VTrak D5000 SR1.3.1 Compatibility List

Version 1.06

Firmware 13.04.0000.11 Release Date: 30/01/2020

VTrak D5000 Systems Covered:

- **D5320 2U/24 , dual controller, 2.5” Drive Bays**
- **D5300 2U/12 , dual controller**
- **D5600 3U/16 , dual controller**
- **D5605 3U/16 , dual controller**
- **D5800 4U/28 , dual controller, 24x 3.5” Drive Bats+ 4x 2.5” Drive Bays**
- **D5805 4U/28 , dual controller, 24x 3.5” Drive Bats+ 4x 2.5” Drive Bays**

System Versions Covered:

- **VTrak D5000 Firmware**– Version 13.02.0000.05 [Oct. 19, 2018]
- **VTrak D5000 Firmware**– Version 13.03.0000.12 [Aug. 29, 2019]
- **VTrak D5000 Firmware**– Version 13.04.0000.11 [Jun. 30, 2020]

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Document History

Date	Editor	Revision	Comments
31/08/2018	KJ	1.00	Initial list for VTrak D5x00 Compatibility
20/09/2018	KJ	1.00	1.Add RHEL 7.4 (3.10.0-693) ALUA support with Promise MPIO v0.0.0.14 2.Modify Toshiba MG06SCA10TE firmware to 0102 3.Add HGST HUS726T6TAL5204 firmware C40H 4.Add HGST HUS726T6TALE6L4 firmware W40H 5.Add Seagate ST8000NM0075 firmware E003 6.Add Seagate ST6000VX0023 firmware SC60
22/11/2018	KJ	1.01	Added Seagate Enterprise Performance 15K ST900MP0146 Added Seagate Enterprise Performance 10K ST2400MM0129 Added Toshiba Enterprise Performance AL14SEB10N
07/12/2018	KJ	1.01	Added Toshiba Enterprise MG07SCA14TE Added WD Ultrastar DC HC530 WUH721414AL5204 Added following 10G SFPs: Cisco SFP-10G-SR Intel E10GSFPSR QLOGIC FTLX8571D3BCL-QL Finisar FTLX8571D3BCV Finisar FTLX8574D3BCV
18/12/2018	KJ	1.01	Update the firmware version to 13.02.0000.14 Added Samsun SSD MZILT960HAHQ/007 Added OS VMware 6.5 Added VMware 6.5 Certified
06/03/2019	KJ	1.01	Added Seagate Exos X14 and Exos X14z ST14000NM0048_FW-E002 Added Seagate Exos X14 and Exos X14z ST14000NM0018_FW-2H4101 Updated Samsung SSD MZILT960HAHQ007 firmware to GXF2 Added Crucial SSD CT1000MX200SSD1_FW-MU05
23/05/2019	KJ	1.02	Added Seagate Enterprise Performance 10K ST600MM0009_FW-N001 Added Seagate Enterprise Performance 15K ST900MP0006_FW-N003 Added Seagate SKYHAWK Surveillance ST8000VE0004_FW-EV01 Added Seagate Exos X14 and Exos X14z ST12000NM0008_FW-SN01 Added WD Ultrastar DC HC530 0F31284 Added WD Ultrastar DC HC520 0F30146 Added Toshiba PM5-R SAS SSD KPM51RUG960G_FW-0107 Added Toshiba PM5-R SAS SSD KPM51RUG480G Added Toshiba PM5-R SAS SSD KPM51RUG1T92 Added Toshiba PM5-R SAS SSD KPM51RUG3T84 Added SFP+ GBIC AOPT-SFP-NBT-RJ45
11/06/2019	KJ	1.03	Update to “VTrak D5000 SR1.1 Compatibility List v1.03 Added Toshiba MG07SCA12TE_FW-0101
01/11/2019	KJ	1.04	Added Seagate NYTRO3331_XS960SE7004_FW-0002 Added Seagate ST16000NM001G-2KK103_FW-SN01 Added innodisk DGS25-01TM71EC1QF-H04 Added innodisk DGS25-02TM71ECAQF-H04 Added Samsun 860pro_MZ-76P1T0_FW-1B6Q Added Micron MTFDDAK2T0TDL_FW-M5MU000 Added VMware ESXi Server 6.7 Added SFP+,10G Base-T Switches

