### **NoVus**

### **NOVUS MANAGEMENT SYSTEM VSS IP** Recorder

#### NMS VSS NVR X-4U-III-R





#### **KEY FEATURES**



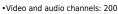












- •Supports resolution up to 4000 x 3000
- Recorded stream size: 450 Mb/s in total from all
- •Supports up to 3 monitors simultaneously
- •optional disk mounting: 8 x SATA 3,5"
- •RAID controller protects recordings
- •External arrays support
- Operating system: Microsoft Windows 10 IoT
- •Compatible with all NOVUS IP cameras

#### **COMPLIANCE**



#### **DIMENSIONS**



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

VII	DE	0
-----	----	---

VIDEO	
IP Camera Recording	160 channels at 1920x1080 (video+audio) using H.264 codec • 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 • (purchase of the appropriate license is required)
Dualstreaming Support	yes
DISPLAY	
Monitor Output	1 x HDMI 2.0b, 1 x Dual link-DVI, 1 x Display Port 1.2 (up to 3 monitors simultaneously)
Maximum Resolution	3 x 4K UltraHD
AUDIO	
Audio Output	1 x HDMI, 1 x Display Port
PERFORMANCE - H.264	
2MPX IP Camera	Recording up to: 160 main streams (while displaying: 8 sub streams) • Display up to: 60 sub streams or 20 main streams (while recording: 80 main streams) • Playback up to: 20 main streams (while recording: 80 main streams)
4MPX IP Camera	Recording up to: 120 main streams (while displaying: 8 sub streams) • Display up to: 50 sub streams or 13 main streams (while recording: 80 main streams) • Playback up to: 13 main streams (while recording: 80 main streams)
5MPX IP Camera	Recording up to: 100 main streams (while displaying: 8 sub streams) • Display up to: 40 sub streams or 8 main streams (while recording: 80 main streams) • Playback up to: 8 main streams (while recording: 80 main streams)
8MPX IP Camera	Recording up to: 80 main streams (while displaying: 8 sub streams) • Display up to: 30 sub streams or 5 main streams (while recording: 60 main streams) • Playback up to: 5 main streams (while recording: 60 main streams)
12MPX IP Camera	Recording up to: 80 main streams (while displaying: 8 sub streams) • Display up to: 25 sub streams or 4 main streams (while recording: 50 main streams) • Playback up to: 4 main streams (while recording: 50 main streams)

