

The partner of your choice for well-balanced life

# i50

## Advanced Body Composition Analyzer



  
MEDIANA

 MEDIANA

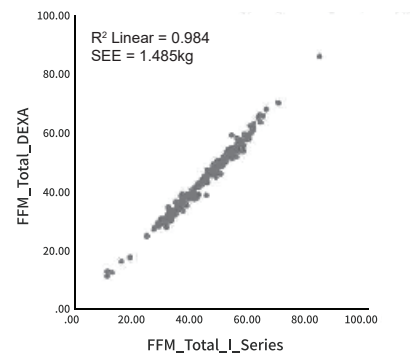
iSeries

# ADVANCED BODY COMPOSITION ANALYZER



## Inch Perfect and Up to Date Body Composition Analysis Algorithm

Clinical trials of Gold Standards of Body Composition Analysis methods (DEXA, CT, and Isotope Dilution) were conducted in professional institutions to a wide range of demographics ranging from elderly to small children. The R2 value between the DEXA measurement and the body composition prediction equation was 0.984, indicating a high correlation.



## Result Sheet: Easy to Understand Description

Analysis results can be easily understood through the intuitively designed result sheet with previous measurement results and predicted values.



## User Friendly Design

**Rotatable Handle:** The wide rotating radius of the handle and the hand electrode, which can be rotated to suit user's posture, helps to test comfortably and accurately.

**Blind Mode:** User can hide Fat and Weight information from the display by simply pressing a "Blind" button on the key pad. It can be turned on/off during measurement and will be written at the result paper all the time.



## Key Features



### High Resolution 10.4 inch Color LCD Touch Screen

All operations can be conveniently performed on the wide touch screen.



### Wide Ranged Multi-Frequencies: 1,5,50,100,250,500kHz

With a wide range of frequencies, comprehensive water analysis such as Intracellular and Extracellular Water is available.



### Age Specific Assessment

It shows the percentile curve of BMI, SMI and FMI with respect to the age and gender of user. The percentile rank is the value indicating the position of user within the same age group relatively. The predicted Body Composition value after 10 years is the value predicted on the assumption that the current condition is kept.



### Muscle & Body Cell Mass Analysis

Muscle Mass may be overestimated in patients with unbalanced Intracellular/Extracellular Water. Therefore it is recommended to use Body Cell Mass in addition to muscle mass for accurate analysis.



### Whole Body Phase Angle

Phase Angle indicates the ratio of reactance to resistance and is proportional to reactance, so it serves as an index for health condition of cell membrane and cell in theory.



### Previous Measurement Result Display

You can check the trend of Body Composition through previous measurement result display.



### Comprehensive Water Analysis

Comprehensive body water measurement such as Body Water, Extracellular Water, Intracellular Water, and Extracellular Water Ratio is possible, and changes in Body Water can be checked at the same time.



### Intake & Consumed Calories

BMR, Energy Consumption can be checked and you can refer to Exercise Intensity, Calorie Consumption, duration for Target Body Fat Mass which is calculated based on the standard Body Fat Ratio.



ID. **mediana12345** Gender. **Male** Height. **175.0 cm** Age. **30**  
 Name. **Test** Current. **2019.03.05 10:00** Previous. **2019.02.01 09:00**

### 1 Mediana Score

**80**

### 2 Weight Control

Obesity Degree (%)	<b>104.0</b>
Desirable Weight (kg)	<b>67.2</b>
Weight Control (kg)	<b>-2.8</b>
Fat Control (kg)	<b>-2.8</b>
Muscle Control (kg)	<b>0.0</b>
LBM Control (kg)	<b>0.0</b>

### 3 Abdominal Obesity Analysis

Waist Circumference (64.0 ~ 96.0cm)	<b>77.2</b>
Abdominal Fat Ratio (0.80 ~ 0.90)	<b>0.83</b>
Visceral Fat Area(Level) (0.0 ~ 100.0cm <sup>2</sup> , 0 ~ 9)	<b>46.4 (4)</b>
Subcutaneous Fat Area (0.0 ~ 200.0cm <sup>2</sup> )	<b>77.6</b>
VSR (0.0 ~ 0.4)	<b>0.59</b>
WHtR (0.00 ~ 0.50)	<b>0.44</b>

