

SATATYA VMSP Recorder



Matrix SATATYA VMSP Recorders are a comprehensive Video Surveillance solution designed to withstand challenging environments. The solution incorporates four different types of redundancy to combat power, network, and recorder failures, thus always ensuring reliable surveillance. With capabilities to integrate seamlessly with open platforms like COSEC Access Control, Intelligent Video Analytics, and Third-party applications the recorders can be used for diverse applications.

CERTIFICATIONS



KEY FEATURES



H.265 Compression



4K Decoding



Redundant Power



12MP Recording



Interoperability



Smart Monitoring



Hot Swap HDD



Integration

TECHNICAL SPECIFICATIONS	
Description	Comes with SATATYA SAMAS PLT License (and Expandable up to 255 IPC software licenses), 16 SATA Interface Enterprise Grade Network Video Recorder
HARDWARE	
Processor - CPU	Intel Xeon CPU Silver 4314 - 16core @ 2.4GHz
Memory	64GB DDR4
OS Drive	Enterprise-grade M.2 SSD 240GB
SATA 3.0 Channels	16 bay
Storage Capacity	Max 288 TB (Support upto 18TB per each HDD)
PCIe Type	4 PCIe4.0 x16 3 PCIe4.0 x8
Video Display	Only x1 VGA on board From GPU GTX1650, 1x DP, 1x HDMI2.0b, 1x DVI
Chassis	3U Chassis with 12G SAS expander plane
Hot Swap HDD Bays	16 SATA HDD/ SSD 3.5" or 2.5"
NAS Support	Up to 19 NAS
Graphic Card (inbuilt)	GPU GTX1650 4GB GDDR6
RAID Controller (inbuilt)	Broadcom upto 12G SAS per Port 1GB (Hardware RAID)
RAID Support	RAID 0/1/5/6/10/50/60
NETWORK MANAGEMENT, INTERFACES AND SECURITY	
Network	2x 10GbE Port and 2x 1GbE Port
Server Management	Dedicated 1 GbE RJ45 Port
Sensor In/ Alarm Out	No Inbuilt Port. External COSEC PANEL 200P and COSEC ARC IO 800 Sensor Controller
Audio In/ Out	No Inbuilt USB Based External Mic and Speaker (Subject to additional supported Software Drivers)
USB	4x USB3.2 Rear 1x USB2.0 Onboard 2x USB2.0/ USB3.0 (Option) Front
Security	TPM header Support SSL Communication
ELECTRICAL AND MECHANICAL	
Input Voltage	100-240 VAC, 10-8A-Dual Input
Power Supply System	1+1 1200W Hot Swap Redundant Power Supply
Power Consumption	Without HDD approximate power consumption using dual power cord Peak power: 105.7 Watt Floating power: 70.7 Watt
Dimension (D x W x H)	655.3 x 432 x 132 (mm) 27.8 x 17 x 5.2 inch
Material	SGCC
Net Weight	~ 20.92kg (Without HDDs)
ENVIRONMENTAL	
Operating Temperature	Max Ambient Temperature : 50°C Operation Temperature: 10°C ~ 35°C Non operation Temperature: -40°C ~ 70°C
Relative Humidity	Non Operation Humidity: 20% ~ 90% (Non condensing)

SOFTWARE	
Operating System	Microsoft Windows IoT Enterprise LTSC HIGH END
Event Database	Microsoft SQL Server Express Edition (up to 10 GB of Storage)
Software	Built-in Cyber-secured Video Management Software - SATATYA SAMAS Platform
VIDEO SURVEILLANCE MANAGEMENT	
IP Camera Channels	Built-in 5 IP Channels
Resolution Support	12MP, 8MP, 5MP, 3MP, 2MP, 720P, D1, CIF
Compression	H.265, H.264, MJPEG
ONVIF Profile Support	ONVIF Profile S and G
IP Camera Supports	Matrix IP Camera, Third Party – ONVIF Profile S and G Supported (V2.2 and above)
Active Directory Support	Yes
User Roles and Rights	Yes
DISPLAY	
Split (Through LAN/HDMI)	1x1, 2x2, 3x3, 4x4, 5x5, 6x6, 8x8, 1+3, 1+5, 1+7 and Sequential Views and Windows Sequence
Local Decoding	1x 4K 9x 1080P 64 x D1
Digital Zoom on Live	Yes
Snapshot	Yes
OSD	Camera Number and Name, Status, Video Loss, Recording and Disabled Camera
RECORDING AND STREAMING	
Default login user	1
Pre-Record	Up to 30 Sec
Post-Record	Up to 30 Sec
Snapshot Format	JPG
Recording Format	Native
Recording Types	Continuous, Manual, Alarm and Motion Detection
Special Recording	Day-Highlights
Auto Retrieval from SD-card	Yes
Adaptive Recording	Automatically Reduces the Number of Frames Captured Per Second when there is No Motion, Thereby Saving Storage Space
Stream Configuration	Stream Parameters, CODECs, Resolution, FPS and GOP
Stream Usages	Recording, Viewing, Analytics
FPS	1-60
GOP	1-120
INTEGRATED PLATFORMS OVER NETWORK	
Redundant Service	Yes Storage and Recording Services (N+1) and Power Supply
Failover Service	Yes Recording Services (N+1) and Network ISP Service (1+1)
Matrix IVA Service	Yes (Basic & Advance IVAs, ANPR, Parking Management and More Over Ethernet)