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04/03/2020	KJ	1.05	Update to “VTrak D5000 SR1.3 Compatibility List v1.05” Added “VTrak D5000 Firmware– Version 13.03.0000.12 [Aug. 29, 2019]” Added “VTrak D5000 Firmware– Version 13.04.0000.11 [Jun. 30, 2020]” Update innodisk SSD type to “3D TLC” Added Toshiba SAS AL15SE Series as following: AL15SEB120N_FW-1401 AL15SEB090N_FW-1401 AL15SEB060N_FW-1401 AL15SEB030N_FW-1401 Added Toshiba SATA SSD KHK61RSE1T92_FW-6101 Added Micron SATA ALC 5210 SSD as following: MTFDDAK1T9QDE_FW-MU001 MTFDDAK3T8QDE_FW-MU001 Added Micron SATA 1300 SSD as following: MTFDDAK256TDL-1AW1ZABYY MTFDDAK512TDL-1AW1ZABYY MTFDDAK1T0TDL-1AW1ZABYY MTFDDAK2T0TDL-1AW12ABYY Added Seagate EXOS 7E8 SAS as following: ST8000NM001A_FW-E001 ST6000NM029A_FW-E001 ST4000NM005A_FW-E001 ST2000NM004A_FW-E001 ST4000NM003A_FW-N001 ST3000NM001A_FW-N001 ST2000NM003A_FW-N001 ST1000NM001A_FW-N001 Added Seagate NYTRO3331 SAS SSD as following: XS1920SE70004_FW-0003 Added Toshiba MG08ACA16TE_FW-0101 Add Seagate EXOS X16 series as following: ST14000NM001G_FW-SN01 ST12000NM001G_FW-SN01 Added Veeam 9.5 certified. Added Netgear XS512EM Added Netgear XS716T Added Netgear M4500-32C Added Brocade G610
08/07/2020	KJ	1.06	Add “STSB” field for STSB (Marvell SAS-SATA bridge board) on SATA drive The "*" will be added to SATA hard drive STSB field, which means that has been tested by Marvell bridge board Add Exos 10E2400 Series Seagate ST2400MM0129_FW-C004 Add Toshiba MG08SCA16TE_FW-0101 Add Seagate ST14000NM002G_FW-E003 Add Samsung MZILT1T9HAJQ-00007_FW-GXF4 Add Seagate ST8000NM000A_FW-SN02

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DEVICE COMPATIBILITY NOTE:

Basic compatibility between the 3rd party device and Promise device has been verified in typical configurations, unless otherwise stated.

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.

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Hard Disk Drives

SAS

Vendor	Series	Model	Part Number	Firmware	Capacity	RPM	Interface	Form Factor	Format
HGST	Ultrastar He12	HUH721212AL5200	0F29530	A3D0	12TB	7,200	12Gb/s SAS	3.5”	512e
	Ultrastar He10	HUH721010AL5200	0F27352	A21D	10TB	7,200	12Gb/s SAS	3.5”	512e
		HUH721008AL5200	0F27356	A21D	8TB	7,200	12Gb/s SAS	3.5”	512e
	Ultrastar He8	HUH728080AL5200	0F23268	A907	8TB	7,200	12Gb/s SAS	3.5”	512e
		HUH728060AL5200	0F23270	A907	6TB	7,200	12Gb/s SAS	3.5”	512e
	Ultrastar 7K6000	HUS726060AL5210	0F22791	A907	6TB	7,200	12Gb/s SAS	3.5”	512e
		HUS726050AL5210	0F22793	A907	5TB	7,200	12Gb/s SAS	3.5”	512e
		HUS726040AL5210	0F22795	A907	4TB	7,200	12Gb/s SAS	3.5”	512e
		HUS726020AL5210	0F22799	A907	2TB	7,200	12Gb/s SAS	3.5”	512e
		HUS726040AL5215	0F22825	D907	4TB	7,200	12Gb/s SAS	3.5”	512e
		HUS726T4TAL5204	0B35919	C40H	4TB	7,200	12Gb/s SAS	3.5”	512e
		HUS726T6TAL5204	0B36047	C40H	6TB	7,200	12Gb/s SAS	3.5	512e
	Ultrastar C10K1800	HUC101812CSS200	0B28807	A904	1.2TB	10,000	12Gb/s SAS	2.5”	512n
		HUC101890CSS200	0B27976	A904	900GB	10,000	12Gb/s SAS	2.5”	512n
		HUC101860CSS200	0B28808	A904	600GB	10,000	12Gb/s SAS	2.5”	512n
		HUC101830CSS200	0B28810	A904	300GB	10,000	12Gb/s SAS	2.5”	512n
	Ultrastar C15K600	HUC156060CSS200	0B28953	A904	600GB	15,000	12Gb/s SAS	2.5”	512n
		HUC156045CSS200	0B28954	A904	450GB	15,000	12Gb/s SAS	2.5”	512n
		HUC156030CSS200	0B28955	A904	300GB	15,000	12Gb/s SAS	2.5”	512n
WD	Ultrastar Enterprise Previously Ultrastar 7K8	HUS728T8TAL5204	0B36400	410	8TB	7,200	12Gb/s SAS	3.5”	512e
	Ultrastar DC HC530	WUH721414AL5204	0F31052	07A	14TB	7,200	12Gb/s SAS	3.5”	512e
Seagate	Enterprise Capacity 3.5 v5	ST6000NM0095	1Y2210—002	E002	6TB	7,200	12Gb/s SAS	3.5”	512e
		ST4000NM0025	1V4207-002	N002	4TB	7,200	12Gb/s SAS	3.5”	512n
		ST3000NM0025	1V420N-002	N002	3TB	7,200	12Gb/s SAS	3.5”	512n
		ST8000NM0075	1RM212-003	E003	8TB	7,200	12Gb/s SAS	3.5”	512n
	Enterprise Capacity 3.5	ST4000NM0135	2AR207-002	NF02	4TB	7,200	12Gb/s SAS	3.5”	512n

