



## Analog 2M(Full-Frame) / 4M / 5M DVR

## HAC450F



AHD 5M, 4M, 2M | TVI 5M, 4M, 2M | IP | H.264+ support

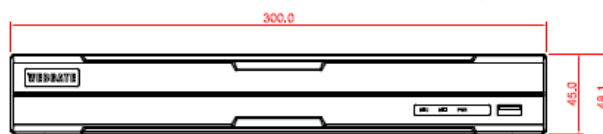
## Key Features

(\* Marks- Scheduled to be supported)

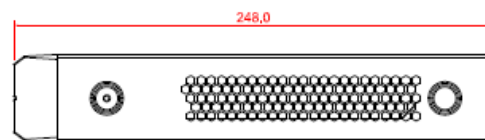
- Analog 2M(Full-Frame) / 4M / 5M 4CH DVR
- Analog : AHD(5M/4M/2M), TVI(5M/4M/2M), CVBS(960H, SD)
- IP(Ethernet) : Onvif, WESP / H.264, H.264+(\*)
- 1 Internal SATA HDD
- HDD Capacity 12TB
- Service channel, Remote DVR
- VMS(Control Center), Mobile App(WebEye), HTML5 WebViewer

## Dimension

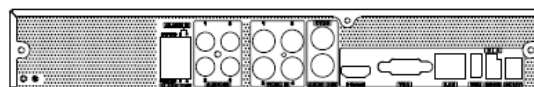
(300×248×45mm)



&lt;Front View&gt;



&lt;Side View&gt;



&lt;Rear View&gt;

## Tech Note

## Up to 5M image support

Full-HD image Full-Frame support and can be stored up to 5M resolution for clearer monitoring of wider areas and distant images

## Analog All in One DVR

Various video inputs such as TVI(4M/2M), AHD(4M/2M), CVBS, SD and IP (Onvif Profile S) are supported simultaneously

Monitoring, recording, playback, backup and remote control of IP camera or other DVR

Integration with Alarm or Audio of 3rd party's IPC

## UTC(CoC)

Camera control over coax cable

Control camera's OSD or zoom/focus remotely (DVR, PC) without additional cable construction

## Remote DVR Full control of remote DVR/NVR -Patent Application

Share DVR/NVR's main output on PC and real-time remote control from DVR/NVR's OSD menu on PC

## Free VMS

Provide Central Monitoring Software (Control Center) for free, supporting Max. 1,024 Units with various and great functions



