



## Product Outline

is a H.264 HD stand-alone DVR system which responds efficiently with the user's requirements through the image combination of an analog camera and the HDD stored data based on Dual Video Management. It supports various and accurate search functions with systemic data storage, backup and security control as well as the HD dual display function. The real-time monitoring and controlling are available through the 16/8CH independent networks anywhere. Based on the user friendly GUI, the completion of the security system is enhanced.
















## Product Summary

- H.264 Stand Alone DVR
- 480/400fps (NTSC/PAL) @ D1 High Definition Real-time Record
- Support HD (1920x1080i) display resolution & Diverse Split window
- 4TB High Capacity Hard Disk Support
- Search Function (Day/Time, Event, Bookmark, Thumbnail, Time division)
- 16Ch Analog Camera
- Peer to Peer Multi Server Function
- Real-time independent network video streaming and control
- Convenient and safe recording Data & Backup (RAID, E-SATA, USB, ODD, NAS)
- User Friendly GUI Menu
- Multi-language Channel Naming
- Dual Monitor Support
- Mouse/Remote Control/USB Keyboard Support
- Two Way Audio Support
- PAN/TILT/ZOOM Control
- Remote System Control Function
- Support to access remote Call center
- 16Ch Spot display

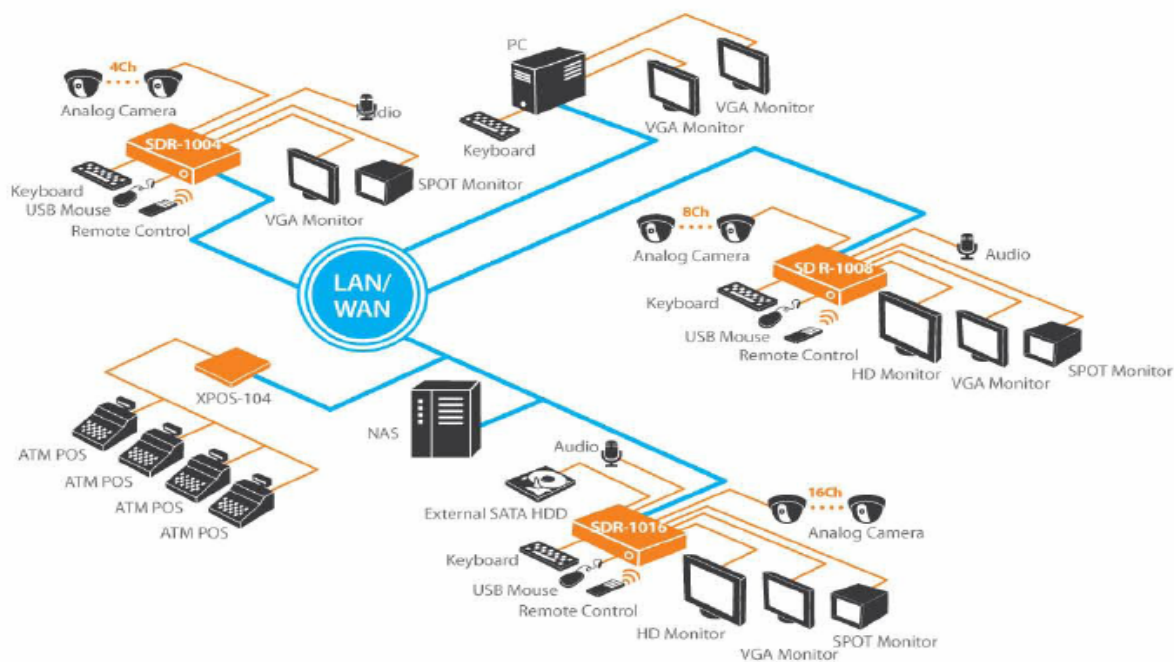
## Major Specifications

ITEM			1016D	1008D
VIDEO / AUDIO / RECORDING /	Video	IP Camera	-	
		Analog Camera	16 x Composite 1.0Vp-p, 75Ω BNC	8 x Composite 1.0Vp-p, 75Ω BNC
	Performance	Recording Rate(NTSC/PAL)	480/400fps@CIF*	240/200fps@CIF*
		Display Rate(NTSC/PAL)	480/400fps@D1*	240/200fps@D1*
COMPRESSION	Audio	Net Distribution Rate(NTSC/PAL)	480/400fps Independent Net Encoding	
	Video	In / Out	4 x Mono, RCA Line In / 1 x Mono, RCA Line Out	
		Encode	H.264 BP	
STORAGE	Audio	Decode	H.264 BP	
	Internal HDD	Encode / Decode	G.721	
