

“We tested the qTOWERiris in our lab. The device is easy to use, fast, the multiplexing works great, the curves are beautiful. And the print report is the icing on the cake. We are extremely satisfied.

Maja Studencka-Turski, Scientific Lead,
myPOLS Biotec, Konstanz

“A bonus is the gain settings to enhance the signal depending on the dye. This saves us money in assay development, as well as the freedom to choose the plastic. qTOWERiris makes our work easier in every respect – and it's super quiet too.

Maja Studencka-Turski



Life Science Solutions provided by Analytik Jena

Analytik Jena has been building PCR technology for over three decades – with Biometra brand for PCR technology and CyBio brand for liquid handling and automation. Serving researchers and routine users worldwide, we extend our support beyond providing products – acting as a reliable partner for your applications.

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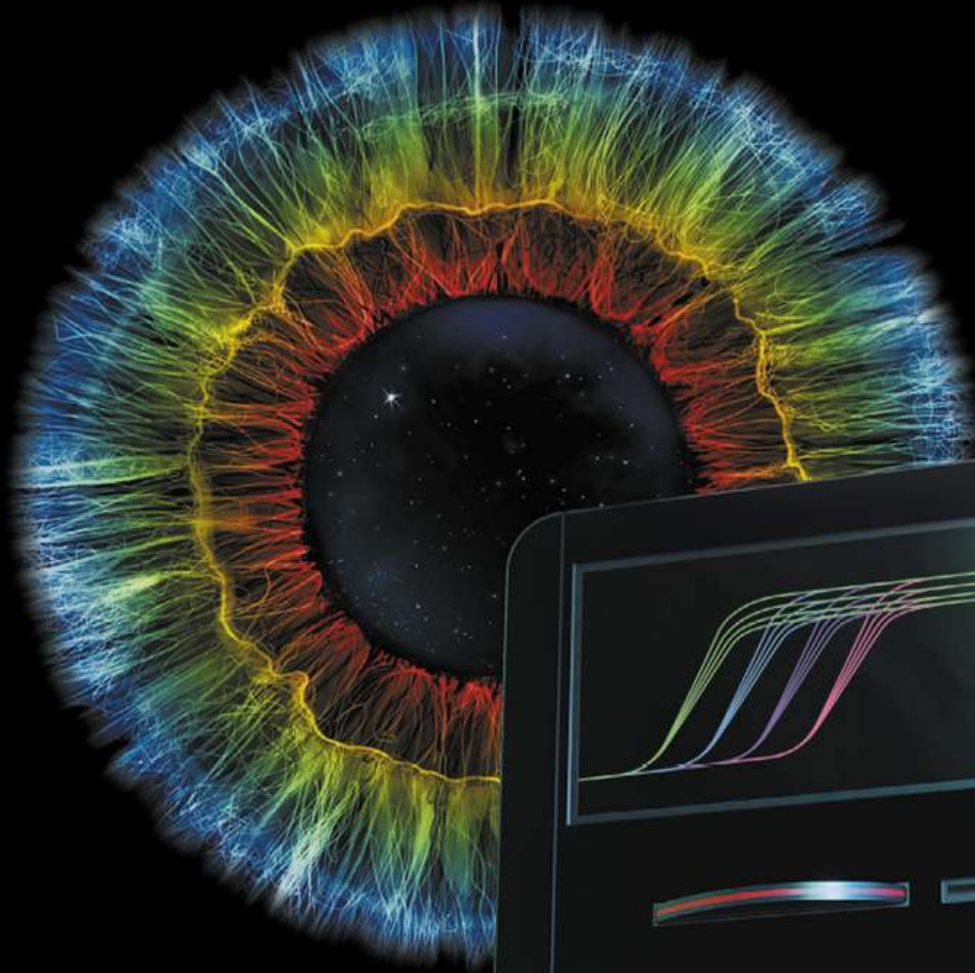
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Real-Time PCR

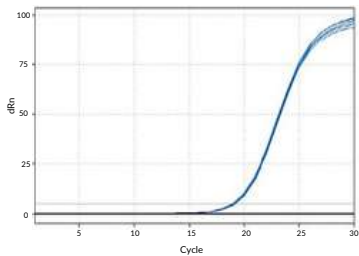


Feel free to
EXPLORE
qTOWERiris

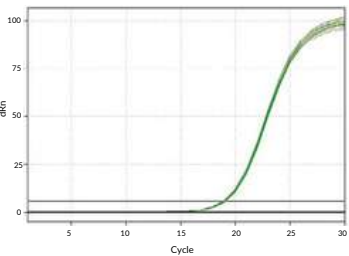


Clear Signals Across Six Channels

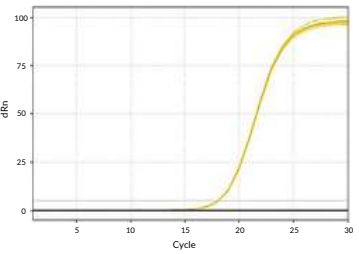
Multiplexing with the qTOWERiris allows for six targets in one go without crosstalk.



