

# TURBO HD DVR



## Features and Functions

### Video Input and Transmission

- Self-adaptive HDTV/HDCVI/AHD/CVBS signal input
- Up to 2/4-ch 8 MP IP cameras input
- 8 MP HDTV video input and live view
- Defogging function enabled for the supported analog cameras
- Long distance transmission over UTP and coaxial cable: max. 800m for 1080p and 1200m for 720p HDTV signal

### Compression and Recording

- H.265+/H.265/H.264+/H.264 encoding for the main stream, and H.265/H.264 for the sub-stream of analog cameras
- Connectable to H.265+/H.265/H.264+/H.264 IP cameras
- H.265+ can be enabled to improve encoding efficiency and reduce data storage costs
- Full channel recording at up to 8 MP resolution

### Video Output

- HDMI and VGA interfaces can be configured to be simultaneous or independent
- HDMI output at up to 4K (3840 × 2160) resolution
- Separate CVBS output

### Storage and Playback

- 2 SATA interface (up to 8 TB capacity per HDD)
- 4/8-ch synchronous playback
- Smart search for efficient playback
- Supports the 3<sup>rd</sup> party cloud storage (Dropbox/Google Drive/Microsoft OneDrive)

### Smart Function

- Supports multiple VCA (Video Content Analytics) events for both analog and smart IP cameras
- Supports line crossing detection and intrusion detection of all channels, and 2-ch sudden scene change detection
- VCA information overlay in live view and smart playback
- VQD (Video Quality Diagnostics)
- Supports PTZ control via Omnicast VMS of Genetec protocol

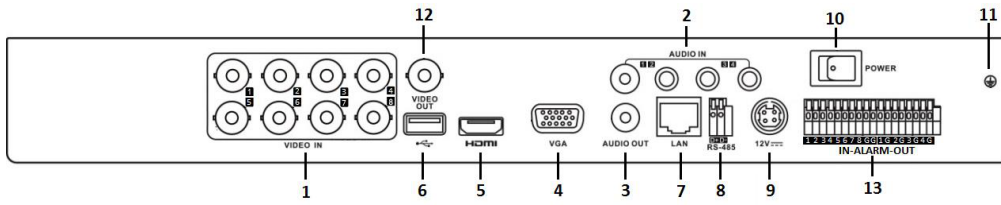
### Network & Ethernet Access

- Hik-Connect & DDNS (Dynamic Domain Name System) for easy network management
- 1 RJ45 10M/100M/1000M self-adaptive Ethernet interface
- Output bandwidth limit configurable

## Specifications

Model				
Video/Audio input	Video compression	H.265+/H.265/H.264+/H.264		
	Analog video input	4-ch	8-ch	
	HDTV I input	8 MP, 5 MP, 4 MP, 3 MP, 1080p30, 1080p25, 720p60, 720p50, 720p30, 720p25		
	AHD input	5 MP, 4 MP, 3 MP, 1080p25, 1080p30, 720p25, 720p30		
	HDCVI input	4 MP, 1080p25, 1080p30, 720p25, 720p30		
	CVBS input	PAL/NTSC		
	IP video input		2-ch	4-ch
			Up to 8 MP resolution	
			Supports H.265+/H.265/H.264+/H.264 IP cameras	
	Audio compression	G.711u		
Audio input	4-ch, RCA (2.0 Vp-p, 1 K $\Omega$ )			
Video/Audio output	CVBS output	1-ch, BNC (1.0 Vp-p, 75 $\Omega$ ), resolution: PAL: 704 $\times$ 576, NTSC: 704 $\times$ 480		
	HDMI/VGA output	<b>VGA:</b> 1-ch, 1920 $\times$ 1080/60Hz, 1280 $\times$ 1024/60Hz, 1280 $\times$ 720/60Hz, 1024 $\times$ 768/60Hz		
		<b>HDMI:</b> 1-ch, 4K (3840 $\times$ 2160)/30Hz, 2K (2560 $\times$ 1440)/60Hz, 1920 $\times$ 1080/60Hz, 1280 $\times$ 1024/60Hz, 1280 $\times$ 720/60Hz, 1024 $\times$ 768/60Hz		
	Encoding resolution	8 MP/5 MP/4 MP/3 MP/1080p/720p/WD1/4CIF/VGA/CIF		
	Frame rate	Main stream: 8 MP@12fps, 5 MP@20fps, 3 MP@18fps 4 MP/1080p/720p/WD1/4CIF/VGA/CIF@25fps (P)/30fps (N)		
		Sub-stream: WD1/4CIF/CIF@25fps (P)/30fps (N)		
	Video bit rate	32 Kbps to 16 Mbps		
	Audio output	1-ch, RCA (Linear, 1 K $\Omega$ )		
	Audio bit rate	64 Kbps		
	Dual stream	Support		
	Stream type	Video, Video & Audio		
	Synchronous playback	4-ch	8-ch	
Network management	Remote connections	32	64	
	Network protocols	TCP/IP, PPPoE, DHCP, Hik-Connect, DNS, DDNS, NTP, SADP, NFS, iSCSI, UPnP, HTTPS, ONVIF		
Hard disk	SATA	2 SATA interfaces		
	Capacity	Up to 8 TB capacity for each disk		
External interface	Two-way audio input	1-ch, RCA (2.0 Vp-p, 1 K $\Omega$ ) (using the 1 <sup>st</sup> audio input)		
	Network interface	1, RJ45 10M/100M/1000M self-adaptive Ethernet interface		
	USB interface	Front panel: 1 $\times$ USB 2.0 Rear panel: 1 $\times$ USB 3.0		
	Serial interface	RS-485 (half-duplex)		
	Alarm in/out	4/1	8/4	
General	Power supply	12 VDC		
	Consumption (without HDD)	$\leq$ 15 W	$\leq$ 20 W	
	Working temperature	-10 $^{\circ}$ C to +55 $^{\circ}$ C (+14 $^{\circ}$ F to +131 $^{\circ}$ F)		
	Working humidity	10% to 90%		
	Dimensions (W $\times$ D $\times$ H)	380 $\times$ 320 $\times$ 48 mm (15.0 $\times$ 12.6 $\times$ 1.9 inch)		
	Weight (without HDD)	$\leq$ 1.5 kg (3.3 lb)	$\leq$ 2 kg (4.4 lb)	

# Physical Interfaces



**NOTE**

The rear panel of 4ch provides 4 video input interfaces.

Index	Description	Index	Description
1	VIDEO IN	8	RS-485 Serial Interface
2	AUDIO IN, RCA Connector	9	12 VDC Power Input
3	AUDIO OUT, RCA Connector	10	Power Switch
4	VGA Interface	11	GND
5	HDMI Interface	12	VIDEO OUT
6	USB Interface	13	Alarm In/Out
7	LAN Network Interface		