Access Control System	Yes Matrix COSEC Server and COSEC PANEL 200P
Streaming Services	Yes For Integrations with Third Party IVA and Investigation Agency
Clients	Desktop Client: SATATYA Smart Client, Video Wall Client Mobile Clients for Android and i-OS Devices
PLAYBACK AND BACKUP	
Synchronous Playback	4 channels @ 1080P (via HDMI), 4-channel @ 1080P (Media player)
Search Mode	Date and Time, Camera, Recording Type
Playback Modes	Fast Forward (up to 16x), Fast Reverse (up to 16x), Next Frame, Previous Frame
Backup and Archive	3 Levels, Video Grooming Technology at Local drive, NAS and FTP
Network Protocol	TCP/IP, DHCP, FTP, SMTP, RTP/RTSP, CIFS/NFS, UDP, LDAP, ONVIF
Maximum User	99+1 (Admin), Users Can be Added with an Additional License
Remote Operation	Monitor, PTZ Control, Playback, System Setting, File Download, Log Information
PERCEPTIVE MONITORING FEATURES	
Hierarchical E-map	Yes
Alarm Management	Yes (Report, Acknowledge, Close and Alarm Logs)
System Health Dashboard	Yes
Investigator	Video Content Analysis on Recorded Video (Over Ethernet)
One Click Control	IPC View, Recording Status, Health, Snapshot, Manual Recording, Digital Zoom In and Out, Change Stream, Share Live View
On Screen PTZ Control	Yes, Using Virtual PTZ Joystick
SURVEILLANCE LOGS	
Logs	Event Logs, Audit Trails, Alarm Logs and Online User Information
Reports	Summary Report, Downtime Analysis Report, Evidence Reports, System Health Reports
Report Scheduler	Yes (Once, Weekly, Monthly, Yearly)
EVENTS AND ACTION	
Events	Video Surveillance Events, System Events, User Events, Audit Trails Events
Action	Recording on Selected Channel, Upload Images on FTP/Email server, Email Notification with Snapshot, Trigger IVA, Recall PTZ Preset Position, Turn On/Off Alarm Outputs, Buzzer Notification, SMS Notification, Calling from Mobile App, Share files data, Trigger Aux Output
CERTIFICATIONS	
Certification	ONVIF S and G, BIS, CE, FCC
SYSTEM SETUP	
LED Indication	System Power; Ethernet Connection, HDD Connectivity
Power On and Reset Switch	Yes
For More Information on Software Part	Please refer to the VMS SAMAS Datasheet

RAID5 Configuration:

VMSP servers come pre-equipped with the hardware controller and provide the following specifications:

No. of HDD provision	Single HDD data transfer rate (in MBps)	Net Capacity (in GB)	Bandwidth (in mbps)	No. of IP cameras
16	110	15360	672	255

Note:

- VMSP3020XCTP server has a provision of 16 HDDs
- Approx. 110 MBps is the data transfer rate of the single HDD which is written in the technical datasheet of the respective HDD manufacturer
- The bandwidth field specifies the approximate bandwidth required for 255 IPC of 2MP resolution for recording
- Another system is required for monitoring, other than the above-specified details in the datasheet

Important Notice

This Product uses 'Microsoft Windows IoT Enterprise Version' as an Operating System. So, the server can not be used as a General Purpose application other than VMSP recorder. The included Microsoft Windows Operating System must only be used together with the Product (VMSP recorder) and must hence not be used on any other computer hardware. The terms and conditions for the use of the Microsoft Windows Operating System is regulated by Microsoft's End User License Agreement and it is accepted to the End User ("Customer purchasing the VMSP Product").

ABOUT MATRIX

Established in 1991, Matrix is a leader in Security and Telecom solutions for modern businesses and enterprises. As a technology-driven, and customer-focused organization, the company is committed to keeping pace with the revolutions in the Security and Telecom industries.

With around 40% of its human resources dedicated to the development of new products, Matrix has launched cutting-edge products like Video Surveillance Systems – Video Management Systems, Network Video Recorders and IP Camera, Access Control and Time-Attendance Systems as well as Telecom Solutions such as Unified Communications, IP-PBX, Universal Gateways, VoIP and GSM Gateways and Communication Endpoints. These solutions are feature-rich, reliable, and conform to international standards.

Having global footprints in Asia, Europe, North America, South America, and Africa through an extensive network of more than 4000+ channel partners, Matrix ensures that the products serve the needs of its customers faster and longer.

Matrix has ISO 27001: 2013, 20000-1 2018, 14001- 2015, and 9001: 2015 certifications for quality management standards. Matrix has also been awarded ZED Quality Certification, and DSIR Certification for indigenous R&D and Manufacturing. Matrix has gained the trust and admiration of customers representing the entire spectrum of industries.



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