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	v5 SED								
	Enterprise Capacity 2.5 HDD v3	ST2000NX0273	1FM201-002	E004	2TB	7,200	12Gb/s SAS	2.5”	512e
		ST1000NX0333	1FN201-002	E004	1TB	7,200	12Gb/s SAS	2.5”	512e
	Enterprise Capacity v4	ST6000NM0034	1HT27Z-001	E005	6TB	7,200	12Gb/s SAS	3.5”	512e
		ST4000NM0034	1HT278-001	E005	4TB	7,200	12Gb/s SAS	3.5”	512e
		ST2000NM0034	1HT274-001	E005	2TB	7,200	12Gb/s SAS	3.5”	512e
	Enterprise Performance 10K	ST1200MM0088	1FF200-003	N003	1.2TB	10K	12Gb/s SAS	2.5”	512n
		ST600MM0088	1FD200-004	N003	600GB	10K	12Gb/s SAS	2.5”	512n
		ST2400MM0129	1XK203-001	C003	2.4TB	10K	12Gb/s SAS	2.5”	512n
		ST600MM0009	1XF200-001	N003	600GB	10K	12Gb/s SAS	2.5”	512n
	Enterprise Performance 15K v6	ST900MP0146	1UY203-002	C003	900GB	15K	12Gb/s SAS	2.5”	512n
		ST900MP0006	1UV200-002	N003	900GB	15K	12Gb/s SAS	2.5”	512n
	Exos X14 and Exos X14z	ST14000NM0048	2H4201-002	E002	14TB	7,200	12Gb/s SAS	3.5”	512e
	Exos X16	ST14000NM002G	ST14000NM002G	E003	14TB	7,200	12Gb/s SAS	3.5”	512e
	Exos 7E8	ST8000NM001A	ST8000NM001A	E001	8TB	7,200	12Gb/s SAS	3.5”	512e
		ST6000NM029A	ST6000NM029A	E001	6TB	7,200	12Gb/s SAS	3.5”	512e
		ST4000NM005A	ST4000NM005A	E001	4TB	7,200	12Gb/s SAS	3.5”	512e
		ST2000NM004A	ST2000NM004A	E001	2TB	7,200	12Gb/s SAS	3.5”	512e
		ST4000NM003A	ST4000NM003A	N001	4TB	7,200	12Gb/s SAS	3.5”	512n
		ST3000NM001A	ST3000NM001A	N001	3TB	7,200	12Gb/s SAS	3.5”	512n
		ST2000NM003A	ST2000NM003A	N001	2TB	7,200	12Gb/s SAS	3.5”	512n
		ST1000NM001A	ST1000NM001A	N001	1TB	7,200	12Gb/s SAS	3.5”	512n
	Exos 10E2400	ST2400MM0129	ST2400MM0129	C004	2.4TB	10K	12Gb/s SAS	2.5”	512e
		ST1800MM0129	ST1800MM0129	C004	1.8TB	10K	12Gb/s SAS	2.5”	512e
		ST1200MM0129	ST1200MM0129	C004	1.2TB	10K	12Gb/s SAS	2.5”	512e
		ST600MM0009	ST600MM0099	C004	600GB	10K	12Gb/s SAS	2.5”	512e
Toshiba	**Enterprise Capacity (Tomcat-R)**	MG04SCA60EE	HDEPF10GDA51	0901	6TB	7,200	12Gb/s SAS	3.5”	512e
		MG04SCA50EE	HDEPF11GDA51	0901	5TB	7,200	12Gb/s SAS	3.5”	512e
		MG04SCA40EE	HDEPF12GDA51	0901	4TB	7,200	12Gb/s SAS	3.5”	512e
		MG04SCA20EE	HDEPF14GDA51	0901	2TB	7,200	12Gb/s SAS	3.5”	512e
		MG04SCA40EN	HDEPF02GDA51	0901	4TB	7,200	12Gb/s SAS	3.5”	512n
		MG04SCA20EN	HDEPF04GDA51	0901	2TB	7,200	12Gb/s SAS	3.5”	512n
		MG06SCA10TE	HDEPK10GEA51	0102	10TB	7,200	12Gb/s SAS	3.5”	512e

