

Medical Diagnostic Device

# ACCUNIQ BC300

## Body Composition Analyzer

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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.





# Medical Devices to Help Promote Health & Longevity

ACCUNIQ medical devices are manufactured by SELVAS Healthcare, a global company that incorporates the most advanced technology available to provide accurate and reliable results. We are committed to partner with our customers to provide high quality products to help their patients and clients monitor and improve their health.

Crazy Fit, Incredible Life  
Our one and only desire - a perfect body!



### History

- 2016 Corporate name changed to SELVAS Healthcare, Inc., and listed in KOSDAQ
- 2015 World's first dual-type sphygmomanometer system approved by the US FDA
- 2014 Grand Prize, 1st People's Happiness Premium IT-incorporated Korean Medical Device Awards
- Popularity Award, Analysis and Diagnosis System Segment 2014 Selected by "Health & Beauty," a German fitness magazine
- 2010 Advanced Venture Company Award
- 2006 Director's Award by the Korea Food and Drug Administration (KFDA)
- 2005 Bronze Prize, 13th Republic of Korea Technical Awards
- Silver Prize, Venture Design Awards
- Bronze Medal of Industrial Effort, 35th Precision Technology Promotion Contest
- 2004 Body Fat Analyzer Selected as a World-Class Product (Ministry of Commerce Industry and Energy)
- 2003 Director's Award by the Korea Food and Drug Administration (KFDA)
- 2001 Prime Minister's Award, Trade Day
- KGMP(Korea Good Manufacturing Practice)-Certified
- 2000 Top Prize, Leaders' Venture Awards
- President Kim, Dae-Jung and First Lady visited our company
- 1999 Presidential Award in National Venture Awards
- Selected as a World Top-class Company

### Certifications and Awards



GMP Certified



CE Certified



GoodDesign Award



Presidential Award in National Venture Award



Bronze Medal of Industrial Effort in Precision Technology Promotion Contest

ACCUNIQ medical devices have been used globally to measure and analyze overall health results with our healthcare and fitness professionals in mind where accuracy is of the utmost importance. They are currently used globally in hospitals, medical facilities, doctor's offices, weight loss centers, Fitness Centers, nursing homes, public health facilities, and retail locations.





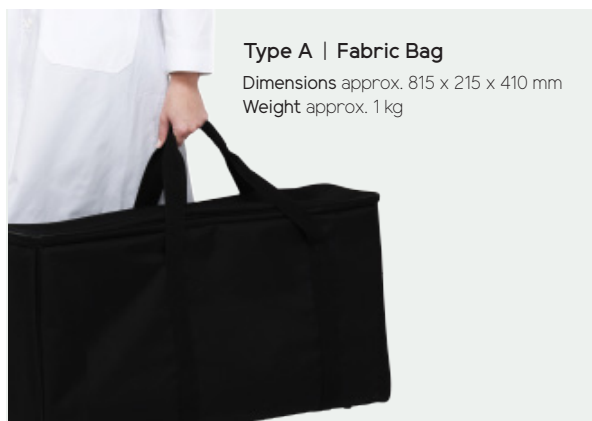
- Monographic LCD Touch Screen
- 3 Available Frequencies: 5,50,250 KHz
- Built in Thermal printer
- User Configurable Modes - Adult, Athlete, Wrestler and Goal Setter
- Client Tracking Software Provided (ACCUNIQ MANAGER)
- USB and RS232 ports for computer or printer interface

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.



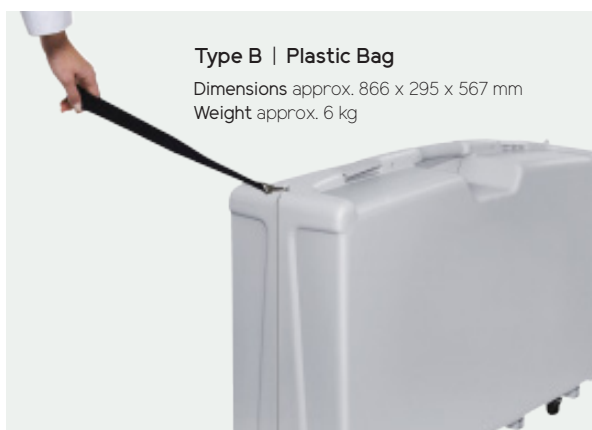
#### Measurement Handle

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

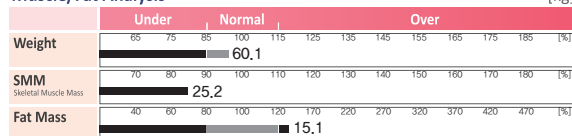
Height : 170.6 cm Age : 35 years Gender : Male Test Date/Time : 21 - 09 - 2016 09:34



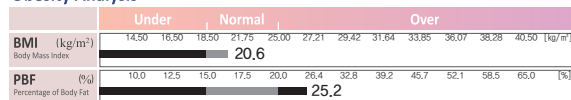
## 1 Body Composition Analysis

	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)				

