

PowEr Up!

The Latest on Powering
Next-Gen Solutions



December 2017: Power over Ethernet Newsletter
For Microsemi Sales, FAEs, Rep and Distribution Only

[PoE Midspans and Switches](#) | [PoE PSE ICs](#) | [PoE PD ICs](#) | [Empower Partner Program](#)

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Greetings, Microsemi Sales and Channel Partners!

Welcome to the first issue of our quarterly newsletter: **PowEr Up!**

This is your source for the latest Microsemi PoE products, technology, home-grown best practices, events, and more!

PowEr Up! is intended to be informative and educational, and aims at helping you succeed even in the most demanding PoE market segments.

There's been no better time to promote [Microsemi PoE Solutions](#) to customers. Find out why by reading on!

If you have any queries or wish to send your recommendations for upcoming editions of our newsletter, please feel free to email us at poe@microsemi.com. We will be happy to hear from you.

The Microsemi PoE Team

What's New! Outdoor PoE Midspans/Injectors

We are happy to introduce you to our new PoE midspans, bringing the highest durability in outdoor PoE innovation. Our new outdoor PoE midspans—the [PD 9001GO-ET/AC](#) and [PD 9501GO-ET/AC](#)—are purpose-built for extreme outdoor environments such as outdoor Wi-Fi and security deployments. [Read more...](#)



What's Hot! V2R4 Revision of Gen6 PSE Chipset

We recently announced the highly anticipated V2R4 revision of our Gen6 PSE chipset, the [PD69208M](#), [PD69208T4](#), and [PD69204T4](#). This Revision E raises the quality bar by addressing issues in the previous versions of our chipsets. [Read more...](#)

Product/Technology/Process Updates

New Outdoor PoE Midspans/Injectors

We are happy to introduce you to our new PoE midspans, bringing the highest durability in outdoor PoE innovation. Our new outdoor PoE midspans—the [PD 9001GO-ET/AC](#) and [PD 9501GO-ET/AC](#)—are purpose-built for extreme outdoor environments such as outdoor Wi-Fi and security deployments. This is where the “ET” family gets its name: ET stands for extended temperature.



Primary features include:

- 1-port IEEE 802.3at 30 W and 60 W outdoor midspans
- 10/100/1000 BaseT Ethernet supported data rates
- Ability to withstand extreme temperatures (–40 °C to 65 °C)
- Compact IP67 outdoor design
- Surge protection
- Safety, electromagnetic emission, and immunity

Specifically designed to improve network longevity, our new ET midspans are here to replace the previous non-ET versions. The PD-9001GO-ET/AC replaces the PD-9001GO/AC-NA and PD-9001GO/AC-IN, and the PD-9501GO-ET/AC replaces the PD-9501GO/AC-NA and PD-9501GO/AC-IN.

The ET devices provide the following improvements over the older GO family:

- –40 °C to 65 °C extended temperature range (versus 55 °C for the GO)
- IP67 outdoor rated (GO was IP66)
- Metal enclosure (GO enclosure was plastic)
- 40% smaller in size (compared to GO)
- AC input via connector: one worldwide part number (2 parts in GO: NA and IN)

Additional benefits of the ET midspans:

- Ready to install
 - Plug-and-play installation
 - No need to open the unit
- Highly reliable
 - Includes integrated surge protection
 - 5-year warranty
- Vendor agnostic
 - Flexibility to use the powered devices (PDs) including Wi-Fi routers/security cameras and power cords of your choice

V2R4 Revision of Gen6 PSE Chipset

We recently announced the highly anticipated V2R4 revision of our Gen6 PSE chipset, the [PD69208M](#), [PD69208T4](#), and [PD69204T4](#). This Revision E raises the quality bar by addressing issues in the previous versions of our chipsets.

- Solves VOP issue with die metal layers
- Meets absolute storage temperatures of up to 150 °C by reinstating Cu bond wires (replacing Au wire bond)
- Improves product function with no impact to form, fit, or reliability
- Reduces STI and EOS-related failure rate (seen at customer production sites and the field) by implementing enhanced ATE screening.



About Gen6 PSE Chipsets

Microsemi's PD69208/4x PoE and Power over HDBaseT (PoH) manager chip integrates power, analog, and state-of-the-art logic into a single 56-pin, plastic QFN package. The device is used in Ethernet switches and midspans to allow network devices to share power and data over the same cable.