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		MG07SCA12TE	MG07SCA12TE	0101	12TB	7,200	12Gb/s SAS	3.5”	512e
		MG07SCA14TE	HDEPM10GEA51	0101	14TB	7,200	12Gb/s SAS	3.5”	512e
	Enterprise Performance	AL14SEB18EQ	HDEBJ10GEA51	0102	1.8TB	10,000	12Gb/s SAS	2.5”	512e
		AL14SEB12EQ	HDEBJ11GEA51	0102	1.2TB	10,000	12Gb/s SAS	2.5”	512e
		AL14SEB09EQ	HDEBJ12GEA51	0102	900GB	10,000	12Gb/s SAS	2.5”	512e
		AL14SXB90EE	HDEAH10GEA51	0101	900GB	15,000	12GB/s SAS	2.5”	512e
		AL14SEB06EQ	HDEBJ13GEA51	0102	600GB	10,000	12Gb/s SAS	2.5”	512e
		AL14SEB120N	HDEBF01GEA51	0103	1.2TB	10,500	12Gb/s SAS	2.5”	512e/ 512n
		AL15SEB24EQ	AL15SEB24EQ	0102	2.4TB	10,500	12Gb/s SAS	2.5”	512e
		AL15SEB18EQ	AL15SEB18EQ	0102	1.8TB	10,500	12Gb/s SAS	2.5”	512e
		AL15SEB12EQ	AL15SEB12EQ	0102	1.2TB	10,500	12Gb/s SAS	2.5”	512e
		AL15SEB09EQ	AL15SEB09EQ	0102	900GB	10,500	12Gb/s SAS	2.5”	512e
		AL15SEB06EQ	AL15SEB06EQ	0102	600GB	10,500	12Gb/s SAS	2.5”	512e
		AL15SEB120N	AL15SEB060N	1401	1.2TB	10,500	12Gb/s SAS	2.5”	512n
		AL15SEB090N	AL15SEB060N	1401	900GB	10,500	12Gb/s SAS	2.5”	512n
		AL15SEB060N	AL15SEB060N	1401	600GB	10,500	12Gb/s SAS	2.5”	512n
		AL15SEB030N	AL15SEB060N	1401	300GB	10,500	12Gb/s SAS	2.5”	512n
	MG08 Series	MG08SCA16TE	MG08SCA16TE	0101	16TB	7,200	12Gb/s SAS	3.5”	512e

Note: **Drives with 4Kn formatting are not supported**

SATA

Vendor	Series	Model	Part Number	Firmware	Capacity	RPM	Interface	Form Factor	Format	STSB
HGST	**Ultrastar 7K2000**	HUA722010CLA330	0A39289	A3EA	1TB	7,200	SATA	3.5”	512e	
	Ultrastar 7K6000	HUS726060ALE610	0F23001	T7J0	6TB	7,200	SATA	3.5”	512e	
		HUS726T4TALA6L4	0B35950	W40H	4TB	7,200	SATA	3.5”	512e	
		HUS726T6TALE6L4	0B36039	W40H	6TB	7,200	SATA	3.5’	512e	
	Ultrastar He8	HUH728080ALE600	0F23267	T907	8TB	7,200	SATA	3.5”	512e	
		HUH728060ALE600	0F23269	T907	6TB	7,200	SATA	3.5”	512e	
	Ultrastar He12	HUH721212ALE604	0F30146	LGNT3D0	12TB	7,200	SATA	3.5”	512e	
Seagate	**Enterprise Capacity 3.5 HDD**	ST8000NM0055	1RM112-001	SN02	8TB	7,200	SATA	3.5”	512e	

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	Enterprise Capacity 3.5 HDD V6	ST10000NM0016	1TT101-002	SNC0	10TB	7,200	SATA	3.5”	512e	
	Enterprise Capacity 3.5 HDD V7	ST12000NM0007	2A1101-001	SN01	12TB	7,200	SATA	3.5”	512e	
	Enterprise cloud	MC04ACA400E	HDERR11GEA51	PF2A	4TB	7,200	SATA	3.5”	512e	
	SKYHAWK **SURVEILLANCE**	ST6000VX0023 ST8000VE0004-2K111G	2EF110-300 ZA27P8H5	SC60 EV01	6TB 8TB	7,200 7,200	SATA SATA	3.5” 3.5”	512e 512e	
	Exos X14 and Exos X14z	ST14000NM0018 ST12000NM0008	2H4101-002 2H3101-001	SN02 SN01	14TB 12TB	7,200 7,200	SATA SATA	3.5” 3.5”	512e 512e	
	Exos X16	ST16000NM001G	ST16000NM001G	SN01	16TB	7,200	SATA	3.5”	512e	
		ST14000NM001G	ST14000NM001G	SN01	14TB	7,200	SATA	3.5”	512e	
		ST12000NM001G	ST12000NM001G	SN01	12TB	7,200	SATA	3.5”	512e	
	Exos 7E8	ST8000NM000A	ST8000NM000A	SN02	8TB	7,200	SATA	3.5”	512e	*
		ST6000NM021A	ST6000NM021A	SN02	6TB	7,200	SATA	3.5”	512e	*
		ST4000NM002A	ST4000NM002A	SN02	4TB	7,200	SATA	3.5”	512e	*
		ST2000NM001A	ST2000NM001A	SN02	2TB	7,200	SATA	3.5”	512e	*
Toshiba	**Enterprise Capacity HDD-MG07**	MG07ACA12TE	HDEPW11GEA51	101	12TB	7,200	SATA	3.5”	512e	
		MG07ACA14TE	HDEPW10GEA51	101	14TB	7,200	SATA	3.5”	512e	
	Enterprise Capacity HDD-MG08	MG08ACA16TE	MG08ACA16TE	101	16TB	7,200	SATA	3.5”	512e	
WD	**WD Gold**	WD6002FRYZ-01WD5B0	2W10001	1M02	6TB	7,200	SATA	3.5”	512e	
	Ultrastar DC HC530	WUH721414ALE6L4	0F31284	07A	14TB	7,200	SATA	3.5”	512e	
	Ultrastar DC HC520	HUH721212ALE604	0F30146	07A	12TB	7,200	SATA	3.5”	512e	

Note: **Drives with 4Kn formatting are not supported**

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Solid State Drives

SAS SSD

The following drives have an SSD Trim Type of RZAT.

