Medical Diagnostic Device

# ACCUNIQ BC300

## Body Composition Analyzer

The BC300 is a multi-frequency, whole body and segmental Body Composition Analyzer that utilizes innovative BIA technology to ensure accurate and precise results. This cutting edge technology utilizes harmless, low-level frequencies to offer quick and easy total body composition assessments through the LCD touch screen, printouts and client tracking software.

The results sheet displays an easy-to-read graphical analysis to help maintain healthy body composition and whole body health trending.

ACCUNIQ

www.accuniq.com


- Monographic LCD Touch Screen
- 3 Available Frequencies: 5,50,250 KHz
- Built in Thermal printer
- User Configurable Modes - Adult, Athlete, Wrestler and Goal Setter
- Client Tracking Software Provided (ACCUNIQ MANAGER)
- USB and RS232 ports for computer or printer interface

Innovative technology meets stylish design. The BC300 utilizes the most advanced bio-electrical impedance (BIA) analysis technology to provide accurate and dependable results that have been validated by DEXA analysis.

**Measurement Handle**
The measurement handle is connected with the cable and may be used by a user of any height.

**Type A | Fabric Bag**
**Dimensions** approx. 815 x 215 x 410 mm
**Weight** approx. 1 kg

**Type B | Plastic Bag**
**Dimensions** approx. 866 x 295 x 567 mm
**Weight** approx. 6 kg

**Ultrasonic Anthropometer**
Made more precise, the performance of the anthropometer enhances the confidence level of the analysis.

# Diverse Range of Options

ACCUNIQ body composition analyzers offer multiple options to meet multiple end-user requirements.

## Ultrasonic Anthropometer

This option accurately and quickly measures your height automatically with the distance analysis method based on the AI and ultrasonic sensor.

## Fully Automatic Sphygmomanometer

Connect our fully automatic sphygmomanometer for hospitals to control your blood pressure in connection with your body fat, which can help you manage your body weight more efficiently.

## Product Bag

Provided in 2 types, fabric and plastic, the bag may be used to carry the product with ease. The plastic bag has straps and wheels for easy and safe transport.

## A4 Result Sheet

The output results are displayed systematically and clearly.

## Sphygmomanometer Cart

If you need a sphygmomanometer cart, please contact your local dealer.

## USB Memory

Use the USB memory to save the analysis data and view it on your PC.

## Thermal Printer

Use the thermal printer to quickly and easily print the analysis.

# Various Results and Descriptions

## ACCUNIQ BC300

ID / NAME : SELVAS HEALTHCARE123 / 홍길동

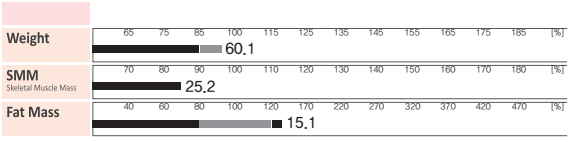
Height : 170.6 cm Age : 35 years Gender: Male Test Date/Time : 21 – 09 – 2016 09:34

selvas Healthcare

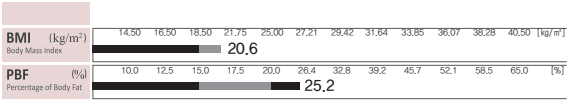
### 1 Body Composition Analysis

| | values | Body Water | Soft Lean Mass | Fat-Free Mass | Weight |
|---|---|---|---|---|---|
| Body Water (ℓ) | 32.8 (37.4 ~ 39.7) | 32.8 | 41.9 (44.1 ~ 53.9) | 45.0 (51.2 ~ 54.4) | 60.1 (54.4 ~ 73.6) |
| Proteins (kg) | 9.1 (10.2 ~ 11.5) | | | | |
| Minerals (kg) | 3.1 (3.7 ~ 3.8) | | | | |
| Body Fat (kg) | 15.1 (9.0 ~ 13.4) | | | | |

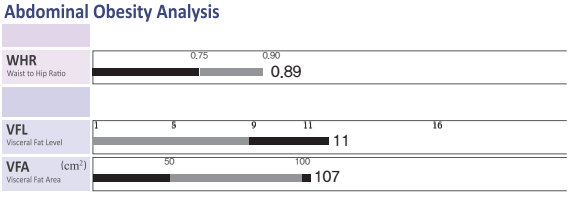
### 2 Muscle/Fat Analysis [kg]



