R3 Starter Series NVR, 4K 16 Channel, 16 PoE

R32-16PA



TECHNOLOGY INSIDE LumiCloud

Key Features

- 4K NVR
- 16 Channels With Two (2) SATA Ports
- HDMI and VGA Output
- PoE Plug-and-Play
- LumiCloud Lite Included and Optional Upgrade With LumiCloud HD Video Unity Channel Annual Subscription License[1]
- Supports Analytics by Camera

Certifications and Compliance

- NDAA Compliant
- FCC
- ONVIF

Learn More

Learn more about this product's key technologies.

Overview

The **R32-16PA** is part of Luminys's Starter series of devices. Starter series devices are designed with a curated selection of technologies and features to provide high-quality security without unnecessary or complicated add-ons.

Key Technologies

Analytics by Camera includes Intelligent Motion Detection (iMD), Video Content Analysis (VCA), Face Detection, Face Recognition, and Video Metadata by Camera. The analytical metadata is created by the Luminys cameras at the time the video is encoded. The NVR leverages these camera-edge analytics to create smarter video for the end-user to ease their video searching, authentication and video capabilities.

License Plate Recognition (LPR) technology is supported by Luminys LPR cameras. This technology improves safety and operational efficiency by automatically capturing and reading vehicle license plates for easy and accurate identification.

LumiViewer streamlines security management by providing real-time surveillance, playback of historical footage, and instant alarm notifications. With features like device sharing, an alarm hub for safety alerts, visual intercom for video calls and door control, and remote access management, LumiViewer ensures comprehensive and efficient monitoring. The platform is available for desktop and mobile devices.

LumiCloud is a Video Surveillance as a Service (VSaaS) solution powered by a variety of algorithms that provides the ability to search, receive alerts and analyze patterns of detections across locations and historical data. Data is centrally stored in the cloud with easy access from web browsers and smart phone apps. LumiCloud supports high-resolution video streams, ensures clarity, and provides real-time access from anywhere. This platform provides advanced analytics, customizable alerts, effective bandwidth management, and simple subscription-based scalability. LumiCloud Lite is included with this NVR and offers many of the LumiCloud key features, however cloud recording does require an upgrade to LumiCloud with a paid subscription.

Specifications

Video

Video Input	16 Channels
Recording Resolutions	8MP, 6MP, 5MP, 4MP, 3MP, 1080p, 720p, D1, VGA, CIF
Output Resolutions	**HDMI:** 4K (3840 × 2160), 1920 × 1080, 1280 x 1024, 1280 x 720 **VGA:** 1920 × 1080, 1280 x 1024, 1280 x 720
Live View/Playback Resolutions	8MP, 6MP, 5MP, 4MP, 3MP, 1080p, 720p, D1, VGA, CIF

Decoding

Format	H.265, H.264, H.264H, H.264B, MJPEG
Capability	**Two (2) Channel:** 8MP at 30 fps **Eight (8) Channel:** 1080p at 30 fps
Synchronous Playback	1, 4, 8, 9, 16 views

Supported Analytics by Camera

Intelligent Motion Detection	16 Channels
Video Content Analytics (VCA)	Eight (8) Channels
Face Detection	Four (4) Channels
License Plate Recognition	Four (4) Channels
Smart Search	Search by Target Classification, Pictures by Channel, Time, and Event Type

Interface

SATA	Two (2) Ports
HDD	Up to 10 TB per HDD
Network	One (1) Port (RJ-45 Self-Adaptive Ethernet (10/100/1000 Mbps))
PoE	16 Ports (RJ-45 Self-Adaptive Ethernet (10/100 Mbps))
USB	**Front Panel:** One (1) USB 2.0 Port **Rear Panel:** One (1) USB 2.0 Port
Alarm	**Input:** Four (4) Channels **Output:** Two (2) Channels
Audio	**Input:** One (1) RCA Channel **Output:** One (1) RCA Channel

