



GRADIENT PCR THERMAL CYCLER

GRADIENT PCR THERMAL CYCLER BFA101 BFA102

GRADIENT PCR INSTRUMENT

The gene amplification instrument is mainly used for gene amplification in scientific research, qualitative PCR gene amplification, fluorescence / enzyme immune endpoint quantitative DNA gene amplification, gene chip and other analytical applications of gene amplification, etc.



New and unique appearance, the interface operation is simple and convenient, compact size.

The latest generation of semiconductor technology, excellent augmentation performance, effectively eliminate the edge effect of module heat conduction, the module temperature uniformity is excellent. Built-in multi-channel refrigeration film, several sensors are evenly distributed, the program temperature control is more precise.

5-inch TFT high-definition full-touch color screen, can quickly edit the required files, visual display of temperature curve, convenient and fast setting, accurate display of temperature curve and instrument running process status in real time. The system has a built-in gradient calculator, which can easily obtain accurate

SPECIFICATIONS

Model	BFA101	BFA102
Old Model	BTHC-601	BTHC-602
Single step time	1~59m59s (0 is forever)	
Temp. range	4~99.9°C (constant temp.: 4°C)	
Sample capacity	96x0.2ml / 384x0.04ml	
Max. heating rate	4.5°C/s	
Max. cooling rate	4°C/s	
Temp. uniformity	±0.25°C	
Temp. accuracy	±0.20°C	
Temp. display resolution	0.1°C	
Temp. control method	Block/Tube	
Gradient temp. uniformity	±0.3°C	
Gradient temp. accuracy	±0.3°C	
Gradient temp. range	30~99.9°C	
Gradient temp. difference range	0.1~30°C	
Hot cover temp. range	30~110°C	
Max. steps of the program	30	
Program max. cycle nu	99	
Time increment/decrement	-599~+599s	
Temp. increase/decrease	-9.9~+9.9°C	
Program pause function	Yes	
16°C Insulation	Forever	
LCD	5 inch, 800x480 Pixel	
Program storage quantity	>100	
Communication Interface	USB 2.0	
Input power	100~240V AC6.6~3.1A 50/60Hz	
Power	600W	
Fuse	250V 5A, Φ 5x20	
Dimensions	W.205xD.280xH.160mm	

Net weight	4.3kgs
Alt Name	Gradient PCR Thermal Cycler



BFA101



BFA102

FEATURES

New and unique appearance, the interface operation is simple and convenient, compact size.

The latest generation of semiconductor technology, excellent augmentation performance, effectively eliminate the edge effect of module heat conduction, the module temperature uniformity is excellent. Built-in multi-channel refrigeration film, several sensors are evenly distributed, the program temperature control is more precise.

5-inch TFT high-definition full-touch color screen, can quickly edit the required files, visual display of temperature curve, convenient and fast setting, accurate display of temperature curve and instrument running process status in real time.

The system has a built-in gradient calculator, which can easily obtain accurate annealing temperature for different experimental samples to optimize PCR reaction conditions.

User login, rights management, password protection, data security, administrators can clear users, large data storage, the maximum number of files that can be stored in the machine is greater than 100.

The ingenious elastic hot cover structure design, ADAPTS to the different height test tube, guarantees the best conditions for the test.

Real-time display of gradient temperature distribution, real-time temperature display, more conducive to controlling the sample temperature.

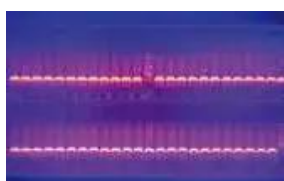
The hot lid temperature and working mode can be set, hot lid can be switched on and off, and test tube temperature control mode and module temperature control mode can be choose to meet more different experimental requirements.



One-click open button



96-well large sample table



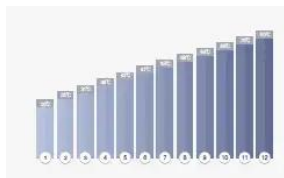
Uniformity



Remove edge effect technique



5-inch display

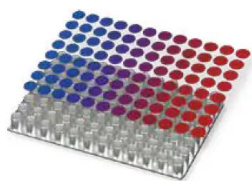


Gradient Calculation

GRADIENT PCR THERMAL CYCLER BFA1N1

GRADIENT PCR INSTRUMENT

The gene amplification instrument is mainly used for gene amplification in scientific research, qualitative PCR gene amplification, fluorescence / enzyme immune endpoint quantitative DNA gene amplification, gene chip and other analytical applications of gene amplification, etc.



