



**INNOVATIVE**  
HIGH DEFINITION SURVEILLANCE

www.ktncusa.com



**K9**  
High Resolution  
**960HDVR**  
Series

**16CH** High Resolution  
**960HDVR**

960H / H.264 / Real-Time at WD1  
Free Mobile App (Android, iOS) Live / Play, 1~16 Camera View  
Email Notification / CMS Control / HDMI Output / Two-Way Audio  
Loop Out / Gigabit Ethernet / Free DDNS / IE, MAC Client  
1024CH CMS / Mirror Recording  
3 Year Warranty

**K9-a1600**

For design help, accessories or pricing, please contact:  
sales@avsupply or call: 1-858-565-1101

**AUDIOVIDEO SUPPLY**  
1-800-284-2288 sales@avsupply.com  
www.avsupply.com

**4GB**  
USB Memory  
Included for backup



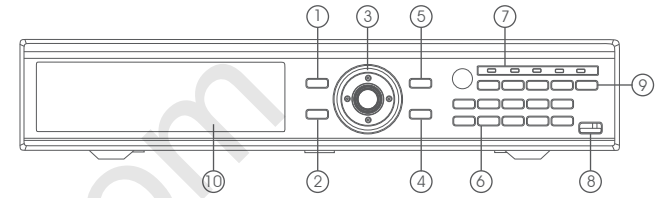
# K9-a1600

## Key Features

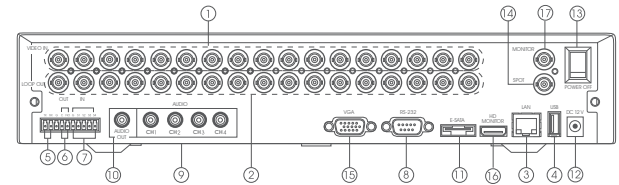
- 16CH WD1 960 x 480 recording delivers 36% more detail than traditional 4 CIF (704 x 480)
- H.264 Compression for efficient HDD utilization
- WD1 real-time live display, recording and playback on all channels
- HDMI + VGA + BNC main monitor outputs support any type of display
- Call monitor: additional composite BNC output for sequential and/or event camera display
- Simultaneous high bandwidth recording (480 NTSC / 400 PAL @WD1) with dual-codec recording for reduced bandwidth remote viewing
- Pentaplex Operation (Simultaneous live, recording, playback, archiving and remote viewing)
- Search video by date and time; by alarm/event; from a bookmark; or scan a color coded graphical display of record trigger (e.g. event, motion, etc.) versus time and move directly to the time of interest.
- Free DDNS Service - static IP address is not required for reliable remote access
- User friendly GUI with graphical icons and visual indicators
- Accepts dual internal 3 Tb HDDs for extended recording, Supports eSATA external HDD (Single Drive up to 3 TB)
- Free iOS and Android app: single and quad live & playback, with audio, PTZ and relay control
- Multiple Control Inputs: mouse / front panel / hand held IR remote controller
- Remote configuration support from built-in web interface and/or free CMS program
- Gigabit Ethernet interface for remote network viewing and control
- On-screen PTZ control via mouse or front panel
- Built-in DVD burner (Optional - replaces one HDD)
- Four channel audio recording capabilities and two-way audio
- USB 2.0 ports on front and rear panels for video archive and mouse usage
- Free Windows CMS with multiple monitor support displays up to 1024 cameras
- Free MAC Client software connects to individual sites for live view and playback
- Multi-language support
- 19" Rack mountable - rack ears included
- USB mouse, IR remote, 4GB USB memory included
- 3 Year warranty



