

ENR-p16Px16 16 Channel NVR with 16 Plug & Play Ports



Plug & Play 16 Plug & Play Ports	POE 16 POE Ports	Up to 6 Megapixel	30 FPS	Front Panel Controls	HDMI 1080p
VGA Main Monitor	NAS SAN	uPnP Router Setup	ONVIF	Remote Preview	Substream
2-Way Audio	Mirror Recording	Remote Backup	Digital Zoom	Smart Search	Arming Schedule
Bandwidth Optimization	VCA	Multi-Browser	Remote Preview	Email Notification	Free App iOS & Android
Free CMS	Free MAC Client				

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 (802.3af PoE) from a total of 200W built in PoE power
- Stream an aggregate bandwidth to the NVR of up to 160Mb/s from all connected cameras
- Select camera resolutions up to 6MP
- Local HDMI/VGA monitor displays at up to 1920x1080
- Employ digital zoom in both live view and playback for expanded view of fine details
- Record based on schedule: Continuous, Motion, Event, Alarm, Combinations, VCA, None
- Easy to use on-screen menus include digital zoom and instant playback of recent video
 - Operate using 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
- Search for VCA events such as line crossing or area intrusion (requires compatible cameras)
- 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
- Optional arming schedule for action/notifications and alarms (e.g. ignore oncamera 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
- System automatically conserves resources by selecting sub-stream during multiple camera viewing
- User selectable viewing optimization for image detail/fluency or motion

- Choose up to 12Tb of internal HDD storage (optional mirroring), or record to external NAS/SAN
- Option to enable pass thru access from LAN/WAN to cameras or to isolate camera network from LAN/WAN for increased security
- 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, 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
- 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

Ordering Information

ENR-p16Px16/2TB: 16 Ch, 16 PnP, 2 TB ENR-p16Px16/4TB: 16 Ch, 16 PnP, 4 TB ENR-p16Px16/8TB: 16 Ch, 16 PnP, 8 TB ENR-p16Px16/12TB: 16 Ch, 16 PnP, 12 TB

