D-Link®
Building Networks for People

DNR-2020-04P

JustConnect 16-Channel PoE Network Video Recorder

Features

Trustworthy Surveillance

- Reliable network camera surveillance recorder for small business users
- View real-time and recorded video of all 16 cameras from anywhere in your home or office, or remotely via the Internet
- M-JPEG, MPEG-4 or H.264 video format

Convenient Interface

- Effortless network camera setup and management
- User-friendly interface provides 16 channels of simultaneous live view, recording, playback, and PTZ control
- Continuous, scheduled, or event recording with automatic overwrite function

Precision Technology

- Two-bay SATA 3.5" HDD interface, up to 16 TB of hard disk storage space for recorded video[1]
- Protects important surveillance files with automatic backups using RAID 1 technology

Flexible and Scalable

- Stand-alone device: Eliminates the need for a dedicated PC
- Supports D-Link network cameras[5]
- Power fail recovery recording
- One 10/100/1000 Mbps auto-MDIX Gigabit Ethernet port

The DNR-2020-04P JustConnect 16-Channel PoE Network Video Recorder is a standalone Network Video Recorder (NVR) that can record video from up to sixteen network cameras to its dual HDD storage[1] without requiring users to turn on their PC. Featuring Power over Ethernet (PoE), the NVR supplies power to up to four PoE cameras, saving valuable time and electrical installation costs during setup. Powered by an embedded system, the DNR-2020-04P supports real-time remote monitoring and playback via a web browser using the NVR's web GUI. Additionally, support for audio in/out, DI/DO triggering, and external USB 3.0 storage for video export and backups fill the needs of small businesses. Rounding out the package is the bundled video management software, making the DNR-2020-04P a convenient, versatile, and effective video recorder.

Versatile Monitoring

Users are provided with a variety of options for viewing and organizing camera footage on-screen. Featuring live viewing of multiple channels, users can simply drag and drop selected cameras to the viewing area. Users can also control pan/tilt/zoom (PTZ) functions from within the interface. A single camera may be viewed full-screen with two-way audio support. Optional Digital In/Digital Out (DI/DO) connections to triggers such as door and window sensors allow for easy event-based recording.

Extensive Recording Functionality

The DNR-2020-04P's clear interface allows for easy configuration of many functions including compression, resolution, and frame rate for all connected cameras. Once the cameras have been set up, recordings can be made continuously, or according to a user-defined schedule. E-map support simplifies camera setup and management. The NVR also provides event recording based on specific triggers such as when motion is detected and notifications can be set so that an email will be sent to alert the administrator whenever an event occurs.

Secure Storage

Administrators may filter external connections to the NVR by IP address, limiting access and thus increasing security. Administrators may also manage access privileges for users by specifying the cameras they may monitor. The NVR also includes the option to protect data using a RAID 1 configuration, which duplicates recorded data onto two separate hard drives. In the event of HDD failure, data integrity is maintained on the secondary HDD. The recorded data can be backed up to external USB disks or additional storage locations such as FTP servers whenever required.
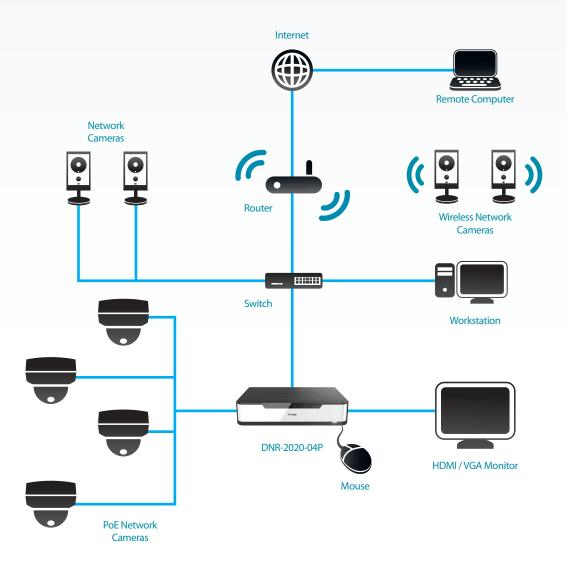
Bundled NVR Software