## Major Operating Controls

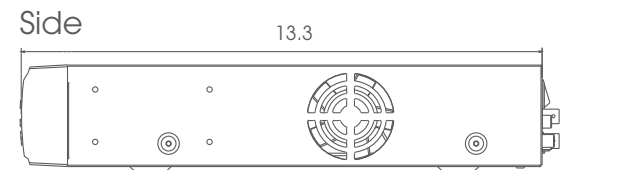
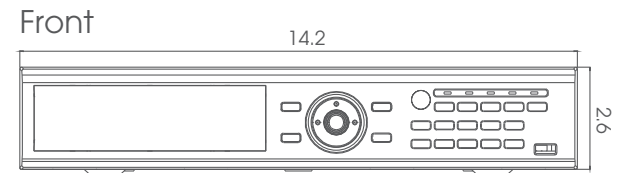


1. Menu: Display/Cancel a Menu
2. Audio: Display Audio listening menu
3. Direction Buttons: Navigate menu, control, playback
4. Backup: Display backup functions for video data
5. Pan / Tilt: Display Pan / Tilt menu
6. Number: Channel selection or number input
7. Status LEDs: Show status of Power, Recording, Remote Access, Schedule Recording and Emergency Recording
8. Front USB Port: USB Connecting slot
9. Function Buttons: Display split, sequence, schedule record, emergency record
10. ODD: Optional DVD Drive



- |                  |                  |                             |
|------------------|------------------|-----------------------------|
| 1. Video Inputs  | 7. Sensor Input  | 13. Power Switch            |
| 2. Loop Through  | 8. Service Use   | 14. Spot Monitor Out        |
| 3. Gb/S Ethernet | 9. Audio Input   | <b>Main Monitor Outputs</b> |
| 4. USB 2.0 Port  | 10. Audio Output | 15. VGA                     |
| 5. RS-485        | 11. E-SATA Port  | 16. HDMI                    |
| 6. Alarm Output  | 12. Power Input  | 17. Composite               |

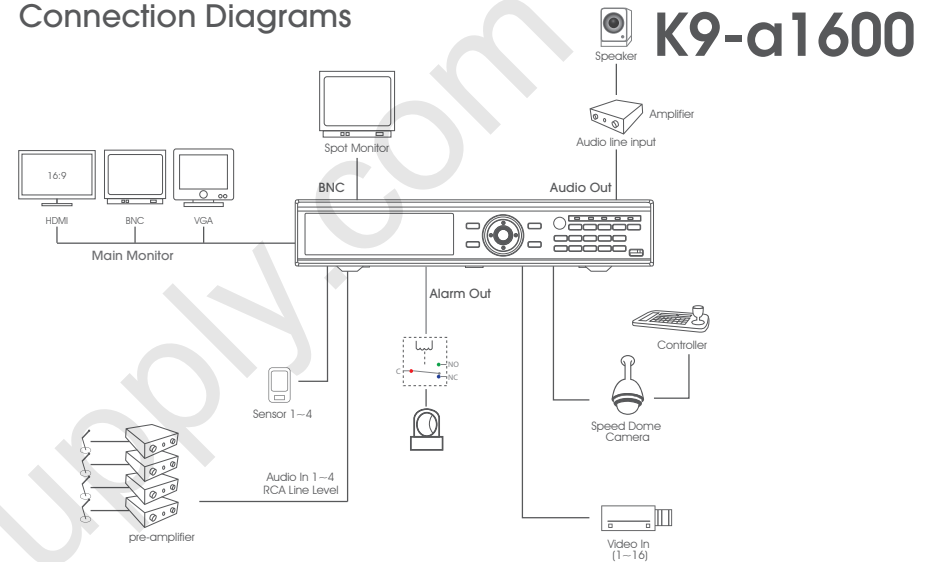
## Dimensions (Unit: Inches)



