



K9-u1616

Series

Universal Port DVR
16 Channel HD-SDI/Analog H.264



HD-SDI or Analog



Universal Port

Universal ports can handle ANY mix of SD analog and 2.1Megapixel 1080p digital HD-SDI cameras and still record in real time.





Let KT&C provide your ticket to ride the megapixel tidal wave.

Connect and record up to sixteen 2.1 Megapixel HD-SDI cameras at a full 1080p 30FPS on each camera: the K9-u1616 DVR can handle that 24 GIGABITS per second of streaming real time digital video across 16 coaxial connections for completely smooth motion at full resolution and full real time rate, in live view and playback, without 'artifacts'. With six times the pixels of a standard definition image, 1080p 2.1Megapixel delivers more pixels-per-foot and more pixels-on-target to maintain image clarity for useful digital zoom with virtual PTZ in live view **and playback**, while the 3D comb filter in the K9-u1616 eliminates pixel artifacts for clearer, sharper images.

Your customer gets more images per second and more image detail than from most IP cameras, in a system that installs and operates like a familiar DVR.

Not every scene benefits from a megapixel camera? Absolutely true. For close up coverage and narrow fields of view, a 960H or even an older analog camera can deliver more than sufficient resolution. Connect those cameras to the K9-u1616 too. It can **also record from any analog camera** at the camera's maximum resolution: 420-540-600-700- 720 HTVL, up to 960H.

Don't want to be bound by the HD/SD mix on a DVR? Don't want to be limited in the number of HD or SD cameras you can connect? Not an issue for the **universal ports** on the K9-u1616: connect analog SD or digital HD-SDI cameras on any port you wish. Replace an existing 16 channel SD DVR with a real time K9-u1616 and keep ALL the existing analog cameras; later on you can upgrade any or all of the cameras to 2.1Megapixel HD-SDI at any time in the future. Just replace any analog camera and the new digital megapixel video appears on screen.

Upgrade to a K9-u1616 together with just few digital HD-SDI megapixel cameras in key locations – 15+1, 14+2, 13+3..... it's not an issue. When the customer likes the megapixel views so much they want more megapixel cameras, just upgrade the cameras and the K9-u1616 automatically displays and records these new megapixel digital streams. Need 100% megapixel coverage – HD-SDI on all 16 ports? The K9-u1616 has all the power you need to handle all of that megapixel recording.

The K9-u1616 is the one DVR that can handle ANY coax connected CCTV system. It is not just a 16 port real time DVR that can hold up to 16Tb of internal HDD storage – its **universal ports** can handle ANY mix of SD analog and 2.1Megapixel 1080p digital HD-SDI cameras and still record in real time. This high performance DVR comes with the package of capabilities that you expect: HDMI, VGA and BNC main monitor outputs (reuse an existing main monitor or upgrade to HD); HDMI and BNC spot/call monitor outputs (reuse an existing call monitor or upgrade to HD); per-channel audio input, sensor input and relay output; free DDNS, IE and MAC clients; dual streaming to conserve bandwidth when using the free iOS and Android smart phone apps that show multiple camera views in live and playback; free multiple site CMS with two-way audio that displays up to 1024 cameras on multiple monitors; scheduled backup over the network, and more.

This is the one DVR you can stock with the certainty that it can handle the challenge of any coax based system you plan to service or install.