### 4 Reference

FMI (2.78 ~ 3.75kg/m <sup>2</sup> )	<b>4.18</b>
FFMI (15.72 ~ 21.25kg/m <sup>2</sup> )	<b>18.68</b>
SMI (6.60 ~ 8.91kg/m <sup>2</sup> )	<b>8.21</b>
Body Cell Mass (25.5 ~ 28.7kg)	<b>37.5</b>

### 5 Whole Body R / Xc / φ

50kHz R : 415.2Ω / Xc : 47.3Ω / φ : 6.5°  
 R : Resistance, Xc : Reactance, φ : Phase angle

### 6 Impedance

kHz	LA	RA	TR	LL	RL
1	365.2	365.3	29.9	280.1	290.6
5	321.4	321.5	27.4	246.4	257.5
50	280.7	282.8	22.4	218.3	227.7
100	272.3	272.7	20.5	208.7	209.1
250	268.6	268.8	18.9	202.6	203.2
500	249.8	249.9	17.6	188.4	188.6

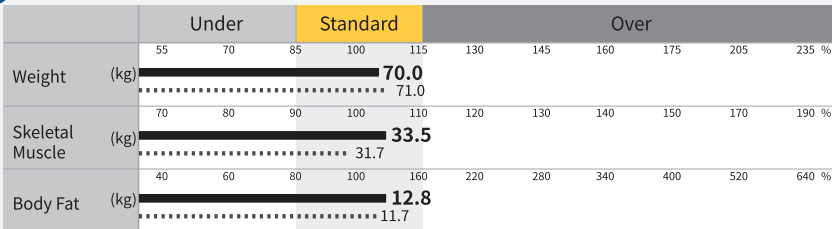


QR code reading allows you to manage your body composition measurement results with your smartphone

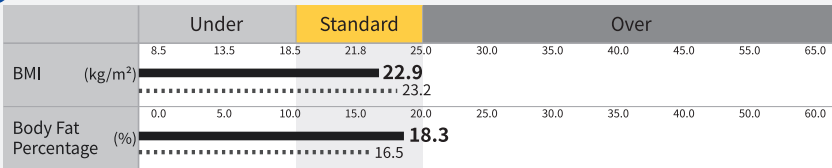
### 7 Body Composition Analysis

	Intracellular Water (L)	Extracellular Water (L)	Protein (kg)	Mineral (kg)	Body Fat (kg)
Values (Standard)	<b>26.1</b> (23.3 - 26.8)	<b>16.0</b> (14.3 - 16.4)	<b>11.4</b> (10.6 - 11.9)	<b>3.73</b> (3.77 - 4.24)	<b>12.8</b> (8.0 - 16.0)
Total Body Water (L)	<b>42.1</b> (37.7 - 43.3)	/Weight (60.1%) /FFM (73.6%)		<b>54.1</b> (48.5 - 55.3)	<b>Osseous : 3.10</b> (3.13 - 3.52)
Muscle Mass (kg)	<b>Skeletal Muscle : 33.5</b> (28.8 - 35.2)				
Fat Free Mass(LBM) (kg)	<b>*LBM : Lean Body Mass</b>				<b>57.2</b> (53.9 - 60.6)
Weight (kg)					<b>70.0</b> (57.2 - 77.4)

