient
  - ▶ Very high efficiency
  - Very low standby consumption

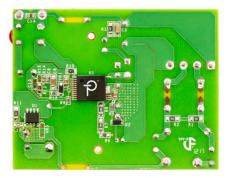




## **Highly Integrated Converters Replace Discretes**



65 W adapter with discretes: 72 components, two heatsinks, 144 cm<sup>3</sup>





65 W adapter with POWI InnoSwitch<sup>™</sup>3 39 components, no heatsinks, 59 cm<sup>3</sup>



# **GaN Is the Future of Power Conversion**

## Gallium-nitride (GaN) transistors are better than silicon

- More efficient, cooler, smaller power supplies
- Leading the way to "no-heatsink" designs at high power levels



## Proprietary GaN transistors integrated into our ICs

- Engineers see significant performance benefits but won't otherwise notice a change
- Far easier to use than discrete GaN transistors

## GaN now utilized in a broad range of POWI products and applications



# **GaN for Size and Efficiency**

- Aftermarket USB PD adapters
- High-end cellphone/tablet chargers
- Notebook adapters

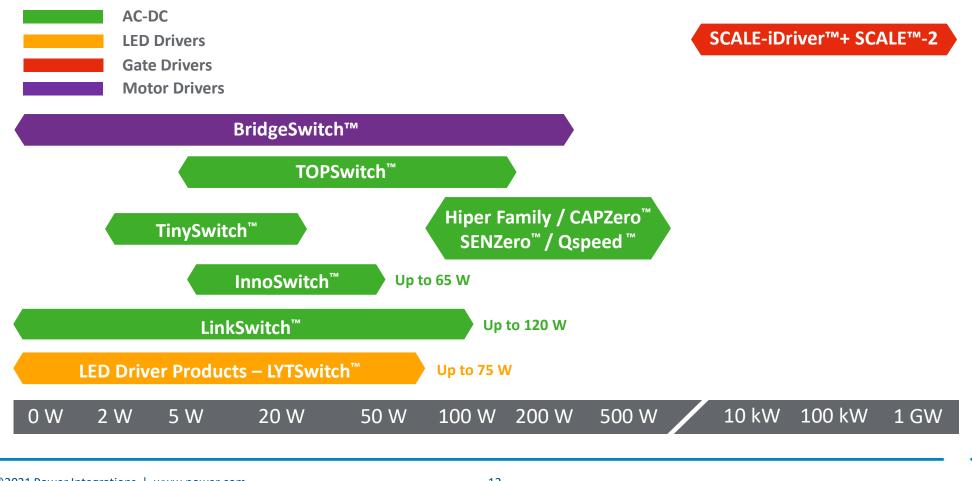




Appliances, TVs, server standby, AIO PCs, video games, industrial applications



# Spanning a Wide Power Range

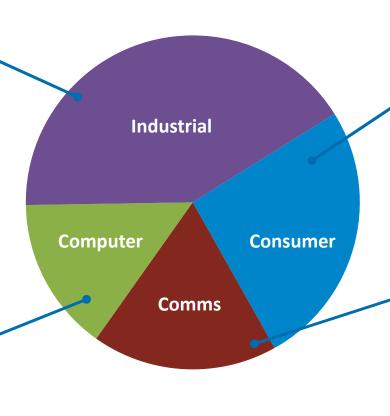


## **Power Everywhere**



# **Addressable Market Now \$4+ Billion**

- LED lighting
- Home/building automation
- Smart meters
- Industrial controls
- Battery-powered tools
- EV auxiliary power supplies
- Industrial motor drives
- Wind/solar inverters
- Electric trains/buses
- DC transmission
- Medical
- Desktop/server standby
- Desktop main
- Notebook/tablet adapters
- LCD monitors
- Printers



- White goods
- Air conditioners
- TV standby / TV main
- Small appliances
- Set-top boxes
- DVD players
- Game consoles
- Mobile phone chargers
- Cordless phone adapters
- Broadband modems
- VoIP phones
- Wireless routers

#### High-power applications in red

# **Technology Trends Bring SAM Expansion**

## Rapid charging for mobile-device market

- Faster chargers = greater dollar content, higher efficiency
- Home & building automation / smart lighting and appliances / IoT
  - Smarter homes and appliances = more power needed = greater POWI dollar content

## Electrification creating new opportunities in tools, transportation

- Lithium-ion batteries replacing gas and plug-in electric for lawn equipment, vacuums
- Electric cars, locomotives, buses, delivery vehicles, etc.

