# BC 760 & BC 780 Technical Specifications

**Principles**

WBC (IMG/Neu/Mon/Lym/Eos/Bas), NRBC/RET*, PLT-H/PLT-O*/IPF: SF Cube * Cell Analysis Technology *S: Scatter; F: Fluorescence; Cube: 3D analysis

RBC, PLT

Focusing Flow-DC Impedance Method

HGB

Colorimetric method

ESR

Photometric method

**Number of measuring parameters (whole blood): 109**
**Number of reportable parameters: 41 ***

*WBC Bas# Bas% Neu# Neu% Eos# Eos% Lym# Lym% Mon# Mon% IMG# IMG% RET%* RET#* RHE* IRF* LFR* MFR* HFR* RBC HGB MCV MCH MCHC RDW-CV RDW-SD HCT NRBC# NRBC% PLT PLT-I PLT-H PLT-O* MPV PDW PCT P-LCR P-LCC IPF ESR*

**Number of research parameters: 68***

**Number of measuring parameters (body fluid): 18**

Number of reportable parameters: 7

WBC-BF TC-BF# MN# MN% PMN# PMN% RBC-BF

Number of research parameters: 11

Data storage capacity

Up to 150,000 results including numeric and graphical information *

**Physical Specifications**

*Dimensions : 840D x 655W x 600H mm
Weight : ≤70.6Kg*

Voltage : 100V-240V~ (±10%)

Frequency : 50Hz/60Hz (±1Hz)

Power input : 600VA

External output

*LANx1 , USB x 4 (Specifications: DC 5V; 500mA; USB2.0 x 3; USB3.0 x 1)*

**Normal Operating Environment**

Ambient temperature: 10 °C~ 35 °C

Relative Humidity :

Atmospheric pressure:
70.0kPa ~ 106.0kPa*

*Note : Required altitude for normal operation: -400m ~ +3000m*

**Sample volume**

CD (whole blood): 25ul

CD+ESR (whole blood): 160ul

Predilute: 20ul

**Throughput**

CD 80t/h CDR 45t/h CD+ESR 40t/h

**Performance**

| Parameter | Linearity Range | Precision | Carryover |
|---|---|---|---|
| WBC | 0-500×10⁹ /L | ≤2.5% (≥4.51×10⁹ /L) | ≤ 1.0% |
| RBC | 0-8.60×10¹²/L | ≤1.5% (≥3.5×10¹²/L) | ≤ 1.0% |
| HGB | 0-260g/L | ≤1.0% (110-180g/L) | ≤ 1.0% |
| HCT | 0-75% | ≤1.5% (30%-50%) | ≤ 1.0% |
| PLT* | 0-5000×10⁹ /L | ≤ 1.5(SD) (≤20×10⁹/L)^<br>≤ 2.5% (≥100×10⁹/L)^ | ≤ 1.0% |
| RET* | 0-0.8×10¹²/L | ≤15% (RBC ≥ 3.00×10¹²/L, RET%: 1.00% ~ 4.00%) | ≤ 1.0% |
| ESR | | ≤1.8(SD)(0~20mm/h) | ≤ 1.0% |

Note: Applicable only to CDR/PLT-O 5x and CR/PLT-O 5x models

Items marked with an aerisk (*) apply only to BC-780

**Analysis Mode**

| Sample Type | Analysis Mode |
|---|---|
| Whole blood | CBC, CBC + DIFF, CBC + DIFF+RET*, CD + ESR, CDR + ESR*, CD/WBC-3X, CDR/PLT-5X*, and other modes |
| Predilute | CBC, CBC + DIFF, CDR*, and other modes |
| Body fluid | CBC + DIFF |

