

OMNI-IP

Scalable IP Solutions



Key Features

- Connect up to 16 IP cameras in any combination with no special licenses required
 - 'Hands Free' Plug-and-Play cameras on the 16 built-in PoE ports
 - Onvif or other supported IP cameras* (*See list of manufacturers/models)
 - Power cameras with up to 30W each (802.3at PoE) from a total of 200W built in PoE power
- Stream an aggregate bandwidth to the NVR of up to 80Mb/s from all connected cameras
 - Select camera resolutions up to 5MP
 - Set lower resolution/rate/image quality to meet application/installation requirements
- Local HDMI/VGA monitor displays at up to 1920x1080 and/or connect traditional analog/CVBS
 - Display different cameras/layouts on each monitor or duplicate display on HDMI & VGA outputs
 - Continue to view live HD video while reviewing playback on a separate HD monitor
 - Route event full screen pop-up to any monitor for simultaneous live, playback and aux/call views
 - Employ digital zoom in both live view and playback for expanded view of fine details
- Record based on schedule, motion, event/alarm, combinations, VCA or none
- Optional arming schedule for action/notifications and alarms (e.g. ignore on-camera motion from specific cameras during normal business hours)
- View, record and play main stream for detail, or sub-stream to conserve bandwidth and CPU resources
- Easy to use on-screen menus include digital zoom and instant playback of recent video
 - Operate using full front panel controls, wheel mouse or optional IR remote
- Quickly locate and review event video
 - Search by date/time, or preview images by pointing along a color coded timeline of record type
 - Play based on results of extensive event/alarm log search
 - Use "Smart Search" to define an area of interest; the NVR quickly reviews recorded video to list instances of motion in that area for review by the operator
 - Use Video Content Analysis event detection on all channels
 - Line crossing (with direction) up to four lines
 - Area intrusion (with loitering time) up to four areas
 - Rapid fast forward can scan quickly between VCA events, yet plays events at normal speed
- System automatically conserves resources by selecting sub-stream during multiple camera viewing
- User selectable viewing optimization for image detail of fluency of motion
- Choose up to 24Tb of internal HDD storage (optional mirroring), or record to external eSATA/NAS/SAN
- Back up recorded video to any connected eSATA (mirror option as well)
- Easy remote access: view NVR over Internet without programming router: built-in uPnP router NAT/port mapping forwards ports automatically (*Router must support/permit uPnP function)
- Your choice of IE, Chrome, Firefox or Safari browsers to view live or playback video, or to manage NVR
- Unique Channel 0 remote stream displays user defined multi-view in the bandwidth of a single channel
- Unique Virtual Host provides remote access to all IPC login menu based features and capabilities
- View multiple live/playback video streams on Android/iOS apps, or get HD viewing from tablet specific app
- Free Windows and MAC CMS Client for up to 64 live/4 playback views, manage and back up multiple sites
- Two way audio support (compatible camera required) from NVR, web screens and CMS
- Local alarm pre-channel inputs, 4 outputs and RS-485 control terminals
- Rack mountable 1.5U chassis (ears included)