Vendor	Series	Model	Part Number	Interface	Capacity	Firmware	Form Factor	Type
Micron	S650DC	MTFDJAL3T2MBS	MTFDJAL3T2MBS-2AN1ZAB	12Gb/s SAS	3200GB	M017	2.5"	MLC
		MTFDJAL1T6MBS	MTFDJAL1T6MBS-2AN1ZAB	12Gb/s SAS	1600GB	M017	2.5"	MLC
		MTFDJAK800MBS	MTFDJAK800MBS-2AN1ZAB	12Gb/s SAS	800GB	M017	2.5"	MLC
		MTFDJAK400MBS	MTFDJAK400MBS-2AN1ZAB	12Gb/s SAS	400GB	M017	2.5"	MLC
	S630DC	MTFDJAL3T8MBT	MTFDJAL3T8MBT-2AN1ZAB	12Gb/s SAS	3840GB	M017	2.5"	MLC
		MTFDJAL3T2MBT	MTFDJAL3T2MBT-2AN1ZAB	12Gb/s SAS	3200GB	M017	2.5"	MLC
		MTFDJAL1T9MBT	MTFDJAL1T9MBT-2AN1ZAB	12Gb/s SAS	1920GB	M017	2.5"	MLC
		MTFDJAL1T6MBT	MTFDJAL1T6MBT-2AN1ZAB	12Gb/s SAS	1600GB	M017	2.5"	MLC
		MTFDJAK960MBT	MTFDJAK960MBT-2AN1ZAB	12Gb/s SAS	960GB	M017	2.5"	MLC
		MTFDJAK800MBT	MTFDJAK800MBT-2AN1ZAB	12Gb/s SAS	800GB	M017	2.5"	MLC
		MTFDJAK480MBT	MTFDJAK480MBT-2AN1ZAB	12Gb/s SAS	480GB	M017	2.5"	MLC
		MTFDJAK400MBT	MTFDJAK400MBT-2AN1ZAB	12Gb/s SAS	400GB	M017	2.5"	MLC
	S610DC	MTFDJAL3T8MBU	MTFDJAL3T8MBU-2AN1ZAB	12Gb/s SAS	3840GB	M017	2.5"	MLC
		MTFDJAL1T9MBU	MTFDJAL1T9MBU-2AN1ZAB	12Gb/s SAS	1920GB	M017	2.5"	MLC
Samsung	Enterprise SSD PM1643	MZILT960HAHQ-00007	MZILT960HAHQ-00007	12Gb/s SAS	960GB	GXF2	2.5"	MLC
		MZILT1T9HAJQ-00007	MZILT1T9HAJQ-00007	12Gb/s SAS	1.92TB	GXF4	2.5"	TLC
Toshiba	Enterprise SSD	KPM51RUG480G	KPM51RUG480G	12Gb/s SAS	480GB	0107	2.5"	TLC

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	PM5-R	KPM51RUG960G KPM51RUG1T92 KPM51RUG3T84	SDFBE06GEA01 KPM51RUG1T92 KPM51RUG3T84		960GB 1,920GB 3,840GB	0107 0107 0107	2.5” 2.5” 2.5”	TLC TLC TLC
Seagate	**Nytro 3331 Series**	XS960SE70004	2LZ200-002	12Gb/s SAS	960GB	0002 0003	2.5”	3D eTLC
		XS1920SE70004	XS1920SE70004	12Gb/s SAS	1.92TB	0002 0003	2.5”	3D eTLC
HUAWEI	**ES3500-V5**	HWE52SS33T8L002N	HWE52SS33T8L002N	12Gb/s SAS	3.84TB	2158	2.5”	3D TLC
	ES3600-V5	HWE52SS31T6M002N	HWE52SS31T6M002N	12Gb/s SAS	1.6TB	2158	2.5”	3D TLC

