

## Specifications

Video Format	NTSC/EIA or PAL/CCIR
Video Input	4x8/9/16 camera inputs (BNC), 1Vp-p/75ohm
Video Output	1 BNC video out (1Vp-p/75ohm) for Main Monitor 1 S-Video out for Main Monitor 1 BNC video out (1Vp-p/75ohm) for CALL Monitor 4 BNC video out (1Vp-p/75ohm) for Matrix Outputs (For 9/16 CH) 4x8/9/16 video out (1Vp-p/75ohm) for Looping
Video Compression	M-JPEG
Video Resolution	720x484 (NTSC) or 720x576 (PAL)
Video Display	EDSR400 Full, 4, PIP 2x2 Zoom for Live and Playback EDSR600 Full, 4, 6, PIP 2x2 Zoom for Live and Playback EDSR800 Full, 4, 6, 7, 8, 9, PIP 2x2 Zoom for Live and Playback EDSR1600 Full, 4, 6, 7, 8, 9, 10, 13, 16, PIP 2x2 Zoom for Live and Playback
Display Resolution	720x484 (NTSC) or 720x576 (PAL)
Video Pause	Yes
Alarm Input	4/6/9/16 Alarm Inputs
Alarm Output	1 Alarm Outputs
Hard Disk Storage	Two Hot-Swap 3.5" IDE Hard Disk
Recording Rate	Up to 60/90 fields per second for NTSC/PAL
Recording Mode	Continue, Time-lapse, Schedule or Event recording
Playback Rate	Up to 60/90 fields per second for NTSC/PAL
Playback Search	By Date/Time or Event
Motion Detection	Yes, with configurable detection area & sensitivity
Video Loss Detection	Yes
Event Log	Yes
User Interface	Menu Driven
Setup	On screen display setup
User Input Device	Front panel keypad with Shutter/Log
Timer	Built-in real time clock
Watch Dog Timer	Yes
Title	12-character title generator for each camera
Ethernet	RJ45 connectors for network communications
Archive	CompactFlash Slot for archive
RS-232	9-pin female connector for local communications
RS-485	RJ11 connectors for remote control
Audio	2 mono (MIC) input, 2 mono (SPEAKER) output
Power Source	AC 100-240V
Dimension	430Wx388(H)x300(D)mm
Weight	4.85kg
Operating Temperature	0°C ~ +40°C

\* Design and specifications are subject to change without prior notice

\* Based on United States Federal Regulation: It's required to post warning sign if an audio device is used in conjunction with this machine.

## Ordering Information

**EDSR400-N:** 4 Channel Duplex Full Size DVR, AV100-240V, NTSC  
**EDSR400-P:** 4 Channel Duplex Full Size DVR, AC100-240V, PAL  
**EDSR600-N:** 6 Channel Duplex Full Size DVR, AC100-240V, NTSC  
**EDSR600-P:** 6 Channel Duplex Full Size DVR, AC100-240V, PAL  
**EDSR800-N:** 9 Channel Duplex Full Size DVR, AC100-240V, NTSC  
**EDSR800-P:** 9 Channel Duplex Full Size DVR, AC100-240V, PAL  
**EDSR1600-N:** 16 Channel Duplex Full Size DVR, AC100-240V, NTSC  
**EDSR1600-P:** 16 Channel Duplex Full Size DVR, AC100-240V, PAL

Distributed by

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# EDSR400F/600F/900F/1600F

## 4/6/9/16 Channel Duplex Full Size DVR



# DIGITAL INTEGRATION SYSTEM

FOR SECURITY SURVEILLANCE



The EDSR400F/600F/900F/1600F Full-Size Series Digital Video Recorder is the industry's first full-featured digital video recorder that can record at speeds up to 60/30 images per second with NTSC/PAL formats and replay events instantly.

The EDSR400F/600F/900F/1600F Full-Size Series incorporates all the benefits of digital video recording, is simple to install and operates just like a VCR. The highly efficient compression technology, the superior clarity of recorded images and the well respected reliability of the EDSR series make it best choice for digital security surveillance.

## Features

- 16x5 Matrix Output for five programmable call monitors (EDSR900/1600)
- Color/Contrast/Brightness adjustment for each channel
- Two channels real-time audio synchronized playback with TL video
- Built-in CF card slot for video archiving
- Duplex operation for recording & playback
- Easy-to-use control panel with common VCR and Multiplexer functions
- Jog/Shuttle dial for picture-by-picture or fast/slow viewing
- No tapes to manage, clean or replace
- Instant retrieval of stored video
- On-screen menus operations
- Programmed with common time-lapse speeds
- Two 3.5" IDE Type Hard Disks for storage with hot-swap tray
- RS232 and RS485 for remote control.
- Real-time live display for all cameras
- Variable recording speeds up to 60/30 fields per second for NTSC/PAL.
- Alarm-activated recording
- CompactFlash slot for archive
- Audio recording capabilities
- Motion detection capabilities
- Multi-language support
- Ethernet TCP/IP connectivity for remote viewing and controlling

## Advantages

### MATRIX OUTPUTS (For EDSR900 and EDSR1600)

4 Call monitors output. Free adjustable sequences for each monitor with individual dwell time for each camera. Motion cameras could be displayed on selected monitors and override the sequence. Alarm inputs are able to switch selected cameras to selected monitors (free adjustable) with timeout or manual reset. Alarm inputs are able to switch groups of selected cameras to selected monitors (free adjustable) with timeout or manual reset. Manual select of single camera to each monitor. Etc.