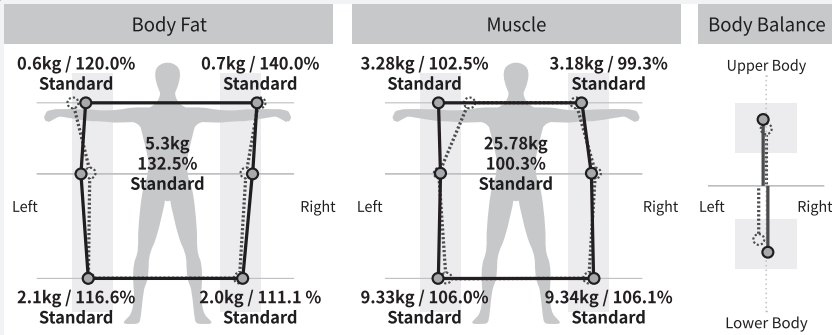
### 8 Skeletal Muscle & Fat Analysis



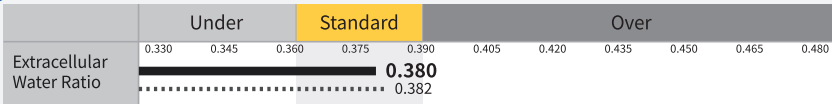
### 9 Obesity Analysis



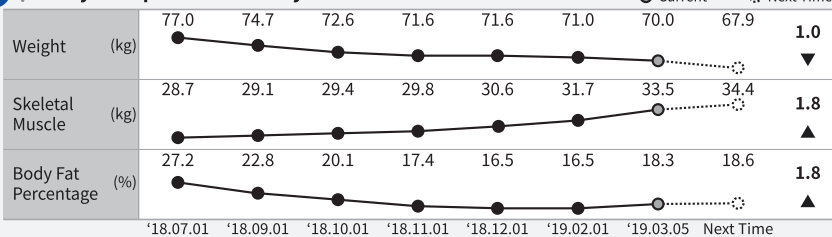
### 10 Segmental Analysis & Body Balance



### 11 Extracellular Water Ratio



### 12 Body Composition History



# Result Sheet

## ① Mediana Score

MEDIANA score, utilizing the company's own technology, provides health issue analysis by combining Body Fat Percentage and Muscle Mass.

## ② Weight Control

It informs, based on your results, Desirable Weight and how much Muscle and Fat needs to be gained or lost.

## ③ Abdominal Obesity Analysis

Check your Abdominal Obesity based on your Waist Circumference, Abdominal Fat Ratio, Visceral Fat Area, Subcutaneous Fat Area, Visceral to Subcutaneous Fat Ratio(VSR) and WHtR.

## ④ Reference

FMI value is derived by Body Fat Mass(kg) divided by Height(m)<sup>2</sup>. FFMI value is derived by Fat Free Mass(kg) divided by Height(m)<sup>2</sup>. SMI is the limb muscle mass(kg) divided by the square of body height(m). Body Cell Mass is the sum of protein and intracellular water among the Lean Body Mass which is all areas except for body fat.

## ⑤ Whole Body Resistance/ Reactance/ Phase Angle

Phase Angle indicates the ratio of Reactance to Resistance and is proportional to Reactance, so it serves as an index for health condition of cell membrane and cell in theory.

## ⑥ Impedance

Impedance is the resistance value that prevents the travelling of electric wave. Varying nature of impedance on different waves of frequency makes possible an accurate, more 'layered' analysis of Body Composition.

## ⑦ Body Composition Analysis

Human body consists of four major components– Body Water, Protein, Body Fat and Minerals, comprising Total Body Weight.

## ⑧ Skeletal Muscle & Fat Analysis

Weight, Skeletal Muscle and Body Fat is shown with the standard given in grey shade to check where you fall in comparison the standard.

## ⑨ Obesity Analysis

BMI value can be derived by dividing Weight by the square of your Height. Body Fat Percentage refers to the proportion of Body Fat Mass against total weight.

## ⑩ Segmental Analysis & Body Balance

It gives analysis results for each separate body limb and trunk fat composition, enabling fat distribution analysis and for body balance assessment.

## ⑪ Extracellular Water Ratio

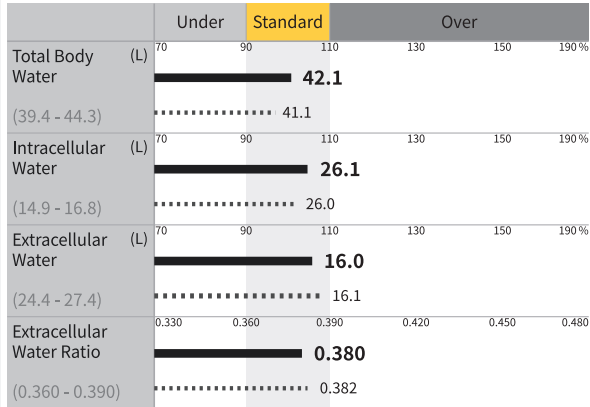
Extracellular Water, an indicator for Body Water Balance can be used for diagnosis of edema and evaluation of health status by professional medical personnel.