SATA SSD

Vendor	Series	Model	Part Number	Interface	Capacity	Firmware	Form Factor	Type	STSB
Micron	**5100**	MTFDDAK240TCB	MTFDDAK240TCB-1AR1ZAB	6Gb/s SATA	240GB	MU021	2.5”	3D TLC	
		MTFDDAK480TCB	MTFDDAK480TCB-1AR1ZAB	6Gb/s SATA	480GB	MU021	2.5”	3D TLC	
		MTFDDAK960TCB	MTFDDAK960CB-1AR1ZAB	6Gb/s SATA	960GB	MU021	2.5”	3D TLC	
		MTFDDAK1T9TCB	MTFDDAK1T9TCB-1AR1ZAB	6Gb/s SATA	1920GB	MU021	2.5”	3D TLC	
		MTFDDAK3T8TCB	MTFDDAK3T8TCB-1AR1ZAB	6Gb/s SATA	3840GB	MU021	2.5”	3D TLC	
	1100	MTFDDAK2T0TBN	MTFDDAK2T0TBN-1AR1ZABYY	6Gb/s SATA	2048GB	MOMU011	2.5”	3D TLC	
	M510DC	MTFDDAK960MBP	M1EDDAK960MBP-1AN1ZAB	6Gb/s SATA	960GB	0013	2.5”	MLC	
	1300	MTFDDAK256TDL	MTFDDAK256TDL-1AW1ZABYY	6Gb/s SATA	256GB	M5MU000	2.5”	TLC	*
		MTFDDAK512TDL	MTFDDAK512TDL-1AW1ZABYY	6Gb/s SATA	512GB	M5MU000	2.5”	TLC	*
		MTFDDAK1T0TDL	MTFDDAK1T0TDL-1AW1ZABYY	6Gb/s SATA	1TB	M5MU000	2.5”	TLC	*
		MTFDDAK2T0TDL	MTFDDAK2T0TDL-1AW1ZABYY	6Gb/s SATA	2TB	M5MU000	2.5”	TLC	*
	5210 ION	MTFDDAK1T9QDE	MTFDDAK1T9QDE-2AV1ZABYY	6Gb/s SATA	1.92TB	D2MU001	2.5”	3D QLC	*

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		MTFDDAK3T8QDE	MTFDDAK3T8QDE-2AV1ZABYY	6Gb/s SATA	3.84TB	D2MU001	2.5"	3D QLC	*
Crucial	**MX300**	CT1050MX300SSD1	CT1050MX300SSD1	6Gb/s SATA	1TB	M0CR060	2.5"	TLC	
	MX200	CT1000MX200SSD1	CT1000MX200SSD1	6Gb/s SATA	1TB	MU05	2.5"	TLC	
Toshiba	**HK4E**	THNSN8200PCSE	THNSN8200PCSE	6Gb/s SATA	200GB	6101	2.5"	MLC	
	HK61	KHK61RSE1T92	KHK61RSE1T92	6Gb/s SATA	1920GB	6101	2.5"	3D TLC	
Samsung	**850 EVO**	MZ-75E250	MZ7LN250HMJP	6Gb/s SATA	249 GB	2B6Q	2.5"	V-NAND	
		SSD 850 PRO 1TB MZ-7KE1T0BW	SSD 850 PRO 1TB MZ-7KE1T0BW	6Gb/s SATA	1TB	EXM04B6Q	2.5"	V-NAND	
	860 Pro	MZ-76P1T0	MZ-7KH1T0HAJR	6Gb/s SATA	1TB	1B6Q	2.5"	V-NAND	
Seagate	**XF1230**	XF1230 -101920	2BY172-380	6Gb/s SATA	1920GB	354	2.5"	eMLC	
innodisk	**3TG6-P**	DGS25-01TM71EC1QF-H04	DGS25-01TM71EC1QF-H04	6Gb/s SATA	1TB	0ZPY	2.5"	3D TLC	
		DGS25-02TM71ECAQF-H04	DGS25-02TM71ECAQF-H04	6Gb/s SATA	2TB	0ZS6	2.5"	3D TLC	

Operating Systems

Supported Operating Environments			
Vendor	**Core Platform**	**Type**	**Notes**
Microsoft	Windows Server 2008 R2 SP1	x64	ALUA support with PerfectPath v4.1.0.12
	Windows Server 2012 R2	x64	ALUA support with PerfectPath v4.1.0.12
	Hyper-V Windows Server 2012 R2	x64	ALUA support with PerfectPath v4.1.0.11
	Windows Server 2016	x64	ALUA support with native Microsoft Multipath I/O(MPIO) in Windows Server 2016
Mac OS	OS X 10.10	x64	LUN Affinity/ALUA natively supported.
	OS X 10.11	x64	LUN Affinity/ALUA natively supported.
	OS X 10.12.4, 10.12.5, 10.12.6	x64	LUN Affinity/ALUA natively supported.
RedHat	RHEL 6.6.64(2.6.32-642)	X64	ALUA support with Promise MPIO v0.0.0.13
	RHEL 6.7(2.6.32-573)	x64	ALUA support with Promise MPIO v0.0.0.12

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	RHEL 6.8 (2.6.32-642)	x64	ALUA support with Promise MPIO v0.0.0.13
	RHEL 7.0(3.10.0-123)	x64	ALUA support with Promise MPIO v0.0.0.13
	RHEL 7.2 (3.10.0-327)	x64	ALUA support with Promise MPIO v0.0.0.12
	RHEL 7.4 (3.10.0-693)	x64	ALUA support with Promise MPIO v0.0.0.14
SUSE	SLES 11 sp4 (3.0.101.63.1)	x64	ALUA support with Promise MPIO v0.0.0.13
	SLES 12 sp1 (3.12.49-11)	x64	ALUA support with Promise MPIO v0.0.0.13
VMware	ESXi Server v6.0	x64	LUN Affinity/ALUA natively supported
	ESXi Server v6.5	x64	LUN Affinity/ALUA natively supported
	ESXi Server v6.7	x64	LUN Affinity/ALUA natively supported

Backup Applications

Supported Backup Applications		
Core Platform	**Type**	**Notes**
Veeam Backup & Replication V9.5 update4	x64	LUN Affinity/ALUA natively supported

