

论文

海底地震数据记录器

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收稿日期 2001-11-9 修回日期 2002-7-25 网络版发布日期 接受日期

摘要 海底地震数据记录器是一种大动态、宽频带数字仪器, 能用于海底或陆地边远地区记录地震数据. 它体积小、重量轻、操作简单, 采用两个缓存存储器控制PC/104嵌入式计算机, 能在低功耗、长时间连续记录地震数据. 记录器的关键部件是PC/104嵌入式计算机, 能保证记录器工作可靠. 它使用硬盘存储数据, 2GB的硬盘能容纳 1 9998 GB的地震数据, 记录地震数据多长时间由抽样率决定.

关键词 [海底地震](#) [数字仪器](#) [24位A/D转换器](#) [存储器](#) [PC/104嵌入式计算机](#)

分类号

DOI:

AN OCEAN BOTTOM SEISMIC DATA RECORDER

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Received 2001-11-9 Revised 2002-7-25 Online Accepted

Abstract An ocean bottom seismic data recorder is introduced in this paper. The recorder is a broad band digital instrument of large dynamic range, and can be used for recording earthquake data on the ocean bottom or in remote land areas. It is a compact, light weight and easy to operate instrument, adopting two buffer memories to control the embedded PC/104 computer, so that it can record the seismic data continuously over long time at a low power dissipation. The key component of the recorder is the embedded PC/104 computer, which ensures the reliable operation of the recorder, the average power consumption is about 2W. The 2 GB hard disk can hold 1.9998GB seismic data, the time duration of recording depends on the sampling rate.

Key words [Ocean bottom earthquake](#); [Digital recorder](#); [24 bit A/D converter](#); [Memory](#); [PC/104 embedded computer](#).

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