

Do you trust your thermal cycler?

CYCLERtest is a leading manufacturer and provider of highly accurate thermocycler calibration systems and services. Through its highly accurate calibration tools CYCLERtest enables laboratories to assure its thermocyclers to perform according to specifications, in order to produce reproducible, trustworthy and technical valid PCR results. CYCLERtest is able to calibrate virtually any thermocycler, from basic PCR thermocyclers to highly advanced qPCR thermocyclers.



CYCLERtest offers these multichannel temperature validation systems for PCR and qPCR instruments:



The MTAS[®] is a highly sophisticated professional (q)PCR multi channel cycler calibration system, operating with the lowest achievable uncertainty. MTAS[®] is licensed to provide on site (q)PCR cycler calibration and certified services.



A personal temperature drift monitoring system for thermal cyclers and instruments. DRIFTCON[®] is, next to the MTAS[®] certification, the ideal tool to serve as a periodic and continuous validation instrument for your PCR tests.

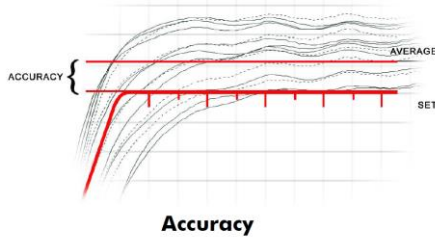


Please contact us for more information!

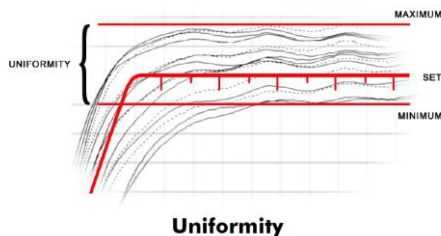
What is measured during an MTAS[®] protocol?

During an MTAS[®] standard validation protocol the following parameters are dynamically measured at different temperatures (30-95-30-90-50-70-60-30°C):

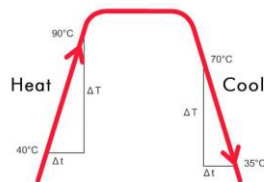
- Accuracy
- Uniformity
- Ramp Rates
- Overshoots/Undershoots
- Hold Time



Accuracy



Uniformity

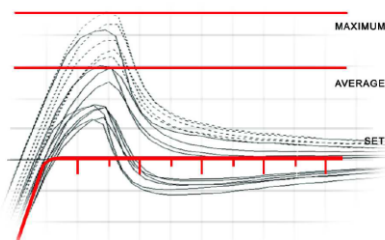


Ramp Rates

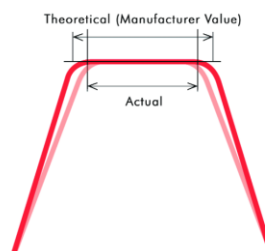
The most important measured parameters are temperature accuracy and uniformity of a (q)PCR thermal cycler block. The accuracy shows the deviation of block temperature from set temperature, while the uniformity is a measure for the spread of temperature between wells of the same block. Both parameters depend on the temperature level at which they are determined; the accuracy of a thermal cycler normally decreases at elevated temperatures, block non-uniformity becomes more severe.

In case the temperature accuracy of a thermal cycler is known to be for example -1.0°C (this implies that the target temperature is not reached), one can take this into account while developing and optimizing a protocol. For the parameter of non-uniformity this is much more difficult. However, the main advantage of a dynamic and multi-channel measurement is that it is possible to check which wells deviate too much, and avoid the use of these hot or cold wells.

The cycling speed (or ramp rate) of a PCR thermal cycler is an indication of the slopes in between the temperature holds. Differences in ramp rate can influence the course of the reaction. Some cyclers are fast, but less controllable. The material of which the block is manufactured plays an important role. Directly related to speed, is the overshoot and undershoot parameter. This is amount the target temperature is exceeded while trying to stabilize at a temperature hold. The only way to visualize this is by means of a fast, frequent and dynamic measurement.



