

## IP/EX-SDI/HD-SDI/TVI/CVI/AHD/960H/D1 All Hybrid Operation

1080p realtime recording & playback  
HDMI, VGA, Spot output, RAID, NAS support

Premium series  
HVR-MD04AI/ MD08AI / MD16AI



### FEATURES

- 4/8/16 channel EX-SDI 2.0 all-in-one Full-HD DVR
- EX-SDI/HD-SDI/All Analogue HD Format/D1/960H video standard by automatic format detection (1080p/720p/960H/D1)
- IP camera support with OnVIF or generic protocol supporting higher resolution up to 5mp
- **High quality video equalizer for long reach Full HD transmission**
- Long reach 2<sup>nd</sup> Full-HD video output on HD-TVI 2.0 for Full-HD spot monitor
- All channel real time recording, playback & live monitoring
- **Configurable Advanced Mirroring(Dual Recording, RAID1)**
- eSATA for storage extension (up to 5 more HDD)
- Health checking (FAN speed & failure checking, Recording integrity & HDD S.M.A.R.T)
- **Dynamic Push Notification to iOS and Android Device**
- User Privilege to control the access on cameras/live/playback/copy etc.
- Panorama Search & Integrated GUI for search, copy and playback
- Multiple GUI resolution adjustable to various monitor type (HDMI, VGA)
- Low transmission latency to client viewer
- 2-way full duplex audio
- Auto port forwarding(uPNP), DDNS, Login/out
- **Easy mobile connection (P2P)**
- Configurable resolution, quality & fps for network streaming directly from client
- RA(Remote Agent), VMS, CMS
- H264-based mobile device support: iOS/Android
- HDMI/VGA Simultaneous Output
- CVBS output for spot (Full HD) or dual monitor
- **POS I/F Integration**
- Advanced sensor activation: sensor triggered PTZ, multiple sensor mapping matrix
- **Advanced Video Detection: Camera tampering, Camera lens blocking, Day&Night, Defocus**



MODEL		HVR-MD04AI	HVR-MD08AI	HVR-MD16AI	Comment
OPERATION MODE		QUADPLEX			Live/Playback, Recording, Network & Copy
Live Display Speed(NTSC/PAL)		Realtime (120/100 fps)	Realtime (240/200 fps)	Realtime (480/400 fps)	
Recording	D1, 960H, 720p, 1080p	120/100fps	240/200fps	480/400fps	Configurable by each CH
Playback					
Video Input	No of BNC	4 (SDI/Analogue HD/D1/960H)	8 (SDI/Analogue HD/D1/960H)	16 (SDI/Analogue HD/D1/960H)	Auto format detection
	Cable Dist.	EX-SDI 1.0	~ 400m for 1080p25/30		RG59 Copper Core Coaxial Cable
		EX-SDI 2.0	~ 500m for 1080p25/30		
		HD-SDI	~ 150m for 1080p25/30		
	Analogue HD	~ 700m for 1080p25/30 with copper core, ~ 400m for 1080p25/30 with steel core			RG6 Coaxial Cable
	No of IP Camera	Max. 4CH	Max. 8CH	Max. 16CH	1080p30fps.max/ch, 6Mbps.max/ch, Higher resolution with lower fps(~ 5mp)
Video Output	Total Channel #	4	8	16	BNC & IP share the number of channel
	VGA	1 (up to 1920X1080)			
	HDMI	1 HDMI1.4 (up to 1920X1080)	1 HDMI 2.0 up to 4K2K@ 30Hz		
Screen Division	BNC	1 SD	1 Full HD, 1 SD		
	Live Mode	1,4	1,4,9	1,4,9,16	
	Playback Mode	1,4	1,4,9	1,4,9,16	
Audio In/Out		4 line in (RCA)/1 line out (RCA) & HDMI			
Alarm	Input / Output	4 in / 1 Out(Relay)	8 in / 1 Out(Relay)	16 in / 1 Out(Relay)	
	A/O Control	Configurable by User			
Storage	Interface	SATA2.0	SATA2.0		
	HDD(Internal)	2	2	4 (5 optional)	
	eSATA	1 (eSATA MUX support)			External SATA PMP Support (~ 5 HDDs)
	ODD(CD/DVD)	1 (Optional depending on Tooling)			For copy
Archive	Backup Device	USB Device (HDD, Thumb Drive), NAS & Remote via Network, ODD(Optional)			
	Multiple channel	Raw data format, Support with the Embedded Player			
	AVI	Embedded AVI formatting with H.264			With SMI time-stamp file
USB Port		2 Ports			USB 2.0 EHCI
PTZ & CCTV Keyboard Interface		One RS485 ports			
Motion Detection Cells		64x48			
System Control		USB Mouse, IR remote control, External Keyboard Controller & HTTP API I/F, Front Key(Optional)			
Network	Ethernet	10M/100M	10M/100M/1000M	10M/100M/1000M	For up-streaming
	Local	10M/100M	10M/100M/1000M	10M/100M/1000M	For IP camera connection
	Protocols	DHCP, DDNS, P2P, uPNP, HTTP, NTP, SNMP, SMTP, ONVIF, Push Notification(iOS/Android)			
	No of Client	Max. 8			
Multi-Language		support			
Power		Adapter (12V/3A)	Adapter (12V/5A)	Adapter (12V/6.67A) or Adapter (12V/7.5A)	MD16AI: 12V/6.67A for 4 HDDs & 12V 7.5A for 5 HDDs
Operating Temperature		5~40 °C / 20~80% RH			
Remote SW's		CMS /RMS / Web / MAC OSX / Android / iOS			
Dimension (WxDxH, mm)		1.5U (370x255x60)	1.5U (370x302x60) Rack Mount Support	1.5U (370 x 302 x 60) or 2U( 430x443x88 ) Rack Mount Support	MD16AI: 1.5U for 4 HDDs & 2U for 5 HDDs
Advanced FEATURES					
Dedicated network streaming	Live	H.264 with various resolution Size/Quality/FPS control from various viewer			
	Playback	CIF resolution			
Motion JPEG Streaming		HTTP, by Each Channel			
RAID(Mirroring)		Configurable Dual Recording by channel & by event			
Search		Calendar/Time/Event/Panorama			
P2P/DDNS/Push Notification/E-mail		ns.dynamicmv.com/P2P server/Relay Server/Push Server/Embedded E-mail Service			Service on Self-developed Server System
Sensor Operation		Sensor : channel mapping matrix, Sensor triggered PTZ activation			
Event Notification	Event Type	Motion Detection, Alarm in, Video Loss, HDD S.M.A.R.T, Status & Error, Recording Status, POS			
	Action	E-mail with snapshot, Buzzer, Pop-up, Symbol, Push Notification			
PTZ Control		On RS-485, Pelco-C/D protocol compatible			
PoS I/F integration		Extendable up to 8 PoS Interface			Serial to USB
USER Privilege Set up		Live/Search & Copy/Network/PTZ/Camera			ADMIN Only Setup
Log In/Out Function		Login & Logout Control by Account			
Password Security		Periodically Password Refresh for all users			Period Configurable
Recording Time Limit		12Hour, 1/2/3/4/5/6Day, 1/2/3Week, 1/2Month			
Health Checking & Report		Periodical E-mail Report for HDD & Recording Status with various system info.			Period Configurable
System log		Log History, Backup available			
Privacy Zone Masking		Supported			TBD
Covert		Supported			
Advanced Video Detection Event		Camera Tampering, Camera Lens Blocking, Day/Night, Defocus			Per ch with 64x48 cells

