

Description of "PULSTRIM +"

Product PULSTRIM + is an extension of a number of devices developed by DR technology MWC.

Five-year experience in operating the previous model PULSTRIM showed high efficiency of this device in a residential application.

Over time, as there was a need to improve its performance and to enhance device functions.

These are:

- The possibility of simultaneous recording of ECG and pulsogramm;
- The possibility of determining pulse wave velocity;
- Improving the sensitivity and interference resistance device;
- Ability to work offline without connecting to a PC;
- The ability to directly connect to a cellular phone;
- The possibility of sending SMS messages a doctor;
- The possibility of transmission of ECG pulsogramm and the medical server.

In this case it was necessary to save weight and size characteristics of the device, as well as to ensure the continuity of the existing user interface and maintaining the structure of an existing database.

All of the above requirements have been implemented in the device PULSTRIM +. Simultaneous recording is achieved by introducing a second independent channel, with a time resolution of each channel is 5 msec. The weakening of adjacent channel is not worse than 70 dB.

Increasing the sensitivity achieved by the use of stochastic resonance.

Sensitivity of channels to 2.5 microvolts, with a ratio signal / noise ratio of 1:1.

To improve the noise immunity of digital filters designed more.

Pulse wave velocity is determined by the simultaneous recording of ECG and pulsogramm and assesses the state of the vascular wall. At this parameter is also evaluated dynamic changes in blood pressure.

In order to provide connectivity to the cellular phone was developed, based on the type SMARTPHONE HTC, user interface is largely identical to the interface has been developed for the PC.

The software on the PDA is designed to work under OS Windows Mobile ver. 6.1.

Communication device with a smartphone PULSTRIM carried via USB.

PC software is designed to work running Windows XP, Windows 7.