TTape™ Distributed Temperature Monitoring Device for Li-ion Battery Packs

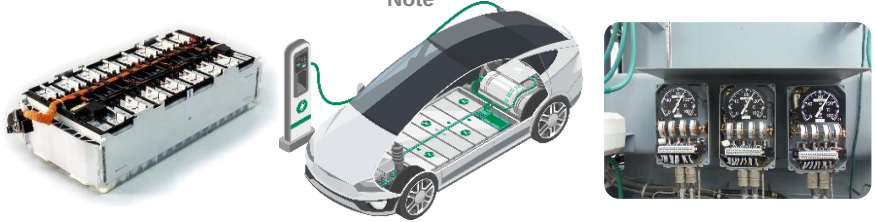
Problem/Solution

Li-ion battery packs require vigilant thermal monitoring to prevent exceeding safe operating conditions and avert battery cell degradation. Conventional temperature sensors, like NTC thermistors, lack the necessary precision and speed for critical applications.

TTape technology offers a solution by allowing multiple sensing points throughout a multi-cell pack, eliminating complications such as wire harness installation and complex programming. The TTape device utilizes a two-wire interface to immediately detect any cell surpassing a critical operational temperature, such as 60 ºC.

Technical resources *(Click on below icons to learn more)*

Series Page | Datasheet | Application Note | Video



Benefits

- Over-temperature detection of many cells or large area with a single MCU input
- Fast response time (<1s)
- Extremely thin device suitable for conformal installation
- Thickness is <500 µm

Features

- Simple integration with existing BMS solutions complementing NTCs
- No calibration or temperature lookup tables required
- Pressure-sensitive adhesive for simple and quick installation
- Suitable BMS wake-up function

Markets/Applications

- Automotive EV/HEV
- Commercial vehicles
- Li-ion battery packs
- Large area, distributed temperature monitoring

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