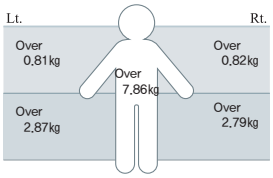

### 3 Obesity Analysis



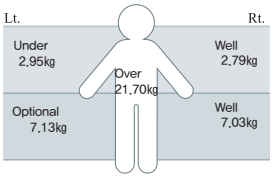

### 4 Abdominal Obesity Analysis




### 5 Segmental Fat Mass




### Segmental Lean Mass




### 6 Body Composition Change [kg]

| | Test date | Weight | Fat Mass | Muscle Mass |
|---|---|---|---|---|
| Previous | 2016. 8. 1 | 61kg | 15.5kg | 41.8kg |
| Present | 2016. 9. 21 | 60.1kg | 15.1kg | 41.9kg |

### 7 Comprehensive Evaluation

| | | |
|---|---|---|
| Body Type | over fat class 2 | |
| Biological Age | 38 | years |
| Basal Metabolic Rate(BMR) | 1340 | kcal |
| Total Daily Energy Expenditure | 2063 | kcal |
| Body Cell Mass | 30.7 | kg |

### 8 Control Guide

| | | |
|---|---|---|
| Target Weight | 63.2 | kg |
| Weight Control | +3.1 | kg |
| Muscle Control | +7.1 | kg |
| Fat Control | −3.9 | kg |

### 9 Obesity Assessment

| | | | | |
|---|---|---|---|---|
| BMI | ☐ underweight | ☑ normal | ☐ overweight | ☐ obese |
| PBF | ☐ low-fat | ☐ normal | ☐ over-fat | ☑ obese |

Obesity Degree −6.1 ( −10.0~+10.0 ) %

Abdominal Circumference 82.0 ( Less than 102cm ) cm

### 10 Impedance (584)

| Freq | 5K | 50K | 250K |
|---|---|---|---|
| RA.Imp | 336 | 333 | 308 |
| LA.Imp. | 335 | 321 | 293 |
| Trunk | 30 | 24 | 24 |
| RL.Imp. | 292 | 246 | 215 |
| LL.Imp. | 278 | 220 | 189 |

### 11 Blood Pressure Analysis

Systolic Lt 125 mmHg / Rt 111 mmHg

Diastolic Lt 65 mmHg / Rt 69 mmHg

Pulse 76 bpm

Blood pressure difference between right arm and left arm

Systolic 14 mmHg, Diastolic 04 mmHg

For history management, please upload this results at the website using QR code scanning.

JUNE 30, 2016 Rev A.0 SELVAS Healthcare, Inc.

❶ Body Composition Analysis
This is a measurement of analysis results of body components(e.g., body water, proteins, minerals and body fat) relative to normal ranges.

❷ Muscle/Fat Analysis
This graph of the Skeletal Muscle Mass(SMM) and fat mass illustrates the proportion of skeletal muscle and body fat that comprise the total body weight.

❸ Obesity Analysis
This graph of percentage of body fat(PBF) and body mass index (BMI), of which the latter is critical in assessing the prevalence of obesity, illustrates clinical data needed for obesity analysis.

❹ Abdominal Obesity Analysis
Fat in the body is divided into subcutaneous fat and visceral fat. Visceral fat is closely connected with adult diseases, and measured based on several factors.

❺ Segmental Fat Mass/
Segmental Lean Mass
This item assesses the muscle mass of 5 body parts (left arm, right arm, left leg, right leg, and trunk) in two graphs.

❻ Body Composition Change
This graph shows your weight, skeletal muscle mass, and body fat mass tracked over a period of time. It is important that you constantly pay attention to your health care instead of attempting to control your weight over a short period of time.

❼ Comprehensive Evaluation
This item shows your body type, biological age, basal metabolic rate(BMR), total daily energy expenditure (TEE), and body cell mass.

❽ Control Guide
This item presents your recommended target weight, weight, and muscle and fat mass control.

