SS200T3R Series NVR

Infinova
The Integrator's Manufacturer

ONVIF

- **Enterprise Class Network Video Recorder**
- **Preloaded Windows Based Video Management Software**
- **Data Security through Raid Array of Disc Technology**
- **Manages external devices along with video sources**
- **Supports wide range of video sources**
- **High Definition Support across channels**
- **ONVIF Compliant to accommodate multi brand cameras**
- **Hot Swappable Hard Disk Drive available on specific Models**
- **High Concurrent Bandwidth Support for Mega Pixel Camera display & recording**
- **RAID Support- RAID5, RAID 10**
- **USB Ports**
- **Dual Gigabyte Network Port**

Hardware Specifications

Infinova SS200T3R is available in variety of models which allow flexibility in solution design as per the project requirements.

Simultaneous Functioning

- Recording
- Alarms handling
- Client software request handling
- Live view
- Camera control
- Map view
- Playback
- Configuration
- Report generations
- RAID Support

Video Input / Output

- Video capture from wide range of IP video sources – video cameras, video encoders, video servers
- Supports video sources compliant with ONVIF specifications
- H.264, MPEG4, MJPEG, MxPEG formats
- Fixed cameras and PTZ cameras
- 360 degree / fish-eye cameras
- Built in video capture algorithms to minimize the bandwidth usage
- Auto search / camera discovery for IP video devices
- Add multiple cameras, with a single button click
- Edit video capture settings for multiple cameras, with a single button click
- Recommended settings guidance for each type of video source while adding cameras
- Capture and record audio stream
- Optional GPS co-ordinate specification for every camera
- HDMI Output 1ch, HDMI0 resolution 1920×1080P/60Hz
- VGA Output 1ch, resolution 1920×1080P/60Hz

Device Groups

- One or more device groups can be defined to associate related devices together.
- All defined device groups are available in the tree controls associated with various screens, as a single node and all devices added to that device group as sub-nodes
- 'Exclusive device selection' option to easily define device groups with no devices included in more than one group
- 'All devices' device group is available by default and includes all devices
- Device groups are used for user privilege assignments
- Device groups can be used for categorizing devices displayed in the tree controls, associated with various screens.

Alarm Management

- User configurable alarm handling for each type of alarm
- Alarms stacking / queuing
- Alarm categories – Logs, Warnings and Alerts
- Dedicated recent alarms screen, with support for alarm video view with navigation controls. Quick access to multi-channel playback and video export associated with search results
- User configurable 'Alarm name' definition for specific type of alarms generated from specific devices. This allows operators to understand an alarm more clearly and also improves the alarm reports output.
- Wide range of alarm handing options configurable for each type of

alarm from individual sources
- Video overlay indicator
- Pop up alarm acknowledge window
- Manual alarm acknowledgement
- Time threshold based automatic alarm acknowledgement
- An alarm can be acknowledged from any computer which displays the alarm acknowledgement for that alarm. Acknowledged alarm is then removed from the active alarms list of all computers
- Play sound / audio
- Indicators on map – blinking icons or alarm indication on videos embedded in map
- Start multi-channel recording
- Move one or more PTZ cameras to pre-defined presets
- Start pre-defined tours for one or more PTZ cameras
- Send digital output signal
- Pop up live video screen
- Pop up preconfigured video screen
- Send e-mail – through standard SMTP server or Microsoft Exchange

Type of Alarms

- Network loss
- Network recovery
- Video loss
- Video recovery
- Low disk space
- Disk space recovery
- Recording failure
- Recording restored
- Motion detected
- No motion
- Camera tampering detection
- Trip Wire Detection
- Alerts generated by the cameras and video servers