## Analog 2M(Full-Frame) / 4M / 5M DVR

## HAC450F



VIDEO INPUT		
Video input Format	BNC	AHD, TVI, CVBS(960H,SD)
	IP(Ethernet)	H.264, H.264+(*) Protocol : WESP, Onvif Profile S (all ch support)
Resolution / Frame Rate	AHD	1920×1080@ 30fps, 1920×1080@ 25fps 2560×1440@ 30fps, 2560×1440@ 25fps 2560×1944@ 20fps, 2560×1944@ 20fps
	TVI	1920×1080@ 30fps, 1920×1080@ 25fps 2560×1440@ 30fps, 2560×1440@ 25fps 2560×1944@ 20fps, 2560×1944@ 20fps
	CVBS(960H)	960×480@60i, 720×480@60i 960×576@50i, 720×576@50i
	Analog SD	720x480 / 60i or 720x576 / 50i
	IP	1st stream: 1280x720~2048x1536 2nd stream: max 720x576
Connectors		4ch, 75Ω BNC connector
CoC		Control over Coax@AHD,TVI
VIDEO OUTPUT		
Video output	Resolution	HDMI : 1920×1080 VGA : 1920×1080 BNC(CVBS) : 720×480, 720×576
	Modes	HDMI/VGA Duplicate + Analog Spot
	BNC(CVBS)	1, 4 split-screen, Switching
RECORDING		
Compression	H.264 / JPEG / H.264+(*)	
Resolution	2560x1944, 2560×1440, 1920×1080, 960×480	
Rate	Total 120 fps, Max 30fps/ch @ 1920×1080 Total 60 fps, Max 15fps/ch @ 2560×1440 Total 40 fps, Max 10fps/ch @ 2560x1944	
Quality	10 levels up to 8Mbps@2M, 12Mbps@4M, 8Mbps@5M	
Mode	Normal/Event Record, Schedule/Event Record, Emergency Record	
Schedule	24hrs / 7days	
PLAYBACK		
Mode	Instant Playback / Search	
Speed	Max. 120fps	
Search type	Date/Time, Calendar/Time-line, Event, Thumbnail(Interval/Motion), Text, Bookmark	
Block playback	1day ~ 99days	
EVENT & ALARM		
Event source	Motion detection, Sensor input, Video Loss, Text input, System	
Event check Schedule	24hrs / 7days	
Event action	Relay, Buzzer, E-mail, FTP, Video pop-up, Camera Preset, Mobile Alarm Push, System alarm	
MD area	15×10	
Text input	POS/ATM support, AVE VSI Pro/Hydra support	
SYSTEM ALARM		
Event source	HDD fail, HDD almost full, Password fail, WRS/DDNS fail, Recording Fail	
Event action	Pop-up Message, Buzzer, E-mail, Relay, Mobile Alarm Push	
AUDIO		
Input/output	4 RCA input / HDMI & RCA output	
Compression	G.711	
Direction	Both	
PTZ		
Protocols	HIK-C, AHD, C1080(D1080), C1080PT-Z20, Pelco-D, Pelco-P, Samsung, Panasonic and others	

NETWORK	
Interface	1 Fast Ethernet (10/100Mbps)
Type	Static IP, Dynamic IP, xDSL
DDNS	WNS, DynDNS, NoIP, WRS
Bandwidth limit	0.01 ~ 100Mbps, unlimited
NTP	Server / Client / Both
Users	10 Monitoring, 4 Playback
UPnP	UPnP auto port forwarding
Streaming	H.264 or H.264+(*) stream, High resolution 1 additional H.264 or H.264+(*) stream, Normal resolution 1 JPEG stream, Normal resolution
Service Streaming	Service Channel or Remote DVR
SECURITY	
User level	1 admin, 10 users
User privilege	Menu, PTZ, Relay, Playback, Power off, Copy, Network MIC, Camera setup
IP filtering	Supported
STORAGE & BACKUP	
Storage devices	1 internal SATA HDD
RAID Level	Not supported
File system	High-performance proprietary file system Data-loss protection against power interrupt
Capacity	12TB HDD Supported
Backup type	Multi-channel exe file, JPEG(Capture)
Backup device	USB 2.0 drive (2 ports)
S.M.A.R.T.	Multi-channel exe file, JPEG(Capture)
SERIAL & I/O	
Serial port	1 RS-485
Sensor input	4 Dry-contacts + Sensor of IP Camera
Relay output	1 Relays
CONTROLLER	
Device	IR remote controlle, Joystick Keyboard(option), Mouse
SOFTWARE	
HTML5 Webviewer	Monitoring / Event / PTZ / Playback for browser supporting HTML5
Webviewer	Monitoring / Event / PTZ / Playback for IE
Mobile viewer	Monitoring / Playback / Alarm Push / PTZ / Audio / Log View with iPhone & Android
CMS	Control Center, Max. 1024 units
SDK	ActiveX(COM) SDK
ENVIRONMENTAL & PHYSICAL	
Dimension	300(W) x 248(D) x 45(H) mm
Weight	1.14Kg (No HDD)
Operating Temperature	5°C~45°C (41°F ~ 113°F)
Power	DC 12V / 2A (Option : DC 12V / 5A)
Power Consumption	3.6W (without HDD)
Approval	KC, FCC, CE, RoHS

(\* Marks- Scheduled to be supported)

\* Specifications are subject to change without notice for product improvement.