



REAL-TIME THERMAL CYCLER

REAL-TIME THERMAL CYCLER BFJ111 BFJ112 BFJ113

REAL TIME PCR



1. Four channels and double 8-well blocks design, can run two different programs at the same time.
2. Built-in software analysis function for qualitative/quantitative analysis.
3. Forward and backward air vent design, can be placed side by side, saving laboratory space.
4. 20G flash memory can save 40,000 experimental data.
5. Adopting side scan technology, the detection distance is close, and the fluorescence acquisition signal is stable.
6. The electromagnetic lock cover technology prevents the hot lid from accidentally opening.
7. One Device Dual Uses
8. Powerful Function

SPECIFICATIONS

Model	BFJ111	BFJ112	BFJ113
Sample Capacity	16x0.2ml(2x8well, dual block)		
Formats	Clear 0.2 ml PCR tube /8-tube strips		
Reaction Volume	15-100µl		
Temperature Control Technology	Marlow customized Peltier allow 1,000,000 cycles		
Temperature Range	0-100°C		
MAX. Ramp Rate	6°C		7°C
Temp. Fluctuation	±0.1°C		
Uniformity	≤±0.25°C		
Accuracy	≤±0.25°C		
Hot Lid Temperature	30°C-110°C(Adjustable, default 105°C)		
Temperature Control	Block/Tube		
Excitation Wavelength	300-800nm		
Emission Wavelength	500-800nm		
Factory Calibrated Dyes	F1:FAM/SYBR Green I	F1:FAM/SYBR Green IF2:HEX/VIC/JOE/TET	F1:FAM/SYBR Green IF2:HEX/VIC/JOE/TET F3: ROX/TEXAS-RED F4: CY5/CY5.5/LC RED
Excitation	Long life LED		
Detection	High sensitivity photoelectric detector		
Dynamic Range	1-10 ⁹ Copies		
Sensitivity	1 copy		
Feature Function	Quantitative/qualitative analysis, Melting curve, Genotyping		
Date Export Formats	xls, csv, txt, pdf, jpg		
Printing	Report can be printed (optional USB thermal printer)		
Control Method	7 inch color TFT touch screen, can be connected to computer control		
Communication	WIFI/USB 2.0		
Dimension	300x267x198mm(LxWxH)		
Net Weight	8KG		
Voltage	220VAC, 50Hz		
Power	DC15V 255W		
Alt Name	Real Time PCR		

FEATURES

1. Four channels and double 8-well blocks design, can run two different programs at the same time.
2. Built-in software analysis function for qualitative/quantitative analysis.
3. Forward and backward air vent design, can be placed side by side, saving laboratory space.
4. 20G flash memory can save 40,000 experimental data.
5. Adopting side scan technology, the detection distance is close, and the fluorescence acquisition signal is stable.
6. The electromagnetic lock cover technology prevents the hot lid from accidentally opening.
7. One Device Dual Uses
8. Powerful Function



Air channel is in front and back and it allows machine placed side by side



Unique dual block design, one machine dual use.

REAL-TIME THERMAL CYCLER BFJ1H1 TO BFJ1H4

REAL TIME PCR



Real-time Thermal Cycler BFJ1H1

1. Four channels and double 16-well blocks design, can run two different programs at the same time.
2. Forward and backward air vent design, can be placed side by side, saving laboratory space.
3. Small size, light weight, easy to carry.
4. Powerful software analysis function, which can be used for Quantitative Analysis, Melting Curve Analysis, Genotyping, Relative quantification, and etc.
5. LED light source has the advantage of energy saving, environmental protection, long service life and maintenance free.
6. The electromagnetic lock cover technology prevents the hot lid from accidentally opening.