Recording

- Recording Resolution- 8MP/5MP/3MP/1080P/1600×1200/720P/640×480/D1/4CIF/DCIF/2CIF/ CIF/QCIF
- User configurable video resolution, frame-rate and bit-rate setting for each channel independent of other channels
- Ability to configure recording settings for a video channel group, with a single button click
- Multiple recording modes – continuous, scheduled, alarm-based, combined 'scheduled and alarm based'
- Scheduled recording – weekly schedule configuration with ability to select or de-select any hour within a week for recording
- Scheduled recording – with day specific over-rides for up to 5 dates. The original weekly schedule remains unchanged, which eliminates the risk of accidental changes and eliminate maintenance activities.
- Pre-event and post-event recording up to 99 minutes
- Option for full FPS recording on alarm, and low FPS recording in non-alarm conditions, with pre-alarm and post-alarm period configuration up to 99 minutes
- Operator activated recording
- Audio stream recording
- Video overlay text
- Available disk space and expected recording time indicators
- Recording history timeline

- Watermarking on recorded video
- Recorded data tampering detection
- Automatic storage space recycling, with user configuration for finer control on the recycling process
- User configurable thresholds for – 'recycle start threshold', 'recycle stop threshold' and 'low disk space alarm threshold'
- Option to exclude data associated with alarms, during recycling operations
- Network time server synchronization
- Multiple drives selection for recording
- Recording Methods: Manual, Motion detection, Timing and Alarm triggered
- All selected drives are used for recording simultaneously, to distribute the load. Each drive is processed independently
- Intelligent allocation of video channels to recording drives, to distribute the load and to maximize the recording duration for all cameras
- Manual over-ride for recording drive selection for any camera
- Ability to re-assign recording drives for all cameras, at any stage
- Supports recording on local hard disks, USB storages, Direct-attached Storage (DAS), Network-attached storage (NAS), Storage Area Networks (SAN)
- Supports iSCSI
- Supports network shared drives
- Supports RAID configured storage devices
- Fail-over recording with fully automatic data synchronization
- Redundant recording
- Option to use recorded data from video source (e.g. DVRs), and not recording it locally, to save bandwidth and storage space

Video Search

- Recorded data report for specified camera
- Any camera can be selected from the drop down menu
- Calendar displaying recorded data availability state for each day – full data available, no data available, partial data available
- Recording history timeline indicator
- 24 hour video history timeline indicating time periods for which recorded data is available
- Video timeline focus indicator – with option to select focus duration interval. Quick access next interval and previous interval buttons
- Video timeline with 1 second interval indicating recorded video availability for each second
- Video playback synchronized with timeline indicators
- Option to use original aspect ratio for video display
- Click on recording history timeline to view associated video, with video navigation control – play, pause, rewind, fast forward, slow rewind, slow forward
- Indication on timelines for currently displayed video time
- Quick access to multi-channel playback and video export
- Automated recording history cache creation for fast access to recording history information
- Option to manually re-create recording history cache for specified camera for specified duration

Playback

- Supports 16 channels 1080P synchronous playback
- Synchronized playback of multiple video channels, up to 64 video channels
- Synchronized audio playback with ability to enable / disable audio

playback associated with every video channel being played back
- Video navigation - play, pause, up to 16X fast forward and up to 16X rewind
- Slow speed playback – fast forward and rewind, up to 0.25X
- Alarm based playback
- 'Go-to' specified video time
- Frame by frame playback – previous frame and next frame
- Non-synchronized playback screen – where each video can be played for independent video times

Video View Screens

- Separate live video screens and playback video screens
- Tree view of video channels, sequences, external devices
- Automatic linking of video channels from same video source
- Single click operation to switch to any of the linked channels
- Device groups
- Indicators for state of cameras and devices – online / offline
- Indicators for static cameras and PTZ cameras
- Indicators for recording status of every channel – recording on, recording off, recording error
- Drag and drop camera selection for viewing
- Double click on tree control item to view video
- Camera selection modes – locked and un-locked. In un-locked mode first empty video container is selected for displaying the video
- Virtual matrix operations
- Patrolling mode
- Several screen layout options e.g. 1X1, 2X2, 3X3, 3X4, 4X4, 5X5, 5X6, 6X6, 7X7, 8X8, 1+5, 1+7, 1+9, 1+11, 1+12, 1+15, 1+16
- Page navigation within a layout
- Quick access to camera PTZ, preset and tours control
- Multiple monitors support
- Option to select hardware acceleration for video display operations

