

GaN IC Enables Fast Switching, Narrow Pulses For Automotive Lidar

[Efficient Power Conversion](#)'s EPC2221 is a common-source dual gallium nitride FET rated at 100 V, 58 m Ω , and 20 A pulsed. The EPC2221 can be used in lidar systems for robots, surveillance systems, drones, autonomous cars, and vacuum cleaners. The low inductance and capacitance of the EPC2221 allows fast switching (100 MHz) and narrow pulse widths (2 ns) for high resolution and high efficiency. Additionally, the ultra-small size of 1.35 mm x 1.35 mm reduces PCB cost and total solution size (see the figure).

The latest addition to EPC's family of GaN transistors and ICs designed for automotive applications, the EPC2221 has completed rigorous automotive AEC Q101 qualification testing including humidity testing with bias (H3TRB), high temperature reverse bias (HTRB), high temperature gate bias (HTGB), and temperature cycling (TC), as well as several other tests. Beyond the automotive lidar applications, the EPC2221 is also well suited for high-frequency dc-dc conversion, wireless power applications and synchronous rectification.

The EPC2221 is priced at \$1.26 for a 2.5Ku reel and available for immediate delivery from [Digi-Key Electronics](#). For more information see the EPC2221 product [page](#).

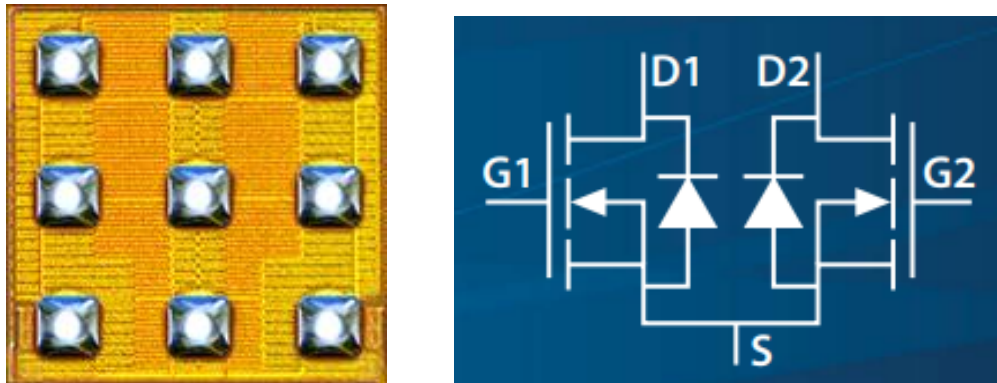


Figure. The EPC2221 is a common-source dual eGaN FET suitable for multi-channel lidar applications up to 20 Apk per channel.