Network

Bandwidth	**Incoming/Recording:** 160 Mbps **Outgoing:** 60 Mbps
Protocol	HTTP, HTTPS, TCP/IP, IPv4, IPv6, UPnP, SNMP, RTSP, UDP, SMTP, NTP, DHCP, DNS, DDNS
Interoperability	ONVIF, RTSP
PoE Standard	IEEE 802.3 af/at
Client	LumiViewer, LumiViewer Mobile App, LumiCloud

Electrical

Power Supply	100-240 V, 47-63 Hz. 3.5 A
Power Consumption	< 10 W (HDD Not Included) **PoE:** 115 W (Max. Output for Single Port: 25.5 W)

Construction

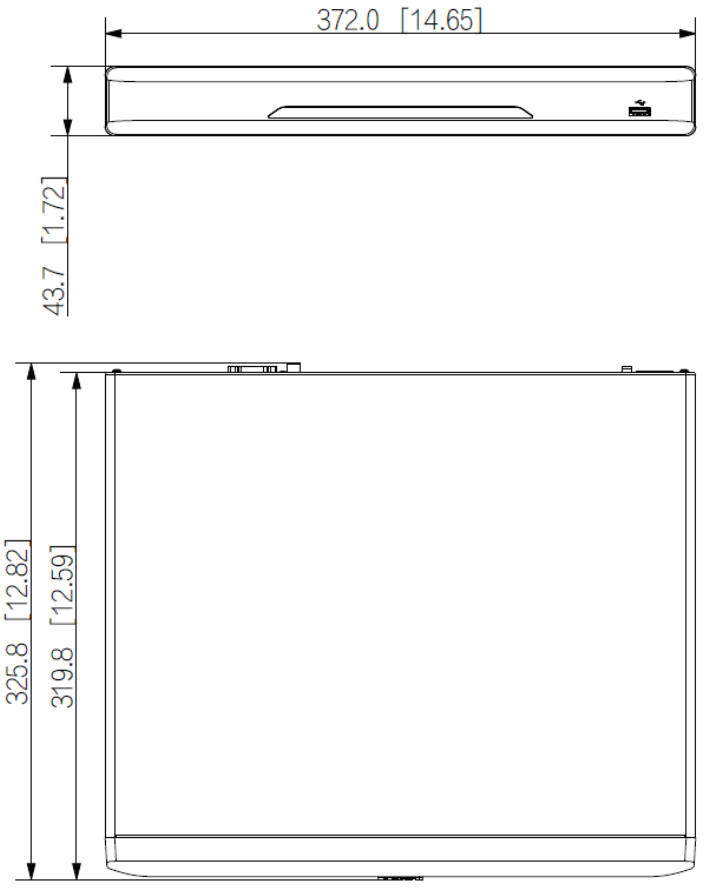
Weight	2.6 kg (5.8 lb) Without HDD
Operating Temperature	-10 °C to 55 °C (10 °F to 131 °F) 10% to 93%
Dimensions (W x L x H)	372.0 mm × 325.8 mm × 43.7 mm (14.7 in. × 12.8 in. × 1.7 in.)

Certifications and Compliance

Certifications	FCC
Compliance	NDAA

Dimensional Drawing

mm [in.]



R3 NVR Series Feature Comparison

The Luminys R3 NVR series is designed for small-scale deployments and offers camera-side analytics when paired with Luminys cameras. Available in mini form factors with up to 16-channel configurations, the R3 series provides an efficient solution for basic video recording needs.

SKU	Channels	PoE Ports	Max. Camera Resolution Supported	Max. Recording Bandwidth	HDMI Output Resolution	Chassis Height
R31-4PA	4	4	Up to 4K (8MP)	80 Mbps	4K	Mini 1U
R31-8PA	8	8	Up to 4K (8MP)	80 Mbps	4K	Mini 1U
R32-8PA	8	8	Up to 4K (8MP)	160 Mbps	4K	1U
R32-16PA	16	16	Up to 4K (8MP)	160 Mbps	4K	1U

Packaging Information

Included Components

Below are the included components when purchasing the product.

