

## **Design and development of a dedicated range extender engine**

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### **Abstract**

This paper presents an overview of the design and development of a range extender engine. Key attributes for the engine have been identified, these being minimum package volume, low weight, low cost, and good NVH. A description of the selection process for identifying the appropriate engine technology to satisfy these attributes is given. The resulting design highlights are described and an assessment of the achievable CO<sub>2</sub> emissions level is made based upon real world usage patterns. Finally, the development and optimisation of the engine to meet its performance targets is described, along with a presentation of the resulting performance achieved.