




SPECIFICATIONS

Instrument		Product name		B-analyst	
		Detection wavelength		635 nm	
		Detection stability		± 0.001 Abs.	
		Incubation temperature		37.0 ± 1.0 °C	
		Interface		For data input - output x 1 For bar code reader connection x 1	
		Display		20 rows x 4 columns monochrome LCD	
		Printer		Built-in thermal printer (paper width: 58 mm)	
		Data memory		For recording measurement results of latest 100 samples	
		Calendar clock		Built-in (backup battery CR2032)	
		Electrical characteristic	Voltage	AC100 - 240 V	
			Supply frequency	50/60 Hz	
			Power input	250 W	
		Condition of use	Temperature	15 - 30 °C	
			Humidity	30 - 80 %	
		Size / Weight		340(W) × 290(D) × 270(H) mm / 9.5 kg	

Reagent Chip

Product name	B-analyst HbA1c	B-analyst CRP	B-analyst hsCRP
Measurement time	7'30"		
Sample	Whole blood	Whole blood · Plasma · Serum	Whole blood · Plasma · Serum
Sample volume	4 µL	4 µL	9.5 µL
Measurement method	Latex agglutination immunology turbidimetric method		
Measurement range	3.3 - 12.6 %	0.1 - 20.0 mg/dL	0.01 - 4.00 mg/dL
			

Size



µTAS Single Drop Analyzer

HbA1c | CRP | hsCRP



Biochips based on semiconductor and manufacturing expertise

Biochips utilize a combination of microfluidics, microfabrication, design, and optical technologies. Microchannels allow chemical reactions to occur in an extremely small space via reagents. Next, sensing technology enables accurate detection of target biomarkers using a trace amount of blood. Biochips such as these are expected to play a major role in health care and medical testing in the future.



B-analyst realizes rapid and high accuracy measurement with only a drop of blood by utilizing μ TAS and liquid reagents.

1 Simple Operation

B-analyst performs measurement from plasma separation to data output with a drop of blood in 7min 30sec. The measurement is completed by following steps.

Puncture

Sting the fingertip or earlobe with a lancet device.

Blood collection

Collect whole blood using the exclusive capillary. Only 4.0-9.5 μ L of blood/test is needed.

Capillary insertion

Insert the capillary into the chip.

Chip setting

Mount the chip into the instrument.

Operation

Press the start button.

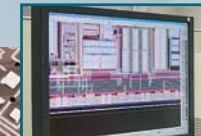
Data output

Result is printed in 7min 30sec.

Design technology

From circuit layout technology that maximizes pattern efficiency to simulation technology that accurately detects the correct product operation, semiconductor design expertise ensures optimum safety and reliability.

Semiconductor circuit design



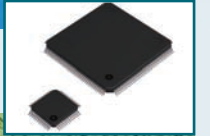
Microfluidics

The principles of electrical current pathways are applied to fluids in this cutting-edge field, which is revolutionizing the biotechnology industry.

Accelerometer



Low-power microcontrollers



Optical devices

produces LEDs, laser diodes, optical sensors, and other products completely in-house using a streamlined manufacturing system. These optical technologies are now being applied to numerical measurement.

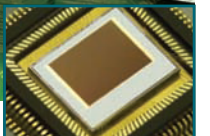
Laser diodes



Microfabrication

expertise lies in fabrication at the micro and nano levels. This is exemplified by our ultra-miniature fluid channels.

CIGS image sensor



2 High Accuracy

High correlation to reference methods.
Reliable measurement result can be provided.

Measurement item	HbA1c (%)			CRP (mg/dL)			hsCRP (mg/dL)		
	WB (L)	WB (M)	WB (H)	Control (L)	Control (H)	WB	Control (L)	Control (H)	WB
MEAN	5.2	7.0	8.5	0.3	1.4	4.1	0.24	1.51	0.45
S.D.	0.05	0.05	0.04	0.00	0.04	0.05	0.016	0.029	0.013
C.V. (%)	1.0	0.8	0.5	0.0	3.1	1.3	6.59	1.95	2.96

3 Easy Maintenance

Cleaning and washing are not required.
Calibration curve data corrected via 2D barcode.

Measurement Data (internal data)

