# NoVus



# **NOVUS MANAGEMENT SYSTEM VSS IP Recorder**

NMS VSS NVR X-2U-III-216TB

# PRO SERIES

#### FUNCTIONS



# COMPLIANCE



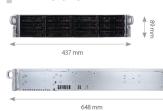
# **KEY FEATURES**

- •Video and audio channels: 200 •Supports resolution up to 4000 x 3000 •Recorded stream size: 450 Mb/s in total
- From all cameras Supports up to 3 monitors simultaneously •Built-in HDDs: 12 x 18 TB server-dedicated SAS for 24/7 recording
- •RAID controller protects recordings

•External arrays support •Operating system: Microsoft Windows 10 IoT

•Recording and surveillance system: NOVUS MANAGEMENT SYSTEM VSS •Compatible with all NOVUS IP cameras •Redundant PSUs: 2

# DIMENSIONS



Unit with the NOVUS MANAGEMENT SYSTEM VSS software installed adapted to 24/7 operation.

| Video   | 160 channals at 1020u1090 (video Laudio) using H 264 codes   |
|---|--|
| IP Camera Recording   | 160 channels at 1920x1080 (video+audio) using H.264 codec<br>200 channels at 1920x1080 (video+audio) using H.265 codec   |
| Maximum Supported Camera Resolution   | 4000x3000  |
| Supported Codes   | H.264, H.264+, H.265, H.265+, MJPEG  |
| Supported Cameras and Protocols   | Novus, Novus fisheye, ONVIF, ONVIF fisheye, RTSP, RTSP fisheye<br>(purchase of the appropriate license is required)  |
| Dualstreaming Support   | yes  |
| Display   |  |
| Monitor Output  | 3 x Mini Display Port 1.2, (up to 3 monitors simultaneously)   |
| Maximum Resolution  | 3 x 4K UltraHD   |
| Audio   |  |
| Audio Output  | 3 x Mini Display Port 1.2  |
| Performance - H.264   |  |
| 2MPX IP Camera  | Recording up to: 160 main streams (while displaying: 8 sub streams)<br>Display up to: 8 aub streams or 8 main streams (while recording: 160 main streams)<br>Playback up to: 8 main streams (while recording: 160 main streams)  |
| 4MPX IP Camera  | Recording up to: 120 main streams (while displaying: 8 sub streams)<br>Display up to: 8 sub streams or 8 main streams (while recording: 120 main streams)<br>Playback up to: 8 main streams (while recording: 120 main streams)  |
| 5MPX IP Camera  | Recording up to: 100 main streams (while displaying: 8 sub streams)<br>Display up to: 8 sub streams or 8 main streams (while recording: 100 main streams)<br>Playback up to: 8 main streams (while recording: 8 main streams)  |
| 8MPX IP Camera  | Recording up to: 80 main streams (while displaying: 8 sub streams)<br>Display up to: 8 sub streams or 6 main streams (while recording: 80 main streams)<br>Playback up to: 6 main streams (while recording: 80 main streams)   |
| 12MPX IP Camera   | Recording up to: 80 main streams (while displaying: 8 sub streams)<br>Display up to: 8 sub streams or A main streams (while recording: 80 main streams)<br>Playback up to: 4 main streams (while recording: 80 main streams)   |
| Performance - H.265   |  |
| 2MPX IP Camera  | Recording up to: 200 main streams (while displaying: 8 sub streams)<br>Display up to: 8 sub streams or 8 main streams (while recording: 200 main streams)<br>Playback up to: 8 main streams (while recording: 200 main streams)  |
| 4MPX IP Camera  | Recording up to: 160 main streams (while displaying: 8 sub streams)<br>Display up to: 8 sub streams or 8 main streams (while recording: 160 main streams)<br>Playback up to: 8 main streams (while recording: 160 main streams)  |
| 5MPX IP Camera  | Recording up to: 120 main streams (while displaying: 8 sub streams)<br>Display up to: 8 sub streams or 4 main streams (while recording: 120 main streams)<br>Playback up to: 4 main streams (while recording: 120 main streams)  |
| 8MPX IP Camera  | Recording up to: 90 main streams (while displaying: 8 sub streams)<br>Display up to: 8 sub streams or 4 main streams (while recording: 90 main streams)<br>Playback up to: 4 main streams (while recording: 90 main streams)   |
| 12MPX IP Camera   | Recording up to: 90 main streams (while displaying: 8 sub streams)<br>Display up to: 8 sub streams or 4 main streams (while recording: 90 main streams)<br>Playback up to: 4 main streams (while recording: 90 main streams)   |
| Recording   |  |
| Recording Mode  | Continuous, Schedule, Panic, Triggered: manually, by alaram input, motion detection, video analysis, POS, temerature alarm   |
| Schedule  | individual settings for: each camera, each day of the week, specific days (holidays etc.), configuration with<br>an accuracy of: 15 min, possibility of combining individual recording modes   |
| Prealarm/Postalarm  | Up to: 30s / Up to: 600s   |
| Playback  | 1 · · · · · · · · · ·  |
| Recorded Data Search  | By Date/Time, Events, "Text-in", Image Analysis Events   |
| Backup  | by backmine, evenue, reaching manage manyob events   |
| Backup Methods  | USB port (HDD lor Flash drive), Network  |
