



# AKKA

PASSION FOR  
TECHNOLOGIES



## THERMAL PROTECTION

### YOUR EXPERT FOR THERMOGRAPHY IN RESEARCH AND DEVELOPMENT

As one of the leading providers for engineering and consulting services in Europe, AKKA supports customers in their efforts to analyze and minimize the impact of thermal loading on the vehicle. By analyzing the various drive cycles, both in climatic wind tunnels and test benches, as well as under realistic driving conditions on test tracks or public roads around the world, we can help you identify potential for improvement and will support you in realizing new concepts. Our customers benefit here from our long-standing experience in the area of thermal protection.

#### WHAT WE OFFER

All development and testing activities are covered by the one provider, namely AKKA. Our services are supported by a state-of-the-art infrastructure and equipment when carrying out the various test scenarios. An interdisciplinary approach enables us to provide this range of services to customers from the following industries:

- Automobile industry
- Construction industry
- Mechanical and plant engineering, as well as medical technology
- Electrical industry and information technology

## OUR ADDED VALUE

- Custom-planned testing schedule
- Temperature measurement using sensors and a thermographic camera (image and video)
- Non-destructive testing with thermographic camera allows for accurate and efficient quality checks
- Cost efficiency through planning, coordination and implementation of all activities in-house
- Structured preparation and documentation of test results for a transparent decision-making basis
- Recommendations for further testing and development consulting
- Inspection of the entire vehicle, as well as individual components
- Use of own trailer dynamometers



Automotive



Aerospace



Railway



Energy



Life Sciences



Telecoms



Space



Services and Informations Systems



Defence



Oil and Gas



Consulting



## EQUIPMENT

### THERMOGRAPHIC CAMERA – FLIR T1030sc

- Resolution 1024 x 768; 786,432 pixels
- Thermal sensitivity of 0.02 °C
- Temperature range: -40 °C to 2000 °C
- Image frequency of 30 Hz
- Temperature accuracy of ± 1%
- Radiometric real-time recording and streaming possible

### MEASUREMENT TECHNOLOGY

- Analog and digital measurement technology for various physical variables (air speed, pressure, temperature, etc.)
- Bus systems (CAN, LIN, FlexRay)

### SPECIAL SERVICES

- Own workshops for vehicle conversions and superstructures (suitable for prototypes)
- Test documentation and reports
- Identification of improvement potential and possible weaknesses
- Release recommendations
- Improvement recommendations
- Benchmark analysis
- Validation of heat-generating and adjacent components
- Validation of simulation results using test drives (climatic wind tunnel or road)
- Global hot- and cold-climate country validation

### HEAT DEVELOPMENT OF VEHICLE SEAT HEATING (FLIR T1030SC)

