

# DiREX-20

Digital Video Surveillance Recorder



including  
Hard Drive



video compression

**H.263+**

**embedded system  
(non-PC based)**

Compact digital surveillance recorder DiREX-20 is using innovative digital video storage and image compression technologies to operate as a stand-alone recording device or as a memory component in close circuit television (CCTV) security system. DiREX-20 can record video fragments lasting for several weeks or even months from up to four different video sources. Compact, robust, dust protected, aluminium case along with low power consumption make this model suitable also for video stream recording in various mobile applications: on vehicles, trains, aircraft etc.

## Important Features

**Embedded system:** non-PC based system, it means minimum hardware complexity with maximum reliability; short reboot time, low power consumption and extremely low acoustic noise level.

**Full duplex:** continuous video signal recording (with time/date stamp and photo/event registration) from up to four colour CCTV cameras on an internal hard drive with possibility of simultaneous playback over digital interface without productivity loss.

**Video/photo mode:** in parallel to the video recording in CIF-resolution recording depending on event (motion detection or/and sensor) of still pictures in 4CIF-resolution.

**Picture comparing procedure:** the algorithm of video stream compression provides the storage of changed image parts only. The 200x compression can be reached.

**Dynamically adaptable:** the less video sources will be used and the more not required parts of video field will be cut off, the higher frame rate or longer recording time will be reached.

**Video sensor:** each video channel can be activated on an exceedance of the "motion activity threshold" (adjustable: activation, deactivation, run after time) in observed part of the frame.

**Alarm inputs:** alarm sensors (e.g. of a security warning system) can be connected to each channel via four floating inputs to activate recording.

**Activity diagram:** graphically representation of events (photos, alarm and video sensor activation or deactivation, signal dropping-out, power failure, PC-access, recording on/off, exchange of HDD etc.) and motion intensity in all channels at the time axis from 0% to 100%, scaleable with frame fixing to date and time. Quick access to any frame.

**Ring memory:** a continuous recording is possible by using of ring memory operation.

**Signal recognizing:** automatically signal dropping-out / resuming recording.

## Technical Data

### Compression

video	ITU-T H.263+
photo	JPEG (ITU-T T.81)

### Data rate (max. picture quality)

maximum (>70% motion)	200 kbps
average	30 kbps

### Memory consumption, about

average	7-10 GB/week
(permanent recording, max. picture quality)	
often reachable	1-3 GB/week
(with motion detection, 2-3 frames/s)	

### Resolution

video-mode	128 x 96 ... 352 x 288 (CIF)
photo-mode	128 x 96 ... 704 x 576 (4CIF)

### Frame rate (total all channels, 20% motion)

176x144 and less	25 frames/s
256x192, mono	18 frames/s
256x192, colour	12 frames/s
352x288, mono	9 frames/s
352x288, colour	6 frames/s

### Video input

4x PAL/SECAM,  
BNC, 75 Ohm, 1Vss

### Video format

B/W (8bit), YUV4:2:0 (8bit)

### Data interface

500 kbps, bi-directional  
IEEE-1284, EPP

### Memory capacity

(IDE HDD build-in)

min. 20GB

### Power supply

(plug-in)

100-240VAC,  
50-60Hz, +5V, 1.3A

### Power requirements

power on hours  
(continuous)

max. 6W  
732 /month (24h x 7)

### Casing dimension, mm

(BxHxT, incl. BNC-sockets)

109 x 35 x 179

### Weight, about

(without plug-in)

0,6 kg

### Environmental (operation)

vibration (random)  
shock

5 ... 40 °C,  
0,67 G (5-500Hz)  
200 Gs (2ms)

### Deliverable

DiREX-20; plug-in power supply; manual;  
EPP data cable; control, viewing and  
archiving software "Magic-Store"

### Minimum system requirements

(for the "Magic-Store" software)

Pentium 133; 32MB RAM;  
graphic controller: 800x600, 65536 (16bit);  
parallel port, EPP-compatible;  
OS: Windows 95/98/ME/NT+SP3/2000/XP; DirectX \*

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