Fibre Channel and 10G Base-T/SFP+ Switches

100G QSFP28 Switches

10G SFP+ Switches			
Vendor	**Model**	**Ports**	**Firmware**
Netgear	NetGear M4500-32C	32*100GBase-X QSFP28	7.0.0.16

10G SFP+ Switches

10G SFP+ Switches			
Vendor	**Model**	**Ports**	**Firmware**
Cisco	Cisco 9396PX	48*10Gb SFP+	BIOS Ver 07.41 NXOS Ver 7.0 (3) I2 (3)

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HP	HP 5820X Series Switch JC102B	24*10Gb SFP+	
Brocade	Brocade VDX 6740	48*10Gb SFP+	

10G Base-T Switches

10G Base-T Switches			
Vendor	**Model**	**Ports**	**Firmware**
HP	HP 5900 Series Switch JG336A	48*10Gb Base-T	
Dell	Dell Power Connect 8024	24*10Gb Base-T	
Netgear	Netgear XS512EM	12*10Gb Base-T	1.0.1.1
	NetGear XS716T	16*10Gb Base-T	7.0.0.20

Fiber Channel Switches

Fibre Channel Switches			
Vendor	**Model**	**Ports**	**Firmware**
Brocade	Brocade 6505	24x16Gb	V7.4.1a
	Brocade 6510	40x16Gb	V7.4.1a
	Brocade G610	24x16/32Gb	V8.2.1b
Cisco	MDS 9148s (BIOS 2.1.17)	48x16Gb	V6.2(13b)
	MDS 9148 (BIOS 1.0.19)	48x8Gb	V6.2(13b)
QLogic	SANbox 5802V	20x8Gb	v8.0.14.13.00

GBIC

32G SFP Interoperability Matrix (Shortwave)		
Vendor	**Model**	**Description**
Qlogic	FTLF8532P4BCV-QL	Digital Diagnostic SFP, 850 nm ➔ https://www.finisar.com/optical-transceivers/ftlf8532p4bcv

16G SFP Interoperability Matrix (Shortwave)		
Vendor	**Model**	**Description**
Avago	AFBR-57F5PZ	Digital Diagnostic SFP, 850 nm, 14.025/8.5/4.25 GBd Low Voltage (3.3 V) - 85°C

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	AFBR-57F5MZ	Digital Diagnostic SFP, 850 nm, 14.025/8.5/4.25 GBd Low Voltage (3.3 V) - 85°C
Finisa	FTLF8529P3BCV	Digital Diagnostic SFP, 850 nm, 14.025/8.5/4.25 GBd Low Voltage (3.3 V) - 70°C
Cisco	DS-SFP-FC16G-SW	Digital Diagnostic SFP, 850 nm, 14.025/8.5/4.25

8G SFP Interoperability Matrix (Shortwave)		
Vendor	**Model**	**Description**
Avago	AFBR-57D7APZ	Digital Diagnostic SFP, 850 nm, 8.5/4.25/2.125 GBd Low Voltage (3.3 V) - 85°C
Finisar	FTLF8528P2BCV	Digital Diagnostic SFP, 850 nm, 8.5/4.25/2.125 GBd Low Voltage (3.3 V) - 70°C
	FTLF8528P2BNV	Digital Diagnostic SFP, 850 nm, 8.5/4.25/2.125 GBd Low Voltage (3.3 V) - 85°C
	FTLF8528P3BCV	Digital Diagnostic SFP, 850 nm, Tri-Rate 2.125/4.25/8.5 Gb/s Fibre Channel (3.3 V), Extended Temperature, -5C to70°C
	FTLF8528P3BNV	Digital Diagnostic SFP, 850 nm, Tri-Rate 2.125/4.25/8.5 Gb/s Fibre Channel (3.3 V), Commercial Temperature, -5C to 85°C

10G SFP Interoperability Matrix (Shortwave)		
Vendor	**Model**	**Description**
Finisar	FTLX8571D3BCV	Digital Diagnostic SFP, 850 nm
	FTLX8574D3BCV	Digital Diagnostic SFP, 850 nm
Cisco	SFP-10G-SR	Digital Diagnostic SFP, 850 nm
INTEL	E10GSFPSR	Digital Diagnostic SFP, 850 nm
Qlogic	FTLX8571D3BCL-QL	Digital Diagnostic SFP, 850 nm
AOPT	AOPT-SFP-NBT-RJ45	30m@10Gbps, 100m@100Mbps-5Gbps

32 Gb Fibre Channel Host Bus Adapters

Vendor	Model	BIOS	Firmware	Linux 6.7, 7.2	Sles 12 SP1/Sles11 SP4	Windows 2012 R2, 2008 R2	Mac
Qlogic	QLE2742-SR						N/A

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16 Gb Fibre Channel Host Bus Adapters

