PROMISE Vess™ A2000 Series

Storage Solutions Designed for Surveillance
Vess A2200 & A2600 NVR Storage Appliances

Features

Optimized for Surveillance
NVR storage appliance optimized for IP video surveillance

Fully Customized
Certified/tested with the world's leading video management software

Midsize to Large-Scale Solutions
Ideal for up to over a hundred full-HD IP cameras making it perfect for banking, retail, gaming, manufacturing, and many more industries

Cost Effective & Scalable
Integrated solution results in less management overhead, plus it's easy & affordable to add capacity with the Vess R2000 external storage series

Easy to Administer & Maintain
Hot swappable drive bays, redundant power supplies, & One Plug Auto Service ensure Vess is incredibly easy to administer & maintain
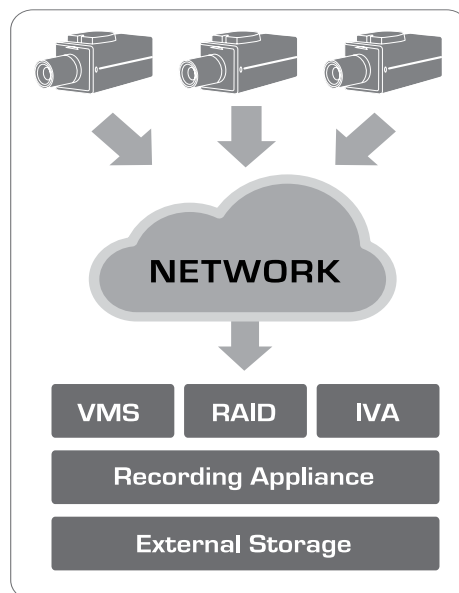
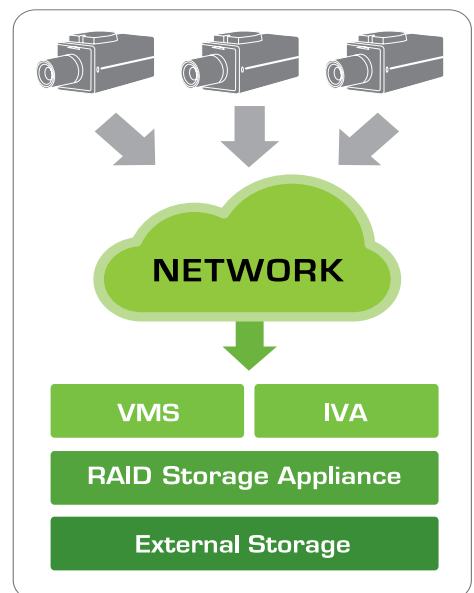## Engineered for Video Surveillance
The Vess A2000 Series NVR storage appliance is engineered specifically to be the best solution for midsize to large-scale IP video surveillance deployments. Featuring failsafe protection that provides continuous recording without dropping frames under live playback conditions, it is ideal for 32 to over a hundred full-HD IP cameras, making it perfect for banking, retail, gaming, manufacturing, and many more industries.

Reduces Deployment Costs and Complexity
The Vess A2000 Series reduces support and equipment costs because there is no separate RAID storage unit to manage, eliminating the need for a server, controller cards, external cables, and a separate storage enclosure. Additionally, the Vess A2000 Series reduces interoperability conflicts caused when integrating different hardware.

Generic Practice	PROMISE Proposal
NETWORK	NETWORK
VMS RAID IVA	VMS IVA
Recording Appliance	RAID Storage Appliance
External Storage	External Storage

Your Solution to Security

Integrated Solution - Easier to Manage & Grow

The Vess A2000 Series integrates the recorder and storage in a single solution making it significantly easier to scale as your business grows. Security practitioners can easily scale with no user configuration, just plug and add. When external storage is a must, easily scale up with PROMISE's Vess storage series, creating a total video surveillance solution that combines a recording appliance and external storage.

Easy to Use Management Interface

The A2000 Series can be managed conveniently over the network connection using the user-friendly browser-based GUI, or the text-based command line network terminal interface. Alternatively you can manage it out-of-band with a VGA or HDMI monitor and USB keyboard to access the text- based command line interface.

Outstanding Track Record of Reliability

Reliability is paramount for surveillance deployments in order to protect property, assets or even the safety of individuals. The Vess A2000 Series features the PROMISE RAID engine, which has been battle-tested in countless mission critical applications around the globe. With its incredible track record for reliable video data management and storage, the Vess Series is ideal for users requiring an extremely reliable and safe data center for video archive protection.