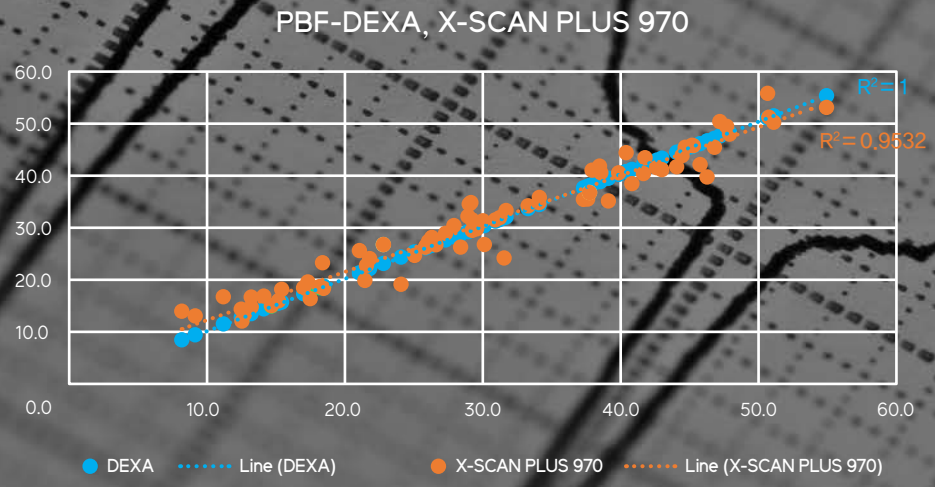
❾ Obesity Assessment
This item assesses your BMI, PBF and indicates your obesity degree and abdominal circumference.

❿ Impedance
Impedance using frequency applied to a body part. Impedance is a resistance value when electric current is passed through the body. Each subject has a unique impedance.

⓫ Blood Pressure Analysis
This item indicates your blood pressure data when the product is connected to the sphygmoma nometer provided by ACCUNIQ. This is especially useful because it assesses your obesity level and blood pressure at the same time.

# High Consistency with DEXA

The methods of analyzing your body composition include computed tomography(CT), magnetic resonance imaging(MRI), and underwater weighing. Dual-energy X-ray absorptiometry(DEXA) is currently considered the gold standard since it accurately analyzes your fat, muscles, and bones and does not involve any radiation exposure. ACCUNIQ conducted clinical tests with IHT, a professional clinical organization based in Texas, USA, to verify our product's precision with DEXA. The result shows that our analysis is more accurate than our competitors.




※ Determination of coefficient(R2) of DEXA is 1, and the accuracy of ACCUNIQ is higher if R2 value is close to 1.

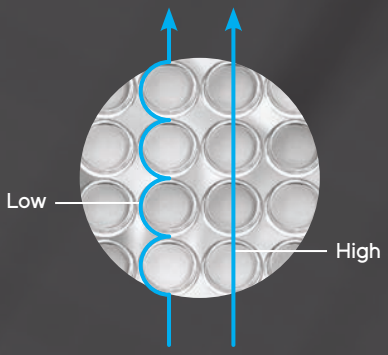
※ The accuracy of X-SCAN PLUS 970 is proved through clinical study with DEXA at IHT center in USA, and the accuracy of other ACCUNIQ brands are guaranteed by high correlation each other.

| DEXA-ACCUNIQ | Paired T-test Analysis of Body Composition | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Percent Body Fat(%) | | | Body Fat Mass(kg) | | | Lean Body Mass(kg) | | |
| | Mean±SD | p-value | p-value explanation | Mean±SD | p-value | p-value explanation | Mean±SD | p-value | p-value explanation |
| | -0.4±0.7 | 0.17 | DEXA PBF = ACCUNIQ PBF | -0.4±0.2 | 0.06 | DEXA PBF = ACCUNIQ PBF | 0±0.3 | 0.99 | DEXA PBF = ACCUNIQ PBF |

| Coefficient of Determination between Our Products (X-SCAN PLUS 970 and ACCUNIQ BCA) | LBM $R^2$ | | |
|---|---|---|---|
| | BC720 | BC510 | BC360 |
| | 0.9967 | 0.9949 | 0.9962 |

## Multi-Frequency Analysis

ACCUNIQ uses 6 frequencies between 1 kHz and 1000kHz to analyze your intracellular water, extracellular water, and total body water accurately. A frequency lower than 100kHz is used to analyze extracellular water since it flows along the cell membrane, whereas a frequency above 100kHz is used to analyze total body water as it flows through the cell membrane.




