



DVR/NVR



CAMERA



ACCESSORY



SOFTWARE

ALL-HYBRID 4K UHD DVR

KWSD-8516



ALL-HYBRID | Analog | Digital | IP | 4M QHD | 4K UHD | TDM RX

Key Features

- Digital : HD-SDI, EX-SDI(1.0, 2.x, 3.0), EX-SDI TDM 1.1
- Analog : AHD(8M), TVI(8M), CVBS(960H)
- IP(Ethernet) : Onvif, WESP
- Max.16CH(2M/4M), 8CH(4K)
- 4K UHD(HDMI) output
- 5 Internal SATA HDDs
- External storage capacity 128TB(eSATA), 256TB(UHS04R)
- Real Time Streaming(RTSP)
- Service channel, Remote DVR
- VMS(Control Center), Mobile App(WebEye), HTML5 WebViewer

Dimension

(445×418×88mm)



Tech Note

ALL-HYBRID Full support for all existing video formats

An ALL-HYBRID 4K DVR that supports all video formats—from SD to 4K IP and 4K UHD, including IP cameras!

No matter the site or the camera, one ALL-HYBRID 4K DVR is all you need.

4K UHD 8-Channel support

Supports 4K UHD video on odd channels (1, 3, 5, 7, 9, 11, 13, 15), enabling wide-area surveillance as well as clearer and more flexible zooming of distant images.

A DVR that reliably records video up to 4K UHD resolution.

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

Made in Korea

Competitive products having reliable quality and reasonable price purely developed and manufactured in Korea

Free VMS

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



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VIDEO INPUT		
Video input Format	BNC	HD-SDI, EX-SDI(1.0 / 2.x / 3.0), EX-SDI TDM 1.1, AHD, TVI, CVBS(960H,SD)
	IP(Ethernet)	WESP, Onvif Profile S H.264, H.265
Resolution / Frame Rate	HD-SDI EX-SDI 1.0 EX-SDI 2.0	1920×1080@30fps, 1920×1080@25fps
	EX-SDI 2.1	2560×1440@30fps, 2560×1440@25fps 3840×2160@30fps, 3840×2160@25fps
	EX-SDI 3.0	3840×2160@30fps, 3840×2160@25fps
	EX-SDI TDM 1.1	1920×1080@30fps, 1920×1080@25fps
	AHD	1920×1080@30fps, 1920×1080@25fps 2560×1440@30fps, 2560×1440@25fps 2560×1944@20fps, 2560×1944@20fps 3840×2160@15fps, 3840×2160@12fps
	TVI	1920×1080@30fps, 1920×1080@25fps 2560×1440@30fps, 2560×1440@25fps 2560×1944@20fps, 2560×1944@20fps 3840×2160@15fps, 3840×2160@12fps
	CVBS(960H)	960×480@60i, 720×480@60i 960×576@50i, 720×576@50i
	IP	1st stream: 704×576~3840×2160 2nd stream: 352×240~1280×720
	Connectors	16ch, 75Ω BNC connector
	CoC	Control over Coax@HD-SDI, EX-SDI1.0/2.x/3.0, 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
	Mode	HDMI main + VGA spot HDMI main + CVBS spot HDMI main + SDI 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
	BNC(SDI)	Main : Same as HDMI output Spot : 1, 4, 9, 16 split-screen, Switching Format : EX-SDI, EX-SDI 2.0

RECORDING	
Compression	H.265 / H.264 / MJPEG
Resolution	3840×2160, 1920×2160, 2560×1944, 2560×1440, 1280×1440, 1920×1080, 1280×720, 640×360
Rate	Total 480fps, Max. 30fps/ch @1920×1080 Total 480fps, Max. 30fps/ch @2560×1440 Total 240fps, Max. 30fps/ch @3840×2160
Quality	10 levels up to (Default - Q7) - H.264 : 4Mbps@2M, 6Mbps@4M, 6Mbps@5M, 8Mbps@8M - H.265 : 3Mbps@2M, 4Mbps@4M, 4Mbps@5M, 6Mbps@8M
IP Camera	Max Bitrate 96Mbps (Main Stream)/ 14.4Mbps(Sub Stream)
Mode	Normal/Event Record, Schedule/Event Record, Emergency Record
Schedule	24hrs / 7days

PLAYBACK	
Mode	Instant Playback / Search
Speed	Total 480fps, Max. 30fps/ch @1920×1080 Total 480fps, Max. 30fps/ch @2560×1440 Total 240fps, Max. 30fps/ch @3840×2160
Search type	Date/Time, Calendar/Time-line, Event, Thumbnail(Time/Motion), Text, Bookmark
Block playback	1day ~ 365days

EVENT & ALARM	
Event source	Motion detection, Sensor input, Video Loss, Text input, AI, Flame, Thermal, 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, NTP Sync 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	35 models including C1080, C1080PT-Z20, Pelco-D, Pelco-P, Samsung and Panasonic
NETWORK	
Interface	1 Gigabit Ethernet (10/100/1000Mbps)
Type	Static IP, Dynamic IP, xDSL
DDNS	WNS, DynDNS, NoIP, WRS
Tx Bandwidth Limit	1 ~ 128Mbps
NTP	Server / Client / Both
Users	Total 10 Users (Monitor + Playback) Playback 3 Users
RTSP	Supported
UPnP	UPnP auto port forwarding
Streaming	H.264 stream, H.265 stream High resolution 1 additional H.264 stream, H.265 stream Normal resolution 1 JPEG stream, Normal resolution
Service Streaming	Service Channel or Remote DVR
TLS	Supported
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	5 internal SATA HDDs, 1 external eSATA Interface, Supported UHS04R
RAID Level	External storage including UHS04R (Level 1/5/10)
File system	High-performance proprietary file system Safe data protection in power interrupt Safe HDD head parking in power interrupt
Capacity	Max. 128TB with eSATA, Max. 256TB with cascaded UHS04R 20TB HDD Supported per SATA Port
Backup type	Multi-channel exe file, Single channel avi file, JPEG(Capture)
Backup device	1 USB 3.0 Drive (rear), 2 USB 2.0 drive (front) FAT32(Max 32GB), NTFS(Max 1TB)
S.M.A.R.T.	Health checking and alarm, Reallocation sector monitoring and alarm
SERIAL & I/O	
Serial port	2 RS-485
Sensor input	16 Dry-contacts + Sensor of IP Camera
Relay output	Software-controlled 2 relay outputs Max 125V AC / 0.5A, 24V DC / 1.0A
CONTROLLER	
Device	IR remote controller(option), 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	HTML5 SDK, ActiveX(COM) SDK
ENVIRONMENTAL & PHYSICAL	
Dimension	445(W) × 418(D) × 88(H) mm
Weight	6.1 Kg (No HDD)
Operating Temperature	-5°C ~ 45°C (23°F ~ 113°F)
Operating Humidity	80% below, free of condensation
Power	AC 100~240V, 50/60Hz
IPFR	Supports IPFR (Intelligent Power Failure Recovery)
Power Consumption	Typical 34W (w/o HDD)
Approval	KC, CE, FCC

(* Marks- Scheduled to be supported)

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