**PERFORMANCE - H.265** 

## NoVus

# NOVUS MANAGEMENT SYSTEM VSS IP Recorder NMS VSS NVR X-4U-III-R

* Olsplay up to: 40 sub streams or 9 main streams (while recording: 80 main streams) * Playback up to: 9 main streams (while recording: 80 main streams) * Playback up to: 9 main streams (while recording: 50 main streams) * Playback up to: 40 main streams (while recording: 70 main streams) * Playback up to: 4 main streams (while recording: 70 main streams) * Playback up to: 4 main streams (while recording: 70 main streams) * Playback up to: 4 main streams (while recording: 70 main streams) * Playback up to: 50 sub streams or 4 main streams (while recording: 70 main streams) * Playback up to: 4 main streams (while recording: 70 main streams) * Playback up to: 4 main streams (while recording: 70 main streams) * Playback up to: 4 main streams (while recording: 70 main streams) * Playback up to: 4 main streams (while recording: 50 main streams) * Playback up to: 4 main streams (while recording: 50 main streams) * Playback up to: 4 main streams (while recording: 50 main streams) * Playback up to: 4 main streams (while recording: 50 main streams) * Playback up to: 4 main streams (while recording: 50 main streams) * Playback up to: 4 main streams (while recording: 50 main streams) * Playback up to: 4 main streams (while recording: 50 main streams) * Playback up to: 4 main streams (while recording: 50 main streams) * Playback up to: 4 main streams (while recording: 50 main streams) * Playback up to: 4 main streams (while recording: 70 main streams) * Playback up to: 4 main streams (while recording: 70 main streams) * Playback up to: 4 main streams (while recording: 70 main streams) * Playback up to: 4 main streams (while recording: 70 main streams) * Playback up to: 4 main streams (while recording: 70 main streams) * Playback up to: 4 main streams (while recording: 70 main streams) * Playback up to: 4 main streams (while recording: 70 main streams) * Playback up to: 4 main streams (while recording: 70 main streams) * Playback up to: 4 main streams (while recording: 70 main streams) * Playback up to: 4 main streams (whil	2MPX IP Camera	Recording up to: 200 main streams (while displaying: 8 sub streams) • Display up to: 60 sub streams or 20 main streams (while recording: 80 main streams) • Playback up to: 20 main streams (while recording: 80 main streams)
* Display up to: 35 sub streams or 4 main streams (while recording: 70 main streams) * Playback up to: 4 main streams (while recording: 70 main streams) * Playback up to: 4 main streams (while recording: 70 main streams) * Display up to: 25 sub streams or 4 main streams (while recording: 70 main streams) * Playback up to: 4 main streams (while recording: 70 main streams) * Playback up to: 4 main streams (while recording: 70 main streams) * Playback up to: 4 main streams (while recording: 50 main streams) * Playback up to: 4 main streams (while recording: 50 main streams) * Playback up to: 4 main streams (while recording: 50 main streams) * Playback up to: 4 main streams (while recording: 50 main streams) * Playback up to: 4 main streams (while recording: 50 main streams) * Playback up to: 4 main streams (while recording: 50 main streams) * Playback up to: 4 main streams (while recording: 50 main streams) * Playback up to: 4 main streams (while recording: 50 main streams) * Playback up to: 4 main streams (while recording: 50 main streams) * Playback up to: 4 main streams (while recording: 50 main streams) * Playback up to: 4 main streams (while recording: 50 main streams) * Playback up to: 4 main streams (while recording: 50 main streams) * Playback up to: 4 main streams (while recording: 50 main streams) * Playback up to: 4 main streams (while recording: 50 main streams) * Playback up to: 4 main streams (while recording: 50 main streams) * Playback up to: 4 main streams (while recording: 50 main streams) * Playback up to: 4 main streams (while recording: 50 main streams (while recording: 50 main streams (while recording: 70 main streams) * Playback up to: 4 main streams (while recording: 50 main streams (while recording: 50 main streams (while recording: 50 main streams (while recording: 70 main streams (while	4MPX IP Camera	80 main streams) • Playback up to: 9 main streams (while recording:
Display up to: 25 sub streams or 4 main streams (while recording: 7c main streams) • Playback up to: 4 main streams (while recording: 7c main streams) • Playback up to: 4 main streams (while recording: 7c main streams) • Playback up to: 4 sub streams or 4 main streams (while recording: 5c main streams) • Playback up to: 4 sub streams or 4 main streams (while recording: 5c main streams) • Playback up to: 4 main streams (while recording: 5c main streams) • Playback up to: 4 main streams (while recording: 5c 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 an accuracy of: 15 min, possibility of combining individual recording modes  PLAYBACK  Recorded Data Search  By Date/Time, Events, "Text-in", Image Analysis Events  BACKUP  Backup Methods  USB port (HDD Ior Flash drive), Network  Backup File Format  JPEG, BMP, AVI, NMS  HDD  Internal storage for system  1 x SSD NVMe  Internal Storage for Recording  8 available bays for 3,5" HDD surveillance grade storage media in Hot-Swap bays  RAID Redundancy  RAID types: RAID 0, RAID 1, RAID 5, RAID 6  ALARMS  Alarm Input/output in cameras  Motion detection  support of motion detection built in cameras  Motion detection  support of motion detection built in cameras  Temperature alarm  support of temperature alarm built in cameras  Experimentary alarm  support of temperature alarm built in cameras  support of selected image analysis functions available in the camera  NETWORK  Network Interface  2 x Ethernet - RJ45 interface, 10/100/1000 Mbit/s  Network Throughput  vp to 450Mbit/s from all cameras • up to 450Mbit/s for each network card	5MPX IP Camera	70 main streams) • Playback up to: 4 main streams (while recording:
Display up to: 16 sub streams or 4 main streams (while recording: 50 main streams) • Playback up to: 4 main streams (while recording: 50 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 an accuracy of: 15 min, possibility of combining individual recording modes  Prealarm/Postalarm  Up to: 30s / Up to: 600s  PLAYBACK  Recorded Data Search  By Date/Time, Events, "Text-in", Image Analysis Events  BACKUP  Backup Methods  USB port (HDD lor Flash drive), Network  Backup File Format  JPEG, BMP, AVI, NMS  HDD  Internal storage for system  1 x SSD NVMe  Internal Storage for Recording  8 available bays for 3,5" HDD surveillance grade storage media in Hot-Swap bays  RAID types: RAID 0, RAID 1, RAID 5, RAID 6  ALARMS  Alarm Input/output in cameras  support of alarm input and output built in cameras  Motion detection  support of motion detection built in cameras  Temperature alarm  support of femperature alarm built in cameras  Temperature alarm  support of selected image analysis functions available in the camera  NETWORK  Network Interface  2 x Ethernet - RJ45 interface, 10/100/1000 Mbit/s  Network Throughput  up to 450Mbit/s from all cameras • up to 450Mbit/s for each network card	8MPX IP Camera	Recording up to: 90 main streams (while displaying: 8 sub streams) • Display up to: 25 sub streams or 4 main streams (while recording: 70 main streams) • Playback up to: 4 main streams (while recording: 70 main streams)
Recording Mode  Continuous, Schedule, Panic, Triggered: manually, by alaram input, motion detection, video analysis, POS, temerature alarm  individual settings for: each camera, each day of the week, specific days (holidays etc.), configuration with an accuracy of: 15 min, possibility of combining individual recording modes  Prealarm/Postalarm  Up to: 30s / Up to: 600s  PLAYBACK  Recorded Data Search  By Date/Time, Events, "Text-in", Image Analysis Events  BACKUP  Backup Methods  USB port (HDD lor Flash drive), Network  Backup File Format  JPEG, BMP, AVI, NMS  HDD  Internal storage for system  1 x SSD NVMe  Internal Storage for Recording  8 available bays for 3,5" HDD surveillance grade storage media in Hot-Swap bays  RAID Redundancy  RAID types: RAID 0, RAID 1, RAID 5, RAID 6  ALARMS  Alarm Input/output in cameras  Motion detection  support of motion detection built in cameras  Motion detection  Video Analytics  support of temperature alarm built in cameras  Temperature alarm  support of selected image analysis functions available in the camera  NETWORK  Network Interface  2 x Ethernet - RJ45 interface, 10/100/1000 Mbit/s  Network Throughput  up to 450Mbit/s from all cameras • up to 450Mbit/s to all client stations • Max network throughput: 450Mbit/s for each network card	12MPX IP Camera	Recording up to: 90 main streams (while displaying: 8 sub streams) • Display up to: 16 sub streams or 4 main streams (while recording: 50 main streams) • Playback up to: 4 main streams (while recording: 50 main streams)