## Technical Specification

Input Channels (BNC)	16
Video Format	NTSC/PAL Automatic Select
Compression Format	H.264
Recording Rate / Resolution (Max)	480 NTSC / 400 PAL WD1 / 960 x 480, 960 x 240, 480 x 240
Dual Codec Support	OFF or ON for CIF (360 x 240) video stream for multiple image remote viewing bandwidth conservation, with per channel image quality (5 levels) & FPS (up to 120 total FPS) Single camera viewing is at main stream record settings
Free PC CMS Support	Unlimited sites from 1 to 1024 cameos per screen, quadruple monitor support, Emap support and Network Attached Storage Service (NASS) for scheduled backup from DVRs to PC drives
Free MAC Client	Client software connects to individual sites for live view and playback
Mobile Viewing Support	Free KVRMobile app for iPhone and Android. Live and Playback single / quad view, PTZ control with presets, relay control, two way audio & screen snapshot capture. Up to 16 camera views on most Android tablets.
Pentaplex Operation	Simultaneous Live, Recording, Playback, Archive and Remote Viewing
Main Monitor Out	HDMI / VGA (1080p – 1920 x 1080) & BNC (CVBS)
Split Modes	1,4,6,9,13,16
Call Monitor Output	BNC (CVBS) displays sequential and / or event video
Audio Inputs	4 x RCA Line Level Inputs
Audio Compression	G723.1
Audio Outputs	1 x RCA Line Level Output; volume adjustable
Recording Modes	Continuous / Schedule plus Emergency / Sensor / Motion / Sensor + Motion with Pre (10 second) & Post (30 second ~ 30 minute) Alarm Recording
Playback Search	Calendar, Date & Time, Event Search, Bookmark
Playback Speed	X1, x2, x4, x8, x16, x32
Alarm Inputs	4 (programmable NO / NC)
Alarm Out	1 (SPST)
Playback Pause/FF/FR	Yes
Video Loss Detection	Yes (with alarm actions)
Motion Detection	Yes (selectable area and sensitivity per channel)
Event Log	Yes (Motion, Sensor, Video Loss, System Actions, HDD Error)
Max HDD Capacity	2 x Internal SATA HDD + 1 x External SATA HDD up to 3 Tb per HDD
RAID Function	Mirror record
External HDD	1 x eSATA (single drive up to 3 TB)
Built-in DVD Burner	5.25" DVD Burner (optional – replaces one HDD)
User Interface	GUI (Graphical User Interface) with front panel controls, mouse control, included IR remote
OS	Embedded Linux
Warranty	3 Years

## Connection Diagrams



Network / Protocol	1 Gigabit Ethernet; TCP-IP / DHCP / PPPoE / DDNS
Easy Network Install	Windows DVR Net Configuration utility locates DVRs on network and allows configuration of network address / gateway / DNS / remote access ports
Control PTZ via OSD	Yes (via both local and remote interfaces)
USB	2 USB 2.0 port (1 x front / 1 x rear panel)
Schedule Setting	Per channel / per day / in 30 minute increments
User Access	3 Levels of User Access Defined
RS-232	9 pin D-sub (for future use)
RS-485	1 RS-485 (3 pin terminal connector) 1200 ~ 115200 baud; N / O / E Parity; 1 / 1.5 / 2 stop bits
Supported PTZ Protocols	Pelco D & P, Fastrax, Samsung, Philips, Honeywell, LG, DM; others (consult User Guide) Separate reverse control option for pan and tilt
Power Source	DC 12V, 5A, Max. from included supply operating from 100~240 VAC, 50 / 60 Hz.
Power Consumption	~16 W
Operating Environment	0 °C ~ 40 °C / 32 °F ~ 104 °F (20 ~ 80% humidity)
Dimensions (L x W x H)	13.3" x 14.2" x 2.6" / 338 x 361 x 66 mm
Weight	~9 lb. / 4.1 Kg plus HDDs
Included Accessories	USB mouse, IR Remote Control with batteries, Rack Mounting Ears and hardware; 4 Gb USB for video export contains DVR and CMS User Guide, Free Windows CMS, Mac Client Software and Utilities, HDD and Backup Viewer
Certifications	CE, FCC, RoHS