Video Overlay Options

- Video overlay text color configuration
- Camera name overlay
- Timestamp overlay
- Camera IP address overlay
- Bandwidth usage overlay
- Video resolution overlay
- Video frame rate overlay
- Recording state indicator overlay

- Audio play state indicator overlay
- Video loss indication
- Audio loss indication
- NVR disconnection indication
- Motion detection overlay with configuration for overlay level – no overlay, only motion indicator, motion grids, full overlay

Camera Control

- Camera pan tilt zoom control
- Camera PTZ speed control
- Camera PTZ – auto zoom. User can select a rectangle and camera is zoomed to show the video for the selected rectangle
- PTZ priority setting for users, with PTZ lock time. Locks camera PTZ access for next user if another user with higher priority is controlling camera PTZ
- Move PTZ camera to home position
- On-screen camera PTZ using mouse
- Camera PTZ control window which can be moved to any desired location on the monitor
- Camera PTZ mode selection – manual or automatic, for cameras which support camera PTZ mode selection feature

CCTV Keyboards and Joysticks

- Supports all standard USB joysticks and gaming controllers which are compliant with Microsoft Windows operating system
- Zoom direction configuration (zoom in and zoom out) with respect to joystick clock-wise or anti-clock-wise rotation, for uniform user experience independent of make and model of the joystick controller
- Open platform architecture allows quickly supporting any new custom CCTV keyboard or Joystick
- Video screen selection
- Video camera selection in the selected video screen
- PTZ control of the selected video camera
- Communication status logs to assist during initial set up and maintenance

Digital Operations

- Digital PTZ
- On-screen digital PTZ using mouse
- Switch to home position (full video display) for digital PTZ
- Digital PTZ speed control
- Digital PTZ on paused video
- Magnification glass with zoom and size control
- Interactive digital PTZ using mouse controls
- Digital PTZ – auto zoom. User can select a rectangle and display is zoomed to show the video portion from the selected rectangle
- Digital auto-tracking. An object in the video is tracked by digitally zooming on it and continuously following it.
- Vibration removal
- Display-time (client-side) de-warping for 360 degree cameras

Users and Privileges

- Multiple user levels and privileges
- Built in standard privileges
- Ability to define custom privileges
- Ability to allow or dis-allow features for every custom privilege
- Ability to allow or dis-allow device group access for every custom privilege
- Built in standard uses
- Ability to define custom users
- Unlimited number of users can be added
- Ability to associate / change privilege for any user
- Unlimited number of users can be associated with a privilege
- Ability to disable a user. Ability to delete a user
- Administrator control to change password for any user
- User information registration e.g. name, address, phone number etc
- Active Directory integration

Video Export

- Quick export mode – starts video export for selected camera and continues till user ends the playback. Default video export parameters are used for quick export mode
- Advanced export mode – with all export parameters available for user configuration
- Video export based on time duration or alarm
- Export video for multiple cameras simultaneously
- Option for watermarking on exported video – custom text, camera name, timestamp; with option to set watermark text color
- Option to specify file name for exported video
- Standard format video export, exported video can be played in any standard media player like Windows Media Player
- Option to select the quality of video exported in standard format – high quality and standard quality. This also allows controlling the file size of the exported video file
- Native format video export along with player application
- Option to add password protection for native video export. The exported native video can be accessed only after providing correct password

Video Bookmarks

- Operators can quickly bookmark video from any camera, for a specific time-stamp, along with a comment
- Video bookmarks search to generate reports
- Search video bookmarks based on bookmark source, bookmark creator user, bookmark comment (with wild card search) and time duration
- Video bookmark search - bookmark video display with video navigation controls for play, pause, fast forward, rewind, slow play and slow rewind
- Video bookmark search - quick access to multi-channel playback and video export