SPECIFICATIONS

Model	BFJ1H1	BFJ1H2	BFJ1H3	BFJ1H4
Sample Capacity	32x0.2ml(4x8well, dual block)			
Formats	Clear 0.2 ml PCR tube /8-tube strips			
Reaction Volume	15-100µl			
Temperature Control Technology	Marlow customized Peltier allow 1,000,000 cycles			
Temperature Range	0-100°C			
MAX. Ramp Rate	5°C		8°C	

Temp. Fluctuation	±0.1℃			
Uniformity	≤±0.25℃			
Accuracy	≤±0.25℃			
Hot Lid Temperature	30℃-110℃(Adjustable, default 105℃)			
Temperature Control	Block/Tube			
Excitation Wavelength	300-800nm			
Emission Wavelength	500-800nm			
Factory Calibrated Dyes	F1:FAM/SYBR Green IF2:HEX/VIC/JOE/TET	F1:FAM/SYBR Green IF2:HEX/VIC/JOE/TET F3:ROX/TEXAS-REDF4: CY5/CY5.5/LC RED	F1:FAM/SYBR Green IF2:HEX/VIC/JOE/TET	F1:FAM/SYBR Green IF2:HEX/VIC/JOE/TET F3:ROX/TEXAS-REDF4: CY5/CY5.5/LC RED
Excitation	Long life LED			
Detection	High sensitivity photoelectric detector			
Dynamic Range	1-10 ⁹ Copies			
Sensitivity	1 copy			
Feature Function	Quantitative/qualitative analysis, Relative quantitative, Melting curve, Genotyping			
Date Export Formats	xls, csv, txt, pdf, jpg			
Printing	Report can be printed (optional USB thermal printer)			
Control Method	7 inch color TFT touch screen, can be connected to computer control			
Communication	USB 2.0/ WIFI			
Dimension	300x267x198mm(LxWxH)			
Net Weight	8KG		11KG	
Voltage	220VAC, 50Hz			
Power	DC15V 255W		DC27.5V 600W	
Alt Name	Real Time PCR			

FEATURES BFJ1H1

1. Four channels and double 16-well blocks design, can run two different programs at the same time.
2. Forward and backward air vent design, can be placed side by side, saving laboratory space.
3. Small size, light weight, easy to carry.
4. Powerful software analysis function, which can be used for Quantitative Analysis, Melting Curve Analysis, Genotyping, Relative quantification, and etc.
5. LED light source has the advantage of energy saving, environmental protection, long service life and maintenance free.
6. The electromagnetic lock cover technology prevents the hot lid from accidentally opening.
7. It is two channel

FEATURES BFJ1H2

1. Four channels and double 16-well blocks design, can run two different programs at the same time.
2. Forward and backward air vent design, can be placed side by side, saving laboratory space.
3. Small size, light weight, easy to carry.
4. Powerful software analysis function, which can be used for Quantitative Analysis, Melting Curve Analysis, Genotyping, Relative quantification, and etc.
5. LED light source has the advantage of energy saving, environmental protection, long service life and maintenance free.
6. The electromagnetic lock cover technology prevents the hot lid from accidentally opening.
7. It is four channel

FEATURES BFJ1H3

1. Four channels and double 16-well blocks design, can run two different programs at the same time.
2. Forward and backward air vent design, can be placed side by side, saving laboratory space.
3. Small size, light weight, easy to carry.
4. Powerful software analysis function, which can be used for Quantitative Analysis, Melting Curve Analysis, Genotyping, Relative

quantification, and etc.

5. LED light source has the advantage of energy saving, environmental protection, long service life and maintenance free.
6. The electromagnetic lock cover technology prevents the hot lid from accidentally opening.
7. It is dual channel rapid ramp rate

FEATURES BFJ1H4

1. Four channels and double 16-well blocks design, can run two different programs at the same time.
2. Forward and backward air vent design, can be placed side by side, saving laboratory space.
3. Small size, light weight, easy to carry.
4. Powerful software analysis function, which can be used for Quantitative Analysis, Melting Curve Analysis, Genotyping, Relative quantification, and etc.
5. LED light source has the advantage of energy saving, environmental protection, long service life and maintenance free.
6. The electromagnetic lock cover technology prevents the hot lid from accidentally opening.
7. It is four channel rapid ramp rate