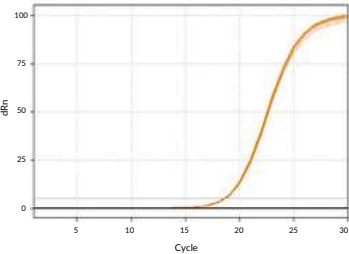
FAM™ (blue channel, color module 1)



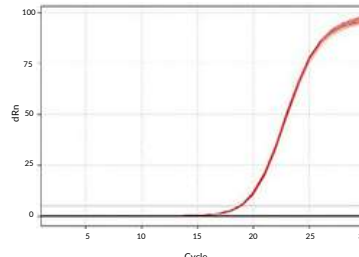
JOE™ (green channel, color module 2)



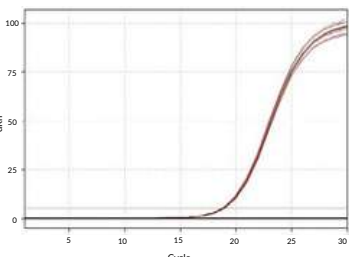
ATTO450 (yellow channel, color module 3)



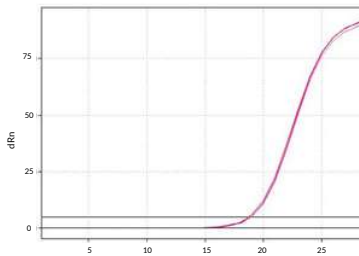
ROX™ (orange channel, color module 4)



Cy5® (red channel, color module 5)



Cy5.5® (NIR channel, color module 6)



ATTO390 (UV-A-channel, color module 7)

	Excitation	Emission
	455 ± 15 nm	515 ± 10 nm
	520 ± 10 nm	560 ± 15 nm
	550 ± 10 nm	585 ± 10 nm
	580 ± 10 nm	620 ± 15 nm
	625 ± 10 nm	670 ± 15 nm
	660 ± 10 nm	710 ± 20 nm
	375 ± 15 nm	475 ± 15 nm

The Dyes: Whatever the market has to offer

- Compatibility with current and future dyes on the market
- Recalibration not necessary for dye changes (but possible at any time)
- Selective amplification for weaker signals (software gain settings)

Multiplexing: providing for clear signals

- Choose from seven individually available color modules and a protein module
- Can be expanded as needed
- Spectral coverage from UV-A to NIR

Models and Software

The qTOWERiris is available in three variants so far, freeing you of limitations in terms of consumables. You can operate up to four devices with a single PC. We have completely redesigned our software, which remains license-free.

The equipment and consumables

- PC-controlled or s a stand alone device (touch)
- 96-well silver block or 384-well aluminum block
- All models: either UV-ready or optional later upgrade to UV
- For all types of microplates (skirted, non-skirted, half-skirted)
- Suitable for 0.1 mL or 0.2 mL volumes

The software

- New, modular, license-free
- Comprehensible PDF report
- Uses common analysis methods



PC-controlled | stand-alone device with touchscreen.

Efficient work with clear signals

The Full Spectrum

- qTOWERiris processes up to six targets simultaneously and provides clear signals across the entire spectrum – from UV-A to Near Infrared (NIR). The device comes factory-calibrated, eliminating the need for recalibration when introducing new dyes.

Free Choice

- Color modules are sold separately, and the choice of dyes and consumables is entirely yours. The device does not require recalibration for new dyes, and weak signals can be selectively amplified through software gain settings.

Ergonomics & Whisper Quiet

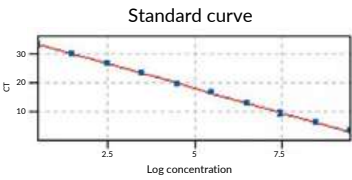
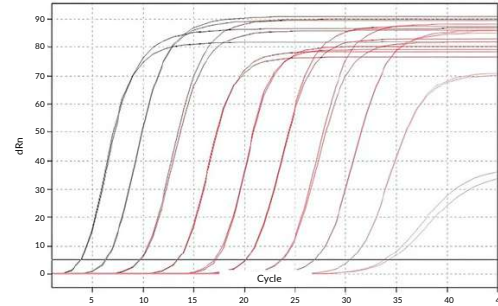
- qTOWERiris performs a self-test before each run, and the fiber optic system can be checked through Fiber check. The mechanics are faultless and operation is quiet, contributing to a peaceful lab environment.