motion detection, video analysis, POS, temerature alarm  Schedule individual settings for: each camera, each day of the week, specific days (holidays etc.), configuration with an accuracy of: 15 min, possibility of combining individual recording modes  Prealarm/Postalarm Up to: 30s / Up to: 600s  PLAYBACK  Recorded Data Search By Date/Time, Events, "Text-in", Image Analysis Events  BACKUP  Backup Methods USB port (HDD lor Flash drive), Network  Backup File Format JPEG, BMP, AVI, NMS  HDD  Internal storage for system 1 x SSD NVMe  Internal Storage for Recording 8 available bays for 3,5" HDD surveillance grade storage media in Hot-Swap bays  RAID Redundancy RAID types: RAID 0, RAID 1, RAID 5, RAID 6  ALARMS  Alarm Input/output in cameras support of alarm input and output built in cameras  Motion detection support of motion detection built in cameras  Video Analytics supported built in analytics in camera  Temperature alarm support of temperature alarm built in cameras  Temperature alarm support of selected image analysis functions available in the camera  NETWORK  Network Interface 2 x Ethernet - RJ45 interface, 10/100/1000 Mbit/s  Network Throughput up to 450Mbit/s for each network card	RECORDING	
days (holidays etc.), configuration with an accuracy of: 15 min, possibility of combining individual recording modes  Prealarm/Postalarm  Up to: 30s / Up to: 600s  PLAYBACK  Recorded Data Search  By Date/Time, Events, "Text-in", Image Analysis Events  BACKUP  Backup Methods  USB port (HDD lor Flash drive), Network  Backup File Format  JPEG, BMP, AVI, NMS  HDD  Internal storage for system  1 x SSD NVMe  Internal Storage for Recording  8 available bays for 3,5" HDD surveillance grade storage media in Hot-Swap bays  RAID Redundancy  RAID types: RAID 0, RAID 1, RAID 5, RAID 6  ALARMS  Alarm Input/output in cameras  Support of alarm input and output built in cameras  Motion detection  Support of motion detection built in cameras  Video Analytics  support of temperature alarm built in cameras  Temperature alarm  Licence plate recognition (LPR)  support of selected image analysis functions available in the camera  NETWORK  Network Interface  2 x Ethernet - RJ45 interface, 10/100/1000 Mbit/s  Network Throughput  up to 450Mbit/s from all cameras • up to 450Mbit/s to all client stations • Max network throughput: 450Mbit/s for each network card	Recording Mode	
PLAYBACK  Recorded Data Search By Date/Time, Events, "Text-in", Image Analysis Events  BACKUP  Backup Methods USB port (HDD lor Flash drive), Network  Backup File Format JPEG, BMP, AVI, NMS  HDD  Internal storage for system 1 x SSD NVMe  Internal Storage for Recording 8 available bays for 3,5" HDD surveillance grade storage media in Hot-Swap bays  RAID Redundancy RAID types: RAID 0, RAID 1, RAID 5, RAID 6  ALARMS  Alarm Input/output in cameras support of alarm input and output built in cameras  Motion detection support of motion detection built in cameras  Video Analytics supported built in analytics in camera  Temperature alarm support of temperature alarm built in cameras  Licence plate recognition (LPR) support of selected image analysis functions available in the camera  NETWORK  Network Interface 2 x Ethernet - RJ45 interface, 10/100/1000 Mbit/s to all client stations • Max network throughput: 450Mbit/s for each network card	Schedule	days (holidays etc.), configuration with an accuracy of: 15 min,
Recorded Data Search  By Date/Time, Events, "Text-in", Image Analysis Events  BACKUP  Backup Methods  USB port (HDD lor Flash drive), Network  Backup File Format  JPEG, BMP, AVI, NMS  HDD  Internal storage for system  1 x SSD NVMe  Internal Storage for Recording  8 available bays for 3,5" HDD surveillance grade storage media in Hot-Swap bays  RAID Redundancy  RAID types: RAID 0, RAID 1, RAID 5, RAID 6  ALARMS  Alarm Input/output in cameras  Motion detection  support of alarm input and output built in cameras  Motion detection  video Analytics  supported built in analytics in camera  Temperature alarm  support of temperature alarm built in cameras  Licence plate recognition (LPR)  support of selected image analysis functions available in the camera  NETWORK  Network Interface  2 x Ethernet - RJ45 interface, 10/100/1000 Mbit/s  Network Throughput  up to 450Mbit/s from all cameras • up to 450Mbit/s to all client stations • Max network throughput: 450Mbit/s for each network card	Prealarm/Postalarm	Up to: 30s / Up to: 600s