REAL-TIME THERMAL CYCLER BFJ1G1 BFJ1G2 BFJ1G3

REAL TIME PCR



1. Powerful software analysis functions can perform qualitative/ quantitative analysis, HRM, genotyping, etc.
 2. Automatic hot lid, which can be used with automated workstations to improve work Efficiency.
 3. PC operation, a computer can control multiple instruments.
 4. Maximum ramping rate 8°C/s, saving the test time.
 5. LED light source has the advantage of energy saving, environmental protection, long service life and maintenance free.
 6. Strong fluorescence signal, low background noise and high sensitivity.
- Configure automation hot lid, can be used with automation workstation, improve work

SPECIFICATIONS

Model	BFJ1G1	BFJ1G2	BFJ1G3
Sample Capacity	96 well, 12x8 strip, 96x0.2ml single tube		
Formats	0.2ml tube, 0.2ml 8-tube strips, 0.2ml half skirts 96 well plate		0.2ml tube, no skirts 96 well plate
Reaction Volume	10-100ul		
Temperature Range	0-105°C		
MAX. Ramp Rate	8°C		
Temp. Fluctuation	±0.1°C		
Uniformity	≤±0.2°C		
Accuracy	±0.1°C		
Gradient Speed	0.1-42°C		
Hot Lid Temperature	30°C-110°C(Adjustable, default 105°C)		
Temperature Control	Block/Tube		
Excitation Wavelength	300-810nm		
Emission Wavelength	500-810nm		
Detection Channel	2channel	4channel	6channel
Detection Method	All channels scan at the same time		

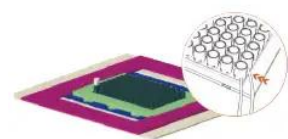
Scan Period	5 seconds to complete 96 well test		
Factory Calibrated Dyes	F1: FAM/SYBR-Green/EVA-GreenF2: HEX/VIC/JOE/TET/CY3/YELLOW	F1: FAM/SYBR-Green/EVA-GreenF2: HEX/VIC/JOE/TET/CY3/YELLOWF3: ROX/Texas RedF4: Cy5	F1: FAM/SYBR-Green/EVA-GreenF2: HEX/VIC/JOE/TET/YELLOWF3: ROX/Texas RedF4: Cy5F5: Cy5.5F6: CY3
Excitation	Long life LED		
Detection	High sensitivity photoelectric detector		
Dynamic Range	1-10 ⁹ Copies		
Sensitivity	1 copy		
Lid Operation	Automatic hot lid		
Feature Function	Qualitative/absolute quantification, relative quantification, genotyping, HRM, melting curve, standard curve, allele identification, temperature gradient function, etc.		
Data Management	Audit Trail System		
Operation System	Win7, Win10, Win11		
Remote Monitoring	Can connect to laboratory management system		
Automation Platform	Can be used with automated workstations		
Date Export Formats	excel, csv, txt pdf		
Printing	Report can be printed directly		
Control Method	PC control, one pc control several devices		
Communication	USB2.0, RS232		
Dimension	495x350x330mm(LxWxH)		
Weight	29KG		
Voltage	100-220VAC, 50-60Hz		
Power	1500W		
Alt Name	Real Time PCR		

FEATURES

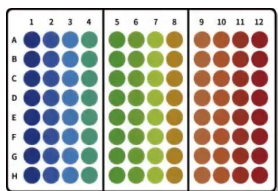
1. Powerful software analysis functions can perform qualitative/ quantitative analysis, HRM, genotyping, etc.
2. Automatic hot lid, which can be used with automated workstations to improve work Efficiency.
3. PC operation, a computer can control multiple instruments.
4. Maximum ramping rate 8°C/s, saving the test time.
5. LED light source has the advantage of energy saving, environmental protection, long service life and maintenance free.
6. Strong fluorescence signal, low background noise and high sensitivity.



