

**Press release**

## **VisIC and AB Mikroelektronik collaboration**

*VisIC Technologies, Ltd and AB Mikroelektronik GmbH, a major player in automotive battery disconnect switches, collaborate to develop a D<sup>3</sup>GaN based high voltage solid-state battery disconnect switch for electric drive systems*

- **Reliable battery disconnect and short circuit protection is required for high voltage battery systems**
- **Fast D<sup>3</sup>GaN switching is a key advantage for a high voltage solid-state battery disconnect switch**
- **D<sup>3</sup>GaN developed for the automotive grade requirements**
- **VisIC innovative Fast Short Circuit Detection (FSCD) solution to realize fast solid-state disconnect switch, required with Li-Ion batteries**



Example: 48V solid-state battery disconnect

**Ness Ziona, Israel**

**VisIC Technologies Ltd. Nov 16, 2020, a global leader in gallium nitride (GaN) devices for automotive high-voltage applications, is pleased to announce its collaboration with AB Mikroelektronik GmbH, a major player in automotive battery disconnect switches to develop a D<sup>3</sup>GaN based high voltage solid-state battery disconnect switch with Fast Short Circuit Detection (FSCD) for future e-mobility to fulfill the functional safety requirements.**

“We are happy to collaborate with AB Mikroelektronik, which is a major player in high power automotive applications with a strong experience in solid-state battery disconnect switches. This is a big advantage in developing the next step for a 400V battery switch” said Mr. Ran Soffer, VisIC VP Sales & Marketing. “our effort to constantly serve our customers is raising the bar for high voltage, high current solutions for the EV market. Our focus for the EV industry using the D<sup>3</sup>GaN technology is enabling the future electric-drive technology to be aligned with the market needs to reduce the electric drive cost and improve its efficiency with a reliable high voltage automotive-grade technology”.

The collaboration with AB Mikroelektronik in the field of high voltage battery disconnect switches will benefit from the D<sup>3</sup>GaN capability of fast switching in safety-critical applications. In the event of a short circuit in

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the high voltage bordnet, it is mandatory to detect and disconnect the battery as fast as possible. This requires a very fast power switch and manage the short current until the short circuit is detected and disconnected.

The combination of VisIC D<sup>3</sup>GaN power switches with extremely low switching times and the VisIC's FSCD patented circuit meets the requirements to realize a reliable high voltage, high current battery disconnect switch, and to support the functional safety implementation in HV battery disconnect application.

"AB Mikroelektronik experience in high power integration using thick-film aluminum circuit boards and 48V battery disconnect switches will allow fast transfer to a high voltage prototype. Our long-standing experience in aluminum packaging for high power semiconductors will allow a fast transfer from existing solutions for 48V battery solid-state switches to a high voltage prototype. We consider GaN as a promising candidate for future e-mobility applications due to its high voltage and ultrafast switching capabilities.", said Dr. Louis Costa, AB Mikroelektronik GmbH Head of Advanced Development.

This press release and further information can be found at [www.visic-tech.com](http://www.visic-tech.com)

#### **About VisIC Technologies Ltd.**

VisIC Technologies is a world leader in GaN electronics for xEV applications, focused on high-power automotive solutions. Its efficient and scalable products are based on deep technological knowledge of gallium-nitride and decades of experience. VisIC is committed to providing a step function improvement in terms of size and cost of energy conversion systems and is dedicated to high-quality customer support at all development phases. VisIC offers high power transistor products based upon compound semiconductor Gallium Nitride (GaN) material aiming to provide products for cost-effective and high-performance automotive inverter systems.

#### **About AB Mikroelektronik GmbH.**

For more than four decades AB Mikroelektronik in Salzburg (Austria) has been developing and producing advanced high-power electronics for customer-specific applications as a recognized partner of leading automotive manufacturers.

By providing innovative solutions we focus mainly on the implementation of customer-specific design in a cost-efficient and production-ready production concept, suitable for the economic production of high volumes and global manufacturing (Design-to-cost). Especially in the field of Electromobility AB Mikroelektronik offers a wide product portfolio from electrified auxiliary units as engine control units up to DC-AC inverters for battery electrified vehicles or DC-DC converters for fuel cell-driven vehicles. Thereby a power range from some kilowatt up to more than 60 kilowatts at different voltage classes from 12 V over 48 V up to high voltage applications is covered.