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ENR-p16Px16 Specifications

Streaming Video Inputs & Recording	
Maximum Number of IP Cameras	16
Number of built in PnP/PoE Switch Ports	16
Supported Live View/ Record Resolutions	6MP / 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
aximum FPS rate per camera (Live and Record)	30FPS Main stream; 30FPS Sub-stream Up to 480FPS total for 16 cameras
Maximum Record Streaming Video Input Bandwidth (all cameras combined)	160 Mb/s
Recording Compression	Depends on IP Camera; typically H.264 for main stream, MJPEG for sub-stream
<u> </u>	Continuous, Motion, Alarm, Motion+Alarm, Motion or Alarm, Event, VCA, None
Recording Modes Motion & VCA Detection	Camera Side, configurable from NVR for KNC-p3 & KNC-p4 Omni IP Series Cameras
Schedule Period	Per day in 1 hour blocks; or 8 time periods per day, each with different record mode; plus 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'	10/100 WIDS GOT POT
Cameras Fully Supported	Any OMNI-IP models (IPCAM protocol). See camera datasheets for details
Third Party Cameras Supported	
(requires traditional configuration and setup)	Onvif; Acti, Arecont, Axis, Bosch, Brickcom, Canon, Hikvision, Hunt, Panasonic, Pelco, PSIA, Samsung, Sanyo, Sony, Vivotek, Zavio
ocal Live Presentation of Streaming Video/Audio	
Local Display Main Monitor Outputs	HDMI 60Hz: 1920×1080, 1600×1200, 1280×1024, 1280×720, 1024×768 VGA 60Hz: 1920×1080P, 1600×1200, 1280×1024, 1280×720, 1024×768
Camera Display Layouts	1, 2x2, 1+5, 1+7, 3x3, 4x4
Automatic Stream Selection	Single camera view and 720p 2x2 at main stream resolution; Automatic switching to sub-stream resolution in other multi-view displays conserve CPU capacity and maintain parity between per-camera screen area and image size
Audio Output	
(requires audio equipped cameras)	1-ch Line Level, RCA (Linear, 1KΩ)
Playback of Recorded Video/Audio	
Supported Playback Resolutions	6MP / 5MP / 3MP / 1080P / UXGA / 720P / VGA / 4CIF / DCIF / 2CIF / CIF / QCIF
Naminal Load Dlawback Canability	16 channels @ 4CIF; 12 Channels 720p; 6 channels 1080p (actual playback depends on decoding load which varies based on settings for recorder
Nominal Local Playback Capability	video bandwidth restrictions, resolution, image quality, FPS rate, compression efficiency, and complexity of pixel change in the scene) Time/Date; Manual Tags; Smart Search for motion events from recorded video; Event (Motion/Alarm/VCA)
Playback search modes	Play; Pause; Forward/Reverse; speed control for single~1.8~xMax (256x)
Playback Controls	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	dappointed on Leadin Brightays and only
Number of Internal Hard Drives	Up to 2 SATA HDD; up to 6TB each for 12TB maximum
Mirror Recording	Can clone pairs of disks
S.M.A.R.T	With extensive statistics, alarms, on demand tests and reporting
Record to	HDD. NAS or SAN
Archive to	USB
Local Plug and Play Camera Network Support	
Integral PoE Switch	16 ports 10/100 Mb/s
Camera Network Security	Option to enable pass thru access from LAN/WAN to cameras or to isolate camera network from LAN/WAN for increased security
PoE Type	802.3at 30W max per port
Total Power Budget	200W all ports
	Integral DHCP function with address-per-port initial assignment (Using KT&C KNC-p3 & KNC-p4 Omni-IP Series cameras connected to
PnP Network Support	internal PnP PoE switch ports)
Remote Viewing and Local/Remote Configuration	
Built in Web Server Interface	Live view, playback and configuration via IE, Firefox, Safari (with free plug-in/extension installed)
OMNI 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
	iOS and Android supported; up to 4 (Android) or 16 (iOS); 4 camera playback; snapshots from live or play; copy clips/record to smart-
Mobile Apps	phone; 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
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Backup/Restore Configuration	For NVR settings and for IP Camera settings; from USB or remotely
Backup/Restore Configuration Network and Other Interfaces	For NVR settings and for IP Camera settings; from USB or remotely
Backup/Restore Configuration Network and Other Interfaces LAN/WAN Network Port	For NVR settings and for IP Camera settings; from USB or remotely One 10/100/1000Mb/s RJ-45 port