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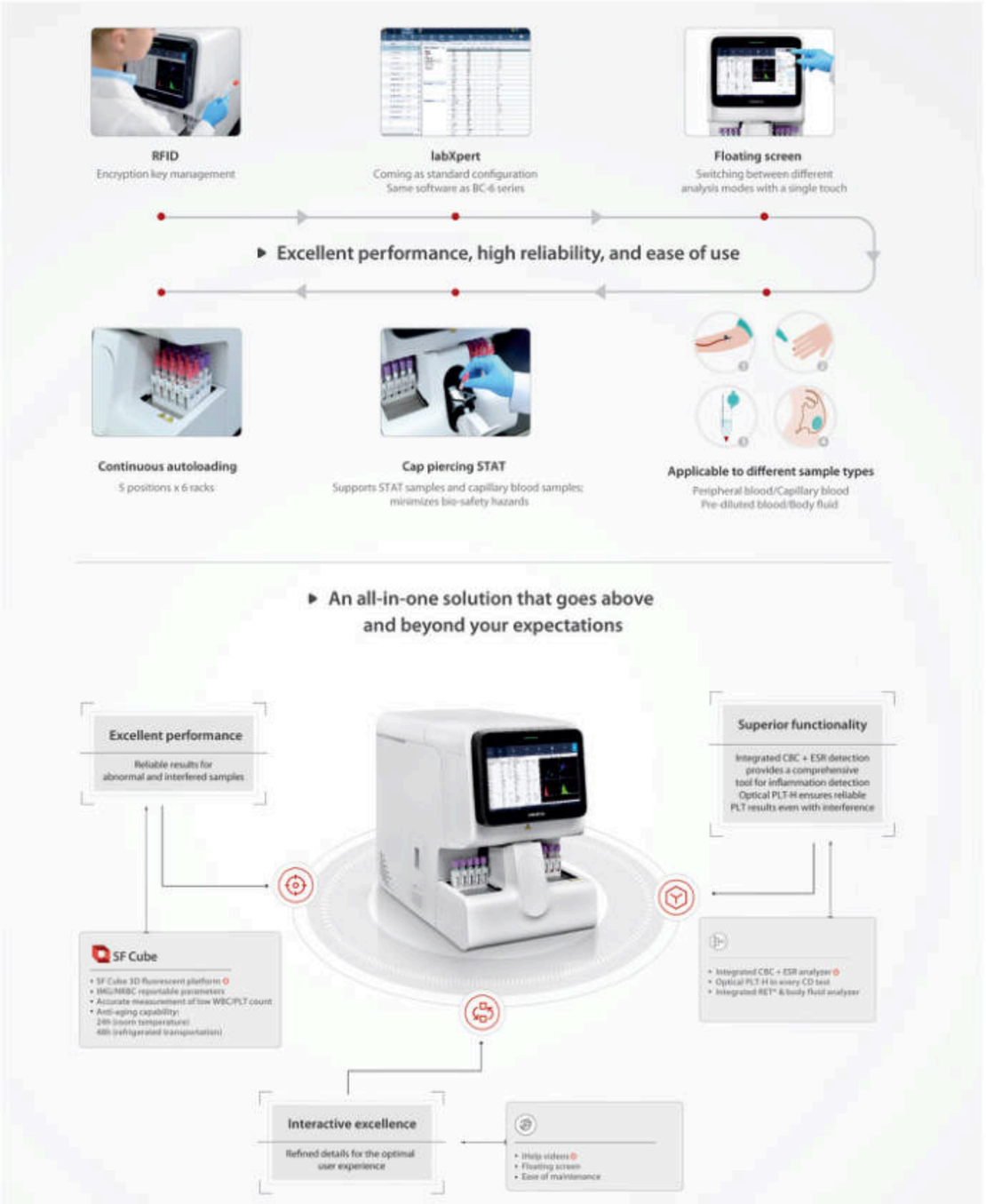
# BC 760 & BC 780
# Advanced Automated Hematology Analyzer

