

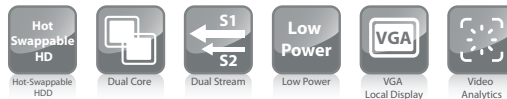
SMR5020

20CH Megapixel RAID NVR

Network Video Recorder



- 20 CH Smart Megapixel Video Recorder
- 200Mbps Recording Performance
- Built-In Intel® ICH9R Hardware Raid Controller
- 5x Hot-Swappable Hard Disk
- 6CH Real-Time VI Detection
- Low Power Consumption
- In-House Design & Production
- Local Display
- 3-Year Warranty



VMS Specifications

Live View	<ul style="list-style-type: none"> • Real-time network camera discovery • Versatile views of various screen divisions • HTML and image overlays • Multiple views supported • View patrolling for single or multiple views • Real time video/event alarm display • Instant playback • Video clip bookmarking 	Video Intelligence	<ul style="list-style-type: none"> • Tampering detection • Virtual fence • Object counting
eMAP	<ul style="list-style-type: none"> • Drag-n-drop camera manipulation • Directional camera display • Hierarchical map structure • Real time event alert • Instant live video of camera • Multiple maps supported 	Remote Management	Full functional operation & management via standalone VMS Client
PTZ	<ul style="list-style-type: none"> • Pan, tilt, zoom operations (dependent of camera) • Built-in, floating PTZ control panel • Preset position (dependent of camera) • Scheduled or continuous camera patrolling • Event-driven camera patrolling • On Screen PTZ control 	Remote Client	<ul style="list-style-type: none"> • Web Client • iPhone Client
Multiple Displays	<ul style="list-style-type: none"> • Up to 8 monitors • Supports live view, playback, eMap functions • Direct display to secondary monitor(s) 	3rd Party IPCAM	ACTi, Arecont Vision, Asoni, AVTECH, AXIS, Bosch, Dahua, HIKVISION, IQinVision, Lilin, MOBOTIX, Panasonic, SAMSUNG, SONY, VIVOTEK
Investigation	<ul style="list-style-type: none"> • Search by date, time, camera • Search by pre-defined recent time • Search by VI event combinations • Search over multiple days • Search over multiple cameras • Video clip bookmarking and commenting • Search via built-in VI analyzer • Customizable bookmark • Intuitive, video thumbnail search results • Cue-in, cue-out and repeat • Quick playback by video thumbnail • 1/8, 1/4, 1/2, 1x, 2x, 4x, 8x play, pause, stop • AVI-formated video clip export 	General & Misc	<ul style="list-style-type: none"> • Video codec: H.264, MPEG4, MJPEG • Image enhancement • Video privacy mask • Digital zoom in, zoom out • Log viewer • Windows lockup • Client auto login • Digital I/O management • Automatic storage recycling • Client-server architecture • Guaranteed performance of long period recording • Customizable appearance of Surveon logo • Configurable video retention period • Digital watermark proofing • Language supported: English, French, German, Portuguese, Spanish, Simple Chinese, Traditional Chinese, Italian, Japanese, Russian, Slovak, Czech, Dutch and Polish • Support DDNS Function • Support CH Products USB joystick • Support ethernet I/O device* • Support NTP Server synchronized*
Instant Playback	<ul style="list-style-type: none"> • Supported in video alarm, event alarm, view functions • Pre-defined playback durations • Video clip bookmarking 	* Available soon	
Video Intelligence	<ul style="list-style-type: none"> • General motion detection • Missing object detection • Foreign object detection • Intrusion detection • Forbidden area detection 		

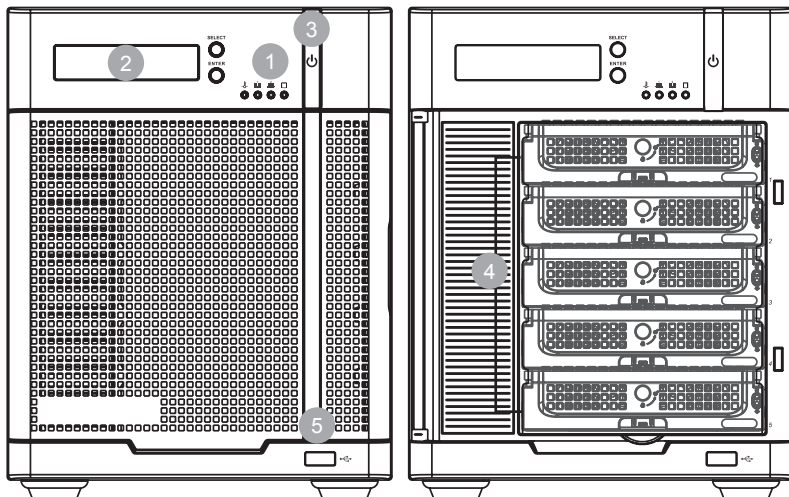
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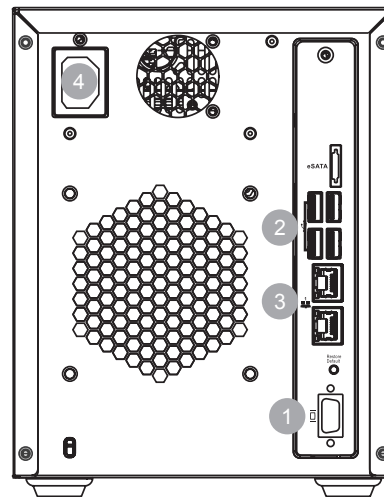
Part Names and Functions