## Conversion to brushless DC motors in appliances

New BridgeSwitch™ ICs target motors up to 400W

## LED lighting – requires AC-DC drivers

GaN-based ICs increase dollar content and performance

# **InnoSwitch for Advanced Chargers**

- Faster chargers for bigger batteries, shorter charge times
- **5G phones require even more powerful chargers**
- Premium, ultrafast aftermarket chargers gaining traction
- Multi-port chargers = more POWI dollar content





Conventional Charging



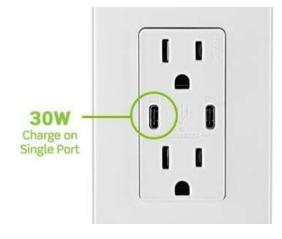
With PI Chipset

# **PowiGaN Winning Big in Advanced Chargers**



# **IoT / Home Automation**





USB-C power receptacle with InnoSwitch3

## Reliability, low standby power critical for IoT devices and USB receptacles

# **Gate Drivers for High-Power Market**

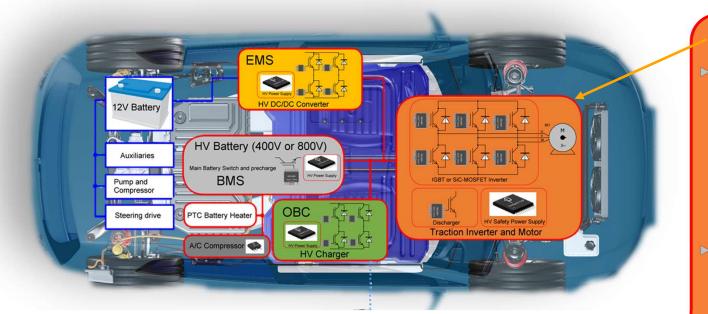
## Acquired CT-Concept in 2012

- Addressing applications 10 kW to 1 GW
  - DC industrial motors, renewable energy, electric transportation, DC transmission
- Drivers for IGBTs and SiC switches



SCALE<sup>™</sup> drivers reduce component count, enhance efficiency, reliability

## **EVs Bring High Voltage to the Auto Industry**



- Tens of dollars of potential content per car
  - Drive train, charging, DC-DC conversion
- Several POWI products now auto-qualified

## **Traction Inverter**

SiC MOSFET or IGBT gate drivers



Emergency power supply

InnoSwitch3-AQ



## **BridgeSwitch™ Motor-Driver ICs for BLDC Motors**

- 98.5% efficiency
- Integrated half-bridge architecture eliminates heatsinks

## Built-in protection

- Simplifies and shortens regulatory approval
- Hardware fault management simplifies software

## Ideal for appliances – white goods and industrial

Ceiling fans, water pumps, air-conditioning, motors



# **LYTSwitch™ Drivers for LED Lighting**

- Traditional light sources phasing out
- LEDs need efficient, reliable AC-DC drivers
- Integration brings reliability, efficiency, size advantage





# **Global Presence**

- Headquarters in San José, California
- Design centers: U.S., Canada, Switzerland, UK, Germany, Malaysia, Philippines
- 19 field labs worldwide



# **Financials**



Best Financially Managed Semiconductor Company Achieving up to \$1 Billion in Annual Sales



# **Target Financial Model**

## Low-double-digit revenue growth

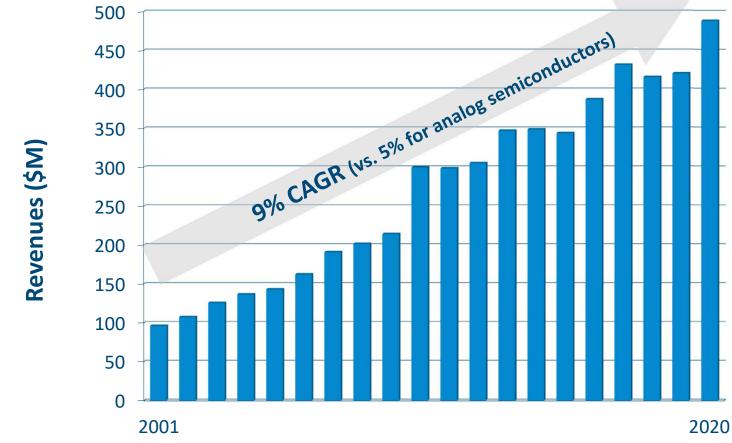
- ▶ 16% growth in 2020 vs. 3% for analog industry
- ▶ 9% CAGR since 2001

