

# TΩCS<sup>®</sup>

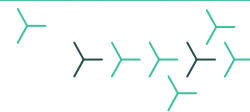
Three-Omega Characterization System



Thermal conductivity and diffusivity  
*Stunningly simple. Abundantly accurate.*



# A straightforward solution. From solids to liquids.



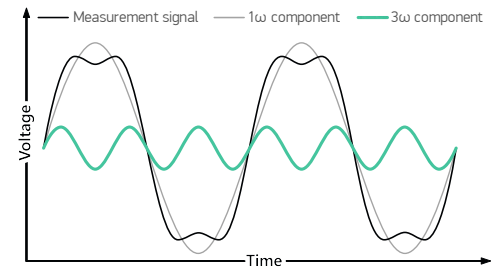
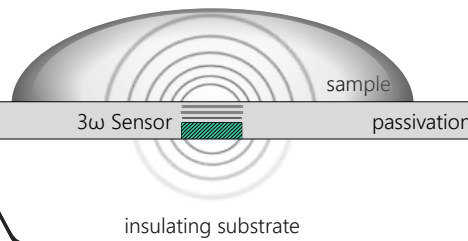
TOCS is a compact rapid characterization system for a wide range of samples from various material classes to obtain thermal conductivity and diffusivity within a few minutes.

## Sample range

- Liquids and suspensions
- Gels, pastes and oils
- Filled greases
- Pads and soft materials

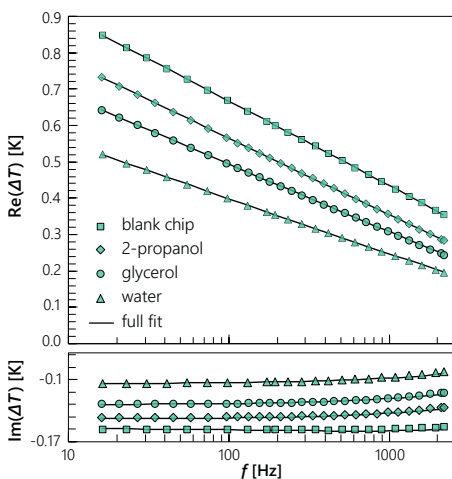
## System features

- Compact benchtop system
- Re-usable test chips
- Removable sample holder
- Complete hard- and software solution
- Compatible with any other 3-omega measurement structure

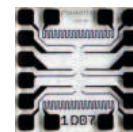


## Thermal conductivity and diffusivity

The bi-directional model fit of the 3-omega method simultaneously yields thermal conductivity and diffusivity of the tested material. Thermal conductivity, in particular, is available within a minute.



- All-in-one software suite
- Very fast measurement with high reproducibility
- Curing and non-curing materials
- Measurement in application-specific environments
  - Vacuum or protective gas
  - Elevated temperatures
  - High atmospheric pressures



Ceramic-filled thermal grease

Curing gap filler



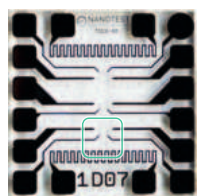
Ga-based liquid metal



Silver-filled thermal grease

## Your system, your rules

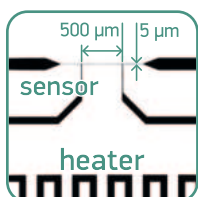
TOCS supports the use of any 3-omega-capable sensor structure plug-and-play. Out of the box. You don't have your own chips or sensors at hand?



Do not despair: We have the right one for you.

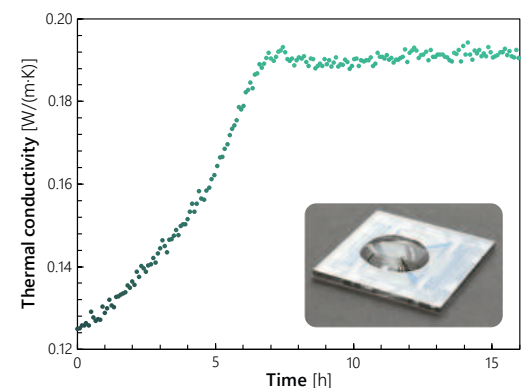
### Our chip

- Borosilicate glass chip
- 12 × 12 mm<sup>2</sup> size
- Three 3-omega sensor structures
- Two independent heaters
- Low-budget consumable



Curing and measuring in-situ yields thermal characteristics with high thermal and time resolution.

*This example is a common epoxy curing at room temperature.*



learn more

[nanotest.eu/tocs](https://nanotest.eu/tocs)

