

Quest

QoreStor™ - Hardware Reference Architectures

	R740-05 – HDD/SSD MetaData	R740-05 – ALL HDD	R730-10 – HDD/SSD MetaData	R730-10 – ALL HDD
Model	R740XD	R740XD	R730XD	R730XD
	OEMR XL R740xd	OEMR XL R740xd	PowerEdge R730xd	PowerEdge R730xd
DRIVES	2TB 7.2K RPM NLSAS 12Gbps 512n 8TB 7.2K RPM NLSAS 12Gbps 512e 3.5in Hot-plug Hard Drive	2TB 7.2K RPM NLSAS 12Gbps 512n 8TB 7.2K RPM NLSAS 12Gbps 512e 3.5in Hot-plug Hard Drive	500GB 7.2K RPM SATA 6Gbps 2.5i n Flex Bay Hard Drive,13G 6TB 7.2K RPM Self-Encrypting N LSAS 6Gbps 3.5in Hot-plug Hard Drive,FIPS140-2,13G 8TB 7.2K RPM Self-Encrypting N LSAS 6Gbps 3.5in Hot-plug Hard Drive,FIPS140-2,13G	500GB 7.2K RPM SATA 6Gbps 2.5i n Flex Bay Hard Drive,13G 6TB 7.2K RPM Self-Encrypting N LSAS 6Gbps 3.5in Hot-plug Hard Drive,FIPS140-2,13G 8TB 7.2K RPM Self-Encrypting N LSAS 6Gbps 3.5in Hot-plug Hard Drive,FIPS140-2,13G
DRIVE QTY	2 x 2TB 48 x 8TB 4 x 400GB SSD	2 x 2TB 48 x 8TB	2 x 500GB 24 x 8TB 24 x 6TB 4 x 960GB SSD	2 x 500GB 24 x 8TB 24 x 6TB

Internal SSD (optional)	4x 400GB SSD SAS Mix Use 12Gbps 512e 2.5in MFC6G Dell 400GB Enterprise SAS 12GBps 2.5" Solid State Drive		4x 960GB SSD SAS Mix Use 12Gbps 512e 2.5in Dell 960Gb SAS 12G MLC SFF Mixed-Use Value Endurance SSD (Toshiba PX04SVB096) R/T-Series Tray - SPN - Gen 13	
CPU	2x Intel Xeon Gold 5118 2.3G, 1 2C/24T, 10.4GT/s 2UPI, 16M Cache, Turbo, HT (105W) DDR4-2400 , OEM XL	2x Intel Xeon Gold 5118 2.3G, 1 2C/24T, 10.4GT/s 2UPI, 16M Cache, Turbo, HT (105W) DDR4-2400 , OEM XL	2x Intel Xeon E5-2660 v3 2.6GHz,2 5M Cache,9.60GT/s QPI,Turbo,HT ,10C/20T (105W) Max Mem 2133MHz	2x Intel Xeon E5-2660 v3 2.6GHz,2 5M Cache,9.60GT/s QPI,Turbo,HT ,10C/20T (105W) Max Mem 2133MHz
MEMORY	208GB 13 x DUAL IN-LINE MEMORY MODULE, 16GB, 2666, 2RX8, 8G, DDR4, R	208GB 13 x DUAL IN-LINE MEMORY MODULE, 16GB, 2666, 2RX8, 8G, DDR4, R	128GB 8x 16GB RDIMM, 2400MT/s, Dual Rank, x8 Data Width	128GB 8x 16GB RDIMM, 2400MT/s, Dual Rank, x8 Data Width
PERC RAID	1x PERC H740P RAID Controller, 8GB NV Cache, Mini card 1x PERC H840 RAID Adapter for External MD14XX Only, 8GB NV Cache, Full Height	1x PERC H740P RAID Controller, 8GB NV Cache, Mini card 1x PERC H840 RAID Adapter for External MD14XX Only, 8GB NV Cache, Full Height	1x PERC H730P RAID Controller, 2GB NV Cache, Mini card 1x PERC H830 RAID Adapter for External MD14XX Only, 2GB NV Cache, Full Height	1x PERC H730P RAID Controller, 2GB NV Cache, Mini card 1x PERC H830 RAID Adapter for External MD14XX Only, 2GB NV Cache, Full Height
NETWORK	1x QLogic 57800 2x10Gb DA/SFP+ + 2x1Gb BT Network Daughter Card	1x QLogic 57800 2x10Gb DA/SFP+ + 2x1Gb BT Network Daughter Card	1x QLogic 57840S Quad Port 10Gb SFP+ Direct Attach Rack Network Daughter Card	1x QLogic 57840S Quad Port 10Gb SFP+ Direct Attach Rack Network Daughter Card
EXTERNAL STORAGE	4x1400	4x1400	4x1400	4x1400
HW RAID CONFIG	RAID 10 :: 1 :: 4 :: 1	RAID 6 :: 4 :: 11+1 :: 2	RAID 10 :: 1 :: 4 :: 1	RAID 6 :: 4 :: 11+1 :: 2