KNR-p16Px16
16 Channel Plug & Play NVR

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16 Channel Plug & Play NVR



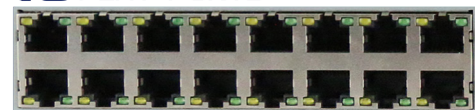
| Streaming Video Inputs & Recording | |
|--|---|
| Maximum Number of IP Cameras | 16 |
| Number of built in PnP/PoE Switch Ports | 16 |
| Supported Live View/ Record Resolutions | 5MP / 3MP / 1080P / UXGA / 720P / VGA / 4CIF / DCIF / 2CIF / CIF / QCIF |
| Sub-stream | Supported for recording, playback and live viewing |
| Audio streaming | Supported from audio capable cameras |
| Maxi FPS rate per cam (Live & Record) | 30FPS Main stream; 30FPS Sub-stream Up to 480FPS total for 16 cameras |
| Maximum Record Streaming Video Input Bandwidth (all cameras combined) | 80Mb/s |
| Recording Compression | Depends on IP Camera; typically H.264 for main stream, MJPEG for sub-stream |
| Recording Modes | Continuous, Motion, Alarm, Motion+Alarm, Motion, Alarm, VCA or None |
| Motion & VCA Detection | Camera Side, configurable from NVR for KNC-p3 Omni IP Series Cameras |
| Schedule Period | Per day in 1 hour blocks; or 8 time periods per day, each with different record mode; +holidays |
| Pre- and Post- Event Recording | Pre-record 0-30 seconds; post record 5s-10 minutes |
| Built in network switch port speed | 10/100 Mb/s each port |
| KT&C Omni-IP "hands free Plug and Play" Cameras Fully Supported | KNC-p3BR4IR, KNC-p3BR6IR, KNC-p3BR12IR, KNC-p3DR4IR, KNC-p3DR3IR, KNC-p3DR6IR, KNC-p3DR12IR, KNC-p3BR4XIR, KNC-p3BR6XIR, KNC-p3BR12XIR, KNC-p3TR4XIR, KNC-p3TR3XIR, KNC-p3TR6XIR, KNC-p3LR4IR, KNC-p3LR3IR, KNC-p3LR6IR, KNC-p3BR28V12IR, KNC-p3DR28V12IR, KNC-p4BR4XIR, KNC-p4DR4IR, KNC-p4LR3IRA, KNC-p4TR4XIR |
| Third Party Cameras Supported (requires traditional configuration and setup) | Onvif; Acti, Arecont, Axis, Bosch, Brickcom, Canon, Hikvision, Hunt, Panasonic, Pelco, Samsung, Sanyo, Sony, Vivotek, Zavio |
| Local Live Presentation of Streaming Video/Audio | |
| Local Display Main Monitor Outputs | HDMI 60Hz: 1920x1080, 1600x1200, 1280x1024, 1280x720, 1024x768 VGA 60Hz: 1920x1080P, 1600x1200, 1280x1024, 1280x720, 1024x768 BNC/CVBS (1.0V p-p, 75 Ω) 704 x 480 (NTSC) |
| Camera Display Layouts | 1, 2x2, 1+5, 1+7, 3x3, 4x4, 5x5, 32, 6x6 |
| Multiple Independent Monitors | HDMI and VGA monitors can be duplicates, or display independent live and/or playback screens with all cameras; CVBS is independent and can function as a call or auxiliary monitor |
| Automatic Stream Selection | Single camera view and 2x2 at main stream resolution; Automatic switching to sub-stream resolution in >4 camera multi-view display to conserve CPU capacity and maintain parity between per-camera screen area and image size |
| Audio Output | 2-ch Line Level, BNC (Linear, 600Ω), one synched to CVBS, one synched to VGA; HDMI audio on HDMI monitor output (requires audio equipped cameras) |
| Playback of Recorded Video/Audio | |
| Supported Playback Resolutions | 5MP / 3MP / 1080P / UXGA / 720P / VGA / 4CIF / DCIF / 2CIF / CIF / QCIF |
| Local Display Playback Maximum Video Bandwidth (all cameras combined) | ~32Mb/s nominal |
| Nominal Local Playback Capability | 8 channels @ 1920x1080; 16 channels @ 1280x720 (based on average per channel bandwidth of ~4Mb/s@1080p and ~2Mb/s @ 720p) Reduced total bandwidth permits greater number of cameras to be played. (actual playback depends on decoding load which varies based on settings for recorded video bandwidth restrictions, resolution, image quality, FPS rate, compression efficiency, and complexity of pixel change in the scene) |
| Playback search modes | Time/Date; Event (Alarm, Motion, VCA); Manual Tags; Smart Search for motion events from recorded video |
| Playback Controls | Play; Pause; Forward/Reverse; speed control for single-1.8--Vmax (256x); Slide bar with overview of record type and snapshot display from slider position |
| Digital Zoom During Playback | Supported on Local Displays and CMS |
| Local Hard Drives and Other Storage | |
| Number of Internal Hard Drives | Up to SATA HDD; up to 6TB each for 24TB maximum |
| Mirror Recording | Can clone pairs of disks |
| S.M.A.R.T | With extensive statistics, alarms, on demand tests and reporting |
| External HDD | one eSATA Interface (up to 8 drives) |
| Record to | HDD, eSATA, NAS or SAN |
| Archive to | USB |
| Local Plug and Play Camera Network Support | |
| Integral PoE Switch | 16 Ports 10/100 Mb/s |

