

# A new data acquisition and processing system for profiling sonar (PDF)

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Title: A new data acquisition and processing system for profiling sonar

作者: 徐小卡;桑恩方;乔钢;王继胜;

College of Underwater Acoustic Engineering, Harbin Engineering University, Harbin 150001, China

Author(s): XU Xiao-ka SANG En-fang QIAO Gang WANG Ji-sheng

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摘要: A multi-beam chirp sonar based on IP connections and DSP processing nodes was proposed and designed to provide an expandable system with high-speed processing and mass-storage of real-time signals for multi-beam profiling sonar. The system was designed for seabed petroleum pipeline detection and orientation, and can receive echo signals and process the data in real time, refreshing the display 10 times per second. Every node of the chirp sonar connects with data processing nodes through TCP/IP. Merely by adding nodes, the system's processing ability can be increased proportionately without changing the software. System debugging and experimental testing proved the system to be practical and stable. This design provides a new method for high speed active sonar.

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备注/Memo: 国家高技术研究发展计划(863计划)

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