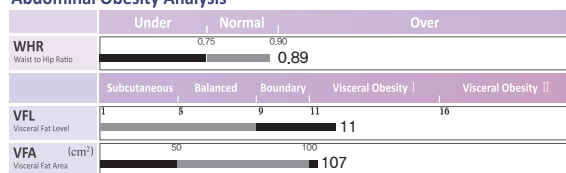
## 2 Muscle/Fat Analysis



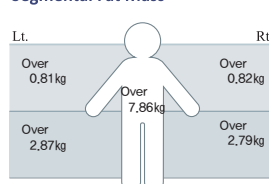
## 3 Obesity Analysis



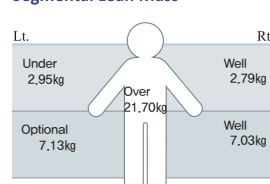
## 4 Abdominal Obesity Analysis



## 5 Segmental Fat Mass



## Segmental Lean Mass



## 6 Body Composition Change

	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	<input type="checkbox"/> underweight	<input checked="" type="checkbox"/> normal	<input type="checkbox"/> overweight	<input type="checkbox"/> obese
PBF	<input type="checkbox"/> low-fat	<input type="checkbox"/> normal	<input type="checkbox"/> over-fat	<input checked="" type="checkbox"/> 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.





### 1 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.

### 2 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.

### 3 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.

### 4 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.

### 5 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.

### 6 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.

### 7 Comprehensive Evaluation

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

### 8 Control Guide

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

### 9 Obesity Assessment

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

### 10 Impedance

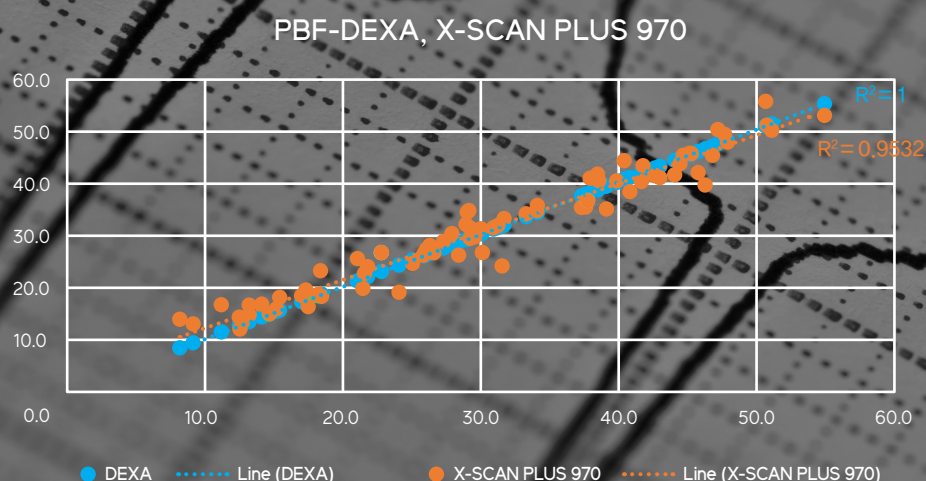
Impedance using frequency applied to a body part. Impedance is a resistance value when electric current is passed through the body. Each subject has a unique impedance.

### 11 Blood Pressure Analysis

This item indicates your blood pressure data when the product is connected to the sphygmomanometer 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( $R^2$ ) of DEXA is 1, and the accuracy of ACCUNIQ is higher if  $R^2$  value is close to 1.

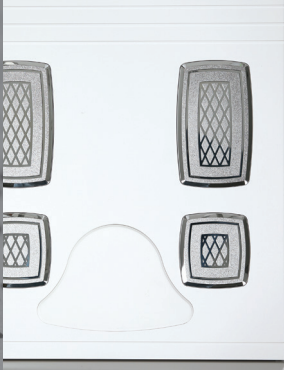
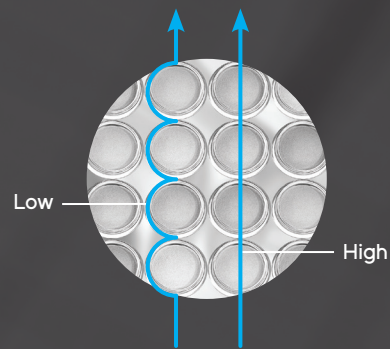
※ The accuracy of X-SCAN PLUS 970 is proved through clinical study with DEXA at IHT center in USA, and the accuracy of other ACCUNIQ brands are guaranteed by high correlation each other.

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	<b>Body Composition Results</b> 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	<b>Main Unit</b> 400×735×890mm (W×D×H±10mm) <b>Main Unit+Height Meter</b> 400×845×2250mm (W×D×H±10mm)
Weight	Approx. 10kg (main unit)
Measuring Range	100~950 $\varnothing$
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°C, Relative humidity range 15 to 93% (non condensing)
Storage Ambient	Ambient temperature range -25 to +70°C, 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.



SELVAS Healthcare is Jawon Medical's new company name.

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