Configure automation hot lid, can be used with automation workstation, improve work Efficiency



Unique side scan technology, all channels can be detected simultaneously, complete the scan of all fluorescent channels of 96 samples within 5S



Three temperature zones control, good temperature repeatability and high accuracy

REAL-TIME THERMAL CYCLER BFJ1F1 BFJ1F2 BFJ1F3

REAL TIME PCR



1. With 12.1-inch LCD touchscreen, real-time monitoring of operating conditions, and can be run offline.
2. Up to 100 projects can be preset, and it is convenient and fast to run frequently used projects with one click.
3. With temperature gradient function, 12 rows of gradient temperature settings can be realized at a time.
4. Maximum ramping rate 8°C/s, saving the test time.
5. LED light source has the advantage of energy saving, environmental protection, long service life and maintenance free.
6. Strong fluorescence signal, low background noise and high sensitivity.

SPECIFICATIONS

Model	BFJ1F1	BFJ1F2	BFJ1F3
Sample Capacity	96 well, 12x8 strip, 96x0.2ml single tube		
Formats	0.2ml tube, 0.2ml 8-tube strips, 0.2ml 96 well plate		
Reaction Volume	10-100ul		
Temperature Range	0-100°C		
MAX. Ramp Rate	8°C		
Temp. Fluctuation	±0.1°C		
Uniformity	≤±0.2°C		
Accuracy	±0.1°C		
Gradient Speed	0.1-42°C		
Hot Lid Temperature	30°C-110°C(Adjustable, default 105°C)		
Temperature Control	Block/Tube		
Excitation Wavelength	300-810nm		
Emission Wavelength	500-810nm		
Detection Channel	2channel	4channel	6channel
Detection Method	All channels scan at the same time		
Scan Period	5 seconds to complete 96 well test		

Factory Calibrated Dyes	F1: FAM/SYBR-Green/EVA-GreenF2: HEX/VIC/JOE/TET/YC3/YELLOW	F1: FAM/SYBR-Green/EVA-GreenF2: HEX/VIC/JOE/TET/YC3/YELLOWF3: ROX/Texas RedF4: Cy5	F1: FAM/SYBR-Green/EVA-GreenF2: HEX/VIC/JOE/TET/YELLOWF3: ROX/Texas RedF4: Cy5F5: Cy5.5F6: CY3
Excitation	Long life LED		
Detection	High sensitivity photoelectric detector		
Dynamic Range	1-10 ⁹ copies		
Sensitivity	1 copy		
Lid Operation	Automatic hot lid		
Feature Function	Qualitative/absolute quantification, relative quantification, genotyping, HRM, melting curve, standard curve, allele identification, temperature gradient function, etc.		
Data Management	Audit Trail System		
Operation System	Win7, Win10, Win11		
Remote Monitoring	Can connect to laboratory management system		
Automation Platform	Can be used with automated workstations		
Date Export Formats	xls, csv, txt, pdf, jpg		
Printing	Report can be printed directly		
Control Method	12.1-inch retractable color touch screen control or connect to computer control		
Communication	USB2.0, RS232		
Dimension	520x350x330mm(LxWxH)		
Weight	32KG		
Voltage	100-220VAC, 50-60Hz		
Power	1500W		
Alt Name	Real Time PCR		

FEATURES

1. With 12.1-inch LCD touchscreen, real-time monitoring of operating conditions, and can be run offline.
2. Up to 100 projects can be preset, and it is convenient and fast to run frequently used projects with one click.
3. With temperature gradient function, 12 rows of gradient temperature settings can be realized at a time.
4. Maximum ramping rate 8°C/s, saving the test time.
5. LED light source has the advantage of energy saving, environmental protection, long service life and maintenance free.
6. Strong fluorescence signal, low background noise and high sensitivity.
7. Experimental Fast
8. Simple Operation

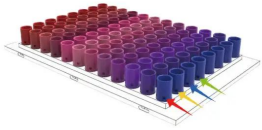
12.1" retractable color touch screen, the screen angle can be adjusted



Configure automation hot lid, can be used with automation workstation, improve work efficiency.