Backup Methods  USB port (HDD lor Flash drive), Network  Backup File Format  JPEG, BMP, AVI, NMS  HDD  Internal storage for system  1 x SSD NVMe  Internal Storage for Recording  8 available bays for 3,5" HDD surveillance grade storage media in Hot-Swap bays  RAID Redundancy  RAID types: RAID 0, RAID 1, RAID 5, RAID 6  ALARMS  Alarm Input/output in cameras  Motion detection  support of alarm input and output built in cameras  Video Analytics  supported built in analytics in camera  Temperature alarm  support of temperature alarm built in cameras  Licence plate recognition (LPR)  support of selected image analysis functions available in the camera  NETWORK  Network Interface  2 x Ethernet - RJ45 interface, 10/100/1000 Mbit/s  Network Throughput  up to 450Mbit/s from all cameras • up to 450Mbit/s to all client stations • Max network throughput: 450Mbit/s for each network card	PLAYBACK	
Backup Methods  Backup File Format  JPEG, BMP, AVI, NMS  HDD  Internal storage for system  1 x SSD NVMe  Internal Storage for Recording  8 available bays for 3,5" HDD surveillance grade storage media in Hot-Swap bays  RAID Redundancy  RAID types: RAID 0, RAID 1, RAID 5, RAID 6  ALARMS  Alarm Input/output in cameras  Support of alarm input and output built in cameras  Motion detection  support of motion detection built in cameras  Video Analytics  supported built in analytics in camera  Temperature alarm  support of temperature alarm built in cameras  Licence plate recognition (LPR)  support of selected image analysis functions available in the camera  NETWORK  Network Interface  2 x Ethernet - RJ45 interface, 10/100/1000 Mbit/s  Network Throughput  up to 450Mbit/s from all cameras • up to 450Mbit/s to all client stations • Max network throughput: 450Mbit/s for each network card	Recorded Data Search	By Date/Time, Events, "Text-in", Image Analysis Events
Backup File Format  JPEG, BMP, AVI, NMS  HDD  Internal storage for system  1 x SSD NVMe  Internal Storage for Recording  8 available bays for 3,5" HDD surveillance grade storage media in Hot-Swap bays  RAID Redundancy  RAID types: RAID 0, RAID 1, RAID 5, RAID 6  ALARMS  Alarm Input/output in cameras  Motion detection  support of alarm input and output built in cameras  Motion detection  video Analytics  supported built in analytics in camera  Temperature alarm  support of temperature alarm built in cameras  Licence plate recognition (LPR)  support of selected image analysis functions available in the camera  NETWORK  Network Interface  2 x Ethernet - RJ45 interface, 10/100/1000 Mbit/s  Network Throughput  up to 450Mbit/s from all cameras • up to 450Mbit/s for each network card	BACKUP	
Internal storage for system  1 x SSD NVMe  Internal Storage for Recording  8 available bays for 3,5" HDD surveillance grade storage media in Hot-Swap bays  RAID Redundancy  RAID types: RAID 0, RAID 1, RAID 5, RAID 6  ALARMS  Alarm Input/output in cameras  Motion detection  support of alarm input and output built in cameras  Video Analytics  supported built in analytics in camera  Temperature alarm  support of temperature alarm built in cameras  Licence plate recognition (LPR)  support of selected image analysis functions available in the camera  NETWORK  Network Interface  2 x Ethernet - RJ45 interface, 10/100/1000 Mbit/s  Network Throughput  up to 450Mbit/s from all cameras • up to 450Mbit/s to all client stations • Max network throughput: 450Mbit/s for each network card		
Internal storage for system  Internal Storage for Recording  8 available bays for 3,5" HDD surveillance grade storage media in Hot-Swap bays  RAID Redundancy  RAID types: RAID 0, RAID 1, RAID 5, RAID 6  ALARMS  Alarm Input/output in cameras  Support of alarm input and output built in cameras  Motion detection  Support of motion detection built in cameras  Video Analytics  Supported built in analytics in camera  Temperature alarm  Support of temperature alarm built in cameras  Licence plate recognition (LPR)  Support of selected image analysis functions available in the camera  NETWORK  Network Interface  2 x Ethernet - RJ45 interface, 10/100/1000 Mbit/s  Network Throughput  up to 450Mbit/s from all cameras • up to 450Mbit/s to all client stations • Max network throughput: 450Mbit/s for each network card	Backup Methods	USB port (HDD lor Flash drive), Network
Internal Storage for Recording  8 available bays for 3,5" HDD surveillance grade storage media in Hot-Swap bays  RAID Redundancy  RAID types: RAID 0, RAID 1, RAID 5, RAID 6  ALARMS  Alarm Input/output in cameras  Support of alarm input and output built in cameras  Motion detection  Support of motion detection built in cameras  Video Analytics  Supported built in analytics in camera  Temperature alarm  Support of temperature alarm built in cameras  Licence plate recognition (LPR)  Support of selected image analysis functions available in the camera  NETWORK  Network Interface  2 x Ethernet - RJ45 interface, 10/100/1000 Mbit/s  Network Throughput  up to 450Mbit/s from all cameras • up to 450Mbit/s for each network card	·	
