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EUROPE

11 – 13.6.2024
NUREMBERG, GERMANY

mesago

GaN – Wide Bandgap Design, the Future of Power

Llew Vaughan-Edmunds
Senior Director – Product Management

Navitas

GaN Wide Bandgap Design, the Future of Power

Bodo's PCIM Panel

Llew Vaughan-Edmunds
Senior Director of Product Management

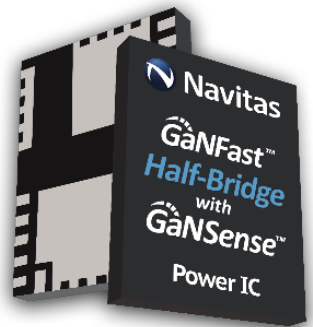
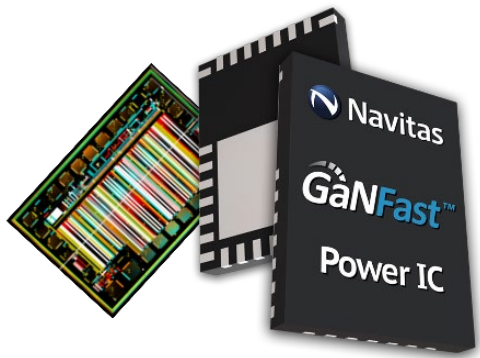
12th June 2024