Overshoots/undershoots



Hold time

CYCLERtest Services

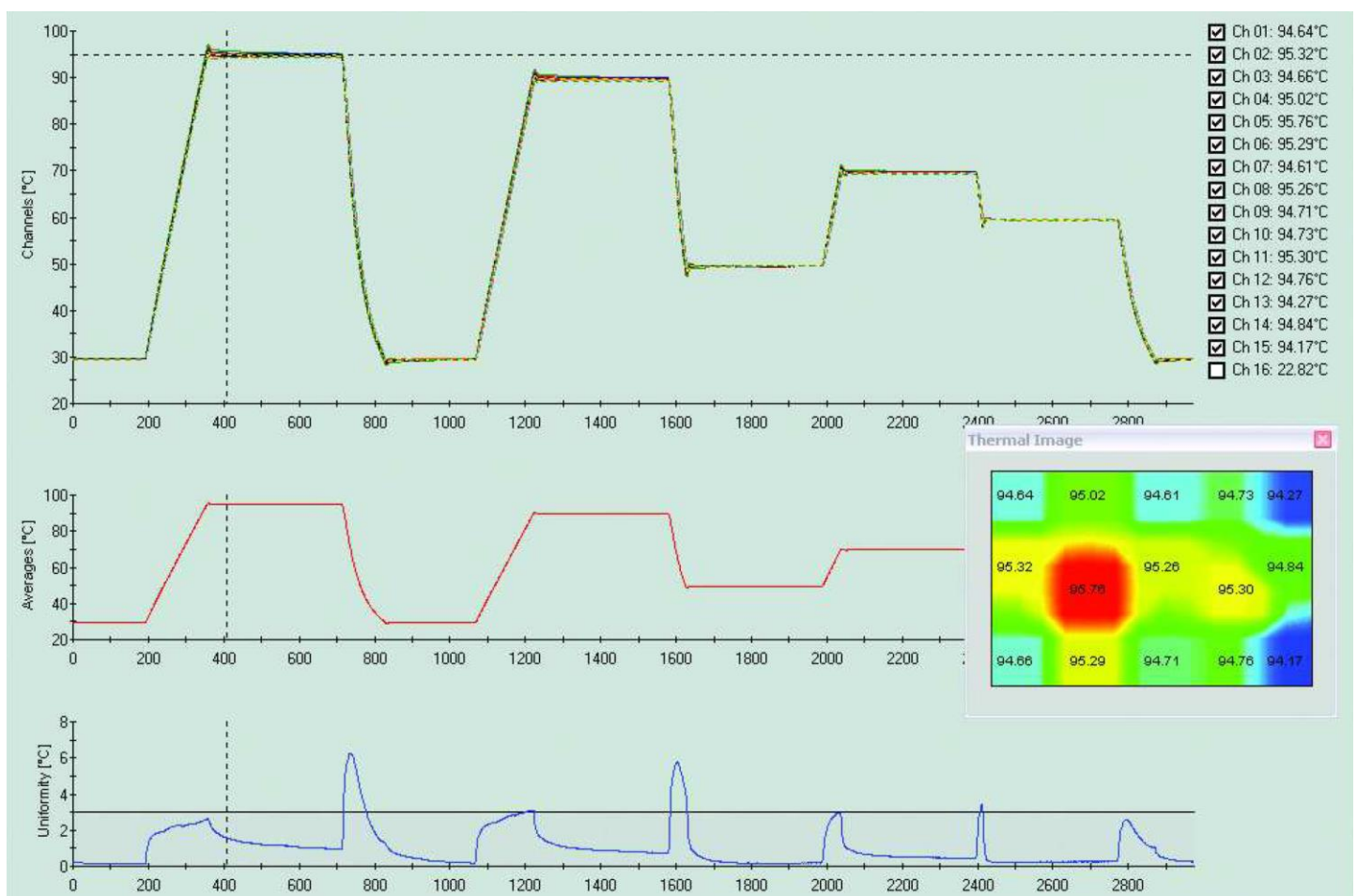
The CYCLERtest validation and calibration are either carried out on-site, or at the authorized distributor location using the MTAS[®] system. The MTAS[®] system, is calibrated against the ITS-90 standard, NIST traceable and optionally ISO17025 calibrated. Test results are analyzed and reported through an automated process, prohibiting any alterations of the acquired sample data. CYCLERtest 's policy is that only trained and certified technicians are allowed to perform validations and certifications with the MTAS[®] system.

CYCLERtest Reports

CYCLERtest results are presented in a detailed report that is generated automatically. CYCLERtest offers different report formats that differ from each other with respect to the information presented. Reports range from a compact version (10 pages), a standard version (17 pages) up to an extended version (23 pages) per cycle block. Conclusions about the test results as well as recommendations for further use of the instrument are included. Temperature data and layouts are encrypted and cannot be modified. The CYCLERtest service complies with the requirements of GLP, GMP and other quality programs.

Certificate of Thermal Validation

A "Certificate of Thermal Validation" accompanies every test report. This certificate represents the results of the measured and calculated main parameters of the tested instrument. Notice that there is no "judgement" made whether the instrument performance is superior or inferior; this is left to the end-users' interpretation and has always to be combined with the temperature robustness of the used applications.





Pipette Care is BioConcept's pipette service for servicing and calibrating all major brands including Sartorius®, Gilson®, Finnpiquette®, Eppendorf®, Rainin®, Capp®, Socorex® and others. We service and calibrate all brands, all types and all volumes.



We are proud to announce that BioConcept has been selected as Sartorius Service Partner for Pipette Service in Switzerland. BioConcept is your reliable partner for servicing and calibrating Sartorius' manual and electronic pipettes.



We have free Pipette Care Transport Boxes for the safe shipment of your pipettes available, please contact us (info@bioconcept.ch) to receive your Pipette Care box.



Reader, Washer, Dispenser and Stacker Calibration and Service:

We calibrate and service micro plate readers, washers, dispensers and stackers of the following brands:

- Dynex
- Titertek-Berthold
- Thermo Scientific