

simply measured.

Thermal Test Chips and Vehicles

Unleash your thermal reliabiliy testing Turnkey TTV solutions

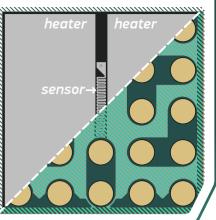


We start simple to dare the exceptional

The Thermotest product series offers a variety of off-the-shelf products and fully customized solutions. From wafers and pre-packaged thermal test vehicles (TTV) to series of specified high-end packages with customized chip configuration - Thermotest holds all possibilites for your cause.

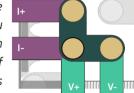
Nanotest Thermotest wafers combine robustness and flexibility by building on thin-film technology. Besides highly sensitive temperature sensors, the cells include two individual full-area heaters and four health monitoring structures to observe solder bump or wire bond integrity.

- Silicone TTC wafer
- Flip-chip assembly
- Wire bond assembly
- 2.5 × 2.5 mm² cells
 10 Ω/K sensitivity
- \square 2 × 15 Ω heaters
- 4-terminal sensing
- \Box > 11 W/mm²



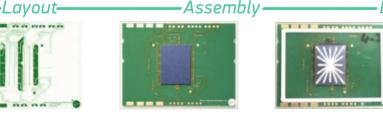
The TTV you need. No compromises.

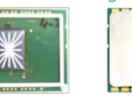
Our thermal test chip is a feature-rich breadboard. Size, heating and sensing resolution, assembly, PCB stackup, lid, stiffener ring - **it is all up to you.** Electrical 4-wire sensing for in-situ state-of-health monitoring of solder bumps



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Lidding







The most all-round TTV competence you'll find

- Concept and feasibility
- Design and construction
- Substrate stackup and layout
- Assembly and packaging
- Quality assessment
- Calibration and test
- TTV test hard- and software
- On-site setup and support

We support vendors from around the globe to improve their packages' thermal performance by offering turnkey TTV solutions with 360° service.

A free-of-charge concept and feasibility phase is part of our promise.



Lid / heat spreader TIM 1 TTC die Flip-chip assembly Substrate BGA Test board

Off-the-shelf: TTV SAC v3

Compact interface and probe current supply, ready to use with our small-scale NT16-TTV5

Berliner Nanotest und Design GmbH Volmerstraße 9B | 12489 Berlin | Germany

+49 (0) 30 6392 3880 info@nanotest.eu

learn more nanotest.eu/ttv

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