Backup/Restore Configuration Network and Other Interfaces LAN/WAN Network Port Connection of non-PnP IP cameras	For NVR settings and for IP Camera settings; from USB or remotely One 10/100/1000Mb/s RJ-45 port Supported
Backup/Restore Configuration Network and Other Interfaces LAN/WAN Network Port Connection of non-PnP IP cameras temote Monitoring Output Maximum Bandwidth	For NVR settings and for IP Camera settings; from USB or remotely One 10/100/1000Mb/s RJ-45 port Supported 80Mb/s
Backup/Restore Configuration Network and Other Interfaces LAN/WAN Network Port Connection of non-PnP IP cameras temote Monitoring Output Maximum Bandwidth Maximum number of remote connections	For NVR settings and for IP Carmera settings; from USB or remotely One 10/100/1000Mb/s RJ-45 port Supported 80Mb/s 128
Backup/Restore Configuration Network and Other Interfaces LAN/WAN Network Port Connection of non-PnP IP cameras temote Monitoring Output Maximum Bandwidth Maximum number of remote connections DST/NTP	For NVR settings and for IP Carmera settings; from USB or remotely One 10/100/1000Mb/s RJ-45 port Supported 80Mb/s 128 Supported; choice of time zone, NTP server, DST start/end/offset
Backup/Restore Configuration Network and Other Interfaces LAN/WAN Network Port Connection of non-PnP IP cameras Remote Monitoring Output Maximum Bandwidth Maximum number of remote connections DST/NTP Port Mapping/uPnP	For NVR settings and for IP Carmera settings; from USB or remotely One 10/100/1000Mb/s RJ-45 port Supported 80Mb/s 128 Supported; choice of time zone, NTP server, DST start/end/offset Automatic port forwarding/redirection using uPnP on routers with this capability
Backup/Restore Configuration Network and Other Interfaces LAN/WAN Network Port Connection of non-PnP IP cameras Remote Monitoring Output Maximum Bandwidth Maximum number of remote connections DST/NTP Port Mapping/uPnP Serial Interfaces	For NVR settings and for IP Carmera settings; from USB or remotely One 10/100/1000Mb/s RJ-45 port Supported 80Mb/s 128 Supported; choice of time zone, NTP server, DST start/end/offset Automatic port forwarding/redirection using uPnP on routers with this capability 1xRS-485
Backup/Restore Configuration Network and Other Interfaces LAN/WAN Network Port Connection of non-PnP IP cameras Remote Monitoring Output Maximum Bandwidth Maximum number of remote connections DST/NTP Port Mapping/uPnP Serial Interfaces USB Interfaces	For NVR settings and for IP Carmera settings; from USB or remotely One 10/100/1000Mb/s RJ-45 port Supported 80Mb/s 128 Supported; choice of time zone, NTP server, DST start/end/offset Automatic port forwarding/redirection using uPnP on routers with this capability 1xRS-485 1 USB 2.0 front; 1 USB 3.0 rear
Backup/Restore Configuration Network and Other Interfaces LAN/WAN Network Port Connection of non-PnP IP cameras Remote Monitoring Output Maximum Bandwidth Maximum number of remote connections DST/NTP Port Mapping/uPnP Serial Interfaces USB Interfaces Audio Input	For NVR settings and for IP Carmera settings; from USB or remotely One 10/100/1000Mb/s RJ-45 port Supported 80Mb/s 128 Supported; choice of time zone, NTP server, DST start/end/offset Automatic port forwarding/redirection using uPnP on routers with this capability 1xRS-485
Backup/Restore Configuration Network and Other Interfaces LAN/WAN Network Port Connection of non-PnP IP cameras Remote Monitoring Output Maximum Bandwidth Maximum number of remote connections DST/NTP Port Mapping/uPnP Serial Interfaces USB Interfaces Audio Input General Mechanical and Environmental	For NVR settings and for IP Camera settings; from USB or remotely One 10/100/1000Mb/s RJ-45 port Supported 80Mb/s 128 Supported; choice of time zone, NTP server, DST start/end/offset Automatic port forwarding/redirection using uPnP on routers with this capability 1xRS-485 1 USB 2.0 front; 1 USB 3.0 rear 1 RCA (2VP-P, 1KΩ)