Max. Capacity		4 TB ( 4 Internal HDDs )		
Interface		SATA II		
RAID		RAID 5, RAID 1 ( Option )		
Backup	External HDD	NAS	Supported	
	Internal ODD	E-SATA	1 x E-SATA Port	
		USB HDD	Supported	
DISPLAY	Output	Internal ODD	1 x DVD	
		Supported Device	DVD, USB, Network	
		Format	RAW, AVI, JPG ( Snap Shot )	
		HDMI / DVI	1 x HDMI 1.2 - 1920 x 1080i	
NETWORK	LAN	Main VGA	1 - Max 1440 x 1280	
		Secondary VGA Monitor	1 - Max 640 x 480	
		Composite	1 x Composite 1.0Vp-p, 75Ω BNC	
INTERFACE	Alarm	SPOT	1 x Composite 1.0Vp-p, 75Ω BNC	
		In / Out	2 x Gigabit, RJ45	
		Interface	RTP / RTSP, TCP, HTTP, SMTP, DHCP, ARP, DNS, NTP	
GENERAL	Power Consumption	USB	8 / 4	
		RS485 Interface	3 x USB2.0 ( Mouse, Keyboard, Backup )	
		RS232 Interface	2 x Terminal Block	
GENERAL	Dimension (WxDxH mm)	Power Source	Free ( 100 / 110, 220 / 240 )	
		Power Consumption	120W ( 4HDDs )	
			430mm x 430mm x 88mm	

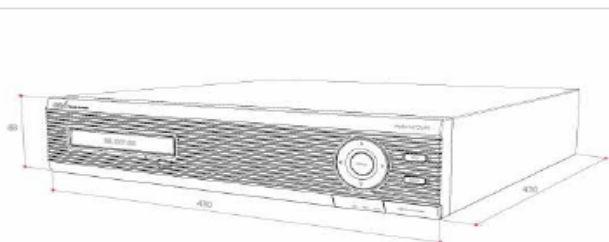
## Product Major Details

16ch	8ch	4ch	11.1TB	DVR	AVI	
 Hybrid  D1  P2P  Internet	 H.264  Playback LIVE HD  4TB		 SERIAL ATA  RAID  HDD  NAS	 DVR  AVI  USB  A美あ7		
Hybrid System with Diverse System Configuration		High Definition of H.264 Compression/HD Display		More Secure System Data Storage		More Convenient GUI

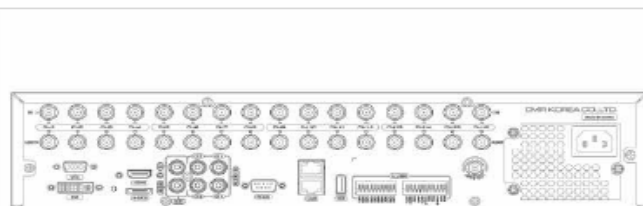
## System Connection Diagram



## Dimensions



## Rear Panel





## Product Outline

SDR-1016C/1008C is a 16Ch/8Ch HD level H.264 stand alone DVR system which supports the CIF Dual Monitor. Based on the user friendly GUI, real-time monitoring and controlling are available through the 16CH/8CH independent networks in anywhere. With dual display function, the user's convenience is improved through the image combination of an analog camera and the HDD stored data. Also, it supports not only various and accurate search functions but also the systemic data storage, backup and optimized security control.

