



Techne® PrimeQ Real-time PCR System

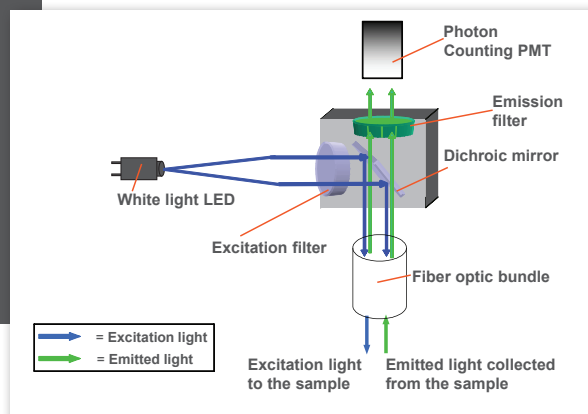
- Multiplex capability
- Open chemistry
- White LED Light source
- PMT Detector
- Optically heated lid
- Wide Dynamic Range
- High Sensitivity
- QuanSoft® Software
- 2 year warranty



Introducing the PrimeQ

The PrimeQ instrument has been designed with the advantage of having an open architecture and chemistry format that allows the end user full flexibility of the qPCR methods and research they wish to pursue. The ability to use a wide variety of PCR plates, seals and reagent kits helps to significantly reduce running costs.

Range of excitation/emission wavelengths 470-710nm



Single White LED Light Source

- Ensures consistent power output to each well compared to tungsten halogen lamps or other multiple LED systems.
- Provides a long life span unlike tungsten halogen lamps that require frequent replacement.

PMT (Photomultiplier tube) Detector

- PMT accurately detects photons compared to CCD cameras which are just imaging systems.
- PMT provides raw data for analysis that can be manipulated directly whereas CCD uses image comparisons interpreted by internal algorithms.

Flexible scanning mechanism

- Allows both partial and full plate reads.
- High accuracy ensures no cross talk between wells
- Full plate read in 20 seconds per filter.

Multiplex capabilities

- 4 paired excitation and emission filters housed in an individual cartridge system
- Open system to preferred chemistry and not locked in to factory calibrated dyes.

PrimeQ Analysis methods

Baseline – simple analysis method allows for correction of differences in background fluorescence

Quantification – determines absolute or relative quantity of a DNA template by measuring cycle-to-cycle fluorescence change

Dissociation curve – measures the temperature at which dsDNA denatures, called the melting temperature (T_m)

Plus/minus scoring – PrimeQ determines with ease and accuracy the presence/absence of a PCR product in a sample

Allelic discrimination – a powerful technique capable of detecting a single nucleotide polymorphism (SNP)

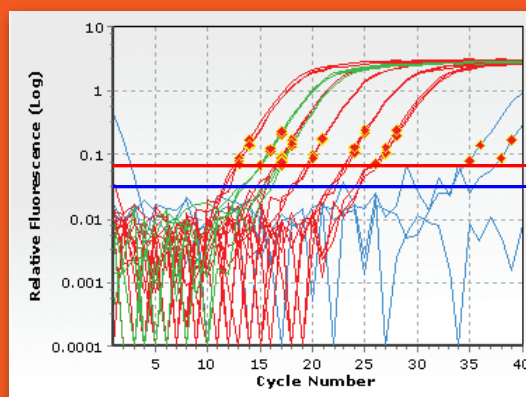
Multi-read – end point analysis method which reports the average fluorescence of a selected number of readings

Introducing Quansoft

Accompanying PrimeQ is our unique, intuitive software Quansoft. Employing four user-friendly editor functions Quansoft enables any real-time experiment to be created and analysed with ease. Quansoft is freely available which reduces running costs compared to systems providing limited licenses.

4. Results editor

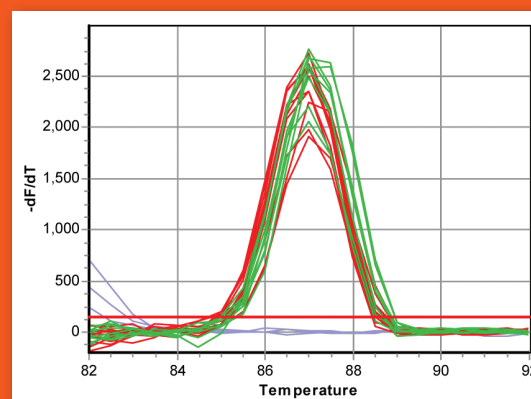
Choose your analysis method and manipulate your raw data before packaging the results in a customised report.



Quantification analysis

Using intercalating dyes or probes PrimeQ provides a wide dynamic range and high sensitivity

- Linearity of at least 9 orders of magnitude
- Detecting down to a single copy template or to achieve absolute quantification of 1nM fluorescein in a volume of 20µl.