## ESR Testing - Above & Beyond

# BC 760 & BC 780
## Automated Hematology Analyzer



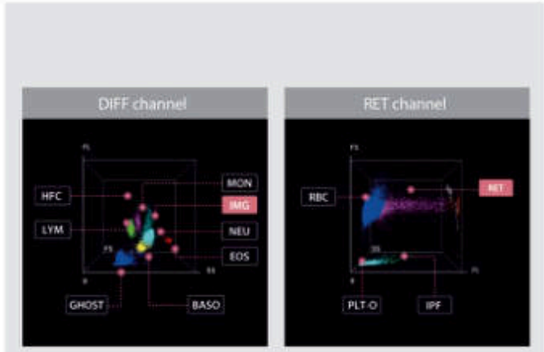

# Above your expectations

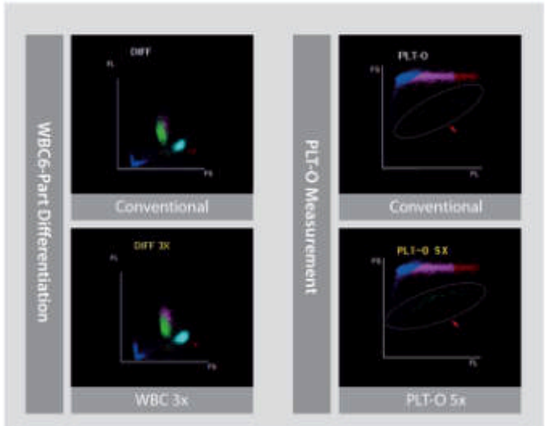
SF Cube fluorescent technology allows reliable counting and differentiation of abnormal samples.

### More refined and reliable cell differentiation

3D fluorescent analysis technology allows reliable differentiation of immature and other abnormal cells, such as immature granulocytes (IMGs), reticulocytes (RETs*), and immature platelet fraction (IPF)

SF Cube
Cell Analysis Technology



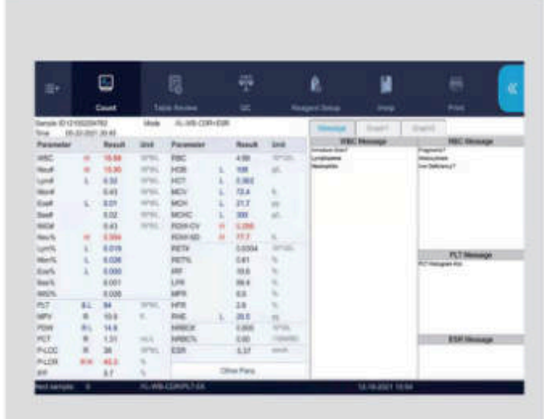




### More reliable measurements for low-value samples

The BC-760 & BC-780 3D fluorescence analysis platform is designed with multiple counting WBC-3x and PLT-O 5x analysis modes to help ensure higher reliability for low-value WBC and PLT samples. In addition, the PLT de-aggregation function can reduce the cumbersome review work.

### More comprehensive alarm messages for abnormalities

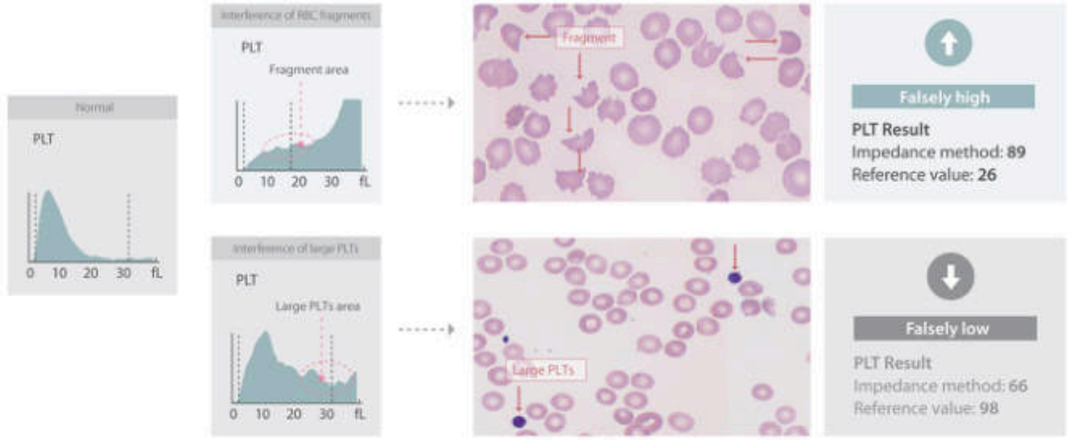
The analyzer provides a detailed list of over 40 prompt messages, including WBC message, RBC message, and PLT message. This allows laboratory technicians to intuitively and quickly identify abnormal samples and proceed further with the samples in a timely manner. This in turn helps to avoid missed diagnosis of blood disease and false reports