## Product Major Details

16ch	8ch	IP	LAN	DVR	OTHER
Hybrid System with Diverse System Configuration	Hybrid	CIF	P2P	Internet	More Secure System Data Storage
High Definition of H.264 Compression/HD Display	H.264	Playback LIVE HD	4TB		More Convenient GUI
					RAID, HDD, NAS, USB, Mouse/Remote Control/USB Keyboard Support, Two Way Audio Support, PAN/TILT/ZOOM Control, Remote System Control Function, Support to access remote Call center, 16Ch Spot display

## Product Summary

- H.264 Stand Alone DVR
- 480/400fps (NTSC/PAL) @ CIF High Definition Real-time Record
- Support HD (1920x1080i) display resolution & Diverse Split window
- 4TB High Capacity Hard Disk Support
- Search Function (Day/Time, Event, Bookmark, Thumbnail, Time division)
- 16Ch Analog Camera
- User Friendly GUI Menu
- Peer to Peer Multi Server Function
- Real-time independent network video streaming and control
- Convenient and safe recording Data & Backup (USB, ODD, NAS)
- Multi-language Channel Naming
- Dual Monitor Support
- Mouse/Remote Control/USB Keyboard Support
- Two Way Audio Support
- PAN/TILT/ZOOM Control
- Remote System Control Function
- Support to access remote Call center
- 16Ch Spot display

## Major Specifications

ITEM		1016C	1008C	
VIDEO / AUDIO / RECORDING /	Video	IP Camera	-	
		Analog Camera	16 x Composite 1.0Vp-p, 75Ω BNC	8 x Composite 1.0Vp-p, 75Ω BNC
	Performance	Recording Rate (NTSC/PAL)	480/400fps@CIF*	240/200fps@CIF*
		Display Rate (NTSC/PAL)	480/400fps@D1*	240/200fps@D1*
Audio	Net Distribution Rate (NTSC/PAL)	480/400fps Independent Net Encoding		
COMPRESSION	Video	In / Out	4 x Mono, RCA Line In / 1 x Mono, RCA Line Out	
		Encode	H.264 BP	
	Audio	Decode	H.264 BP	
STORAGE	Internal HDD	Encode / Decode	G.721	
		Max. Capacity	4 TB ( 4 Internal HDDs )	
		Interface	SATA II	
	External HDD	RAID	-	
		NAS	Supported	
	Backup	USB HDD	Supported	
Internal ODD		1 x DVD		
Supported Device		DVD, USB, Network		
DISPLAY	Output	Format	RAW, AVI, JPG ( Snap Shot )	
		HDMI / DVI	1 x HDMI 1.2 - 1920 x 1080i	
		Main VGA	1 - Max 1440 x 1280	
		Secondary VGA Monitor	1 - Max 640 x 480	
		Composite	1 x Composite 1.0Vp-p, 75Ω BNC	
NETWORK	LAN	SPOT	1 x Composite 1.0Vp-p, 75Ω BNC	
		10 / 100 / 1000	1 x Gigabit, RJ45	
INTERFACE	Alarm	Interface	RTP / RTSP, TCP, HTTP, SMTP, DHCP, ARP, DNS, NTP	
		In / Out	8 / 4	
	USB		3 x USB2.0 ( Mouse, Keyboard, Backup )	
	RS485 Interface		2 x Terminal Block	
	RS232 Interface		1 x RS232C, 9 Pin D-Sub ( ATM / POS )	
GENERAL	Power Source		Free ( 100 / 110, 220 / 240 )	
	Power Consumption		120W ( 4HDDs )	
	Dimension (WxDxH mm)		440mm x 430mm x 80mm	



## Product Outline

SDR-1004D is a 4Ch stand alone DVR System, which responds efficiently in accordance with the user's requirements through the image combination of an analog camera and the HDD stored data known as Dual Video Management. The real-time monitoring and controlling are available through 4Ch independent networks anywhere. It supports various and accurate search functions in addition to systemic data storage, backup and security control as well as HD Dual Display function. Based on the user friendly GUI, the system completion is enhanced.