Unique side scan technology, all channels can be detected simultaneously, complete the scan of all fluorescent channels of 96 samples within 5S



REAL-TIME THERMAL CYCLER BFN1B1

REAL-TIME PCR DETECTION SYSTEM

The X960 Real-Time PCR system is a high-performance benchtop instrument giving you greater control of your experiment data. It delivers reliability, sensitivity, and accuracy, which is optimized to enable a broad range of quantitative PCR applications. In real-time quantitative PCR (qPCR), a PCR product is measured at each cycle. By monitoring reactions during the exponential amplification phase of the reaction, users can determine the initial quantity of the target with great precision without involving post-PCR analysis such as gel electrophoresis and image analysis.

Advanced Optical Design:

Two channel (A model) and five channel (B model) fluorescent detection system with LED light source and high resolution CCD
The optical system automatically collects data from all wells during data acquisition at the same time.
X960 can discriminate up to five targets in a single reaction well.
The optical filter sets are designed to maximize fluorescence detection for specific dyes in specific channels
Compatible with different reagent and consumables.

Strict Temperature Control:

Block utilizes advanced Peltier-based technology with high amplification efficiency
Up to 6 C/s maximum ramp rate saves your valuable time dramatically
Two independent temperature control mode- block and tube, maximize control flexibility
Excellent temperature uniformity limits the variation between wells, ensuring the accuracy of low copy sample.

Powerful Software:

X960 Manager Software accommodates individual needs with intuitive navigation and customizable settings
The software can be used for a variety of applications including absolute/relative quantification, melting curve (dissociation curve), etc
With integrated powerful visualization tools, the data is analyzed on machine directly

Humanization Design:

Advanced programming function like gradient and touch-down
The machine can be connected with PC through WI-FI or LAN
Software allows you to manage and monitor several X960s from your computer.
Low noise, low energy consumption, long life-span

Ready to Run:

Factory calibrated for optical and thermal accuracy, the instrument is delivered ready for quick installation and use.



Blocks:

Compatible with 96-well plate, 12-well strip tubes, 8-well strip tubes
High quality peltier plates ensure amplification efficiency
Standard gold-plating promotes heat conduction performance

Lid:

3D style design with well pressure distribution and heat preservation sliding track is convenient for sample operation.

Operation system:

Developed upon Linux operation system, and equipped with A8 CPU for better control experience.

Software:

Independent software analysis module

SPECIFICATIONS

Model	BFN1B1
Old Model	BTHC-307
Channel	4
Reactions per run	96
Block Format	96-well 0.2-ml
Color Combinations	4
Light source	High brightness monochrome LED
Detector	Highly sensitive cold light CCD

Detection dynamic range	10 ⁰ -10 ¹⁰
Sensitivity	Down to 1 copy
Reaction volume	15ul-100ul
Chemistry	All real-time PCR-based chemistries. Flexibility for chemistries with or without passive reference dye.
Excitation source	White LED
Excitation filters/colors	Channel1: 470nm Channel2: 525nmChannel3: 585nm Channel4: 625nm
Detection filters/colors	Channel1: 520 nm Channel2: 570 nmChannel3: 620 nm Channel4: 675 nm
Kits & Reagent	Channel1: FAM/SYBRChannel2: VIC/HEX/JOE/TET/TAMRA/CY3Channel3: ROX/TEXRADChannel4: CY5Channel5: CY5.5 (Reserved/Customized)
Block Material	Peltier
Accuracy	±0.1C
Temp Uniformity	±0.4C (10 sec after reaching 95 C)±0.2C (10 sec after reaching 55 C)
Temp Range	0C - 99C (Rt<30 C)
Max. ramp rate	5 C/s
Gradient range	300-990
PC Operation system	WindowsXP/VISTA/Windows7/Windows8/Windows10,etc
X960 Operation system	Linux
CPU	A8 processor
Network	LAN/WIFI
Multiple control	Support
Applications Available	Gene Expression, Genotyping, Copy Number Variation, Protein Detection, MicroRNA, Pathogen Detection
Size	W 592 x D 440 x H 280 mm
Alt Name	Real-Time PCR Detection System

FEATURES



Blocks:

Compatible with 96-well plate, 12-well strip tubes, 8-well strip tubes

High quality peltier plates ensure amplification efficiency

Standard gold-plating promotes heat conduction performance



Lid:

3D style design with well pressure distribution and heat preservation sliding track is convenient for sample operation.



