Vess A7000
SR2 Compatibility List

Date: Jan. 18, 2021 Version: 1.0

Vess A7000 System Covered:

- **Vess A7600** – 3U/16-bays Storage Appliance for Video Surveillance
- **Vess A7800** – 4U/24-bays Storage Appliance for Video Surveillance

System Versions Covered:

- **InstallPkg** – Version 2.00.0000.01

DEVICE COMPATIBILITY NOTE:

Basic compatibility between the 3rd party device and Promise device has been verified in typical configurations, unless otherwise stated.
The EOL of 3rd party device may not be in the current list, user can refer older version of Promise compatibility list to get those test result.

DISCLAIMERS:

Only the versions available at time of testing have been verified, as listed.
Corner cases may exist depending on user configuration etc.
Individual 3rd party units may exhibit problems that did not show up in through the Promise test process.
Published performance is not assured with configuration deviations.
Some listed devices may go EOL. AVL listing does not imply market availability.

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Document History

Date	Release Label	Release Version	Notes
March 16, 2018	FCS	First release Qualified some devices: ● SATA Hard Drive: 10 models ● OS: 1 set ● VMS: 2 models ● CPU: 2 models ● Memory: 2 models	
April 16, 2018	FCS	Based on last released compatibility list with new added software and devices: (blue and orange-color highlights) ● External Graphics Card: 4 models	
Oct. 24, 2018	FCS	Based on last released compatibility list with new added software and devices: (blue and orange-color highlights) ● SATA Hard Drive: 14 models ● Update hard drive firmware: 2 models ● External Graphics Card: 1 model	New Hard Drive: WD6002FRYZ WD40PURX WD30PURX WD20PURX WD10PURX MG06ACA10TE MG06ACA800E MG06ACA600E MD06ACA10TV MD06ACA800V MD06ACA600V ST8000NM0055 ST6000NM0115 HUH721212ALE600 Update firmware: MG05ACA800E MG05ACA600E
May 7, 2019	SR0.8	Based on last released compatibility list with new added software and devices: (blue and orange-color highlights) ● SATA Hard Drive: 8 models ● SAS Hard Drive: 17 models ● Update hard drive firmware: 5 models ● OS: 1 set ● CPU: 2 models ● External Nic Card: 3 models ● External Graphics Card: 2 models	SATA New HDD: ST8000VE0004 ST14000NM0018 ST12000NM0008 ST10000NM0478 MG07ACA14TE MG07ACA12TE WD101PURZ WUH721414ALE6L4 SAS New HDD: ST14000NM0048 ST12000NM0038 ST10000NM0528 ST8000NM001A ST6000NM029A ST900MP0146 ST600MP0136 ST300MP0106

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			MG04SCA60EE MG04SCA50EE MG04SCA40EE MG04SCA20EE MG06SCA10TE MG06SCA800E MG06SCA600E MG07SCA14TE MG07SCA12TE SATA HDD Update firmware: MG04ACA600E MG04ACA500E MG04ACA400E MG04ACA300E MG04ACA200E
June 18, 2019	SR0.8	Add the note for Memory Compatibility list.	
Aug. 9, 2019	SR1	Based on last released compatibility list with new added software and devices: (blue and orange-color highlights) ● SATA Hard Drive: 9 models ● SAS Hard Drive: 7 models ● VMS: 1 model ● External Nic Card: 2 models ● Expansion Storage: 1 model	SATA New HDD: ST8000NM000A ST6000NM021A ST4000NM002A ST2000NM001A ST16000NM001G ST14000NM001G HUS728T8TALE6L4 HUS726T6TALE6L4 HUS726T4TALE6L4 SAS New HDD: ST2400MM0129 ST1800MM0129 ST1200MM0129 ST600MM0099 ST900MP0006 ST600MP0006 ST300MP0006
Feb. 11, 2020	SR1	Based on last released compatibility list with new added software and devices: (blue and orange-color highlights) ● SATA Hard Drive: 6 models ● SAS Hard Drive: 9 models ● SAS SSD: 3 models ● VMS: 2 models	SATA New HDD: ST16000VE000 ST14000VE0008 ST12000VE0008 ST8000VE0004 ST6000VX001 ST3000VX009 SAS New HDD: ST16000NM002G ST14000NM002G AL14SXB90EE AL14SXB60EE AL14SXB30EE WUH721414AL5204

