

## DHD Series DVR

4, 8, 16, and 32 Channel DVR, Real-Time Recording on up to D1 Resolution, Setup Wizard

DHD-412D1 (4 Channel)



DHD-824D1D, 1648D1D (8 & 16 Channel)



DHD-3296CIF, 32 Channel



- 4, 8, 16, 32 channel DVR
  - 1080P realtime preview
  - H.264 dual-stream video compression
  - Full channel @ up to D1(4CIF) realtime recording
  - HDMI / VGA / TV/Spot(BNC) synchronous video output
  - Up to 16 channel simultaneous realtime playback, GRID interface & smart search
  - Smart video detection: MD, camera blank, video loss
  - Easy backup: USB devices, optional CD/DVD-RW & network download
  - Alarm triggering screen tips, buzzer, PTZ, e-mail & FTP upload
  - Support up to 8 SATA HDDs, 1 eSATA (8, 16, and 32ch models only), 2 USB 2.0
  - Built-in web server, CMS(DSS/PSS) & DMSS mobile viewer
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# Specification

Model	DHD-412D1	DHD-824D1D	DHD-1648D1D	DHD-3296CIF
Main Processor	High performance embedded microprocessor			
Operating System	Embedded LINUX			
System Resources	Pentaplex function: live, recording, playback, backup & remote access			
Control Mode	Front panel, USB mouse, IR remote control, Keyboard, Network			
Video Input	4 channel, BNC(1.0Vp-p, 75 ohm)	8 channel, BNC(1.0Vp-p, 75 ohm)	16 channel, BNC(1.0Vp-p, 75 ohm)	32 channel, BNC(1.0Vp-p, 75 ohm)
Video Standard	NTSC(525Line, 60f/s), PAL(625Line, 50f/s)			
Video Output	1 HDMI, 1 VGA, 1 TV, BNC(1.0Vp-p, 75 ohm)	1 HDMI, 1 VGA, 1 TV, 1 Spot, BNC(1.0Vp-p, 75 ohm)		
Audio Input	4 channel, BNC(200-2800mV, 30K ohm)			16 channel, BNC(200-2800mV, 30K ohm)
Audio Output	1 channel, BNC(200-3000mV, 5K ohm)			
Bidirectional Talk	Same with audio input channel	1 channel Input, BNC(200-2800mV, 30K ohm), 1 channel Output, BNC(200-3000mV, 5K ohm)		
Display Split	1/4	1/4/8/9	1/4/8/9/16	1/4/8/9/16/25/36
Spot Split	No	1/4/8/9	1/4/8/9/16	No
Resolution	1920 x 1080, 1280 x 1024, 1280 x 720, 1024 x 768			1920 x 1080, 1280 x 1024, 1280 x 720, 1024 x 768, 800 x 600
Tour Display	Yes			
Privacy Masking	4 self-defined four-sided zones, each camera			
OSD	Camera title, time, video loss, camera lock, motion detection, recording			
Video/Audio Compression	H.264 / G.711			
Image Resolution	D1, Half D1, 2CIF, CIF, QCIF			D1, CIF, QCIF
Encoding Speed	Main Stream: D1/HD1/2CIF/CIF(1~25/30fps) Extra Stream: CIF/QCIF(1~25/30fps)			Main Stream: Channel 1/9/17/25: D1/CIF/QCIF (1~25/30fps) Others Channel: D1 (1~6/7fps) , CIF/QCIF (1~25/30fps) Extra Stream: CIF/QCIF(1~25/30fps)
Bit Rate	32~4096Kb/s			
Image Quality	CBR, VBR(1~6 level, level 6 is the best)			1~6 level(level 6 is the best, VBR effectively)
Recording Mode	Manual, Schedule(Regular(Continuous), MD(Video detection: Motion detection, Camera blank, Video loss), Alarm), Stop			
Recording Priority	Manual >Alarm >MD >Regular			
Recording Interval	1~120 min. (default: 60 min.), Pre-record: 1~30 sec., Post-record: 10~300 sec.			
Trigger Events	Recording, PTZ movement, Tour, Alarm, Email, FTP, Buzzer & Screen tips			Recording, PTZ movement, Tour, Alarm, Email, Spot output
Motion Detection	Zones: 396(22x18), Sensitivity: 1~6 (level 6 is highest)			
Video Loss & Camera Blank	Yes			
Alarm Input	4	8	16	
Relay Output	1	6		
Playback Channel	Support 1/2/3/4 sync playback	1/2/4/All		1/2/4/16
Search Mode	Time/Date, Alarm, Motion Detection & Exact search (accurate to second)	Time/Date, Alarm, MD & Exact search (accurate to second), Smart search		Time/Date, Alarm, Motion Detection & Exact search (accurate to second)
Playback Functions	Play, Pause, Stop, Rewind, Fast play, Slow play, Next file, Previous file, Next camera, Previous camera, Full screen, Repeat, Shuffle, Backup selection, Digital zoom(any size)			
Backup Mode	Flash drive / USB HDD / USB CD/DVD-RW / Network download	Flash drive/ USB device / eSATA Device / Optional DVD burner/ Network download		
Ethernet	RJ-45 port (10/100/1000M)			
Network Functions	TCP/IP, UDP, DHCP, DNS, IP Filter, PPPoE, DDNS, FTP, Email, Alarm Server			
Remote Operation	Monitor, PTZ control, Playback, System setting, File download, Log information			
Hard Disk	1 SATA port, Max 3TB HDD supported	4 SATA ports, 4 HDDs or 3 HDDs + 1 CD/DVD-RW, Up to 12TB		8 SATA ports, 8 HDDs or 6 HDDs + 1 CD/DVD-RW, Max 2TB per HDD supported
Backup Mode	Flash drive / USB HDD / USB CD/DVD-RW / Network download	Flash drive/ USB device / eSATA Device / Optional DVD burner/ Network download		
Space Occupation	Audio: 28.8MB/H, Video: 56~1800MB/H			Audio: 28.8MB/H, Video: 56~500MB/H
HDD Management	HDD hibernation technology, HDD faulty alarm	HDD Group, HDD hibernation technology, HDD faulty alarm & Raid(Redundancy)		Hard disk hibernation technology, HDD faulty alarm & Raid(Redundancy)
USB Interface	2 ports, 1 for mouse control, 1 for backup			
eSATA	No	4 External SATA ports, up to 12TB		1 port
RS232	Keyboard, PC communication			
RS485	PTZ control			
Power Supply	DC 12V / 3A	AC 100~240 V, 50/60 Hz		
Power Consumption	20W (Exclude HDD)	30W	40W	
Working Environment	-10 ~ +55C / 10~90%RH / 86~106kpa			
Dimension	Mini 1U, 325mm x 240mm x 45mm (W x D x H)	2U, 440mm x 460mm x 89mm(W x D x H)		
Weight	2.35kg KG(without HDD)	6.0KG(without HDD)		6.5KG(without HDD)

\*The specifications are subject to change without notice