Front View



- ① LED Indicators
- ② LCD Display
- ③ Power Switch
- ④ Hot Swappable HD Tray
- ⑤ USB

Rear View



- ① VGA
- ② 4 x USB
- ③ Ethernet
- ④ Power Input

Hardware Specifications

System Processor	Intel® Dual Core
System Memory	DDR3 2GB
Chipset	Intel® ICH9R
Operating System	SLC DOM with Windows 7 Embedded System
Storage	3.5" SATA HDDs x5; HDD hot swappable
I/O Interface	<ul style="list-style-type: none"> • VGA: 1x D-Sub • RJ-45: 2x Gigabit Ethernet • USB: 4x USB2.0 • E-SATA: x1
H/W RAID	RAID 0, 1, 5
Electrical	<ul style="list-style-type: none"> • Input voltage: 100V~240V, 3.5A • Power Supply: 250W
Operating Environment	<ul style="list-style-type: none"> • Humidity: 5% to 80% (non-condensing) • Temperature: 5° to 40°C
LCD Panel	Yes
LED Indicator	Yes
Dimensions	225(H) x 175(W) x 245(D) mm
Weight	5 Kg
Certificate	BSMI, CB, FCC / CE Class B, UL60959/ IEC 60950, CCC for power only, GOST

Ordering Information

Part Number	Description
SMR2006	6 CH, 2 Bay Megapixel RAID NVR
SMR2010	10 CH, 2 Bay Megapixel RAID NVR
SMR2016	16 CH, 2 Bay Megapixel RAID NVR
SMR4012U	12 CH, 4 Bay Megapixel RAID NVR
SMR4016U	16 CH, 4 Bay Megapixel RAID NVR
SMR4020U	20 CH, 4 Bay Megapixel RAID NVR
SMR5012	12 CH, 5 Bay Megapixel RAID NVR
SMR5016	16 CH, 5 Bay Megapixel RAID NVR
SMR5020	20 CH, 5 Bay Megapixel RAID NVR
SMR6025H	25 CH, 6 Bay Megapixel Hybrid RAID NVR
SMR6032H	32 CH, 6 Bay Megapixel Hybrid RAID NVR
SMR8016	16 CH, 8 Bay Megapixel HW RAID NVR
SMR8025	25 CH, 8 Bay Megapixel HW RAID NVR
SMR8032	32 CH, 8 Bay Megapixel HW RAID NVR
SMR8040	40 CH, 8 Bay Megapixel HW RAID NVR
SMR8016U	16 CH, 8 Bay Megapixel HW RAID NVR
SMR8025U	25 CH, 8 Bay Megapixel HW RAID NVR
SMR8032U	32 CH, 8 Bay Megapixel HW RAID NVR
SMR8040U	40 CH, 8 Bay Megapixel HW RAID NVR

* Recording bitrate at 4Mbps, 12 hours per day.

Optional Accessories

Part Number	Description
H72A0HA2321-0030	Hitachi, Enterprise, 1TB SATA HDD, 3Gb/s
H72A1HA2321-0030	Hitachi, Enterprise, 2TB SATA HDD, 3Gb/s
H72A1XA3XXX-0030	Hitachi, Enterprise, 2TB SATA HDD, 6Gb/s
H72A2XA2XXX-0030	Hitachi, Enterprise, 3TB SATA HDD, 6Gb/s
H72A1XA3XXDX-0030	Hitachi, Desktop, 2TB SATA HDD, 6Gb/s
H72A2XA3XXDX-0030	Hitachi, Desktop, 3TB SATA HDD, 6Gb/s