Key Features:

- Universal Video Inputs: connect 1080p/720p HD-SDI or 960H/SD analog to ANY input
 - Reuse existing analog cameras or choose any mix of HD/SD on new systems
 - Upgrade any analog camera to megapixel at any time
- 480fps Live Display and Recording @ 2.1 Megapixel 1920x1080 (1080p) and/or 960x480 (960H)
 - Up to 30FPS per camera real time recording on any/all channels at any resolution
 - Playback any/all cameras at up to 240FPS total
- H.264 Compression for efficient HDD utilization
 - Up to 4 internal hard drives for up to 16Tb of internal storage, plus eSATA for external storage
 - 3D-Comb filter eliminates pixel artifacts for clearer, sharper images from megapixel or analog playback video
 - Simultaneous full stream recording plus dual-codec recording for reduced bandwidth remote viewing
- Pentaplex Operation (Simultaneous live, recording, playback, archiving and remote viewing)
- HDMI, VGA & BNC Main monitor outputs (reuse existing monitor or upgrade to HD)
- Call monitor for sequential and/or event camera display
- HDMI and BNC Spot/Call monitor outputs (reuse existing monitor or upgrade to HD)
- User friendly GUI with graphical icons and visual indicators and multi-language support
- Search video by date and time; alarm/event; from a bookmark
- Digital Zoom with Virtual PTZ in Live & Playback
- Per channel (16) Audio Inputs, Sensor inputs, Relay Outputs; one audio out, two way audio
- Privacy Masking
- Gigabit Ethernet interface for remote network viewing and control
- Multiple Control Inputs: local mouse/hand held IR remote controller (both included); web browser and CMS controls
- On-screen PTZ control via mouse or IR remote
- USB 2.0 ports on front and rear panels for video archive and mouse usage
- Free DDNS Service – static IP address is not required for reliable remote access
- IE Web client plus Free MAC client software with multi-User Access
- Free Windows CMS with multiple monitor support displays 1,024 cameras
- Remote configuration support from built-in web interface and/or free CMS program
- Free iOS and Android app with single and quad live & playback, audio, PTZ and relay control
 - Up to 16 camera views on 720p or higher Android tablets

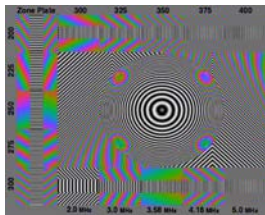
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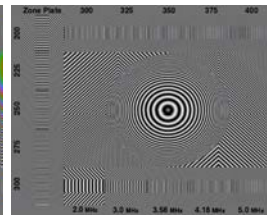
3D Comb filter

Eliminates digital artifacts for a clearer, sharper image from your megapixel or analog playback video

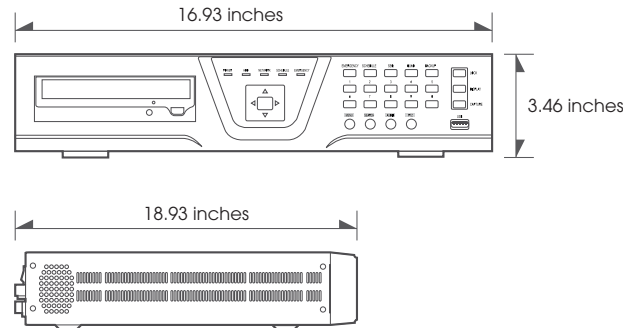
Without 3D Comb Filter



With 3D Comb Filter



Dimension



Ordering Information

K9-u1616D/2T : 16CH Universal Port DVR, DVDRW, with 2TB	K9-u1616/2T: 16CH Universal Port DVR, with 2TB
K9-u1616D/4T : 16CH Universal Port DVR, DVDRW, with 4TB	K9-u1616/4T : 16CH Universal Port DVR, with 4TB
K9-u1616D/8T : 16CH Universal Port DVR, DVDRW, with 8TB	K9-u1616/8T : 16CH Universal Port DVR, with 8TB
K9-u1616D/12T : 16CH Universal Port DVR, DVDRW, with 12TB	K9-u1616/12T : 16CH Universal Port DVR, with 12TB
	K9-u1616/16T : 16CH Universal Port DVR, with 16TB



KT&C reserves the right to make changes to improve our products at any time without notice; we are not responsible for misprints.