<Level (0-5-6-10)> :: <# Groups (GRP)> :: <# Spindles per GRP> :: <#Channels>	RAID 6 :: 4 :: 11+1 :: 2		RAID 6 :: 4 :: 11+1 :: 2	
SW RAID CONFIG	None	None	None	None
LVM CONFIG	Striped LVM :: 64KB :: 4xStripes	Striped LVM :: 64KB :: 4xStripes	Striped LVM :: 64KB :: 4xStripes	Striped LVM :: 64KB :: 4xStripes
FS CONFIG	XFS	XFS	XFS	XFS
SEQ FIO A + B	IOPS=98.5 K/Sec + 18.2 K/Sec BW=385 MiB/Sec + 71.1 MiB/Sec	IOPS=105 K/Sec BW=412 MiB/Sec	IOPS=50.5 K/Sec + 37.3 K/Sec BW= 197 MiB/Sec + 146 MiB/Sec	IOPS=12.2 K/Sec BW= 48 MiB/Sec
RAND FIO	IOPS=95.7 K/Sec + 39 K/Sec BW=374 MiB/Sec + 152 MiB/Sec	IOPS=91.7K/Sec BW=358 MiB/Sec	IOPS= 12.6 K/Sec + 44.2 K/Sec BW= 49 MiB/Sec + 173 MiB/Sec	IOPS=21 K/Sec BW= 85 MiB/Sec
MAX INGEST @ 0%	Total Connections :: TB/Hr 8 :: 9.48 16 :: 8.58 24 :: 7.32 32 :: 6.98 48 :: 7.00 64 :: 4.71	Total Connections :: TB/Hr 8 :: 9.00 16 :: 8.52 24 :: 8.00 32 :: 7.02 48 :: 4.31 64 :: 3.25	Total Connections :: TB/Hr 8 :: 4.37 16 :: 4.13 24 :: 4.11 32 :: 4.09 48 :: 4.01 64 :: 3.92	Total Connections :: TB/Hr 8 :: 3.85 16 :: 3.91 24 :: 3.82 32 :: 3.76 48 :: 2.84 64 : 2.94

MAX INGEST @ 90%	Total Connections :: TB/Hr	Total Connections :: TB/Hr	Total Connections :: TB/Hr	Total Connections :: TB/Hr
	8 :: 37.34	8 :: 31.41	8 :: 23.56	8 :: 20.83
	16 :: 19.40	16 :: 18.94	16 :: 19.70	16 :: 17.36
	24 :: 16.73	24 :: 16.05	24 :: 17.11	24 :: 14.41
	32 :: 13.77	32 :: 14.53	32 :: 15.83	32 :: 14.26
	48 :: 12.03	48 :: 13.82	48 :: 13.73	48 :: 13.33
	64 :: 11.96	64 :: 12.96	64 :: 13.49	64 :: 10.26