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Performance Validation

Model	Camera Resolution	Camera FPS	Camera Bit Rate	Recording Channels	Local Live View Channels	Local Playback Channels	Remote Live View Channels	Remote Playback Channels
SMR2006	D1/VGA	30	2M	6	6	1	16	4
SMR2006	1.3M	30	4M	6	6	1	16	4
SMR2006	2M	15	4M	6	6	1	16	4
SMR2006	3M	10	4M	6	6	1	16	4
SMR2010	D1/VGA	30	2M	10	10	1	16	4
SMR2010	1.3M	30	4M	10	10	1	16	4
SMR2010	2M	15	4M	10	10	1	16	4
SMR2010	3M	10	4M	10	10	1	16	4
SMR2016	D1/VGA	30	2M	16	16	1	16	4
SMR2016	1.3M	30	4M	16	16	1	16	4
SMR2016	2M	15	4M	16	16	1	16	4
SMR2016	3M	10	4M	16	16	1	16	4
SMR4012U	D1/VGA	30	2M	12	12	1	16	4
SMR4012U	1.3M	30	4M	12	12	1	16	4
SMR4012U	2M	15	4M	12	12	1	16	4
SMR4012U	3M	10	4M	12	12	1	16	4
SMR4016U	D1/VGA	30	2M	16	16	1	16	4
SMR4016U	1.3M	30	4M	16	16	1	16	4
SMR4016U	2M	15	4M	16	16	1	16	4
SMR4016U	3M	10	4M	16	16	1	16	4
SMR4020U	D1/VGA	30	2M	20	16 (20CH by tour)	1	16 (20CH by tour)	4
SMR4020U	1.3M	30	4M	20	16 (20CH by tour)	1	16 (20CH by tour)	4
SMR4020U	2M	15	4M	20	16 (20CH by tour)	1	16 (20CH by tour)	4
SMR4020U	3M	10	4M	20	16 (20CH by tour)	1	16 (20CH by tour)	4
SMR4012U	D1/VGA	30	2M	12	N/A	N/A	32	4
SMR4012U	1.3M	30	4M	12	N/A	N/A	32	4
SMR4012U	2M	15	4M	12	N/A	N/A	32	4
SMR4012U	3M	10	4M	12	N/A	N/A	32	4
SMR4016U	D1/VGA	30	2M	16	N/A	N/A	32	4
SMR4016U	1.3M	30	4M	16	N/A	N/A	32	4
SMR4016U	2M	15	4M	16	N/A	N/A	32	4
SMR4016U	3M	10	4M	16	N/A	N/A	32	4
SMR4020U	D1/VGA	30	2M	20	N/A	N/A	32	4
SMR4020U	1.3M	30	4M	20	N/A	N/A	32	4
SMR4020U	2M	15	4M	20	N/A	N/A	32	4
SMR4020U	3M	10	4M	20	N/A	N/A	32	4
SMR5012	D1/VGA	30	2M	12	12	1	16	4
SMR5012	1.3M	30	4M	12	12	1	16	4
SMR5012	2M	15	4M	12	12	1	16	4
SMR5012	3M	10	4M	12	12	1	16	4
SMR5016	D1/VGA	30	2M	16	16	1	16	4
SMR5016	1.3M	30	4M	16	16	1	16	4
SMR5016	2M	15	4M	16	16	1	16	4
SMR5016	3M	10	4M	16	16	1	16	4
SMR5020	D1/VGA	30	2M	20	16 (20CH by tour)	1	16 (20CH by tour)	4
SMR5020	1.3M	30	4M	20	16 (20CH by tour)	1	16 (20CH by tour)	4
SMR5020	2M	15	4M	20	16 (20CH by tour)	1	16 (20CH by tour)	4
SMR5020	3M	10	4M	20	16 (20CH by tour)	1	16 (20CH by tour)	4
SMR6025H	D1/VGA	30	2M	9+16 (IP+Analogy)	25	1	25	4
SMR6025H	1.3M	30	4M	9+16 (IP+Analogy)	25	1	25	4
SMR6025H	2M	15	4M	9+16 (IP+Analogy)	25	1	25	4
SMR6025H	3M	10	4M	9+16 (IP+Analogy)	25	1	25	4
SMR6032H	D1/VGA	30	2M	16+16 (IP+Analogy)	25 (32CH by tour)	4	25 (32CH by tour)	4
SMR6032H	1.3M	15	2M	16+16 (IP+Analogy)	25 (32CH by tour)	4	25 (32CH by tour)	4
SMR8016	D1/VGA	30	2M	16	16	4	36	4
SMR8016	1.3M	30	4M	16	16	4	36	4
SMR8016	2M	25	6M	16	16	4	36	4
SMR8016	3M	10	6M	16	16	4	36	4
SMR8025	D1/VGA	30	2M	25	25	4	36	4
SMR8025	1.3M	30	4M	25	25	4	36	4
SMR8025	2M	25	6M	25	25	4	36	4
SMR8025	3M	15	6M	25	25	4	36	4