Vendor	Model	BIOS	Firmware	Linux 6.7, 7.2	Sles 12 SP1/Sles11 SP4	Windows 2012 R2, 2008 R2	Mac
Brocade	BR-1860	3.2.7.0	3.2.6.0	3.2.7.0	3.2.7.0	3.2.6.0	N/A
Emulex	LightPulse LPe16002B-M6	11.1.212.0	11.1.217.0	11.0.240.0	11.0.240.0	11.1.145.16	N/A
Qlogic	QLE2672-CK	3.32	8.03.01	8.07.00.27.0-K2	8.07.00.27.0-K2	9.2.1.20	N/A
	QLE2692	3.42	8.05.44	8.07.00.47.07.0-k	8.07.00.47.12.0-k	9.2.3.20	N/A
ATTO	Celerity FC162E (16G)	10.6.103.8	1/26/2016	N/A	1.51	1.30	2.0.0
Promise	SANLink2 – Thunderbolt to 16G FC	N/A	1.1.65.30	N/A	N/A	N/A	2.0.6
	SANLink3 – Thunderbolt to 16G FC	N/A	1.1.65.43	N/A	N/A	N/A	3.0.2

8 Gb Fibre Channel Host Bus Adapters

Vendor	Model	BIOS	Firmware	Fcode	Linux 6.7, 7.2	Windows 2012 R2, 2008 R2	Mac
Brocade	FC425	v3.2.6.0	v3.2.6.0		3.2.6.0	v3.2.6.0	NA
	FC825	v3.2.6.0	v3.2.6.0		3.2.6.0	v3.2.6.0	NA
Emulex	LightPulse LPe12000	5.03a0	2.01A11	3.10a6		10.4.246.0	NA
	LightPulse LPe12002	5.03a0	2.01A11	3.10a6		11.0.247.0-5	NA
	LightPulse LPe12004	5.03a0	2.01A11	3.10a6		10.4.246.0	NA
	LightPulse LPe1250	2.12a11	2.01A11	3.10a6		10.0.720.0	NA
	LightPulse LPe11000	2.12a11	2.01A11	3.10a6		10.0.720.0	NA
	LightPulse LPe11002	2.12a12	2.82A3	3.10a6		10.0.720.0	NA
	LightPulse LPe11004	2.12a11	2.01A11	3.10a6		10.0.720.0	NA
	LightPulse LPe1150	2.12a11	2.01A11	3.10a6		10.0.720.0	NA
Qlogic	SANblade QLE2562	3.29	802.00		8.07.00.18.06.0	9.1.17.21	NA
	SANblade QLE2564	3.29	802.00		8.07.00.18.06.0	9.1.17.21	NA
LSI	LSI7204EP	2.02.06	1.3.20.0	1.00.49		N/A	1.05.06.00
	LSI7404EP	2.02.06	1.3.20.0	1.00.49		N/A	1.05.06.00
ATTO	Celerity FC162E (16G)	02/28/13	06.01.00		1.40	1.30	1.40

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ATTO	Celerity FC84EN	02/28/13	06.01.00		1.90	1.80	2.40
	Celerity FC82EN	02/28/13	06.01.00		1.90	1.90	2.40
	Celerity FC42ES	3.25	3.35			1.70	2.35
Promise	SANLink2		1.1.58.0				2.0.6

VMware Certified

Vendor	Version	Test Configuration	MPP Plugin	SATP Plugin	PSP Plugin	VMware Compatibility Guide
VMware	VMware ESXi 6.5.0	SW iSCSI	NMP	VMW_SATP_ALUA	VMW_PSP_MRU	VTrak D5000 Series iSCSI
		Fiber Channel	NMP	VMW_SATP_ALUA	VMW_PSP_MRU	VTrak D5000 Series FC
		NAS(NFS)	N/A	N/A	N/A	VTrak D5000 Series NAS

Veeam Certified

Vendor	Version	Test Configuration	Veeam Compatibility Guide
Veeam	Veeam Backup & Replication 9.5	SW iSCSI Fiber Channel SMB	VTrak D5000 Series Veeam Ready - Repository

Supported Promise attached Subsystems

The supported Expansion subsystems include:

Vendor	Platform	Description
Promise	VTrak J5320s	2U/24-bay JBOD, 12Gbs SAS to 12Gbs SAS (or 6Gbs SAS/SATA), 2.5” Drive Bays
	VTrak J5300s	2U/12 JBOD, 12Gbs SAS to 12Gbs SAS (or 6Gbs SAS/SATA)
	VTrak J5600s	3U/16 JBOD, 12Gbs SAS to 12Gbs SAS (or 6Gbs SAS/SATA)
	VTrak J5800s	4U/24 JBOD, 12Gbs SAS to 12Gbs SAS (or 6Gbs SAS/SATA)

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SAS Cables

Promise PN	Vendor	Vendor PN	Description
G51130261000009	JPC	P3602U701000-2	External mini SAS to External mini SAS 8644 to 8644 12G 1M
G51130263000001	JPC	P3602U703000-1	External mini SAS to External mini SAS 8644 to 8644 12G 3M
G51130361000017	FCI	10117771-2010HLF	Mini SAS HD 4X 36P To Mini SAS 2.1 26P.1M
G51130363000000	FCI	10117771-3030HLF	Mini SAS HD 4X 36P To Mini SAS 2.1 26P.3M

Cables are tested for compatibility with Promise hardware only and are not tested to full electrical and mechanical specifications.

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