|   |  |
| Backup File Format  | JPEG, BMP, AVI, NMS  |
| Backup Hile Format  | JPEG, BMP, AVI, NMS  |
| HDD   |  |
| HDD<br>Internal storage for system  | 1 x SSD NVMe   |
| HDD   |  |
| HDD<br>Internal storage for system<br>Internal Storage for Recording  | 1 x SSD NVMe<br>12 x 18TB SAS 3,5" surveillance grade server storage media in Hot-Swap bays  |
| HDD<br>Internal storage for system<br>Internal Storage for Recording<br>RAID Redundancy   | 1 x SSD NVMe<br>12 x 18TB SAS 3,5" surveillance grade server storage media in Hot-Swap bays  |
| HDD<br>Internal storage for system<br>Internal Storage for Recording<br>RAID Redundancy<br>Alarms   | 1 x SSD NVMe<br>12 x 18TB SAS 3,5° surveillance grade server storage media in Hot-Swap bays<br>RAID types: RAID 0, RAID 1, RAID 5, RAID 6  |
| HDD<br>Internal storage for system<br>Internal Storage for Recording<br>RAID Redundancy<br>Alarms<br>Alarm Input/output In cameras  | 1 x SSD NVMe<br>12 x 18TB SAS 3,5° surveillance grade server storage media in Hot-Swap bays<br>RAID types: RAID 0, RAID 1, RAID 5, RAID 6<br>support of alarm input and output built in cameras  |
| HDD<br>Internal storage for system<br>Internal Storage for Recording<br>RAID Redundancy<br>Alarms<br>Alarm Input/output in cameras<br>Motion detection<br>Video Analytics<br>Temperature alarm  | 1 x SSD NVMe<br>1 2 x 18TB SAS 3,5" surveillance grade server storage media in Hot-Swap bays<br>RAID types: RAID 0, RAID 1, RAID 5, RAID 6<br>support of alarm input and output built in cameras<br>support of motion detection built in camera<br>supported built in analytics in camera<br>support of temperature alarm built in cameras   |
| HDD<br>Internal storage for system<br>Internal Storage for Recording<br>RAID Redundancy<br>Alarm Input/output in cameras<br>Motion detection<br>Video Analytics<br>Temperature alarm<br>Licence plate recognition (LPR)   | 1 x SSD NVMe<br>12 x 18TB SAS 3.5" surveillance grade server storage media in Hot-Swap bays<br>RAID types: RAID 0, RAID 1, RAID 5, RAID 6<br>support of alarm input and output built in cameras<br>support of motion detection built in cameras<br>supported built in analytics in camera  |
| HDD<br>Internal storage for system<br>Internal Storage for Recording<br>RAID Redundancy<br>Alarms<br>Alarm Input/output in cameras<br>Motion detection<br>Video Analytics<br>Temperature alarm<br>Licence plate recognition (LPR)<br>Network  | 1 x SSD NVMe<br>1 x SSD NVMe<br>1 x 18TB SAS 3,5° surveillance grade server storage media in Hot-Swap bays<br>RAID types: RAID 0, RAID 1, RAID 5, RAID 6<br>support of alarm input and output built in cameras<br>support of motion detection built in cameras<br>support of memperature alarm built in cameras<br>support of temperature alarm built in cameras<br>support of selected image analysis functions available in the camera   |
| HDD<br>Internal storage for system<br>Internal Storage for Recording<br>RAID Redundancy<br>Alarms<br>Alarm Input/output in cameras<br>Motion detection<br>Video Analytics<br>Temperature alarm<br>Licence plate recognition (LPR)<br>Network<br>Network Interface   | 1 x SSD NVMe<br>1 x SSD NVMe<br>1 x 18TB SAS 3,5° surveillance grade server storage media in Hot-Swap bays<br>RAID types: RAID 0, RAID 1, RAID 5, RAID 6<br>support of alarm input and output built in cameras<br>support of motion detection built in cameras<br>support of temperature alarm built in cameras<br>support of selected image analysis functions available in the camera<br>2 x Ethernet - RJ45 interface, 10/100/1000 Mbit/s<br>up to 459Mbit/s from all cameras,  |
| HDD Internal storage for system Internal storage for system Internal storage for keroring RAID Redundancy Alarms Alarm Input/output in cameras Addin detection Video Analytics Temperature alarm Licence plate recognition (LPR) Network Network Interface Network Throughput   | 1 x SSD NVMe<br>1 x SSD NVMe<br>1 x SSD NVMe<br>1 x 18TE SAS 3,5° surveillance grade server storage media in Hot-Swap bays<br>RAID bypes: RAID 0, RAID 1, RAID 5, RAID 6<br>support of alarm input and output built in cameras<br>support of motion detection built in cameras<br>support of selected image analysis functions available in the camera<br>Support of selected image analysis functions available in the camera<br>2 x Ethernet - RJ45 interface, 10/100/1000 Mbit/s<br>up to 450Mbit/s from all cameras,<br>up to 450Mbit/s to all climet stations,<br>Max network throughput: 450Mbit/s for each network card   |
