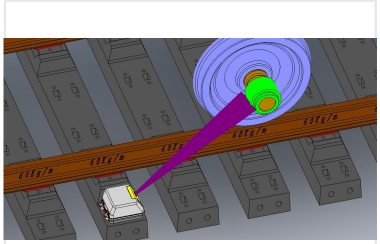
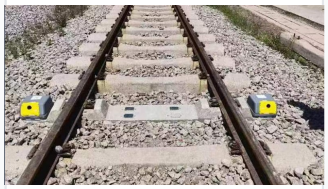
Hot Axle Box Detector for Railway Monitoring

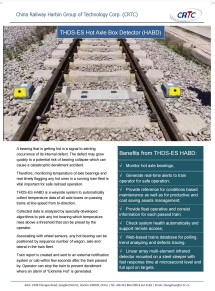
This hot axle box detector is a wayside system that automatically collects temperature data from all axle boxes on passing trains. It detects hot axle bearings, alerting to internal defects that could lead to bearing collapse and derailment.



ADDITIONAL IMAGES



System Overview



The system utilizes a linear array infrared detector mounted on a steel sleeper for high-precision, microsecond-level temperature monitoring.

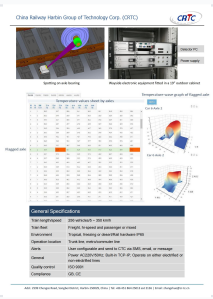
Advanced Railway Monitoring

The THDS-ES HABD is a high-performance wayside monitoring system designed to automatically detect overheating in railway axle boxes. By utilizing linear array multi-element infrared sensors, it accurately collects temperature data from passing trains at speeds up to 350 km/h in both directions. This critical safety solution provides real-time alerts and comprehensive condition-based maintenance data to help prevent derailments and catastrophic mechanical failures.

Technical Specifications

Train Speed Range	350 km/h
Max Train Capacity	256 vehicles
Power Supply	AC 220V / 50Hz
Communication Interfaces	TCP/IP, SMS, Email, Automated Messaging

Operational Capabilities



Wayside electronic equipment generates detailed temperature wave graphs and axle-specific data reports.

Compatible Train Fleets

- Freight
- High-speed
- Passenger
- Mixed fleets

Environmental Durability

Tropical • Freezing • Desert • IP65

Installation Sites	Trunk line, Metro line, Commuter line, Electrified lines, Non-electrified lines

Compliance and Quality

Quality Standards	ISO 9001, CE, GB