

Nexperia Releases the Smallest DFN MOSFETs in the World

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Nijmegen -- DFN0603 package improves performance while reducing space needs significantly



Nexperia, the expert in essential semiconductors, today announced the release of a new range of 20 V & 30 V MOSFETs in the world's smallest DFN package, the DFN0603. Nexperia already offers ESD protection devices in this package, but has now succeeded in bringing it to their MOSFET portfolio, a feat as yet unmatched in the industry.

Next generation wearable and hearable devices are incorporating new levels of artificial intelligence (AI) and machine learning (ML), creating several challenges for product designers. Firstly, available board space is at a premium as functionality is added, plus heat dissipation becomes a problem as power consumption increases.

Nexperia has drawn on its decades of experience as an industry leader in the production of discrete components and designed this innovative range of tiny MOSFETs to successfully overcome both concerns. The ultra-low-profile DFN0603 package, measuring only 0.63 x 0.33 x 0.25 mm, uses 13% less space than MOSFETs in the next smallest package (DFN0604). Impressively, this size reduction has been achieved without compromising device performance – in fact the RDS(on) of these devices has been reduced by 74%, helping to improve efficiency and thereby enabling wearable equipment designers to achieve even greater power density.

This new range of tiny MOSFETs includes:

- PMX100UN 20 V, N-channel Trench MOSFET
- PMX100UNE 20 V, N-channel Trench MOSFET with 2kV ESD protection (HBM)
- PMX300UNE 30 V, N-channel Trench MOSFET
- PMX400UP 20 V, P-channel Trench MOSFET

Nexperia has plans to add two more MOSFETs to this range later in 2022.

About Nexperia

Nexperia is a leading expert in the high-volume production of essential semiconductors, components that are required by every electronic design in the world. The company's extensive portfolio includes diodes, bipolar transistors, ESD protection devices, MOSFETs, GaN FETs and analog & logic ICs. Headquartered in Nijmegen, the Netherlands, Nexperia annually ships more than 100 billion products, meeting the stringent standards set by the automotive industry. These products are recognized as benchmarks in efficiency – in process, size, power, and performance — with industry-leading small packages that save valuable energy and space.

With decades of experience in supplying to the world's leading companies, Nexperia has over 14,000 employees across Asia, Europe and the US. Nexperia, a subsidiary of Wingtech Technology Co., Ltd. (600745.SS), has an extensive IP portfolio and is certified to IATF 16949, ISO 9001, ISO 14001 and ISO 45001.

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