## Non-GAAP gross margin 50-55%

- > 50.9% in 2020
- Non-GAAP operating margin 20%+
  - 21.6% in 2020

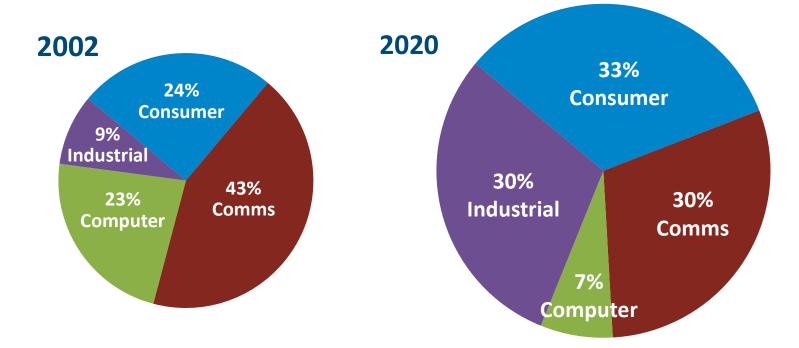
## Non-GAAP tax rate in high single digits

## **Track Record of Growth**

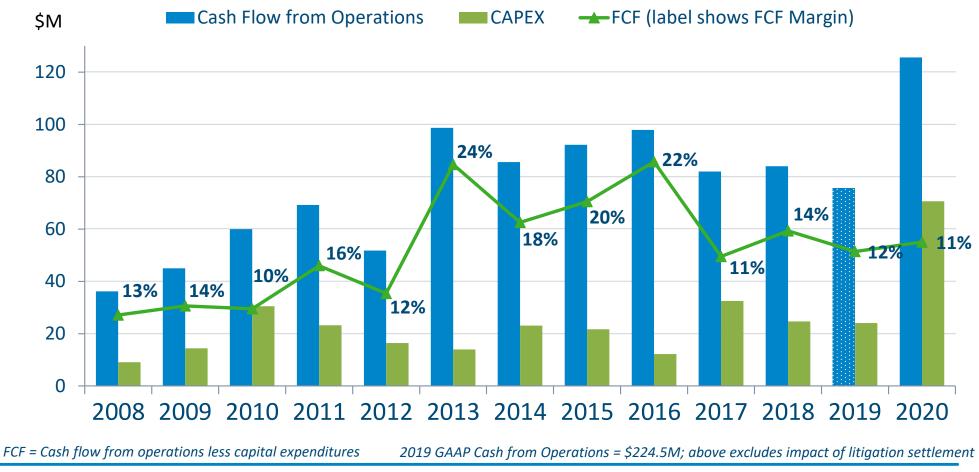


Note: Revenues prior to 2017 do not reflect ASC 606 recast; see company website for recast financial data for 2015-2016

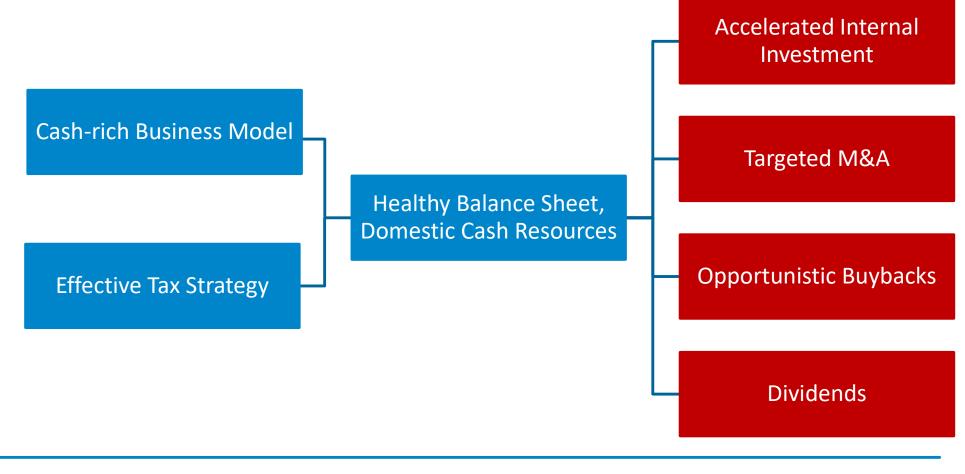
## **Well-Diversified Revenue Mix**



# **Strong Cash Flow**



## **Four-Prong Approach to Capital Management**



# **Strong Balance Sheet**

At June 30, 2021

- \$515M cash and investments
  - \$175M litigation settlement received in Oct. 2019
- No debt