The PD69208/4x device is an 8/4-port, mixed-signal, high-voltage PoE/PoH PSE manager with the following key features:

- Supports standard PD detection, power-up, and protection per IEEE 802.3 and the HDBaseT standards, as well as legacy/pre-standard PD detection
- Provides real time protection of PD through over-load, under-load, over-voltage, over-temperature and short-circuit mechanisms, and enables operation in total standalone mode, with no need for interaction with the host processor
- Executes all real-time functions as specified in IEEE 802.3at high power (at) and PoH standards, including load detection, af, at, and PoH classification using multiple classification attempts (MCA)
- Allows supply voltages between 32 V and 57 V with no need for additional power supply sources
- Powers over 4 pairs (twin PSE) based on 2 ports of PD69208/4x, enabling an extra feature for a simple and low-cost high-power PD device
- Enables ongoing monitoring of system parameters for the host software
- Simplifies the design with internal MOSFETs, sense resistors, and thermal protection

Pd69208/4x is targeted to support the new IEEE 802.3bt standard (once it is ratified) through a firmware upgrade. The PD69208MILQ will support bt Type 3 with up to 60 W of power and the PD69208T4/PD69204T4 will support bt Type 4 (up to 90 W of power).

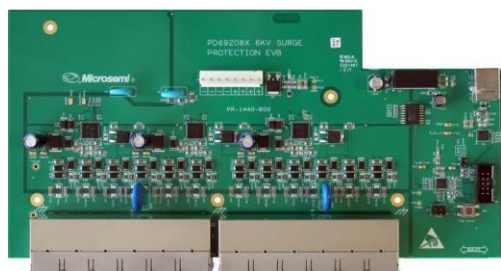
For more details on the V2R4 revision of the Gen6 PSE chipset, please contact FAE/Marketing.

Availability of New Evaluation Boards

We invite customers to evaluate our PSE and PD ICs with our wide list of evaluation boards specifically architected for Ethernet networking applications in multiple settings.

Leverage this much-needed environment to assess the performance and implementation of PSE and PD IC applications along with the necessary instructions to install and operate the boards.

The following table lists upcoming POE PSE IC evaluation boards. All boards listed are RoHS compliant.



Evaluation Boards	Description	Supported Devices
PD-IM-7624T4H-ENT	24 x 4-pair ports PD69208T4-based enhanced evaluation board. For ENT BU.	PD69208M, PD69200
PD-IM-7624MH-ENT	24 x 4-pair ports PD69208M-based enhanced evaluation board. For ENT BU.	PD69208M, PD69200
PD-IM-7608M	8-port PD69208M-based enhanced evaluation board with LED stream.	PD69208M, PD69200
PD-IM-7604+4MH	4 x 2-pair + 4 x 4-pair Type3 ports PD69208M-based enhanced evaluation board with LED stream.	PD69208M, PD69200
PD-IM-7604+4T4H	4 x 2-pair + 4 x 4-pair Type4 ports PD69208T4/PD69204T4-based enhanced evaluation board with LED stream.	PD69208T4, PD69204T4, PD69200
PD-IM-7624M-Surge	24-port PD69208M-based enhanced evaluation board. 6K V surge protection.	PD69208T4, PD69200
PD-IM-7624+12MH	24 x 2-pair + 12 x 4-pair Type3 ports PD69208M-based enhanced evaluation board.	PD69208M, PD69200
PD-IM-7624+12T4H	24 x 2-pair + 12 x 4-pair Type4 ports PD69208T4-based enhanced evaluation board.	PD69208T4, PD69200

For information on existing PoE PSE IC evaluation boards, please visit our [website](#).

The following table lists upcoming POE PD IC and ideal bridge evaluation boards.



Part Number	IC Used	Output Voltage/Current	Power (W)	Topology
PD70200EVB2x25F-12	PD70200	12 V/51 W	51	Flyback
PD70200EVB2x25F-5	PD70200	5 V/51 W	51	Flyback

For information on existing PoE PD IC and ideal bridge EVBs, please visit our [website](#).

Additional PD IC and ideal bridge reference designs have been created. For more information, please [click here](#).

Our evaluation boards are highly configurable and easy to use, enabling users to realize an optimal solution for a particular application while experiencing the rich feature set of our product portfolio.

