



DVR/NVR



CAMERA



ACCESSORY



SOFTWARE

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

HAC1650F-V3



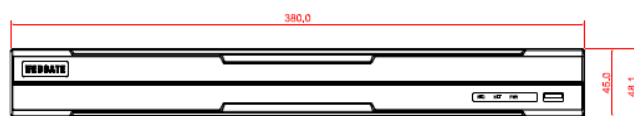
AHD 5M, 4M, 2M | TVI 5M, 4M, 2M | IP | H.265

Key Features

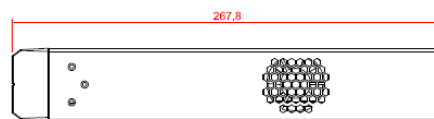
- Analog 2M(Full-Frame) / 4M / 5M 16CH DVR
- Analog : AHD(5M/4M/2M), TVI(5M/4M/2M), CVBS(960H, SD)
- IP(Ethernet) : Onvif, WESP / H.264, H.265
- 2 Internal SATA HDD
- HDD Capacity 12TB
- Service channel, Remote DVR
- VMS(Control Center), Mobile App(WebEye), HTML5 WebViewer

Dimension

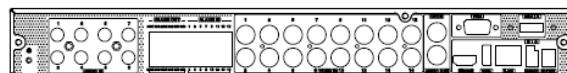
(380×267.8×45mm)



<Front View>



<Side View>



<Rear View>

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(5M/4M/2M), AHD(5M/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



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VIDEO INPUT		
Video input Format	BNC	AHD, TVI, CVBS(960H,SD)
	IP(Ethernet)	H.264, H.265 Protocol : WESP, Onvif Profile S (all ch support)
Resolution/Framerate	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
	IP	1st stream: 1280×720~3840×2160 2nd stream: max 720×576
Connectors	16ch, 75Ω BNC connector	
CoC	Control over Coax@AHD,TVI	
VIDEO OUTPUT		
Video output	Resolution	HDMI : 3840×2160(*), 1920×1080 VGA : 1920×1080, 1280×1024, 1024×768 BNC(CVBS) : 720×480, 720×576
	Modes	HDMI main + VGA spot HDMI main + CVBS spot HDMI/VGA Duplicate HDMI/CVBS Duplicate HDMI main + VGA(Service Channel) HDMI main + CVBS(Service Channel)
	BNC(CVBS)	1, 4, 9, 16 split-screen, Switching
RECORDING		
Compression	H.264 / H.265 / MJPEG	
Resolution	2560×1944, 2560×1440, 1920×1080, 960×480	
Rate	Total 480 fps, Max 30fps/ch @ 1920×1080 Total 240 fps, Max 15fps/ch @ 2560×1440 Total 160 fps, Max 10fps/ch @ 2560×1944	
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. 480fps	
Search type	Date/Time, Calendar/Time-line, Event, Thumbnail(Interval/Motion), Text, Bookmark	
Block playback	1day ~ 365days	
EVENT & ALARM		
Event source	Motion detection, Sensor input, Video Loss, Text input, AI, 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	8 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 Gigabit Ethernet (10/100/1000Mbps)
Type	Static IP, Dynamic IP
DDNS	WNS, DynDNS, NoIP, WRS
Bandwidth limit	0.01 ~ 100Mbps, unlimited
NTP	Server / Client / Both
Users	10 Monitoring, 4 Playback
RTSP	Supported
UPnP	UPnP auto port forwarding
Streaming	H.264 or H.265 stream, High resolution 1 additional H.264 or H.265 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	2 internal SATA HDD, 1 external eSATA Interface
RAID Level	Not supported
File system	High-performance proprietary file system Data-loss protection against power interrupt
Capacity	Max. 128TB with eSATA 12TB HDD Supported per SATA Port
Backup type	Multi-channel exe file, Single channel avi file, JPEG(Capture)
Backup device	2 USB 3.0 drive (1 rear), 2.0 drive (1 front) FAT32(Max 32GB), NTFS (Min. 1GB)
S.M.A.R.T.	Health checking and alarm, Reallocation sector monitoring and alarm
SERIAL & I/O	
Serial port	1 RS-485
Sensor input	16 Dry-contacts + Sensor of IP Camera
Relay output	4 Relays
CONTROLLER	
Device	IR remote controller, 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	380(W) × 267.8(D) × 45(H) mm
Weight	1.8Kg (No HDD)
Operating Temperature	5°C ~ 45°C (41°F ~ 113°F)
Operating Humidity	80% below, free of condensation
Power	DC 12V / 4A (Option : DC 12V / 5A **) - It is highly recommended to use an adapter (option) to use a high capacity HDD with a power consumption of 8W or more. Please refer the HDD's specification for power consumption of HDD.
Power Consumption	11.1 W (without HDD)
Approval	KC, FCC, CE

(* Marks- Scheduled to be supported)

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