Model	K9-u1616		
Video Input	Video Input	HD-SDI (HDCCTV)	NTSC/PAL
	Resolution	1920x1080@30 FPS, 1280x720@60 FPS	960x480, 720x480(NTSC), 960x576, 720x576(PAL)
	Connectors	Input Format Auto Detection. HD/SD can be mixed in any combination	
Video Output	Main	HDMI, VGA, CVBS (analog BNC); 1, 4, 9, 13, 16 split User Defined Sequence / Alarm Pop-up 1920x1080p at HDMI / VGA port	
	Spot	HDMI & CVBS/analog BNC / 1920x1080p at HDMI port	
Recording	Compression	Main Stream H.264; Sub-stream H.264 / JPEG	
	Resolution Main Stream	1920x1080, 1920x540, 960x540 1280x720, 1280x360, 640x360	960x480, 720x480
	Frame Speed	480FPS at 1080p / 480FPS at 720p	480/400FPS at 4CIF / 480/400FPS at 960H
	Quality	5 levels: Lowest/Low/Mid/High/Highest	
	Mode	Manual & Event / Schedule & Event / Continuous & Event	
Playback	Schedule	24hrs / 7 days	
	Search Type	Date/Time, Calendar, Event, Go to First, Go to Last	
	Capacity	240fps@any combination of cameras and resolution	
	Speed	x1, x2, x4, x8, x16	
Event & Alarm	3D Comb Filter	Eliminates pixel artifacts for clearer, sharper images from megapixel or analog playback video	
	Event Source	MD (Motion Detection), Sensor, Video Loss	
	Event Check Schedule	24hrs / 7 days	
	Event Action	Buzzer, Relay, E-mail, Alarm Pop-up	
	MD Area	User selectable grid pattern 32x24 areas	
	Sensor Input	16 Dry Contacts (N.O. or N.C. Selectable)	
System Alarm	Alarm Output	16 outputs (4 Mechanical/12 transistor)	
	Alarm Source	HDD Fail, HDD Almost Full	
	Alarm Action	Warning Message, Buzzer, E-mail, Relay	
Audio	Input/Output	16ch Input / 1ch Output	
	Compression	8KHz, 16bit Sampling ADPCM	

Network	Interface	1x (10/100/1000 Base-Tx Ethernet) RJ-45		
	Addressing	Static IP, DHCP, xDSL support		
	NTP	Supported	Users	8 Monitoring, 1 Playback
	Streaming	1 HD H.264 Same as Recording / 1 Additional H.264 Smaller Than Recording 1 JPEG for E-mail Sending or Mobile		
Security	IP Filtering	Supported		
	User Level	1 Admin, 7 Users		
	User Privilege	Menu, PTZ, Relay, Playback, Copy, Network		
Storage & Clip copy	HDD Storage	4 Internal SATA Devices, 1 External eSATA I/F		
	Mirroring	Supported		
	Copy Type	Multi-Channel or Single Channel File		
	Copy Device	USB Drive (2 port) or (Optional; contact KT&C) Internal DVD		
Serial & I/O	S.M.A.R.T.	Temperature		
	Serial Port	1 RS-232C		
User Controls	RS-485	One; selectable speed and bit pattern; multiple protocols (Pelco P, Pelco D, others)		
	Local Controls	Front Panel, IR Remote, Joystick KBD, Mouse		
Software	Web Viewer	Monitoring / Event / PTZ / Playback with IE		
	Clients	IE single site web client; MAC single site client program		
	Mobile Viewer	Multiple view live / play monitoring with PTZ; i phone & Android supported		
General	CMS	Free Central Management Software, multiple sites up to 1,024 cameras, multiple monitor support, two way audio, scheduled backup		
	Dimension	16.93" x 3.46" x 18.93" (430mm x 88mm x 481mm)		
	Weight	19.8 lbs (9 kg) plus HDDs		
	Operating Temp	41°F~104°F (5°C~40°C)		
	Voltage	AC 100-220V (50-60Hz) 120W		
Power	34.7W			
Certifications	FCC, CE, RoHS, UL (pending)			