PROJECT SNAPSHOT

CATAPULT
Compound Semiconductor Applications

GaNext

| 13 PARTNERS |
| 96% SYSTEM EFFICIENCY |
| 6X SMALLER SYSTEM SIZE |

Partners:
Cambridge GaN Devices, Advico, Besi, CSA Catapult, Fraunhofer, IMG, Infineon, Lyra Electronics, Neways, Signify, TU Dortmund, TU Eindhoven

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CSA CATAPULT ROLE
MODELLING & SIMULATION | CHARACTERISATION | SUPPLY CHAIN

Next Generation GaN Power Module

Lyra Electronics is currently producing both AC-DC and DC-DC power electronics and is limited to components available off the shelf. The GaNext project will provide Lyra with access to state-of-the-art GaN modules and allow them to push the boundaries and reduce the size and weight whilst increasing system efficiency. With expected 96% efficiency, 6x smaller size and 2x smaller weight, the new prototype will be ahead of the industry roadmap.

- Remove the barriers to adoption for GaN and fully demonstrate the higher efficiency and compactness of GaN-based systems in a range of power systems.

- Benefits are required by applications such as automotive or aviation, markets that Cambridge GaN Devices currently has no access to.

- The intelligent power module will fundamentally improve the key issues of today's GaN-based circuits.

- The full potential of GaN is unlocked by adding the high-speed control-IC with sophistication safety-features, in addition to applying an advanced heat-extraction.

PROJECT BENEFITS

Reduce system size

Reduce weight

Higher efficiency and heat extraction