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Performance Validation

Model	Camera Resolution	Camera FPS	Camera Bit Rate	Recording Channels	Local Live View Channels	Local Playback Channels	Remote Live View Channels	Remote Playback Channels
SMR8032	D1/VGA	30	2M	32	32	4	36	4
SMR8032	1.3M	30	4M	32	32	4	36	4
SMR8032	2M	25	6M	32	32	4	36	4
SMR8032	3M	15	6M	32	32	4	36	4
SMR8040	D1/VGA	30	2M	40	36 (40CH by tour)	4	36 (40CH by tour)	4
SMR8040	1.3M	30	4M	40	36 (40CH by tour)	4	36 (40CH by tour)	4
SMR8040	2M	25	6M	40	36 (40CH by tour)	4	36 (40CH by tour)	4
SMR8040	3M	15	6M	40	36 (40CH by tour)	4	36 (40CH by tour)	4
SMR8016U	D1/VGA	30	2M	16	16	4	36	4
SMR8016U	1.3M	30	4M	16	16	4	36	4
SMR8016U	2M	25	6M	16	16	4	36	4
SMR8016U	3M	15	6M	16	16	4	36	4
SMR8025U	D1/VGA	30	2M	25	25	4	36	4
SMR8025U	1.3M	30	4M	25	25	4	36	4
SMR8025U	2M	25	6M	25	25	4	36	4
SMR8025U	3M	15	6M	25	25	4	36	4
SMR8032U	D1/VGA	30	2M	32	32	4	36	4
SMR8032U	1.3M	30	4M	32	32	4	36	4
SMR8032U	2M	25	6M	32	32	4	36	4
SMR8032U	3M	15	6M	32	32	4	36	4
SMR8040U	D1/VGA	30	2M	40	36 (40CH by tour)	4	36 (40CH by tour)	4
SMR8040U	1.3M	30	4M	40	36 (40CH by tour)	4	36 (40CH by tour)	4
SMR8040U	2M	25	6M	40	36 (40CH by tour)	4	36 (40CH by tour)	4
SMR8040U	3M	15	6M	40	36 (40CH by tour)	4	36 (40CH by tour)	4
SMR8016U	D1/VGA	30	2M	16	N/A	N/A	72	4
SMR8016U	2M	30	4M	16	N/A	N/A	72	4
SMR8016U	2M	25	6M	16	N/A	N/A	72	4
SMR8016U	3M	15	6M	16	N/A	N/A	72	4
SMR8025U	D1/VGA	30	2M	25	N/A	N/A	72	4
SMR8025U	1.3M	30	4M	25	N/A	N/A	72	4
SMR8025U	2M	25	6M	25	N/A	N/A	72	4
SMR8025U	3M	15	6M	25	N/A	N/A	72	4
SMR8032U	D1/VGA	30	2M	32	N/A	N/A	72	4
SMR8032U	1.3M	30	4M	32	N/A	N/A	72	4
SMR8032U	2M	25	6M	32	N/A	N/A	72	4
SMR8032U	3M	15	6M	32	N/A	N/A	72	4
SMR8040U	D1/VGA	30	2M	40	N/A	N/A	72	4
SMR8040U	1.3M	30	4M	40	N/A	N/A	72	4
SMR8040U	2M	25	6M	40	N/A	N/A	72	4
SMR8040U	3M	15	6M	40	N/A	N/A	72	4
NVR2116	D1/VGA	30	2M	16	N/A	N/A	72	4
NVR2116	1.3M	30	4M	16	N/A	N/A	72	4
NVR2116	2M	25	6M	16	N/A	N/A	72	4
NVR2116	3M	15	6M	16	N/A	N/A	72	4
NVR2125	D1/VGA	30	2M	25	N/A	N/A	72	4
NVR2125	1.3M	30	4M	25	N/A	N/A	72	4
NVR2125	2M	25	6M	25	N/A	N/A	72	4
NVR2125	3M	15	6M	25	N/A	N/A	72	4
NVR2132	D1/VGA	30	2M	32	N/A	N/A	72	4
NVR2132	1.3M	30	4M	32	N/A	N/A	72	4
NVR2132	2M	25	6M	32	N/A	N/A	72	4
NVR2132	3M	15	6M	32	N/A	N/A	72	4
NVR2148	D1/VGA	30	2M	48	N/A	N/A	72	4
NVR2148	1.3M	30	4M	48	N/A	N/A	72	4
NVR2148	2M	25	6M	48	N/A	N/A	72	4
NVR2148	3M	15	6M	48	N/A	N/A	72	4
NVR2164	D1/VGA	30	2M	64	N/A	N/A	72	4
NVR2164	1.3M	30	4M	64	N/A	N/A	72	4
NVR2164	2M	25	6M	64	N/A	N/A	72	4
NVR2164	3M	15	6M	32	N/A	N/A	72	4

* Burn-In Test condition: 14 days, round-the-clock

* IP cameras using dual streaming capability

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