## Product Major Details

FEATURE	4ch	DVR
Hybrid System with Diverse System Configuration	Hybrid, D1, P2P, Internet	More Secure System Data Storage
High Definition of H.264 Compression/HD Display	H.264, Playback LIVE HD, 2TB	More Convenient GUI

## Product Summary

- H.264 Stand Alone DVR
- 120/100fps (NTSC/PAL) @ D1 High Definition Real-time Record
- Support HD (1920x1080i) display resolution & Diverse Split window
- 2TB High Capacity Hard Disk Support
- Search Function (Day/Time, Event, Bookmark, Thumbnail, Time division)
- 4Ch Analog Camera
- User Friendly GUI Menu
- Peer to Peer Multi Server Function
- Convenient and safe recording Data & Backup ( USB, ODD, NAS )
- Multi-language Channel Naming
- Mouse/Remote Control/USB Keyboard Support
- Two Way Audio Support
- PAN/TILT/ZOOM Control
- Remote System Control Function
- Support to access remote Call center
- 4Ch Spot display

## Major Specifications

ITEM	1004D		
VIDEO / AUDIO / RECORDING /	Video	IP Camera	-
		Analog Camera	4 x Composite 1.0Vp-p, 75Ω BNC
	Performance	Recording Rate(NTSC/PAL)	120/100fps@D1*
		Display Rate(NTSC/PAL)	120/100fps@D1*
AUDIO	Net Distribution Rate(NTSC/PAL)	120/100fps	
	Audio	In / Out	1 x Mono, RCA Line In / 1 x Mono, RCA Line Out
COMPRESSION	Video	Encode	H.264 BP
	Audio	Decode	H.264 BP
STORAGE	Internal HDD	Encode / Decode	G.721
		Max. Capacity	2 TB ( 2 Internal HDDs )
		Interface	SATA II
	External HDD	RAID	-
		NAS	Supported
	Backup	E-SATA	-
DISPLAY	Output	USB HDD	Supported
		Internal ODD	1 x DVD
		Supported Device	DVD, USB, Network
		Format	RAW, AVI, JPG ( Snap Shot )
NETWORK	LAN	HDMI / DVI	-
		Main VGA	1 - Max 1440 x 1280
		Secondary VGA Monitor	-
		Composite	1 x Composite 1.0Vp-p, 75Ω BNC
INTERFACE	Alarm	SPOT	1 x Composite 1.0Vp-p, 75Ω BNC
		In / Out	4 / 1
GENERAL	Power Source	Interface	1 x Gigabit, RJ45
		RTP / RTSP, TCP, HTTP, SMTP, DHCP, ARP, DNS, NTP	
		Power Consumption	Free ( 100 / 110, 220 / 240 ), Adapter
		Dimension ( WxDxH mm )	290mm x 290mm x 65mm

# DVR Technology



Hybrid System with Diverse System Configuration



High Definition of H.264 Compression/HD Display

## Hybrid

### Hybrid Stand-Alone System

As well as receiving 16 channels of analog camera and 4 channels of IP camera, SEVO DVR extends its efficiency for the diverse setup environment. It provides a reduction in installation cost and convenience. This hybrid stand-alone system enhances monitoring precision of major areas as well as displaying and recording the up-to-date HD quality vision.



## DVR

### Diverse IP Camera Compatibility

DVR supports the latest ONVIF (Open Network Video Interface Forum) network protocol completely so that any network camera of ONVIF members can be adding as well as SEVO network camera without additional program installation.



### Enhanced Peer to Peer Capability

The Network DVR system can be easily organized into Peer to Peer (P2P) integrated network system so that easy control and perfect surveillance can be possible without network client PC through this.



## Internet

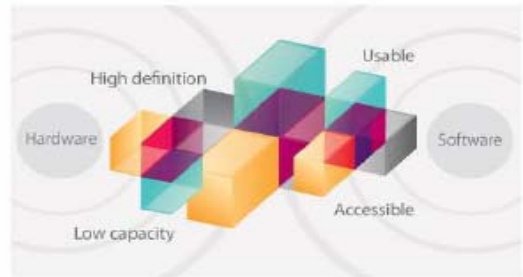
### Powerful Network Streaming

Separately from local DVR record mode, it can set the resolution, image quality and frame rate individually in accordance with network environment in the net client. Therefore, it enables you to monitor in a real time and control the images in anywhere with the Internet accessible.



