

Technical Specification

Worktable Capacity : 2 or 3 x 96 / 384 SBS PCR plates
 2 or 1 x 96 tip rack (50/200 µl)
 Reagent Area 1: 8 x 1.5/2 ml microcentrifuge tube
 Reagent Area 2: 6 x 2 ml storage tube (free standing) and 1 x 5 ml bottle

Function : Liquid (Sample/Reagent) Transfer (LT)
 Multiple Dispense (MD)
 Serial Dilution (SD)
 Hold (Pause)
 Mixing (MIX)
 Loop

Automated Pipetting Module : Interchangeable 1/8-channel, Maximum volume 50 µl/200 µl

Connection : RS-232, USB1.0

Power Supply : 100~240V, 50/60 Hz, 100W

Size (W x D x H) : 590 x 440 x 460 mm

Weight : 25 Kg

Performance of Automatic Pipetting Module(APM)

1/8 channel- Volume 50 µl		
	1 µl	50 µl
Accuracy (Rel.)	± 7%	± 1%
Precision (Rel. CV)	≤ 7.5%	≤ 0.4%

1/8 channel - Volume 200 µl		
	10 µl	200 µl
Accuracy (Rel.)	± 3%	± 0.8%
Precision (Rel. CV)	≤ 1%	≤ 0.15%

Note : According to ISO-8655 standards (Gravimetric method), APM is calibrated in temperature (21 ~ 25°C, ±0.5°C) and humidity (60~90%) controlled environment. Twice-distilled water, robotic tips and microbalance were used.

Ordering Information

Catalog No.	Description
Fit X1™ 401	
AREZ 401-000000	4-plate Automated Pipetting System with 1 x APM, 1 x 10.4" Net PC and SoFit™ control software.
Interchangeable Automated Pipetting Module	
275-ezar01-00	1-channel, 50 µl Pipetting Module
275-ezar02-00	8-channel, 50 µl Pipetting Module
275-ezar03-00	1-channel, 200 µl Pipetting Module
275-ezar04-00	8-channel, 200 µl Pipetting Module
Robotic Tips	
275-ezar10-00	FitTip™ 50µl, non-sterile, 96 tips/rack; 10 racks/pack
275-ezar11-00	FitTip™ 200 µl, non-sterile, 96 tips/rack; 10 racks/pack
275-ezar14-00	FitTip™ 50µl, sterile, 96 tips/rack; 10 racks/pack
275-ezar15-00	FitTip™ 200 µl, sterile, 96 tips/rack; 10 racks/pack
Accessories	
275-ezar21-00	96 tips rack adapter
275-ezar22-00	Leviated 96-well PCR plate adapter
275-ezar23-00	Leviated 384-well PCR plate adapter
275-ezar26-00	4 x 2 1.5ml tubes adapter
275-ezar27-00	3 x 2 2 ml storage tubes & 1 x 5 ml bottle adapter
275-ezar30-00	Fiter™ 96 adapter for 96-well PCR plates
275-ezar31-00	Fiter™ 384 adapter for 384-well PCR plates
275-ezar34-00	Fiter™ R10 adapter for 4 x 2 1.5ml tubes
275-ezar35-00	Fiter™ R20 adapter for 3 x 2 2 ml storage tubes and 1 x 5ml bottle



Fiter™ 96



1-channel APM



Fiter™ 384



8-channel APM



Fiter™ R10



Fiter™ R20

Trademarks: Beckman®, Biomek® 3000 (Beckman Coulter Inc.); Roche®, LightCycler® 480 (Roche Group); DyNAmo™ (Finnzyme Oy); SYBR® (Molecular Probes Inc.); Invitrogen™, Platinum® (Invitrogen Corp.)

Note: Specifications are subjected to change without notice.



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GBC Fit X1

Automated Pipetting System

Experiencing the Perfect Solution

GBC Fit X1™ is an automated, high-precision pipetting system specifically designed for low-volume PCR/qPCR sample preparation.

Fit X1™ is designed to replace the manual process of PCR/qPCR sample preparation. Precision and consistency are the key features to make sure reagents are dispensed accurately. Fit X1™ offers simplicity and functionality for you to produce the best results!

Simplicity

- PC Software: Easy to install. No trained technician required.
- Interface: Built-in PCR/qPCR Setup Protocols can be transferred via USB Memory Stick.
- 1 and 8-channel, 50ul or 200ul, Automated Pipetting Modules (APMs) can be exchanged without tools.
- 4 interchangeable standard microtiter plate/tip rack adapters and 2 interchangeable reagent vessel adapters

Affordability / Compatibility

- Affordable Automatic Pipetting System that fits your needs.
- FitTip™ robotic tips are compatible with Beckman's® Biomek® 3000 system.
- The Fiter™ adapters keep sensitive reagents/samples at 7 °C for more than 30 minutes.

Conveniency

- The Automated Pipetting Module (APM) can be mailed-in for service and calibration.
- PC Software is upgradable via the Internet.
- Fit X1™ is compact and portable.

Accuracy and Precision

- Each Automated Pipetting Module (APM) is calibrated with ISO-8655 standards.
- Excellent results for qPCR standard curve and replicates (Figure 1).
- Better precision of pipetting results than manual pipetting (Figure 2).

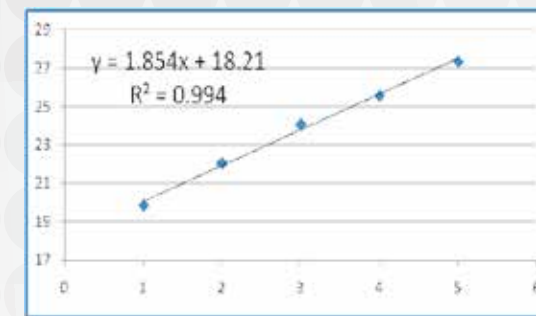
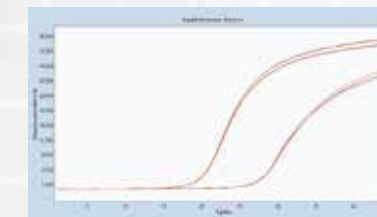
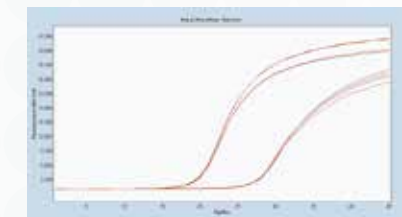


Figure 1. Excellent Serial Dilution Results

7μl NIH3T3 Cell cDNA sample is diluted in 21μl water at 1:4 ratio for 4 times. Roche® LightCycler® 480 real-time PCR thermal cycler and Finnzyme DyNAmo® Flash SYBR® Green qPCR kit (F-415L) were used.



EzMate™ 401
C_T std dev 0.135



Hand pipetting
C_T std dev 0.145

Figure 2. Better Precision Results than Manual Pipetting

Target: Human GAPDH (top curve) was amplified in replicates of 4. 18μl (master-mix) and 2μl (cDNA) were pipetting into 20μl reaction volume. Roche® LightCycler® 480 real-time PCR thermal cycler and Invitrogen™ Platinum® Taq DNA Polymerase were used.