RAID Redundancy RAID types: RAID 0, RAID 1, RAID 5, RAID 6  ALARMS  Alarm Input/output in cameras support of alarm input and output built in cameras  Motion detection support of motion detection built in cameras  Video Analytics supported built in analytics in camera  Temperature alarm support of temperature alarm built in cameras  Licence plate recognition (LPR) support of selected image analysis functions available in the camera  NETWORK  Network Interface 2 x Ethernet - RJ45 interface, 10/100/1000 Mbit/s  Network Throughput up to 450Mbit/s from all cameras • up to 450Mbit/s to all client stations • Max network throughput: 450Mbit/s for each network card	Backup File Format	
Alarm Input/output in cameras support of alarm input and output built in cameras  Motion detection support of motion detection built in cameras  Video Analytics supported built in analytics in camera  Temperature alarm support of temperature alarm built in cameras  Licence plate recognition (LPR) support of selected image analysis functions available in the camera  NETWORK  Network Interface 2 x Ethernet - RJ45 interface, 10/100/1000 Mbit/s  Network Throughput up to 450Mbit/s from all cameras • up to 450Mbit/s for each network card	Backup File Format	JPEG, BMP, AVI, NMS
Alarm Input/output in cameras support of alarm input and output built in cameras  Motion detection support of motion detection built in cameras  Video Analytics supported built in analytics in camera  Temperature alarm support of temperature alarm built in cameras  Licence plate recognition (LPR) support of selected image analysis functions available in the camera  NETWORK  Network Interface 2 x Ethernet - RJ45 interface, 10/100/1000 Mbit/s  Network Throughput up to 450Mbit/s from all cameras • up to 450Mbit/s to all client stations • Max network throughput: 450Mbit/s for each network card	Backup File Format  HDD  Internal storage for system	JPEG, BMP, AVI, NMS  1 x SSD NVMe  8 available bays for 3,5" HDD surveillance grade storage media in
Motion detection support of motion detection built in cameras  Video Analytics supported built in analytics in camera  Temperature alarm support of temperature alarm built in cameras  Licence plate recognition (LPR) support of selected image analysis functions available in the camera  NETWORK  Network Interface 2 x Ethernet - RJ45 interface, 10/100/1000 Mbit/s  Network Throughput up to 450Mbit/s from all cameras • up to 450Mbit/s to all client stations • Max network throughput: 450Mbit/s for each network card	Backup File Format  HDD  Internal storage for system  Internal Storage for Recording	JPEG, BMP, AVI, NMS  1 x SSD NVMe  8 available bays for 3,5" HDD surveillance grade storage media in Hot-Swap bays
Video Analytics supported built in analytics in camera  Temperature alarm support of temperature alarm built in cameras  Licence plate recognition (LPR) support of selected image analysis functions available in the camera  NETWORK  Network Interface 2 x Ethernet - RJ45 interface, 10/100/1000 Mbit/s  Network Throughput up to 450Mbit/s from all cameras • up to 450Mbit/s to all client stations • Max network throughput: 450Mbit/s for each network card	Backup File Format  HDD  Internal storage for system  Internal Storage for Recording  RAID Redundancy	JPEG, BMP, AVI, NMS  1 x SSD NVMe  8 available bays for 3,5" HDD surveillance grade storage media in Hot-Swap bays
Temperature alarm support of temperature alarm built in cameras  Licence plate recognition (LPR) support of selected image analysis functions available in the camera  NETWORK  Network Interface 2 x Ethernet - RJ45 interface, 10/100/1000 Mbit/s  Network Throughput up to 450Mbit/s from all cameras • up to 450Mbit/s to all client stations • Max network throughput: 450Mbit/s for each network card	HDD Internal storage for system Internal Storage for Recording RAID Redundancy ALARMS	JPEG, BMP, AVI, NMS  1 x SSD NVMe  8 available bays for 3,5" HDD surveillance grade storage media in Hot-Swap bays  RAID types: RAID 0, RAID 1, RAID 5, RAID 6
NETWORK         Network Interface       2 x Ethernet - RJ45 interface, 10/100/1000 Mbit/s         Network Throughput       up to 450Mbit/s from all cameras • up to 450Mbit/s to all client stations • Max network throughput: 450Mbit/s for each network card	Backup File Format  HDD  Internal storage for system  Internal Storage for Recording  RAID Redundancy  ALARMS  Alarm Input/output in cameras	JPEG, BMP, AVI, NMS  1 x SSD NVMe  8 available bays for 3,5" HDD surveillance grade storage media in Hot-Swap bays  RAID types: RAID 0, RAID 1, RAID 5, RAID 6  support of alarm input and output built in cameras