## ⑫ Body Composition History

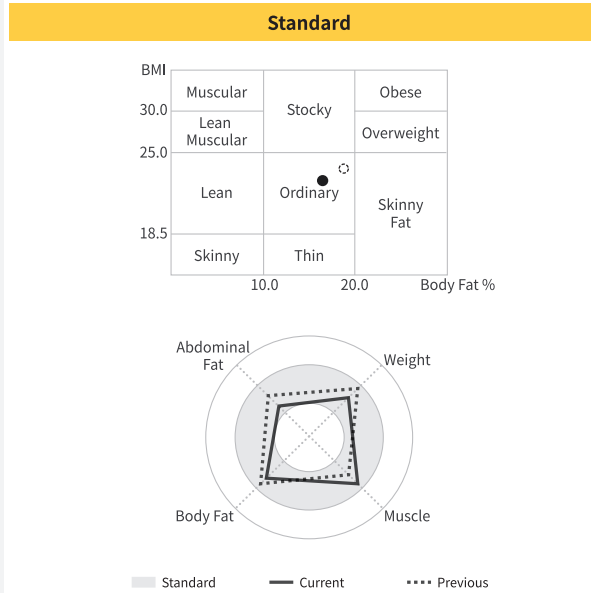
You can track changes in the main body composition values and prediction of next measurement results that you are likely to get based on the accumulated data.



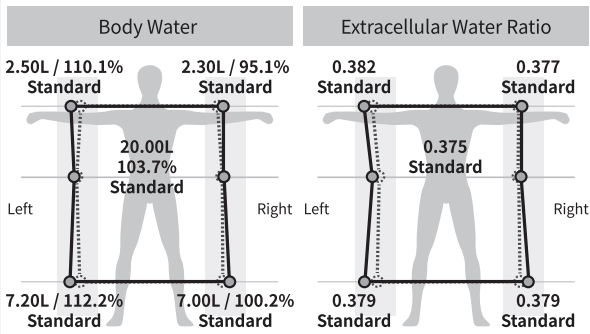
**13** **Body Water Analysis**



**16** **Body Type Analysis**



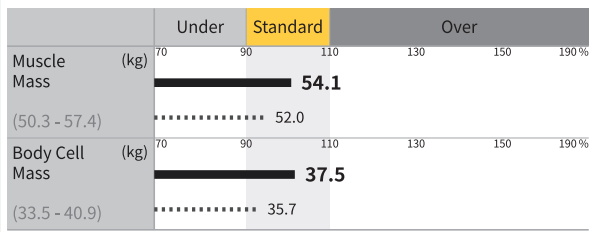
**14** **Analysis of Body Water by Body Parts**



**17** **Circumference of Body** (cm)

Left upper arm	Right upper arm	Waist	Left thigh	Right thigh
30.1	30.8	77.2	48.8	48.3

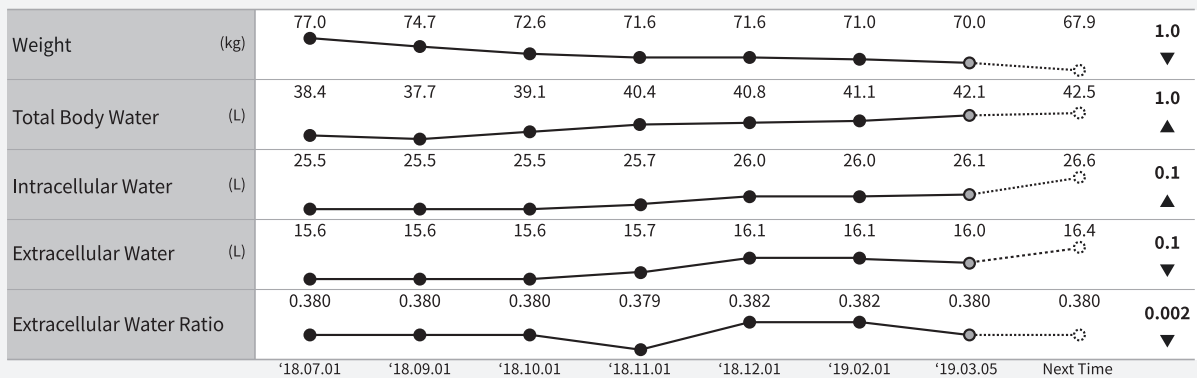
**15** **Muscle & Body Cell Mass Analysis**



**18** **Intake & Consumed Calories** · Based on Jogging(1hour/day)

BMR	1605	(kcal)
Total Energy Expenditure	2434	(kcal)
Target Body Fat Mass	10.1	(kg)
*Exercise Intensity	133~161	(HR/min.)
*Calorie Consumption	490	(kcal/h)
*Estimated Completion	10	(Week)

**19** **Changes of Body Water**



### 13 Body Water Analysis

Body Water takes up the largest share of Body Composition, carries oxygen and essential nutrition to cells, and removes waste materials out of the body. The water inside the cell membrane is called Intracellular Water, and the water present in the blood and interstitial fluid is called Extracellular Water.