Seiko manufactures high-quality aluminum blocks processed by surface anodizing technology, which not only retains fast thermal conductivity, but also has sufficient corrosion resistance.



Exquisite appearance, exquisite processing, clever heat dissipation design. Optional test tube temperature control mode and block temperature control mode to meet more different experimental needs. 8-inch TFT high-definition full-touch color screen can be used to edit the required files quickly, the temperature curve is intuitively displayed, the setting is convenient and quick, and the temperature curve and the operating process status of the instrument are accurately displayed in real time. The system has a built-in gradient calculator, which can easily obtain accurate annealing temperature for different experimental samples to optimize PCR reaction conditions. Real-time display of gradient distribution and real-time temperature display are more conducive to controlling sample temperature. User login, authority management, password protection function to ensure data se

SPECIFICATIONS

Model	BFA1N1
Old Model	BHTC-501
Temp. range	4~99.9°C
Sample capacity	96x0.2ml
Max. heating rate	4.5°C/s
Max. Cooling rate	4°C/s
Temp. uniformity	±0.25°C
Temp. accuracy	±0.20°C
Temp. display resolution	0.1°C
Temp. control method	Block\Tube
Temp. change rate	0.1~5.0°C
Gradient temp. uniformity	±0.3°C
Gradient temp. accuracy	±0.3°C
Gradient Temp. range	30~99.9°C
Gradient setting range	0.1~30°C
Hot cover Temp. range	30~110°C
Single step time range	1~59m59s, 0 is forever
Hot lid height adjustment	Adjustable
Max. steps of the program	30
Program max. cycle numbers	99
Time increment / decrement	-599~599s
Temp. increase / decrement	-9.9~9.9°C
Program pause function	Yes
16°C insulation	Forever
LCD screen	8 inches
Program storage quantity	>100
Communication Interface	USB2.0 , LAN
Input power	AC100~240V, 6.6~3.1A, 50/60Hz
Fuse	250V, 8A Φ 5x20
Dimensions	W.390 x D.270 x H.255mm
Net weight	8.5kgs
Alt Name	Gradient PCR Thermal Cycler

FEATURES

Exquisite appearance, exquisite processing, clever heat dissipation design.

Optional test tube temperature control mode and block temperature control mode to meet more different experimental needs.

8-inch TFT high-definition full-touch color screen can be used to edit the required files quickly, the temperature curve is intuitively displayed, the setting is convenient and quick, and the temperature curve and the operating process status of the instrument are accurately displayed in real time.

The system has a built-in gradient calculator, which can easily obtain accurate annealing temperature for different experimental samples to optimize PCR reaction conditions. Real-time display of gradient distribution and real-time temperature display are more conducive to controlling sample temperature.

User login, authority management, password protection function to ensure data security, the administrator can clear users, large data storage capacity, the maximum storage file in the machine is more than 100.

The ingenious design of the hot cover can effectively control the heat in the hot cover, and the effect of preventing evaporation is excellent; the stepless adjustable hot cover can adapt to most test tubes in the market. The temperature of the hot lid and the working mode of the hot lid can be set, and the hot lid can be switched on and off.

Built-in independent rapid constant temperature incubation function to meet the experimental needs of denaturation, enzyme

digestion/enzyme connection, and ELISA.

Insert the mouse into the USB port to operate the instrument, and support importing and exporting programs from U disk and updating the system.



Air intake from the back and exhaust at the bottom. Other instruments and equipment can be placed close to both sides of the instrument to save experiment space.



8-inch high-definition full touch color screen, friendly human-computer interaction interface, simple operation.



Heat cover design:excellent anti-evaporation effect; stepless adjustable heat cover, which can adapt to most test tubes in the market.

User Interface



Gradient interface system built-in gradient calculator



Running interface

Real-time display of gradient distribution, real-time temperature display



Thermostatic incubation interface

Meet the experimental needs of enzyme digestion/enzyme connection,

ELISA, etc.



User login interface more than 100 files can be stored) Administrator can clear users.