NETWORK         Network Interface       2 x Ethernet - RJ45 interface, 10/100/1000 Mbit/s         Network Throughput       up to 450Mbit/s from all cameras • up to 450Mbit/s to all client stations • Max network throughput: 450Mbit/s for each network card	Backup File Format  HDD  Internal storage for system  Internal Storage for Recording  RAID Redundancy  ALARMS  Alarm Input/output in cameras  Motion detection	JPEG, BMP, AVI, NMS  1 x SSD NVMe  8 available bays for 3,5" HDD surveillance grade storage media in Hot-Swap bays  RAID types: RAID 0, RAID 1, RAID 5, RAID 6  support of alarm input and output built in cameras  support of motion detection built in cameras
Network Interface 2 x Ethernet - RJ45 interface, 10/100/1000 Mbit/s  Network Throughput up to 450Mbit/s from all cameras • up to 450Mbit/s to all client stations • Max network throughput: 450Mbit/s for each network card	Backup File Format  HDD  Internal storage for system  Internal Storage for Recording  RAID Redundancy  ALARMS  Alarm Input/output in cameras  Motion detection  Video Analytics	JPEG, BMP, AVI, NMS  1 x SSD NVMe  8 available bays for 3,5" HDD surveillance grade storage media in Hot-Swap bays  RAID types: RAID 0, RAID 1, RAID 5, RAID 6  support of alarm input and output built in cameras support of motion detection built in cameras supported built in analytics in camera
Network Throughput up to 450Mbit/s from all cameras • up to 450Mbit/s to all client stations • Max network throughput: 450Mbit/s for each network card	Backup File Format  HDD  Internal storage for system  Internal Storage for Recording  RAID Redundancy  ALARMS  Alarm Input/output in cameras  Motion detection  Video Analytics  Temperature alarm	JPEG, BMP, AVI, NMS  1 x SSD NVMe  8 available bays for 3,5" HDD surveillance grade storage media in Hot-Swap bays  RAID types: RAID 0, RAID 1, RAID 5, RAID 6  support of alarm input and output built in cameras  support of motion detection built in cameras  supported built in analytics in camera  support of temperature alarm built in cameras
stations • Max network throughput: 450Mbit/s for each network card	Backup File Format  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)	JPEG, BMP, AVI, NMS  1 x SSD NVMe  8 available bays for 3,5" HDD surveillance grade storage media in Hot-Swap bays  RAID types: RAID 0, RAID 1, RAID 5, RAID 6  support of alarm input and output built in cameras  support of motion detection built in cameras  supported built in analytics in camera  support of temperature alarm built in cameras
Network Protocols Support HTTP, TCP/IP, IPv4/v6, UDP, HTTPS, FTP, DHCP, DNS, DDNS, NTP.	Backup File Format  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	JPEG, BMP, AVI, NMS  1 x SSD NVMe  8 available bays for 3,5" HDD surveillance grade storage media in Hot-Swap bays  RAID types: RAID 0, RAID 1, RAID 5, RAID 6  support of alarm input and output built in cameras  support of motion detection built in cameras  supported built in analytics in camera  support of temperature alarm built in cameras  support of selected image analysis functions available in the camera
RTSP, SAMBA	Backup File Format  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  Network Interface	JPEG, BMP, AVI, NMS  1 x SSD NVMe  8 available bays for 3,5" HDD surveillance grade storage media in Hot-Swap bays  RAID types: RAID 0, RAID 1, RAID 5, RAID 6  support of alarm input and output built in cameras support of motion detection built in cameras supported built in analytics in camera support of temperature alarm built in cameras support of selected image analysis functions available in the camera  2 x Ethernet - RJ45 interface, 10/100/1000 Mbit/s







## NOVUS MANAGEMENT SYSTEM VSS IP Recorder NMS VSS NVR X-4U-III-R

Compatible Mobile Applications	VSS WEB CLIENT functionality available from web browsers (Chrome, Edge, Firefox, Opera, Safari)
PTZ	
PTZ Functions	pan, tilt, zoom, preset commands, patterns, tours, auto-scans, focus, iris
ADDITIONAL INTERFACES	
USB Ports	4 x USB 2.0, 4 x USB 3.2, 1 x USB 3.2 Type-C, 2 x USB 2.0
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), ONVIF Devices, RTSP Devices
INSTALLATION PARAMETERS	
Dimensions (mm)	178 (W) x 452 (H) x 648 (D)
Weight	28 kg (without HDD)
Power Supply	built in 700W, with 230VAC input • with Hot-Swap function (allowing to replace the power supply without turning off the unit)
Power consumption/heatprint	350W/280W (without HDD for recording)
Operating Temperature	5°C ~ 35°C
RACK Mount 19"	4U

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.