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			HUS728T8TAL5204 HUS726T6TAL5204 HUS726T4TAL5204 SAS SSD: XS1600LE70004 XS800LE70004 XS960SE70004
June 19, 2020	SR1	Based on last released compatibility list with new added software and devices: (blue and orange-color highlights) ● SATA Hard Drive: 11 models ● Update SATA hard drive firmware: 6 models ● SAS Hard Drive: 1 model ● Update SAS hard drive firmware: 2 models ● VMS: 1 model ● GPU Card: 2 models ● Memory: 3 models	SATA New HDD: ST4000VX007 ST3000VX010 ST2000VX008 ST1000VX005 ST8000VX004 ST6000NM002A ST4000NM000A ST3000NM000A ST2000NM000A ST1000NM000A MG08ACA16TE SATA HDD Update firmware: ST8000NM000A ST6000NM021A ST4000NM002A ST2000NM001A ST16000NM001G ST14000NM001G SAS New HDD: MG08SCA16TE SAS HDD Update firmware: ST16000NM002G ST14000NM002G
Jan. 18, 2021	SR2	Based on last released compatibility list with new added disk drive devices: (blue and orange-color highlights) ● SATA Hard Drive: 6 models ● Update hard drive firmware: 5 models ● SAS Hard Drive: 1 model ● OS: 2 sets	SATA New HDD: ST12000NM001G ST10000NM001G WD40PURZ WD30PURZ WD20PURZ WD10PURZ SATA HDD Update firmware: MG06ACA10TE MG06ACA800E MG06ACA600E MG07ACA14TE MG07ACA12TE SAS New HDD: WUS721010AL5204

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1. SATA Hard Drives

Vendor	Family	Model	Capacity	Part Number	Firmware	Buffer	Drive Transfer Rate	Form Factor	RPM
HGST	Ultrastar He12	HUH721212ALE600	12TB	0F30144	LEGNT3D0	256MB	6Gb/s	3.5”	7200
Seagate	SkyHawk (Surveillance)	ST10000VX0004	10TB	1ZE101-500	AV01	256MB	6Gb/s	3.5”	7200
		ST8000VX0022	8TB		AV01	256MB	6Gb/s	3.5”	7200
		ST6000VX0023	6TB		SC60	256MB	6Gb/s	3.5”	7200
		ST4000VX007	4TB	2DT166-300	CV11	64MB	6Gb/s	3.5”	5900
		ST3000VX010	3TB		CV11	64MB	6Gb/s	3.5”	5900
		ST2000VX008	2TB		CV11	64MB	6Gb/s	3.5”	5900
		ST1000VX005	1TB		CV11	64MB	6Gb/s	3.5”	5900
		ST8000VX004	8TB	2M1101-500	AV01	256MB	6Gb/s	3.5”	7200
		ST6000VX001	6TB	28D186-500	CV11	256MB	6Gb/s	3.5”	5400
		ST3000VX009	3TB		CV11	256MB	6Gb/s	3.5”	5400
	SkyHawk AI	ST16000VE000	16TB	2L2103-500	EV02	256MB	6Gb/s	3.5”	7200
		ST14000VE0008	14TB		EV02	256MB	6Gb/s	3.5”	7200
		ST12000VE0008	12TB		EV02	256MB	6Gb/s	3.5”	7200
		ST10000VE0008	10TB		EV02	256MB	6Gb/s	3.5”	7200
		ST8000VE0004	8TB	2K111G-500	EV01 EV02	256MB	6Gb/s	3.5”	7200
	Enterprise Capacity 3.5 HDD	ST8000NM0055	8TB	1RM112-101	SN05	256MB	6Gb/s	3.5”	7200
		ST6000NM0115	6TB		SN05	256MB	6Gb/s	3.5”	7200
	Exos 7E8	ST8000NM000A	8TB	2KE101-001	SN01 SN02	256MB	6Gb/s	3.5”	7200
		ST6000NM021A	6TB		SN01 SN02	256MB	6Gb/s	3.5”	7200
		ST4000NM002A	4TB		SN01 SN02	256MB	6Gb/s	3.5”	7200
		ST2000NM001A	2TB		SN01 SN02	256MB	6Gb/s	3.5”	7200
		ST6000NM002A	6TB	2KF100-001	TN02	256MB	6Gb/s	3.5”	7200
		ST4000NM000A	4TB		TN02	256MB	6Gb/s	3.5”	7200
		ST3000NM000A	3TB		TN02	256MB	6Gb/s	3.5”	7200
		ST2000NM000A	2TB		TN02	256MB	6Gb/s	3.5”	7200
		ST1000NM000A	1TB		TN02	256MB	6Gb/s	3.5”	7200
	Exos X14	ST14000NM0018	14TB	2H4101-002	SN02	256MB	6Gb/s	3.5”	7200
		ST12000NM0008	12TB		SN02	256MB	6Gb/s	3.5”	7200