Pure-Play, Next-Gen Power Semiconductors

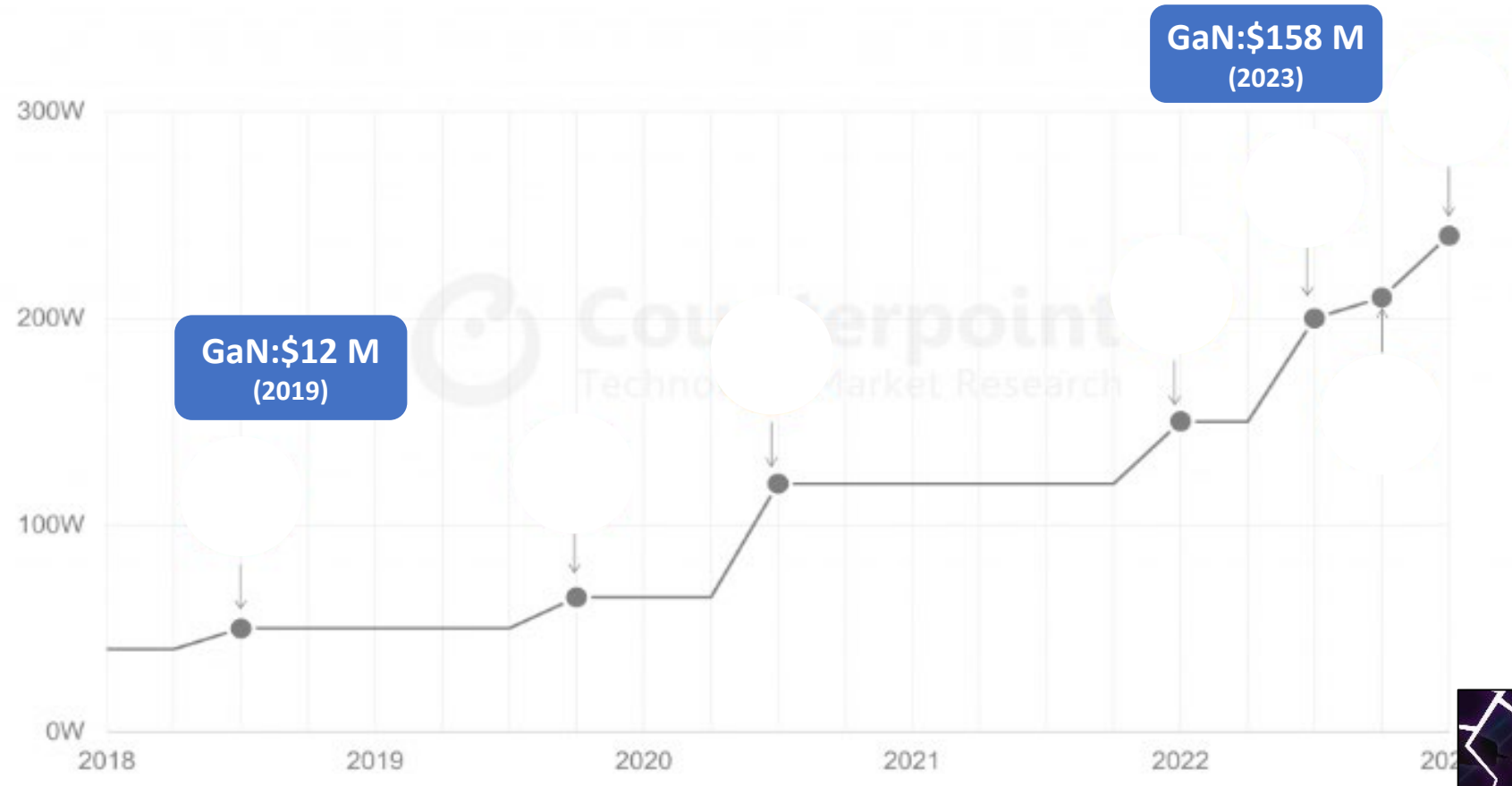
175,000,000+
Shipped



Accelerating Mobile Chargers

GaN:\$1.3 B
(2028)

Fast Charger Milestones in Terms of Wattage



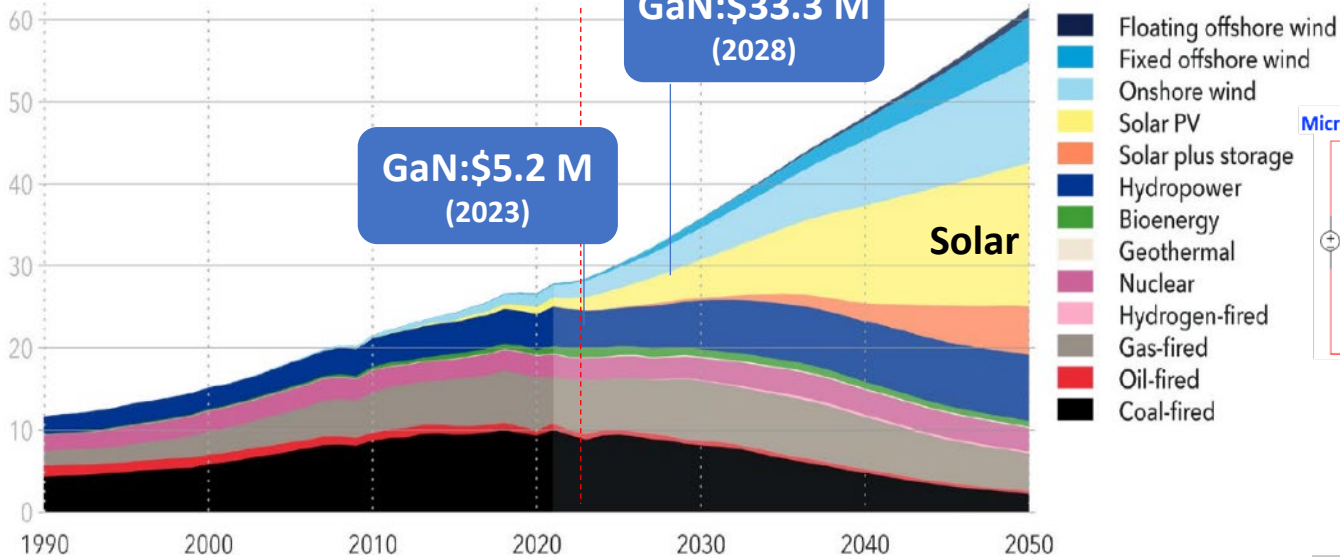
Source: Counterpoint Research

1. Chart from Counterpoint Technology Market Research, published July 2023 (<https://www.counterpointresearch.com/insights/fast-charging-global-smartphone-sales-q1-2023/>). Design wins claim per Navitas press releases.

