

SUPERSENSITIVE MAGNETOCARDIOGRAPHIC SYSTEM FOR EARLY DETECTION, DIAGNOSIS, AND MONITORING OF HEART DISEASES



Areas of Application

The system is designed for early detection of ischemia, diagnosis of coronary artery disease, stratification of arrhythmia risk and prolonged QT syndrome, diagnosis of coronary arteries diseases, evaluation of the treatment effectiveness, and testing of drugs on proarrhythmic effect

Specification

Reference MCG electrocardiograph for signals synchronization; clinical tests and certification; guidelines approved by the Ministry of Health of Ukraine.

The number of measuring channels	9
Capacity, patients per hour	4
Scanning area, cm	20 × 20
Scan accuracy, mm	4
The working days on one portion of liquid helium, days	5
Service life, years	10

Advantages

There are no competitors in Ukraine; the device is 2–3 times cheaper as compared with the foreign counterparts; enables to localize multiple electrical sources distributed in the heart volume; the noise suppression algorithms and signal processing provide accurate diagnosis without the use of special means for reducing the magnetic noises (for instance, expensive shielding)

IPR Protection

IPR3, IPR4

Stage of Development.

Suggestion for Commercialization

IRL6, TRL6
 Manufacture of small series, supply, warranty maintenance, and staff training, upon request

Contact Information

Sergii V. Yershov, Glushkov Institute of Cybernetics of the NAS of Ukraine;
 +38 044 526 41 78, e-mail: ErshovSV@nas.gov.ua