

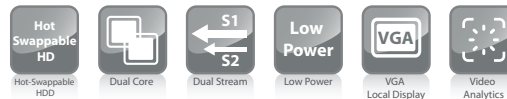
SMR4020U

20CH Megapixel RAID NVR

Network Video Recorder



- 20 CH Smart Megapixel Video Recorder
- 200Mbps Recording Performance
- Built-In Intel® ICH9R Hardware Raid Controller
- 4x 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 		

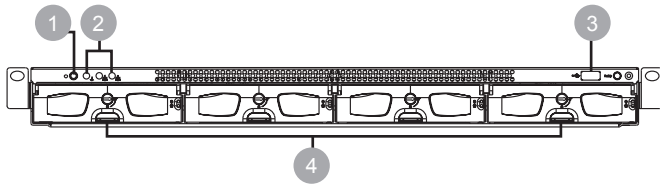
* All specifications are subject to change without notice.
* All brand names and registered trademarks are the property of their respective owners.

SMR4020U

20CH Megapixel RAID NVR

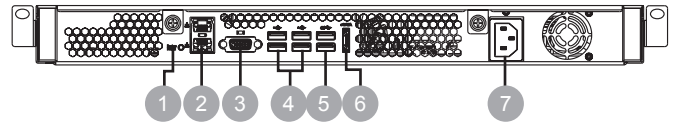
Part Names and Functions

Front View



- 1 Power Switch
- 2 LED Indicators
- 3 USB Port
- 4 Hard Drive Slots

Rear View



- 1 Restore Button
- 2 Ethernet Port x 2
- 3 VGA Port
- 4 USB Port x 4
- 5 USB3.0 Port x 2
- 6 e-SATA Port
- 7 Power Socket

Hardware Specifications

System Processor	Intel® Dual Core 2.13GHz
System Memory	DDR3 2GB
Chipset	Intel® ICH9R
Operating System	SLC DOM with Windows 7 Embedded System
Storage	3.5" SATA HDDs x4; HDD hot swappable
I/O Interface	<ul style="list-style-type: none"> • VGA: 1x D-Sub • RJ-45: 2x Gigabit Ethernet • USB: 5x USB2.0 • E-SATA: x1
H/W RAID	RAID 0, 1, 5
Electrical	<ul style="list-style-type: none"> • Input Voltage: 100~240VAC, 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	N/A
LED Indicator	Yes
Dimensions	43(H) x 439(W) x 511(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

SMR4020U

20CH Megapixel RAID NVR

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

SMR4020U

20CH Megapixel RAID NVR

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

Network Video Recorder