Reports and Logs

- Current session logs view
- Current session alarms view
- Detailed user logs, activity reports, system logs

- Search user logs to generate reports
- User logs search based on user and time duration
- Report includes details like activity description, along with IP address of the computer which initiated the activity
- Alarms search to generate alarm reports
- Search alarms based on alarm type, alarm source, alarm name (with wild card search) and time duration
- Alarm search - alarm video display with video navigation controls
- Alarm search - quick access to multi-channel playback and video export associated with search results
- Export video for all alarms in the search result, with a single button click
- Print logs and reports
- Save logs and reports in TXT, CSV or PDF formats
- PDF format reports include associated images embedded inside PDF file
- Automated daily reports creation and save
- Automated daily reports e-mailing
- Print images
- Video bookmarks search to generate reports
- Search video bookmarks based on bookmark source, bookmark creator user, bookmark comment (with wild card search) and time duration
- Video bookmark search - bookmark video display with video navigation controls
- Video bookmark search - quick access to multi-channel playback and video export associated with search results

Status reports

- Detailed status reports which indicate system state
- 'Save report' option for all status reports displayed in the software. These saved reports are useful in offline custom analysis of the site.
- Video channel availability – online / offline status for all streams from each of the video channels
- Recording status for all channels
- Bandwidth utilization status for all streams from each of the video channels
- Storage space utilization graph – view by video channel and time interval
- Video stream parameters – resolution, FPS, bitrate etc for all streams from each of the channels
- User configurable parameters summary for all channels
- List of current client requests being processed by the NVR
- Phone network gateway communication status
- CCTV Keyboards and joysticks communication status

User Interface

- Multiple monitors and video walls support
- Virtual matrix operations
- Video thumbnail display to identify the specified camera
- Full screen view of any video channel

- Quick set up wizard for easy initial configuration
- All screens can be resized to custom sizes
- Single click 'Fit to screen size' support for all screens
- Simultaneous functioning of all features
- View video channels as a list or as thumbnails
- 'Reconnect to all cameras' button
- 'Save report' option for all lists displayed in the software. These saved reports are useful in offline custom analysis of the site.
- 'Lock' feature to restrict un-authorized changes to configuration
- Tree control displaying list of devices, also indicates the device state – online / offline, recording ok / recording error, PTZ camera / fixed camera. Different images are displayed for each of these states for all devices listed in the tree control

Data Management

- Archiving or deleting older recorded data
- Manual data clean up
- Scheduled data clean up, with support for daily, weekly or monthly schedule and cleaning up data older than specified number of days
- Manual data archiving
- Scheduled data archiving, with support for daily, weekly or monthly schedule and cleaning up data older than specified number of days
- Video player application is available along with the archived data for accessing archived data
- Offline data viewer screen for accessing archived data
- Option to exclude data associated with alarms, from clean up and archive operations
- Automatic storage space recycling, with user configuration for finer control on the recycling process
- User configurable thresholds for – 'recycle start threshold', 'recycle stop threshold' and 'low disk space alarm threshold'
- Option to exclude data associated with alarms, during recycling operations
- User activity logs recycling, with user configurable options to control the recycling process

Calculators and Tools

- Storage space calculator
- Storage throughput test application
- Bandwidth requirement calculator
- Network throughput test application
- NVR resource monitoring and reporting tool
- Camera ping / availability test tool
- Camera parameters manager tool
- Device health check and reporting tool
- Device resource configuration manager tool
- Diagnostic check tool, with auto repair functionality

Certifications: CE, EN, FCC, NABL

Ordering Information:

SS200T3R Embedded VMS Box SS200T3R-16   Network video recorder, up to 16-ch video inputs, Supports Video Analytics, support H.265/H.264 video format, RAID, support 16HDD slots, w/o HDDs