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		ST10000NM0478	10TB		SN02	256MB	6Gb/s	3.5”	7200
	Exos X16	ST16000NM001G	16TB	2KK103-001	SN01 SN03	256MB	6Gb/s	3.5”	7200
		ST14000NM001G	14TB		SN01 SN03	256MB	6Gb/s	3.5”	7200
		ST12000NM001G	12TB		SN03	256MB	6Gb/s	3.5”	7200
		ST10000NM001G	10TB		SN03	256MB	6Gb/s	3.5”	7200
TOSHIBA	Enterprise MG04ACAxxxE	MG04ACA600E	6TB	HDEPS10GEA51	FS3B FS4B	128MB	6Gb/s	3.5”	7200
		MG04ACA500E	5TB		FP3B FP4B	128MB	6Gb/s	3.5”	7200
		MG04ACA400E	4TB		FP3B FP4B	128MB	6Gb/s	3.5”	7200
		MG04ACA300E	3TB		FP3B FP4B	128MB	6Gb/s	3.5”	7200
		MG04ACA200E	2TB		FP3B FP4B	128MB	6Gb/s	3.5”	7200
	Enterprise MG05ACAxxxE	MG05ACA800E	8TB	HDEPT10GEA51 HDEPT10GEA51	GX1A GX2A	128MB	6Gb/s	3.5”	7200
		MG05ACA600E	6TB		GX1A GX2A	128MB	6Gb/s	3.5”	7200
	Enterprise MG06ACAxxxE	MG06ACA10TE	10TB	HDEPV10GEA51	0104 0108	256MB	6Gb/s	3.5”	7200
		MG06ACA800E	8TB		0104 0108	256MB	6Gb/s	3.5”	7200
		MG06ACA600E	6TB		0104 0108	256MB	6Gb/s	3.5”	7200
	Enterprise MG07ACAxxxE	MG07ACA14TE	14TB	HDEPW10GEA51	0101 0103	256MB	6Gb/s	3.5”	7200
		MG07ACA12TE	12TB		0101 0103	256MB	6Gb/s	3.5”	7200
	Enterprise MG08 Series	MG08ACA16TE	16TB	HDEPX10GEA51	0101	512MB	6Gb/s	3.5”	7200
	Surveillance MD06ACAxxxV	MD06ACA10TV	10TB	HDETV10GZA51	0603	256MB	6Gb/s	3.5”	7200
		MD06ACA800V	8TB	HDETV11G2A51	0603	256MB	6Gb/s	3.5”	7200
		MD06ACA600V	6TB	HDETV13GZA51	0603	256MB	6Gb/s	3.5”	7200
Western Digital	WD Gold Datacenter	WD6002FRYZ	6TB	2W10021	01.01M03	128M	6Gb/s	3.5”	7200
	WD Purple	WD101PURZ	10TB	2W10242	81.H0A80	256MB	6Gb/s	3.5”	7200
		WD40PURX	4TB	85TTDY0	80.00A80	64MB	6Gb/s	3.5”	5400

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		WD30PURX	3TB		80.00A80	64MB	6Gb/s	3.5”	5400
		WD20PURX	2TB		80.00A80	64MB	6Gb/s	3.5”	5400
		WD10PURX	1TB		80.00A80	64MB	6Gb/s	3.5”	5400
		WD40PURZ	4TB	85AKKY0	80.00A80	64MB	6Gb/s	3.5”	5400
		WD30PURZ	3TB		80.00A80	64MB	6Gb/s	3.5”	5400
		WD20PURZ	2TB		80.00A80	64MB	6Gb/s	3.5”	5400
		WD10PURZ	1TB		80.00A80	64MB	6Gb/s	3.5”	5400
	Ultrastar DC HC530	WUH721414ALE6L4	14TB	0F31284	LDGNW07A	512MB	6Gb/s	3.5”	7200
	Ultrastar DC HC320	HUS728T8TALE6L4	8TB	0B36404	V8GNW460	256MB	6Gb/s	3.5”	7200
	Ultrastar DC HC310	HUS726T6TALE6L4	6TB	0B36039	VKGNW460	256MB	6Gb/s	3.5”	7200
		HUS726T4TALE6L4	4TB		VKGNW460	256MB	6Gb/s	3.5”	7200

