

Teledyne e2v HiRel releases a new 650V/60A Bottom Side Cooled GaN FET at the industry's highest available voltage

MILIPITAS, CA – September 17, 2018 – [Teledyne e2v HiRel Electronics](#), a business unit of the [Teledyne Defense Electronics Group](#), today introduced a new [650V GaN FET device](#) that is dedicated to demanding HiRel applications. This 650V FET is the highest voltage GaN FET device currently in use in the market.

The TDG650E60 is a 650V/60A enhancement mode power transistor. It is built in a gallium nitride (GaN) on silicon process and packaged in [GaN System's](#) industry-leading *GaNPX™ Package*. This package enables very low inductance and thermal resistance in a small 11x9mm outline. The package is bottom-side cooled to offer very low junction-to-case thermal resistance. GaN System's patented "Island" technology is key to enabling high voltage, current, and efficiency.

This new Teledyne e2v HiRel plastic GaN FET is the first 650V part released from the new Teledyne e2v HiRel [Enhanced Product \(EP\) series](#) that addresses the concerns of customers in applications where ceramic packages are not required. In such applications, the cost and earliest availability of newer technologies are the highest priorities for design engineers.

Teledyne e2v HiRel GaN screening, baseline control, and a 10 year longevity support program will give customers the reliability and availability assurance they need when addressing demanding military, space, avionics, and related HiRel applications.

Releasing a HiRel 650V GaN FET is an industry milestone, giving design engineers more margin in the most demanding space and military COTS applications", said Mont Taylor, VP of Business Development for Teledyne e2v HiRel. "The non-ceramic package will allow customers to benefit from the low weight and efficient GaNPX package for the best performance in these stringent applications."

For demanding high power applications, GaN power FET technology is the newest, most efficient solution for customers. The new 650V part builds on this by offering additional differentiating benefits, including:

- Very high switching frequency
- SWaP – the device is offered in a very small package
- High voltage and high current
- High energy density
- Modular Flexibility – the parts can be used in parallel to increase current

Teledyne HiRel Electronics is able to offer samples of the new device available for review, and shipping will commence in November.

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About Teledyne e2v HiRel Electronics

Teledyne e2v HiRel Electronics innovations lead developments in space, transportation, defense and industrial markets. Teledyne's unique approach involves listening to the market and application challenges of customers and partnering with them to provide innovative standard, semi-custom or fully-custom solutions, bringing increased value to their systems. For more information, visit www.e2v.com.

About GaN Systems

GaN Systems is the global leader in GaN power semiconductors with the largest portfolio of transistors that uniquely address the needs of today's most demanding industries including data center servers, renewable energy systems, automotive, industrial motors and consumer electronics. As a market-leading innovator, GaN Systems makes possible the design of smaller, lower cost, more efficient power systems. The company's award-winning products provide system design opportunities free from the limitations of yesterday's silicon. By changing the rules of transistor performance, GaN Systems is enabling power conversion companies to revolutionize their industries and transform the world. For more information, please visit: www.gansystems.com or follow GaN Systems on [Facebook](#), [Twitter](#) and [LinkedIn](#).

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