### FAMILIAR MULTIPLEXER FRONT PANEL OPERATION

EDSR Full-Size series offers familiar multiplexer and VCR style control keys and its user-friendly step-by-step menus simplifies the installation and operator training process.

### EASY TO OPERATE JOG SHUTTLE

The jog shuttle can be used to forward, rewind, pause, search and menu setting.

### DATA CAN BE STORED IN COMPACTFLASH CARD OR TWO 3.5" IDE TYPE HDDs

Cards inserted in the CompactFlash card slot make it easier to back up recordings and transfer images to PC. Built in two 3.5" IDE type HDDs for plenty of storage with hot-swap tray.

### TCP/IP READY

EDSR Full-Size series also allows the user to remotely monitor your business through a simple TCP/IP connection. The remote viewing software is embedded in the unit and password protected to enable remote monitoring from anysecure network connection.

### DUPLEX OPERATIONS

The new EDSR Full-Size Series enables simultaneous recording and playback to ensure that the system is always functioning while reviewing recorded images off the hard drives.

## Wide Variety of Applications for Security Surveillance



Building and Entrance



Store and Mall



Cash Vault Operation



Bank and Office

# EDSR400F/600F/900F/1600F

## Time Lapse Mode Recording Time

Lower : 1/30s Basic : 2/30s High : 3/10s  
Low : 1/30s Standard : 2/30s Superior : 3/10s

### NTSC

Recording Speed (FPS)	PICTURE QUALITY(KB)					
	LOWER	LOW	BASIC	STANDARD	HIGH	SUPERIOR
60	49.4	41.2	35.3	29.6	26.5	23.1
30	98.8	82.3	70.5	59.3	52.9	46.3
20	148.1	123.5	105.8	88.9	79.4	69.4
15	197.1	164.6	141.1	118.5	105.8	92.6
5	296.3	246.9	211.6	177.8	158.7	138.9
2	592.6	493.8	423.3	355.6	317.5	277.8
1	2963	2469.1	2116.4	1777.8	1587.3	1388.9
0.5	5925.9	4938.3	4232.8	3555.6	3174.6	2777.8
0.3	9816.5	8230.5	7054.7	5925.9	5291	4629.6
0.2	14814.8	12345.7	10582	888.9	7936.5	6944.4

(Estimations based on 160 GB HDD)

### PAL

Recording Speed (FPS)	PICTURE QUALITY(KB)					
	LOWER	LOW	BASIC	STANDARD	HIGH	SUPERIOR
60	15	18	21	25	28	32
30	59.3	49.4	42.3	35.6	31.7	27.8
25	118.5	98.8	84.7	71.1	63.5	55.6
10	296.3	246.9	211.6	177.8	158.7	138.9
5	592.6	493.8	423.3	355.6	317.5	277.8
2	1481.5	1234.6	1058.2	888.9	793.7	694.4
1	2963	2469.1	2116.4	1777.8	1587.3	1388.9
0.5	5925.9	4938.3	4232.8	3555.6	3174.6	2777.8
0.4	2407.4	6172.8	5291	4444.4	3968.3	3472.2
0.2	14814.8	12345.7	10582	888.9	7936.5	6944.4
0.1	29629.6	24691.4	21164	17777.8	15873	13888.9

Reference: 24H=1 day, 168H=1 week, 720H=1 month, 8760H=1 year

(Estimations based on 160 GB HDD)

## Major Operating Controls

### EDSR1600F Rear View



- ① Video output connectors(video out 1-16)
- ② Video input connectors(video in 1-16)
- ③ Call monitor output
- ④ Main monitor connector
- ⑤ S-Video connector
- ⑥ Audio input connectors(audio in 1-2)
- ⑦ Audio output connectors(audio in 1-2)
- ⑧ Alarm input/output
- ⑨ RS-232 connector
- ⑩ RS485 connector
- ⑪ LAN connector
- ⑫ Matrix Outputs
- ⑬ Cooling Fan
- ⑭ Main power socket
- ⑮ Power switch

### EDSR900F Rear View



- ① Video output connectors(video out 1-9)
- ② Video input connectors(video in 1-9)
- ③ Call monitor output
- ④ Main monitor connector
- ⑤ S-Video connector
- ⑥ Audio input connectors(audio in 1-2)
- ⑦ Audio output connectors(audio in 1-2)
- ⑧ Alarm input/output
- ⑨ RS-232 connector
- ⑩ RS485 connector
- ⑪ LAN connector
- ⑫ Matrix Outputs
- ⑬ Cooling Fan
- ⑭ Main power socket
- ⑮ Power switch