### H.264 Hybrid Compression

DVR integrates and selects two advantages of S/W compression with user convenience and H/W compression with high quality and low capacity, which ensures safety and reliability in enhancing the system functions and reducing the loads.



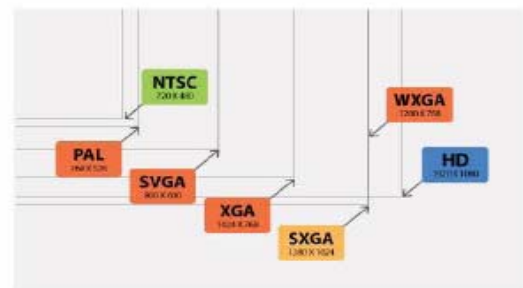
### Triple Display

DVR can divide or organize the screen freely according to the user's requirement with HD vision (1920X1080i) display through the only unique image processing method of SEVO by combining the analog camera, network camera and HDD storage data. With the diverse search functions and HD real-time monitoring, it enables an efficient monitoring system operation.



### Various Display Output Support

DVR makes it possible to support the diverse image formats as below through the implementation of the cutting-edge image output technology.





## More Secure System Data Storage



### RAID 5 & RAID 1 Support

RAID5 is the technology to divide the partially doubled data and save them to several HDD. It is evaluated as the outstanding technology to protect the data due to the new disk replacement and recovery that are available in spite of a disk error. SEVO digital record perfectly supports RAID5 and RAID1, the mirroring function, and stores the image data the safest way.



### External SATA

DVR can be connected with the external SATA HDD and HDD array through the additional E-SATA Port. With this process, it increases storage capacity and enhances the convenience and reliability for the backup of the self-HDD capacity or data transmission.



### HDD Health Check

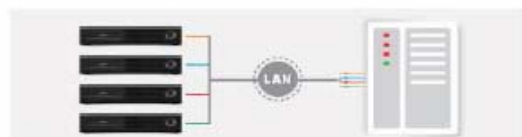
HDD Smart function applied to SEVO DVR is a necessary function to store the image data without loss by finding out HDD hardware failure in advance. With this process, the reliable data storage is available.

37 °C		Drive Letter: E:	Power On Hours: 9855 hours		
Supported Features: S.M.A.R.T., 488R LBA, 48L, AMR, 48L, 48L, 48L					
ID	Attribute Name	Current	Min/Max	Threshold	Raw Value
01	Read Error Rate	100	100	51	000000000000
05	Spin-Up Time	100	100	25	000000001740
09	Start/Stop Count	97	97	0	000000000000
0E	Reallocated Sectors Count	100	100	11	000000000000
07	Seek Error Rate	100	100	51	000000000000
0B	Seek Time Performance	100	100	15	000000000000
0F	Power-On Hours	98	98	0	0000001C08AA
0A	Spin-Retry Count	100	100	51	000000000000
0B	Reallocated Sectors	100	100	0	000000000000
0C	Device Power Cycle Count	98	98	0	000000000000
C2	Temperature	127	48	0	000000000000
C3	Hardware ECC corrected	100	100	0	000000001729
C4	Reallocation Event Count	100	100	0	000000000000
C5	Current Pending Sector Count	100	100	0	000000000000



### NAS Support

DVR supports NAS(Network Attached Storage) that makes it possible to connect the network to the mass storage hard disk. It enables you to design a large scale integrated CCTV system and secure the data safely.



## More Convenient GUI



### User Friendly GUI

DVR provides user friendly GUI that enables you to move or hide the tool bar freely and control panel on the screen with Widget, free from the conventional format. It can control the system more conveniently and swiftly as it supports the separate Quick Menu configuration for the users.



### Dual-Monitor

DVR supports the additional sub-monitor output can display E-Map and Alarm information separately on the second monitor, for the optimum monitoring environment.



### USB Keyboard Support

DVR supports the USB keyboard which has been used only for PC DVR. It makes the system operation easier. You can edit save and send messages conveniently by using the keyboard when you use snap shot and mail send function.



### Multi-Language Channel Naming Support



With multi-language channel naming support, it can assign the channel name not only with English but with another 12 languages, such as, Korean, French, German...etc for the users.