Quantity	Component
1	R3 Starter Series NVR
1	Power Cable, USA Plug, Type B, 3 Pin Plug, 15 A, 120 VAC
2	Mounting Bracket
1	USB Mouse
1	Set of Screws
1	Set of Anti-Slip Pads
2	SATA Data Cable
1	SATA Power Cable
1	CAT5E Ethernet Cable
1	Quick Start Guide
1	Regulatory Information

Ordering Information

Below is the ordering information for the product. Larger capacity drives (up to 10 TB) and enterprise-grade models with enhanced durability are also available upon request.[2]

SKU	Product
R31-4PA	R3 Starter Series NVR, 8MP 4 Channel Mini 1U 4-Port PoE, 1SATA, Analytics by Camera
R31-8PA	R3 Starter Series NVR, 8MP 8 Channel Mini 1U 8-Port PoE, 1SATA, Analytics by Camera
R32-8PA	R3 Starter Series NVR, 8MP 8 Channel 1U 8-Port PoE, 2SATA, Analytics by Camera
R32-16PA	R3 Starter Series NVR, 8MP 16 Channel 1U 16-Port PoE, 2SATA, Analytics by Camera

The following NVR models include pre-installed hard drives and are available in USA. For customers outside USA, please contact your local Luminys sales representative for available NVR models with pre-installed storage.

SKU	Product
R31-4PA2	R3 Starter Series NVR, 8MP 4 Channel Mini 1U 4-Port PoE, 1SATA, Analytics by Camera, 2TB
R31-4PA6	R3 Starter Series NVR, 8MP 4 Channel Mini 1U 4-Port PoE, 1SATA, Analytics by Camera, 6TB
R31-8PA2	R3 Starter Series NVR, 8MP 8 Channel Mini 1U 8-Port PoE, 1SATA, Analytics by Camera, 2TB
R31-8PA4	R3 Starter Series NVR, 8MP 8 Channel Mini 1U 8-Port PoE, 1SATA, Analytics by Camera, 4TB
R32-8PA2	R3 Starter Series NVR, 8MP 8 Channel 1U 8-Port PoE, 2SATA, Analytics by Camera, 2TB
R32-8PA4	R3 Starter Series NVR, 8MP 8 Channel 1U 8-Port PoE, 2SATA, Analytics by Camera, 4TB
R32-16PA4	R3 Starter Series NVR, 8MP 16 Channel 1U 16-Port PoE, 2SATA, Analytics by Camera, 4TB
R32-16PA8	R3 Starter Series NVR, 8MP 16 Channel 1U 16-Port PoE, 2SATA, Analytics by Camera, 8TB
R32-16PA10	R3 Starter Series NVR, 8MP 16 Channel 1U 16-Port PoE, 2SATA, Analytics by Camera, 10TB

LumiCloud Add-Ons

R3 NVRs have enhanced functionality when a LumiCloud add-on license is purchased. LumiCloud offers intelligent system management, cloud-based control, and scalability.

SKU	Add-On	Description
LCL-HDV-U	LumiCloud HD Video Unity Channel (Annual Subscription License)	The LumiCloud HD Video Unity Channel license supports one (1) year of high-performance video surveillance for one (1) Luminys network camera when connected to one (1) channel on a Luminys NVR. The license enables the utilization of AI-based events, 30-day rolling AI Event cloud storage, remote maintenance, real-time device health monitoring, and comprehensive support for enhanced security monitoring. Users can archive important video events indefinitely in the cloud.* *Cloud storage requires an active license and provides up to 30 GB archive storage per end-user account.

1. A LumiCloud HD Video Unity Annual Subscription License is sold separately.
2. Costs may vary depending on hard drive capacity and enterprise-grade model.

Rev. 2 | © 2025 Luminys Systems Corporation. All rights reserved. Design and specifications are subject to change without notice.