Case Study

Optimising prototype vehicle performance through advanced thermal management

> The system bench testing of the fully instrumented refrigerant and integrated cooling systems has enabled the customer to fully validate a host of performance criteria under carefully controlled and often worst-case boundary conditions giving them increased confidence in the production solution.

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Overview

HORIBA MIRA undertook a critical role in the prototype development of an innovative autonomous vehicle company aimed at reducing energy usage through advanced thermal management.

Faced with the challenge of integrating new design changes into ongoing prototypes, the client engaged our expertise to leverage our Vehicle Thermal Energy Optimisation Suite (VTEOS).

This collaboration was designed to validate and optimise the performance of the vehicle's thermal systems under various conditions and to ensure the designs met stringent performance and reliability standards.

Successes & Benefits

- ✅ Cost savings and accuracy improvements over traditional full-vehicle testing methods
- ✅ Efficient validation of design modifications across multiple prototype stages
- ✅ Provided advanced solutions that align with long-term technology roadmaps, enhancing client confidence in our systems and establishing long-term partnerships
- ✅ Ensured thermal management solutions were effective and seamlessly integrated with the client's overall vehicle validation and calibration processes