



The San Francisco Bay Area IEEE Power Electronics Society (PELS) and the Electronics Packaging Society (EPS) are very pleased to invite you to:

# Integrated Power – A Virtual Panel Session

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<https://www.navitassemi.com/news/>



<http://www.lionsemi.com/>

**Date:** Thursday, October 22, 2020

**Time:** 4:30pm to 6:30pm PDT

**Location:** Virtual Meeting (invite sent out prior to the event to those pre-registered)

**Cost:** **FREE to all!!!**

REGISTRATION LINK: <https://pelsvirtualintegratedpowerpanel.eventbrite.com>

**NOTE:** Event virtual meeting info sent 24-48 hrs prior to event time only to those pre-registered.

PELS WEBSITE LINK: <https://ewh.ieee.org/r6/scv/pels/index.html>

EPS WEBSITE LINK: <https://eps.ieee.org/>

## Panelists:

- Steve Allen, Sr. Director, pSemi (a Murata Company)
- Kirk Bresniker, HP Labs Chief Architect / HPE Fellow / VP, HPE
- Wonyoung Kim, Co-Founder and CEO, Lion Semi
- Stephen Oliver, VP Corporate Marketing and Investor Relations, Navitas
  - Supported by Dan Kinzer, COO and CTO, Navitas
- Noah Sturcken, CEO, Ferric
  - Supported by Joe Meyer, Product Director, Ferric

Each panelist will provide a short, position presentation, which will be followed by an interactive panel session and **LIVE Q&A** from the audience. (Please see full speaker talk titles and bios below.)

## Event Abstract:

Power Systems on Chip (PSoC) have evolved significantly over the past decade or two and have made inroads into mass production. Between integrated magnetics and switched-capacitor ICs, there are many options for integrated power available today. Solutions have been used in mass-market cell phones, telecommunications hardware and more.

Our speakers will discuss specific technologies they've developed to help miniaturize power supplies and push higher power density. We will then have a discussion comparing and contrasting the technologies, and field questions about how they can be used in applications.

## **About the speakers:**

### Speaker 1: **Steve Allen, Sr. Director, pSemi (a Murata Company)**

- ***“Architectural innovation using hybrid architectures accelerates the role of 3D packaging in power conversion to shrink form factors and improve performance”***
- Steve Allen has 40 years of experience in power conversion with approximately 20 years in power modules, and then the remainder in power management ICs, with three startups: Enpirion, Powervation and MIT spinout Arctic Sand – now acquired by Murata/ through their pSemi RF semiconductor division. He currently leads the power semiconductor business unit developing bucks, boosts and charge pumps based on Arctic Sand technology, using advanced packaging technology. He holds an MBA with distinction from Bournemouth University, and BSEE at Portsmouth.

### Speaker 2: **Kirk Bresniker, HP Labs Chief Architect / HPE Fellow / VP, HPE**

- ***“Oh, Inverted World! New Architectures for maximizing the potential of every single byte: The hypercompetitive enterprise is digital, data is the new oil, real time is the new just in time. As data the term “data center” becomes an anachronism, how do we satisfy the confluence of infrastructure, energy and information supply chains to admit all that data to real time decision making while still obeying the laws of nature, economics, and society? Oh, and Moore’s Law is ending, it’s time to read the last page of his paper.”***
- Kirk Bresniker is Chief Architect of Hewlett Packard Labs and a Hewlett Packard Enterprise Fellow and Vice President. He joined Labs in 2014 to drive The Machine Research and Advanced Development program, leading teams across Labs and across HPE business units with the goal of demonstrating and evangelizing the benefits of Memory-Driven Computing. Prior to joining Labs, Kirk was Vice President and Chief Technologist in the HP Servers Global Business Unit representing 25 years of innovation leadership. Kirk current holds 28 US and 10 foreign patents in areas of modular platforms and blade systems, integrated circuits, and power and environmental control. He graduated in 1989 Cum Laude from Santa Clara University Humanities Honors program with a BSEE.

### Speaker 3: **Wonyoung Kim, Co-Founder and CEO, Lion Semi**

- ***“Switched-Capacitor Power ICs in Mobile Devices: How switched-capacitor power ICs have become crucial to enabling fast charging and reducing power and heat dissipation inside latest mobile devices”***
- Wonyoung Kim is co-founder and CEO of Lion Semiconductor, a power IC startup based in San Francisco with offices in Korea and China. Lion Semiconductor has shipped more than 50 million switched-capacitor power ICs to top tier smartphones, leading the market in switched-capacitor power ICs and expanding rapidly to many high volume customers.

### Speaker 4: **Stephen Oliver, VP Corporate Marketing and Investor Relations, Navitas**

- **Supported by Dan Kinzer, COO and CTO, Navitas**
- ***“GaNFast Power ICs: Integration is the Game-Changer – Integration enables high-frequency power conversion (note gate-source loop inductance, autonomy, system- and self-protection) and the ability to shrink passive components like transformer, EMI filters, output capacitors – to deliver solutions that can charge 3x faster in half the size and weight of old, slow, silicon solutions.”***
- Stephen Oliver is VP Corporate Marketing & Investor Relations for Navitas Semiconductor. He has over 25 years’ experience in the power semiconductor and power supply industries in computing, industrial, automotive and telecom markets with Motorola and Philips (NXP) in the UK, and International Rectifier

and Vicor in the USA. He holds a Bachelor of Engineering (with Honours) in Electrical & Electronic Engineering from Manchester University, UK and an MBA in Global Marketing & Strategy from UCLA, USA. Stephen holds several patents in power semiconductors, is a Chartered Engineer and has been VP, President and Chairman of the Power Sources Manufacturers' Association (PSMA).

- For 25 years Dan Kinzer has led R&D at semiconductor and power electronics companies at the VP level or higher. His experience includes developing advanced power device and IC platforms, wide bandgap GaN and SiC device design, IC and power device fabrication processes, advanced IC design, semiconductor package development and assembly processes, and design of electronic systems. Before Co-founding Navitas, Dan served as VP R&D, VP Advanced Product Development, and Chief Technologist at International Rectifier, and SVP Product & Technology Development and CTO at Fairchild Semiconductor. Dan holds over 100 US patents, and a BSE degree in Engineering Physics from Princeton University.

Speaker 5: **Noah Sturcken, CEO, Ferric**

- **Supported by Joe Meyer, Product Director, Ferric**

- *"The Roadmap for High Density Power: 3D Integration – Next generation SoCs will have local current density approaching 8A/mm<sup>2</sup>. This requirement can only be met through vertically integrated power solutions."*
- Noah Sturcken has focused on the integrated power conversion with CMOS for over a decade. Dr. Sturcken is a founder and CEO of Ferric, which sells integrated voltage regulator products and related technologies. Dr. Sturcken holds a PhD from Columbia University and has over 25 publications and patents, primarily related to CMOS integrated power conversion.
- Joseph Meyer received his B.S. in Electrical and Computer Engineering from Olin College of Engineering (2012) and his M.S. in Electrical Engineering from Columbia University (2013). In 2014, he joined Ferric Inc. as a mixed signal circuit designer with a focus on the control and regulation of dc-dc power converters. Currently at Ferric, he works as Product Director, where he determines the performance requirements for package voltage regulators.