| HDD Internal storage for system Internal Storage for Recording RAID Redundancy Alarms Alarm Input/output in cameras Motion detection Video Analytics Temperature alarm Licence plate recognition (LPR) Network Protocols Support  | 1 x SSD NVMe<br>1 x SSD NVMe<br>1 x 18TB SAS 3,5° surveillance grade server storage media in Hot-Swap bays<br>RAID types: RAID 0, RAID 1, RAID 5, RAID 6<br>support of main input and output built in cameras<br>support of motion detection built in cameras<br>support of temperature alarm built in cameras<br>support of temperature alarm built in cameras<br>support of selected image analysis functions available in the camera<br>2 x Ethermet - RJ45 interface, 10/100/1000 Mbit/s<br>up to 450Mbit/S form all cameras,<br>up to 450Mb |
| HDD<br>Internal storage for system<br>Internal Storage for Recording<br>RAID Redundancy<br>Alarms<br>Alarm Input/output in cameras<br>Motion detection<br>Video Analytics<br>Temperature alarm<br>Licence plate recognition (LPR)<br>Network<br>Network Interface<br>Network Throughput<br>Network Protocols Support<br>Compatible Mobile Applications  | 1 x SSD NVMe<br>1 x SSD NVMe<br>1 x SSD NVMe<br>1 x 18TE SAS 3,5° surveillance grade server storage media in Hot-Swap bays<br>RAID bypes: RAID 0, RAID 1, RAID 5, RAID 6<br>support of alarm input and output built in cameras<br>support of motion detection built in cameras<br>support of selected image analysis functions available in the camera<br>Support of selected image analysis functions available in the camera<br>2 x Ethernet - RJ45 interface, 10/100/1000 Mbit/s<br>up to 450Mbit/s from all cameras,<br>up to 450Mbit/s to all climet stations,<br>Max network throughput: 450Mbit/s for each network card   |
| HDD         Internal storage for system         Internal Storage for Recording         RAID Redundancy         Alarms         Alarms         Motion detection         Video Analytics         Temperature alarm         Licence plate recognition (LPR)         Network         Network Interface         Network Throughput         Network Protocols Support         Compatible Mobile Applications         PTZ   | 1 x SSD NVMe<br>1 x SSD NVMe<br>1 x 18TB SAS 3.5° surveillance grade server storage media in Hot-Swap bays<br>RAID types: RAID 0, RAID 1, RAID 5, RAID 6<br>support of alarm input and output built in cameras<br>support of motion detection built in cameras<br>support of temperature alarm built in cameras<br>support of temperature alarm built in cameras<br>support of temperature alarm built in cameras<br>support of selected image analysis functions available in the camera<br>2 x Ethermet - RJ45 interface. 10/100/1000 Mbit/s<br>up to 450Mbit/s to all client stations;<br>Max network throughput-350Mbit/s for each network card<br>HTTP, TCIPI, IPA/v6, UDP, HTTPS, Multicast, FTP, DHCP, DNS, DDNS, NTP, RTSP, SAMBA<br>NMS Mobile  |
| HDD         Internal storage for system         Internal Storage for Recording         RAID Redundancy         Alarms         Alarms         Alarm Input/output in cameras         Motion detection         Video Analytics         Temperature alarm         Licence plate recognition (LPR)         Network Interface         Network Throughput         Network Protocols Support         Compatible Mobile Applications         PTZ         PTZ Functions | 1 x SSD NVMe<br>1 x SSD NVMe<br>1 x 18TB SAS 3,5° surveillance grade server storage media in Hot-Swap bays<br>RAID types: RAID 0, RAID 1, RAID 5, RAID 6<br>support of main input and output built in cameras<br>support of motion detection built in cameras<br>support of temperature alarm built in cameras<br>support of temperature alarm built in cameras<br>support of selected image analysis functions available in the camera<br>2 x Ethermet - RJ45 interface, 10/100/1000 Mbit/s<br>up to 450Mbit/S form all cameras,<br>up to 450Mb |
| HDD         Internal storage for system         Internal Storage for Recording         RAID Redundancy         Alarms         Alarms         Motion detection         Video Analytics         Temperature alarm         Licence plate recognition (LPR)         Network         Network Interface         Network Throughput         Network Protocols Support         Compatible Mobile Applications         PTZ   | 1 x SSD NVMe<br>1 x SSD NVMe<br>1 x 18TB SAS 3.5° surveillance grade server storage media in Hot-Swap bays<br>RAID types: RAID 0, RAID 1, RAID 5, RAID 6<br>support of alarm input and output built in cameras<br>support of motion detection built in cameras<br>support of temperature alarm built in cameras<br>support of temperature alarm built in cameras<br>support of temperature alarm built in cameras<br>support of selected image analysis functions available in the camera<br>2 x Ethermet - RJ45 interface. 10/100/1000 Mbit/s<br>up to 450Mbit/s to all client stations;<br>Max network throughput-350Mbit/s for each network card<br>HTTP, TCIPI, IPA/v6, UDP, HTTPS, Multicast, FTP, DHCP, DNS, DDNS, NTP, RTSP, SAMBA<br>NMS Mobile  |