New Customer Support Ticket System

Our Customer Applications team currently provides technical support when contacted at POESupport@microsemi.com. We have begun the migration from this email-based system to a new ticketing system, which is the case module of CRM. We are currently in a field trial stage and we expect to completely migrate from POESupport@microsemi.com to CRM cases within this quarter.

This is an exciting change that will allow us to better manage customer issues and provide a higher level of service to our customers and FAEs. Everyone will be informed once we progress from the field trial state to complete implementation. Until then, unless you are part of the field trial, please continue to use POESupport@Microsemi.com for email support.

Sales and Marketing Tools

PoE Systems Brochure

There is an ever-increasing need to support indoor and outdoor network applications demanding higher power and greater speed, while balancing lower costs and faster deployment needs. As a leading provider of end-to-end PoE ICs and midspan injectors since 1999, Microsemi's broad PoE portfolio delivers from 15 W to 95 W of full power with single- and multi-port midspans/switches and accessories. Microsemi ensures highly reliable products with significant return-on-investment for both system integrators and end-users. Download the [Microsemi PoE Brochure](#) for the complete product portfolio.

PoE for Campus Environments Brochure

With the exponential growth of mobile computing, universities, colleges, and schools are extending wireless network access across their campuses. Microsemi's advanced PoE solutions for campus networks enable fast and simple indoor and outdoor installations of WLAN access points, backhaul, small cells, and IP surveillance cameras. Check out the [Microsemi PoE Campus Environment Brochure](#) for more information.

PoE@Microsemi.com

Microsemi has been instrumental in implementing the IEEE 802.3af, IEEE 802.3at, IEEE 802.3bt, and HDBaseT standards. Microsemi continues to innovate PoE solutions with the aim of supporting newer applications demanding higher power, greater speed, and challenging indoor and outdoor specifications, while ensuring lower OpEx and faster deployment. For more information on Microsemi PoE offerings, please visit the [Microsemi website](#).

Events Calendar

Upcoming Events

- Cisco Live EMEA 2018
 - January 29, 2018
- Aruba Atmosphere N.A. 2018
 - February 25, 2018

Recent Events

- CEPTA 2017
 - November 14, 2017
- IP Expo Europe 2017
 - October 4, 2017
- ASIS 2017
 - September 25, 2017

Microsemi PoE News

Microsemi Enrolls in the Ethernet Alliance PoE Certification Plan

Microsemi has enrolled in the Ethernet Alliance PoE certification plan, which allows vendors to ship their systems for PoE certification tests. Vendors that pass these comprehensive tests will be listed on the Ethernet Alliance website and can carry the official PoE logo, similar to other alliances such as USB and Wi-Fi.

This program will elevate the user experience by minimizing market confusion between standards-based and proprietary PoE solutions. End users can expect that connecting a PSE to a PD would always work, and this program will allow customers to match certified PSEs and PDs and achieve interoperability.

More details about the program can be found at <https://ethernetalliance.org/poecert/>.

Stay tuned for upcoming press releases and updates on Microsemi certified products as they go through the PoE certification tests.

General Information

Key Contacts

If you have any questions about a product or application, need any other support to help you win business, or have any suggestions, please feel free to reach out to the following contacts.

Topic	Microsemi Contact
Product Positioning/Collateral <ul style="list-style-type: none"> • Application and competitive information • Customer presentation material and related marketing tools • Training 	Channel Marketing: Systems <ul style="list-style-type: none"> • Dianna Rao (The Americas) dianna.rao@microsemi.com • Astrid Shmueli (EMEA) astrid.shmueli@microsemi.com Channel Marketing: ICs <ul style="list-style-type: none"> • Shahar Feldman sfeldman@microsemi.com • Eli Ohana eohana@microsemi.com
Pre-Sales Technical Support <ul style="list-style-type: none"> • Field technical support 	Applications Engineering <ul style="list-style-type: none"> • PoEsupport@microsemi.com <p>Until the new CRM-based customer support ticket system is live.</p>
Business Operations <ul style="list-style-type: none"> • Quotes/CRM • Product availability • Sample requests • Lead time • Pricing • Labels • Product Weights 	Business Operations: Systems <ul style="list-style-type: none"> • PoE_BusOps@microsemi.com • Pamela Durkin (The Americas, China, Hong Kong, UAE, Dubai) pamela.durkin@microsemi.com • Ruti Yagur (EMEA, ROW) ryagur@microsemi.com Business Operations: ICs <ul style="list-style-type: none"> • PoE_BusOps@microsemi.com • Pamela Durkin (The Americas, China, Hong Kong, UAE, Dubai) pamela.durkin@microsemi.com • Ruti Yagur (EMEA, ROW) ryagur@microsemi.com

