

Contact-free

Battery Thermal Paste Inspection



hear with light - see with sound

Xarion
laser acoustics

Fully Automated Thermal Paste Connectivity Check

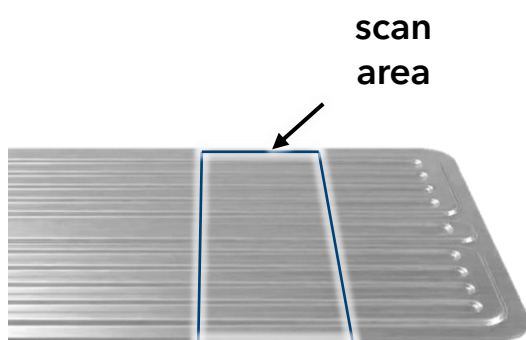
To prevent overheating, all EV battery cells in a module or pack need to be thermally connected to the outer housing for effective cooling. This is achieved by filling any air gaps with a thermal interface material, such as thermal paste, thermal adhesive, or gap filler.

XARION's contact-free, automated ultrasonic inspection solution enables fast, automated verification that all cells are thermally connected to the cooling structure, ensuring efficient heat transfer across the entire module, even in large battery packs. Unlike X-ray imaging, XARION's LEA technology does not struggle to detect even the thinnest delamination reliably.

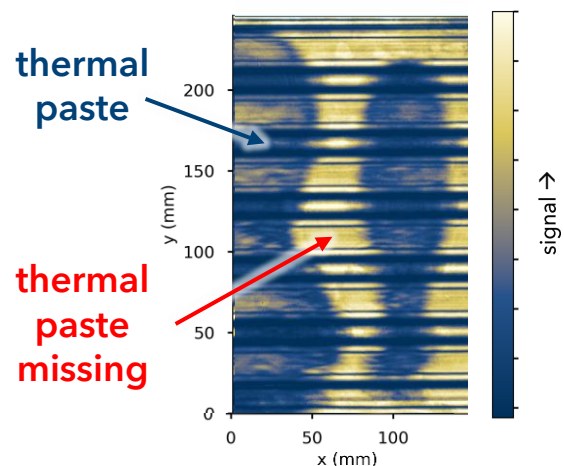
Key Features of XARION's Inspection Solution

- Imaging of thermal paste layers **even beneath cooling channels**
- **Single-sided detection** of missing or insufficient thermal paste
- **High-speed inspection** via **robot** or **linear axis**
- **Fully contact-free ultrasonic inspection** - no water, no coupling gel required
- **Automatic classification in OK/NOK** per cell or full module

Sample: Battery cooling plate



Ultrasonic inspection result



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