GRADIENT PCR THERMAL CYCLER BFJ101 TO BFJ106

GRADIENT PCR THERMAL CYCLER



1. Long service life Peltier heating units.
2. High heating and cooling rate, max. Ramping rate 9.5°C/s, can save your precious time.
3. Gradient types are regular gradient, linear gradient.
4. Air channel is in front and back and it allows machine placed side by side.
5. Hot lid temperature is adjustable to meet different experiments need.
6. WIFI module built-in, one unit can control multiple PCR machine through computer or cell phone with internet connection.
7. Quick Experiment
8. Multiple Gradient Functions
Normal
Linear

SPECIFICATIONS

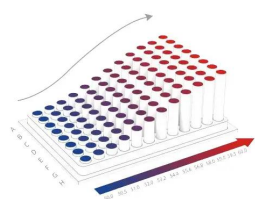
Model	BFJ101	BFJ102	BFJ103
Capacity	96x0.2ml		384 well
Formats	0.2ml tube, 8 strips, 12 strips, Half skirt 96 wells plate, No skirt 96 wells plate	0.2ml tube, 8 strips, 12 strips, 96 wells plate	384 PCR microplate
Reaction Volume	5-100µl		5-30µl
Temperature Range	0-105°C		
MAX Ramp Rate	6°C/s	7°C/s	5°C/s
Uniformity	≤±0.2°C		
Accuracy	≤±0.1°C		
Display Resolution	0.1°C		
Temperature Control	Block/Tube		
Ramping Rate Adjustable	0.01-6°C/s	0.01-7°C/s	0.01-5°C/s
Hold at 4°C	Forever		
Gradient Temp. Range	30-105°C		
Gradient Type	Normal/Linear		
Gradient Spread	0.1-42°C		
Hot Lid Temperature	30-115°C		
Number of Programs	200,000+ (USB FLASH)		
Max. No. of Step	30 (Multiple nested PCR experiments)		
Max. No. of Cycle	200 (Up to 100,000 in nested cycles)		
Time Increment/Decrement	1s-600s, Long PCR is available		
Temp. Increment/Decrement	0.1-10.0°C, Touchdown PCR is available		

Pause Function	Yes		
Auto Data Protection	Yes		
Temperature Curve	Record hot lid and module temperatures in real time, with a 60-minute recording time on a single page and a sliding view		
GLP Report	Record the running information of each step of the program, and can export CSV, PDF format report		
File Encryption Function	Individual program files can be encrypted		
User Management Privilege	Three levels of access (administrator, user, guest)		
Email Notification	Email notification after experiment is over		
Lock Screen Function	Prevents accidental termination of the program being experimented on		
PC-LINK Function	Simultaneous on-line monitoring of more than 250 instruments		
Mobile Phone APP	Simultaneous on-line monitoring of more than 250 instruments		
Communication	USB 2.0, WIFI		
Dimensions	385mmx270mmx255mm(LxWxH)		
Weight	10kg		
Power Supply	100-240VAC,50/60Hz,600W	100-240VAC,50/60Hz,750W	
Alt Name	Gradient PCR Thermal Cycler		
Model	BFJ104	BFJ105	BFJ106
Capacity	6x16x0.2ml	96x0.2ml	
Formats	0.2ml tube, 8 strips, 12 strips, Half skirt 96 wells plate, No skirt 96 wells plate		
Reaction Volume	5-100µl		
Temperature Range	0-105°C		
MAX Ramp Rate	6°C/s	7°C/s	9.5°C/s
Uniformity	≤±0.2°C		
Accuracy	≤±0.1°C		
Display Resolution	0.1°C		
Temperature Control	Block/Tube		
Ramping Rate Adjustable	0.01-6°C/s	0.01-7°C/s	0.01-9.5°C/s
Hold at 4°C	Forever		
Gradient Temp. Range	30-105°C		
Gradient Type	Dynamic	Normal/Linear	
Gradient Spread	Six zone, each zone is 0.1-5°C	Horizontal: 0.1-42°C, Vertical: 0.1-30°C	
Hot Lid Temperature	30-115°C		
Number of Programs	200,000+ (USB FLASH)		
Max. No. of Step	40 (Multiple nested PCR experiments)		
Max. No. of Cycle	200 (Up to 100,000 in nested cycles)		
Time Increment/Decrement	1s-600s, Long PCR is available		
Temp. Increment/Decrement	0.1-10.0°C, Touchdown PCR is available		
Pause Function	Yes		
Auto Data Protection	Yes		
Temperature Curve	Record hot lid and module temperatures in real time, with a 60-minute recording time on a single page and a sliding view		
GLP Report	Record the running information of each step of the program, and can export CSV, PDF format report		
File Encryption Function	Individual program files can be encrypted		
User Management Privilege	Three levels of access (administrator, user, guest)		
Email Notification	Email notification after experiment is over		
Lock Screen Function	Prevents accidental termination of the program being experimented on		
PC-LINK Function	Simultaneous on-line monitoring of more than 250 instruments		