Topic	Microsemi Contact
Customer Service <ul style="list-style-type: none"> Order processing Pull-in/push-out Sales order confirmation PO status 	Customer Service: Systems <ul style="list-style-type: none"> Purchase Orders PoESystems@microsemi.com Cynthia Leung (The Americas, EMEA) cleung@microsemi.com Debbie Ung (China, Hong Kong, UAE, Dubai, ROW) dung@microsemi.com Customer Service: ICs <ul style="list-style-type: none"> Debbie Ung dung@microsemi.com
Product Orders <ul style="list-style-type: none"> Submit RFQ for pricing requests/orders 	Tactical Marketing: PoE Systems (Channels) <ul style="list-style-type: none"> Galit Mendelson galit.mendelson@microsemi.com Tactical Marketing: PoE Systems (OEMs) <ul style="list-style-type: none"> Lilian Lin (North America) lilian.lin@microsemi.com Galit Mendelson (EMEA, China, Hong Kong, UAE, Dubai) galit.mendelson@microsemi.com Tactical Marketing: PoE ICs <ul style="list-style-type: none"> Shahar Feldman (The Americas) sfeldman@microsemi.com Eli Ohana (EMEA, China, Hong Kong, UAE, Dubai, ROW) eohana@microsemi.com
Accounting/Invoices	Finance Office <ul style="list-style-type: none"> AR_PoE@microsemi.com
Sample Requests	Sample Requests: Systems <ul style="list-style-type: none"> Samples_Mid@microsemi.com Sample Requests: ICs <ul style="list-style-type: none"> Samples_IC@microsemi.com
RMA Submittal	RMA Office <ul style="list-style-type: none"> PoERMA@microsemi.com

Logistics <ul style="list-style-type: none"> Tracking numbers: POs and sample requests Ship dates Shipping documents 	Customer Service <ul style="list-style-type: none"> Purchase_Orders_PoESystems@microsemi.com
Export Compliance <ul style="list-style-type: none"> ECCN License application Written assurance form End user agreements 	Export Compliance Office <ul style="list-style-type: none"> PoE_BusOps@microsemi.com
Product Quality <ul style="list-style-type: none"> Certificates of compliance Qualification reports/reliability data Environmental data PCN inquiries 	Quality Support <ul style="list-style-type: none"> PoEQuality@microsemi.com
UL Certification	<ul style="list-style-type: none"> aveysman@microsemi.com <p>Until the new CRM-based customer support ticket system is live.</p>
Locked Document Access <ul style="list-style-type: none"> Access to datasheets and application notes (for NDA-level customers) on the website at http://ethernet.microsemi.com 	Tactical Marketing: CIS <ul style="list-style-type: none"> Galit Mendelson galit.mendelson@microsemi.com Tactical Marketing: PoE Systems (OEMs) <ul style="list-style-type: none"> Lilian Lin (North America) lilian.lin@microsemi.com Galit Mendelson (Asia-Pacific) galit.mendelson@microsemi.com Tactical Marketing: PoE ICs <ul style="list-style-type: none"> Shahar Feldman (Americas) sfeldman@microsemi.com Eli Ohana (EMEA, Asia-Pacific) eohana@microsemi.com
RoHS-REACH	Contact <ul style="list-style-type: none"> RoHS.REACH@microsemi.com
Product Technical Assistance <ul style="list-style-type: none"> Post-sales technical support Customer system troubleshooting Questions not readily answered by available documentation 	Application Support Engineering <ul style="list-style-type: none"> PoEsupport@microsemi.com <p>Until the new CRM-based customer support ticket system is live.</p>

Product Development <ul style="list-style-type: none">New product requests	Product Team: Systems <ul style="list-style-type: none">Sani Ronen sronen@microsemi.com Product Team: ICs <ul style="list-style-type: none">Shahar Feldman sfeldman@microsemi.comEli Ohana ehana@microsemi.com
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