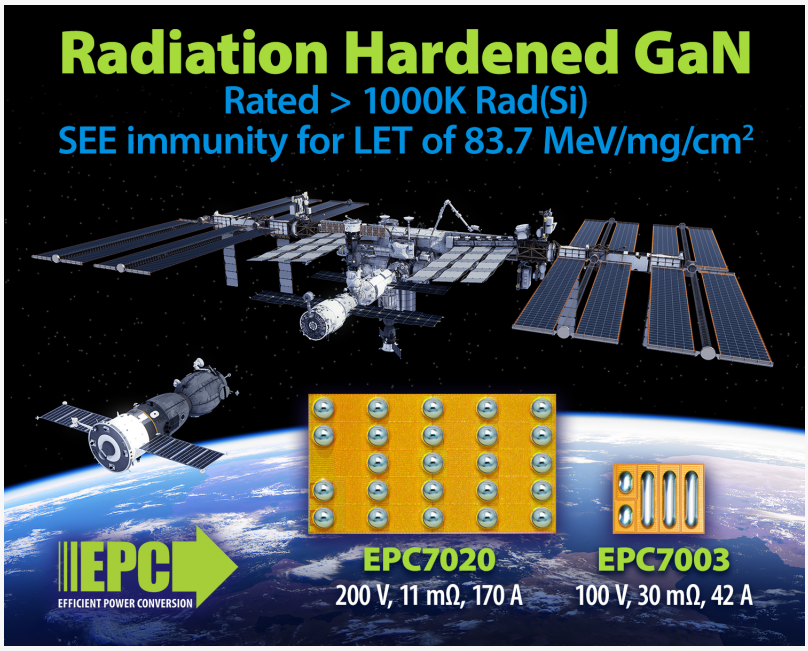
GaN Transistors Bring Newest Rad Hard Technology to Demanding Space Applications

EPC expands its family of radiation-hardened gallium nitride (GaN) products for power conversion solutions with two new devices rated at 100 V and 200 V



GaN Transistors Bring Newest Rad Hard Technology to Demanding Space Applications

EL SEGUNDO, CA, USA, April 11, 2023 /EINPresswire.com/ -- EPC announces the introduction of two new radiation-hardened GaN FETs. The EPC7020 is a 200 V, 11 mΩ, 170 APulsed, rad-hard GaN FET in a small 12 mm2 footprint. The EPC7003 is a 100 V, 30 mΩ, 42 APulsed, rad-hard GaN FET in a tiny 1.87 mm2 footprint. Both devices have a total dose radiation rating greater than 1,000K Rad(Si) and SEE immunity for LET of 83.7 MeV/mg/cm2 with VDS up to 100% of rated breakdown. These new devices, along with the rest of the Rad Hard family, EPC7019, EPC7014, EPC7004, EPC7018, EPC7007, are offered in a chip-scale package, the same as the commercial eGaN® FET and IC family. Packaged versions will be available from EPC Space.

eGaN FETs and ICs are smaller, operate 40 times better electrically, and are lower cost than the Rad Hard silicon devices typically used in high reliability and space applications. GaN devices also support higher total radiation levels and SEE LET levels than silicon solutions.

Applications benefiting from the performance and fast deployment of these devices include DC-DC power converters, motor drives, lidar, deep probes, and ion thrusters for space applications, satellites including those for LEO and GEO orbits, and avionics.

“The Rad Hard product family ranges from 40 V to 200 V and from 4 A to 530 A covering a wide range of applications in harsh environments, such as space including interplanetary scientific missions, high altitude flight, and other high reliability military applications”, said Alex Lidow, CEO, and co-founder of EPC

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>
> *Alex Lidow, CEO and co-founder of EPC*

Availability

The EPC7020 and EPC7003 are available for engineering sampling now.

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, and drones, and low-cost satellites.

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