## Eight-Point Touch Electrodes

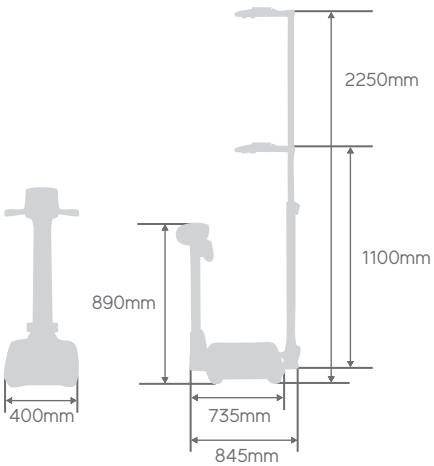
ACCUNIQ uses the 8-point touch electrodes method, which is highly accurate despite its complexity. Eight electrodes may be placed on the hands and feet or wrists and ankles to analyze body composition stably.

## ACCUNIQ BC300 Specifications

| | |
|---|---|
| Model | ACCUNIQ BC300 |
| Measuring Method | Tetra-polar electrode method using 8 touch electrodes |
| Frequency Range | 5, 50, 250kHz |
| Measuring Site | Whole body and Segmental measurement (arms, legs and trunk) |
| Results Sheet Data | **Body Composition Results**<br>Weight, Standard weight, Lean Body Mass, Mass of Body Fat, Soft Lean Mass, Protein, Mineral, Total Body Water, Percent Body Fat, B.M.I., Age Matched of Body, Basal Metabolic Rate, Total Energy Expenditure, Body type, 5 body parts (right arm, right leg, left arm, left leg, and trunk) Soft Lean Mass/Mass of Body Fat and assessment, Body Composition Change, Control guide (weight/Mass of Body Fat/Soft Lean Mass Control, Goal to control, Control/week, Duration of control, Diet prescription calorie, Exercise prescription calorie), Visceral Fat Area, Visceral Fat Level, Abdominal Circumference, W.H.R., Impedance, Blood pressure (when connected with blood pressure monitor of our company) |
| Power Consumption | 60VA |
| Measuring Current | Approx. within 280$\mu$A |
| Power Consumption | Input (AC 100~240V, 50~60Hz), Output (DC 12V, 5A adapter) |
| Display | 7 Inch Wide Color LCD |
| Input Device | Key pad, PC remote control |
| Transmission Device | USB port |
| Printing Device | USB port, Thermal Printer (Option) |
| Dimension | **Main Unit** 400×735×890mm (W×D×H±10mm)<br>**Main Unit+Height Meter** 400×845×2250mm (W×D×H±10mm) |
| Weight | Approx. 10kg (main unit) |
| Measuring Range | 100~950Ω |
| Measuring Time | Approx. 1 minute |
| Applicable Height | 50~220cm |
| Measuring Weight | 10~200kg |
| Applicable Age | 1~99 years old |
| Operation Ambient | Ambient temperature range +5 to +40℃, Relative humidity range 15 to 93% (non condensing) |
| Storage Ambient | Ambient temperature range -25 to +70℃, Relative humidity range lower than 93% (non condensing) |

| | |
|---|---|
| Optional Equipment | Ultrasonic Anthropometer, Fully Automatic Sphygmomanometer, USB Memory, Thermal Printer, Product Bag (Fabric or Plastic) |
| Printing Logo | Printing logo or the name of hospital, address, contact information on the pre-printed result sheet. |
| ID Usage | It is selected whether ID is used for subjects or not. |
| Scale Offset | Compensating measured value of weight scale |
| Clothes | Compensating the weight of clothes worn |
| Print Position | Adjusting print position to fit to the pre-formatted result sheet in the direction of up/down and left/right |
| Date · Time | Setting current date and time |
| Measurement Result | ACCUNIQ MANAGER |

※ For purpose of improvement, specifications and design are subject to change without notice.
This is a medical device. Read precaution and operation method before use.

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