- In a RAID array setup, we recommend using the enterprise level hard drive as it has much better command timeout control and features stable reliability to vibration compared to desktop one for critical applications.
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- **BLUE Models are new additions actual in test to this release.**
- **ORANGE Capacities are assumed to work but were not tested.**

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2. SAS Hard Drives

Vendor	Family	Model	Capacity	Part Number	Firmware	Buffer	Drive Transfer Rate	Form Factor	RPM
Seagate	Exos X16	ST16000NM002G	16TB	2KH203-001	E001 E003	256MB	12Gb/s	3.5”	7200
		ST14000NM002G	14TB		E001 E003	256MB	12Gb/s	3.5”	7200
	Exos X14	ST14000NM0048	14TB	2H4201-002	E002	256MB	12Gb/s	3.5”	7200
		ST12000NM0038	12TB		E002	256MB	12Gb/s	3.5”	7200
		ST10000NM0528	10TB		E002	256MB	12Gb/s	3.5”	7200
	Exos 7E8	ST8000NM001A	8TB	2KE201-001	E001	256MB	12Gb/s	3.5”	7200
		ST6000NM029A	6TB		E001	256MB	12Gb/s	3.5”	7200
	Exos 10E2400	ST2400MM0129	2.4TB	1XK203-001	C003	256MB	12Gb/s	2.5”	10K
		ST1800MM0129	1.8TB		C003	256MB	12Gb/s	2.5”	10K
		ST1200MM0129	1.2TB		C003	256MB	12Gb/s	2.5”	10K
		ST600MM0099	600GB		C003	256MB	12Gb/s	2.5”	10K
	Exos 15E900	ST900MP0146	900GB	1UY203-002	C003	256MB	12Gb/s	2.5”	15K
		ST600MP0136	600GB		C003	256MB	12Gb/s	2.5”	15K
		ST300MP0106	300GB		C003	256MB	12Gb/s	2.5”	15K
		ST900MP0006	900GB	1UV200-002	N003	256MB	12Gb/s	2.5”	15K
		ST600MP0006	600GB		N003	256MB	12Gb/s	2.5”	15K
		ST300MP0006	300GB		N003	256MB	12Gb/s	2.5”	15K
TOSHIBA	Enterprise MG04SCAxxEx	MG04SCA60EE	6TB	HDEPF10GEA51	0104	128MB	12Gb/s	3.5”	7200
		MG04SCA50EE	5TB		0104	128MB	12Gb/s	3.5”	7200
		MG04SCA40EE	4TB		0104	128MB	12Gb/s	3.5”	7200
		MG04SCA20EE	2TB		0104	128MB	12Gb/s	3.5”	7200
	Enterprise MG06SCAxxxx	MG06SCA10TE	10TB	HDEPK10GEA51	0102	256MB	12Gb/s	3.5”	7200
		MG06SCA800E	8TB		0102	256MB	12Gb/s	3.5”	7200
		MG06SCA600E	6TB		0102	256MB	12Gb/s	3.5”	7200
	Enterprise MG07SCAxxxx	MG07SCA14TE	14TB	HDEPM10GEA51	0101	256MB	12Gb/s	3.5”	7200
		MG07SCA12TE	12TB		0101	256MB	12Gb/s	3.5”	7200
	MG08 Series	MG08SCA16TE	16TB	HDEPN10GEA51	0101	512MB	12Gb/s	3.5”	7200
	AL14SX Series	AL14SXB90EE	900GB	HDEAH10GEA51	0101	128MB	12Gb/s	2.5”	15K
		AL14SXB60EE	600GB		0101	128MB	12Gb/s	2.5”	15K
		AL14SXB30EE	300GB		0101	128MB	12Gb/s	2.5”	15K
Western Digital	Ultrastar DC HC530	WUH721414AL5204	14TB	0F31052	C240	512MB	12Gb/s	3.5”	7200
	Ultrastar DC HC330	WUS721010AL5204	10TB	0B42258	C920	256MB	12Gb/s	3.5”	7200

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Ultrastar DC HC320	HUS728T8TAL5204	8TB	0B36400	C410	256MB	12Gb/s	3.5”	7200
Ultrastar DC HC310	HUS726T6TAL5204	6TB	0B36404	C460	256MB	12Gb/s	3.5”	7200
	HUS726T4TAL5204	4TB		C460	256MB	12Gb/s	3.5”	7200

- In a RAID array setup, we recommend using the enterprise level hard drive as it has much better command timeout control and features stable reliability to vibration compared to desktop one for critical applications.
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- **BLUE Models are new additions actual in test to this release.**
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3. SAS SSD

