

How to choose a reliable CF Card for VDR



VDR (Voyage Data Recorder) is an instrument continuously recording real-time data of ship body, including speech communication signal of cockpit, sensors data, alarm status and radar images, at the time ship breaks down. Before deployment, VDR is tested and approved to be resistant of fire, puncture and deep immersion to make sure the data is well stored and recoverable after accident happens. Based on these data about ship navigation and operation, accident investigation will go smoothly and root cause could possibly be found.

Nowadays technical trend of VDR is to expand the data collection range (e.g. including video signal) or extend the recording time (24 hours or longer). To achieve such goals, capacity of the storage has to be larger. Thus in near future storage solution used by VDR should enlarge the capacity to maximum extent while guarantee the reliability as well. However because of the harsh environment of ship navigation and electromagnetic interference released by instruments in cabin, choosing the storage solution becomes the most crucial section for VDR design.

What is VDR used for?

- To provide evidence for marine investigation and arbitration.
- To monitor the operation status of ship officer, or training crews on-board and judge their

skill levers.

- To monitor status of main engine and energy saving, so as to improve the information management level of shipping company.

International standards of VDR specifications:

1. VDR should be able to keep complete records of pre-selected index information, such as devices status, outputs, and shipping's commands and operations.

2. Packing should use protective material and has to be bright in color hence easy to search.

3. Able to operate automatically and recording time is above 12 hours.

4. Record contents should include below items at least.

* Navigation parameter, such as ship's position, speed, heading and depth of the keel * 12 hours' speech communication signals captured from microphones in cockpit * Data and time of each operation

* Status of mandatory alarms at Navigation Bridge

* Copy of any voice signal by radio communication

* Displayed radar images

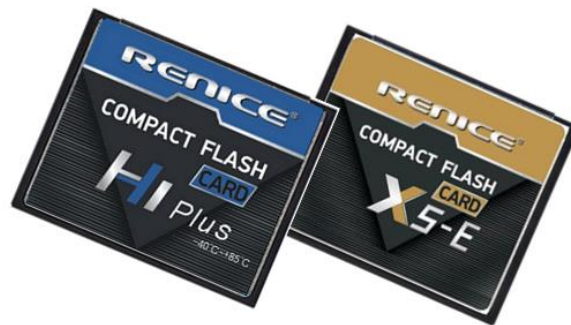
* Wind speed and direction

* Data of seismic streamer sonoprobe.

* Ship sailing acceleration

* Stresses on ship body

Advantages Renice Compact Flash delivers in VDR application:



Renice industrial grade Compact Flash is designed according to standard interface (IDE 50Pin) and is able to work across -40°C to +85°C. Besides high performance and low power consumption, Renice CF Card is resistant of vibration and dust. All these features, plus power failure protection, provide best compatibility and reliability for storage devices with PATA interfaces.

Customizable functions:

1. Physical destruction of drive.

2. Remote destruction and locating based on BEIDOU navigation system