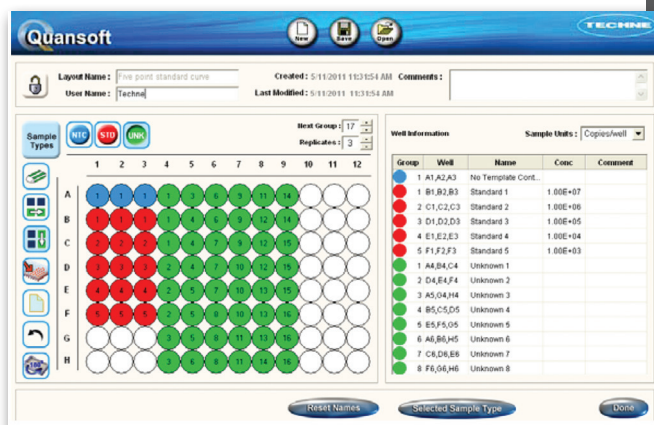


Dissociation analysis

Provides the user confident reporting in genotyping experiments and in product verification analysis.

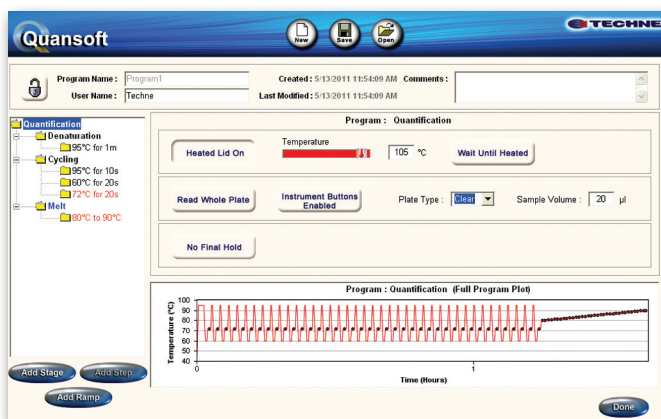
End point analysis

- Plus/minus scoring
- Allelic discrimination



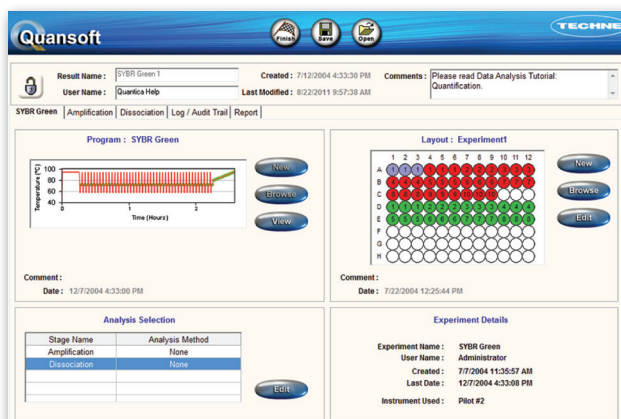
1. Plate layout editor

Define your PCR plate in seconds with colour coded sample identifications.



2. Program editor

Individual cycles and steps as well as a ramp read can be added quickly to build up and display the thermal program and read points.



3. Experiment editor

Combine thermal cycling programs, plate layouts and analysis methods to generate a new complete experiment.



Follow Techne® equipment on YouTube!

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Features

| | |
|-----------------------------------|---|
| Block format | 96 x 0.2ml |
| Block specification | 8 x Peltier block employing quad-circuit technology to enhance performance |
| Block uniformity at 50°C | $\leq \pm 0.3^\circ\text{C}$ |
| Maximum ramp rate | Up to 2.2°C |
| Temperature range | 4 to 98°C |
| Sample volume | 15 to 50 μl |
| Heated lid | Adjustable between 100 and 115°C in 1°C increments, or off |
| Maximum sample evaporation | Less than 15% volume loss from any well using the plate sealing recommended by Techne |
| PC connectivity | USB, OS Win XP SP3 or higher and Win 7 (one unit per PC) |
| Plate format | Low profile 96-well plate (skirted or non-skirted) |
| Excitation source | Solid state white light source |
| Detector | Photon counting photomultiplier tube |
| Multiplex dye detection | Up to 4 dyes per reaction tube |
| User selected filters | Maximum of 4 paired excitation/emission filter cartridge systems suitable with currently used dyes* |
| Fluorescence excitation range | 470-650nm (standard filters are centred at 485, 530, 580 and 640nm) |
| Fluorescence detection range | 500-710nm (standard filters are centred at 520, 560, 615 and 685nm) |
| Dynamic range | At least 9 orders of magnitude of target DNA concentration |
| Sensitivity (detection threshold) | 1nM fluorescein in a 20 μl sample |

* Custom filter cartridge systems available upon request

Ordering information

| Product Code | Description |
|--------------|--|
| PRIMEQ | PrimeQ real-time PCR System (supplied with filters FC02, FC03, FC04, FC05) |
| FC01 | FAM multiplex, 460nm excitation wavelength, 500nm emission wavelength |
| FC02 | Green, FAM/SYBR®, 485nm excitation wavelength, 520nm emission wavelength |
| FC03 | Yellow, HEX, 530nm excitation wavelength, 560nm emission wavelength |
| FC04 | Red, ROX 580nm excitation wavelength, 615nm emission wavelength |
| FC05 | Blue, Cy5, 640nm excitation wavelength, 685nm emission wavelength |

Online



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Product Support

If you have any questions about PrimeQ, our technical support resources can be accessed in the following ways:

- www.techne.com for technical literature and frequently asked questions.
- PrimeQHelp@bibby-scientific.com for technical and applications assistance.
- service@bibby-scientific.com for servicing enquiries.
- **+44 (0)1785 810433** for technical support.



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Bibby Scientific

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2 Year Warranty