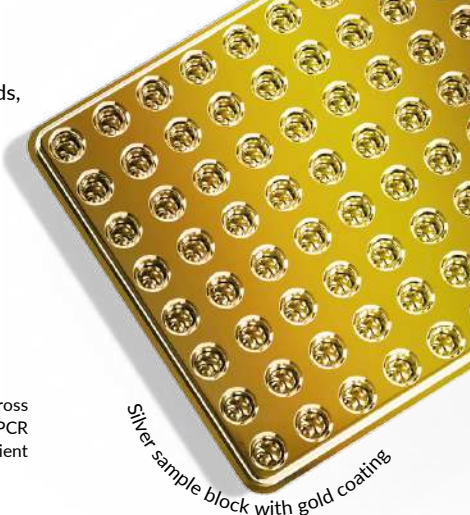
Precision in Each Well

When it comes to temperature and readout accuracy, the Real-Time PCR Instrument qTOWERiris knows no ifs, ands, or buts – as well as no edge effects.

Dynamic Range: Amplification curves of a ten-fold dilution series



An example amplification of synthetic DNA demonstrates linearity across 10 logarithmic steps, from 109 to 100 copies. The standard curve and PCR efficiency (100%) were automatically determined, as well as the coefficient of determination R² > 0.999.



Perfectly equipped - qTOWERiris

qTOWERiris puts all of Analytik Jena's qPCR experience to use and can empower your journey of discovery into the world of genetic information. And for your peace of mind, you can count on a system designed for long-term use that operates quietly and smoothly, providing uniform precision across every well.

Heating and cooling rates: Overshoot unnecessary

- The target temperature is reached precisely and quickly (high ramping rate)
- Prevents false amplification (artifacts)

Readout results: Without edge effects

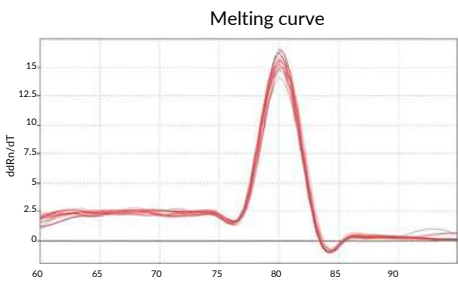
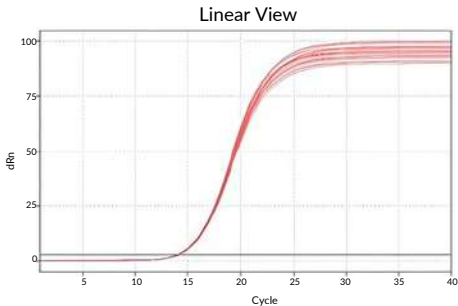
- Fiber optics moves forward column by column
- Each well is excited individually and detected from the same angle
- Homogeneous amplification plots without edge effects (compared to camera optics)

Heat conduction: Uniform for every well

- Gold-coated silver (for the 96 block)
- Top conductivity (twice as effective as aluminum)
- Homogeneous temperature distribution across the entire block
- Deviation of ± 0.15 °C (Market standard: up to ± 0.4 °C)

Linear Gradient Tool: Faster assay completion

- Allows for the testing of various temperatures column-wise in the same run
- Offers precise adjustments in increments as small as 0.1°C



Amplification of an *E.coli*-specific target sequence in 96 wells, the mean Ct value was automatically determined to be 14.04 with a standard deviation of 0.04.

Technical Data

	qTOWERiris qTOWERiris touch	qTOWERiris 384
Sample block capacity	Silver sample block with gold coating 96 wells suitable for 0.1 mL and 0.2 mL format consumables with optical sealing	Aluminum sample block with alloy 384-well microplates with optical sealing
Sample volume	5 – 100 µL	2 – 30 µL (5 – 20 µL recommended)
Heating	Max. 8 °C/s and Ø 7 °C/s	Max. 4 °C/s and Ø 3 °C/s
Cooling	Max. 5.5 °C/s and Ø 4.5 °C/s	Max. 2 °C/s and Ø 1.5 °C/s
Temperature setting range	4 °C to 99 °C	
Temperature uniformity	± 0.15 °C at 55 °C (after 15 s)	
Temperature control accuracy	± 0.1 °C	
Gradient	0.1 °C – 40 °C over 12 columns Linear Gradient Tool	0.1 °C – 24 °C over 24 columns Linear Gradient Tool
Light source	7-chip long-life power LED	
Optical detection	Highly sensitive PMT (Photo Multiplier Tube)	
Excitation/detection range	440 nm – 670 nm / 505 nm – 730 nm Incl. color module 7 (UV-A): 360 – 670 nm / 460 nm – 730 nm	
Multiplex capacity	Up to 6 targets, no passive reference necessary	
Filter configurations	Flexible filter configuration: 6 positions in the device	
Sensitivity	Detects 1 copy of target sequence	
Dynamic range	10 orders of magnitude	
Control and analysis software	PC- or touchscreen-based version	PC version
Connectivity	USB, Ethernet	
Footprint (W/D/H)	30.4 cm x 31.5 cm x 58.7 cm (12"x 12.4"x 23.1")	