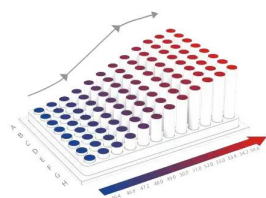
Mobile Phone APP	Simultaneous on-line monitoring of more than 250 instruments	
Communication	USB 2.0, WIFI	
Dimensions	385mmx270mmx255mm(LxWxH)	
Weight	10kg	
Power Supply	100-240VAC,50/60Hz,600W	100-240VAC,50/60Hz,1200W
Alt Name	Gradient PCR Thermal Cycler	

FEATURES

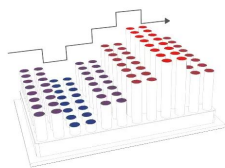
1. Long service life Peltier heating units.
2. High heating and cooling rate, max. Ramping rate 9.5°C/s, can save your precious time.
3. Gradient types are regular gradient, linear gradient.
4. Air channel is in front and back and it allows machine placed side by side.
5. Hot lid temperature is adjustable to meet different experiments need.
6. WIFI module built-in, one unit can control multiple PCR machine through computer or cell phone with internet connection.
7. Quick Experiment
8. Multiple Gradient Functions



Normal



Linear



Dynamic

GRADIENT PCR THERMAL CYCLER BFJ1N1 TO BFJ1N4

DUAL BLOCK GRADIENT PCR THERMAL CYCLER



1. Long service life Peltier heating units.
 2. High heating and cooling rate, max. ramping rate 9.5°C/s, can save your precious time.
 3. Double blocks design, The types of gradients include normal gradients, linear gradients.
 4. Air channel is in front and back and it allows machine placed side by side.
 5. Hot lid temperature is adjustable to meet different experiments need.
 6. Wifi unit is built in and user can control many units of PCR through mobile App.
 7. Dual Block
 8. Experimental Fast
- The unique dual block design, can run two different programs at the same time. 0

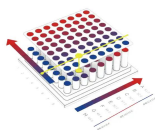
SPECIFICATIONS

Model	BFJ1N1	BFJ1N2	BFJ1N3	BFJ1N4
Capacity	64x0.2ml (A Block) +32x0.2ml (B Block)			
Formats	0.2ml tube, 0.2ml 8 strips			
Reaction Volume	5-120µl			
Temperature Range	0-105°C			
MAX Ramp Rate	6°C/s		9.5°C/s	
Uniformity	±0.2°C			
Accuracy	±0.1°C			
Display Resolution	0.1°C			
Temperature Control	Block/Tube			
Ramping Rate Adjustable	0.01-6°C/s		0.01-9.5°C/s	
Hold at 4°C	Forever			
Gradient Temp. Range	30-105°C			
Gradient Type	Normal/Linear (A Block)(B Block)			
Gradient Spread	0.1-30°C	(A Block)Horizontal: 0.1-30°C, Vertical: 0.1-30°C(B Block)0.1-30°C	0.1-30°C	(A Block)Horizontal: 0.1-30°C, Vertical: 0.1-30°C(B Block)0.1-30°C
Hot Lid Temperature	30-115°C			
Number of Programs	200,000+ (USB FLASH)			
Max. No. of Step	40 (Multiple nested PCR experiments)			
Max. No. of Cycle	200 (Up to 100,000 in nested cycles)			
Time Increment/Decrement	1s-600s, Long PCR is available			
Temp. Increment/Decrement	0.1-10.0°C, Touchdown PCR is available			
Pause Function	Yes			
Auto Data Protection	Yes			
Temperature Curve	Record hot lid and module temperatures in real time with a 60-minute recording time on a single page and a sliding view			
GLP Report	Record the running information of each step of the program, and can export CSV, PDF format report			
File Encryption Function	Individual program files can be encrypted			
User Management Privilege	Three levels of access (administrator, user, guest)			
Email Notification	Email notification after experiment is over			
Lock Screen Function	Prevents accidental termination of the program being experimented on			
PC-LINK Function	Simultaneous on-line monitoring of more than 250 instruments			