# Beyond your expectations

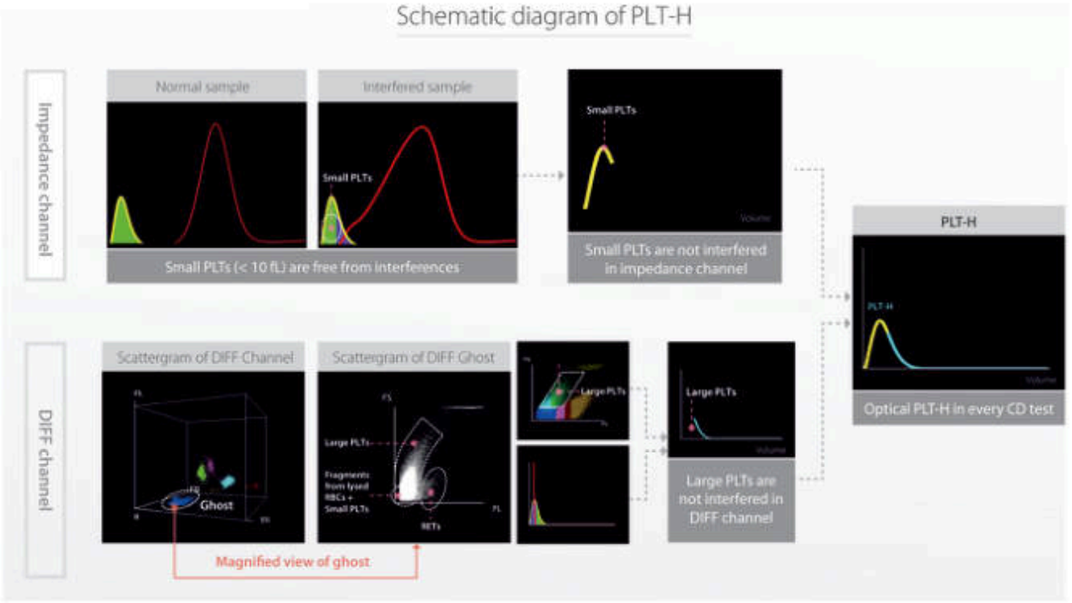
### Limitations of traditional PLT counting

n the traditional impedance method, PLTs are subject to interferences that may lead to falsely high or falsely low results (as shown in the figure). Once an error report is generated, it will directly affect the judgment and decision-making of clinicians. The results reported at the clinical decision level are related to patient safety. Therefore, accurate PLT results are critical in clinical practice.




### Optical PLT-H in every CD test

In order to solve the above problem, we have developed a brand new parameter PLT-H.
It combines small PLTs from the conventional impedance method and large PLTs from the optical method. The solution can resist the interferences in conventional PLT detection without requiring extra reagents.




# CD + ESR in one test provide reliable ESR results with greater ease

The BC-700 series integrates an automatic ESR module in a hematology analyzer. It can also generate both CBC & ESR results in one test within 1.5 min.

In addition, it saves the costs that would otherwise be incurred for the purchase, maintenance, consumables, and storage space of a separate ESR analyzer. Compared with the traditional Westergren method, this method performs better in quality traceability, repeatability, speed, safety, and level of automation.

**Accurate**

- Great correlation with the Westergren method
- Same QC and calibrator as in the BC-6000 series
- Combined examination helps to avoid the interferences of dehydration, polycythemia vera and anemia on ESR results

**Cost-effective**

- The integrated instrument is capable of both CBC and ESR detection;
- Takes up the space of only one analyzer.

**Automatic**

- Report CBC + ESR results together within 1.5 min;
- The measurement results are protected against the influence of subjective factors;
- Automation can reduce the biosafety hazards that may otherwise be introduced by a manual method.

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