### 14 Segmental Body Water Analysis

It shows the distribution of Body Water and Extracellular Water Ratio of the left arm, right arm, trunk, left leg and right leg. You can check at a glance whether the Intracellular and Extracellular Water in each part of the body are in balance.

### 15 Muscle & Body Cell Mass Analysis

Muscle Mass may be overestimated in patients with unbalanced Intracellular/Extracellular Water and accurate analysis may be hard. Therefore, in case of patients with unbalanced Body Water, it is recommended to use body cell mass in addition to muscle mass for accurate analysis.

### 16 Body Type Analysis

Body Type table and graph help define body type through BMI and Body Fat Percentage.

### 17 Body Circumference

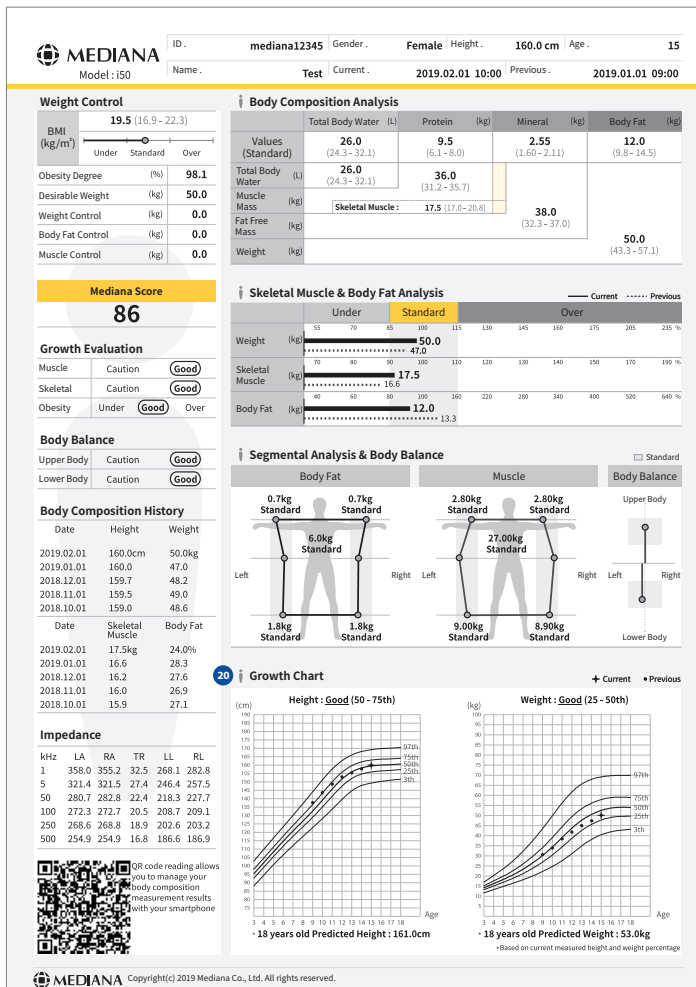
It shows the circumference of each segment predicted based on Impedance measurements.

### 18 Intake & Consumed Calories

BMR, Energy Consumption can be checked and you can refer to Exercise Intensity, Calorie Consumption, duration for Target Body Fat Mass which is calculated based on the standard Body Fat Ratio.

### 19 Body Water History

You can track changes in the main Body Water Values and prediction of next measurement results that you are likely to get based on the accumulated data.



# Children Result Sheet

### 20 Growth Chart(Children)

Children Result Sheet predicts a child's future height and weight based on the current status of growth curve. It describes a form of relative Weight and Height from peer-age groups.

**i Series** are the sets of body composition analyzers of Mediana's own.

It analyzes your body into 4 major components: fat, protein, minerals, and body water.

It shows not only how much you weigh, but what you are made of, and enables you to keep track of changes in fat mass, muscle mass, and body fat percentage, to have a brief outlook of your health from the inside out.

i Series is for whoever try to achieve their fitness or health goal.



**i20**



**i25**



**i30**



**i35**



**i50**



**i55**



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