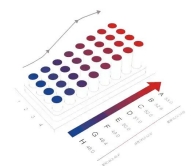
Mobile Phone APP	Simultaneous on-line monitoring of more than 250 instruments	
Communication	USB 2.0, WIFI	
Dimensions	385mmx270mmx255mm(LxWxH)	
Weight	11kg	18kg
Power Supply	100-240VAC,50/60Hz,600W	100-240VAC,50/60Hz,1200W
Alt Name	Dual Block Gradient PCR Thermal Cycler	

FEATURES

1. Long service life Peltier heating units.
2. High heating and cooling rate, max. ramping rate 9.5°C/s, can save your precious time.
3. Double blocks design, The types of gradients include normal gradients, linear gradients.
4. Air channel is in front and back and it allows machine placed side by side.
5. Hot lid temperature is adjustable to meet different experiments need.
6. Wifi unit is built in and user can control many units of PCR through mobile App.
7. Dual Block
8. Experimental Fast



The unique dual block design, can run two different programs at the same time. One device two uses.



B Block can be set up with normal gradients and linear gradients.

GRADIENT PCR THERMAL CYCLER BFJ1M1 BFJ1M2 BFJ1M3

TRIPLE GRADIENT PCR THERMAL CYCLER



1. Long service life Peltier heating units.
2. Reinforced aluminum module with anodizing technology can keep rapid heating-conducting property and have enough corrosion resistance.
3. Self-adapting pressure hot lid makes closing lid and tightening lid in one step.
4. The running program and left time can be displayed in real time, allow to edit file when program is running.
5. Email notification after experiment is over.
6. WIFI module built-in, one unit can control multiple PCR machine through computer or cell phone with internet connection.
7. Rapid Experiment
8. Triple Block Design

SPECIFICATIONS

Model	BFJ1M1	BFJ1M2	BFJ1M3
Capacity	3x32x0.2ml	3(16x2x0.2ml)	3x32x0.2ml
Formats	0.2ml tube, 8 strips		
Reaction Volume	5-120µl	5-100µl	5-120µl
Temperature Range	0-105°C		
MAX. Ramp Rate	6°C/s	7.5°C/s	9.5°C/s
Uniformity	±0.2°C		
Accuracy	±0.1°C		
Display Resolution	0.1°C		
Temperature Control	Block/Tube		
Ramping Rate Adjustable	0.01-6°C/s	0.01-7.5°C/s	0.01-9.5°C/s
Hold at 4°C	Forever		
Gradient Temp. Range	30-105°C		
Gradient Type	Normal/Linear	Dynamic	Normal/Linear
Gradient Spread	0.1-30°C	Two independent temp. zones per block, each zone is 0.1-25°C	0.1-30°C
Hot Lid Temperature	30-115°C		
Number of Programs	200,000+(USB FLASH)		
Max. No. of Step	40(Multiple nested PCR experiments)		
Max. No. of Cycle	200(Up to 100,000 in nested cycles)		
Time Increment/Decrement	1Sec-600 Sec, Long PCR is available		
Temp. Increment/Decrement	0.1-10.0°C, Touchdown PCR is available		
Pause Function	Yes		
Auto Data Protection	Yes		
Temperature Curve	Record hot lid and module temperatures in real time, with a 60-minute recording time on a single page and a sliding view		
GLP Report	Record the running information of each step of the program, and can export CSV, PDF format report		
File Encryption Function	Individual program files can be encrypted		
User Management Privilege	Three levels of access (administrator, user, guest)		
Email Notification	Email notification after experiment is over		
Lock Screen Function	Prevents accidental termination of the program being experimented on		
PC-LINK Function	Simultaneous on-line monitoring of more than 250 instruments		
Mobile Phone APP	Simultaneous on-line monitoring of more than 250 instruments		
Communication	USB 2.0, WIFI		
Dimensions	385mmx270mmx255mm(LxWxH)		
Weight	11kg		
Power Supply	100-240VAC, 50/60Hz, 600W		
Alt Name	Triple Gradient PCR Thermal Cycler		



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