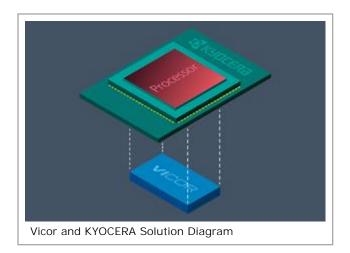
# VICOR

# Semiconductor Industry: KYOCERA and Vicor Corporation to Collaborate on Advanced Poweron-Package Solutions

April 10, 2019

## Collaboration will maximize Artificial Intelligence performance and minimize time-to-market for new processor designs

ANDOVER, Mass. and KYOTO, Japan, April 10, 2019 (GLOBE NEWSWIRE) -- Kyocera Corporation (TOKYO: 6971) and Vicor Corporation (NASDAQ: VICR) will collaborate on next-generation Power-on-Package (PoP) solutions to maximize performance and minimize time-to-market for emerging processor technologies, the companies announced today. As a part of the collaboration between the two technology leaders, Kyocera will provide the integration of power and data delivery to the processor with organic packages, module substrates and motherboard designs. Vicor will provide Power-on-Package current multipliers enabling high density, high current delivery to processors. This collaboration will address the rapid growth of higher performing processors, which has created proportionate growth and complexity in high-speed I/Os and high current consumption demands.





Vicor's Power-on-Package technology enables current multiplication within the processor package, allowing for higher efficiency, density, and bandwidth. Providing current multiplication within the package can reduce interconnect losses by up to 90 percent, while allowing processor package pins, typically required for high current delivery, to be reclaimed for expanded I/O functionality. Vicor's Power-on-Package solutions were featured at the NVIDIA GPU Technology Conference 2018 and China ODCC 2018 Summit. The Vicor advanced Power-on-Package technology enables <u>Vertical</u> Power Delivery (VPD) from the bottom side of the processor. VPD virtually eliminates Power Delivery Network (PDN) losses while maximizing I/O capability and design flexibility.

Kyocera's proprietary solutions to optimize processor performance and reliability are based on decades of experience in package, module and motherboard manufacturing for customers worldwide. Kyocera has cultivated design expertise by applying <u>Vicor's Power-on-Package</u> devices in multiple applications. By utilizing its design technology, simulation tools and manufacturing experience, Kyocera provides optimal designs for complex I/O routing, high speed memory routing, and high-current power delivery. Through collaboration, Kyocera and Vicor will bring new solutions for Artificial Intelligence (AI) and high-performance processor applications to market.

#### About KYOCERA

Kyocera Corporation (TOKYO:6971) (https://global.kyocera.com/), the parent and global headquarters of the Kyocera Group, was founded in 1959 as a producer of fine ceramics (also known as "advanced ceramics"). By combining these engineered materials with metals and integrating them with other technologies, Kyocera has become a leading supplier of semiconductor packages, industrial and automotive components, electronic devices, solar power generating systems, printers, copiers and mobile phones. During the year ended March 31, 2018, the company's consolidated net sales totaled 1.58 trillion yen (approx. USD14.9 billion). Kyocera appears on the "Derwent Top 100 Global Innovators 2018-19" list by Clarivate Analytics

and is ranked #612 on Forbes magazine's 2018 "Global 2000" list of the world's largest publicly traded companies.

## About Vicor

<u>Vicor Corporation</u> (NASDAQ: VICR) (<u>http://www.vicorpower.com</u>) designs, develops, manufactures and markets modular power components and complete power systems based upon a portfolio of patented technologies. Headquartered in Andover, Massachusetts, Vicor sells its products to the power systems market, including enterprise and high-performance computing, industrial equipment and automation, telecommunications and network infrastructure, vehicles and transportation, aerospace and defense. <u>www.vicorpower.com</u>

#### CONTACT:

Rainier Communications for Vicor Corporation (U.S.A.) Colin Boroski +1-508-475-0025 x 142 <u>cboroski@rainierco.com</u> or KYOCERA Corporation (Japan) Corporate Communications Natsuki Doi+81-(0)75-604-3416 <u>webmaster.pressgl@kyocera.jp</u> Fax: +81-(0)75-604-3516

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A photo accompanying this announcement is available at <u>http://www.globenewswire.com/NewsRoom/AttachmentNg/ecc3fc6d-421b-4552-852f-6283d789df8f</u>



Source: Vicor Corporation

Source: Kyocera Corporation