The NVR software bundled with the DNR-2020-04P consists of four main components including an NVR Search Utility, Playback Manager, Remote Backup, and Verification Tool. The NVR Search Utility lets the administrator easily find the DNR-2020-04P on a network. The Playback Manager includes a clean and simple web GUI that allows users to play, search, or export video. Completing the package are the Remote Backup tool and Verification Tool to help manage backups and ensure the authenticity of video recordings.

Smooth Streaming from Anywhere

The DNR-2020-04P also enables users to remotely view and manage the NVR from anywhere via a web browser. The Gigabit Ethernet port provides superior bandwidth for viewing 16 camera streams simultaneously, so critical moments can be monitored and captured at all times. Additionally, using the mobile app allows administrators easy access for monitoring the DNR-2020-04P using mobile devices.

Network Setup

Internet

Remote Computer

Network Cameras

Router

Wireless Network Cameras

Switch

Workstation

DNR-2020-04P

Mouse

HDMI / VGA Monitor

PoE Network Cameras

Technical Specifications

General

Standards	• IEEE 802.3u/x/z • IEEE 802.3af	• SATA II/III • Auto MDI/MDI-X
HDD[1]	• Format Disk • Up to 16 TB HDD[2]	• EXT3 file system • RAID 0[4], 1[4], JBOD
Two Reset Modes	• Reset firmware GUI button	• HW reset button (hold for 10 seconds)
Reset Button	• Reset to factory default	
Flash ROM	• 128 MB	
RAM	• 1024 MB DDR3	
Network Interface	• Gigabit Ethernet port (10/100/1000 Mbps)	
I/O Ports	• 1 x 10/100/1000 BaseT RJ-45 port • 4 x 10/100 BaseT PoE port (802.3af) • HDMI (supports 720p and 1080p resolution with 16:9 display ratio) • D-sub for VGA output	• 1 x USB 3.0 port[3] • 1 x USB 2.0 port[3] • 3.5 mm audio input x 1, output x 1 • 4 x DI, 1 x DO
Cooling	• 1 x Smart Fan	

Software Features

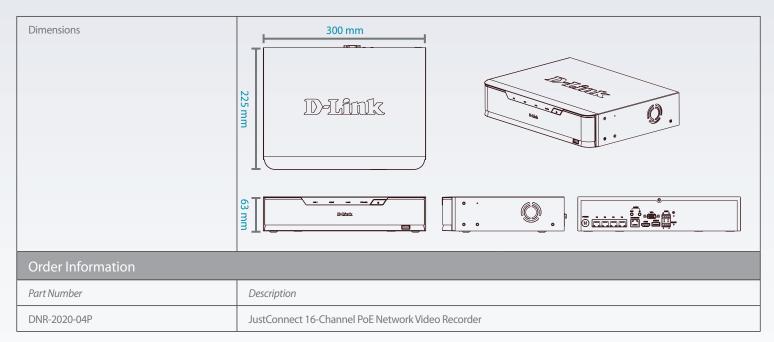|		
OS	• Linux	
Supported Cameras	• Please visit www.dlink.com for a list of supported cameras[5]	• Supports auto-discovery and megapixel resolution
System Requirements for Web Interface	• Browser: Internet Explorer, Firefox, or Safari	

Recording Performance	• Max recording bitrate: 80 Mbit/s
	• Primary video profile:
	  • H.264 at 1080p at 480 fps
		• Secondary video profile:
		  • H.264 at VGA at 240 fps

