

PROJECT SNAPSHOT



12
MONTH PROJECT

5
JOBS CREATED

MANUFACTURING
&
TESTING

GaN Die On Heatsink

Designing electric motor controllers with world-leading power density and minimum weight for the automotive and aerospace industries.

Partners:
YASA, CSA Catapult

CSA CATAPULT ROLE MANUFACTURING | TESTING



Power density at this level will be world-leading and will create rapid growth in YASA, benefiting the UK economy and contributing to the Driving the Electric Revolution challenge.

Aim: YASA have an innovative, patented manufacturing process for cooling the main plastic packaged power transistors in the motor controller, the aim is to push the principle further by improving the thermal and transient electrical performance of this technology.

- The focus for this project is to devise a transistor mounting method that will permit a complete 250kW motor controller with a power density of 100kW/l
- No-one has successfully created an immersion-cooled motor drive in the 250kW range in a production product, if successful, the construction method this project will be a world first
- Benefits of this technology will be across 6 sectors including: automotive, aerospace, energy, marine, off highway and rail

PROJECT BENEFITS



Supports the global drive to reduce CO2 output



Links created between the UK & major power device vendors which will support future projects.



Reduction in size will speed up time to market