Backup/Restore Configuration Network and Other Interfaces LAN/WAN Network Port Connection of non-PnP IP cameras Remote Monitoring Output Maximum Bandwidth Maximum number of remote connections DST/NIP Port Mapping/uPnP Serial Interfaces USB Interfaces Audio Input General Mechanical and Environmental Power Input	For NVR settings and for IP Camera settings; from USB or remotely One 10/100/1000Mb/s RJ-45 port Supported 80Mb/s 128 Supported; choice of time zone, NTP server, DST start/end/offset Automatic port forwarding/redirection using uPnP on routers with this capability 1xRS-485 1 USB 2.0 front; 1 USB 3.0 rear 1 RCA (2VP-P, 1KQ)
Backup/Restore Configuration Network and Other Interfaces LAN/WAN Network Port Connection of non-PnP IP cameras Remote Monitoring Output Maximum Bandwidth Maximum number of remote connections DST/NIP Port Mapping/uPnP Serial Interfaces USB Interfaces Audio Input General Mechanical and Environmental Power Input Continuous Power Consumption	For NVR settings and for IP Camera settings; from USB or remotely One 10/100/1000Mb/s RJ-45 port Supported 80Mb/s 128 Supported; choice of time zone, NTP server, DST start/end/offset Automatic port forwarding/redirection using uPnP on routers with this capability 1xRS-485 1 USB 2.0 front; 1 USB 3.0 rear 1 RCA (2VP-P, IKQ) 100~240VAC, 47~63Hz 200W including PoE
Backup/Restore Configuration Network and Other Interfaces LAN/WAN Network Port Connection of non-PnP IP cameras Remote Monitoring Output Maximum Bandwidth Maximum number of remote connections DST/NTP Port Mapping/uPnP Serial Interfaces USB Interfaces Audio Input General Mechanical and Environmental Power Input Continuous Power Consumption Operating Temperature	For NVR settings and for IP Camera settings; from USB or remotely One 10/100/1000Mb/s RJ-45 port Supported 80Mb/s 128 Supported; choice of time zone, NTP server, DST start/end/offset Automatic port forwarding/redirection using uPnP on routers with this capability 1xRS-485 1 USB 2.0 front; 1 USB 3.0 rear 1 RCA (2VP-P, IKQ) 100~240VAC, 47~63Hz 200W including PoE 14°F ~ 131°F (-10°C ~ +55°C)
Backup/Restore Configuration Network and Other Interfaces LAN/WAN Network Port Connection of non-PnP IP cameras Remote Monitoring Output Maximum Bandwidth Maximum number of remote connections DST/NTP Port Mapping/uPnP Serial Interfaces USB Interfaces Audio Input General Mechanical and Environmental Power Input Continuous Power Consumption Operating Temperature Operating Humidity Range	For NVR settings and for IP Camera settings; from USB or remotely One 10/100/1000Mb/s RJ-45 port Supported 80Mb/s 128 Supported; choice of time zone, NTP server, DST start/end/offset Automatic port forwarding/redirection using uPnP on routers with this capability 1xRS-485 1 USB 2.0 front; 1 USB 3.0 rear 1 RCA (2VP-P, 1KQ) 100~240VAC, 47~63Hz 200W including PoE 14°F ~ 131°F (-10°C ~ +55°C) 10% ~ 90%
Backup/Restore Configuration Network and Other Interfaces LAN/WAN Network Port Connection of non-PnP IP cameras Remote Monitoring Output Maximum Bandwidth Maximum number of remote connections DST/NTP Port Mapping/uPnP Serial Interfaces USB Interfaces Audio Input General Mechanical and Environmental Power Input Continuous Power Consumption Operating Temperature Operating Humidity Range Cooling Fan	For NVR settings and for IP Camera settings; from USB or remotely One 10/100/1000Mb/s RJ-45 port Supported 80Mb/s 128 Supported; choice of time zone, NTP server, DST start/end/offset Automatic port forwarding/redirection using uPnP on routers with this capability 1xRS-485 1 USB2.0 front; 1 USB 3.0 rear 1 RCA (2VP-P, 1K\O) 100~240VAC, 47~63Hz 200W including PoE 14°F ~ 131°F (-10°C ~ +55°C) 10% ~ 90% 2
Backup/Restore Configuration Network and Other Interfaces LAN/WAN Network Port Connection of non-PnP IP cameras Remote Monitoring Output Maximum Bandwidth Maximum number of remote connections DST/NTP Port Mapping/uPnP Serial Interfaces USB Interfaces Audio Input General Mechanical and Environmental Power Input Continuous Power Consumption Operating Temperature Operating Humidity Range	For NVR settings and for IP Camera settings; from USB or remotely One 10/100/1000Mb/s RJ-45 port Supported 80Mb/s 128 Supported; choice of time zone, NTP server, DST start/end/offset Automatic port forwarding/redirection using uPnP on routers with this capability 1xRS-485 1 USB 2.0 front; 1 USB 3.0 rear 1 RCA (2VP-P, 1KQ) 100~240VAC, 47~63Hz 200W including PoE 14°F ~ 131°F (-10°C ~ +55°C) 10% ~ 90%