

EPC Launches a New Generation of eGaN® Technology that Doubles Performance

EPC introduces the 80 V, 4 mOhm EPC2619 GaN FET in tiny 1.5 mm x 2.5 mm footprint offering higher performance & smaller solution size than traditional MOSFETs

EL SEGUNDO, CA, USA, November 15, 2022 /EINPresswire.com/ -- EPC, the world's leader in enhancement-mode [gallium nitride](#) (GaN) power FETs and ICs, launches the 80 V, 4 mOhm EPC2619. This is the lead product for a new generation of eGaN devices that have double the power density compared to EPC's prior-generation products.

The EPC2619 has an RDS(on) of just 4 mOhms in a tiny, 1.5 mm x 2.5 mm, footprint. The maximum RDS(on) x Area of the EPC2619 is 15 mΩ*mm² – five times smaller than 80 V silicon MOSFETs.

This product is designed for a range of motor drive applications. For example: 28 V – 48 V conversion for eBikes, eScooters and power tools; high density DC-DC converters; solar optimizers; and synchronous rectification converting 12 V – 20 V for chargers, adaptors, and TV power supplies.

The typical RDS(on) x QGD, which is indicative of power losses in hard-switching applications, is 10 times better than 80 V silicon MOSFETs. This enables switching frequencies that are 10 times higher than silicon MOSFETs and without an efficiency penalty, thus producing the highest power density. This makes the EPC2619 ideal for high frequency hard-switching 24 V – 48 V applications, such as used in buck, buck-boost, and boost converters.

The typical RDS(on) x QOSS, which is indicative of power losses in soft-switching applications, is 87 mOhm*nC, two times better than 80 V silicon MOSFETs. This makes the EPC2619 ideal for soft-switching applications, such as the primary rectification full bridge for LLC-based DCX DC-DC converters.



Welcome to the next generation of eGaN® FETs



EPC2218
7 mm²

EPC2619
3.75 mm²

Superior performance, *half the size*

EPC Generation 6 GaN FET - EPC2169



This is just the first product of a new generation of discrete transistors and ICs for EPC. With the launch of EPC2619, EPC continues to keep GaN power devices on a path reminiscent of Moore's Law."

Alex Lidow, CEO & Co-Founder, EPC

"This is just the first product of a new generation of discrete transistors and integrated circuits for EPC. With the launch of the EPC2619, EPC continues to keep GaN power devices on a path reminiscent of Moore's Law," noted Alex Lidow, EPC CEO and co-founder.

Development Board

The EPC90153 development board is a half bridge featuring the EPC2619 [GaN FET](#). It is designed for 80 V maximum device voltage and 20 A maximum output current. The purpose of this board is to simplify the

evaluation process of power systems designers to speed their product's time to market. This 2" x 2" (50.8 mm x 50.8 mm) board is designed for optimal switching performance and contains all critical components for easy evaluation.

Price and Availability

The EPC2619 is priced at \$1.90 each in 2.5 Ku volumes.

The EPC90153 development board is price at \$200.00 each.

Designers interested in replacing their silicon MOSFETs with a GaN solution can use the EPC GaN Power Bench's cross-reference tool to find a suggested replacement based on their unique operating conditions. The cross-reference tool can be found at: <https://epc-co.com/epc/design-support/part-cross-reference-search>

About EPC

EPC is the leader in enhancement mode gallium nitride (eGaN®) based power management. eGaN FETs and integrated circuits provide performance many times greater than the best silicon power MOSFETs in applications such as DC-DC converters, remote sensing technology (lidar), motor drives for eMobility, robotics, drones, and low-cost satellites.

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