# SFB7. For the Next Generation in Body Composition Analysis

## Imp<sup>™</sup> SFB7.

Select the latest generation in Bioimpedance spectroscopy (BIS)

- 256 frequencies
- Greater accuracy and precision



# impedimed<sup>®</sup>

ImpediMed Inc.

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## **Specifications (BIS mode)**

#### Frequency:

4 to 1000 kHz

Number of frequencies

256

Impedance range

10 to 1100 Ω

Impedance accuracy

+/- 1.0% 50  $\Omega$  to 1100  $\Omega$ 

Phase range

 $-90^{\circ}$  to  $+90^{\circ}$ 

Phase resolution

0.1°

**Portability** 

Full on-board computing

Measurement time

Less than 1 second

Software

Analysis software provided

(Windows® compatible)

Data transfer

Ethernet

**Dimensions** 

L = 190 mm (7.5 in)

W = 130 mm (5.1 in)

D = 110 mm (4.3 in)

Weight

1 kg (2.2 lb)

Display

320 x 240 pixel 1/4 VGA LCD display

Measured data displayed

Cole-Cole plot (resistance vs reactance),

frequency vs resistance, frequency vs reactance, characteristic frequency, mean cell membrane

capacitance

Calculated data displayed

Fat-free mass (FFM), fat mass (FM), total body water (TBW), intracellular fluid (ICF), extracellular fluid (ECF)

Power requirements

Internal rechargeable Li-ion batteries

Electrode leads

Shielded cable of 1.5 m (1.6 yd) lengths

Measurement mode

Tetra polar

Data accessibility

Full raw data access

## ImpediMed Imp<sup>TM</sup> SFB7: Supreme accuracy and precision using BIS

The Imp<sup>TM</sup> SFB7 is a single channel, tetra polar bioimpedance spectroscopy (BIS) device that scans 256 frequencies between 4 kHz and 1000 kHz. The device utilises Cole modelling with Hanai mixture theory to determine total body water (TBW), extracellular fluid (ECF) and intracellular fluid (ICF) from impedance data. Fat-free mass (FFM) and fat mass (FM) are then calculated on the device. Further data analysis can be undertaken in the supporting software (supplied). Therefore, no population specific prediction equations (algorithms) are required for data analysis.

#### Imp<sup>™</sup> SFB7

- Bioimpedance spectroscopy 256 discrete frequencies
- Single channel tetra polar configuration
- Portable full on-board computing
- Touch screen
- Low noise data generation no high frequency hook effect
- Highly accurate body composition analysis
- Readings in less than one second
- Advanced options user-definable hydration coefficient
- Full access and disclosure of all raw data
- Supplied with case, electrodes and clips, leads and software on CD-ROM

#### **Quick and simple**

Instructions for use in BIS mode \*

- 1. Turn device on.
- 2. Place electrodes on hand and foot in correct position on the same side of the body.
- 3. Plug leads into the device.
- 4. Select Measurement setup on the menu, enter patient details and select measurement setting.
- 6. Touch the "Measure" button to make a measurement.

<sup>\*</sup> Always refer to the Instructions for Use prior to operating the device



Measurement results: The first screen displays TBW, ECF, ICF, FFM and FM. Further displays include display of Cole-Cole and resistance and reactance plots.

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#### **Comprehensive Reports**

The ImpediMed device software generates comprehensive reports and allows sophisticated data manipulation

#### Impedance analysis report

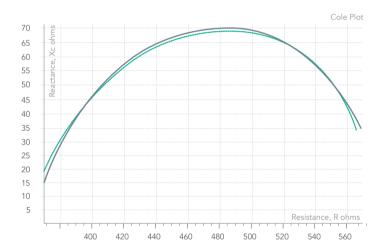
 Source file name:
 C:\sfb7\patient report.mfu

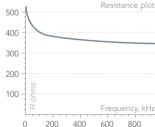
 Comment:
 20/05/2005 02:43:12 PM

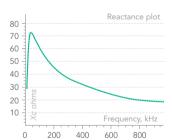
 Acquisition date:
 15/06/2005 11:35:12 AM

 Print date:
 15/06/2005 11:35:12 AM

Accepted data
Ignored/Rejected
Fitted curve







Analysis Parameters	Fit semicircle	Body composition
Low frequency: 3.1 kHz High frequency: 1000.5 kHz Rejection tolerance: none Td correction: -8.0 Total points: 256 Points used: 256 Number ignored: 0 Number rejected: 0	R centre: 480.3 H centre: -67.5 Radius: 138.9 SEE: 0.4934	TBW: 48.9 litres ECF: 23.5 litres ICF: 25.4 litres FFM: 66.8 kg FM: 18.4 kg BMI: 23.9

Body composition settings	Patient details	Derived values
RHOe: 340.10 RHOi: 859.0 Body density: 1.05 Body proportion: 4.30 Hydration constant: 0.732	Height: 1.89 cm Weight: 85.2 kg Age: 33 years Sex: Male	R zero: 601.7 ohms R infinity: 359.0 ohms Re: 601.7 ohms Ri: 890.0 ohms Z characteristic: 458.6 ohms f characteristic: 29.0 kHz Membrane cap: 3.68 nF