Vendor	Family	Model	Capacity	Part Number	Firmware	Drive Transfer Rate	Form Factor	TYPE
Seagate	Nytro® 3531	XS1600LE70004	1.6TB	2LZ200-002	0002	12Gb/s	3.5”	TLC
		XS800LE70004	800GB		0002	12Gb/s	3.5”	TLC
	Nytro® 3331	XS960SE70004	960GB	2LZ200-002	0003	12Gb/s	3.5”	TLC

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4. Operating Systems

Vendor	Core Platform	Type	Available Models
Microsoft	Windows 10 Enterprise	x64	A7600/A7800
	Windows Server 2016	x64	A7600/A7800
	Windows Server 2019	x64	A7600/A7800
Linux	CentOS 7.6	x64	A7600/A7800

5. Vess A7000 VMS Compatibility List

Vendor	VMS Version
Milestone	Xprotect Corporate 2017 R2 (11.2a)
	Xprotect Professional 2017 R2 (11.2a)
	Xprotect Corporate 2018 R2 (12.2a)
	Xprotect Corporate 2020 R1b (14.1b)
Samsung	S-1 SVMS 5.0.14.0
Axxonsoft	AxxonNext 4.3.2.74
NetworkOptix	NX Witness_Windows 3.2.0.28738

6. CPU Compatibility List

Vendor	Models	Cores	L3 Cache Size	TDP
Intel	Intel® Xeon® CPU E5-2603v4 @1.7GHz	6	15MB	85W
Intel	Intel® Xeon® CPU E5-2609v4 @1.7GHz	8	20MB	85W
Intel	Intel® Xeon® CPU E5-2620 v4@ 2.10GHz	8	20MB	85W
Intel	Intel® Xeon® CPU E5-2630 v4@ 2.20GHz	10	25MB	85W

7. Memory Compatibility List

Vendor	Type	Speed	DIMM	Size	Module
Transcend	DDR4	2133	Reg ECC	8GB	TS1GHR72V1HL
Innodisk	DDR4	2133	Reg ECC	8GB	M4RS-8GSSDCRG-EH04
Innodisk	DDR4	2400	Reg ECC	16GB	M4US-AGS1KC0J-BH04
Innodisk	DDR4	2133	Reg ECC	8GB	M4RI-8GSSDCRG-FH04
ADATA	DDR4	2666	Reg ECC	8GB	AD4V266638G19-BSSC

- Do not combine DIMMs from multiple kits – even ones of the same make. Mixing and matching DIMMs can result in failure to boot.

8. GPU Card Compatibility List

Vendor	Model	Win. Driver	Video Memory	Available Models
Sparkle	NVIDIA GeForce GTX1080	23.21.13.9077	8GB GDDR5	A7800
MSI	R7-260X	22.19.677.257	2GB GDDR5	A7800
ASUS	HD7770	22.19.677.257	1GB GDDR5	A7600/A7800

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PowerColor	TurboDuo RADEON R9 270	22.19.677.257	2GB GDDR5	A7600/A7800
Sparkle	GeForce GT 730	24.21.13.9882	1GB GDDR5	A7600/A7800
EVGA	NVIDIA GeForce GTX750ti	25.21.14.1735	2GB GDDR5	A7600/A7800
Sparkle	NVIDIA GeForce GTX1050	25.21.14.1735	2GB GDDR5	A7600/A7800
NVIDIA	NVIDIA Tesla T4	25.21.14.2623	16GB GDDR6	A7600/A7800
NVIDIA	NVIDIA Quadro P4000	26.21.14.4219	8GB GDDR5	A7600/A7800

9. Network Interface Card Compatibility List

Vendor	Models	Description
Intel	Intel® Ethernet Controller X550-T2	10GbE Base-T Dual-port
Intel	Intel® Ethernet controller X540 AT2	10GbE Base-T Dual-port
Intel	Intel® Ethernet Server Adapter I350-T4	1GbE Base-T Quad-port
Intel	Intel® Ethernet Server Adapter I350-T2	1GbE Base-T Dual-port
Intel	Intel® Ethernet Converged Network Adapter X710-DA2 *1	10GbE SFP+ Dual-port

- *1 : X710 NIC card only supports on Windows Server 2016 OS, not support on Windows 10 OS.

10.Expansion Storage Compatibility List

Vendor	Models	Interface
Promise	Vess J3600sS	1Gbps iSCSI

- Vess J3600sS is a robust storage expansion platform and the HDD AVL list refers to this compatibility list.

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