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16 PLUG & PLAY PORTS



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|-------------------------------|------------------------------|--------------------------|----------------------|-----------------------------|
| Plug & Play | PoE | up to 5 Megapixel | 30 FPS | Front Panel Controls |
| HDMI 1080p | VGA Main Monitor | CVBS Main / Spot | eSATA NAS SAN | uPnP Router Setup |
| IPC OSD Pass Thru | ONVIF | Remote Preview | Sub-Stream | 2 WAY AUDIO |
| Mirror Recording | Remote Backup | Digital Zoom | Smart Search | Arming Schedule |
| Bandwidth Optimization | FREE App IOS/ Android | FREE CMS | MAC Client | E-MAIL NOTIFICATION |

| Camera Network Security | Option to enable pass through access from LAN/WAN to cameras, or to isolate camera network from LAN/WAN for increased security |
|---|---|
| PoE Type | 802.3at Max 30W per port |
| Total Power Budget | 200W all ports |
| PnP Network Support | Integral DHCP function with address-per-port initial assignment Internal bridge can forward connections from LAN/WAN network port to individual IPC for remote access to IPC OSD detail config menus (Using KT&C KNC-p3 Omni-IP Series cams connected to internal PnP PoE switch ports) |
| Remote Viewing and Local/Remote Configuration | |
| Built in Web Server Interface | Live view, playback and configuration via IE, Chrome, Firefox, Safari (with free plug-in/extension installed) |
| CMS | PC and MAC Client supports multiple device viewing, playback (with digital zoom) and configuration; user rights per camera; E-map support; live view up to 64 cameras in 4:3 and 48 cameras in 16:9; up to 4 cameras in playback |
| Mobile Apps | iOS and Android supported; live 16 camera views; 4 camera playback; snapshots from live or play; copy clips/record to smartphone; audio support; PTZ control. HD version of app, optimized for tablets, is available |
| User Rights Control | Per user-per camera for multiple functions |
| Event Logging | Multiple types: alarm, exception, operation, information; dozens of sub-types within each major type |
| Firmware Upgrade | From USB or remotely |
| Backup/Restore Configuration | For NVR settings and for IP Camera settings; from USB or remotely |
| Network and Other Interfaces | |
| LAN/WAN Network Port | One 10/100/1000Mb/s RJ-45 port |
| Connection of non-PnP IP cameras | Supported |
| Remote Monitoring Output Max Bandwidth | 240Mb/s |
| Maximum number of remote connections | 128 |
| DST/NTP | Supported; choice of time zone, NTP server, DST start/end/offset |
| Port Mapping/uPnP | Automatic port forwarding/redirection using uPnP on routers with this capability |
| Serial Interfaces | 1xRS-232 DB9; 1xRS-485; 1xKeyboard controller input |
| USB 2.0 Interfaces | 2 front; 1 rear |
| Audio Input | 1 BNC |
| Alarm Inputs | 16 |
| Alarm Outputs | 4 single pole |
| General Mechanical and Environmental | |
| Power Input | 100-240VAC, up to 300W max. continuous/450W peak, 50-60Hz; USA Power Cord |
| Continuous Power Consumption | Up to 40W for NVR; up to 200W for PoE |
| Operating Temperature | 14°F ~ 131°F (-10°C ~ +55°C) |
| Operating Humidity Range | 10% ~ 90% |
| Cooling Fan | 1, in power supply |
| Size | 1.5U Rack mountable chassis (rack ears provided) 17.52" x 15.35" x 2.76" (445 x 390 x 70mm) |
| Weight (without hard drives or ODD) | 8.8 lb./4 Kg allow ~1.4 lb. per HDD |
| Certifications | FCC, CE, RoHS |

www.ktncusa.com

Ordering Information

KNR-p16Px16/1TB: 16 Ch PnP, 1 TB | KNR-p16Px16/2TB: 16 Ch PnP, 2 TB

KNR-p16Px16/4TB: 16 Ch PnP, 4 TB | KNR-p16Px16/6TB: 16 Ch PnP, 6 TB

KNR-p16Px16/8TB: 16 Ch PnP, 8 TB | KNR-p16Px16/12TB: 16 Ch PnP, 12 TB | KNR-p16Px16/16TB: 16 Ch PnP, 16 TB