Camera Search	• UPnP	• ONVIF
Audio and Video Recording	• Synchronized audio & video recording	
Compression Format	• H.264, MPEG-4, M-JPEG	
Audio Compression Format	• G.711, G.726	
Video Setting	• Resolution • Quality • Bitrate	• Frame rate • Enable audio • Video profile selection
Recording Mode	• Record by schedule, manual, always, and event-based recording	• Motion-triggered recording
Alarm Recording	• Pre-alarm: 60 seconds per channel	• Post-alarm: 300 seconds per channel
Remote Live View	• Supported via browser and NVR CMS software	
Remote Live View Control	• Live view • Preset/Go to Preset • Patrol/Auto Patrol • Focus • PTZ control • Snapshot • Full screen	• Auto scan • Digital zoom (Zoom in & Zoom out) • Manual Record • Audio Enable • Adjust audio volume • Video layout • e-map
Remote Playback Control	• Normal • Fast forward/rewind	• Step forward/rewind

Remote Playback	• Supported via browser and Remote Playback application • Playback system with timeline GUI, search by event, area, cameras, date, and time	• Browser or Remote Playback support 16-channel simultaneous playback • Digital zoom
Overwrite Recording	• Auto recycling when disk storage is full	
File Export	• Local: Export videos to AVI / MP4 format • Remote: Export videos to AVI or ASF file	• Export images to JPG file
Digital Watermark Tool	• Prevents recorded video files/snapshots from being tampered with	• Acts as a tool for verification
User Account	• Additional accounts can be created to allow users system access and specify authorization for camera channels, PTZ, etc.	
DDNS	• D-Link DDNS and DynDns server support	• Manual DDNS
System Time	• D-Link NTP • Input time	• Sync with computer • Daylight Saving Time)
Auto Backup	• Backup recorded data to USB/SAMBA/FTP via a schedule	
Remote Backup	• Remote backup software can backup raw data to redundant storage	
System Status	• Camera status • HDD status	• System status
Network Service Protocols	• IPV4, ARP, TCP, UDP, ICMP • DHCP Server/Client • NTP Client • DNS Client • DDNS Client • SMTP Client • FTP Client • HTTP Server • RTP • RTCP • RTSP	• IP filtering • UPnP • CoS • QoS/DSCP • HTTPS • Samba • Bonjour • SNMP v1/v2c/v3 • PPPoE • DDP
User Interface	• HTTP Web browser • NVR Search Utility • Remote Playback/Backup	• Verification tool • Mobile app • GUI via HDMI/VGA

Package Contents	• JustConnect 16-Channel PoE Network Video Recorder
	 • Power Adapter
	 • Ethernet Cable
	 • Quick Installation Guide
		• CD-ROM with:
		  • Software
		  • Product Documentation

Physical

Weight	• 2.1 kg (4.63 lbs)	
Power Input	• Input: 100 to 240 V AC, 50 to 60 Hz	• Output: DC 48 V/1.85 A
Power Consumption	• Max. 90 W	
PoE Budget	• Per Port: Max. 15 W	• Total: 45 W
Temperature	• Operating: 0 to 40 °C (32 to 104 °F)	• Storage: -20 to 70 °C (-4 to 158 °F)
Humidity	• 5% to 90% non-condensing	
Certifications	• CE • FCC	• RoHS

Dimensions	
	300 mm 225 mm 63 mm

Order Information

Part Number	Description
DNR-2020-04P	JustConnect 16-Channel PoE Network Video Recorder

¹ Hard disks are not included.
² Supports hard disks up to 8 TB each for a total of 16 TB.
³ This port is used for firmware updates, video exports to USB drives, and backups. Connection to a USB mouse/keyboard is supported.
⁴ RAID 0 and RAID 1 mirroring requires the use of two internal SATA drives. To avoid data incompatibility in RAID 1 operation, use identical SATA drives from the same manufacturer. Formatted drive capacity for RAID 1 operation
   is dependant on the drive capacity of the lowest-sized drive. Some older generation SATA drives may not be compatible. For a list of SATA drives that have been tested to work with the NVR, visit the D-Link support website.
⁵ Please visit your regional D-Link website via www.dlink.com for a full camera compatibility list.

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