

## Robust solid-state single-channel DVR for vehicle applications

### Features and Benefits

- Low cost
- Extremely compact design
- Superb image quality
- Super reliability—no hard disk
- No PC, no operating system
- Very simple installation
- Separate 12/24V power supply
- All solid-state device
- Wide operating temperature range
- Records onto removable Compact Flash
- High-resolution recording (720 x 576)
- JPEG2000 image compression
- 0.1 fps to 30 fps recording rate
- Up to 16GB recording capacity (220 hrs @ 1fps)
- Alarm inputs for auto/manual event marking
- Playback directly to video monitor or via PC
- CF recordings can be played back on PC
- Starts recording within 5 secs of ignition-on

DRIVEPROOF is a single-channel digital video recorder for vehicle applications. It is an all-solid-state-design, recording to standard Compact Flash (CF) memory cards. With CF cards available up to 16GB, DRIVEPROOF can store over 200 hours of recordings at full-frame resolution (720 x 576) and at 1 fps. The product has been designed for environments where normal hard-disk based DVRs are found to be unreliable, and is ideal for vehicle applications. Vehicle applications tend to heavily stress normal DVR systems due to very high levels of shock and vibration, but also due to power variations, very noisy power sources, temperature extremes, frequent and often unexpected start-stop cycles, and cooling fan failure due to dust and dirt ingress. Such an environment is totally unsuited to hard disk systems, even if they are shock-mounted. It is also unsuited to operating systems which often crash when being frequently re-booted and interrupted. Thus DRIVEPROOF has been designed as a dedicated hardware system for single-channel recording of composite video. There is no operating system, no hard disk and no fans or moving parts of any kind.



DRIVEPROOF records onto robust Compact Flash cards, just like those used in many digital cameras. These cards are available in sizes from 64MB to 16MB, and are extremely robust, being able to withstand shock, vibration and general rough handling—essential for vehicle environments. The image compression used is JPEG2000, providing very high quality images. The compression can be varied to provide image file sizes from 2KB (very high compression) to 32KB (very high quality).

DRIVEPROOF has been designed from the ground up with total system reliability in mind. With no operating system, and all program software burned into solid-state memory the system will start recording within 20 seconds of the vehicle ignition being switched on.

DRIVEPROOF is powered by a separate 12V or 24V DC to DC power supply which filters vehicle power supply noise. This also makes the unit easier to install in small spaces. We recommend a lockable box or covered area with locking screws to prevent unauthorised access to the unit and especially the CF card, which is easily removed.

Thus DRIVEPROOF is ideal for vehicle applications (such as school buses) where systems may go untouched for very long periods until an incident occurs.

When this happens, there are several options for reviewing the video images. First, the CF card may be pulled out and the images played back on a PC. Second, a composite video monitor and PC keyboard may be connected to the unit, and the images played back in situ. Finally, due to its compact size and very light weight, the entire unit may be removed and hooked up to a monitor and keyboard on the bench and played back that way. Note that the CF card may be pulled out at any time, even if the unit is still recording. A new card may be inserted at any time even if the unit is switched on. Thus cards are hot-swappable. A new card will be automatically formatted by the system. No user interaction is required. When required, the recordings can be transferred onto a PC, and from there onto a CD or DVD. Alternatively, the video footage may be played back and recorded onto video tape by connecting a VCR directly to the DRIVEPROOF video output.

DRIVEPROOF is delivered complete with playback software for Windows PCs. This allows full analysis of the recordings including a graphical display of even history and recording times, replay in full-frame or single field mode, duplication of files, burning onto CD and DVD, and archiving of critical files to hard disk for long-term storage.

### Technical Specifications

**Video Input:** Composite video 1Vpp, BNC connection

**Video Output:** Composite video 1Vpp, BNC connection for Live/Playback

**Resolution:** NTSC: 720 x 480, PAL: 720 x 576 (4CIF)

**Record Rate:** NTSC: adjustable 0.1 to 30 fps, PAL: adjustable 0.1 to 25 fps

**Image Compression:** JPEG2000, Minimum frame file size: 2KB, Maximum frame file size: 32 KB

**Archiving/Data Transport:** High speed Compact Flash Card (at least 40X). Also 1MB/s Ethernet port option

**Recording Media:** 1GB, 2GB, 4GB, 8GB or 16 GB Compact Flash card.

**Recording:** Continuous with event marking (via external alarm input)

**Alarm inputs:** 1

**Keyboard Port:** Standard PS/2

**Playback Control:** Play, pause, fast-forward, fast rewind, jump 1 min, jump 5 min, jump to next/previous event, all via a standard PS2 PC keyboard

**Communication Port:** RS232 Serial link connects to PC for configuration, if required

**Power:** External Power Supply 12 to 24V DC power supply

**Power consumption:** 7W

**Cooling:** Fanless System

**Dimensions:** W: 110mm x D: 170mm x H: 33mm

**Environmental:** Operating: 5 deg F to 125 deg F (-15 deg C to 50 deg C)

**Approvals:** CE, FCC, RoHS

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