

# HARSH ENVIRONMENT DIGITAL VIDEO RECORDER (DVR)



## Compact & Rugged High Quality MPEG2 Digital Video Recorder...

For high quality video recordings on the move, the miniature Solid-State Digital Video Recorder (DVR) from Stack provides the optimum solution and is specifically designed for use in harsh environments. The DVR employs broadcast standard MPEG-2 video compression to record high quality real-time video and audio direct to a PC flash card. This card can be removed with ease and played on a PC or laptop using a standard media player application.

The Stack DVR is housed inside a ruggedized and sealed enclosure, specifically designed and manufactured to protect the unit in harsh and extreme environments. The unit is compact and durable with no moving parts (other than the sealed flash card access door), and is capable of operating where normal VCRs or DV recorders are not. Recording in harsh environments, such as continual shock and vibration and extreme climate conditions is now entirely possible, making it ideal for all mobile and on-vehicle video recording applications.

A data overlay feature is also provided so that date and time may be stamped onto the recorded video. Recordings can be archived direct to DVD for playback on either a PC or a DVD player.

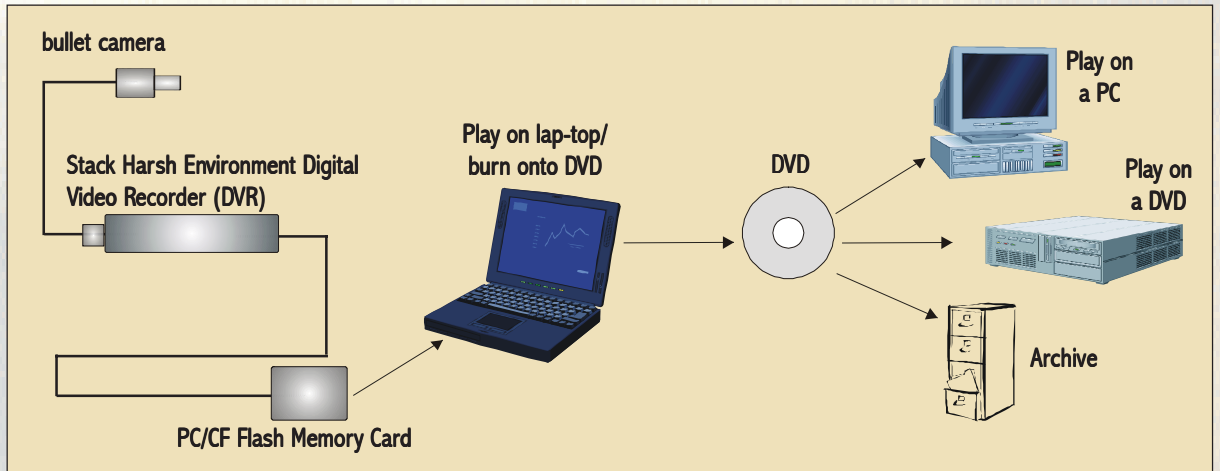
The Stack DVR can be used as a stand-alone harsh environment, solid-state Digital Video Recorder, for use with other video systems. We can also supply the DVR with a video kit incorporating a bullet CCD camera (pictured over), and even a full, Synchronized Video-Logger System, complete with modular data acquisition from 8 to 256 channels.

## Key Features include....

- Real-time MPEG-2 compression of video & stereo audio
- Record to removable PC-Card (PCMCIA or CF) flash disk, playable on a PC/laptop. Can be burnt to DVD
- Completely sealed to IP68
- Operates in temperatures of -20°C - +80°C
- Up to 16GB of memory, providing up to 8 hours of high quality, full resolution recording
- Optional line & mic level, stereo audio recording
- 7 - 15V DC powered, suitable for all mobile applications
- Rugged, small and lightweight with no moving parts

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VIDEO-LOGGERS



### High-resolution 1/3" colour CCD bullet camera (weatherproof version)

Stack offer a high-resolution, miniature bullet camera for use with the harsh environment DVR. The camera is weatherproof and supplied with a replaceable lens cover, in case of damage. Different lens options are available, and with a universal mounting structure, this makes a truly flexible and easy to instal camera. Comes complete with connections suitable for direct connection to the Stack DVR.



### DVR Specifications

#### General

Operating temperature range	-20°C to +80°C (extended range possible)
Mechanical size	151 (160 inc. connectors) x 76 x 20.5 mm
Finish	Hard black anodised aluminium
Weight	250g (approx.) without card
Operating voltage range	7 to 15 Volts DC
Power consumption	~2.5 Watts (~210 mA at 12 Volts DC)
Standby battery	Expected life > 1 year
Sealing	IP 67
Humidity	0-100% RH
Vibration	20g 50-2000Hz swept Sin. 12Hr x 3 axis
Radiated Emissions	EN55024B CISPR25
Radiated Immunity	50V/m
Conducted Immunity	DIN40839 Cat IV

#### Disk Interface:

Disk Interface	PCMCIA (CF compact flash via adapter)
Maximum address range	32 GB
Disk supply voltage	3.3 Volts
Disk format	IBM PC, FAT-32
File format	MPEG-2, Windows Media Player compatible

#### Misc:

Record switch input	TTL compatible, with 100k pull up to 3V3
Record OK output:	Open collector (12V Max)

#### Video

Video standards supported	PAL (625 lines), NTSC (525 lines), Composite & S-Video
Video input level	1 Vpp, 75 Ohm, ±10%
Video monitor output	1 Vpp, 75 Ohm, ±10% (includes on-screen display)
Power up to record time	< 2 seconds
Compression Format	MPEG-2
Quality ( /bitrate)	4 user selectable settings: Highest High, Medium, Low
Digital sampling (PAL):	

Resolution	PAL	NTSC
Full	720 x 576	720 x 480
Medium	480 x 576	480 x 480
Small	352 x 576	352 x 480
Smallest	352 x 288	352 x 240

Record Time:  
(minutes/GByte)

Resolution	Recording Quality			
	Low	Medium	High	Highest
Full	55	39	30	24
Medium	70	48	37	30
Small	83	60	47	39
Smallest	111	83	66	55

#### Audio:

Number of channels	2
Input Level	+3 to -30dBV (adjustable)
Input impedance	> 10 K Ohm
Mic bias	3.3 V DC, 1 K Ohm
Audio monitor output	0 dBV (nominal)
Audio monitor output impedance	< 100 Ohm

### Bullet Camera Specifications

Image Sensor	High Resolution, 1/3" DSP Colour CCD
High Resolution	480 TV Lines
Effective Pixels	PAL: 752(H) x 582(V) / NTSC: 768(H) x 494(V)
Min. Illumination	0.5 Lux at F2.0
Power Source	12V DC (operating range: 8V-15V)
Operating Current	130mA w/regulated power input

Operating Temperature	-10°C to +50°C
Humidity	Within 90% RH
Dimensions(mm)	21(diameter) x 71 (length).
Weight (g)	210
Standard Lens (focal length)	4.3mm (78° FoV).
Lens Options (focal length)	2.9mm (120° FoV) or 8.0mm (39° FoV)

*In the interests of continuous product improvement, we reserve the right to alter without notice the specifications and features described in this leaflet. This leaflet shall not form part of a contract involving Stack unless stated in writing.*