System Video Throughput

Image Resolution	Codec	Quality (Compression Ratio)	FPS (frames per second)	Vess A2200	Vess A2600
640x480	JPEG	30	30	32	36
	JPEG	60	30	37	36
	MPEG	30	30	52	110
	MPEG	60	30	64	128
	H.264	30	30	64	110
	H.264	60	30	64	128
1280x720	JPEG	30	30	17	24
	JPEG	60	30	25	30
	H.264	30	30	40	60
	H.264	60	30	56	90
2048x1536	JPEG	30	30	5	9
	JPEG	60	30	8	13
	H.264	30	30	20	32
	H.264	60	30	26	52

NOTE: The table is provided as a test-lab result performed by PROMISE. These camera count support numbers reflect a recording only benchmark assuming no watermarking, live local viewing, or motion detection activation in calculation.
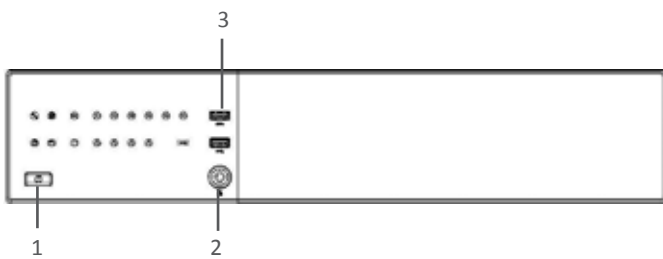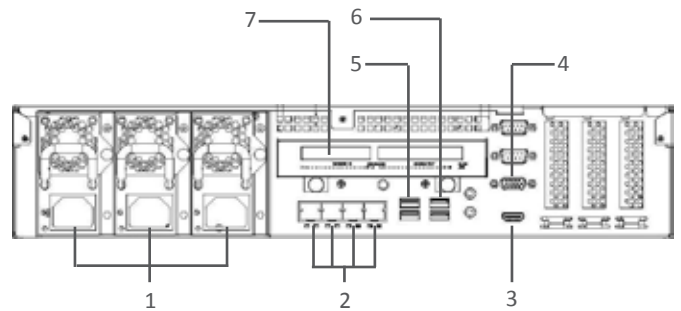
Vess A2200/2600
Front and Back Panels

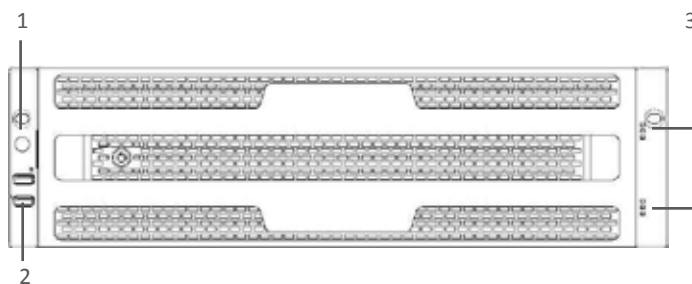## Vess A2200/2600 Front and Back Panels

Vess A2200

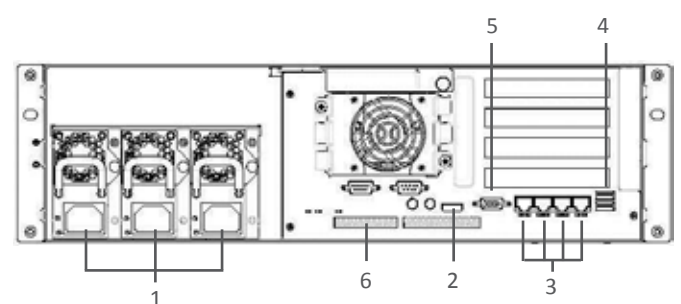| #	Icon	Item	Description
1	⏻	Power Button	Turns the device on and off
2		Secure Panel Lock	Provides security for installed hard disks & cooling unit
3	SS↭	2x USB 3.0 Ports	Compatible with USB 3.0 and earlier devices

#	Icon	Item	Description
1		Redundant Power	3 N+1 power supplies
2		4x Ethernet Ports	For connection to an Ethernet network
3	HDMI	HDMI Port	Connects to HDMI monitor
4		VGA Port	Connects to VGA monitor
5	SS↭	2x USB 3.0 Ports	Compatible with USB 3.0 and earlier devices
6	↭	2x USB 2.0 Ports	Connects to USB devices
7		IO Terminal Ports	Sensor Input/Alarm Output