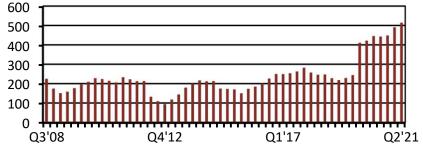
## Quarterly dividend of \$0.13/share

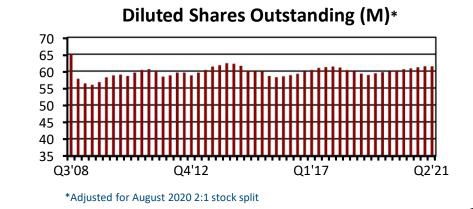
Dividend rose 37% in 2020

## Share count down 6% since 2008

335,000 shares repurchased in Q2 2021

#### Cash and Investments (\$M)





# Sustainability: Saving energy and reducing e-waste

Visit our sustainability site for additional ESG-related information: https://www.power.com/company/sustainability-and-citizenship

# **Recognized Leader in Energy Efficiency**

## Member of clean-tech stock indices

- ► The Cleantech Index (CTIUS)
- Nasdaq Clean Edge Green Energy (CELS)
- Ardour Global Index (AGIGL)
- ECPI Global Clean Energy Index (GALPHCLN)
- Twice named a top 20 sustainable stock by SustainableBusiness.com
- ENERGY STAR<sup>®</sup> award recipient
- Star of Energy Efficiency award recipient









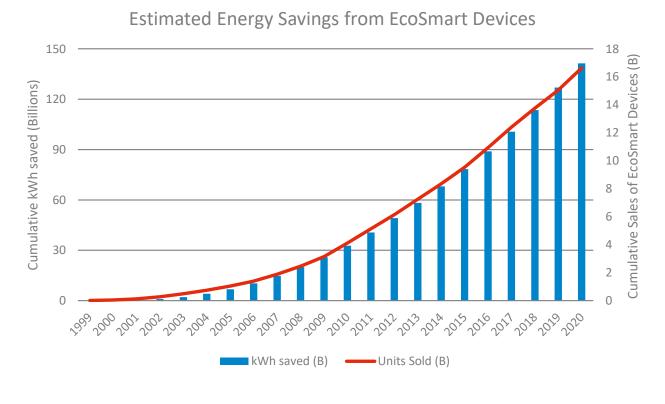
SAVE ENERGY Creating an Energy-Efficient World

# **EcoSmart**<sup>--</sup> **Technology Saves Energy**

- >16 billion EcoSmart chips sold since 1998
- >140B kWh of standby energy saved since 1999
  >\$14B saved by end users
- Saving equivalent of 1.6M homes' entire electricity usage each year\*
  - Saving >6M tons of CO<sub>2</sub> emissions annually\*\*

\* Source: U.S. EPA Greenhouse Gas Equivalencies Calculator \*\*Based on 2019 U.S. average of 0.92 lbs./kWh, per U.S. Energy Information Administration





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# **Energy Vampire vs. LinkZero**<sup>™</sup>



# **Energy-Efficiency Specs Drive Innovation**

- External power supply requirements in Europe tightened in 2020
- ENERGY STAR<sup>®</sup> "Most Efficient" label rewards top performers
- SEAD awards for connected efficiency
- In 2020, light bulbs in U.S. required to be 60-70% more efficient than standard incandescent bulbs

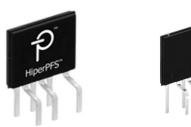




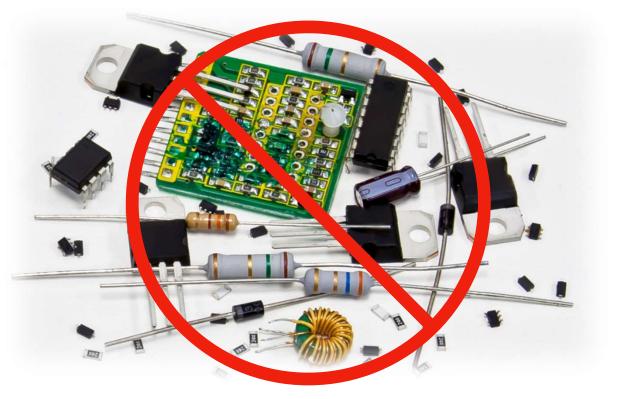
Most Efficient

# **POWI Products Reduce E-waste**

## **Two Hiper™ ICs replace up to 100 components**







# Power integrations<sup>m</sup>

power.com