Accelerating Solar/Storage

World grid-connected electricity generation by power station type⁽¹⁾

Units: PWHr/year



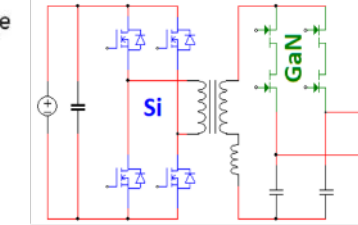
- Global electricity supply +2.3x by 2050⁽¹⁾
- Solar / ESS up from ~2% to 38%⁽²⁾
- Energy storage critical to balance supply/demand

1. DNV Energy Transition Outlook 2022, updated January 2023. Grid-connected energy supply estimated to increase from 27 to 62 PWH/year.
 2. DNV: Solar/ESS grows to 38% of supply by 2050. Historical data per IEA WEB (2022), GlobalData (2022)

400-550 W (1.6m²) Solar Panel

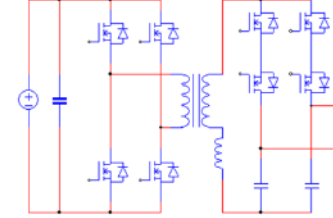


Micro Inverter with 2x Bi-Directional GaN:



1 MHz F_{sw}

Micro Inverter with 4x Silicon:



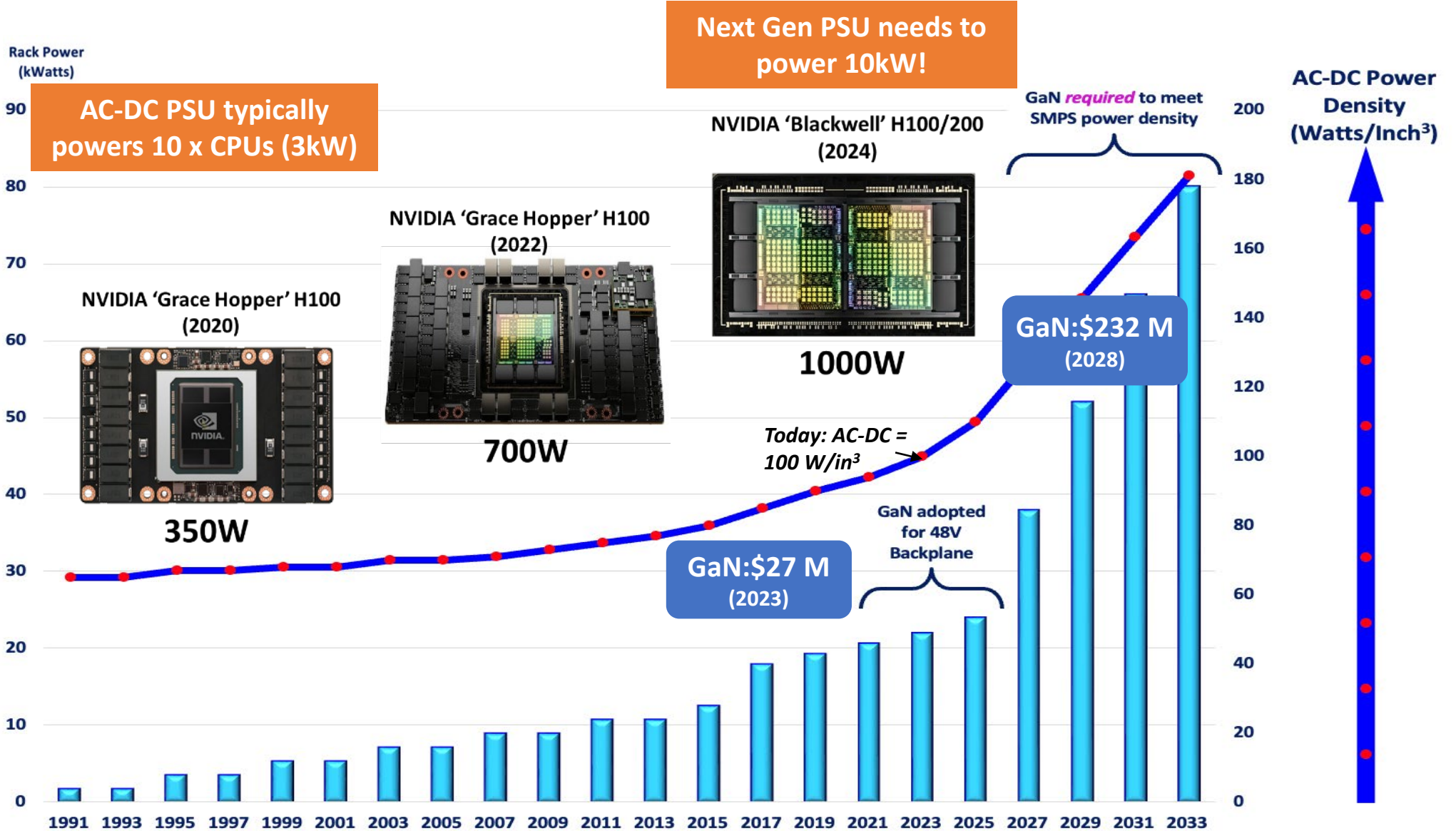
200 kHz F_{sw}

8 panels instead of 12 for 2500 sq. ft. home

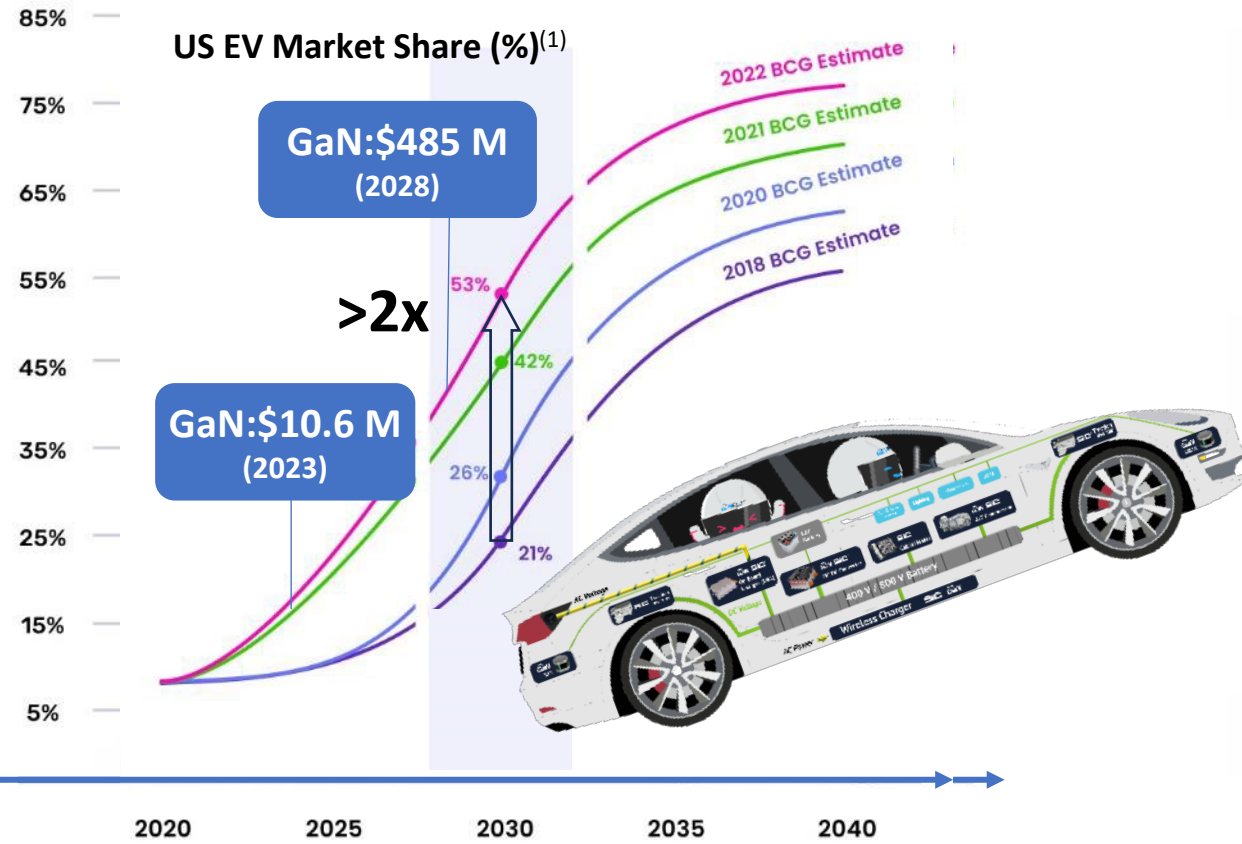
AI driving power, and power density



AUTONOMOUS VEHICLES
4000GB



Accelerating EV: Faster Charging (OBC and Roadside)



1. Chart BCG, via <https://www.recurrentauto.com/research/ev-adoption-us>
 2. <https://jolt.energy/whats-the-difference-between-ac-dc-and-ultra-fast-charging/>

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for the
attention!**

I'm pleased to answer your
questions: example@mail.com

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demand on the
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