Operation system:

Developed upon Linux operation system, and equipped with A8 CPU for better control experience.



Software:

Independent software analysis module

Intuitive software design enables easy experiment setup and an interactive system allows you to get results faster.



Robust construction:

6mm aluminium alloy main body with solid construction, nice looking curves and fresh color

Adjustable footing designed for achieving balance easily

Sliding track design of heat lid, easy to place and take samples

LED light source, deep cooling and high-resolution CCD camera

Equipped with gold-plated module, better heat conduction efficiencyIntuitive and clear operation interface, switch language versions conveniently and quickly

With gradient, Touch down, longPCR and other advanced programming functions.

WIFI or LAN connection with PC end

Multiple PCR machines' control on one PC

Customized channels for different customer requirements

REAL-TIME THERMAL CYCLER BFN1C1

FULLY AUTOMATED PCR ANALYSIS SYSTEM



Tablet operation allows real-time viewing of experimental progress and results in the distance

Ultra-high brightness monochrome LED light source, high-sensitivity cold light source CCD.

Equipped with A8 processor, the machine runs more smoothly and the experience is better

Intuitive and clear operation interface, English languages available

Multiple analysis modes

Real-time parameter setting when program is running

Convenient connection with PC via WIFI or LAN

Support outdoor work when connected with mobile power

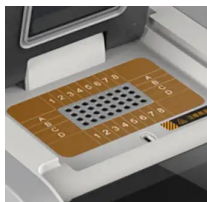
SPECIFICATIONS

Model	BFN1C1
Fluorescence acquisition channels	2
Sample holder specifications	32 wells x 0.2 ml
Fluorescence acquisition method	32-well synchronous acquisition
Light source	Super bright single color LED light source
Fluorescence detector	High-resolution deep thermoelectric cooling scientific-grade CCD
Detection dynamic range	10^0 - 10^{10}
Reaction volume	10-100ul
Fluorescence excitation wavelength	Channel 1: 470Channel 2: 525
Fluorescence detection wavelength	Channel 1: 520Channel 2: 570
Temperature control range	0°C~100°C
Maximum heating rate	8°C/s
Maximum cooling rate	3°C/s
Average heating rate	$\geq 3^\circ\text{C/s}$ (55°C~95°C)
Average cooling rate	$\geq 2^\circ\text{C/s}$ (95°C~55°C)
Temperature uniformity	$\pm 0.15^\circ\text{C}$ (95°C constant for 10s)
Temperature accuracy	$\pm 0.1^\circ\text{C}$
Sample temperature range	Room temperature ~ 110°C
Temperature increasing/decreasing	0.1~10.0°C
Time increasing/decreasing	Support
Heating rate adjustable range	0.1~5°C/s
Power failure protection	Support
Nested loops	Support
Experimental data recovery	Support
Modify parameters during operation	Support
Analysis mode	Relative quantification, absolute quantification, endpoint quantification, melting curve analysis, gene scanning analysis, allelic analysis, etc.
Alt Name	Fully Automated PCR Analysis System

FEATURES



Tablet operation allows real-time viewing of experimental progress and results in the distance



Ultra-high brightness monochrome LED light source, high-sensitivity cold light source CCD.

Equipped with A8 processor, the machine runs more smoothly and the experience is better

Intuitive and clear operation interface, English languages available

Multiple analysis modes

Real-time parameter setting when program is running

Convenient connection with PC via WIFI or LAN

Support outdoor work when connected with mobile power



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