| Operating System   |   |
|--|---|
| Operating System   | Microsoft Windows 10 IoT  |
| Recording and Surveillance System  | NOVUS MANAGEMENT SYSTEM VSS   |
| Operation Mode   | Pentaplex   |
| OSD  | Polish, English, Russian, others  |
| Control  | PC mouse and keyboard (in-set included), DCZ keyboard   |
| System Diagnostic  | automatic control of: HDDs, Temperature, Fan, Network, Camera connection loss   |
| Security   | Password protection, IP filtering, MAC filtering, Limiting the number of connections  |
| Integration  |   |
| Integrated Devices   | Novus IP Cameras, Novus IP Recorders, Novus AHD Recorders, POS Systems (Posnet, Upos and other),<br>ONVIF Devices, RTSP Devices |
| Installation Parameters  |   |
| Dimensions (mm)  | 437 (W) x 89 (H) x 648 (D)  |
| Weight   | 24 kg (with HDDs)   |
| Power Supply   | built in 2 x redundant power supply 230VAC input with 960W power each   |
| Power consumption/heatprint  | 490W/400W (without HDD for recording)   |
| Operating Temperature  | 5°C ~ 35°C  |
| RACK Mount 19"   | 2U  |
| Note: The device requires registration and license activation. There is an option to activate a 60-day trial license. After this period, the purchase of a NOVUS MANAGEMENT SYSTEM VSS software license specific to the application is required. To choose the appropriate license, please contact the sales department. |   |