Vess A2600

#	Icon	Item	Description
1	⏻	Power Button	Turns the device on and off
2	↭	2 USB 2.0 Ports	Connects to USB devices
3		Power & Status LEDs	Indicates drive status and activity

#	Icon	Item	Description
1		Redundant Power	3 N+1 power supplies
2	HDMI	HDMI Port	Connects to HDMI monitor
3		4x Ethernet Ports	For connection to an Ethernet network
4	↭	2 USB 2.0 Ports	Connects to USB devices
5		VGA Port	Connects to VGA monitor
6		IO Terminal Ports	Sensor Input/Alarm Output

Note: The Vess A2600 is shown with the front bezel attached

Technical Specifications

	Vess A2200	Vess A2600
General Information		
Camera Range	32-64	64-128
Form Factor	2U, 19" Rackmount	3U, 19" Rackmount
Number Of Drives	6 Drives (3.5")	16 Drives (3.5")
Drive Type	SATA (6Gb/s* or 3Gb/s), NCQ, TCQ, Hot Swappable	
# of Controllers	Single	
System Processor	Intel® Core™ i3-3225 @ 3.30GHz Dual-core 4-thread	Intel® Xeon® Processor E3-1245V2 @ 3.4GHz Quad-core 8-thread
System Memory	4GB Default (Max 16GB)	8GB Default (Max 16GB)
I/O Interface	4x Gigabit Ethernet	
Storage Expansion	Optional Vess iSCSI Storage	
Max # of HDDs Supported	Up to 118 drives through iSCSI & JBOD expansion	Up to 128 drives through iSCSI & JBOD expansion
Other Interfaces		
# of USB Ports	4x USB 3.0, 2x USB 2.0	4x USB 2.0
PCI Express Ports	1x 16-lane Gen 2.0 PCIe, 2x 8-lane Gen 2.0 PCIe	1x 16-lane Gen 2.0 PCIe, 3x 8-lane Gen 2.0 PCIe
Graphics	D-sub VGA and HDMI	
Serial Interfaces	2x RS-232C (D-sub 9-pin)	
Audio & Microphone	2x 3.5mm Audio Jack	
Sensor Input/Alarm Output		
Sensor In	Compatible w/ DC3.3V to 24V, photo coupler input x 8	
Alarm Out	Max. DC 24V/1A, mechanical relay output x 8	
RAID Operational Feature		
RAID Levels	0, 1, 1E, 3, 5, 6, 10 (0+1), 30, 50 Any combination can exist at the same time	0, 1, 1E, 3, 5, 6, 10 (0+1), 30, 50, 60 Any combination can exist at the same time
Hot Spares	Multiple global or dedicated hot-spare drives with revertible option	
Max. LUNs per System/Array	256/32	
Software		
Preloaded OS (64-bit)	Windows Embedded Standard 7 Runtime (WS7P) or CentOS 6.3	
Management Tools	Graphical UI/SNMP via Ethernet, CLI/CLU via Ethernet or Graphics, OPAS Service via USB, SDK or API for Integration	
Appliance Mode	Surveillance Optimization @ Arrays in Normal and Degrade	
Event Notification	Email, SNMP, Buzzer, LEDs	
System Information		
AC Input	100 ~ 240 VAC, 60 ~ 50Hz	
Current (Maximum)	4A (100V); 2A (240V)	
Power Supply	Three redundant 250W, Energy-efficient 80PLUS Certified, 90-264V full-ranging w/PFC, Hot swappable N+1 Design	
BTU	1288 BTU/hr	1729 BTU/hr
Fan	Hot swappable design	
Dimensions (H x W x D)	88.2 x 446.2 x 400 mm (3.5 x 17.6 x 15.7 in)	130.1 x 446.2 x 461 mm (5.1 x 17.6 x 18.1 in)
Weight	10.4kg(22.9 lbs) w/o drives, 14.9kg (32.8lbs) w/drives	15.9kg(35.1 lbs) w/o drives, 27.9kg (61.5lbs) w/drives
Safety/EMI	CE, FCC Class A, BSMI, CB, KC, UL/cUL, CCC	
Warranty and Support		
Warranty	3 year limited warranty	
Optional Accessories	Sliding Rail, 2/4/8GB DDR3 Memory	Sliding Rail, 2/4/8GB DDR3 Memory

Hard disk drive still runs at 3Gb/s speed

Specifications may change without prior notice