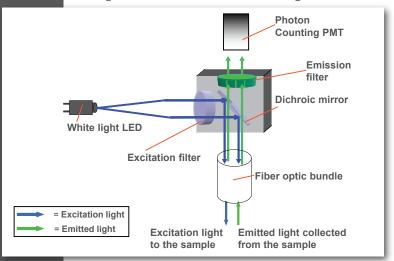


#### Introducing the PrimeQ

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. 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 is designed for accurate detection of photons compared to CCD cameras which are just an imaging system.
- 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 well reads
- Full plate read in 20 seconds per filter.

#### Multiplex capabilities

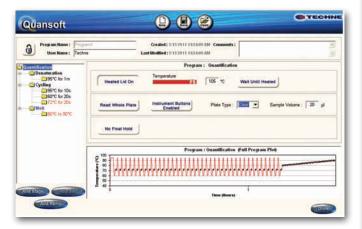
- 4 paired excitation and emission filters housed in an individual cartridge system
- Open system to preferred chemistry and not locked in to factory calibrated dyes.





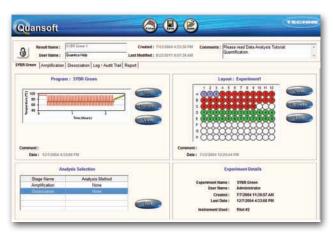
# 1. Plate layout editor

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

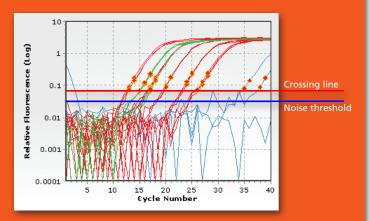
Combine thermal cycling programs, plate layouts and analysis methods to generate a new complete experiment.

# 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.

#### 4. Results editor

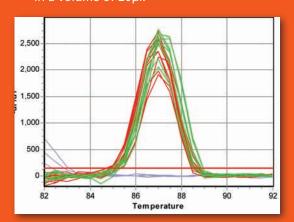
Choose your analysis method and manipulate your raw data before packaging the results in a customised report.



### 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





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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  $50^{\circ}$ :C  $< \pm:0.3^{\circ}$ C

Maximum ramp rate Up to  $2.2^{\circ}$ C

Temperature range 4 to  $98^{\circ}$ C

Sample volume 15 to 50ul

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 20ul sample

# Ordering information

Product Code	Description
PRIMEQ	PrimeQ real-time PCR System
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



Follow Techne equipment on Twitter!

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Techne videos now on Youtube!

www.youtube.com/bibbyscientific

# **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.



Find out more!!!

Please scan the QR/Mobile Tag with your smartphone for more information

www.techne.com

Bibby Scientific
www.bibby-scientific.com

**Technical Support** 

PrimeQhelp@bibby-scientific.com

<sup>\*</sup> Custom filter cartridge systems available upon request